

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):

- | | |
|--|---|
| <input checked="" type="checkbox"/> Land Use | <input type="checkbox"/> Discharge |
| <input type="checkbox"/> Fast Track Land Use* | <input checked="" type="checkbox"/> Change of Consent Notice (s.221(3)) |
| <input type="checkbox"/> Subdivision | <input type="checkbox"/> Extension of time (s.125) |
| <input type="checkbox"/> Consent under National Environmental Standard
(e.g. Assessing and Managing Contaminants in Soil) | |
| <input type="checkbox"/> 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?

Te Uri Taniwha - correspondence is attached with application

Who else have you consulted with?

Heritage NZ Pouhere Taonga - correspondence is attached with application

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:

Mike & Katrina Shaw

Email:

Phone number:

Postal address:

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

6. Address for Correspondence

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

Name/s:

Northland Planning & Development 2020 Ltd

Email:

Phone number:

Postal address:

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

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

7. Details of Property Owner/s and Occupier/s

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

Name/s:

Katrina and Michael Paul Shaw

**Property Address/
Location:**

Lot 3 Egret Way, Kerikeri

Postcode

0293

8. Application Site Details

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

Name/s:	Katrina & Michael Shaw		
Site Address/ Location:	Lot 3 Egret Way, Kerikeri		
		Postcode	0293
Legal Description:	Lot 3 DP579108	Val Number:	00219-84105
Certificate of title:	1074180		

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

Site visit requirements:

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

Is there a dog on the property? Yes No

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

Please contact the applicant to organise site 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.

Proposal to construct a residential dwelling, swimming pool and associated onsite infrastructure. The site is located within the South Kerikeri Inlet Zone and infringes multiple permitted rules (refer to AEE for further detail). The proposal has been assessed as a Discretionary Activity under the ODP. Consent is also sought to vary an existing consent notice under s221(3) of the Act, as a Discretionary Activity.

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**
- Regional Council Consent (ref # if known)**
- National Environmental Standard consent**
- Other (please specify)**

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 Disturbing, removing or sampling soil
- Changing the use of a piece of land 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)	Katrina & Mike Shaw
Email:	
Phone number:	
Postal address: (or alternative method of service under section 352 of the act)	

Fees Information

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

Declaration concerning Payment of Fees

I/we understand that the Council may charge me/us for all costs actually and reasonably incurred in processing this application. Subject to my/our rights under Sections 357B and 358 of the RMA, to object to any costs, I/we undertake to pay all and future processing costs incurred by the Council. Without limiting the Far North District Council's legal rights if any steps (including the use of debt collection agencies) are necessary to recover unpaid processing costs I/we agree to pay all costs of recovering those processing costs. If this application is made on behalf of a trust (private or family), a society (incorporated or unincorporated) or a company in signing this application I/we are binding the trust, society or company to pay all the above costs and guaranteeing to pay all the above costs in my/our personal capacity.

Name: (please write in full)	Katrina Shaw
Signature: (signature of bill payer)	 Date 28-Mar-2025

MANDATORY

15. Important Information:

Note to applicant

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

You may apply for 2 or more resource consents that are needed for the same activity on the same form. You must pay the charge payable to the consent authority for the resource consent application under the Resource Management Act 1991.

Fast-track application

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

Privacy Information:

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

15. Important information continued...

Declaration

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

Name: (please write in full)

Katrina Shaw

Signature:

[Redacted Signature]

Date 28-Mar-2025

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

Checklist (please tick if information is provided)

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

Please refer to Chapter 4 of the District Plan for details of the information that must be provided with an application. Please also refer to the RC Checklist available on the Council's website.

This contains more helpful hints as to what information needs to be shown on plans.

**Land-Use Consent for
Mike and Katrina Shaw
Lot 3 Egret Way, Kerikeri**

Date: 4 April 2025

Attention: Whitney Peat & Liz Searle

Please find attached:

- an application form for a Land-use Resource Consent to construct a residential dwelling and swimming pool within the **South Kerikeri Inlet zone**;
- an application form to vary an existing consent notice; and
- an Assessment of Environmental Effects indicating the potential and actual effects of the proposal on the environment.

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

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

Regards,

Rochelle Jacobs



Director/Senior Planner

NORTHLAND PLANNING & DEVELOPMENT 2020 LIMITED

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Attachments:

1. **Far North District Council Application signed**
2. **Record of Title – LINZ**
3. **Consent Notice – LINZ**
4. **Easements, Land Covenant and Esplanade Strip – LINZ**
5. **Plans – Absolute Build**
6. **On site wastewater report – Wilton Joubert**
7. **Stormwater report – Wilton Joubert**
8. **Geotechnical Memo – Wilton Joubert**
9. **Subdivision Site Suitability Report – Haigh Workman**
10. **Correspondence – Heritage NZ Pouhere Taonga**
11. **Correspondence – Te Uri Taniwha Hapu**



Assessment of Environment Effects Report

1. Description of the Proposed Activity

- 1.1. This land-use consent application is required for the establishment of a dwelling, swimming pool and associated on-site infrastructure.
- 1.2. The proposed dwelling will have a roof area of 409m² and will contain 5 bedrooms, a media room, office, kitchen, open plan dining, family room, laundry, rumpus room with bathroom and an area for making tea & coffee. The tea and coffee facilities in this part of the dwelling are designed to accommodate wheelchair manoeuvrability due to the families' circumstances. A garage and storage area has also been provided. The pool will be located to the north of the dwelling and will be accessed via decks.
- 1.3. The subject site is zoned South Kerikeri Inlet under the Operative District Plan and infringes the following permitted rules:
 - **10.10.5.1.1 Visual Amenity**
 - **10.10.5.1.6 Stormwater Management**
 - **10.10.5.1.7 Setback from Boundaries**
 - **12.3.6.1.2 Excavation and/or filling, including obtaining roading material but excluding mining and quarrying, in the ..., South Kerikeri Inlet, ... zones**
 - **12.7.6.1.2 Setback from Smaller Lakes, Rivers and Wetlands**
 - **12.7.6.1.4 Land use activities involving discharges of human sewage effluent**
- 1.4. The site was subdivided under RC 2200263-VAR/B which imposed a number of consent notice conditions. To enable this development a minor variation to a consent notice condition is sought under Section 221(3). The following condition of Instrument 12736076.5 requires a variation.
 - **(xiii) relating to the building envelope.**

2. Description of the site and surrounds

- 2.1. The subject site is located at Lot 3 Egret Way, opposite the Reinga Road Peninsula on the Kerikeri Inlet. The site was created in 2023 as a result of a recent subdivision. The property is 1.5470ha in area and adjoins sites of a similar size created as part of the parent subdivision. Sites further afield generally consist of larger allotments.
- 2.2. The site is vacant with the exception of a caravan and awning which is occupied occasionally by the applicant. The site contains a large mown plateau which has been set aside for development. Surrounding the mown area is a bank which has been landscaped as part of the subdivision. Beyond this plateau the site drops down to almost sea level. Around the base of the plateau is a drain with a culvert located on the Southwestern side, enabling walking and vehicular access. The bottom area contains overgrown paddocks which up until the subdivision was completed, were grazed by cattle. Beyond the site is the Coastal Marine area which contains mudflats and mangroves.





Figure 5 – Aerial view of Site (Source: Google)



Figure 4 - ROW access off Kerikeri Inlet Road (looking West)



Figure 3 – ROW access off Kerikeri Inlet Road (looking East)



Figure 1 - Development Area with pegs showing location of proposed structures (looking East)



Figure 2 - Development Area with pegs showing location of proposed structures looking (West)



Figure 7 - Lower area of site in grass cover



Figure 6 - Drain which meanders around the base of the plateau

3. Background

- 3.1. The subject site is held within Record of Title 1074180 and is legally described as Lot 3 DP 579108. The subject site has an area of 1.5470ha.
- 3.2. There are a number of interests registered on the title which include a consent notice, land covenants and easements.

Consent Notice

- 3.2.1. Document 12736076.5 is the applicable consent notice document. This was established as part of RC 2200263-VAR/B being a subdivision of the parent title. A full assessment of this will be provided in Section 6 of this application.

Land Covenant(s)

- 3.2.2. The title is subject to one Land Covenant.
 - 12736076.11 – The subject site is both burdened and benefitted by this covenant. There are a number of restrictions on the use of the land, all of which will be upheld by this development.

Easements

- 3.2.3. The following Easements are applicable to this application.
 - Deed D088754.3 & 9315062.1 – Applied to the Lake on Lot 4 DP 167657. These rights were later surrendered under 9315062.1 and as such both documents are no longer applicable to this application.
 - B578021.4 – Provides for Electricity supply and ROW over a neighbouring site which does not impact this development.



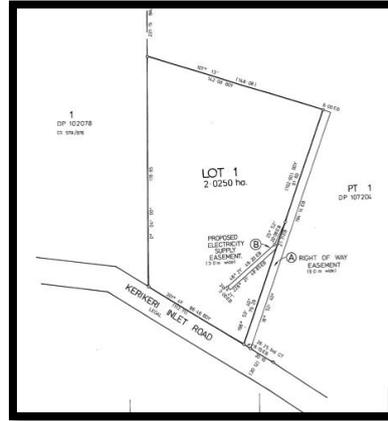


Figure 8 - DP 109734

- C871824.10 – Provides for ROW and Right to convey electricity and telecommunications over Areas A (on Lot 3 DP 167657 in favour of Lot 1 DP 167657) and B (on Lot 1 DP 167657 in favour of Lot 3 DP 167657). The sites have subsequently been developed such that Area A is now located on Lot 2 DP 210733 and now forms part of Egret Way. The site subject to this development has been created from Lot 1 DP 167657. This document continues to provide ROW and an electricity right over Easement A in favour of new Lot 3.



Figure 9 - DP 167657

- Deed D088754.4 – Variation to document C871824.10 above deleting clause 1(a) and allowing the conveyance of electricity to be above ground.
- D587086.2 & D587086.4 – Widened the existing ROW and the right to convey electricity and telecommunications (Egret Way) over Areas X & Y. Instrument D587086.2 applied to Title 101C/992 (Lot 1 DP 167657) and D587086.4 applied to title 101C/994 (Lot 3 DP 167657).



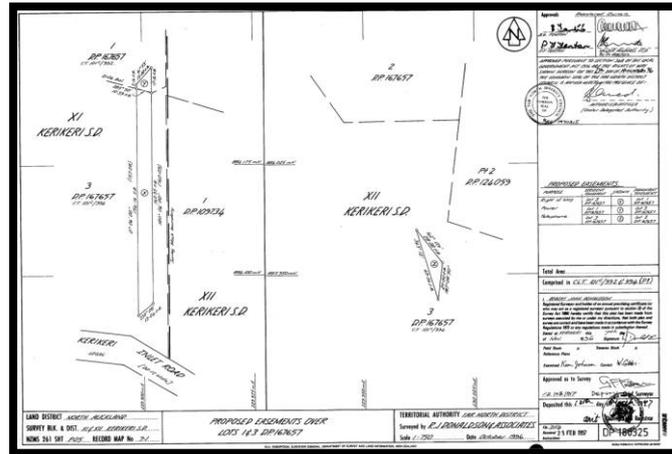


Figure 10 - DP 180325

- 12736076.8 – This provides ROW access to the site via Easements A, B, C & F over Lot 1 DP 579108 and Easements DA, G & H over Lot 2 DP 579108. (Refer to the drawing below shown as red)
- 12736076.9 – This provides a Right to drain water via Easement KB over Lot 2 DP 579108. An easement KA on the subject site enables Lots 1, 2 & 4 DP 3579108 to drain water over the subject site. (Refer to the drawing below shown as blue)

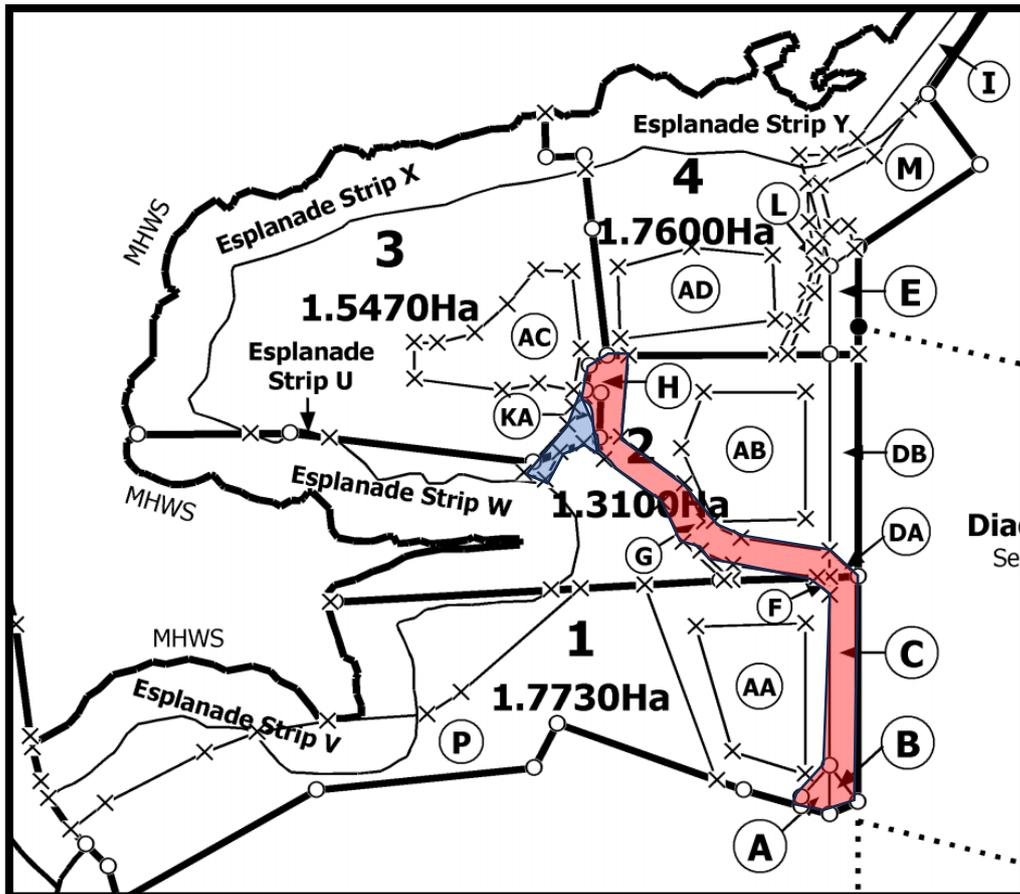


Figure 11 - Instrument 12736076.8 ROW



Other relevant Instruments

3.2.4. The site is subject to an esplanade strip which is located around the perimeter of the site where it adjoins the Coastal Marine Area. This is shown as Esplanade Strip X & U on the image above.

Site Features

3.2.5. The site is located within the South Kerikeri Inlet zone of the Operative District Plan and sits outside of the areas mapped as being sensitive. It is not subject to any areas of outstanding landscapes or other resource features.

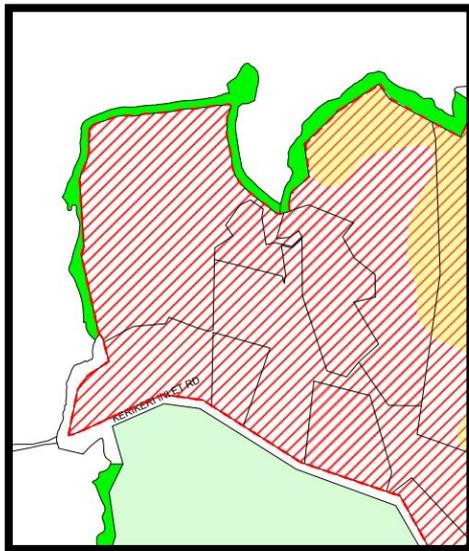


Figure 12 - Operative District Plan Map

3.2.6. Under the Proposed District Plan the site is zoned Rural Lifestyle and is within the Coastal Environment overlay.



Figure 13 - PDP map



3.2.7. The site does not contain any mapped archaeological sites. While this is the case there are some mapped sites within the local vicinity. Heritage NZ Pouhere Taonga (HNZPT) were contacted as part of the pre-application process. HNZPT advised that the area was surveyed by an archaeologist in 2017, with no archaeology encountered on the subject site. As such, HNZPT recommended that the proposal proceed under the guidance of an ADP. This correspondence is attached within **Appendix 10** of this application.

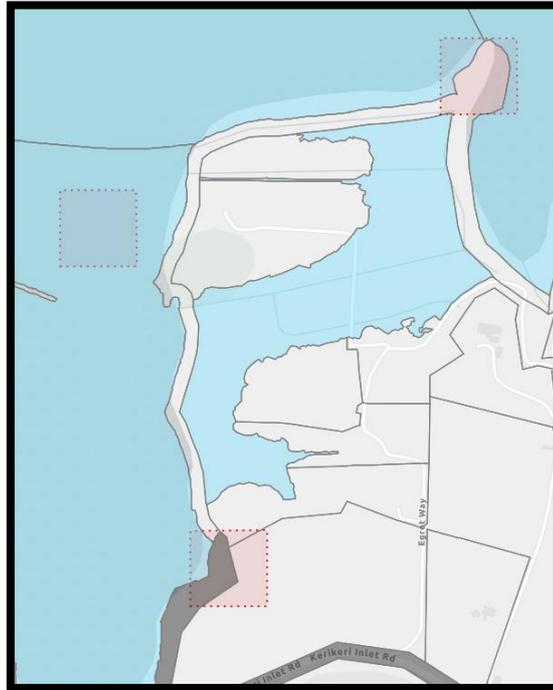


Figure 14 - FNDC Historic sites map

3.2.8. Soils on site are classified as 4w2 and 4e7. As such they are not classified as Highly Versatile.

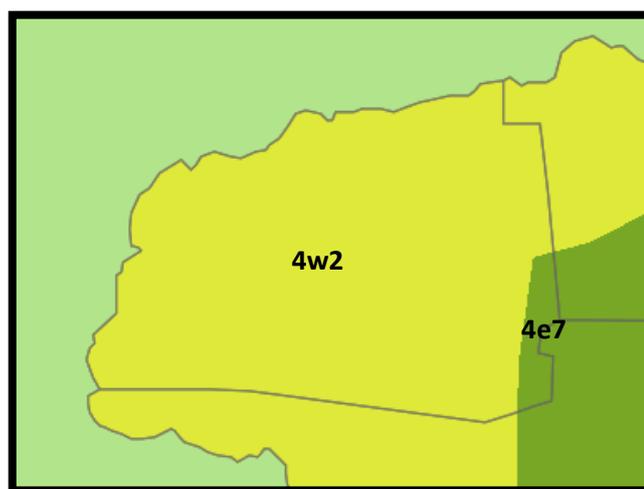
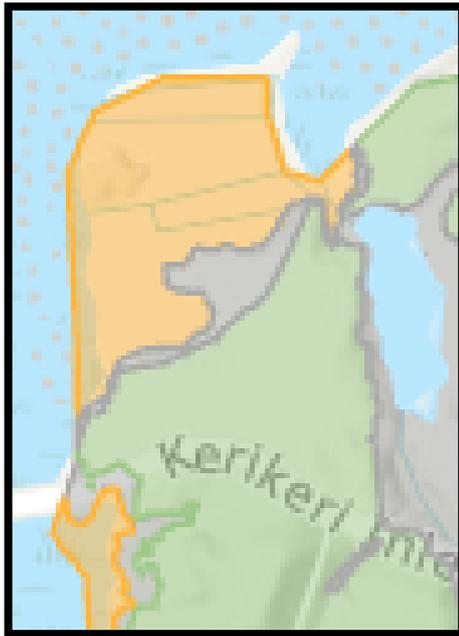


Figure 15 - Soil classification map

3.2.9. The site is noted as being subject to both 'Possible' and 'Undetermined' Liquefaction vulnerability.





There is a probability of more than 15 percent that liquefaction-induced ground damage will be Minor to Moderate (or more) for 500-year shaking. At this stage there is not enough information to distinguish between Medium and High. More detailed assessments

Figure 16 - Possible Liquefaction Vulnerability description

Figure 17 - Liquefaction Vulnerability - Orange Possible and Grey Undetermined

3.2.10. The site is fully located within the Orange Tsunami Evacuation zone. It is also subject to both River and Coastal Flood hazard.

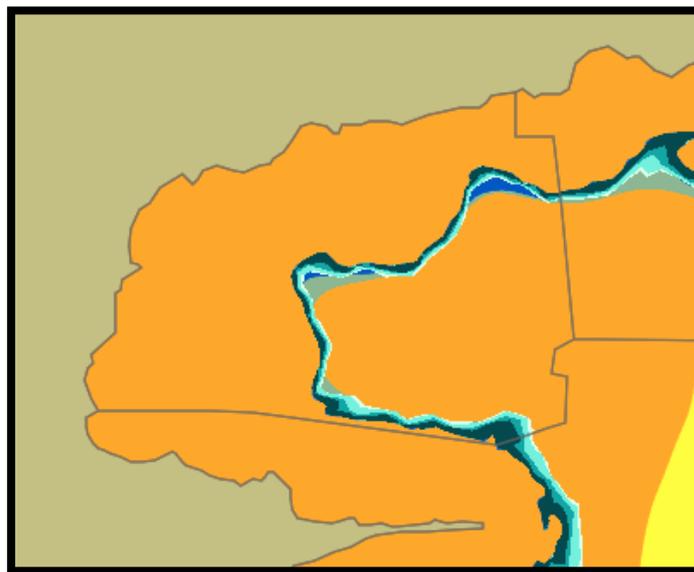


Figure 18 - NRC Natural Hazards Map

3.2.11. Council's reticulated services for Stormwater, Wastewater and Water supply are not available at the site.

3.2.12. The site does not contain any reserves or protected features. It is noted that there are some mapped areas within the local vicinity.





Figure 19 - FNDC Reserves and protected areas map

- 3.2.13. The site is not shown to be within a kiwi present area. It is also located approximately 2.3km from the nearest High Kiwi Density Area.
- 3.2.14. The site is not identified on the SLU database to be a HAIL site, and a review of historic aerials does not indicate any HAIL activities being present on the site.
- 3.2.15. The site is not located within a Statutory Acknowledgement Area and is not located within a mapped area of interest to local Hapu on Councils Treaty Settlement Maps. The representative of the local hapu Te Uri Taniwha was contacted as part of the pre-application process, with no response received to date. This correspondence is attached within **Appendix 11** of this application.
- 3.2.16. The site is not shown to be impacted by surface water protection zones.
- 3.2.17. With regard to the Regional Policy Statement for Northland and the Proposed Regional Plan maps, the site is located within the Coastal Environment. While the site is not identified as containing any areas of high natural character the adjoining Kerikeri Inlet catchment has been mapped as containing High Qualities.
- 3.2.18. The site is not shown to contain or to be located within 100m of a mapped wetland on the NRC Biodiversity wetlands map.
- 3.2.19. The NRC Water Resources Map does not indicate that there are any bores within proximity to the development area.

4. Reasons for Consent

- 4.1. For completeness, the applicable definitions have been included below which provides an explanation on how we have interpreted certain aspects of the proposal.

Relevant Operative District Plan Definitions

Building - Any structure or part of a structure, whether temporary or permanent, movable or immovable, which would require a building consent under the Building Act 2004, including additions to buildings. Notwithstanding the provisions of Schedule 1 of the Building Act 2004, buildings also include:

(a) any fence or boundary retaining wall or combination thereof exceeding 2m in height measured from the lowest adjacent ground level, and any retaining wall more than 1.5m above ground level provided that this does not apply to fences in the Rural Production, General Coastal, Rural Living or Coastal Living Zones used for the purposes of stock enclosure;

(b) any pool more than 1m in height or tank more than 2.7m in height above ground level (including a retention tank, swimming pool and spa pool);

(c) any vehicle, caravan, shipping container or structure whether moveable or immovable, used as a place of residence or business or for assembly or storage purposes but excludes temporary buildings associated with the construction of a building provided they do not exceed a height of 3m or an area of 15m²;

(d) any veranda, bridge or other construction over a public place or any tunnel or excavation beneath a public place;

(e) any lighting pole, flagpole, mast, pole, aerial or telecommunications structure which exceeds 6m in height;

(f) any permanent tent or marquee or air-supported canopy;

(g) any part of a deck or terrace which is more than 1m above ground level;

(h) any stand alone satellite dishes exceeding 1m in height above the ground level on which it stands.

Excluded from this definition are Crop Support Structures no greater than 6m in height and located 3m from the boundary.

- 4.1.1. The dwelling, pool fence and wastewater disposal system including the dripper lines all meet this definition.

Cut/Fill Face - Means the sloping or vertical exposed face resulting from earthworks (filling and/or excavation) but excludes any face of a height greater than 1.5 metres but no greater than 3 metres which is to be retained by a properly engineered retaining wall and for which a building consent has been issued.

- 4.1.2. Does not include cut or fill faces associated with works that do not meet the definition of Excavation or Filling.



Excavation - Digging out material from the ground, but does not include normal gardening activities, digging of post holes or trenching for drains, dam maintenance, normal rural practices or excavation for building foundations (other than work carried out to establish a building platform) or septic tanks and associated drainage fields unless the context of the Plan requires otherwise (refer also to Council's Bylaws).

4.1.3. Earthworks associated with wastewater tanks are not assessed under this definition.

Indigenous Wetland - An indigenous wetland is any naturally occurring wetland of 50m² or more (with a minimum width of 5m) which is permanently or seasonally wet (in that the water table is at or near the ground surface during high water table conditions) and which is dominated by indigenous wetland plant species including all or some of the following:

- (a) raupo;
- (b) flax;
- (c) sedge associations;
- (d) kahikatea;
- (e) cabbage tree;
- (f) manuka/kanuka on peatlands;
- (g) mangrove and saltmarsh;
- (h) kuta.

For the purposes of this Plan, indigenous wetlands that have been created for conservation purposes, as a requirement of a resource consent, are included within the definition of "indigenous wetlands". The definition excludes wetlands created and subsequently maintained principally for or in connection with:

- (a) effluent treatment and disposal systems; or
- (b) stormwater management; or
- (c) water storage; or
- (d) other artificial wetlands, water courses or open drains.

The definition also excludes:

- (a) trees with a pasture understorey; or
- (b) exotic rush/pasture communities; or
- (c) land which has been modified to the extent that it is no longer ecologically viable.

4.1.4. The wetland area on site does not meet this definition as the area is not dominated by indigenous wetland plant species. Refer to photos showing area being dominated by grasses.

Residential Unit / Dwelling - A building, a room or a group of rooms, used, designed or intended to be used by one or more persons as a self contained single, independent and separate household. Any accessory building providing sleeping accommodation and bathroom facilities but no cooking or dishwashing or laundry facilities will be treated as forming part of a residential unit / dwelling.

4.1.5. As part of the dwelling design, a guest wing has been included. This area is designed and intended to form part of the main dwelling. Its intended use is to provide an area for the applicant's parents who through degenerative disease will be wheelchair bound. A small bench area with a sink has been included such that they can have some independence to make tea and coffee. This bench area has been designed to be wheelchair friendly. The dwelling



contains one kitchen with cooking facilities and the laundry facilities. Given the above, the guest wing is considered to form part of the main dwelling as it cannot be used independently.

Wetland (s2 RMA) - includes permanently or intermittently wet areas, shallow water, and land water margins that support a natural ecosystem of plants and animals that are adapted to wet conditions.

4.1.6. The lower elevation of the site contains drains which are permanently wet. While the remaining paddocks are generally dry year-round the land is on the land / water margin. The vegetation within this area contains a mixture of grasses some of which are adapted to wet conditions. Previous engineering reports have described this area as a wetland.

Operative District Plan

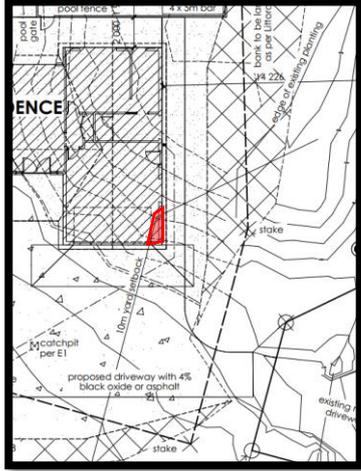
4.2. The subject site is zoned South Kerikeri Inlet in the Operative District Plan. An assessment of the relevant permitted District Plan rules are outlined in the tables below:

Table 1 - Assessment of the Permitted Section 10.10.5 South Kerikeri Inlet Zone		
Plan Reference	Rule	Performance of Proposal
10.10.5.1.1 (P) 10.10.5.2.1 (C) 10.10.5.3.1 (RDA)	Visual Amenity	<p>Restricted Discretionary Activity</p> <p>(a) The proposal involves constructing a dwelling which exceeds 25m² in area. Consent Required</p> <p>(b) The exterior of the dwelling will be finished in the following:</p> <ul style="list-style-type: none"> • Roof - Flaxpod Coloursteel LRV 7% • Cladding 1 – Cedar or Similar LRV 12% • Cladding 2 – Resene Element painted Brick 6% <p>While each finishing will have a LRV of less than 30%, not all finishings are found within the BS5252 standard colour palette. Consent Required</p> <p>The pool fence also triggers the need for building consent. The fence will be constructed of non-reflective glass panels or similar.</p> <p>(c) Not applicable. (d) Not applicable (e) Not applicable.</p> <p>Part of the dwelling will be located outside of the Approved Building Envelope on site such that the</p>



		controlled activity standard is unable to be met. The proposal is therefore a Restricted Discretionary activity .
10.10.5.1.2	Residential Intensity	Permitted As detailed above, the proposal consists of one dwelling within the site.
10.10.5.1.3	Scale of Activities	Not applicable. No non-residential activities are proposed.
10.10.5.1.4	Building Height	Permitted. The maximum height of the proposed development will be 5.9m.
10.10.5.1.5	Sunlight	Permitted. The proposal is setback generally around 10m from the site boundary such that the sunlight provisions can easily be complied with.
10.10.5.1.6 (P) 10.10.5.3.8 (RDA)	Stormwater Management	Restricted Discretionary As shown on the site plan from Absolute Build, the total amount of impermeable surface coverage will be 828.6m ² or 6% of the total site area. The proposal therefore does not comply with the permitted threshold of less than 10% or 600m ² (whichever is the lesser), for a permitted activity. The proposal is able to meet the RDA threshold of less than 15% or 1500m ² .
10.10.5.1.7 (P) 10.10.5.3.6 (RDA)	Setback from Boundaries	Restricted Discretionary Activity The site exceeds 5000m ² such that the permitted setback requirement is 10m. The site was developed with an approved building envelope shown as AC. Part of this area is located within the permitted 10m setback from the boundary. A small portion of the proposed garage is located within the permitted 10m setback.



		 <p style="text-align: center;"><i>Figure 20 - Area of setback infringement</i></p>
10.10.5.1.8	Screening for Neighbours Non-Residential Activities	Not applicable. No non-residential activities are proposed.
10.10.5.1.9	Transportation	Permitted. The site has been created on the basis of enabling a single residential unit to be established. The proposal is consistent with this use. Two car parking spaces with associated manoeuvring will be provided for onsite to accommodate the dwelling. Access to the site is existing. Compliance is achieved with Chapter 15.
10.10.5.1.10	Hours of Operation – Non Residential Activities	Not applicable. No non-residential activities are proposed.
10.10.5.1.11	Keeping of Animals	Not applicable. No commercial keeping of animals are proposed.
10.10.5.1.12	Noise	Permitted. The proposal is for a residential activity.
10.10.5.1.13	Helicopter Landing Area	Not applicable. No helicopter landing area is proposed.

District Wide Matters

Table 2 - Assessment of the District Wide Matters		
Plan Reference	Rule	Performance of Proposal
12.1	Landscapes and Natural Features	Permitted There are no mapped resource layers applicable to this site.
12.2	Indigenous Flora and Fauna	Permitted No indigenous vegetation removal is sought.
12.3 Soils and Minerals		
12.3.6.1.2	Excavation and/or filling, including obtaining roading material but excluding	Discretionary Activity Absolute Build have included Excavation areas identified on Page 3 of their plans.



	mining and quarrying, in the ..., South Kerikeri Inlet, ... zones	<p>The following areas meet the definition of Excavation and Filling – Areas 1, 2, 3, 4 & 6. The following Earthworks area and volumes are as follows:</p> <p>Area – 1103m² Cut – 740.5m³ Fill – 764.5m³ Max cut Height – 2.2m Max fill height – 1.5m</p> <p>Both the permitted earthworks volume threshold of 300m³ and cut and fill threshold of 1.5m is exceeded.</p>
12.4	Natural Hazards	<p>Permitted</p> <p>The site is not located within an area of mapped Coastal Hazard, nor is the dwelling within 20m of an area of woodlot or forest.</p>
12.5	Heritage	<p>Permitted</p> <p>There are no known notable trees, historic sites, buildings and objects, or registered archaeological sites on the property.</p>
12.6	Air	Deleted Chapter.
12.7 Lakes, Rivers, Wetlands & the Coastline		
12.7.6.1.1	Setback from Lakes, Rivers and Coastal Marine Area's	<p>Permitted.</p> <p>The site immediately adjoins the Coastal Marine area on its Northern, Western and Southern boundaries. All development will be setback more than 30m from the CMA.</p>
12.7.6.1.2	Setback from Smaller Lakes, Rivers and Wetlands	<p>Discretionary Activity</p> <p>An area on site, previously identified as a wetland through past engineering assessments has been located at the bottom of the plateau. This is located 15m from the wastewater disposal area. As the disposal area is defined as a building under the District Plan, the 30m setback applies. As such consent is required.</p>
12.7.6.1.3	Preservation of Indigenous Wetlands	<p>Permitted Activity</p> <p>The wetland is not defined as an indigenous wetland. As such this rule is not applicable.</p>
12.7.6.1.4	Land use activities involving discharges of human sewage effluent	<p>Discretionary Activity</p> <p>The proposed onsite wastewater system and effluent disposal field are setback 15 metres from the identified wetland area and approx. 44m from the CMA. The wetland setback triggers the need for consent.</p>

Operative District Plan Infringements

4.3. The assessment above has identified the following infringements to the District Plan Rules:

- 10.10.5.1.1 Visual Amenity



- 10.10.5.1.6 Stormwater Management
 - 10.10.5.1.7 Setback from Boundaries
 - 12.3.6.1.2 Excavation and/or filling, including obtaining roading material but excluding mining and quarrying, in the ..., South Kerikeri Inlet, ... zones
 - 12.7.6.1.2 Setback from Smaller Lakes, Rivers and Wetlands
 - 12.7.6.1.4 Land use activities involving discharges of human sewage effluent
- 4.4. When bundled the proposal will be assessed as a Discretionary Activity overall in accordance with Discretionary activity preamble rules 10.10.5.4, 12.3.6.3 & 12.7.6.3 in the Operative District Plan.

Proposed District Plan (PDP)

- 4.5. The PDP was publicly notified on the 27th of July 2022. The submission and further submission periods have closed. PDP hearings commenced in May 2024. While some relevant topics have now been heard, no decisions on the submissions have been made by the panel. As the zone rules have no legal effect, little weight will be given to the proposed objectives and policies.
- 4.6. While this is the case, a number of rules have current legal effect. These rules and associated assessment for compliance are set out below in Table 3.

Table 3 – Assessment of the PDP rules which have legal effect		
Chapter	Rule Reference	Compliance of Proposal
Hazardous Substances	The following rules have immediate legal effect: Rule HS-R2 has immediate legal effect but only for a new significant hazardous facility located within a scheduled site and area of significance to Māori, significant natural area or a scheduled heritage resource Rules HS-R5, HS-R6, HS-R9	Not applicable. The site does not contain any hazardous substances to which these rules would apply.
Heritage Area Overlays	All rules have immediate legal effect (HA-R1 to HA-R14) All standards have immediate legal effect (HA-S1 to HA-S3)	Not applicable. The site is not located within a Heritage Area Overlay.
Historic Heritage	All rules have immediate legal effect (HH-R1 to HH-R10). Schedule 2 has immediate legal effect.	Permitted The site does not contain any areas of mapped historic heritage.
Notable Trees	All rules have immediate legal effect (NT-R1 to NT-R9) All standards have legal effect (NT-S1 to NT-S2)	Not applicable. The site does not contain any notable trees.



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

Consent Notice 12736076.5

- 4.7. As detailed above, the site is subject to the following consent notice document. The following assessment determines compliance with conditions in relation to the proposal.

Table 4 – Assessment of CN 12736076.5		
#	Standard	Compliance of Proposal
All Lots DP 579108		
(i)	In conjunction with the construction of any building which includes a wastewater treatment & effluent disposal system the	Complies



	<p>applicant shall submit for Council approval an onsite wastewater system Report prepared by a Chartered Professional Engineer due to presence of acid soils. The report shall reference the Engineering report dated October 2019 prepared by Haigh Workman Ltd, ref 17 229, submitted with Resource Consent 2200263, and identify a suitable method of wastewater treatment to at least a secondary level (as defined in AS/NZS 1546.3:2003) for the proposed development along with an identified effluent disposal area plus a reserve disposal area.</p>	<p>An on-site effluent disposal report has been included as part of this proposal indicating how wastewater will be disposed of on site. This report has been completed by Wilton Joubert Consulting Engineers and has recommended secondary treatment in general accordance with the Haigh Workman subdivision report.</p>
(ii)	<p>In conjunction with the construction of any dwelling, and in addition to a potable water supply, a water collection system with sufficient supply for fire fighting purposes is to be provided by way of tank or other approved means and to be positioned so that it is safely accessible for this purpose. These provisions will be in accordance with the New Zealand Fire Fighting Water Supply Code of Practice SNZ PAS 4509.</p>	<p>Complies Fire fighting water supply will be provided in accordance with this standard.</p>
(iii)	<p>Allotments contain areas subject to inundation, wherein there is a potential risk to life, property and the environment due to climate change and natural coastal processes. Any development intended to be undertaken outside of the building envelopes may require an engineers report and/or resource consent from the Council.</p>	<p>Complies Some development is sought outside of the building envelope. A geotechnical memo has been included within this consent to satisfy this notice.</p>
(iv)	<p>In conjunction with the construction of any building requiring a building consent on the allotment, the lot owner shall submit in conjunction with obtaining a Building Consent for the approval of Council a stormwater assessment report prepared by a suitability qualified practitioner, that details the control of stormwater discharge, is adequately dispersed or dissipated from development to limit damage to adjacent wetland and tidal areas, and references the Engineering report dated October 2019 prepared by Haigh Workman Ltd, ref 17 229, submitted with Resource Consent 2200263.</p>	<p>Complies A stormwater mitigation report has been included as part of this resource consent application and references the Haigh Workman report.</p>
(v)	<p>All buildings shall comply with the following visual amenity mitigations:</p> <ul style="list-style-type: none"> • Maximum finished roof levels shall not exceed a height of 6.0m above the finished ground level of the building platform. This height limit is 	<p>Complies Point 1 – The buildings on site have been designed to comply with the 6m height restriction which aligns with the 12.5m RL.</p>



	<p>to preclude any level stepping or modulation of development measured using the Rolling Height Method or Mean Ground Level Method within the current District Plan. Furthermore, the maximum finished roof level shall not exceed the levels specified in condition 4(c) of RC 2200263, which are listed below:</p> <p>Lot 3: 12.5m</p> <ul style="list-style-type: none"> • All surface accesses that are permanent surfaces shall incorporate 4% by volume of cement black oxide or have a black stain applied by spray within two months of pouring. Alternatively, permanent accesses shall be surfaced in black hot mix. • All informally surfaced access ways shall be finished in black aggregate. • Roof colours shall be limited to 20% light reflectance value, and all natural materials such as timber and stone shall fall within the above values. • No mirror glazing shall be utilised. 	<p>Point 2 & 3 – The proposed driveway areas will be finished with 4% black oxide or asphalt.</p> <p>Point 4 – The roof will be Flaxpod Coloursteel with a LRV of 7%.</p> <p>Point 5 - No mirror glazing will be used within the dwelling nor with the glass used for the swimming pool fence.</p>
(vi)	<p>The landscape planting on the lots was established as part of the subdivision conditions of RC 2200263 in accordance with the report prepared by Littoralis Landscape Architecture, referenced: Proposed subdivision at Kerikeri Inlet Road, Kerikeri; Assessment of Landscape, Visual, Rural Amenity and Natural character Effects’ dated June 2018. All planting shall be maintained in perpetuity. Plants requiring removal due to damage, disease or other cause shall be replaced with a similar specimen before the end of the following planting season (April to August inclusive)</p>	<p>Complies</p> <p>The activity has been designed such that there will be no impact on the landscape areas. Refer to the overlay of the landscape plan within the Absolute Build plan set.</p>
(vii)	<p>The pest and weed eradication management plan to protect the native vegetation and the native habitats shall be observed and continued by the landowners. The plan shall not cease or be amended with the express permission of Council.</p>	<p>Complies</p> <p>The proposal does not seek to cease or amend this plan.</p>
(viii)	<p>The lot is identified as being within a kiwi present zone. Any cats and/or dogs kept onsite must be kept inside and/or tied up at</p>	<p>Complies</p>



	night to reduce the risk of predation of North Island brown kiwi by domestic cats and dogs.	The applicants animals are kept inside at night.
(ix)	Prior to the commencement on any earthworks works required on site the lot owner shall contact a representative of Te Uri Taniwha hapu (contact details can be obtained from Far North district Council) to ensure that a Tangata Whenua representative has the option of being present during any such works. If during the course of undertaking site works there is a discovery made of any archaeological find or suspected find, the work on that portion of the site should cease immediately and the representative will advise as to appropriate protocol to be followed.	<p>Complies</p> <p>As part of this proposal the application has been sent to the local hapu. No response has been received to date, however notification of when earthworks will commence will occur post consent approval.</p> <p>All requirements for following protocols in the event any archaeology is discovered will be adhered to.</p>
(x)	The management plan to protect the native vegetation and the native habitats shall be observed and continued by the landowners. The plan shall not cease or be amended without the express permission of Council.	<p>Complies</p> <p>No changes to the management plan are sought.</p>
Lots 1 and 2 DP 579108		
(xi)	Not applicable	Not applicable.
Lots 3 and 4 DP 579108		
(xii)	All buildings will require foundations specifically designed by a Chartered Professional Engineer and referencing Engineering report dated October 2019 prepared by Haigh Workman Ltd, ref 17 229, submitted with Resource Consent 2200263. The foundation design details shall be submitted in conjunction with the Building Consent application.	<p>Complies</p> <p>A Geotech report has been completed by Wilton Joubert Consulting Engineers. This will be supplied to Council as part of the Building Consent application. However, if deemed necessary for this resource consent this report can be supplied upon request.</p>
Lots 1 – 3 DP 579108		
(xiii)	All buildings shall be located within the building envelope shown on the plan provided to satisfy condition 3(b) of RC 2200263-RMAVAR/A.	<p>Consent Required</p> <p>Some built development will be located outside of the approved building envelope AC. Consent is sought to vary this consent notice condition to enable the following items to be consented.</p> <ul style="list-style-type: none"> • Wastewater Disposal Area • Open slatted Deck and corner of roof on North-Western corner.



		<ul style="list-style-type: none"> • Roof Overhang for the guest wing of the dwelling on South Western corner. • Water tanks and associated disposal trench.
Lots 4, 5 and 6 DP 579108		
(xiv)	Not applicable.	Not applicable.

4.8. The assessment above has identified an infringement to Consent Notice, condition (xiii) and as such an application to vary this condition under Section 221 (3) is sought .

4.9. Variation or Cancellation of a consent notice is processed as a **Discretionary Activity**.

Proposed Regional Plan for Northland

4.10. The proposed Regional Plan for Northland is within the appeals stage. At this point in time the majority of rules within this proposed document have been settled. In terms of the assessment below all proposed rules have immediate effect such that no consideration of the previous plans are considered necessary.

4.11. The assessment provided is restricted to those applicable rules only.

Rule	Assessment
C.6.1.3 Other permitted on-site treated domestic wastewater discharge	<p>The proposed wastewater disposal activity can comply with the permitted criteria listed within C.6.1.3 of the Regional Plan. Specifically, it will be located 15m from the wetland area and exceeds more than 20m from the coastal marine area.</p> <p>Please refer to the On-Site Effluent Disposal report for more detail.</p>

4.12. The proposal is able to comply with the relevant rules set out in the Northland Regional Plan such that it is permitted insofar as this document.

National Environmental Standards

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

4.13. The site is not identified as HAIL on the Council database of HAIL sites. A review of historic aerials has determined that there are no known activities that have previously occurred or are currently occurring on the site that are registered as HAIL Activities. For this reason, the NESCS (National Environmental Standard for Assessing and Managing Contaminants in Soil



to Protect Human Health) is not a consideration of this application. The proposal is considered **Permitted** in terms of this regulation.

National Environmental Standards for Freshwater 2020

4.14. Under the National Policy Statement for Freshwater Management 2020 (NPS-FM), Subpart 3.21, a natural inland wetland is defined as follows:

natural inland wetland means a wetland (as defined in the Act) that is not:

- (a) In the coastal marine area; or
- (b) A deliberately constructed wetland, other than a wetland constructed to offset impacts on, or to restore, an existing or former natural inland wetland; or
- (c) A wetland that has developed in or around a deliberately constructed water body, since the construction of the water body; or
- (d) A geothermal wetland; or
- (e) A wetland that:
 - i. Is within an area of pasture used for grazing; and
 - ii. Has vegetation cover comprising more than 50% exotic pasture species (as identified in the National List of Exotic Pasture Species using the Pasture Exclusion Assessment Methodology (see clause 1.8)); unless
 - iii. The wetland is a location of a habitat of a threatened species identified under clause 3.8 of this National Policy Statement, in which case the exclusion in (e) does not apply.

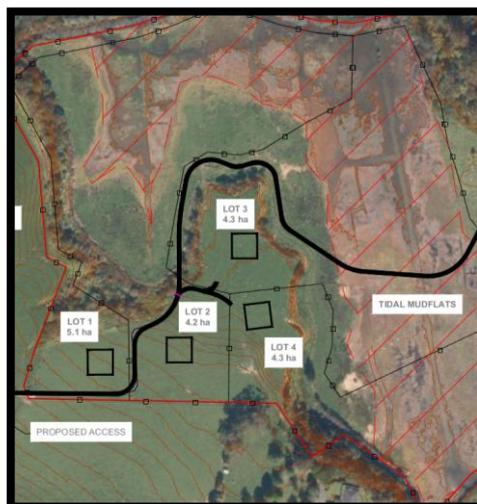


Figure 21 - Extract from the Haigh Workman Subdivision Site Suitability Report

4.15. In 2018 when the site Suitability report was produced the NES Freshwater was not enacted. The Haigh Workman report writer has described the area below the plateau to be a wetland stating that - *The mudflat and wetland are subject to tidal inundation and surface flooding. However, the possible building sites are well elevated and are not subject to flooding. Low lying areas of the site are shown on the Northland Regional Council GIS maps as being subject to coastal inundation as illustrated on the map below:*





Figure 22 - Haigh Workman Coastal Hazards Map

- 4.16. The entire area below the plateau was mapped at the time to be subject to coastal inundation. Since this time the Regional Council maps have been updated and now only a small portion of the site around the edge of the plateau is shown to be impacted by hazard. This follows existing drains located on the site.

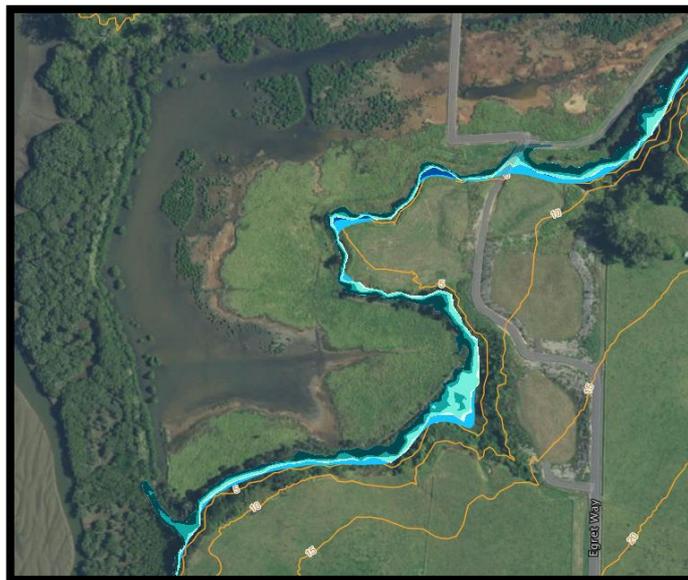


Figure 23 - Updated Natural Hazards map

- 4.17. The area below the plateau now consists of a mixture of grasses. A specific ecological report has not been provided as part of this assessment, as such to be conservative an assessment under the NES-F has been undertaken assuming that the area does meet the definition of a natural inland wetland.
- 4.18. All structures will be setback more than 10m from the potential wetland area, but will be located within the 100m setback. For those activities located within the 100m setback (earthworks, discharge of wastewater, capturing roof water and discharging via the outlet)



the activities will not change the water level range or hydrological function of the wetland area. Attention is also drawn to the NRC guidelines¹ on the types of activities which are exempt from the NESF.

- 4.19. It is therefore considered that the proposal is Permitted in terms of the NES-F.

Control of Earthworks Bylaw

- 4.20. As a resource consent is required for the earthworks, no further consideration of this document is necessary.

5. Statutory Assessment

Section 104B of the Act

- 5.1. Section 104B governs the determination of applications for Discretionary and Non-Complying Activities. With respect to these activities, a consent authority may grant or refuse the application and if it grants the application, it may impose conditions under Section 108.

Section 104(1) of the Act

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

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

- (a) any actual and potential effects on the environment of allowing the activity; and*
- (ab) any measure proposed or agreed to by the applicant for the purpose of ensuring positive effects on the environment that will or may result from allowing the activity; and*
- (b) any relevant provisions of –*
 - i. a national environmental standard;*
 - ii. other regulations;*
 - iii. a national policy statement;*
 - iv. a New Zealand Coastal Policy Statement;*
 - v. a regional policy statement or proposed regional policy statement;*
 - vi. a plan or proposed plan; and*
- (c) any other matter the consent authority considers relevant and reasonably necessary to determine the application.”*

- 5.3. Actual and potential effects arising from the development as described in 104(1)(a) can be both positive and adverse (as described in Section 3 of the Act). Positive effects arising from this development are that the site will be developed with a residential dwelling and onsite services, as was intended when the site was created. Colours with an LRV of less than 30% will be utilised on the exterior of the dwelling and landscaping will remain unaffected. Wastewater and stormwater will be managed onsite and no adverse effects on the wetland

¹[https://www.nrc.govt.nz/environment/farm-management/wetland-rules/#:~:text=The%20NES%20for%20Freshwater%20\(Regulation,10m%20of%2C%20a%20natural%20wetland](https://www.nrc.govt.nz/environment/farm-management/wetland-rules/#:~:text=The%20NES%20for%20Freshwater%20(Regulation,10m%20of%2C%20a%20natural%20wetland)



in proximity to the development will be created. Potential adverse effects relate to downstream effects of the proposal.

- 5.4. Section 104(1)(ab) requires that the consent authority consider 'any measure proposed or agreed to by the applicant for the purposes of ensuring positive effects on the environment to offset or compensate for any adverse effects on the environment that will or may result from allowing the activity'. In this case, the proposal is not of a scale or nature that would require specific offsetting or environmental compensation measures to ensure positive effects on the environment.
- 5.5. Section 104(1)(b) requires that the consent authority consider the relevant provisions of the above listed documents. An assessment of the relevant statutory documents that corresponds with the scale and significance of the effects that the activity may have on the environment has been provided in Section 8 below.
- 5.6. Section 104(1)(c) states that consideration must be given to 'any other matters that the consent authority considers relevant and reasonable, necessary to determine the application.' There are no other matters relevant to this application.

6. Environmental Effects Assessment

- 6.1. Having reviewed the relevant plan provisions and taking into account the matters to be addressed by an assessment of environmental effects as outlined in Clause 7 of Schedule 4 of the Act, the following environmental effects warrant consideration as part of this application.
- 6.2. The proposal is to be assessed as a Discretionary Activity in accordance with Discretionary activity preamble rules 10.10.5.4, 12.3.6.3 & 12.7.6.3 in the Operative District Plan. The Council may approve or refuse an application for a discretionary activity, and it may impose conditions on any consent. In assessing an application for a discretionary activity, the Council have full discretion.
- 6.3. The below assessment will include the relevant sections of Chapter 11 and Chapter 12 (specifically Sections 11.3, 11.5, 11.6, 12.3.7 12.7.7).

Stormwater Management

- 6.4. As shown on the Overall Site Plan provided within the Plan Set prepared by Absolute Build, the proposal will result in a total impermeable surface area of 828.6m² or 5.4% of the total site area. The proposal therefore cannot comply with the permitted threshold of 600m² impermeable surfaces, which is the lesser amount in this case. The proposal can comply with the Restrict Discretionary Provisions of 1500m² or 15% of the total site area, whichever is the lesser.



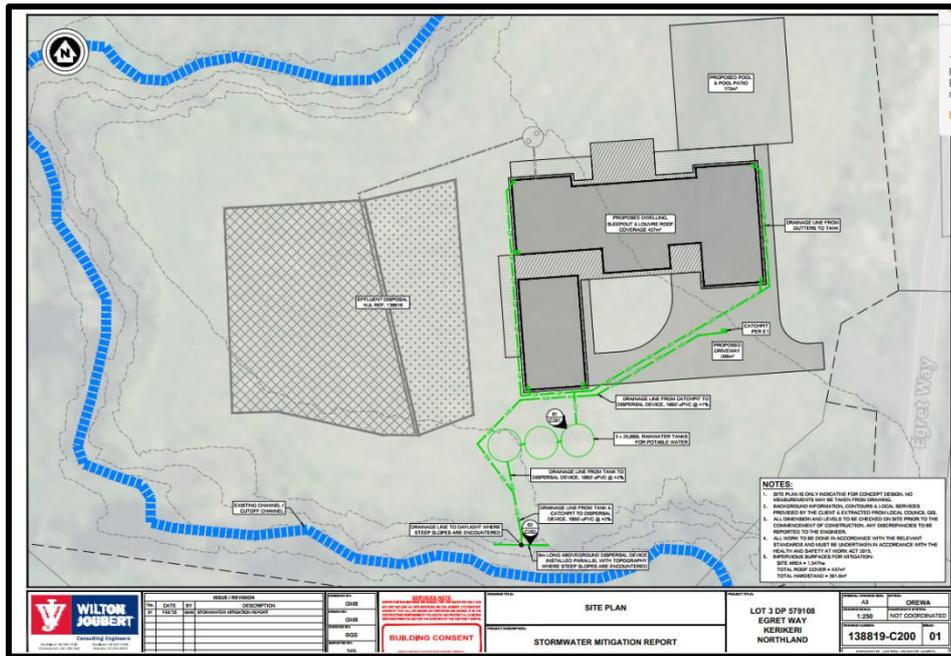


Figure 24: Stormwater Management Site Plan. Source: WJ Stormwater Report.

- 6.5. A Stormwater Management Report has been provided in support of the proposal prepared by Wilton Joubert Consulting Engineers (WJ) and has been attached as part of this application.
- 6.6. The scope of the Stormwater Report prepared by WJ covered the recommendations for the management of stormwater generated by the proposal via collection systems, sealed pipes and outlets in accordance with the FNDC Engineering Standards. It is stated that the design accounted for 20% AEP rainfall value of 163mm with a 24-hour duration. This rainfall date was obtained by HIRDS and increased by 20% to account for climate change. Below is a summary of the recommendations and findings within the Stormwater Report, however, please refer to the report itself for more detailed information.
- 6.7. Rainwater tanks have been recommended to collect roof runoff from the proposed dwelling, with one of the tanks being fitted with a 100mm diameter overflow outlet which will direct overflow to a dispersal device. Runoff from the driveway area is to be shed to catchpits which will be required to drain directly to the dispersal device via sealed pipes. Or alternatively, runoff from the driveway can sheet flow to the south, clear of any structures and effluent field toward the existing channel.
- 6.8. The dispersal device which is to collect the discharge from the water tanks and hardstand area is to be located to the south of the dwelling, as depicted in **Figure 24** below. From there, the dispersal device is recommended to discharge to the slopes below. The Stormwater Report lists specifications which the 6m long dispersal device is to have (please refer to Section 6 of the Stormwater Report for more detail).
- 6.9. In terms of the pool, no runoff from the pool is to be directed to any part of the stormwater management system to ensure there is no contamination of runoff. The pool overflow is



recommended to be managed by a separate system designed by a suitably qualified professional and should drain clear of the proposed effluent field.

- 6.10. The stormwater report has provided an assessment addressing the assessment criteria within the ODP. This has been accepted and adopted as part of this assessment.
- 6.11. Overall, with the implementation of the recommendations of the Stormwater Management Report prepared by Wilton Joubert Consulting Engineers, the effects resulting from the increase in impermeable surfaces are considered to be less than minor.

Summary

- 6.12. Stormwater runoff from the proposed development will be adequately controlled, with runoff from the dwelling being directed to water tanks on site and overflow being directed to a spreader, which allows runoff to slowly seep towards the overland flow path. Overflow from hardstand areas will be directed to the spreader, bypassing the water tanks or alternatively, will sheet flow to the south. No cumulative effects or effects on adjoining properties are anticipated, as stormwater will be managed within the site boundaries.
- 6.13. It is therefore considered that the proposal will not create any effects that are more than minor in relation to stormwater management.

Visual Amenity

- 6.14. As a permitted activity, any new habitable buildings shall be permitted provided that the gross floor area of any new habitable buildings do not exceed 25m². In this case, the total roof area equates to 409m² on the 1.5ha site. Although the exterior colours selected for the exterior of the dwelling will have an LRV of less than 30%, not all finishings are found within the BS5252 standard colour palette and therefore, consent under this is sought based on a technicality. The pool fence also triggers the need for building consent and will be constructed of non-reflective glass panels or similar. In addition, a small part of the dwelling will be located outside of the Approved Building Envelope on site such that the controlled activity standard is unable to be met.



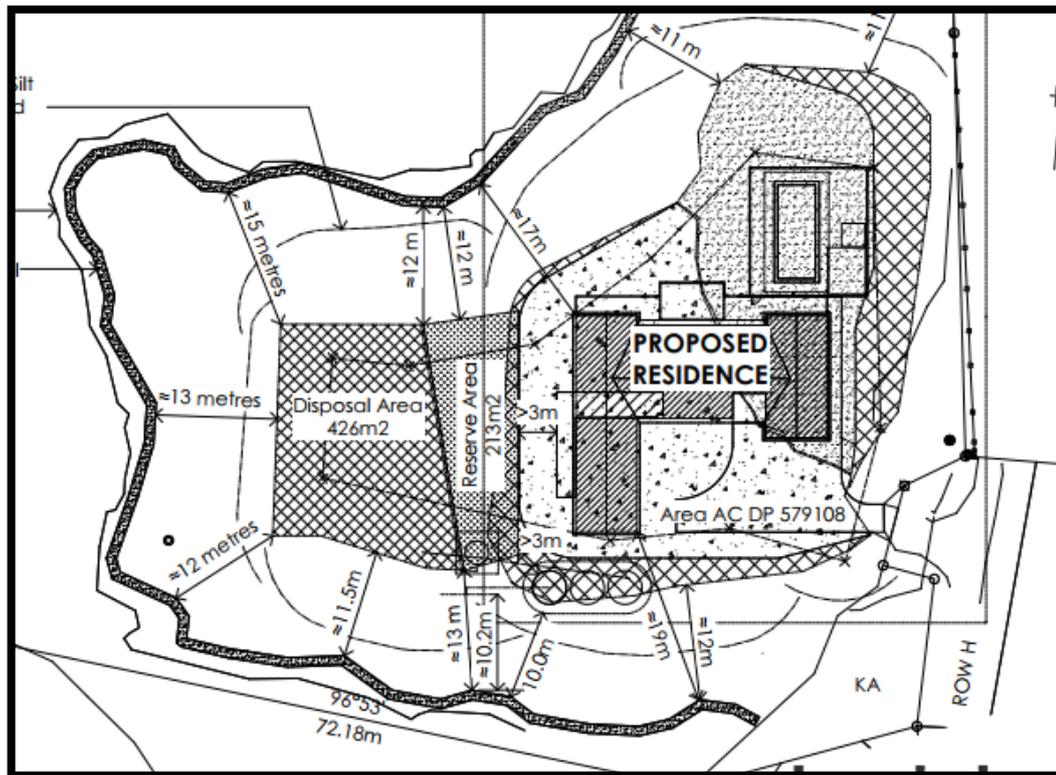


Figure 25: Proposed Site Plan. Source: Absolute Build.

6.15. An assessment of Section 11.5 of the ODP has been undertaken below.

(a) *The size, bulk, height and siting of the building or addition relative to skyline, ridges, areas of indigenous vegetation and habitat of indigenous fauna, or outstanding landscapes and natural features.*

6.15.1. In terms of the siting of the proposed dwelling, it will be predominantly contained within the approved building envelope, apart from two small sections in the north-western corner (portion of the open slatted deck and roof) and in the southwestern corner (roof overhang for the guest wing). The maximum height of the proposed dwelling will be 5.9 metres which is well within the permitted provisions for the site. There is existing landscaping onsite which was imposed as part of the subdivision RC 2200263 which created the site.

6.15.2. Under RC 2200263, the subdivision assessment included the visual impacts of built structures which ultimately resulted in the requirement of building envelopes and landscaping within the sites.

6.15.3. Given that the majority of the proposed dwelling apart from two minor sections of roof and deck will be within the approved building envelope and the existing landscape on site, it is considered that the size, bulk and siting of the building is most suitable for the site and is the most appropriate location to ensure visual effects are less than minor.



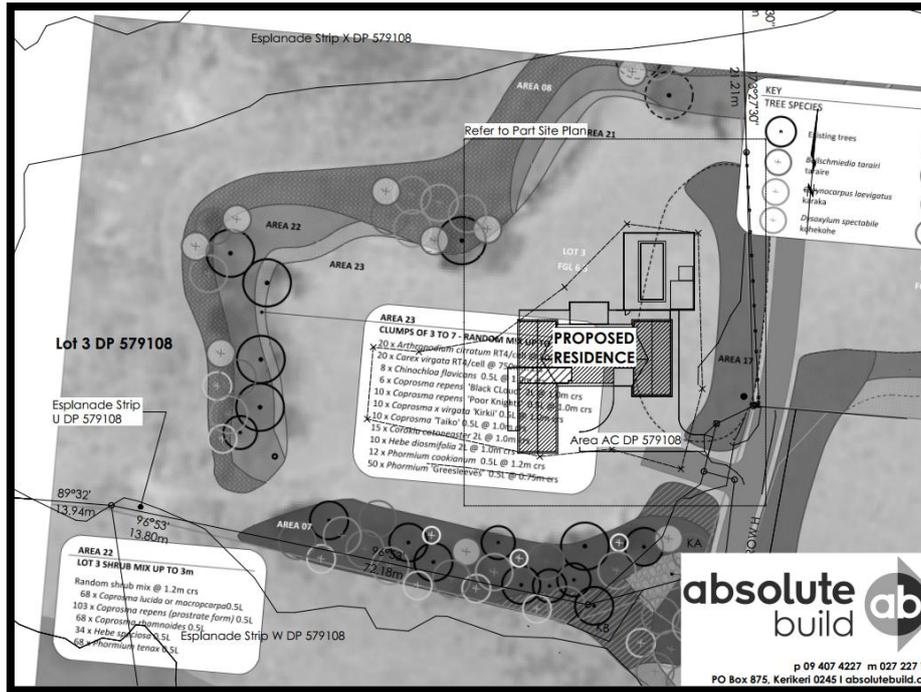


Figure 26: Proposed floor plan of dwelling with existing landscape plan overlay. Source: Absolute Build Plan Set



Figure 27: Image of the proposed building site



Figure 28: Existing landscaping along the eastern boundary.

(b) The extent to which landscaping of the site, and in particular the planting of indigenous trees, can mitigate adverse visual effects.

6.15.4. As mentioned above, there is an existing landscape plan for the site, which was imposed under RC 2200263 which created the site. The landscaping undertaken as part of the subdivision approval will be retained and will remain in perpetuity. Given the extensive landscaping on the eastern and southern boundaries which are located nearest to the proposed dwelling, it is considered that no additional landscaping is required as part of this proposal. It is assumed that the landscaping as part of the subdivision that created the site



was located to ensure future built development of the site would be screened to an appropriate extent.

(c) The location and design of vehicle access, manoeuvring and parking areas.

6.15.5. As can be seen in Figure 25 above, vehicle and manoeuvring will be located to the south of the dwelling, which is located nearest to the access to Egret Way. This is considered to be the most appropriate location as it ensures the shortest commute to access the roading system as well as being screened by the proposed dwelling and existing landscaping.

(d) The means by which permanent screening of the building from public viewing points on a public road, public reserve, or the foreshore may be achieved.

6.15.6. Egret Way is a right of way, with the nearest public road being Kerikeri Inlet Road which is located a sufficient distance from the site. The site does contain an esplanade strip which then adjoins the CMA, which is a mangrove area with limited public access. Nonetheless, it is considered that the existing landscaping will adequately screen the proposed building from any public viewing points. The proposed exterior colour scheme with an LRV of less than 30% will also aid in integrating the building into the existing landscape.



Figure 30: Esplanade strip area within the site.



Figure 29: Esplanade strip and CMA.

(e) The degree to which the landscape will retain the qualities that give it naturalness and visual value as seen from the coastal marine area.

6.15.7. As above, given the existing landscaping of the site, combined with the proposed exterior colour scheme, it is considered that the proposal will retain the natural qualities of the site.

(f) Where a building is in the coastal environment and it is proposed to be located on a ridgeline, whether other more suitable sites should be used and if not, whether landscaping, planting or other forms of mitigation can be used to ensure no more than minor adverse visual effects on the coastal environment.

6.15.8. The proposed dwelling will be located predominantly within the approved building envelope (apart from two small portions, as detailed earlier). It is considered that this location was determined to be the most suitable for built development as part of the original subdivision approval. Landscaping and other forms of mitigation have been undertaken on the site and with the proposed exterior cladding and colours ensures that visual effects are mitigated to a less than minor degree.

(g) The extent to which the activity may cause or exacerbate natural hazards or may be adversely affected by natural hazards, and therefore increase the risk to life, property and the environment.

6.15.9. The development area is not shown to be susceptible to natural hazards. Stormwater will be managed within the development area, such that downstream effects are not anticipated. Therefore, the proposal is not anticipated to increase the risk to life property or the environment.

(h) the extent to which private open space can be provided for future uses;

6.15.10. There is ample area on the site that can be utilised for private open space.

(i) the extent to which the siting, setback and design of building(s) avoid visual dominance on landscapes, adjacent sites and the surrounding environment;

6.15.11. As mentioned, the majority of the dwelling is located within the approved building envelope (apart from two small sections). The southwestern corner of the attached garage is located within the permitted 10 metre setback distance from the eastern boundary, however this portion of the dwelling is contained within the approved building envelope. The proposal is considered to avoid visual dominance on the surrounding environment.

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

6.15.12. The proposed dwelling is considered to be suitable for the site and is not out of character with other built development on sites within a similar setting. Outlook, privacy and enjoyment of open spaces on adjacent sites are not anticipated to be adversely affected.





Figure 31: Aerial view of the site and surrounding environment.

Summary

- 6.16. The proposal will result in one residential dwelling on the site as well as a pool and associated pool fence. The proposed dwelling will be finished in exterior colours of less than 30% LRV as well as the approved landscaping plan for the site being adhered to. The height of the dwelling is well within the permitted threshold. The majority of the dwelling is contained within the approved building envelope for the site, apart from two small minor areas, as discussed. Although this is the case, it is considered that the proposal has included adequate mitigation measures to reduce visual effects of the proposed building.
- 6.17. It is considered that the site and surrounding allotments were created with the intention of being developed with residential development, hence why there were controls put in place for the location, scale and design of any future buildings as well as landscaping. Although the proposal will be the first dwelling created within a lot of this subdivision, it is considered that the adjoining lots will also be built on in the future, as would have been anticipated when the subdivision was approved. As such, it is considered that although the proposal will result in the first dwelling within this development, the design and mitigation measures proposed are such that it is not objectionable and is in keeping with the intent of RC2200263. As will be discussed further in this report, the proposal does result in a minor breach of the approved building envelope for the dwelling, however this is not considered to set a precedence for future development on other allotments, given the minor nature of the encroachments.
- 6.18. As a result of the above the effects of the proposal are considered to create a no more than minor visual impact.



Setback from Boundaries

- 6.19. The Operative District plan states that 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. In this case, the site is approximately 1.5ha therefore, buildings shall be setback 10m from any site boundary.
- 6.20. As detailed on the Part Site Plan prepared by Absolute Build, a small portion of the corner of the attached garage is within the 10 metre setback provision to a portion of the right of way. It is worth reiterating that this portion of the building is within the approved building envelope. The setback breach occurs in relation to the existing right of way, as depicted in **Figure 32** below. When viewed from the infringed boundary, that section of the dwelling is a very small portion and will be visually broken up by existing vegetation along this boundary.

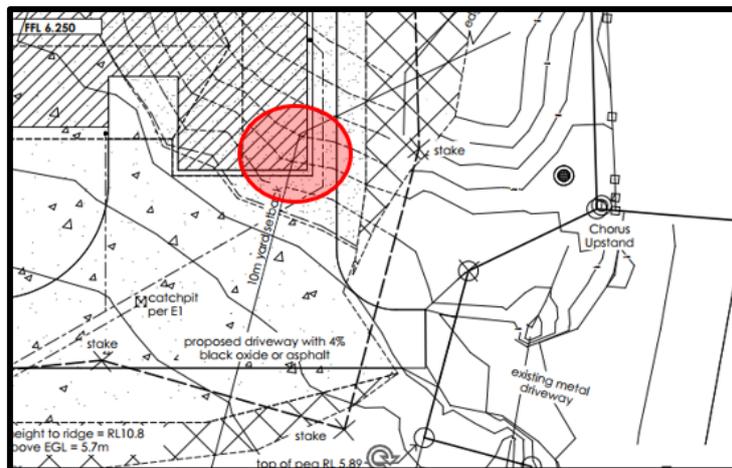


Figure 32: Part Site Plan showing location of boundary infringement.



Figure 33: Area of the site where boundary infringement will occur. Landscaping will be maintained along this boundary. Adjoins a metalled ROW area.

6.21. An assessment of Section 11.6 of the ODP has been undertaken below.

(a) Where there is a setback, the extent to which the proposal is in keeping with the existing character and form of the street or road, in particular with the external scale, proportions and buildings on the site and on adjacent sites.

(b) The extent to which the building(s) intrudes into the street scene or reduces outlook and privacy of adjacent properties.

(c) The extent to which the buildings restrict visibility for vehicle manoeuvring.

(d) The ability to mitigate any adverse effects on the surrounding environment, for example by way of street planting.

(e) The extent to which provision has been made to enable and facilitate all building maintenance and construction activities to be contained within the boundaries of the site.

6.21.1. Due to the site and surrounding allotments being recently created (title issued in late 2023), there is no built development surrounding the site. However, given that the portion of the proposed dwelling/garage which creates the setback breach is located within the approved building envelope, it is considered that this was an oversight as part of the original subdivision as dispensation should have been provided for any built development within the approved building envelope which would create a setback breach. Nonetheless, the proposal is considered to be of suitable scale and proportion for buildings within sites of similar features.

6.21.2. The setback breach will be screened by existing landscaping, as can be seen in **Figure 33** above, such that no intrusion into the street scene or reduction of outlook and privacy of adjacent sites will be created.

6.21.3. The building will not restrict visibility for vehicle manoeuvring as this has been incorporated into the design which includes garaging and sealed areas for this purpose.

6.21.4. The setback breach is not considered to create any adverse effects and will be located a sufficient distance from the boundary to ensure that no adjoining allotments are adversely affected. Given there is existing landscaping and the setback breach occurs along the boundary with a right of way, no adverse effects are anticipated.

6.21.5. There is ample area to enable and facilitate all building maintenance and construction activities within the boundaries of the site.

Summary

6.22. The boundary infringement will occur along the boundary with the existing metalled ROW area. The infringement is minor and will consist of a small portion of the proposed attached garage being within the 10m setback provision. This portion of the dwelling will be screened by landscaping and as it will form part of the dwelling, the infringement is anticipated to be perceived as minor. Given the location of the infringement, no effects on adjoining allotments in relation to privacy or access to sunlight is considered to be affected. Access to and within the site will not be restricted.



- 6.23. Overall, it is considered that the proposed setback breach will not create any adverse effects on adjoining allotments or the surrounding environment and as such, no written approvals have been sought or obtained.

Excavations

- 6.24. Absolute Build have included different excavation areas on the plans. The following areas meet the definition of Excavation and Filling – Areas 1, 2, 3, 4 & 6. The following Earthworks area and volumes are:

- Area – 1103m²
- Cut – 740.5m³
- Fill – 764.5m³
- Max cut Height – 2.2m
- Max fill height – 1.5m

- 6.25. Both the permitted earthworks volume threshold of 300m³ and cut and fill threshold of 1.5m is exceeded.

- 6.26. Assessment of the criteria within Section 12.3.7 has been undertaken below.

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

(b) any effects on the life supporting capacity of the soil;

(c) any adverse effects on stormwater flow within the site, and stormwater flow to or from other properties in the vicinity of the site including public roads;

(d) any reduction in water quality;

(e) any loss of visual amenity or loss of natural character of the coastal environment;

(f) effects on Outstanding Landscape Features and Outstanding Natural Features (refer to Appendices 1A and 1B in Part 4, and Resource Maps);

(g) the extent to which the activity may adversely affect areas of significant indigenous vegetation or significant habitats of indigenous fauna;

(h) the extent to which the activity may adversely affect heritage resources, especially archaeological sites;

(i) the extent to which the activity may adversely affect the cultural and spiritual values of Māori, especially Sites of Cultural Significance to Māori and waahi tapu (as listed in Appendix 1F in Part 4, and shown on the Resource Maps);

(j) any cumulative adverse effects on the environment arising from the activity;

(k) the effectiveness of any proposals to avoid, remedy or mitigate any adverse effects arising from the activity;

(l) the ability to monitor the activity and to take remedial action if necessary;

(m) the criteria in Section 11.20 Development Plans in Part 2.

(n) the criteria (p) in Section 17.2.7 National Grid Yard.

- 6.26.1. The subject development area is not shown to be susceptible to natural hazards. Erosion and sediment control will be in place in the form of silt fences to GD05 standard which will surround the extent of the excavated areas, as indicated on the site plan prepared by Absolute Build and shown below for ease of reference. The existing vegetation will also act as a



response is received during this process, notification will be sent to Te Uri Taniwha representative prior to the commencement of any earthworks, post approval.

- 6.26.7. No cumulative effects are anticipated given erosion and sediment control measures will be in place to ensure no downstream effects. The proposed mitigation measures are considered effective to mitigate any adverse effects.
- 6.26.8. Monitoring of the activity can be completed easily which will ensure that if remedial action is required, this can be undertaken.
- 6.26.9. In terms of Section 11.20 Development Plans, a Development Plan is not proposed as part of this application due to the minor nature of the proposal. Nonetheless, an assessment of Section 11.20 will be undertaken for completeness. The siting of machinery and stockpiles will be at the discretion of the contractor engaged to undertake the work as well as the design of vehicular and pedestrian access. As mentioned, the adjoining lots are developed such that loss of privacy and sunlight as well as nuisance due to dust, traffic and noise are not considered applicable. The landscaped areas will remain, with landscaping being undertaken as per the approved landscape plan for the site. No mining or quarrying operations are proposed. Hours of operation will be at the discretion of the contractor however are anticipated to be within normal working hours. Noise generation is expected to be at levels expected by construction activities for such works. These are not considered to be out of the ordinary and given the adjoining lots are yet to be developed, noise nuisance is not anticipated to be an issue. No blasting or vibration is anticipated. The proposal is not considered to have any effect on the continued operation or future expansion of the existing activities in the surrounding environment as the excavation activities will be temporary. The proposal does not include the creation of tailings or mining or quarrying.
- 6.26.10. There are no known recognized standards promulgated by industry groups that are applicable to the proposal.

Summary

- 6.26.11. Overall, with erosion and sediment being controlled onsite during excavations, it is considered that effects from the excavations will be less than minor. The works will be temporary given the nature of the proposal and as the surrounding allotments are currently vacant sites, no adverse effects on adjoining properties are anticipated.



Lakes, Rivers, Wetlands and the Coastline

- 6.27. An area on site, previously identified as a wetland through past engineering assessments has been located at the bottom of the plateau. The wetland is located 15m from the wastewater disposal area. As the disposal area is defined as a building under the District Plan and the distance to the wetland is less than 30m consent is required. An Onsite Effluent Disposal Report (Wastewater Report) has been prepared by Wilton Joubert, which is included within **Appendix 6** of this application. Please refer to this report for further detail on the type of system proposed.

- 6.28. The proposal will result in a wastewater system which has been designed in accordance with TP58 and cross referenced with AS/NZS 1547:2012. It further complies with the setbacks stipulated in the PRPN, as well as the wastewater design being completed in general accordance with the Site Suitability Report prepared by Haigh Workman (Ref No: 17 229, dated: September 2018). The Wastewater Report prepared by WJ provides a more accurate representation of the site’s capacity to sustainably manage wastewater through subsurface irrigation. WJ therefore concluded that *‘The proposed secondary treatment system and PCDI disposal system for the site will have a less than minor effect on the environment. Separation distances are recommended to be maintained from the property’s boundary and existing vegetation will assist with the retention, breakdown and uptake of effluent at the site and prevent effluent from being washed off-site. Given the appropriate separation distances to water sources, a reserve area of 50% and the discharge of secondary level of effluent treatment, the proposed wastewater disposal is considered to be suitable to protect the environment and the effects are deemed less than minor.’*

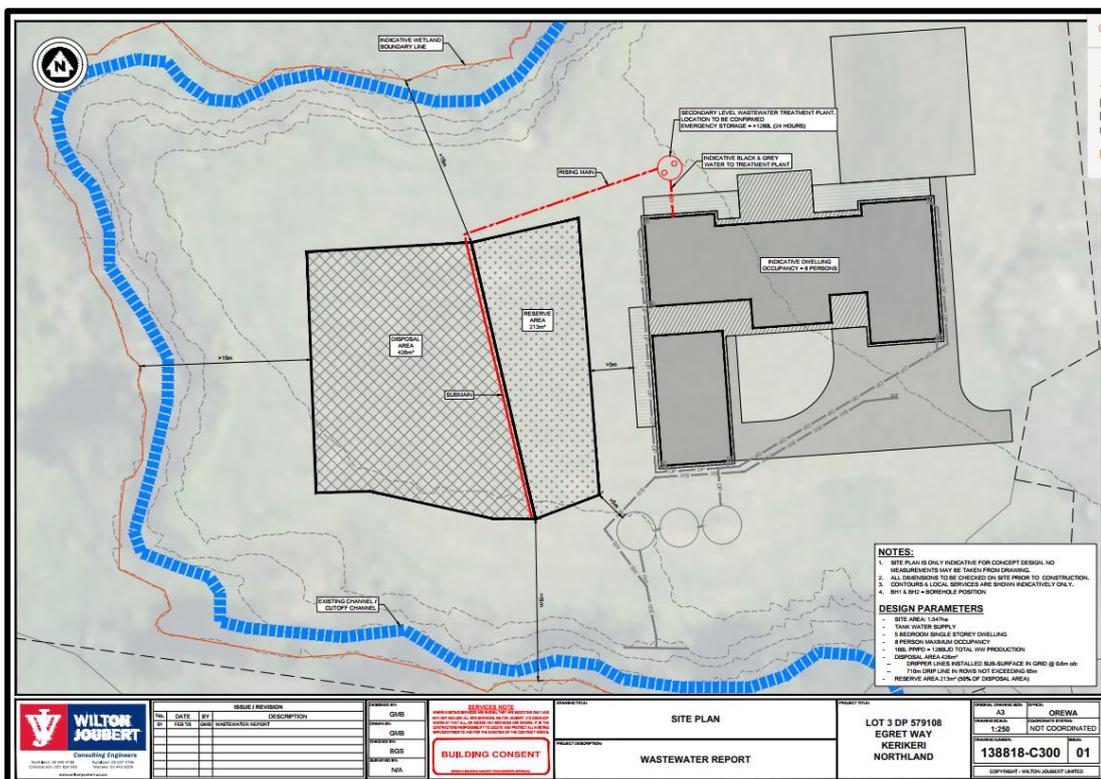


Figure 35: Wastewater Site Plan. Source: WJ Wastewater Report.



6.29. An assessment of the criteria within Section 12.7.7 of the ODP has been undertaken below.

(a) the extent to which the activity may adversely affect cultural and spiritual values;

6.29.1. Cultural and spiritual values are not anticipated to be affected. The wastewater system has been properly designed by a qualified professional which will ensure that wastewater is managed on site without having adverse effects on the environment.

(b) the extent to which the activity may adversely affect wetlands;

6.29.2. As above, no adverse effect on the wetland is anticipated given that the setback distances proposed by WJ are maintained and the system is installed as per the Wastewater Report.

(c) the extent to which the activity may exacerbate or be adversely affected by natural hazards;

6.29.3. The proposal is not anticipated to exacerbate natural hazards and is not affected by natural hazards.

(d) the potential effects of the activity on the natural character and amenity values of lakes, rivers, wetlands and their margins or the coastal environment;

6.29.4. Natural character and amenity value of the wetland and the coastal environment will not be adversely affected. The system will be located underground.

(e) the history of the site and the extent to which it has been modified by human intervention;

6.29.5. The site was created with the intention of being developed with a residential dwelling and onsite wastewater system. As such, the proposal is not considered to be objectionable for the site.

(f) the potential effects on the biodiversity and life supporting capacity of the water body or coastal marine area or riparian margins;

6.29.6. No adverse effects on the biodiversity and life supporting capacity of the wetland is anticipated given wastewater will be managed on site.

(g) the potential and cumulative effects on water quality and quantity, and in particular, whether the activity is within a water catchment that serves a public water supply;

(h) the extent to which any proposed measures will mitigate adverse effects on water quality or on vegetation on riparian margins;



6.29.7. No effects on the water quality or quantity is anticipated, given the design of the system.

(i) whether there are better alternatives for effluent disposal;

6.29.8. No alternatives are proposed. The proposed system is considered the most suitable for the site as detailed within the Wastewater Report by WJ.

(j) the extent to which the activity has a functional need to establish adjacent to a water body;

6.29.9. Given the size and location of the site, as well as the design of the proposed dwelling, the location of the wastewater system is considered to be the most practical. There is a functional need for the wastewater system as it is required to dispose of the wastewater and greywater from the proposed dwelling.

(k) whether there is a need to restrict public access or the type of public access in situations where adverse safety or operational considerations could result if an esplanade reserve or strip were to vest.

6.29.10. The site is private land, public access is not a consideration of this proposal.

Summary

6.30. Although the wastewater system will be located within 30m of the wetland boundary, given the design has been created by a qualified professional, it is considered the proposal will not have any adverse effects on the wetland area and all wastewater will be managed within the site boundaries.

7. Variation to Consent Notice Condition

7.1. Some built development will be located outside of the approved building envelope AC. Consent is sought to vary this consent notice condition to enable the following items to be consented:

- Wastewater Disposal Area
- Open slatted Deck and corner of roof on North-Western corner.
- Roof Overhang for the guest wing of the dwelling on South Western corner.
- Water tanks and associated disposal trench.

7.2. Variation to a consent notice condition is completed under Section 221(3) of the Act.

7.3. It is requested that condition (xii) within Document 12736076.5 be amended as follows (amendments shown in red):



(xii) With the exception of built development approved through land use resource consent RC XXXXXXX and applying to Lot 3 DP579108, all buildings shall be located within the building envelope shown on the plan provided to satisfy condition 3(b) of RC 2200263-VAR/B-RMAVAR/A.

7.4. As the consent notice condition refers to all buildings, the wastewater disposal system, water tanks and associated disposal trenches are included, given they are defined as a building under the ODP as they require building consent. It is considered that the purpose of the consent notice condition was for built development above ground and given the wastewater system and water tanks and disposal trench will be located underground, there will be no adverse visual effects created. Wilton Joubert have completed both a Wastewater and Stormwater Report assessing the site and have found the indicated areas suitable for wastewater and stormwater disposal. Due to the limited area within the approved building envelope and the design of the dwelling, the wastewater system and stormwater disposal system falls outside of the approved building envelope boundaries. Given the locations of the wastewater and stormwater systems have been found suitable to accommodate the systems and there will be no adverse visual effects created, it is considered appropriate to increase the building envelope to capture these two items. It is not physically possible to fit these systems within the current approved building envelope as can be seen in the site plan provided by Absolute Build.

7.5. In terms of the parts of the building which are located outside of the approved building envelope, these are limited to a small portion of open slatted deck and roof area on the northwestern corner and a small area of roof overhang of the dwellings guest wing in the southwestern corner.

7.6. **Figure 36** below indicates these areas, with the dashed line being the boundary of the approved building envelope and the red shaded areas indicating the encroachments. As can be seen, these areas are minimal and it is considered that increasing the building envelope slightly to accommodate the proposed design will not have any adverse visual effects or be contentious with the original intent of the approved building envelope.

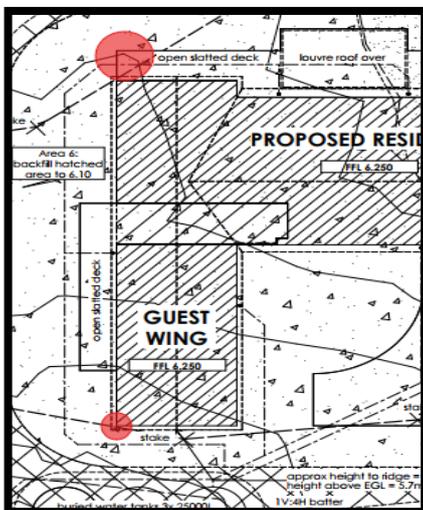


Figure 36: Site Plan showing location of dwelling encroachments outside of approved building envelope AC.



- 7.7. It is considered that the change to the consent notice condition to capture the items listed above will still meet the original intent of the condition as the built development will be clustered in one area as well as being visually mitigated by the landscaping on site which is located as per the requirements of RC 2200263. It is considered that there are no additional effects created regarding the change and therefore the effects of amending the consent notice condition are less than minor.

8. Policy Documents

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

National Environmental Standards

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

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

National Environment Standard for Freshwater 2020

- 8.3. As detailed earlier in this report, all structures will be setback more than 10m from the potential wetland area but will be located within the 100m setback. For those activities located within the 100m setback (earthworks, discharge of wastewater, capturing roof water and discharging via the outlet) the activities will not change the water level range or hydrological function of the wetland area. The proposal is considered to be Permitted in terms of this regulation.

Other National Environmental Standards

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

National Policy Statements

- 8.5. There are currently 8 National Policy Statements in place. These are as follows:
- National Policy Statement on Urban Development
 - National Policy Statement for Freshwater Management
 - National Policy Statement for Renewable Electricity Generation
 - National Policy Statement on Electricity Transmission
 - New Zealand Coastal Policy Statement
 - National Policy Standard for Highly Productive Land
 - National Policy Statement for Indigenous Biodiversity



- National Policy Statement for Greenhouse Gas Emissions from Industrial Process Heat 2023

New Zealand Coastal Policy Statement

- 8.5.1. The subject site is located within the coastal environment, but not within an area of High Natural Character.
- 8.5.2. The proposal is considered to achieve the objectives and policies of the NZCPS as the proposal does not adversely impact on the integrity, form, functioning or resilience of the coastal environment. Mitigation measures have been incorporated into the design of the dwelling to achieve minimal interference with the Coastal Environment. In addition, landscaping was imposed as part of RC 2200263, which will remain and be adhered to on an ongoing basis as part of this proposal. The proposed dwelling is predominantly located within the approved building envelope, apart from two small areas, which are not considered to create any adverse effects.
- 8.5.3. The development is considered to be consistent with the New Zealand Coastal Policy Statement, particularly:
- Objective 2: Preserving the natural character of the coastal environment
 - Objective 6: Enabling people and communities to provide for their social, economic and cultural wellbeing
 - Policy 1: Extent and characteristics of the coastal environment
 - Policy 6: Activities in the coastal environment
 - Policy 11: Indigenous biological diversity (biodiversity)
 - Policy 13: Preservation of natural character
 - Policy 15: Natural features and natural landscapes
- 8.5.4. The proposal includes the use of natural and recessive colours to mitigate potential visual effects of the buildings within the coastal environment and the coastal landscape. The proposal is consistent with the character and landscape of the coastal community of Kerikeri Inlet.
- 8.5.5. The proposal allows for ample open space for the use and enjoyment of residents. The coastline will not be restricted by this proposal, and the natural character and amenity of the area will be preserved and enhanced through landscaping. The proposal is considered to result in positive economic effects by providing employment through the construction phase of the building, while creating less than minor effects on the residential/coastal character of the locality.
- 8.5.6. The proposal will result in wastewater and stormwater being wholly managed within the site boundaries such that no downstream effects are anticipated.



- 8.5.7. The proposed activity is consistent with the objectives and policies of the New Zealand Coastal Policy Statement as the proposed dwelling is in keeping with the existing development of similar areas along Kerikeri Inlet Road. The dwelling will be finished in recessive colours, which will allow the structure to blend into the landscape.
- 8.5.8. Overall, the activity is consistent with the objectives and policies of the New Zealand Coastal Policy Statement, 2010.

National Policy Statement for Freshwater Management 2020

- 8.5.9. As discussed within Section 4 of this report, the proposal has been determined to be permitted in terms of the NES-F and therefore, the National Policy Statement for Freshwater Management 2020 (NPS-FM) is not applicable to the application.

Other National Policy Statements

- 8.5.10. It is considered there are no other National Policy Statements applicable to this application.

Regional Policy Statement for Northland

- 8.6. The relevant policy statement applicable to the application is the Operative Regional Policy Statement for Northland (RPSN). The activity is not known to be located within an Outstanding Landscape or area of High Natural Character, however is within the coastal environment. The CMA located to the west of the site is shown to be of High Natural Character.
- 8.7. The relevant objectives and policies relate to Economic Wellbeing, Tangata Whenua, Natural Character, Indigenous Ecosystems and Species, Historic Heritage, Infrastructure, Water quality management and Natural Hazards.
- 8.8. As per the assessment above, the proposal is not considered to create any adverse effects in relation to the above-mentioned themes. Wastewater and stormwater will be managed on site such that no downstream effects are anticipated. The existing and proposed mitigation measures will ensure that visual effects are less than minor and the proposed dwelling will not be out of character with other development located along Kerikeri Inlet Road. The proposal is not anticipated to exacerbate or cause natural hazards, with development being located outside of these areas. All effects will be managed within the site boundaries.
- 8.9. It is considered that with the imposition of the recommendations of this report, the activity is not contrary to the RPS.



Far North Operative District Plan

Relevant Objectives and Policies

- 8.10. The relevant objectives and policies of the Plan are those related to the Coastal Environment, South Kerikeri Inlet Zone, Soils and Minerals and Lakes, Rivers, Wetlands and the Coastline. The proposal is considered to create less than minor adverse effects on the surrounding environment. The proposal is considered to be consistent with the character of the surrounding area and is considered to have negligible effects on the amenity value of the area. The proposal is considered to be consistent with the objectives and policies of the Plan, as per below.

Assessment of Objectives and Policies within the Coastal Environment

Objectives

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

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

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

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

(c) outstanding landscapes and natural features;

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

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

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

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

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

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

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

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



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

- 8.10.1. The proposed development is considered to be suitable for the site, with no adverse effects being created. The natural character of the coastline and outstanding landscapes and natural features will be maintained given the vegetative buffer and separation distance from the proposed development location and the CMA. Mitigation measures by way of landscaping are existing and along with the proposed building design, low reflectivity and colour palettes will ensure that visual effects from the proposed development are less than minor. Areas of significant indigenous vegetation and habitats of indigenous fauna will be unaffected by the proposal, with all development occurring on grassed areas. Open space and amenity values will remain unaffected. There is sufficient separation distance between the CMA and the development site to enable open space. Water quality and soil conservation will not be adversely affected. The relationship of Māori and their relationship with the culture and traditions is considered to remain unaffected. Public access is not considered relevant to this proposal. The proposal does not include any activities which cross the CMA boundary. Water storage will be provided onsite via harvesting of rainwater to tanks on site. Natural and physical resources will be maintained.

Policies

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

- (a) recognises and provides for those features and elements that contribute to the natural character of an area that may require preservation, restoration or enhancement; and*
- (b) is in a location and of a scale and design that minimises adverse effects on the natural character of the coastal environment; and*
- (c) has adequate services provided in a manner that minimises adverse effects on the coastal environment and does not adversely affect the safety and efficiency of the roading network; and*
- (d) avoids, as far as is practicable, adverse effects which are more than minor on heritage features, outstanding landscapes, cultural values, significant indigenous vegetation and significant habitats of indigenous fauna, amenity values of public land and waters and the natural functions and systems of the coastal environment; and*
- (e) promotes the protection, and where appropriate restoration and enhancement, of areas of significant indigenous vegetation and significant habitats of indigenous fauna; and*
- (f) recognises and provides for the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu and other taonga; and*
- (g) where appropriate, provides for and, where possible, enhances public access to and along the coastal marine area; and*



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

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

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

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

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

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

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

- (a) parking;*
- (b) rubbish disposal;*
- (c) waste disposal;*
- (d) dinghy racks.*

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

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

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

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

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



- (a) the siting of buildings relative to the skyline, ridges, headlands and natural features;*
- b) the number of buildings and intensity of development;*
- (c) the colour and reflectivity of buildings;*
- (d) the landscaping (including planting) of the site;*
- (e) the location and design of vehicle access, manoeuvring and parking areas.*

- 8.10.2. The proposal will maintain the natural character of the area by ensuring that the existing landscaping onsite is maintained. Exterior colours with a low LRV have been utilised as well as the building height not exceeding 5.9m, such that the proposal can meet the controls which were imposed under RC 2200263. The proposed dwelling is slightly located outside of the approved building envelope in two corners, however these encroachments are considered to be minor, given it relates to a small portion of open slatted deck and roof overhangs. The encroachments of these two areas outside of the approved building envelope are not considered to have an adverse effect on the natural character of the coastal environment. The location and scale of the proposal is considered appropriate for the site. Services will be provided for onsite and managed within the site boundaries. Safety and efficiency of the roading network is not anticipated to be adversely affected. No adverse effects are anticipated on the items listed within 10.4.1(d)&(f). The relationship of Māori and their culture and traditions is not anticipated to be affected. Public access has not been a consideration of this proposal. The application has given affect to the NZCPS.
- 8.10.3. The proposal does not result in sprawling or sporadic development. Ecological values of the coastal environment will be maintained. Public access is not considered applicable. There are existing landscaping requirements for the site which will remain unaffected by the proposal. This combined with the mitigation measures proposed as part of this development will ensure that the natural character of the coastal environment is maintained. No land-based activities associated with maritime facilities are proposed. The proposal is not anticipated to exacerbate natural hazards. Water supply will be provided for onsite. Stormwater and wastewater will be managed on site as per the reports by Wilton Joubert. Erosion and sediment control measures will be in place during construction as discussed within this report.
- 8.10.4. As discussed, the proposed dwelling is predominantly located within the approved building envelope, with the two encroachments considered to have a less than minor effect on the visual impact of the building. The colour and reflectivity of the building will be less than 30% and the existing landscaping plan will remain unaffected by the proposal. Vehicle access, manoeuvring and parking areas have been designed to be located nearest to the property access and will be screened by the proposed dwelling and existing landscaping. These factors will ensure that no adverse effects are created on the natural character and amenity of the surrounding environment.



Assessment of the objectives and policies within the South Kerikeri Inlet Zone

Objectives

10.10.3.1 To maintain the combination of open, rural, coastal and natural characteristics of the Zone.

10.10.3.2 To provide for the wellbeing of people by enabling low-density residential development at appropriate locations taking into account the potential adverse effects on the coastal environment.

10.10.3.3 To ensure that while enabling low-density development the adverse effects on the environment of such development are avoided, remedied or mitigated particularly in areas of high visual sensitivity.

- 8.10.5. The proposal will result in one residential dwelling on the site, which is considered to be the intended purpose of the site. There is ample area on the site for open space. The natural characteristics of the site will be maintained via mitigation measures proposed within this report and by maintaining the existing landscaping on the site in accordance with RC 2200263. The proposal is considered to be of low density given it will result in one residential dwelling. The location of the proposed dwelling will be predominantly in the approved building envelope, apart from two minor corners, as has been discussed. The proposal is not considered to create any adverse effects on the coastal environment. RC 2200263 created the subject site, where visual effects were considered and assessed. A landscaping plan and building envelope were provided for. The landscaping plan will be adhered to as part of this proposal and although two corners of the building extend past the approved building envelope boundaries, this is considered to not create any adverse effects given the nature of the encroachments.

Policies

10.10.4.1 Subdivision, use and development shall preserve and where possible enhance, restore and rehabilitate the coastal-rural character of the zone in regards to Section 6 matters, and shall avoid adverse effects as far as practicable by using techniques including:

- (a) clustering and grouping development (including new buildings) within areas where there is the least impact on natural character and its elements such as indigenous vegetation, landforms, rivers, streams and wetlands, and coherent natural patterns and on open space and rural amenity values, including by clustering and grouping development (including new buildings) outside the visually sensitive areas of the South Kerikeri Inlet Zone as defined on Map 84;*
- (b) appropriately integrating design and land use within the visually sensitive areas of the South Kerikeri Inlet Zone to maintain and enhance natural and rural amenity values associated with a broad-scale and coherent visual pattern of simple and uncluttered open spaces;*
- (c) minimising the visual impact of buildings, development, and associated vegetation clearance and earthworks, particularly as seen from public land and the coastal marine area;*



- (d) providing for, legal public right of access to and use of the foreshore and any esplanade areas through the siting of buildings and development and design of subdivisions;*
- (e) through siting of buildings and development, design of subdivisions, and provision of access that recognise and provide for the relationship of Maori with their culture, traditions and taonga including concepts of mauri, tapu, mana, wehi and karakia and the important contribution Maori culture makes to the character of the district (refer Chapter 2, and in particular section 2.5, and Council's "Tangata Whenua Values and Perspectives (2004)");*
- (f) providing planting of indigenous vegetation in a way that links existing habitats of indigenous fauna and provides the opportunity for the extension, enhancement or creation of habitats for indigenous fauna, including mechanisms to exclude pests;*
- (g) protecting historic heritage, and in particular of the Kerikeri Basin Heritage Precinct, through the careful siting of buildings and development and design of subdivisions in areas less visually sensitive;*
- (h) ensuring development reflects the role of the area as a maritime entrance to Kerikeri and that activities are of a scale and size that is consistent with the natural character of the zone.*

10.10.4.2 That standards are set to ensure that subdivision, use or development provides adequate infrastructure and services and that open space and rural amenity values and the quality of the environment are maintained and enhanced.

10.10.4.3 That a wide range of activities be permitted in the South Kerikeri Inlet Zone, where their effects are compatible with the preservation of the natural character of the coastal and rural environment.

10.10.4.4 That the visual and landscape qualities of the coastal and rural environment are protected from inappropriate subdivision, use and development.

8.10.6. The proposed location of the dwelling and associated services are considered to have the least impact on natural character. The proposal will result in one dwelling, such that there is no need to cluster development. Public access is not considered applicable. The relationship of Māori and their culture and traditions is not considered to be affected by this proposal. There is an existing landscape plan applicable to the site such that no additional landscaping plan is considered to be required. The proposal will not affect areas of historic heritage. The proposal will preserve the natural character of the zone as discussed within this report.

8.10.7. Infrastructure will be provided for onsite. There is ample area for open space on the site. The proposal will result in one dwelling on the site which is considered consistent with other lots in the area. Visual and landscape qualities will be protected by ensuring the approved landscaping remains and that the dwelling incorporates features which ensure visual effects are less than minor.

Assessment of objectives and policies within the Soils and Minerals Chapter

Objectives



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

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

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

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

- 8.10.8. The proposed earthworks are not known to require Regional Consent. As assessed within this application, no adverse effects from the proposed earthwork activities are anticipated. Life supporting capacity of soils is not considered to be adversely affected given the site was created with the intention of being developed with a residential dwelling and associated onsite services. Effects from excavation will be mitigated to a less than minor degree by ensuring erosion and sediment control measures are in place as well as controlling stormwater on the site, to ensure there are no downstream effects. The proposal does not include the extraction of minerals.

Policies

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

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

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

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

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

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

(d) natural hazards may pose unacceptable risks.

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

12.3.4.5 That soil conservation be promoted.

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

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



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

12.3.4.9 That soil excavation and filling in the National Grid Yard are managed to ensure the stability of National Grid support structures and the minimum ground to conductor clearances are maintained.

12.3.4.10 To ensure that soil excavation and filling are managed appropriately, normal rural practices as defined in Chapter 3 will not be exempt when determining compliance with rules relating to earthworks, except if the permitted standards in the National Grid Yard specify that activity is exempt.

- 8.10.9. As detailed above, the proposal is not considered to create adverse effects in terms of soil erosion. The site is located within the South Kerikeri Inlet zone, which is a Coastal zone rather than a Rural zone. The site has also been created with the intention of a dwelling and associated servicing being located on the site, such that the life supporting capacity of soils is not considered to be affected. The proposal does not involve soil and mineral extraction. Mitigation measures have been discussed within this report such that effects are considered to be less than minor. Soil conservation will be promoted by developing on a site which has been created for the purpose of development. No mining tailings will be produced. Mining and quarrying are not proposed. No Development Plan is proposed given the nature of the proposal. The site is not located within the National Grid Yard.

Assessment of objectives and policies within the Lakes, River, Wetlands and the Coastline Chapter

Objectives

12.7.3.1 To avoid, remedy or mitigate the adverse effects of subdivision, use and development on riparian margins.

12.7.3.2 To protect the natural, cultural, heritage and landscape values and to promote the protection of the amenity and spiritual values associated with the margins of lakes, rivers and indigenous wetlands and the coastal environment, from the adverse effects of land use activities, through proactive restoration/rehabilitation/revegetation.

12.7.3.3 To secure public access (including access by Maori to places of special value such as waahi tapu, tauranga waka, mahinga kai, mahinga mataitai, mahinga waimoana and taonga raranga) to and along the coastal marine area, lakes and rivers, consistent with Chapter 14 - Financial Contributions, to the extent that this is compatible with:

(a) the maintenance of the life-supporting capacity of the waterbody, water quality, aquatic habitats, and

(b) the protection of natural character, amenity, cultural heritage, landscape and spiritual values; and

(c) the protection of public health and safety; and

(d) the maintenance and security of authorised activities (but acknowledging that loss of privacy or fear of trespass are not valid reasons for precluding access).



12.7.3.4 In some circumstances public acquisition of riparian margins may be required and managed for purposes other than public access, for example to protect significant habitats, waahi tapu or historic sites, or for public recreation purposes.

12.7.3.5 To provide for the use of the surface of lakes and rivers to the extent that this is compatible with the maintenance of the life supporting capacity of the water body, water quality, aquatic habitats, and the protection of natural character, amenity, cultural heritage, landscape and spiritual values.

12.7.3.6 To avoid the adverse effects from inappropriate use and development of the margins of lakes, rivers, indigenous wetlands and the coastline.

To protect areas of indigenous riparian vegetation:

(a) physically, by fencing, planting and pest and weed control; and

(b) legally, as esplanade reserves/strips.

12.7.3.7 To create, enhance and restore riparian margins.

8.10.10. As detailed within this application, the proposal is not considered to have any adverse effects on the wetland area or riparian margins. There is a sufficient separation distance between the proposed development and the wetland such that effects will be managed within the vicinity of the development and no downstream effects are anticipated. Public access has not been a consideration of this proposal. There is an existing esplanade strip between the CMA and the development site. No use of the surface of lakes or rivers is proposed. No adverse effects on the CMA or wetland are anticipated given effects will be managed within the development area. Pest and weed control is ongoing within the site and there is an existing esplanade strip between the development area and the CMA.

Policies

12.7.4.1 That the effects of activities which will be generated by new structures on or adjacent to the surface of lakes, rivers and coastal margins be taken into account when assessing applications.

12.7.4.2 That land use activities improve or enhance water quality, for example by separating land use activities from lakes, rivers, indigenous wetlands and the coastline, and retaining riparian vegetation as buffer strips.

12.7.4.3 That adverse effects of land use activities on the natural character and functioning of riparian margins and indigenous wetlands be avoided.

12.7.4.4 That adverse effects of activities on the surface of lakes and rivers in respect of noise, visual amenity of the water body, life supporting capacity of aquatic habitats, on-shore activities, the natural character of the water body or surrounding area, water quality and Maori cultural values, are avoided, remedied or mitigated.

12.7.4.5 That activities which have a functional relationship with waterbodies or the coastal marine area be provided for.

12.7.4.6 That public access to and along lakes, rivers and the coastline be provided as a consequence of development or as a result of Council (see Method 10.5.19) or public initiatives except where it is necessary to restrict access or to place limits on the type of access, so as to:



- (a) protect areas of significant indigenous vegetation and/or significant habitats of indigenous fauna or*
- (b) protect cultural values, including Maori culture and traditions; or*
- (c) protect public health and safety; to the extent that is consistent with policies in Chapter 14.*

12.7.4.7 That any adverse effects on the quality of public drinking water supplies from land use activities, be avoided, remedied or mitigated. (Refer to Commentary and Methods 12.7.5.6 and 12.7.5.7.)

12.4.7.8 That the Council acquire esplanade reserves, esplanade strips and access strips in accordance with Chapter 14 - Financial Contributions and Method 10.5.10 of the Plan.

12.7.4.9 That riparian areas in Council ownership be managed so as to protect and enhance the water quality of surface waters.

12.7.4.10 That historic buildings erected close to, or over, water bodies be protected and provision be made for new buildings where this form of development is in keeping with the historic pattern of settlement.

12.7.4.11 That the extent of impervious surfaces be limited so as to restore, enhance and protect the natural character, and water quantity and quality of lakes, rivers, wetlands and the coastline.

12.7.4.12 That provision be made to exempt activities on commercial or industrial sites from the need to be set back from the coastal marine area, and from the need to provide esplanade reserves on subdivision or development, where the location of the commercial or industrial site is such as to be particularly suited to activities that cross the land-water interface, or have a close relationship to activities conducted in the coastal marine area. Refer also to Rule 14.6.3.

12.7.4.13 That provision be made to exempt activities on particular sites as identified in the District Plan Maps as adjacent to an MEA from the need to be set back from the coastal marine area where those activities on that site have a functional relationship with marine activities and cross the line of Mean High Water Springs (MHWS).

12.7.4.14 That the efficient use of water and water conservation be encouraged.

12.7.4.15 To encourage the integrated protection and enhancement of riparian and coastal margins through:

- (a) planting and/or regeneration of indigenous vegetation;*
- (b) pest and weed control;*
- (c) control (including, where appropriate, exclusion) of vehicles, pets and stock.*

Note: The Regional Coastal Plan for Northland and Regional Water and Soil Plan for Northland contain policies, rules and other methods to protect and enhance wetlands, lakes, rivers and the coastal marine area. Vehicle, pet and stock control is particularly important in areas and at times when birds are nesting.

8.10.11. The proposal will not be constructed on or adjacent to the surface of a lake, river or coastal margins. The development site is separated from the CMA by an esplanade strip, which is noted as a wetland area in previous engineering reports. The proposal is not considered to



create any adverse effects on this area. There is existing vegetation and pasture between the development site and the wetland, as well as runoff being adequately managed within the development site boundaries, such that no adverse effects on water quality are anticipated. As mentioned, the development will be set back a sufficient distance from the wetland as well as being professionally designed such that no adverse effects on the natural character of the wetland are anticipated. The proposal does not include activities on the surface of lakes or rivers. The proposal is not considered to need a functional relationship with the CMA or water body, as it will result in the development of a dwelling which will be managed within the development boundaries. There is an existing esplanade strip between the CMA and development site. This will remain unaffected. The proposal does not include riparian areas in Council ownership. The proposal does not involve historic buildings. The proposal does result in a breach of the permitted standards for impermeable surfaces, however as assessed within this report, stormwater will be adequately managed onsite to ensure that there will be no downstream effects. The site is not zoned as Industrial or Commercial. The site is not adjacent to a site zoned as MEA. Water will be collected from the roof of the dwelling and stored for potable use which is considered to encourage water conservation. Pest and weed control is existing onsite and will continue. As mentioned, there is an existing esplanade strip and landscaping which enhances the area.

Proposed Far North District Plan

- 8.11. As discussed in the sections above, the site is located within the Rural Lifestyle zone and is subject to an overlay of Coastal Environment. Both chapters are considered relevant to this proposal and will be assessed below.

Rural Lifestyle Zone

Objectives

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-04 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.

- 8.11.1. The proposed development is consistent with the intent of the zone being for low density residential development. Consideration has been given to the design, landscaping and layout of the development to ensure that the proposal is compatible with the rural character of the zone.
- 8.11.2. The development will be for residential use which is not considered to be an incompatible use of the site.
- 8.11.3. The development will not comprise the operation of primary production activities and does not adjoin a Rural Production zone.

Policies

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:*



CE-O3 Land use and subdivision in the coastal environment within urban zones is of a scale that is consistent with existing built development.

- 8.11.5. The dwelling will be absorbed into the existing built environment within the Rural Lifestyle zone (Proposed Plan zoning). The natural character of the existing environment is the Kerikeri Inlet which is lined with mangroves and volcanic rocks forming part of the natural character. Along Kerikeri Inlet are residential dwellings scattered throughout the landscape and marine infrastructure (such as boat ramps and jetties). There are no buildings on the adjoining lots at present but generally, buildings located in similar areas are generally integrated into the environment, which is consistent with the proposed development.
- 8.11.6. The site is located along the undulating landscape which surrounds the Kerikeri Inlet. The proposal is consistent with the development in the immediate environment being moderate to low density residential development with a coastal character. The proposal does not result in urban sprawl.
- 8.11.7. As stated earlier in this report, there is no built development on the adjoining lots given the subdivision is relatively new, however the proposal is consistent with the scale and design of other properties in similar settings.

Policies:

CE-P1 Identify the extent of the coastal environment as well as areas of high and outstanding natural character using the assessment criteria in APP1- Mapping methods and criteria.

Avoid adverse effects of land use and subdivision on the characteristics and qualities of the coastal environment identified as:

- a) outstanding natural character;*
- b) ONL;*
- c) ONF.*

CE-P3 Avoid significant adverse effects and avoid, remedy or mitigate other adverse effects of land use and subdivision on the characteristics and qualities of the coastal environment not identified as:

- a) Outstanding natural character;*
- b) ONL;*
- c) ONF*

CE-P4 Preserve the visual qualities, character and integrity of the coastal environment by:

- a) Consolidating land use and subdivision around existing urban centres and rural settlements; and*
- b) Avoiding sprawl or sporadic patterns of development*

CE-P5 Enable land use and subdivision in urban zones within the coastal environment where:



a) There is adequacy and capacity of available or programmed development infrastructure; and

b) The use is consistent with, and does not compromise the characteristics and qualities.

CE-P6 Enable farming activities within the coastal environment where:

a) the use forms part of the values that established natural character of the coastal environment; or

b) the use is consistent with, and does not compromise the characteristics and qualities.

CE-P7 Provide for the use of Māori Purpose zoned land and Treaty Settlement land in the coastal environment where:

a) the use is consistent with the ancestral use of that land; and

b) the use does not compromise any identified characteristics and qualities.'

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

CE-P9 Prohibit land use and subdivision that would result in any loss and/or destruction of the characteristics and qualities in outstanding natural character areas.

CE-P10 Manage land use and subdivision to preserve and protect the natural character of

the coastal environment, and to address the effects of the activity requiring resource consent, including (but not limited to) consideration of the following matters where relevant to the application:

a) the presence or absence of buildings, structures or infrastructure;

b) the temporary or permanent nature of any adverse effects;

c) the location, scale and design of any proposed development;

d) any means of integrating the building, structure or activity;

e) the ability of the environment to absorb change;

f) the need for and location of earthworks or vegetation clearance;

g) the operational or functional need of any regionally significant infrastructure to be

sited in the particular location;

h) any viable alternative locations for the activity or development;

i) any historical, spiritual or cultural association held by tangata whenua, with regard to

the matters set out in Policy TW-P6;

j) the likelihood of the activity exacerbating natural hazards;



- k) the opportunity to enhance public access and recreation;*
- l) the ability to improve the overall quality of coastal waters; and*
- m) any positive contribution the development has on the characteristics and qualities.*

- 8.11.8. The site is located near Kerikeri Inlet which is a harbour, lined with mangroves and volcanic rock. The site is located within the coastal environment. The natural character of the site has a coastal amenity and character. The proposal will result in one dwelling and associated infrastructure being contained on the site, with the majority of the dwelling being contained within the approved building envelope, apart from two minor areas as discussed within this application. The subject site has existing landscaping requirements which will be adhered to.
- 8.11.9. The site is not mapped as Outstanding Natural Character, ONL or ONF within the Proposed District Plan maps. The dwelling will be finished in natural and recessive colours to further integrate the dwelling into the environment.
- 8.11.10. The site is located within a coastal area with a pattern of moderate residential development. The proposal is not considered to create any patterns of sporadic development. The development is for a residential activity which is intended by the plan being Rural Lifestyle Zone (proposed).
- 8.11.11. The proposal includes on-site water tanks to provide potable water, firefighting water supply and also manages stormwater onsite. The development is consistent with the land use activities occurring on sites in a similar setting. Mitigation measures have been included such as the landscaping plan to ensure the development does not compromise the characteristics and qualities of the coastal environment.
- 8.11.12. The activity is not for a farming activity.
- 8.11.13. The site is not zoned as Māori Purpose Land.
- 8.11.14. The dwelling will be finished in natural and recessive colours to integrate the development into the surrounding environment. In addition, the landscaping plan prepared for the site as part of RC 2200263 will remain.
- 8.11.15. The development will be finished in natural and recessive colours to integrate the building into the natural environment. In addition, extensive landscaping has/will be carried out, to soften the development. The scale and bulk of the development which will be visual to the public is consistent with the surrounding development along Kerikeri Inlet. It is considered that the proposed development will be easily absorbed into the existing environment when viewed from public areas and does not appear to be visually dominating or obtrusive, as there is a pattern of development along the coastline of Kerikeri inlet. This will be further integrated as the surrounding allotments are developed.



- 8.11.16. Under the Proposed District Plan, the site is zoned Rural lifestyle and sits within the Coastal Environment overlay. The proposal is considered to create no more than minor adverse effects on the surrounding environment and is consistent with the intent of the surrounding environment and the zone. The proposal is consistent with the objectives and policies of the Proposed District Plan within the Coastal Environment.

Summary

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

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

Public Notification Assessment

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

Step 1 Mandatory public notification in certain circumstances

An application must be publicly notified if, under section 95A(3), it meets any of the following criteria:

(a) the applicant has requested that the application be publicly notified;

(b) public notification is required under section 95C;

(c) the application is made jointly with an application to exchange recreation reserve land under section 15AA of the Reserves Act 1977.

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

Step 2: Public Notification precluded in certain circumstances

(4) Determine whether the application meets either of the criteria set out in subsection (5) and,—

(a) if the answer is yes, go to step 4 (step 3 does not apply); and

(b) if the answer is no, go to step 3.

(5) The criteria for step 2 are as follows:

(a) the application is for a resource consent for 1 or more activities, and each activity is subject to a rule or national environmental standard that precludes public notification;

(b) the application is for a resource consent for 1 or more of the following, but no other, activities:

(i) a controlled activity;

(ii) [Repealed]

(iii) a restricted discretionary, discretionary, or non-complying activity, but only if the activity is a boundary activity.

(iv) [Repealed]

(6) [Repealed]



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

Step 3: Public Notification required in certain circumstances

(7) Determine whether the application meets either of the criteria set out in subsection (8) and,—

(a) if the answer is yes, publicly notify the application; and

(b) if the answer is no, go to step 4.

(8) The criteria for step 3 are as follows:

(a) the application is for a resource consent for 1 or more activities, and any of those activities is subject to a rule or national environmental standard that requires public notification:

(b) the consent authority decides, in accordance with section 95D, that the activity will have or is likely to have adverse effects on the environment that are more than minor.

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

Step 4: Public notification in special circumstances

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

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

Public Notification Summary

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

Limited Notification Assessment

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

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

(2) Determine whether there are any—

(a) affected protected customary rights groups; or

(b) affected customary marine title groups (in the case of an application for a resource consent for an accommodated activity).

(3) Determine—



*(a) whether the proposed activity is on or adjacent to, or may affect, land that is the subject of a statutory acknowledgement made in accordance with an Act specified in Schedule 11; and
(b) whether the person to whom the statutory acknowledgement is made is an affected person under section 95E.*

(4) Notify the application to each affected group identified under subsection (2) and each affected person identified under subsection (3).

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

Step 2: Limited notification precluded in certain circumstances

(5) Determine whether the application meets either of the criteria set out in subsection (6) and,—

(a) if the answer is yes, go to step 4 (step 3 does not apply); and

(b) if the answer is no, go to step 3.

(6) The criteria for step 2 are as follows:

(a) the application is for a resource consent for 1 or more activities, and each activity is subject to a rule or national environmental standard that precludes limited notification:

(b) the application is for a controlled activity (but no other activities) that requires a resource consent under a district plan (other than a subdivision of land).

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

Step 3: Certain other affected persons must be notified

(7) In the case of a boundary activity, determine in accordance with section 95E whether an owner of an allotment with an infringed boundary is an affected person.

(8) In the case of any other activity, determine whether a person is an affected person in accordance with section 95E.

(9) Notify each affected person identified under subsections (7) and (8) of the application. The proposal is not for a boundary activity nor is it a prescribed activity.

- 9.2.3. The proposal does include a boundary activity.

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

(2) The consent authority, in assessing an activity's adverse effects on a person for the purpose of this section,—

(a) may disregard an adverse effect of the activity on the person if a rule or a national environmental standard permits an activity with that effect; and

(b) must, if the activity is a controlled activity or a restricted discretionary activity, disregard an adverse effect of the activity on the person if the effect does not relate to a matter for which a rule or a national environmental standard reserves control or restricts discretion; and

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



- 9.2.4. A council must not consider that a person is affected if they have given their written approval, or it is unreasonable in the circumstances to seek that person's approval.
- 9.2.5. The proposal results in the southeastern corner of the dwelling being within 10 metres from the boundary which adjoins the existing metal driveway to the site, which forms part of a right of way. This portion of the dwelling is located within the approved building envelope and will be screened by existing landscaping. This portion of the dwelling will be utilised as a garage and is not considered to create any adverse effects in terms of visual dominance or loss of privacy and sunlight on adjoining lots as has been discussed within this report.
- 9.2.6. As such, effects from the boundary infringement are considered to be less than minor on adjoining allotments such that no written approvals have been obtained.
- 9.2.7. HNZPT were contacted as part of this proposal, who recommended the proposal proceed under the guidance of an ADP. The representative of Te Uri Taniwha has also been contacted with no response received to date. Any updates on correspondence will be provided to the Processing Planner.
- 9.2.8. With respect to section 95B(8) and section 95E, the permitted baseline was considered as part of the assessment of environmental effects undertaken in Section 6 of this report, which found that the potential adverse effects on the environment will be less than minor. In regard to effects on persons, the assessment in Sections 6, 7 & 8 are also relied on and the following comments made:
- The proposed dwelling is consistent with the intention of the site and will utilise mitigation measures to integrate the proposed building into the surrounding environment.
 - No indigenous vegetation clearance is required as part of the proposal.
 - Stormwater runoff can be adequately managed within the site boundaries.
 - The proposal is not considered to create any adverse effects within the site nor on any adjoining sites.
 - The proposal is not considered to be contrary to the objectives and policies under the District Plan and Regional Policy Statement.
 - All other persons are sufficiently separated from the proposed development and works, such that there will be no effects on these people.
- 9.2.9. Therefore, no persons will be affected to a minor or more than minor degree.
- 9.2.10. Overall, the adverse effects on any persons are considered to be no more than minor. Therefore Step 3 does not apply and Step 4 must be considered.

Step 4: Further notification in special circumstances

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



9.2.11. The proposal is to construct a residential unit on the site. It is considered that no special circumstances exist in relation to the application.

Limited Notification Assessment Summary

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

10. Part 2 Assessment

- 10.1. The application must be considered in relation to the purpose and principles of the Resource Management Act 1991 which are contained in Section 5 to 8 of the Act inclusive.
- 10.2. The proposal will meet Section 5 of the RMA as the proposal will sustain the potential of natural and physical resource whilst meeting the foreseeable needs of future generations as the site is being used for its intended use. In addition, the proposal will avoid adverse effects on the environment and will maintain the character of the site and surrounding environment.
- 10.3. Section 6 of the Act sets out a number of matters of national importance. The subject site is located within the coastal environment under the RPS. The proposed development will have a roof area of 409m² and all stormwater runoff will be managed by being directed to a multiple water tanks, with overflow being directed to a level spreader. Effluent disposal will be managed by a new onsite wastewater system. Public access is not considered relevant to this application. There is an existing esplanade strip between the development area and the CMA which will remain unaffected. The proposal has taken into account the relationship of Māori and their culture and traditions, and it is considered that the proposal will not create any adverse effects on Māori and their relationships with their ancestral lands, water, sites, waahi tapu and other taonga. The subject site is also not known to contain any historical or culturally significant sites as discussed within this application and the proposal will proceed under the guidance of an ADP. The NRC Hazard Maps show that some of the lower elevations of the site are susceptible to flood hazards, however the proposed development will not be located within these areas and therefore does not increase the risk to human life and the environment.
- 10.4. Section 7 identifies a number of “other matters” to be given particular regard by a Council in the consideration of any assessment for resource consent, including the maintenance and enhancement of amenity values. The proposal maintains amenity values in the area as the proposal is in keeping with the existing character of the surrounding environment. The proposal also maintains and enhances the quality of the environment.
- 10.5. Section 8 requires Council to take into account the principals of the Treaty of Waitangi. It is considered that the proposal raises no Treaty issues. The subject site is not located within an area of significance to Māori. Te Uri Taniwha have been contacted as part of the pre-application process with no response received to date. The proposal has taken into account



the principals of the Treaty of Waitangi, and is not considered to be contrary to these principals.

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

11. Conclusion

- 11.1. The proposed development is considered consistent with the intention of the surrounding environment. Stormwater management will be adequately managed within the site boundaries and is considered to have less than minor effects on the wetland within the site. An onsite wastewater system is also proposed, which is also considered to not create any adverse effects on the environment.
- 11.2. The development has had special consideration towards the design, colour, material and landscaping to ensure the development can be effectively absorbed into the natural environment.
- 11.3. No significant adverse effects are anticipated to arise from the activity included in the application and no consideration of alternatives has been undertaken. All effects of the activity are being managed within the property boundaries. Overall, it is considered that the proposal will result in no more than minor effects on the environment.
- 11.4. In terms of section 104(1)(a) of the Act, the actual and potential effects of the proposal will be less than minor. The relevant provisions within Part 2 of the Act have been addressed as part of this application. The overall conclusion from the assessment of the statutory considerations is that the proposal is considered to be consistent with the sustainable management purpose of the Resource Management Act 1991.
- 11.5. It is also considered that the proposal will have less than minor adverse effects on the wider environment; no persons will be adversely affected by the proposal and there are no special circumstances.
- 11.6. In terms of section 104(1)(b) of the Act, the proposal is found to be generally consistent with the objectives, policies and assessment criteria of the relevant statutory documents as set out in this report.
- 11.7. As a Discretionary Activity, the application has been assessed under the matters specified under Section 104 and 104B of the Resource Management Act 1991. It is considered that the proposal results in no more than minor effects on the environment. It is considered appropriate for consent to be granted on a non-notified basis, subject to fair and reasonable conditions.



12. Limitations

- 12.1. This report has been commissioned solely for the benefit of our client, in relation to the project as described above, and to the limits of our engagement, with the exception that the Far North District Council or Northland Regional Council may rely on it to the extent of its appropriateness, conditions and limitations, when issuing their subject consent.
- 12.2. Copyright of Intellectual Property remains with Northland Planning and Development 2020 Limited, and this report may NOT be used by any other entity, or for any other proposals, without our written consent. Therefore, no liability is accepted by this firm or any of its directors, servants or agents, in respect of any information contained within this report.
- 12.3. Where other parties may wish to rely on it, whether for the same or different proposals, this permission may be extended, subject to our satisfactory review of their interpretation of the report.
- 12.4. Although this report may be submitted to a local authority in connection with an application for a consent, permission, approval, or pursuant to any other requirement of law, this disclaimer shall still apply and require all other parties to use due diligence where necessary.





**RECORD OF TITLE
UNDER LAND TRANSFER ACT 2017
FREEHOLD**

**Guaranteed Search Copy issued under Section 60 of the Land
Transfer Act 2017**




R.W. Muir
Registrar-General
of Land

Identifier **1074180**
Land Registration District **North Auckland**
Date Issued 26 October 2023

Prior References

NA101C/992

Estate Fee Simple
Area 1.5470 hectares more or less
Legal Description Lot 3 Deposited Plan 579108

Registered Owners

Katrina Shaw and Michael Paul Shaw

Interests

All minerals within the meaning of the Land Act 1924 on or under the land and reserving always to Her Majesty the Queen and all persons lawfully entitled to work the said minerals a right of ingress egress and regress over the said land

Appurtenant to part formerly Part Lot 1 DP 107204 is an electricity supply right specified in Easement Certificate B578021.4 - 8.9.1986 at 1:32 pm

The easements specified in Easement Certificate B578021.4 are subject to Section 309 (1) (a) Local Government Act 1974

Appurtenant hereto is a right of way, and telecommunications and electricity rights specified in Easement Certificate C871824.10 - 31.7.1995 at 2.34 pm

The easements specified in Easement Certificate C871824.10 are subject to Section 243 (a) Resource Management Act 1991

Land Covenant in Deed D088754.3 - 20.1.1997 at 1.26 pm

D088754.4 Variation of the easements specified in Easement Certificate C871824.10 - 20.1.1997 at 1.26 pm

Land Covenant in Transfer D587086.2 - 14.3.2001 at 11.04 am

Appurtenant hereto is a right of way, and telecommunications and electricity rights created by Transfer D587086.4 - 14.3.2001 at 11.04 am

9315062.1 Surrender of Land Covenant D088754.3 as to the benefit of Part Lot 1 DP 442820 formerly contained in NA101C/993 - 8.3.2013 at 11:39 am

12736076.5 Consent Notice pursuant to Section 221 Resource Management Act 1991 - 26.10.2023 at 4:16 pm

12736076.6 Esplanade Strip Instrument pursuant to Section 232 Resource Management Act 1991 - 26.10.2023 at 4:16 pm

Appurtenant hereto is a right of way and right to convey electricity and telecommunications created by Easement Instrument 12736076.8 - 26.10.2023 at 4:16 pm

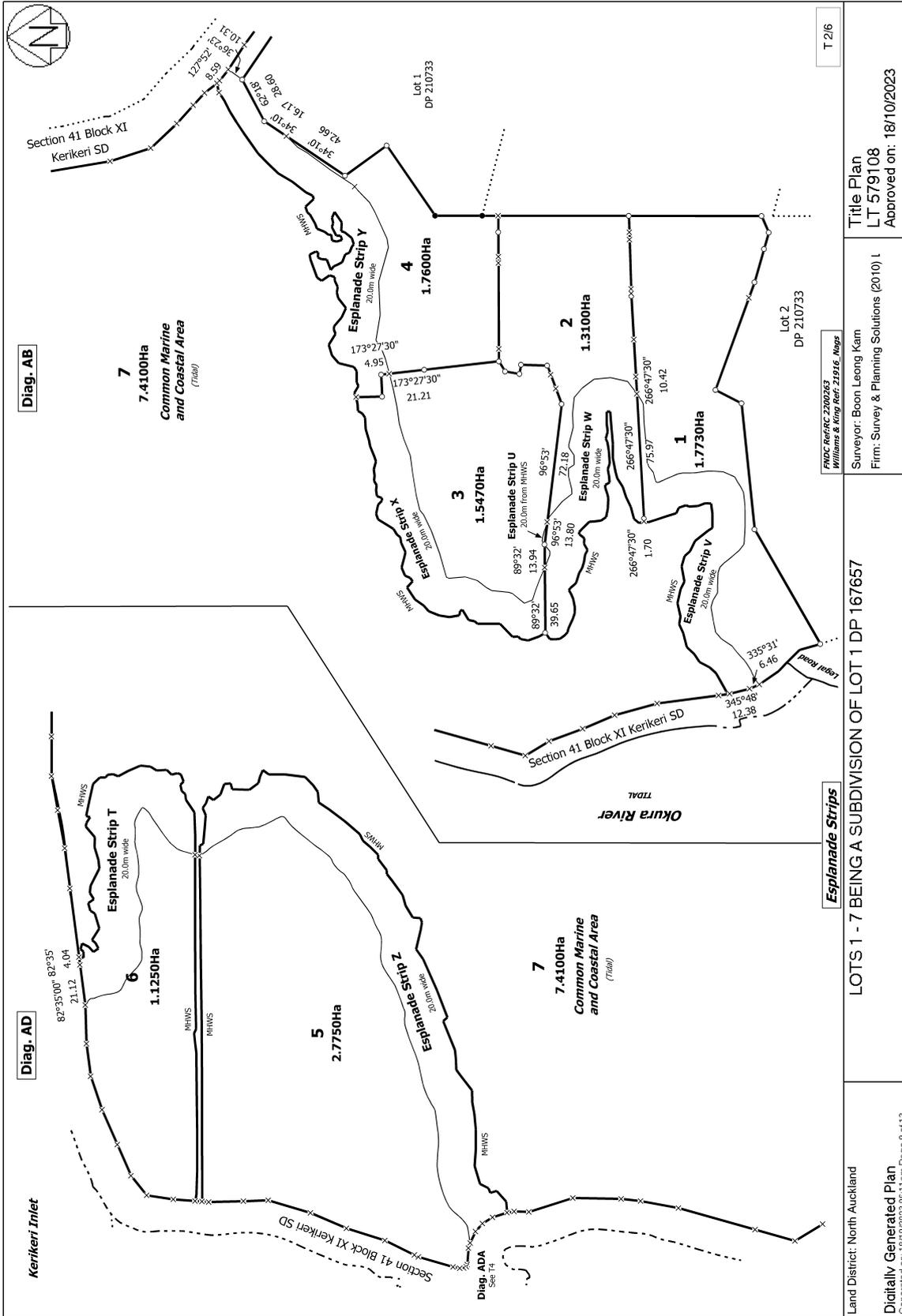
The easements created by Easement Instrument 12736076.8 are subject to Section 243 (a) Resource Management Act 1991

Subject to a right to drain water over part marked KA on DP 579108 created by Easement Instrument 12736076.9 - 26.10.2023 at 4:16 pm

Appurtenant hereto is a right to drain water created by Easement Instrument 12736076.9 - 26.10.2023 at 4:16 pm

Land Covenant in Covenant Instrument 12736076.11 - 26.10.2023 at 4:16 pm

13052651.3 Mortgage to Westpac New Zealand Limited - 15.7.2024 at 2:38 pm



Diag. AB

Diag. AD

MVIC Ref: 2200265
 MVL Ref: 21916 Regs

Esplanade Strips

Land District: North Auckland

Title Plan
 LT 579108
 Approved on: 18/10/2023

LOTS 1 - 7 BEING A SUBDIVISION OF LOT 1 DP 167657

Digitally Generated Plan
 Generated on: 18/10/2023 10:11 am Page 6 of 13

Surveyor: Boon Leong Kam
 Firm: Survey & Planning Solutions (2010) L

View Instrument Details



Instrument No 12736076.5
Status Registered
Date & Time Lodged 26 October 2023 16:16
Lodged By Kelly, Sarah Jane
Instrument Type Consent Notice under s221(4)(a) Resource Management Act 1991



Affected Records of Title	Land District
1074178	North Auckland
1074179	North Auckland
1074180	North Auckland
1074181	North Auckland

Annexure Schedule Contains 4 Pages.

Signature

Signed by Sophia Louise Waller as Territorial Authority Representative on 26/10/2023 03:29 PM

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



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THE RESOURCE MANAGEMENT ACT 1991

SECTION 221: CONSENT NOTICE

REGARDING RC-2200263-RMAVAR/B

Being the Subdivision of LOT 1 DP 167657 LOT 2 DP 442820 HAVING 1/3 SH IN LOT 4 DP
167657
North Auckland Registry

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

SCHEDULE

All Lots DP 579108

- (i) In conjunction with the construction of any building which includes a wastewater treatment & effluent disposal system the applicant shall submit for Council approval an onsite wastewater system Report prepared by a Chartered Professional Engineer due to presence of acid soils. The report shall reference the Engineering report dated October 2019 prepared by Haigh Workman Ltd, ref 17 229, submitted with Resource Consent 2200263, and identify a suitable method of wastewater treatment to at least a secondary level (as defined in AS/NZS 1546.3:2003) for the proposed development along with an identified effluent disposal area plus a reserve disposal area.
- (ii) In conjunction with the construction of any dwelling, and in addition to a potable water supply, a water collection system with sufficient supply for fire fighting purposes is to be provided by way of tank or other approved means and to be positioned so that it is safely accessible for this purpose. These provisions will be in accordance with the New Zealand Fire Fighting Water Supply Code of Practice SNZ PAS 4509.
- (iii) Allotments contain areas subject to inundation, wherein there is a potential risk to life, property and the environment due to climate change and natural coastal processes. Any development intended to be undertaken outside of the building envelopes may require an engineer's report and/or resource consent from the Council.



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- (iv) In conjunction with the construction of any building requiring building consent on the allotment, the lot owner shall submit in conjunction with obtaining a Building Consent for the approval of Council a storm water assessment report prepared by a suitably qualified practitioner, that details the control of stormwater discharge, is adequately dispersed or dissipated from development to limit damage to adjacent wetland and tidal areas, and references the Engineering report dated October 2019 prepared by Haigh Workman Ltd, ref 17 229, submitted with Resource Consent 2200263.
- (v) All buildings shall comply with the following visual amenity mitigations:
- "Maximum finished roof levels shall not exceed a height of 6.0m above the finished ground level of the building platform. This height limit is to preclude any level stepping or modulation of development measured using the Rolling Height Method or Mean Ground Level Method within the current District Plan. Furthermore, the maximum finished roof level shall not exceed the levels specified in condition 4(c) of RC 2200263, which are listed below:
- Lot 1: 20.5m
Lot 2: 18.5m
Lot 3: 12.5m
Lot 4: 12.0m
- All surface accesses that are permanent surfaces shall incorporate 4% by volume of cement black oxide or have a black stain applied by spray within two months of pouring. Alternatively, permanent accesses shall be surfaced in black hotmix.
 - All informally surfaced access ways shall be finished in black aggregate.
 - Roof colours shall be limited to 20% light reflectance value, and
 - Façade finishes shall be limited to 30% light reflectance value, and all natural materials such as timber and stone shall fall within the above values.
 - No mirror glazing shall be utilized.
- (vi) The landscape planting on the lots was established as part of the subdivision conditions of RC 2200263 in accordance with the report prepared by Littoralis Landscape Architecture, referenced: Proposed subdivision at Kerikeri Inlet Road, Kerikeri; Assessment of Landscape, Visual, Rural Amenity and Natural Character Effects' dated June 2018. All planting shall be maintained in perpetuity. Plants requiring removal due to damage, disease or other cause shall be replaced with a similar specimen before the end of the following planting season (April to August inclusive).



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- (vii) The pest and weed eradication management plan to protect the native vegetation and the native habitats shall be observed and continued by the landowners. The plan shall not cease or be amended without the express permission of Council.
- (viii) The lot is identified as being within a kiwi present zone. Any cats and/or dogs kept onsite must be kept inside and/or tied up at night to reduce the risk of predation of North Island brown kiwi by domestic cats and dogs.
- (ix) Prior to the commencement on any earthworks works required on site the lot owner shall contact a representative of Te Uri Taniwha hapu (contact details can be obtained from Far North District Council) to ensure that a Tangata Whenua representative has the option of being present during any such works. If during the course of undertaking site works there is a discovery made of any archaeological find or suspected find, the work on that portion of the site should cease immediately and the representative will advise as to appropriate protocol to be followed.
- (x) The management plan to protect the native vegetation and the native habitats shall be observed and continued by the landowners. The plan shall not cease or be amended without the express permission of Council.

Lots 1 and 2 DP 579108

- (xi) All building design shall reference Engineering report dated October 2019 prepared by Haigh Workman Ltd, ref 17 229, submitted with Resource Consent 2200263. Establishment of ground suitability for construction will be required prior to works commencing.

Lots 3 and 4 DP 579108

- (xii) All buildings will require foundations specifically designed by a Chartered Professional Engineer and referencing Engineering report dated October 2019 prepared by Haigh Workman Ltd, ref 17 229, submitted with Resource Consent 2200263. The foundation design details shall be submitted in conjunction with the Building Consent application.

Lots 1-3 DP 579108

- (xiii) All building shall be located within the building envelope shown on the plan provided to satisfy condition 3(b) of RC 2200263-RMAVAR/A.

Lots 4, 5 and 6 DP 579108

- (xiv) All habitable buildings on the Record of Title comprising Lots 4, 5 and 6 shall be located within the building envelope shown on the plan provided to satisfy condition 3(b) of RC 2200263-RMAVAR/A.



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- (xv) The owner shall preserve the indigenous trees and bush within areas O and M, and shall not without the prior written consent of the Council and then only in strict compliance with any conditions imposed by the Council, cut down, damage or destroy any of such trees or bush. The owner shall be deemed to be not in breach of this prohibition if any of such trees or bush shall die from natural causes not attributable to any act or default by or on behalf of the owner or for which the owner is responsible.

Lot 1 DP 579108

- (xvi) The owner shall preserve the indigenous trees and bush shown as area P on the survey plan and shall not without the prior written consent of the Council and then only in strict compliance with any conditions imposed by the Council, cut down, damage or destroy any of such trees or bush. The owner shall be deemed to be not in breach of this prohibition if any of such trees or bush shall die from natural causes not attributable to any act or default by or on behalf of the owner or for which the owner is responsible.

SIGNED:

A handwritten signature in black ink, appearing to be 'SMcLean'.

Mr Simeon Alistair McLean - Authorised Officer

By the FAR NORTH DISTRICT COUNCIL

Under delegated authority:

TEAM LEADER – RESOURCE CONSENTS

DATED at KERIKERI this 20th day of October 2023

View Instrument Details



Instrument No 12736076.6
Status Registered
Date & Time Lodged 26 October 2023 16:16
Lodged By Kelly, Sarah Jane
Instrument Type Esplanade Strip under Resource Management Act 1991



Affected Records of Title	Land District
1074178	North Auckland
1074179	North Auckland
1074180	North Auckland
1074181	North Auckland

Annexure Schedule Contains 6 Pages.

Territorial Authority Certifications

- I certify that I have the authority to act for the Territorial Authority and that the party has the legal capacity to authorise me to lodge this instrument
- I certify that I have taken reasonable steps to confirm the identity of the person who gave me authority to lodge this instrument
- I certify that any statutory provisions specified by the Registrar for this class of instrument have been complied with or do not apply
- I certify that I hold evidence showing the truth of the certifications I have given and will retain that evidence for the prescribed period

Signature

Signed by Sophia Louise Waller as Territorial Authority Representative on 20/11/2023 08:31 AM

Registered Owner Certifications

- I certify that I have the authority to act for the Registered Owner and that the party has the legal capacity to authorise me to lodge this instrument
- I certify that I have taken reasonable steps to confirm the identity of the person who gave me authority to lodge this instrument
- I certify that any statutory provisions specified by the Registrar for this class of instrument have been complied with or do not apply
- I certify that I hold evidence showing the truth of the certifications I have given and will retain that evidence for the prescribed period
- I certify that the Mortgagee under Mortgage 11727318.1 has consented to this transaction and I hold that consent

Signature

Signed by Sophia Louise Waller as Registered Owner Representative on 20/11/2023 08:31 AM

*** End of Report ***

Form 31

Instrument creating esplanade strip

Sections 232 and 235, Resource Management Act 1991

Background

1. Nags Head Horse Hotel Limited, duly incorporated company number 693824 (the Grantor) is registered as proprietor of the land described in Schedule A (the land).
2. Far North District Council (the Grantee) is a local authority (within the meaning of the Local Government Act 2002) in whose district the land is located.

Creation of esplanade strip

3. The Grantor creates in favour of the Grantee an esplanade strip as more particularly described in Schedule B (the strip) for the purposes of:
 - (a) Contributing to the protection of conservation values by maintaining or enhancing the strip; and
 - (b) Subject to the provisions contained in this instrument, enabling pedestrian access to or along the stripand in accordance with section 232 and 235 of the Resource Management Act 1991.
4. Notwithstanding paragraph 3, nothing in this instrument shall in any way restrict, alter, or constrain the rights of the owner and occupier of the land to continue to use and enjoy the strip.
5. For the purposes of this instrument, the words **owner** and **occupier** refers to the registered owner for the time being of the land and includes any employees or agents authorised by the owner or occupier.

Covenants

6. The following acts are prohibited on the land over which the strip has been created:
 - (a) Wilfully endangering, disturbing, or annoying any lawful user (including the owner or occupier) of the strip;
 - (b) Wilfully damaging or interfering with any structure adjoining or on the land, including any building, fence, gate, stile, marker, bridge, or notice; and
 - (c) Wilfully interfering with or disturbing any livestock lawfully permitted on the strip.
7. The prohibitions referred to in paragraphs 6(b) and (c) do not apply to the owner or occupier of the strip.
8. The following acts are also prohibited on the land over which the strip has been created:
 - (a) Lighting any fire;
 - (b) Carrying any firearm;
 - (c) Discharging or shooting any firearm;
 - (d) Camping;
 - (e) Taking an animal on to, or having charge of an animal on, the land;

S.L

- (f) Taking any vehicle on to, or driving or having charge or control of any vehicle on, the land (whether the vehicle is motorised or non-motorised);
 - (g) Wilfully damaging or removing any plant (unless acting in accordance with the Biosecurity Act 1993);
 - (h) Laying any poison or setting a snare or trap (unless acting in accordance with the Biosecurity Act 1993).
9. The following other restrictions apply on the land over which the strip has been created:
- (a) Notwithstanding the provisions contained in this instrument, access for the purposes of moving livestock and the use of farm vehicles are permitted over the areas marked Esplanade Strip Y on Lot 4 Deposited Plan 579108, Esplanade Strip Z on Lot 5 Deposited Plan 579108 and Esplanade Strip T on Lot 6 Deposited Plan 579108 by the owner and occupier.
 - (b) Notwithstanding the provisions contained in this instrument, the creation of a certain easement for Right to Drain Water over the area marked I on Deposited Plan 579108 pursuant to Easement Instrument 12736076.7 is permitted on the basis that the said easement shall not prevent reasonable pedestrian access along the area marked Esplanade Strip Y on Lot 4 Deposited Plan 579108.
 - (c) Notwithstanding the provisions contained in this instrument, the removal of vegetation on the land over which the strip has been created is permitted for the purpose of enabling pedestrian access.
10. The following fencing requirements apply to the strip:
- (a) Any fencing which will restrict pedestrian access to the strip during the hours of 7am to 8pm is prohibited.
 - (b) The owner or occupier shall be under no obligation to fence the boundaries of the strip, subject to any specific fencing obligations imposed as a condition of Resource Consent 2200263-RMAVAR/A.
11. Pedestrian access to the strip is on the following terms:
- (a) Any person shall have the right, during the hours of 7am – 8pm, to pass and repass over and along the land over which the strip has been created, subject to any other provisions contained in this instrument.
12. The owner or occupier may close to public access the areas marked Esplanade Strip Y on Lot 4 Deposited Plan 579108, Esplanade Strip Z on Lot 5 Deposited Plan 579108 and Esplanade Strip T on Lot 6 Deposited Plan 579108 at the following times and for the following purposes:
- (a) While livestock are being moved across the said strip;
 - (b) At any other times when normal farm activities could cause a risk to the public or the public could cause a risk to livestock or farming equipment.
13. Responsibility for notifying the public of the closure of the strip as set out in paragraph 12 of this instrument is by the owner or occupier of Lot 4 Deposited Plan 579108, Lot 5 Deposited Plan 579108 and Lot 6 Deposited Plan 579108 as follows:

C.L
83

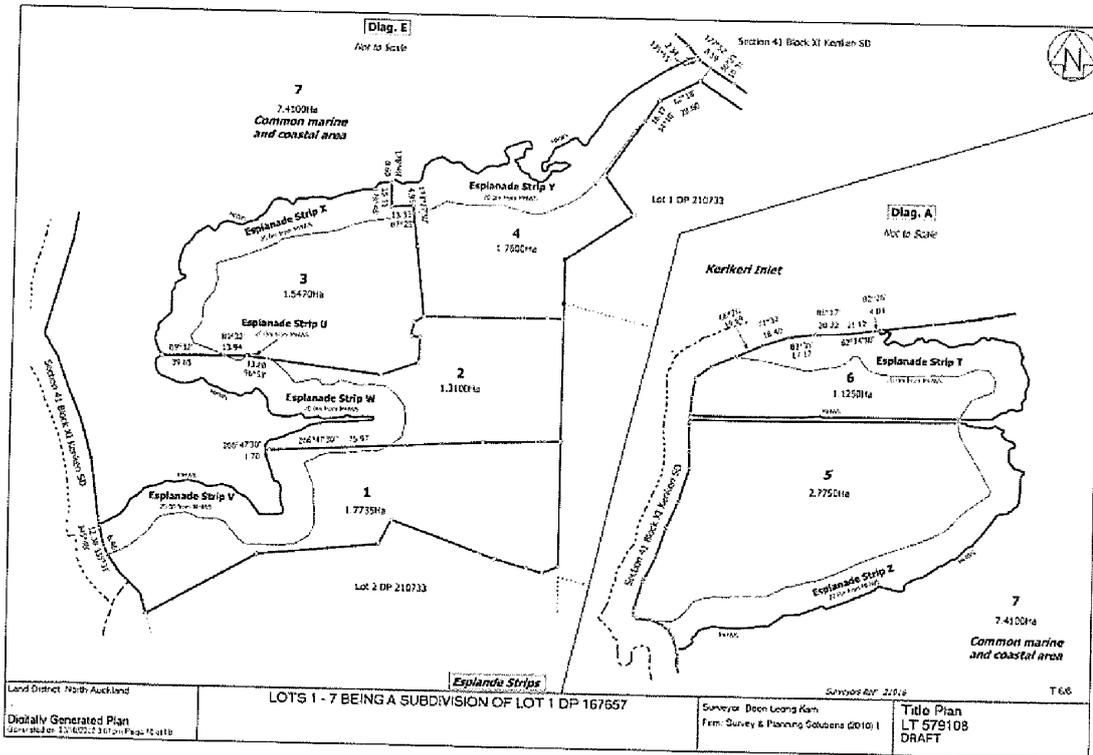
Schedule A

Lot 1 Deposited Plan 579108 contained in Record of Title 1074178
 Lot 2 Deposited Plan 579108 contained in Record of Title 1074179
 Lot 3 Deposited Plan 579108 contained in Record of Title 1074180
 Lots 4, 5 and 6 Deposited Plan 579108 contained in Record of Title 1074181

Schedule B

20 metre wide esplanade reserve over the areas of land marked and shown below:

- "Esplanade Strip T" in respect of Lot 6 Deposited Plan 579108
- "Esplanade Strip U" in respect of Lot 3 Deposited Plan 579108
- "Esplanade Strip V" in respect of Lot 1 Deposited Plan 579108
- "Esplanade Strip W" in respect of Lot 2 Deposited Plan 579108
- "Esplanade Strip X" in respect of Lot 3 Deposited Plan 579108
- "Esplanade Strip Y" in respect of Lot 4 Deposited Plan 579108
- "Esplanade Strip Z" in respect of Lot 5 Deposited Plan 579108



S.L.

(a) Notification will be given by erecting signs at all entry points to the said strip.

Signed by Sarah Jane Noble Lowndes as
Director of Nags Head Horse Hotel Limited:

[Signature]
Signature of Witness

S. Lowndes
Sarah Jane Noble Lowndes

KIM ROUSE JENNINGS
Full name of Witness

HOUSE WIFE
Occupation

Executed by Grantee
Far North District Council
under delegated Authority

J. Smith
Signature

Janice Smith - Acting Chief Executive
Name and Title

Date: 22nd May 2028

86
4

FOR CLARITY

(a) Notification will be given by erecting signs at all entry points to the said strip.

Signed by Sarah Jane Noble Lowndes as
Director of Nags Head Horse Hotel Limited:

S. Lowndes

Sarah Jane Noble Lowndes

K. Mollay
Signature of Witness

KIM LOUISE PITKETHLEY
Full name of Witness

HOUSE KEEPER
Occupation

Executed by Grantee
Far North District Council
under delegated Authority

.....
Signature

.....
Name and Title

Date: *22rd May 2023*

SL

View Instrument Details



Instrument No 12736076.11
Status Registered
Date & Time Lodged 26 October 2023 16:16
Lodged By Kelly, Sarah Jane
Instrument Type Land Covenant under s116(1)(a) or (b) Land Transfer Act 2017



Affected Records of Title	Land District
1074178	North Auckland
1074179	North Auckland
1074180	North Auckland
1074181	North Auckland

Annexure Schedule Contains 3 Pages.

Covenantor Certifications

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

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

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

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

Signature

Signed by Sophia Louise Waller as Covenantor Representative on 26/10/2023 03:54 PM

Covenantee Certifications

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

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

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

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

Signature

Signed by Sophia Louise Waller as Covenantee Representative on 26/10/2023 03:54 PM

*** End of Report ***

Annexure Schedule

Page 2 of 3 Pages

2015/5049 APPROVED Registrar-General of Land

Insert instrument type

--

Continue in additional Annexure Schedule, if required

1. Restrictions on use

The Covenantor covenants with the Covenantee the benefit of which is intended to be annexed to the Benefited Land that the Covenantor as registered owner of the Burdened Land will:

- 1.1 Not place or erect on the Burdened Land any building or dwelling other than a new building or dwelling and minor household unit and usual appurtenances without the express written consent of the Covenantee. For the purposes of this covenant a new dwelling shall include and mean any new transportable dwelling (but excluding any second hand/used dwelling) transported to and properly sited on the Burdened Land.
- 1.2 Not place any second hand, relocated or relocatable dwelling on the Burdened Land without the express written consent of the Covenantee.
- 1.3 Complete the construction of any dwelling on the Burdened Land or any other building or structure and the landscaping thereof within a period of thirty six (36) months from commencement of construction.
- 1.4 Not permit any rubbish to accumulate or to be placed upon the Burdened Land nor to otherwise allow the Burdened Land to become unsightly.
- 1.5 At all times keep the Burdened Land clear of all noxious weeds, including but not limited to gorse and thistles.
- 1.6 Not use the Burdened Land or any building, dwelling or ancillary structure or permit the same to be used for trading, industrial or commercial (excluding home office usage) purposes including (without limitation) use as a brothel, storage facility, boarding house, transport yard, contractors yard, piggery, cattery, boarding kennels for dogs or other animals or for commercial poultry purposes or for any other purpose which shall prove noxious or offensive to the owner of the Benefited Land.
- 1.7 Not object to any farming activities and to any adverse effects which may arise from such activities carried out on the Benefited Land.

2. Remedies for breach

If there shall be any breach or non-observance of any of the covenants then, without prejudice to any other right:

- 2.1 The Covenantor shall upon demand pay to the Covenantee as liquidated damages, the sum of \$100.00 per day for each day that such breach or non-observance continues unremedied for ten (10) days after the date upon which written demand to remedy such breach or non-observance has been made; and

<p>If this annexure schedule is used as an expansion of an instrument, all signing parties and either their witnesses or solicitors must sign or initial in this box.</p>

Annexure Schedule

Page 3 of 3 Pages

2015/5049
APPROVED
Registrar-General of Land

Insert instrument type

Continue in additional Annexure Schedule, if required

2.2 Remove or cause to be removed from the Burdened Land any improvement or structure or part of a structure or chattels, machinery, equipment, livestock erected, placed or located on the Burdened Land in breach or non-observance of the covenants.

3. Expiry of covenants

Clauses 1.1, 1.2 and 1.3 herein shall cease to have effect twenty (20) years from the date of registration of this instrument.

If this annexure schedule is used as an expansion of an instrument, all signing parties and either their witnesses or solicitors must sign or initial in this box.

D587086.2 TE

TRANSFER
Land Transfer Act 1952



If there is not enough space in any of the panels below, the two page form incorporating the Annexure Schedule should be used: no other format will be received.

Land Registration District

NORTH AUCKLAND

Certificate of Title No. All or Part? Area and legal description -- *Insert only when part or Stratum, CT*

101C	992	All	
------	-----	-----	--

Transferor Surnames must be underlined or in CAPITALS

GOOD MOVE NZ PROPERTY CO LIMITED

Transferee Surnames must be underlined or in CAPITALS

Bruce Gordon FENTON and Pamela Frances FENTON

Estate or Interest or Easement to be created: *Insert e.g. Fee simple; Leasehold in Lease No; Right of way etc.*

Easements of Right of Way and Right to Convey Electricity and Telecommunications (contained on page 2 annexure schedule)

Consideration

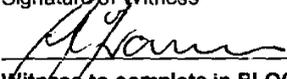
\$1.00

Operative Clause

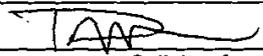
For the above consideration (receipt of which is acknowledged) the TRANSFEROR TRANSFERS to the TRANSFEE all the transferor's estate and interest described above in the land in the above Certificate(s) of Title and if an easement is described above such is granted or created.

Dated this 23 day of February 2001

Attestation

 MK Lourdes Signature, or common seal of Transferor	Signed in my presence by the Transferor <i>by its Director</i> Signature of Witness 
	Witness to complete in BLOCK letters <i>(unless typewritten or legibly stamped)</i> Witness name <u>Andrew Todd Francisco</u> Occupation <u>Solicitor</u> Address <u>Auckland.</u>

Certified correct for the purposes of the Land Transfer Act 1952
Certified that no conveyance duty is payable by virtue of Section 24(1) of the Stamp and Cheque Duties Act 1971.
(DELETE INAPPLICABLE CERTIFICATE)


Solicitor for the Transferee

Annexure Schedule

TRANSFER

Dated

23/02/01

Page

2

of

3

Pages

Continuation of Estate or Interest to be created

The Transferee shall have a right of way and right to convey electricity and telecommunications over that part of the land in Certificate of Title 101C/992 marked "Y" on Deposited Plan 180325 ("the specified area") being forever appurtenant to the land of the Transferee in Certificate of Title 101C/994.

The right of way easement shall be subject to the following terms, covenants, conditions or restrictions:

- (a) The cost of formation will be borne by the party requiring the right of way to be formed unless there is a clearly disproportionate benefit to the other party arising from such formation in which case that party will make a reasonable contribution to the costs of formation.
- (b) Should any dispute arise between the owners for the time being of the servient land and the owners for the time being of the dominant land relating to the right of way and its terms such dispute shall be referred to arbitration in accordance with the provisions of the Arbitration Act 1996 and any amendment thereof and any other statutory provision then relating to arbitration.

The right to convey electricity and telecommunications is the full, free, uninterrupted and unrestricted right, liberty and privilege for the transferee to convey electric power and telecommunications above the surface of the specified area by means of cable on poles or under the surface of or through the soil of the specified area by means of cables at an appropriate depth below the surface of the soil in accordance with the requirements of the territorial authority, local body or agency having jurisdiction thereover and in order to construct or maintain the efficiency of any such cable or cables the full, free, uninterrupted and unrestricted right, liberty and privilege for the transferee and the transferees servants, tenants, agents and workmen with any tools, implements, machinery, vehicles or equipment of whatsoever nature necessary for the purpose to enter upon the specified area and to remain there for any reasonable time for the purpose of laying, installing, inspecting, repairing, maintaining and renewing such cable or cables or any part thereof and of opening up the soil of the land to such extent as may be necessary and reasonable in that regard provided that the transferee shall restore the surface of the land as nearly as practicable to its former condition.

The transferor and transferee hereby covenant and agree that if the registered proprietor of the land comprised in Certificate of Title 101C/992 ("the servient land") forms a roadway over the servient land which utilises the land marked "B" on Deposited Plan 167657 and an adjoining parallel strip of the servient land for the purposes of forming a wider roadway than the width of the land marked "B" on Deposited Plan 167657 then the registered proprietor of the land comprised in Certificate of Title 101C/994 ("the dominant land") is to be granted a right of way over that part of the

If this Annexure Schedule is used as an expansion of an instrument, all signing parties and either their witnesses or their solicitors must put their signatures or initials here.

Annexure Schedule

TRANSFER

Dated

23/02/01

Page

3

of

3

Pages

servient land which is formed as roadway in conjunction with the land marked "B" on Deposited Plan 167657. Should any dispute arise between the owners for the time being of the servient land and the owners for the time being of the dominant land relating to the terms or extent of such right of way that dispute shall be referred for determination to an expert appointed by agreement between the parties or, failing agreement, appointed by the President for the time being of the Auckland District Law Society and the determination of the expert shall be binding on all parties. This covenant is intended to run with the servient land for the benefit of the dominant land.

If this Annexure Schedule is used as an expansion of an instrument, all signing parties and either their witnesses or their solicitors must put their signatures or initials here.



Approved by Registrar-General
of Land under No. 1995/1003EF



TRANSFER

Land Transfer Act 1952

PRODUCED
ENTERED

LINZ COPY

Law Firm Acting

Auckland District Law Society
REF: 4130 /2

This page is for Land Registry Office use only.
(except for "Law Firm Acting")

ADCO ZM1

11.04 14.MAR01 D 587086-2



PARTICULARS ENTERED IN REGISTER
LAND REGISTRY NORTH
for REGISTRAR-GENERAL



11.04 14.MAR01 D 587086-2

CERTIFICATE OF NON-REVOCATION

I, RHONDA MARGOT GRAHAM of Auckland, Solicitor

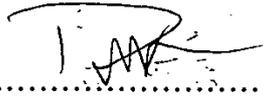
HEREBY CERTIFY:-

1. THAT by Deed dated the 29th day of March 1995 (a copy of which Deed is deposited in the Land Transfer Office at Auckland under Number

) BRUCE GORDON FENTON of Kerikeri, Company Director appointed me his Attorney on the terms and subject to the conditions set out in the said Deed.

2. THAT at the date hereof I have not received any notice or information of the revocation of that appointment by the death of the said BRUCE GORDON FENTON or otherwise.

SIGNED at Auckland this 6th day of December 1996


.....

MEMORANDUM OF VARIATION OF EASEMENT

The terms, covenants and conditions contained or implied in the easements defined by Easement Certificate C.871824.10 are hereby varied as follows:

Rights and Powers

1. The rights and powers contained in clause 1(a) are hereby deleted.
2. The rights and powers in respect of the right to convey electricity and telecommunications as set out in clause 4 of the Easement Certificate are hereby varied to provide that in respect of the right to convey electrical power such power may in addition to the modes of conveying described in clause 4 of the Easement Certificate be conveyed above the surface of the land over which the easement is created or granted by means of cables on poles in accordance with the requirements of the territorial authority, local body or agency having jurisdiction thereover PROVIDED HOWEVER that the Grantee must at all times comply with the relevant requirements of the District Plan pertaining to the property which may affect the right to erect above ground transmission.

DATED this

6th

day of

December

1996

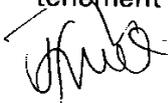
SIGNED by **BRUCE GORDON FENTON** and **PAMELA FRANCES FENTON** as registered proprietors of the dominant tenement in the presence of:



JULIE F VIDOVICH
LEGAL EXECUTIVE
AUCKLAND

) Bruce Gordon Fenton and
) Pamela Frances Fenton by their Attorney
) Rhonda Margot Graham
TAAK

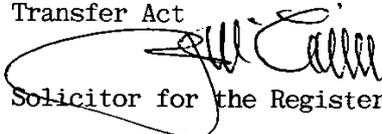
SIGNED by **BRUCE GORDON FENTON** and **PAMELA FRANCES FENTON** as registered proprietors of the servient tenement in the presence of:



JULIE F VIDOVICH
LEGAL EXECUTIVE
AUCKLAND

) Bruce Gordon Fenton and
) Pamela Frances Fenton by their Attorney
) Rhonda Margot Graham
TAAK

Correct for the purposes of the Land Transfer Act


Solicitor for the Registered Proprietor

LIN 2
1.26 20 JAN 97 D 088754.4

PARTICULARS ENTERED IN REGISTER
LAND REGISTRY NORTH AUCKLAND
ASST. LAND REGISTRAR

— S. H.
— S. H.
— S. H.
④ EC22233

DEED CREATING LAND COVENANTS

THIS DEED made the 28th day of June 1996

BETWEEN BRUCE GORDON FENTON of Auckland, Manager and PAMELA FRANCES FENTON, His Wife ("the first registered proprietors") of the one part;

A N D BRUCE GORDON FENTON of Auckland, Manager and PAMELA FRANCES FENTON, His Wife ("the second registered proprietors") of the other part.

WHEREAS:

- A. The first registered proprietors are registered as proprietors of estates in fee simple in all those pieces of land described in the schedule hereto.
B. The first registered proprietors have entered into an Agreement for Sale and Purchase for the sale of part of the land described in the Schedule hereto.
C. The first registered proprietors have agreed with the purchaser that they will for the benefit of the registered proprietors from time to time of each of the pieces of land described in the schedule restrict and regulate the activities that may be carried on at any time on any part of Lot 4 on Deposited Plan 167657.
D. The expression "the Registered Proprietors" shall mean the registered proprietors or any of them as appropriate of all or any parts of Lots 1, 2 and 3 on Deposited Plan 169657.

LAND REVENUE DEPARTMENT
REGISTERED IN THE LAND REGISTRY
DEPARTMENT OF LAND AND SURVEY

Handwritten initials or mark.

NOW THEREFORE THIS DEED WITNESSETH that the first registered proprietors and the second registered proprietors do hereby covenant with and agree with the intention of binding themselves and any subsequent Registered Proprietors of any parts of Lots 1, 2 and 3 on Deposited Plan 169657 for the benefit of the Registered Proprietors that the following covenants, conditions and restrictions shall apply in respect of Lot 4 on Deposited Plan 167657:

- A. The Registered Proprietors will not at any time suffer or permit any act, matter or thing which does or may alter the natural boundaries of the lake situated on Lot 4 Deposited Plan 167657 ("the lake").
- B. The Registered Proprietors will not at any time allow the lake to expand beyond the boundary shown as Lot 4 on Deposited Plan 167657. Should any such expansion of the lake occur at any time over the boundary between Lot 4 Deposited Plan 167657 and the other lots on Deposited Plan 167657 the Registered Proprietor of the affected lot in each case will restore the lake to within the boundaries of Lot 4 Deposited Plan 167657 at that Registered Proprietor's expense unless such alteration has been caused by the actions of one or more of the other Registered Proprietors in which case that Registered Proprietor or those Registered Proprietors shall be responsible for such restoration.
- C. The Registered Proprietors will not at any time use the lake for any purpose other than passive recreation purposes and in particular will not at any time allow or permit the lake to be used for power boating or water skiing or any other activity likely to cause an annoyance to the other Registered Proprietors.
- D. The Registered Proprietors will not at any time shoot or trap wildlife on or into Lot 4 on Deposited Plan 167657 nor permit any



such activity without the prior written approval of the other Registered Proprietors.

- E. The Registered Proprietors will not at any time take nor permit the taking of water from the lake for any purpose other than reasonable domestic needs or the reasonable needs of animals for drinking water (subject to the provisions of the Resource Management Act 1991 or any Act in substitution therefor) to be taken from one point only on the lake for each of Lots 1, 2 and 3.

Such water use shall be restricted in quantity to a maximum of 20,000 litres for each of Lots 1, 2 and 3 per 24 hour period (as measured by restrictor valve to be installed and maintained by the Registered Proprietors) or such lesser daily quantity or such greater or lesser daily quantity as may be agreed taking into account the management of the lake and in particular in relation to reductions adverse conditions such as drought and the potentially adverse affect on the lake.

- F. The Registered Proprietors will not at any time erect or permit to be erected on Lot 4 on Deposited Plan 167657 any structure whether temporary or otherwise other than:

- (a) One pumphouse for each of Lots 1, 2 and 3 to enable the taking of water for the purposes of Covenant E above.
- (b) One jetty for each of Lots 1, 2 and 3 on the lake for the sole purpose of servicing one water intake point per Lot (subject to prior compliance with the provisions of the Resource Management Act 1991 or any Act in substitution therefor governing lake beds). Any such jetty will be of a size and type of construction consented to by all of the Registered

Proprietors such consent not to be unreasonably or arbitrarily withheld.

(c) A conduit for the transmitting of electricity or other fuel to the pumphouse from each Lot by the shortest practicable route.

(d) Each Registered Proprietor will not at any time use nor permit to be used any pumphouse erected by and for the purposes of the Registered Proprietors of any other Lot.

G. The management and supervision of Lot 4 shall be carried out by a committee ("the Management Committee") comprising a representative nominated by the Registered Proprietor(s) of each Lot. If there is more than one Registered Proprietor of each of Lots 1, 2 and 3 election of a representative to the Management Committee for that Lot shall be by a majority of the Registered Proprietors for that Lot with each of such Registered Proprietors having one vote and in the event of equality of votes the majority vote shall be determined by reference to the respective areas owned by each of the Registered Proprietors of such Lot. In the absence of agreement otherwise, the costs of any works or maintenance decided upon by the Management Committee shall be spread evenly between Lots 1, 2 and 3. The Management Committee shall also have the power to implement and maintain terms and conditions of easements affecting Lot 4. Decisions of the Management Committee shall be by basis of majority decision unless the decision involves either expenditure of more than \$1,000.00 per Lot (increased by any Consumer Price All Groups index or other agreed or replacement measure of inflation commencing with a base point of 31 March 1996) or any decision which permanently affects the use or enjoyment of Lot 4 in relation

to any one or more of the Registered Proprietors in which case such decision shall be unanimous.

Any decision by the Management Committee involving demonstrable benefit to all or part of any one or two out of the three Lots shall be borne solely by the Registered Proprietors of the Lot or Lots receiving such demonstrable benefit.

- H. If there is any dispute between the Registered Proprietors as to the management or supervision of Lot 4 the Registered Proprietors shall attempt to mediate a solution to the issue in dispute and in the event of failure to reach a mediated settlement any Registered Proprietor may refer the matter in dispute to an arbitrator to be appointed for the purpose by agreement between the parties or failing agreement to an arbitrator nominated by the President for the time being of the Auckland District Law Society and the arbitration shall otherwise be conducted in accordance with the Arbitration Act 1908, any amendments thereto, or reenactment thereof.

IN WITNESS WHEREOF these presents have been executed the day and year first above written.

SIGNED by BRUCE GORDON FENTON
and PAMELA FRANCES FENTON as the
first registered proprietors in
the presence of:-



1 Bruce Gordon Fenton
1 and Pamela Frances Fenton
1 by their Attorney Rhonda
1 Margaret Graham
TAA

JULIE F VIDOVICH
LEGAL EXECUTIVE
AUCKLAND

SIGNED by BRUCE GORDON FENTON
and PAMELA FRANCES FENTON as the
second registered proprietors in
the presence of:-

- 1) Bruce Gordon Fenton and
- 1) Pamela Frances Fenton by
- 1) their Attorney Abanda Magesi
- 1) Graham T. A. A.



JULIE F VIDOVICH
LEGAL EXECUTIVE
AUCKLAND

SCHEDULE

1. 18.3970 hectares more or less being Lot 1 on Deposited Plan 167657 together with an undivided one-third share in 5.2350 hectares more or less being Lot 4 Deposited Plan 167657 All Certificate of Title 101C/992.
2. 15.4770 hectares more or less being Lot 2 on Deposited Plan 167657 together with an undivided one-third share in 5.2350 hectares more or less being Lot 4 Deposited Plan 167657 All Certificate of Title 101C/993.
3. 21.8930 hectares more or less being Lot 3 on Deposited Plan 167657 together with an undivided one-third share in 5.2350 hectares more or less being Lot 4 Deposited Plan 167657 All Certificate of Title 101C/994.

CERTIFICATE OF NON-REVOCATION

I, RHONDA MARGOT GRAHAM of Auckland, Solicitor

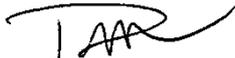
HEREBY CERTIFY:-

1. THAT by Deed dated the 29th day of March 1995 (a copy of which Deed is deposited in the Land Transfer Office at Auckland under Number

) PAMELA FRANCES FENTON of Kerikeri, Married Woman appointed me her Attorney on the terms and subject to the conditions set out in the said Deed.

2. THAT at the date hereof I have not received any notice or information of the revocation of that appointment by the death of the said PAMELA FRANCES FENTON or otherwise.

SIGNED at Auckland this 28 day of June 1996


.....

CERTIFICATE OF NON-REVOCATION

I, RHONDA MARGOT GRAHAM of Auckland, Solicitor

HEREBY CERTIFY:-

1. THAT by Deed dated the 29th day of March 1995 (a copy of which Deed is deposited in the Land Transfer Office at Auckland under Number

) BRUCE GORDON FENTON of Kerikeri, Company Director appointed me his Attorney on the terms and subject to the conditions set out in the said Deed.

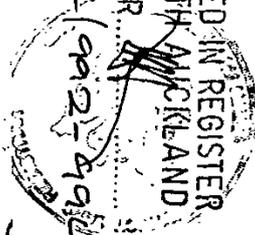
2. THAT at the date hereof I have not received any notice or information of the revocation of that appointment by the death of the said BRUCE GORDON FENTON or otherwise.

SIGNED at Auckland this 28th day of June 1996


.....

1.26 20.01.97 D 088754-3

PARTICULARS ENTERED IN REGISTER
LAND REGISTRY NORTH AUCKLAND
ASST. LAND REGISTRAR



1010 (992) 2194

3

(2)



View Instrument Details



Instrument No 12736076.8
Status Registered
Date & Time Lodged 26 October 2023 16:16
Lodged By Kelly, Sarah Jane
Instrument Type Easement Instrument



Affected Records of Title	Land District
1074178	North Auckland
1074179	North Auckland
1074180	North Auckland
1074181	North Auckland

Annexure Schedule Contains 1 Pages.

Grantor Certifications

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

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

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

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

I certify that the Mortgagee under Mortgage 11727318.1 has consented to this transaction and I hold that consent

Signature

Signed by Sophia Louise Waller as Grantor Representative on 26/10/2023 03:51 PM

Grantee Certifications

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

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

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

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

Signature

Signed by Sophia Louise Waller as Grantee Representative on 26/10/2023 03:51 PM

*** End of Report ***

Approved for ADLS by Registrar-General of Land under No. 2018/6266

EASEMENT INSTRUMENT TO GRANT EASEMENT OR PROFIT À PRENDRE

Sections 109 Land Transfer Act 2017

**Grantor**

NAGS HEAD HORSE HOTEL LIMITED

Grantee

NAGS HEAD HORSE HOTEL LIMITED

Grant of Easement or Profit à prendre

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

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

Purpose (Nature and extent) of easement, or profit	Shown (plan reference)	Burdened Land (Record of Title)	Benefited Land (Record of Title) or in gross
Right of Way, Right to Convey Electricity and Telecommunications	Marked "A", "B", "C" and "F" on DP 579108	Lot 1 DP 579108 (RT 1074178)	Lot 2 DP 579108 (RT 1074179) Lot 3 DP 579108 (RT 1074180) Lot 4 DP 579108 (RT 1074181) Lot 5 DP 579108 (RT 1074181) Lot 6 DP 579108 (RT 1074181)
	Marked "G" and "H" on DP 579108	Lot 2 DP 579108 (RT 1074179)	Lot 3 DP 579108 (RT 1074180) Lot 4 DP 579108 (RT 1074181) Lot 5 DP 579108 (RT 1074181) Lot 6 DP 579108 (RT 1074181)
Right of Way	Marked "DA" on DP 579108	Lot 2 DP 579108 (RT 1074179)	Lot 3 DP 579108 (RT 1074180) Lot 4 DP 579108 (RT 1074181) Lot 5 DP 579108 (RT 1074181) Lot 6 DP 579108 (RT 1074181)

Easements or profits à prendre rights and powers (including terms, covenants and conditions)*Delete phrases in [] and insert memorandum number as required; continue in additional Annexure Schedule, if required*

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

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

~~{Memorandum number _____, registered under section 209 of the Land Transfer Act 2017}~~

~~{the provisions set out in Annexure Schedule _____}~~

View Instrument Details



Instrument No 12736076.9
Status Registered
Date & Time Lodged 26 October 2023 16:16
Lodged By Kelly, Sarah Jane
Instrument Type Easement Instrument



Affected Records of Title	Land District
1074178	North Auckland
1074179	North Auckland
1074180	North Auckland
1074181	North Auckland

Annexure Schedule Contains 1 Pages.

Grantor Certifications

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

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

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

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

I certify that the Mortgagee under Mortgage 11727318.1 has consented to this transaction and I hold that consent

Signature

Signed by Sophia Louise Waller as Grantor Representative on 09/08/2023 04:15 PM

Grantee Certifications

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

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

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

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

Signature

Signed by Sophia Louise Waller as Grantee Representative on 09/08/2023 04:15 PM

*** End of Report ***

Approved for ADLS by Registrar-General of Land under No. 2018/6266

EASEMENT INSTRUMENT TO GRANT EASEMENT OR PROFIT À PRENDRE

Sections 109 Land Transfer Act 2017

**Grantor**

NAGS HEAD HORSE HOTEL LIMITED

Grantee

NAGS HEAD HORSE HOTEL LIMITED

Grant of Easement or Profit à prendre

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

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

Purpose (Nature and extent) of easement, or profit	Shown (plan reference)	Burdened Land (Record of Title)	Benefited Land (Record of Title) or in gross
Right to Drain Water	Marked "KA" on DP 579108	Lot 3 DP 579108 (RT 1074180)	Lot 1 DP 579108 (RT 1074178) Lot 2 DP 579108 (RT 1074179) Lot 4 DP 579108 (RT 1074181)
	Marked "L" on DP 579108	Lot 4 DP 579108 (RT 1074181)	Lot 2 DP 579108 (RT 1074179)
	Marked "KB" on DP 579108	Lot 2 DP 579108 (RT 1074179)	Lot 1 DP 579108 (RT 1074178) Lot 3 DP 579108 (RT 1074180) Lot 4 DP 579108 (RT 1074181)
	Marked "KC" on DP 579108	Lot 2 DP 579108 (RT 1074179)	Lot 1 DP 579108 (RT 1074178)

Easements or profits à prendre rights and powers (including terms, covenants and conditions)*Delete phrases in [] and insert memorandum number as required; continue in additional Annexure Schedule, if required*

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

The implied rights and powers are hereby ~~varied~~ ~~negated~~ ~~added to~~ or ~~substituted~~ by—
 {Memorandum number _____, registered under section 209 of the Land Transfer Act 2017}
 {the provisions set out in Annexure Schedule _____}

BS78021.4 EC

Approved by the District Land Registrars: North Auckland 4221/75. South Auckland H.008116/1974, Canterbury 957768, Marlborough 75776, Gisborne 112239.9, Hawkes Bay 303051, Taranaki 217464.1, Wellington A038045, Westland 45629.

EASEMENT CERTIFICATE

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

X WE, IAN CECIL KNOX of Kerikeri, Real Estate Manager ✓ and BEREN MARGARET KNOX his wife being the registered proprietors as tenants in common in equal shares ✓

~~being the registered proprietors~~ of the land described in the Schedule hereto hereby certify that the easements specified in that Schedule, the servient tenements in relation to which are shown on a plan of survey deposited in the Land Registry Office at **Auckland** on the day of **19 86** under No. **109734** are the easements which it is intended shall be created by the operation of section 90A of the Land Transfer Act 1952.

SCHEDULE DEPOSITED PLAN NO. 109734

Nature of Easement (e.g., Right of Way, etc.)	Servient Tenement		Dominant Tenement Lot No.(s) or other Legal Description	Title Reference
	Lot No.(s) or other Legal Description	Colour, or Other Means of Identification, of Part Subject to Easement		
Electricity Supply	Part Lot 1 DP 109734	"B"	Part Lot DP 107204	59D/432
Right-of-Way	Part Lot 1 DP 107204	"A"	Lot 1 DP 109734	61C/1152

N.B. On no account should this margin be used

N.B. On no account should this margin be used

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

1. Rights and powers: ~~xxx~~

ELECTRICITY SUPPLY

That upon the creation of an easement for electricity supply in terms hereof and by the operation of Section 90A of the Land Transfer Act 1952 the Grantee shall have the full free uninterrupted and unrestricted right liberty and privilege to convey electric power under the surface of or through the soil of the land over which the easement is granted or created by means of cables at such depth below the surface of the soil as may be in accordance with the requirements of the Local or National Authority Body or agency having jurisdiction thereover and in conjunction with such cable to keep and maintain such cable at such point or points the Authority shall stipulate AND the Grantee may from time to time enter upon the land for the purposes of laying, inspecting, replacing or repairing such cables PROVIDED THAT the Grantee shall return the surface of the land to its former condition.

N.B. On no account should this margin be used

N.B. On no account should this margin be used

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

N.B. On no account should this margin be used

N.B. On no account should this margin be used

Dated this 22nd day of August 19 86

Signed by the above-named

IAN CECIL KNOX and

BEREN MARGARET KNOX

in the presence of

Witness 

Occupation Salvador

Address Heather


IKnox.


EASEMENT CERTIFICATE

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

Correct for purposes of the Land Transfer Act

(Solicitor for) the registered proprietor

The right of way easement when created will be subject to section 309(1)(a) local government act 1974

Walter Latham Ave

N.B. On no account should this margin be used

N.B. On no account should this margin be used

Particulars entered in the Register as shown in the schedule of land herein on the date and at the time stamped below

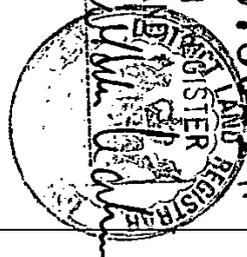
District Land Registrar
Assistant
of the District of

61A/710

61C/1152

ASST. LAND REGISTRAR
LAND REGISTRY
AUCKLAND

1.32 08 SEP 86 B 578021.4F



5F EC 30

**JAFFE McLEOD & PARTNERS
SOLICITORS
KERIKERI**



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

C871824.10
EC

EASEMENT CERTIFICATE

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

X~~W~~e **BRUCE GORDON FENTON** of Auckland, Manager and **PAMELA FRANCES FENTON**,
His Wife

as tenants in common in equal shares
being the registered proprietor(s) of the land described in the Schedule hereto hereby certify that the easements specified in that Schedule, the servient tenements in relation to which are shown on a plan of survey deposited in the Land Registry Office at Auckland on the day of 19 under No. 167657 are the easements which it is intended shall be created by the operation of section 90A of the Land Transfer Act 1952.

SCHEDULE DEPOSITED PLAN NO. 167657

Nature of Easement (e.g., Right of Way, etc.)	Servient Tenement		Dominant Tenement Lot No.(s) or other Legal Description	Title Reference
	Lot No.(s) or other Legal Description	Colour, or Other Means of Identification, of Part Subject to Easement		
Right of Way	Lot 3 DP 167657	A	Lot 1 DP 167657	101C/992
Right of Way	Lot 1 DP 167657	B	Lot 3 DP 167657	101C/994
Right of Way	Lot 3 DP 167657	C/D and J	Lot 2 DP 167657	101C/993
Right to convey electricity and telecommunications	Lot 3 DP 167657	A	Lot 1 DP 167657	101C/992
Right to convey electricity and telecommunications	Lot 1 DP 167657	B	Lot 3 DP 167657	101C/994
Right to convey electricity and telecommunications	Lot 3 DP 167657	C/D and J	Lot 2 DP 167657	101C/993

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

1. Rights and powers:

Rights and Powers:

1. In addition to the rights and powers set out in the Seventh Schedule to the Land Transfer Act 1952 the following rights and powers shall apply to the right of way marked "A" on Deposited Plan 167657 :
 - (a) While the Local Authority planning requirements restrict the number of rear allotments that may be served from the right of way the registered proprietor of the servient tenement will be entitled to subdivide his property serviced by the right of way marked "A" to a maximum of one-half of such entitlement and the registered proprietor of the dominant tenement will be entitled to subdivide his property serviced by the right of way marked "A" to a maximum of one-half of such entitlement.
 - (b) After the initial formation of the right of way marked "A" either the registered proprietor of the servient tenement or the registered proprietor of the dominant tenement may further upgrade the right of way marked "A" provided that if the other party does not require the upgrading the costs thereof will be paid solely by the party desiring the upgrade.

2. In addition to the rights and powers set out in the Seventh Schedule to the Land Transfer Act 1952 the following rights and powers shall apply to the right of way marked "B" on Deposited Plan 167657 :
 - (a) The registered proprietor of the dominant tenement will be solely responsible for the formation of the right of way marked "B". The owner of the dominant tenement may at any time upgrade the right of way marked "B" to a sufficient standard to permit further subdivision of the dominant tenement and servicing of those additional Lots by the right of way marked "B".

3. In addition to the rights and powers set out in the Seventh Schedule to the Land Transfer Act 1952 the following rights and powers shall apply to the right of way marked "C" on Deposited Plan 167657 :
 - (a) The registered proprietor of the dominant tenement will be solely responsible for the formation and maintenance of the right of way marked "C".

4. **RIGHT TO CONVEY ELECTRICITY AND TELECOMMUNICATIONS**
The Grantee shall have the full free uninterrupted and unrestricted right limiting privilege to convey electric power and telecommunications under the surface of or

Q.P.S.

through the soil of the land over which the easement is granted or created by means of cables at such depth below the surface of the soil as may be in accordance with the requirements of the territorial authority, local body or agency having jurisdiction thereover and in conjunction with such cable or cables to keep and maintain such cable or cables at such point or points territorial authority, local authority or agency shall stipulate and from time to time to enter upon the land for the purposes of laying, inspecting, replacing or repairing such cables provided that the owner of the dominant tenement shall return the surface of the land to its former condition.

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

Dated this 24th day of July

1975

Signed by the above-named

BRUCE GORDON FENTON and

PAMELA FRANCES FENTON
in the presence of

[Signature]
P J Fenton

Witness *TAR*

Occupation *Solvent*

Address *Amherst*

EASEMENT CERTIFICATE

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

*Correct for the purposes of the
Land Transfer Act*



Solicitor for the registered proprietor

EC - 35

PARTICULARS ENTERED IN PROPERT
LAND REGISTER AUCKLAND
INST. LAND REG. 415024P

10/10/95
993
994


2.34 31.JUL.95 C871824 .16



TRANSFER
Land Transfer Act 1952

D 587086.4 TE

If there is not enough space in any of the panels below, cross-reference to and use the approved Annexure Schedule: no other format will be received.

Land Registration District

North Auckland

Certificate of Title No.

101C/994

All or Part? Area and legal description — *Insert only when part or Stratum, CT*

All

Transferor Surnames must be underlined

BRUCE GORDON FENTON and PAMELA FRANCES FENTON

Transferee Surnames must be underlined

GOOD MOVE NZ PROPERTY CO LIMITED

Estate or Interest or Easement to be created: *Insert e.g. Fee simple; Leasehold in Lease No.; Right of way etc.*

Easements of Right of Way and Right to Convey Electricity and Telecommunications (contained on page 2 annexure schedule)

Consideration

\$1.00

Operative Clause

For the above consideration (receipt of which is acknowledged) the TRANSFEROR TRANSFERS to the TRANSFEEE all the transferor's estate and interest described above in the land in the above Certificate(s) of Title and if an easement is described above such is granted or created.

Dated this 21st day of December 2000

Attestation

[Handwritten signatures and names: Bruce Gordon Fenton, Pamela Frances Fenton, and a vertical stamp that reads "GRAMM"]

Signed in my presence by the Transferor

Signature of Witness

Witness to complete in BLOCK letters
(unless typewritten or legibly stamped)

Witness name

Occupation

Address

RHONDA M GRAHAM
SOLICITOR
AUCKLAND

Signature, or common seal of Transferor

Certified correct for the purposes of the Land Transfer Act 1952

REF: 4135

[Handwritten signature]

Solicitor for the Transferee

X0011236.GRA:1bb.v1

Approved by Registrar-General
of Land under No. 1995/1004

TRANSFER

Land Transfer Act 1952

PRODUCED
ENTERED

LINZ COPY

Law Firm Acting
MORGAN COAKLE BARRISTERS & SOLICITORS P.O. BOX 114, AUCKLAND

Auckland District Law Society
REF. 4135

This page is for Land Registry Office use only.
(except for "Law Firm Acting")

Annexure Schedule

TRANSFER

Dated

[]

Page

[]

of

[]

Pages

Continuation of Estate or Interest to be created

The Transferee shall have a right of way and right to convey electricity and telecommunications over that part of the land in Certificate of 101C/994 marked "X" on Deposited Plan 180325 ("the specified area") being forever appurtenant to the land of the Transferee in Certificate of Title 101C/992.

The right of way easement shall be subject to the following terms, covenants, conditions or restrictions:

- (a) The cost of formation will be borne by the party requiring the right of way to be formed unless there is a clearly disproportionate benefit to the other party arising from such formation in which case that party will make a reasonable contribution to the costs of formation.
- (b) Should any dispute arise between the owners for the time being of the servient land and the owners for the time being of the dominant land relating to the grant of right of way and its terms such dispute shall be referred to arbitration in accordance with the provisions of the Arbitration Act 1996 and any amendment thereof or any other statutory provision then relating to arbitration.

The right to convey electricity and telecommunications is the full, free, uninterrupted and unrestricted right, liberty and privilege for the transferee to convey electric power and telecommunications above the surface of the specified area by means of cable on poles or under the surface of or through the soil of the specified area by means of cables at an appropriate depth below the surface of the soil in accordance with the requirements of the territorial authority, local body or agency having jurisdiction thereover and in order to construct or maintain the efficiency of any such cable or cables the full, free, uninterrupted and unrestricted right, liberty and privilege for the transferee and the transferees servants, tenants, agents and workmen with any tools, implements, machinery, vehicles or equipment of whatsoever nature necessary for the purpose to enter upon the specified area and to remain there for any reasonable time for the purpose of laying, installing, inspecting, repairing, maintaining and renewing such cable or cables or any part thereof and of opening up the soil of the land to such extent as may be necessary and reasonable in that regard provided that the transferee shall restore the surface of the land as nearly as practicable to its former condition.

If this Annexure Schedule is used as an expansion of an instrument, all signing parties and either their witnesses or their solicitors must put their signatures or initials here.





CONSENT OF MORTGAGEE

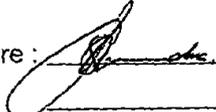
THE NATIONAL BANK OF NEW ZEALAND LIMITED hereby consents to the creation of the easements set out in the attached Memorandum of Transfer. This Consent is without prejudice to the Banks rights and remedies pursuant to mortgage C890797.1.

DATED at **28 DEC 2000**s day of 2000

SIGNED by NATIONAL BANK OF)
NEW ZEALAND LIMITED by its)
Attorney)
in presence of:)



CHERYL KATHERINE SEGEDIN

Witness Signature: 
Witness Name: _____
Witness Occupation: ANIL SURESH CHANDRA
BANK OFFICER
Witness Address: AUCKLAND



I, CHERYL KATHERINE SEGEDIN Manager Lending Services of Auckland in New Zealand **HEREBY CERTIFY:**

1. **THAT** by Deed dated 28 June 1996 deposited in the Land Registry Offices situated at:

Auckland	as No	D.016180	Hokitika	as No	105147
Blenheim	as No	186002	Invercargill	as No	242542.1
Christchurch	as No	A.256503.1	Napier	as No	644654.1
Dunedin	as No	911369	Nelson	as No	359781
Gisborne	as No	G.210991	New Plymouth	as No	433509
Hamilton	as No	B.355185	Wellington	as No	B.530013

The National Bank of New Zealand Limited (the "Bank") appointed me its Attorney with the powers and authorities specified in that Deed.

2. **THAT** at the date of this Certificate, I am the Manager Lending Services, Auckland Regional Support Centre of the Bank.
3. **THAT** at the date of this certificate, I have not received any notice or information of the revocation of that appointment by the winding-up or dissolution of the Bank or otherwise.

DATED at Auckland this

20

28 DEC 2000 of

LINZ COPY

11.04 14.MAR01 D 587086.4



PARTICULARS ENTERED
LAND REGISTRY NORTH
ISLAND
for REGISTRAR-GEN



View Instrument Details



Instrument No 9315062.1
Status Registered
Date & Time Lodged 08 March 2013 11:39
Lodged By Waller, Sophia Louise
Instrument Type Partial Surrender of Easement



Affected Computer Registers	Land District
NA101C/992	North Auckland
NA101C/993	North Auckland
NA138C/238	North Auckland
NA138C/239	North Auckland

Affected Instrument Covenant (All types except Land covenants) D088754.3

Annexure Schedule: Contains 1 Page.

Grantor Certifications

- I certify that I have the authority to act for the Grantor and that the party has the legal capacity to authorise me to lodge this instrument
- I certify that I have taken reasonable steps to confirm the identity of the person who gave me authority to lodge this instrument
- I certify that any statutory provisions specified by the Registrar for this class of instrument have been complied with or do not apply
- I certify that I hold evidence showing the truth of the certifications I have given and will retain that evidence for the prescribed period

Signature

Signed by Bruce Sellars Wyber as Grantor Representative on 26/03/2013 08:59 AM

Grantee Certifications

- I certify that I have the authority to act for the Grantee and that the party has the legal capacity to authorise me to lodge this instrument
- I certify that I have taken reasonable steps to confirm the identity of the person who gave me authority to lodge this instrument
- I certify that any statutory provisions specified by the Registrar for this class of instrument have been complied with or do not apply
- I certify that I hold evidence showing the truth of the certifications I have given and will retain that evidence for the prescribed period
- I certify that the territorial authority has consented to this transaction and I hold that consent, or the affected easement is not the subject of a condition imposed by the territorial authority

Signature

Signed by Bruce Sellars Wyber as Grantee Representative on 26/03/2013 09:00 AM

*** End of Report ***

Form C

Easement instrument to surrender Easement or Profit à prendre or Land Covenant

(Sections 90A and 90F Land Transfer Act 1952)

Grantor

NAGS HEAD HORSE HOTEL LIMITED and CHRISTOPHER GEORGE HOURY and ANGELA VICTORIA HOURY

Grantee

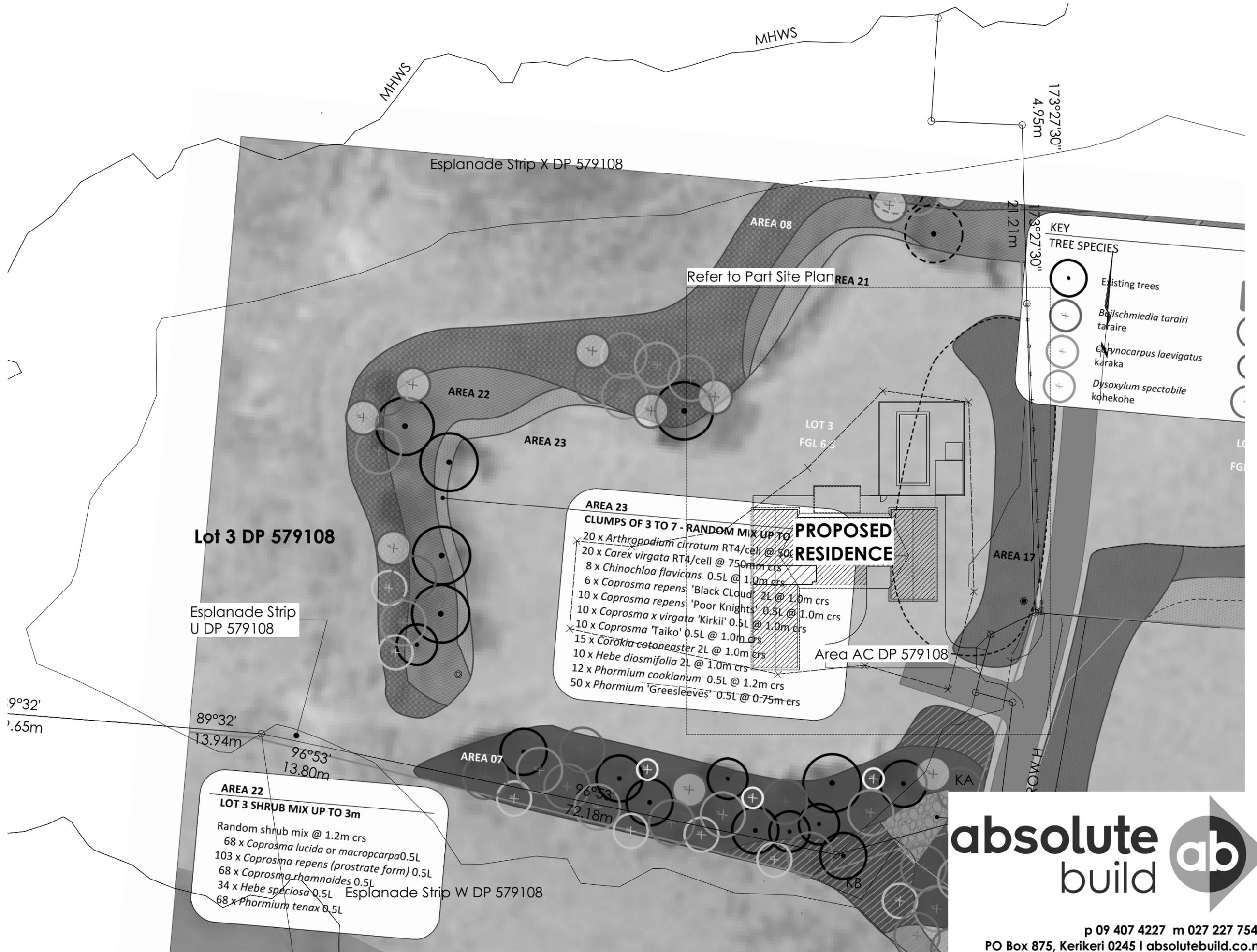
NAGS HEAD HORSE HOTEL LIMITED

Surrender of Easement, Profit à prendre or Covenant

The Grantee, being the registered proprietor of the Dominant Tenement(s) set out in Schedule A, or being the Grantee in gross, hereby surrenders to the Grantor the easement(s), profit(s) à prendre or covenant(s) set out in Schedule A and the Grantor accepts the surrender of those easement(s), profit(s) à prendre or covenant(s)

Schedule A		Continue in additional Annexure Schedule, if required	
Purpose of Easement; Profit or Covenant	Creating Instrument number	Servient Tenement (Computer Register)	Dominant Tenement (Computer Register) or in gross
Land Covenant	D088754.3	NA101C/992 NA101C/993 NA138C/238 and NA138C/239 (previously known as NA101C/994)	Part Lot 1 DP 442820 being part NA101C/993

**PROPOSED SHAW RESIDENCE AT LOT 3, EGRET WAY, KERIKERI
OVERALL SITE PLAN WITH SUBDIVISION LANDSCAPE PLAN OVERLAY
SCALE 1:500**

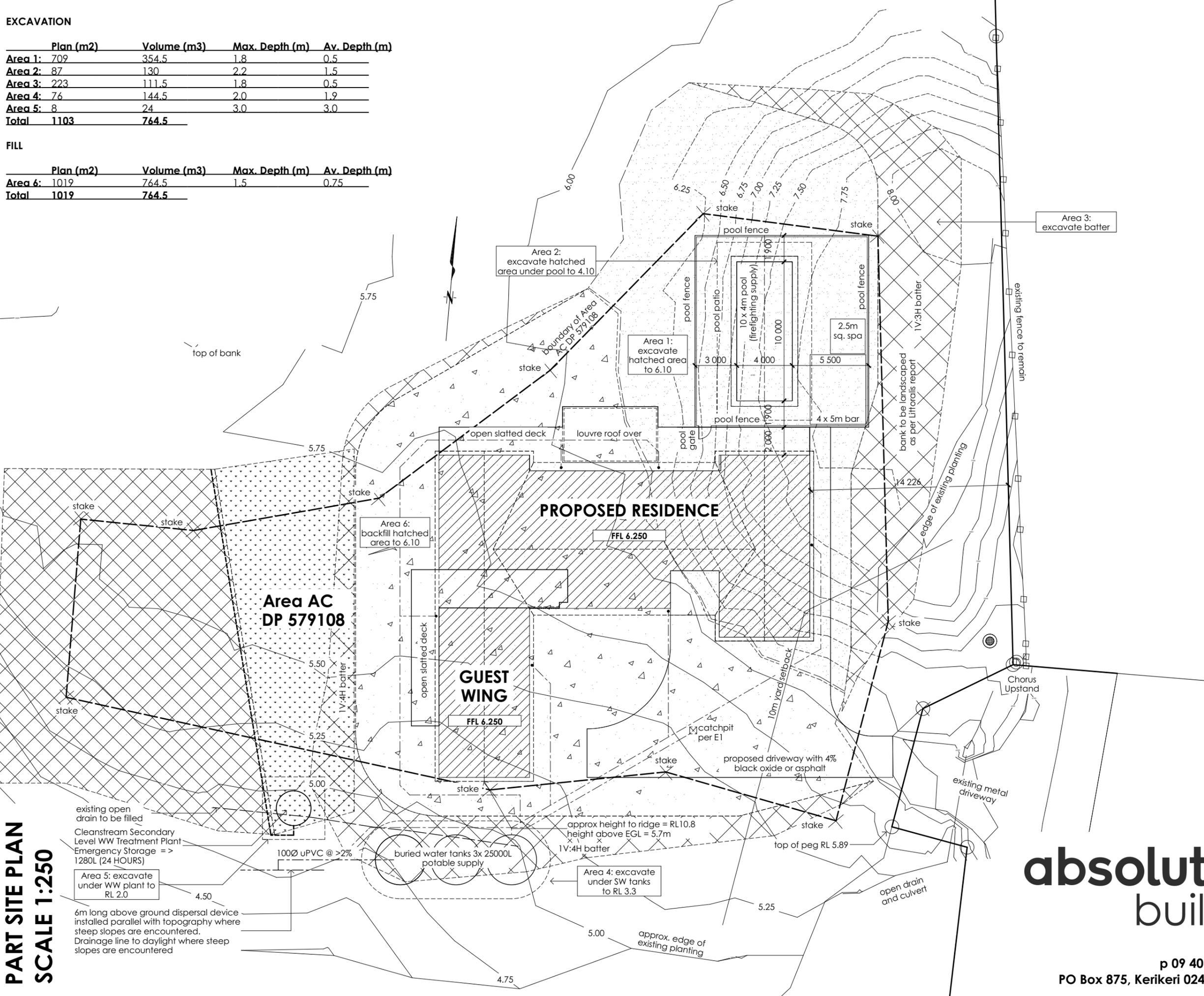


EXCAVATION

	Plan (m ²)	Volume (m ³)	Max. Depth (m)	Av. Depth (m)
Area 1:	709	354.5	1.8	0.5
Area 2:	87	130	2.2	1.5
Area 3:	223	111.5	1.8	0.5
Area 4:	76	144.5	2.0	1.9
Area 5:	8	24	3.0	3.0
Total	1103	764.5		

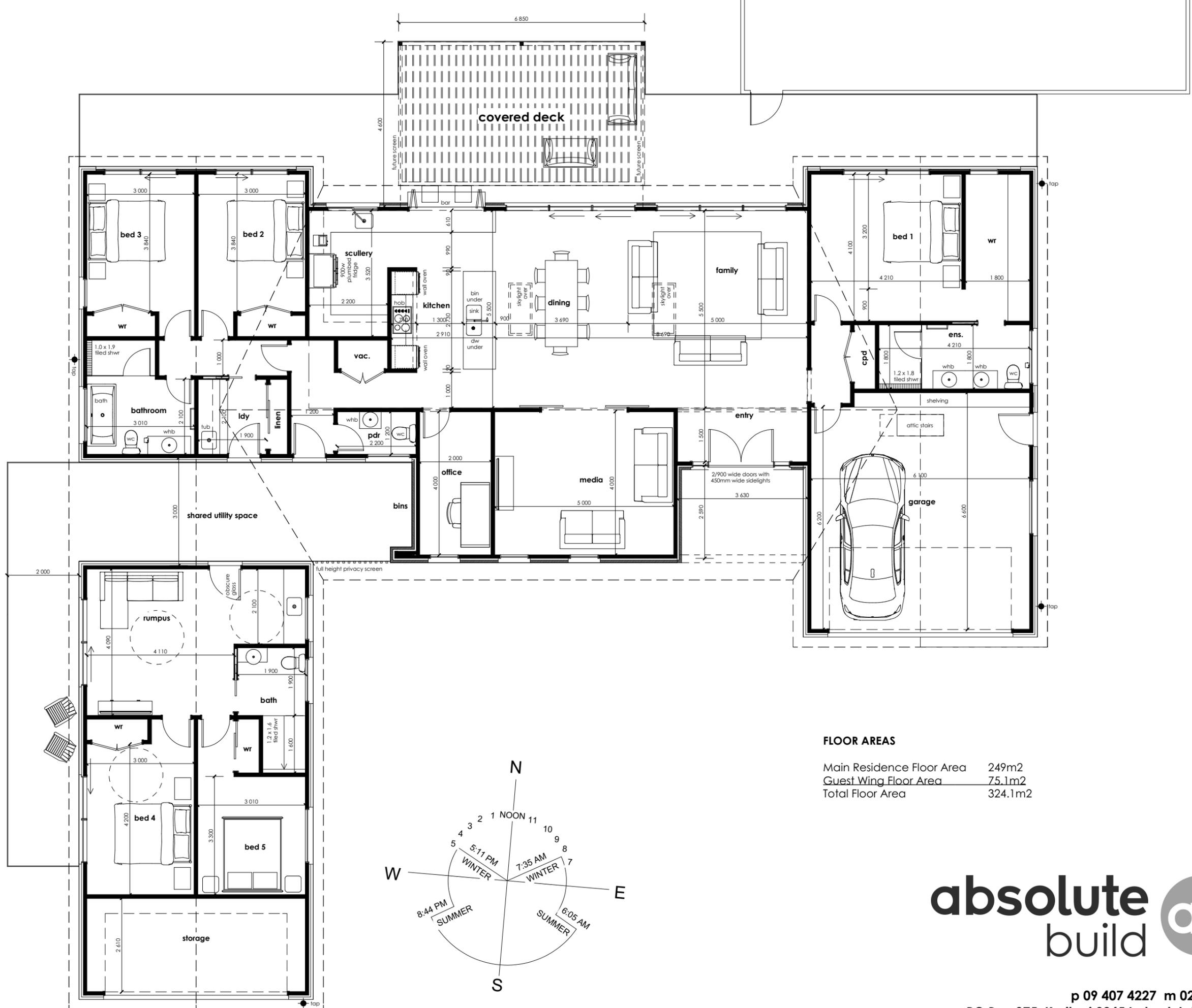
FILL

	Plan (m ²)	Volume (m ³)	Max. Depth (m)	Av. Depth (m)
Area 6:	1019	764.5	1.5	0.75
Total	1019	764.5		



PART SITE PLAN
SCALE 1:250





FLOOR AREAS

Main Residence Floor Area	249m ²
Guest Wing Floor Area	75.1m ²
Total Floor Area	324.1m ²



Flaxpod Colorsteel profiled metal roofing
LRV approx. 7%

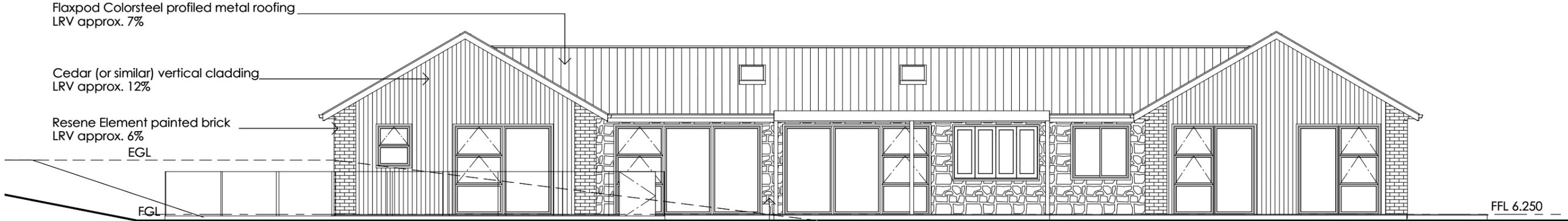
Cedar (or similar) vertical cladding
LRV approx. 12%

Resene Element painted brick
LRV approx. 6%

EGL

FGL

FFL 6.250



Midland Brick Grey Alps Schist
veneer cladding
LRV unknown (natural product)

North Elevation

RL 12.50

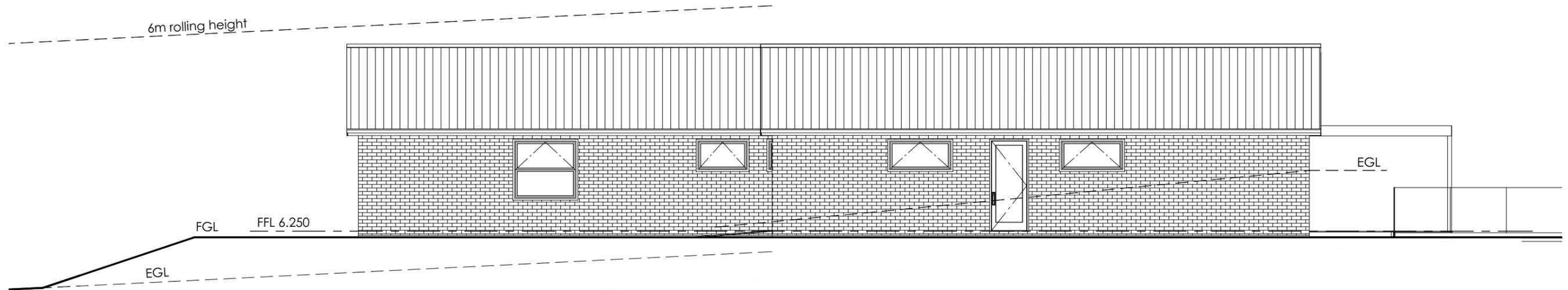
6m rolling height

FGL

FFL 6.250

EGL

EGL



East Elevation

Flaxpod Colorsteel profiled metal roofing
LRV approx. 7%

Cedar (or similar) vertical cladding
LRV approx. 12%

Resene Element painted brick
LRV approx. 6%

FFL 6.250

EGL

FGL

EGL

Midland Brick Grey Alps Schist
vener cladding
LRV unknown (natural product)

EGL

FGL

South Elevation

RL 12.50

6m rolling height

FFL 6.250

EGL

FGL

EGL

West Elevation

PROPOSED SHAW RESIDENCE AT LOT 3, EGRET WAY, KERIKERI
SOUTH AND WEST ELEVATIONS
SCALE 1:100@A3



SITE Egret Way, Kerikeri
 LEGAL DESCRIPTION Lot 3 DP 579108
 PROJECT Proposed Residential Dwelling
 CLIENT Mike & Katrina Shaw
 REFERENCE NO. 138818
 DOCUMENT On-site Effluent Disposal Report
 STATUS/REVISION No. 02
 DATE OF ISSUE 31st March 2025

Report Prepared For	Email
Mike & Katrina Shaw	shawnewhome2@gmail.com

Authored by	G. Brant (BE(Hons) Civil)	Civil Design Engineer	Gustavo@wjl.co.nz	
Reviewed & Approved by	B. Steenkamp (CPEng, BEng Civil, CMEngNZ, BSc (Geology))	Senior Civil Engineer	BenS@wjl.co.nz	

1. EXECUTIVE SUMMARY

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

Legal Description:	Lot 3 DP 579108
Site Area:	1.5470ha
Development Proposals Supplied:	Plan Set by Absolute Build Ltd (dated: 10.02.2025)
Associated Documents:	WJL Geotechnical Report Ref No. 132815 WJL Stormwater Report Ref No. 138818
Overall Site Gradient within Disposal Area:	Disposal slope near level
Geology Encountered:	Waipapa Group Sandstone and Siltstone (Waipapa Composite Terrane)
Site Soil Category (TP58):	Category 6
Daily Application Rate:	3mm/day
Number of Bedrooms:	5
Max Dwelling Occupancy:	8
Water Source:	Rainwater Collection Tanks (160l/pp/pd)
Daily Wastewater Production:	1,280L/day
Disposal Area:	426m ²
Reserve Area:	213m ² (50%)
Application Method:	Sub-surface: Pressure Compensating Drip Irrigation Lines
Effluent Treatment Level:	Secondary Aerated Package Treatment Plant (<BOD5 20 mg/L, TSS 30 mg/L)

2. INTRODUCTION

2.1 SCOPE OF WORK

Wilton Joubert Ltd was engaged by the client, **Mike & Katrina Shaw**, to undertake an effluent disposal assessment at the above site, where we understand, it is proposed to construct a residential dwelling.

At the time of report writing, we have been supplied the following documents:

- Plan Set by Absolute Build Ltd, including site plan, floor plan and elevations (dated: 31.03.2025)

Any revision of drawings and/or development proposals with implications on the wastewater design should be referred back to WJL for review.

3. SITE DESCRIPTION

The subject 1.5470ha irregular shaped property is located off the western side of Egret Way, accessed 380m northeast of the Kerikeri Inlet Road intersection, within the suburb of Kerikeri. The site entrance is at the south-eastern boundary corner via a metaled driveway that trends through the neighbouring upslope property Lot 2 DP 579108.

Topographically speaking, the site is set around a broad, northwest facing spur crest that covers the south-eastern quarter of the property. Aside from an approximately 2.0m high, historical fill mound that covers the eastern boundary area, the crest is essentially flat natured, traversing a width of no less than 40m and length of 80m. Existing ground levels across the crest generally range between 4.0m to 5.0m NZVD.

Steep side flanks fall some 4.0m to 5.0m from the spur crest down to wetlands and tidal mudflats that cover the remaining north-western area of the site. The Okura River environment borders the western boundary. No built development is currently present on-site. Vegetation across the spur crest comprises of pasture with intermittent bush and shrubs planted along the side flanks of the crest.

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

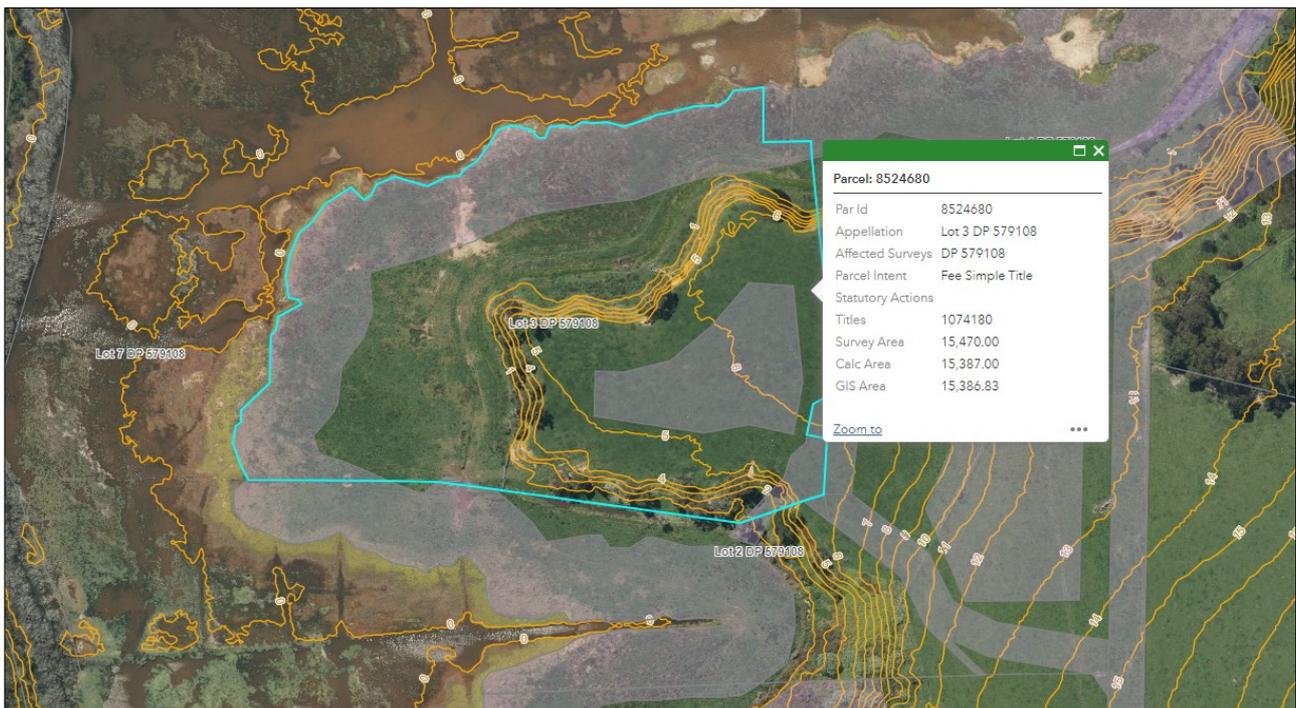


Figure 1: Snip from FNDC GIS Water Services Map Showing Site Boundaries (cyan) and 1m Contours (orange)



Figure 2: Site Photo of the Spur Crest (northwest direction)



Figure 3: Drone Photo of Property (southeast direction) – Red Circle Depicts Approximate Development Location

5. MAPPED GEOLOGY & SOIL ASSESSMENT

The GNS Science New Zealand Geology Web Map, Scale: 1:250,000, indicates that the subject property is underlain by OIS1 (Holocene) Estuary Deposits, described as; “*Unconsolidated to poorly consolidated mud, sand, and peat of estuarine origin.*”, refer ‘GNS Science Website. However, geotechnical testing was conducted by WJL at the subject site in March 2024, where subsoils encountered were consistent with Waipapa Group Sandstone and Siltstone (Waipapa Composite Terrane); refer to WJL Geotechnical Report (Ref No: 132815, dated: 19.03.2024).

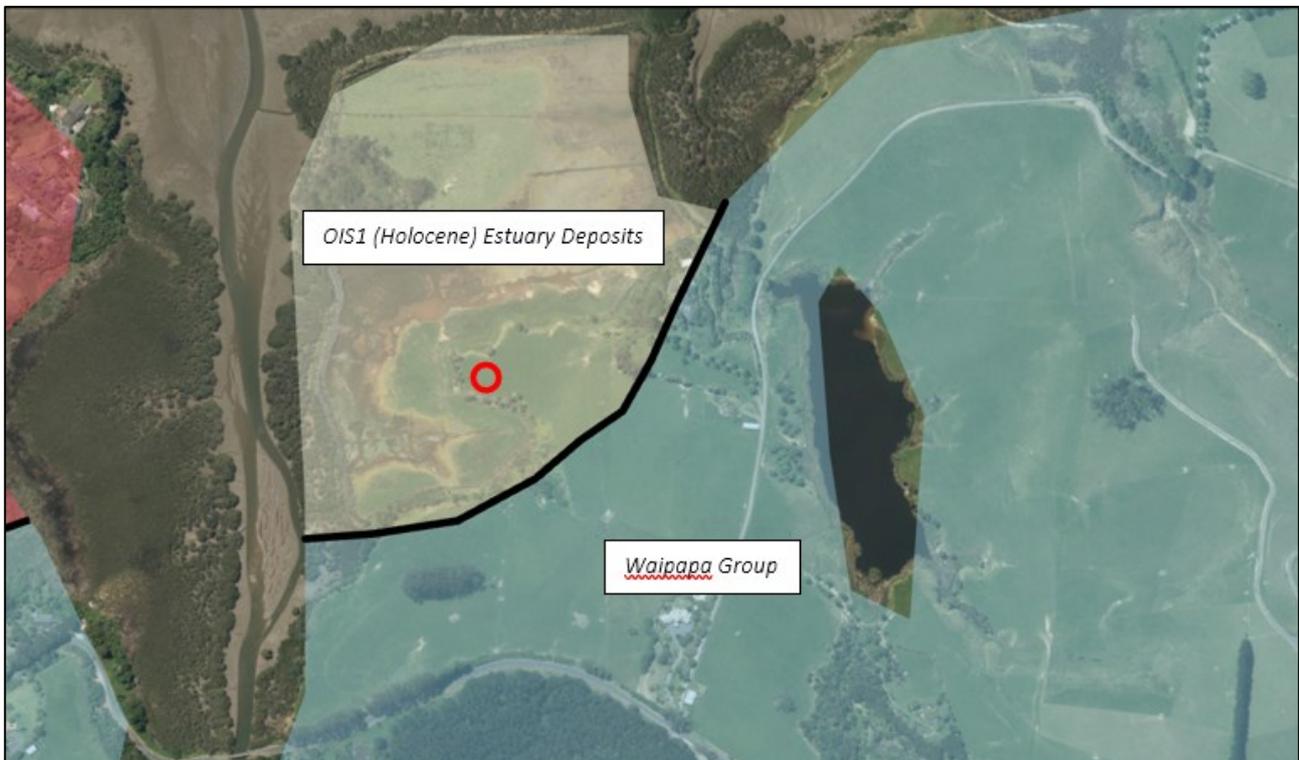


Figure 5: Screenshot from New Zealand Geology Web Map Hosted by GNS Science

In general terms, the subsoils encountered on-site consisted predominantly of Clayey SILT and SILT, approximately 200mm of TOPSOIL was overlying the investigated area. Refer to the appended ‘BH Logs’.

In accordance with the recommendations provided in the Site Suitability Report prepared by Haigh Workman Ltd (Ref No: 17 229, dated: September 2018), the site’s soils have been classified as **Category 6** in accordance with TP58. Based on our investigation, and provided that all report recommendations are following, WJL consider that there should be no wastewater disposal stability problems associated with the site.

6. ASSESSMENT CRITERIA

Table 1: Compliance with Section C.6.1.3 of the PRPN

C.6.1.3 Other on-site treated domestic wastewater discharge– permitted activity			
The discharge of domestic type wastewater into or onto land from an on-site system and the associated discharge of odour into air from the on-site system are permitted activities, provided:			
#	Rule	✓/x	Explanation
1	The on-site system is designed and constructed in accordance with the Australian/New Zealand Standard. On-site Domestic Wastewater Management (AS/NZS 1547:2012), and	✓	Design has been carried out in accordance with TP58 & cross referenced with AS/NZS 1547:2012
2	The volume of wastewater discharged does not exceed two cubic metres per day, and	✓	Total proposed discharge = 1,280L
3	The discharge is not via a spray irrigation system or deep soakage system, and	✓	Pressure compensated drip irrigation lines proposed
4	The slope of the disposal area is not greater than 25 degrees, and	✓	Disposal area slope nearly flat
5	The wastewater has received secondary or tertiary treatment and is discharged via a trench or bed in soil categories 3 to 5 that is designed in accordance with Appendix L of Australian/New Zealand Standard. On-site Domestic Wastewater Management (AS/NZS 1547:2012); or is via an irrigation line system that is:	✓	Secondary Treatment and Pressure compensated drip irrigation lines proposed
	a) dose loaded, and	✓	Dose loading proposed
	b) covered by a minimum of 50 millimetres of topsoil, mulch, or bark, and	✓	Lines to be sub-surface and re-grassed - 100mm of topsoil to be placed over the lines before re-grassing.
6	For the discharge of wastewater onto the surface of slopes greater than 10 degrees:	n.a	n.a - Disposal area slope < 10°
	a) the wastewater, excluding greywater, has received at least secondary treatment, and	n.a	"
	b) the irrigation lines are firmly attached to the disposal area, and	n.a	"
	c) where there is an up-slope catchment that generates stormwater runoff, a diversion system is installed and maintained to divert surface water runoff from the up-slope catchment away from the disposal area, and	n.a	"
	d) a minimum 10 metre buffer area down-slope of the lowest irrigation line is included as part of the disposal area, and	n.a	"
	e) the disposal area is located within existing established vegetation that has at least 80 percent canopy cover, or	n.a	"
	f) the irrigation lines are covered by a minimum of 100 millimetres of topsoil, mulch, or bark, and	n.a	"

7	the disposal area and reserve disposal area are situated outside the relevant exclusion areas and setbacks in Table 9: Exclusion areas and setback distances for on-site domestic wastewater systems, and	✓	From on-site investigation the Field positions comply with table 9
8	for septic tank treatment systems, a filter that retains solids greater than 3.5 millimetres in size is fitted on the outlet, and	n.a	
9	the following reserve disposal areas are available at all times:		
	a) 100 percent of the existing effluent disposal area where the wastewater has received primary treatment or is only comprised of greywater, or	n.a	
	b) 30 percent of the existing effluent disposal area where the wastewater has received secondary treatment or tertiary treatment, and	✓	50% reserve area provided
10	the on-site system is maintained so that it operates effectively at all times and maintenance is undertaken in accordance with the manufacturer's specifications, and	✓	Maintenance as outlined within section 12 of this report
11	the discharge does not contaminate any groundwater water supply or surface water, and	✓	Groundwater was not encountered to a depth of 5.0m below ground level. Appropriate offsets, and conservative loading rates applied to avoid adverse effects on water sources.
12	there is no surface runoff or ponding of wastewater, and	✓	Appropriate application rates applied for subsoil permeation capabilities/site conditions
13	there is no offensive or objectionable odour beyond the property boundary.	✓	WJL anticipated compliance as long as all recommendations within this report are adhered to

7. REQUIRED SETBACK DISTANCES

As per Point 7 above, the disposal and reserve areas must be situated outside the relevant exclusion areas and setbacks described within Table 9 of the PRPN: Exclusion areas and setback distances for on-site domestic wastewater systems:

Table 2: "Table 9" of the PRPN (Proposed Regional Plan for Northland).

Feature	Primary treated domestic wastewater	Secondary treated domestic wastewater	Greywater
Exclusion areas			
Floodplain	5% AEP	5% AEP	5% AEP
Horizontal setback distances			
Identified stormwater flow paths (downslope of disposal area)	5 meters	5 meters	5 meters
River, lake, stream, pond, dam or wetland	20 meters	15 meters	15 meters
Coastal marine area	20 meters	15 meters	15 meters
Existing water supply bore	20 meters	20 meters	20 meters
Property boundary	1.5 meters	1.5 meters	1.5 meters
Vertical setback distances			
Winter groundwater table	1.2 meters	0.6 meters	0.6 meters

In compliance with above:

- The disposal area is outside of mapped flood zones,
- The disposal area is outside of a coastal marine area,
- Groundwater was not encountered to a depth of 5.0m below ground level. Appropriate offsets, and conservative loading rates applied to avoid adverse effects on water sources,
- Ground water bore sources were not identified within the property or anticipated to exist within proximity to the property's boundaries given a review of NRC bore location maps,
- Disposal and reserve area to be >5m away from any OLFPs / channels,
- Disposal and reserve area to be >15m away from wetland.

The disposal and reserve fields are proposed to be situated to the west of the proposed building platform with appropriate offsets to the property's boundary (>1.5m), the proposed dwelling (>3.0m), the existing channel (>5m) and the wetland (>15m).

8. DISCHARGE DETAILS

Water supply for the proposed dwelling will be sourced from on-site domestic tank supply. A per capita flow allowance of 160 litres/person/day was used in the calculations as outlined in Table 3 below.

Table 3: Design flows for proposed dwelling

Development	5 bedrooms
Combined Occupancy Allowance	8-person peak occupancy
Water Reduction	<i>no</i>
Daily Flow Allowances	160L / person / day - as per recommendations in the Site Suitability Report prepared by Haigh Workman Ltd (Ref No: 17 229, dated: September 2018)
Design Flow Rate	1,280L / day
Water Meter	None required.
Other Notes	No garbage grinder

Notes: Additional Occupancy Allowance takes account of additional rooms above and beyond any marked as 'dining', 'lounge' or 'bedrooms'. The calculation is made on the basis of one extra person times the ratio of the total floor area of the additional rooms to that of the smallest designated bedroom & rounded up to the next whole number.

Therefore, for the purpose of this application and design report, the total peak design occupancy was calculated as 8 persons.

9. WASTEWATER TREATMENT

Wilton Joubert Ltd. recommends the installation of an approved **Secondary Level** Treatment Plant to service the proposed dwelling. We recommend a Duracrete Clean Stream TXR or similar. Discharge from this system is required to be directed to a new disposal field consisting of pressure compensated drip irrigation lines. The basic system requirements are summarised in Table 4 below.

Table 4: Secondary Treatment Requirements

Emergency Storage Capacity	Minimum >1,280L
Telemetry Alarm System	Visual and Audible alarm located at plant.
Location	Please refer to Site Plan. More than 3.0m clear of habitable buildings; 1.5m clear of boundaries; 5.0m clear of any OLFP
Discharge Quality	Secondary Level BOD ⁵ ≤ 20g/m ³ , TSS ≤ 30g/m ³

10. DESIGN VOLUMES

Maximum Daily Wastewater Discharge = Maximum Occupancy x Flow Allowance (litres/ person/ day). This calculation results in a total wastewater flow rate of 1,280 litres per day. Since the daily flow does not exceed 2,000 litres, the output complies with the PRPN as a Permitted Activity and a Resource Consent is not required.

The ratio of lot area to design flow = Gross Lot Area (15,470m²) / 1,280 Max Daily Flow (litres/day). This calculation provides an A:V Ratio of approximately 12 m²/litre/day.

11. LAND DISPOSAL METHOD

Sub-Surface Laid Lines

The drip lines are recommended to be sub-surface laid with a daily application rate of 3mm/day. A required disposal field area of 426m² amounts. Where topsoil is 250mm thick or more, dripper lines can be mole-ploughed 50mm into the ground and re-grassed as required. Where less than 200mm of topsoil is present, dripper lines are to be pinned to the ground's surface and recovered with topsoil before re-grassing. Stripped topsoil from the building platform can be spread out over the recommended field location; however, compaction should be limited.

The drip lines must be installed in a regular 'grid' pattern as far as practicable, with row spacings of 0.6m. The 426m² effluent field should consist of a grid of no less than 710 linear metres of drip line split into individual rows not exceeding 65m, with a manual flushing valve at the end of each row. The manual flushing valves must be located within flush boxes for inspection and maintenance purposes. End-feeding the drip lines will lower the cost of installation, with each drip line only requiring one manual flushing valve. 65m long drip lines should be easily flushed by the pump supplied with the system.

Table 5: Land Disposal System

Land Disposal System:	PCDI drip irrigation (Ref: Soil Assessment)
Type:	Surface laid, pressure compensating dripper irrigation lines
Soil Category (TP58):	Category 6
Buffer Zone:	Not required
Cut-off Drain:	Not required
Loading Rate:	3mm/day
Loading Method:	Pump
Pump:	High water level alarm is installed in pump chamber – audible/visual alarm Design head is subject to supplier specs. Pump Chamber Volume is integral to the treatment system Required Emergency Storage volume - >1,280L
Primary Disposal Area:	426m ² at 0.6m centres – sub-surface laid
Reserve Disposal Area:	213m ² (50% reserve area)

12. ASSESSMENT OF ENVIRONMENTAL EFFECTS

This report serves as a full AEE. Each section displays compliance with the relevant council standards while providing explanations on how the proposed design of on-site effluent treatment system will prevent adverse effects on the surrounding environment.

In conclusion:

The system has been designed in accordance with TP58 and cross referenced with AS/NZS 1547:2012. It further complies with the setbacks stipulated in the PRPN.

In addition to the above, the wastewater design herein has been completed in general accordance with the recommendations stipulated within the Site Suitability Report prepared by Haigh Workman Ltd (Ref No: 17 229, dated: September 2018). However, recent site-specific testing conducted by WJL has revealed improved soil conditions compared to those assumed in the initial assessment by Haigh Workman Ltd. This updated investigation provides a more accurate representation of the site's capacity to sustainably manage wastewater through subsurface irrigation.

TP58 and AS/NZS 1547:2012 provide guidance on wastewater system design, including reserve field requirements. These guidelines recommend that reserve areas be determined based on site-specific soil assessments rather than a fixed percentage requirement. The Proposed Regional Plan for Northland notes that 30% should be sufficient. The purpose of a reserve area is to provide redundancy in case of failure or system expansion; however, this need should be balanced against actual soil performance.

Given the improved soil conditions and compliance with the PRPN, TP58 and AS/NZS 1547, a 50% reserve area remains sufficient for contingency purposes. The primary dripper field is expected to function efficiently without overloading the soil, reducing the likelihood of system failure. A 50% reserve area provides adequate flexibility for maintenance, potential future loading changes, and unforeseen circumstances, aligning with best-practice design approaches.

Given the above, it is anticipated that the proposed secondary treatment system and PCDI disposal system for the site will have a less than minor effect on the environment. The irrigation field area will be sub-surface and grassed facilitating evapotranspiration and nutrient removal.

Separation distances shall be maintained from the property's boundary and existing vegetation will assist with the retention, breakdown and uptake of effluent at the site and prevent effluent from being washed off-site. Given the appropriate separation distances to water sources, a reserve area of 50% and the discharge of secondary level of effluent treatment, the proposed wastewater disposal is considered to be suitable to protect the environment and the effects are deemed less than minor.

Additionally:

- To protect against any possible failure of the disposal area, the reserve area should remain undeveloped and should be maintained with a grassed/vegetated surface ready for the possible installation of additional drip lines into it.
- To protect the integrity of the disposal area from unwanted damage from vehicles, persons or animals we recommend that adequate protection measures be put in place.
- To protect the physical treatment plant from misuse or neglect the manufacturer of the plant will supply a detailed maintenance schedule that must be adhered to. It is imperative that the operator of the system both schedule and undertake regular maintenance of the system to ensure its effectiveness.

Based on our site assessment and calculations, we consider that the site is able to provide for the sustainable treatment and land application of domestic effluent generated from the proposed residential dwelling.

Since the discharge volume does not exceed: three cubic metres per day, averaged over the month of greatest discharge, and six cubic metres per day over any 24-hour period, the application falls under a **Permitted Activity** and Northland Regional Council Resource Consent is not required.

13. LIMITATIONS

The recommendations and opinions contained in this report are based on our visual reconnaissance of the site, information from geological maps and upon data from the field investigation as well as the results of in-situ testing of soil carried out by Wilton Joubert Ltd. Inferences are made about the nature and continuity of sub soils away from and beyond the exploratory holes but cannot be guaranteed. The descriptions detailed on the exploratory borehole logs are based on the field descriptions of the soils encountered.

This assignment only considers the design of a **secondary on-site effluent treatment system** and all drainage designs are up to the connection point for each building face of any new structures/slabs; no internal building plumbing or layouts have been done.

During construction, a person competent to judge whether the conditions are compatible with the assumption made in this report should examine the site. In all circumstances, should variations in the subsoil occur which differ from that described or assumed to exist, the matter should be referred back to Wilton Joubert Ltd.

The performance behaviour outlined by this report is dependent on the construction activity and actions of the builder/contractor. Inappropriate actions during the construction phase may cause behaviour outside the limits given in this report.

This report has been prepared for the particular project described to us and no responsibility is accepted for the use of any part of this report in any other context or for any other purpose.

Yours faithfully,

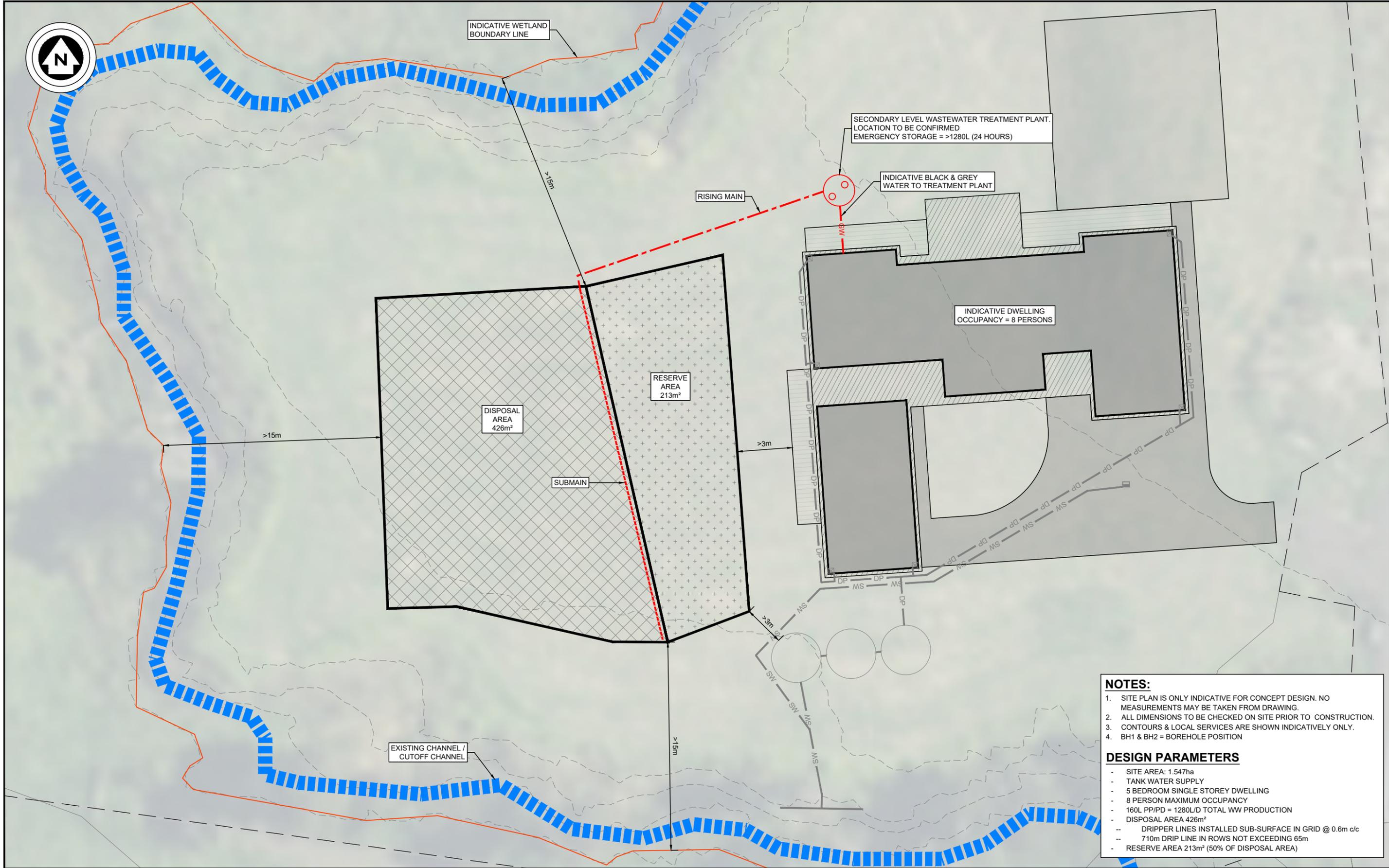
Wilton Joubert Ltd.



Gustavo Medina Brant
BE(Hons)

REPORT ATTACHMENTS

- Site Plan (1 sheet)
- Floor Plan (1 sheet)
- Borelogs (3 sheet)
- Duracrete Clean Stream TXR Specifications (3 sheets)
- FNDC TP58 PS1 (1 sheet)



NOTES:

- SITE PLAN IS ONLY INDICATIVE FOR CONCEPT DESIGN. NO MEASUREMENTS MAY BE TAKEN FROM DRAWING.
- ALL DIMENSIONS TO BE CHECKED ON SITE PRIOR TO CONSTRUCTION.
- CONTOURS & LOCAL SERVICES ARE SHOWN INDICATIVELY ONLY.
- BH1 & BH2 = BOREHOLE POSITION

DESIGN PARAMETERS

- SITE AREA: 1.547ha
- TANK WATER SUPPLY
- 5 BEDROOM SINGLE STOREY DWELLING
- 8 PERSON MAXIMUM OCCUPANCY
- 160L PP/PD = 1280L/D TOTAL WW PRODUCTION
- DISPOSAL AREA 426m²
 - DRIPPER LINES INSTALLED SUB-SURFACE IN GRID @ 0.6m c/c
 - 710m DRIP LINE IN ROWS NOT EXCEEDING 65m
- RESERVE AREA 213m² (50% OF DISPOSAL AREA)

Northland: 09 945 4188
Auckland: 09 527 0196
Christchurch: 021 824 063
Wanaka: 03 443 6209
www.wiltonjoubert.co.nz

ISSUE / REVISION			
No.	DATE	BY	DESCRIPTION
01	FEB '25	GMB	WASTEWATER REPORT
02	MAR '25	GMB	WASTEWATER REPORT REV02

DESIGNED BY:	GMB
DRAWN BY:	GMB
CHECKED BY:	BGS
SURVEYED BY:	N/A

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

BUILDING CONSENT

DESIGN / DRAWING SUBJECT TO ENGINEERS APPROVAL

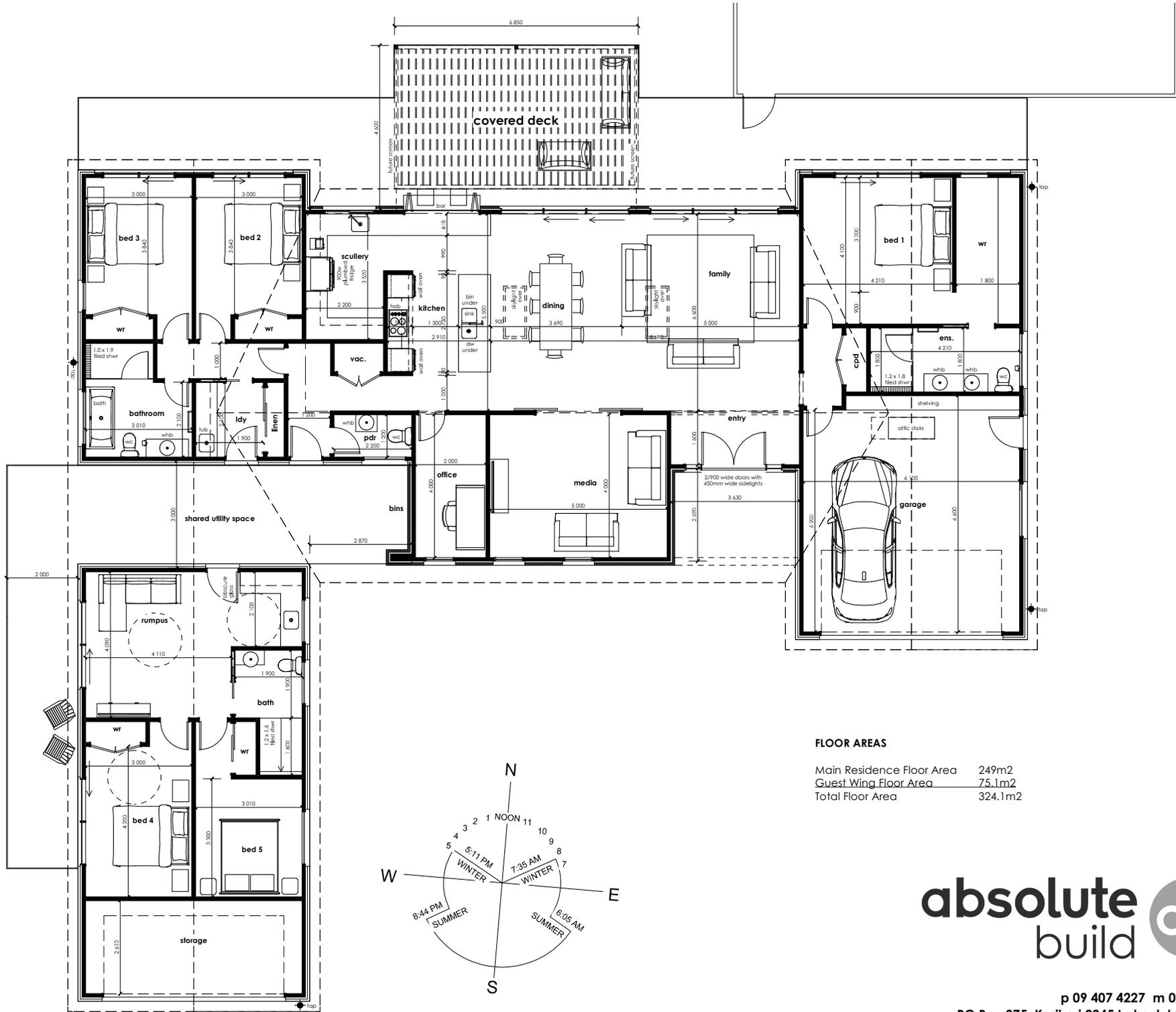
DRAWING TITLE:
SITE PLAN

PROJECT DESCRIPTION:
WASTEWATER REPORT

PROJECT TITLE:
**LOT 3 DP 579108
EGRET WAY
KERIKERI
NORTHLAND**

ORIGINAL DRAWING SIZE: A3	OFFICE: OREWA
DRAWING SCALE: 1:250	CO-ORDINATE SYSTEM: NOT COORDINATED
DRAWING NUMBER: 138818-C300	ISSUE: 02
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**PROPOSED SHAW RESIDENCE AT LOT 3, EGRET WAY, KERIKERI
 PROPOSED FLOOR PLAN
 SCALE 1:100@A3**



FLOOR AREAS

Main Residence Floor Area	249m ²
Guest Wing Floor Area	75.1m ²
Total Floor Area	324.1m ²



HAND AUGER : HA01

JOB NO.: 132815 SHEET: 1 OF 1

START DATE: 13/03/2024

NORTHING:

GRID:

DIAMETER: 50mm

EASTING:

SV DIAL: DR4802

ELEVATION: Ground

FACTOR: 1.55

DATUM:

CLIENT: Mike & Katrina Shaw
PROJECT: Geotechnical Investigation for New Dwelling

SITE LOCATION: Lot 3 DP 579108, Egret Way, Kerikeri

STRATIGRAPHY	SOIL DESCRIPTION	LEGEND	DEPTH (m)	WATER	SHEAR VANE				COMMENTS, SAMPLES, OTHER TESTS
					PEAK STRENGTH (kPa)	REMOULD STRENGTH (kPa)	SENSITIVITY	DCP - SCALA (Blows / mm)	
Topsoil	TOPSOIL, dark brown, dry		0.0 - 0.2						
Waipapa Group	NATURAL: Clayey SILT, light brownish orange, very stiff, moist, low to moderate plasticity		0.2 - 1.6	Groundwater Not Encountered					
	0.9m: Becoming moderate plasticity		0.8 - 1.0		√217+	-	-		
	1.1m: Becoming orange with occasional dark orange mottling, low plasticity		1.0 - 1.2		√217+	-	-		
	1.3m: Occasional white streaks		1.2 - 1.4		√217+	-	-		
	SILT with trace to minor clay, light greyish brown streaked white, very stiff, moist, no to low plasticity, friable		1.6 - 3.6		√217+	-	-		
	2.5m: Occasional pink streaks, becoming hard		2.4 - 2.6		√UTP	-	-		
	2.8m: Becoming orangey red, occasional weakly cemented clast (<20mmø) & limonite inclusions		2.6 - 2.8		√UTP	-	-		
	3.2m: Occasional strongly cemented clast (<10mmø) inclusions		3.0 - 3.2		√UTP	-	-		
	SILT, grey streaked orange & speckled blue, hard, moist, no plasticity		3.6 - 4.2		√UTP	-	-		
	4.0m: Minor clay, becoming orange streaked red, low plasticity		3.8 - 4.0		√217+	-	-		
SILT, trace clay, greyish blue occasionally streaked orangey brown, very stiff to hard, moist, low plasticity		4.2 - 5.0	√UTP	-	-				
4.8m: Occasional black & white spots, becoming hard		4.6 - 4.8	√UTP	-	-				
EOH: 5.00m - Target Depth			5.0	√UTP	-	-			

REMARKS

End of borehole @ 5.00m (Target Depth: 5.00m)

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

LOGGED BY: NPN

▼ Standing groundwater level

CHECKED BY: DXS

▽ GW while drilling



185 Waipapa Road, Kerikeri 0295
Phone: 09-945 4188
Email: jobs@wjl.co.nz
Website: www.wiltonjoubert.co.nz

HAND AUGER : HA02

JOB NO.: 132815 SHEET: 1 OF 1

START DATE: 13/03/2024

NORTHING:

GRID:

DIAMETER: 50mm

EASTING:

SV DIAL: 772

ELEVATION: Ground

FACTOR: 1.6

DATUM:

CLIENT: Mike & Katrina Shaw
PROJECT: Geotechnical Investigation for New Dwelling

SITE LOCATION: Lot 3 DP 579108, Egret Way, Kerikeri

STRATIGRAPHY	SOIL DESCRIPTION	LEGEND	DEPTH (m)	WATER	SHEAR VANE				COMMENTS, SAMPLES, OTHER TESTS
					PEAK STRENGTH (kPa)	REMOULD STRENGTH (kPa)	SENSITIVITY	DCP - SCALA (Blows / mm)	
Topsoil	TOPSOIL, dark brown, dry		0.0 - 0.2						
Waipapa Group	NATURAL: Clayey SILT, yellowish brown occasionally mottled orange, very stiff, dry to moist, low to moderate plasticity		0.2 - 0.4		224+	-	-		
	SILT trace clay, yellowish brown & orangey brown mottled white & pink, very stiff, dry to moist, no to low plasticity, occasional manganese staining		0.4 - 0.8		UTP	-	-		
	1.2m: Becoming slightly gravelly, reddish brown mottled yellow & orange, moist		0.8 - 1.2		UTP	-	-		
	Gravelly SILT with trace clay, yellowish brown mottled reddish brown, very stiff, moist, no to low plasticity, occasional manganese staining		1.2 - 1.8		UTP	-	-		
	Clayey SILT, yellowish brown mottled reddish brown & white, very stiff, moist, low plasticity		1.8 - 2.4		UTP	-	-		
	2.9m: Becoming slightly gravelly, reddish brown mottled yellowish brown & white		2.4 - 2.9		173	38	4.6		
	3.4m: Becoming yellowish brown & orangey brown mottled reddish brown & white		2.9 - 3.4		131	29	4.5		
	Slightly Gravelly SILT with trace clay, reddish brown mottled yellowish brown & white, very stiff, moist, no plasticity		3.4 - 3.8		UTP	-	-		
	3.8m: Becoming yellowish brown mottled reddish brown & white		3.8 - 4.0		UTP	-	-		
	4.3m: Becoming reddish brown mottled yellowish brown & white		4.0 - 4.3		UTP	-	-		
EOH: 5.00m - Target Depth			4.3 - 5.0		UTP	-	-		

Groundwater Not Encountered

REMARKS

End of borehole @ 5.00m (Target Depth: 5.00m)

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

LOGGED BY: SJP

▼ Standing groundwater level

CHECKED BY: DXS

▽ GW while drilling



185 Waipapa Road, Kerikeri 0295
Phone: 09-945 4188
Email: jobs@wjl.co.nz
Website: www.wiltonjoubert.co.nz

HAND AUGER : HA03

JOB NO.: 132815 SHEET: 1 OF 1

START DATE: 13/03/2024

NORTHING:

GRID:

DIAMETER: 50mm

EASTING:

SV DIAL: 1994

ELEVATION: Ground

FACTOR: 1.41

DATUM:

CLIENT: Mike & Katrina Shaw
PROJECT: Geotechnical Investigation for New Dwelling

SITE LOCATION: Lot 3 DP 579108, Egret Way, Kerikeri

STRATIGRAPHY	SOIL DESCRIPTION	LEGEND	DEPTH (m)	WATER	SHEAR VANE			COMMENTS, SAMPLES, OTHER TESTS
					PEAK STRENGTH (kPa)	REMOULD STRENGTH (kPa)	SENSITIVITY	
FILL	NON-ENGINEERED FILL: Clayey SILT, brown/yellow/white, soft with occasional voids, dry, low plasticity, friable		0.0 - 0.2	Groundwater Not Encountered				Void
			0.2 - 0.4		37	14	2.6	
			0.4 - 0.6					
			0.6 - 0.8		0	-	-	
			0.8 - 1.0					
			1.0 - 1.2		102	17	6.0	
			1.2 - 1.4					
			1.4 - 1.6		197+	-	-	
			1.6 - 1.8					
			1.8 - 2.0		197+	-	-	
Waipapa Group	NATURAL: Slightly Clayey SILT, yellow & white mottled orange, very stiff, moist, no to low plasticity		2.0 - 2.2	Groundwater Not Encountered				
			2.2 - 2.4		197+	-	-	
			2.4 - 2.6					
			2.6 - 2.8		197+	-	-	
			2.8 - 3.0					
			3.0 - 3.2		197+	-	-	
			3.2 - 3.4					
			3.4 - 3.6		197+	-	-	
			3.6 - 3.8					
			3.8 - 4.0		197+	-	-	
EOH: 5.00m - Target Depth			4.0 - 4.2	Groundwater Not Encountered				
			4.2 - 4.4		197+	-	-	
			4.4 - 4.6					
			4.6 - 4.8		197+	-	-	
			4.8 - 5.0					
			5.0 - 5.2					

REMARKS

End of borehole @ 5.00m (Target Depth: 5.00m)

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

LOGGED BY: JEM

▼ Standing groundwater level

CHECKED BY: DXS

▽ GW while drilling



185 Waipapa Road, Kerikeri 0295
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Website: www.wiltonjoubert.co.nz

TECHNICAL INFORMATION – CLEANSTREAM TXR-1

The Cleanstream TXR-1 is a complete, one tank textile media treatment system. Its multi-chambered design consists of 2 septic stages, a textile filter stage and irrigation and recirculation stages.

- 8400 litre total capacity
- Emergency storage (without cross contamination - 3500 litres)
- Alarm system (to notify the homeowner of any faults)
- Comprehensive maintenance by Duracrete



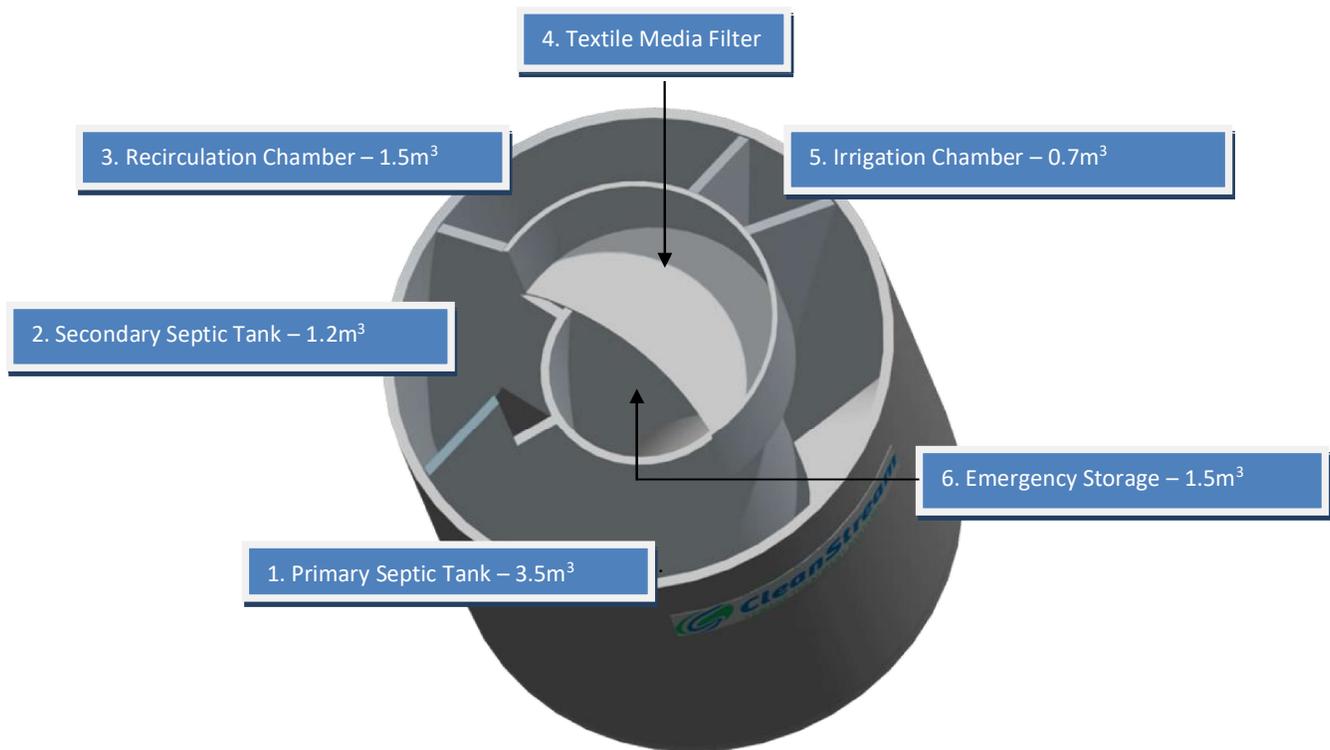
- The TXR-1 tank, roof and walls are constructed from galvanised, steel reinforced concrete (70MPA at 28 days) and come with a manufacturer's warranty of 10 years from the day they leave the factory. The mechanical components of the system (pumps) also come with a 2 year warranty from the date of commission. Electrical components come with a 1 year manufacturers warranty.
- The textile filter and recirculation stages are designed so that effluent is filtered multiple times through the textile media leading to much higher effluent quality than conventional aerobic systems.
- Separate septic stages mean there is always a working septic tank even after periods of non use, this allows the system to stay in a relatively active state.
- The system comes fully constructed, making installation a plug and play operation which provides for a faster turnaround while minimizing installation problems.
- Large emergency storage reduces problems during pump or power failure. The system has approximately 2.5 days of emergency capacity without cross contamination (based on typical flow through 1200L/day)

TREATMENT PERFORMANCE

12 monthly servicing is required to maintain efficient and effective treatment of household waste. This service must be performed by suitably trained personnel.

Expected treatment for medium size homes with daily flows up to 1500L is BOD5 10 mg/L, TSS 10 mg/L. However the system can treat up to 2000L per day whilst still complying with ARC TP58 effluent quality of BOD <15mg and TSS <15 mg/L for Advanced Secondary Treatment Systems – Packed Bed Reactors. Provision for 6 monthly service is required to achieve these larger daily flows.

TREATMENT OVERVIEW



1. The primary septic tank receives the wastewater. It acts like a conventional septic tank and reduces BOD and suspended solids. Effluent then passes through a particulates filter designed to stop large objects from inhibiting the treatment process further on.
2. The secondary septic provides an anoxic environment which aids in nitrate removal converting ammonia into nitrate, while reducing BOD and suspended solids. At the completion of this stage effluent passes through an attached growth filter, which provides an environment for denitrifying bacteria to flourish.
3. The Recirculation Chamber contains a large amount of emergency capacity and is a storage place for effluent before it passes through the textile filter.
4. From the Recirculation chamber treated wastewater is pumped onto the textile filter, this effectively aerates the effluent. Organic Nitrogen is converted to Ammonia by nitrifying bacteria. This process increases effluent quality as it passes through the textile media in the textile filter. The effluent then flows back into the secondary septic tank, unless there is sufficient forward flow to warrant irrigation in which case it drains into the irrigation chamber. Recirculation generally happens multiple times before irrigation is needed.
5. From the irrigation chamber the effluent is passed through a 130 micron Arkal Filter and then dispersed through self compensating drip irrigation.
6. In the event of pump failure emergency storage is provided in the central and recirculation chambers.

On-site Effluent Treatment National Testing Programme (OSET NTP)

PERFORMANCE CERTIFICATE

CleanStream TXR-1 On-site Domestic Wastewater Treatment System, OSET NTP Trial 9, 2013/2014

System Tested

The **CleanStream TXR-1 system** is a packed bed recirculating textile filter wastewater treatment unit. The manufacturer's rated design capacity is 1,200 litres/day. Total liquid volume is 7,400 litres (primary treatment 2 tanks each with an effluent filter 3,700 and 1,200 litres; secondary treatment with packed bed 900 litres; recirculation tank 1,100 litres; pump chamber 700 litres). Emergency storage is 1,500 litres. No tertiary treatment (such as UV disinfection) is incorporated. The manufacturer's stated service frequency is annual.

Test Flow Rate

The **CleanStream TXR-1 system** was tested at 1,000 litres/day (equivalent to servicing a 3-bedroom 5 to 6 person household) over an 8 month (35 week) period November 2013 to July 2014 followed by a 1 month (4 week) high load effects test involving 5 days at 2,000 litres per day then 1,000 litres/day over the following 3 weeks.

Testing and Evaluation Procedures

A total of 37 treated effluent samples of organic matter (BOD₅) and suspended solids (TSS) at generally six day intervals during weeks 9 to 35 were tested and evaluated against the secondary effluent quality requirements of the joint Australia/NZ standard AS/NZS 1547:2012.

A total of 16 treated effluent samples of organic matter (BOD₅), total suspended solids (TSS), total nitrogen (TN), ammonia nitrogen (NH₄-N), total phosphorus (TP) and faecal coliforms (FC) at generally six day intervals during weeks 23 through 35 were tested and the results benchmarked and rated on their median values. In addition, the energy used by the treatment system was assessed on the mean of consumption levels over the benchmark period.

AS/NZS 1547:2012 Secondary Effluent Quality Requirements

These requirements are that 90% of all test samples must achieve a BOD₅ of ≤ 20 g/m³ and TSS of ≤ 30 g/m³ with no one result for BOD₅ being >30 g/m³ and no one result for TSS being >45 g/m³. The **CleanStream TXR-1 system achieved** a performance level of **100%** for BOD₅ and **100%** for TSS based on the full set of 37 test results in weeks 9 to 35, with no results exceeding the maximums. The **CleanStream TXR-1 system thus meets** the secondary effluent quality requirements of AS/NZS 1547:2012.

Benchmark Ratings

The **CleanStream TXR-1 system achieved** the following effluent quality ratings for the sixteen benchmarking results in weeks 20 to 35.

Indicator Parameters	Median	Std Dev	Rating	Rating System				
				A+	A	B	C	D
BOD (mg/L)	2	1	A+	<5	<10	<20	<30	≥30
TSS (mg/L)	3	1	A+	<5	<10	<20	<30	≥30
Total Nitrogen (mg/L)	37.1	5	D	<5	<15	<25	<30	≥30
NH ₄ - Nitrogen (mg/L)	1.9	4	A	<1	<5	<10	<20	≥20
Total phosphorus (mg/L)	4.4	0.5	B	<1	<2	<5	<7	≥7
Faecal Coliforms (cfu/100mL)	65,000	100,000	C	<10	<200	<10,000	<100,000	≥100,000
Energy (kWh/d) (mean)	0.98	0.12	A	0	<1	<2	<5	≥5

This Performance Certificate is specific to the **CleanStream TXR-1** model as specified above when operated at a flow rate of 1,000 litres/day. The initial Performance Certificate was issued on 20 February 2015 with a 5 year validity to 20 February 2020. For the full OSET NTP report on the performance of the **CleanStream TXR-1 system** contact **Duracrete Products Ltd**, Kamo, Whangarei, Ph: 0800 387 227 Email:ric@duracrete.co.nz.

On 21 November 2019 Duracrete Products Ltd applied to retest their **CleanStream TXR-1** plant in the 2021 OSET-NTP Trial 16 and applied for an extension to the above certificate through to the end of Trial 16. They provided a signed and legally witnessed statement confirming that there has been no change made whatsoever to the plant as tested in 2014. Hence OSET-NTP confirm that the validity of the Performance Certificate of 20 February 2015 as detailed above can be extended to 5 March 2022.

Authorised By:



Ray Hedgland, Technical Manager, OSET NTP
28 February 2020

On-site Effluent Treatment National Testing Programme, c/- Technical Manager, 10 Tide Close, Mt Wellington, AUCKLAND 1060 Mob: 021 626 772 E-mail: ray@hedgland.co.nz

PRODUCER STATEMENT

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

ISSUED BY: Ben Steenkamp on behalf of Wilton Joubert Ltd(approved qualified design professional)

TO: Marlon Larsen(owner)

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

PROPERTY LOCATION: Egret Way, Kerikeri
.....

LOT...3DP.....579108...VALUATION NUMBER.....

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)

CPEng, BEng (Civil), BSc.(Geology), CMEngNZ.....(Professional qualifications)

2001008(Licence Number or professional Registration number)

Address 196 Centreway Road, Orewa, Auckland

Phone Number 09 527 0196 Fax Number Cell Phone 0272792392
Date 31.03.2025

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

SITE Egret Way, Kerikeri
 LEGAL DESCRIPTION Lot 3 DP 579108
 PROJECT Proposed Residential Dwelling
 CLIENT Mike & Katrina Shaw
 REFERENCE NO. 138819
 DOCUMENT Stormwater Mitigation Report
 STATUS/REVISION No. 02
 DATE OF ISSUE 31st March 2025

Report Prepared For	Email
Mike & Katrina Shaw	shawnewhome2@gmail.com

Authored by	G. Brant (BE(Hons) Civil)	Civil Engineer	Gustavo@wjl.co.nz	
Reviewed & Approved by	B. Steenkamp (CPEng, BEng Civil, CMEngNZ, BSc (Geology))	Senior Civil Engineer	BenS@wjl.co.nz	

1. EXECUTIVE SUMMARY

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

Legal Description:	Lot 3 DP 579108	
Site Area:	1.5470ha	
Development Type:	Proposed Residential Dwelling	
Development Proposals Supplied:	Plan Set by Absolute Build Ltd (dated: 10.02.2025)	
Associated Documents:	WJL Geotechnical Report Ref. 132815 WJL Wastewater Report Ref. 138818	
District Plan Zone:	South Kerikeri Inlet Zone	
Permitted Activity Coverage:	<u>10% or 600m²</u>	
	Post-Development Impermeable Areas	
Impermeable Coverage:	Total Roof Area	437m ²
	Total Hardstand	391.6m ²
	Total impermeable area = 828.6m ² or 5.4% of the site area	
Activity Status:	<u>Restricted Discretionary Activity</u>	
Roof Mitigation:	Stormwater runoff resulting from the proposed roof area is to be directed to potable water tanks. One of the potable water tanks is to direct overflow to the discharge point.	
Driveway Mitigation:	It is recommended to shape the proposed driveway to shed runoff to a catchpit(s), which is required to drain directly to the dispersal device via sealed pipes.	
Point of Discharge:	To 6m long aboveground spreader bar installed level with topography.	

2. SCOPE OF WORK

Wilton Joubert Ltd. (WJL) was engaged by the client, **Mike & Katrina Shaw**, to produce an on-site stormwater management assessment at the above site.

At the time of report writing, we have been supplied the following documents:

- Plan Set by Absolute Build Ltd, including site plan, floor plan and elevations (dated: 31.03.2025)

Should any changes be made to the provided plans with stormwater management implications, WJL must be contacted for review.

3. SITE DESCRIPTION

The subject 1.5470ha irregular shaped property is located off the western side of Egret Way, accessed 380m northeast of the Kerikeri Inlet Road intersection, within the suburb of Kerikeri. The site entrance is at the south-eastern boundary corner via a metaled driveway that trends through the neighbouring upslope property Lot 2 DP 579108.

Topographically speaking, the site is set around a broad, northwest facing spur crest that covers the south-eastern quarter of the property. Aside from an approximately 2.0m high, historical fill mound that covers the eastern boundary area, the crest is essentially flat natured, traversing a width of no less than 40m and length of 80m. Existing ground levels across the crest generally range between 4.0m to 5.0m NZVD.

Steep side flanks fall some 4.0m to 5.0m from the spur crest down to wetlands and tidal mudflats that cover the remaining north-western area of the site. The Okura River environment borders the western boundary. No built development is currently present on-site. Vegetation across the spur crest comprises of pasture with intermittent bush and shrubs planted along the side flanks of the crest.

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

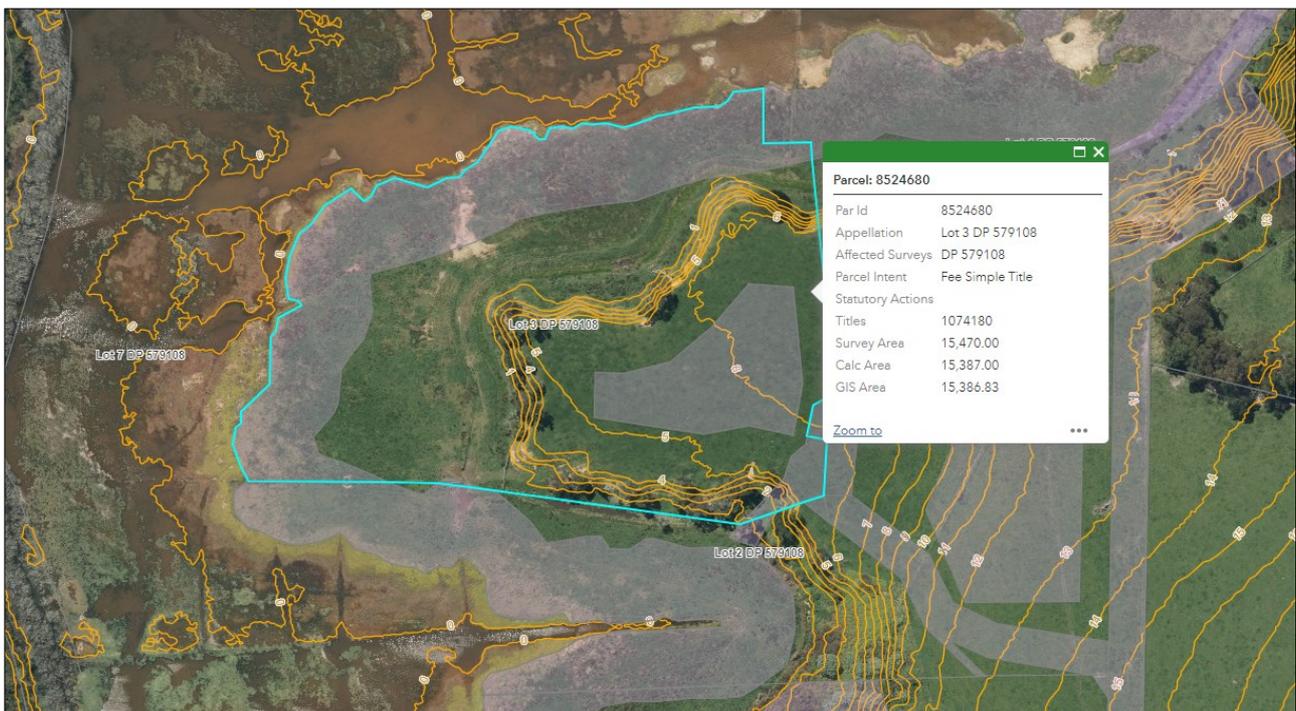


Figure 1: Snip from FNDC GIS Water Services Map Showing Site Boundaries (cyan) and 1m Contours (orange)



Figure 2: Site Photo of the Spur Crest (northwest direction)



Figure 3: Drone Photo of Property (southeast direction) – Red Circle Depicts Approximate Development Location

4. DEVELOPMENT PROPOSALS

The development proposal, obtained from the client, is to construct a residential dwelling, guest wing and associated hardstand areas on-site as depicted in the plant set provided by Absolute Build Ltd (dated: 31.03.2025).

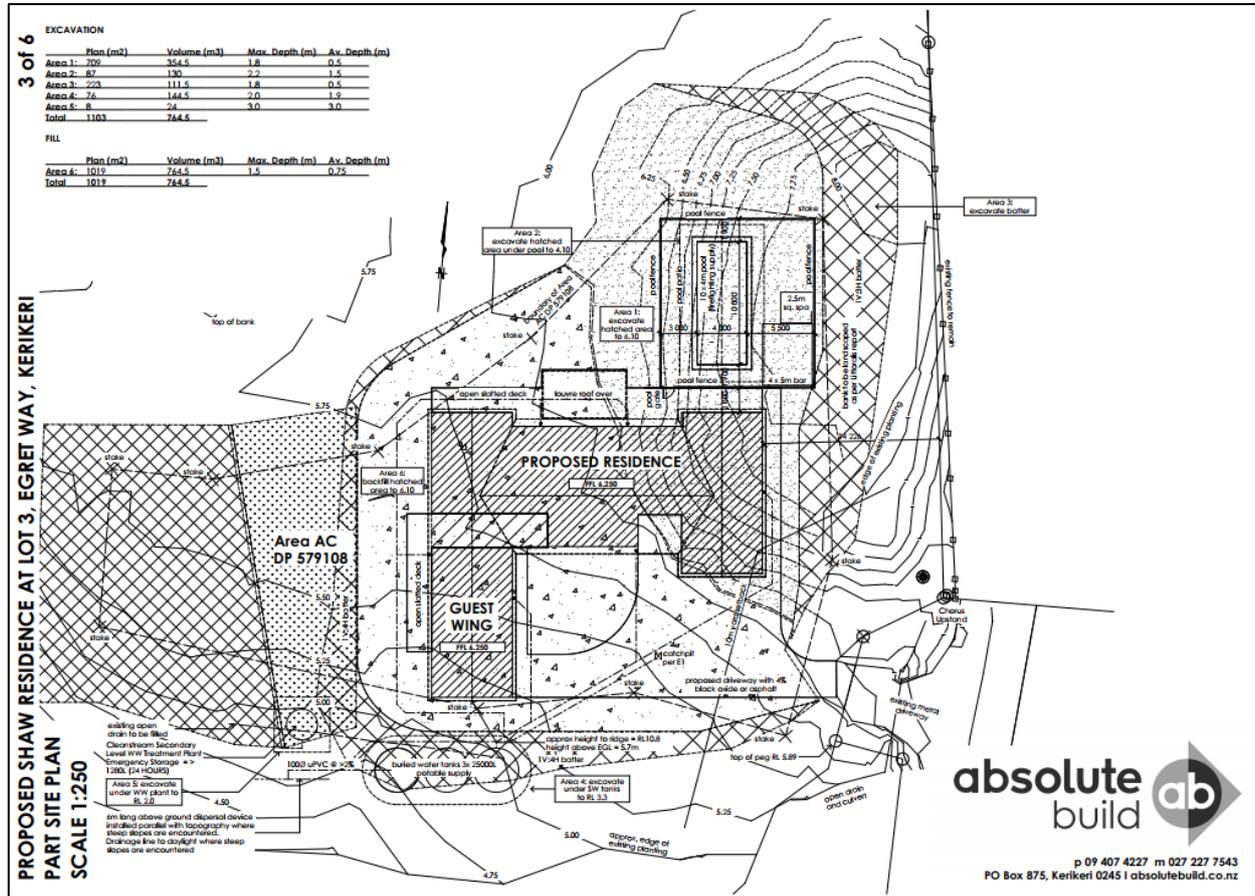


Figure 4: Snip of Proposed Site Plan Provided by Absolute Build Ltd (dated: 31.03.2025)

The principal objective of this assessment is to provide an indicative stormwater disposal design which will manage runoff generated from the proposed impermeable areas resulting from the proposed development.

5. ASSESSMENT CRITERIA

Impermeable Areas

The calculations for the stormwater system for the development are based on a gross site area of 15,470m² and the below areas extracted from the supplied plans:

	Pre-Development	Post-Development	Total Change
Total Roof Area	0 m²	437 m²	437 m ²
Total Hardstand	0 m²	391.6 m²	391 m ²
Proposed Driveway	0 m ²	208 m ²	
Proposed Pool / Patio Area	0 m ²	173 m ²	
Proposed Water Tanks	0 m ²	10.6 m ²	
Pervious	15,470 m²	14,641.4 m²	-828.6 m ²

The total amount of impermeable area on site, post-development, equates to 828.6m² or 5.4% of the site area. Should any changes be made to the current proposal, the on-site stormwater mitigation design must be reviewed.

District Plan Rules

The site is zoned South Kerikeri Inlet Zone. The following rules apply under the FNDC District Plan:

10.10.5.1.6 – **Permitted Activities – Stormwater Management** - 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.

10.10.5.3.8 – **Restricted Discretionary Activities – Stormwater Management** - The maximum proportion or amount of the gross site area covered by buildings and other impermeable surfaces shall be 15% or 1,500m², whichever is the lesser.

The total proposed impermeable area exceeds 600m² and does not comply with Permitted Activity Rule (10.10.6.1.6). Therefore, the proposals are considered a Restricted Discretionary Activity. Additional considerations for stormwater management as outlined in the FNDC District Plan Section 10.10.5.3.8 are required. A District Plan Assessment has been included in Section 7 of this report.

Design Requirements

The stormwater design has been completed in accordance with the following documents:

- The Far North District Council Engineering Standards 2023
- The operative Far North District Council District Plan

The site borders the Kerikeri Inlet which is a coastal environment. As such, we believe that at best attenuation measures implemented on-site will have little to no beneficial effects, and at worst may worsen local flood hazards by modifying the time of peak flow occurrence to coincide with those of other properties located upstream within the larger catchment. As such, attenuation is not recommended for the proposed development. Therefore, the scope of this report is limited to recommendations for the management of stormwater generated over the proposed impermeable areas via a collection system, sealed pipes and outlets in accordance with the FNDC Engineering Standards.

The Type IA storm profile was utilised for stormwater management calculations in accordance with TR-55. HydroCAD[®] software has been utilised in design for a 20% AEP rainfall value of 163mm with a 24-hour duration. Rainfall data was obtained from HIRDS and increased by 20% to account for climate change.

Provided that the recommendations within this report are adhered to, the effects of stormwater runoff resulting from the proposed impermeable areas are considered to have less than minor effects on the receiving environment.

6. STORMWATER MITIGATION ASSESSMENT

To meet the requirements outlined in Section 5, the following must be provided:

Stormwater Mitigation – Roof & Potable Water Supply

It is recommended that rainwater tanks are utilised to provide the proposed dwelling with a potable water supply. The tank type is at the discretion of the client. A proprietary guttering system is required to collect roof runoff from the proposed roof areas. A first flush diverter and/or leaf filters may be installed in-line between the gutters and the tank inlet. The tank inlet level should be at least 600mm below the gutter inlet and any in-line filters. Any filters will require regular inspection and cleaning to ensure the effective operation of the system. The frequency of cleaning will depend on current and future plantings around the proposed roof areas.

Provision should be made by the homeowner for top-up of the tanks via water tankers in periods of low rainfall. Due to inadequate water quality concerns, runoff from hardstand areas should not be allowed to drain to the potable water tanks.

One of the tanks is to be fitted with an 100mm \varnothing overflow outlet directing overflow to the dispersal device specified below. Refer to the appended Site Plan (138819-C200), Tank Detail (138819-C201) and calculation set for clarification.

The tank must be installed in accordance with the tank suppliers' details and specifications. Levels are to be confirmed by the contractor on-site prior to construction. Adequate fall (minimum 2% grade) from the tank's outlet to the discharge point is required. If this is not achievable, WJL must be contacted for review of the design.

Stormwater Mitigation – Driveway

It is recommended to shape the proposed driveway to shed runoff to a catchpit(s), which is required to drain directly to the dispersal device specified below via sealed pipes. Refer to the appended Site Plan (138819-C200) for clarification.

Stormwater catchpits and drainage piping should be in accordance with E1 Surface Water of the NZBC. The catchpit(s) must have a suitable sump to serve as a pre-treatment device prior to discharging to the discharge point.

Alternatively, where possible, driveway runoff can sheet flow to the south, clear of any structures and effluent field toward the existing channel.

Stormwater Mitigation – Dispersal Device

It is recommended that discharge from the potable water tanks and hardstand area be directed via sealed pipes to a dispersal device to the south of the proposed dwelling. The drainage line directed to the dispersal device is to daylight where steep slopes are encountered and from there the dispersal device is recommended to discharge to the slopes below. Refer to the appended Site Plan (138819-C200), Tank Detail (138819-C201), Dispersal Device Detail (138819-C202) and calculation set for clarification. The 6m long dispersal device is to have the following specifications:

- Minimum 6m dispersal bar length and 100mm bar diameter,
- Dispersal bar to be installed parallel to property's topography where steep slopes are encountered,
- The dispersal bar is to be installed well clear and downslope of wastewater effluent fields,
- Dispersal bar installed maximum 150mm above ground level via waratah standards & wire ties,
- 15mm \varnothing outlet holes dripped at 100mm centres along the bar,
- Screw caps installed on dispersal bar ends for maintenance / cleaning access.

Pool Overflows

To prevent contamination of runoff, no pool overflows may be directed to any part of the stormwater management system. Pool overflows are to be managed by a separate system designed by a suitably qualified professional and should drain well clear of the proposed effluent field.

7. DISTRICT PLAN ASSESSMENT

As the proposed development is not compliant with Permitted Activity Rule 10.10.5.1.6 it is therefore regarded as a Restricted Discretionary Activity.

In assessing an application under this provision, the Council will exercise its discretion to review the following matters below, (a) through (l) of FNDCDP Section 10.10.5.3.8.

In respect of matters (a) through (l), we provide the following comments:

<p><i>(a) the extent to which building site coverage and Impermeable Surfaces contribute to total catchment impermeability and the provisions of any catchment or drainage plan for that catchment;</i></p>	<p>Impermeable surfaces resulting from the development increase site impermeability by 828.6m². Due to the site's position in the larger catchment, we believe that at best attenuation measures implemented on-site will have little to no beneficial effects, and at worst may worsen local flood hazards.</p> <p>Stormwater management devices and measures such as rainwater tanks discharging to planted / grassed areas act to mitigate stormwater via debris settlement in the case of the rainwater tanks, while runoff over planted / grassed areas mitigates stormwater runoff via infiltration and evapotranspiration.</p>
<p><i>(b) the extent to which Low Impact Design principles have been used to reduce site impermeability;</i></p>	<p>Stormwater management devices and measures such as rainwater tanks discharging to planted / grassed areas act to mitigate stormwater via debris settlement in the case of the rainwater tanks, while runoff over planted / grassed areas mitigates stormwater runoff via infiltration and evapotranspiration.</p>
<p><i>(c) any cumulative effects on total catchment impermeability;</i></p>	<p>Impermeable surfaces resulting from the development increase site impermeability by 828.6m².</p>
<p><i>(d) the extent to which building site coverage and Impermeable Surfaces will alter the natural contour or drainage patterns of the site or disturb the ground and alter its ability to absorb water;</i></p>	<p>Runoff resulting from the proposed impermeable areas is to be collected and directed to the discharge point via sealed pipes.</p> <p>Ponding is not anticipated to occur provided that the recommendations within this report are adhered to, mitigating interference with natural water absorption.</p>
<p><i>(e) the physical qualities of the soil type;</i></p>	<p>Waipapa Group Sandstone and Siltstone (Waipapa Composite Terrane) – moderate drainage</p>
<p><i>(f) any adverse effects on the life supporting capacity of soils;</i></p>	<p>Runoff resulting from the proposed impermeable areas is to be collected and directed to the discharge point via sealed pipes, mitigating the potential for runoff to pass over / saturate surrounding soils. Life supporting capacity of soils not expected to be negatively affected.</p>
<p><i>(g) the availability of land for the disposal of effluent and stormwater on the site without adverse effects on the water quantity and water quality of water bodies (including groundwater and aquifers) or on adjacent sites;</i></p>	<p>Runoff resulting from the proposed impermeable areas is to be collected and directed to the discharge point via sealed pipes, mitigating the potential for runoff to pass over / saturate surrounding soils, or hardstand areas to sheet flow well away from effluent field. Water quantity and quality are not expected to be negatively impacted.</p> <p>Stormwater management devices well clear of proposed effluent field. Refer to Wastewater Report by WJL (Ref. 138818) for setbacks.</p>
<p><i>(h) the extent to which paved, Impermeable Surfaces are necessary for the proposed activity;</i></p>	<p>The proposed driveway is necessary to provide the subject site with access and is not considered excessive.</p>

<i>(i) the extent to which landscaping and vegetation may reduce adverse effects of run-off;</i>	Existing vegetation and any plantings introduced by the homeowner during occupancy will aid in reducing surface water velocity and providing treatment. No specific landscaping scheme is proposed as part of the stormwater management system described herein.
<i>(j) any recognised standards promulgated by industry groups;</i>	Not applicable.
<i>(k) the means and effectiveness of mitigating stormwater runoff to that expected by permitted activity threshold;</i>	Due to the site's position in the larger catchment, we believe that at best attenuation measures implemented on-site will have little to no beneficial effects, and at worst may worsen local flood hazards. Stormwater management devices and measures such as rainwater tanks and flow over grassed areas act to mitigate stormwater via debris settlement in the case of the rainwater tanks, while flow over grassed areas mitigates stormwater runoff via infiltration and evapotranspiration.
<i>(l) the extent to which the proposal has considered and provided for climate change.</i>	Rainfall values used in calculations increased by 20% to account for climate change as per FNDC's Engineering Standards.

8. NOTES

If any of the design specifications mentioned in the previous sections are altered or found to be different than what is described in this report, Wilton Joubert Ltd will be required to review this report. Indicative system details have been provided in the appendices of this report (138819-C200, 138819-C201 & 138819-C202).

Care should be taken when constructing the discharge point to avoid any siphon or backflow effect within the stormwater system.

Subsequent to construction, a programme of regular inspection / maintenance of the system should be initiated by the Owner to ensure the continuance of effective function, and if necessary, the instigation of any maintenance required.

Wilton Joubert Ltd recommends that all contractors keep a photographic record of their work.

9. LIMITATIONS

The recommendations and opinions contained in this report are based on information received and available from the client at the time of report writing.

This assignment only considers the primary stormwater system. The secondary stormwater system, Overland Flow Paths (OLFP), vehicular access and the consideration of road/street water flooding is all assumed to be undertaken by a third party.

All drainage design is up to the connection point for each building face of any new structures/slabs; no internal building plumbing or layouts have been undertaken.

During construction, an engineer competent to judge whether the conditions are compatible with the assumptions made in this report should examine the site. In all circumstances, if variations occur which differ from that described or that are assumed to exist, then the matter should be referred to a suitably qualified and experienced engineer.

The performance behaviour outlined by this report is dependent on the construction activity and actions of the builder/contractor. Inappropriate actions during the construction phase may cause behaviour outside the limits given in this report.

This report has been prepared for the particular project described to us and no responsibility is accepted for the use of any part of this report in any other context or for any other purpose.

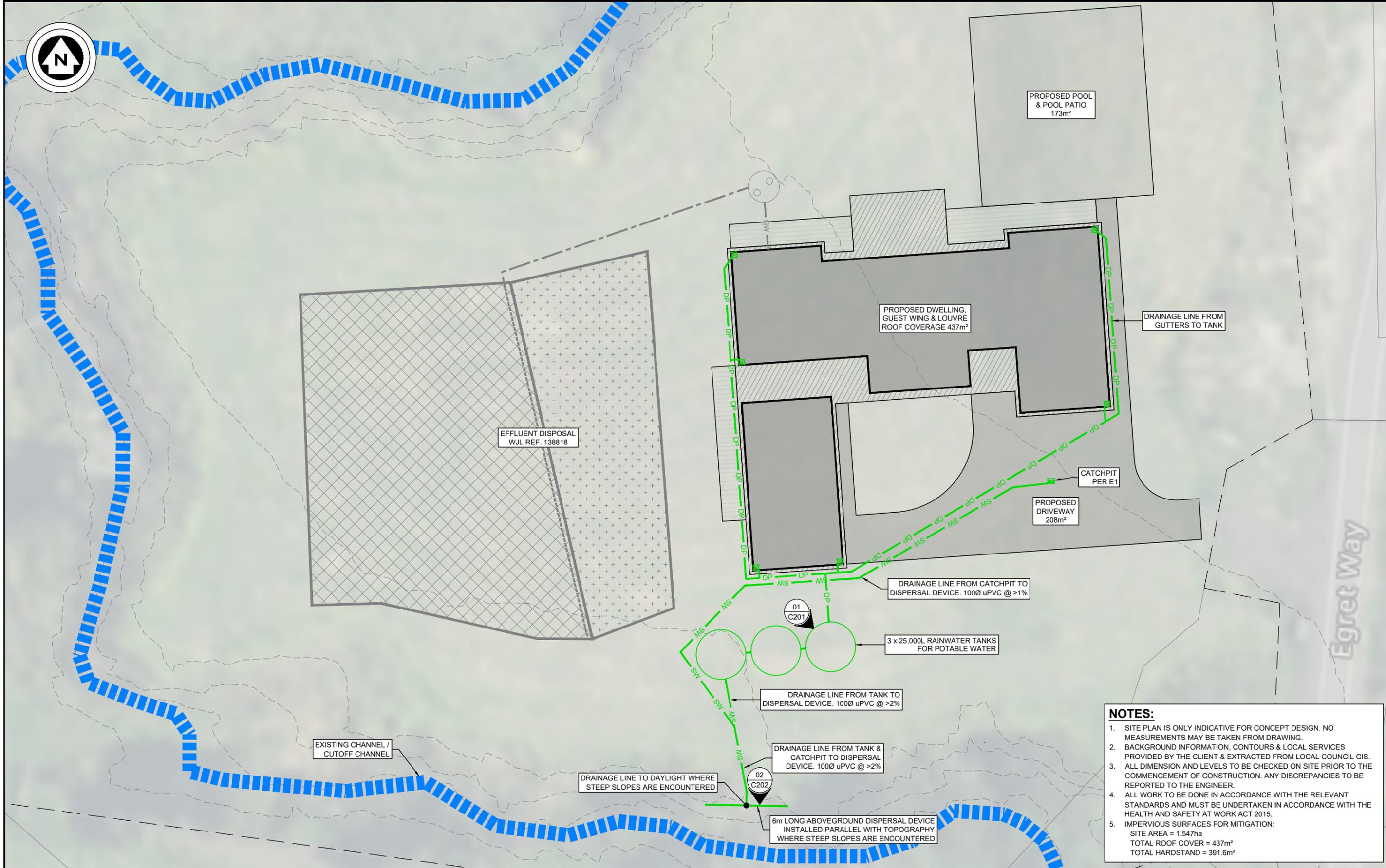
Wilton Joubert Ltd.



Gustavo Brant
Civil Engineer
BE(Hons)

REPORT ATTACHMENTS

- Site Plan - C200 (1 sheet)
- Tank Detail – C201 (1 sheet)
- Dispersal Device Detail – C202 (1 sheet)
- Calculation Set



- 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.
 5. IMPERVIOUS SURFACES FOR MITIGATION:
 SITE AREA = 1.547ha
 TOTAL ROOF COVER = 437m²
 TOTAL HARDSTAND = 391.6m²

WILTON JOUBERT
 Consulting Engineers
 Northland: 09 945 4188 Auckland: 09 527 0196
 Christchurch: 021 824 063 Wanaka: 03 443 6209
 www.wiltonjoubert.co.nz

ISSUE / REVISION			
No.	DATE	BY	DESCRIPTION
01	FEB '25	GMB	STORMWATER MITIGATION REPORT
01	MAR '25	GMB	STORMWATER MITIGATION REPORT REV02

DESIGNED BY:
GMB

DRAWN BY:
GMB

CHECKED BY:
BGS

SURVEYED BY:
N/A

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

BUILDING CONSENT

DESIGN / DRAWING SUBJECT TO ENGINEERS APPROVAL

DRAWING TITLE:
SITE PLAN

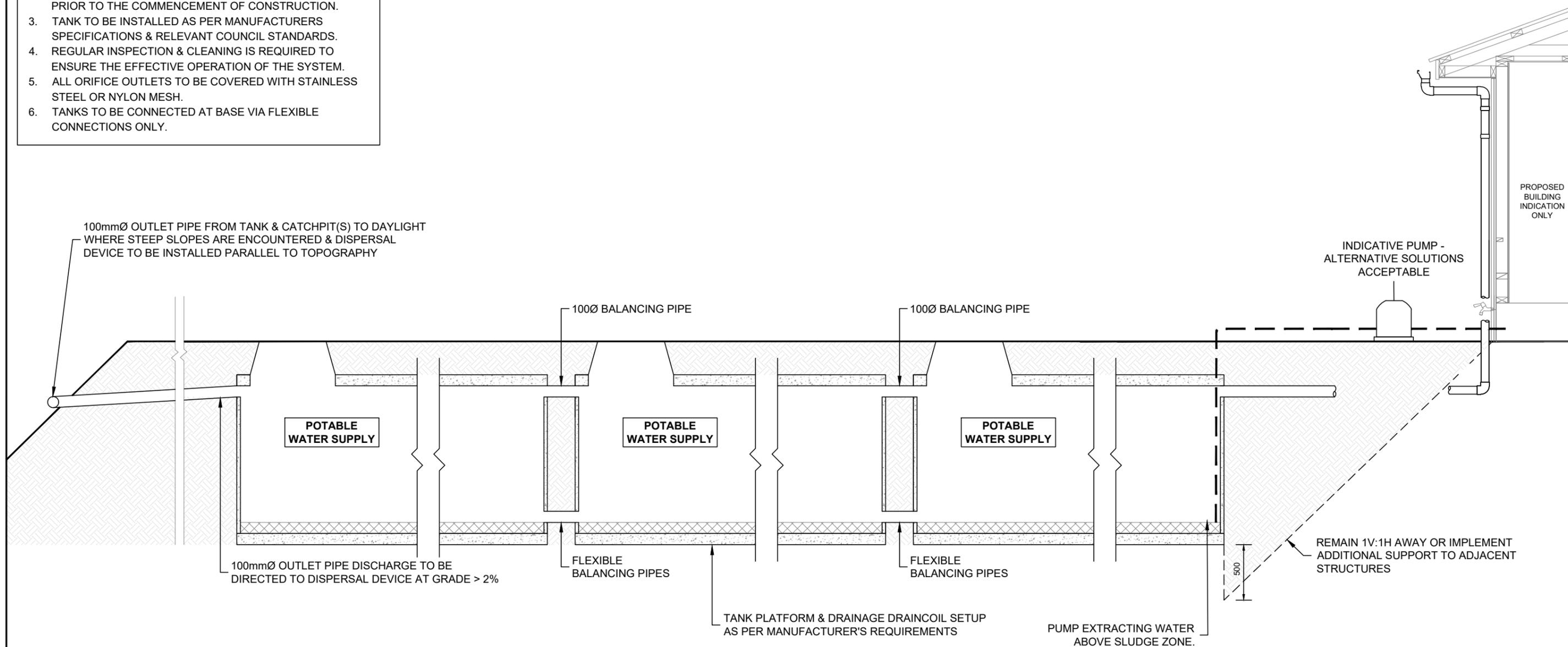
PROJECT DESCRIPTION:
STORMWATER MITIGATION REPORT

PROJECT TITLE:
**LOT 3 DP 579108
 EGRET WAY
 KERIKERI
 NORTHLAND**

ORIGINAL DRAWING SIZE: A3	OFFICE: OREWA
DRAWING SCALE: 1:250	CO-ORDINATE SYSTEM: NOT COORDINATED
DRAWING NUMBER: 138819-C200	ISSUE: 02
COPYRIGHT - WILTON JOUBERT LIMITED	

NOTES:

1. NOT TO SCALE. DRAWN INDICATIVELY ONLY.
2. ALL LEVELS & DIMENSIONS TO BE CONFIRMED ON SITE & ANY DISCREPANCIES TO BE REPORTED TO THE ENGINEER PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
3. TANK TO BE INSTALLED AS PER MANUFACTURERS SPECIFICATIONS & RELEVANT COUNCIL STANDARDS.
4. REGULAR INSPECTION & CLEANING IS REQUIRED TO ENSURE THE EFFECTIVE OPERATION OF THE SYSTEM.
5. ALL ORIFICE OUTLETS TO BE COVERED WITH STAINLESS STEEL OR NYLON MESH.
6. TANKS TO BE CONNECTED AT BASE VIA FLEXIBLE CONNECTIONS ONLY.



01 **TANK DETAIL**
C200 N.T.S

WILTON JOUBERT
Consulting Engineers

Northland: 09 945 4188 Auckland: 09 527 0196
Christchurch: 021 824 063 Wanaka: 03 443 6209
www.wiltonjoubert.co.nz

ISSUE / REVISION			
No.	DATE	BY	DESCRIPTION
01	FEB '25	GMB	STORMWATER MITIGATION REPORT
02	MAR '25	GMB	STORMWATER MITIGATION REPORT REV02

DESIGNED BY:	GMB
DRAWN BY:	GMB
CHECKED BY:	BGS
SURVEYED BY:	N/A

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BUILDING CONSENT

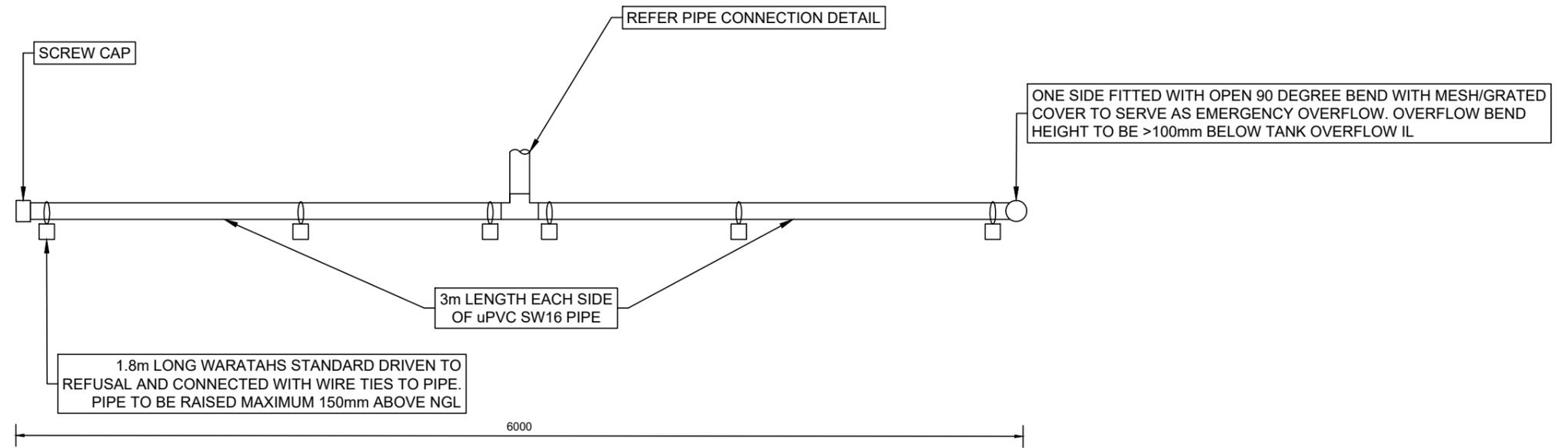
DESIGN / DRAWING SUBJECT TO ENGINEERS APPROVAL

DRAWING TITLE:
TANK DETAIL

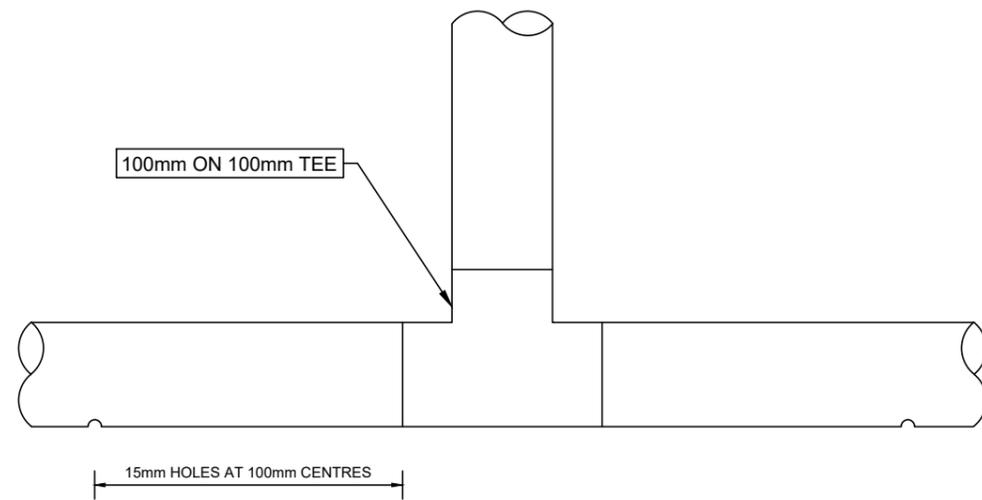
PROJECT DESCRIPTION:
STORMWATER MITIGATION REPORT

PROJECT TITLE:
**LOT 3 DP 579108
EGRET WAY
KERIKERI
NORTHLAND**

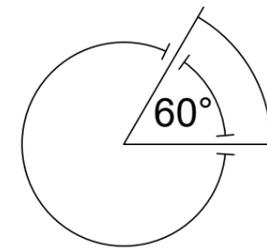
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DRAWING SCALE:	CO-ORDINATE SYSTEM:
N.T.S	NOT COORDINATED
DRAWING NUMBER:	ISSUE:
138819-C201	02
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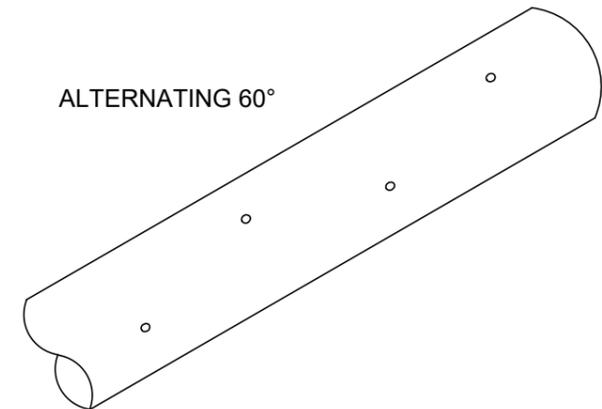
PLAN



PIPE CONNECTION DETAIL



PIPE OUTLET HOLE ARRANGEMENT DETAIL



02 **DISPERSAL DEVICE DETAIL**
C200 N.T.S

ISSUE / REVISION			
No.	DATE	BY	DESCRIPTION
01	FEB '25	GMB	STORMWATER MITIGATION REPORT
02	MAR '25	GMB	STORMWATER MITIGATION REPORT REV02

DESIGNED BY:	GMB
DRAWN BY:	GMB
CHECKED BY:	BGS
SURVEYED BY:	N/A

SERVICES NOTE
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BUILDING CONSENT
DESIGN / DRAWING SUBJECT TO ENGINEERS APPROVAL

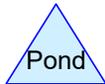
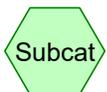
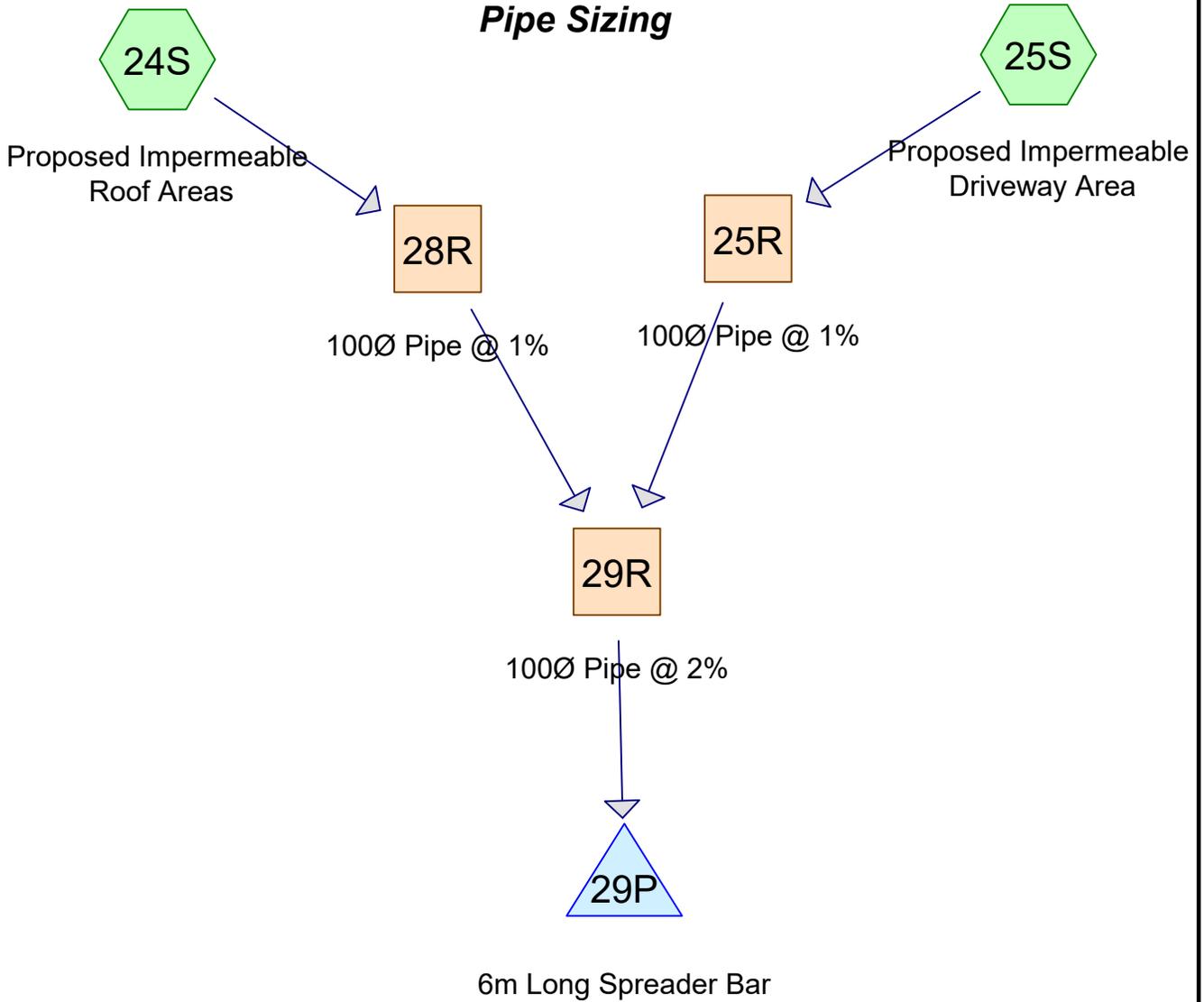
DRAWING TITLE:
TANK DETAIL

PROJECT DESCRIPTION:
STORMWATER MITIGATION REPORT

PROJECT TITLE:
**LOT 3 DP 579108
EGRET WAY
KERIKERI
NORTHLAND**

ORIGINAL DRAWING SIZE: A3	OFFICE: OREWA
DRAWING SCALE: N.T.S	CO-ORDINATE SYSTEM: NOT COORDINATED
DRAWING NUMBER: 138819-C202	ISSUE: 02
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Pipe Sizing



Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
 Reach routing by Stor-Ind method - Pond routing by Stor-Ind method

Subcatchment 24S: Proposed	Runoff Area=437.0 m ² 100.00% Impervious Runoff Depth>157 mm Tc=10.0 min CN=98 Runoff=4.68 L/s 68.4 m ³
Subcatchment 25S: Proposed	Runoff Area=208.0 m ² 100.00% Impervious Runoff Depth>157 mm Tc=10.0 min CN=98 Runoff=2.23 L/s 32.6 m ³
Reach 25R: 100Ø Pipe @ 1%	Avg. Flow Depth=0.04 m Max Vel=0.72 m/s Inflow=2.23 L/s 32.6 m ³ 100 mm Round Pipe n=0.011 L=10.00 m S=0.0100 m/m Capacity=6.10 L/s Outflow=2.23 L/s 32.6 m ³
Reach 28R: 100Ø Pipe @ 1%	Avg. Flow Depth=0.07 m Max Vel=0.86 m/s Inflow=4.68 L/s 68.4 m ³ 100 mm Round Pipe n=0.011 L=10.00 m S=0.0100 m/m Capacity=6.10 L/s Outflow=4.68 L/s 68.4 m ³
Reach 29R: 100Ø Pipe @ 2%	Avg. Flow Depth=0.07 m Max Vel=1.22 m/s Inflow=6.90 L/s 101.0 m ³ 100 mm Round Pipe n=0.011 L=10.00 m S=0.0200 m/m Capacity=8.63 L/s Outflow=6.90 L/s 100.9 m ³
Pond 29P: 6m Long Spreader Bar	Peak Elev=0.074 m Storage=0.0 m ³ Inflow=6.90 L/s 100.9 m ³ Outflow=6.90 L/s 100.9 m ³

Summary for Subcatchment 24S: Proposed Impermeable Roof Areas

Runoff = 4.68 L/s @ 7.94 hrs, Volume= 68.4 m³, Depth> 157 mm

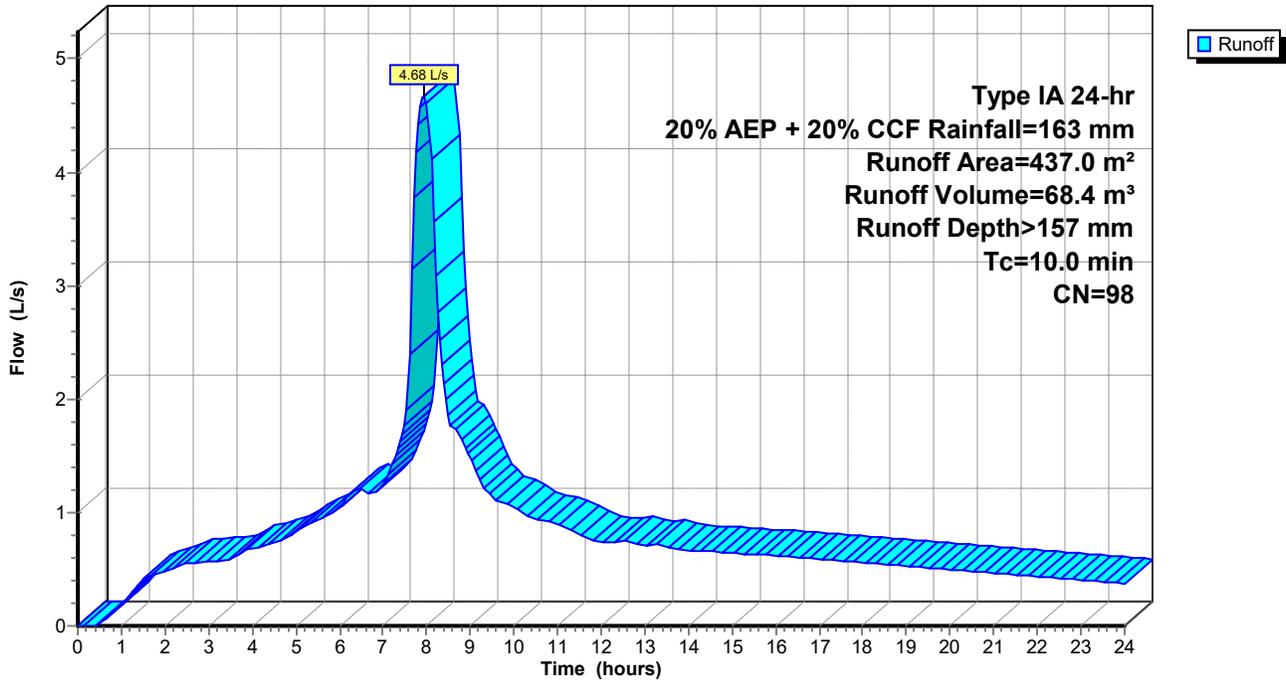
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Type IA 24-hr 20% AEP + 20% CCF Rainfall=163 mm

Area (m ²)	CN	Description
437.0	98	Roofs, HSG C
437.0		100.00% Impervious Area

Tc (min)	Length (meters)	Slope (m/m)	Velocity (m/sec)	Capacity (m ³ /s)	Description
10.0					Direct Entry,

Subcatchment 24S: Proposed Impermeable Roof Areas

Hydrograph



Summary for Subcatchment 25S: Proposed Impermeable Driveway Area

Runoff = 2.23 L/s @ 7.94 hrs, Volume= 32.6 m³, Depth> 157 mm

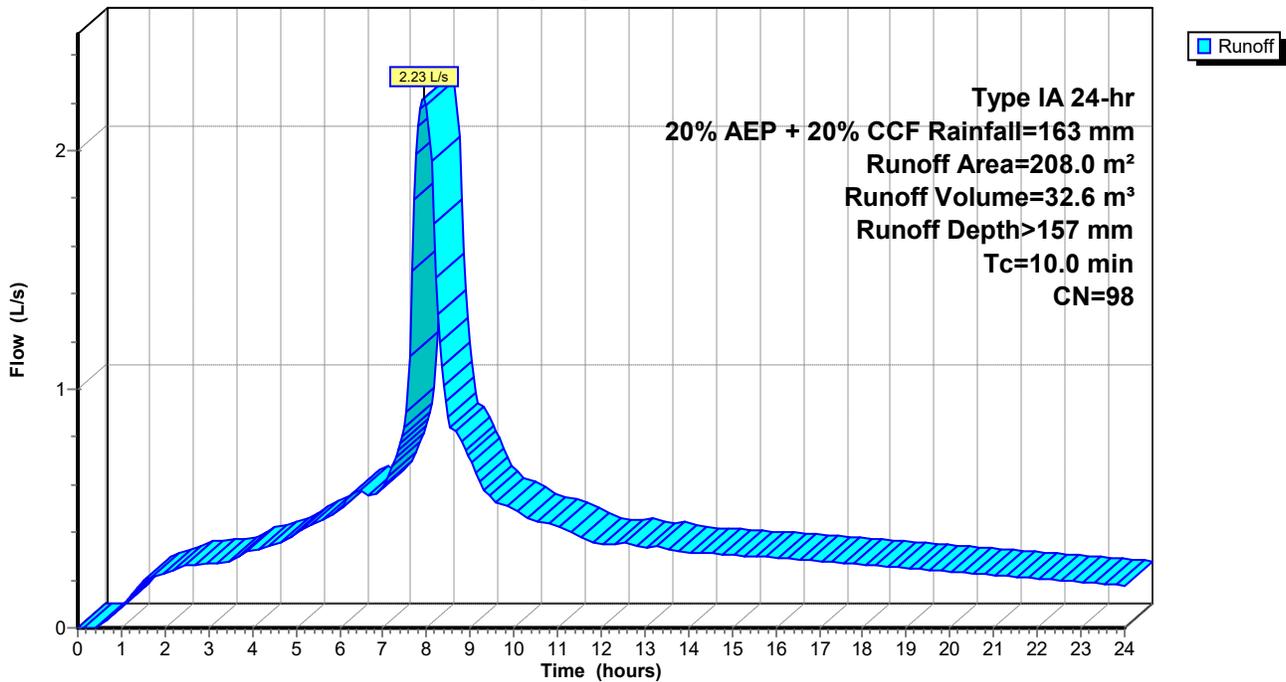
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Type IA 24-hr 20% AEP + 20% CCF Rainfall=163 mm

Area (m ²)	CN	Description
208.0	98	Paved roads w/curbs & sewers, HSG C
208.0		100.00% Impervious Area

Tc (min)	Length (meters)	Slope (m/m)	Velocity (m/sec)	Capacity (m ³ /s)	Description
10.0					Direct Entry,

Subcatchment 25S: Proposed Impermeable Driveway Area

Hydrograph



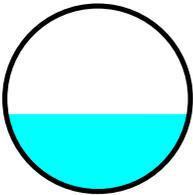
Summary for Reach 25R: 100Ø Pipe @ 1%

Inflow Area = 208.0 m², 100.00% Impervious, Inflow Depth > 157 mm for 20% AEP + 20% CCF event
 Inflow = 2.23 L/s @ 7.94 hrs, Volume= 32.6 m³
 Outflow = 2.23 L/s @ 7.94 hrs, Volume= 32.6 m³, Atten= 0%, Lag= 0.2 min

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Max. Velocity= 0.72 m/s, Min. Travel Time= 0.2 min
 Avg. Velocity = 0.42 m/s, Avg. Travel Time= 0.4 min

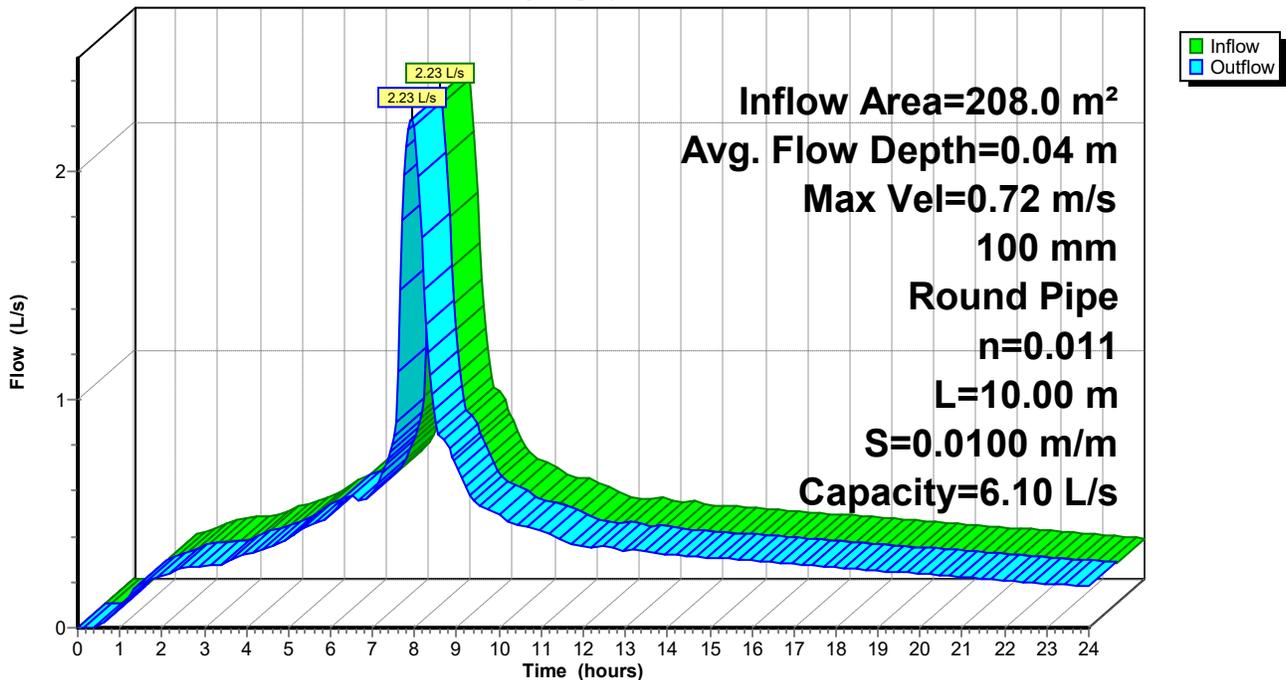
Peak Storage= 0.0 m³ @ 7.94 hrs
 Average Depth at Peak Storage= 0.04 m
 Bank-Full Depth= 0.10 m Flow Area= 0.01 m², Capacity= 6.10 L/s

100 mm Round Pipe
 n= 0.011 PVC, smooth interior
 Length= 10.00 m Slope= 0.0100 m/m
 Inlet Invert= 0.000 m, Outlet Invert= -0.100 m



Reach 25R: 100Ø Pipe @ 1%

Hydrograph



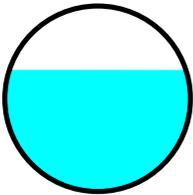
Summary for Reach 28R: 100Ø Pipe @ 1%

Inflow Area = 437.0 m², 100.00% Impervious, Inflow Depth > 157 mm for 20% AEP + 20% CCF event
 Inflow = 4.68 L/s @ 7.94 hrs, Volume= 68.4 m³
 Outflow = 4.68 L/s @ 7.94 hrs, Volume= 68.4 m³, Atten= 0%, Lag= 0.2 min

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Max. Velocity= 0.86 m/s, Min. Travel Time= 0.2 min
 Avg. Velocity = 0.52 m/s, Avg. Travel Time= 0.3 min

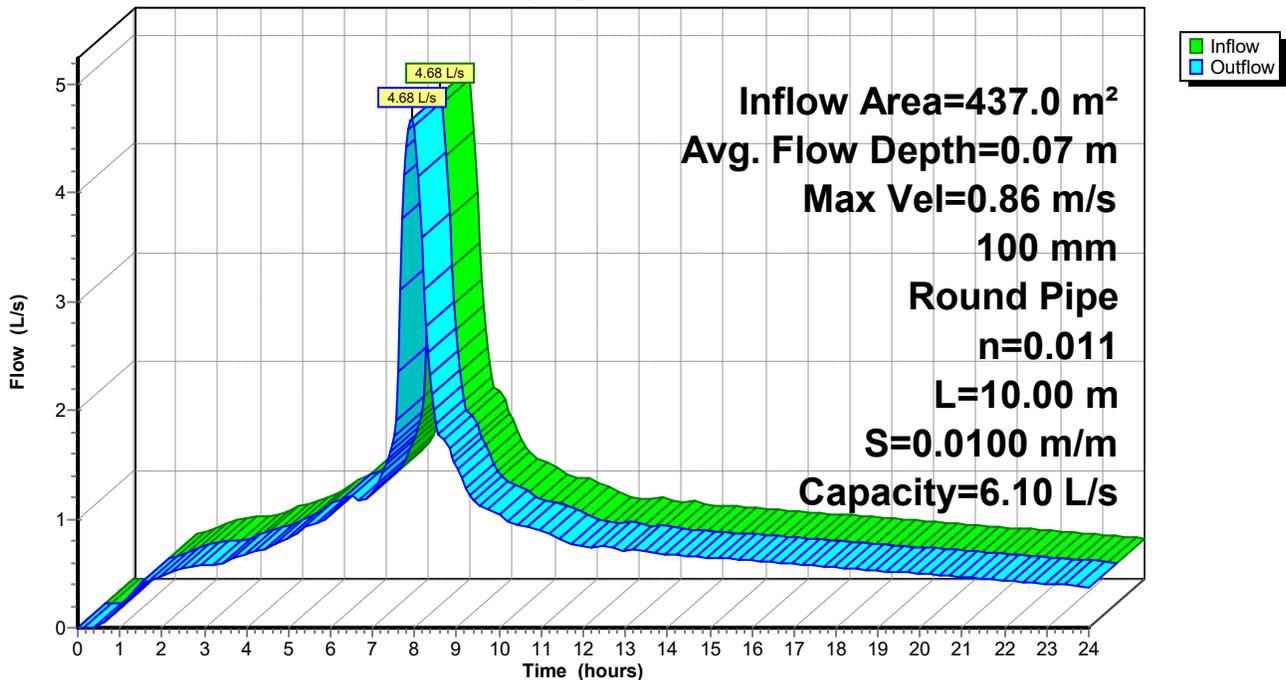
Peak Storage= 0.1 m³ @ 7.94 hrs
 Average Depth at Peak Storage= 0.07 m
 Bank-Full Depth= 0.10 m Flow Area= 0.01 m², Capacity= 6.10 L/s

100 mm Round Pipe
 n= 0.011 PVC, smooth interior
 Length= 10.00 m Slope= 0.0100 m/m
 Inlet Invert= 0.000 m, Outlet Invert= -0.100 m



Reach 28R: 100Ø Pipe @ 1%

Hydrograph



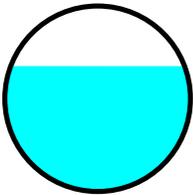
Summary for Reach 29R: 100Ø Pipe @ 2%

Inflow Area = 645.0 m², 100.00% Impervious, Inflow Depth > 157 mm for 20% AEP + 20% CCF event
 Inflow = 6.90 L/s @ 7.94 hrs, Volume= 101.0 m³
 Outflow = 6.90 L/s @ 7.94 hrs, Volume= 100.9 m³, Atten= 0%, Lag= 0.1 min

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Max. Velocity= 1.22 m/s, Min. Travel Time= 0.1 min
 Avg. Velocity = 0.74 m/s, Avg. Travel Time= 0.2 min

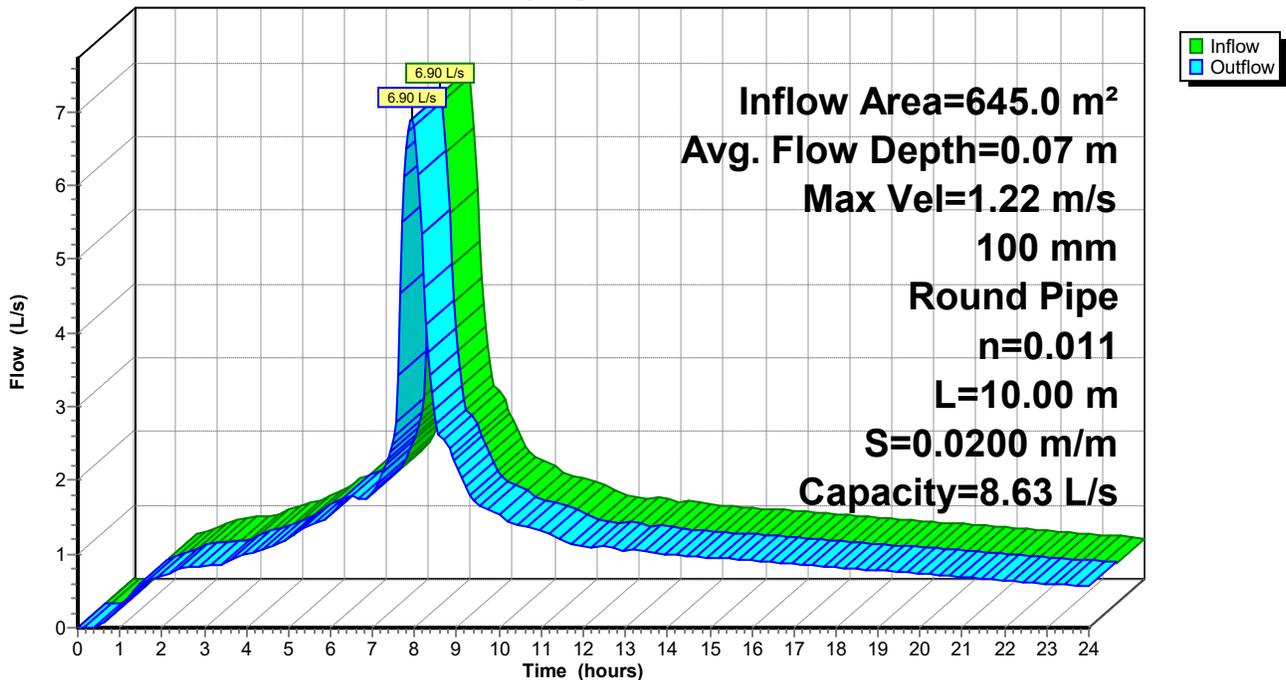
Peak Storage= 0.1 m³ @ 7.94 hrs
 Average Depth at Peak Storage= 0.07 m
 Bank-Full Depth= 0.10 m Flow Area= 0.01 m², Capacity= 8.63 L/s

100 mm Round Pipe
 n= 0.011 PVC, smooth interior
 Length= 10.00 m Slope= 0.0200 m/m
 Inlet Invert= -0.100 m, Outlet Invert= -0.300 m



Reach 29R: 100Ø Pipe @ 2%

Hydrograph



Summary for Pond 29P: 6m Long Spreader Bar

Inflow Area = 645.0 m², 100.00% Impervious, Inflow Depth > 157 mm for 20% AEP + 20% CCF event
 Inflow = 6.90 L/s @ 7.94 hrs, Volume= 100.9 m³
 Outflow = 6.90 L/s @ 7.95 hrs, Volume= 100.9 m³, Atten= 0%, Lag= 0.2 min
 Primary = 6.90 L/s @ 7.95 hrs, Volume= 100.9 m³

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Peak Elev= 0.074 m @ 7.95 hrs Surf.Area= 0.5 m² Storage= 0.0 m³

Plug-Flow detention time= 0.0 min calculated for 100.9 m³ (100% of inflow)
 Center-of-Mass det. time= 0.0 min (652.5 - 652.5)

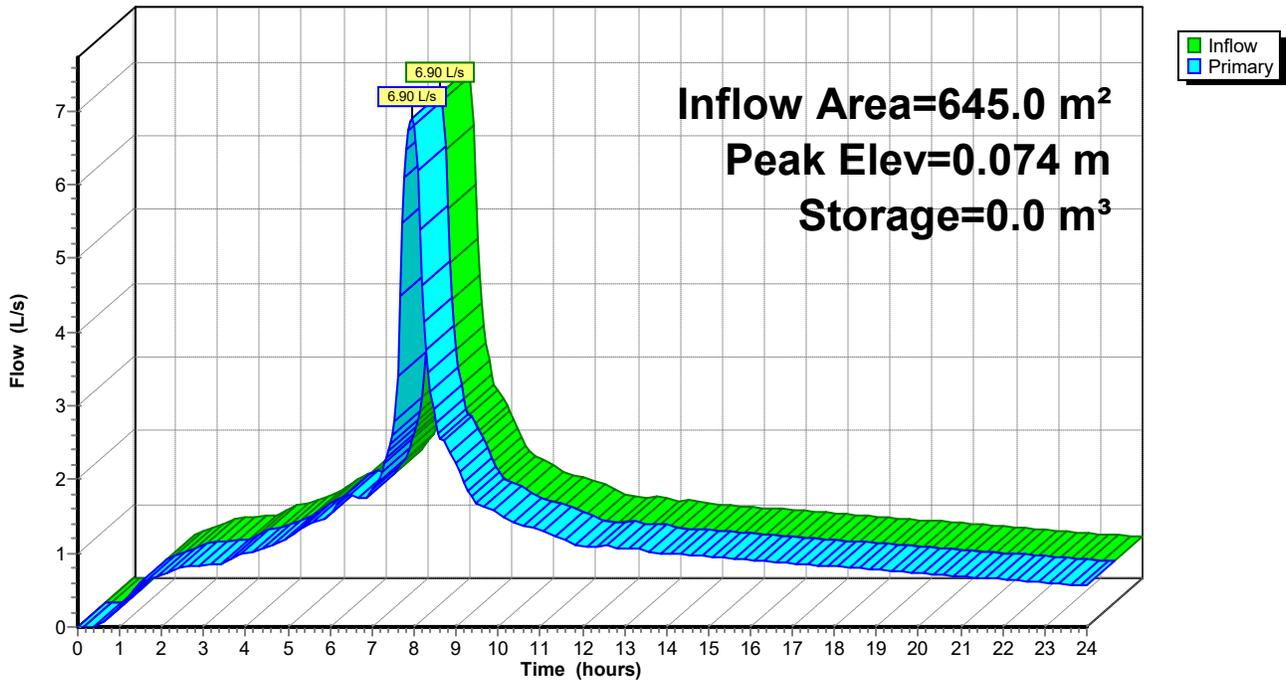
Volume	Invert	Avail.Storage	Storage Description
#1	0.000 m	0.0 m ³	100 mm Round Pipe Storage L= 6.00 m

Device	Routing	Invert	Outlet Devices
#1	Primary	0.000 m	15 mm Vert. Orifice/Grate X 57.00 C= 0.600

Primary OutFlow Max=6.90 L/s @ 7.95 hrs HW=0.074 m (Free Discharge)
 ←1=Orifice/Grate (Orifice Controls 6.90 L/s @ 0.68 m/s)

Pond 29P: 6m Long Spreader Bar

Hydrograph



Geotechnical Response to

Client	Mike & Katrina Shaw	Ref:	138862
Attention:	Natalie Todd (<i>Absolute Build</i>)	Date	1-Apr-25
CC:	Natalie Todd Natalie@absolutebuild.co.nz		
Email:	shawnewhome2gmail.com		
Re:	Geotechnical Memorandum / Drawing Review for the Proposed Dwelling and Swimming Pool at Lot 3 DP 579108, Egret Way, Kerikeri		

INTRODUCTION

WJL previously carried out a geotechnical investigation at this site as reported in the Geotechnical Investigation Report, Ref: 132815 dated 19 March 2024. Arising from the preliminary nature of the development proposals, WJL has since been engaged to review the current development plans supplied by Absolute Build, as a result of which we have also carried out an additional investigation.

It is our understanding that this assessment report will be used to support a Building Consent application to Far North District Council. **This memorandum should be read in conjunction with our previous report.**

DRAWING REVIEW

We carried out a geotechnical review of the following supplied drawings:

Drawing No	Drawing Title	Date
6 Sheets	<i>Architectural Plans by Absolute Build - Proposed Shaw Residence at Lot 3 Egret Way, Kerikeri</i>	Undated

Based on the provided architectural drawings, we note the following:

- The proposed development is to comprise a 250m² dwelling and 75m² guest wing, and 10m x 4m swimming pool.
- The proposed dwelling and guest wing are to be founded on slab-on-grade foundation systems with a final floor level of RL 6.250, surrounded by a final ground level of RL 6.10.
- The drawings indicate cut earthworks of up to approximately 2.0m depth will be undertaken in order to complete a level building platform at RL 6.10.
- We note that the adjacent cut slopes are to be battered back at a maximum slope of 1V:3H (18°).
- Fill earthworks of up to approximately 1.0m depth with batters to a maximum slope of 1V:4H (14°) will be undertaken in order to form the level building platform at RL 6.10.

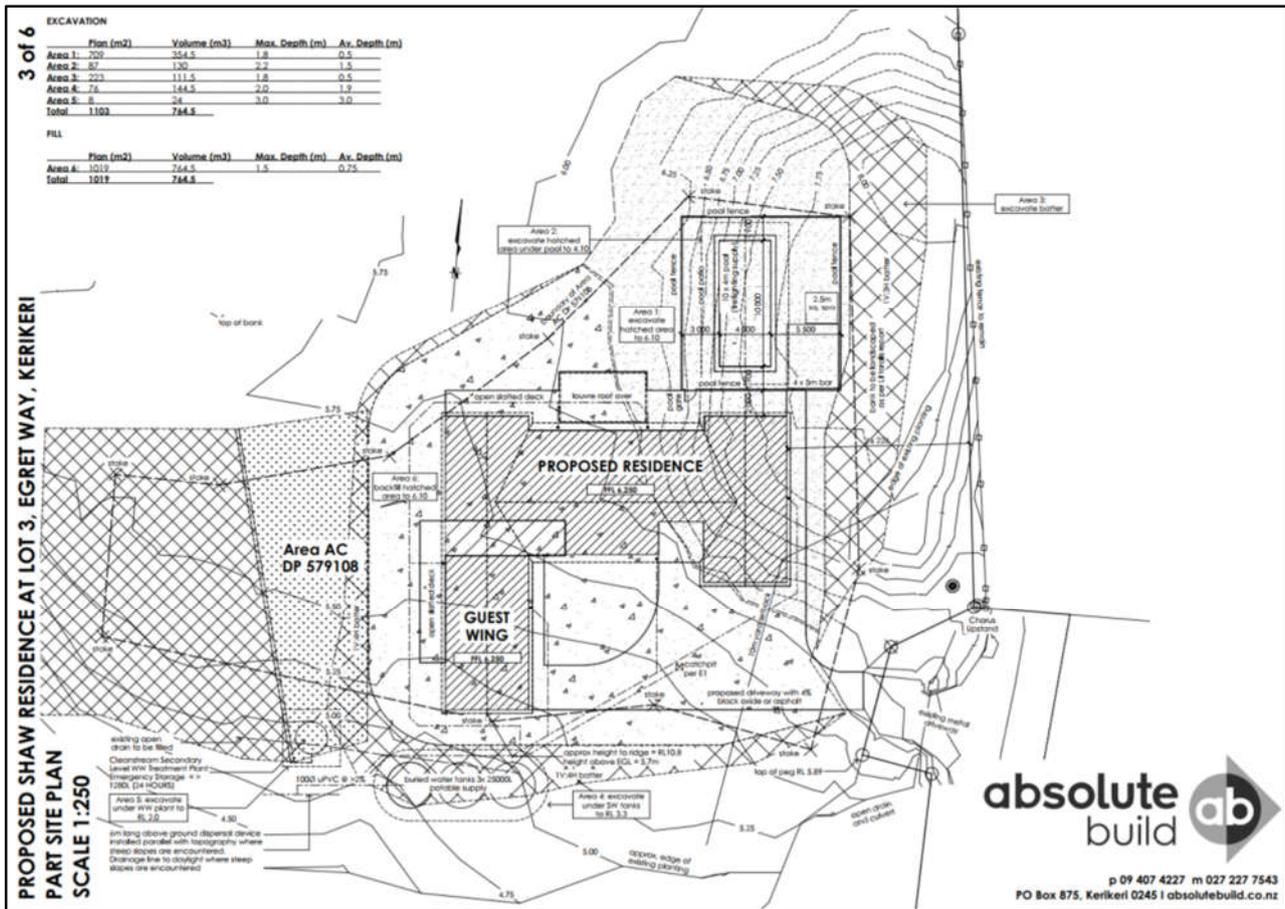


Figure 1. Site plan showing the location of the proposed dwelling. North up the page.

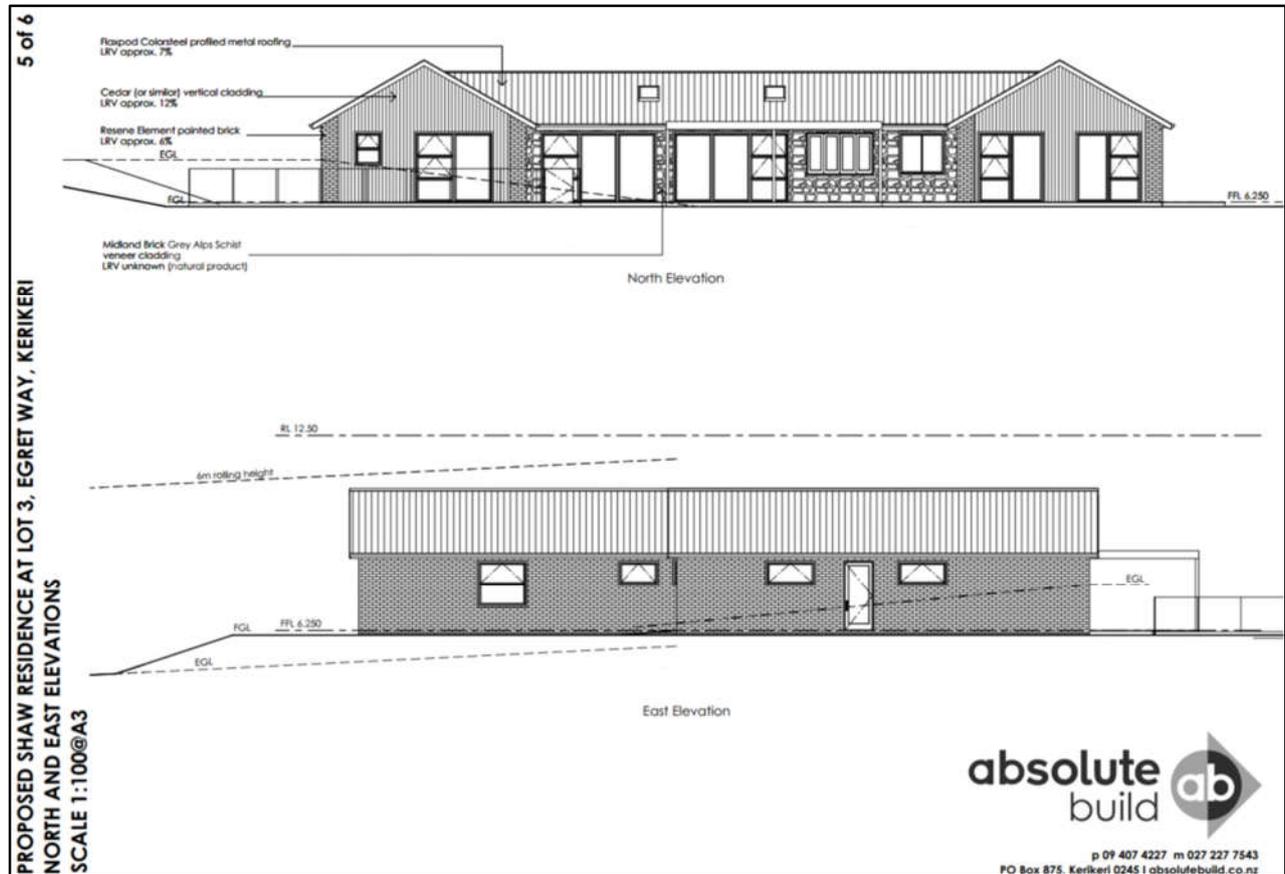


Figure 2. Elevations showing the proposed dwelling with existing/proposed ground profiles.

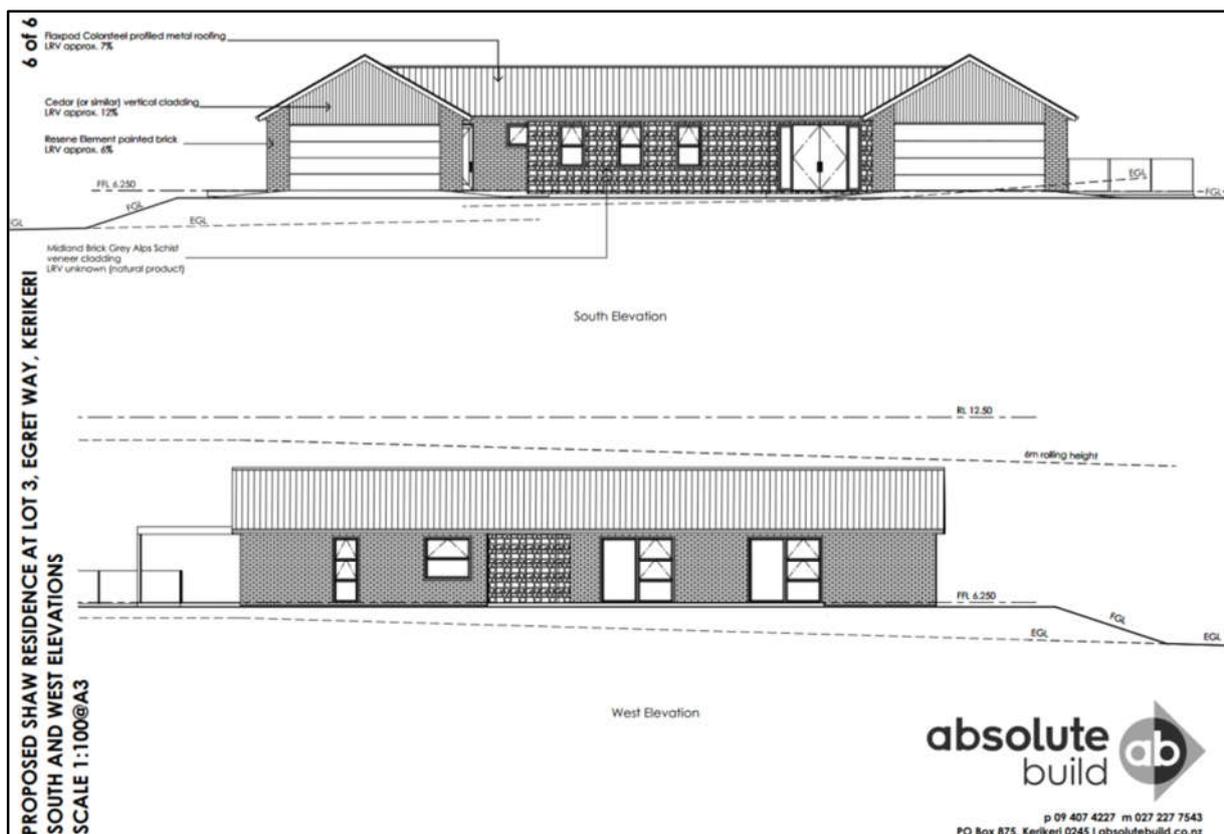


Figure 3. Elevations showing the proposed dwelling with existing/proposed ground profiles.

SWIMMING POOL RETAINING WALL DESIGN

We recommend any non-surcharged cut batters steeper than 1V:nH, where ‘n’ is the cut height, be retained unless endorsed by specific geotechnical assessment.

We also recommend that any retaining system over 1.0m in height be Specifically Engineer Designed (SED) and consider surcharges (toe excavations, sloping ground, structures, and traffic load) applicable to the retaining walls.

For the design of cantilever and/or flexible retaining walls that can deform sufficiently to mobilize active pressures (i.e., timber pole retaining walls not supporting critical structures and/or long-term traffic loads), we recommend calculating lateral earth pressures based on coefficients of active lateral earth pressure (K_a).

For stiff, inflexible retaining walls, which are unable to deflect sufficiently to generate active earth pressures (i.e. concrete and/or masonry retaining walls supporting building loads and/or driveways/car-parking areas), we recommend calculating lateral earth pressures based on coefficients of at-rest lateral earth pressure (K_0).

We recommend assuming the following soils parameters for retaining wall design:

Table 2: Soil Parameters for Retaining Wall Design

Soil Parameters	Waipapa Group Soils
Retained Unit Weight, γ - (kN/m ³)	18
Friction Angle, ϕ' - (°)	30
Undrained Shear Strength, S_u for Pole/Pile Embedment* (kPa)	80
Geotechnical Ultimate Vertical Bearing Capacity (kPa)	300

*For the calculation of pole embedment depths, the Broms method as specified in B1/VM4 may be used provided that depths are not less than 4 pile diameters, for which the above stated undrained shear strength value may be assumed, provided an appropriate strength reduction factor is applied and is subject to confirmation by Engineering inspection during construction.

To the above figures please apply an appropriate strength reduction factor for satisfying Ultimate Limit State conditions.

Furthermore, the above figures make no allowances for any surcharges, be they ground slopes and/or applied loads, and hence, all retaining wall designs should also accommodate all anticipated upslope surcharges and reduced ground support by existing or proposed excavations.

The recommendations given below apply to a retaining structure that is supporting stiff natural ground or engineered fill.

To avoid build-up of hydrostatic pressures, retaining walls must be constructed with appropriate behind-wall drainage comprising:

- a perforated drain coil wrapped in filter sock, located at the base of the walls, connected into an approved stormwater disposal system,
- followed by backfilling behind all retaining walls with lightly tamped, free draining granular backfill, such as scoria or 40/20 blue chip, extending up to within 0.3m of their full height with material, before being sealed with a clay cap.

ADDITIONAL INVESTIGATION

Having determined that the proposed dwelling location has been shifted to the east of where initially proposed, WJL have carried out an additional field investigation as follows.

Our additional fieldwork investigation, primarily intended as Fill Check boreholes, where shown on Figure 4 below was undertaken on the 18th of February 2025 and involved:

- Drilling 3 (no.) 50mm diameter hand auger boreholes (HA01 to HA03 inclusive) to depths of up to 1.2 metres below present ground level (bpgl).

The following table summarises our inferred stratigraphic profiling:

Table 1: Stratigraphic Summary Table

Investigation Hole ID	Termination Depth (m)	Depth to Base of Topsoil/Fill (m)	Vane Shear Strength Range within Natural Ground (kPa)	Groundwater Depth ⁽¹⁾ (m)
HA01	1.2	0.7	200+	NE
HA02	1.0	0.2	200+	NE
HA03	1.0	0.25	200+	NE

Table Note: (1) Measured on the day of drilling (NE) Not encountered

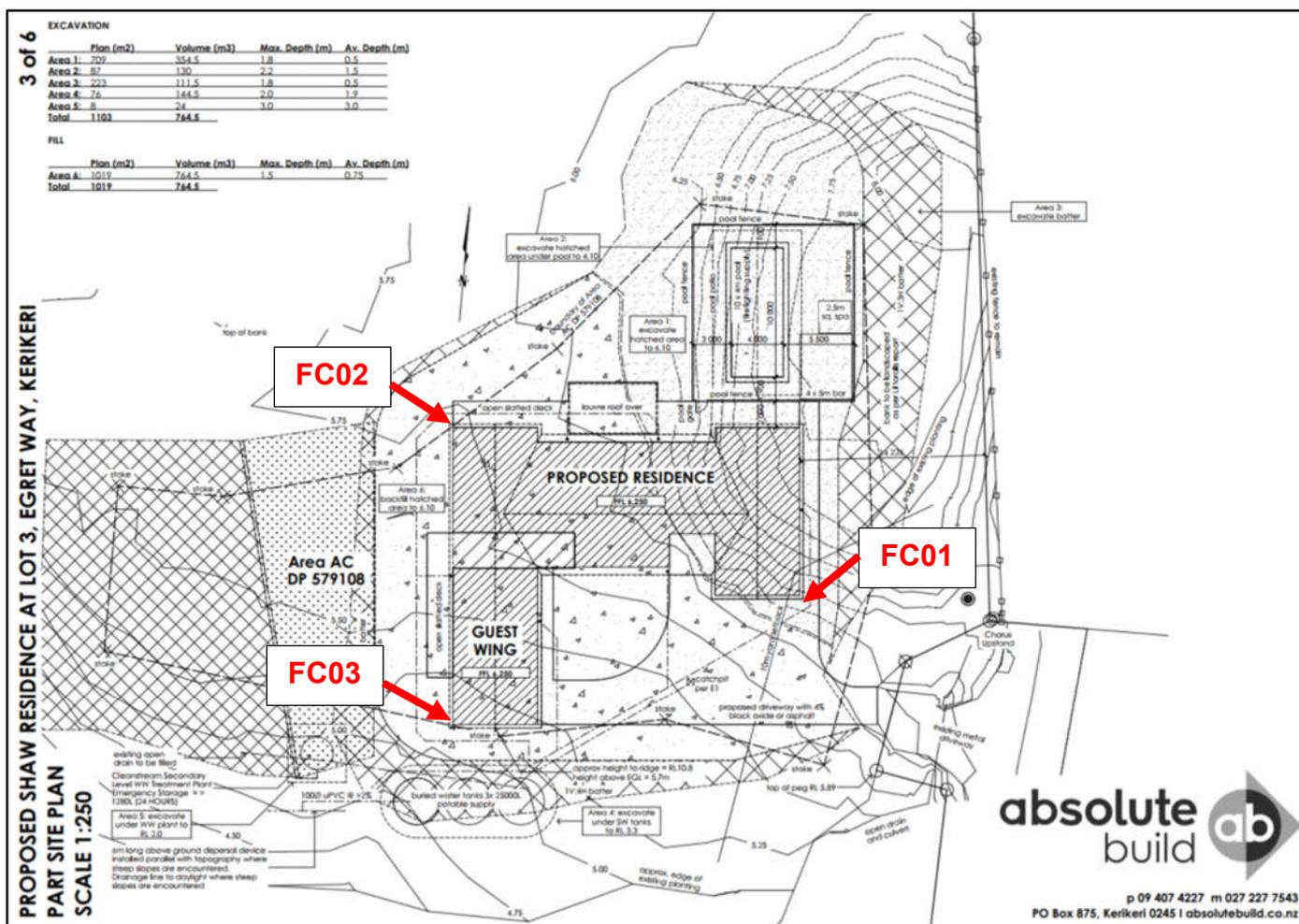


Figure 4. Site plan showing the location of the additional fill check boreholes.

Based on the supplied drawings, we understand that final floor level is to be RL 6.25 and the final ground level is to be at approximately RL 6.10. Using the supplied contours, we infer that the base of non-engineered fill & buried topsoil in FC01 is at around RL 5.80, as a result which, we anticipate that following site cutting, further cuts may be necessary to remove localised deposits of non-engineered fill/buried topsoil.

We recommend that following stripping of the general building area to subgrade level, any further remaining non-engineered fill and buried topsoil underneath the building footprint be removed and engineered hardfill placed on the cut ground in order to reach the final ground level as per the supplied drawings. If this bulk site cut results in significant fill depths being required to come back up to design levels, then an alternative solution might be to lower the final ground level.

CONCLUSIONS

Based on our review of the provided drawings, we conclude that the development as described above should not be exposed to unsatisfactory geotechnical risk as long as the recommendations and conclusions in our original geotechnical report and this memorandum are adhered to. The above drawings have correctly interpreted the geotechnical recommendations given in our geotechnical report Ref: 132815 dated 19 March 2024.

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

***Geotechnical Review of Development and Foundation Plans Required for Building Consent.**

LIMITATIONS

Our review has been limited to the referenced drawings and should not be considered a review of any structural design or calculations. This statement does not remove the necessity for the normal inspection of site conditions at the time of construction as would be made under all normal circumstances. 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 assumed in the aforementioned Geotechnical Report.

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, the Geotechnical Engineering Consultancy inspecting the works would then be in a position to issue a PS4 as should be required by Council.

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

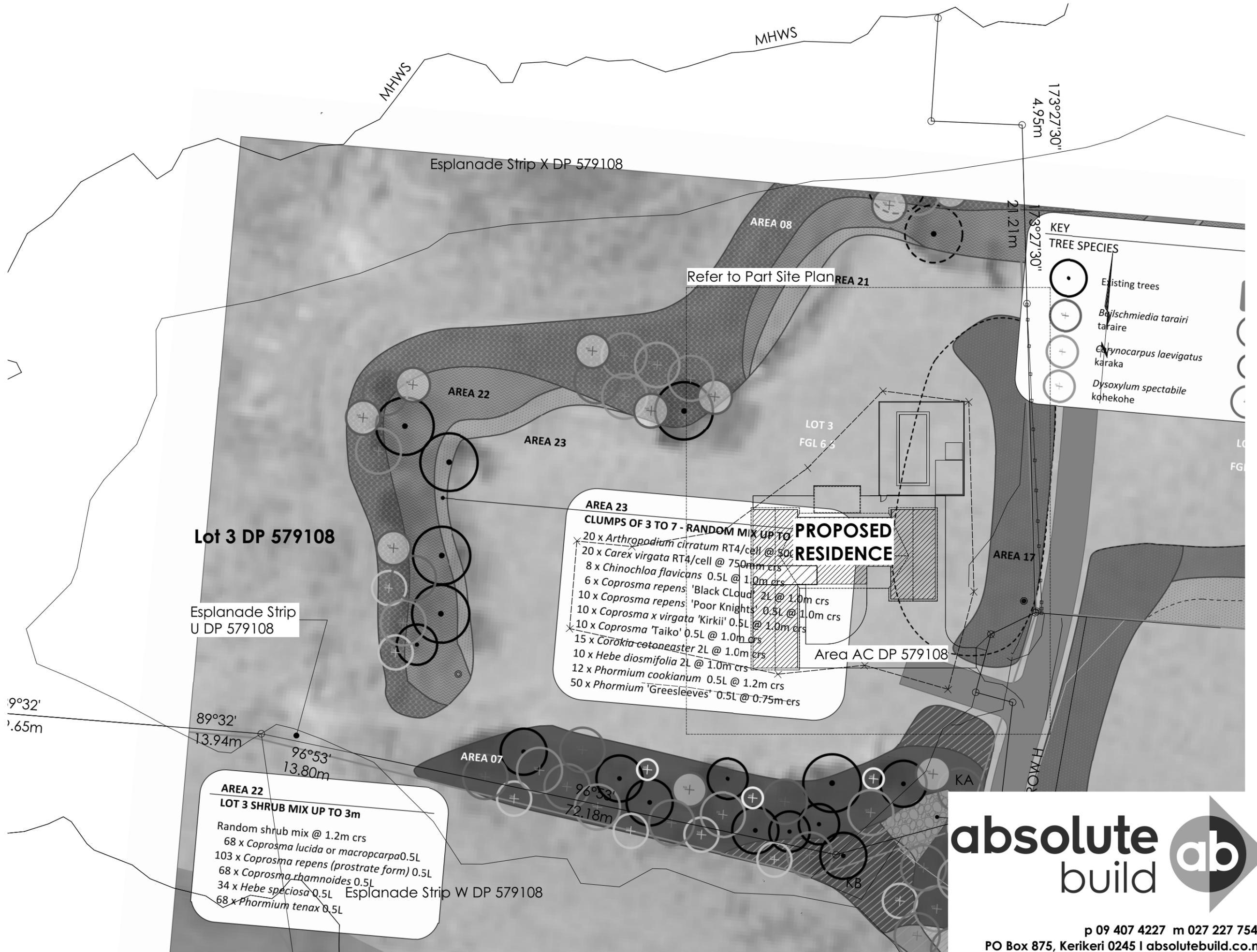
Authored by	A. Brooke (NZDE (Civil))	Engineering Technician	aidan@wjl.co.nz	
Reviewed by	S.J. Woodward (MEng, CPEng, CMEngNZ)	Principal Geotechnical Engineer	simonwoodward@wjl.co.nz	

Appendices:

Architectural Plans by Absolute Build - Proposed Shaw Residence at Lot 3 Egret Way, Kerikeri (6 Sheets)

Additional Hand Auger Borehole Records (3 sheets)

PROPOSED SHAW RESIDENCE AT LOT 3, EGRET WAY, KERIKERI
OVERALL SITE PLAN WITH SUBDIVISION LANDSCAPE PLAN OVERLAY
SCALE 1:500

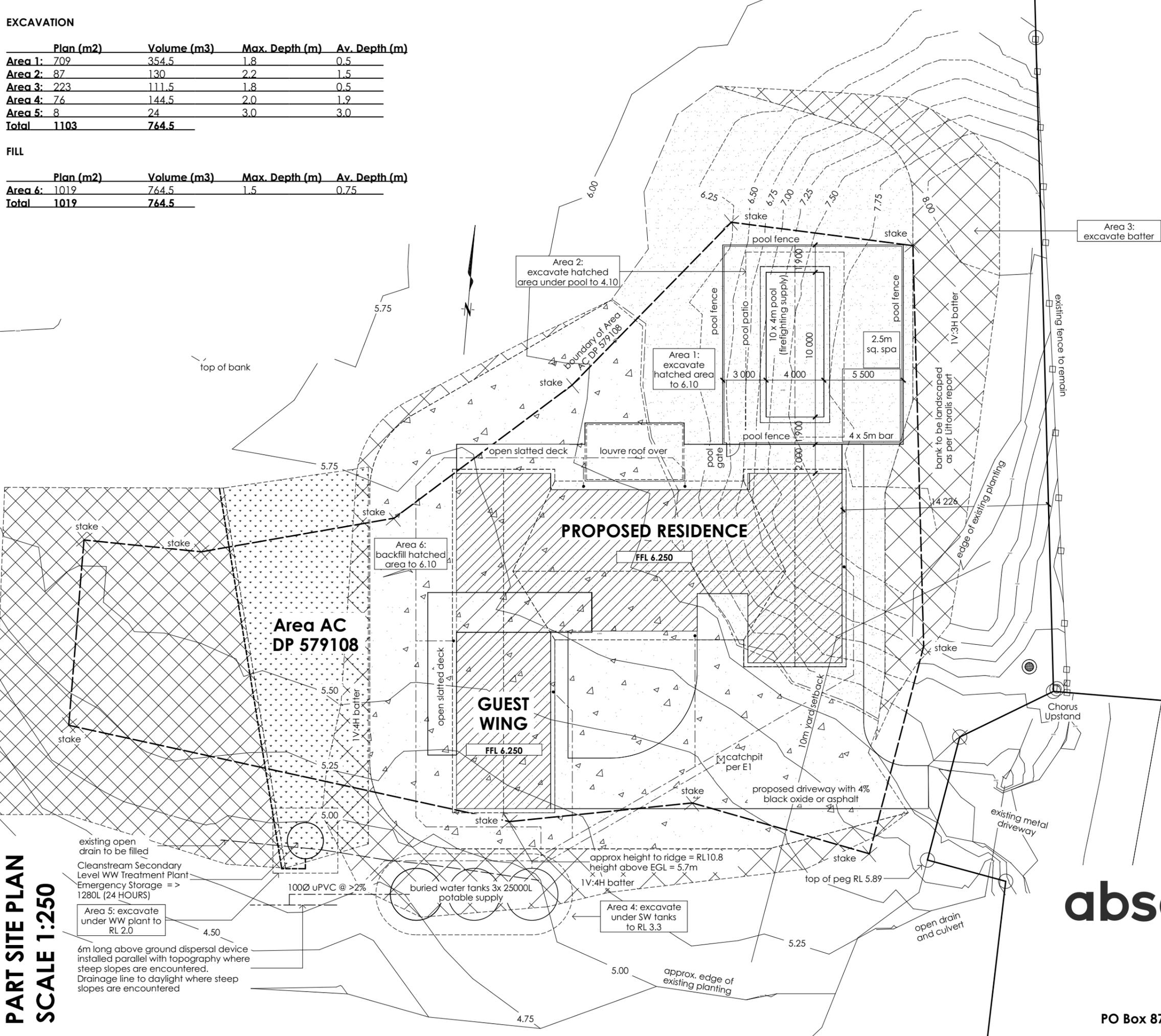


EXCAVATION

	Plan (m ²)	Volume (m ³)	Max. Depth (m)	Av. Depth (m)
Area 1:	709	354.5	1.8	0.5
Area 2:	87	130	2.2	1.5
Area 3:	223	111.5	1.8	0.5
Area 4:	76	144.5	2.0	1.9
Area 5:	8	24	3.0	3.0
Total	1103	764.5		

FILL

	Plan (m ²)	Volume (m ³)	Max. Depth (m)	Av. Depth (m)
Area 6:	1019	764.5	1.5	0.75
Total	1019	764.5		

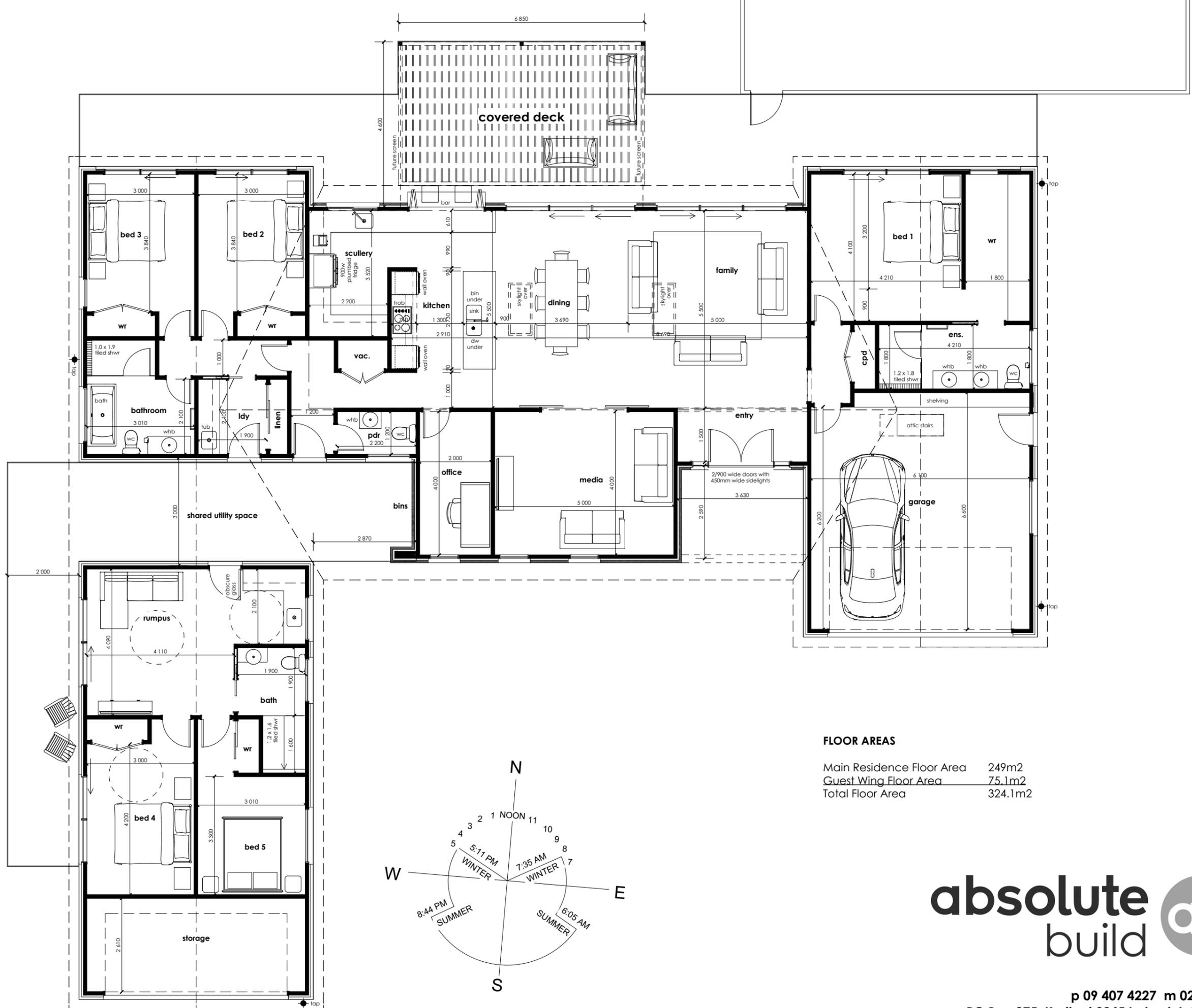


PART SITE PLAN
SCALE 1:250

existing open drain to be filled
Cleanstream Secondary Level WW Treatment Plant
Emergency Storage => 1280L (24 HOURS)
Area 5: excavate under WW plant to RL 2.0
6m long above ground dispersal device installed parallel with topography where steep slopes are encountered.
Drainage line to daylight where steep slopes are encountered



**PROPOSED SHAW RESIDENCE AT LOT 3, EGRET WAY, KERIKERI
 PROPOSED FLOOR PLAN
 SCALE 1:100@A3**



FLOOR AREAS

Main Residence Floor Area	249m ²
Guest Wing Floor Area	75.1m ²
Total Floor Area	324.1m²



Flaxpod Colorsteel profiled metal roofing
LRV approx. 7%

Cedar (or similar) vertical cladding
LRV approx. 12%

Resene Element painted brick
LRV approx. 6%

EGL

FGL

FFL 6.250

Midland Brick Grey Alps Schist
vener cladding
LRV unknown (natural product)

North Elevation

RL 12.50

6m rolling height

FGL

FFL 6.250

EGL

EGL

East Elevation

Flaxpod Colorsteel profiled metal roofing
LRV approx. 7%

Cedar (or similar) vertical cladding
LRV approx. 12%

Resene Element painted brick
LRV approx. 6%

FFL 6.250

EGL

FGL

EGL

Midland Brick Grey Alps Schist
vener cladding
LRV unknown (natural product)

EGL

FGL

South Elevation

RL 12.50

6m rolling height

FFL 6.250

EGL

FGL

EGL

West Elevation

PROPOSED SHAW RESIDENCE AT LOT 3, EGRET WAY, KERIKERI
SOUTH AND WEST ELEVATIONS
SCALE 1:100@A3



HAND AUGER : FC01

JOB NO.: 138862 SHEET: 1 OF 1

START DATE: 18/02/2025

NORTHING:

GRID:

DIAMETER: 50mm

EASTING:

SV DIAL: 1994

ELEVATION: Ground

FACTOR: 1.41

DATUM:

CLIENT:

PROJECT: Geotechnical review memorandum

SITE LOCATION: Lot 3, Egret Way, Kerikeri

STRATIGRAPHY	SOIL DESCRIPTION	LEGEND	DEPTH (m)	WATER	SHEAR VANE			DCP - SCALA (Blows / mm)	COMMENTS, SAMPLES, OTHER TESTS
					PEAK STRENGTH (kPa)	REMOULD STRENGTH (kPa)	SENSITIVITY		
FILL	NON ENGINEERED FILL: Clayey Silt, brown, yellow & white, very stiff, dry to moist, no to low plasticity.		0.0 - 0.2	Groundwater Not Encountered	178	65	2.7		
			0.2 - 0.4						
			0.4 - 0.6						
			0.6 - 0.8						
Topsoil	BURIED TOPSOIL, dark brown, moist.		0.8 - 1.0	197+	-	-			
Waipapa Group	NATURAL: Slightly Clayey SILT, yellowish white, mottled orange, very stiff, moist no to low plasticity.		1.0 - 1.2	197+	-	-			
			1.2 - 1.4						

REMARKS

End of borehole @ 1.20m

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

LOGGED BY: JM

▼ Standing groundwater level

CHECKED BY: AB

▽ GW while drilling



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 Website: www.wiltonjoubert.co.nz

HAND AUGER : FC02

JOB NO.: 138862 SHEET: 1 OF 1

START DATE: 18/02/2025 NORTHING: GRID:

DIAMETER: 50mm EASTING:

SV DIAL: 1994 ELEVATION: Ground

FACTOR: 1.41 DATUM:

CLIENT:
PROJECT: Geotechnical review memorandum

SITE LOCATION: Lot 3, Egret Way, Kerikeri

STRATIGRAPHY	SOIL DESCRIPTION	LEGEND	DEPTH (m)	WATER	SHEAR VANE			DCP - SCALA (Blows / mm)	COMMENTS, SAMPLES, OTHER TESTS
					PEAK STRENGTH (kPa)	REMOULD STRENGTH (kPa)	SENSITIVITY		
Topsoli	TOPSOIL, dark brown, dry.		0.0 - 0.2	Groundwater Not Encountered					
	NATURAL: Slightly Clayey SILT, orangey brown, very stiff, dry, no to low plasticity.		0.2 - 1.0		~197+	-	-		
Waipapa Group			1.0 - 1.4		~197+	-	-		
	EOH: 1.00m								

REMARKS
End of borehole @ 1.00m

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

LOGGED BY: JM

▼ Standing groundwater level

CHECKED BY: AB

▽ GW while drilling



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HAND AUGER : FC03

JOB NO.: 138862 SHEET: 1 OF 1

START DATE: 18/02/2025 NORTHING: GRID:

DIAMETER: 50mm EASTING:

SV DIAL: 1994 ELEVATION: Ground

FACTOR: 1.41 DATUM:

CLIENT:
PROJECT: Geotechnical review memorandum

SITE LOCATION: Lot 3, Egret Way, Kerikeri

STRATIGRAPHY	SOIL DESCRIPTION	LEGEND	DEPTH (m)	WATER	SHEAR VANE			DCP - SCALA (Blows / mm)	COMMENTS, SAMPLES, OTHER TESTS
					PEAK STRENGTH (kPa)	REMOULD STRENGTH (kPa)	SENSITIVITY		
Topsoli	TOPSOIL, dark brown, dry.		0.0 - 0.2	Groundwater Not Encountered					
	Waipapa Group		NATURAL: Slightly Clayey SILT, orangey brown, very stiff, dry to moist no to low plasticity.		0.2 - 0.4	197+	-	-	
0.4 - 0.6									
0.6 - 0.8		197+	-		-				
0.8 - 1.0		197+	-		-				
1.0 - 1.2									
1.2 - 1.4									
EOH: 1.00m									

REMARKS
End of borehole @ 1.00m

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

LOGGED BY: JM

▼ Standing groundwater level

CHECKED BY: AB

▽ GW while drilling



185 Waipapa Road, Kerikeri 0295
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Engineering Report for Proposed Subdivision
Lot 1 DP 167657 at 405 Kerikeri Inlet Road, Kerikeri
for
Nags Head Horse Hotel Ltd

Supporting report for resource consent to Far North District Council

FNDC Reference 2190056-RMASUB

Haigh Workman reference 17 229

September 2018



Revision History

Revision N ^o	Issued By	Description	Date
A	Rory Howell	For consent	13 October 2017
B	Michael Winch	For Consent (amended rights of way)	15 July 2018
B	Michael Winch	For Consent (amended earthworks)	17 September 2018

Prepared by



Rory Howell

Environmental Engineer

Reviewed By



Michael Winch

Senior Civil Engineer

Approved by



John Papesch

Senior Civil Engineer/Director

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Executive Summary

Haigh Workman Ltd (Haigh Workman) was commissioned by Nags Head Horse Hotel (the client) to undertake a site suitability assessment of land at 405 Kerikeri Inlet Road, Kerikeri (the 'site') for subdivision purposes. The site currently comprises a mixture of pasture, tidal mudflats, wetland and native bush. No structures exist on the site. It is proposed to subdivide the property into four lots. The proposed lots have areas ranging between four and six hectares. A proposed subdivision plan was made available to Haigh Workman at the time of writing.

The site is currently zoned as 'South Kerikeri Inlet'.

According to available geological plans and the Haigh Workman walkover survey, the underlying soils across the hillside development area comprise 'Hukerenui silt loam with yellow subsoil', categorised as '*imperfectly to very poorly drained*'. Soil overlays solid geology comprising interbedded sandstone and argillite of the Waipapa Group.

Fieldworks were undertaken by a Haigh Workman engineer on 7 September 2017. These works comprised site mapping and the drilling of four hand augured boreholes to 1.2 m below ground level.

It is concluded and recommended that:

- An appropriate freeboard is available above the coastal flood level for all development areas.
- All investigated house sites are suitable for a final low-rise residential end-use.
- Standard foundation depths are suitable on Lots 3 and 4.
- Foundations should be extended to beneath the podsolized soils on Lots 1 and 2. Podsolized soils are not expected to extend more than 1 m below ground level. We recommend specific engineering design for foundations on Lots 1 and 2.
- The proposed building sites are located at an elevation at least 6.0m OTP datum, at least 3.0m above any coastal flood level and are therefore not subject to natural hazards.
- We have not carried out geotechnical investigations or assessed the natural hazard risk of any potential building site on the island. Should any building be proposed for this site, geotechnical investigations and an assessment of coastal flood risk (including the effects of sea level rise, storm surge, wave run-up and tsunami) should be carried out prior to building consent stage.
- Access to the proposed subdivision is via an existing right of way off Kerikeri Inlet Road that currently serves 3 lots. On completion of the proposed subdivision, this right of way will serve 6 lots.
- Visibility from the vehicle crossing complies with Council standards.
- The crossing is to be formed as a double width crossing in accordance with FNDC Engineering Standards drawing FNDC/S/6B. The crossing shall be sealed to the watertable culvert, approximately 6 metres from the edge of Kerikeri Inlet Road.
- The existing gate is set back 16 metres from the edge of Kerikeri Inlet Road and opens towards the road. We recommend that the gate be duplicated (two 3.6m wide gates) to provide for the 5 metre right of way carriageway.

- The existing site access across the neighbouring property is to be widened to 5m.
- The application includes the construction of a farm track within Right of Way I to gain access to existing pasture to the north and east of the island.
- Earthworks to complete the subdivision are anticipated to comprise excavation and filling to form the accessway and farm track, and disestablish the existing farm track on proposed Lot 4. Our preliminary estimate of earthworks quantities indicates the proposed earthworks are a restricted discretionary activity under the District Plan. A request is made to incorporate consent for 2,500 m³ of earthworks (including placing aggregate) on Lot 1 DP 167657 into the subdivision consent.
- An Erosion and Sediment Control Plan is to be provided before earthworks commence.
- During heavy rainfall events, stormwater flows as a sheet flow across the development area and drops down to the tidal mudflats.
- Stormwater attenuation is not considered necessary as stormwater flows directly to a coastal wetland.
- The primary subdivision stormwater system consists of an armoured swale drain following the internal accessway.
- The existing interception drain will continue along the eastern boundary of proposed Lots 1, 2 and 4.
- For effluent disposal, Lots 1 and 2 have been classified as TP58 category 7 due to the presence of podsolized soils. A typical 3-bedroom house will require an effluent disposal field of 400 m² on category 7 soils. Space is available on Lots 1 and 2 for this area plus a 100% reserve area. We recommend effluent disposal fields on the category 7 soils be mounded and densely planted with species suitable for evapotranspiration systems. Alternatively the podsolized soils could be ripped and the field designed for category 6 soils.
- Lots 3 and 4 have been categorised as TP58 category 6. A typical 3-bedroom house will require an area of 270 m² on category 6 soils. Area is available on all lots for this area plus a 100% reserve area.

It would be prudent to note that no LIM report has been provided to supplement this assessment.

1 Introduction

Haigh Workman Ltd (Haigh Workman) was commissioned by Nags Head Horse Hotel Limited (the client) to undertake a site suitability assessment of Lot 1 DP 167657 at 405 Kerikeri Inlet Road, Kerikeri (the 'site') for subdivision engineering purposes. This report presents the factual information available during the appraisal, and interpretation of data obtained during fieldworks with site specific recommendations relevant to the defined objectives.

The site currently comprises a mixture of pasture, tidal mudflats, wetland and native bush with no existing structures.

It is understood that the client intends to subdivide the site for a residential end-use. The proposed subdivision comprises four lots generally ranging from 4.2 hectares to 5.1 hectares. Residential development is proposed within the area covered with pasture. Access will be provided by an existing easement at the south eastern corner of the site.

The proposed subdivision plan is shown on Williams and King drawing 'Proposed Subdivision of Lot 1 DP 167657, Ref 21916, dated 15 June 2018.

1.1 Objective and Scope

The objectives of this investigation were to:

- Establish the geological and environmental setting of the site;
- Visually assess the site and surrounding land;
- Investigate the near surface soil and groundwater conditions at the site, and;
- Provide engineering and site suitability recommendations for the proposed subdivision

To achieve this, the scope of works conducted by Haigh Workman included:

- Review of geotechnical databases, available geological and topographical mapping;
- Site mapping;
- Intrusive site investigation for evaluation of subsurface conditions, and;
- Preparation of this report with site specific geotechnical, environmental, civil and water management recommendations.

1.2 Applicability

This report has been prepared for the use of Nags Head Horse Hotel Ltd with respect to the particular brief outlined to us. This report is to be used by our Client and their Consultants and may be relied upon when considering site suitability advice. Furthermore this report may be utilised in the preparation of building and/or resource consent applications with local authorities. The information and opinions contained within this report shall not be used in other context for any other purpose without prior review and agreement by Haigh Workman Ltd.

2 Site Details and Description

2.1 Site Identification

Site Address: 405 Kerikeri Inlet Road, Kerikeri

Legal Description: Lot 1 DP 167657

Area: 17.7 hectares

2.2 Proposed Subdivision

It is understood the client intends to subdivide the property into four lots designated Lots 1 to 4, inclusive serviced by a ROW. Table 2.1 details the proposed subdivision.

Table 2.1 – Proposed Subdivision

Proposed Lot	Area (hectares)	Intended final land-use
1	5.1060	Low-rise residential
2	4.1280	Low-rise residential
3	4.2550	Low-rise residential
4	4.2669	Low-rise residential

2.3 Site Description

The site comprises a roughly rectangular shaped parcel of greenfield rural land situated approximately 5 km east of Kerikeri Town Centre. A site location plan is presented as Drawing No. 17 229/01 within Appendix A of this report.

The site measures approximately 500 m by 360 m with a tongue extending 200 m to the east. The long axis is aligned roughly north to south. The site is bound to the west by the Okura River and to the north and northeast by the Kerikeri Inlet. Properties on the southern and southeastern boundaries are rural in character.

The site currently comprises a mixture of pasture, tidal mudflats, wetland and bush with no existing structures.

The proposed development area is covered with pasture. This area covers approximately 1.9 hectares in the southeast corner of the site. The land across this area consists of two plateaus of similar area sloping gently to the northwest. The land between the two plateaus slopes moderately with a fall of 4-5 m.

The edge of the pasture slopes moderately to steeply with a fall of 4-5 m to the wetland that borders the tidal mudflats. The mudflats and surrounding wetlands cover an area of 7.0ha. The mudflats were at one stage protected from tidal inundation by a stopbank with floodgated culverts. The floodgates no longer function and the mudflats are again exposed to tidal inundation. An island of higher ground (up to 10m elevation) exists within the northern portion of proposed Lot 1.

Access is at the southeastern corner of the site by way of an easement over the southern neighbour's property. The road entrance fronts on to Kerikeri Inlet Road.

A topography and site features plan of relevant features is included within Appendix A of this report as Drawing No. 17 229/03.

3 Geology

3.1 Mapped Geology

Sources of Information:

- GNS Science Geological Memoir 2, 2009: "Geology of the Whangarei Area";
- GNS Sciences 1:250,000 scale map Sheet 2, 2009: "Whangarei" (Rocks);
- NZMS Sheet 290 P04/05, 1:100,000 scale map, Edition 1, 1980: "Whangaroa-Kaikohe" (Soils);

3.1.1 Weathered Geology (Soils)

The pastoral area is shown to be directly underlain by 'Soils of the Rolling and Hill Land' comprising 'Hukerenui silt loam with yellow subsoil' (HKr+HKrH) according to NZMS mapping; see Figure 1. Weathered soils at the site comprising HKr and HkrH are typically described and categorised as *'imperfectly to very poorly drained'*. Weathered soil geology is derived from weathering processes such as groundwater acting upon underlying solid bedrock strata over the course of geological history.

The mudflats are shown to be underlain by 'Soils of the Estuarine Flats and Former Lake Beds' comprising 'Takahiwai clay' (TC) according to NZMS mapping; see Figure 1. Superficial soils at the site comprising TC are typically described and categorised as *'imperfectly to very poorly drained'*.

3.1.2 Bedrock Geology

Weathered HKr soils are indicated to be underlain by bedrock comprising mainly of sandstone (TJw) of the Waipapa Group of late Jurassic to late Permian age (c 150-250 million years). TJw are described by the GNS map as *'massive to thin bedded, lithic volcanoclastic metasandstone and argillite'*.

Similarly the NZMS rock map describes the rock beneath HKr as 'sandstone and mudstone (greywacke and argillite)' (SM6), described as *'medium to dark grey, fine to medium grained sandstone interbedded with grey to black mudstone and minor siliceous, igneous and calcareous rocks, thinly to thickly bedded with some massive units, closely fractured and veined; moderately hard to very hard. Weathered to yellow-brown soft sandy clay to depths of 30 m'*

Superficial TC soils are indicated to be underlain by alluvium (Q1ae) of the Tauranga Group Holocene age (less than 12 thousand years). Q1ae are described by the GNS map as *'unconsolidated to poorly consolidated mud, sand and peat of estuarine origin'*.

Similarly the NZMS rock map describes the strata beneath TC as 'alluvium' (A1₂), described as *'mud, sand and gravel with minor peat, forming river bed and floodplain deposits up to 10 m above stream or sea level; unconsolidated to very soft. Unweathered.'*

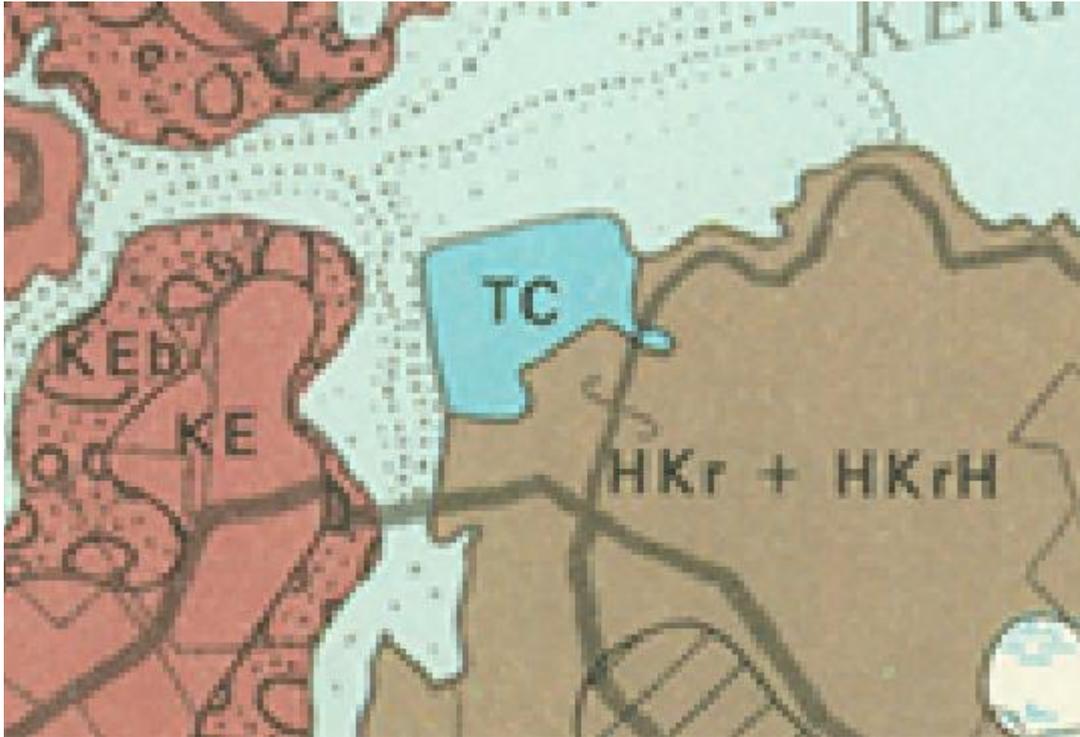


Figure 1: NZMS 290 Sheet P04/05 Soil Map

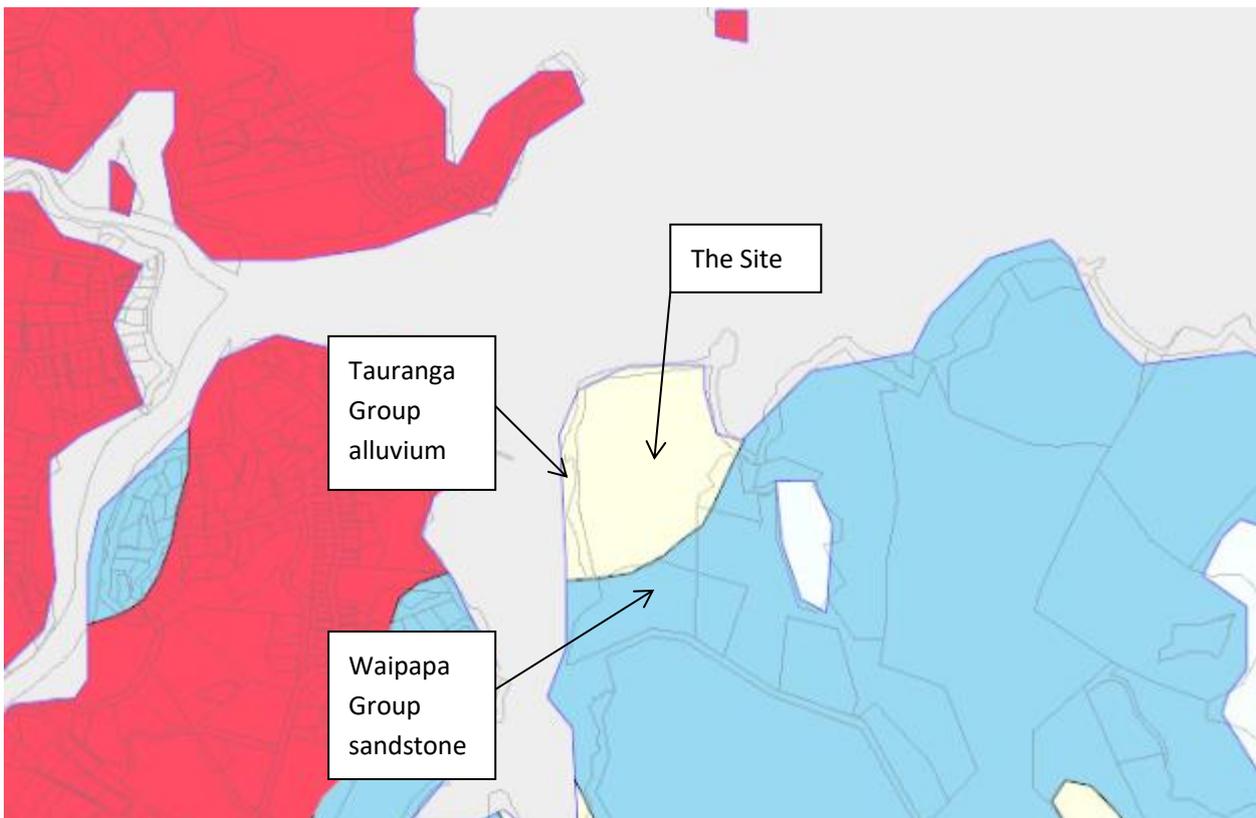


Figure 2: GNS Science, Geology of the Whangarei Area, Map 2

4 Environmental Setting

Published environmental data relating to the site has been reviewed. A summary of relevant information is provided below.

4.1 Hydrology and Flooding

A summary of available information pertaining to hydrology and hydrogeology is presented in Table 4.1. It should be noted that specific detailed flood hazard reporting is outside the scope of this investigation; an examination of Far North District Council (FNDC) and Northland Regional Council (NRC) online GIS databases is included below.

Table 4.1 - Surface Water Features & Flooding

	Presence/Location	Comments
Groundwater sources including springs/wells (within 500 m)	None recorded.	
Surface Water Features (Ponds, Lakes etc)	The mudflats are inundated by the tide. A lake with an area of c. 3.5 hectares exists to the east of the site	The lake is c 250 m to the east of the development area.
Watercourses (within 500 m)	The outlet of the lake exists approximately 10 m from the site boundary.	The outlet from the lake is c 250m to the east of the development area. The distance from the outlet to the coastal marine area is c. 60 m.
Flood Risk Status within residential development areas	Low	The proposed building sites are outside the mapped flood hazard area.
Flood Susceptibility within residential development areas	Negligible.	Proposed residential development areas are more than 3 m above the 100 year ARI coastal flood hazard level.

4.2 Contaminated Land (HAIL) Assessment

Based on a review of historical aerial photography and a site walkover it is considered the site is not subject to assessment under Hazardous Activities and Industries List (HAIL).

5 Fieldworks

5.1 Visual Inspection

A walkover was conducted by a Haigh Workman engineer in September 2017. Based upon a site walkover inspection conducted by Haigh Workman and information contained on geological plans, it is considered that the soils directly underlying the pasture typically comprise natural weathered soils formed by weathering processes acting upon underlying solid greywacke bedrock.

Soils are likely to include generally poor draining properties. When influenced with large volumes of water surface waters will flow across the surface as sheet flow due to the natural, moderate topography rather than being absorbed in large volumes.

Evidence of saturated soils was observed across the upper plateau. Isolated waterlogging of soils was observed on the lower plateau.

At the time of the walkover survey the land covered with pasture was noted to be generally stable. The development of all lots will require careful consideration for the moderately sloping site, in particular for earthworks and loading of the slope to adhere to recommendations set out in this report.

According to available aerial photography the quantity of made ground on site is considered to be negligible.

A Land Information Memorandum (LIM) report has not been included within the scope of works and is not subject to this review. It would be prudent to obtain for any further information about the area that may be recorded on the local authority GIS database which could otherwise cause restrictions or highlight land hazards that may be raised at the time of building development.

5.2 Subsurface Investigations

Fieldworks were undertaken by a Haigh Workman engineer on 7 September 2017 and comprised the drilling of four hand augured boreholes (BH1 to BH4, inclusive) to 1.20 m below ground level (bgl).

Site features and borehole locations are shown on Drawing Nos. 17 229/03, and 05, respectively; included within Appendix A. Relevant site photography is presented in Appendix C.

Detailed descriptions of strata and groundwater observations made during the intrusive investigation works are presented on the borehole logs included as Appendix B. Strata descriptions included on the borehole logs are compliant with New Zealand Geotechnical Society (NZGS) publication 'Field Description of Soil and Rock', 2005. The depths of strata and groundwater on the logs are recorded from ground levels at each location.

5.3 Ground conditions

A summary of ground conditions encountered during the intrusive investigation is included in Table 5.1.

Table 5.1 – Summary of Ground Conditions

Strata	Depth to Top of Strata (m bgl) (Thickness)	Details
Topsoil	Ground Level (0.10 to 0.15 m)	During fieldworks the site was noted to include a surface covering of maintained, roughly grassed topsoil. Topsoil at BH1 and BH2 was found to be saturated. Topsoil at BH3 and BH4 was found to be moist.
Podsolized soil (BH1 and BH2)	0.15 (0.35 to 0.75 m)	Topsoil on the upper plateau was found to be underlain by a poorly drained silt. This poorly drained stratum resulted in the saturation of topsoil at BH1 and BH2.
Natural Cohesive Soils (HKr)	0.10 to 0.9 (NE)	Soil beneath the podsolized soil and topsoil was found to be cohesive soils typical of weathered greywacke. The clay content of the soils decreased with depth. Natural cohesive soils were further described as generally moist to wet and of low to high plasticity.

NE - Not Encountered.

5.3.1 Material Properties

A total of eight in-situ hand shear vane tests were undertaken within natural cohesive soils up to 1.00 m bgl across all proposed lots. In-situ shear vane testing recorded shear vane strengths ranging from 127 kPa to >200 kPa or a consistent very stiff soil.

Shear vane strength results >100 kPa are indicative of 'good ground*' for bearing capacity for shallow foundations in accordance to the NZS 3604:2011.

5.3.2 Groundwater

The site was inspected at the wettest time of year.

Topsoil was saturated at BH1 and BH2.

The groundwater table was not encountered in any of the holes.

Soil moisture details are included on the exploratory hole records included within Appendix B.

* Good Ground – Any soil or rock capable of permanently withstanding an ultimate bearing capacity of 300 kPa (i.e. an allowable bearing capacity of 100 kPa using a factor of safety of 3.0), but excludes:

- a) Potentially compressible ground such as topsoil, soft soils such as a clay which can be moulded easily in the fingers, and un-compacted loose gravel which contains obvious voids;
- b) Expansive soils being those that have a liquid limit of more than 50 % when tested in accordance with NZS 4402 Test 2.2, and a linear shrinkage of more than 15 % when tested from the liquid limit in accordance with NZS 4402 Test 2.6, and;
- c) Any ground which could foreseeable experience movement of 25 mm or greater for any reason including one or a combination of land instability, ground creep, subsidence, seasonal swelling and shrinkage, frost heavy, changing groundwater level, erosion, dissolution of soil in water and effects of tree roots.

6 *Geotechnical Recommendations*

Geotechnical recommendations are based upon the findings of the intrusive ground investigation and site mapping undertaken during the Haigh Workman walkover survey.

6.1 **Vertical and Lateral Movement Potential**

6.1.1 *Settlement Analysis*

A preliminary settlement analysis has been undertaken for standard trench foundations being loaded with forces expected from a two-storey house. Foundations were analysed with a embedment of 0.5 m bgl. Foundation soils analysed were undisturbed, unpodsolized cohesive soils with strengths indicative of the recorded shear vane readings. Results of this analysis indicate differential settlements to be within the recommendations provided by Building Code compliance documentation.

6.1.2 *Shrink/Swell Potential*

Characteristic surface movement of the site due to the moisture profile needs to be considered for shallow foundation design. In reference to AS 2870:2011, Haigh Workman laboratory analysis in similar local soils and the results of the ground investigation, foundations should be designed to reactivity soil class **H** or highly reactive. Class **H** does not meet the requirement of good ground in accordance with NZS 3604:2011.

6.1.3 *Ground/Slope Stability*

Based upon the results of the intrusive ground investigation and site mapping it is considered the development platforms are stable with a **low** risk of ground instability in their present form. Provided all structures are sited within the proposed building envelopes it is considered the moderate slopes provide suitable development platforms for a low-rise residential development.

However, to construct standard foundation, it is considered that earthworks will be required to create a level development platform. Careful consideration must be given for any proposed cutting and subsequent filling of the existing hill slopes and underlying soils.

The requirement of ground support should be investigated based upon the final development plans, however at this stage it is considered that proposed cuts will require ground support in the form of a specifically designed timber pole retaining wall. Specific engineering design of retaining structures is required where a surcharge imposed by back sloping soil above a wall exists.

6.1.4 *Liquefaction Potential*

A detailed liquefaction potential assessment was outside the scope of this ground investigation.

Potentially liquefiable materials are identified by:

- Cohesive (fines) content – increasingly cohesive materials are less susceptible to liquefaction;
- Plasticity Index;
- Groundwater levels;
- Thickness of potentially liquefiable soils, and;

- Amplitude, frequency content and duration of shaking expected during seismic events.

The effect of liquefaction at the proposed building platform will be **low/negligible** during seismic events of up to 0.1 g Peak Ground Acceleration (PGA) as anticipated for Northland by NZS1170 and within tolerable settlement limits set by the NZBC.

A detailed liquefaction potential assessment was outside the scope of this ground investigation.

6.1.5 *Effects of Tree Roots*

Once final development locations are known it is recommended where any trees are identified within 5 m of proposed building footprints which could have the potential for soil consolidation due to the uptake of water from the tree roots or ground heave from tree root growth in accordance with NZS 3604:2011 that measures are taken to mitigate against the effects.

6.2 Foundations

Standard strip/trench fill foundations are considered suitable where a level development platform is created, or where masonry block walling is utilised to build up to finished floor levels.

For this option it is recommended that structural loads of a low-rise residential unit are taken down through topsoil and the podsolized soil to bear within the underlying natural, undisturbed cohesive soils of adequate strength/bearing resistance. Based upon the proven ground conditions this is anticipated to comprise very stiff silty clays.

We do not consider the podsolized soils meet the definition of 'good ground' under the NZBC as it is foreseeable they will experience movement of 25 mm or greater.

We consider it unlikely foundations will need to be extended more than 1 m below ground level to penetrate through the podsolized soil layer.

We recommend that due to the presence of podsolized soils specific engineering design be undertaken for the foundations of future houses on Lots 3 and 4.

7 Natural Hazards

7.1 Hazards

Hazards identified in Section 106 of the Resource Management Act are: erosion, falling debris, subsidence, slippage, or inundation from any source. Hazards listed in the Building Act include: erosion, falling debris, subsidence, inundation or slippage.

We assess the susceptibility of the nominated building sites to those potential effects as;

Erosion	Minor
Falling debris	No
Subsidence (vertical settlement)	No
Inundation	No. As discussed below, the proposed building sites are above flood hazard levels.
Slippage	No

The specific hazards listed as potentially applicable to this site are discussed further below. None of the conditions listed in Section 106 of the Resource Management Act are applicable to the site and the proposed building sites do not contain any natural hazards that would warrant action under Section 71(1) of the Building Act 2004.

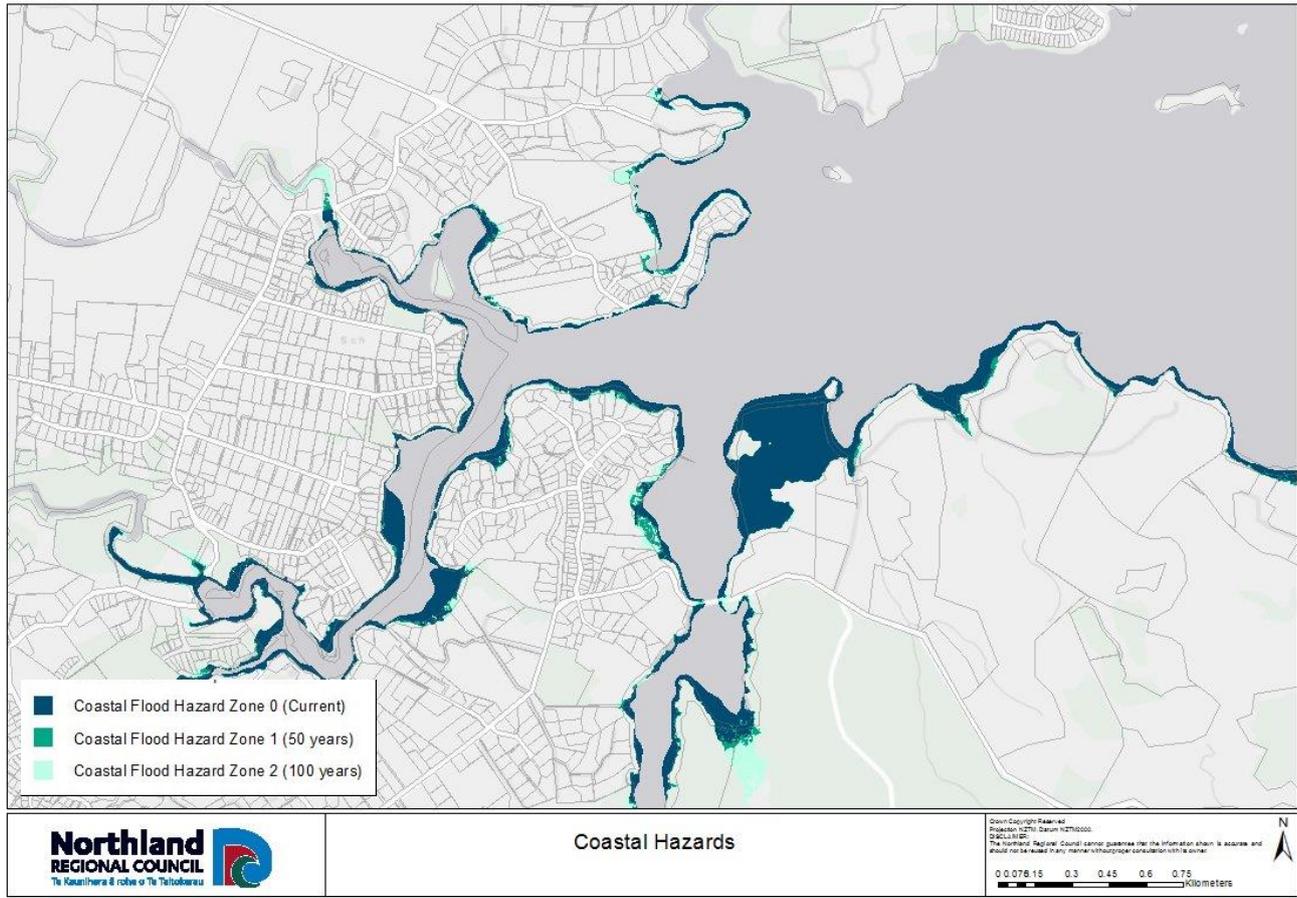
7.2 Flooding

The District Plan Hazard Map FL3, NRC and FNDC GIS databases do show the site as being subject to flooding from rivers or overland flow paths. Low lying areas of the site are shown on the Northland Regional Council GIS maps as being subject to coastal inundation.

A report prepared by Tonkin & Taylor for Northland Regional Council 'Coastal Flood Hazard Zones for Selected Northland Sites' May 2016 lists a 1% AEP storm tide level of 1.7 m OTP datum for Kerikeri Inlet in 2015. Section 2.3.5 of this report identifies current predictions for sea level rise. The values adopted in the report (and adopted by NRC) is 0.4m in 2065 and 1.0m in 2115. The 1% AEP storm tide level in 2115 is listed as 2.7 m OTP datum for Kerikeri Inlet.

The mudflat and wetland are subject to tidal inundation and surface flooding. However, the possible building sites are well elevated and are not subject to flooding.

Low lying areas of the site are shown on the Northland Regional Council GIS maps as being subject to coastal inundation as illustrated on the map below:



7.3 Northland Regional Policy Statement

The Operative Regional Policy Statement (RPS) for Northland section 7.1.7(5) specifies:

- (5) The regional and district councils shall ensure that within the coastal environment:
- (a) Any new habitable dwelling has a minimum floor level of 3.3m above One Tree Point datum on the east coast and 4.3m above One Tree Point Datum on the west coast. New non-habitable buildings will have a minimum floor level of 3.1m above One Tree Point datum on the east coast and 4.1m on the west coast; and
 - (b) An additional allowance for wave run-up shall be assessed over and above the requirements above for exposed east coast locations where ground elevation is less than 5m above One Tree Point datum, and for exposed west coast locations where ground elevation is less than 6m above One Tree Point datum.
 - (c) Clauses (a) and (b) do not apply to:

- i) Non-habitable buildings not designed for habitation or commercial use and where the potential impact of the building being materially damaged or destroyed by a coastal hazard event (including the replacement cost) is minor (e.g. pump sheds, car ports, farm sheds and public toilets); and
 - ii) Non-habitable buildings that have a functional need to be located in the coastal marine area (e.g. boatsheds); and
 - iii) Network utility infrastructure.
- Circumstances where (a) and (b) are not met will be subject to the resource consent process.

How minimum floor levels are derived in the RPS;

	East Coast	West Coast
Assessed 1% AEP sea level	1.8m OTP	2.8m OTP
Allowance for Sea Level Rise (to 2115)	1.0m	1.0m
Freeboard (habitable dwellings)	0.5m	0.5m
Freeboard (non-habitable buildings)	0.3m	0.3m

Any dwelling constructed in the identified house sites will comply with the Regional Policy Statement minimum floor level.

7.4 Farm Track

A farm track is proposed within Right of Way I to provide stock access to existing pasture to the north and east of the island. The route follows an old track around the headland and an existing fence on higher ground across the tidal wetland. Existing ground level along the route of the farm track typically varies from 0.3 to 0.6 m OTP datum, with a localised lower area (approximately -0.2 m OTP datum) in the centre of the wetland. It is proposed to place an average depth of 0.6 m of aggregate fill on the existing ground to raise the level of the track to a minimum of 0.9 m OTP datum similar to the existing metalled track formation within Right of Way J.

The NZ Nautical Almanac 2018-19 lists the following tidal levels (relative to chart datum):

Location	MHWS	MSL	MLWS
Doves Bay	2.4	1.5	0.6
Kerikeri	2.3	1.3	0.2
Opuia	2.6	1.4	0.4

Chart datum = -1.68m OTP datum

Current MHWS at the site is around 2.35 m Chart Datum or 0.67 m OTP datum. A track at 0.9 m OTP datum would have 230mm freeboard above MHWS.

Once constructed, the is proposed track will settle as a result of consolidation of the mud beneath, and freeboard will reduce as a result of sea level rise. The track can be topped up as required to maintain reasonable freeboard for a farm track.

7.5 Conclusion

The proposed building sites are located at an elevation at least 6.0m OTP datum, at least 3.0m above any coastal flood level and are therefore not subject to natural hazards.

The proposed farm track will have adequate freeboard above current MHWS and can be topped up as required.

We have not assessed the natural hazard risk of any potential building site on the island. Should any building be proposed for this site, an assessment of coastal flood risk (including the effects of sea level rise, storm surge, wave run-up and tsunami) should be carried out prior to building consent stage.

8 Vehicle Access

8.1 Introduction

Access to the proposed subdivision is via an existing easement off Kerikeri Inlet Road that currently serves 2 lots – the subdivision site (Lot 1 DP 167657) and the land on which the easement is located (Lot 2 DP 210733). We understand that the adjoining property Lot 1 DP 210733 also has rights to this easement, although access to the property is currently via a vehicle crossing 140m further east along Kerikeri Inlet Road. On completion of the proposed subdivision, this right of way will serve 6 rural-residential lots.

The Traffic Intensity Factor (TIF) assessed in accordance with Appendix 3A of the Operative Far North District Plan[†] for 6 residential lots is 60 vpd. As only 5 lots are likely to use the crossing, actual traffic generation is likely to be closer to 50 vpd.

The location of the access is shown on Haigh Workman drawings 17 229/03 and 04.

8.2 Sight Distance Standards

Minimum sight distances from vehicle crossings are specified in the Far North District Council Engineering Standards and Guidelines 2009 drawing FNDC/ S /6.

Council's standards are based on Austroads safe stopping distances as calculated by the formula:

$$D = \frac{R_T \cdot V}{3.6} + \frac{V^2}{254 (d + e)}$$

Where:

- R_T = driver reaction time (sec)
- V = 85%ile vehicle speed (km/h)
- d = rate of deceleration (g)
- e = longitudinal gradient

The minimum sight distances specified on drawing FNDC/ S /6 are based on 3.0 seconds reaction time for speeds up to 60km/h, 2.5 seconds reaction time for speeds 70km/h and over, and the Austroads deceleration rate for sealed, level roads.

8.3 Vehicle Speeds

The legal speed limit on Kerikeri Inlet Road is 100 km/hr at this location. Vehicles approaching from the west (Kerikeri) are affected by a one lane bridge 700m from the entrance and a winding uphill climb. The 85%ile vehicle speed of vehicles on Kerikeri Inlet Road approaching the entrance from the west is assessed as 80km/h.

Vehicles approaching from the east (Inlet) are affected by a vertical curve at the Waitangi Forest entrance, 100m east of the site entrance. The 85%ile vehicle speed of vehicles on Kerikeri Inlet Road approaching the site entrance from the east is assessed as 80km/h.

[†] Note: all Far North District Plan references are to the District Plan text as amended by Plan Change 20, Operative September 2017

8.4 Minimum Sight Distances

Minimum sight distances specified on drawing FNDC/ S /6 for 85%ile speeds of 80km/h is 115m.

The FNDC standard does not provide an adjustment for gradient as specified in the Austroads standard. Vehicles approaching on a downhill gradient take longer to stop than on a level road, and vehicles approaching on an uphill gradient require a shorter distance.

The longitudinal gradient on Kerikeri Inlet Road is 6.8% to the west and 7.5% to the east of the entrance.

Minimum sight distances based on the 85%ile vehicle speeds have been calculated using the Austroads safe stopping distance methodology with 2.5 seconds reaction time and adjusted for gradient as follows:

Approach	V	d	e	Safe Stopping Distance	Sight Distance Achieved
From west	80 km/h	0.43	0.068	106 m	110 m
From east	80 km/h	0.43	-0.075	127 m	138 m

Based on the Austroads assessment there are sufficient sight distances for the existing entrance.

8.5 Vehicle Crossing

The existing vehicle crossing will be upgraded to comply with FNDC standards for the number of lots served. On completion of the proposed subdivision, the vehicle crossing will serve 5 lots (50 vehicles per day) with the right to serve 6 lots (60 vpd).

FNDC Engineering Standards and Guidelines 2009 clause 3.3.7.4 specifies that a rural access carrying less than 60 vehicles per day shall be Type 1 in accordance with drawing FNDC/S/6. Reference should also be made to drawing FNDC/S/6B.

The vehicle crossing should be formed as a double width crossing in accordance with drawing FNDC/S/6B. The crossing should be sealed to the watertable culvert, approximately 6 metres from the edge of Kerikeri Inlet Road.

Drawing FNDC/S/6B specifies that a gate shall be setback at least 10 metres from the road edge. The existing gate is set back 16 metres from the edge of Kerikeri Inlet Road and opens towards the road. We recommend that the gate be duplicated (two 3.6m wide gates) to provide for the 5 metre right of way carriageway. As such, there will be 12.4 metres between the open gates and the road edge.

8.6 Rights of Way

The existing right of way over Lot 2 DP 210733 will be upgraded and new rights of way A, B, C, F, G, H and I will be formed as part of the subdivision.

Rights of Way D and E provide for an existing right of access to Lot 1 DP 210733 that is not currently used. The right of way does not need upgrading as a result of the subdivision.

Rights of Way J to N provide additional access rights for Lot 1, but do not form part of the subdivision infrastructure.

The existing and proposed rights of way (ROWs) will be unsealed. ROWs will be constructed to FNDC standards.

The following table summarises District Plan Appendix 3B-1 minimum standards for the ROWs (refer Williams & King subdivision plan for ROW locations):

Table 8.1 –Right of Way Standards

ROW	Number of Lots Accessed off ROW	Minimum Legal Width	Minimum Carriageway Width
Lot 2 DP 210733 Easement	6	7.5 m	5.0 m
ROW A, B, C	5	7.5 m	5.0 m
ROW F, G	4	7.5 m	3.0 m + Passing Bays
ROW H	3	7.5 m	3.0 m + Passing Bays
ROW I	1	5.0 m	3.0 m

The access is to be widened to 5.0 m width up to the boundary of the site in accordance with the District Plan Appendix 3B-1 standards.

The existing ground slope at all ROWs except on a small portion of ROW I (where it leaves ROW G) complies with District Plan Appendix 3B-1 standards for gravel accessways. Gravel accesses require a maximum gradient of 1:5. ROW G has a section that is 1:4. Options are to either reduce the gradient to 1:5 or to concrete the section that is steeper than 1:5. The maximum slope permitted under the District Plan for concrete accesses is 1:4.

All rights of way require drainage channels.

In accordance with Rule 15.1.6C.1.3, passing bays will be provided at spacings not exceeding 100m and in all locations where the horizontal and vertical alignment of the private accessway restricts the visibility. ‘Restricted visibility’ is not defined in the District Plan. In traffic safety terms, restricted visibility is where two vehicles approaching each other have insufficient distance to stop before a collision. At an operating speed of 30km/h on an unsealed road, the stopping distance for each vehicle is calculated as follows:

$$D = \frac{R_T \cdot V}{3.6} + \frac{V^2}{254 (d + e)}$$

- Where:
- R_T = driver reaction time (sec) = 1.5 sec
 - V = 85%ile vehicle speed (km/h) = 30km/h
 - d = rate of deceleration (g) = 0.27
 - e = longitudinal gradient = 0

Stopping distance $D = 26m$.

We recommend that passing bays be provided where the visibility along the right of way is less than 60m, allowing two vehicles to stop with 8m spare.

8.7 Driveways

Driveways can be formed on acceptable gradients from the proposed ROWs to the building platforms shown on the drawings.

8.8 Parking and Manoeuvring

Parking in accordance with District Plan Rule 15.1.6B and associated manoeuvring can be accommodated within the proposed lots and rights of way.

8.9 District Plan Rule 15.1.6C.1

The proposed access has been assessed for compliance with the Far North District Plan Access Rule 15.1.6C.1 as follows:

Table 8.2 -Far North District Plan Rule 15.1.6.1.2 VEHICLE ACCESS

Rule	Applicability						
<p>15.1.6C.1.1 PRIVATE ACCESSWAY IN ALL ZONES</p> <p>(a) The construction of private accessway, in addition to the specifics also covered within this rule, is to be undertaken in accordance with Appendix 3B-1 in Part 4 of this Plan.</p> <p>(b) Minimum access widths and maximum centreline gradients, are set out in the Appendix 3B-1 table except that the grade shall be:</p> <table border="1" data-bbox="229 936 1171 1048"> <tr> <td data-bbox="229 936 619 992">All urban zones; excluding the Commercial and Industrial Zones</td> <td data-bbox="625 936 1171 992">No steeper than 1:8 adjacent to the road boundary for at least 5m</td> </tr> <tr> <td data-bbox="229 992 619 1048">Commercial and Industrial Zones</td> <td data-bbox="625 992 1171 1048">No steeper than 1:20 adjacent to the road boundary for a length of at least 6m.</td> </tr> </table> <p>(c) A private accessway may serve a maximum of 8 household equivalents.</p> <p>(d) Where a subdivision serves 9 or more sites, access shall be by public road.</p> <p>(e) Access shall not be permitted:</p> <ul style="list-style-type: none"> (i) onto a State Highway or a Limited Access Road; (ii) onto an arterial or collector road within 90m of its intersection with an arterial road or a collector road; (iii) onto an arterial or collector road within 30m of its intersection with a local road; (iv) onto a local road within 30m of its intersection with an arterial or collector road; (v) onto Kerikeri Road (both sides of the road along the portion between Maraenui Drive and Cannon Drive). This rule does not apply to sites with lawfully established access points (as at 6 September 2001) onto Kerikeri Road. <p>[Notes on Limited Access Roads omitted]</p>	All urban zones; excluding the Commercial and Industrial Zones	No steeper than 1:8 adjacent to the road boundary for at least 5m	Commercial and Industrial Zones	No steeper than 1:20 adjacent to the road boundary for a length of at least 6m.	<p>The right of way to the road will be formed to Appendix 3B-1 standards</p> <p>The right of way serves a maximum of 6 lots.</p> <p>Access is not proposed on to a state highway or within 90m of any side road</p>		
All urban zones; excluding the Commercial and Industrial Zones	No steeper than 1:8 adjacent to the road boundary for at least 5m						
Commercial and Industrial Zones	No steeper than 1:20 adjacent to the road boundary for a length of at least 6m.						
<p>15.1.6C.1.2 PRIVATE ACCESSWAYS IN URBAN ZONES</p> <p>(a) Private accessways in all urban zones, excluding the Commercial and Industrial Zones, shall comply with the following:</p> <table border="1" data-bbox="229 1491 1193 1765"> <tr> <td data-bbox="229 1491 606 1704">Where: (i) The private accessway serves no more than four residential units; and (ii) Visibility is not restricted; and (iii) The access is less than 60m long; or 60m long or longer and passing bays are provided at intervals not exceeding 60m.</td> <td data-bbox="612 1491 1193 1704">The private accessway from the road boundary to any parking or loading space shall be: <ul style="list-style-type: none"> • not less than 3m wide; and • a minimum overhead clearance of 4m. </td> </tr> <tr> <td data-bbox="229 1704 606 1765">Where any one of (i) through (iii) above are not complied with</td> <td data-bbox="612 1704 1193 1765">The private accessway shall be 5m wide.</td> </tr> </table> <p>Note 1: The entrance standards from the road shall comply with the entrance standards detailed in Rules 15.1.6C.1.4 and 15.1.6C.1.5, as applicable.</p> <p>(b) Private accessways in the Commercial and Industrial Zones shall comply with the following:</p> <table border="1" data-bbox="185 1845 1214 1924"> <tr> <td data-bbox="185 1845 874 1924">(i) One-way operation, excluding service stations. Note: A one-way operation is a 3m wide private accessway that provides entry to the site at one point and exit from the site at a different point.</td> <td data-bbox="880 1845 1214 1924">The private accessway from the road to any parking or loading space shall:</td> </tr> </table>	Where: (i) The private accessway serves no more than four residential units; and (ii) Visibility is not restricted; and (iii) The access is less than 60m long; or 60m long or longer and passing bays are provided at intervals not exceeding 60m.	The private accessway from the road boundary to any parking or loading space shall be: <ul style="list-style-type: none"> • not less than 3m wide; and • a minimum overhead clearance of 4m. 	Where any one of (i) through (iii) above are not complied with	The private accessway shall be 5m wide.	(i) One-way operation, excluding service stations. Note: A one-way operation is a 3m wide private accessway that provides entry to the site at one point and exit from the site at a different point.	The private accessway from the road to any parking or loading space shall:	<p>N/A</p> <p>The site is not within an urban zoning</p>
Where: (i) The private accessway serves no more than four residential units; and (ii) Visibility is not restricted; and (iii) The access is less than 60m long; or 60m long or longer and passing bays are provided at intervals not exceeding 60m.	The private accessway from the road boundary to any parking or loading space shall be: <ul style="list-style-type: none"> • not less than 3m wide; and • a minimum overhead clearance of 4m. 						
Where any one of (i) through (iii) above are not complied with	The private accessway shall be 5m wide.						
(i) One-way operation, excluding service stations. Note: A one-way operation is a 3m wide private accessway that provides entry to the site at one point and exit from the site at a different point.	The private accessway from the road to any parking or loading space shall:						

	<ul style="list-style-type: none"> • not less than 3m or more than 4m in width; and • have a minimum overhead clearance of 4.2m 					
(ii) Two-way operation, excluding service stations Note: A two-way operation is a 6m wide private accessway that provides entry and exit from the site at the same point	The private accessway from the road to any parking or loading space shall: <ul style="list-style-type: none"> • not be less than 6m or more than 7m in width; and • have a minimum overhead clearance of 4.2m 					
(iii) Service stations	The private accessway from the road to any parking or loading space shall: <ul style="list-style-type: none"> • have a maximum width for one-way and two-way operations of 9m; and • have a minimum overhead clearance of 4.2m 					
(c) All private accessways in all urban zones which serve two or more activities are to be sealed or concreted.						
15.1.6C.1.3 PASSING BAYS ON PRIVATE ACCESSWAYS IN ALL ZONES (a) Where required, passing bays on private accessways are to be at least 15m long and provide a minimum usable access width of 5.5m. (b) Passing bays are required: <ul style="list-style-type: none"> (i) in rural and coastal zones at spacings not exceeding 100m; (ii) on all blind corners in all zones at locations where the horizontal and vertical alignment of the private accessway restricts the visibility. (c) All accesses serving 2 or more sites shall provide passing bays and vehicle queuing space at the vehicle crossing to the legal road.		Passing bays will be provided at 100m maximum centres and wherever sight distance is restricted to less than 60m				
15.1.6C.1.4 ACCESS OVER FOOTPATHS The following restrictions shall apply to vehicle access over footpaths: (a) no more than two crossings per site; and (b) the maximum width of a crossing shall be: <table border="1" data-bbox="226 1182 1054 1249"> <tr> <td>All activities; except service stations</td> <td>6m</td> </tr> <tr> <td>Service stations or supermarkets</td> <td>9m</td> </tr> </table> Note: Consideration should be given to the location of crossings and the potential for signage to ensure pedestrian safety.		All activities; except service stations	6m	Service stations or supermarkets	9m	N/A
All activities; except service stations	6m					
Service stations or supermarkets	9m					
15.1.6C.1.5 VEHICLE CROSSING STANDARDS IN RURAL AND COASTAL ZONES (a) Private access off roads in the rural and coastal zones the vehicle crossing is to be constructed in accordance with Council's "Engineering Standards and Guidelines" (June 2004 – Revised 2009). (b) Where the access is off a sealed road, the vehicle crossing plus splays shall be surfaced with permanent impermeable surfacing for at least the first 5m from the road carriageway or up to the road boundary, whichever is the lesser. (c) Where the vehicle crossing serves two or more properties the private accessway is to be 6m wide and is to extend for a minimum distance of 6m from the edge of the carriageway. Note 1: Refer to Appendix 3G for a visual representation of what a vehicle crossing is and how it works in relation to a private access.		The vehicle crossing will be formed as a double width crossing in accordance with drawing FNDC/S/6B. The crossing will be sealed to the watertable culvert, approximately 6 metres from the edge of Kerikeri Inlet Road.				
15.1.6C.1.6 VEHICLE CROSSING STANDARDS IN URBAN ZONES (a) Private access off streets in the urban zones the vehicle crossing is to be constructed in accordance with Council's "Engineering Standards and Guidelines" (June 2004 – Revised 2009).		N/A				

<p>(b) Where the vehicle crossing serves two or more properties the vehicle crossing is to be widened to provide a double width vehicle crossing.</p> <p>Note 1: Refer to Appendix 3G for a visual representation of what a vehicle crossing is and how it works in relation to a private access.</p>	
<p>15.1.6C.1.7 GENERAL ACCESS STANDARDS</p> <p>(a) Provision shall be made such that there is no need for vehicles to reverse off a site except where there are less than 4 parking spaces gaining access from a local road.</p> <p>(b) All bends and corners on the private accessway are to be constructed to allow for the passage of a Heavy Rigid Vehicle.</p> <p>(c) Any access where legal width exceeds formation requirements shall have surplus areas (where legal width is wider than the formation) grassed.</p> <p>(d) Runoff from impermeable surfaces shall, wherever practicable, be directed to grass swales and/or shall be managed in such a way as will reduce the volume and rate of stormwater runoff and contaminant loads.</p>	Complies
<p>15.1.6C.1.8 FRONTAGE TO EXISTING ROADS</p> <p>(a) Where any proposed subdivision has frontage to a road or roads that do not meet the legal road width standards specified by the Council in its "Engineering Standards and Guidelines" (June 2004 – Revised 2009), road widening shall be vested in the name of the Council.</p> <p>(b) Where any proposed subdivision has frontage to a road or roads that are not constructed to the standards specified by the Council in its "Engineering Standards and Guidelines" (June 2004 – Revised 2009), then the applicant shall complete the required improvements.</p> <p>(c) Where a site has more than one road frontage or frontage to a service lane or right-of-way (ROW) in addition to a road frontage, access to the site shall be in a place that:</p> <ul style="list-style-type: none"> (i) facilitates passing traffic, entering and exiting traffic, pedestrian traffic and the intended use of the site; (ii) is from the road or service lane or ROW that carries the lesser volume of traffic. <p>(d) Where any proposed subdivision has frontage to a road on which the carriageway encroaches, or is close to the subject lot or lots, the encroachment or land shall vest in Council such that either the minimum berm width between the kerb or road edge and the boundary is 2m or the boundary is at least 6m from the centreline of the road whichever is the greater.</p>	N/A The subdivision site has no frontage on to Kerikeri Inlet Road
<p>15.1.6C.1.9 NEW ROADS</p> <p>All new public roads shall be laid out, constructed and vested in accordance with the standards set out in the Council's Engineering Standards and Guidelines (June 2004 – Revised 2009).</p> <p>Note: Refer also to the Designation and Utility Services rules within Chapter 17.</p>	N/A
<p>15.1.6C.1.10 SERVICE LANES, CYCLE AND PEDESTRIAN ACCESSWAYS</p> <p>(a) Service lanes, cycle and pedestrian accessways shall be laid out and vested in accordance with the standards set out in the Council's "Engineering Standards and Guidelines" June (2004 – Revised 2009).</p> <p>(b) All access reserved for pedestrians only shall be a footpath, formed and concreted (or an alternative surface) to Councils satisfaction.</p>	N/A
<p>15.1.6C.1.11 ROAD DESIGNATIONS</p> <p>Where any frontage to an existing road is shown on the Zone Maps as being subject to designation for road acquisition and widening purposes, provision shall be made to enable the Requiring Authority to acquire such land, by separately defining the parcels of land. Where the Requiring Authority is not in a position to acquire such parcels immediately, they shall be held in conjunction with adjoining land, with consent notices registered in accordance with Rule 13.6.7.</p>	N/A

9 Earthworks

9.1 Proposed Earthworks

At this stage earthworks are anticipated to comprise formation of the proposed rights of way (ROW) and disestablishment of part of the existing track on Lot 4. The maximum depth of cut or fill is not expected to exceed 1.0 m.

Earthworks is broken down as follows:

- Formation and widening of the ROWs
- Cutting and filling to reduce gradient of the proposed ROW I
- Construction of a farm track within Right of Way I and part of Right of Way J
- Placing aggregate
- Disestablishment of the existing farm track in the building area on Lot 4.

Preliminary earthworks quantities are presented below.

Table 9.1 –Subdivision Earthworks Quantities

Location	Length (m)	Area (m ²)	Cut (m ³)	Fill (m ³)	Aggregate (m ³)	Total (m ³)
Lot 2 DP 210733 ROW	181	450	135	135	100	370
Lot 2 ROW G - H	134	670	200	200	125	525
Lot 3 ROW I	240	1200	190	190	576	956
Lot 3 Causeway	152	760	80	80	365	525
Lot 1 Causeway	100	500	50	50	225	325
Lot 2 ROW J	45	225	25	25	109	159
Total	852	3805	680	680	1500	2860

9.2 Regulatory Conditions

The land is zoned South Kerikeri Inlet. This anticipated scale of earthworks on the site will exceed the permitted activity in the South Kerikeri Inlet zone of 300 m³ per year per Lot on Lot 1 DP 167657, but not the 2,000 m³ per year per Lot maximum for a Restricted Discretionary activity. The anticipated scale of earthworks on the neighbouring property Lot 2 DP 210733 will not exceed the permitted activity limit.

Pursuant to rule 13.6.8 of the Operative District Plan, it is requested that consent for 2,500 m³ of earthworks (including placing aggregate) on Lot 1 DP 167657 be incorporated into the subdivision consent.

The total volume over the Site remains within the 5,000m³ per year permitted under the Regional Water and Soil Plan for Northland rules and 5,000m² per year permitted under the Proposed Regional Plan.

A resource consent has been granted for construction of the causeway in ROW I (NRC resource consent AUT.040047). It is expected that construction of Right of Way I around the headland will comply with the Regional Water and Soil Plan Rule 34.1.3 and Proposed Regional Plan Rule C.8.3.1.

9.3 Earthworks Construction

Earthworks will be carried out in accordance with NZS 4404 and Council's Engineering Standards and Guidelines.

Where the placement of imported hard fill material is required, the material should be sorted, classified and compacted in a controlled manner in accordance to an approved earthworks specification, such as NZS 4404 Section 2.3.6 'Compaction Standards for Fill Material'. Where imported hard fill materials are placed in excess of 600 mm thickness and/or where hard fill is proposed to be utilised as a bearing strata or for roading it is recommended that compaction is confirmed by in-situ testing conducted by a suitably qualified and experienced engineer.

Erosion and sediment control for earthworks will be carried out in accordance with Council's Engineering Standards and Guidelines and Auckland Council GD05.

Final earthworks details will be confirmed on more detailed design. We suggest that, as a condition of consent, an Erosion and Sediment Control Plan be required to be submitted to and approved by Council prior to start of earthworks.

9.4 Assessment Criteria

The proposed earthworks has been assessed against the Assessment Criteria in Section 12.3.7 of the Far North District Plan as follows:

Table 9.2 -Far North District Plan Section 12.3.7 Assessment Criteria

Criterion	Assessment
(a) the degree to which the activity may cause or exacerbate erosion and/or other natural hazards on the site or in the vicinity of the site, particularly lakes, rivers, wetlands and the coastline;	With appropriate measures the proposed earthworks will not cause or exacerbate erosion.
(b) any effects on the life supporting capacity of the soil;	Soil beyond the roads and rights of way will be suitable for lawn and landscape planting
(c) any adverse effects on stormwater flow within the site, and stormwater flow to or from other properties in the vicinity of the site including public roads;	A culvert will be placed to convey stormwater under the driveway.
(d) any reduction in water quality;	Sediment control will be implemented during the earthworks operation using the Auckland Council GD05 guidelines. Once built on or grassed the proposed fill will have no adverse effect on water quality.
(e) any loss of visual amenity or loss of natural character of the coastal environment;	Refer Planner's report
(f) effects on Outstanding Landscape Features and Outstanding Natural Features (refer to Appendices 1A and 1B in Part 4 , and Resource Maps);	Refer Planner's report
(g) the extent to which the activity may adversely affect areas of significant indigenous vegetation or significant habitats of indigenous fauna;	N/A
(h) the extent to which the activity may adversely affect heritage resources, especially archaeological sites;	Refer Planner's report
(i) the extent to which the activity may adversely affect the cultural and spiritual values of Maori, especially Sites of Cultural Significance to Maori and waahi tapu (as listed in Appendix 1F in Part 4 , and shown on the Resource Maps);	Refer Planner's report
(j) any cumulative adverse effects on the environment arising from the activity;	Refer Planner's report
(k) the effectiveness of any proposals to avoid, remedy or mitigate any adverse effects arising from the activity;	A sediment control plan will be designed to avoid or mitigate erosion and sediment runoff.
(l) the ability to monitor the activity and to take remedial action if necessary;	The sediment control plan is required to be monitored and action taken to avoid, remedy or mitigate risks.

10 Stormwater Management

10.1 Existing Site Drainage

At present stormwater flows across the pasture area to the tidal mudflats. An interception drain adjacent to the eastern boundary of the pasture directs stormwater to the north of the site. The interception drain disperses across a slope with no evidence of erosion. There are no concentrated flows across the pasture.

10.2 Stormwater Management Principles

On-site stormwater management is to be carried out in accordance with Clause E1 of the building code compliance documents. The performance requirements are as follows;

- That a primary system capable of disposal of surface water resulting from a storm having a 10 % (1 in 10 year) probability of occurring annually, shall be constructed.
- That all stormwater reticulation and disposal systems are constructed to convey surface water to an appropriate outfall using gravity flow, and in a manner which avoids the likelihood of blockages, leakage, penetration by roots, or the entry of groundwater where pipes or lined channels are used and avoids the likelihood of damage from superimposed loads or normal ground movements.
- That for piped systems, accessible inspection chambers are provided at all changes of grade, direction and pipe size.
- That self-cleansing velocities are maintained within reticulation systems.
- That the reticulation and disposal system is designed and constructed for a function design life of 50 years.
- That damage to the environment both during and after the development construction phase is minimised or avoided.
- That a system is provided which can be economically maintained.

The proposed developments are not considered to create a long-term impact on stormwater quality hence no special provisions for water quality treatment are proposed.

The intent of the applicant is to comply with NRC permitted activity rules. No stormwater detention is required as there are no properties downslope of the site.

10.3 District Plan Provisions

The proposed lots are zoned as South Kerikeri Inlet. The relevant stormwater management/ impermeable surface rules are as follows:

Permitted stormwater management activities;

10.10.5.1.6 Stormwater Management

The maximum proportion or amount of the gross site area covered by buildings and other impermeable surfaces shall be 10% or 600 m², whichever is the lesser.

Impermeable surfaces are defined by FNDC as;

IMPERMEABLE SURFACE

In relation to any site means any building or surface on or over the land which creates a barrier to water penetration into the ground. This definition includes but is not restricted to:

- (a) decks (including decks less than 1 m in height above the ground) excluding open slatted decks where there are gaps between the boards;*
- (b) pools, but does not include pools designed to operate as a detention pond;*
- (c) any surfaced area used for parking, maneuvering, access or loading of motor vehicles, including areas covered with aggregate;*
- (d) areas that are paved with concrete, asphalt, open jointed slabs, bricks, gobi or materials with similar properties to those listed;*
- (e) roof coverage area on plan;*

But excludes:

- i. Water storage tanks occupying up to a maximum cumulative area of 20 m²; and*
- ii. Paths and paving less than 1 m wide, provided they are separated from other Impermeable Surfaces by a minimum of 1 m.*

For the purpose of calculating impermeable surfaces, account shall not be taken of any additional areas that are overlapped by another form of impermeable surfaces.

In the case of jointly owned access lots that contain impermeable surfaces within their boundaries, the total area of these impermeable surfaces are to be divided equally and considered as parts of the various sites served by the access lot for the purpose of determining compliance with the relevant stormwater management rules.

Existing and proposed impermeable surfaces have been calculated in Appendix C as follows:

he impermeable area of the proposed ROW has been calculated to be 705 m². Calculations are presented below:

Table 10.1 –Impermeable surfaces to develop subdivision

Lot	Existing Impermeable Surfaces	Proposed Impermeable Surfaces	Lot Area	Proposed Coverage
Lot 2 DP 210733	2373 m ²	2735 m ²	201,695 m ²	1.35%
Lot 1 DP 167657	2016 m ²	3391 m ²	177,060m ²	1.92%

These area breach the 600m² permitted limit per lot, meaning a land use consent will be required.

The effects of the impermeable area can be mitigated with suitable design of culverts and overland flowpaths. Stormwater detention is not required as the site flows directly to a tidal wetland.

The proposed subdivision provides for, but does not include residential development. It is anticipated that houses when they are built will be of a similar scale to the existing residential development in other rural-residential land in the Kerikeri area. Typical developed areas are 300m² roof area and 200m² additional driveway/turning area per lot. Typical impermeable surfaces on each lot when they are developed are estimated as follows:

Table 10.2 –Impermeable Surfaces after subdivision and before residential development

Proposed Lot	Impermeable Surfaces	Lot Area (ha)	Coverage
Lot 1	400 m ²	51,060 m ²	0.78%
Lot 2	666 m ²	41,280 m ²	1.61%
Lot 3	1176 m ²	42,550 m ²	2.76%
Lot 4	1149 m ²	42,669 m ²	2.69%
Total	3391 m ²	177,060 m ²	1.91%

Table 10.3 –Impermeable Surfaces after residential development

Proposed Lot	Impermeable Surfaces	Lot Area (ha)	Coverage
Lot 1	900 m ²	51,060 m ²	1.76%
Lot 2	1166 m ²	41,280 m ²	2.82%
Lot 3	1676 m ²	42,550 m ²	3.94%
Lot 4	1649 m ²	42,669 m ²	3.86%
Total	5391 m ²	177,060 m ²	3.04%

The combination of impermeable surfaces associated with the accessways and residential development on all lots will breach the 600 m² permitted activity limit when developed. Land use consent for these lots will be applied for once development plans have been finalised.

10.4 Regional Plan Provisions

Long term stormwater management is to be in compliance with NRC Regional Water and Soil Plan permitted activity rules for stormwater discharges 29.1.2(a);

For new subdivision and development, the best practicable option for on-site stormwater disposal shall be identified and incorporated into the stormwater management design to avoid or minimise changes to stormwater flows after development for the 1 in 5 year return period storm event.

To help achieve the best practicable option for on-site stormwater disposal in clause (a), the following measures should be considered:

- *Infiltration facilities in permeable soil types;*
- *The retention of natural stream channels;*
- *Minimise areas of impermeable surfaces;*
- *Stormwater detention before dispersal into waterways.*

Auckland Council Technical Publication No. 10 (TP10) states the following regarding water quantity design objectives;

Auckland Council criteria for water quantity control depend on the receiving environment. If the receiving environment is a piped stormwater reticulation system with adequate capacity for the increased runoff or tidal (either estuarine or marine), then water quantity control is not an issue and a number of practices can be used to achieve water quality goals. If the receiving environment is a stream, then control of peak rates of runoff may be a requirement, and ponds become a primary option for controlling discharge rates.

The Northland Regional Council is reviewing its Regional Plans and a Proposed Regional Plan for Northland was notified in September 2017. It has statutory effect at this stage along side the operative Water and Soil Plan.

Proposed Rule C6.4.2 provides for the diversion and discharge of stormwater from outside a public stormwater network provided (amongst other conditions) *the discharge or diversion does not cause or increase nuisance or damage to other property.*

Proposed Rule C.6.4.1 for stormwater discharge from a public stormwater network is more specific, requiring:

2) the diversion and discharge does not cause or increase flooding of land outside the area serviced by the stormwater network up to the 10 percent annual exceedance probability or flooding of buildings outside the area serviced by the network up to the one percent annual exceedance probability, and ...

Drainage from the site is via open drains to the coastal wetland. There are no properties downstream that would be affected by stormwater flows from the lots.

10.5 Proposed Stormwater System

The site is formed by moderately sloping rolling and hill land and site drainage is generally via surface runoff to the tidal mud flats.

A summary of the proposed stormwater system is as follows.

10.5.1 Subdivision Stormwater System

- The interception drain along the farm track on the eastern boundary is to remain
- A culvert will be required under the new accessway near the boundary of Lot 3 and Lot 2
- An armoured flowpath is to be used to convey water from the culvert to the base of the slope
- It is recommended that drainage easements be created to protect the interception drains on the eastern boundary and next to the proposed accessway
- We recommend specific engineering design of the stormwater system be required as a condition of consent.
- The subdivision stormwater system should be designed to accommodate stormwater from fully developed lots.

10.5.2 Lot Development

- Stormwater run-off from Lots 1 and 2 will be to the interception drain of the proposed accessway (RoW G);
- Stormwater run-off from Lot 3 will be either dispersed across the ground surface on the plateau or discharged to the tidal flats within Lot 3;
- Stormwater run-off from Lot 4 could either be discharged to the accessway to the south, dispersed across the ground surface or discharged to the tidal flats within Lot 4;
- Existing dispersed stormwater flows from the proposed building sites on Lots 1 and 3 will continue to flow into the Lot 2 wetland.

10.5.3 Stormwater Attenuation

An all cases, stormwater run-off is into a tidal wetland. Stormwater attenuation is not required to limit stormwater flows.

10.6 Assessment Criteria

The proposed stormwater management provides for the following matters listed in Section 13.7.3.4 of the Far North District Plan as follows:

Table 10.4 -Far North District Plan Rule 13.7.3.4 STORMWATER DISPOSAL

Criterion	Comment
(a) All allotments shall be provided, within their net area, with a means for the disposal of collected stormwater from the roof of all potential or existing buildings and from all impervious surfaces, in such a way so as to avoid or mitigate any adverse effects of stormwater runoff on receiving environments.	Drainage easements are in place to allow disposal of collected stormwater to the tidal mudflats. Detailed design to prevent erosion is recommended as a condition of consent.
(b) Where the means of disposal of collected stormwater will be by way of piping to an approved outfall, each new allotment shall be provided with a piped connection to the outfall laid at least 600mm into the net area of the allotment. This includes land allocated on a cross lease or company lease.	The proposed subdivision stormwater system does not involve piped reticulation
(c) The provision of grass swales and other water retention devices such as ponds and depressions in the land surface may be required by the Council in order to achieve adequate mitigation of the effects of stormwater runoff.	Water retention devices are not considered necessary as there are no properties downstream of the site. Swales will be designed at the detailed stormwater design stage.
(d) The stormwater disposal system shall be designed in accordance with onsite volume control practices as contained in "Technical Publication 10, Stormwater Management Devices – Design Guidelines Manual" Auckland Regional Council (2003).	Flow rate control is not required to protect downstream properties or the receiving environment.

The proposed stormwater management has also been assessed against the Assessment Criteria in Section 13.10.4 of the Far North District Plan as follows:

Table 10.5 -Far North District Plan Section 13.10.4 Assessment Criteria

Criterion	Comment
(a) Whether the application complies with any regional rules relating to any water or discharge permits required under the Act, and with any resource consent issued to the District Council in relation to any urban drainage area stormwater management plan or similar plan.	The proposed stormwater concept complies with Regional Water and Soil Plan rules.
(b) Whether the application complies with the provisions of the Council's "Engineering Standards and Guidelines" (2004) - Revised March 2009 (to be used in conjunction with NZS 4404:2004).	The proposed stormwater management complies with Council's "Engineering Standards and Guidelines" (2004) - Revised March 2009
(c) Whether the application complies with the Far North District Council Strategic Plan - Drainage.	N/A
(d) The degree to which Low Impact Design principles have been used to reduce site impermeability and to retain natural permeable areas.	Natural watercourses will be retained
(e) The adequacy of the proposed means of disposing of collected stormwater from the roof of all potential or existing buildings and from all impervious surfaces.	Where required easements are provided for disposal of collected stormwater
(f) The adequacy of any proposed means for screening out litter, the capture of chemical spillages, the containment of contamination from roads and paved areas, and of siltation.	Stormwater will run across the wetland buffer adjacent to the tidal mudflats.
(g) The practicality of retaining open natural waterway systems for stormwater disposal in preference to piped or canal systems and adverse effects on existing waterways.	The existing drainage channels on site will be maintained.
(h) Whether there is sufficient capacity available in the Council's outfall stormwater system to cater for increased run-off from the proposed allotments.	The proposed stormwater attenuation will not impact Council's outfall stormwater system.
(i) Where an existing outfall is not capable of accepting increased run-off, the adequacy of proposals and solutions for disposing of run-off.	The proposed stormwater attenuation will not impact Council's outfall stormwater system.
(j) The necessity to provide on-site retention basins to contain surface run-off where the capacity of the outfall is incapable of accepting flows, and where the outfall has limited capacity, any need to restrict the rate of discharge	The proposed stormwater attenuation will not impact Council's outfall stormwater system.

from the subdivision to the same rate of discharge that existed on the land before the subdivision takes place.	
(k) Any adverse effects of the proposed subdivision on drainage to, or from, adjoining properties and mitigation measures proposed to control any adverse effects.	The proposed subdivision has no adverse effects on stormwater management for adjoining properties
(l) In accordance with sustainable management practices, the importance of disposing of stormwater by way of gravity pipe lines. However, where topography dictates that this is not possible, the adequacy of proposed pumping stations put forward as a satisfactory alternative.	No stormwater pumping is proposed.
(m) The extent to which it is proposed to fill contrary to the natural fall of the country to obtain gravity outfall; the practicality of obtaining easements through adjoining owners' land to other outfall systems; and whether filling or pumping may constitute a satisfactory alternative.	N/A
(n) For stormwater pipes and open waterway systems, the provision of appropriate easements in favour of either the registered user or in the case of the Council, easements in gross, to be shown on the survey plan for the subdivision, including private connections passing over other land protected by easements in favour of the user.	Appropriate easements will be provided
(o) Where an easement is defined as a line, being the centre line of a pipe already laid, the effect of any alteration of its size and the need to create a new easement.	N/A
(p) For any stormwater outfall pipeline through a reserve, the prior consent of the Council, and the need for an appropriate easement.	N/A
(q) The need for and extent of any financial contributions to achieve the above matters.	N/A
(r) The need for a local purpose reserve to be set aside and vested in the Council as a site for any public utility required to be provided.	N/A

11 On-site Effluent Disposal

11.1 Summary of Regulatory Issues

11.1.1 Operative Regional Water and Soil Plan and Far North District Plan

The discharge of sewage effluent on to land is controlled by the permitted activity rules 15.1 of the Regional Water and Soil Plan for Northland (RW&SP).

The effluent disposal systems will need to be sited to avoid surface runoff and natural seepage from adjacent land, or protected by using interception drains. The disposal areas may need to be mounded above the surrounding land to ensure that the lowest point in the field complies with the Regional Water and Soil Plan (RW&SP) and Far North District Plan (FNDP) rules:

- Not less than 1.2 m above the winter groundwater table for primary treated effluent (RW&SP Rule 15.1.3), and;
- Not less than 0.6 m above the winter groundwater table for secondary treated effluent (RW&SP Rule 15.1.4).

The disposal field also needs to have minimum separation distances from watercourses and boundaries as follows:

- Not less than 20 m from any surface water for primary treated effluent (RW&SP Rule 15.1.3);
- Not less than 15 m from any surface water for secondary treated effluent (RW&SP Rule 15.1.4);
- Not less than 30 m from any river, lake, wetland or CMA (FNDP Rule 12.7.6.1.4);
- Not less than 20 m from any existing groundwater bore located on any other property (RW&SP Rules 15.1.3 and 15.1.4);
- Not less than 1.5 m from a boundary, and;
- Not less than 3.0 m from a dwelling.

The Regional Water & Soil Plan defines “Surface Water” as: all water, flowing or not, above ground. It includes water in continually or intermittently flowing rivers, artificial watercourses, lakes and wetlands, and water impounded by structures such as dams or weirs but does not include water while in pipes, tanks, cisterns, nor water in the Coastal Marine Area.

Surface water, as defined in NZS1547:2012, refers to: any fresh water or geothermal water in a river, lake, stream, or wetland that may be permanently or intermittently flowing. Surface water also includes water in the coastal marine area and water in man-made drains, channels, and dams unless these are to specifically divert surface water away from the land application area. Surface water excludes any water in a pipe or tank.

Northland Regional Council (NRC) has concluded that, to be a permitted activity, secondary treated wastewater is to achieve a 15 m setback from the 20 year ARI flood event. This is derived from Auckland Council (AC) Technical Publication (TP) 58, where it is recommended that secondary treated effluent is disposed to ground outside of the 20 year ARI, with a further factor of safety applied being NRC’s surface water setback requirement.

11.1.2 **Proposed Regional Plan**

Northland Regional Council notified a Proposed Regional Plan in September 2017. The Proposed Regional Plan has statutory effect at this stage along side the Operative Water and Soil Plan, and may be operative by the time the lots are developed.

The discharge of sewage effluent on to land should comply with the proposed permitted activity rule C6.1.3. The proposed rule is similar to the existing permitted activity rule except that:

- The volume of wastewater discharge is reduced from 3m³ per day to 2m³ per day
- The slope of the disposal area is not to exceed 25 degrees
- Special provisions apply to disposal area slopes greater than 10 degrees
- Setback distances to watercourses are reduced in some cases.

The following analysis ensures that future on-site wastewater disposal on each lot can comply with both the operative and proposed wastewater discharge rules.

11.2 Design Population and System Flow Volumes

11.2.1 **Design Occupancy Rating**

It has been assumed for the purpose of this site suitability report that each proposed subdivision will contain a three bedroom residential unit. In reference to TP58 Section 6.3.1, it is recommended that the design occupancy of five people is adopted for this report.

11.2.2 **Source of Water Supply**

Water supply is to be sourced from on-site roof water tank supply.

11.2.3 **Design Flow Volumes**

It is assumed that the proposed residential units will be designed to meet category 'C' according to TP58 Section 6.3.1, 'households with 11/5.5 or 6/3 Flush Toilet(s) and Standard Fixtures, low water use dishwasher and NO garbage grinder'. A category C property accounts for up to 160 litres/person/day of wastewater generation for on-site roof water supply.

Total daily wastewater generation of the proposed development is calculated as follows;

$$\begin{aligned} \text{Total daily wastewater generation} &= \text{Daily occupancy number} \times \text{design flow allowances} \\ &= 5 \text{ persons} \times (160 \text{ litres/person/day}) \\ &= \underline{\underline{800 \text{ litres/day}}} \end{aligned}$$

Design flows of 800 litres per day for a five bedroom household shall be adopted for the purpose of this report.

11.3 Design for Land Application System

11.3.1 Trickle Irrigation

The use of trickle irrigation disposal is sustainable for the very long term. It provides as easy and convenient system for distributing effluent;

- Over a much wider area;
- At an application rate low enough to be sustained by evapo-transpiration without reliance on soakage, and;
- Without unduly disturbing the visual effect of the proposed land disposal area and landscaped gardens.

11.3.2 Land Disposal System Location

Effluent disposal systems will need to be sited to avoid surface runoff and natural seepage from higher ground, or protected by using interception drains. In addition, siting restrictions listed in Section 10.1 of this report will need to be adhered to, to ensure a suitable setback from the identified overland flow paths, boundaries and buildings.

The maximum slope angle for drip irrigation land disposal systems according to TP58 guidelines and Proposed Regional Plan rule C.6.1.3 is 25°. TP58 Table 5.2 Note 3 also recommends increasing separation distances from watercourses proportionately by 2 to 10 metres where the slope is between 10° and 25°.

Proposed Regional Plan for Northland Rule C.6.1.3 contains a specific clause relating to steeper slopes:

- 6) for the discharge of wastewater onto the surface of slopes greater than 10 degrees:
- a) the wastewater, excluding greywater, has received at least secondary treatment, and
 - b) the irrigation lines are firmly attached to the surface of the disposal area, and
 - c) where there is an up-slope catchment that generates stormwater runoff, a diversion system must be installed and maintained to divert surface water runoff from the up-slope catchment away from the disposal area, and
 - d) a minimum 10 metre buffer area down-slope of the lowest irrigation line is included as part of the disposal area, and
 - e) the disposal area is located within existing established vegetation that has at least 80 percent canopy cover, or
 - f) the irrigation lines are covered at all times by a minimum of 100 millimetres of topsoil, mulch, or bark, ...

It is considered suitable to locate the disposal systems across the entire site including the moderately sloping pasture of proposed lots 2 and 4. Indicative disposal field locations have been recorded on Drawing No. 17 229/05 within Appendix A of this report.

11.3.3 Land Disposal System Sizing and Design – Lots 1 and 2

The podsolized soils across the upper plateau (Lots 1 and 2) were found to be TP58 category 7 or AS/NZS1547 category 6. For these soils we consider the most suitable effluent disposal system be dripper lines spaced at 1 m centres across planted mounds. Dripper lines require secondary treated effluent to operate effectively. TP58 recommended a design irrigation rate for this soil of 1-2 mm/d and 1547 recommends 2 mm/d. Due to the well exposed site we choose a design irrigation rate of 2 mm/d.

The total length of the trickle irrigation system required (UniBioline or similar) is calculated as follows;

$$\begin{aligned}
 \text{Total area of dripper irrigation field} &= \frac{\text{Total daily wastewater generation}}{\text{Design irrigation rate}} \\
 &= \frac{800}{2}
 \end{aligned}$$

$$= \underline{400 \text{ m}^2}$$

Alternatively the podsolized soil could be ripped and the systems designed in accordance with the recommendations for Lots 3 and 4.

11.3.1 *Land Disposal System Sizing and Design – Lots 3 and 4*

The soils across the lower plateau (Lots 3 and 4) were found to be TP58 category 6 or AS/NZS1547 category 5. For these soils we consider that surface or subsurface dripper lines are suitable. Dripper lines require secondary treated effluent to operate effectively. TP58 recommended a design irrigation rate for this soil of 2-3 mm/d and 1547 recommends 3 mm/d. Due to the well exposed site we choose a design irrigation rate of 3 mm/d.

The total length of the trickle irrigation system required (UniBioline or similar) is calculated as follows;

$$\begin{aligned} \text{Total area of dripper irrigation field} &= \frac{\text{Total daily wastewater generation}}{\text{Design irrigation rate}} \\ &= \frac{800}{3} \\ &= \underline{267 \text{ m}^2} \end{aligned}$$

Surface trickle irrigation is for land intended to be densely planted up, and should be laid at 1 m centres (total of 270 m length tubing). The dripper lines may be covered with 200 mm of bark mulch and densely vegetated with suitable plants for evapo-transpiration systems.

Subsurface irrigation for land intended to be grassed or upon slopes > 10 °; tubing must be laid 100 – 250 mm into topsoil. It is recommended that tubing is laid at 0.5 m centres (total of 400 m length tubing) to ensure even watering of turf.

11.3.2 *Land Disposal System Reserve Area and Sizing*

In accordance with FNDC requirements, there is space available for a 100% reserve effluent disposal area. The reserve field is required to cope with wastewater in the event of a system failure, or from underestimation of daily wastewater production. Example locations for these are indicated on Drawing No. 17 229/05.

11.3.3 *Loading Method*

It is proposed that the pump chamber for treated effluent will, as is usual practise, be controlled by float switches which would operate the pumps on demand. No other means of control is necessary.

11.3.4 *Factors for Safety*

The major factor of safety is in treatment plant capacity. The standard treatment plants have at least 50 % spare capacity, in relation to the load from a normal 3-bedroom house. Safety factors exist for disposal by the presence of 100% reserve area.

11.4 **Design for Treatment System**

11.4.1 *Parameters affecting choice of Treatment*

- Certainty for long term sustainability;

- Minimal environmental effect.

11.4.2 ***Treatment Plant Design Sizing***

The naming of a proprietary secondary treatment plant will be decided by the new owner at the building consent stage, when the position and scale of the building are known. Treatment plants must meet the requirements of AS/NZS 1546.3:2001.

The system is to meet the quality output of AS/NZS 1546.3:2003, producing effluent of less than 20 g/m³ of 5-day biochemical oxygen demand (BOD₅) and no greater than 30 g/m³ total suspended solids (TSS), capable of consistently treating 800 litres/day and a five-day peak of 1200 L/day.

11.4.3 ***Siting Requirements***

Restrictions on siting of secondary treatment plants are:

- Invert level at inlet not less than 0.5 m below floor level;
- Greater than 1.5 m from any boundary;
- Easily accessible for routine maintenance.

11.4.4 ***Summary of Design Issues***

Due to the nature of subdivision exact build size and positioning are to be confirmed, therefore site suitability has been established and locations for wastewater disposal have been suggested to maximise the system performance and minimise disruptions caused by moisture content of the top and subsurface soils.

In addition it is recommended that if required, additional topsoil should be sourced from site-won sources, more specifically from across the development platform during raising earthwork operations.

Hydrophilic plant species should be planted across the disposal field in order to maximise evapo-transpiration.

11.5 Construction Installation

11.5.1 ***Installation Requirements***

Treatment plants must be installed by the plant provider to the manufacturers published specifications. The trickle irrigation tubing must be installed by the treatment plant installer.

11.5.2 ***Commissioning Requirements***

The treatment and trickle irrigation must be tested and commissioned by the plant provider.

11.6 Management Procedures

11.6.1 ***Operation Maintenance Requirements***

A maintenance agreement is to be entered into with the provider. Once commissioned the plant will operate automatically with alarms fitted to advise the house occupants in the event of emergency failure.

11.6.2 ***Monitoring and Inspection***

As part of the maintenance agreement with the plant provider, there should be at least annual inspections with written reports provided to the owner.

11.7 FNDC On-site Effluent Disposal Policy 2008

11.7.1 *Likelihood of Failure/ Accidental Discharge*

The likelihood of a discharge from a household secondary (aeration) treatment plant is less than minor. The pipe work to and within the plant when correctly installed is robust with sealed connections and buried below ground reducing the risk of accidental damage. Only the puncture of a distribution pipe would allow treated effluent to escape in a concentrated manner.

11.7.2 *Consequence of Failure/ Accidental Discharge*

In the unlikely event of some form of failure/ accidental discharge, the material would have to travel in excess of 15 m over ground to reach any surface water (adopting the NRC minimum requirement of 15 m from surface water). Most, if not all, of the accidental discharge is likely to be lost to soakage over this distance and the failure should quickly become apparent.

11.7.3 *Multiple House Sites*

Proposed lots exhibit more than one location where a trickle irrigation field could be constructed, so the final appropriate location for installing the disposal system cannot be pre-determined.

11.7.4 *Vegetation Planting*

Trickle irrigation disposal systems rely on evapo-transpiration from sub-surface irrigated lawns or covered surface irrigated landscape planting. Where new planting is required, this must be in place prior for the evapo-transpiration process to begin functioning. A list of suitable plants is included within Appendix E.

11.8 Site Assessment Form

Enclosed within this report is a completed Wastewater Disposal Site Evaluation Checklist as guided by FNDC.

12 Water Supply

12.1 Potable Water Supply

Water supply will be from stored rainwater collected from building roofs. The system should be fitted with a first flush device or filtration to comply with drinking water standards.

12.2 Fire Fighting

Council Engineering Standards require a water supply that is adequate for firefighting purposes. For a single family home without a sprinkler system in a non-reticulated supply area, the New Zealand Fire Service Fire Fighting Water Supplies Code of Practice SNZ PAS 4509:2008 recommends for a fire fighting supply a minimum water storage capacity of 45 m³ within 90 m of the dwelling, fitted with an adequate means for extracting the water from the tank.

A typical water supply is expected to comprise 2x 25,000 litre water tanks, to provide an adequate supply of water for drinking water and firefighting.

Appendix A – Drawings

Drawing No.	Title	Scale
17 229/01	Site Location Plan	1:10000
17 229/02	Site Features Plan – Subdivision	1:2000
17 229/03	Site Features Plan – Proposed Development Area	1:1000
17 229/04	Proposed Development Plan	1:1000
21916	Proposed Subdivision of Lot 1 DP 167657 Williams and King Land Surveyors Revised 18 September 2017	1:2000



Issue	Date	Revision
A	12/10/2017	FIRST ISSUE

DWG	Site Location Plan		
Scale	1:10000@A3	Date	12/10/2017
Drawn	RH	Checked	MW
Approved	JP		
File	Z:\17 JOBS\17 229 NAGS HEAD HORSE HOTEL LTD\DRAWINGS\17 229 - DRAWING SET - 180718.DWG		

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Civil & Structural Engineers

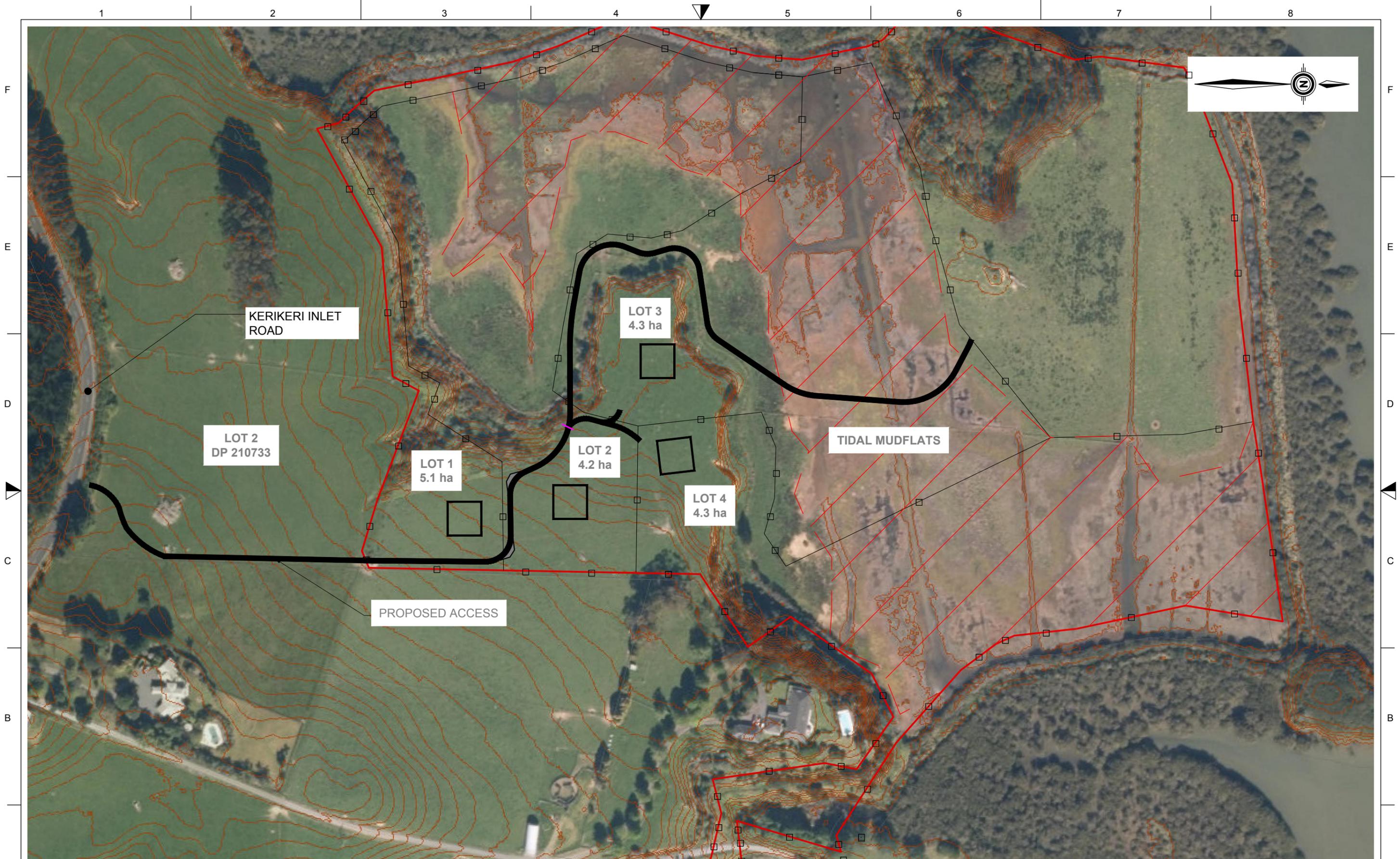
6 Fairway Drive
Kerikeri, BOI.

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Project	Proposed Subdivision 405 Kerikeri Inlet Road, Kerikeri	
Client	Nags Head Horse Hotel Ltd	
Project No.	17 229	RC no.

DWG No.	01
Sheet No.	1 of 4



Issue	Date	Revision
A	12/10/2017	FIRST ISSUE
B	18/07/2018	AMEND RIGHTS OF WAY

DWG	Site Features Plan - Subdivision		
Scale	1:2000 @A3	Date	12/10/2017
Drawn	RH	Checked	MW
Approved	JP		
File	Z:\17 JOBS\17 229 NAGS HEAD HORSE HOTEL LTD\DRAWINGS\17 229 - DRAWING SET - 180718.DWG		

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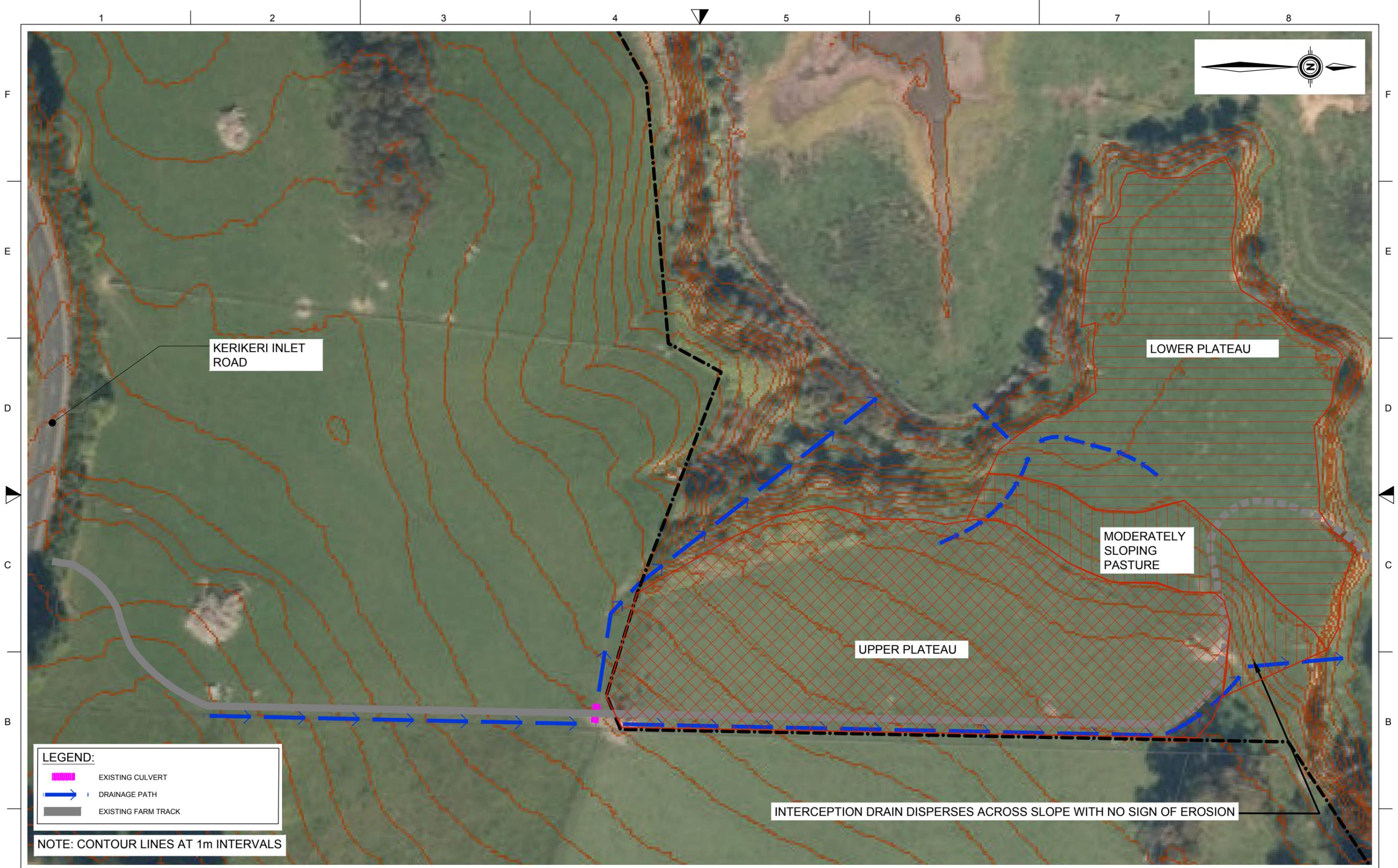
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Project	Proposed Subdivision 405 Kerikeri Inlet Road, Kerikeri	
Client	Nags Head Horse Hotel Ltd	
Project No.	17 229	RC no.

DWG No.	02
Sheet No.	2 of 4



LEGEND:

	EXISTING CULVERT
	DRAINAGE PATH
	EXISTING FARM TRACK

NOTE: CONTOUR LINES AT 1m INTERVALS

Issue	Date	Revision
A	12/10/2017	FIRST ISSUE
B	18/07/2018	AMEND RIGHTS OF WAY

DWG	Site Features Plan Proposed Development Area		
Scale	1:1000 @A3	Date	12/10/2017
Drawn	RH	Checked	MW
Approved	JP		
File	Z:\17 JOBS\17 229 NAGS HEAD HORSE HOTEL LTD\DRAWINGS\17 229 - DRAWING SET - 180718.DWG		

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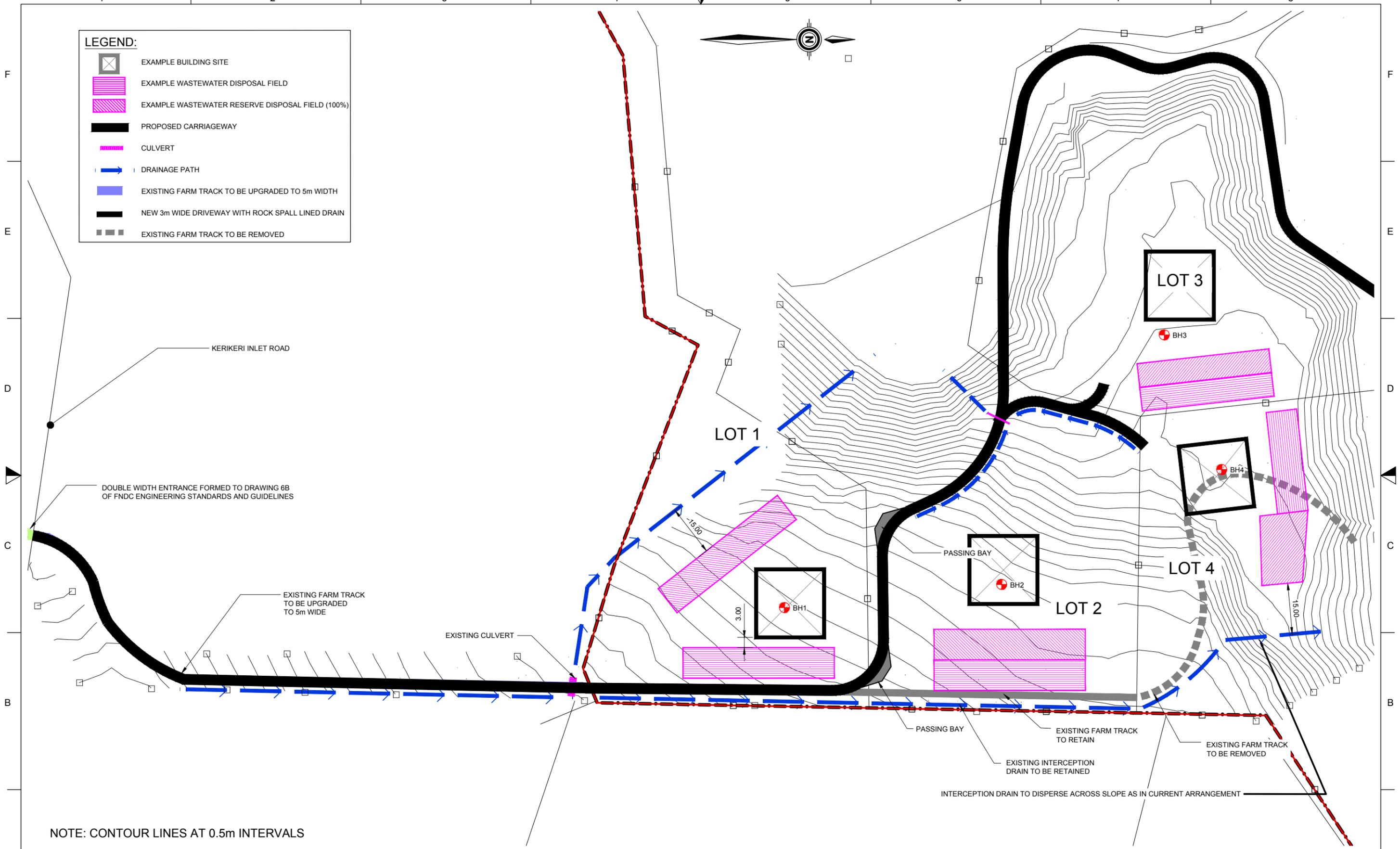
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Project	Proposed Subdivision 405 Kerikeri Inlet Road, Kerikeri	
Client	Nags Head Horse Hotel Ltd	
Project No.	17 229	RC no.

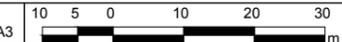
DWG No.	03
Sheet No.	3 of 4

LEGEND:

-  EXAMPLE BUILDING SITE
-  EXAMPLE WASTEWATER DISPOSAL FIELD
-  EXAMPLE WASTEWATER RESERVE DISPOSAL FIELD (100%)
-  PROPOSED CARRIAGEWAY
-  CULVERT
-  DRAINAGE PATH
-  EXISTING FARM TRACK TO BE UPGRADED TO 5m WIDTH
-  NEW 3m WIDE DRIVEWAY WITH ROCK SPALL LINED DRAIN
-  EXISTING FARM TRACK TO BE REMOVED



NOTE: CONTOUR LINES AT 0.5m INTERVALS

<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Issue</th> <th>Date</th> <th>Revision</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>12/10/2017</td> <td>FIRST ISSUE</td> </tr> <tr> <td>B</td> <td>18/07/2018</td> <td>AMEND RIGHTS OF WAY</td> </tr> </tbody> </table>	Issue	Date	Revision	A	12/10/2017	FIRST ISSUE	B	18/07/2018	AMEND RIGHTS OF WAY	<p>DWG Proposed Development Plan</p> <p>Scale 1:1000 @A3  Date 12/10/2017</p> <p>Drawn RH Checked MW Approved JP</p> <p>File Z:\17 JOBS\17 229 NAGS HEAD HORSE HOTEL LTD\DRAWINGS\17 229 - DRAWING SET - 180718.DWG</p>	<p>HAIGH WORKMAN Civil & Structural Engineers</p> <p>6 Fairway Drive Kerikeri, BOI. T: 09 407 8327 F: 09 407 8378 E: info@haighworkman.co.nz</p> <p><small>DIMENSIONS MUST NOT BE SCALE MEASURED FROM THESE DRAWINGS. THE CONTRACTOR SHALL CHECK & VERIFY ALL DIMENSIONS INCLUDING, SITE LEVELS, HEIGHTS AND ANGLES ON SITE PRIOR TO COMMENCING ANY WORK. THE COPYRIGHT TO THESE DRAWINGS AND ALL PARTS THERE OF REMAIN THE PROPERTY OF HAIGH WORKMAN. ©2008</small></p>	<p>Project Proposed Subdivision 405 Kerikeri Inlet Road, Kerikeri</p> <p>Client Nags Head Horse Hotel Ltd</p> <p>Project No. 17 229 RC no.</p>	<p>DWG No. 04</p> <p>Sheet No. 4 of 4</p>
Issue	Date	Revision											
A	12/10/2017	FIRST ISSUE											
B	18/07/2018	AMEND RIGHTS OF WAY											

Appendix B – Exploratory Hole Records

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Kerikeri, New Zealand

Phone **09 407 8327**
Fax **09 407 8378**
www.haighworkman.co.nz
info@haighworks.co.nz

Borehole Log		JOB No.	17 229	Borehole no. BH01	
Client	Nags Head Horse Hotel Ltd		Date	7-Sep-17	
Location	Proposed Lot 1				
Drilling Method:	Hand Auger	Diameter:	40mm	Logged:	RH
Soil Description			Depth	Legend	Shear Strength (kPa)
					0 50 100 150 200
Topsoil, saturated			0.0	wwwwwww	Saturated
			0.1	wwwwwww	
0.15 m: SILT, moist. Light grey. No plasticity			0.2	xxxxxxxxx	Moist
			0.3	xxxxxxxxx	
0.45 m: low plasticity, orange mottles			0.4	xxxxxxxxx	
0.5 m: Sandy SILT with minor clay, orange. Very stiff, moist. Low plasticity			0.5	xxxxxxxxx	
			0.6	xxxxxxxxx	Wet
0.7 m: Clayey SILT, orange. Very stiff, moist. Low plasticity			0.7	xxxxxxxxx	
0.8 m: wet			0.8	xxxxxxxxx	
			0.9	xxxxxxxxx	
			1.0	xxxxxxxxx	1.0 m: 190 kPa/79kPa
			1.1	xxxxxxxxx	
1.2 m: End of borehole. Terminated at target depth			1.2		

Soils Legend

Topsoil	wwwwwww	Fill	///////	Clay	-----	Silt	xxxxxxxxx
Sand	ooooooooo	Peat	.v.v.v.v.v.v	Gravel	ooooooo	Rock	▲▲▲▲▲

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Borehole Log		JOB No.	17 229	Borehole no. BH02	
Client	Nags Head Horse Hotel Ltd		Date	7-Sep-17	
Location	Proposed Lot 2				
Drilling Method:	Hand Auger	Diameter:	40mm	Logged:	RH
Soil Description			Depth	Legend	Shear Strength (kPa)
					0 50 100 150 200
TOPSOIL, saturated	0.0	wwwwwww			
	0.1	wwwwwww			
0.15 m: SILT, light grey. Very stiff, moist Low plasticity.	0.2	xxxxxxxxx			
	0.3	xxxxxxxxx			
	0.4	xxxxxxxxx			
	0.5	xxxxxxxxx			
	0.6	xxxxxxxxx		●	■
	0.7	xxxxxxxxx			
	0.8	xxxxxxxxx			
0.9 m: Silty CLAY, light brown. Hard, moist Low plasticity.	0.9	-----			
	1.0	-----		●	
	1.1	-----			
1.2 m: End of hole. Terminated at target depth	1.2				
					Moisture
					Saturated
					Moist
					0.5 m: VS=174 kPa/35kPa
					1.0 m: VS=206kPa/55kPa
					Wet
					Sample, Other Tests, Remarks.
					Shear vane corrected

Soils Legend

Topsoil	wwwwwww	Fill	///////	Clay	-----	Silt	xxxxxxxxx
Sand	ooooooooo	Peat	v.v.v.v.v	Gravel	ooooooo	Rock	▲▲▲▲▲

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Borehole Log		JOB No.	17 229	Borehole no. BH03	
Client	Nags Head Horse Hotel Ltd		Date	7-Sep-17	
Location	Proposed Lot 3				
Drilling Method:	Hand Auger	Diameter:	40mm	Logged:	RH
Soil Description		Depth	Legend	Shear Strength (kPa)	Moisture
				0 50 100 150 200	Sample, Other Tests, Remarks.
Topsoil. Moist	0.0	wwwwwww			Moist
	0.1	wwwwwww			
0.15 m: Silty CLAY, light brown. Hard, moist. High plasticity	0.2	wwwwwww			
	0.3	wwwwwww			
	0.4	wwwwwww			
0.5 m: Clayey SILT, light brown with orange mottles. Hard, wet. Low plasticity	0.5	xxxxxxxxx			Wet
	0.6	xxxxxxxxx			0.5 m: VS>210 kPa
	0.7	xxxxxxxxx			
0.7 m: SILT with minor sand and clay, orange. Hard, wet.	0.8	xxxxxxxxx			
	0.9	xxxxxxxxx			
	1.0	xxxxxxxxx			
	1.1	xxxxxxxxx			1.0 m: UTP with shear vane
1.2 m: End of borehole. Terminated at target depth	1.2	xxxxxxxxx			

Soils Legend

Topsoil	wwwwwww	Fill	//////////	Clay	wwwwwww	Silt	xxxxxxxxx
Sand	ooooooooo	Peat	v.v.v.v.v.v	Gravel	ooooooo	Rock	▲▲▲▲▲

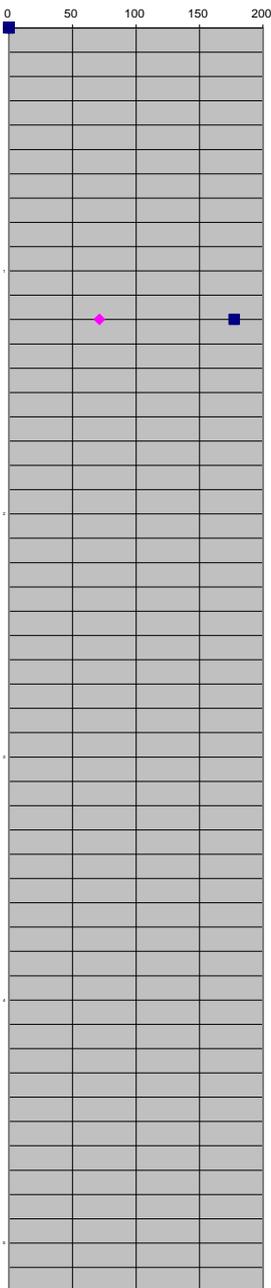
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Borehole Log		JOB No.	17 229	Borehole no. BH04		
Client	Nags Head Horse Hotel Ltd		Date	7-Sep-17		
Location	Proposed Lot 4					
Drilling Method:	Hand Auger	Diameter:	40mm	Logged:	RH	
Soil Description			Depth	Legend	Moisture	
					Sample, Other Tests, Remarks.	
Topsoil, moist			0.0	wwwwwww	Moist	Shear vane corrected
0.1 m: Silty CLAY, light brown. Very stiff, wet. High plasticity.			0.1	wwwwwww	Wet	
			0.2	wwwwwww		
			0.3	wwwwwww		
			0.4	wwwwwww		
			0.5	wwwwwww		
0.6 m: Clayey SILT, light brown. Wet. Low plasticity			0.6	wwwwwww	0.6 m: VS=178kPa/71kPa	
0.7 m: Clayey SILT, light brown. Wet. Low plasticity			0.7	xxxxxxxxx	1.0 m: VS>210kPa	
			0.8	xxxxxxxxx		
			0.9	xxxxxxxxx		
			1.0	xxxxxxxxx		
1.0 m: SILT with minor clay, orange. Hard, wet. Low plasticity.			1.0	xxxxxxxxx		
			1.1	xxxxxxxxx		
1.2 m: End of hole. Terminated at target depth			1.2	xxxxxxxxx		



Soils Legend

Topsoil	wwwwwww	Fill	/////////	Clay	wwwwwww	Silt	xxxxxxxxx
Sand	ooooooooo	Peat	.v.v.v.v.v.v	Gravel	ooooooo	Rock	▲▲▲▲▲

Appendix C – Site Photography

Figure 3 – Looking southwest from northeast corner of Lot 1



Figure 4 – Looking west from northeast corner of Lot 1



Figure 5 – Looking north from northeast corner of Lot 1



Figure 6 – Looking south from southwest corner of Lot 4



Figure 7 – Looking west from southeast corner of Lot 4



Figure 8 – Looking north from southeast corner of Lot 4



Appendix D – Impermeable Area Calculations

Nags Head Horse Hotel Subdivision				Quantities								
				Impermeable Surface			Earthworks			Aggregate		
Access	Length	Av Width	Area	Av Width	Av Depth	Vol	Av Width	Av Depth	Vol			
Existing												
lot 2 DP 210733												
Site access	181	3	543									
Main access	470	3	1410									
Sheds			420									
lot 2 DP 210733 Total			2373									
Lot 1 DP 167657												
Lot 1 ROW BCF	80	3	240									
Lot 2 ROW S-D	79	3	237									
Lot 4 Existing track	140	3	420									
Lot 4 ROW J to N	383	3	1149									
Lot 1 DP 167657 Total			2046									
Proposed after Subdivision												
lot 2 DP 210733												
Site access	181	5	905	2.5	0.3	136	2	0.25	91			
Main access	470	3	1410									
Sheds			420									
lot 2 DP 210733 Total			2735			136			91			
Lot 1 DP 167657												
Lot 1 ROW BCF	80	5	400									
Lot 2 ROW S-D	79	3	237									
Lot 4 Existing track	140	removed										
Lot 4 ROW J to N	383	3	1149									
Lot 2 ROW G-H	134	3.2	429	5	0.3	201	3.75	0.25	126			
Lot 3 headland	240	3	720	4	0.3	288	3.5	0.25	210			
Lot 3 causeway	152	3	456	5	0.1	76	4	0.6	365			
Lot 1 DP 167657 Total			3391			565			700			
Estimated Impermeable Surfaces after Subdivision, before Residential Development									Lot Area	% coverage		
Lot 1 DP 167657												
Lot 1			400						51060	0.78%		
Lot 2			666						41280	1.61%		
Lot 3			1176						42550	2.76%		
Lot 4			1149						42669	2.69%		
Lot 1 DP 167657 Total			3391						177559	1.91%		
Estimated Impermeable Surfaces after Residential Development allowing 500m2 per lot												
Lot 1 DP 167657												
Lot 1			900						51060	1.76%		
Lot 2			1166						41280	2.82%		
Lot 3			1676						42550	3.94%		
Lot 4			1649						42669	3.86%		
Lot 1 DP 167657 Total			5391						177559	3.04%		

Appendix E – On-Site Wastewater (TP58) Checklist

Item	Enclosure	Checklist
01	Site Evaluation Checklist	✓
02	Assessment of Environmental Effects	✓
03	Producer Statement	
04	System Maintenance Schedule	✓
05	Suitable Plants for Evapo-Transpiration Systems	✓
06	Typical Irrigation Field Layout	✓

FAR NORTH DISTRICT COUNCIL
Appendix E TP58
On-site Wastewater Disposal Site Evaluation
Investigation Checklist

Part A –Owners Details

1. Applicant Details:

Applicant Name	
Company Name	<i>Nags Head Horse Hotel Ltd</i>
Property Owner Name(s)	<i>Nags Head Horse Hotel Ltd</i>

Nature of Applicant*	<i>Owner</i>
----------------------	--------------

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

2. Consultant / Site Evaluator Details:

Consultant/Agent Name	<i>Haigh Workman</i>		
Site Evaluator Name	<i>Rory Howell</i>		
Postal Address	<i>PO Box 89</i>		
	<i>Kerikeri</i>		
	<i>0245</i>		
Phone Number	Business	<i>407 8327</i>	Private
	Mobile		Fax <i>407 8378</i>
Name of Contact Person	<i>Rory Howell</i>		
E-mail Address	<i>rory@haighworkman.co.nz</i>		

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

Yes		No	<input checked="" type="checkbox"/>	(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)

<i>Currently undergoing resource consent for subdivision</i>

Part B- Property Details

1. Property for which this application relates:

Physical Address of Property	<i>405 Kerikeri Inlet Road, Kerikeri</i>
Territorial Local Authority	FAR NORTH DISTRICT COUNCIL
Regional Council	NORTHLAND REGIONAL COUNCIL
Legal Status of Activity	Permitted: <input checked="" type="checkbox"/> Controlled: Discretionary:
Relevant Regional Rule(s) (Note 1)	<i>15.1.4</i>
Total Property Area (m ²)	<i>177,050 m². Proposed lot areas range from 4.0 to 5.7 hectares</i>
Map Grid Reference of Property If Known	

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

Lot No.	<i>1</i>	DP No.	<i>167657</i>	CT No.	<i>NA101C/992</i>
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	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	(Please tick one)
-----	-------------------------------------	----	--------------------------	-------------------

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

<i>Refer to archaeological report</i>

1. Has a Slope Stability Assessment been carried out on the property?			
Yes		No	<input checked="" type="checkbox"/>
Please tick			
If No, why not?			
<i>Site is considered stable.</i>			
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:			
<i>No problems known</i>			
Estimated Rainfall and Seasonal Variation:			
<i>1800 mm per year; 1100 mm winter, 700 mm summer.</i>			
Vegetation / Tree Cover:			
<i>Grassed pasture at site of proposed effluent disposal.</i>			
Slope Shape: (Please provide diagrams)			
<i>Gentle to moderate rolling</i>			
Slope Angle:			
<i>Slopes less than 15 degrees in location of effluent disposal</i>			
Surface Water Drainage Characteristics:			
<i>Soakage and sheet flow to tidal mudflats</i>			
Flooding Potential: YES/NO			
<i>No</i>			
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:			
<i>> 15 m</i>			
Site Characteristics: or any other limitation influencing factors			
<i>Well exposed to wind</i>			

3. Site Geology
Check Rock Maps

Underlying rock is predominantly sandstone (greywacke) with minor argillite, chert and basalt (TJw) of the Waipapa Group.

Soil is of the 'Rolling and Hill Land' formation comprising 'Hukerenui silt loam with yellow subsoil' (HKr+HKrH).

Geological Map Reference Number

NZMS 290 rock and soils maps P04/05
4. What Aspect(s) does the proposed disposal system face? (please tick)

North		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)	FNDC minimum
Boundaries	>1.5	>1.5	1.5
Surface water, creeks, drains	>5	>15	15
Groundwater	NA	>0.6	0.6
Stands of Trees/Shrubs	NA	NA	NA
Wells, water bores	>20	>20	20 m
Embankments/retaining walls	>3	>3	3 m
Buildings	>3	>3	3 m
Rivers, Coastal Marine area	>30	>30	30 m

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 <u>1.2</u> m	No of Bore Holes	4
Other (specify):				

Soil Report attached?

Yes	✓	No		Please tick
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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

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

Please specify the method

Test Report Attached?	Yes		No	✓	Please tick
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4. Are surface water interception/diversion drains required?

Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	Please tick
-----	-------------------------------------	----	--------------------------	-------------

If yes, please show on site plan

To be determined at building design stage.

4a Are subsurface drains required

Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	Please tick
-----	--------------------------	----	-------------------------------------	-------------

If yes, please provide details

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

Winter	>1.0	m	Measured	<input type="checkbox"/>	Estimated	<input checked="" type="checkbox"/>
Summer	>1.0	m	Measured	<input type="checkbox"/>	Estimated	<input checked="" type="checkbox"/>

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

Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	Please tick
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If the answer is yes, please explain how these have been addressed

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

Is Topsoil Present? <input checked="" type="checkbox"/>	If so, Topsoil Depth?	0.1-0.15 (m)
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Soil Category	Description	Drainage	Tick One
1	Gravel, coarse sand	Rapid draining	<input type="checkbox"/>
2	Coarse to medium sand	Free draining	<input type="checkbox"/>
3	Medium-fine & loamy sand	Good drainage	<input type="checkbox"/>
4	Sandy loam, loam & silt loam	Moderate drainage	<input type="checkbox"/>
5	Sandy clay-loam, clay loam & silty clay-loam	Moderate to slow drainage	<input type="checkbox"/>
6	Sandy clay, non-swelling clay & silty clay	Slow draining	<input checked="" type="checkbox"/> (Lots 3 and 4)
7	Swelling clay, grey clay, hardpan	Poorly or non-draining	<input checked="" type="checkbox"/> (Lots 1 and 2)

Reasons for placing in stated category

<i>Soil map classification, soil colour and texture investigation</i>

PART E: Discharge Details

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

Rainwater (roof collection)	<input checked="" type="checkbox"/>
Bore/well	<input type="checkbox"/>
Public supply	<input type="checkbox"/>

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			
Design Occupancy	5			(Number of People)
Per capita Wastewater Production	145	160 ✓	180	(tick) (Litres per person per day)
Other - specify	200	220		
Total Daily Wastewater Production	800			(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 3000 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:

Minimum Lot Area	41,754	m ²
Total Daily Wastewater Production	800	(Litres per day)(from above)
Minimum Lot Area to Discharge Ratio	52	

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

Yes	✓	No		Please tick
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8. Is a Northland Regional Council Discharge Consent Required?

Yes		No	✓	(Please tick)
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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)
	Total Capacity	

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

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	<input checked="" type="checkbox"/>		
Home aeration plant	<input type="checkbox"/>		
Commercial aeration plant	<input type="checkbox"/>		
Intermediate sand filter	<input type="checkbox"/>		
Recirculating sand filter	<input type="checkbox"/>		
Recirculating textile filter	<input type="checkbox"/>		
Clarification tank	<input type="checkbox"/>		
Tertiary Treatment	<input type="checkbox"/>		
Ultraviolet disinfection	<input type="checkbox"/>		
Chlorination	<input type="checkbox"/>		
Other	<input type="checkbox"/>	Specify	

PART H: Land Disposal Method

(Refer TP58 Section 8)

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

Gravity	<input type="checkbox"/>
Dosing Siphon	<input type="checkbox"/>
Pump	<input checked="" type="checkbox"/>

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

Yes No

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	<input checked="" type="checkbox"/>		
Sub-surface Dripper irrigation	<input checked="" type="checkbox"/>		
Standard Trench	<input type="checkbox"/>		
Deep Trench	<input type="checkbox"/>		
Mound	<input type="checkbox"/>		
Evapo-transpiration Beds	<input type="checkbox"/>		
Other	<input type="checkbox"/>	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:

Proposed Lots 1 and 2

Loading Rate	2		(Litres/m ² /day)
Disposal Area	Design	400	(m ²)
	Reserve	400	(m ²)

Proposed Lots 3 and 4

Loading Rate	3		(Litres/m ² /day)
Disposal Area	Design	267	(m ²)
	Reserve	267	(m ²)

Explanation (Refer TP58 Sections 9 and 10)

<i>Design loading rates at Lots 1 and 2 for soil category 7 (2 mm/day).</i>
<i>Wastewater disposal fields on Lots 1 and 2 should be mounded. If podsolized soils are ripped down to the base the field can be designed in accordance with the recommendations for Lots 3 and 4.</i>
<i>Design loading rates at Lots 3 and 4 for soil category 6 (3 mm/day).</i>

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

Reserve Disposal Area (m ²)	400
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:

<i>Irrigate specified area based on above loading rate.</i>			
<i>Mounds to be planted densely with plants suitable for evaporation systems. Lines to be laid at 1 m centres</i>			
<i>Suitable disposal on Lots 3 and 4 is surface or subsurface dripper lines. Lines to be laid at 1 m centres for surface irrigation, and covered with c. 200 mm bark mulch. Subsurface lines to be laid at 0.5 m centres.</i>			
Plan Attached?	Yes	<input checked="" type="checkbox"/>	No <input type="checkbox"/> (Please tick)

PART I: Maintenance & Management

(Refer TP58 Section 12.2)

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

Yes		No	<input checked="" type="checkbox"/>	(Please tick)
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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	<input checked="" type="checkbox"/>	No		(Please tick)
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If Yes, list and explain possible effects

PART K: Is Your Application Complete?

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

Fully Complete this Assessment Form	<input checked="" type="checkbox"/>
Include a <i>Location Plan</i> and <i>Site Plan</i> (with Scale Bars)	<input checked="" type="checkbox"/>
Attach an Assessment of Environmental Effects (AEE)	<input checked="" type="checkbox"/>

1. Declaration

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

Name	Signature	
Position	Date	

Note

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

ENVIRONMENTAL EFFECTS, MITIGATION MEASURES

A. Assessment of Environmental Effects

Impact on Surface Water (incl. flood times) Very Minor

Impact on Ground Water Very Minor

Impact on Soils Minor

Impact on Amenity Values Minor

B Public Health Issues:

Should access to the disposal area be discouraged? No

Will odour effects be greater than usual? No

Will noise effects be greater than usual? No

C. Mitigation Measures

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

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

Is level of treatment high? Medium – final treatment within soil

Protection against failure storage, alarms? Alarms

Is hydraulic loading rate conservative? Yes

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

Will soil type enhance treatment? Yes

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

Is the reserve area adequate? Yes

ON-SITE DOMESTIC WASTEWATER MANAGEMENT Advice to Home Owner/Occupier

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

1. Use of the System

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

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

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

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

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

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

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

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

2. Maintenance

- 2.1 The primary wastewater-treatment unit (septic tank) will need to:
- (i) Be desludged regularly i.e. every 3 to 5 years, or when scum and sludge occupy 2/3 of the volume of the tank (or first stage of a two-stage system).
 - (ii) Be protected from vehicles.
 - (iii) Have any grease trap cleaned out regularly.
 - (iv) Have the vent and/or access cover of the septic tank kept exposed.
 - (v) Have the outlet filter inspected and cleaned.
- 2.2 The land-application area needs protection as follows:-
- (i) Where surface water diversion drains are required by the design, these need to be kept clear to reduce the risk of stormwater runoff entering the effluent soakage area.
 - (ii) No vehicles or stock should be allowed on trenches or beds.
 - (iii) Deep rooting trees or shrubs should not be grown over absorption trenches or pipes.
 - (iv) Irrigation areas are not play areas for children and access should be restricted.
 - (v) Any evapo-transpiration areas should be designed to deter pedestrian traffic.
 - (vi) The baffles or valves in the distribution system should be periodically (monthly or seasonally) changed to direct effluent into alternative trenches or beds, if required by the design.
- 2.3 Evapo-transpiration and irrigation areas should have their grass mowed and plants maintained to ensure that these areas take up nutrients with maximum efficiency.
- 2.4 For aeration treatment systems. Check equipment and:
- (i) Follow the manufacturer's instructions for maintaining and cleaning pumps, siphons, and septic tank filters.
 - (ii) Clean disc filters or filters screens on irrigation-dosing equipment periodically by rinsing back into the primary wastewater-treatment unit.
 - (iii) Flush drip irrigation lines periodically to scour out any accumulated sediment.

SUITABLE PLANTS FOR EVAPO-TRANSPIRATION SYSTEMS

Native Shrubs and Trees

Coprosma	<i>Coprosma propinqua</i>
Hebe	<i>Hebe</i>
Manuka	<i>Leptospermum Scoparium</i>
Weeping Mapou	<i>Myrsine Divaricata</i>
Flax (fast)	<i>Phormium Tenax</i>
Pokaka (slow)	<i>Elaeocarpus Hookerianus</i>
Cabbage Tree (fast)	<i>Cordyline Australias</i>
Rangiora (fast)	<i>Brachyglottis Repanda</i>
Lacebark (fast)	<i>Hoheria Populnea</i>
Ribbonwood (fast)	<i>Plagianthus Regius</i>
Poataniwha	<i>Melicope Simplex</i>
Heketara	<i>Olearia Rani</i>
Poataniweta	<i>Carpodetus Serratus</i>
Kohuhu (fast)	<i>Pittosporum Tenufolium</i>

Grasses

Jointed Twig Sedge	<i>Baumea Articulata</i>
Longwood Tussock	<i>Carex Comans</i>
Pukio	<i>Carex Secta</i>
Toetoe (use native species- not invasive Pampas Grass)	<i>Cortaderia Fulvida</i>
Umbrella Sedge	<i>Cyperus Ustulatus</i>
Oioi	<i>Leptocarpus Similis</i>
Hooksedge	<i>Uncinia Unciniata</i>

Introduced Species

Canna Lilies, Taro, Aralia,
Fuschia, Philodendrons,
and Begonias



CARING FOR NORTHLAND AND ITS ENVIRONMENT

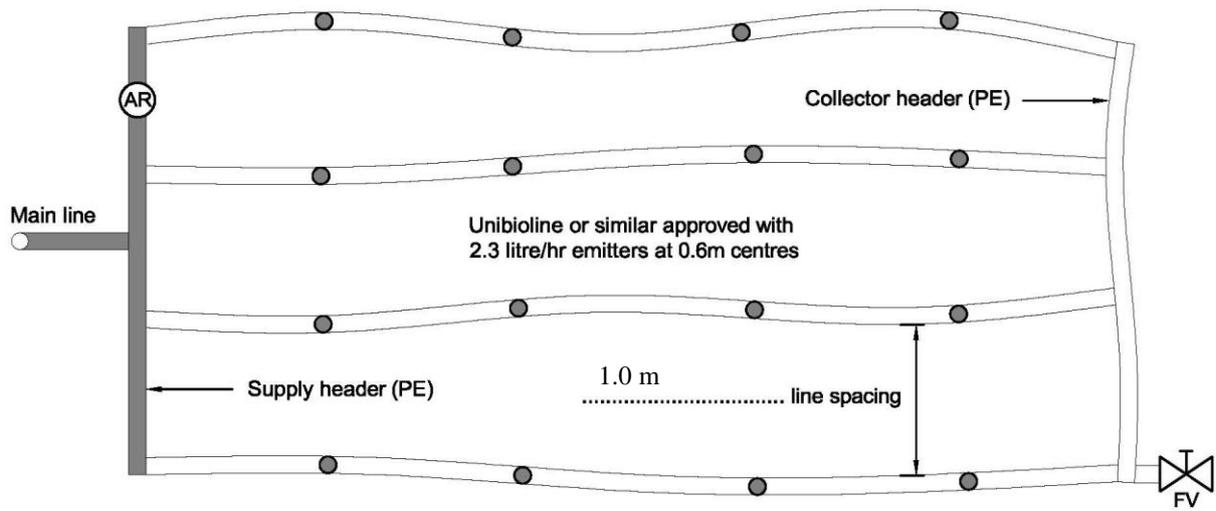
WHANGAREI: 36 Water Street, Private Bag 9021, Whangarei; Phone 09 438 4639, Fax 09 438 0012.

OPUA: Unit 10, Industrial Marine Park, Opuia; Phone 09 402 7516, Fax 09 402 7510.

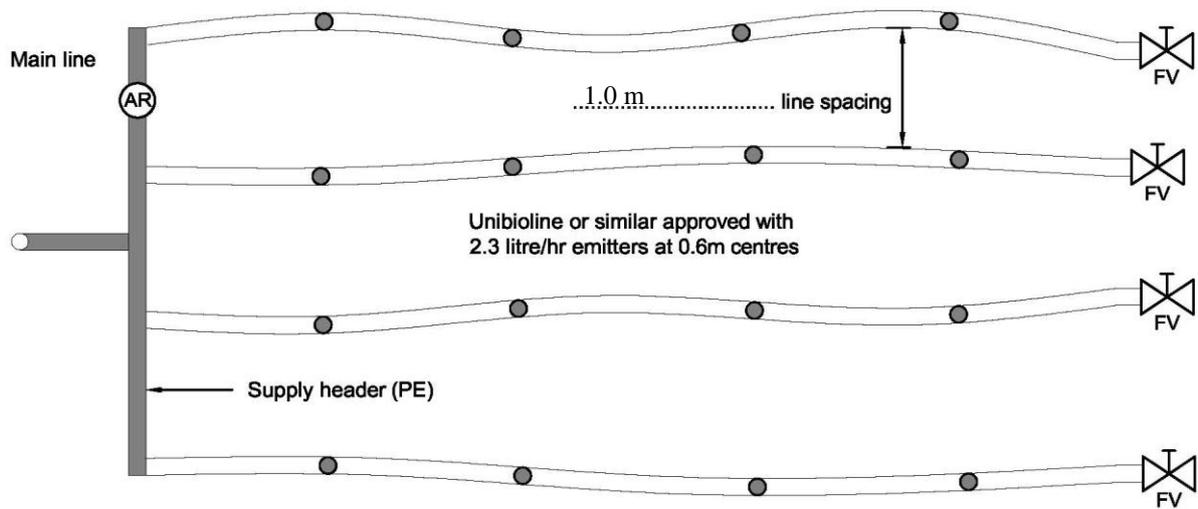
DARGAVILLE: 61B Victoria Street, Dargaville; Phone 09 439 3300, Fax 09 439 3301.

KAITAIA: 192 Commerce Street, Kaitaia; Phone 09 408 6600, Fax 09 408 6601.

Freephone: 0800 002 004 Environmental Hotline: 0800 504 639 Website: www.nrc.govt.nz



Basic Grid Layout



Field Layout Without A Collection Header Pipe

DWG On-Site Effluent Disposal Typical Field Layouts. Trickle Irrigation				 Civil & Structural Engineers		Project Subdivision at 405 Kerikeri Inlet Road	
6 Fairway Drive Kerikeri, B.O.I.		T: 09 407 8327 F: 09 407 8378 E: info@haghworkman.co.nz		Client Nags Head Horse Hotel Ltd			
DWG No.	Sheet No.	of	Scale	NTS		Project No. 17 229	
Drawn PC	Checked	Approved		RC no.			
File Z:\HW TECHNICAL FORMATS (LTR HEAD FORMS JOB REQUEST ETC)\HW_STD_DWG_2011\EFFLUENT DISPOSAL\EFFLUENT DISPOSAL_2016.DWG				Date			

DIMENSIONS MUST NOT BE SCALE MEASURED FROM THESE DRAWINGS. THE CONTRACTOR SHALL CHECK & VERIFY ALL DIMENSIONS INCLUDING, SITE LEVELS, HEIGHTS AND ANGLES ON SITE PRIOR TO COMMENCING ANY WORK. THE COPYRIGHT TO THESE DRAWINGS AND ALL PARTS THERE OF REMAIN THE PROPERTY OF HAIGH WORKMAN. ©2006

Alex Billot

From: Rochelle
Sent: Thursday, 27 March 2025 2:38 pm
To: Alex Billot
Subject: FW: New LUC Lot 3 Egret Way
Attachments: Carpenter 2017 Archaeological Assessment of the Prop Subdiv Lot 1 DP167657 Kerikeri Inlet Rd.pdf; Heritage New Zealand Northland ADP modified 081018.pdf



Rochelle Jacobs
Director / Senior Planner

Offices in Kaitaia & Kerikeri
☎ 09 408 1866 | 📠 027 449 8813
Northland Planning & Development 2020
Limited

From: James Robinson <jrobinson@heritage.org.nz>
Sent: Thursday, March 27, 2025 12:56 PM
To: Rochelle <rochelle@northplanner.co.nz>
Cc: Stuart Bracey <SBracey@heritage.org.nz>; Bill Edwards <BEwards@heritage.org.nz>; Atareiria Heihei <AHeihei@heritage.org.nz>; Lisa Ahn <LAhn@heritage.org.nz>
Subject: RE: New LUC Lot 3 Egret Way

Tena koe Rochelle

This area was surveyed by archaeologist Johnathan Carpenter in 2017 (see report attached).

The Lot 3 DP 579108 is in an area where no archaeology was encountered. As such regarding the archaeological protection provisions of the Heritage New Zealand Pouhere Taonga Act the development can proceed under an Accidental Discovery Protocol (see ADP attached).

Regarding Te Uri Taniwha hapu, from an mail sent 20 February 2025 by our Sior Pouarahi Atareiria HeiHei, Esther Horton is the hapu contact person around the Inlet Rd area.

Esther's contact details are
(09) 4078847
clarrieh@outlook.com

Kia ora mai ra

James Robinson

Dr James Robinson|Senior Archaeologist Northland | Heritage New Zealand Pouhere Taonga | PO Box 836, 21 Hobson Ave, Kerikeri 0245 | Ph: 0272490864 www.heritage.org.nz

Tairangahia a tua whakarere; Tātakihia ngā reanga o āmuri ake nei | Honouring the past; Inspiring the future

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From: Rochelle <rochelle@northplanner.co.nz>

Sent: Thursday, 20 March 2025 10:02 am

To: Bill Edwards <BEwards@heritage.org.nz>; James Robinson <jrobinson@heritage.org.nz>; Stuart Bracey <SBracey@heritage.org.nz>

Subject: New LUC Lot 3 Egret Way

Good Morning Bill, James and Stu,

Not sure who I should be directing these too now, so I'll just add you all in.

I am in the process of writing up a LUC for a new dwelling at Lot 3 Egret Way, Kerikeri. Plans attached.

The site has been more recently subdivided and does not contain any mapped archaeological sites. While this is the case there are some mapped sites within the local vicinity. For this reason, I am assuming that you will be recommending proceeding under an ADP for this proposal. Please let me know if this stance is different.



The site is also subject to a consent notice condition requiring that the local hapu be contacted prior to any earthworks being undertaken on site.

Prior to the commencement on any earthworks works required on site the lot owner shall contact a representative of Te Uri Taniwha hapu (contact details can be obtained from Far North district Council) to ensure that a Tangata Whenua representative has the option of being present during any such works. If during the course of undertaking site works there is a discovery made of any archaeological find or suspected find, the work on that portion of the site should cease immediately and the representative will advise as to appropriate protocol to be followed.

Looking forward to hearing back from you.

Regards,



Rochelle Jacobs
Director / Senior Planner

Offices in Kaitaia & Kerikeri
☎ 09 408 1866 | 📠 027 449 8813
Northland Planning & Development 2020
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Alex Billot

From: Alex Billot
Sent: Friday, 28 March 2025 9:36 am
To: clarrieh@outlook.com
Cc: Rochelle
Subject: Proposed dwelling - Lot 3 Egret Way, Kerikeri - Request for Comments
Attachments: Appendix 5 - Egret Way (Lot 3) DD 24.03.25.pdf

Kia ora Esther,

We have been provided your contact details by Heritage NZ Pouhere Taonga (HNZPT), as HNZPT advised that you were the hapu contact for Te Uri Taniwha hapu, in the Kerikeri Inlet Road area.

We are in the process of preparing a land use resource consent application for a new dwelling at Lot 3 Egret Way, Kerikeri (Lot 3 DP579108). The proposed plans are attached to this email for your reference.

Registered on the title for the site is a consent notice which states the following:

Prior to the commencement on any earthworks works required on site the lot owner shall contact a representative of Te Uri Taniwha hapu (contact details can be obtained from Far North district Council) to ensure that a Tangata Whenua representative has the option of being present during any such works. If during the course of undertaking site works there is a discovery made of any archaeological find or suspected find, the work on that portion of the site should cease immediately and the representative will advise as to appropriate protocol to be followed.



Heritage NZ have advised that the area was surveyed by archaeologist Johnathan Carpenter in 2017, and there was no archaeology encountered on the subject site. As such, the proposal will proceed under the recommendation of an Accidental Discovery Protocol (ADP). Let me know if you wish to see the archaeology report and I will send this through.

If you could please advise if you have any other comments on the proposal and if a Tangata Whenua representative is to be present during earthworks, that would be greatly appreciated.

If you require any further information, please do not hesitate to get in touch.

Thank you for your time.

Kind regards,



Alex Billot
Resource Planner

Offices in Kaitaia & Kerikeri
☎ 09 408 1866
Northland Planning & Development 2020 Limited

*My office hours are Monday, Thursday &
Friday 9am – 2pm.*