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

Office Use Only
Application Number:

Application for resource consent or fast-track resource consent

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

1. Pre-Lodgement Meeting

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

2. Type of Consent being applied for

(more than one circle can be ticked):

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

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

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

◯ **Yes** ✔ **No**

4. Consultation

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

If yes, which groups have you consulted with?	Ngati Rehia
Who else have you consulted with?	

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

5. Applicant Details

Name/s: Nikolas Morrison and Jennifer Bland (NASTURTIUM TRUST)

Email: [redacted]

Phone number:

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

6. Address for Correspondence

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

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

Email: [redacted]

Phone number:

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

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

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

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

Name/s: Adam Simperingham, Jennifer Bland and Nikolas Morrison (NSATURTIUM TRUST)

Property Address/ Location: 44 Hauparua Lane, Kerikeri

Postcode

8. Application Site Details

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

Name/s: Adam Simperingham, Jennifer Bland and Nikolas Morrison

Site Address/ Location: 44 Hauparua Lane, Kerikeri

Postcode

Legal Description: Lot 2 DP 410617 **Val Number:**

Certificate of title: ROT-439636

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

Site visit requirements:

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

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

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

9. Description of the Proposal:

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

Activity A - Subdivsion
To create 4 new titles in the Coastal Living zone ranging from 8,000m2 through to 4.4ha.

Activity B - Landuse
To establish dwellings on the new allotments prior to giving effect to the subdivision infringing Residential Intensity, Visual Amenity, Stormwater Management, Setback from water, Traffic Intensity and Private Accessways in all zones.

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

10. Would you like to request Public Notification?

◯ **Yes** ✔ **No**

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

(more than one circle can be ticked):

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

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

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

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

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

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

13. Assessment of Environmental Effects:

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

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

13. Draft Conditions:

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

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

14. Billing Details:

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

Name/s: (please write in full) NASTURTIUM TRUST - c/o Nik Morrison

Email: [redacted]

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) Nikolas Morrison

Signature:
(signature of bill payer [redacted]ATORY

Date 21/05/2025

15. Important Information:

Note to applicant
You must include all information required by this form. The information must be specified in sufficient detail to satisfy the purpose for which it is required.
You may apply for 2 or more resource consents that are needed for the same activity on the same form.
You must pay the charge payable to the consent authority for the resource consent application under the Resource Management Act 1991.

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

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

15. Important information continued...

Declaration

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

Name: (please write in full) Rochelle Jacobs

Signature: [redacted] Date 21-May-2025

A[redacted] 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.

Combined Subdivision & Land Use Resource Consent Proposal

Nasturtium Trust

44 Hauparua Lane, Kerikeri

Date: 4/06/2025

Attention: Whitney Peat and Liz Searle

Please find attached:

- an application form for a combined Subdivision & Land Use Resource Consent*;* and
- an Assessment of Environmental Effects of the potential and actual effects of the proposal on the environment.

The site is zoned *'Coastal Living'* under the Operative Far North District Plan. The proposed zoning under the Proposed Far North District Plan is *'Rural Lifestyle'.* The proposed land use and subdivision activities require resource consent under the Operative District Plan as a **Discretionary Activity**. The subdivision and landuse activities are currently a **Permitted Activity** under the Proposed District Plan.

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

Regards,

Rochelle Jacobs
Senior Planner / Director
NORTHLAND PLANNING & DEVELOPMENT 2020 LIMITED

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6. **Ecology Report** - *Geologix*
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10. **Top Energy Letter of Supply**
11. **Written Approvals** – *Adjoining Neighbours (ROW owners)*

Assessment of Environment Effects Report

1. DESCRIPTION OF THE PROPOSED ACTIVITY

1.1. The Applicant Nasturtium Trust is seeking a resource consent to subdivide and locate residential dwellings on an existing site at 44 Hauparua Lane, Kerikeri. The proposed subdivision would create four freehold lots from the parent lot, which is Lot 2 DP 410617. A copy of the subdivision and landuse plans prepared by Morrison Design Limited dated 14/05/25 are attached at **Appendix 3**. The subdivision layout plan is illustrated in **Figure 1** below.

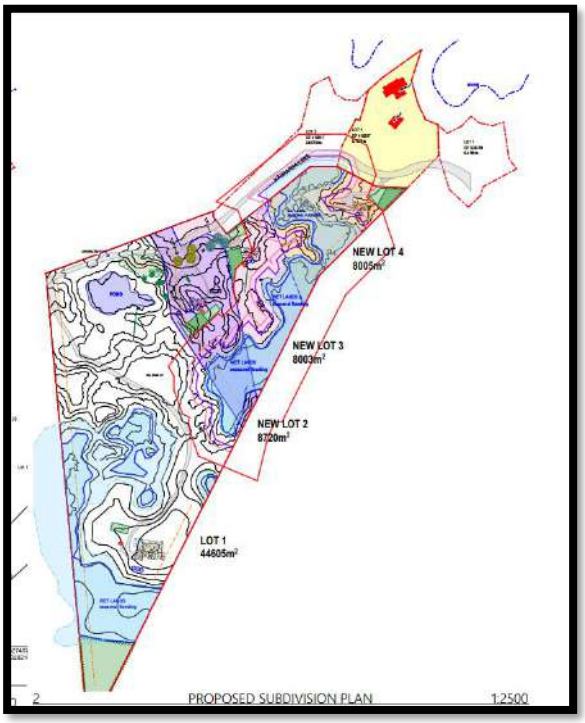

Figure 1 – Subdivision Plan – 44 Hauparua Lane, Kerikeri

Subdivision

1.2. The proposed subdivision would create four freehold lots comprising the following site areas:

- Lot 1 – 44,605m^2
- Lot 2 – 8,720m^2
- Lot 3 – 8,003m^2
- Lot 4 – 8,005m^2

1.3. Minimal earthworks are required for dwelling foundations and new driveway construction as follows. Wilton Joubert have recommended increasing the depth of soil for wastewater disposal fields which will add additional earthworks to the estimated volumes below.

- Lot 1 – 44.88m^3
- Lot 2 – minimal for timber pile foundation
- Lot 3 – 10.72m^3

- Lot 4 – 16.37m^3

1.4. New and updated right-of-way easements over Hauparua Lane for services and vehicle access are required for each of the proposed lots. Lot 4 requires ROW easement access over 57 Hauparua Lane (Lot DP 410617) which is a new easement.

Vehicle Access

1.5. Vehicle access to each proposed lot is from the existing shared private ROW that is Hauparua Lane. As indicated on the subdivision plan, proposed Lots 1-3 would have a separate vehicle entrance and driveway accessed from that part of the ROW that is currently within the parent Lot 2 DP 410617. Lot 4 would have new driveway access from that part of the ROW that is within Lot 1 DP 410617 (57 Hauparua Lane). Written approval from the owners of this part of the ROW (Valhalla Trust) Christine, Denis and John Arthur Callesen is provided attached to this application at **Appendix 11**. The written approval of a third listed owner Jillian Cooper is provided as the owner 127 Hauparua Lane.

1.6. Haigh Workman has undertaken a traffic impact assessment of the proposed subdivision and land use proposal. No upgrading of the existing ROW, including its' entrance off Kerikeri Inlet Road is required to accommodate the proposed increase in residential activity and vehicles using the access lane. Vehicles accessing the site would utilise passing bays as indicated on the subdivision plan. It is noted that these have recently been constructed in accordance with an approved subdivision consent further along the ROW (RC 2240190) at chainage 220 and 320.

1.7. Existing and proposed entrance crossings to each site will need to be constructed and / or upgraded to meet FNDC Engineering Standards. In accordance with the engineer's recommendation, this work should be undertaken at the time of subdivision and prior to s224c approval.

Buildings and Infrastructure Services

1.8. There are existing telecom and electricity services located in the ROW that would be available to the proposed lots. A copy of the Top Energy acknowledgement of servicing capability is attached at **Appendix 10**.

1.9. Each lot can accommodate the required 30m x 30m building envelope that is outside of the required Coastal Living boundary 10 metres setback requirements (for sites greater than 5,000m^2). Provision for stormwater and wastewater disposal has been assessed and can be provided for within the boundary of each lot as required by ODP Subdivision Rule 13.7.2.1(ix).

1.10. Wilton Joubert Engineers have undertaken a geotechnical assessment and site suitability assessment for each of the proposed lots. The report(s) conclude that each site is suitable for the proposed residential use and that a safe and stable building platform is available on each

lot. It is noted that the Wilton Joubert report(s) reference an earlier version of the subdivision plan prepared by Permit Shop Practical Architecture dated 25/11/24. The proposed subdivision plan prepared by Morrison Design attached that is the basis for this application comprises similar boundaries with the amendments referred to in the Geotechnical Addendum Report. A copy of the Wilton Joubert Site Suitability Report and Geotechnical Addendum are attached at **Appendix 4** and **Appendix 5** respectively.

1.11. There are no other identified natural hazards, including coastal flood hazards that would impact the ability of the site to be subdivided for residential purposes.

Residential Land Use

1.12. As shown on the application plans Sheets 1.5-1.11, new prefabricated residential dwellings are proposed on all the new allotments. The existing 50m^2 residential building on proposed Lot 3 and the small sleepout buildings on Lot 2 will be removed. The existing 30m^2 sleepout on Lot 2 will be retained.

1.13. The proposed dwelling footprints, along with a typical Laminata modular house design is illustrated on the site layout plans (LUC Plan Sheets 1.4 – 1.7) and Sheet 1.12 attached at **Appendix 3**. The proposed dwellings are three-bedroom, single storey, mono-pitched style house buildings with a maximum height of 3.57m. The dwelling on Lot 1 includes an attached two car garage. Building cladding materials are natural timber and dark coloured joinery and roofing.

1.14. The proposed dwelling sizes and areas of impermeable area (including existing paved areas) on each lot is illustrated on the land use coverage plans (Sheets 1.8 -1.11 Rev 02) and are as follows:

	Building Coverage	**Impermeable Coverage**
Lot 1	297.9m^2 (1.87%)	1,685.57m^2 (6.74%)
Lot 2	163.08 (1.87%)	751.69 (8.61%)
Lot 3	126.09m^2 (1.6%)	583.25 (7.28%)
Lot 4	126.09m^2 (1.57%)	397.97m^2 (4.6%)

1.15. Stormwater runoff from buildings and impermeable driveway surfaces will be collected either to potable water tanks or to vegetated areas within each lot.

1.16. Approximately 71.89m^3 of earthworks is required to construct the driveway access into each lot comprised as follows:

- Lot 1: 44.8m3
- Lot 2: (will utilise existing access and building)
- Lot 3: 10.72m^3
- Lot 4: 16.37

1.17. The proposed building platforms comprise timber piles requiring minimal earthworks.

1.18. On-site wastewater disposal areas would be set back more than 30m from existing wetlands as indicated on the application plans (Sheets 1.4-1.7) attached at **Appendix 3.** Secondary wastewater treatment systems are recommended for each site. For proposed Lot 2, Wilton Joubert has recommended that the existing wastewater system utilised by the sleepout be investigated by a registered drain layer to determine its suitability for a future dwelling and / or replaced with a new consented system.

2. DESCRIPTION OF THE SITE AND SURROUNDING ENVIRONMENT

2.1. The application site is located at 44 Hauparua Lane, Kerikeri. The site is legally described as Lot 2 DP 410617.

Figure 2 – Application site - 44 Hauparua Lane and surrounds – source Prover

2.2. Hauparua Lane is a private lane right-of-way accessway that comes off the northern end of Kerikeri Inlet Road. This access lane currently serves 21 household equivalents, that will increase to 25 as a result of recent subdivisions of Lot 5 DP 59491 (RC 2240057) and Lot 1 DP 551035 (RC 2240190). The proposed subdivision will increase the number of household users to 28.

2.3. As illustrated on the 'Existing Part Site Plan' (Sheet 1.2 rev 02), there is a small 50m^2 cabin style dwelling and three separate sleepout type buildings (30m^2, 15m^2 and 10m^2) located centrally

on the site. The 50m^2 cottage and the two smaller sleepout buildings will be removed from the site. The 30m^2 building is permitted as a sleepout with a bathroom (EXM-2023-90-0).

2.4. The site has access via an existing private ROW laneway that is Hauparua Lane. The laneway is sealed with a width that varies between 3.8m and 6m. There are existing passing bays every 100m. It is noted that within the Haigh Workman Traffic report that they identified that at chainages 220 and 380 additional passing bays would be required. These have recently been installed as part of two other approved resource consents. The ROW (in part) is located within the application site. Vehicle crossing entrances to proposed Lots 1, 2 and 3 would be within the existing parent lot. Lot 4 will have access from Hauparua Lane within Lot 1 DP 410617 (57 Hauparua Lane). Written approval from some ROW owners and users is provided at **Appendix 11**. The location of those sites where some owners have provided written approval is illustrated in **Figure 3** below.

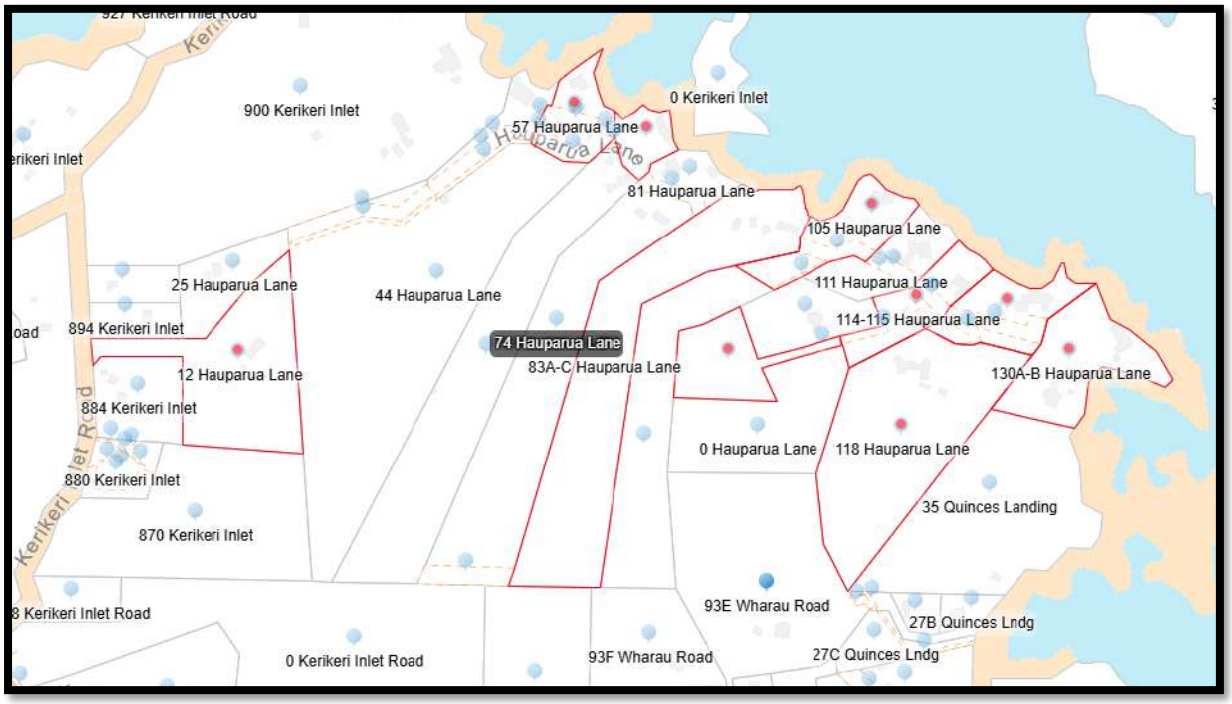

Figure 3 – Location of ROW owners written approval

2.5. The site is highly volcanic with an extensive network of wetland ponds that are spread across the site. The site is well vegetated with mix of indigenous and mixed exotic trees intermixed with grasslands. Some clearing has occurred within the site to create vehicle tracks and building platforms. The site is not within a mapped 'Kiwi Present' or a 'Kiwi High Density' area. The wetland features of the site are described in the Wetland Assessment Report prepared by Geologix attached at **Appendix 6**. The site contains approximately 4 hectares of natural inland wetlands as defined in the National Environmental Standard for Freshwater (NES-F). Wetland areas resemble large ponds bound by a mix of native and exotic plant species. The boundaries of the wetlands are shown on Drawing 700 in Appendix B to the Ecology Report and the application plans Sheets 1.2 – 1.7.

2.6. NZAA indicates that there are no identified archaeological sites within the property boundary. Doug Gaylard of Context Archaeology has undertaken an archaeological assessment of the site and concluded that there are no previously recorded archaeological sites on the property nor are there any suspected sites. In terms of Māori interest in the site, consultation with Ngati Rehia has not identified any cultural features of interest or raised any concerns with the proposed subdivision and development of the site for residential purposes. A letter from Ngati Rehia in response to consultation is attached at **Appendix 9**.

2.7. While the site is zoned Coastal Living, it is not within the mapped NRC RPS coastal environment or the PDP coastal environment overlay. The site is not visible from the coastal margin or the coastal marine area.

2.8. The site is not within a PDP mapped 'Coastal Flood Hazard' zone (1, 2 and 3).

2.9. The site is not a Council mapped HAIL site. Mapping indicates the land use to be exotic forest and manuka / kanuka vegetation.

2.10. The site soil type is LUC 6s1, which is not defined to be highly productive under the National Policy Statement for Highly Productive Land.

2.11. The site is not within any Treaty Settlement Statutory Acknowledgement area.

2.12. The surrounding environment comprises a variety of pastoral and vegetated rural-residential properties located on the southern side of the Kerikeri Inlet. The site is screened from Kerikeri Inlet Road and the Hauparua Lane by large mature trees and mixed vegetation that covers the site. The site is not visible from the coastal marine area.

3. REASONS FOR CONSENT

Operative Far North District Plan (ODP)

3.1. The site is zoned Coastal Living under the ODP. There are no resource layers that apply to the site.

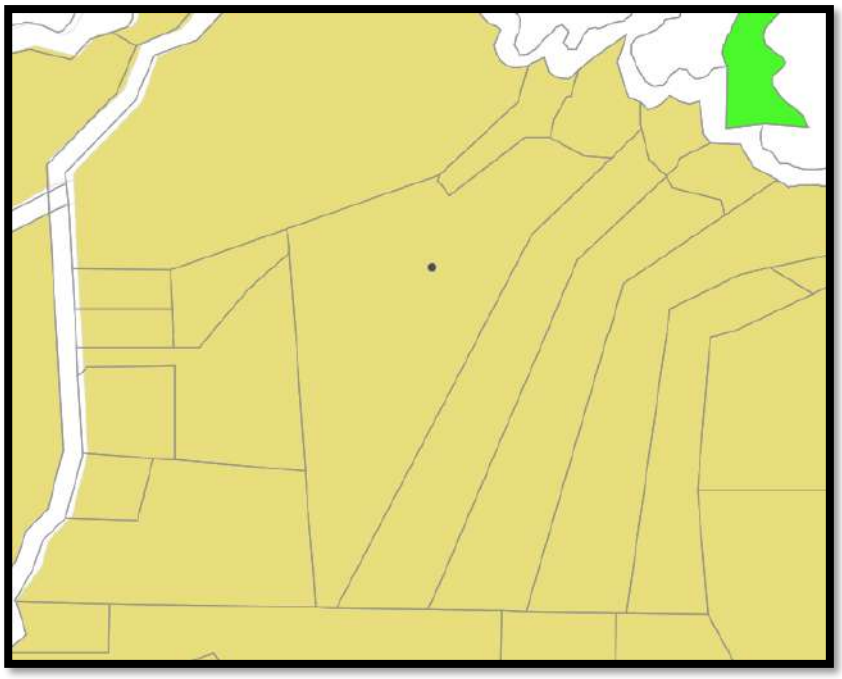

Figure 4 – Site Zoning – Coastal Living - ODP

3.2. An assessment of the applicable subdivision, zone and district wide rule standards is set out in Tables 1-3 below:

Subdivision

TABLE 1 - ASSESSMENT AGAINST THE APPLICABLE DISTRICT WIDE SUBDIVISION RULES		
PERFORMANCE STANDARDS		
Plan Reference	**Rule**	**Performance of Proposal**
13.7.1	**BOUNDARY ADJUSTMENTS**	**Not applicable.**
13.7.2.1 (ix)	**MINIMUM LOT SIZES**	**Restricted Discretionary Activity.** The proposed lot sizes are as follows: • Lot 1 – 44,605m^2 • Lot 2 – 8,260m^2 • Lot 3 – 8,052m^2 • Lot 4 – 8,905m^2 The minimum RDA lot size requirement (Rule 13.7.2.2 (ix)(1)) is 8,000m^2 with provision for stormwater and wastewater disposal as a necessary part of the application.
13.7.2.2	**ALLOTMENT DIMENSIONS**	**Complies** The minimum dimension is 30m x 30m taking into account the 10m boundary setback. Each of the proposed lots can accommodate the required building envelope dimension.
13.7.2.3 - 13.7.2.9	Not Applicable for this application.	
13.7.3.1	**Property Access**	**Discretionary Activity** The subdivision will create four lots from the parent lot (3 in addition to the existing lot). The lots will have vehicle access from the existing ROW that is the Hauparua private laneway. The number of existing and consented household equivalents that have legal access onto the laneway is 25. This number exceeds the permitted threshold of 8 household equivalents and is a Discretionary Activity under Rule 15.1.6C.2.
13.7.3.2	**Natural and Other Hazards**	**Complies** Wilton Joubert has assessed the suitability of the site relative to the potential natural hazards, including the identified coastal hazard. The report concludes that the subdivision can

		be designed and undertaken in a manner that avoids any potential hazards.
13.7.3.3	**Water Supply**	**Complies** Each site can be provided with on-site tank water supply.
13.7.3.4	**Stormwater Disposal**	**Consent Required** The proposed building and driveway areas within proposed Lots 1 and 2 will result in a stormwater management land use infringement of the ODP permitted standard for a site's impermeable surface area. Refer to Table 2 below. Wilton Joubert has assessed the potential for stormwater runoff and made recommendations for on-site management. The report recommends that future roof runoff be captured into on-site water tanks via a proprietary guttering system. Runoff from impermeable driveway and hardstand areas is to be directed to grassed / vegetated areas that is clear of structures.
13.7.3.5	**Sanitary Sewage Disposal**	**Complies** The site is not within the Council sanitary sewage drainage area. As assessed by Wilton Joubert, for a residential activity, each site will require a separate on-site wastewater treatment and disposal system. As indicated on the application plan attached at **Appendix 3**, a suitable system can be located on each site that is clear of wetland and site boundary setback requirements. The Wilton Joubert report recommends that the existing system that would be within the Lot 2 boundary is assessed by a registered drain layer to confirm its suitability for the proposed residential dwelling and sleepout containing a bathroom. The ODP and NRC permitted standards for wastewater disposal area setback from wetlands can be met.
13.7.3.6	**Energy Supply**	**Not applicable** This rule does not apply to a Coastal Living zone site.
13.7.3.7	**Telecommunications**	**Not applicable** This rule does not apply to a Coastal Living zone site.
13.7.3.8	**Easements**	**Complies**

		Easements for vehicle ROW for Lots 1 – 3 would be transferred to the proposed lots. A new easement over Lot 1 DP 410617 is required for access and services. It is noted that this easement is not shown on the scheme plan and is offered as a condition of consent to be shown at time of s223.
13.7.3.9	**Preservation of Heritage Resources, Vegetation, Fauna and Landscape, and Land Set Aside for Conservation Purposes**	**Complies** No heritage resources, protected vegetation, fauna or land set aside for conservation purposes would be affected by the proposed subdivision and development.
13.7.3.10	**Access to Reserves and Waterways**	**Complies** There are no public reserves, waterways or reserves that are adjacent to the site or that could be accessed from the site.
13.7.3.12	**Proximity to Airports**	**Not applicable**

3.3. The subdivision proposal is a **Discretionary Activity** in accordance with Rule 13.3.7.1.

Land Use – Coastal Living Zone

3.4. The land area assigned to proposed Lots 1 and 4 are currently vacant. Proposed Lot 2 contains three sleepout buildings, one of which have a bathroom and is subject to building consent approval. Lot 3 contains a single residential building. All of the existing buildings, except for the 30m^2 sleepout building on proposed Lot 2 will be removed. New replacement dwellings will be located on the proposed lots as indicated on the site plan attached at **Appendix 3**. As the Applicant is intending to locate dwellings on each of the proposed lots prior to final subdivision approval, the land use activity aspects of this combined application have been assessed on that basis.

TABLE 2 - ASSESSMENT AGAINST THE COASTAL LIVING ZONE RULES		
PERFORMANCE STANDARDS		
Plan Reference	**Rule**	**Performance of Proposal**
10.7.5.1.1	**Visual Amenity**	**Restricted Discretionary** The existing dwelling on Lot 2 is 30m^2. (Complies) The proposed dwellings on Lots 1, 2, 3 and 4 exceed 50m^2. Because of their size and being located outside of any

		approved building envelope, the proposed buildings do not comply with the permitted or controlled rule standards. The buildings are subject to the matters for discretion listed in Rule 10.7.5.3.1.
10.7.5.1.2	**RESIDENTIAL INTENSITY**	**Discretionary** To be located on site prior to subdivision 223 approval • Lot 1 – Single dwelling • Lot 2 – Single dwelling plus sleepout • Lot 3 – Single dwelling • Lot 4 – Single dwelling The establishment of four dwellings on-site in advance of subdivision approval will result in a residential intensity of 1 dwelling unit / 1.75ha of site area which can comply with the Discretionary standard of 1 / 5000m^2. Post subdivision There will be one dwelling per allotment such that the proposal will be a permitted activity.
10.7.5.1.3	**SCALE OF ACTIVITIES**	**Not applicable** The proposal is for residential use of the proposed lots.
10.7.5.1.4	**BUILDING HEIGHT**	**Permitted** The proposed buildings comply with the maximum 8m height control in the Coastal Living Zone.
10.7.5.1.5	**SUNLIGHT**	**Permitted** The existing sleepout building on proposed lot 2 to be retained complies with the sunlight control in relation to the proposed boundary. The proposed location of residential buildings on Lots 1-4 will also comply with this rule.
10.7.5.1.6	**STORMWATER MANAGEMENT**	**Discretionary Activity** Prior to subdivision 223 approval The permitted area of impermeable surface on a site in the Coastal Living zone is 10% or 600m^2, whichever is the lesser. An impermeable area of 1,500m^2 or 15% of a site area is provided for under Rule 10.7.5.3.3 as a restricted discretionary activity. The total area of impermeable surfaces within each proposed lot, including existing areas are as follows:

		Lot 1 – 1,685.57m^2 (or 0.037%) Lot 2 – 751.69m^2 (or 8.61%) Lot 3 – 583.23m^2 (7.28%) Lot 4 – 367.97m^2 (4.6%) Added together this equates to 3,388.46m2 (4.82%). As the coverage prior to titles being issued will exceed 1,500m2 consent is triggered as a Discretionary Activity. <u>Post Subdivision</u> Development on Lots 1 & 2 will exceed 600m2 such that consent on these allotments is also required post approval as a Restricted Discretionary Activity.
10.7.5.1.7	**SETBACK FROM BOUNDARIES**	**Permitted.** As indicated on the application plans, existing and proposed residential buildings have been positioned to comply with boundary setback requirements.
10.7.5.1.8	**SCREENING FOR NEIGHBOURS**	**Not applicable.**
10.7.5.1.9	**TRANSPORTATION**	A full assessment has been undertaken in the table below.
10.7.5.1.10	**HOURS OF OPERATION – NON-RESIDENTIAL ACTIVITIES**	**Not applicable**
10.7.5.1.11	**KEEPING OF ANIMALS**	**Not applicable**
10.7.5.1.12	**NOISE**	**Permitted** Residential activity is subject to noise standards
10.7.5.1.12	**HELICOPTER LANDING AREA**	**Not applicable**

Land Use - District Wide

TABLE 3 - ASSESSMENT AGAINST THE APPLICABLE DISTRICT WIDE RULES

PERFORMANCE STANDARDS

Plan Reference	Rule	Performance of Proposal
	NATURAL & PHYSICAL RESOURCES	
12.1	**LANDSCAPES AND NATURAL FEATURES**	**Not applicable**
12.2	**INDIGENOUS FLOR AND FAUNA**	**Permitted Activity** The proposed residential activity does not require any additional vegetation clearance. Buildings will be positioned within existing cleared areas.
12.3	**SOILS & MINERALS**	**Permitted Activity** The total proposed volume of excavation and fill earthworks required to construct the new dwelling foundations and driveway areas is 72m^3.
12.4	**NATURAL HAZARDS**	**Permitted** Rule 12.4.6.1.2 Fire Risk to Residential Units The proposed dwellings will be positioned so that they are not located within 20m of any trees, shrubs or shrubland on the site.
12.5	**HERITAGE**	**Not applicable** As assessed by Context Archaeology there are no previously recorded archaeological sites or suspected sites within the parent lot boundaries.
12.6	**AIR**	**Not applicable**
12.7	**LAKES, RIVERS, WETLANDS AND THE COASTLINE**	
	Rules 12.7.6.1.1 & 12.7.6.1.4	**Permitted** The proposed wastewater disposal areas will be set back the required 30m distance from the surveyed site wetland boundaries as illustrated on the site plan. The site does not contain any lakes or rivers and is not within close proximity to the Coastal Marine area.

	12.7.6.1.2	**Discretionary Activity** The site has a number of wetlands present where the permitted setback standard for buildings and impermeable surfaces is 30m. The proposed residential building and associated driveway area will be located within 30m of the surveyed wetland within Lot 1, 3 and 4
12.8	**HAZARDOUS SUBSTANCES**	**Not applicable**
12.9	**RENEWABLE ENERGY AND ENERGY EFFICIENCY**	**Not applicable**
TRANSPORTATION		
15.1.6A	**TRAFFIC INTENSITY**	**Discretionary Activity** The proposal will create three additional allotments. The dwellings are to be located on the site prior to subdivision final approval which results in a breach of the traffic intensity rule 15.1.6A.2.1.
15.1.6B	**PARKING**	**Permitted Activity** Complying carparking can be achieved within the lot boundaries.
15.1.6C.1.1	**PRIVATE ACCESSWAY IN ALL ZONES**	**Discretionary Activity** Each of the four lots will be accessed via the existing ROW Hauparua Lane. The number of household units served by Hauparua Lane exceeds 8 and is currently 25. The additional three allotments will increase this number to 28 H.E.
15.1.6C.1.2	**PRIVATE ACCESSWAYS IN URBAN ZONES**	**Not applicable.**
15.1.6C.1.3	**PASSING BAYS ON PRIVATE ACCESSWAYS IN ALL ZONES**	The Haigh Workman traffic report states that passing bays are provided every 100 metres except at chainage 220 and 380. Additional passing bays at chainage 220 and 340 have been constructed in accordance with RC 2240190 condition 3(e).
15.1.6C.1.4	**ACCESS OVER FOOTPATHS**	**Not applicable.**
15.1.6C.1.5	**VEHICLE CROSSING STANDARDS IN RURAL AND COASTAL ZONES**	**Permitted Activity.** (a) All lots will utilise the existing ROW that is Hauparua Lane.

		(b) Hauparua Lane is a sealed laneway that serves 28 household equivalents. (c) Each lot will be accessed via its own vehicle crossing.
15.1.6C.1.6	**VEHICLE CROSSING STANDARDS IN URBAN ZONES**	**Not applicable.**
15.1.6C.1.7	**GENERAL ACCESS STANDARDS**	**Permitted** The developed sites can be designed to comply with this rule.
15.1.6C.1.8	**FRONTAGE TO EXISTING ROADS**	**Not applicable**

3.5. The proposed land use activity involves the location of houses on the site prior to final subdivision approval. The timing of the development will result in pre and post subdivision land use rule breaches including visual amenity, residential intensity, stormwater management, and proximity of impermeable surfaces to wetlands as well as infringements to transportation rules. Overall, these activities are assessed to be a **Discretionary Activity** under the ODP Coastal Living Zone and District-wide land use rules.

Proposed District Plan (PDP)

3.6. The proposed activities are subject to the PDP provisions. The PDP was publicly notified on the 27th of July 2022. The submission and further submission periods have closed. PDP hearings are underway. As no decisions on submissions have been made, little weight may be attributed to the provisions.

3.7. The proposed site zone is Rural Lifestyle Zone. The site is identified as being located within Coastal Hazard Flood Zones 1-3. Applicable rules that have current legal effect are limited to the management of earthworks activities.

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. HS -R5 relates to a hazardous facility within a scheduled site and area of significance to Māori. HS-R6 relates to a hazardous facility within an SNA. HS-R9 relates to a hazardous facility within a scheduled heritage resource.	**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)	**Not applicable.**

	All standards have immediate legal effect (HA-S1 to HA-S3)	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	**Not applicable.** The site does not contain any areas of recorded historic heritage.
Notable Trees	All rules have immediate legal effect (NT-R1 to NT-R9) All standards have legal effect (NT-S1 to NT-S2) Schedule 1 has immediate legal effect	**Not applicable.** The site does not contain any notable trees.
Sites and Areas of Significance to Māori	All rules have immediate legal effect (SASM-R1 to SASM-R7) Schedule 3 has immediate legal effect.	**Not applicable.** The site does not contain any scheduled sites or areas of significance to Māori.
Ecosystems and Indigenous Biodiversity	All rules have immediate legal effect (IB-R1 to IB-R5)	**Not applicable.** The proposal does not include any indigenous vegetation pruning, trimming, clearance or associated land disturbance. No plantation forestry activities are proposed. Therefore, the proposal is not in breach of rules IB-R1 to IB-R5.
Subdivision	The following rules have immediate legal effect: SUB-R6, SUB-R13, SUB-R14, SUB-R15, SUB-R17	**Not applicable.** The subdivision is not an Environmental Benefit Subdivision (SUB-R6), Subdivision of a site with heritage area overlay (SUB-R13), Subdivision of site that contains a scheduled heritage resource (SUB-R14), Subdivision of a site containing a scheduled site and area of significance to Māori (SUB-R15) or Subdivision of a site containing a scheduled SNA (SUB-R17).
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	**Permitted.** Any earthworks will proceed under the guidance of an ADP

	The following standards have immediate legal effect: EW-S3, EW-S5 As stated above the mapping system records the subject site as containing the Ratana Temple which is located on the adjoining site. Schedule 3 lists the legal description of MS07-18 as being P Ahipara A32A which is the adjoining site.	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. Minimal earthworks are required to construct building foundations and driveway areas.
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.

3.8. The proposed activity is currently permitted under PDP rules that have current legal effect.

National Environmental Standards

National Environmental Standards for Assessing and Managing Contaminants in Soil to Protect Human Health 2011

3.9. The application site is not a HAIL site. The Far North District Council maps the site as exotic forestry and kanuka / manuka shrublands.

National Environmental Standards for Freshwater 2020

3.10. NES-F sets out requirements for carrying out activities identified as posing a risk to the health of freshwater and freshwater ecosystems, and to ensure the objectives and policies within the National Policy Statement for Freshwater Management (NES-FM) are met.

3.11. Geologix has undertaken an ecological wetland assessment of the site and concluded that the site does contain natural inland wetlands that are subject to NES-FM regulations. The boundaries of those wetlands are illustrated on the site plan attached at Appendix B of the Geologix Report (refer **Appendix 6** and included in the application site plans at **Appendix 3**).

3.12. Potentially applicable NES-FM regulations include Regulation 54 activities in relation to

- *(a) & (b) earthworks (and any associated vegetation clearance) within 10m of a natural inland wetland*
- *(c) the diversion of water within a 100m setback from a natural inland wetland in relation to buildings and paved surfaces.*

3.13. The location of proposed buildings, impermeable surfaces and the area of earthworks is illustrated on the application plans at **Appendix 3.** Proposed buildings, impermeable surfaces and earthworks will be located outside of any identified wetland. A minimum 10m offset is proposed for any earthwork's activities. Stormwater runoff from impermeable surfaces will continue to drain to adjacent wetlands with no attenuation recommended or required. There would be no hydrological connection or change in wetland water levels arising from the diversion of water on the site The NRC has exempted activities related to the on-site disposal of wastewater as it is a discharge to ground and not water.[1]

3.14. It is concluded that the proposed land use activities in proximity to on-site wetlands are a permitted activity.

3.15. No other National Environmental Standards apply to this proposal.

4. STATUTORY ASSESSMENT UNDER THE RESOURCE MANAGEMENT ACT (RMA)

Section 104D of the Act

4.1. Section 104D governs the determination of applications for Discretionary / Non-complying activities. The consent authority can grant or refuse the application. If the application is granted, the consent authority may impose conditions under Section 108.

Section 104(1) of the Act

4.2. 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 for 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

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

(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 reasonable necessary to determine the application.'

4.3. Actual and potential effects arising from a development as described in 104(1)(a) can be both positive and adverse (as described in section 3 of The Act). The proposal for subdivision will result in positive effects associated with the provision of additional housing in the Kerikeri township surrounds.

4.4. 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'. It is considered 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. It is considered that all effects can be managed within the proposed lot boundaries. As noted above, the proposed development itself will generate positive effects that are consistent with the provision of residential lifestyle opportunities in the Coastal Living zone.

4.5. Section 104(1)(b) requires the consent authority to 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 6.

4.6. 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.

Environmental Effects Assessment

4.7. Having reviewed the relevant plan provisions and taking into account the matters that must be addressed by an assessment of environmental effects as outlined in Clause 7 of Schedule 4 of the Act, the following environmental effects are assessed as part of this application.

4.8. The combined land use and subdivision proposal is a Discretionary activity. Potential effects on the environment arising from the proposal are assessed as follows:

Subdivision

4.9. The proposal involves the creation of four residential lifestyle lots of a size that is provided for in the CLZ as a restricted discretionary activity. The subdivision layout has been designed to reflect the topography and natural wetland features of the site and access requirements for vehicles. The proposed sites will benefit from the existing amenity features including established vegetation and wetland environments that screen site boundaries and provide visual screening of boundaries.

4.10. Within the Coastal Living Zone, the Council has restricted its discretion to the following matters that are addressed as follows:

(a) The location of access to the lots;

Vehicle access to the proposed lots is from Hauparua Lane, which is a privately owned laneway that currently serves 25 consented household units. Lots 1,2 and 3 would have driveway access from the ROW area that is within the parent lot site. Lot 4 will be accessed from the ROW within the neighbouring property at Lot 1 DP 410617 (57 Hauparua Lane). Written approval from this neighbour is provided at **Appendix 11.** Haigh Workman has prepared a traffic impact assessment of the proposed subdivision and concluded that there is suitable vehicle access from the Hauparua Lane. The laneway is sealed and is an appropriate width to cater for current and proposed vehicle use. As assessed by Haigh Workman, the current daily vehicle use is well below the assessed ADT 150 vehicle per day that would require upgrading. Speed is controlled via signs and speed bumps to 25km/hr. There are sufficient passing bays along the road to allow for safe vehicle passage. Driveway crossings from the laneway can be constructed to FNDC standard.

(b) The location of utility services

There are existing telecom and electricity services located in the Hauparua Lane. Electricity services are available to the site. On-site wastewater and water supply will be provided.

(c) The location of building envelopes

There are no nominated building envelopes. The position of residential buildings and associated driveway areas are indicated on the application site plans and will be confirmed as part of this combined subdivision and land use consent.

(d) The effect of earthworks and utilities

Minimal earthworks are required to construct driveway areas and foundations for residential buildings. The extent and location of earthworks would not adversely affect the adjacent wetlands providing adequate erosion and sediment control measures are implemented. Other than residential utility services, there are no other proposed services.

(e) The location of lot boundaries

Lot boundaries are positioned to reflect the topography, location of wetlands, site access and a suitable residential building platform on each site.

(f) The mitigation of fire hazards for health and safety of residents

The site is vegetated with mixed exotic and native vegetation. Residential building site areas are largely cleared and would be situated away from vegetation that could pose a fire risk.

(g) The matters listed in 13.7.3

- ***Property Access*** – access to the proposed lots is via the privately owned Hauparua Lane. The number of household equivalents that have access via the laneway exceeds the permitted standard of eight. The Haigh Workman traffic impact assessment has concluded that the laneway can adequately service the additional proposed lots and would not, based on current traffic counts, trigger a requirement for additional upgrading as per the ODP Appendix 3B-1.

- ***Natural and other hazards*** – Wilton Joubert has prepared a civil site suitability assessment of the proposed subdivision. Identified potential hazards include the site's location within the NRC mapped coastal flooding hazard zones 1, 2 and 3. The report concludes that parts of the site will be subject to coastal inundation but that proposed building floor levels 4m and 6, above NZVD will be above flooding levels. The report recommends minimum floor levels for habitable and non-habitable on the site.[2]

  The site is not subject to natural hazards generated by erosion, landslips, rockfalls, alluvion or avulsion (caused by river flooding), unconsolidated fill, soil contamination, subsidence, or fire hazard.

- ***Water Supply***
  Potable water supply will be from collected roof water. Additional tank water supply for fire-fighting purposes can be provided in accordance with FNDC standard conditions.

[2] Civil Site Suitability Report – Wilton Joubert, 10 December 2024 [p18]

- ***Stormwater disposal***
  Roof stormwater will be collected into tanks and stored for potable and fire-fighting water supply purposes. Excess roof water overflow and runoff from impermeable surfaces will be directed to grassed areas at the edges of driveways and garden areas. Wilton Joubert has undertaken a stormwater management assessment of the proposed subdivision. Both pre and post subdivision, the proposed building and impermeable areas will exceed the ODP Coastal Living maximum permitted thresholds of 600m^2. It is recommended that roof water is collected via a guttering system and conveyed to potable (and fire-fighting) water supply tanks. Due to the position of the site in the catchment and its susceptibility to coastal inundation, stormwater detention is not recommended to avoid coincidence with peak time of flood hazards. Recommendations for stormwater management are made in accordance with TP 10.

- ***Sanitary Sewage Disposal***
  On-site disposal of treated wastewater is proposed. Wilton Joubert has provided recommendations for systems to be installed on each lot. Wastewater disposal areas are indicated on the application site plans and are outside of any required setback requirements from adjacent wetlands.

- ***Energy supply***
  Electricity services are present in the ROW and available to the site. A letter from Top Energy confirming the availability of electricity services to the site is provided at **Appendix 10**.

- ***Telecommunications***
  There is no requirement in the CLZ for a telecom service connection to the site boundary.

- ***Easements for any purpose***
  Other than vehicle and electricity ROW easements, no other public or private easements are required.

- ***Preservation of heritage resource vegetation, fauna and landscape, and land set aside for conservation purposes***
  There are no scheduled historic heritage resources on the site. As confirmed by the archaeological report prepared by Context Archaeology there is no suspected archaeology on the site and there is a low risk of encountering any archaeological deposits or features. There are no notable trees on the site, outstanding natural features or landscapes, or

identified sites of cultural significance to Maori (Ngati Rehia hapu). A letter of support from Ngati Rehia is attached at **Appendix 9.**

- ***Access to reserves and waterways***
  There are no adjacent waterways or reserves that would trigger a requirement for public access.

- ***Land use compatibility***
  The proposal is for rural residential activity within an existing rural residential area. There are no land use incompatibility issues.

- ***Proximity to airports***
  Not applicable

(h) Whether provision for access to the subdivision has been made in a manner that will avoid, remedy or mitigate adverse effects on the environment, including but not limited to traffic effects, visual effects, effects on vegetation and habitats and natural character;

The proposed lots will have access from Hauparua Lane. This is a well constructed and maintained sealed laneway that currently services 25 consented households. The Haigh Workman traffic assessment has concluded that the laneway is adequate for the vehicle movements generated by the existing and proposed lots and will not result in adverse effects on the local traffic environment. The construction of vehicle crossings and driveway areas involves small works adjacent to the laneway. No vegetation or fauna habitat disturbance is required.

(i) Whether the effects of earthworks and the provision of services to the subdivision will have an adverse effect on the environment and whether these effects can be avoided, remedied or mitigated.

Minimal earthworks are required to construct building foundations, driveway areas and to increase the depth of soil for wastewater disposal fields on each lot. Where earthworks, are located close to wetland environments can be carried out in accordance with an approved Erosion and Sediment Control plan required as condition of consent.

Residential Intensity Effects

4.11. Each proposed lot will ultimately contain a single dwelling that complies with the residential intensity permitted in the CLZ i.e. a site created under Rule 13.7.2.1.

4.12. The Discretionary Activity residential intensity rule breach results from the timing of modular dwellings being located on the site in advance of the completion of the subdivision. These effects are temporary and will be resolved in conjunction with the subdivision completion process. Any potential adverse effects arising from an increase in residential intensity on the site are assessed to be less than minor.

4.13. The relevant assessment criteria for Discretionary Residential Activities is set out in Chapter 11 of the ODP and are commented on as follows:

(a) The character and appearance of building(s) and the extent to which the effects they generate can be avoided, remedied or mitigated, consistent with the principal activity on the site and with other buildings in the surrounding area.

Four modest size, single storey dwellings are proposed. The size and location of dwellings is consistent with the surrounding area. Buildings will be well screened by trees, existing fencing and topography with only distant and / or intermittent views from Kerikeri Inlet Road and Hauparua Lane. Potential adverse visual effects on the character and amenity of the surrounding area will be less than minor.

(b) The siting of the building(s), decks and outdoor areas relative to adjacent properties and the road frontage, in order to avoid visual domination and loss of privacy and sunlight.

Proposed buildings are well separated and will be positioned to comply with building setback requirements from proposed lot boundaries. Vegetative screening in between buildings will assist in avoiding any visual domination or loss or privacy.

(c) The size, location and design of open space and the extent to which trees and garden plantings are utilised for mitigating adverse effects.

The proposed residential buildings will be located on rural-residential lots with extensive open space and planted areas that will mitigate adverse visual effects.

(d) The ability of the immediate environment to cope with the effects of increased vehicular and pedestrian traffic.

Haigh Workman engineers have confirmed that there is capacity within the existing Hauparua Lane for the additional vehicle traffic generated by additional residential activity on the site. Refer **Appendix 8**.

(e) The location and design of vehicular and pedestrian access, on site vehicle manoeuvring and parking areas and the ability of those to mitigate the adverse effects of additional traffic.

The proposed lots and residential dwelling locations are a rural-residential scale with sufficient areas for driveway and vehicle manoeuvring.

(f) *Location in respect of the roading hierarchy – the activity should be assessed with regard to an appropriate balance between providing access and the function of the road.*

Access to dwellings is from an existing laneway. Haigh Workman has confirmed there is sufficient capacity for increased traffic generated by the proposed residential dwellings.

(g) *The extent to which hours of operation are appropriate in terms of the surrounding environment.*

Not applicable.

(h) *Noise generation and the extent to which reduction measures are used.*

The proposed activity is residential and will be subject to the CLZ noise standards.

(i) *Any servicing requirements and/or constraints of the site – whether the site has adequate water supply and provision for disposal of waste products and stormwater.*

Wilton Joubert has assessed the ability of the site to dispose of wastewater. Water supply will be supplied via roofwater captured into potable water tanks.

(j) *Whether the development is designed in a way that avoids, remedies or mitigates any adverse effects of stormwater discharge from the site into reticulated stormwater systems and/or natural water bodies.*

Wilton Joubert has provided recommendations for the design of stormwater mitigation measures for the site. These are provided in accordance with accepted design standards. Stormwater overflow and from hardstand areas will continue to discharge to ground and the adjacent wetland environments.

(k) *The ability to provide adequate opportunity for landscaping and buildings and for all outdoor activities associated with the residential unit(s) permitted on the site.*

The site is well vegetated and will continue to provide screening for proposed dwellings. The proposed lots are a rural-residential size that provide available space for additional landscaping and positioning buildings.

(l) *The degree to which mitigation measures are proposed for loss of open space and vegetation.*

The proposed density is a rural-residential scale which will not result in any noticeable loss of open space or vegetation.

(m) Any adverse effects on the life supporting capacity of soils.

The site a coastal living zone property with no production value.

(n) The extent of visual and aural privacy between residential units on the site and their associated outdoor spaces.

The site is a rural-residential property. Proposed residential dwellings will be well located to provided sufficient separation for aural and visual privacy, and for ample outdoor open space.

(o) Visual effects of site layout on the natural character of the coastal environment.

The site is not visible from the coastal environment and will have no adverse effect on its natural character.

(p) The effect on indigenous vegetation and habitats of indigenous fauna.

Residential buildings on the site will be positioned to minimise loss of indigenous vegetation. The site is not within an area of kiwi habitat or other significant fauna.

(q) 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.

The site is within a mapped coastal flood hazard area. The position of residential buildings and associated impermeable surface areas has been designed to avoid the potential for flooding of buildings. There are no other identified natural hazards risks at the site.

(r) Proximity to rural production activities and potential for incompatible and reverse sensitivity effects.

The site is not within a rural production area.

(s) When establishing a minor residential unit

Not applicable

(t) With respect to access to a State Highway (SH) that is a Limited Access Road, the effects on the safety and*/or efficiency on any SH and its connections to the local roading network and the provision of written approval from the NZ Transport Agency.*

Not applicable

Building Visual Amenity Effects

4.14. Modest sized, single storey, modular style residential dwellings are proposed on each lot. Building floor areas range between 126m^2 and 300m^2 (on Lot 1). Lot 2 would include an existing (separate) sleepout building. Building design is sympathetic to its natural environment setting. Buildings will have limited visibility from the surrounding area, with only glimpses from along Hauparua Lane and distant views from Kerikeri Inlet Road. The buildings will not be visible from the coast.

Stormwater Management Effects

4.15. The proposed area of impermeable surfaces on the completed Lots 1 and 2 would exceed the maximum 600m^2 permitted area. Impermeable surfaces, including building areas on Lots 1, 3 and 4 would be within the required 30m setback from wetlands. Haigh Workman has completed an assessment of potential adverse effects generated by the location and additional impermeable areas. To manage stormwater runoff and taking into consideration the coastal flooding potential of the site, Haigh Workman has recommended low impact design mitigation measures in accordance with the Auckland 'Countryside Living Toolbox' and TP-10 where necessary. Attenuation of stormwater is not recommended given the coastal flooding location. Stormwater from roof areas is to be discharged to potable water tanks and overflow to new dispersal devices or outlets. Runoff from hardstands areas is to vegetated areas or catchpits where required.

4.16. Wilton Joubert engineers have provided an assessment against the Rule 13.10.4 restricted discretionary matters. Potential adverse effects generated by an increase in stormwater runoff is assessed to be no more than minor.

Coastal Flood Hazard Effects

4.17. Proposed Lots 1, 3 and 4 are located within a mapped coastal flooding area that may at times be subject to inundation. Wilton Joubert engineers have provided the various estimate coastal inundation levels at the site and the Building Act requirements for building on land subject to natural hazards. Minimum residential building freeboard levels for floor levels are specified on page 18 of the Wilton Joubert report. All of the proposed building locations are above these levels and are deemed to be clear of potential flood levels (up to the 1% AEP event). Given the ability to position and design buildings to avoid flood levels, potential adverse effects are assessed to be no more than minor.

Wetland Effects

4.18. The Wetland Assessment Report prepared by Geologix identified natural inland wetlands as defined by the National Policy Statement for Freshwater Management on the site. The surveyed boundary of these wetlands is illustrated on the application site plans. The wetlands form part of an ecological environment that includes mixed terrestrial native and exotic vegetation and grasslands. The site is at the edge of the Kerikeri Inlet coastal environment (subject to coastal inundation). Partial development of the site has already altered the natural landscape on the southern side of the pond and to some extent is anticipated by the Plan for a rural-residential type development.

4.19. The existing wetlands are a significant natural feature on the site that contribute positively to its character and amenity. To the extent possible, building and driveway locations have been designed to avoid wetlands and ensure that any stormwater diversion continues to flow into these adjacent waterbodies. No attenuation is proposed or required. Treated wastewater is to be discharged to ground with no direct discharge to wetlands. Disposal areas (including reserve areas) will be located beyond the 30m setback requirement to wetlands. Earthworks in proximity to wetlands can be managed through appropriate erosion and sediment control measures required as a condition of consent.

4.20. It is expected that proposed development of the site for rural-residential purposes and building development within the locations indicated on the application site plan will result in potential adverse effects on wetland that are no more than minor. No resource consent for land developments activities affecting wetlands are required under the NES-F.

Transport Effects – Hauparua Lane (ROW) Access

4.21. Subdivision and development of the site relies on vehicle access from the adjacent Hauparua Lane, which is a sealed private ROW. ROW ownership forms part of a series of residential land parcels that extends for approximately 1.2 kilometres. The laneway is well maintained and managed under a landowner body corporate arrangement for which there is collective maintenance responsibility. The laneway speed limit is 25km/hr. There are passing bays constructed every 100 metres in accordance with ODP requirements.

4.22. As assessed by Haigh Workman, Hauparua Lane functions well and there is no identified safety concerns. The estimated average daily traffic use is less that what would be required to upgrade the laneway as per the ODP Appendix 3B-1 standard.

4.23. The proposed use of Hauparua Laneway for access onto Kerikeri Inlet Road breaches the permitted Rule standard 15.1.6C.1.1(c) which restricts the number of household users to 8. The proposed subdivision would increase households from 25 to 28 household users. Rule 15.1.6C.4.1 sets out the assessment criteria that relate to property access. Haigh Workman have provided commentary on the assessment criteria at pages 17-18 of traffic impact

assessment report at **Appendix 8**. The reference to the construction of passing bays at chainage 220 and 320 is complete. Potential adverse effects generated by additional vehicle use of the ROW will be no more than minor. Vehicle crossings to proposed lots will be constructed to FNDC standards as required by conditions of consent.

Section 104(1)(b) – Relevant provisions of any statutory document

National Environmental Standards

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

4.24. The site is not a HAIL site and is not subject to the provisions of the National Environmental Standards for Assessing and Managing Contaminants in Soil to Protect Human Health (NES).

National Environmental Standard for Freshwater Management (NES-FM)

4.25. The NES-FM applies to the site and its existing wetlands. Proposed development including earthworks (an any associated vegetation clearance), impermeable surfaces (water diversion) are permitted by the regulations. The proposed development will not result in any hydrological change to the existing wetland environment.

4.26. There are no other national environmental standards that apply.

National Policy Statements

4.27. Current National Policy Statements include:

- New Zealand Coastal Policy Statement
- 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.
- National Policy Statement for Highly Productive Land 2022
- National Policy Statement for Indigenous Biodiversity.
- National Policy Statement for Greenhouse Gas Emissions from Industrial Process Heat

4.28. Other than the NPS-F, none of the above NPS are relevant to the proposed activity. The proposed development would not be contrary to the objective and policies of the NPS-F.

Regional Policy Statement for Northland (2016)(RPSN)

4.29. The RPSN is the governing regional statutory document, which includes the application site. The small-scale nature of the proposed subdivision and land use activity is such that any potential effects are adequately assessed and regulated under the ODP.

4.30. The proposed activity would not be contrary to the objectives and policies of the RPSN.

Far North Operative District Plan

Relevant objectives and policies

4.31. The proposed activity is subject to an assessment against the relevant objectives and policies of the ODP. These include the Coastal Environment and CLZ, and the district-wide subdivision and transportation. As assessed, the proposed subdivision and residential development activity would generate potential adverse effects that are no more than minor and consistent the environmental outcomes sought for the CLZ.

Chapter 10 - Coastal Environment – Objectives and Policies

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

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

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

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

(c) outstanding landscapes and natural features;

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

(e) water quality and soil conservation (insofar as it is within the jurisdiction of the Council). 10.3.3 To engage effectively with Maori to ensure that their relationship with their culture and traditions and taonga is identified, recognised, and provided for.

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

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

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.

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.

Coastal Living Zone - objectives

10.7.3.1 To provide for the well being of people by enabling low density residential development to locate in coastal areas where any adverse effects on the environment of such development are able to be avoided, remedied or mitigated.

10.7.3.2 To preserve the overall natural character of the coastal environment by providing for an appropriate level of subdivision and development in this zone.

Coastal Living - Policies

10.7.4.1 That the adverse effects of subdivision, use, and development on the coastal environment are avoided, remedied or mitigated.

10.7.4.2 That standards be set to ensure that subdivision, use or development provides adequate infrastructure and services and maintains and enhances amenity values and the quality of the environment.

10.7.4.3 Subdivision, use and development shall preserve and where possible enhance, restore and rehabilitate the character of the zone in regards to s6 matters, and shall avoid adverse effects as far as practicable by using techniques including:

(a) clustering or grouping development within areas where there is the least impact on natural character and its elements such as indigenous vegetation, landforms, rivers, streams and wetlands, and coherent natural patterns;

(b) minimising the visual impact of buildings, development, and associated vegetation clearance and earthworks, particularly as seen from public land and the coastal marine area;

(c) providing for, through siting of buildings and development and design of subdivisions, legal public right of access to and use of the foreshore and any esplanade areas;

(d) through siting of buildings and development, design of subdivisions, and provision of access that recognise and provide for the relationship of Maori with their culture, traditions and taonga including concepts of mauri, tapu, mana, wehi and karakia and the important contribution Maori culture makes to the character of the District (refer Chapter 2, and in particular Section 2.5, and Council's "Tangata Whenua Values and Perspectives (2004)");

(e) providing planting of indigenous vegetation in a way that links existing habitats of indigenous fauna and provides the opportunity for the extension, enhancement or creation of habitats for indigenous fauna, including mechanisms to exclude pests;

(f) protecting historic heritage through the siting of buildings and development and design of subdivisions.

4.32. The application site is within the coastal environment and is zoned Coastal Living. The CLZ is a land use zone that provides for low density, rural-residential type living in a coastal location. The combined land use and subdivision proposal for three additional lots will result in an intensity of residential development that is anticipated in the zone and potential adverse effects on the environment that can be mitigated to a no more than minor extent. This

includes potential effects on natural site features, including wetlands, and on the existing transport environment.

4.33. The site does not contain any significant indigenous vegetation or habitats of indigenous fauna that would be affected by the proposal. The site is not within any outstanding landscapes or contain any outstanding natural features. The proposal would not adversely affect water quality in the area, or soil conservation. The site has no rural production value, nor is it zoned for such purposes.

4.34. The proposal would not adversely affect Māori and their relationship with their culture and traditions.

4.35. The proposed subdivision is consistent with the character of the surrounding environment and the expected environmental outcomes for the Coastal Living zone. Residential buildings will be located to avoid adverse effects on natural character features such as the existing wetlands and the need for vegetation removal or excessive earthworks.

4.36. The application site is not located along the coast or near a lake or river and no public access is existing or required within the site.

4.37. Infrastructure services will be provided on site. The activity will not increase runoff from the site in a manner that would exacerbate erosion or flooding within the immediate area. Stormwater runoff will not be diverted to the extent that it would adversely affect the existing wetlands.

4.38. The activity would not generate adverse effects on the environment or the safety and efficiency of the roading network. There is sufficient capacity within the adjacent Hauparua Lane for the additional household unit. Recent upgrades to the lane to include additional passing bays have improved traffic safety.

Chapter 13 - Subdivision -Objectives and Policies

13.3.1 To provide for the subdivision of land in such a way as will be consistent with the purpose of the various zones in the Plan and will promote the sustainable management of the natural and physical resources of the District, including airports and roads and the social, economic and cultural well being of people and communities.

13.3.2 To ensure that subdivision of land is appropriate and is carried out in a manner that does not compromise the life-supporting capacity of air, water, soil or ecosystems, and that any actual or potential adverse effects on the environment which result directly from subdivision, including reverse sensitivity effects and the creation or acceleration of natural hazards, are avoided, remedied or mitigated.

13.3.3 To ensure that the subdivision of land does not jeopardise the protection of outstanding landscapes or natural features in the coastal environment.

13.3.4 To ensure that subdivision does not adversely affect scheduled heritage resources through alienation of the resource from its immediate setting/context.

13.3.5 To ensure that all new subdivisions provide a reticulated water supply and/or on-site water storage and include storm water management sufficient to meet the needs of the activities that will establish all year round.

13.3.6 To encourage innovative development and integrated management of effects between subdivision and land use which results in superior outcomes to more traditional forms of subdivision, use and development, for example the protection, enhancement and restoration of areas and features which have particular value or may have been compromised by past land management practices.

13.3.7 To ensure the relationship between Maori and their ancestral lands, water, sites, wahi tapu and other taonga is recognised and provided for.

13.3.8 To ensure that all new subdivision provides an electricity supply sufficient to meet the needs of the activities that will establish on the new lots created.

13.3.9 To ensure, to the greatest extent possible, that all new subdivision supports energy efficient design through appropriate site layout and orientation in order to maximise the ability to provide light, heating, ventilation and cooling through passive design strategies for any buildings developed on the site(s).

13.3.10 To ensure that the design of all new subdivision promotes efficient provision of infrastructure, including access to alternative transport options, communications and local services.

13.3.11 To ensure that the operation, maintenance, development and upgrading of the existing National Grid is not compromised by incompatible subdivision and land use activities.

13.4.1 That the sizes, dimensions and distribution of allotments created through the subdivision process be determined with regard to the potential effects including cumulative effects, of the use of those allotments on:

(a) natural character, particularly of the coastal environment;
(b) ecological values;
(c) landscape values;
(d) amenity values;
(e) cultural values;
(f) heritage values; and

(g) existing land uses.

13.4.2 That standards be imposed upon the subdivision of land to require safe and effective vehicular and pedestrian access to new properties.

13.4.3 That natural and other hazards be taken into account in the design and location of any subdivision.

13.4.4 That in any subdivision where provision is made for connection to utility services, the potential adverse visual impacts of these services are avoided.

13.4.5 That access to, and servicing of, the new allotments be provided for in such a way as will avoid, remedy or mitigate any adverse effects on neighbouring property, public roads (including State Highways), and the natural and physical resources of the site caused by silt runoff, traffic, excavation and filling and removal of vegetation.

13.4.6 That any subdivision proposal provides for the protection, restoration and enhancement of heritage resources, areas of significant indigenous vegetation and significant habitats of indigenous fauna, threatened species, the natural character of the coastal environment and riparian margins, and outstanding landscapes and natural features where appropriate.

13.4.7 That the need for a financial contribution be considered only where the subdivision would:

(a) result in increased demands on car parking associated with non-residential activities; or
(b) result in increased demand for esplanade areas; or
(c) involve adverse effects on riparian areas; or
(d) depend on the assimilative capacity of the environment external to the site.

13.4.8 That the provision of water storage be taken into account in the design of any subdivision.

13.4.9 That bonus development donor and recipient areas be provided for so as to minimise the adverse effects of subdivision on Outstanding Landscapes and areas of significant indigenous flora and significant habitats of fauna.

13.4.10 The Council will recognise that subdivision within the Conservation Zone that results in a net conservation gain is generally appropriate.

13.4.11 That subdivision 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 shall take into account the principles of the Treaty of Waitangi.

13.4.12 That more intensive, innovative development and subdivision which recognises specific site characteristics is provided for through the management plan rule where this will result in superior environmental outcomes.

13.4.13 Subdivision, use and development shall preserve and where possible enhance, restore and rehabilitate the character of the applicable zone in regards to s6 matters. In addition subdivision, use and development shall avoid adverse effects as far as practicable by using techniques including:

(a) clustering or grouping development within areas where there is the least impact on natural character and its elements such as indigenous vegetation, landforms, rivers, streams and wetlands, and coherent natural patterns;
(b) minimising the visual impact of buildings, development, and associated vegetation clearance and earthworks, particularly as seen from public land and the coastal marine area;
(c) providing for, through siting of buildings and development and design of subdivisions, legal public right of access to and use of the foreshore and any esplanade areas;
(d) through siting of buildings and development, design of subdivisions, and provision of access that recognise and provide for the relationship of Maori with their culture, traditions and taonga including concepts of mauri, tapu, mana, wehi and karakia and the important contribution Maori culture makes to the character of the District (refer Chapter 2 and in particular Section 2.5 and Council's "Tangata Whenua Values and Perspectives" (2004);
(e) providing planting of indigenous vegetation in a way that links existing habitats of indigenous fauna and provides the opportunity for the extension, enhancement or creation of habitats for indigenous fauna, including mechanisms to exclude pests;
(f) protecting historic heritage through the siting of buildings and development and design of subdivisions.
(g) achieving hydraulic neutrality and ensuring that natural hazards will not be exacerbated or induced through the siting and design of buildings and development.

13.4.14 That the objectives and policies of the applicable environment and zone and relevant parts of Part 3 of the Plan will be taken into account when considering the intensity, design and layout of any subdivision.

13.4.15 That conditions be imposed upon the design of subdivision of land to require that the layout and orientation of all new lots and building platforms created include, as appropriate, provisions for achieving the following:

(a) development of energy efficient buildings and structures;
(b) reduced travel distances and private car usage;
(c) encouragement of pedestrian and cycle use;
(d) access to alternative transport facilities;
(e) domestic or community renewable electricity generation and renewable energy use.

13.4.16 When considering proposals for subdivision and development within an existing National Grid Corridor the following will be taken into account:

(a) the extent to which the proposal may restrict or inhibit the operation, access, maintenance, upgrading of transmission lines or support structures;
(b) any potential cumulative effects that may restrict the operation, access, maintenance, upgrade of transmission lines or support structures; and
(c) whether the proposal involves the establishment or intensification of a sensitive activity in the vicinity of an existing National Grid line.

4.39. The proposed subdivision would establish four residential lots from the parent title. The size and layout of lots is a restricted discretionary activity in the zone, where there is a minimum lot size of 8,000m^2. All other subdivision provisions are complied with. The Discretionary aspect of the proposal results from the number of households having access from the Hauparua Lane. Vehicle access to the site and the capacity of the laneway to accommodate additional vehicles has been assessed by a qualified traffic engineer. No upgrading of the laneway is required to mitigate traffic effects generated by development of the proposed lots.

4.40. The proposed subdivision will result in a development pattern that is consistent with the rural-residential character of the surrounding area and the environmental outcomes anticipated in the CLZ. The subdivision will not affect the life-supporting capacity of soils, water or ecosystems, in particular the adjacent wetlands. There are no outstanding natural features or landscapes that would be impacted. The subdivision will not impact Māori relationship with the land or affect cultural values.

4.41. The subdivision will provide for on-site infrastructure including water supply and wastewater disposal.

Chapter 15 – Transportation Objectives and Policies

15.1.3.1 To minimise the adverse effects of traffic on the natural and physical environment.

15.1.3.2 To provide sufficient parking spaces to meet seasonal demand in tourist destinations.

15.1.3.3 To ensure that appropriate provision is made for on-site car parking for all activities, while considering safe cycling and pedestrian access and use of the site.

15.1.3.4 To ensure that appropriate and efficient provision is made for loading and access for activities.

15.1.3.5 To promote safe and efficient movement and circulation of vehicular, cycle and pedestrian traffic, including for those with disabilities.

15.1.4.1 That the traffic effects of activities be evaluated in making decisions on resource consent applications.

15.1.4.2 That the need to protect features of the natural and built environment be recognised in the provision of parking spaces.

15.1.4.3 That parking spaces be provided at a location and scale which enables the efficient use of parking spaces and handling of traffic generation by the adjacent roading network.

15.1.4.4 That existing parking spaces are retained or replaced with equal or better capacity where appropriate, so as to ensure the orderly movement and control of traffic.

15.1.4.5 That appropriate loading spaces be provided for commercial and industrial activities to assist with the pick-up and delivery of goods.

15.1.4.6 That the number, size, gradient and placement of vehicle access points be regulated to assist traffic safety and control, taking into consideration the requirements of both the New Zealand Transport Agency and the Far North District Council.

15.1.4.7 That the needs and effects of cycle and pedestrian traffic be taken into account in assessing development proposals.

15.1.4.8 That alternative options be considered to meeting parking requirements where this is deemed appropriate by the Far North District Council.

4.42. The proposed use of the adjacent Hauparua Lane is a Discretionary Activity because of the number of dwellings that have access via the laneway is 25. Vehicle access onto private laneways is limited due to the maintenance requirements and standards required for safe movement of traffic. Hauparua Lane is a sufficiently wide and well-maintained laneway that includes required passing bays for safe movement of vehicles. Vehicle speed is limited to 25km/hr. The laneway is maintained by the ROW owners and users under a Body Corporate type arrangement. The owners of the additional lots will be obligated to contribute to the cost of maintaining the laneway. Potentially affected ROW owners have provided their written approval to the proposed subdivision. (Refer **Appendix 11**).

4.43. The proposed subdivision and associated residential development is generally consistent with the Coastal Living Zone environmental outcomes in terms of the intensity and location of residential buildings and potential effects on the natural environment. Access to sites via Hauparua Lane and the additional vehicle usage of the laneway has been assessed to have sufficient capacity and width to provide safe passage for the additional traffic. Overall, it is considered that the proposed subdivision and associated residential land use would not be contrary to the objectives and policies of the ODP.

Proposed District Plan (PDP)

4.44. The proposed zoning of the site under the PDP is 'Rural Lifestyle'. The Rural Lifestyle zone is a lower density equivalent to the Coastal Living zone. References to the coastal environment have been removed unless sites are within the coastal environment overlay, which is an alternative proposed method for managing effects on coastal values.

4.45. The proposed subdivision and associated residential land use development are not subject to any proposed rules that have current legal effect, other than earthworks. However, for completeness and because the application is a Discretionary Activity overall, the proposal is assessed against the RLZ objectives and policies and commented on in the paragraphs below.

Rural Lifestyle Zone Objectives and Policies

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-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:
i. any setbacks, fencing, screening or landscaping required to address potential conflicts;
ii. the extent to which adverse effects on adjoining or surrounding sites are mitigated and internalised within the site as far as practicable;
d. the capacity of the site to cater for on-site infrastructure associated with the proposed activity;
e. the adequacy of roading infrastructure to service the proposed activity;
f. managing natural hazards;
g. any adverse effects on historic heritage and cultural values, natural features and landscapes or indigenous biodiversity; and
h. any historical, spiritual, or cultural association held by tangata whenua, with regard to the matters set out in Policy TW-P6.

4.46. The proposed subdivision and residential development would be consistent with the purpose of the RLZ which is low density residential activity. The site is not rural productive land so small-scale farming is unlikely, however the site would maintain its extensive network of wetlands and vegetation consistent with Policy RLZ-P4. The size and layout of the subdivision would be consistent with the scale and character of the surrounding rural lifestyle environment. The development would not adversely affect any historic, spiritual or cultural values held by Tangata Whenua (Ngati Rehia). Necessary infrastructure services can be

established on-site. Overall, it is considered that the proposal will not be contrary to the Rural Lifestyle zone policies.

5. NOTIFICATION ASSESSMENT – SECTIONS 95A TO 95G OF THE RMA

5.1. Public and limited notification of applications is determined in accordance with Sections 95A – 95G of the RMA. There are no listed mandatory reasons or special circumstances pertaining to this application that would require public notification. As assessed, potential adverse effects on the environment will be no more than minor, therefore public notification is also not warranted under Section 95(A)(8)(b) and Section 95D.

5.2. The extent to which adjacent landowners are affected is the basis for limited notification under Section 95B and 95E. There are no customary rights or customary marine title groups that are affected. For this application, it is matters relating to the use of the existing Hauparua Lane access that have the potential to affect adjacent landowners. The Haigh Workman traffic assessment concluded that the laneway is currently well maintained and has sufficient capacity to accommodate the additional 3 lots that would be created by the subdivision. Adjacent users of the ROW that may considered to be affected by the additional lots include 12 and 57 Hauparua Lane as easements will be required over these properties. Written approval from these landowners has been obtained (refer **Appendix 11)**. Potential adverse effects on these landowners can be disregarded.

5.3. Given the minor nature of the potential adverse effects generated by the proposal, in particular the circumstances associated with use of the ROW lane, it is considered that the application should be processed on a non-notified basis.

6. CONCLUSION

6.1. The Applicant Nasturtium Trust is seeking resource consent to subdivide and develop for residential purposes a 7-hectare lot at 44 Hauparua Lane, Kerikeri. The subdivision would create three additional lots from the parent lot title Lot 2 DP 410617. The location of four residential buildings is proposed concurrent with the subdivision approval process thereby triggering a temporary breach to the Coastal Living residential intensity rule. Further land use breaches to stormwater management, impermeable surface setback to a wetland and the number of household units which use a ROW also require resource consent.

6.2. The assessment of effects on the environment concludes that any potential adverse effects will be no more than minor. The proposed rural-residential type subdivision is consistent with the character of the surrounding area and the purpose of both the operative Coastal Living and proposed Rural Lifestyle zones. The existing Hauparua Lane has sufficient capacity to accommodate additional vehicles, and no further upgrading is recommended or required. Written approval from potentially affected ROW owners and neighbours is provided.

6.3. The proposal would not be contrary to the objectives and policies of the ODP or PDP.

7. LIMITATIONS

7.1. 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.

7.2. 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.

7.3. 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.

7.4. Although this report may be submitted to a local authority in connection with an application for a consent, permission, approval, or pursuant to any other requirement of law, this disclaimer shall still apply and require all other parties to use due diligence where necessary.

RECORD OF TITLE
UNDER LAND TRANSFER ACT 2017
FREEHOLD

Search Copy

R.W. Muir
Registrar-General
of Land

Identifier **439636**
Land Registration District **North Auckland**
Date Issued 01 February 2012

Prior References
111523

Estate Fee Simple
Area 7.0301 hectares more or less
Legal Description Lot 2 Deposited Plan 410617
Registered Owners
Nikolas Tyler Kim Morrison, Jennifer Joanna Bland and Adam Mervyn Simperingham

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Interests

Appurtenant hereto is a right of way specified in Easement Certificate 172788.1 - 17.12.1974 at 1.58 pm

Subject to a right of way over part marked E on DP 410617 specified in Easement Certificate 172788.1 - 17.12.1974 at 1.58 pm

5609230.3 Encumbrance to Glenda Rae Neil and John Arthur Neil - 4.6.2003 at 9:00 am (affects part formerly Lot 9 DP 59491)

8965260.2 Surrender of the right of way marked I and J on DP 410617 specified in Easement Certificate 8965260.2 - 1.2.2012 at 1:48 pm

8965260.3 Consent Notice pursuant to Section 221 Resource Management Act 1991 - 1.2.2012 at 1:48 pm

Subject to a right of way and right to drain stormwater over parts marked D and E on DP 410617 created by Easement Instrument 8965260.5 - 1.2.2012 at 1:48 pm

Appurtenant hereto is a right of way and right to drain stormwater created by Easement Instrument 8965260.5 - 1.2.2012 at 1:48 pm

Some of the easements created by Easement Instrument 8965260.5 are subject to Section 243 (a) Resource Management Act 1991

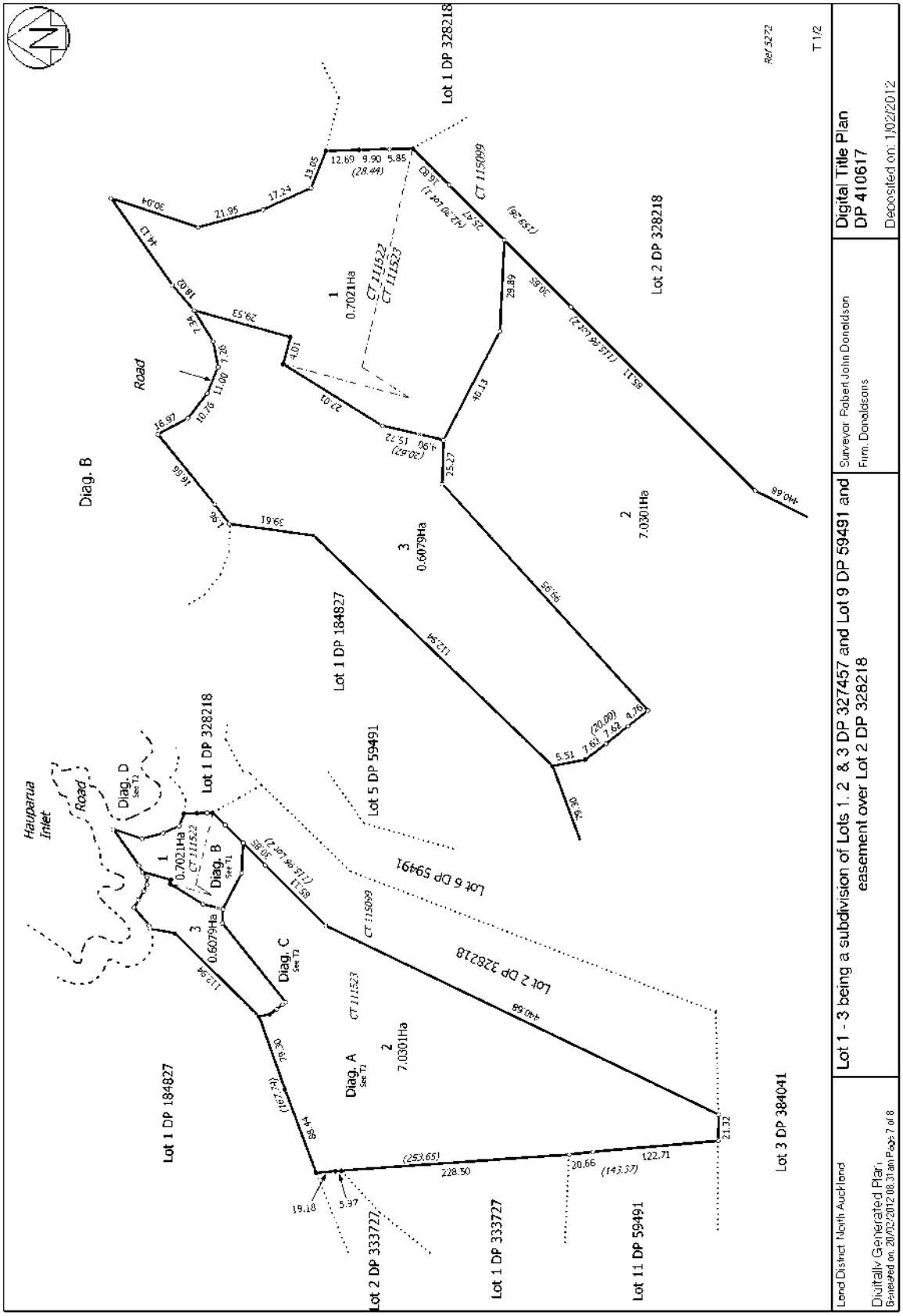
Subject to a right (in gross) to transmit electricity over parts marked D and E on DP 410617 in favour of Top Energy Limited created by Easement Instrument 8965260.6 - 1.2.2012 at 1:48 pm

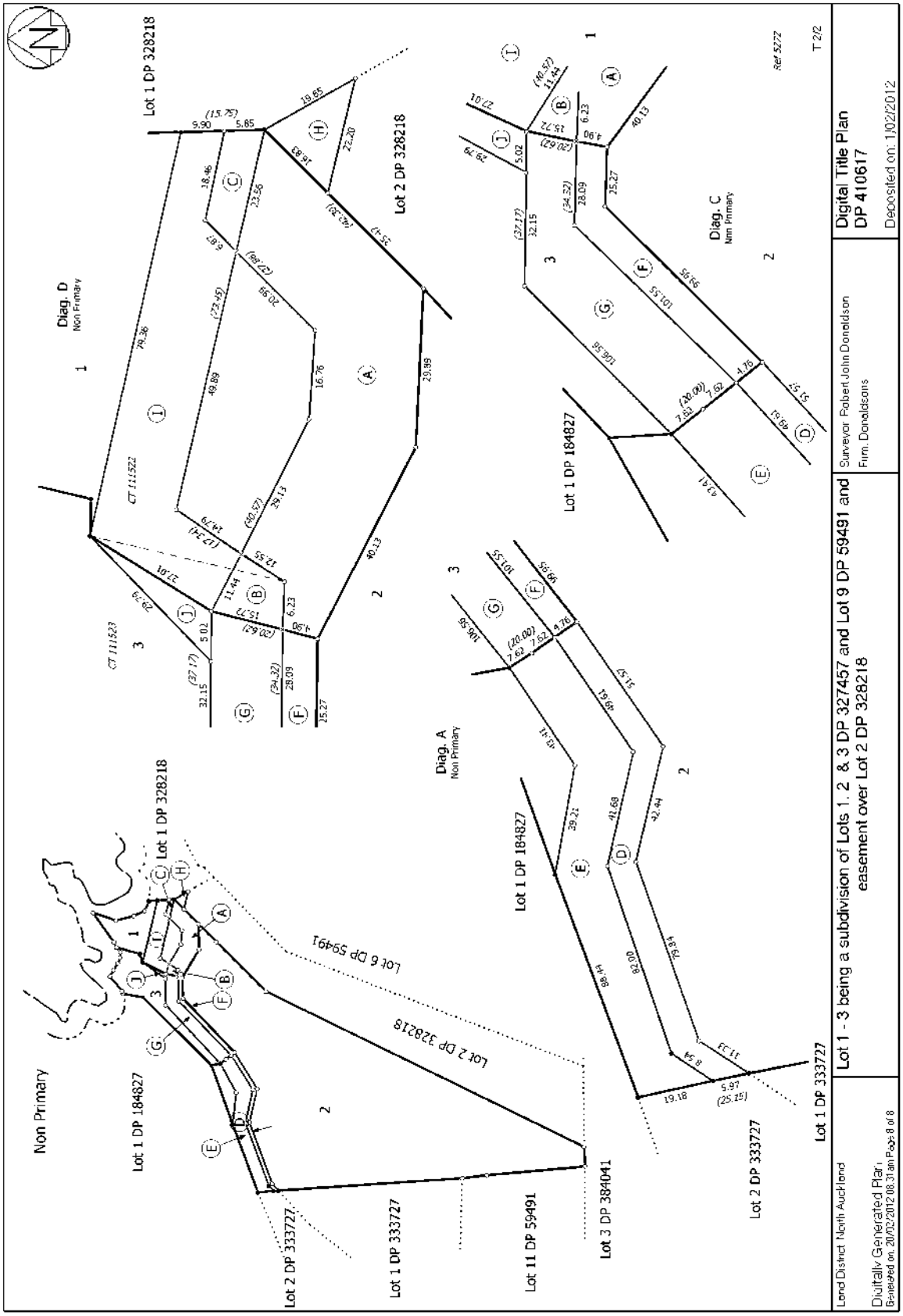
The easements created by Easement Instrument 8965260.6 are subject to Section 243 (a) Resource Management Act 1991

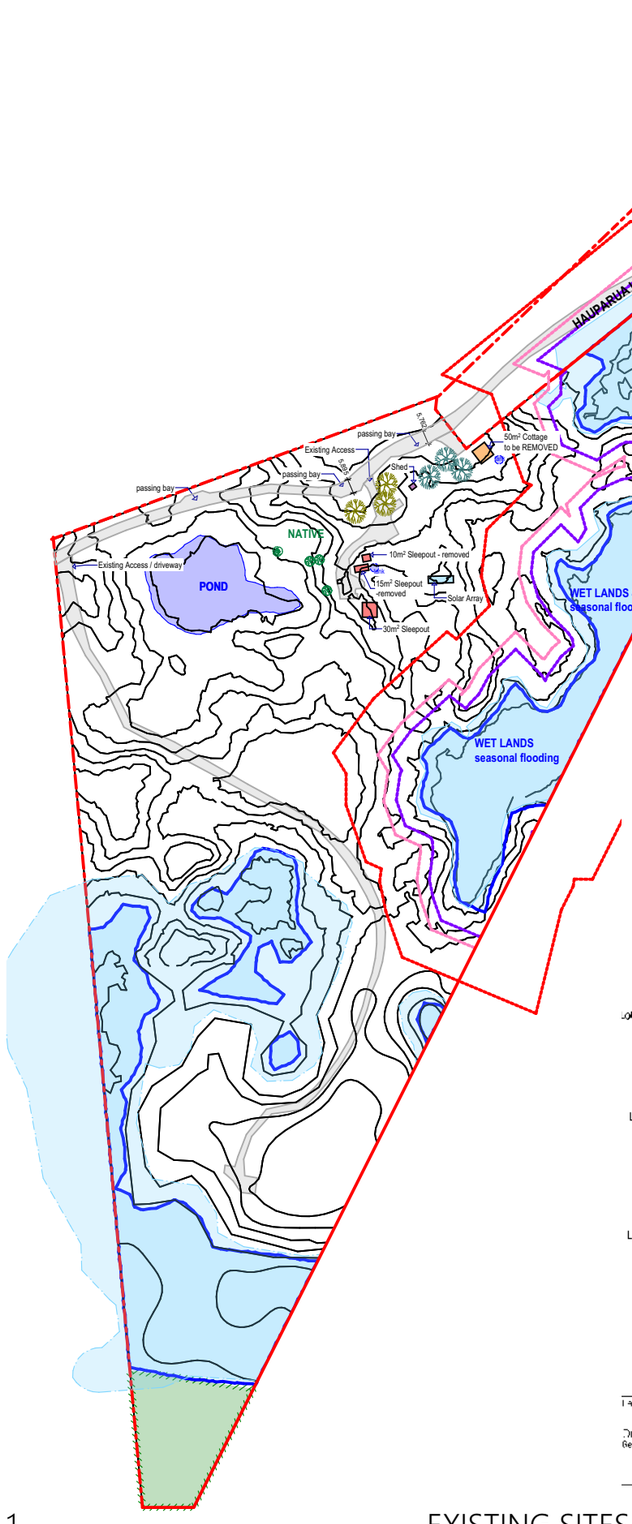
Subject to a right (in gross) to transmit telecommunications and computer media over parts marked D and E on DP 410617 in favour of Telecom New Zealand Limited created by Easement Instrument 8965260.7 - 1.2.2012 at 1:48 pm

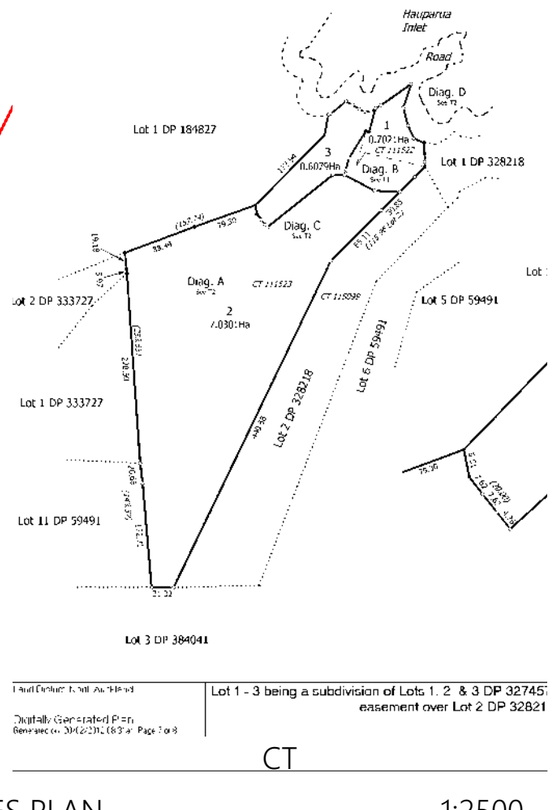
The easements created by Easement Instrument 8965260.7 are subject to Section 243 (a) Resource Management Act 1991

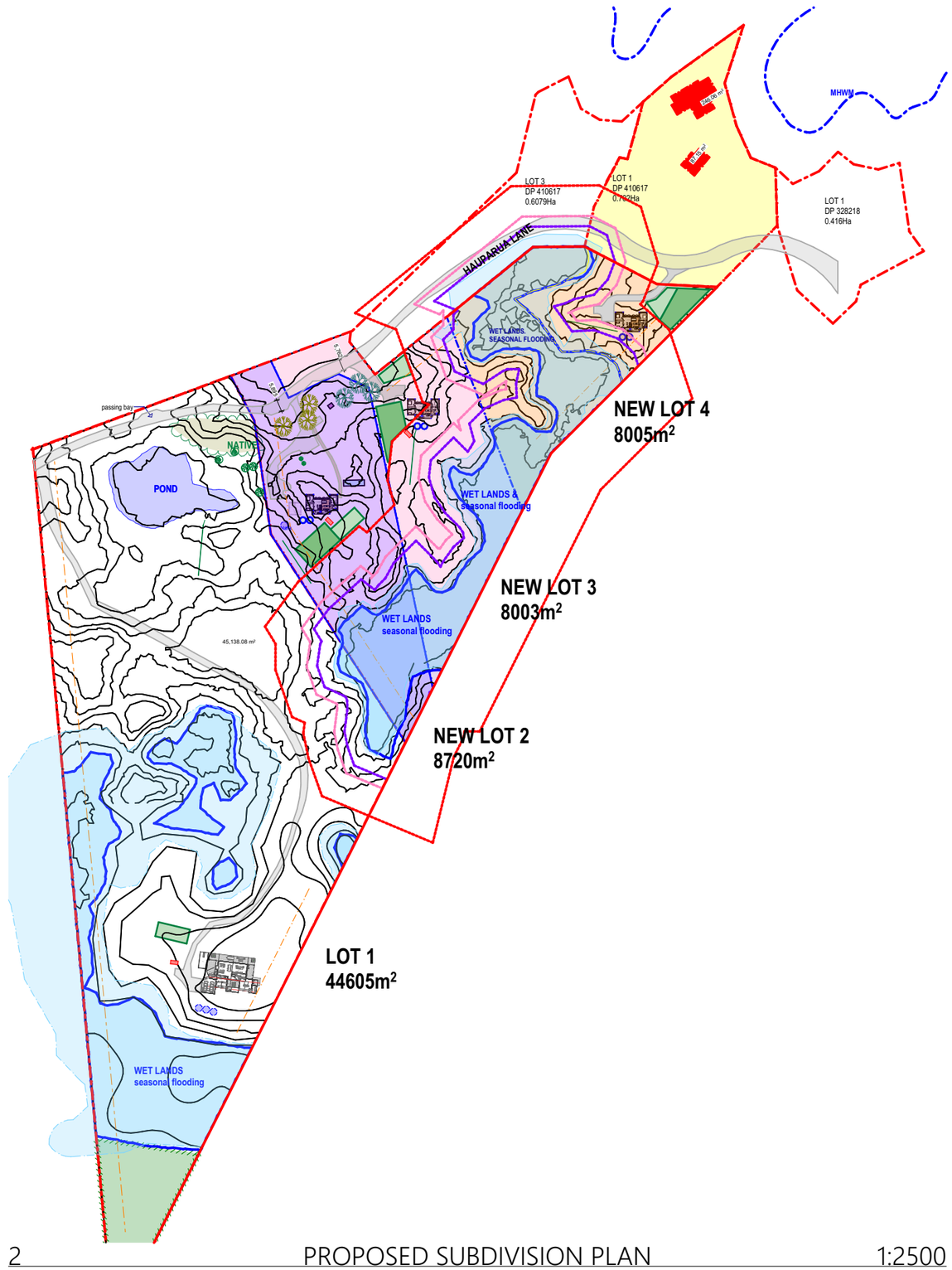
13201936.3 Mortgage to ASB Bank Limited - 17.1.2025 at 3:49 pm


Lot 1 - 3 being a subdivision of Lots 1, 2 & 3 DP 327457 and Lot 9 DP 59491 and easement over Lot 2 DP 328218
Digital Title Plan DP 410617
Deposited on: 1/02/2012
Land District North Auckland
Digitally Generated Plan
Surveyor Robert John Donaldson
Firm. Donaldsons
Lot 1 DP 328218
Lot 2 DP 328218
Lot 1 DP 184827
Lot 5 DP 59491
Lot 6 DP 59491
Lot 2 DP 328218
Lot 3 DP 384041
Lot 2 DP 333727
Lot 1 DP 333727
Lot 11 DP 59491
Road
Diag. A
Diag. B
Diag. C
Diag. D
CT 111522
CT 111523
CT 115099
0.7021Ha
0.6079Ha
7.0301Ha


Lot 1 - 3 being a subdivision of Lots 1, 2 & 3 DP 327457 and Lot 9 DP 59491 and easement over Lot 2 DP 328218
Digital Title Plan DP 410617
Deposited on: 1/02/2012
Land District North Auckland
Surveyor Robert John Donaldson
Firm. Donaldsons
Diagram Generated on 20/02/2012 08:31am Page 8 of 8
Lot 1 DP 328218
Lot 2 DP 328218
Lot 1 DP 184827
Lot 1 DP 333727
Lot 2 DP 333727
Lot 11 DP 59491
Lot 3 DP 384041
Lot 6 DP 59491
Diag. D
Diag. A
Diag. C
Non Primary
CT 111522
CT 111523
Ref 5272
T 2/2



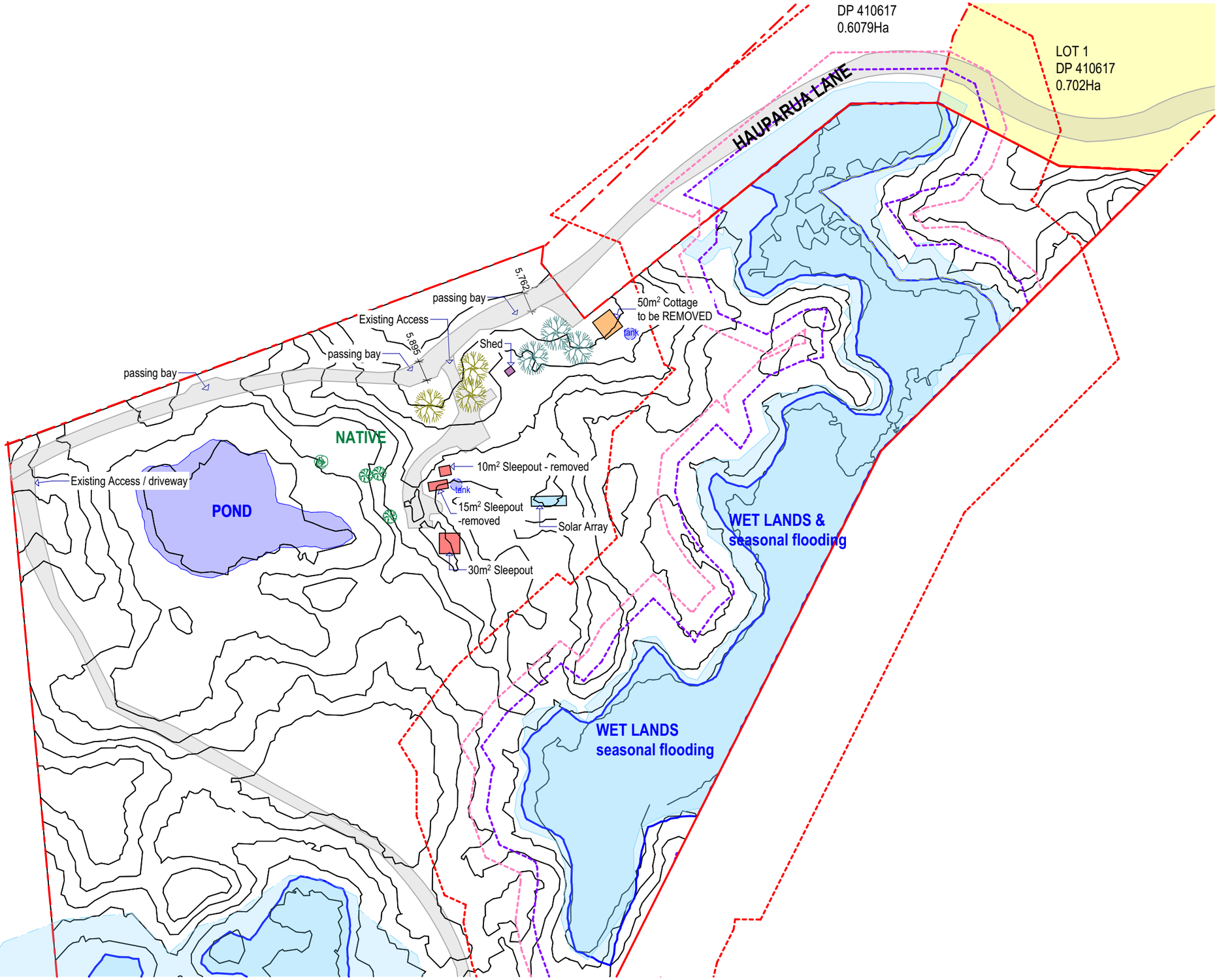




1 EXISTING SITES PLAN 1:2500

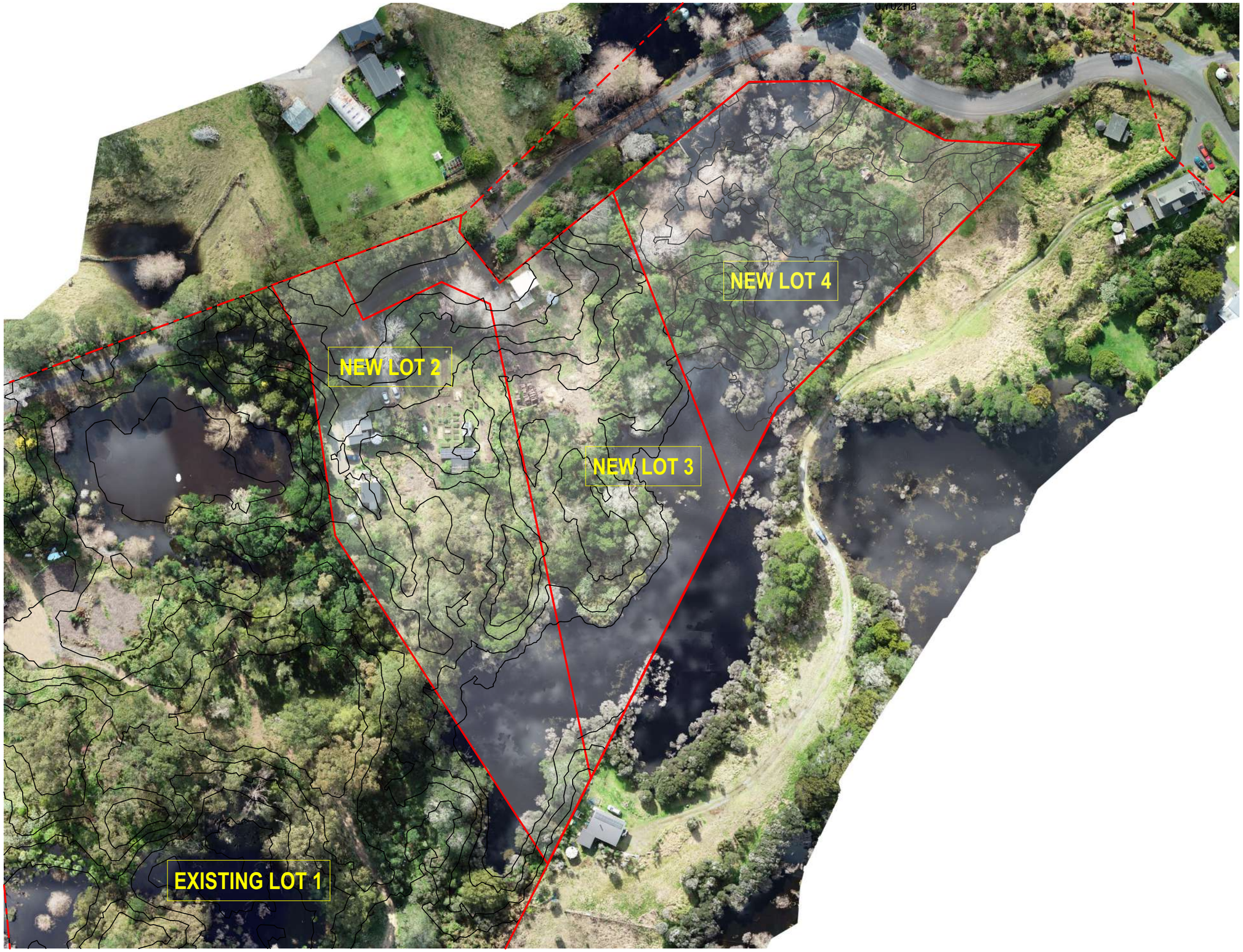
2 PROPOSED SUBDIVISION PLAN 1:2500

PROJECT No. 44HAU		MORRISON DESIGN 44 Huaparua Lane KERIKERI	PROJECT NAME + ADDRESS COMBINED SUBDIVISION 44 HAUPARUA LANE KERIKERI RD3	SHEET TITLE EXISTING + PROPOSED SITE PLANS	STATUS LUC	DESIGN: -- DRAWN: -- CHECKED: -- APPROVED: --	SCALE: Shown@A3 PRINT DATE: 14/05/2025	SHEET NUMBER 1.1	REVISION -

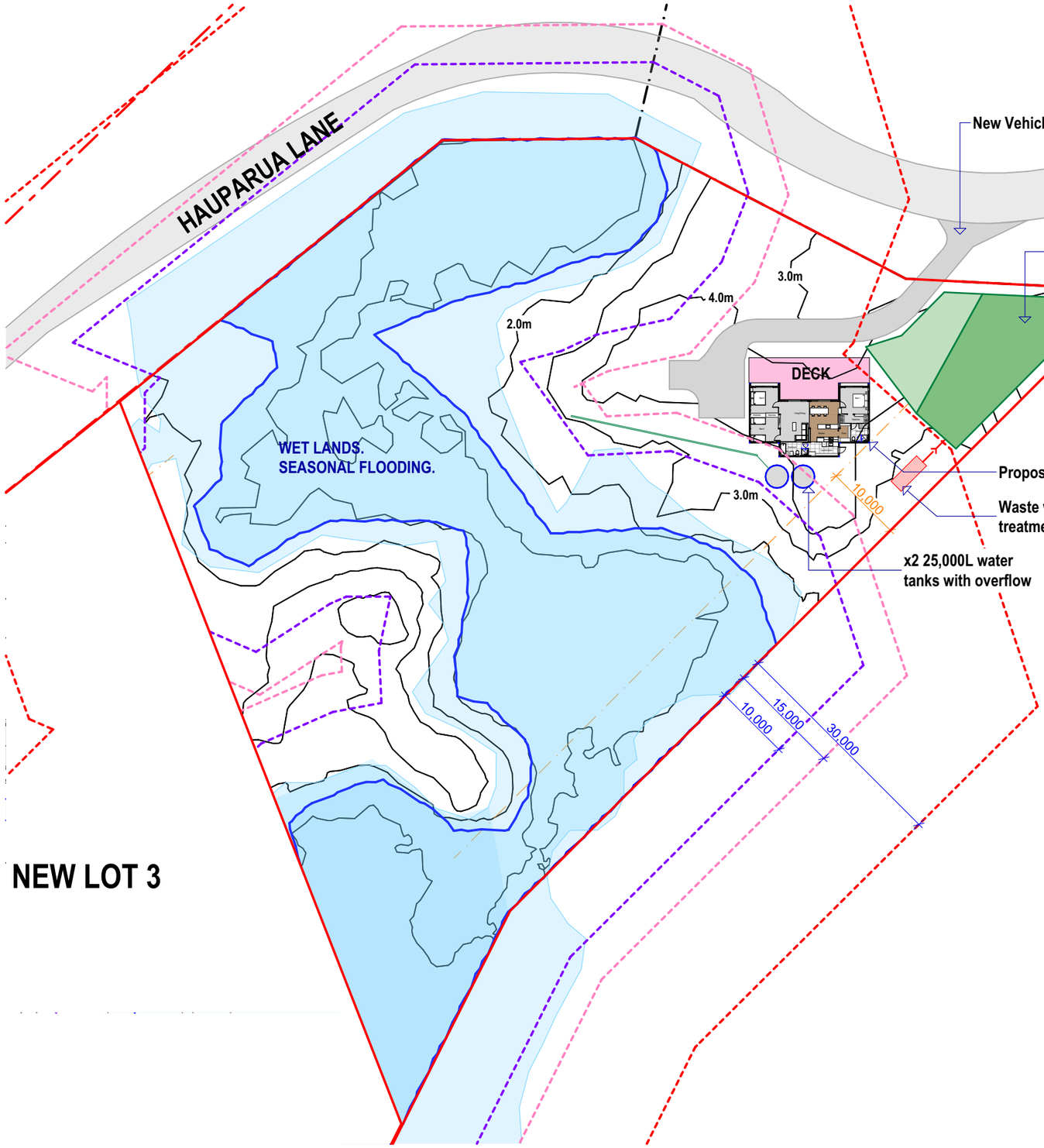


1 EXISTING PART SITES PLAN 1:1170

PROJECT No. 44HAU		MORRISON DESIGN 44 Huaparua Lane KERIKERI	PROJECT NAME + ADDRESS COMBINED SUBDIVISION 44 HAUPARUA LANE KERIKERI RD3	SHEET TITLE EXISTING PART SITE PLAN	STATUS LUC	DESIGN: -- DRAWN: -- CHECKED: -- APPROVED: --	SCALE: Shown@A3 PRINT DATE: 14/05/2025	SHEET NUMBER 1.2	REVISION 02



PROJECT No. 44HAU		MORRISON DESIGN 44 Huaparua Lane KERIKERI	PROJECT NAME + ADDRESS COMBINED SUBDIVISION 44 HAUPARUA LANE KERIKERI RD3	SHEET TITLE PROPOSED sites with Aerial underlay	STATUS LUC	DESIGN: -- DRAWN: -- CHECKED: -- APPROVED: --	SCALE: Shown@A3 PRINT DATE: 14/05/2025	SHEET NUMBER 1.3	REVISION 02



PROPOSED LOT 4 :

- 8,005.16m²
- New Main Dwelling with Waste water treatment + Storm Water Disposal.
- New Vehicle Access way & Driveway

KEY :

= Extent of Winter Flooding

= Surveyed Wet Lands (Cato Bolam, NRC RC)

= 10.0m offset to Wet Lands

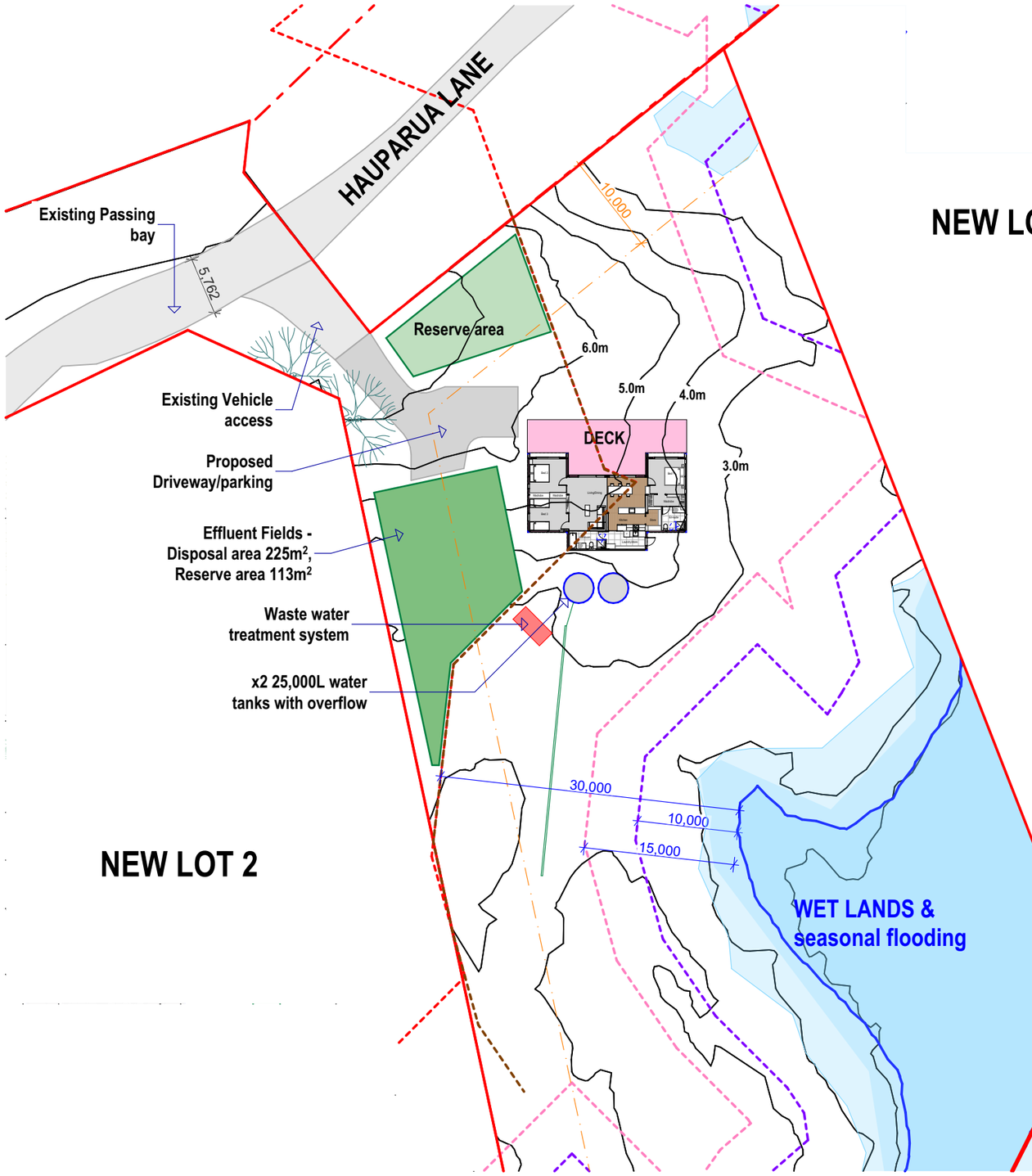
= 15.0m offset to Wet Lands

= 30.0m offset to Wet Lands

= Proposed Vehicle Entrance/ Driveway

1 NEW LOT 4 1:625

PROJECT No. 44HAU		MORRISON DESIGN 44 Huaparua Lane KERIKERI	PROJECT NAME + ADDRESS COMBINED SUBDIVISION 44 HAUPARUA LANE KERIKERI RD3	SHEET TITLE NEW LOT 4	STATUS LUC	DESIGN: -- DRAWN: -- CHECKED: -- APPROVED: --	SCALE: Shown@A3 PRINT DATE: 14/05/2025	SHEET NUMBER 1.4	REVISION 02



PROPOSED LOT 3 :

- 8,003.16m²
- New Main Dwelling with Waste water treatment + Storm Water Disposal.
- New Vehicle Access way & Driveway

KEY :

= Extent of Winter Flooding

= Surveyed Wet Lands (Cato Bolam, NRC RC)

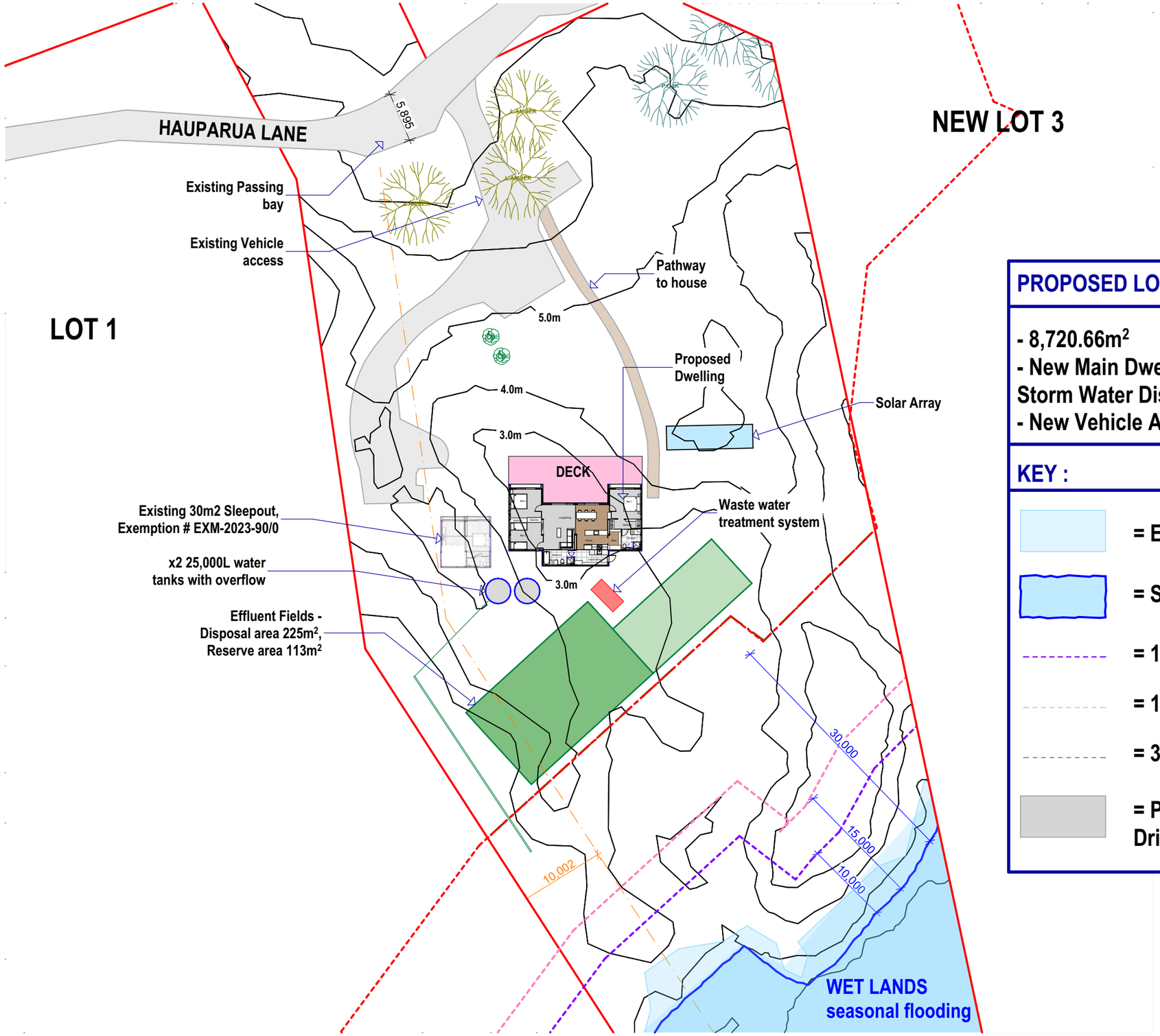
= 10.0m offset to Wet Lands

= 15.0m offset to Wet Lands

= 30.0m offset to Wet Lands

= Proposed Vehicle Entrance/ Driveway

PROJECT No. 44HAU		MORRISON DESIGN 44 Huaparua Lane KERIKERI	PROJECT NAME + ADDRESS COMBINED SUBDIVISION 44 HAUPARUA LANE KERIKERI RD3	SHEET TITLE NEW LOT 3	STATUS LUC	DESIGN: -- DRAWN: -- CHECKED: -- APPROVED: --	SCALE: Shown@A3 PRINT DATE: 14/05/2025	SHEET NUMBER 1.5	REVISION 02



PROPOSED LOT 2 :

- 8,720.66m²
- New Main Dwelling with Waste water treatment + Storm Water Disposal.
- New Vehicle Access way & Driveway

KEY :

= Extent of Winter Flooding

= Surveyed Wet Lands (Cato Bolam, NRC RC)

= 10.0m offset to Wet Lands

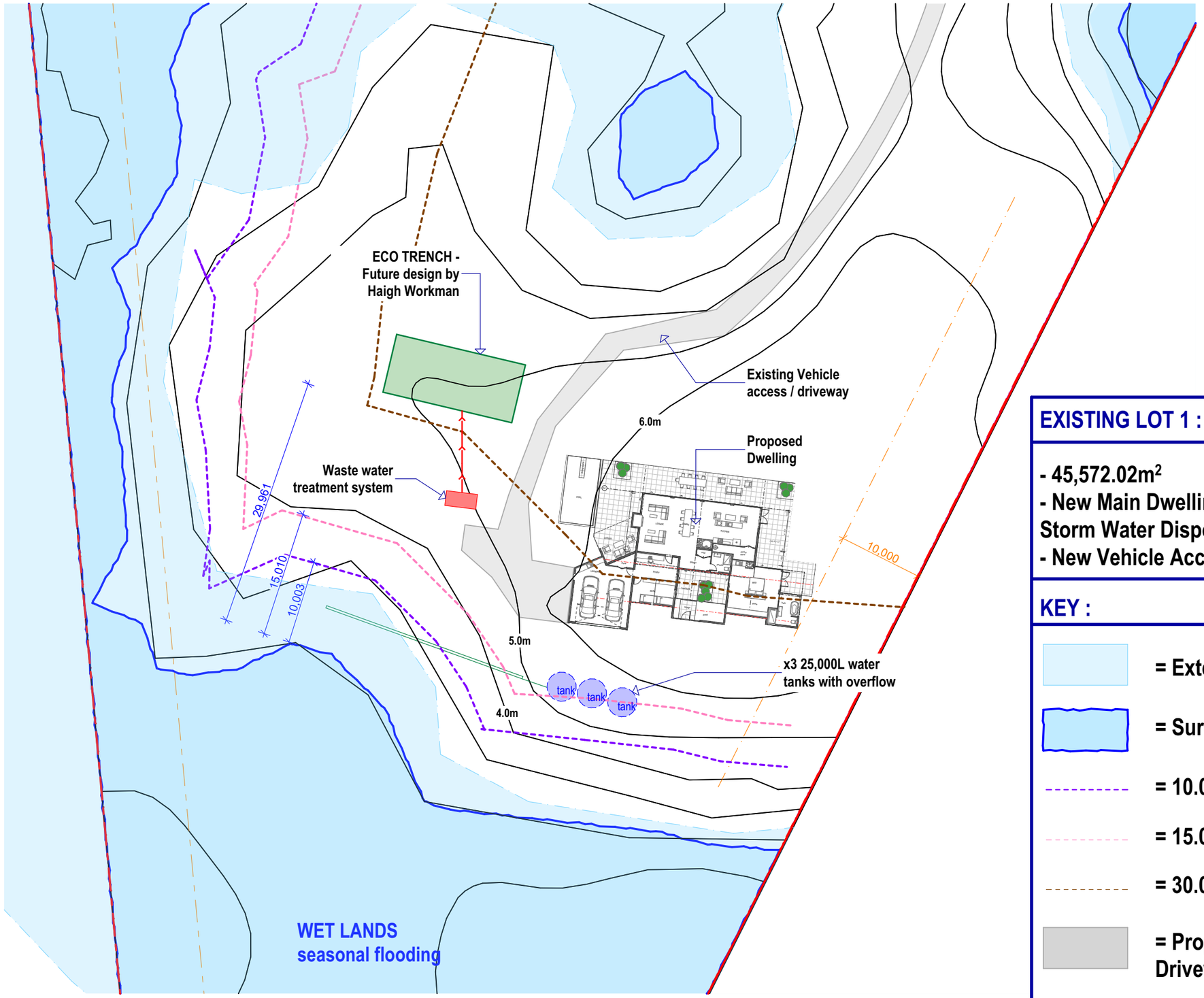
= 15.0m offset to Wet Lands

= 30.0m offset to Wet Lands

= Proposed Vehicle Entrance/ Driveway

1 NEW LOT 2 1:500

PROJECT No. 44HAU		MORRISON DESIGN 44 Huaparua Lane KERIKERI	PROJECT NAME + ADDRESS COMBINED SUBDIVISION 44 HAUPARUA LANE KERIKERI RD3	SHEET TITLE NEW LOT 2	STATUS LUC	DESIGN: -- DRAWN: -- CHECKED: -- APPROVED: --	SCALE: Shown@A3 PRINT DATE: 14/05/2025	SHEET NUMBER 1.6	REVISION 02



LOT 1

EXISTING LOT 1 :

- 45,572.02m^2
- New Main Dwelling with Waste water treatment + Storm Water Disposal.
- New Vehicle Access way & Driveway

KEY :

= Extent of Winter Flooding

= Surveyed Wet Lands (Cato Bolam, NRC RC)

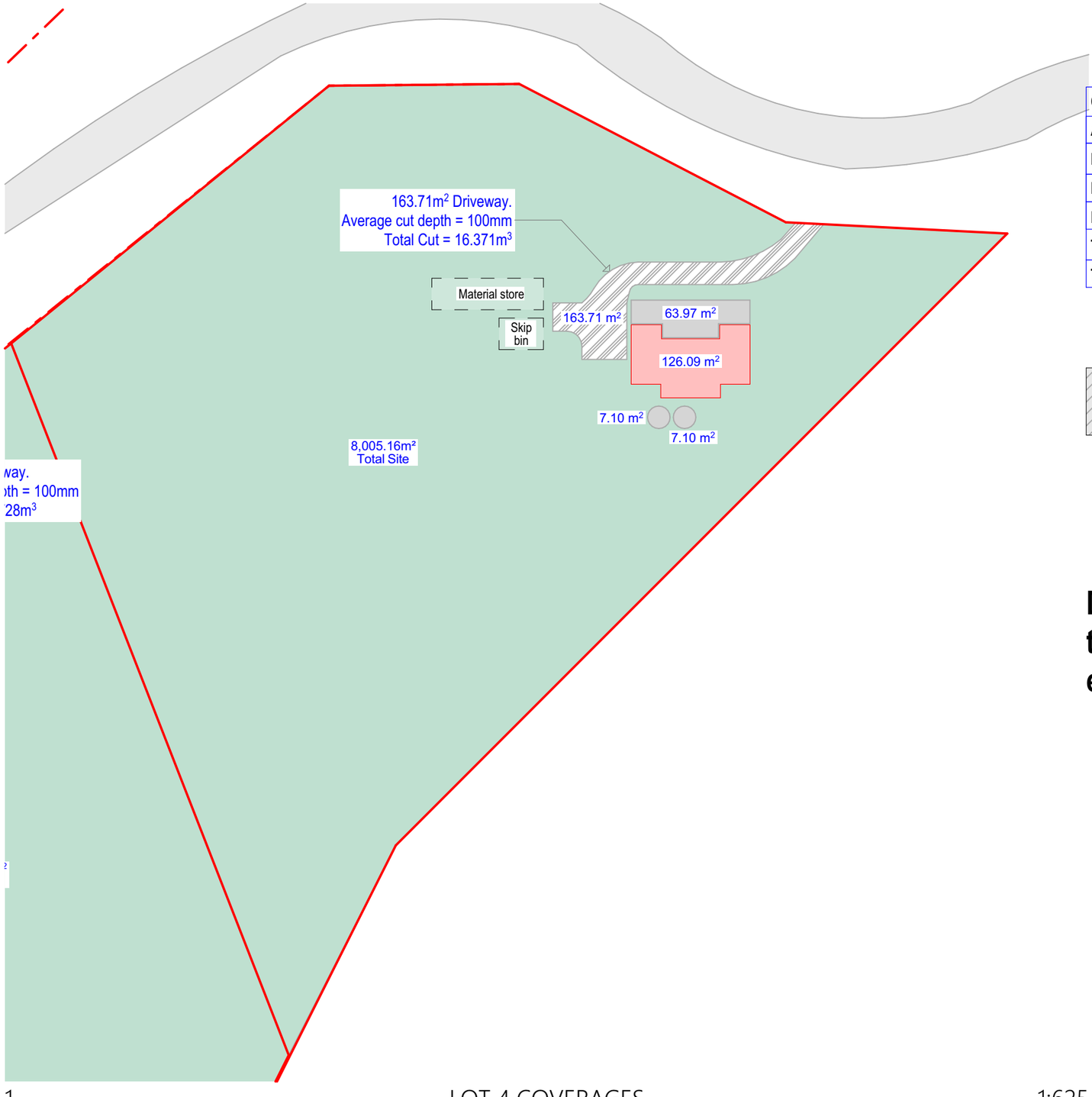
= 10.0m offset to Wet Lands

= 15.0m offset to Wet Lands

= 30.0m offset to Wet Lands

= Proposed Vehicle Entrance/ Driveway

PROJECT No. 44HAU		MORRISON DESIGN 44 Huaparua Lane KERIKERI	PROJECT NAME + ADDRESS COMBINED SUBDIVISION 44 HAUPARUA LANE KERIKERI RD3	SHEET TITLE LOT 1	STATUS LUC	DESIGN: -- DRAWN: -- CHECKED: -- APPROVED: --	SCALE: Shown@A3 PRINT DATE: 14/05/2025	SHEET NUMBER 1.7	REVISION 02



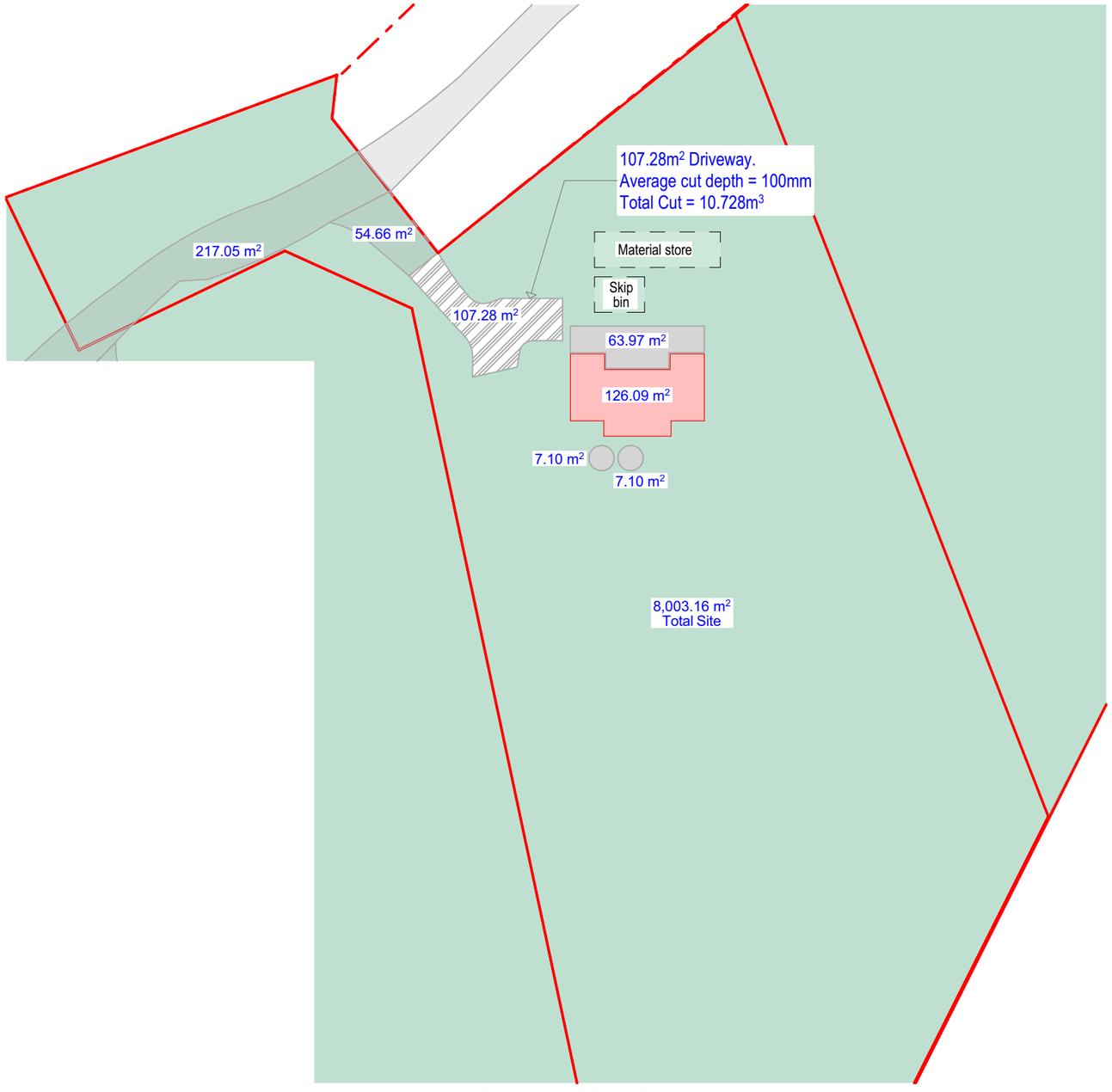
COVERAGES | CLZ			
AREA	**EXISTING**	**PROPOSED**	**%**
PAVED	0.00m²	241.88m²	3.02%
BUILDING	0.00m²	126.09m²	1.57%
LADSCAPE	8,005.16m²	7,637.19m²	95.4%
TOTAL IMPERVIOUS	0.00m²	367.97m²	4.6%
TOTAL SITE	**8,005.16m²**		

= Area of Cut

Dwelling founded on timber piles - Minimal earth works carried out.

1 LOT 4 COVERAGES 1:625

PROJECT No.									
44HAU		MORRISON DESIGN 44 Huaparua Lane KERIKERI	PROJECT NAME + ADDRESS COMBINED SUBDIVISION 44 HAUPARUA LANE KERIKERI RD3	SHEET TITLE LOT 4 COVERAGES	STATUS LUC	DESIGN: -- DRAWN: -- CHECKED: -- APPROVED: --	SCALE: Shown@A3 PRINT DATE: 14/05/2025	SHEET NUMBER **1.8**	REVISION **02**



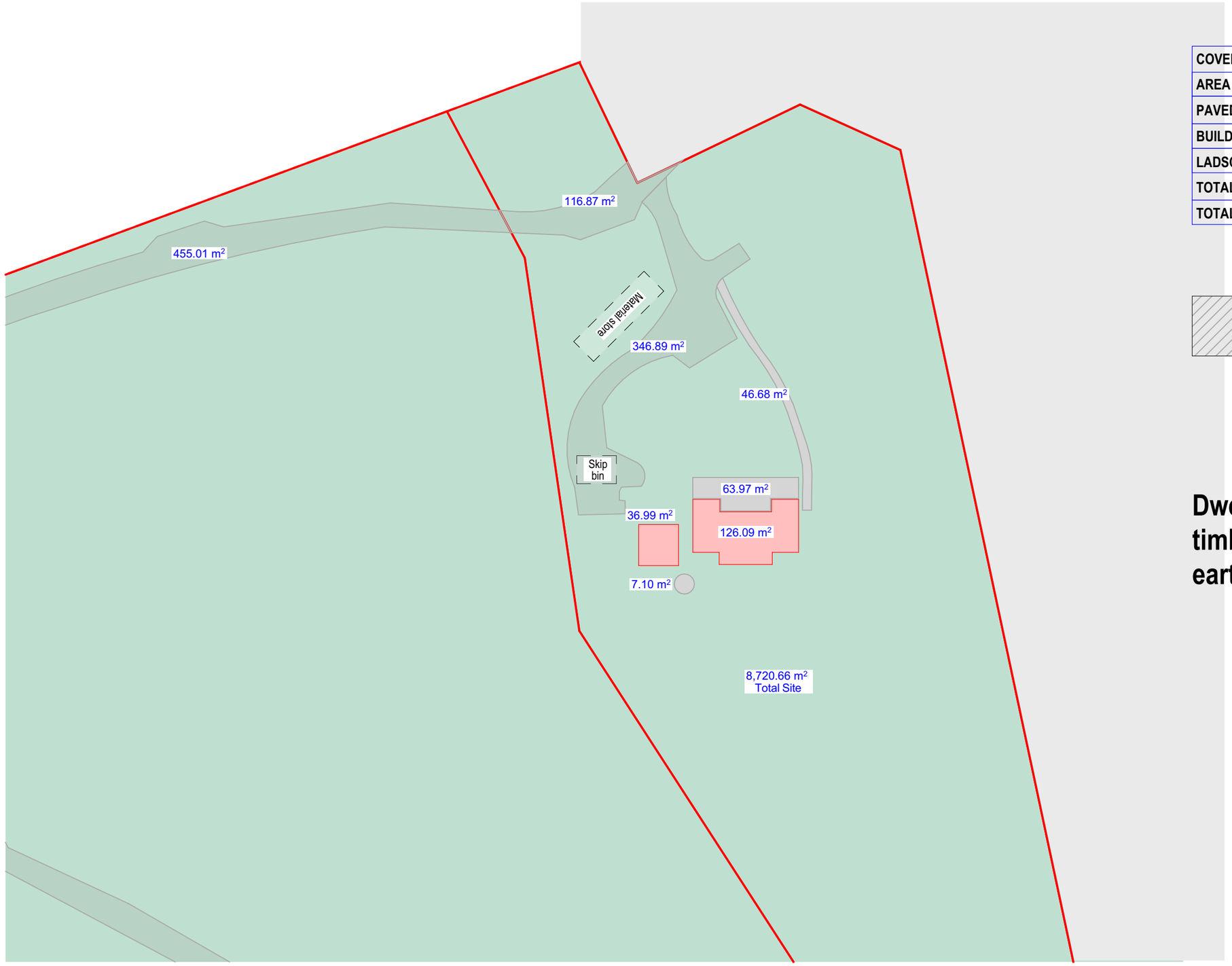
1 LOT 3 COVERAGES 1:625

COVERAGES | CLZ			
AREA	**EXISTING**	**PROPOSED**	**%**
PAVED	271.71m²	457.16m²	5.7%
BUILDING	0.00m²	126.09m²	1.6%
LADSCAPE	7,546.00m²	7,274.29m²	90.9%
TOTAL IMPERVIOUS	271.71m²	583.25m²	7.28%
TOTAL SITE	**8,003.16m²**		

= Area of Cut

Dwelling founded on timber piles - Minimal earth works carried out.

PROJECT No. 44HAU		MORRISON DESIGN 44 Huaparua Lane KERIKERI	PROJECT NAME + ADDRESS COMBINED SUBDIVISION 44 HAUPARUA LANE KERIKERI RD3	SHEET TITLE LOT 3 COVERAGES	STATUS LUC	DESIGN: -- DRAWN: -- CHECKED: -- APPROVED: --	SCALE: Shown@A3 PRINT DATE: 14/05/2025	SHEET NUMBER **1.9**	REVISION **02**



COVERAGES | CLZ			
AREA	**EXISTING**	**PROPOSED**	**%**
PAVED	463.76m²	588.61m²	6.74%
BUILDING	36.99m²	163.08m²	1.87%
LADSCAPE	8,219.91.00m²	7,968.97m²	91.3%
TOTAL IMPERVIOUS	500.75m²	751.69m²	8.61%
TOTAL SITE	**8,720.66m²**		

= Area of Cut

Dwelling founded on timber piles - Minimal earth works carried out.

LOT 2 COVERAGES

PROJECT No.		MORRISON DESIGN	PROJECT NAME + ADDRESS	SHEET TITLE	STATUS			SHEET NUMBER	REVISION
44HAU		44 Huaparua Lane KERIKERI	COMBINED SUBDIVISION 44 HAUPARUA LANE KERIKERI RD3	LOT 2 COVERAGES	LUC	DESIGN: --	SCALE: Shown@A3	**1.10**	**02**
						DRAWN: --			
						CHECKED: --	PRINT DATE: 14/05/2025		
						APPROVED: --			

LOT 1 COVERAGES

COVERAGES | CLZ			
AREA	**EXISTING**	**PROPOSED**	**%**
PAVED	1,216.28m²	1387.67m²	6.74%
BUILDING	0.00m²	297.9m²	1.87%
LADSCAPE	43,925.43m²	43,456.14m²	91.3%
TOTAL IMPERVIOUS	1216.28m²	1685.57m²	8.61%
TOTAL SITE	**45,141.71m²**		

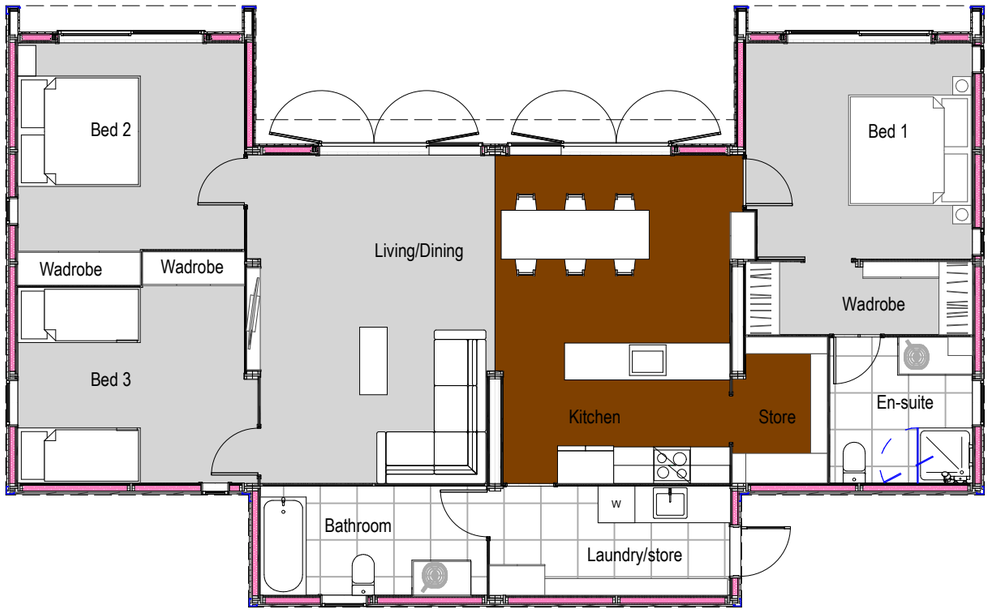
= Area of Cut

Dwelling founded on Concrete slab - Typical earth works carried out.

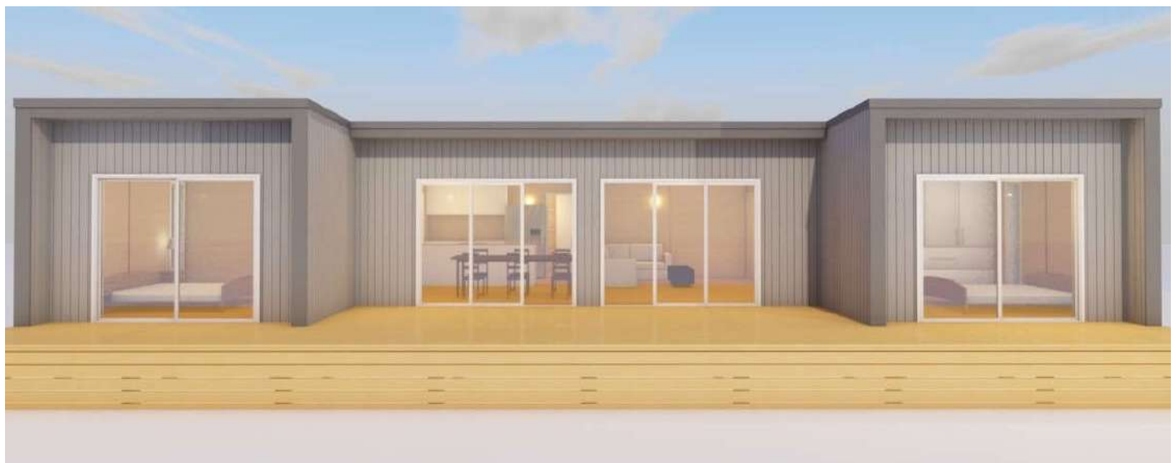
PROJECT No. 44HAU		MORRISON DESIGN 44 Huaparua Lane KERIKERI	PROJECT NAME + ADDRESS COMBINED SUBDIVISION 44 HAUPARUA LANE KERIKERI RD3	SHEET TITLE LOT 1 COVERAGES	STATUS LUC	DESIGN: -- DRAWN: -- CHECKED: -- APPROVED: --	SCALE: Shown@A3 PRINT DATE: 14/05/2025	SHEET NUMBER 1.11	REVISION 02

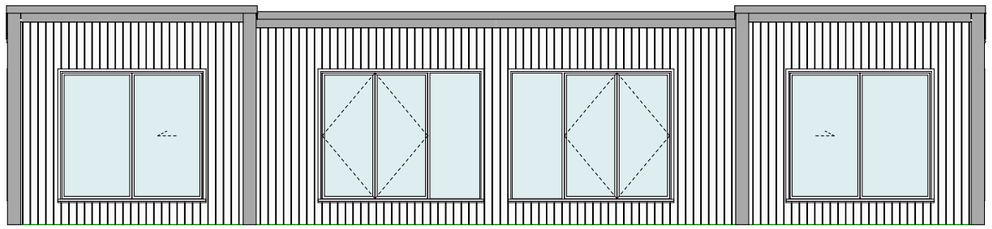
11

3 BEDROOM OPTION

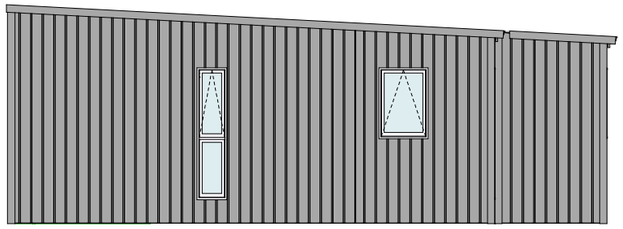


1 FLOOR PLAN 1:100 1:100

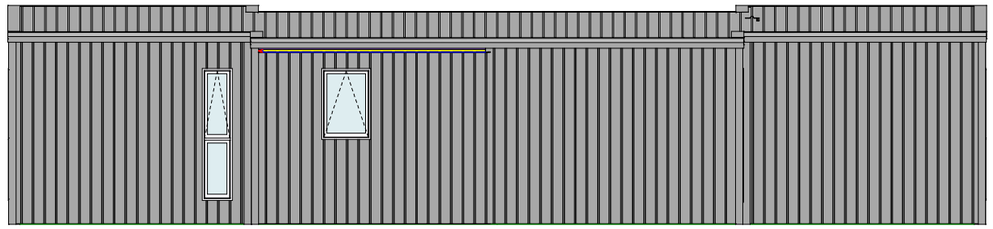




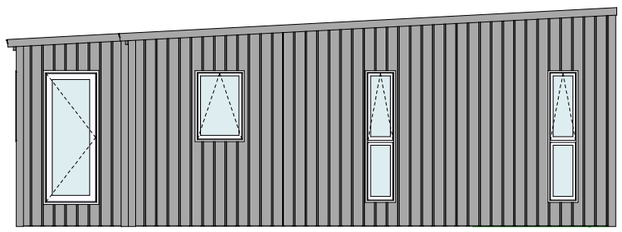
3 NORTH 1:100



2 WEST 1:100

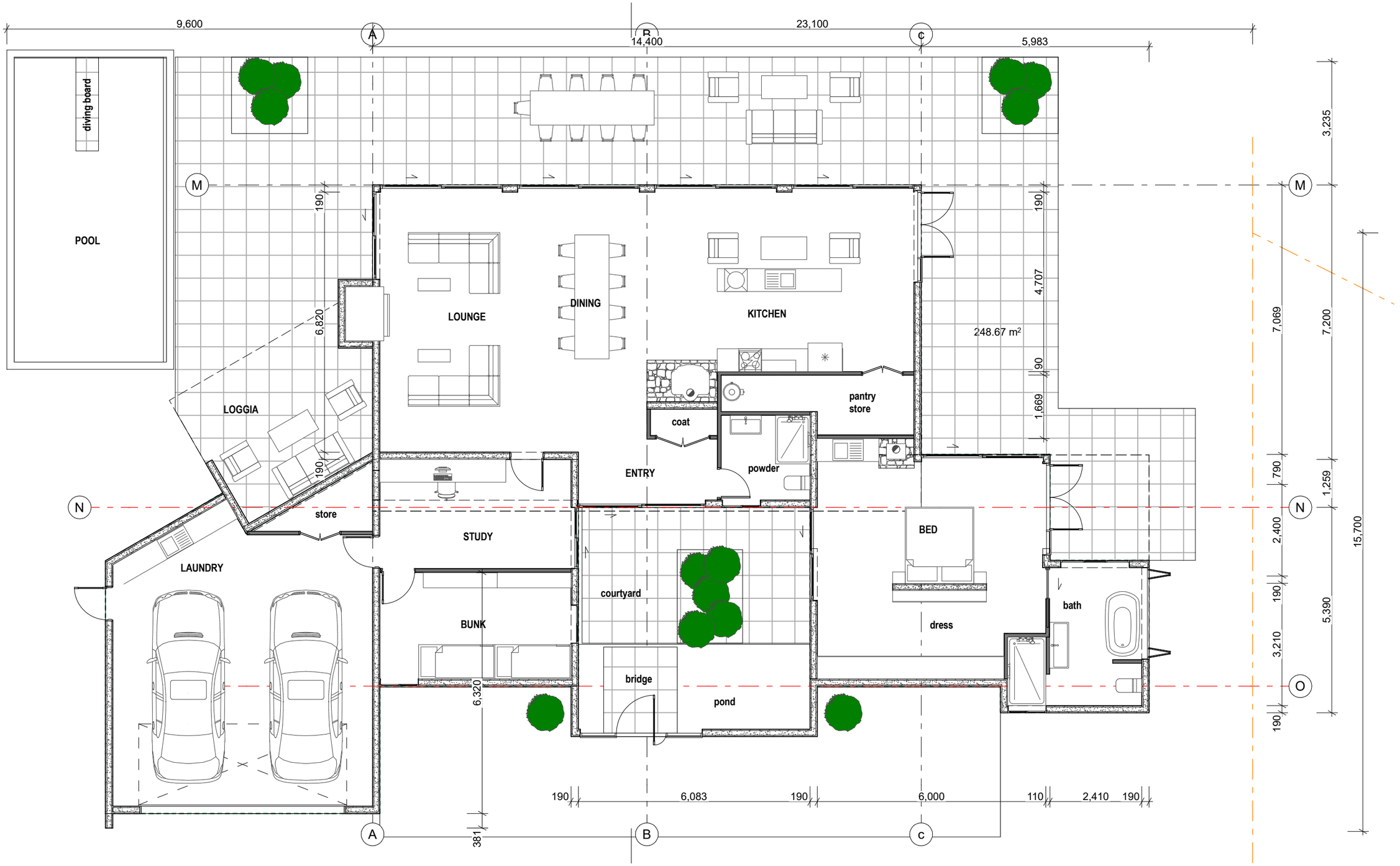


1 SOUTH 1:100



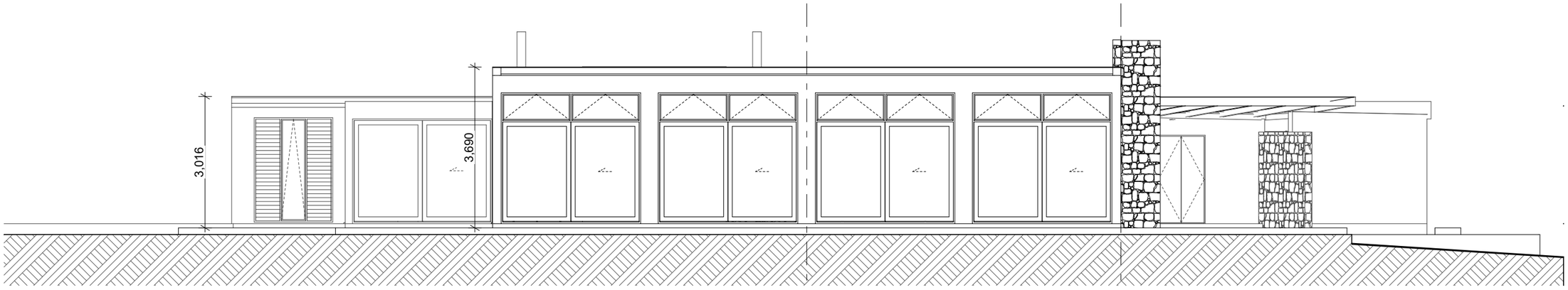
4 EAST 1:100

PROJECT No.		MORRISON DESIGN	PROJECT NAME + ADDRESS	SHEET TITLE	STATUS			SHEET NUMBER	REVISION
44HAU		44 Huaparua Lane KERIKERI	COMBINED SUBDIVISION 44 HAUPARUA LANE KERIKERI RD3	TYPICAL MODULAR HOUSE	LUC	DESIGN: -- DRAWN: -- CHECKED: -- APPROVED: --	SCALE: Shown@A3 PRINT DATE: 14/05/2025	**1.12**	-

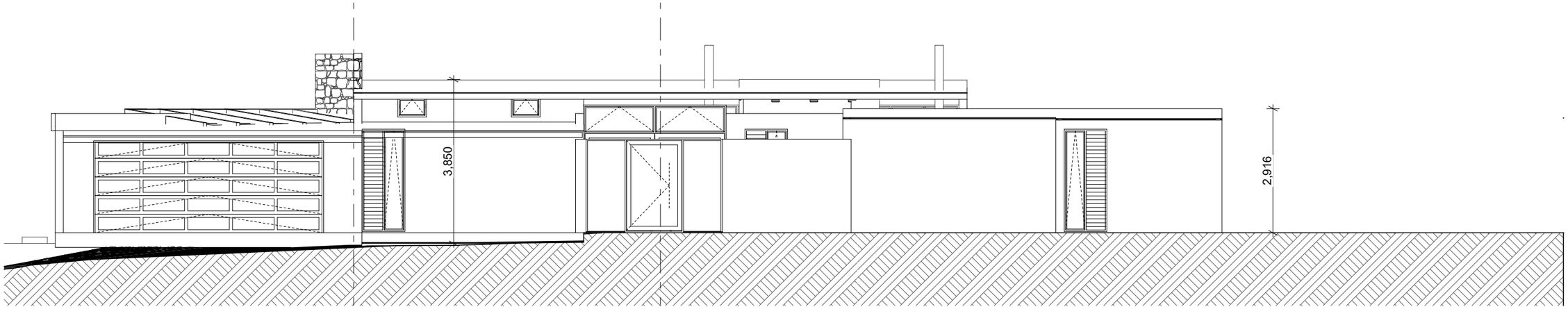


NEW HOUSE FLOOR PLAN 1-100

PROJECT No. #Pln		MORRISON DESIGN 44 Hauparua Lane. Kerikeri RD3	PROJECT NAME + ADDRESS COMBINED SUBDIVISION 44 HUAPARUA LANE	SHEET TITLE PROPOSED FLOOR PLAN LOT 1	STATUS --	DESIGN: -- DRAWN: -- CHECKED: -- APPROVED: --	SCALE: Shown@A3 PRINT DATE: 21/05/2025	SHEET NUMBER 1.13 REVISION -

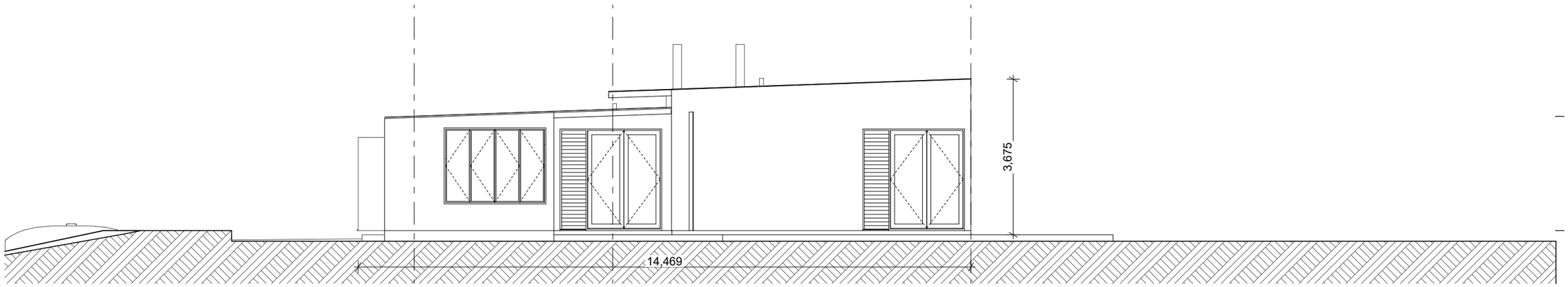


PROPOSED NORTH ELEVATION

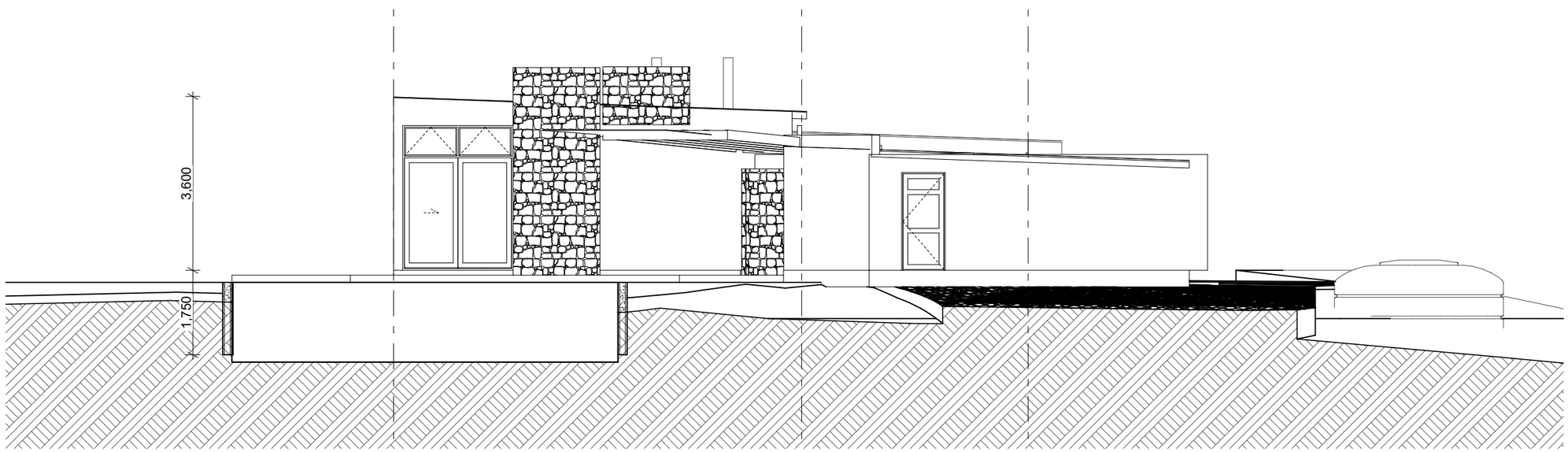


PROPOSED SOUTH ELEVATION

PROJECT No. #Pln		MORRISON DESIGN 44 Hauparua Lane. Kerikeri RD3	PROJECT NAME + ADDRESS COMBINED SUBDIVISION 44 HUAPARUA LANE	SHEET TITLE ELEVATIONS	STATUS --	DESIGN: -- DRAWN: -- CHECKED: -- APPROVED: --	SCALE: Shown@A3 PRINT DATE: 21/05/2025	SHEET NUMBER **2.1** REVISION -



PROPOSED EAST ELEVATION



PROPOSED WEST ELEVATION

PROJECT No. #Pln		MORRISON DESIGN 44 Hauparua Lane. Kerikeri RD3	PROJECT NAME + ADDRESS COMBINED SUBDIVISION 44 HUAPARUA LANE	SHEET TITLE ELEVATIONS	STATUS --	DESIGN: -- DRAWN: -- CHECKED: -- APPROVED: --	SCALE: Shown@A3 PRINT DATE: 21/05/2025	SHEET NUMBER 2.2 REVISION -

Wilton Joubert Limited
09 527 0196
196 Centreway Road,
Orewa, Auckland, 0931

SITE	Lot 2 DP 410617 - 44 Hauparua Lane, Kerikeri
PROJECT	4-Lot Coastal Living Subdivision
CLIENT	Nik Morrison
REFERENCE NO.	135461
DOCUMENT	Civil Site Suitability Report
STATUS/REVISION NO.	B – Subdivisional Resource Consent
DATE OF ISSUE	10 December 2024

Report Prepared For	Email
Nik Morrison	Nik@laminata.nz

Authored by	**B. Steenkamp** *(CPEng, BEng Civil, CMEngNZ, BSc (Geology))*	Civil Group Manager	bens@wjl.co.nz	
Reviewed by	**G.M. Brant** *(Be (Hons) Civil)*	Civil Engineer	gustavo@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.

Lot Sizes:	Lot 1 – 44,605m² Lot 2 – 8,720m² Lot 3 – 8,003m² Lot 4 – 8,005m²
Development Type:	Subdividing one lot into four
Scope:	Civil Site Suitability Investigation (Wastewater, Stormwater & Flood Assessment)
Development Proposals Supplied:	Subdivision Scheme Plan prepared by Permit Shop Practical Architecture (dated 25.11.2024)
Associated Documents:	WJL Geotechnical Site Suitability Report Ref. 135460
District Plan Zone:	Coastal Living Zone
Wastewater:	Recommendations for wastewater are provided in Section 6.
Stormwater Management – District Plan Rules:	**Permitted Activity:** 10.7.5.1.6 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. **Restricted Discretionary Activity:** 10.7.5.3.8 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.
Stormwater Management:	To comply with the parameters of the Permitted Activity Rule (10.7.5.1.6), Lots 1 to 4 must not exceed an impermeable area of 10% or 600m². The Anticipated Activity Status for Lots 1 & 2 is as follows: **Lot 1:** Restricted Discretionary **Lot 2:** Restricted Discretionary **Lot 3:** Permitted **Lot 4:** Permitted Due to the subject 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. Therefore, stormwater attenuation is not considered suitable for Lots 1 to 2. Stormwater management recommendations are provided in Section 6.
Minimum Freeboard Requirements:	Non-Habitable Buildings = 300mm Habitable Buildings = 500mm
1% AEP CC Flood Extent Elevations in Proximity to Development:	CFHZ0 = 1.7m (NZVD2016) CFHZ1 = 2.2m (NZVD2016) CFHZ2 = 2.9m (NZVD2016)
Recommended Minimum Finished Floor Level:	Non-Habitable Structures = 3.2m (NZVD2016) Habitable Structures = 3.4m (NZVD2016)

2. SCOPE OF WORK & PROPOSED DEVELOPMENT

Wilton Joubert Ltd. (WJL) was engaged by the client, **Nik Morrison,** to undertake a site suitability investigation (Stormwater, Wastewater & Flood Assessment) to support a 1-into-4 lot proposed subdivision of Lot 2 DP 410617, as depicted to us on the subdivision scheme plan prepared by Permit Shop Practical Architecture (dated 25.11.2024). Refer to Figure 1 below.

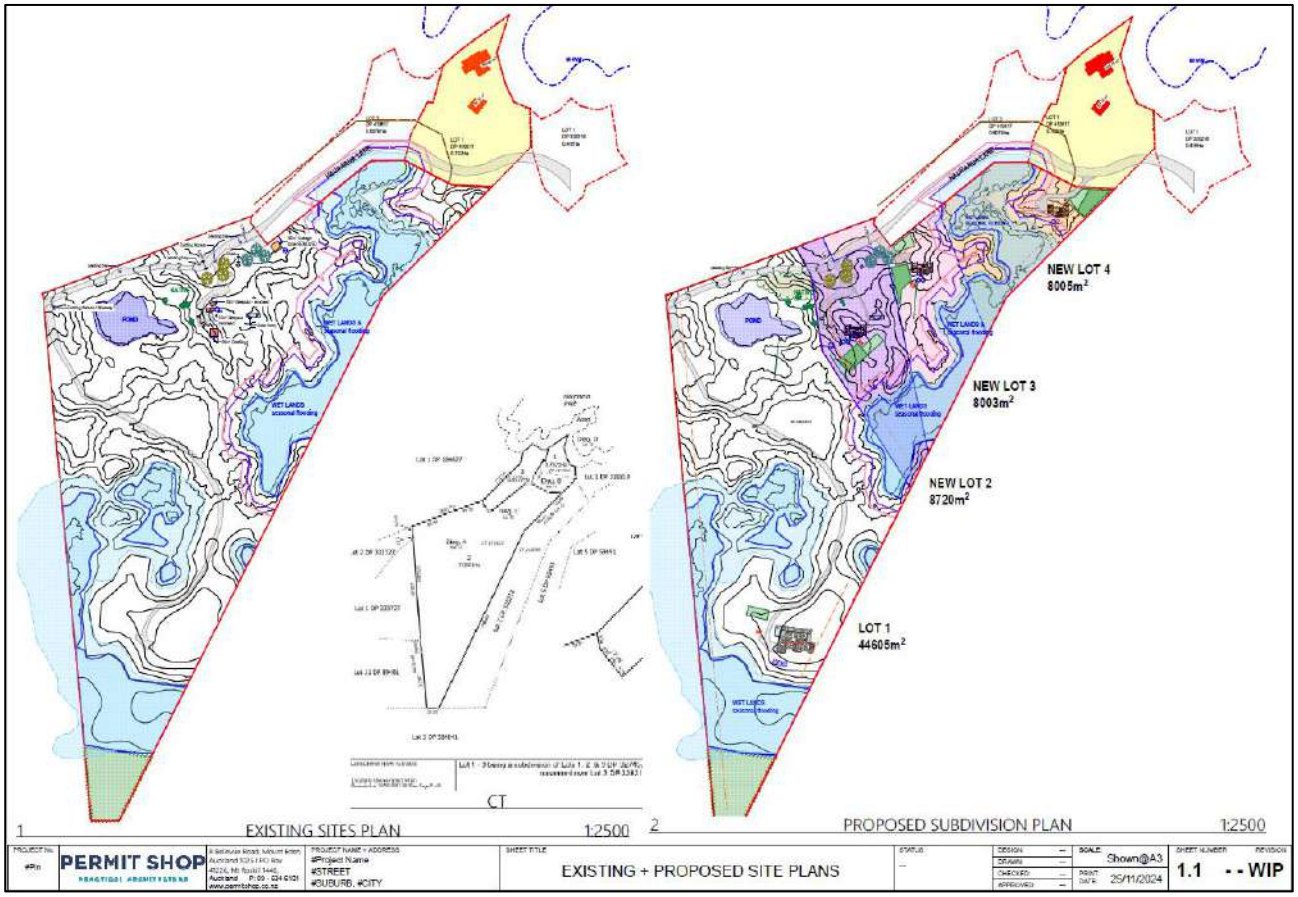


Figure 1: Screenshot of the subject Subdivision Scheme Plan (Print date 25 November 2024).

Proposed Lots 1, 3 and 4 will be new vacant lots while Lot 2 will contain the existing dwelling with a proposal to add another dwelling.

A geotechnical assessment for the subject site has been completed by WJL, title; Site Suitability Report (Geotechnical) (Ref No: 135460), which should be read in conjunction with this report.

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

3. SITE DESCRIPTION

The irregularly shaped ~7.26ha property proposed for subdivision is located mostly off the eastern side of Hauparua Lane, the road formation of which transects the north-western flanks of the property, commencing approximately 270m east of the Kerikeri Inlet Road intersection and having Hauparua Inlet nearby, it and surrounding allotments are designated 'Coastal Living'.

Proposed Lot 1 will encompass the greatest area at 4.4605ha and will occupy the southern-most end of the property, almost up to the existing dwelling, situated within proposed Lot 2. Proposed Lot 2 will be 8,720m² in size and contain the existing buildings. Proposed Lots 3 & 4 will encompass areas of 8,003m² and 8,005m² respectively and will occupy land to the north of the buildings and lie to the southeast of Hauparua Lane.

The overall property is generally situated on gently rolling terrain, comprising of minor volcanic knoll features and gentle plateaus in between. Massive rock beds, surficial basalt boulders and surrounding wetland features are visually evident across all four proposed allotments, indicative of the topographical setting and geological nature of the site.

The existing development on-site within proposed Lot 2 is comprised of a residential dwelling and auxiliary sheds located centrally within the parent lot. An additional auxiliary dwelling identified as a 'studio' is also situated to the north of the Designated Building Platform (DBP) within proposed Lot 3. Areas surrounding the present wetlands predominantly comprise of dense scrub vegetation and some regenerating native bush.

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

Figure 2: Site photograph of proposed Lot 1 DBP (north direction). Orange cones are near DBP location.

Figure 3: Site photograph of proposed Lot 3 DBP (west direction). White-tip stakes are indicative of DBP layout.

Figure 4: Site photograph of proposed Lot 4 DBP (northwest direction). White-tip stakes are indicative of DBP layout.

4. MAPPED GEOLOGY & SITE SUBSOILS

Local geology across the site and wider surrounding area is noted on the GNS Science New Zealand Geology Web Map, Scale 1:250,000, as; **Kerikeri Volcanic Group Pleistocene Basalt of Kaikohe – Bay of Islands Volcanic Fields**. These deposits are up to approximately 1.4 million years in age and described as; "*Basalt lava and volcanic plugs*" (ref: GNS Science Website).

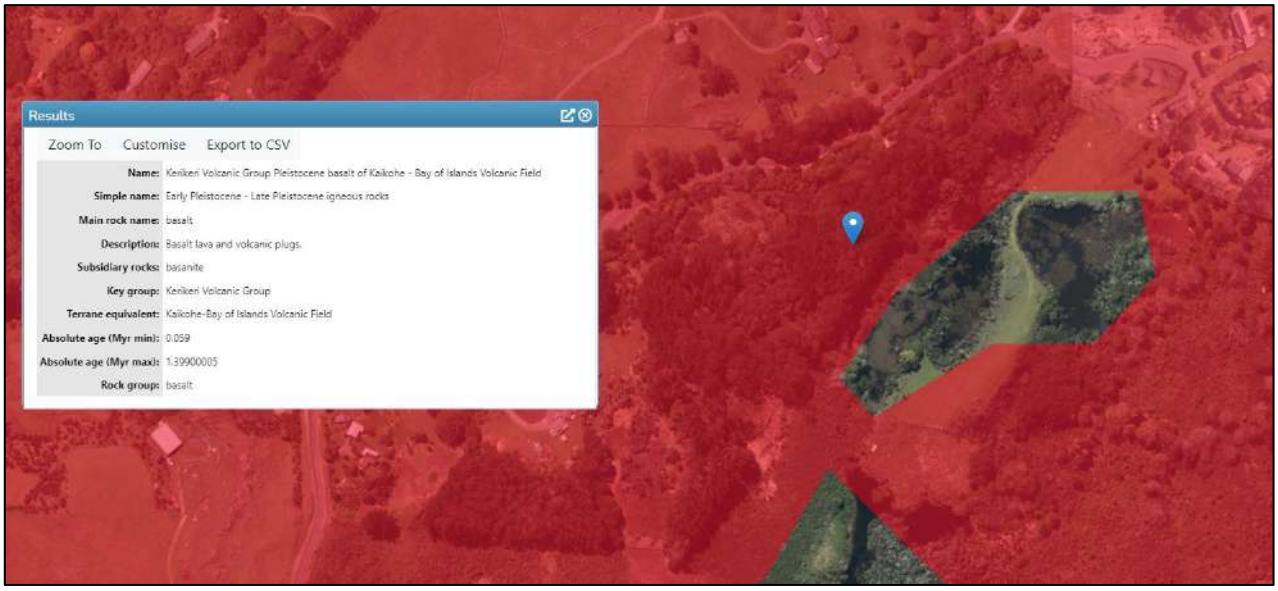


Figure 5 – Screenshot from New Zealand Geology Web Map hosted by GNS Science.

In addition to the above, a Geotechnical Assessment (WJL Ref. 135460), was completed by WJL for the subject site. In general terms, the subsoils encountered on-site consisted predominantly of SILT. Approximately 100mm-200mm of TOPSOIL was overlying the investigated area. Refer to the appended 'BH Logs'. Given the above, the site's soils have been classified as **Category 5** in accordance with TP58.

Figure 6: Site photograph of the typical HA soil arisings within the southern end of the property (proposed Lot 1 - HA01).

Figure 7: Site photograph of the typical HA soil arisings within northern portion of the property (proposed Lot 4 - HA09).

5. WASTEWATER

Lots 1, 3 & 4

No existing wastewater management systems are present within Proposed Lots 1, 3 and 4. Any future design should comply with the Regional Plan's permitted activity, and if not, obtain the necessary consent. New site-specific designs in accordance with the TP58 will be required by FNDC for any future development within these lots.

Lot 2

The existing residential dwelling on proposed Lot 2 is currently serviced by an existing on-site wastewater management system.

We understand that this existing system is operational and within proposed Lot 2's boundaries. It is recommended that a registered drainlayer be engaged to provide commentary on the condition and confirm the location of the existing wastewater system, including any trenches or effluent fields.

If the existing wastewater system is functioning, fit for the existing dwelling, and located within proposed Lot 2, it may continue to operate given that Lot 2 is not re-developed. If any part of the wastewater system, including any trenches or effluent fields is not located within proposed Lot 2 or overlaps with any new system, the system can be either relocated to Lot 2, or it can be decommissioned and replaced with a new on-site wastewater treatment system in accordance with the recommendations herein.

Any future design should comply with the Regional Plan's permitted activity, and if not, obtain the necessary consent. New site-specific designs in accordance with the TP58 will be required by FNDC for any future development within this lot.

5.1 DESIGN PARAMETERS

The following tables are intended to be a concise summary of design parameters, which must be read in conjunction with the relevant report sections as referenced herein.

The client is proposing to construct a 3-bedroom dwelling on each of the proposed Lots 1-4. Our recommendations are therefore based on a peak occupancy of 5 persons per lot.

Given the subsoils encountered during WJL's fieldwork investigation, we recommend secondary treatment or higher for any new wastewater treatment system within the proposed lots.

In addition, it is noted that the site has a shallow rock layer (300mm-1000mm b.g.l). Therefore, any new wastewater fields must be founded on a minimum 500mm raised topsoil bed to ensure sufficient separation from the rock layer.

Table 1: Summary of Preliminary Design Parameters for a PCDI Secondary Treatment System

Development Type:	Residential Dwellings
Effluent Treatment Level:	Secondary (<BOD5 20 mg/L, TSS 30 mg/L)
Fill Encountered in Disposal Areas:	No
Water Source:	Rainwater Collection Tanks
Site Soil Category (TP58):	Category 5 – SILT – Moderate to Slow Drainage

Estimate House Occupancy:	5 Persons
Loading Rate:	PCDI System – 4mm/day
Estimated Total Daily Wastewater Production per Lot:	900L
Typical Wastewater Design Flow Per Person:	180l/pp/pd (Estimated – introduction of water conservation devices may enable lower design flows)
Application Method:	Surface laid PCDI lines on minimum 500mm raised topsoil bed.
Loading Method:	Dosed
Minimum Emergency Storage:	>1000L
Estimated Min. Disposal Area Requirement :	~225m²
Required Min. Reserve Area:	50%
Buffer Zone:	Not required (<10 degree slopes)
Cut-off Drain:	Not required

5.2 REQUIRED SET BACK DISTANCES

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

5.3 NORTHLAND REGIONAL PLAN ASSESSMENT

Lot 2's existing wastewater disposal system should meet the compliance points below, stipulated within Section C.6.1.1 of the Proposed Regional Plan for Northland:

C.6.1.1 Existing on-site domestic type 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
1	the discharge volume does not exceed:
	a) three cubic metres per day, averaged over the month of greatest discharge, and
	b) six cubic metres per day over any 24-hour period, and
2	the following reserve disposal areas are available at all times:
	a) one hundred percent of the existing effluent disposal area where the wastewater has received primary treatment or is only comprised of greywater, or
	b) thirty percent of the existing effluent disposal area where the wastewater has received at least secondary treatment, and
3	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
4	wastewater irrigation lines are at all times either installed at least 50 millimetres beneath the surface of the disposal area or are covered by a minimum of 50 millimetres of topsoil, mulch, or bark, and
5	the discharge does not contaminate any groundwater supply or surface water, and
6	there is no surface runoff or ponding of wastewater, and
7	there is no offensive or objectionable odour beyond the property boundary.

The future wastewater disposal system should meet the compliance points below, stipulated within Section C.6.1.3 of the Proposed Regional Plan for Northland:

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
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
2	The volume of wastewater discharged does not exceed two cubic metres per day, and

3	The discharge is not via a spray irrigation system or deep soakage system, and
4	The slope of the disposal area is not greater than 25 degrees, and
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:
	a) dose loaded, and
	b) covered by a minimum of 50 millimetres of topsoil, mulch, or bark, and
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 disposal area, and
	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
	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 by a minimum of 100 millimetres of topsoil, mulch, or bark, and
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
8	for septic tank treatment systems, a filter that retains solids greater than 3.5 millimetres in size is fitted on the outlet, and
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
	b) 30 percent of the existing effluent disposal area where the wastewater has received secondary treatment or tertiary treatment, and
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
11	the discharge does not contaminate any groundwater water supply or surface water, and
12	there is no surface runoff or ponding of wastewater, and
13	there is no offensive or objectionable odour beyond the property boundary.

We envision that there will be no issue meeting the Permitted Activity Status requirements as outlined above.

6. STORMWATER MANAGEMENT

6.1 ASSESSMENT CRITERIA

The site lies within the Far North District. The stormwater assessment has been completed in accordance with the recommendations and requirements contained within the Far North District Engineering Standards and the Far North District Council District Plan.

The site resides in a Coastal Living Zone, see Figure 8 below:

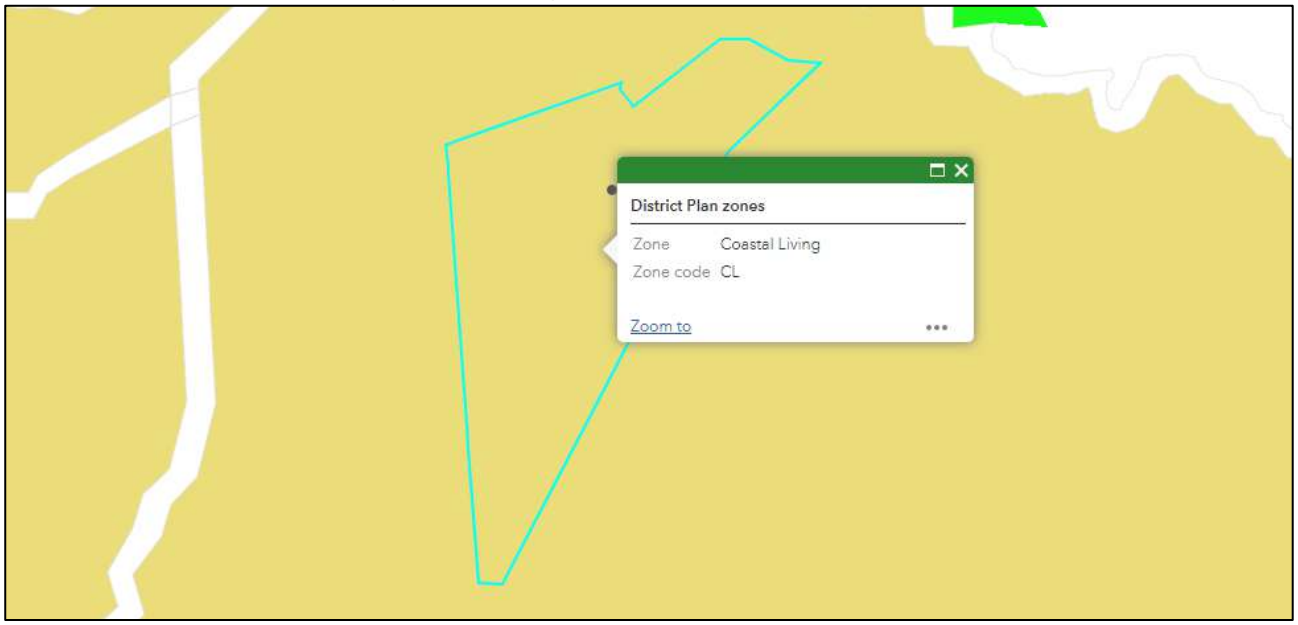


Figure 8 – Snip of FNDC Maps Showing Site in Coastal Living Zone.

The following Stormwater Management Rules Apply:

Permitted Activity:
10.7.5.1.6 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.

Restricted Discretionary Activity:
10.7.5.3.8 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.

To comply with the parameters of the Permitted Activity Rule (10.7.5.1.6), Lots 1 to 4 must not exceed an impermeable area of 10% or 600m². The maximum permitted impermeable area (10% or 600m²), existing impermeable area and anticipated activity status for Lots 1 to 4 are as follows:

Table 3: Impermeable Coverage and Anticipated Activity

Lot	Permitted Impermeable Area (10% or 600m²)	Existing Impermeable Area	Anticipated Activity Status
1	600 m^2	~1216 m^2	Restricted Discretionary
2	600 m^2	~501m^2	Restricted Discretionary
3	600 m^2	~272m^2	Permitted
4	600 m^2	0 m^2	Permitted

Note: The existing impermeable areas have been estimated from FNDC GIS Aerial Imagery & the Scheme Plan provided by the client and are indicative only.

It is anticipated that the future development of Lots 1 and 2 will not be compliant with the Permitted Activity Rule (10.7.5.1.6). Lots 3 and 4 may also breach the Permitted Activity threshold if development increase coverage over the 600m^2 limit. In such a scenario these lots must be assessed as per this report's recommendations for Restricted Discretionary.

The subject site borders the Hauparua Inlet which is a coastal environment subject to coastal inundation as per NRC Natural Hazards maps. Due to the subject 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 by modifying the time of peak flow occurrence to coincide with those of other properties located upstream within the larger catchment.

While the provision of attenuation for the impermeable areas exceeding the Permitted Activity threshold would normally apply for a development exceeding the Permitted Activity threshold, we do not believe that the attenuation of runoff resulting from existing or future proposed impermeable areas on-site is appropriate for the subject site due to the factors above.

No recommendations for stormwater detention measures are included in this report. Rather, to appropriately mitigate stormwater runoff from the existing and future proposed impermeable areas, we recommend utilising Low Impact Design Methods as a means of stormwater management. Design guidance should be taken from 'The Countryside Living Toolbox' design document, and where necessary, 'Technical Publication 10, Stormwater Management Devices – Design Guidelines Manual' Auckland Regional Council (2003).

Stormwater management recommendations for Lots 1 to 4 are provided below.

6.2 PRIMARY STORMWATER

6.2.1 Stormwater Runoff from Roof Areas

Lots 1, 3 and 4

Stormwater runoff from the roof of the future proposed buildings must be captured by a gutter system and conveyed to potable water tanks.

Discharge and overflow from the potable water tanks should be directed to a dispersal device within each lot, unless the discharge is directed to an open channel, where an appropriate riprap outlet is required for erosion control. The dispersal device or discharge point should be positioned on/in stable ground downslope of any buildings and effluent fields, with setback distances as per the relevant standards.

Lot 2

It is our understanding that stormwater runoff from the existing structures' roof areas is already being managed through tanks and piping.

It is recommended that discharge and overflow from the existing potable water tanks be directed via sealed pipes to an appropriate outlet or dispersal device.

We recommend that a drainlayer be engaged to provide commentary on the condition and confirm the location of the existing discharge point/dispersal device servicing the existing potable water tanks. If the existing discharge point / dispersal device is functioning and located within a suitable location within Lot 2 it may continue to operate given that Lot 2 is not redeveloped.

Alternatively, discharge and overflow from the existing potable water tank(s) are to be redirected to a new dispersal device or outlet.

Stormwater runoff from the roof of the future proposed buildings must be captured by a gutter system and conveyed to potable water tanks.

Discharge and overflow from new potable water tanks should be directed to a dispersal device within the lot, unless the discharge is directed to an open channel, where an appropriate riprap outlet is required for erosion control. The dispersal device or discharge point should be positioned on/in stable ground downslope of any buildings and effluent fields, with setback distances as per the relevant standards.

6.2.2 Stormwater Runoff from Driveway and Hardstand Areas

It is recommended to shape proposed hardstand areas to shed runoff to large, vegetated areas and/or to stormwater catchpits for runoff conveyance to the lot's stormwater dispersal device.

Metal driveways should be shaped to shed runoff to lower-lying grassed / vegetated areas, well clear of any structures. This stormwater runoff should sheet flow and must not be concentrated to avoid scour and erosion. Runoff passed through grassed areas will be naturally filtered of entrained pollutants and will act to mitigate runoff by way of ground recharge and evapotranspiration.

Where even sheet flow is not practicable, concentrated flows must be managed with swales directed to a safe outlet location without causing erosion. These should be sized to manage and provide adequate capacity for secondary flows and mitigate flow velocity where appropriate.

6.3 SECONDARY STORMWATER

Where required, overland flows and similar runoff from the higher ground should be intercepted by means of shallow surface drains or small bunds near structures to protect these from both saturation and erosion.

6.4 DISTRICT PLAN ASSESSMENT

This section has been prepared to demonstrate the likely effects of the activity on stormwater runoff and the means of mitigating runoff.

In assessing an application under this provision, the Council will exercise discretion to review the following matters below, (a) through (r). In respect of matters (a) through (r), we provide the following comments:

13.10.4 – Stormwater Disposal

(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.	No discharge permits are required. No resource consent issued documents stipulating specific requirements are known for the subject site or are anticipated to exist.
(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 application is deemed compliant with the provisions of the Council's "Engineering Standards and Guidelines" (2004) - Revised March 2009
(c) Whether the application complies with the Far North District Council Strategic Plan - Drainage.	The application is deemed compliant with the Far North District Council Strategic Plan - Drainage.

(d) The degree to which Low Impact Design principles have been used to reduce site impermeability and to retain natural permeable areas.	Stormwater management can be provided for Lots 1 to 4 by utilising Low Impact Design Methods. Guidance for design should be taken from 'The Countryside Living Toolbox' design document, and where necessary, *"Technical Publication 10, Stormwater Management Devices – Design Guidelines Manual" Auckland Regional Council (2003).* All roof runoff will be collected by rainwater tanks for conveyance to dispersal devices. Low impact design principles should be used to control and mitigate the effects of increased runoff from new hardstand areas. Hardstand areas should either be shaped to shed runoff to large, vegetated areas or stormwater sumps for runoff conveyance to a dispersal device.
(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.	As above. Runoff from existing and new roof areas will be collected, directed to rainwater tanks and discharged in a controlled manner to either in-ground or above ground dispersal devices, reducing scour and erosion. Metal driveways are to be shaped to shed runoff to the surrounding pasture to ensure that runoff does not concentrate and can be naturally filtered of entrained pollutants by the wide expanse of surrounding vegetation.
(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.	Runoff from roof areas is free of litter, chemical spillages, or contaminants from roads. New long driveways or R.O.W's are best shaped to shed to large pasture areas via sheet flow to ensure that runoff does not concentrate. Large down- slope pasture areas act as bio-filter strips to filter out entrained gross pollutants.
(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.	No alteration to waterways is proposed.
(h) Whether there is sufficient capacity available in the Council's outfall stormwater system to cater for increased run-off from the proposed allotments.	Not applicable.
(i) Where an existing outfall is not capable of accepting increased run-off, the adequacy of proposals and solutions for disposing of run-off.	Not applicable.
(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 from the subdivision to the same rate of discharge that existed on the land before the subdivision takes place.	Not applicable.

(k) Any adverse effects of the proposed subdivision on drainage to, or from, adjoining properties and mitigation measures proposed to control any adverse effects.	No adverse effects identified.
(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.	Not applicable.
(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.	Not applicable.
(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.	Not applicable.
(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.	Not applicable.
(p) For any stormwater outfall pipeline through a reserve, the prior consent of the Council, and the need for an appropriate easement.	Not applicable.
(q) The need for and extent of any financial contributions to achieve the above matters.	Not applicable.
(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.	Not applicable.

7. FLOODING

The Northland Regional Council Hazards Map indicates that the site is subject to Coastal Inundation. Although the modelled flood extent does not coincide with the current nominated building platform for the development within Lot 2, it is recommended that care be given to the finished floor level of any future proposed structure within the subject site to reduce the risk of potential inundation in a future significant flood event.

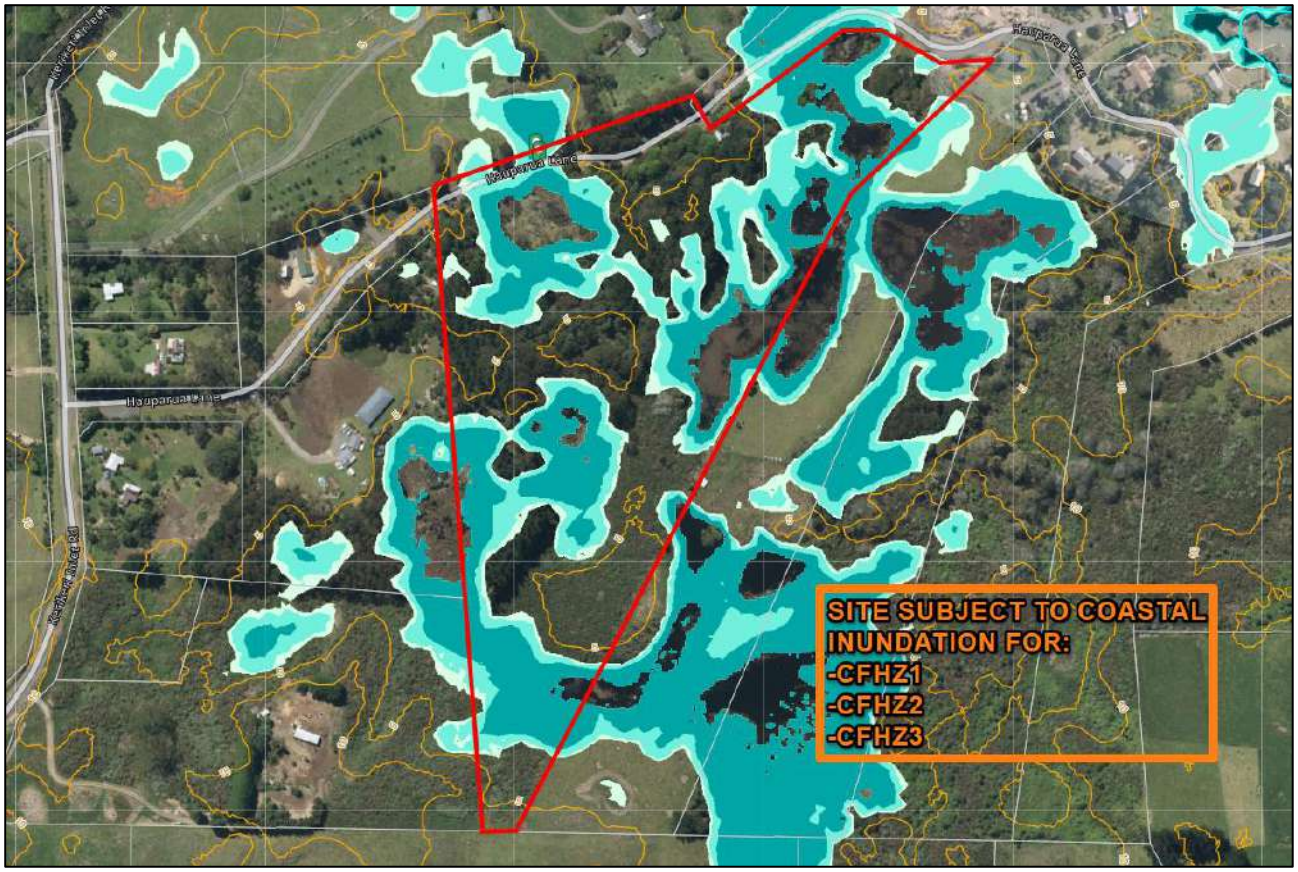


Figure 9 – Aerial View of the Subject Site with Coastal Flooding Hazard Zones 1, 2 & 3 Overlays.

Specific coastal inundation levels were obtained from the Tonkin & Taylor's *Coastal Flood Hazard Assessment for Northland Region 2019-2020* (Dated: March 2021). See Table 1 below for the flood levels at the site.

Table 1: *Coastal Inundation Levels at Site*

Flood Zone	Flood Level (NZVD2016)
Coastal Flood Hazard Zone 0 (CFHZ0)	1.7m
Coastal Flood Hazard Zone 1 (CFHZ1)	2.2m
Coastal Flood Hazard Zone 2 (CFHZ2)	2.9m

8.1 FLOOD HAZARD ASSESSMENT CRITERIA

As the site is within a natural hazard zone it is subject to an assessment in terms of Sections 71 and 72 of the New Zealand Building Act:2004. The requirements are as follows:

"*71 Building on land subject to natural hazards*

(1) A building consent authority must refuse to grant a building consent for construction of a building, or major alterations to a building, if—

a. the land on which the building work is to be carried out is subject or is likely to be subject to 1 or more natural hazards; or

b. the building work is likely to accelerate, worsen, or result in a natural hazard on that land or any other property.

(2) Subsection (1) does not apply if the building consent authority is satisfied that adequate provision has been or will be made to—

a. protect the land, building work, or other property referred to in that subsection from the natural hazard or hazards; or

b. restore any damage to that land or other property as a result of the building work.

(3) In this section and sections 72 to 74, natural hazard means any of the following:

a. erosion (including coastal erosion, bank erosion, and sheet erosion):

b. falling debris (including soil, rock, snow, and ice):

c. subsidence:

d. inundation (including flooding, overland flow, storm surge, tidal effects, and ponding):

e. slippage

"72 Building consent for building on land subject to natural hazards must be granted in certain cases

Despite section 71, a building consent authority that is a territorial authority must grant a building consent if the building consent authority considers that—

(a) the building work to which an application for a building consent relates will not accelerate, worsen, or result in a natural hazard on the land on which the building work is to be carried out or any other property; and

(b) the land is subject or is likely to be subject to 1 or more natural hazards; and

(c) it is reasonable to grant a waiver or modification of the building code in respect of the natural hazard concerned."

Further to the above, the assessment has been based on The Regional Policy Statement for Northland. This development falls under Section 7.1.3 of this document:

"7.1.3 Policy – New subdivision, use and development within areas potentially affected by coastal hazards (including high risk coastal hazard areas)

Within areas potentially affected by coastal hazards over the next 100 years (including high risk coastal hazard areas), the hazard risk associated with new use and development will be managed so that:

a) Redevelopment or changes in land use that reduce the risk of adverse effects from coastal hazards are encouraged;

b) Subdivision plans are able to identify that building platforms are located outside high risk coastal hazard areas and these building platforms will not be subject to inundation and / or material damage (including erosion) over a 100-year timeframe;

c) Coastal hazard risk to vehicular access routes for proposed new lots is assessed;

d) Any use or development does not increase the risk of social, environmental or economic harm (from coastal hazards);

e) Infrastructure should be located away from areas of coastal hazard risk but if located within these areas, it should be designed to maintain its integrity and function during a hazard event;

f) The use of hard protection structures is discouraged and the use of alternatives to them promoted; and

g) Mechanisms are in place for the safe storage of hazardous substances"

The Far North District Council Engineering Standards 2009 states in Section '4.3.2.5.2 Freeboard' the following requirements:

7.1.7 Method – Statutory plans and strategies

(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 Regional Policy Statement for Northland Page 123 of 178 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."*

The Far North Council Engineering Standards 2023 (Version 0.6) states in Section '4.3.10.7 Freeboard Requirements' the following:

"Freeboard above the secondary flow level is required to cater for inaccuracies in flow estimation and practicable blockage/failure of the primary system.

The minimum freeboard above the calculated 1% AEP storm shall be:

- *0.5 m for habitable building floors, and,*
- *0.3 m for commercial and industrial buildings,*

Unless specific assessment demonstrates that a different freeboard is appropriate."

8.2 ASSESSMENT

Minimum Finished Floor Level Requirements

We recommend considering the CFHZ2 scenario for coastal inundation as this is considered appropriate for the proposed development and its location. CHFZ2 is based on a sea level rise of 1.2m and roughly corresponds to the RCP8.5M as set out in the Coastal hazards and climate change: Guidance for local government by the Ministry for the Environment.

In accordance with the freeboard requirements, the minimum finished floor levels for future proposed structures are as follows:

Habitable Structures	=	3.4m (NZVD2016)
Non-Habitable Structures	=	3.2m (NZVD2016)

All DBPs appear to be positioned on elevated knolls generally in the range of between approximately 4.0m and 6.0m above New Zealand Vertical Datum (NZVD).

In terms of Section 72 of the Building Act:

- Based on our assessment of the proposed platform location for the lots, the current flood projections conclude that the site will be subject to coastal inundation; however, flood levels are expected to be clear and below the proposed floor level (up to 1% AEP event). The building work will not accelerate, worsen or result in flooding on the site or neighbouring properties.

We therefore conclude that the works can be done to comply with Section 71 of the Building Act and a Section 72 would not be required.

8. LIMITATIONS

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

This report has been commissioned solely for the benefit of our client, Nik Morrison, in relation to the project as described herein, and to the limits of our engagement, with the exception that the local Territorial Authority may rely on it to the extent of its appropriateness, conditions, and limitations, when issuing the subject consent.

Any variations from the development proposals as described herein as forming the basis of our appraisal should be referred back to us for further evaluation. Copyright of Intellectual Property remains with Wilton Joubert Limited, and this report may NOT be used by any other entity, or for any other proposals, without our written consent. Therefore, no liability is accepted by this firm or any of its directors, servants, or agents, in respect of any other civil aspects of this site, nor for its use by any other person or entity, and any other person or entity who relies upon any information contained herein does so entirely at their own risk. Where other parties may wish to rely on it, whether for the same or different proposals, this permission may be extended, subject to our satisfactory review of their interpretation of the report.

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

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

Yours faithfully,

WILTON JOUBERT LIMITED

Enclosures:

- Site Plan (1 sheet)
- Hand Auger Borehole Records (6 sheets)

NOTES:

1. SITE PLAN IS ONLY INDICATIVE FOR CONCEPT DESIGN. NO MEASUREMENTS MAY BE TAKEN FROM DRAWING.
2. ALL DIMENSIONS TO BE CHECKED ON SITE PRIOR TO CONSTRUCTION.
3. CONTOURS & LOCAL SERVICES ARE SHOWN INDICATIVELY ONLY.
4. HA01 & HA02 = BOREHOLE POSITION

POND
HAUPARUA LANE
WETLAND
CFHZ2 FLOOD EXTENT
EXISTING DWELLING AND STRUCTURES
PROPOSED LOT 1 44,605m²
EFFLUENT FIELDS TO BE FOUNDED ON A MIN 500mm HIGH RAISED TOPSOIL BED
INDICATIVE DISPOSAL AREA 225m²
INDICATIVE BUILDING PLATFORM
INDICATIVE RESERVE AREA 113m²
30m OFFSET TO WETLAND
WINTER FLOOD EXTENT
30m
PROPOSED LOT 2 8,720m²
PROPOSED LOT 3 8,003m²
PROPOSED LOT 4 8,005m²
HA01
HA02
HA03
HA04
HA05
HA06
HA08
HA09

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ISSUE / REVISION

No.	DATE	BY	DESCRIPTION
A	AUG '24	BGS	CIVIL SITE SUITABILITY REPORT REV A
B	DEC '24	BGS	CIVIL SITE SUITABILITY REPORT REV B

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

SERVICES NOTE

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

RESOURCE CONSENT

DESIGN / DRAWING SUBJECT TO ENGINEER'S APPROVAL

DRAWING TITLE: **SITE PLAN**

PROJECT DESCRIPTION: **CIVIL SITE SUITABILITY REPORT**

PROJECT TITLE: **LOT 2 DP 410617 44 HAUPARUA LANE KERIKERI NORTHLAND**

ORIGINAL DRAWING SIZE:	OFFICE:
A3	OREWA
DRAWING SCALE:	CO-ORDINATE SYSTEM:
1:1250	NOT COORDINATED
DRAWING NUMBER:	ISSUE:
135461-C001	B

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HAND AUGER : HA01

JOB NO.: 135460 **SHEET:** 1 OF 9

START DATE: 29/07/2024 **NORTHING:** **GRID:**

CLIENT: Nik Morrison **DIAMETER:** 50mm **EASTING:**

PROJECT: Geotechnical Investigation for Resource Consent (Subdivision) **SV DIAL:** DR4802 **ELEVATION:** Ground

SITE LOCATION: 44 Hauparua Lane, Kerikeri - Lot 2 DP 410617 **FACTOR:** 1.55 **DATUM:**

STRATIGRAPHY	SOIL DESCRIPTION	LEGEND	DEPTH (m)	WATER	SHEAR VANE PEAK STRENGTH (kPa)	SHEAR VANE REMOULD STRENGTH (kPa)	SHEAR VANE SENSITIVITY	DCP - SCALA (Blows / 100mm)	COMMENTS, SAMPLES, OTHER TESTS
Topsoil	TOPSOIL - dark brown, brown, firm, moist, non plastic	TS	0.2	Groundwater Not Encountered					
Kerikeri Volcanic Group	SILT, trace to minor clay, occasional strongly fused clasts <20mmØ, orange yellow with grey mottles, very stiff to hard, moist, low plasticity (NATURAL)		0.4		217+	-	-		
	0.8m: becoming gravelly, dense to drill		0.6						
			0.8		UTP	-	-	6	
	EOH: 0.90m - (Shallow Basalt Obstruction)		1.0					8	
			1.2					20	
			1.4						
			1.6						
			1.8						

REMARKS

End of borehole @ 0.90m (Target Depth: 3.00m)

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

LOGGED BY: NPN

CHECKED BY: SJP

▼ Standing groundwater level

▽ GW while drilling

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HAND AUGER : HA02

JOB NO.: 135460 **SHEET:** 2 OF 9

START DATE: 29/07/2024 **NORTHING:** **GRID:**

CLIENT: Nik Morrison **DIAMETER:** 50mm **EASTING:**

PROJECT: Geotechnical Investigation for Resource Consent (Subdivision) **SV DIAL:** DR4802 **ELEVATION:** Ground

SITE LOCATION: 44 Hauparua Lane, Kerikeri - Lot 2 DP 410617 **FACTOR:** 1.55 **DATUM:**

STRATIGRAPHY	SOIL DESCRIPTION	LEGEND	DEPTH (m)	WATER	SHEAR VANE: PEAK STRENGTH (kPa)	SHEAR VANE: REMOULD STRENGTH (kPa)	SHEAR VANE: SENSITIVITY	DCP - SCALA (Blows / 100mm)	COMMENTS, SAMPLES, OTHER TESTS
Topsoil	TOPSOIL - brown, dark brown, moist, non plastic	TS	0.0	Groundwater Not Encountered					
Kerikeri Volcanic Group	SILT, trace clay, some fine to coarse gravel as strongly fused volcanic clasts, light orange and brown with grey streaks, dry to moist, non plastic (NATURAL)		0.2					8	
	0.3m: becoming hard to drill								
	EOH: 0.40m - (Shallow Basalt Obstruction)		0.4		UTP	-	-	20	
			0.6						
			0.8						
			1.0						
			1.2						
			1.4						
			1.6						
			1.8						

REMARKS

End of borehole @ 0.40m (Target Depth: 3.00m)

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

LOGGED BY: NPN

CHECKED BY: SJP

▼ Standing groundwater level

▽ GW while drilling

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HAND AUGER : HA03

CLIENT: Nik Morrison
PROJECT: Geotechnical Investigation for Resource Consent (Subdivision)
SITE LOCATION: 44 Hauparua Lane, Kerikeri - Lot 2 DP 410617

JOB NO.: 135460 **SHEET:** 3 OF 9
START DATE: 29/07/2024 **NORTHING:** **GRID:**
DIAMETER: 50mm **EASTING:**
SV DIAL: DR4802 **ELEVATION:** Ground
FACTOR: 1.55 **DATUM:**

STRATIGRAPHY	SOIL DESCRIPTION	LEGEND	DEPTH (m)	WATER	SHEAR VANE PEAK STRENGTH (kPa)	SHEAR VANE REMOULD STRENGTH (kPa)	SHEAR VANE SENSITIVITY	DCP - SCALA (Blows / 100mm)	COMMENTS, SAMPLES, OTHER TESTS
Kerikeri Volcanic Group	SILT, some fine to coarse gravel as strongly fused volcanic clasts, light orange and brown with grey mottling, hard, dry to moist, non plastic (NATURAL)		0.2	Groundwater Not Encountered					
	EOH: 0.30m - (Shallow Basalt Obstruction)		0.4		UTP	-	-	6	
			0.6					10	
			0.8					20	
			1.0						
			1.2						
			1.4						
			1.6						
			1.8						

TOPSOIL CLAY SAND PEAT
FILL SILT GRAVEL ROCK

REMARKS
End of borehole @ 0.30m (Target Depth: 3.00m)

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

LOGGED BY: NPN
CHECKED BY: SJP

▼ Standing groundwater level
▽ GW while drilling

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HAND AUGER : HA04

JOB NO.: 135460 **SHEET:** 4 OF 9

START DATE: 29/07/2024 **NORTHING:** **GRID:**

CLIENT: Nik Morrison **DIAMETER:** 50mm **EASTING:**

PROJECT: Geotechnical Investigation for Resource Consent (Subdivision) **SV DIAL:** DR4802 **ELEVATION:** Ground

SITE LOCATION: 44 Hauparua Lane, Kerikeri - Lot 2 DP 410617 **FACTOR:** 1.55 **DATUM:**

STRATIGRAPHY	SOIL DESCRIPTION	LEGEND	DEPTH (m)	WATER	SHEAR VANE: PEAK STRENGTH (kPa)	SHEAR VANE: REMOULD STRENGTH (kPa)	SHEAR VANE: SENSITIVITY	DCP - SCALA (Blows / 100mm)	COMMENTS, SAMPLES, OTHER TESTS
Topsoil	TOPSOIL - brown, dark brown, firm, moist, non plastic	TS	0.2	Groundwater Not Encountered					
Kerikeri Volcanic Group	SILT, trace clay, some fine to coarse gravel as strongly fused volcanic clasts, light orange and brown with grey streaks, hard, dry to moist, non plastic (NATURAL)		0.4		UTP	-	-		
	EOH: 0.40m - (Shallow Basalt Obstruction)		0.6					12	
			0.8					20	
			1.0						
			1.2						
			1.4						
			1.6						
			1.8						

TOPSOIL CLAY SAND PEAT
FILL SILT GRAVEL ROCK

REMARKS

End of borehole @ 0.40m (Target Depth: 3.00m)

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

LOGGED BY: NPN

CHECKED BY: SJP

▼ Standing groundwater level

▽ GW while drilling

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HAND AUGER : HA05

CLIENT: Nik Morrison
PROJECT: Geotechnical Investigation for Resource Consent (Subdivision)
SITE LOCATION: 44 Hauparua Lane, Kerikeri - Lot 2 DP 410617

JOB NO.: 135460 **SHEET:** 5 OF 9
START DATE: 29/07/2024 **NORTHING:** **GRID:**
DIAMETER: 50mm **EASTING:**
SV DIAL: DR4802 **ELEVATION:** Ground
FACTOR: 1.55 **DATUM:**

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

STRATIGRAPHY	SOIL DESCRIPTION	LEGEND	DEPTH (m)	WATER	SHEAR VANE PEAK STRENGTH (kPa)	SHEAR VANE REMOULD STRENGTH (kPa)	SENSITIVITY	DCP - SCALA (Blows / 100mm)	COMMENTS, SAMPLES, OTHER TESTS
Topsoil	TOPSOIL - brown, dark brown, firm, moist, non plastic	TS		Groundwater Not Encountered					
Kerikeri Volcanic Group	SILT, some fine to coarse gravel as strongly fused volcanic clasts, light orange and brown with grey streaks, very stiff to hard, dry to moist, non plastic (NATURAL)		0.2						
	EOH: 0.40m - (Shallow Basalt Obstruction)		0.4		UTP	-	-	20	
			0.6						
			0.8						
			1.0						
			1.2						
			1.4						
			1.6						
			1.8						

REMARKS
End of borehole @ 0.40m (Target Depth: 3.00m)

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

LOGGED BY: NPN
CHECKED BY: SJP

▼ Standing groundwater level
▽ GW while drilling

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HAND AUGER : HA06

CLIENT: Nik Morrison
PROJECT: Geotechnical Investigation for Resource Consent (Subdivision)
SITE LOCATION: 44 Hauparua Lane, Kerikeri - Lot 2 DP 410617

JOB NO.: 135460 **SHEET:** 6 OF 9
START DATE: 29/07/2024 **NORTHING:** **GRID:**
DIAMETER: 50mm **EASTING:**
SV DIAL: DR4802 **ELEVATION:** Ground
FACTOR: 1.55 **DATUM:**

STRATIGRAPHY	SOIL DESCRIPTION	LEGEND	DEPTH (m)	WATER	SHEAR VANE: PEAK STRENGTH (kPa)	SHEAR VANE: REMOULD STRENGTH (kPa)	SHEAR VANE: SENSITIVITY	DCP - SCALA (Blows / 100mm)	COMMENTS, SAMPLES, OTHER TESTS
Topsoil	TOPSOIL - brown, dark brown, firm, moist, non plastic	TS		Groundwater Not Encountered					
Kerikeri Volcanic Group	SILT, trace clay, some fine to coarse gravel as strongly fused volcanic clasts, light orange and brown with grey streaks, hard, dry to moist, non plastic (NATURAL)		0.2						
			0.4		UTP	-	-		
	EOH: 0.50m - (Shallow Basalt Obstruction)		0.6					18	
								20	
			0.8						
			1.0						
			1.2						
			1.4						
			1.6						
			1.8						

SOIL DESCRIPTION
TOPSOIL CLAY SAND PEAT
FILL SILT GRAVEL ROCK

REMARKS
End of borehole @ 0.50m (Target Depth: 3.00m)

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

LOGGED BY: NPN
CHECKED BY: SJP

▼ Standing groundwater level
▽ GW while drilling

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HAND AUGER : HA07

JOB NO.: 135460 **SHEET:** 7 OF 9

START DATE: 29/07/2024 **NORTHING:** **GRID:**

CLIENT: Nik Morrison **DIAMETER:** 50mm **EASTING:**

PROJECT: Geotechnical Investigation for Resource Consent (Subdivision) **SV DIAL:** DR4802 **ELEVATION:** Ground

SITE LOCATION: 44 Hauparua Lane, Kerikeri - Lot 2 DP 410617 **FACTOR:** 1.55 **DATUM:**

TOPSOIL CLAY SAND PEAT
FILL SILT GRAVEL ROCK

STRATIGRAPHY	SOIL DESCRIPTION	LEGEND	DEPTH (m)	WATER	SHEAR VANE PEAK STRENGTH (kPa)	SHEAR VANE REMOULD STRENGTH (kPa)	SHEAR VANE SENSITIVITY	DCP - SCALA (Blows / 100mm)	COMMENTS, SAMPLES, OTHER TESTS
Topsoil	TOPSOIL - brown, dark brown, firm, moist, non plastic	TS	0.2	Groundwater Not Encountered					
Kerikeri Volcanic Group	SILT, some fine to coarse gravel as strongly fused volcanic clasts, light orange and brown, very stiff to hard, dry to moist, non plastic (NATURAL)		0.4		UTP	-	-	20	
	EOH: 0.40m - (Shallow Basalt Obstruction)		0.6						
			0.8						
			1.0						
			1.2						
			1.4						
			1.6						
			1.8						

REMARKS
End of borehole @ 0.40m (Target Depth: 3.00m)

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

LOGGED BY: NPN ▼ Standing groundwater level

CHECKED BY: SJP ▽ GW while drilling

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HAND AUGER : HA08

JOB NO.: 135460 **SHEET:** 8 OF 9

START DATE: 29/07/2024 **NORTHING:** **GRID:**

CLIENT: Nik Morrison **DIAMETER:** 50mm **EASTING:**

PROJECT: Geotechnical Investigation for Resource Consent (Subdivision) **SV DIAL:** DR4802 **ELEVATION:** Ground

SITE LOCATION: 44 Hauparua Lane, Kerikeri - Lot 2 DP 410617 **FACTOR:** 1.55 **DATUM:**

STRATIGRAPHY	SOIL DESCRIPTION	LEGEND	DEPTH (m)	WATER	SHEAR VANE: PEAK STRENGTH (kPa)	SHEAR VANE: REMOULD STRENGTH (kPa)	SHEAR VANE: SENSITIVITY	DCP - SCALA (Blows / 100mm)	COMMENTS, SAMPLES, OTHER TESTS
Topsoil	TOPSOIL - brown, dark brown, firm, moist, non plastic	TS	0.0	Groundwater Not Encountered					
Kerikeri Volcanic Group	SILT, trace clay, some fine to coarse gravel as strongly fused volcanic clasts, light orange and brown with grey streaks, dry to moist, non plastic (NATURAL)		0.2					12	
	EOH: 0.40m - (Shallow Basalt Obstruction)		0.4		UTP	-	-	20	
			0.6						
			0.8						
			1.0						
			1.2						
			1.4						
			1.6						
			1.8						

TOPSOIL CLAY SAND PEAT
FILL SILT GRAVEL ROCK

REMARKS

End of borehole @ 0.40m (Target Depth: 3.00m)

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

LOGGED BY: NPN

CHECKED BY: SJP

▼ Standing groundwater level

▽ GW while drilling

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HAND AUGER : HA09

JOB NO.: 135460 **SHEET:** 9 OF 9

START DATE: 29/07/2024 **NORTHING:** **GRID:**

CLIENT: Nik Morrison **DIAMETER:** 50mm **EASTING:**

PROJECT: Geotechnical Investigation for Resource Consent (Subdivision) **SV DIAL:** DR4802 **ELEVATION:** Ground

SITE LOCATION: 44 Hauparua Lane, Kerikeri - Lot 2 DP 410617 **FACTOR:** 1.55 **DATUM:**

STRATIGRAPHY	SOIL DESCRIPTION	LEGEND	DEPTH (m)	WATER	SHEAR VANE: PEAK STRENGTH (kPa)	SHEAR VANE: REMOULD STRENGTH (kPa)	SHEAR VANE: SENSITIVITY	DCP - SCALA (Blows / 100mm)	COMMENTS, SAMPLES, OTHER TESTS
Topsoil	TOPSOIL - brown, dark brown, firm, moist, non plastic	TS	0.0	Groundwater Not Encountered					
Kerikeri Volcanic Group	SILT, trace clay, some fine to coarse gravel as strongly fused volcanic clasts, light orange, yellow, brown, very stiff to hard, dry to moist, non plastic (NATURAL)		0.2						
			0.4		217+	-	-		
			0.6						
			0.8		UTP	-	-	18	
	EOH: 0.80m - (Shallow Basalt Obstruction)							20	
			1.0						
			1.2						
			1.4						
			1.6						
			1.8						

REMARKS

End of borehole @ 0.80m (Target Depth: 3.00m)

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

LOGGED BY: NPN

CHECKED BY: SJP

▼ Standing groundwater level

▽ GW while drilling

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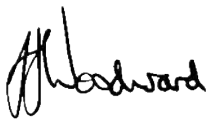
Kerikeri 0295

SITE	Lot 2 DP 410617 - 44 Hauparua Lane, Kerikeri
PROJECT	4-Lot Coastal Living Subdivision (3 Lots for Assessment)
CLIENT	Nik Morrison
REFERENCE NO.	135460
DOCUMENT	Geotechnical Site Suitability Report
STATUS/REVISION NO.	FINAL – Subdivisional Resource Consent only.
DATE OF ISSUE	31 July 2024

Report Prepared For	Email
Nik Morrison	Nik@laminata.nz

Authored by	S. Page *BSc (Geol)*	Engineering Geologist	nikora@wjl.co.nz	
Reviewed by	S. Page *Part Dip. (Civil)*	Engineering Technician	shaun@wjl.co.nz	
Approved by	SJ Woodward *MEng (Geotech), CMEngNZ, CPEng*	Principal Geotechnical Engineer	simon@wjl.co.nz	

1 EXECUTIVE SUMMARY

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

Development Type:	4-Lot Subdivision (3 Lots for Assessment).
District Plan Zone:	Coastal Living.
Development Proposals Supplied:	Yes – Subdivision Scheme Plan (appended).
Proposed Lot Sizes:	Lot 1 – 44,605m² Lot 2 – 8,260m² Lot 3 – 8,052m² Lot 4 – 8,950m²
Geology Encountered:	Kerikeri Volcanic Group deposits, with a prevalence of shallow rock.
Fill Encountered:	No.
Overall Site Gradient:	Gentle (averages less than 5°).
Natural Hazards:	Slope Stability: Overall, no perceived risk of Global Instability affecting the Building Platforms, provided recommendations made in this report are followed. Liquefaction: The soils at the building sites have no apparent risk of liquefaction as outlined in Section 8.2.
Suitable Shallow Foundation Type(s):	Bored, concrete-encased, tanalised timber piles likely needing specially designed bracing, supporting a suspended timber subfloor, or Reinforced, concrete stiffened raft slab foundation system, or Conventional reinforced, concrete slab-on-grade with deepened perimeter footings and/or masonry block foundation walls.
Shallow Soil Bearing Capacity:	Yes – Natural Soils & Engineered Fill Only. Geotechnical Ultimate Bearing Capacity = 300 kPa.
NZBC B1 Expansive Soil Classification :	Class M – Moderately Expansive (ys = 44mm) to account for differential effects of ash and rock.
NZS1170.5:2004 Site Subsoil Classification:	Class A or C – Strong Rock or Shallow Soil Site, depending on location and FFL. Specific Engineering Design required at Building Consent.
Earthworks:	Although no earthworks proposals have been supplied, it is envisioned that localised cut/fill earthworks operations may be undertaken to form a suitable level building platform in proposed Lot 1. Additionally, pile boreholes are expected to be bored within the DBPs in proposed Lots 3 & 4. We envisage minor earthworks, being generally confined to the stripping of topsoil and the clearing of surface boulders and massive rock where required from within future building platforms. The presence of shallow basalt rock must be considered when planning cut earthworks. Please refer to text of report for further detail.
Retaining Walls	Any proposed retaining walls should be gravity designed in nature. Footing excavations for any proposed timber pole wall will likely encounter shallow basalt rock obstructions which will be a deterrent in achieving required embedment depths.

2 INTRODUCTION

2.1 SCOPE OF WORK

Wilton Joubert Limited (WJL) was engaged by the client, Nik Morrison, to undertake a geotechnical site suitability assessment of ground conditions at the above site, where we understand, it is proposed to subdivide the property, legally described as Lot 2 DP 410617, into four individual allotments. Proposed Lot 2 will contain the existing residential development present centrally within the site, whilst proposed Lots 1, 3 & 4 have been specifically assessed for future residential development.

The purpose of this report is to provide Geotechnical assessments and preliminary recommendations pertaining to future residential construction within a designated building platform (DBP) identified on proposed Lots 1, 3 & 4. It is our understanding that this report will be submitted as part of the Resource Consent application for the proposed subdivision development.

Our scope does not include any:

- Environmental assessments of site subsoils or groundwater, or
- Civil assessments, including flooding.

2.2 SUPPLIED INFORMATION

Our assessment is primarily based on the following supplied documentation and on-site discussions with the client:

- Preliminary Scheme Plans (5 sheets), indicating proposed layout of lots to be subdivided (4 total).

Of those new lots, proposed Lot 2 will contain the existing house and associated structures. Therefore, this report pertains to confirming suitable Designated Building Platforms (DBP) for the new vacant Lots 1, 3 & 4. All indicative proposed building platforms were marked out on site by the client prior to our arrival and are also depicted in our appended Site Plans (ref: 135460-G601 & G602). Of those, we have also received preliminary concept plans prepared by Permit Shop for Lots 3 & 4, which we infer to be generally in accordance with NZS3604:2011.

Finalised subdivision scheme plan and/or land development proposals with Geotechnical implications, should be referred to us for review prior to submitting this report to Council for subdivisional Resource Consent Application(s).

Once specific building proposals have been finalized for future construction within the designated building areas at proposed Lots 1, 3 & 4, and reviewed by us as being appropriate, this report and our written review may be used by our above named client to support a Building Consent (BC) application. Should any other parties wish to rely on this report to support future Consent applications, they should first obtain our written review and approval of their proposals, to ensure that both parties have matching interpretations of the others' intentions.

Likewise, any future building construction within proposed Lots 1, 3 & 4 that are outside the assessed building areas will require site-specific Geotechnical assessment at the Building Consent stage once development proposals have been formulated.

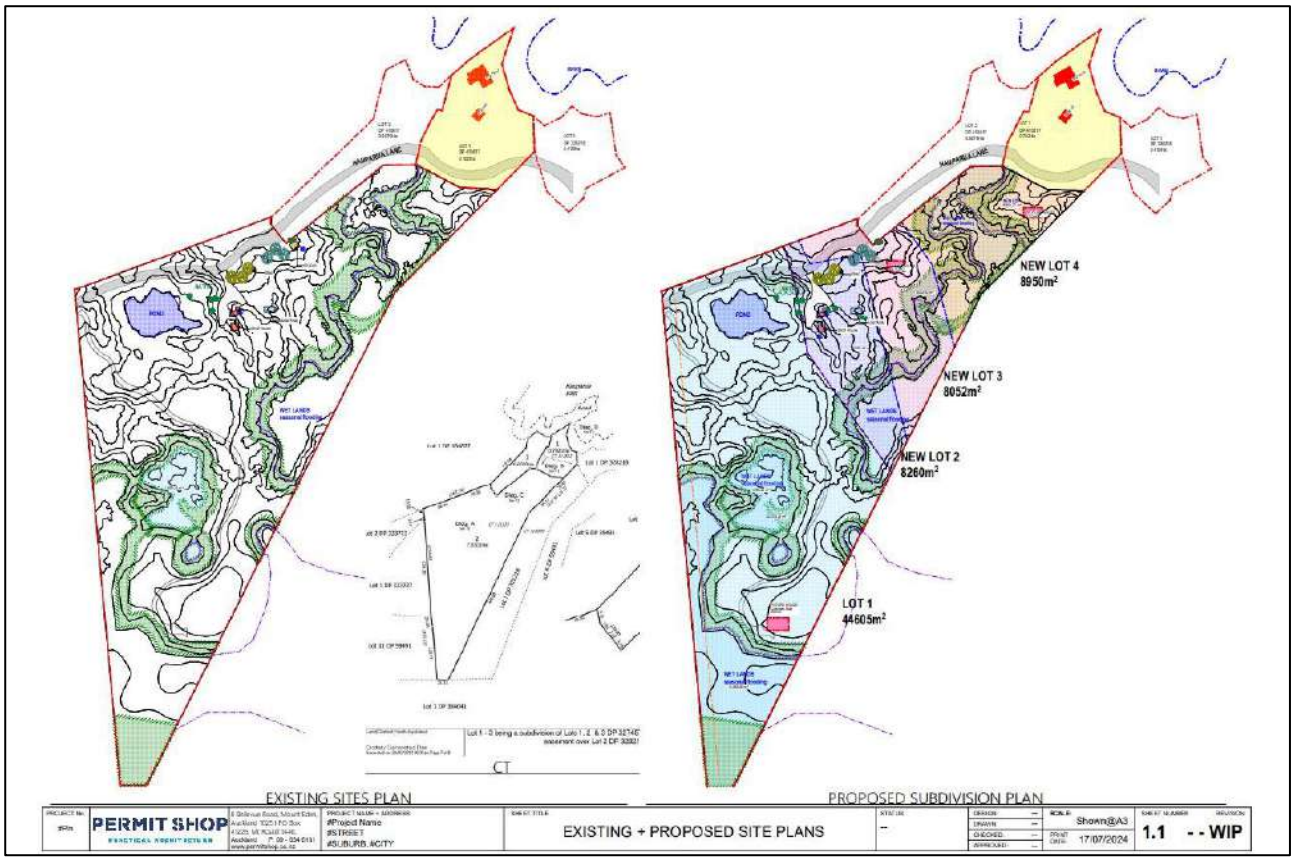


Figure 1: Screenshot of the subject Subdivision Scheme Plan (Print date 17 July 2024).I

3 SITE DESCRIPTION

The irregularly shaped ~7.26ha property proposed for subdivision is located mostly off the eastern side of Hauparua Lane, the road formation of which transects the north-western flanks of the property, commencing approximately 270m east of the Kerikeri Inlet Road intersection and having Hauparua Inlet nearby, it and surrounding allotments are designated 'Coastal Living'.

Proposed Lot 1 will encompass the greatest area at 4.4605ha and will occupy the southern-most end of the property, almost up to the existing dwelling, situated within proposed Lot 2. Proposed Lot 2 will be 8260m² in size and contain the existing buildings. Proposed Lots 3 & 4 will encompass areas of 8052m² and 8950m² respectively and will occupy land to the north of the buildings and lie to the sou-southeast of Hauparua Lane. Refer to Section 4 for detailed information regarding future individual allotments.

The overall property is generally situated on gently rolling terrain, comprising of minor volcanic knoll features and gentle plateaus in between. Massive rock beds, surficial basalt boulders and surrounding wetland features are visually evident across all four proposed allotments, indicative of the topographical setting and geological nature of the site.

Existing development on site that is to be contained within proposed Lot 2 is comprised of a residential dwelling and auxiliary sheds located centrally within the parent lot. An additional auxiliary dwelling identified as a 'studio' is also situated to the north of the DBP within proposed Lot 3. It is evident that some minor clearing of vegetation within DBPs of proposed Lots 1 and 3 has been carried out in the past, whilst proposed Lot 4 appears to remain bush covered. Remaining cover on areas surrounding the present wetlands predominantly comprise of dense scrub vegetation and some regenerating native bush.

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

4 PROPOSAL

In reviewing the supplied Subdivision Scheme Plan (see Figure 1) and concept building proposals for Lots 3 & 4, it is our understanding that the client intends to subdivide the property into four individual allotments as follows.

Proposed Lot 1 – Southern Allotment:

Proposed Lot 1 will encompass an area of 4.4605ha and remains as the balance lot of the property. The allotment will be intended for future residential development in accordance with NZS3604. We understand from on-site discussions with the client, that a 200m² DBP for a future three-bedroom dwelling is proposed to be located on a broad knoll of land generally above the RL5.00m contour, approximately in line with the common boundary between 12 Hauparua Lane and 872 Kerikeri Inlet Road and is currently accessed via a vehicle track that traverses north to south from the north-western corner of the property. The client has advised that the future dwelling here will likely be supported on a concrete slab foundation.

Proposed Lot 2 – Existing Residential Development:

Proposed Lot 2 will encompass an area of 8260m² and contain the existing residential development located centrally within the parent allotment. We understand that the lot is to continue using the existing access directly off the eastern side of Hauparua Lane, which is positioned about 420m from the intersection with Kerikeri Inlet Road. No further commentary and/or geotechnical assessments pertaining to proposed Lot 2 will be provided herein.

Proposed Lots 3 & 4 – Northern Allotments:

Proposed Lots 3 & 4 will encompass areas of 8052m² and 8950m², respectively, and contain the area of land to the southeast of Hauparua Lane and north of proposed Lot 2. Both allotments will have a proposed 112m² DBP intended for future residential development in accordance with NZS3604. The client has advised that future development is proposed to comprise of a modular three-bedroom dwelling with a suspended timber subfloor founded on shallow timber pile foundations. An existing metalled driveway from Hauparua Lane services the existing 'studio' in proposed Lot 3 and is intended to also service the future dwelling. Access to proposed Lot 4 has yet to be formed and we envision this will be directly from Hauparua Lane.

All DBPs appear to be positioned on elevated knolls generally in the range of between approximately 4.0m and 6.0m above New Zealand Vertical Datum (NZVD) and exhibiting within and/or nearby, 'moon-scape' features in the form of massive rock beds and surficial boulders having gentle to moderate slopes with grades ranging from 10-14° lie within 15-25m surrounding the near level platforms.

As depicted on our appended Cross-Section Plan (ref: 135460-G610), some isolated flanks as steep as 22° were measured near the wetlands in the southern sector of proposed Lot 1.

Figure 2: Site photograph of proposed Lot 1 DBP (north direction). Orange cones are indicative of field-testing locations.

Figure 3: Site photograph of proposed Lot 3 DBP (west direction). Orange cones are indicative of field-testing locations. White-tip stakes are indicative of DBP layout.

Figure 4: Site photograph of proposed Lot 4 DBP (northwest direction). Orange cones are indicative of field-testing locations. White-tip stakes are indicative of DBP layout.

Figure 5: Juxtaposition of rock exposures within 5-10m of DBP in proposed Lot 1 (right - weathered volcanic cobbles and boulders) and proposed Lot 4 (left – massive basalt rock).

5 DESKTOP STUDY

5.1 PUBLISHED GEOLOGY

Local geology across the site and wider surrounding area is noted on the GNS Science New Zealand Geology Web Map, Scale 1:250,000, as; Kerikeri Volcanic Group Pleistocene Basalt of Kaikohe – Bay of Islands Volcanic Fields. These deposits are up to approximately 1.4 million years in age and described as; "*Basalt lava and volcanic plugs*" (ref: GNS Science Website).

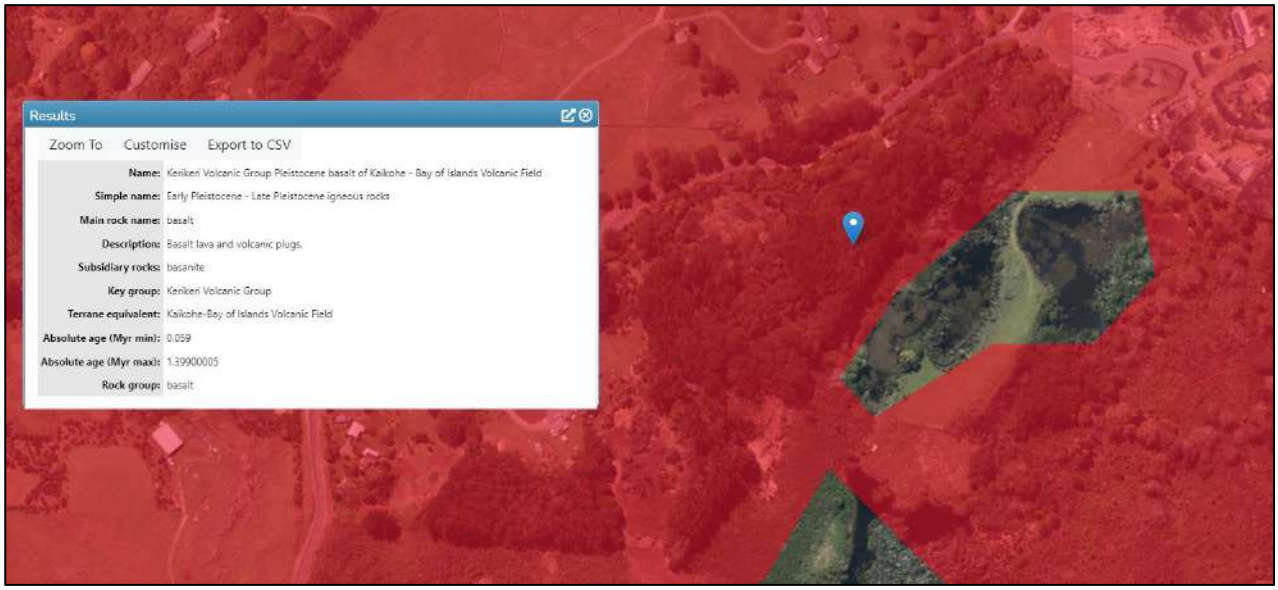


Figure 6: Screenshot aerial view of the subject site and surrounding land from New Zealand Geology Web Map hosted by GNS Science. Blue marker is situated centrally within parent property Lot 2 DP 410617.

5.2 LIQUEFACTION VULNERABILITY HAZARD ZONE

At the time of preparing this report, we note that the FNDC on-line GIS Liquefaction Vulnerability Map indicates that most of the parent property is located within an '*Undetermined*' zone, with surrounding areas of 'Unlikely' zoning covering the outskirts of the overall property.

Please refer to Section 8.2 below for further detailed assessment pertaining to these identified hazard zones.

Figure 7: Screenshot aerial view of the subject site from the Far North District Council (FNDC) on-line GIS Liquefaction Vulnerability Map. Red circle approximately depicts parent property Lot 2 DP 410617.

6 GEOTECHNICAL INVESTIGATION

WJL carried out a shallow ground investigation of the proposed Lot 2 DBP on 27 May 2024. Our subsoil testing involved:

- Drilling nine hand auger boreholes (HA) of 50mm diameter, to refusal depths ranging between 0.30m to 0.90m below present ground level (bpgl),
- Dynamic cone – scala penetrometer tests (DCP's) were undertaken at the base of all nine HA's, and
- Three electronic Zip-Level cross-sections labelled A-A', B-B' & C-C' (ref: 135460-G610) was measured through the DBPs and surrounding influential slopes.

The HA logs and cross-sections are appended to this report. The approximate locations of the HA's and cross-sections are shown on our appended Site Plans (ref: 135460-G601 & G602).

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

7 GEOTECHNICAL FINDINGS

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

7.1 TOPSOIL

Surficial topsoil was found to depths of 0.25 and 0.20m in HA01 & HA02 on proposed Lot 1, but none in HA03, also on that lot.

On proposed Lots 3 & 4 (HA04, HA05 & HA06 and HA07, HA08 & HA09, respectively) topsoil was encountered at depths between 0.10m and 0.20m.

7.2 NATURAL GROUND

The underlying natural deposits encountered on-site (no fill was found) were consistent with our expectations of Kerikeri Volcanic Group deposits, generally comprising of a thin, 0.20m to 0.90m thick veneer of very stiff SILT, with trace to minor clay, overlying shallow, extremely strong basalt rock. As noted in Section 3, exposures of gravels and massive surficial basalt boulders are clearly evident across all allotments, indicating the lava flow geological nature of the site.

Measured in-situ, BS1377 adjusted peak shear strengths all exceeded 217kPa, where soil strength was in excess of the shear vane capacity, or the vane was not able to penetrate into the soil (UTP).

No ratio of peak to remoulded vane shear strength values were able to be determined. Based on previous experience, we generally assess the underlying subgrade as 'Moderately Sensitive' to disturbance.

Figure 8: Site photograph of the typical HA soil arisings within the southern end of the property (proposed Lot 1 - HA01).

Figure 9: Site photograph of the typical HA soil arisings within northern portion of the property (proposed Lot 4 - HA09).

7.3 DCP -SCALA PENETROMETER TESTING

DCP – Scala penetrometer testing was carried out at the base of each HA borehole as well as through the invert during drilling where very stiff to hard layers of SILTs were encountered to help progress the HA apparatus. In each instance the DCP terminated at shallow depths ranging from 0.40m – 1.10m and was bouncing on the underlying extremely strong basalt rock.

7.4 GROUNDWATER

Groundwater was not encountered within any of our nine HA's which is to be expected due to the shallow nature of the basalt rock.

It should be noted that there is the potential for perched levels to be encountered during future development construction, depending on contouring of the building site. It is imperative that any future building site be appropriately shaped to direct all stormwater run-off away from the area.

8 GEOTECHNICAL ASSESSMENT

8.1 SITE STABILITY

Appended cross-sections A-A', B-B' and C-C' (ref: 135460-G610) shows that all DBPs and surrounding influential land is set on near level to gently sloping land, falling at average gradients of less than 5° with suitable setbacks from localised steep slopes.

Based on:

- No obvious evidence of instability within the immediate vicinity of all DBPs,
- The gentle topography across the DBPs and surrounding land,
- The lack of steep slopes within close proximity of DBPs,
- The presence of shallow, very to extremely strong basalt rock within approximately 0.40m-1.10m below the ground surface, and
- Lack of groundwater encountered within our HA's,

we perceive no risk of slope instability impacting on the proposed DBPs within Lots 1, 3 & 4.

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

8.2 LIQUEFACTION

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

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

As noted in Section 5.2, the FNDC on-line GIS Liquefaction Vulnerability Map indicates that most of the land beneath proposed Lot 3 & 4 is located within an '*Undetermined*' zone, with surrounding areas of 'Unlikely' zoning covering the outskirts of the overall property.

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

- There are no known active faults traversing through the proposed property or wider surrounding land,
- There is no historical evidence of liquefaction at the property,
- The DBPs are situated on raised land areas with good water-shedding characteristics,
- Most significantly, there is the presence of shallow extremely strong basalt rock within approximately 0.40m - 0.90m below the ground surface.

Based on the above, we conclude that the subsoils across the DBPs in Lots 1, 3 & 4 have a negligible risk of liquefaction susceptibility and liquefaction damage is therefore considered to be unlikely.

9 CONCLUSIONS AND RECOMMENDATIONS

Based on our walkover inspection, fieldwork investigation, subsoil testing results and stability commentary as described above, we consider on reasonable grounds that this report can be submitted to the Territorial Authority in support of a Resource Consent application for subdividing the subject site, substantiating that in terms of section 106 of the Resource Management Act and its current amendments, either

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

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

unless the Territorial Authority is satisfied that sufficient provision has been made or will be made in accordance with section 106(2).

Under section 106(2), the Territorial Authority may grant a subdivision consent if it is satisfied that the effects described above will be avoided, remedied, or mitigated by one or more of the following:

(a) Rules in the district plan:

(b) Conditions of a resource consent, either generally or pursuant to section 220(1)(d):

(c) Other matters, including works.

And we are therefore satisfied that the DBPs identified within proposed Lots 1, 3 & 4 should be generally suitable for building development in terms of NZS3604:2011, subject to specific engineering design (SED), adhering to the following recommendations of this report, unless over-ridden by said site-specific geotechnical assessment.

9.1 FOUNDATIONS

9.1.1 FOUNDATION TYPES

New residential dwellings at proposed Lots 1, 3 & 4 should be generally able to utilise any foundation type commensurate with the provisions of NZS3604:2011 and amendments 19 & 20 of the NZ Building Code, which may include, but not be limited to, the following options:

- Bored, concrete-encased, tanalised timber piles, supporting a suspended timber subfloor, subject to expansive soils design, or
- Reinforced, concrete stiffened raft slab foundation system designed for expansive soils, or
- Conventional reinforced, concrete slab-on-grade with deepened perimeter footings and/or masonry block foundation walls, subject to expansive soils design.

Future foundations will need to consider the presence of shallow underlying rock and the potential need to breakout rock in creating suitable level building platforms. Additionally, where piles are used, it is recommended that these be founded on the underlying rock in providing a uniform bearing layer. This is due to the likely event that piles depths across the dwelling will vary and hence, a consistent founding material is recommended. However, achieving clean pile inverts may require the use of compressed air to air-blast the rock surface.

Additionally, it may not be possible to embed piles into the rock to achieve sufficient anchorage against lateral loads, in which case it may be necessary to utilise a specifically designed mix of diagonal subfloor bracing and bolting to the rock.

9.1.2 SHALLOW FOUNDATION BEARING CAPACITY

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

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

When finalising the development proposals, it should be checked that all foundations lie outside 45° envelopes rising up from:

- 0.50m below the invert of service trenches and/or
- the toe of adjacent retaining walls,

unless such foundation details are found by specific design, to be satisfactory. Deeper foundation embedment with piles may be required for any surcharging foundations.

9.1.3 EXPANSIVE SOILS

Soils underlying the DBPs within Lots 1, 3 & 4 comprised of a thin, 0.20m-0.80m thick veneer of very stiff SILT, with trace to minor clay, overlying shallow, dense, basalt rock. The SILTs encountered within our hand auger boreholes generally had low plasticity but considering the non-expansive nature of the underlying basalt rock, the surficial expansive ash soils are expected to have some potential differential effects on the foundations for future residential development within the DBPs.

In the absence of quantitative laboratory testing and specific building proposals, we have adopted a conservative primary classification estimate of:

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

Given that such soils are not considered to lie within the definition of "good ground" as per NZS3604, the design of shallow foundations are no longer covered by NZS3604, and care must be taken to mitigate against the potential seasonal shrinkage and swelling effects of expansive foundation soils on both superstructures and floors. We therefore recommend SED be undertaken by a qualified engineer for the design of future foundations.

Soil expansivity effects on foundations can be mitigated as follows:

Concrete slab foundations in Proposed Lot 1:

- For Raft Slab Foundations:
  - Specifically designed reinforced, stiffened raft slab, designed for a Ys value of 44mm and founded on a minimum of 0.10m of engineered hardfill that extends a minimum of 1.0m beyond the building footprint.

- For Slab-on-Grade with Deepened Perimeter Strip/Pad Footings:
  - Where volcanic ash soils are encountered, perimeter strip or pad footings should extend to at least 0.60m below finished ground levels but may be terminated on extremely strong basalt rock, provided there is an adequate connection via scabbled keying and/or drilled and grouted starter bars into the rock.

Suspended timber floor supported on piles in Proposed Lots 3 & 4:

- For Timber Subfloor, Suspended on Timber Piles:

Bored, concrete encased, tanalised timber pile foundation embedded into volcanic ash soils to a minimum depth of 0.60m below finished ground levels and 0.30m into competent natural ground, whichever is deeper. Where it may not be possible to embed piles into the rock to achieve sufficient anchorage against lateral loads, it may be necessary to utilise a specifically designed mix of diagonal subfloor bracing and starter bars grouted into the rock.

9.1.4 NZS1170.5:2004 SITE SUBSOIL CLASSIFICATION

Design for the building seismic response on each site is expected to depend on the DBP location and the FFL of the floor relative to the depth to rock, as well as the presence or otherwise, of intervening ash soils. We therefore consider the DBP's to be underlain with either Class A – Strong Rock per clause 3.1.3.2 of NZS1170, or Class C – Shallow soil, and the final designation should be made at the time of building design for Building Consent application.

9.2 SITE PREPARATION & EARTHWORKS

At the time of writing, no Final Floor Levels (FFLs) had been postulated, and hence, no earthworks proposals have been supplied. However it is envisioned that localised cut/fill earthworks operations may be undertaken to form a suitable level building platform in proposed Lot 1, whereas pile boreholes are expected to be bored within the DBP's in proposed Lots 3 & 4. We envisage minor earthworks, being generally confined to the stripping of topsoil and the clearing of surface boulders and massive rock where required from within future building platforms.

Any proposed retaining walls should be gravity designed in nature. Footing excavations for any proposed timber pole wall will likely encounter shallow basalt rock obstructions which will be a deterrent in achieving required embedment depths.

All earthworks should be undertaken generally in accordance with the following standards but may be varied by the geotechnical engineer as found appropriate for the site conditions:

- NZS4431:2022 "Code of Practice for Earth Fill Residential Development",
- Section 2 "Earthworks & Geotechnical Requirements" of NZS4404:2010 "Land Development and Subdivision Infrastructure", and
- Section 2 "Earthworks and Geotechnical Requirements" of the Auckland Council Code of Practice for Land Development & Subdivision (Version 1.6 dated 24 September 2013).

9.2.1 SITE CLEARANCE & PREPARATION

Competency of the exposed subgrade underlying all future foundations and structures should be confirmed by a Geo-Professional. In this regard, we recommend the stripping of all vegetation, topsoil, as well as any non-engineered fill deposits across the proposed Lot 1 concrete slab building platform, prior to requesting Geo-Professional inspection(s) of the stripped ground to confirm that the underlying natural subgrade conditions are in keeping with the expectations of this report. Depending on the unevenness of any exposed

rock surface, it may be necessary to air-blast the rock in order to remove significant pockets of unsuitable material.

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

Additionally, it is recommended that topsoil be stripped first from any areas beyond the cut platform prior to the placement of landscaping fill.

9.2.2 SUBGRADE PROTECTION

The subgrade at proposed Lot 1, where exposed, should not be exposed for any prolonged period but should be covered with a 0.10m thick layer of granular fill such as GAP40 basecourse, as soon as possible. In selecting appropriate hardfill product, a useful workability Rule of Thumb is for the maximum particle size to be no greater than 40% of the lift thickness.

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

9.2.3 TEMPORARY & LONG-TERM EARTHWORK BATTERS

We recommend that earthworks in fine cohesive soils only be undertaken during periods of fine weather.

During times of inclement weather, the earthworks site should be shaped to assist in stormwater run-off. Any batter excavations should be protected with a geotextile fabric with the toe of the excavations shaped so as to avoid ponded water, as saturating site soils could result in a reduction of bearing capacities.

Temporary stormwater diversion must be constructed around the upslope perimeter of the bulk excavation to direct overland flows away from the excavation. This could take the form of a soil bund, or other measures as deemed appropriate by the supervising Geo-Professional.

All cuts up to a height of 1.0m should be battered no steeper than 1V:3H or if this is unable to be achieved, advice from a Geo-Professional should be sought.

All fills up to a height of 0.60m should be battered no steeper than 1V:4H or if this is unable to be achieved, advice from a Geo-Professional should be sought.

Finally, all exposed batters should be covered with topsoil or geotextile before being re-grassed and/or planted as soon as practicable to aid in stabilising the slopes.

9.2.4 CUT/FILL LIMITATIONS

Generally speaking, fills greater than 0.60m depth which have not been reviewed and approved herein, should be considered as being outside the constraints of NZS3604, and hence should not be undertaken on this site unless reviewed and approved by a Geo-Professional familiar with the report contents herein. Filling in excess of this magnitude may, in certain circumstances, disturb existing stability conditions such as by overloading slopes and/or retaining walls, or inducing consolidation settlements of adjacent structures.

In a like fashion, cuts that could remove the support from slopes and/or adjacent structures (be they existing or future proposed), should also be restricted unless specifically reviewed and approved.

For the reasons stated above, any future retaining walls supporting cut and/or fills in excess of these magnitudes will likely require specific assessment and, if considered appropriate, be subject to specific engineering design.

9.2.5 GENERAL SITE WORKS

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

Furthermore:

- All works must be undertaken in accordance with the Health and Safety at Work Act 2015,
- Any open excavations should be fenced off or covered, and/or access restricted as appropriate,
- The location of all services should be verified at the site prior to the commencement of construction,
- The Contractor is responsible at all times for ensuring that all necessary precautions are taken to protect all aspects of the works, as well as adjacent properties, buildings and services, and
- Should the contractor require any site-specific assistance with safe construction methodologies, please contact WJL for further assistance.

9.3 STORMWATER & SURFACE WATER CONTROL

Uncontrolled stormwater flows must not be allowed to run onto or over site slopes, or to saturate the ground, so as to adversely affect slope stability or foundation conditions.

Overland flows and similar runoff such as from any higher ground are best intercepted by means of shallow surface drains and/or small bunds and be directed away from the building footprints to protect the building platforms from both saturation and erosion. Water collected in interceptor drains should be diverted away from the building sites to an appropriate disposal point that is well clear of the building platform. All stormwater runoff from roofs and paved areas should be collected in sealed pipes and be discharged in accordance with the above.

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

10 UNDERGROUND SERVICES

Although Far North District Council (FNDC) GIS Maps do not indicate any underground services (i.e. stormwater, wastewater lines) to be present across the site and beyond site boundaries, other underground services, public or private, mapped, or unmapped, of any type could be present. It is recommended to stay on the side of caution during the commencement of any future works within the proposed development areas of Lot 1, 3 & 4.

11 LIMITATIONS

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

This report has been commissioned solely for the benefit of our client, the Nik Morrison, in relation to the project as described herein, and to the limits of our engagement, with the exception that the local Territorial Authority may rely on it to the extent of its appropriateness, conditions, and limitations, when issuing the subject consent.

Any variations from the development proposals as described herein as forming the basis of our appraisal should be referred back to us for further evaluation. Copyright of Intellectual Property remains with WJL, and this report may NOT be used by any other entity, or for any other proposals, without our written consent. Therefore, no liability is accepted by this firm or any of its directors, servants, or agents, in respect of any other geotechnical aspects of this site, nor for its use by any other person or entity, and any other person or entity who relies upon any information contained herein does so entirely at their own risk. Where other parties may wish to rely on it, whether for the same or different proposals, this permission may be extended, subject to our satisfactory review of their interpretation of the report.

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

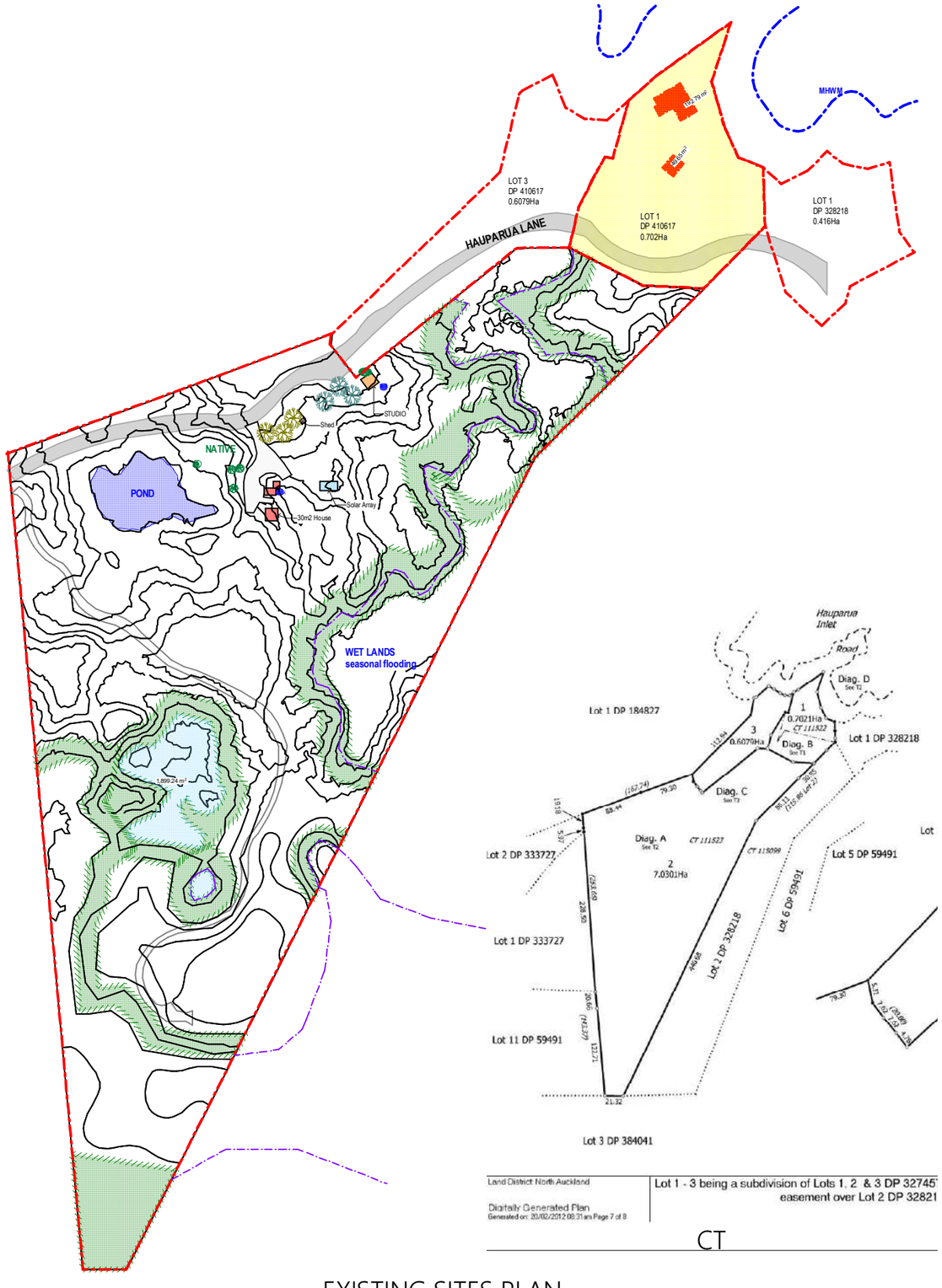
Thank you for the opportunity to provide our service on this project, and if we can be of further assistance, please do not hesitate to contact us.

Yours faithfully,

WILTON JOUBERT LIMITED

Enclosures:

- Scheme Plan (1 sheet)
- WJL Site Plans (2 sheets)
- WJL Cross-Sections A-A', B-B' & C-C' (1 sheet)
- Hand Auger Borehole Records (9 sheets)
- 'Foundation Maintenance & Footing Performance' sheet BTF18: A Homeowner's Guide, published by CSIRO (4 sheets)



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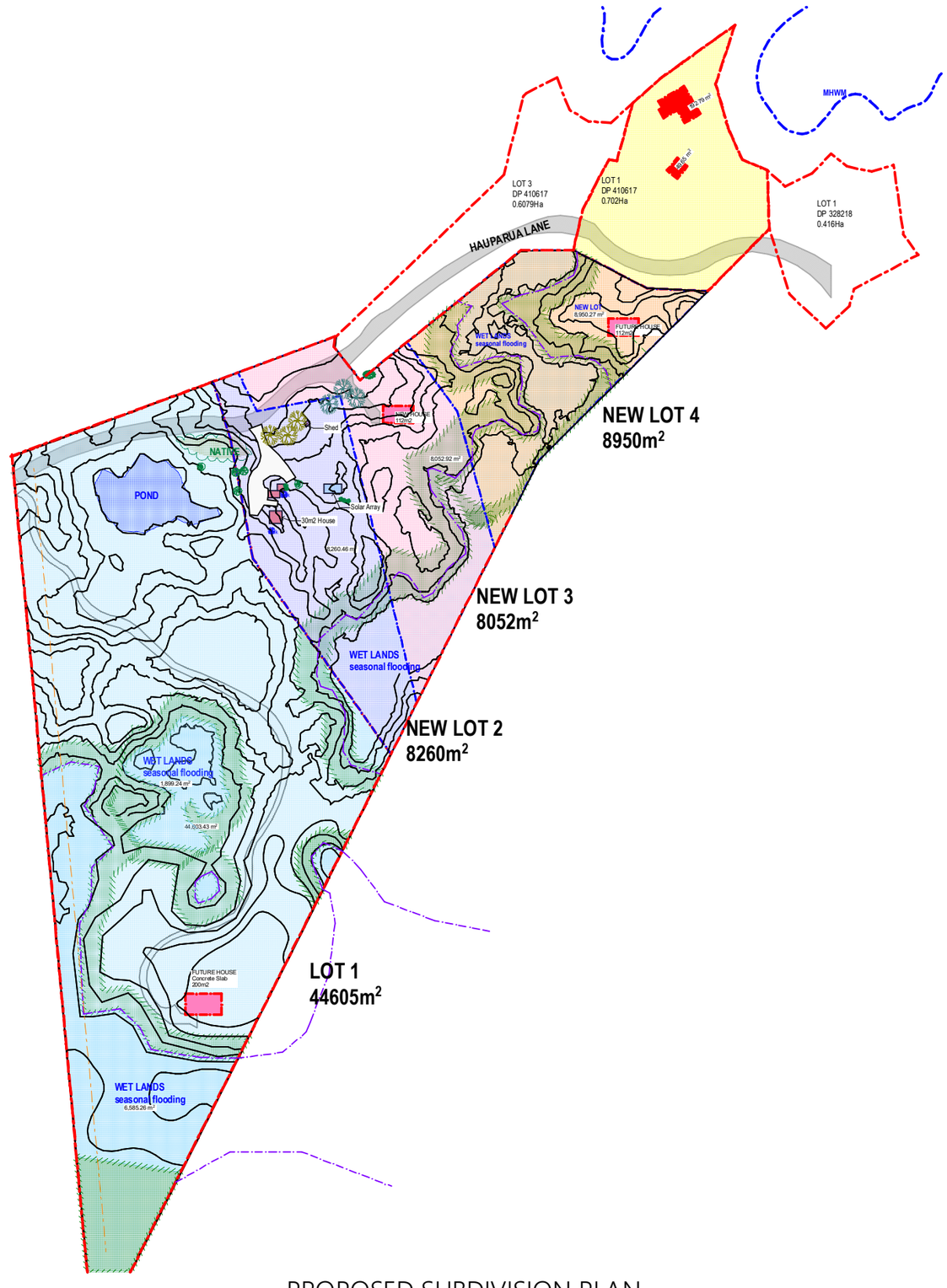
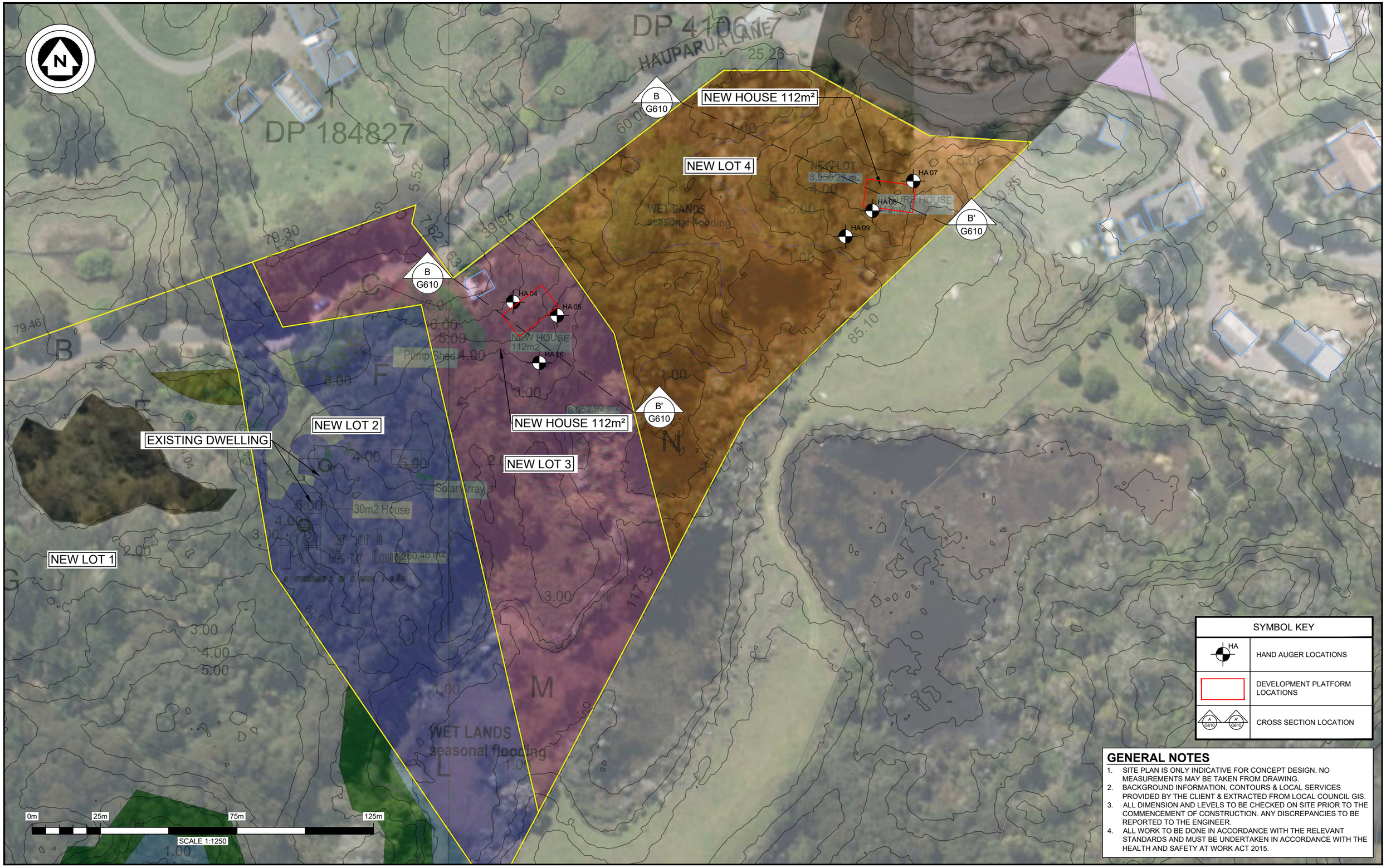


EXISTING SITES PLAN

PROPOSED SUBDIVISION PLAN

PROJECT No. #Pln	PERMIT SHOP PRACTICAL ARCHITECTURE	8 Bellevue Road, Mount Eden, Auckland 1025 I PO Box 41226, Mt Roskill 1440, Auckland P: 09 - 634 6101 www.permitshop.co.nz	PROJECT NAME + ADDRESS #Project Name #STREET #SUBURB, #CITY	SHEET TITLE EXISTING + PROPOSED SITE PLANS	STATUS --	DESIGN: -- DRAWN: -- CHECKED: -- APPROVED: --	SCALE: Shown@A3 PRINT DATE: 17/07/2024	SHEET NUMBER 1.1 REVISION - - WIP



SYMBOL KEY	
HA	HAND AUGER LOCATIONS
	DEVELOPMENT PLATFORM LOCATIONS
A G610 A' G610	CROSS SECTION LOCATION

GENERAL NOTES

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

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

ISSUE / REVISION

No.	DATE	BY	DESCRIPTION
A	JULY 2024	NPN	ISSUED WITH GEOTECHNICAL REPORT

DESIGNED BY:
DRAWN BY: NPN
CHECKED BY:
SURVEYED BY:

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

RESOURCE CONSENT
DESIGN / DRAWING SUBJECT TO ENGINEER'S APPROVAL

DRAWING TITLE:
SITE PLAN - LOTS 2-4

PROJECT DESCRIPTION:
PROPOSED 4-LOT SUBDIVISION

PROJECT TITLE:
LOT 2 DP 410617
44 HAUPARUA LANE
KERIKERI
NORTHLAND

ORIGINAL DRAWING SIZE:	OFFICE:
A3	KERIKERI
DRAWING SCALE:	CO-ORDINATE SYSTEM:
1:1250	NOT COORDINATED
DRAWING NUMBER:	ISSUE:
135460-G601	A

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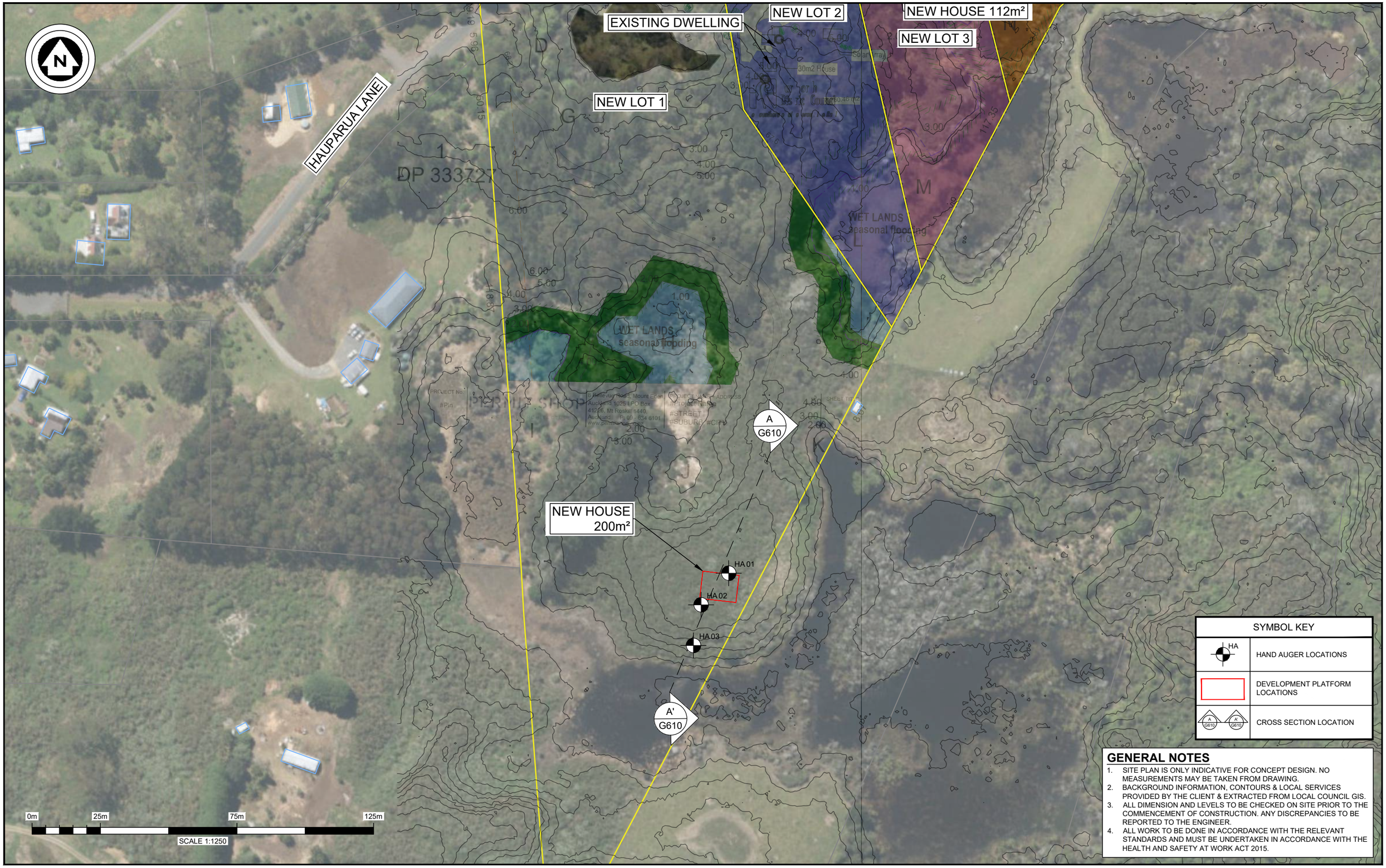

SYMBOL KEY	
HA	HAND AUGER LOCATIONS
	DEVELOPMENT PLATFORM LOCATIONS
A G610 / A' G610	CROSS SECTION LOCATION

GENERAL NOTES

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ISSUE / REVISION			
No.	DATE	BY	DESCRIPTION
A	JULY 2024	NPN	ISSUED WITH GEOTECHNICAL REPORT

DESIGNED BY:
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RESOURCE CONSENT
DESIGN / DRAWING SUBJECT TO ENGINEER'S APPROVAL

DRAWING TITLE:
SITE PLAN - LOT 1

PROJECT DESCRIPTION:
PROPOSED 4-LOT SUBDIVISION

PROJECT TITLE:
LOT 2 DP 410617
44 HAUPARUA LANE
KERIKERI
NORTHLAND

ORIGINAL DRAWING SIZE:	OFFICE:
A3	KERIKERI
DRAWING SCALE: 1:1250	CO-ORDINATE SYSTEM: NOT COORDINATED

DRAWING NUMBER: 135460-G602
ISSUE: A

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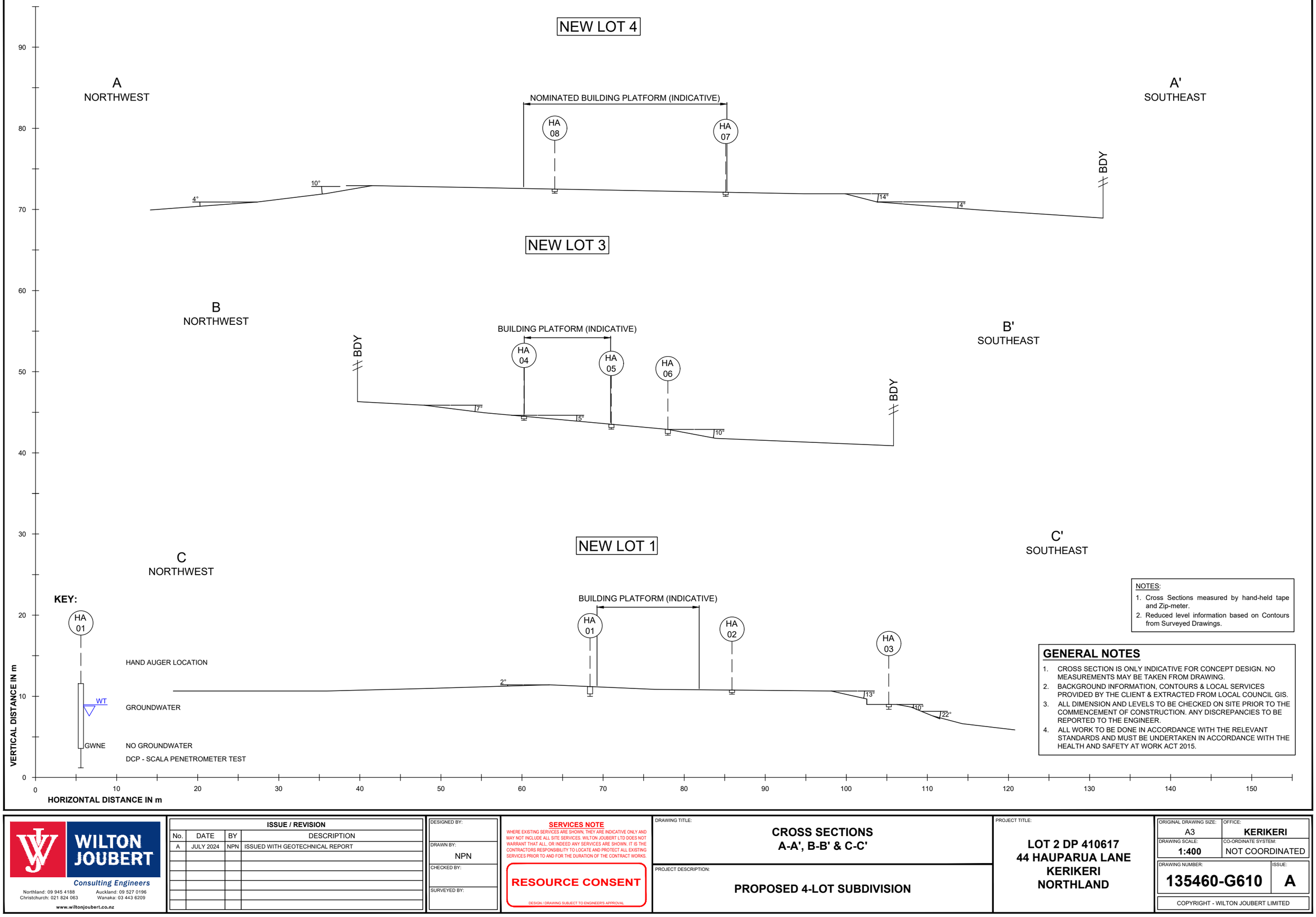

NOTES:

1. Cross Sections measured by hand-held tape and Zip-meter.
2. Reduced level information based on Contours from Surveyed Drawings.

GENERAL NOTES

1. CROSS SECTION 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.
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ISSUE / REVISION

No.	DATE	BY	DESCRIPTION
A	JULY 2024	NPN	ISSUED WITH GEOTECHNICAL REPORT

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SERVICES NOTE
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RESOURCE CONSENT
DESIGN / DRAWING SUBJECT TO ENGINEER'S APPROVAL

DRAWING TITLE:
CROSS SECTIONS A-A', B-B' & C-C'

PROJECT DESCRIPTION:
PROPOSED 4-LOT SUBDIVISION

PROJECT TITLE:
**LOT 2 DP 410617
44 HAUPARUA LANE
KERIKERI
NORTHLAND**

ORIGINAL DRAWING SIZE:	OFFICE:
A3	KERIKERI
DRAWING SCALE: 1:400	CO-ORDINATE SYSTEM: NOT COORDINATED
DRAWING NUMBER: 135460-G610	ISSUE: A

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HAND AUGER : HA01

JOB NO.: 135460 **SHEET:** 1 OF 9

START DATE: 29/07/2024 **NORTHING:** **GRID:**

CLIENT: Nik Morrison **DIAMETER:** 50mm **EASTING:**

PROJECT: Geotechnical Investigation for Resource Consent (Subdivision) **SV DIAL:** DR4802 **ELEVATION:** Ground

SITE LOCATION: 44 Hauparua Lane, Kerikeri - Lot 2 DP 410617 **FACTOR:** 1.55 **DATUM:**

STRATIGRAPHY	SOIL DESCRIPTION	LEGEND	DEPTH (m)	WATER	SHEAR VANE PEAK STRENGTH (kPa)	SHEAR VANE REMOULD STRENGTH (kPa)	SHEAR VANE SENSITIVITY	DCP - SCALA (Blows / 100mm)	COMMENTS, SAMPLES, OTHER TESTS
Topsoil	TOPSOIL - dark brown, brown, firm, moist, non plastic	TS	0.2	Groundwater Not Encountered					
Kerikeri Volcanic Group	SILT, trace to minor clay, occasional strongly fused clasts <20mmØ, orange yellow with grey mottles, very stiff to hard, moist, low plasticity (NATURAL)		0.4		217+	-	-		
	0.8m: becoming gravelly, dense to drill		0.6						
			0.8		UTP	-	-	6	
	EOH: 0.90m - (Shallow Basalt Obstruction)		1.0					8	
			1.2					20	
			1.4						
			1.6						
			1.8						

REMARKS

End of borehole @ 0.90m (Target Depth: 3.00m)

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

LOGGED BY: NPN

CHECKED BY: SJP

▼ Standing groundwater level

▽ GW while drilling

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HAND AUGER : HA02

JOB NO.: 135460 **SHEET:** 2 OF 9

START DATE: 29/07/2024 **NORTHING:** **GRID:**

CLIENT: Nik Morrison **DIAMETER:** 50mm **EASTING:**

PROJECT: Geotechnical Investigation for Resource Consent (Subdivision) **SV DIAL:** DR4802 **ELEVATION:** Ground

SITE LOCATION: 44 Hauparua Lane, Kerikeri - Lot 2 DP 410617 **FACTOR:** 1.55 **DATUM:**

STRATIGRAPHY	SOIL DESCRIPTION	LEGEND	DEPTH (m)	WATER	SHEAR VANE: PEAK STRENGTH (kPa)	SHEAR VANE: REMOULD STRENGTH (kPa)	SHEAR VANE: SENSITIVITY	DCP - SCALA (Blows / 100mm)	COMMENTS, SAMPLES, OTHER TESTS
Topsoil	TOPSOIL - brown, dark brown, moist, non plastic	TS	0.0	Groundwater Not Encountered					
Kerikeri Volcanic Group	SILT, trace clay, some fine to coarse gravel as strongly fused volcanic clasts, light orange and brown with grey streaks, dry to moist, non plastic (NATURAL)		0.2					8	
	0.3m: becoming hard to drill								
	EOH: 0.40m - (Shallow Basalt Obstruction)		0.4		UTP	-	-	20	
			0.6						
			0.8						
			1.0						
			1.2						
			1.4						
			1.6						
			1.8						

REMARKS

End of borehole @ 0.40m (Target Depth: 3.00m)

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

LOGGED BY: NPN

CHECKED BY: SJP

▼ Standing groundwater level

▽ GW while drilling

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HAND AUGER : HA03

CLIENT: Nik Morrison
PROJECT: Geotechnical Investigation for Resource Consent (Subdivision)
SITE LOCATION: 44 Hauparua Lane, Kerikeri - Lot 2 DP 410617

JOB NO.: 135460 **SHEET:** 3 OF 9
START DATE: 29/07/2024 **NORTHING:** **GRID:**
DIAMETER: 50mm **EASTING:**
SV DIAL: DR4802 **ELEVATION:** Ground
FACTOR: 1.55 **DATUM:**

STRATIGRAPHY	SOIL DESCRIPTION	LEGEND	DEPTH (m)	WATER	SHEAR VANE PEAK STRENGTH (kPa)	SHEAR VANE REMOULD STRENGTH (kPa)	SHEAR VANE SENSITIVITY	DCP - SCALA (Blows / 100mm)	COMMENTS, SAMPLES, OTHER TESTS
Kerikeri Volcanic Group	SILT, some fine to coarse gravel as strongly fused volcanic clasts, light orange and brown with grey mottling, hard, dry to moist, non plastic (NATURAL)		0.2	Groundwater Not Encountered					
	EOH: 0.30m - (Shallow Basalt Obstruction)		0.4		UTP	-	-	6	
			0.6					10	
			0.8					20	
			1.0						
			1.2						
			1.4						
			1.6						
			1.8						

TOPSOIL CLAY SAND PEAT
FILL SILT GRAVEL ROCK

REMARKS
End of borehole @ 0.30m (Target Depth: 3.00m)

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

LOGGED BY: NPN
CHECKED BY: SJP

▼ Standing groundwater level
▽ GW while drilling

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HAND AUGER : HA04

JOB NO.: 135460 **SHEET:** 4 OF 9

START DATE: 29/07/2024 **NORTHING:** **GRID:**

CLIENT: Nik Morrison **DIAMETER:** 50mm **EASTING:**

PROJECT: Geotechnical Investigation for Resource Consent (Subdivision) **SV DIAL:** DR4802 **ELEVATION:** Ground

SITE LOCATION: 44 Hauparua Lane, Kerikeri - Lot 2 DP 410617 **FACTOR:** 1.55 **DATUM:**

STRATIGRAPHY	SOIL DESCRIPTION	LEGEND	DEPTH (m)	WATER	SHEAR VANE: PEAK STRENGTH (kPa)	SHEAR VANE: REMOULD STRENGTH (kPa)	SHEAR VANE: SENSITIVITY	DCP - SCALA (Blows / 100mm)	COMMENTS, SAMPLES, OTHER TESTS
Topsoil	TOPSOIL - brown, dark brown, firm, moist, non plastic	TS	0.2	Groundwater Not Encountered					
Kerikeri Volcanic Group	SILT, trace clay, some fine to coarse gravel as strongly fused volcanic clasts, light orange and brown with grey streaks, hard, dry to moist, non plastic (NATURAL)		0.4		UTP	-	-		
	EOH: 0.40m - (Shallow Basalt Obstruction)		0.6					12	
			0.8					20	
			1.0						
			1.2						
			1.4						
			1.6						
			1.8						

TOPSOIL CLAY SAND PEAT
FILL SILT GRAVEL ROCK

REMARKS

End of borehole @ 0.40m (Target Depth: 3.00m)

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

LOGGED BY: NPN

CHECKED BY: SJP

▼ Standing groundwater level

▽ GW while drilling

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HAND AUGER : HA05

CLIENT: Nik Morrison
PROJECT: Geotechnical Investigation for Resource Consent (Subdivision)
SITE LOCATION: 44 Hauparua Lane, Kerikeri - Lot 2 DP 410617

JOB NO.: 135460 **SHEET:** 5 OF 9
START DATE: 29/07/2024 **NORTHING:** **GRID:**
DIAMETER: 50mm **EASTING:**
SV DIAL: DR4802 **ELEVATION:** Ground
FACTOR: 1.55 **DATUM:**

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

STRATIGRAPHY	SOIL DESCRIPTION	LEGEND	DEPTH (m)	WATER	SHEAR VANE PEAK STRENGTH (kPa)	SHEAR VANE REMOULD STRENGTH (kPa)	SENSITIVITY	DCP - SCALA (Blows / 100mm)	COMMENTS, SAMPLES, OTHER TESTS
Topsoil	TOPSOIL - brown, dark brown, firm, moist, non plastic	TS		Groundwater Not Encountered					
Kerikeri Volcanic Group	SILT, some fine to coarse gravel as strongly fused volcanic clasts, light orange and brown with grey streaks, very stiff to hard, dry to moist, non plastic (NATURAL)		0.2						
	EOH: 0.40m - (Shallow Basalt Obstruction)		0.4		UTP	-	-	20	
			0.6						
			0.8						
			1.0						
			1.2						
			1.4						
			1.6						
			1.8						

REMARKS
End of borehole @ 0.40m (Target Depth: 3.00m)

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

LOGGED BY: NPN
CHECKED BY: SJP

▼ Standing groundwater level
▽ GW while drilling

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HAND AUGER : HA06

CLIENT: Nik Morrison
PROJECT: Geotechnical Investigation for Resource Consent (Subdivision)
SITE LOCATION: 44 Hauparua Lane, Kerikeri - Lot 2 DP 410617

JOB NO.: 135460 **SHEET:** 6 OF 9
START DATE: 29/07/2024 **NORTHING:** **GRID:**
DIAMETER: 50mm **EASTING:**
SV DIAL: DR4802 **ELEVATION:** Ground
FACTOR: 1.55 **DATUM:**

STRATIGRAPHY	SOIL DESCRIPTION	LEGEND	DEPTH (m)	WATER	SHEAR VANE: PEAK STRENGTH (kPa)	SHEAR VANE: REMOULD STRENGTH (kPa)	SHEAR VANE: SENSITIVITY	DCP - SCALA (Blows / 100mm)	COMMENTS, SAMPLES, OTHER TESTS
Topsoil	TOPSOIL - brown, dark brown, firm, moist, non plastic	TS		Groundwater Not Encountered					
Kerikeri Volcanic Group	SILT, trace clay, some fine to coarse gravel as strongly fused volcanic clasts, light orange and brown with grey streaks, hard, dry to moist, non plastic (NATURAL)		0.2						
			0.4		UTP	-	-		
	EOH: 0.50m - (Shallow Basalt Obstruction)		0.6					18	
								20	
			0.8						
			1.0						
			1.2						
			1.4						
			1.6						
			1.8						

SOIL DESCRIPTION
TOPSOIL CLAY SAND PEAT
FILL SILT GRAVEL ROCK

REMARKS
End of borehole @ 0.50m (Target Depth: 3.00m)

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

LOGGED BY: NPN
CHECKED BY: SJP

▼ Standing groundwater level
▽ GW while drilling

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HAND AUGER : HA07

JOB NO.: 135460 **SHEET:** 7 OF 9

START DATE: 29/07/2024 **NORTHING:** **GRID:**

CLIENT: Nik Morrison **DIAMETER:** 50mm **EASTING:**

PROJECT: Geotechnical Investigation for Resource Consent (Subdivision) **SV DIAL:** DR4802 **ELEVATION:** Ground

SITE LOCATION: 44 Hauparua Lane, Kerikeri - Lot 2 DP 410617 **FACTOR:** 1.55 **DATUM:**

TOPSOIL CLAY SAND PEAT
FILL SILT GRAVEL ROCK

STRATIGRAPHY	SOIL DESCRIPTION	LEGEND	DEPTH (m)	WATER	SHEAR VANE PEAK STRENGTH (kPa)	SHEAR VANE REMOULD STRENGTH (kPa)	SHEAR VANE SENSITIVITY	DCP - SCALA (Blows / 100mm)	COMMENTS, SAMPLES, OTHER TESTS
Topsoil	TOPSOIL - brown, dark brown, firm, moist, non plastic	TS	0.2	Groundwater Not Encountered					
Kerikeri Volcanic Group	SILT, some fine to coarse gravel as strongly fused volcanic clasts, light orange and brown, very stiff to hard, dry to moist, non plastic (NATURAL)		0.4		UTP	-	-	20	
	EOH: 0.40m - (Shallow Basalt Obstruction)		0.6						
			0.8						
			1.0						
			1.2						
			1.4						
			1.6						
			1.8						

REMARKS
End of borehole @ 0.40m (Target Depth: 3.00m)

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

LOGGED BY: NPN ▼ Standing groundwater level

CHECKED BY: SJP ▽ GW while drilling

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HAND AUGER : HA08

JOB NO.: 135460 **SHEET:** 8 OF 9

START DATE: 29/07/2024 **NORTHING:** **GRID:**

CLIENT: Nik Morrison **DIAMETER:** 50mm **EASTING:**

PROJECT: Geotechnical Investigation for Resource Consent (Subdivision) **SV DIAL:** DR4802 **ELEVATION:** Ground

SITE LOCATION: 44 Hauparua Lane, Kerikeri - Lot 2 DP 410617 **FACTOR:** 1.55 **DATUM:**

STRATIGRAPHY	SOIL DESCRIPTION	LEGEND	DEPTH (m)	WATER	SHEAR VANE: PEAK STRENGTH (kPa)	SHEAR VANE: REMOULD STRENGTH (kPa)	SHEAR VANE: SENSITIVITY	DCP - SCALA (Blows / 100mm)	COMMENTS, SAMPLES, OTHER TESTS
Topsoil	TOPSOIL - brown, dark brown, firm, moist, non plastic	TS	0.0	Groundwater Not Encountered					
Kerikeri Volcanic Group	SILT, trace clay, some fine to coarse gravel as strongly fused volcanic clasts, light orange and brown with grey streaks, dry to moist, non plastic (NATURAL)		0.2					12	
	EOH: 0.40m - (Shallow Basalt Obstruction)		0.4		UTP	-	-	20	
			0.6						
			0.8						
			1.0						
			1.2						
			1.4						
			1.6						
			1.8						

TOPSOIL CLAY SAND PEAT
FILL SILT GRAVEL ROCK

REMARKS

End of borehole @ 0.40m (Target Depth: 3.00m)

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

LOGGED BY: NPN

CHECKED BY: SJP

▼ Standing groundwater level

▽ GW while drilling

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HAND AUGER : HA09

JOB NO.: 135460 **SHEET:** 9 OF 9

START DATE: 29/07/2024 **NORTHING:** **GRID:**

CLIENT: Nik Morrison **DIAMETER:** 50mm **EASTING:**

PROJECT: Geotechnical Investigation for Resource Consent (Subdivision) **SV DIAL:** DR4802 **ELEVATION:** Ground

SITE LOCATION: 44 Hauparua Lane, Kerikeri - Lot 2 DP 410617 **FACTOR:** 1.55 **DATUM:**

STRATIGRAPHY	SOIL DESCRIPTION	LEGEND	DEPTH (m)	WATER	SHEAR VANE: PEAK STRENGTH (kPa)	SHEAR VANE: REMOULD STRENGTH (kPa)	SHEAR VANE: SENSITIVITY	DCP - SCALA (Blows / 100mm)	COMMENTS, SAMPLES, OTHER TESTS
Topsoil	TOPSOIL - brown, dark brown, firm, moist, non plastic	TS	0.0	Groundwater Not Encountered					
Kerikeri Volcanic Group	SILT, trace clay, some fine to coarse gravel as strongly fused volcanic clasts, light orange, yellow, brown, very stiff to hard, dry to moist, non plastic (NATURAL)		0.2						
			0.4		217+	-	-		
			0.6						
			0.8		UTP	-	-	18	
	EOH: 0.80m - (Shallow Basalt Obstruction)							20	
			1.0						
			1.2						
			1.4						
			1.6						
			1.8						

REMARKS

End of borehole @ 0.80m (Target Depth: 3.00m)

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

LOGGED BY: NPN

CHECKED BY: SJP

▼ Standing groundwater level

▽ GW while drilling

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Foundation Maintenance and Footing Performance:
A Homeowner's Guide

PUBLISHING

BTF 18-2011 replaces Information Sheet 10/91

Buildings can and often do move. This movement can be up, down, lateral or rotational. The fundamental cause of movement in buildings can usually be related to one or more problems in the foundation soil. It is important for the homeowner to identify the soil type in order to ascertain the measures that should be put in place in order to ensure that problems in the foundation soil can be prevented, thus protecting against building movement.

This Building Technology File is designed to identify causes of soil-related building movement, and to suggest methods of prevention of resultant cracking in buildings.

Soil Types

The types of soils usually present under the topsoil in land zoned for residential buildings can be split into two approximate groups – granular and clay. Quite often, foundation soil is a mixture of both types. The general problems associated with soils having granular content are usually caused by erosion. Clay soils are subject to saturation and swell/shrink problems.

Classifications for a given area can generally be obtained by application to the local authority, but these are sometimes unreliable and if there is doubt, a geotechnical report should be commissioned. As most buildings suffering movement problems are founded on clay soils, there is an emphasis on classification of soils according to the amount of swell and shrinkage they experience with variations of water content. The table below is Table 2.1 from AS 2870-2011, the Residential Slab and Footing Code.

Causes of Movement

Settlement due to construction

There are two types of settlement that occur as a result of construction:

- Immediate settlement occurs when a building is first placed on its foundation soil, as a result of compaction of the soil under the weight of the structure. The cohesive quality of clay soil mitigates against this, but granular (particularly sandy) soil is susceptible.
- Consolidation settlement is a feature of clay soil and may take place because of the expulsion of moisture from the soil or because of the soil's lack of resistance to local compressive or shear stresses. This will usually take place during the first few months after construction, but has been known to take many years in exceptional cases.

These problems are the province of the builder and should be taken into consideration as part of the preparation of the site for construction. Building Technology File 19 (BTF 19) deals with these problems.

Erosion

All soils are prone to erosion, but sandy soil is particularly susceptible to being washed away. Even clay with a sand component of say 10% or more can suffer from erosion.

Saturation

This is particularly a problem in clay soils. Saturation creates a bog-like suspension of the soil that causes it to lose virtually all of its bearing capacity. To a lesser degree, sand is affected by saturation because saturated sand may undergo a reduction in volume, particularly imported sand fill for bedding and blinding layers. However, this usually occurs as immediate settlement and should normally be the province of the builder.

Seasonal swelling and shrinkage of soil

All clays react to the presence of water by slowly absorbing it, making the soil increase in volume (see table below). The degree of increase varies considerably between different clays, as does the degree of decrease during the subsequent drying out caused by fair weather periods. Because of the low absorption and expulsion rate, this phenomenon will not usually be noticeable unless there are prolonged rainy or dry periods, usually of weeks or months, depending on the land and soil characteristics.

The swelling of soil creates an upward force on the footings of the building, and shrinkage creates subsidence that takes away the support needed by the footing to retain equilibrium.

Shear failure

This phenomenon occurs when the foundation soil does not have sufficient strength to support the weight of the footing. There are two major post-construction causes:

- Significant load increase.
- Reduction of lateral support of the soil under the footing due to erosion or excavation.

In clay soil, shear failure can be caused by saturation of the soil adjacent to or under the footing.

GENERAL DEFINITIONS OF SITE CLASSES

Class	Foundation
A	Most sand and rock sites with little or no ground movement from moisture changes
S	Slightly reactive clay sites, which may experience only slight ground movement from moisture changes
M	Moderately reactive clay or silt sites, which may experience moderate ground movement from moisture changes
H1	Highly reactive clay sites, which may experience high ground movement from moisture changes
H2	Highly reactive clay sites, which may experience very high ground movement from moisture changes
E	Extremely reactive sites, which may experience extreme ground movement from moisture changes

Notes

1. Where controlled fill has been used, the site may be classified A to E according to the type of fill used.
2. Filled sites. Class P is used for sites which include soft fills, such as clay or silt or loose sands; landslip; mine subsidence; collapsing soils; soil subject to erosion; reactive sites subject to abnormal moisture conditions or sites which cannot be classified otherwise.
3. Where deep-seated moisture changes exist on sites at depths of 3 m or greater, further classification is needed for Classes M to E (M-D, H1-D, H2-D and E-D).

Tree root growth
Trees and shrubs that are allowed to grow in the vicinity of footings can cause foundation soil movement in two ways:

- Roots that grow under footings may increase in cross-sectional size, exerting upward pressure on footings.
- Roots in the vicinity of footings will absorb much of the moisture in the foundation soil, causing shrinkage or subsidence.

Unevenness of Movement

The types of ground movement described above usually occur unevenly throughout the building's foundation soil. Settlement due to construction tends to be uneven because of:

- Differing compaction of foundation soil prior to construction.
- Differing moisture content of foundation soil prior to construction.

Movement due to non-construction causes is usually more uneven still. Erosion can undermine a footing that traverses the flow or can create the conditions for shear failure by eroding soil adjacent to a footing that runs in the same direction as the flow.

Saturation of clay foundation soil may occur where subfloor walls create a dam that makes water pond. It can also occur wherever there is a source of water near footings in clay soil. This leads to a severe reduction in the strength of the soil which may create local shear failure.

Seasonal swelling and shrinkage of clay soil affects the perimeter of the building first, then gradually spreads to the interior. The swelling process will usually begin at the uphill extreme of the building, or on the weather side where the land is flat. Swelling gradually reaches the interior soil as absorption continues. Shrinkage usually begins where the sun's heat is greatest.

Effects of Uneven Soil Movement on Structures

Erosion and saturation
Erosion removes the support from under footings, tending to create subsidence of the part of the structure under which it occurs. Brickwork walls will resist the stress created by this removal of support by bridging the gap or cantilevering until the bricks or the mortar bedding fail. Older masonry has little resistance. Evidence of failure varies according to circumstances and symptoms may include:

- Step cracking in the mortar beds in the body of the wall or above/below openings such as doors or windows.
- Vertical cracking in the bricks (usually but not necessarily in line with the vertical beds or perpends).

Isolated piers affected by erosion or saturation of foundations will eventually lose contact with the bearers they support and may tilt or fall over. The floors that have lost this support will become bouncy, sometimes rattling ornaments etc.

Seasonal swelling/shrinkage in clay
Swelling foundation soil due to rainy periods first lifts the most exposed extremities of the footing system, then the remainder of the perimeter footings while gradually permeating inside the building footprint to lift internal footings. This swelling first tends to create a dish effect, because the external footings are pushed higher than the internal ones.

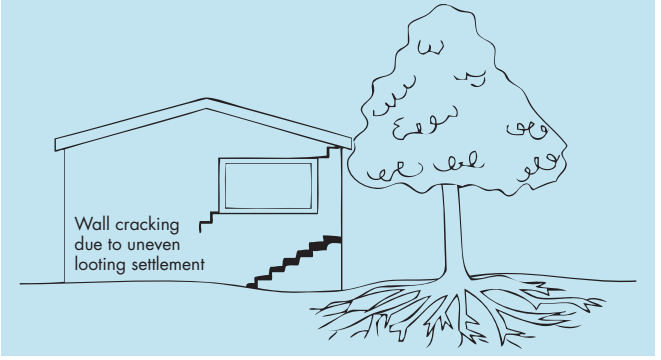
The first noticeable symptom may be that the floor appears slightly dished. This is often accompanied by some doors binding on the floor or the door head, together with some cracking of cornice mitres. In buildings with timber flooring supported by bearers and joists, the floor can be bouncy. Externally there may be visible dishing of the hip or ridge lines.

As the moisture absorption process completes its journey to the innermost areas of the building, the internal footings will rise. If the spread of moisture is roughly even, it may be that the symptoms will temporarily disappear, but it is more likely that swelling will be uneven, creating a difference rather than a disappearance in symptoms. In buildings with timber flooring supported by bearers and joists, the isolated piers will rise more easily than the strip footings or piers under walls, creating noticeable doming of flooring.

As the weather pattern changes and the soil begins to dry out, the external footings will be first affected, beginning with the locations where the sun's effect is strongest. This has the effect of lowering the external footings. The doming is accentuated and cracking reduces or disappears where it occurred because of dishing, but other cracks open up. The roof lines may become convex.

Doming and dishing are also affected by weather in other ways. In areas where warm, wet summers and cooler dry winters prevail, water migration tends to be toward the interior and doming will be accentuated, whereas where summers are dry and winters are cold and wet, migration tends to be toward the exterior and the underlying propensity is toward dishing.

Trees can cause shrinkage and damage



Movement caused by tree roots
In general, growing roots will exert an upward pressure on footings, whereas soil subject to drying because of tree or shrub roots will tend to remove support from under footings by inducing shrinkage.

Complications caused by the structure itself
Most forces that the soil causes to be exerted on structures are vertical – i.e. either up or down. However, because these forces are seldom spread evenly around the footings, and because the building resists uneven movement because of its rigidity, forces are exerted from one part of the building to another. The net result of all these forces is usually rotational. This resultant force often complicates the diagnosis because the visible symptoms do not simply reflect the original cause. A common symptom is binding of doors on the vertical member of the frame.

Effects on full masonry structures
Brickwork will resist cracking where it can. It will attempt to span areas that lose support because of subsided foundations or raised points. It is therefore usual to see cracking at weak points, such as openings for windows or doors.

In the event of construction settlement, cracking will usually remain unchanged after the process of settlement has ceased.

With local shear or erosion, cracking will usually continue to develop until the original cause has been remedied, or until the subsidence has completely neutralised the affected portion of footing and the structure has stabilised on other footings that remain effective.

In the case of swell/shrink effects, the brickwork will in some cases return to its original position after completion of a cycle, however it is more likely that the rotational effect will not be exactly reversed, and it is also usual that brickwork will settle in its new position and will resist the forces trying to return it to its original position. This means that in a case where swelling takes place after construction and cracking occurs, the cracking is likely to at least partly remain after the shrink segment of the cycle is complete. Thus, each time the cycle is repeated, the likelihood is that the cracking will become wider until the sections of brickwork become virtually independent.

With repeated cycles, once the cracking is established, if there is no other complication, it is normal for the incidence of cracking to stabilise, as the building has the articulation it needs to cope with the problem. This is by no means always the case, however, and monitoring of cracks in walls and floors should always be treated seriously.

Upheaval caused by growth of tree roots under footings is not a simple vertical shear stress. There is a tendency for the root to also exert lateral forces that attempt to separate sections of brickwork after initial cracking has occurred.

The normal structural arrangement is that the inner leaf of brickwork in the external walls and at least some of the internal walls (depending on the roof type) comprise the load-bearing structure on which any upper floors, ceilings and the roof are supported. In these cases, it is internally visible cracking that should be the main focus of attention, however there are a few examples of dwellings whose external leaf of masonry plays some supporting role, so this should be checked if there is any doubt. In any case, externally visible cracking is important as a guide to stresses on the structure generally, and it should also be remembered that the external walls must be capable of supporting themselves.

Effects on framed structures
Timber or steel framed buildings are less likely to exhibit cracking due to swell/shrink than masonry buildings because of their flexibility. Also, the doming/dishing effects tend to be lower because of the lighter weight of walls. The main risks to framed buildings are encountered because of the isolated pier footings used under walls. Where erosion or saturation causes a footing to fall away, this can double the span which a wall must bridge. This additional stress can create cracking in wall linings, particularly where there is a weak point in the structure caused by a door or window opening. It is, however, unlikely that framed structures will be so stressed as to suffer serious damage without first exhibiting some or all of the above symptoms for a considerable period. The same warning period should apply in the case of upheaval. It should be noted, however, that where framed buildings are supported by strip footings there is only one leaf of brickwork and therefore the externally visible walls are the supporting structure for the building. In this case, the subfloor masonry walls can be expected to behave as full brickwork walls.

Effects on brick veneer structures
Because the load-bearing structure of a brick veneer building is the frame that makes up the interior leaf of the external walls plus perhaps the internal walls, depending on the type of roof, the building can be expected to behave as a framed structure, except that the external masonry will behave in a similar way to the external leaf of a full masonry structure.

Water Service and Drainage

Where a water service pipe, a sewer or stormwater drainage pipe is in the vicinity of a building, a water leak can cause erosion, swelling or saturation of susceptible soil. Even a minuscule leak can be enough to saturate a clay foundation. A leaking tap near a building can have the same effect. In addition, trenches containing pipes can become watercourses even though backfilled, particularly where broken rubble is used as fill. Water that runs along these trenches can be responsible for serious erosion, interstrata seepage into subfloor areas and saturation.

Pipe leakage and trench water flows also encourage tree and shrub roots to the source of water, complicating and exacerbating the problem. Poor roof plumbing can result in large volumes of rainwater being concentrated in a small area of soil:

- Incorrect falls in roof guttering may result in overflows, as may gutters blocked with leaves etc.
- Corroded guttering or downpipes can spill water to ground.
- Downpipes not positively connected to a proper stormwater collection system will direct a concentration of water to soil that is directly adjacent to footings, sometimes causing large-scale problems such as erosion, saturation and migration of water under the building.

Seriousness of Cracking

In general, most cracking found in masonry walls is a cosmetic nuisance only and can be kept in repair or even ignored. The table below is a reproduction of Table C1 of AS 2870-2011.

AS 2870-2011 also publishes figures relating to cracking in concrete floors, however because wall cracking will usually reach the critical point significantly earlier than cracking in slabs, this table is not reproduced here.

Prevention/Cure

Plumbing
Where building movement is caused by water service, roof plumbing, sewer or stormwater failure, the remedy is to repair the problem. It is prudent, however, to consider also rerouting pipes away from the building where possible, and relocating taps to positions where any leakage will not direct water to the building vicinity. Even where gully traps are present, there is sometimes sufficient spill to create erosion or saturation, particularly in modern installations using smaller diameter PVC fixtures. Indeed, some gully traps are not situated directly under the taps that are installed to charge them, with the result that water from the tap may enter the backfilled trench that houses the sewer piping. If the trench has been poorly backfilled, the water will either pond or flow along the bottom of the trench. As these trenches usually run alongside the footings and can be at a similar depth, it is not hard to see how any water that is thus directed into a trench can easily affect the foundation's ability to support footings or even gain entry to the subfloor area.

Ground drainage
In all soils there is the capacity for water to travel on the surface and below it. Surface water flows can be established by inspection during and after heavy or prolonged rain. If necessary, a grated drain system connected to the stormwater collection system is usually an easy solution.

It is, however, sometimes necessary when attempting to prevent water migration that testing be carried out to establish watertable height and subsoil water flows. This subject is referred to in BTF 19 and may properly be regarded as an area for an expert consultant.

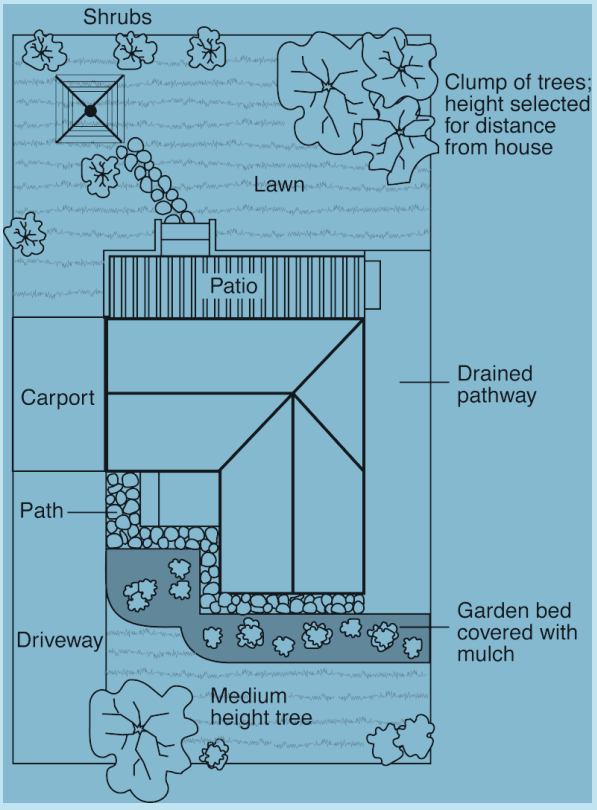
Protection of the building perimeter
It is essential to remember that the soil that affects footings extends well beyond the actual building line. Watering of garden plants, shrubs and trees causes some of the most serious water problems.

For this reason, particularly where problems exist or are likely to occur, it is recommended that an apron of paving be installed around as much of the building perimeter as necessary. This paving should

CLASSIFICATION OF DAMAGE WITH REFERENCE TO WALLS

Description of typical damage and required repair	Approximate crack width limit (see Note 3)	Damage category
Hairline cracks	<0.1 mm	0
Fine cracks which do not need repair	<1 mm	1
Cracks noticeable but easily filled. Doors and windows stick slightly.	<5 mm	2
Cracks can be repaired and possibly a small amount of wall will need to be replaced. Doors and windows stick. Service pipes can fracture. Weathertightness often impaired.	5–15 mm (or a number of cracks 3 mm or more in one group)	3
Extensive repair work involving breaking-out and replacing sections of walls, especially over doors and windows. Window and door frames distort. Walls lean or bulge noticeably, some loss of bearing in beams. Service pipes disrupted.	15–25 mm but also depends on number of cracks	4

Gardens for a reactive site



extend outwards a minimum of 900 mm (more in highly reactive soil) and should have a minimum fall away from the building of 1:60. The finished paving should be no less than 100 mm below brick vent bases.

It is prudent to relocate drainage pipes away from this paving, if possible, to avoid complications from future leakage. If this is not practical, earthenware pipes should be replaced by PVC and backfilling should be of the same soil type as the surrounding soil and compacted to the same density.

Except in areas where freezing of water is an issue, it is wise to remove taps in the building area and relocate them well away from the building – preferably not uphill from it (see BTF 19).

It may be desirable to install a grated drain at the outside edge of the paving on the uphill side of the building. If subsoil drainage is needed this can be installed under the surface drain.

Condensation

In buildings with a subfloor void such as where bearers and joists support flooring, insufficient ventilation creates ideal conditions for condensation, particularly where there is little clearance between the floor and the ground. Condensation adds to the moisture already present in the subfloor and significantly slows the process of drying out. Installation of an adequate subfloor ventilation system, either natural or mechanical, is desirable.

Warning: Although this Building Technology File deals with cracking in buildings, it should be said that subfloor moisture can result in the development of other problems, notably:

- Water that is transmitted into masonry, metal or timber building elements causes damage and/or decay to those elements.
- High subfloor humidity and moisture content create an ideal environment for various pests, including termites and spiders.
- Where high moisture levels are transmitted to the flooring and walls, an increase in the dust mite count can ensue within the living areas. Dust mites, as well as dampness in general, can be a health hazard to inhabitants, particularly those who are abnormally susceptible to respiratory ailments.

The garden

The ideal vegetation layout is to have lawn or plants that require only light watering immediately adjacent to the drainage or paving edge, then more demanding plants, shrubs and trees spread out in that order.

Overwatering due to misuse of automatic watering systems is a common cause of saturation and water migration under footings. If it is necessary to use these systems, it is important to remove garden beds to a completely safe distance from buildings.

Existing trees

Where a tree is causing a problem of soil drying or there is the existence or threat of upheaval of footings, if the offending roots are subsidiary and their removal will not significantly damage the tree, they should be severed and a concrete or metal barrier placed vertically in the soil to prevent future root growth in the direction of the building. If it is not possible to remove the relevant roots without damage to the tree, an application to remove the tree should be made to the local authority. A prudent plan is to transplant likely offenders before they become a problem.

Information on trees, plants and shrubs

State departments overseeing agriculture can give information regarding root patterns, volume of water needed and safe distance from buildings of most species. Botanic gardens are also sources of information. For information on plant roots and drains, see Building Technology File 17.

Excavation

Excavation around footings must be properly engineered. Soil supporting footings can only be safely excavated at an angle that allows the soil under the footing to remain stable. This angle is called the angle of repose (or friction) and varies significantly between soil types and conditions. Removal of soil within the angle of repose will cause subsidence.

Remediation

Where erosion has occurred that has washed away soil adjacent to footings, soil of the same classification should be introduced and compacted to the same density. Where footings have been undermined, augmentation or other specialist work may be required. Remediation of footings and foundations is generally the realm of a specialist consultant.

Where isolated footings rise and fall because of swell/shrink effect, the homeowner may be tempted to alleviate floor bounce by filling the gap that has appeared between the bearer and the pier with blocking. The danger here is that when the next swell segment of the cycle occurs, the extra blocking will push the floor up into an accentuated dome and may also cause local shear failure in the soil. If it is necessary to use blocking, it should be by a pair of fine wedges and monitoring should be carried out fortnightly.

This BTF was prepared by John Lewer FAIB, MIAMA, Partner, Construction Diagnosis.

The information in this and other issues in the series was derived from various sources and was believed to be correct when published.

The information is advisory. It is provided in good faith and not claimed to be an exhaustive treatment of the relevant subject.

Further professional advice needs to be obtained before taking any action based on the information provided.

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CONSTRUCTION MONITORING SERVICES

Construction monitoring is a service, which provides the client with independent verification (to the extent of the consultant's engagement) that the works have been completed in accordance with specified requirements. Most construction projects are unique, and construction works are often complex in detail and skilled professional involvement is necessary for the successful execution of such projects.

The decision as to which level is appropriate will be project dependent, but factors influencing the level of construction monitoring for a project are the size and importance of the project, the complexity of the construction works, and the experience and demonstrated skill in quality management of the constructor. The primary responsibility for completing the contract works in accordance with the requirements of the plans and specifications is the constructor's.

The involvement of the consultants is important during the construction phase to ensure that the design is being correctly interpreted, the construction techniques are appropriate and do not reduce the effectiveness of the design and the work is completed generally in accordance with the plans and specifications. The risk of non-compliance can be reduced by increasing the involvement of the consultant.

Table 1 sets out the five levels of construction monitoring, describes the types of review and indicates where a particular level of monitoring is appropriate. Tables 2 and 3 provide rating values for various aspects of a project to enable an assessment of an appropriate monitoring level to be made.

Table 1

LEVEL	REVIEW	COMMENT
CM1	Monitor the outputs from another party's quality assurance programme against the requirements of the plans and specifications. Visit the works at a frequency agreed with the client to review important materials of construction critical work procedures and/or completed plant or components. Be available to advise the constructor on the technical interpretation of the plans and specifications.	This level is only a secondary service. It may be appropriate where:- For the design consultant when another party is engaged to provide a higher level of construction monitoring or review during the period of construction or:- When the project works are the subject of a performance based specification and performance testing is undertaken and monitored by others.
CM2	Review, preferable at the earliest opportunity, a sample of each important work procedure, material of construction and component for compliance with the requirements of the plans and specifications and review a representative sample of each important completed work prior to enclosure or completion s appropriate. Be available to provide the constructor with technical interpretation of the plans and specification.	This level of service is appropriate for smaller projects of a routine nature being undertaken by an experienced and competent constructor and where a higher than normal risk of non-compliance is acceptable. It provides for the review of a representative sample of work procedures and materials of construction. The assurance of compliance of the finished work is dependent upon the constructor completing the work to at least the same standard as the representative sample reviewed.
CM3	Review, to an extent agreed with the client, random samples of important work procedures, for compliance with the requirements of the plans and specifications and review important completed work prior to enclosure or on completion as appropriate. Be available to provide the constructor with technical interpretation of the plans and specifications.	This level of service is appropriate for medium sized projects of a routine nature being undertaken by an experienced constructor when a normal risk of non-compliance is acceptable.
CM4	Review, at a frequency agreed with the client, regular samples of work procedures, materials of construction and components for compliance with the requirements of the plans and specifications and review the majority of completed work prior to the enclosure or on completion as appropriate.	This level of service is appropriate for projects where a lower than normal risk of non-compliance is required.
CM5	Maintain personnel on site to constantly review work procedures, materials of construction and components for compliance with the requirements of the plans and specifications and review completed work prior to enclosure or on completion as appropriate.	This level of service is appropriate for Major projects -Projects where the consequences of failure are critical -Projects involving innovative or complex construction procedures. The level of service provides the client with the greatest assurance that the completed work complies with the requirements of the plans and specifications.

Source www.ipenz.org.nz/ipenz/practicesupport/endorsedinfo/codes

Table 2

CRITERIA	K	ASSESSMENT				SELECTED VALUE
Project Status		Small	Medium	Large	Major	
	KA	1	2	3	4	
Complexity of work procedures		Routine	Difficult	Complex		
	KB	2	4	6		
Constructor's relevant experience		Inexperienced	Experienced	Certified ISO 9000		
	KC	6	2	1		
Consequences of non-compliance		Minor	Moderate	Serious	Critical	
	KD	1	4	6	12	
					KTOTAL = KA + KB + KC + KD ->	

Table 3

	LEVEL OF CONSTRUCTION MONITORING				
KTOTAL	CM1	CM2	CM3	CM4	
5-6	-	Sampling only	-	-	-
7-8	-	N/A	Weekly	-	-
9-10	A	N/A	Twice Weekly	-	-
11-12	Secondary	N/A	N/A	Twice Weekly	-
13-14	Service	N/A	N/A	Every second day	-
15-16	-	N/A	N/A	Daily	-
17-	-	N/A	N/A	N/A	Constant

N/A = Not Appropriate

- Secondary Service - This level of service is only appropriate when another party is responsible for undertaking the primary review of construction standards.
- Table 3 indicates the frequency of review considered to be appropriate for the project concerned. Not indicated is the time input requirement at each review. The time on each occasion will increase with the increased size and complexity of the construction works and should be agreed with the consultant at the time of engagement.
- Frequency of inspection is intended to be indicative of involvement with actual frequency dependent on the rate of progress of the works.

Wilton Joubert Limited
Kerikeri Office
185 Waipapa Road
Kerikeri, 0230

Geotechnical Addendum Letter

To:	Nik Morrison	**Ref:**	135460
Attention:	Far North District Council	**Date**	12-Dec-24
Email:	nik@laminata.nz		
Re:	Geotechnical Addendum Letter - Review of Revised Subdivision Scheme Plans for the Proposed 4-Lot Subdivision at Lot 2 DP 410617, 44 Hauparua Lane, Kerikeri		

This document is an addendum to our Geotechnical Report: 135460, issued on 31 July 2024, to assess minor changes in scheme to the Subdivision Plans for the proposed 4-Lot subdivision at the above address, and as such, must be read in conjunction with that report.

We have received a revised set of Subdivision Plans (12 sheets), prepared by Permit Shop, depicting the scheme changes (dated 25 November 2024, untitled, unreferenced). The plan set is appended to this letter.

In reviewing the plans above, we note that the scheme changes essentially comprise of:

- Lot 2 increasing in area by 460m². Accommodating area is to be predominantly deducted from Lot 4, with minor area deducted from Lot 3, and
- A proposed new dwelling building site at Lot 2. The new build site is in proximity to the existing 30m² dwelling, offset approximately 2.2m to the east.

The proposed new Lot areas are as follows; Lot 1: 4.4605ha, Lot 2: 8,720m², Lot 3: 8,003m², and Lot 4: 8,005m². We do not perceive any Geotechnical related issues relating to these minor boundary adjustments for the proposed Lots.

The new building site at Lot 2 is to be positioned atop terrain displaying similar graded inclinations and existing ground levels as for Lots 3 and 4. Considering the underlying geology, that being one of a basalt lava flow of significant areal extent, coupled with uniformity in soil findings across the entire subdivision development, we consider that the Geotechnical Assessments and Conclusions and Recommendations contained within our aforementioned report should be relevant for the proposed new building site at Lot 2 and must be adhered to during design and construction.

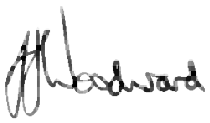
Additionally, the revised drawing set includes a plan for a 112m² modular dwelling (sheet no. 1.12) that we understand will be constructed on all four proposed Lots. The single sheet includes Floor, Elevation, and 3D Plans. We envisage that the dwellings are to be founded on bored, concrete encased, tanalised timber pile foundations. Given the potential for encountering rock obstructions, whether isolated rocks or mass basalt flows, in any foundation excavations, we consider that all excavations should be subject to careful engineering inspections to ensure both vertical and lateral stability are achieved. Finalised foundation and earthwork plans should be referred to us for review prior to submission for a Building Consent application.

Yours faithfully,
WILTON JOUBERT LTD

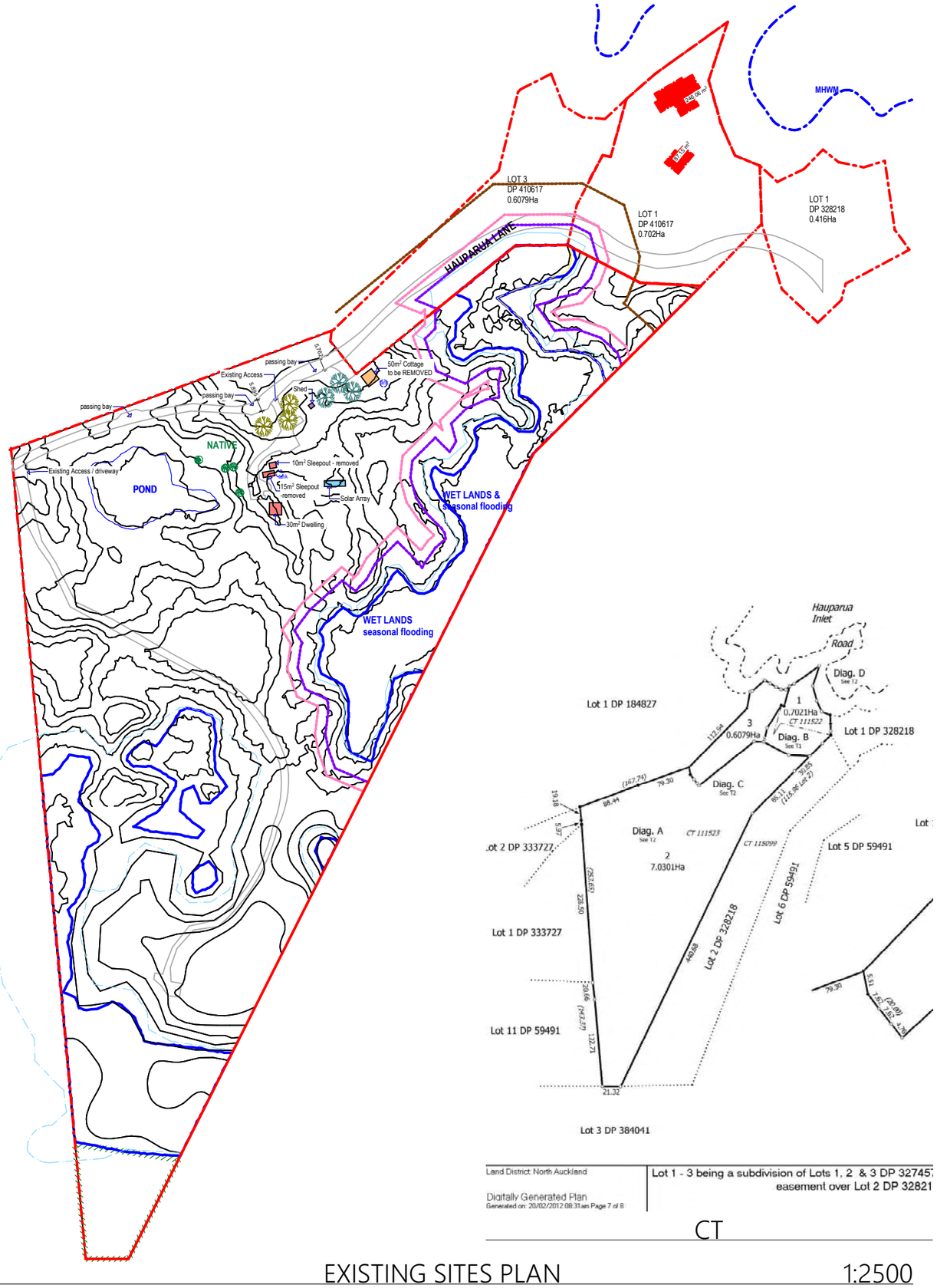
Prepared by

S. Page
Engineering Technician
Pt NZDE (Civil)

Reviewed and approved by



S.J. Woodward
Principal Geotechnical Engineer
(MEng, CPEng, CMEngNZ)



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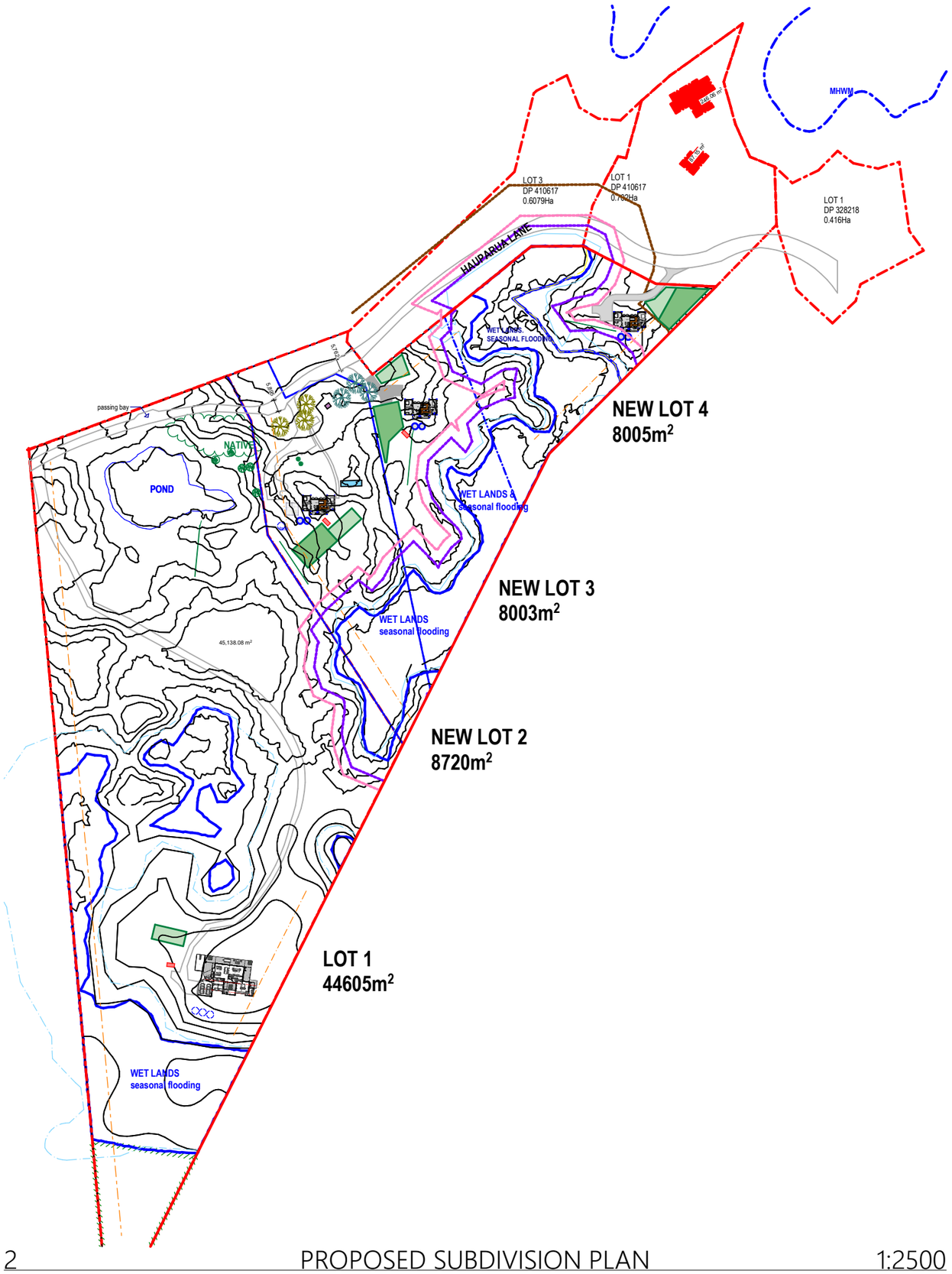
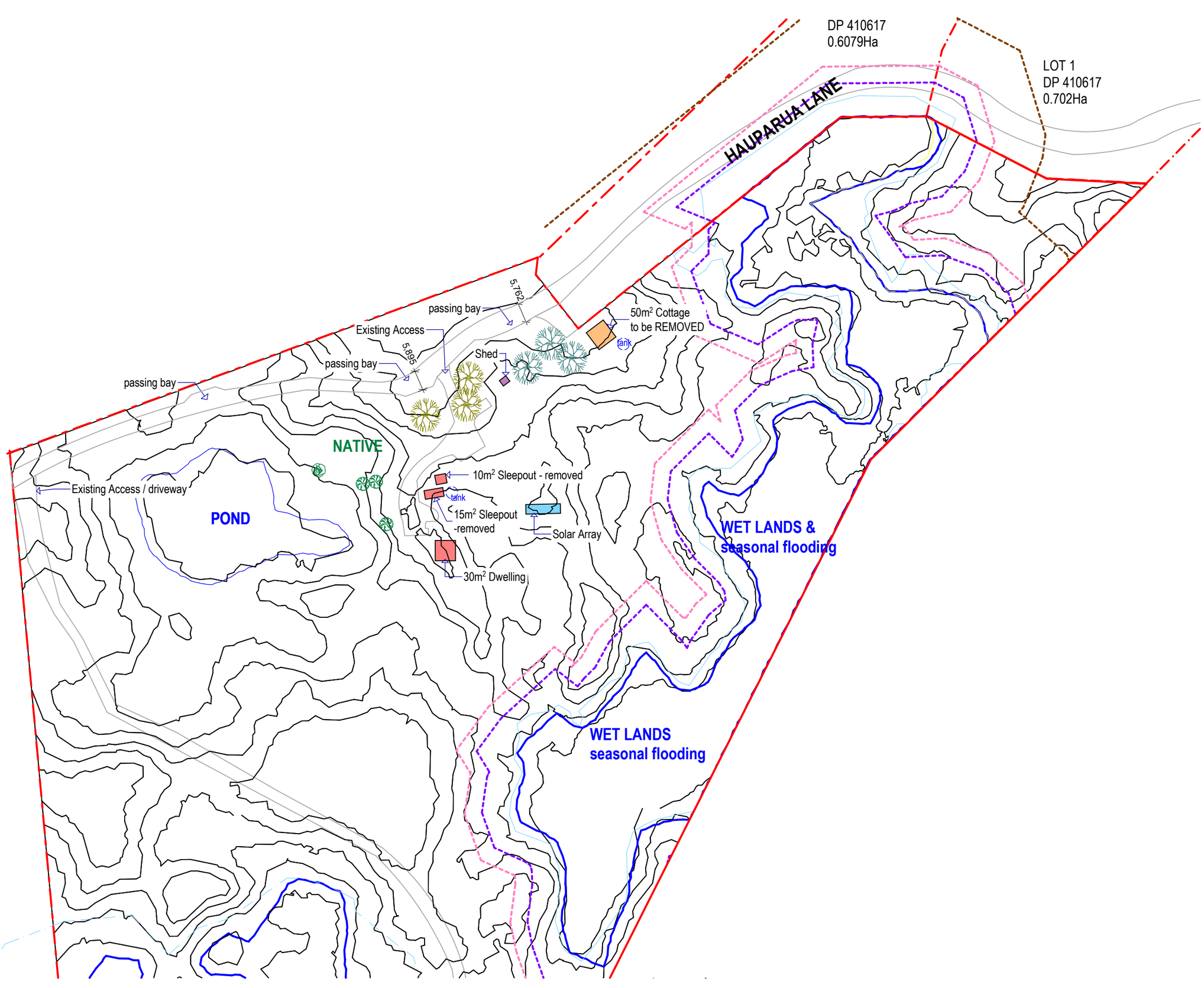


1 EXISTING SITES PLAN 1:2500

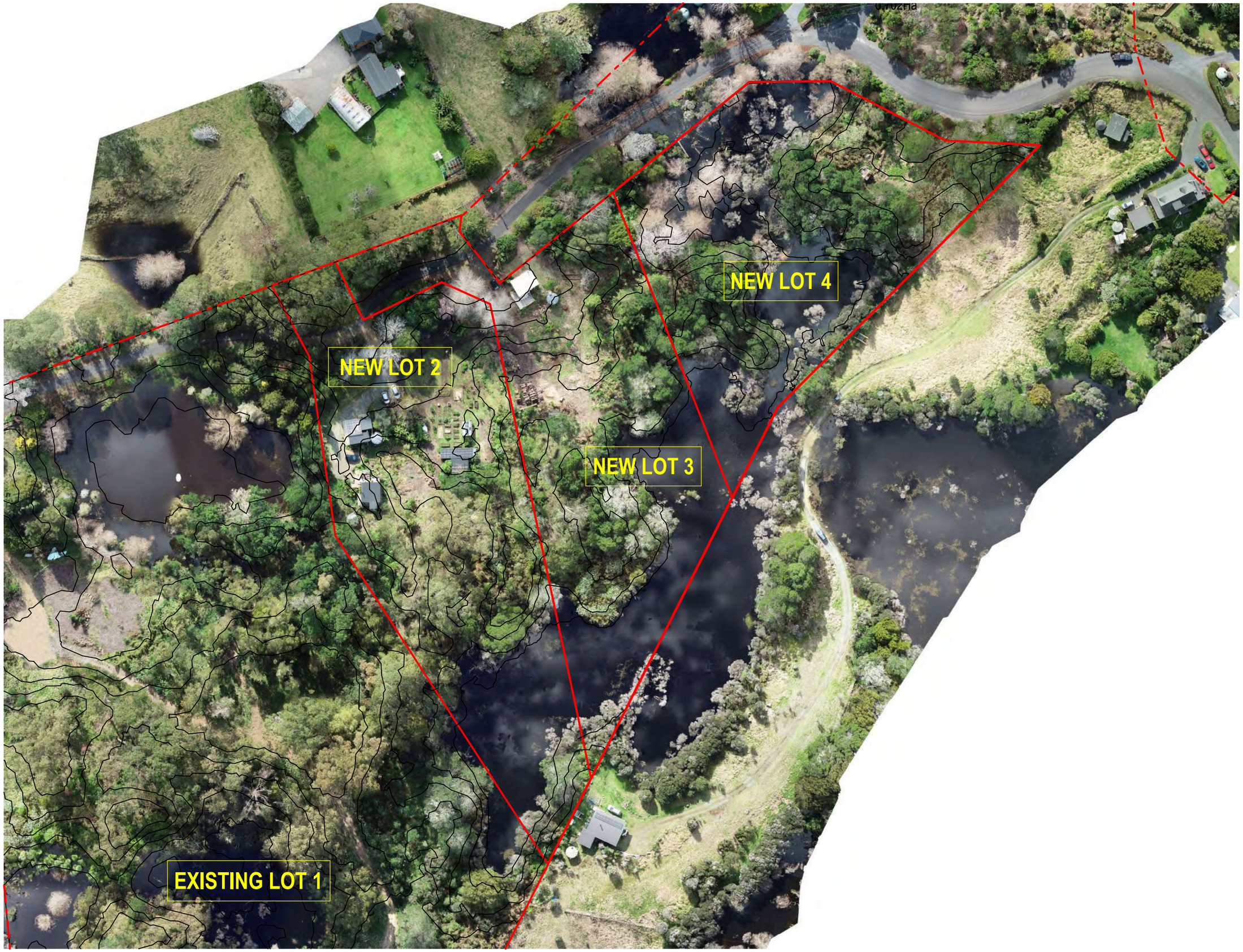
2 PROPOSED SUBDIVISION PLAN 1:2500

PROJECT No. #PIn	PERMIT SHOP PRACTICAL ARCHITECTURE	8 Bellevue Road, Mount Eden, Auckland 1025 I PO Box 41226, Mt Roskill 1440, Auckland P: 09 - 634 6101 www.permitshop.co.nz	PROJECT NAME + ADDRESS #Project Name #STREET #SUBURB, #CITY	SHEET TITLE EXISTING + PROPOSED SITE PLANS	STATUS --	DESIGN: -- DRAWN: -- CHECKED: -- APPROVED: --	SCALE: Shown@A3 PRINT DATE: 25/11/2024	SHEET NUMBER 1.1 REVISION - - WIP

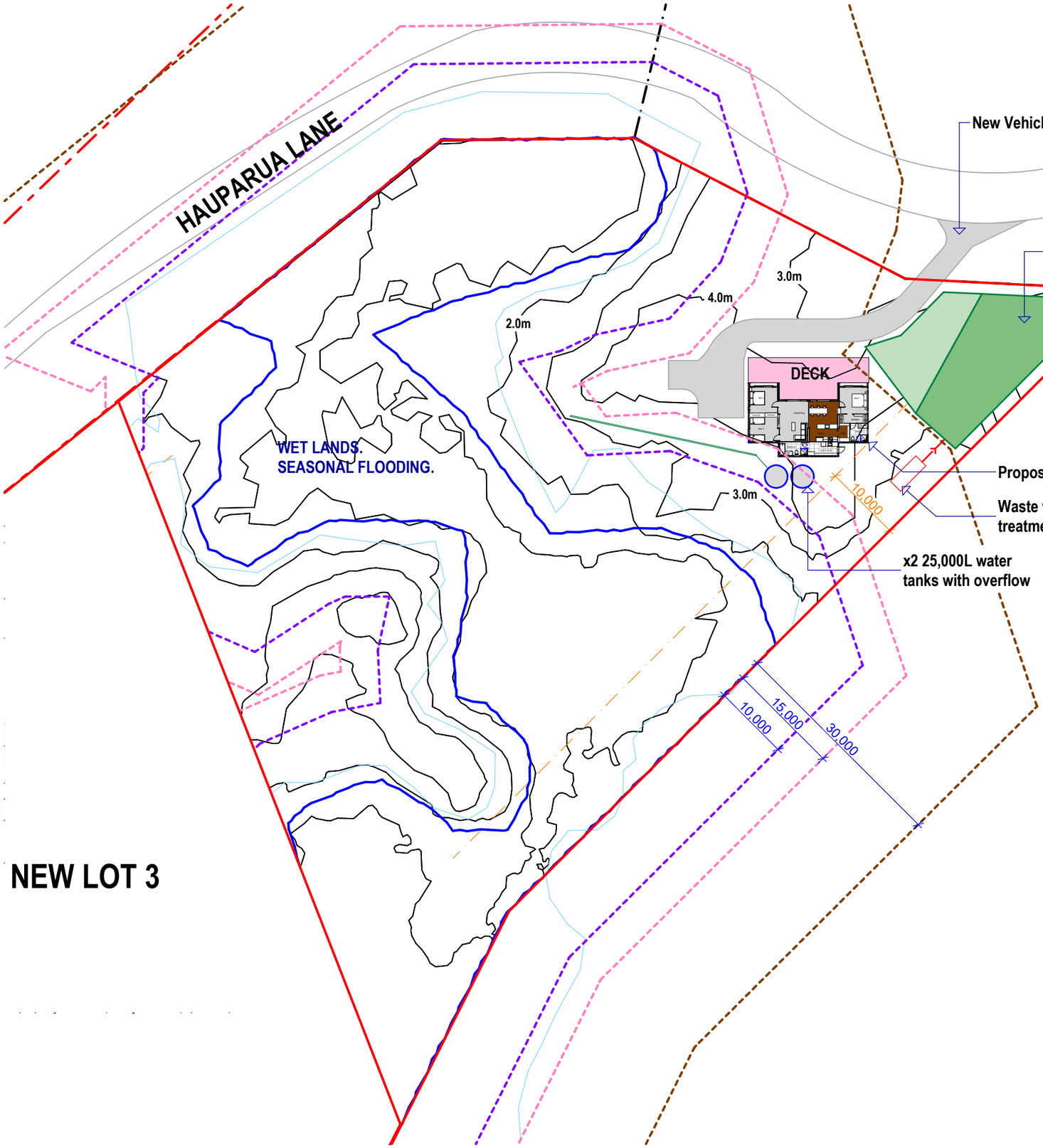


1 EXISTING PART SITES PLAN 1:1170

PROJECT No. #PIn	PERMIT SHOP PRACTICAL ARCHITECTURE	8 Bellevue Road, Mount Eden, Auckland 1025 I PO Box 41226, Mt Roskill 1440, Auckland P: 09 - 634 6101 www.permitshop.co.nz	PROJECT NAME + ADDRESS #Project Name #STREET #SUBURB, #CITY	SHEET TITLE EXISTING PART SITE PLAN	STATUS --	DESIGN: -- DRAWN: -- CHECKED: -- APPROVED: --	SCALE: Shown@A3 PRINT DATE: 25/11/2024	SHEET NUMBER 1.2 REVISION



PROJECT No. #PIn	PERMIT SHOP PRACTICAL ARCHITECTURE	8 Bellevue Road, Mount Eden, Auckland 1025 I PO Box 41226, Mt Roskill 1440, Auckland P: 09 - 634 6101 www.permitshop.co.nz	PROJECT NAME + ADDRESS #Project Name #STREET #SUBURB, #CITY	SHEET TITLE PROPOSED sites with Aerial underlay	STATUS --	DESIGN: -- DRAWN: -- CHECKED: -- APPROVED: --	SCALE: Shown@A3 PRINT DATE: 25/11/2024	SHEET NUMBER 1.3 REVISION



PROPOSED LOT 4 :

- 8,005.16m²
- New Main Dwelling with Waste water treatment + Storm Water Disposal.
- New Vehicle Access way & Driveway

KEY :

= Extent of Winter Flooding

= Surveyed Wet Lands (Cato Bolam, NRC RC)

= 10.0m offset to Wet Lands

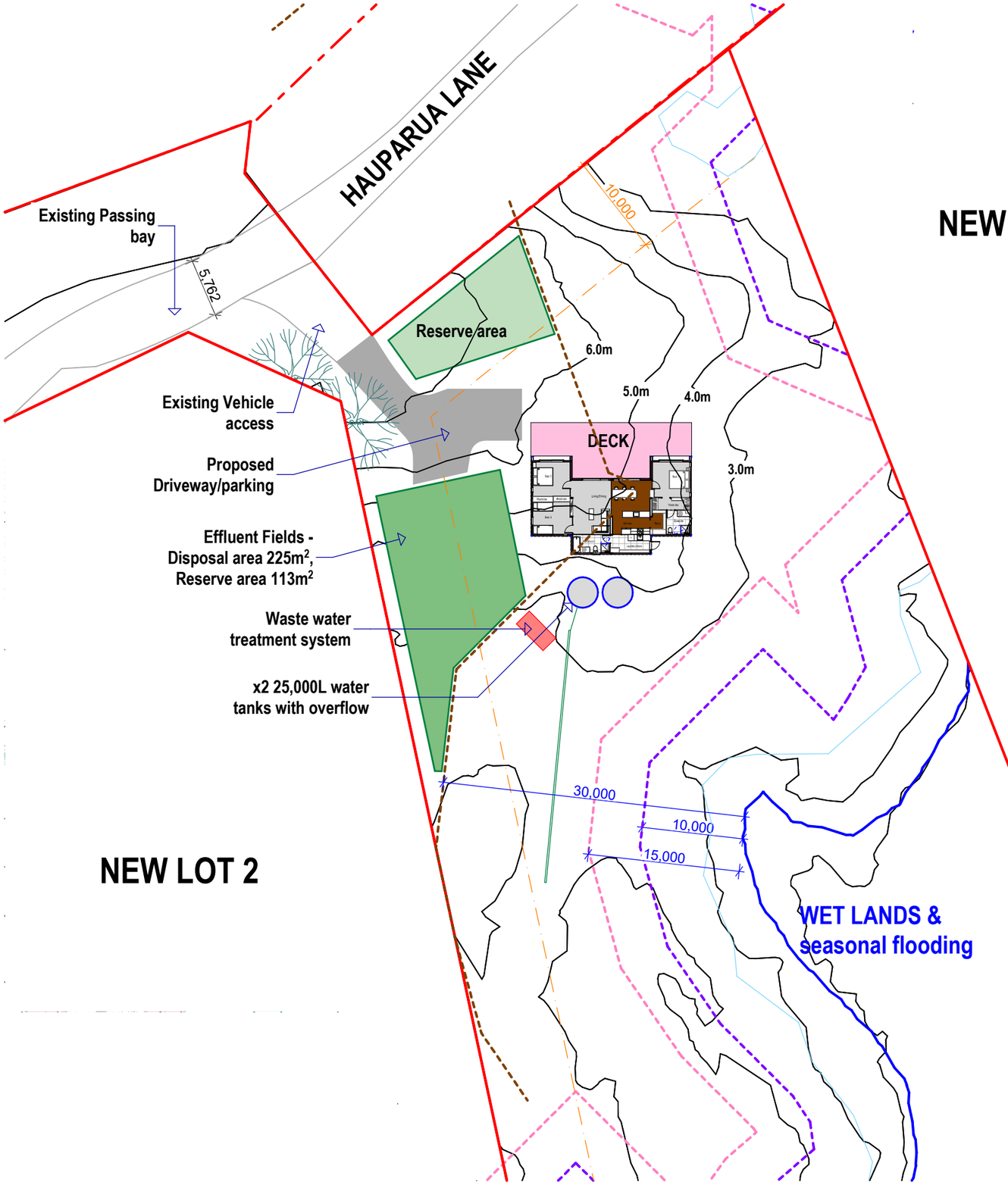
= 15.0m offset to Wet Lands

= 30.0m offset to Wet Lands

= Proposed Vehicle Entrance/ Driveway

1 NEW LOT 4 1:625

PROJECT No. #PIn	PERMIT SHOP PRACTICAL ARCHITECTURE	8 Bellevue Road, Mount Eden, Auckland 1025 I PO Box 41226, Mt Roskill 1440, Auckland P: 09 - 634 6101 www.permitshop.co.nz	PROJECT NAME + ADDRESS #Project Name #STREET #SUBURB, #CITY	SHEET TITLE NEW LOT 4	STATUS --	DESIGN: -- DRAWN: -- CHECKED: -- APPROVED: --	SCALE: Shown@A3 PRINT DATE: 25/11/2024	SHEET NUMBER 1.4 REVISION



PROPOSED LOT 3 :

- 8,003.16m²
- New Main Dwelling with Waste water treatment + Storm Water Disposal.
- New Vehicle Access way & Driveway

KEY :

= Extent of Winter Flooding

= Surveyed Wet Lands (Cato Bolam, NRC RC)

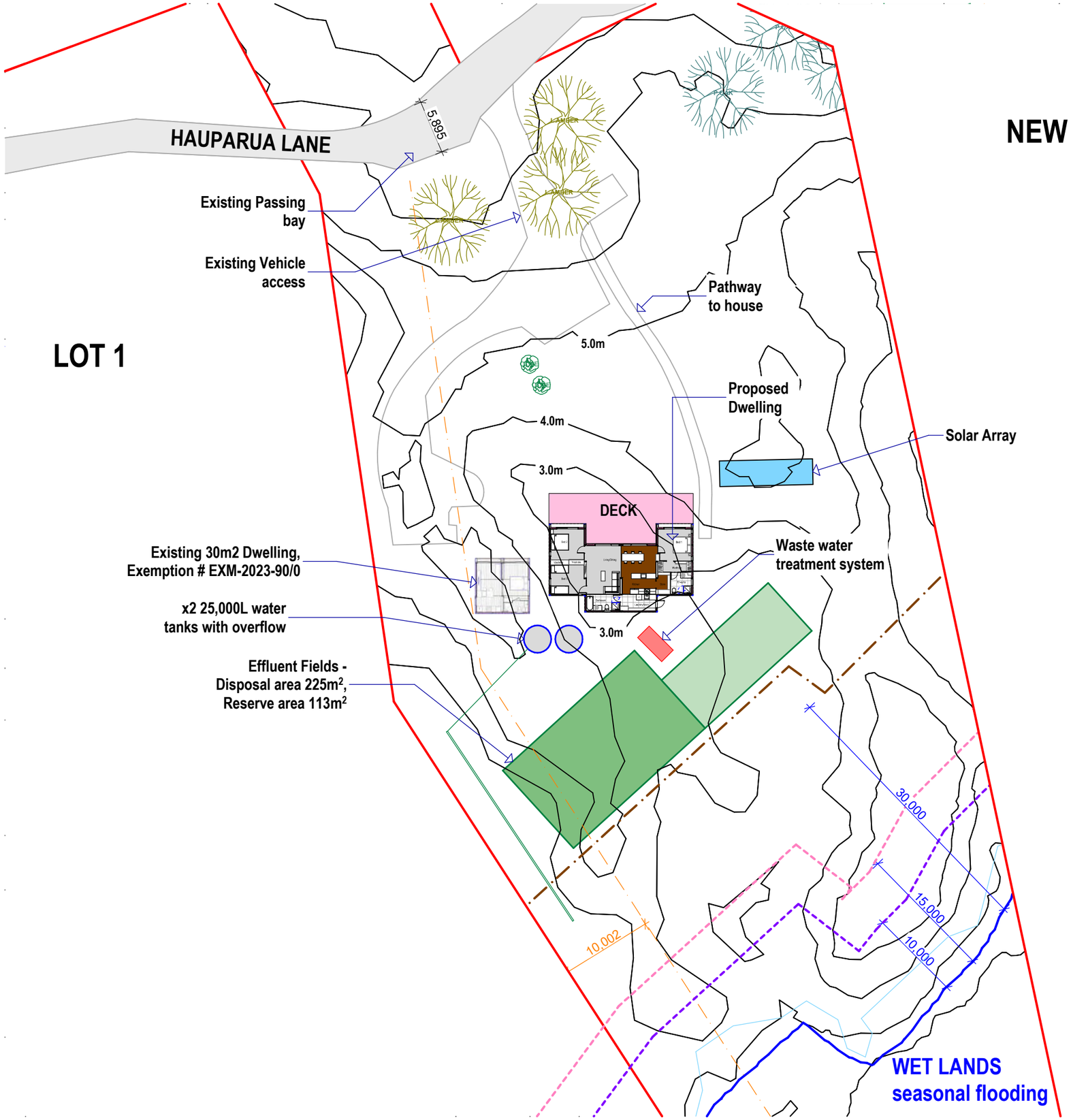
= 10.0m offset to Wet Lands

= 15.0m offset to Wet Lands

= 30.0m offset to Wet Lands

= Proposed Vehicle Entrance/ Driveway

PROJECT No. #Pln	PERMIT SHOP PRACTICAL ARCHITECTURE	8 Bellevue Road, Mount Eden, Auckland 1025 I PO Box 41226, Mt Roskill 1440, Auckland P: 09 - 634 6101 www.permitshop.co.nz	PROJECT NAME + ADDRESS #Project Name #STREET #SUBURB, #CITY	SHEET TITLE NEW LOT 3	STATUS --	DESIGN: -- DRAWN: -- CHECKED: -- APPROVED: --	SCALE: Shown@A3 PRINT DATE: 25/11/2024	SHEET NUMBER 1.5 REVISION



NEW LOT 3

PROPOSED LOT 2 :

- 8,720.66m^2
- New Main Dwelling with Waste water treatment + Storm Water Disposal.
- New Vehicle Access way & Driveway

KEY :

= Extent of Winter Flooding

= Surveyed Wet Lands (Cato Bolam, NRC RC)

= 10.0m offset to Wet Lands

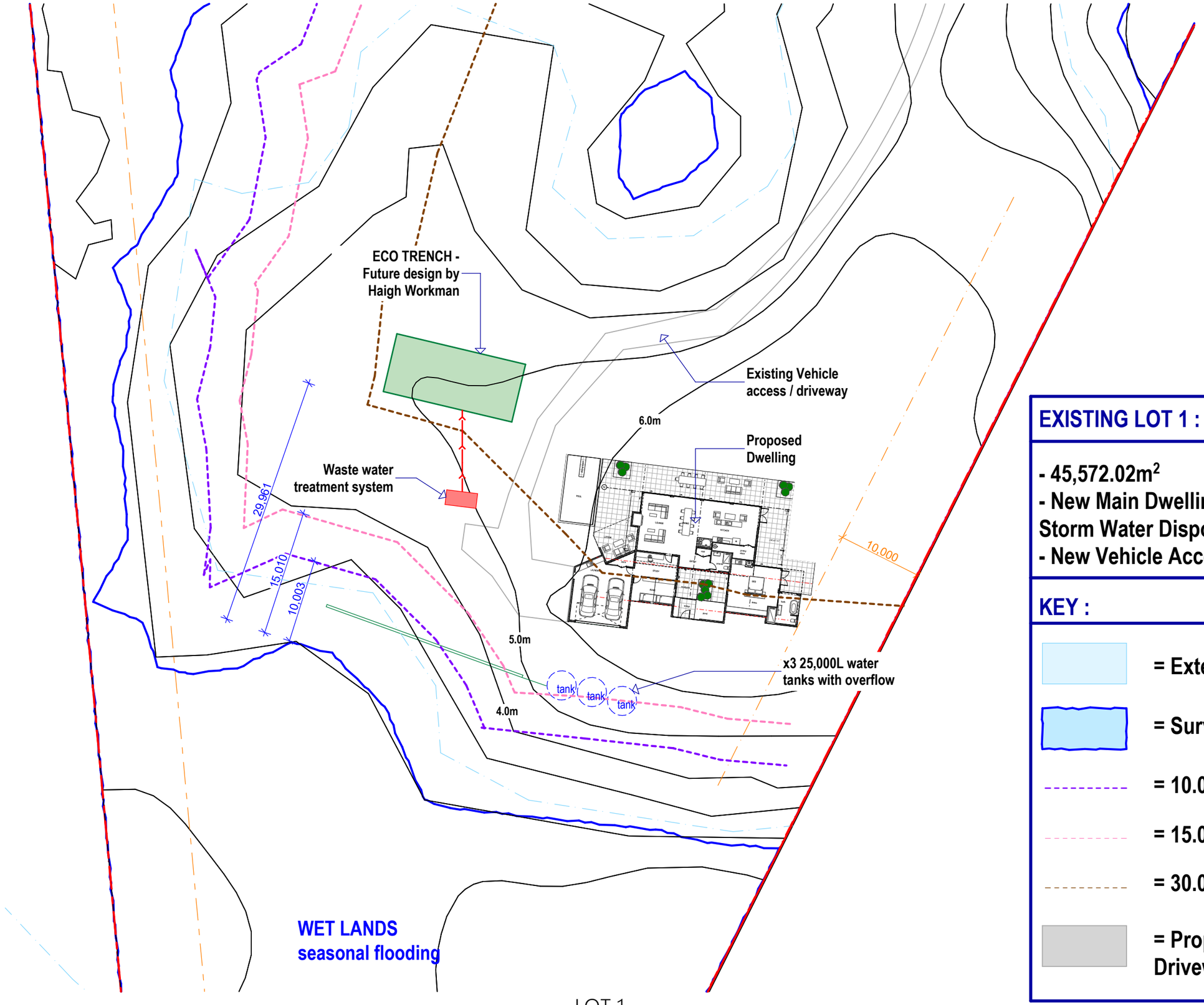
= 15.0m offset to Wet Lands

= 30.0m offset to Wet Lands

= Proposed Vehicle Entrance/ Driveway

1 NEW LOT 2 1:500

PROJECT No. #PIn	PERMIT SHOP PRACTICAL ARCHITECTURE	8 Bellevue Road, Mount Eden, Auckland 1025 I PO Box 41226, Mt Roskill 1440, Auckland P: 09 - 634 6101 www.permitshop.co.nz	PROJECT NAME + ADDRESS #Project Name #STREET #SUBURB, #CITY	SHEET TITLE NEW LOT 2	STATUS --	DESIGN: -- DRAWN: -- CHECKED: -- APPROVED: --	SCALE: Shown@A3 PRINT DATE: 25/11/2024	SHEET NUMBER 1.6 REVISION



LOT 1

EXISTING LOT 1 :

- 45,572.02m^2
- New Main Dwelling with Waste water treatment + Storm Water Disposal.
- New Vehicle Access way & Driveway

KEY :

= Extent of Winter Flooding

= Surveyed Wet Lands (Cato Bolam, NRC RC)

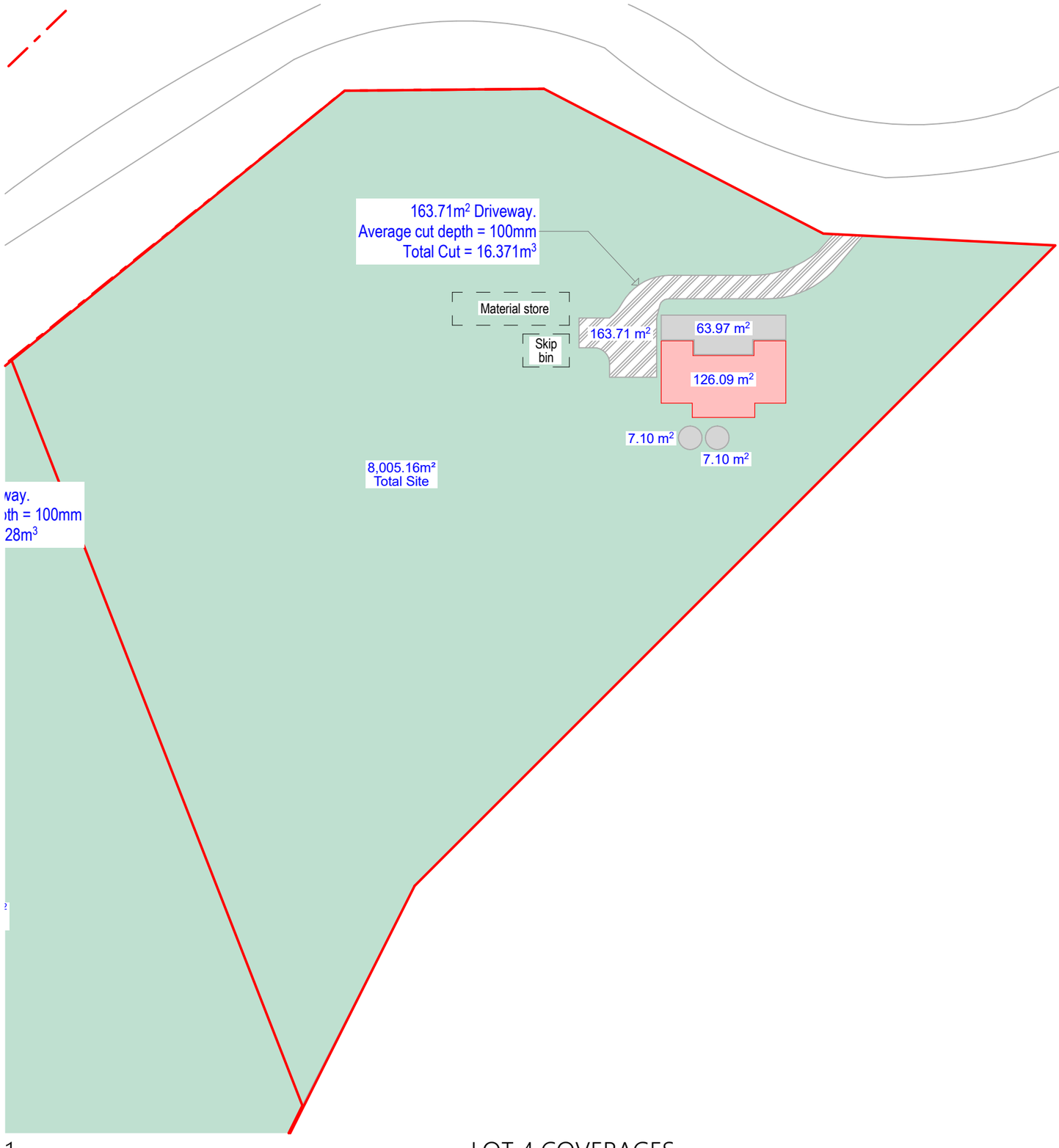
= 10.0m offset to Wet Lands

= 15.0m offset to Wet Lands

= 30.0m offset to Wet Lands

= Proposed Vehicle Entrance/ Driveway

PROJECT No. #Pln	PERMIT SHOP PRACTICAL ARCHITECTURE	8 Bellevue Road, Mount Eden, Auckland 1025 I PO Box 41226, Mt Roskill 1440, Auckland P: 09 - 634 6101 www.permitshop.co.nz	PROJECT NAME + ADDRESS #Project Name #STREET #SUBURB, #CITY	SHEET TITLE LOT 1	STATUS --	DESIGN: -- DRAWN: -- CHECKED: -- APPROVED: --	SCALE: Shown@A3 PRINT DATE: 25/11/2024	SHEET NUMBER 1.7 REVISION



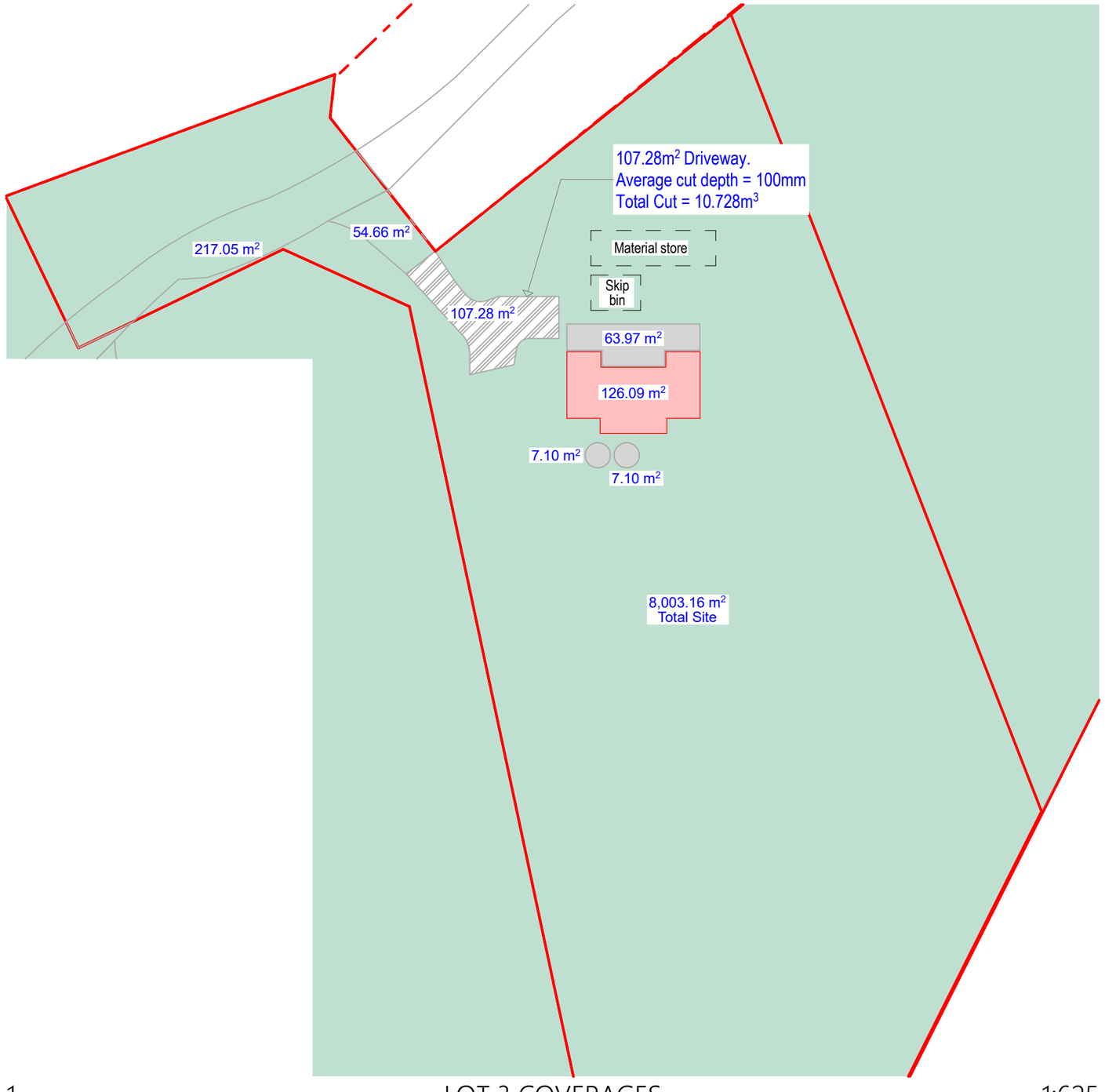
COVERAGES | CLZ			
AREA	**EXISTING**	**PROPOSED**	**%**
PAVED	0.00m²	241.88m²	3.02%
BUILDING	0.00m²	126.09m²	1.57%
LADSCAPE	8,005.16m²	7,637.19m²	95.4%
TOTAL IMPERVIOUS	0.00m²	367.97m²	4.6%
TOTAL SITE	**8,005.16m²**		

= Area of Cut

Dwelling founded on timber piles - Minimal earth works carried out.

1 LOT 4 COVERAGES 1:625

PROJECT No. #Pln	PERMIT SHOP PRACTICAL ARCHITECTURE	8 Bellevue Road, Mount Eden, Auckland 1025 I PO Box 41226, Mt Roskill 1440, Auckland P: 09 - 634 6101 www.permitshop.co.nz	PROJECT NAME + ADDRESS #Project Name #STREET #SUBURB, #CITY	SHEET TITLE LOT 4 COVERAGES	STATUS --	DESIGN: -- DRAWN: -- CHECKED: -- APPROVED: --	SCALE: Shown@A3 PRINT DATE: 25/11/2024	SHEET NUMBER 1.8 REVISION



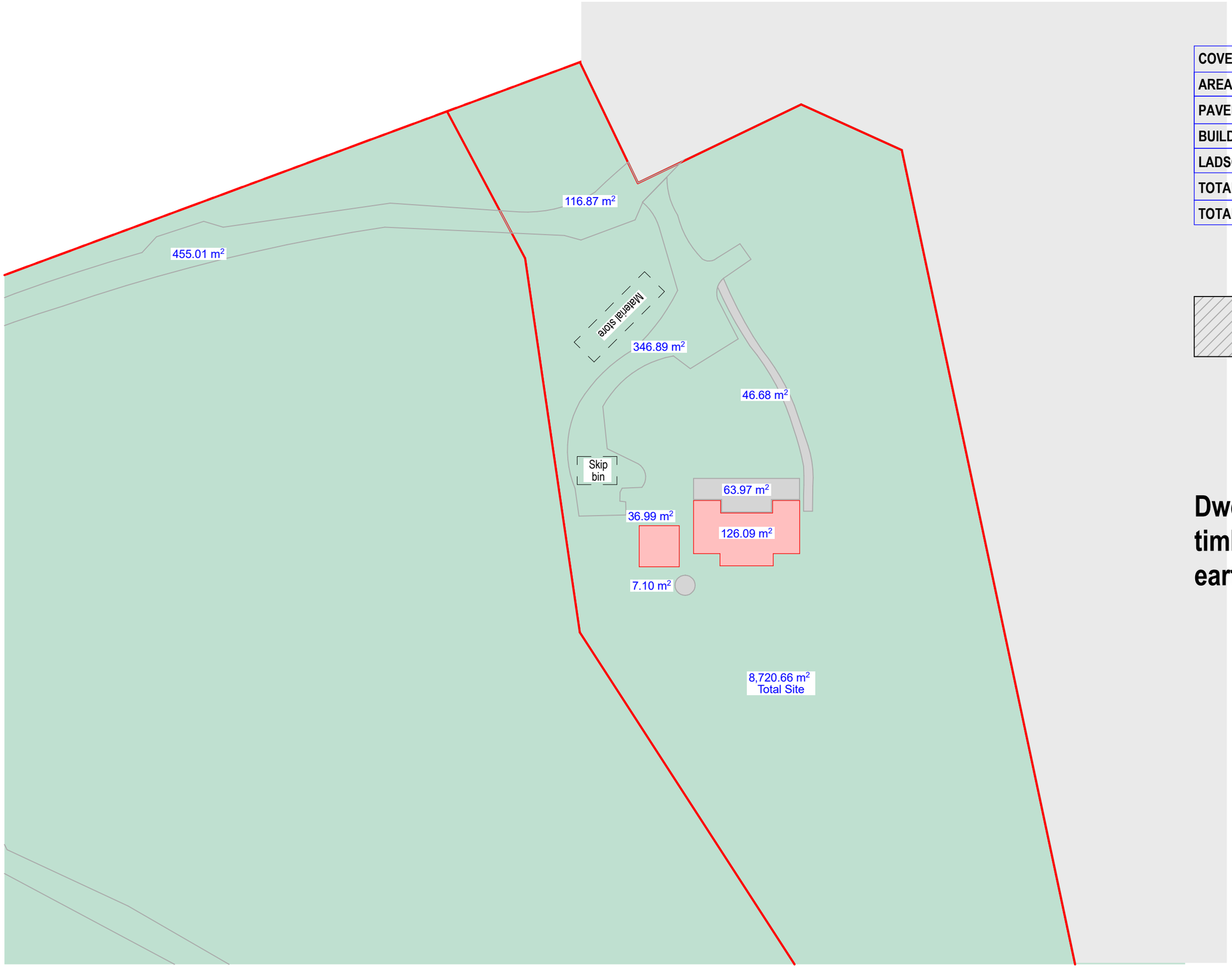
1 LOT 3 COVERAGES 1:625

COVERAGES | CLZ			
AREA	**EXISTING**	**PROPOSED**	**%**
PAVED	271.71m²	457.16m²	5.7%
BUILDING	0.00m²	126.09m²	1.6%
LADSCAPE	7,546.00m²	7,274.29m²	90.9%
TOTAL IMPERVIOUS	271.71m²	583.25m²	7.28%
TOTAL SITE	**8,003.16m²**		

= Area of Cut

Dwelling founded on timber piles - Minimal earth works carried out.

PROJECT No. #PIn	PERMIT SHOP PRACTICAL ARCHITECTURE	8 Bellevue Road, Mount Eden, Auckland 1025 I PO Box 41226, Mt Roskill 1440, Auckland P: 09 - 634 6101 www.permitshop.co.nz	PROJECT NAME + ADDRESS #Project Name #STREET #SUBURB, #CITY	SHEET TITLE LOT 3 COVERAGES	STATUS --	DESIGN: -- DRAWN: -- CHECKED: -- APPROVED: --	SCALE: Shown@A3 PRINT DATE: 25/11/2024	SHEET NUMBER 1.9 REVISION



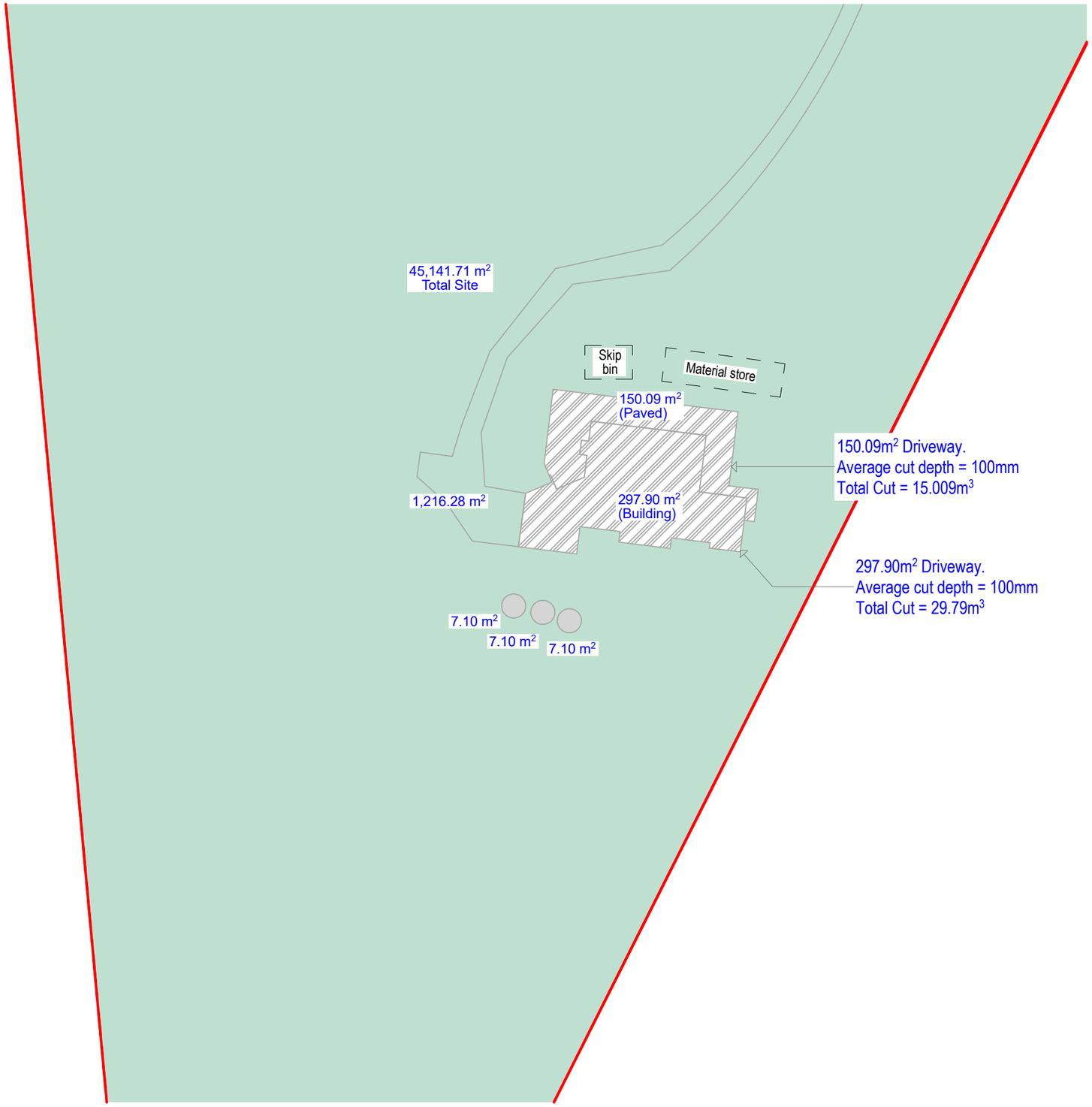
COVERAGES | CLZ			
AREA	**EXISTING**	**PROPOSED**	**%**
PAVED	463.76m²	588.61m²	6.74%
BUILDING	36.99m²	163.08m²	1.87%
LADSCAPE	8,219.91.00m²	7,968.97m²	91.3%
TOTAL IMPERVIOUS	500.75m²	751.69m²	8.61%
TOTAL SITE	**8,720.66m²**		

= Area of Cut

Dwelling founded on timber piles - Minimal earth works carried out.

LOT 2 COVERAGES

PROJECT No. #PIn	PERMIT SHOP PRACTICAL ARCHITECTURE	8 Bellevue Road, Mount Eden, Auckland 1025 I PO Box 41226, Mt Roskill 1440, Auckland P: 09 - 634 6101 www.permitshop.co.nz	PROJECT NAME + ADDRESS #Project Name #STREET #SUBURB, #CITY	SHEET TITLE LOT 2 COVERAGES	STATUS --	DESIGN: -- DRAWN: -- CHECKED: -- APPROVED: --	SCALE: Shown@A3 PRINT DATE: 25/11/2024	SHEET NUMBER 1.10 REVISION



LOT 1 COVERAGES

COVERAGES | CLZ			
AREA	**EXISTING**	**PROPOSED**	**%**
PAVED	1,216.28m²	1387.67m²	6.74%
BUILDING	0.00m²	297.9m²	1.87%
LADSCAPE	43,925.43m²	43,456.14m²	91.3%
TOTAL IMPERVIOUS	1216.28m²	1685.57m²	8.61%
TOTAL SITE	**45,141.71m²**		

= Area of Cut

Dwelling founded on Concrete slab - Typical earth works carried out.

PROJECT No. #Pln	PERMIT SHOP PRACTICAL ARCHITECTURE	8 Bellevue Road, Mount Eden, Auckland 1025 I PO Box 41226, Mt Roskill 1440, Auckland P: 09 - 634 6101 www.permitshop.co.nz	PROJECT NAME + ADDRESS #Project Name #STREET #SUBURB, #CITY	SHEET TITLE LOT 1 COVERAGES	STATUS --	DESIGN: -- DRAWN: -- CHECKED: -- APPROVED: --	SCALE: Shown@A3 PRINT DATE: 25/11/2024	SHEET NUMBER 1.11 REVISION

KARIKARI

Mono-pitch | Family | En-suite | Bath | Kitchen | Laundry

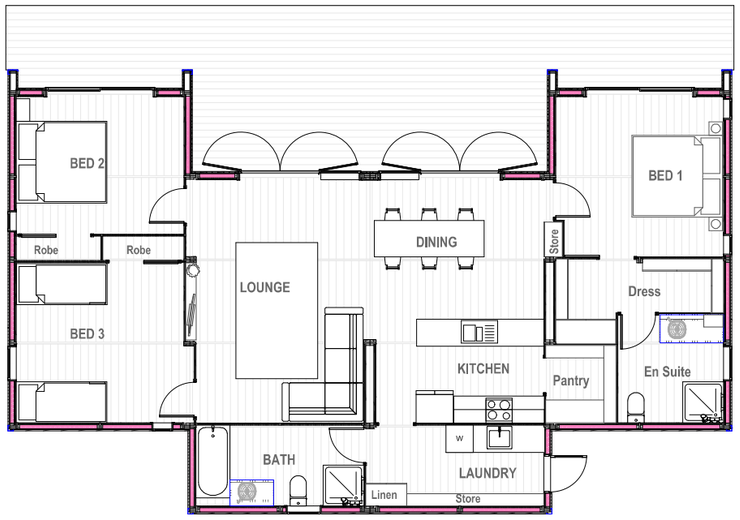
Modern, modular open plan family living.

3 2 2 Length 15.3m | Width 7.62m | Area 112m²

KARIKARI

3 Bed -15.3m x 7.6m

Floor area: 112m²



Included;

Fully clad with double glazed thermally broken joinery and all interiors paint coated with Nordic blonde finish. Complete lectrical for power and lighting.

Bathrooms, laundry, galley kitchen with appliance package.

Ex. factory ready for delivery.

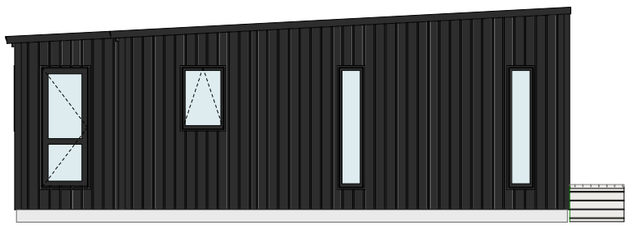
*Exclusions;

Building or Resource consents.

Transportation, site works and foundations.

Services, drainage or any other network connections.

NORTH 1:50



2 EAST 1:50

scale in metres

0 1 2 3 4 5 6 7 8 9 10

PROJECT No.			PROJECT NAME + ADDRESS	SHEET TITLE	STATUS			SHEET NUMBER	REVISION
#PIn	PERMIT SHOP PRACTICAL ARCHITECTURE	8 Bellevue Road, Mount Eden, Auckland 1025 I PO Box 41226, Mt Roskill 1440, Auckland P: 09 - 634 6101 www.permitshop.co.nz	#Project Name #STREET #SUBURB, #CITY	New Lot 3 MODULAR HOUSE	--	DESIGN: -- DRAWN: -- CHECKED: -- APPROVED: --	SCALE: 1:100 @A3 PRINT DATE: 25/11/2024	1.12	- - WIP

KARIKARI

Mono-pitch | Family | En-suite | Bath | Kitchen | Laundry

PROJECT No.		PROJECT NAME + ADDRESS	SHEET TITLE	STATUS			SHEET NUMBER	REVISION
105	Laminata / MT POKAKA TIMBER PRODUCTS LTD	nv@mtpokaka.co.nz 1213 Bulls Road SH10 KERIKERI	3D Layout	PROTOTYPE	DESIGN: -- DRAWN: -- CHECKED: -- APPROVED: --	SCALE: Shown@A3 DATE: 28/11/2023	1.2	

geologix
consulting engineers

WETLAND ASSESSMENT REPORT

44 HAUPARUA LANE, KERIKERI

NIK MORRISON

C0529-E-01
AUGUST 2024
REVISION 1

geologix
consulting engineers

DOCUMENT MANAGEMENT

Document Title	Wetland Assessment
Site Reference	44 Hauparua Lane, Kerikeri
Client	Nik Morrison
Geologix Reference	C0529-E-01
Issue Date	15 August 2024
Revision	01
Prepared	Dr Naz Tavasoli Environmental Scientist, PhD, MSc, BSc (Hon) 
Reviewed by	Ray Mayor Senior Environmental Consultant 
Approved by	Edward Collings Managing Director, CEnvP, CPEng, CMEngNZ, MPhys (Hons) 
File Reference	*C:\Users\GeologixConsultingEn\SynologyDrive\Projects\C0500-C0599\C0529 - 44 Hauparua Lane, Kerikeri\06 - Reports\C0529-E-01.docx*

REVISION HISTORY

Date	Issue	Prepared	Reviewed	Approved
August 2024	First Issue – For Consent	NT	RM	EC

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FIGURES

TABLES

1 INTRODUCTION AND PURPOSE

This wetland assessment report has been prepared by Geologix Consulting Engineers Ltd (Geologix) for Nik Morrison as our Client in accordance with our standard short form agreement and general terms and conditions of engagement.

The purpose of this report is to assist with the Resource Consent application in relation to the proposed subdivision of the site (44 Hauparua Lane, Kerikeri) located within the Northland region. Specifically, this wetland assessment provides the interpretation of a desktop review and field mapping investigation, undertaken to obtain reliable data in regard to potential wetlands within influencing distance of the proposed development.

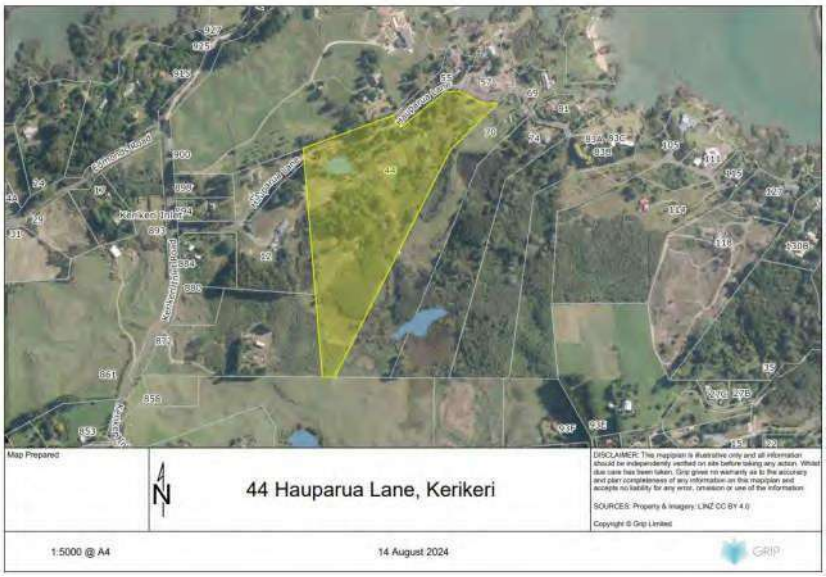
Additionally, this assessment explains the likely potential impacts of the proposed development from associated earthworks and potential discharges to determine whether the National Environmental Standards Freshwater[1] (NES: FW) and National Policy Statement: Freshwater Management (NPS:FM) apply to the application.

This report has been prepared and reviewed by Suitably Qualified and Experienced Practitioners (SQEP).

1.1 Site Identification

The site is located at 44 Hauparua Lane, within the coastal living zone of Kerikeri and is legally described as Lot 2 DP 410617. The property is presented schematically in Figure 1 below with the centre of the site approximately at geographical position: NZTM (NZGD2000), E 1693769 m, N 6102750 m.

Figure 1: The site setting.



[1] *Resource Management (National Environmental Standard for Freshwater) Regulations, 2020, Amendment 2.*

The site is undulating, irregular in shape with an area of 7.0301 ha and is bound by Hauparua Road to the north and coastal living properties in all directions. A coastal marine zone (Hauparua Inlet Reserve) is situated approximately 125 m to the northeast of the site.

1.2 Proposal and Proposed Site Use

It is understood that the Client proposes to subdivide the site into four lots as outlined in Table 1 below and the proposed subdivision plans provided by Permit Shop Practical Architecture, dated June 2024 in Appendix A. Applications to disturb soil and discharge water within the proposed subdivision application are expected.

Table 1: Summary of proposed subdivision

Proposed Lots	Size Range	Purpose
Lot 1	44,605 m^2	Balance lot
Lot 2	8,720 m^2	Existing residential
Lot 3	8,003 m^2	New residential
Lot 4	8,005 m^2	New residential

1.3 Regulatory Context

In 2020, the government introduced freshwater guidelines (NES: FW and NPS:FM) that present standards for freshwater protection and restoration of wetlands. The NES: FW states that natural freshwaters defined by the document must be protected, and the loss of natural freshwaters should be avoided. The NES: FW also outlines a consenting pathway and management of certain activities around freshwater resources.

Regarding wetlands, the NPS:FM (2020) Policy 6 states that “there should be no further loss of the extent of natural inland wetlands; their restoration should be promoted, their values are protected, and fragmentation of remaining wetland habitat is protected from loss of values”.

According to Section 2 of the Resource Management Act (RMA), “wetland 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”.

As part of the amended NPS-FM in 2022, the definition of a natural inland wetland was refined and clarified. A 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.

2 DESKTOP APPRAISAL

2.1 Kerikeri Ecological District

The site is located within the Kerikeri Ecological District of the Northland Region[2]. The Kerikeri Ecological District in Northland, New Zealand, extends from Tauranga Bay in the north to Kawakawa, Otiria, and Opua in the south, encompassing inland areas up to the eastern boundary of Puketi Forest. It is bound by the Whangaroa Ecological District to the north, the Kaikohe Ecological District to the west, and both the Tangihua and Whangaruru Ecological Districts to the south. The district includes offshore islands from Cone Rock to Cape Wiwiki, and the inshore islands of the northern Bay of Islands and Kerikeri Inlet.

Natural areas make up about 21% of the Kerikeri Ecological District with forest constituting 31%, shrubland 52%, estuarine areas 7%, freshwater wetlands 4%, and island habitats 6%. The district is characterised by highly fragmented habitats, particularly in the eastern coastal regions. Significant habitats include sandy beaches for the threatened New Zealand dotterel, estuarine and shrubland areas for bittern, fernbird, and North Island brown kiwi, especially in the Te Puna Inlet and Purerua Peninsula, which host dense kiwi populations.

The district also features unique wetland sequences in the Waitangi Forest, important for several threatened species. Other notable areas include the large floodplain of the Kawakawa River, the unique gumland around Kerikeri airport, and forested upper catchments in the west crucial for kiwi conservation. The Takou and Kerikeri rivers benefit from high proportions of indigenous vegetation in their riparian zones, enhancing their ecological value. Protection and restoration of coastal vegetation and wetland habitats are prioritized to support the district's diverse wildlife.

It should be noted that the site is located outside of the aforementioned areas.

2.2 Geology

Available geological mapping[3] of the site indicates that the site is directly underlain by

---

[2] Protected natural areas in northland, and care standards for protected natural areas, 2008

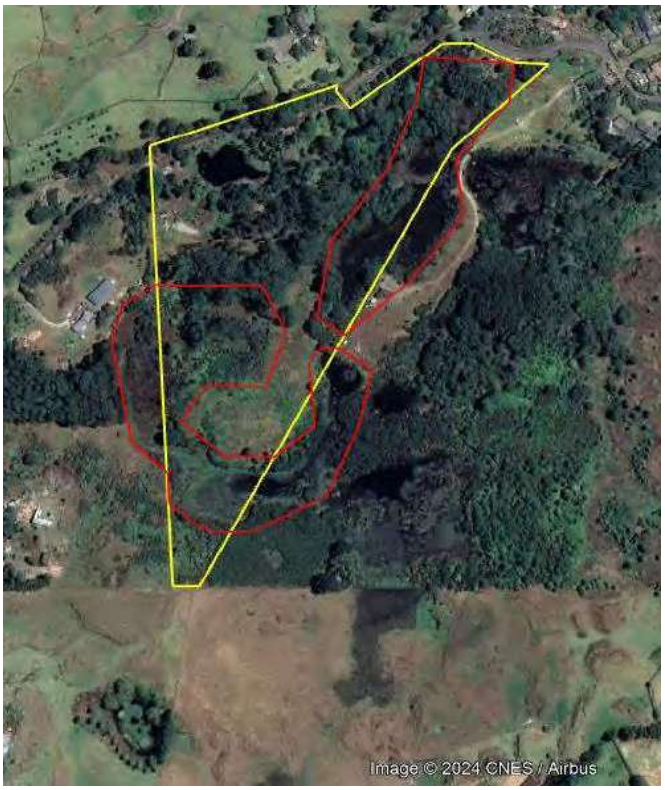
[3] Geological & Nuclear Science, 1:250,000 scale Geological Map, Sheet 2, Whangarei, 2009.

Kerikeri Volcanic Group which contains basalt lava and volcanic plugs. The local area is known to have shallow basalt flows with little to no residual soil development since the flows occurred. Shallow lava flows undulate in elevation, typically resulting in localised depressions which form low-flow depositional environments.

2.3 Potential Wetlands

Based on the desktop review, potential wetland areas have been identified within the northeastern and southern portions of the site and adjacent areas beyond the site boundary, as shown in Figure 2 below. The total potential area of the wetlands is approximately 4 ha.

Figure 2: Potential wetland areas within the site.

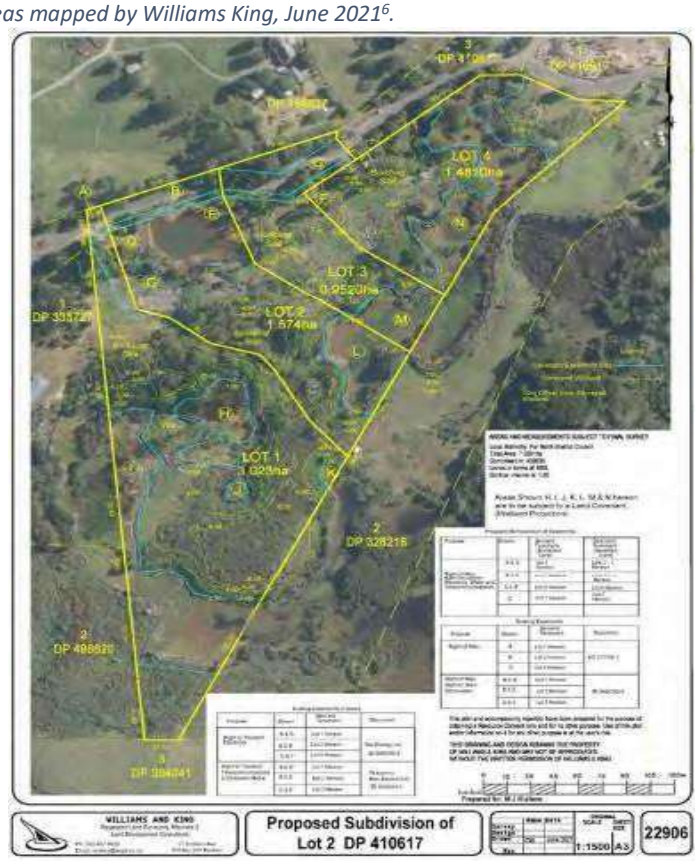


It should be noted that a resource consent document[4] provided by the client indicates that an ecological assessment was undertaken by Cato Bolam in July 2021[5]. Multiple natural inland wetlands were identified within the site area. Furthermore, wetland areas were mapped by Williams and King, in June 2021 within the site as shown in Figure 3, below.

[4] *Resource Consent, Northland Regional Council, 27, August 2021, File: 42980(01)*

[5] *NES-FW Ecological Assessment, Cota Bolam, 30 July 2024, Ref:44966.*

Figure 3: Wetland areas mapped by Williams King, June 2021[6].



2.4 Ecological Assessment

A summary of the desktop investigation is as follows:

- Land cover[7] within the site includes high producing exotic grassland to north-western and north-eastern corners, low producing grassland to the southern corner, exotic forest to the central north and western portions and a mix of manuka and/ or kanuka to the east and southern portions of the site.

- The site's potential natural vegetation[8] includes podocarps (native conifers) including Kahikatea-pukatea-tawa, Matai-kahikatea-totara, Kahikatea-totara and Rimu-matai-miro-totara/ kamahi, Rimu-matai-miro-totara/ kamahi forest types.

---

[6] Proposed Subdivision of Lot 2 DP 410617, June 2021, ref: 22906.

[7] https://fndc.maps.arcgis.com/apps/webappviewer/index.html?id=6effb35003d84813b34071798e29634d

[8] https://ourenvironment.scinfo.org.nz/maps-and tools/app/Habitats/lenz_potnatveg/409,424,410,411,393,412,425,417,418,419,420?contextLayers=water_transport_text

- Threatened Environmental Classification[9] indicates that 10 % to 20 % of the indigenous cover left and indigenous biodiversity in this environment has been severely reduced and remaining habitats are sparsely distributed in the landscape.

- The site is located within the Kerikeri inlet and a Protected Marine Area (PMA); Te Pēwhairangi (Bay of Islands) Marine Mammal Sanctuary is situated beyond the northeast boundary of the site.

2.4.1 Wetland

Under the NPS:FM, 2020, wetlands are defined as permanent or intermittently wet areas, shallow water and land water margins. They support a natural ecosystem of plants and animals adapted to wet conditions and are characterised by their functional state for biodiversity plants, animals and people[10].

Wetlands have a very broad definition in terms of water source, water flow and fluctuation (Hydro-system), nutrient availability, chemistry, pH and temperature. There are diverse types of natural wetlands such as bogs and marshes, swamps and seepages and the edges of lakes, rivers and estuaries.

2.4.2 Wetland Identification and Delineation

Wetland identification and delineation are based on the MfE practice guideline; New Zealand Wetland Delineation for Regulatory Purpose. The methods are based on protocols developed in the United States adapted for use in New Zealand[11]. Internationally accepted methods include the Vegetation Tool[12], Hydric Soil Tool[13] and Hydrology Tool[14].

3 SITE SURVEY

3.1 Site Walkover Survey

A site walkover survey was undertaken by Geologix personnel on 31 July 2024 to investigate the potential for onsite wetlands by field mapping. This information has been adopted to determine the effects in relation to future discharges including wastewater and stormwater from areas of residential activities and potential earthworks sediment. However, engineering assessment for subdivision will be undertaken by others.

A summary of the site walkover survey is as follows:

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[9] Threatened Environments Classification (2012) - Informatics Team | New Zealand | Environment and Land GIS | LRIS Portal (scinfo.org.nz)

[10] Wetland Types in New Zealand, Perter Jonson and Philip Gerbeaux, 2004

[11] Wetland Delineation Protocol, August 2020

[12] A vegetation Tool for Wetland Delineation in New Zealand

[13] Hydric Soils- Filed Identification Guide, Envriolink Grant: C09X1702, Jun2018

[14] Wetland Delineation Hydrology Tool for Aotearoa New Zealand

- The site is undulating, including a shallow hill located within the western portion and a shallow hill on the central northern portion of the site.

- Hauparua Lane is located adjacent to the site's northern boundary, defining the boundary along this face.

- A cottage is present on future lot 3 and a 30m2 house and 2 sleepouts are located on future lot 2 each with water tanks.

- The site includes a planted area to the central north, dense vegetation through the central portion, a pond to the northwest and potential wetlands along the southern, eastern and western portions of the site.

- The pond located to the northwest corner of the site appears to be overflowing, which could potentially lead to waterlogging of the surrounding area and vegetation cover, possibly due to recent rainfalls. This is expected to be a seasonal effect associated with wintertime conditions.

    - Identified native plant species around the pond includes rimu, cabbage tree, kanuka/ manuka, kawaka, totara, white wood and hangehange.

    - Based on the site walkover survey and aerial photos, soil disturbance and vegetation clearance have altered the natural landscape on the southern side of the pond. The pond is a human-induced change rather than the presence of a naturally occurring wetland. The disruption of soil and indicates that the area should not be considered a natural wetland.

- Undulating characteristics of the site direct surface waters from the shallow hills to the northwest corner, southern and western portions of the site towards the pond and potential wetlands.

    - It should be noted that the proposed building areas within proposed lots 3 and 4 contribute to the potential wetland catchments.

- Observed plant species within the bush area within the central portion of the site includes rimu, white wood, kumarahou, hangehange and eucalypts.

- Vegetation cover along the potential wetland areas includes both native and exotic species.

    - Observed native plant species include totara, kanuka, manuka, cabbage tree, whitey-wood and coprosma.

    - Observed exotic plant species include gorse, eucalyptus, pampas, Japanese honeysuckle, blackberry and woolly nightshade.

- Dead and dried plants (trees and shrubs) were observed submerged within the water up to the edge of the potential wetlands.

3.2 Wetland

A wetland assessment has been undertaken within the site to identify plant species and delineate the wetland areas. During the site walkover survey, the wetlands resembled a large pond, bound by a mix of native (e.g., totara, manuka, kanuka and cabbage trees) and exotic plant species (e.g., gorse, Japanese honeysuckle, pampas, poke weed and woolly nightshade). While some hydrophilic plant species such as sedge and water purslane were observed in several locations, the area is largely dominated by a community of exotic species. The areas of the wetlands are located within the northeastern and southern, portions of the site, characterised by a closed depression ponded area that is seasonally inundated.

Observed plant species adjacent to the wetland to the southern side of the site predominantly include gorse (Ulex spp), cabbage tree (Cordyline australis), Japanese honeysuckle (*Cordyline australis*), woolly nightshade (*Solanum mauritianum*) and bracken fern (*Pteridium esculentum*). Eastern side of the wetland is predominantly covered by a row of mānuka (*Leptospermum scoparium*), kānuka (*Kunzea ericoides)* and gorse (Ulex spp).

Additionally, overflow and inundation were observed on site. A merging isolated wetland was indicated by Cota Bolam as two unified large ponds, as shown in Figure 4 below.

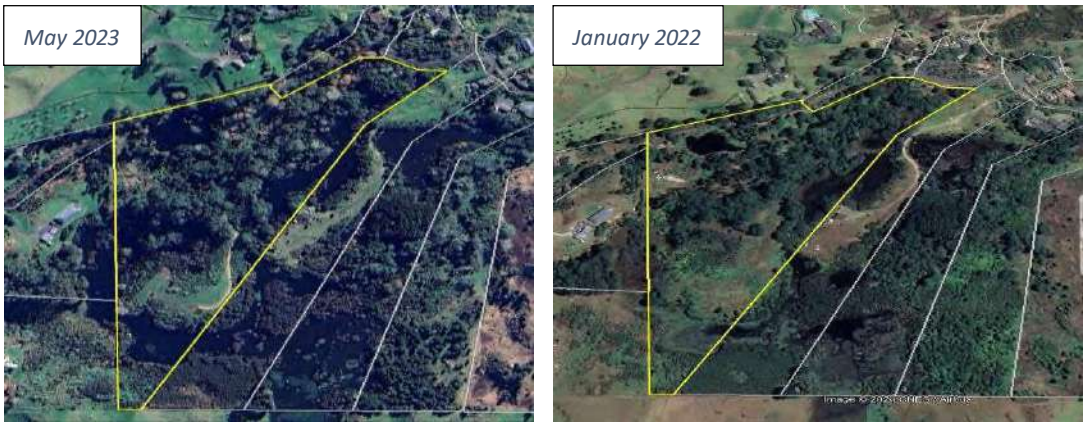
Figure 4: Wetland areas.

Cota Bolam, March 2021

Geologix, July 2024

An aerial photograph assessment reveals soil saturation corresponding to depressions and a seasonally high-water table during the growing season. The aerial photographs also indicate this variation with imagery showing changes in the wetland's appearance over time, as shown in Figure 5 below. Additionally, accurate aerial photogrammetry and LiDAR (drone survey) undertaken by Geologix during the wintertime, July 2024 confirm the seasonal water changes within the wetlands (overflow), as shown in Drawing 700, Appendix A, corresponding with the indication of Figure 5 from May 2023.

Figure 5: Seasonal wetland changes.



Given the conditions observed, the vegetation method could not be effectively applied to this area as it was covered by water forming a large pond. The vegetation surrounding this area was predominantly exotic plants. The seasonal inundation and soil saturation patterns further support for the temporary and variable nature of the wetland's water levels.

An assessment of the soil within the southern portion of the site indicates non-wetland soils which don't include peat materials and low chroma to 500 mm of the soil column. The soil profile comprises a 200 mm to 300 mm layer of topsoil underlain by brown silty clay soils. The soil profile is presented in Figure 6 below. There are no dark low chroma colours along root channels. The ground investigation encountered refusal at 500 mm to 700 mm below ground level (bgl) confirming the presence of the shallow basalt flow. Geologix ecological investigation of the area confirms the presence of non-hydric soil in the area.

Figure 6: Soil profile (non-wetland area) within the southern portion of the site.

A previous investigation undertaken by Cato Bolam in July 2021 indicated that multiple

wetlands were presented within the site. However, at the time of the site walkover survey undertaken by Geologix personnel, two wetlands were defined as shown on Drawing No. 700 (Appendix B).

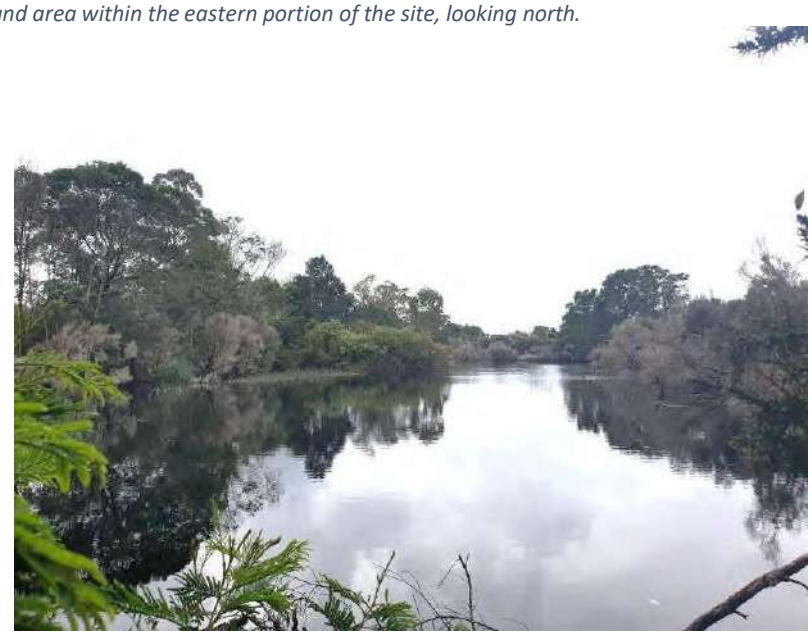
It should be noted that it appears that the multiple wetlands indicated by Cota Bolam have flooded in the northeastern and southern portions of the site and the adjacent lands outside of the site boundary. This is most likely associated with seasonal changes (e.g., high winter rainfall event).

The dynamic nature of these wetlands, influenced by seasonal changes and the presence of both native and exotic plant species, highlights the need for appropriate vegetation management to maintain its ecological balance and health.

Based on the desktop study and site walkover survey, it is concluded that the wetlands are ephemeral wetlands on volcanic substrate. The wetlands contain multiple temporary ponds that are isolated, lacking a permanent inlet or outlet. However, these ponds may overflow at certain times, forming two large, unified ponds.

According to Wetland Types in New Zealand[15], it is considered that the identified wetlands are palustrine swamps. This classification is based on the large seasonal fluctuations in water levels which can vary significantly. The wetlands receive nutrients and sediments from surface runoff and groundwater from the surrounding lands. The wetlands are primarily fed by rain, groundwater or surface water and is not directly associated with estuaries, lakes or rivers. The wetland area is present in Figure 7 below. Selected site photographs are provided within Appendix C.

Figure 7: Wetland area within the eastern portion of the site, looking north.



[15] *Wetland Types in New Zealand, Perter Jonson and Philip Gerbeaux, 2004*

Based on the site walkover survey, desktop study and accurate aerial photogrammetry and LiDAR (drone survey) undertaken by Geologix, two wetlands have been identified within the site. Including approximation of area outside of the boundaries, one is approximately 13,309 m^2 over the northeast portion of the site and another is approximately 24,280 m^2 over the southern portion of the site, as indicated on Drawing 700 in Appendix B. Wetlands cover a combined total area of 37,589 m^2 of which 23,837 m^2 is within the property boundary.

It should be noted that the wetlands extend beyond the site boundary. Outside of the site boundaries our mapping is approximate due to access constraints.

4 SPECIFIC ENGINEERING REQUIREMENTS

An assessment of ecological effects has been conducted in regard to the natural wetlands. Geologix personnel identified the following triggering activities arising from the proposed development plan (Appendix A) that could potentially have an adverse effect upon the defined wetlands.

- Potential changes in wetland hydrological regime, water level and flow due to uncontrolled stormwater discharges.
- Uncontrolled stormwater and wastewater discharges within defined influencing distance of wetlands which may include contaminants.
- Sedimentation resulting from uncontrolled earthworks within and/ or within close proximity of the wetlands.

4.1 Wastewater Discharge

Due to the site topography, treated effluent discharges could potentially flow into the wetlands as overland flow. Technical guidance for the design of on-site wastewater systems specifies a minimum 15 m setback from the defined edge of a wetland for discharging wastewater from secondary treated systems[16]. However, this is increased to a triggering setback distance of 100 m in accordance with Regulation 54(d) of the NES: FW if treated wastewater effluent is considered by engineering design to discharge to a water body and not to ground. These offset requirements are demonstrated schematically for each site on Drawing 700 within Appendix B.

In addition, according to the Operative Far North District Plan (FNDP), Natural and Physical Resources Section (Rule 12.7.6.1.4), treated effluent discharges and disposal systems must be located at least 30 m away from the boundary of wetland areas. This offset is indicated on Drawing No. 700.

An increased pathway between the source (disposal fields) and receptor (wetland) allows additional filtration of discharges over a longer stretch of soil and vegetation. This in turn reduces flow rates, absorbs excess nutrients and releases excess water through

[16] *Australian/ New Zealand Standard, On-site domestic wastewater management, 2012*

evapotranspiration.

4.2 Stormwater Discharge

Stormwater discharges from the proposed lots within a defined 100 m setback from the edge of the wetlands, will require specific engineering controls in regard to stormwater quality to comply with Regulation 55(3)(a) and stormwater attenuation controls to comply with Regulation 55(3)(b) of the NES: FW. The proposed lots within each site are located within the 100 m setback distance of the wetlands, further each of the proposed building sites contribute to the wetland catchments rather than directly to the CMA.

In regard to specific engineering controls to mitigate against an adverse effect on the wetlands, the following is recommended:

- Future on-lot and proposed roading upgrade impervious surfaces defined by New Zealand Building Code Clause E1 (i.e., areas of roof, driveway etc.) are attenuated to reduce post-development peak flows to the pre-development condition for the 1 % AEP storm event with provisions for climate change. This is to comply with NES: FW Rule 55(3)(b).
    - We note that if the engineering assessment determines that no attenuation is required under the FNDC Engineering Standards (2023) then the NES: FW becomes the controlling document and a target attenuation of 80 % pre-development is not required as this would cause a potential effect in the opposite direction to increase discharges, by throttling stormwater feeding the wetland further.
- All stormwater discharges must have specific controls to ensure contaminants are not discharged within the stormwater systems, principally from driveways and road areas. Specific controls shall be assessed on a lot-specific basis at the Building Consent stage to comply with NES: FW Regulation 55(3)(a)(i) to (v).
- The existing, defined wetlands shall not be adopted as a stormwater attenuation pond under any circumstance, i.e. for any roading upgrades to ensure surface water and/ or flood levels are not altered for the 1 % AEP storm event to comply with Regulation 55(3)(b).

4.1 Earthwork and Erosion and Sediment Control

Physical earthworks are expected to be carried out to construct the future on lot development, wastewater infrastructure, vehicle crossings and any roading upgrade requirements for Hauparua Lane.

Control of erosion and sediment control within the site or for any roading upgrades will be critical to ensure an adverse environmental impact does not occur within the wetlands. A site-specific erosion and sediment control plan should accompany the application to detail engineering requirements for earthworks within sensitive environments. This may require additional measures or stricter controls above standard silt fencing.

4.2 Planting/ Future Maintenance

It is recommended that planting between the nearest proposed wastewater fields of the proposed lots are offset by a minimum of 20 m to comply with FNDC requirements. Planting will further minimise potential negative ecological impacts of wastewater discharges and decrease the treated effluent runoff water flow and reduce the volume of additional nutrients that would not be expected in the natural environment. In addition, the planting will facilitate evapotranspiration and nutrient reduction from treated effluent discharges.

4.3 Pest Management Plan

The area around the wetland edge contained weed species including gorse (Ulex europaeus) and pampas grass (*Cortaderia selloana*), blackberry (*Rubus fruticosus),* woolly nightshade (*Solanum mauritianum*) and poke weed (Phytolacca americana). These species are classified as weeds in the Northland Regional Councils Pest Control Hub. These weeds are being controlled as a continued effort by the landowner using approved physical methods.

5 REGULATORY ASSESSMENT

5.1 National Environmental Standard Freshwater

Based on the results of our site walkover survey, natural inland wetlands as defined by the NES: FW have been identified within the site. A site plan is enclosed as Drawing No. 700 (Appendix B) which identifies the wetland area observed during our walkover survey. Based on the above and the results of this investigation in relation to the NES: FW Regulations, the applicability of the regulations are summarised in Table 2 below.

Table 2: NES: FW applicability

Regulation	NES: FW Triggering Activity	Applicable
38 & 39	Restoration of the natural wetland	No
40 & 41	Scientific research of the natural wetland	No
42	Construction of wetland utility structures	No
43 & 44	Maintenance of wetland utility structures	No
45	Construction of specified infrastructure	No
46 & 47	Maintenance and operation of specified	No

	infrastructure and other infrastructure	
48 & 49	Sphagnum moss harvesting	No
50	Arable and horticultural land use	No
51	Natural hazard works	No
52 & 53	Drainage of natural wetlands	No
54	Other activities	Yes
55 & 56	General matters	Yes
57	Reclamation of rivers	No
70 & 71	Fish passage – culverts	Yes, but if any culverts through Hauparua Lane are scheduled for upgrade
72 & 73	Weirs	No
74	Passive flap gates	No

Consent status in regard to the applicable triggering activities is also summarised in Table 3 below.

Table 3: Consent status in relation to triggering activities.

Regulation	Consent Status	Comments
54	Non-Complying	• Earthworks (if undertaken within 10 m of the defined wetland). • Wastewater if a discharge is determined to be 'to water' and not 'to ground' by engineering design. • Stormwater discharges within 100 m of defined wetlands.
55 & 56	General conditions	• Proposed lots within the site contribute to the wetland catchments and require specific engineering controls in regard to stormwater quality and attenuation to the 1 % AEP scenario, including provision of climate change and hydrological regime of the wetland. • In addition, the subdivision attenuation scheme shall not use the wetland as an attenuation pond.

5.2 Proposed Northland Regional Plan (NRP)

According to the NRP[17], the proposed activities and engineering design by others need to comply with the following rules and policies in regard to wetlands:

- **C.6.1.3**: Other on-site treated domestic wastewater discharge
- **C.8.2.1**: Land Preparation
- **C.8.3.1**: Earthworks

[17] *Proposed Regional Plan for Northland, February 2024*

- **D.4.22**: Natural wetlands

- **H.4.2**: Minimum levels for lakes and natural wetlands

It is expected that a site suitability engineering report prepared by others will provide specific controls of sediment discharges and potential effects of the proposed activities where within influencing distance of the wetlands. It is recommended that a suitably qualified ecologist such as Geologix is retained during the construction phase to monitor and ensure the effects on the wetlands are mitigated in practice.

5.2.1 Significant Wetland

The NRP provides the following definition of significant wetlands:

"A natural wetland that meets the significance criteria in the Regional Policy Statement, Appendix 5 –"Areas of significant indigenous vegetation and significant habitats of indigenous fauna in terrestrial, freshwater and marine environments". This includes natural wetlands comprising indigenous vegetation exceeding any of the following area thresholds:

1) *saltmarsh greater than 0.5 hectare in area, or*

2) *lake margins and riverbeds with shallow water less than two metres deep and greater than 0.5 hectare in area, or*

3) *swamp greater than 0.4 hectare in area, or*

4) *bog greater than 0.2 hectare in area, or*

5) *wet heathland (including gumland and ironstone heathland) greater than 0.2 hectare in area, or*

6) *marsh, fen, ephemeral wetland or seepage greater than 0.05 hectares in area.*

Based on this wetland investigation, the wetlands within the site are considered significant wetlands because of their area.

Therefore, the proposed activity must also comply with the following policies and rules.
Policy C.2.1.8, C.2.2.1(5), C.2.2.2.

5.3 Far North District Council (FNDC)

According to the FNDP, Natural and Physical Resources Section (Chapter 12) the following rule applies to *the activities on site:*

12.7.6.1.4 Land use activities involving discharges of human sewage effluent

Land use activities which produce human sewage effluent (including grey water) are permitted provided that:

(a) the effluent discharges to a lawfully established reticulated sewerage system; or

(b) the effluent is treated and disposed of on-site such that each site has its own treatment and disposal system no part of which shall be located closer than 30 m from the boundary of any river, lake, wetland or the boundary of the coastal marine area.

6 CONCLUSION

This wetland assessment has been prepared in support of the Resource Consent application for the proposed subdivision. For the purpose of this application, triggering activities comprise potential earthworks, on-site wastewater and stormwater discharges which may occur within influencing distance of a natural inland wetland as a result of the proposed subdivision.

A summary of the ecological investigation is presented below as follows:

- The site is located within the coastal living zone of Kerikeri.
- The site is undulating, irregular in shape with an area of 7.0301 ha and is bound by Hauparua Road to the north and coastal living properties in all directions.
- Threatened Environmental Classification indicates that 10 to 20 % of the indigenous cover remains and indigenous biodiversity in the Kerikeri ecological district has been severely reduced and remaining habitats are sparsely distributed in the landscape.
- A coastal marine area (Hauparua Inlet Reserve) is situated approximately 125 m to the northeast of the site.

Multiple wetlands previously indicated by Cato Bolam (July 2021) have now. At the time of the site walkover survey undertaken by Geologix personnel, two wetlands were identified as defined on Drawing No. 700, Appendix B.

- The wetlands are ephemeral wetlands with seasonal changes, located along the northeastern and southern portion of the site. The wetlands extend beyond the site boundary and cover a combined total area of 37,791 m^2 of which 23,837 m^2 is located within the site boundaries.
- The wetland areas are further split to approximately 13,309 m^2 to the northeastern portion of the site and beyond the boundaries and another, approximately 24,280 m^2 within the southern portion of the site and beyond the boundaries.
- It is considered that the identified wetlands are palustrine swamp wetland.
- According to the NRP, these wetlands are considered to be significant wetlands due to their area.

For the purpose of the application, triggering activities include future on-site discharges of stormwater and wastewater and earthworks within and within close proximity of the

wetland.

Specific engineering requirements and compliance with NES: FW regulations, NRP policies, and FNDC guidelines are outlined in Section 5.

Additionally, offset requirements are demonstrated schematically for the site on Drawing 700 within Appendix B and summarised as follows:

- According to NES: FW, a 10 m offset is defined from the edge of the wetlands for future earthwork activities.
- According to NZS 1547, a minimum 15 m setback is defined from the edge of the wetlands.
- According to FNDP, a 30 m setback is defined from the edge of the wetland for future wastewater discharges on site.
- According to on NES: FW, a 100 m setback is defined from the edge of the wetlands for future discharges of stormwater.

In relation to future triggering activities, the flowing recommendations are summarised:

- Future on-lot and proposed roading upgrade impervious surfaces defined by New Zealand Building Code Clause E1 (i.e., areas of roof, driveway etc.) are attenuated to reduce post-development peak flows to the pre-development condition for the 1 % AEP storm event with provisions for climate change.
    - Note: as attenuation is not required under the FNDC Engineering Standards, 80 % pre development should not be applied to apply the opposite effect of reducing water input to the wetlands.
- All stormwater discharges must have specific controls to ensure contaminants are not discharged within the stormwater systems, principally from driveways and road areas.
- The existing, defined wetlands shall not be adopted as a stormwater attenuation pond under any circumstance, i.e. for any roading upgrades.
- A site-specific erosion and sediment control plan should accompany the application to detail engineering requirements for earthworks within sensitive environments once earthwork area and volumes have been determined.
- It is recommended that planting between the nearest proposed wastewater fields of the proposed lots are offset by a minimum of 20 m to comply with FNDC requirements.

This assessment has been undertaken to support the Resource Consent application only, if any changes to the application are required, further assessment around regulations and specific engineering requirements may be required.

7 LIMITATIONS

This report has been prepared for Nik Morrison as our Client. It may be relied upon by our Client and their appointed Consultants, Contractors and for the purpose of Consent as outlined by the specific objectives in this report. This report and associated recommendations, conclusions or intellectual property is not to be relied upon by any other party for any purpose unless agreed in writing by Geologix Consulting Engineers Ltd and our Client. In any case the reliance by any other party for any other purpose shall be at such parties' sole risk and no reliability is provide by Geologix Consulting Engineers Ltd.

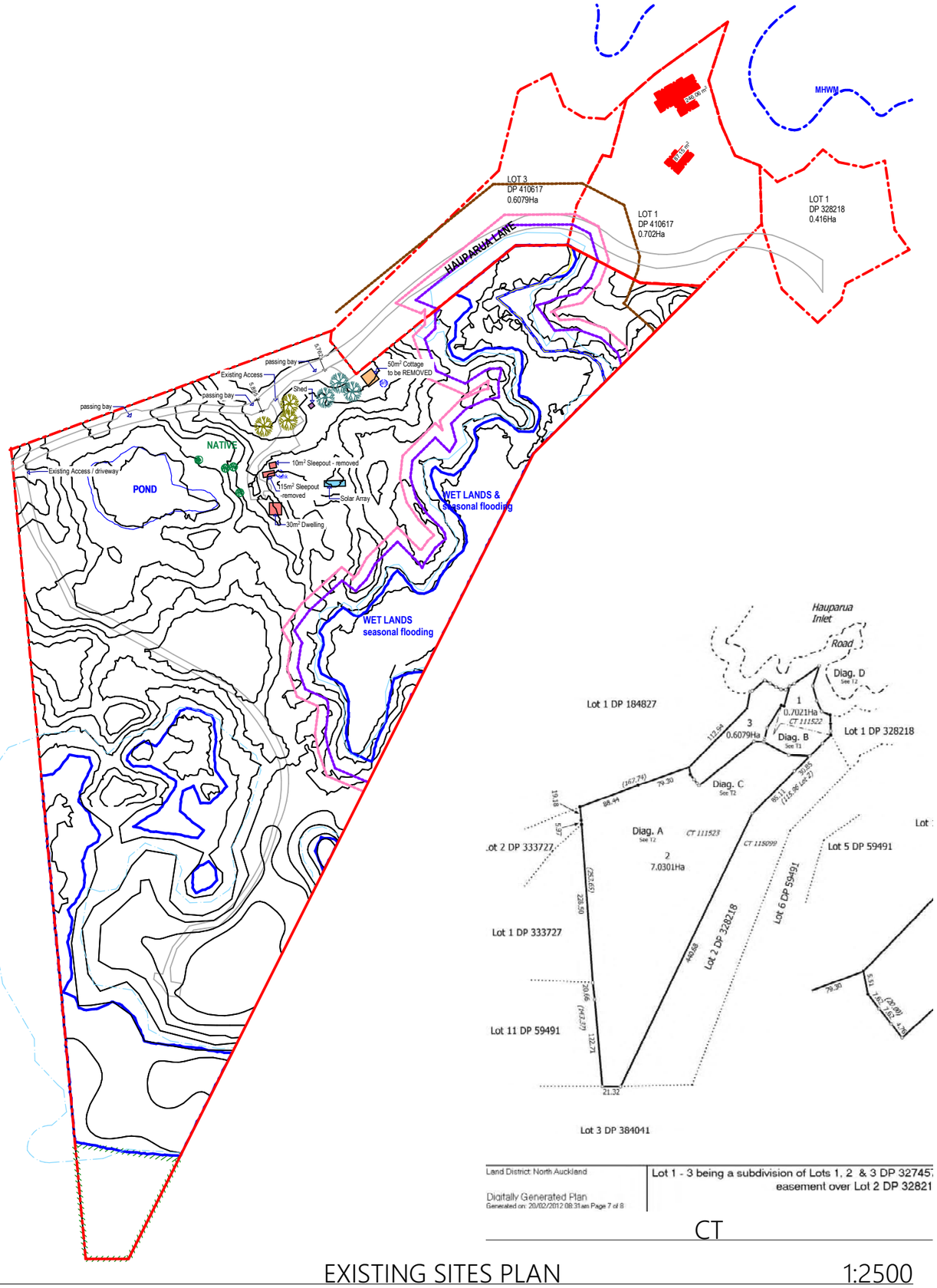
The opinions and recommendations of this report are based on plans, specifications and reports provided to us at the time of writing, as referenced. Any changes, additions or amendments to the project scope and referenced documents may require an amendment to this report and Geologix Consulting Engineers should be consulted. Geologix Consulting Engineers Ltd reserve the right to review this plan.

The recommendations and opinions in this report are based on arisings extracted from fieldwork at the site and desktop study.

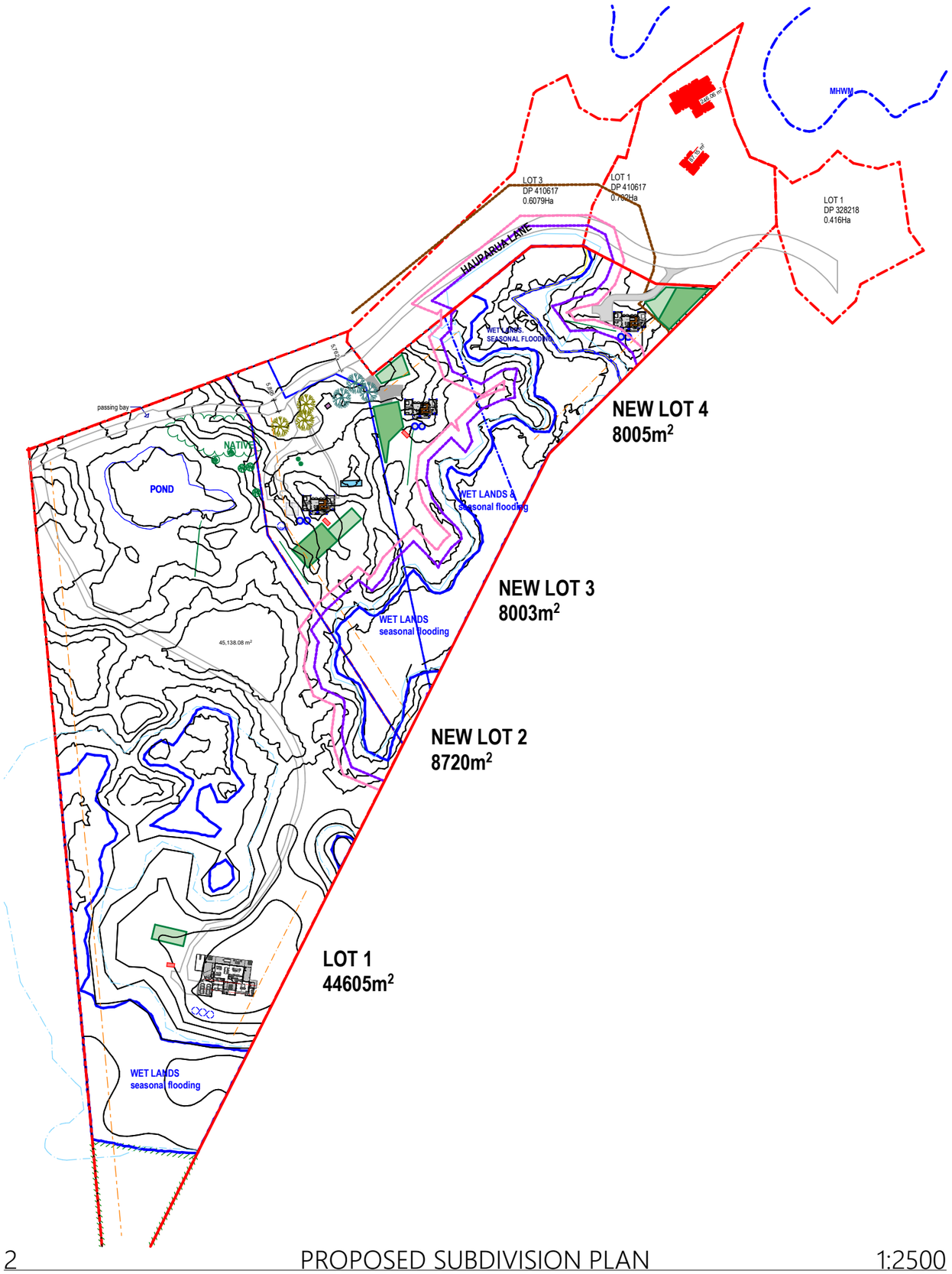
geologix
consulting engineers

APPENDIX A

Proposed Subdivision Plans



CT



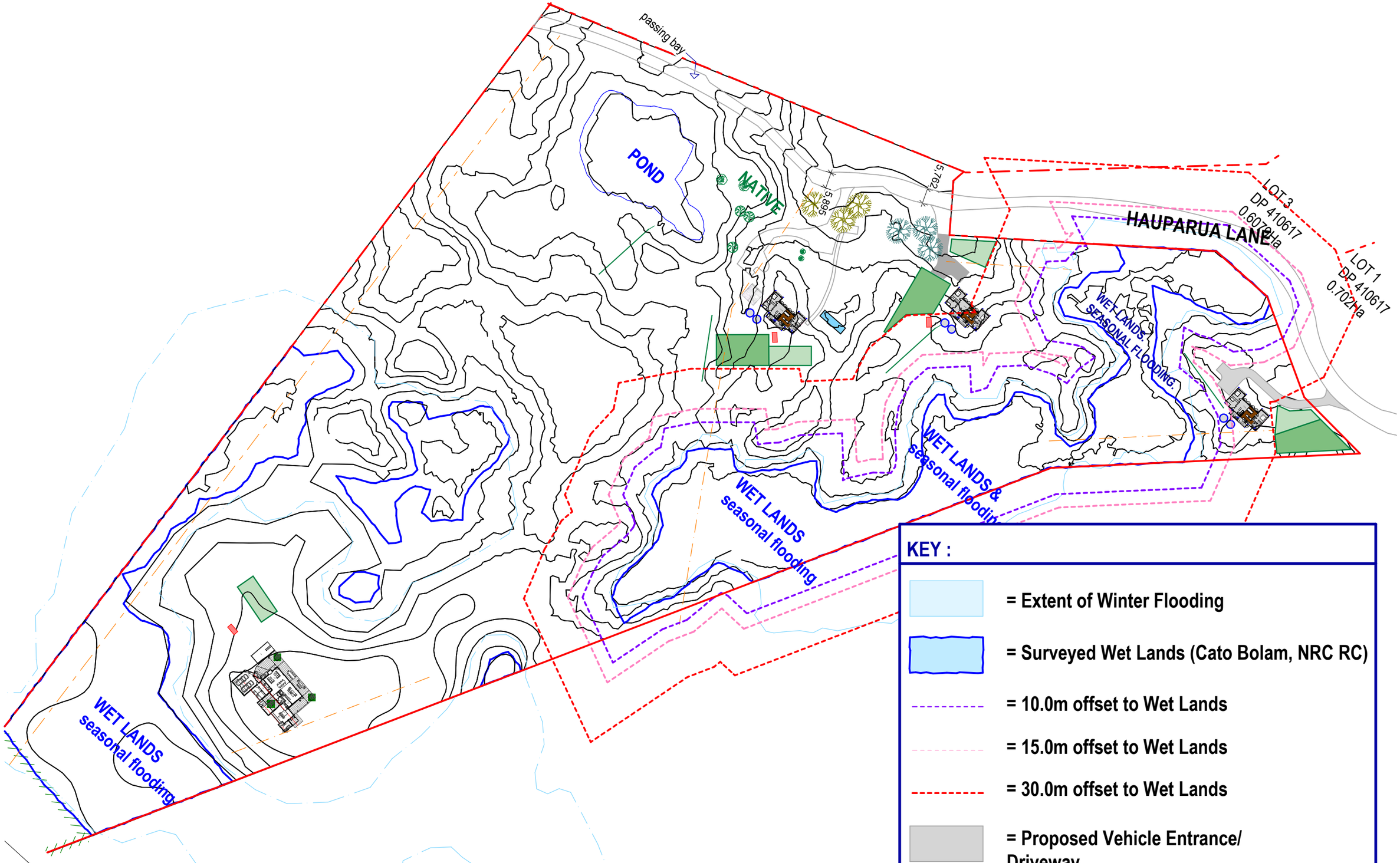
1 EXISTING SITES PLAN 1:2500

2 PROPOSED SUBDIVISION PLAN 1:2500

PROJECT No. #PIn	PERMIT SHOP PRACTICAL ARCHITECTURE	8 Bellevue Road, Mount Eden, Auckland 1025 I PO Box 41226, Mt Roskill 1440, Auckland P: 09 - 634 6101 www.permitshop.co.nz	PROJECT NAME + ADDRESS #Project Name #STREET #SUBURB, #CITY	SHEET TITLE EXISTING + PROPOSED SITE PLANS	STATUS --	DESIGN: -- DRAWN: -- CHECKED: -- APPROVED: --	SCALE: Shown@A3 PRINT DATE: 25/11/2024	SHEET NUMBER 1.1 REVISION - - WIP

APPENDIX B

Drawings



UPDATED MAP PROVIDED BY MORRISON DESIGN

PROJECT No.		MORRISON DESIGN	PROJECT NAME + ADDRESS	SHEET TITLE	STATUS		SCALE:	SHEET NUMBER	REVISION
44HAU		44 Huaparua Lane KERIKERI	COMBINED SUBDIVISION 44 HAUPARUA LANE KERIKERI RD3	WETLAND MAP	LUC	DESIGN: -- DRAWN: -- CHECKED: -- APPROVED: --	Shown@A3 PRINT DATE: 28/02/2025	700	02

APPENDIX C

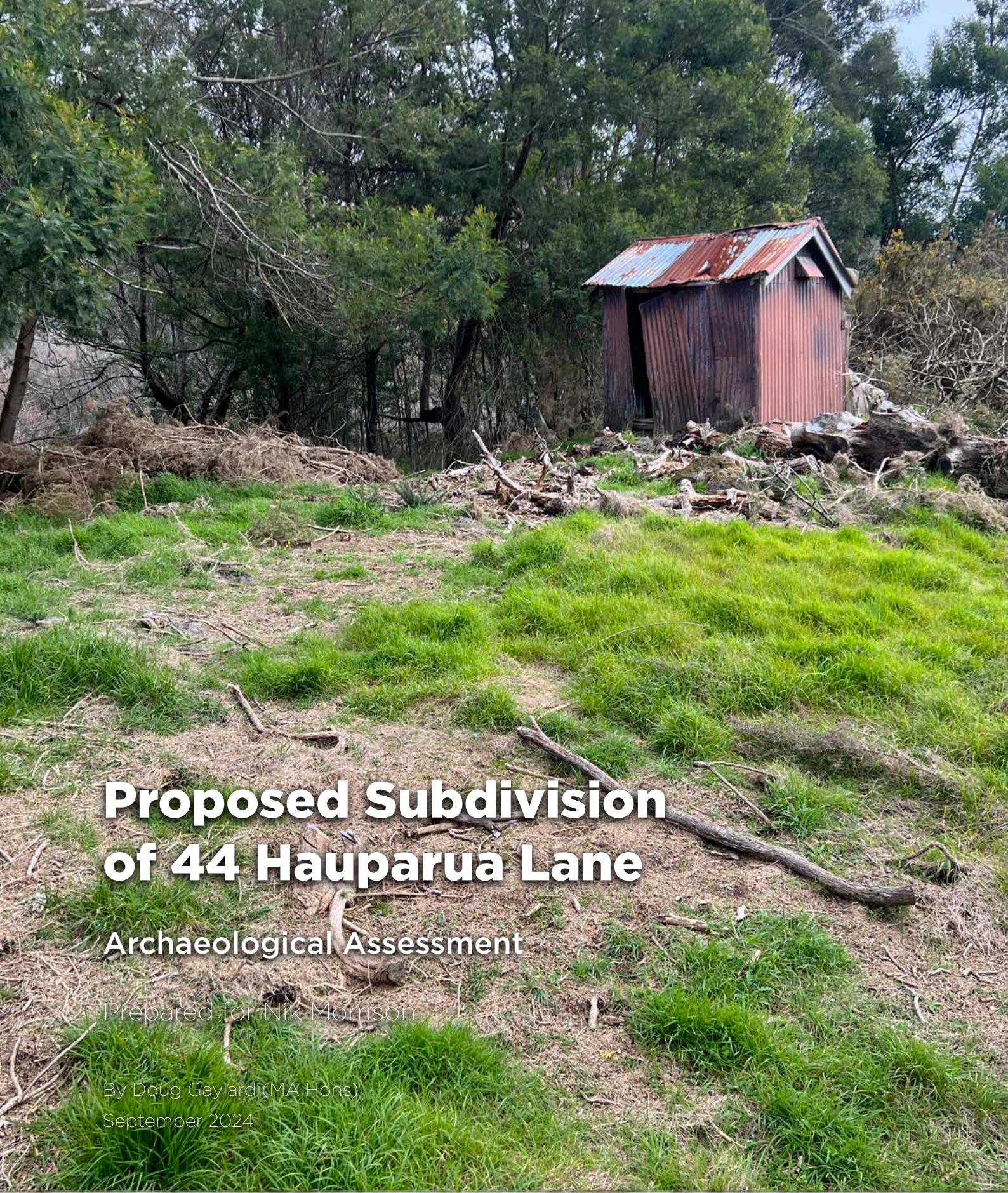
Site Photographs

Photograph 1: Wetland area within the southern portion of the site, looking north.

Photograph 2: Non-wetland area of the site within the southern portion of the site, looking west.

Photograph 3: Pond located within northeastern corner of the site, looking west.

Photograph 4: Wetland area to the southern side of the Haupara Road, looking south.



Proposed Subdivision of 44 Hauparua Lane

Archaeological Assessment

Prepared for Nik Morrison

By Doug Gaylard (MA Hons)

September 2024

CONTEXT ARCHAEOLOGY

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Contents

Introduction

The owner of 44 Hauparua Lane, Kerikeri, is proposing the subdivision of the existing property (legal description Lot 2 DP 410617). The proposed subdivision includes division of Lot 2 DP 410617 into four smaller lots, and the construction of a dwelling some 112m^2 within the newly created Lot 3 (Figure 1 - Figure 3). A detailed plan earthworks plan for the construction of the dwelling and installation of associated services has not yet been developed.

An archaeological and heritage impact assessment was commissioned by Nik Morrison to establish subdivision of the property and any associated construction is likely to impact archaeological or heritage values. Recommendations have been made in accordance with the statutory requirements of the Resource Management Act 1991 (RMA) and the Heritage New Zealand Pouhere Taonga Act 2014.

Methodology

As part of this assessment the New Zealand Archaeological Association's (NZAA) site record database (ArchSite), District Plan schedules and the Heritage New Zealand Pouhere Taonga (Heritage NZ) New Zealand Heritage List/Rārangi Kōrero were searched to determine whether any archaeological sites had been recorded on or near the proposed areas of works. Relevant literature and archaeological reports were also consulted (see Bibliography). Early survey plans and aerial photographs from the area were checked for information relating to past activities or modifications.

An inspection of the area was undertaken on 26 August 2024. This inspection focussed on the overall area to be subdivided and the locations of any proposed and future dwellings (refer to Figure 3). Visual inspection of the area was undertaken, in addition to randomised subsurface probing. Three test pits were opened within footprints of the proposed dwellings, and photographs were taken to record the area.

Constraints and Limitations

This report does not reflect the perspectives of the iwi concerning the importance of the place to mana whenua. The cultural significance of the place to iwi and the potential presence of wāhi tapu can only be evaluated by mana whenua.

Traditional archaeological survey methods, which rely on visual inspection and limited sub-surface testing, are not always capable of identifying all sub-surface archaeological features. Furthermore, they cannot identify wahi tapu and other sites of traditional importance to Māori, especially if these sites lack physical remains.

Figure 1. Location of the proposed subdivision (indicated by the white dot)

Source: Northland Regional Council Local Maps 2024

Figure 2. Location of 44 Hauparua Lane, Kerikeri

Source: Northland Regional Council Local Maps 2024

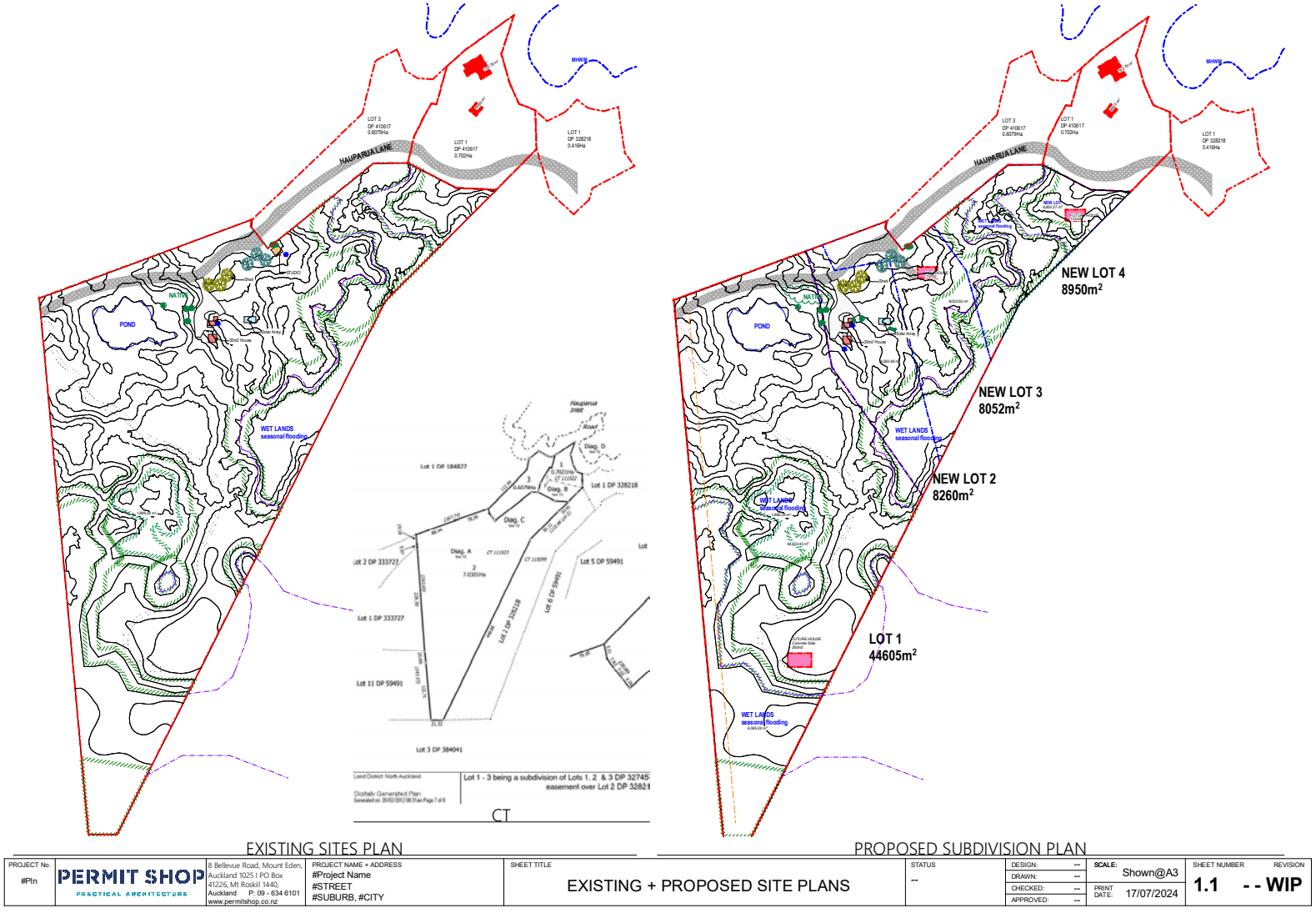

Figure 3. Proposed new lots and boundaries

Source: Permit Shop 2024

Summary Historical Background

The Bay of Islands in New Zealand has a high concentration of recorded archaeological sites, indicating its significant role in Maori history. These sites are mainly located along the coast and waterways, where resources were abundant and accessible by waka. Radiocarbon dating suggests that Polynesian ancestors of the Maori settled in the Bay of Islands around the mid-12th or early 13th centuries.

Before the arrival of Europeans, the Bay of Islands was not only densely populated by Maori but also witnessed some of the earliest interactions between Maori and Europeans. It was also an early European settlement location in New Zealand. The first mission station and permanent European settlement in the country was established in 1814 on the nearby Purerua Peninsula at Oihi, near Rangihoua Pa. Prior to this, there were several years of trade between Europeans and Maori in the Bay of Islands, which served as a hub for rest and provisioning for whaling and other ships.

Rangihoua Pa was the primary settlement of Ngati Rehia in the early 19th century, under the control of local chief Te Pahi until his murder in 1810 after the Boyd Affair. Te Pahi had initiated contact with Europeans to enhance trading opportunities by traveling to Norfolk Island and Port Jackson in 1805. His nephew Ruatara had accompanied him and later joined ships' crews to visit various places, including England. Ruatara returned from England to New South Wales with the missionary Samuel Marsden in 1809-10. He stayed for 18 months at Parramatta, learning about European agriculture, and then returned to Rangihoua in early 1813, where he successfully introduced wheat cultivation to the Bay of Islands.

Marsden's connection with Ruatara enabled the establishment of the mission settlement at Oihi, under the protection of Ruatara and his close relative Hongi Hika. Subsequent to this, other mission stations were established. The second mission was founded in Kerikeri in 1819 and became the center of the Church Missionary Society's trade operations. Kemp House, built in 1821-2, is the oldest surviving European building in New Zealand, while the Kerikeri Stone Store (1832-36) is the oldest stone building (Judge *et al.* 2021)

Archaeological Background and Survey

G. E. Nevin conducted a thorough archaeological survey of the coastal regions from Te Tii on the Purerua Peninsula to Tapeka Point in Russell. The survey documented 325 archaeological sites, including pā, burials, marine shell middens, stone features, pits, ditches, and artifact findspots (Nevin 1984).

In 2015, D. Nevin monitored excavations at 900 Kerikeri Inlet Road, approximately 300m to the north of 44 Hauparua Lane. While there was a possibility of uncovering unrecorded archaeological sites during the excavations, none were encountered. It was observed that the area's rocky and uneven terrain made it unsuitable for agriculture and not conducive to the construction of defensible pā sites (Nevin 2015).

There are no recorded archaeological sites within the boundaries of 44 Hauparua Lane, likely due to the area's geological and topographic conditions (Figure 4). However, it should be noted that no previous archaeological surveys of the property are known to have been undertaken.

The area of the proposed subdivision encompasses a combination of gently rolling landscape and seasonal wetlands. Much of the property is covered in a mixture of established trees, gorse, and regenerating vegetation. There is marked evidence of landscape modification, particularly around existing dwellings, and the proposed location of the new dwelling within Lot 1. This modification typically takes the form of levelled building platforms and partially formed access ways. Of the four proposed lots, Lot 4 to the extreme northeast displays the least modification, save for a small corridor of decorative planting immediately adjacent to Hauparua Lane.

Test pits were opened within proposed lots 1, 3, and 4. Proposed Lot 2 has been subject to considerable modification and therefore a test pit was not considered necessary. In sum, all three test pits displayed subsurface stratigraphy comprised of dark brown organic topsoils overlaying orange loam (Figure 5 - Figure 17). It was often difficult to find a suitable location for test pitting due to the frequency of subsurface volcanic rocks. Broadly, these results are consistent with those observed by Nevin (2015) at 900 Kerikeri Inlet Road. No inclusions suggesting the presence of unrecorded archaeological sites were noted within any of the three test pits.

No suspected archaeological features or deposits were encountered during the course of this survey.

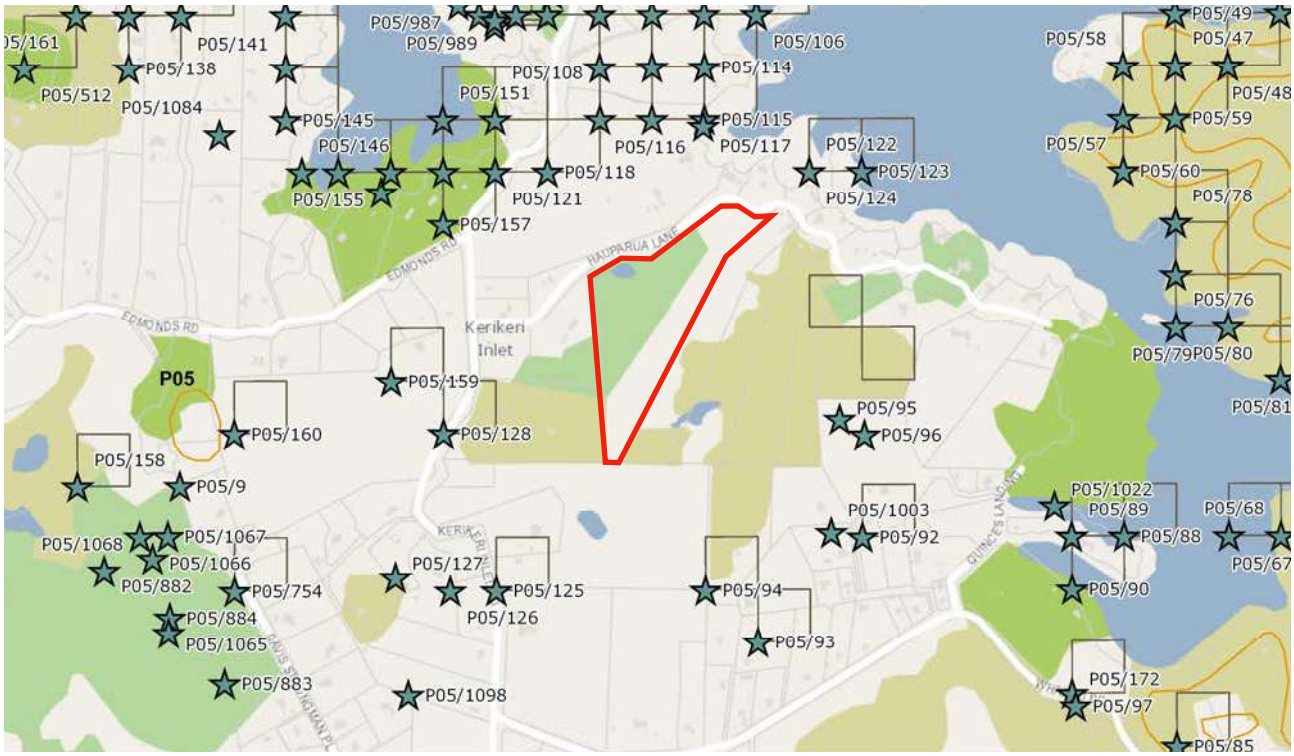

Figure 4. Recorded archaeological sites within the wider area. Note no recorded sites are present within the proposed subdivision (indicated by the red outline)

Source: ArchSite 2024

Figure 5. Location of Test Pits

Source: Northland Regional Council Local Maps 2024

Figure 6. View south over proposed house site within Lot 1. Note modified landscape

Figure 7. Exposed volcanic substrates within proposed Lot 1

Figure 8. Partially formed access way within proposed Lot 1

Figure 9. Detail of Test Pit 1 within Proposed Lot 1

Figure 10. Example of modification within proposed Lot 2

Figure 11. Example of modification within proposed Lot 2

Figure 12. View south over proposed Lot 3

Figure 13. View north over proposed Lot 3

Figure 14. Detail of test pit within proposed Lot 3

Figure 15. View north over proposed Lot 4

Figure 16. View south over proposed Lot 4

Figure 17. Detail of test pit within proposed Lot 4

Summary and Discussion

Summary of Results

No previously recorded archaeological sites exist within the boundary of 44 Hauparua Lane. Likewise, no suspected archaeological sites were noted during the course of this survey. It is assumed – due to a combination of volcanic geology, and the extent of previous modification – that there is a low risk of encountering previously unrecorded archaeological deposits or features during either subdivision or construction of proposed dwellings.

Māori Cultural Values

This assessment considers the impact on archaeological values only and does not assess the impact on Māori cultural values. Only the tangata whenua should carry out such assessments. Māori cultural concerns may include a wider range of values than those associated with archaeological sites. The strong historical connection of the general area with the tangata whenua is apparent from the documented sites, traditional histories, and known Māori place names.

Effects of the Proposal

In any area where archaeological sites have been documented in the general vicinity, there is a possibility of encountering unrecorded subsurface remains during development. Although this is considered unlikely in this instance, due to subsurface geological conditions and the absence of documented archaeological sites, procedures should be in place to ensure that the Council and Heritage NZ are notified if such remains are discovered.

These remains may include burnt and fire-cracked stone, charcoal, rubbish heaps containing shell, bone, and/or 19th-century glass and crockery, ditches, banks, pits, old building foundations, artefacts of Maori and/or early European origin, or human burials.

Legislation and Policy

There are two main pieces of legislation in New Zealand that govern work affecting archaeological and other significant historic heritage sites: the Resource Management Act 1991 (RMA) and the Heritage New Zealand Pouhere Taonga Act (2014).

1. Resource Management Act 1991 (RMA)

This act provides a framework for managing the use of natural and physical resources, including historic heritage. It requires local authorities to consider the effects of land use and development on heritage sites, and to provide protection for historic heritage as part of the sustainable management of resources. The RMA empowers local councils to develop district and regional plans that include rules and provisions to protect heritage sites.

2. Heritage New Zealand Pouhere Taonga Act 2014

This act is specifically focused on heritage protection and management. It establishes Heritage New Zealand Pouhere Taonga (formerly known as the New Zealand Historic Places Trust) as the main organization responsible for identifying, protecting, and conserving New Zealand's historic places. The Act requires that any work on archaeological sites – defined as any site associated with human activity before 1900 – must have an archaeological authority from Heritage New Zealand Pouhere Taonga, regardless of whether the site is recorded or not.

Together, these two pieces of legislation play a significant role in safeguarding New Zealand's archaeological and historic heritage sites.

Heritage New Zealand Pouhere Taonga Act 2014 Requirements

The Heritage New Zealand Pouhere Taonga Act (HNZPTA) protects all archaeological sites, whether they have been officially recorded or not. These sites cannot be damaged or destroyed without prior authorisation from Heritage NZ, as outlined in Section 42 of the Act, in addition to any requirements set forth in the Resource Management Act (RMA).

HNZPTA Section 6 defines an archaeological site as follows:

'**archaeological site** means, subject to section 42(3), –

(a) any place in New Zealand, including any building or structure (or part of a building or structure) that –

(i) was associated with human activity that occurred before 1900 or is the site of the wreck of any vessel where the wreck occurred before 1900; and

(ii) provides or may provide, through investigation by archaeological methods, evidence relating to the history of New Zealand; and

(b) includes a site for which a declaration is made under section 43(1)'

Under Section 43(1) a place post-dating 1900 (including the site of a wreck that occurred after 1900) that could provide 'significant evidence relating to the historical

and cultural heritage of New Zealand' can be declared by Heritage NZ to be an archaeological site.

Authorities to modify archaeological sites can be applied for either in respect to archaeological sites within a specified area of land (Section 44(a)), or to modify a specific archaeological site where the effects will be no more than minor (Section 44(b)), or for the purpose of conducting a scientific investigation (Section 44(c)). Applications that relate to sites of Māori interest require consultation with (and in the case of scientific investigations the consent of) the appropriate iwi or hapū and are subject to the recommendations of the Māori Heritage Council of Heritage NZ. In addition, an application may be made to carry out an exploratory investigation of any site or locality under Section 56, to confirm the presence, extent and nature of a site or suspected site.

An archaeological authority will not be required for this project as there are no known sites that will be affected, and it is unlikely that any undetected sites are present. However, if any sites are exposed during the development, the provisions of the HNZPTA must be complied with.

Conclusions

As there are no recorded archaeological sites within the area of the proposed subdivision – nor were any suspected archaeological sites encountered during the course of this survey – it is considered appropriate for subdivision and construction of dwellings to proceed under the provisions provided by the Accidental Discovery Protocol (ADP)

Recommendations

Please take note of the following:

- There should be no major restrictions on either subdivision or construction of dwellings within the proposed area based on archaeological grounds as there are no known archaeological sites in the vicinity, and it is unlikely that any will be exposed during development.
- If any suspected archaeological artefacts, deposits, or features are found during construction (such as intact shell middens, hāngi, or storage pits related to Māori occupation, or cobbled floors, brick or stone foundations, and rubbish pits related to 19th-century European occupation) work should stop immediately in the area, and both Heritage NZ and the Council should be notified. If changes to an archaeological site become necessary, an Authority must be applied for under Section 44(a) of the HNZPTA and granted before any further work that will impact the site. **This is a legal requirement**
- Alternatively, applying for an Authority in advance of works could be considered as a precaution to minimise delays if archaeological remains are uncovered once the works are underway.
- In the event of human remains being uncovered, work should be stopped immediately in the area, and tangata whenua, Heritage NZ, NZ Police, and the Council should be contacted to make appropriate arrangements.
- Since archaeological surveying cannot always detect sites of traditional importance to Māori, such as wahi tapu, the tangata whenua should be consulted about the potential existence of such sites on the property.

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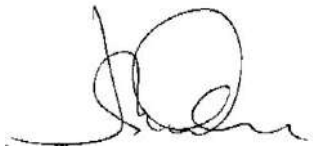
Traffic Impact Assessment for Proposed Subdivision 44 Hauparua Lane, Kerikeri for Nik Morrison

Supporting report for Resource Consent Application to Far North District Council
Haigh Workman reference 24 153

September 2024

Revision History

Revision №	Issued By	Description	Date
A	Jamie Kitzen	For Resource Consent	19/08/2024
B	Jamie Kitzen	Final	03/09/2024

Prepared By	Reviewed By	Approved By
		
Jamie Kitzen Civil Engineer DipEng (Civil)	Tom Adcock Senior Engineer BEng Civil, MEngNZ	John McLaren Senior Civil Engineer NZCE, BE (Civil) CPEng, IntPE, CMEngNZ

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Executive Summary

Haigh Workman Ltd (Haigh Workman) was commissioned by Nik Morrison (the Client) to undertake a traffic impact assessment of Hauparua Lane in relation to a proposed Subdivision at 44 Hauparua Lane, Kerikeri (Lot 2 410617).

It is proposed to subdivide into four lots. The proposed subdivision is shown on Permit Shop Architectures scheme plan in Appendix E.

Resource consent requires the addition of two passing bays. We know this as another resident has been granted approval to sub divide (Lot 3 DP 59491) from two lots to five. Part of the condition required for approval was the construction of two passing bays at chainages 220 and 380. These are being carried out by a prior approved (RC 2240190) subdivision further up the road at properties 114 & 115, noting that these passing bays are yet to be constructed. A second traffic impact assessment report has been submitted to Council for 83C Hauparua Lane in June 2024 in relation to Lot 5 DP 59491.

Under the Far North District Plan the site is zoned Coastal Living.

Vehicle access to the site is via Hauparua Lane, a private road made up of rights of way and currently provides access to 17 lots with 21 household equivalents. Under the current District Plan a private road serving more than 15 household equivalents should be upgraded as per Appendix 3B-1. It is anticipated that upgrade to a higher standard would be required at an ADT of around 150 vehicles per day or greater.

Hauparua Lane has a sealed carriageway width varying between 3.8 – 6m and contains existing passing bays every 100m except at chainages 220 and 380. There is at least 30m forward sight visibility throughout the lane except where vegetation trimming is required at chainages 760, 800 and 870 and north of the intersection with Kerikeri Inlet Road. Vehicle speeds are managed on the lane through posted 25km/hour speed limit signs at speed humps in at least four locations.

There is no evidence of vehicles using the shoulder to pass oncoming traffic and the seal appeared to be in good condition.

As outlined in section 4, the actual traffic count on Hauparua Lane was a 92 ADT for vehicles accessing the 20 existing household units. This is significantly lower than the district plan TIF of 10 movements per unit which would give a total of 200 movements per day. As predicted traffic volumes are expected to be less than 150 vehicles per day, upgrade of the low volume access is not recommended.

Construction of two passing bays and vegetation trimming is recommended. It appears that Hauparua Lane is coping well with the existing traffic movements and is well maintained and provided the two additional passing bays and vegetation trimming are carried out, this lane can adequately service three additional lots on top of the two previously calculated traffic assessment reports under Bryce Lee (1 additional lot) and Tom Frei (3 additional lots approved under RC 240190).

1. Introduction

1.1. Introduction

Haigh Workman Ltd (Haigh Workman) was commissioned by Nik Morrison (the Client) to undertake a traffic impact assessment of Hauparua Lane in relation to a proposed subdivision at 44 Hauparua Lane, Kerikeri.

Under the Far North District Plan the site is zoned Coastal Living.

1.2. Objective and Scope

This report is a traffic impact assessment including:

- Traffic generation
- Safety of vehicle crossing on Kerikeri Inlet Road
- Assessment of Hauparua Lane

The proposal has been assessed with reference to the Far North District Plan, Far North District Council Engineering Standards 2023 and relevant New Zealand and Austroads roading standards.

1.3. Applicability

This report has been prepared for our Client, Nik Morrison, with respect to the brief given to us. This report is to be used by our Client and Consultants and may be relied upon by the Far North District Council when considering a resource consent application for the proposed development. The information and opinions contained within this report may not be used or relied on (in whole or part) by anyone else, or for any other purpose or in any other contexts, without our prior written agreement by Haigh Workman Ltd. This report may not be read or reproduced except in its entirety.

The comments and opinions presented in this report are based on FNDC standards, New Zealand industry practice and information provided by the Client. There may be other facts prevailing for the site which have not been revealed by this investigation and which have not been considered by this report. Responsibility cannot be accepted for any conditions not revealed by this investigation.

2. Site Description

2.1 Site Identification

Site Address:	44 Hauparua Lane
Appellation:	Lot 2 410617
Site Area:	70.301ha

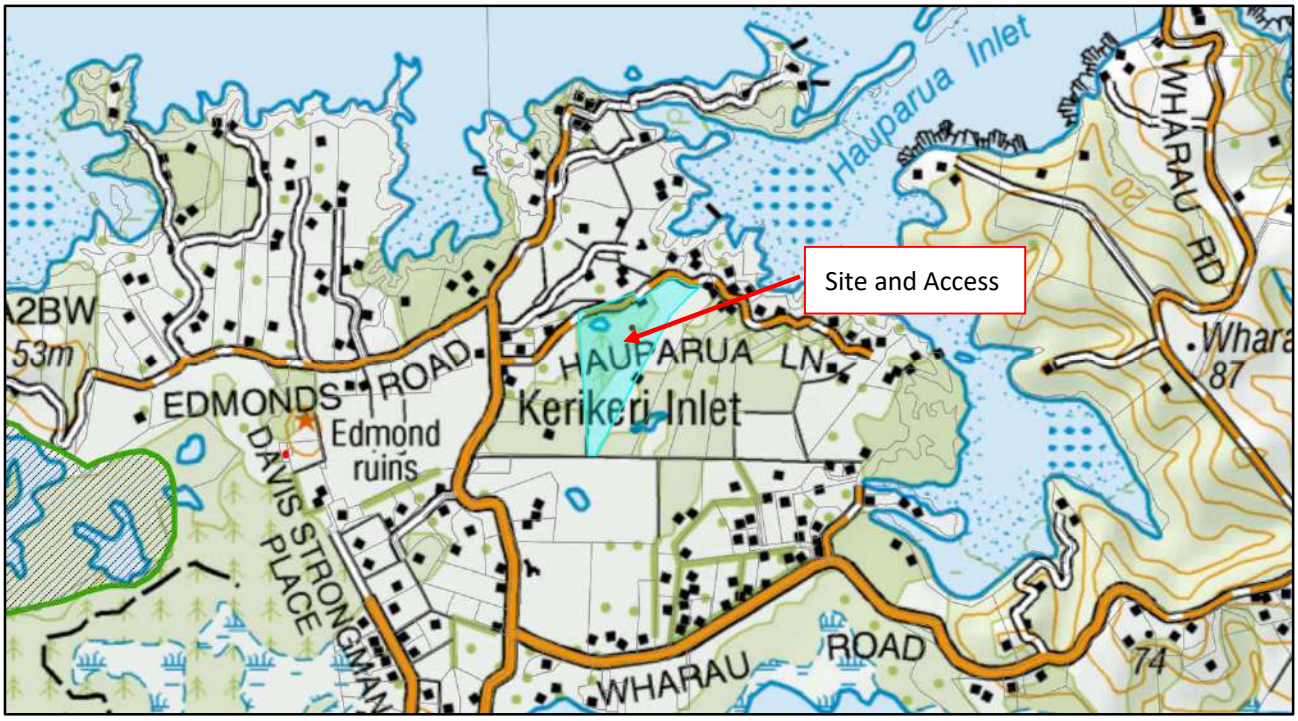


Figure 1 Site Location (FNDC Maps)

2.2 Proposed Subdivision

This proposal is for Lot 2 DP 410617 to be subdivided into four lots comprising:

- Lot 1 – 44,605m^2 – Vacant – Access entrance to be upgraded
- New Lot (Lot 2) – 8,260m^2 – Contains an existing dwelling – A new dwelling and driveway entrance to be constructed off Hauparua Lane, existing entrance
- New Lot (Lot 3) – 8,052m^2 – Contains an existing dwelling - A new dwelling and driveway entrance to be constructed off Hauparua Lane, existing entrance
- New Lot (Lot 4) – 8,950m^2 – Vacant - New dwelling and driveway entrance to be constructed off Hauparua Lane, proposed new entrance

The proposed subdivision is shown on Permit Shop scheme plan appended.

The proposed lots are accessed from the privately owned Hauparua Lane, starting at approximately 270m from the intersection.

3. Traffic Generation

Hauparua Lane is a private road and is made up of multiple rights of way that currently provides access to 17 lots containing 21 developed household equivalents. Lot 2 DP 551035 is currently undeveloped so the number of houses could increase by one in the future.

- RC 2240190 dated 3rd April 2024 was for the subdivision of LOT 3 DP 59491 BLK XII KERIKERI SD and Lot 5 DP 59491 creating an additional three titles in total. Lot 3 DP59491 contained two existing dwellings, so the net increase was two H.E.s.
- RC 2240057 was for subdivision of Lot 5 DP 59491 creating an additional title, so net increase was one H.E.s

Thus, the existing number of developed plus permitted houses served by Hauparua Lane is 20 + 1 + 2 + 2 = 25 H.E.s

The proposed subdivision of Lot 2 410617 will create three additional titles and three additional H.E.s, bringing the total to 25 + 3 = 28 H.E.s.

The owner of Lot 5 DP59491 is considering further subdivision that should this proceed would create one additional lot, so a net increase of one H.E.s to a total of 28 + 1 = 29 H.E.s

Appendix 3A states "The Traffic Intensity Factor (TIF) establishes a value for determining the activity status". Traffic Intensity Factors (TIF) are contained within Appendix 3A of the Operative Far North District Plan. The Traffic Intensity Factor (TIF) adopted for calculating traffic generation of a Standard Residential Unit is 10 per unit. As Hauparua Lane currently provides access to 21 household units with the potential to increase to 28 once vacant and consented titles are counted. The calculated TIF is 280 VPD, increasing to 290 VPD should further subdivision of Lot 5 DP59491 be granted.

Activity status is determined under Section 15.1.6A Traffic of the District Plan. More than 40 vehicles per day is a discretionary activity as per Table 15.1.6A.1 MAXIMUM DAILY ONE-WAY TRAFFIC MOVEMENTS of the District Plan. The activity is therefore **Discretionary**.

Once the activity status is known, actual traffic counts are used for assessment of effects.

4. Traffic Count Data

4.1 Existing Traffic Volumes

Kerikeri Inlet Road is a Collector Road linking Kerikeri and the Kerikeri Inlet community. It has a 6m sealed carriageway width at the Site frontage.

Vehicle counts carried out by Council's roading maintenance contractor Ventia on Kerikeri Inlet Road and Hauparua Lane recorded 7-day average daily traffic as follows:

Table 4.1 –Traffic Volumes

Week Ending 19/06/2023 Location	7-day ADT
KERIKERI INLET ROAD- WHARAU RD TO EDMONDS RD (NORTH)	159
KERIKERI INLET ROAD- EDMONDS RD TO WHARAU RD (SOUTH)	161
HAUPARUA LANE- KERIKERI INLET RD TO HAUPARUA LANE	46
HAUPARUA LANE- HAUPARUA LANE TO KERIKERI INLET ROAD	46

Traffic counts are contained in in Appendix C.

4.2 Generated Traffic

As it can be seen above, actual traffic volumes are 92 VPD for 17 lots = 5.4 VPD per lot or 4.4 VPD per H.E.s. This lower vehicle count is not unexpected as rural properties tend to generate lower traffic movements than urban. Assuming the same traffic generation for newly consented and undeveloped lots, the estimated traffic is 92 + 4.4 x 7 = 122.8 VPD for this proposal, and 92 + 4.4 x 8 = 127.2 VPD should further subdivision of Lot 5 DP 59491 be granted. Our assessment is that following development, future traffic volumes on Hauparua Lane are unlikely to exceed 127 vehicles per day.

4.2 Hauparua Lane Intersection

Visibility

The existing entrance to Hauparua Lane is on a straight section of Kerikeri Inlet Road. Visibility is good to the West but vegetation in the road causes a slight restriction in visibility to the East. Mobile Road classifies the road as a Secondary Collector.

Visibility from the vehicle crossing has been assessed against FNDC Engineering Standards 2023 Sheet 4 as follows:

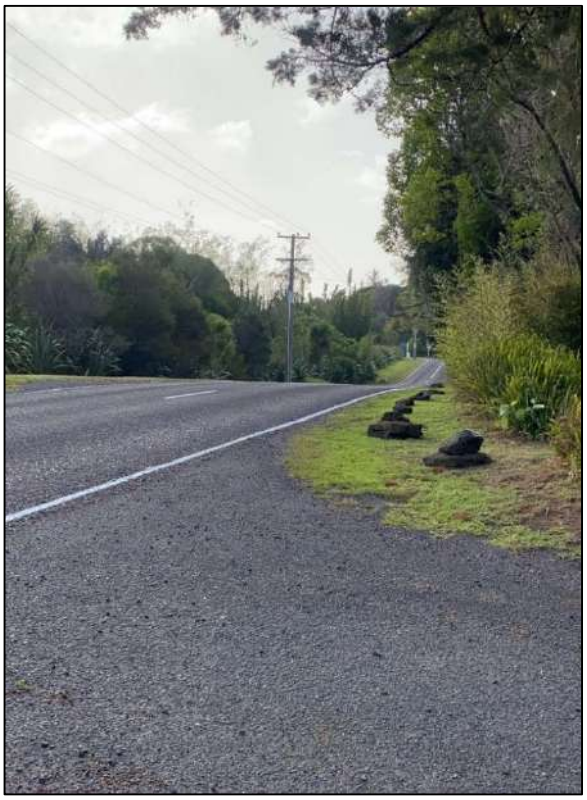
Approach from	Legal Speed Limit	Measured 85%ile Approach Speed	FNDC SHT 4 minimum sight distance from vehicle entrance	Austroads Part 3 – Geometric Design Table 5.3	Visibility Achieved
North	80 km/h	60 km/h	90 m	73 m	72 m – (>100m with minor vegetation clearance)
South	80 km/h	60 km/h	90 m	73 m	110 m

The 85th percentile speed was measured at 59 km/hr (60 km/hr). Visibility from the vehicle crossing is illustrated in the photographs below. Visibility to the North is partially restricted by vegetation in the road reserve which will need to be trimmed back to maximise sight distance. Following the trimming, visibility in both directions will comply with the Council Engineering Standards.

We note that RC 2240190 specified vegetation trimming be undertaken at the entrance of Hauparua Lane for the purposes of increasing sightlines / visibility of crossing onto Kerikeri Inlet Road.

This section of Kerikeri Inlet Rd under the proposed Speed Management Project currently being procured through NTA is to remain at 80kph posted limit.

Visibility south (towards Kerikeri)



Visibility north (towards Inlet)

Vehicle Crossing Standard

Engineering Standards 2023 – Fig 3.1 says Type 1, sheet 21 Type 1A for accesses carrying 60 vehicles per day or more onto rural roads that are expected to carry less than 1000 vehicles per day in 10 years. As seen in the traffic count data, Kerikeri Inlet Road in this location currently significantly less than 1000 vpd and is not expected to reach this within 10 years.

The entrance to Hauparua Lane exceeds the requirements for a 2023 Type 1A with 10m turning radii on either side of the 6m wide crossing.

Vehicle Crossings Nearby on Kerikeri Inlet Road

There are several other vehicle crossings in the vicinity of the existing Hauparua Lane private road.

On the same side of the road there are two vehicle crossings within 100m:

- 898 Kerikeri Inlet Road - a vehicle crossing 50m north of Hauparua Lane serving one property
- 884 Kerikeri Inlet Road - a vehicle crossing 60m south of Hauparua Lane serving one property

Across the road at 893 Kerikeri Inlet Road is a vehicle crossing 25m north of Hauparua Lane serving one property

There is no evidence that these crossings present any significant vehicle conflict with the Hauparua Lane intersection.

4.3 Proposed Crossings

Proposed crossings onto Hauparua Lane

- Lot 1 – Existing access entrance to be upgraded
- New Lot (Lot 2) – Driveway entrance off Hauparua Lane, existing entrance
- New Lot (Lot 3) – Driveway entrance off Hauparua Lane, existing entrance
- New Lot (Lot 4) – Proposed new entrance off Hauparua Lane at CH620.

5. Safety- CAS database

The NZTA Crash Analysis (CAS) database was checked for crashes during the 5 years inclusive 2018 – 2022. There are no known crashes in close proximity to the Hauparua Lane – Kerikeri Inlet Road intersection as can be seen in Figure 2 below.

There are no safety concerns raised from the query. We recommend the driveway be approved in terms of safety.

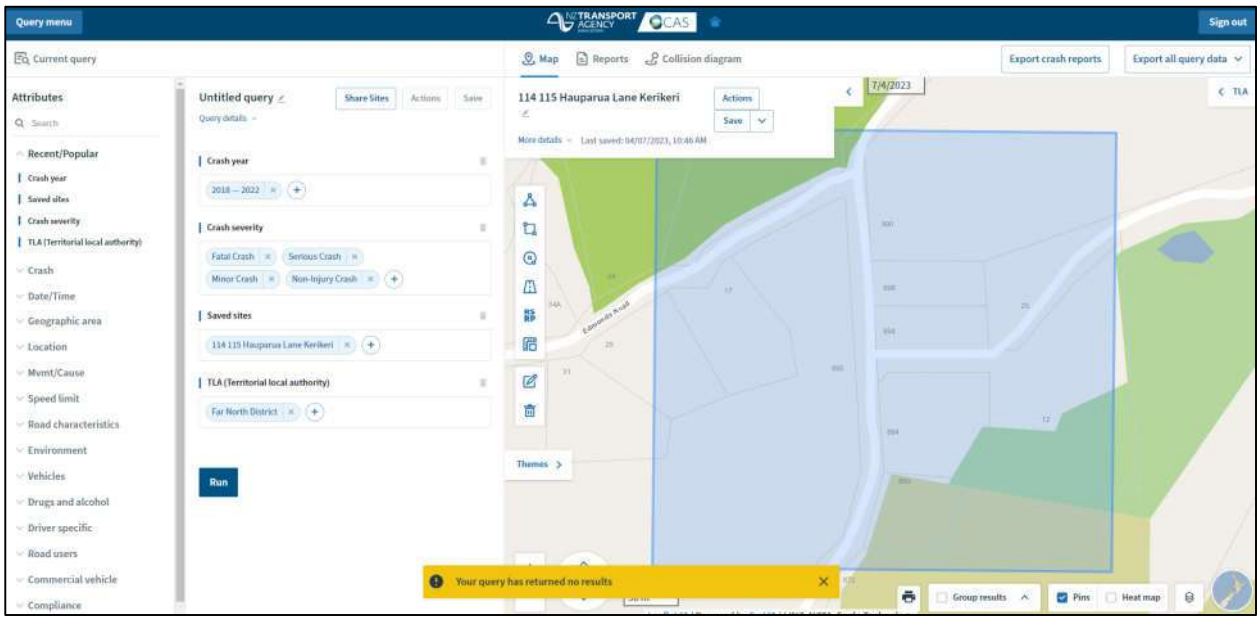


Figure 2 CAS database query area of interest

6. Hauparua Lane Condition

Haigh Workman Engineers completed a walkover of Hauparua Lane on 25th July 2024. The lane is sealed as far as the subject site with the sealed width generally varying between 4.1 – 6m. The lane contains existing passing bays every 100m except at Ch. 220m and 380m. There is at least 30m forward sight visibility throughout the lane as far as the site. Vehicle speeds are managed on the lane through posted 25km/hour speed limit signs and speed humps in at least four locations.

Hauparua Lane is a well maintained and picturesque private lane. The seal and road shoulders are generally in a good state of repair with little evidence of deterioration. Observations suggest that traffic is moving at a slow enough speed to enable vehicles to pass carefully within the carriageway width, or with only occasional use of the shoulders and existing passing bays.

We note that RC 2240190 specified the construction of two passing bays on Hauparua Lane at Ch. 220m and 320m to be sealed and comply with Rule 15.1.6C.1.3(a). It appears that Hauparua Lane is coping well with the existing traffic movements and provided the two additional passing bays are carried out, the lane can adequately service the proposed subdivision.

Under the Operative District Plan a private road serving more than 15 household equivalents should be upgraded as per Appendix 3B-1. It is anticipated that upgrade to a higher standard may be required at an ADT of around 150 vehicles per day or greater.

As described in Section 4, the actual traffic count on Hauparua Lane was 92 ADT for vehicles accessing the 21 existing household units. As per this assessment, traffic volumes are not expected to exceed 150 VPD. Hauparua Lane is a very low speed environment with residents observed adhering to the 25kph posted limit. Traffic calming speed bumps at strategic locations enhance driver behaviour. However, resource consent is required for the TIF exceeding 40 and the ROW exceeding 8 household equivalents and not being vested as per the standard below.

6.1 Access Standards

The Far North District Plan Appendix 3B-1 requires a 5m carriageway width for assess to up to 8 household equivalents. Rule 15.1.6C.1.1 PRIVATE ACCESSWAY IN ALL ZONES requires accesses serving more than 8 household equivalents are to be vested as legal road. As actual traffic volumes are assessed as less than 150 VPD, it is not proposed to vest Hauparua Lane in Council. A resource consent will be required for breach of this rule.

Table 6.1 – Units Served

Address	Lot	Houses currently served	Comments
12	Lot 1 DP 333727	1	
25	Lot 2 DP 333727	1	
44	Lot 2 DP 410617	2	
55	Lot 3 DP 410617	1	
57	Lot 1 DP 410617	1	
69	Lot 1 DP 328218	1	
70	Lot 2 DP 328218	1	
74	Lot 2 DP 428569	1	
81	Lot 1 DP 428569	1	
83 A-C	Lot 5 DP 59491	3	RC 2240190 approved 1 new title (1 future house)
105	Lot 1 DP 551035	1	
-	Lot 2 DP 551035	0	Undeveloped - allow 1 future house
111	Lot 3 DP 386179	1	
114-115	Lot 3 DP 59491	2	RC 2240190 approved 3 new titles (2 future houses)
127	Lot 1 DP 449304	1	
118	Lot 2 DP 449304	1	
130 A & B	Lot 1 DP 103275	2	
Total	17	21	24 (allowing development of recently created new titles)

As traffic volumes are low, other than construction of the two passing bays as per RC 2240190, it is our opinion that no further upgrade of the ROW or vesting with Council is required. It is our opinion that the effects of the proposed additional lot will be no more than minor.

6.2 Proposed Subdivision Access

The site has existing vehicle crossings to 2 of the 4 proposed lots off Hauparua Lane.

The proposed subdivision will require 2 additional vehicle crossings. We recommend the new crossing be constructed at the time of subdivision and be in general accordance with FNDC Engineering Standards 2023 Sheet 21 Type 1A and Sheet 22. Since the crossings will be onto a sealed carriageway we recommend sealing or concreting for the first 5m from edge of carriageway.

Existing crossings are unsealed and will be required to meet FNDC Engineering Standards 2023 Sheet 21 Type 1A and Sheet 22 also.

6.3 Parking

There is adequate area on each of the proposed lots for parking and manoeuvring for the cars.

6.4 Cyclist and Pedestrian Access

It is expected that pedestrians and cyclists will continue to use Hauparua Lane in a shared use arrangement. The speed humps and winding alignment help to provide a low-speed environment, and there is adequate space for cyclists and pedestrians to move off the carriageway and onto passing bays or the berm to allow traffic to pass.

7. Assessment Criteria

Activities may be granted consent when it can be shown that effects are not more than minor when assessed under the assessment criteria described in the Far North District Plan. The following numbering refers to that of the Plan.

11.12 TRAFFIC INTENSITY

Criterion	Comment	Acceptable
(a) The extent by which the expected traffic intensity exceeds the threshold set by the Traffic Intensity Factor contained in Appendix 3A in Part 3 of the Plan.	*Resource consent is required as the TIF of 40 is exceeded. Generated traffic volumes are predicted to be less than 150 vehicles per day and can be accommodated within the existing infrastructure.*	*Yes*
(b) The time of day when the extra vehicle movements will occur.	*Flows from the site are expected to be spread across the day.*	*Yes*
(c) The distance between the location where the vehicle movements take place and any adjacent properties.	*The proposed access is existing and is not expected to affect adjacent entrances.*	*Yes*
(d) The width and capability of any street to be able to cope safely with the extra vehicle movements.	*There is adequate width Kerikeri Inlet Road to accommodate generated traffic. The entrance has been widened previously and no further widening or upgrading of entrance is required.*	*Yes*
(e) The location of any footpaths and the volume of pedestrian traffic on them.	*There are no footpaths in the vicinity of the subject site.*	*Yes*
(f) The sight distances associated with the vehicle access onto the street.	*Complies with the relevant AUSTROADS and FNDC standards.*	*Yes*
(g) The existing volume of traffic on the streets affected.	*Kerikeri Inlet Road can safely accommodate the additional traffic volumes.*	*Yes*
(h) Any existing congestion or safety problems on the streets affected.	*There are no congestion or safety problems in vicinity of the site.*	*Yes*

Criterion	Comment	Acceptable
(i) With respect to effects in local neighbourhoods, the ability to mitigate any adverse effects through the design of the access, or the screening of vehicle movements, or limiting the times when vehicle movements occur.	*No additional controls are considered necessary.*	*Yes*
(j) With respect to the effects on through traffic on arterial roads, strategic roads and State Highways, any measures such as right-turn bays, flush medians, left turn deceleration tapers, etc. proposed to be installed on the road as part of the development to accommodate traffic turning into and out of the site.	*No additional controls are considered necessary.*	*Yes*
(k) 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.	*None known.*	*Yes*
(l) The extent to which the activity may result in adverse effects on the safety and efficiency of the State Highway system and its connections to the local roading network.	*N/A.*	*Yes*
(m) The effects on the safety and/or efficiency on any State Highways, its connections to the local road network and the provision of written approval from the NZ Transport Agency.	*N/A.*	*Yes*
(n) The effects of the activity where it is located within 500m of reserve land administered by the Department of Conservation upon the ability of the Department to manage and administer that land.	*No effects on DOC land.*	*Yes*

15.1.6B PARKING

Criterion	Comment	Acceptable
(a) Whether it is physically practicable to provide the required car parks on site.	The recommended number of car parks can be accommodated within the existing and proposed lots.	Yes
(b) Whether there is an adequate alternative supply of parking in the vicinity, such as a public car park or angled road parking.	Not required.	Yes
(c) Whether there is another site nearby where a legal agreement could be entered into with the owner of that site to allow it to be used for the parking required for the application.	Not required.	Yes
(d) Whether it can be shown that the actual parking demand will not be as high as that indicated in Appendix 3C.	Parking is accommodated on site. Not required.	Yes
(e) Adequacy of the layout and design of the car parking areas in terms of other recognised standards, including the provision made to mitigate the effects of stormwater runoff, and any impact of roading and access on waterways, ecosystems, drainage patterns or the amenities of adjoining properties.	Engineering standards will be complied with.	Yes
(f) Degree of user familiarity with the car park and length of stay of most vehicles.	There is compliance in this respect.	Yes
(g) Total number of spaces in the car park.	Number of car parks provided is sufficient to accommodate the needs of the development.	Yes.
(h) Clear space for car doors to be opened even if columns, walls and other obstructions intrude into a car parking space.	No known obstacles.	Yes

Criterion	Comment	Acceptable
(i) For sites with a frontage with Kerikeri Road between its intersection with SH10 and Cannon Drive: (i) the visual impact of hard surfaces and vehicles on the natural environment. (ii) the effectiveness of any landscape plantings in screening hard surfaces and vehicles associated with parking areas.	Not applicable.	Yes
(j) Whether cycling facilities or open green space have been considered or are appropriate as an alternative to car parking.	Not required. However ample open green space is available in conjunction with complying parking.	Yes
(k) Whether adequate consideration has been given to providing accessible car parking spaces for those with disabilities, the location of these spaces and regulating inappropriate use of the spaces.	Not required.	Yes
(l) The extent to which the site can be accessed by alterative transport means such as buses, cycling or walking.	Not applicable, however school children and residents can walk or cycle <1.15 km to the gate.	Yes
(m) The extent to which the reduced number of car parking spaces may increase congestion along arterial and strategic roads.	No reduction is required.	Yes
(n) The degree to which provision of on-site car parking spaces may have resulted in adverse visual effects or fragmented pedestrian links.	No adverse effects known.	Yes
(o) Whether a financial contribution in lieu of car parking spaces is appropriate.	Not required as parking is accommodated on each site.	Yes
(p) Consideration given to shared parking options between adjacent sites and activities that have varying peak parking demands.	Not required.	Yes
(q) The varying parking requirements for staff and customers.	Not applicable.	Yes

15.1.6C.4.1 PROPERTY ACCESS

Criterion	Comment	Acceptable
(a) Adequacy of sight distances available at the access location.	*Sight distances comply with the relevant FNDC and Austroads Standards.*	*Yes*
(b) Any current traffic safety or congestion problems in the area.	*The CAS database was reviewed, and no safety issues were identified. Kerikeri Inlet Road continues to operate as a modestly trafficked road and will continue to do so for the foreseeable future.*	*Yes*
(c) Any foreseeable future changes in traffic patterns in the area.	*No exit road, none known.*	*Yes*
(d) Possible measures or restrictions on vehicle movements in and out of the access.	*No restrictions required from a traffic perspective.*	*Yes*
(e) The adequacy of the engineering standards proposed and the ease of access to and from, and within, the site.	*Construction of two passing bays is recommended, otherwise the current standard of access is fit for purpose. Resource consent is required for breach of ROW standards i.e., to retain the current standard of access with minor upgrade.* *As actual ADT is less than 150 VPD vesting of the ROW is not recommended. A resource consent is required for not vesting the ROW.*	*Yes*
(f) The provision of access for all persons and vehicles likely to need access to the site, including pedestrian, cycle, disabled, vehicular.	*Pedestrian and vehicle access have been provided.*	*Yes*
(g) The provision made to mitigate the effects of stormwater runoff, and any impact of roading and access on waterways, ecosystems, drainage patterns or the amenities of adjoining properties.	*New Lot 4 requires a culvert crossing beneath a new vehicle crossing to discharge stormwater into the pond. No additional stormwater is created.*	*Yes*

Criterion	Comment	Acceptable
(h) For sites with a road frontage with Kerikeri Road between its intersection with SH10 and Cannon Drive: i) the visual impact of hard surfaces and vehicles on the natural character; ii) the cumulative effects of additional vehicle access onto Kerikeri Road and the potential vehicle conflicts that could occur; iii) possible use of right of way access and private roads to minimise the number of additional access points onto Kerikeri Road; (iv) the vehicle speed limit on Kerikeri Road at the additional access point and the potential vehicle conflicts that could occur.	*No frontage to Kerikeri Road. Not applicable.*	*Yes*
(i) The provisions of the roading hierarchy, and any development plans of the roading network.	*No exit road, N/A.*	*Yes*
(j) The need to provide alternative access for car parking and vehicle loading in business zones by way of vested service lanes at the rear of properties, having regard to alternative means of access and performance standards for activities within such zones.	*Not applicable*	*Yes*
(k) Any need to require provision to be made in a subdivision for the vesting of reserves for the purpose of facilitating connections to future roading extensions to serve surrounding land; future connection of pedestrian accessways from street to street; future provision of service lanes; or planned road links that may need to pass through the subdivision; and the practicality of creating such easements at the time of subdivision application in order to facilitate later development.	*None required.*	*Yes*
(l) Enter into agreements that will enable the Council to require the future owners to form and vest roads when other land becomes available (consent notices shall be registered on such Certificates of Title pursuant to Rule 13.6.7)	*None required.*	*Yes*

Criterion	Comment	Acceptable
(m) With respect to access to a State Highway that is a Limited Access Road, the effects on the safety and/or efficiency on any SH and its connection to the local road network and the provision of written approval from the New Zealand Transport Agency.	*Not applicable*	*Yes*

15.1.6A.7 TRAFFIC INTENSITY

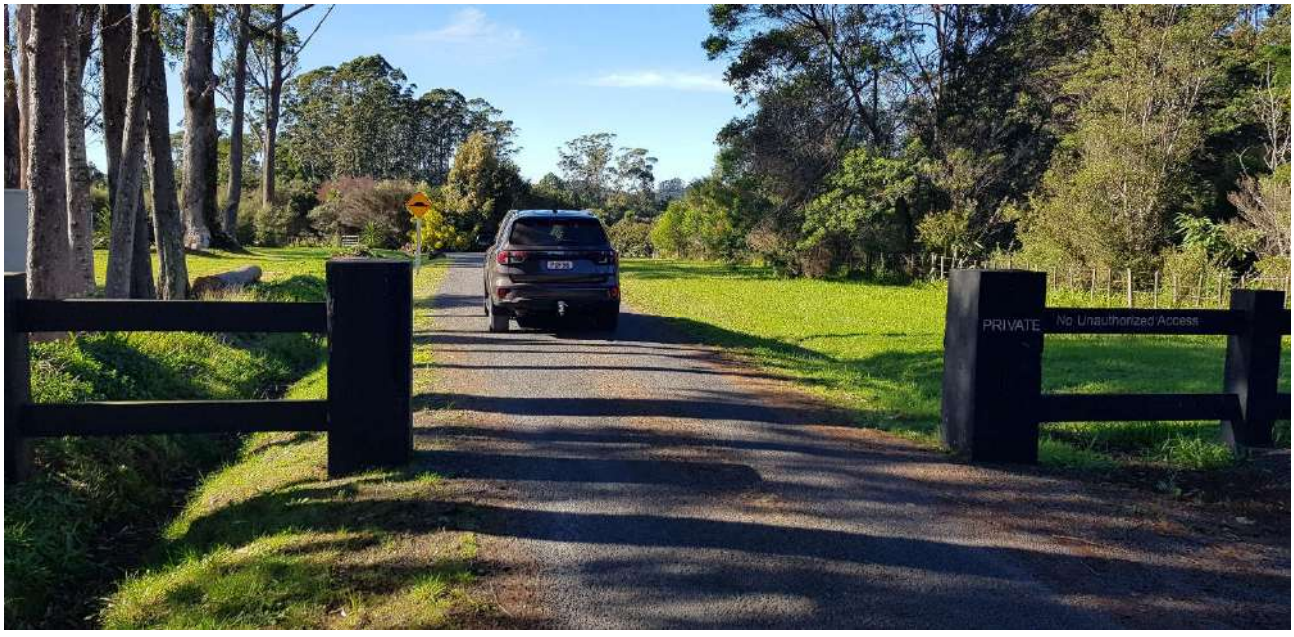
Criterion	Comment	Acceptable
(a) The extent by which the expected traffic intensity for a proposed activity exceeds the assumed value set by the Traffic Intensity Factor contained in Appendix 3A in Part 4 of the Plan.	*Resource consent required for exceeding the TIF of a private driveway. Actual traffic volumes are less than 150 vehicles per day, so effects have been assessed as no more than minor.*	*Yes*
(b) The time of day when the extra vehicle movements will occur.	*Flows from the site are expected to spread across the day.*	*Yes*
(c) The distance between the location where the vehicle movements take place and any adjacent properties.	*Access is not expected to affect adjacent entrances.*	*Yes*
(d) The width and capability of any street to be able to cope safely with the extra vehicle movements.	*Kerikeri Inlet Road is able to accommodate generated traffic. The entrance has previously been widened and no widening or upgrading of the entrance is required.*	*Yes*
(e) The location of any footpaths and the volume of pedestrian traffic on them.	*There are no footpaths in the vicinity of the subject site.*	*Yes*
(f) The sight distances associated with the vehicle access onto the street.	*Complies with the relevant AUSTROADS and FNDC standards.*	*Yes*
(g) The existing volume of traffic on the streets affected.	*Kerikeri Inlet Road can safely accommodate the additional traffic volumes.*	*Yes*
(h) Any existing congestion or safety problems on the streets affected.	*CAS was checked and no safety issues were identified that relate to the proposed development.*	*Yes*

Criterion	Comment	Acceptable
(i) With respect to effects in local neighbourhoods, the ability to mitigate any adverse effects through the design of the access, or the screening of vehicle movements, or limiting the times when vehicle movements occur	*None required.*	*Yes*
(j) With respect to the effects on through traffic on arterial roads, strategic roads and State Highways, any measures such as right-turn bays, flush medians, left turn deceleration tapers, etc. proposed to be installed on the road as part of the development to accommodate traffic turning into and out of the site	*No additional controls are considered necessary.*	
(k) 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.	*No Hazards known.*	*Yes*
(l) Whether providing or having access to bicycle parking, shower/changing facilities or alternative transportation would reduce the number of vehicle movements associated with the proposed activity.	*None proposed.*	*Yes*
(m) the provision of safe access for pedestrians moving within or exiting the site.	*No pedestrian safely issues identified.*	*Yes*

Appendices

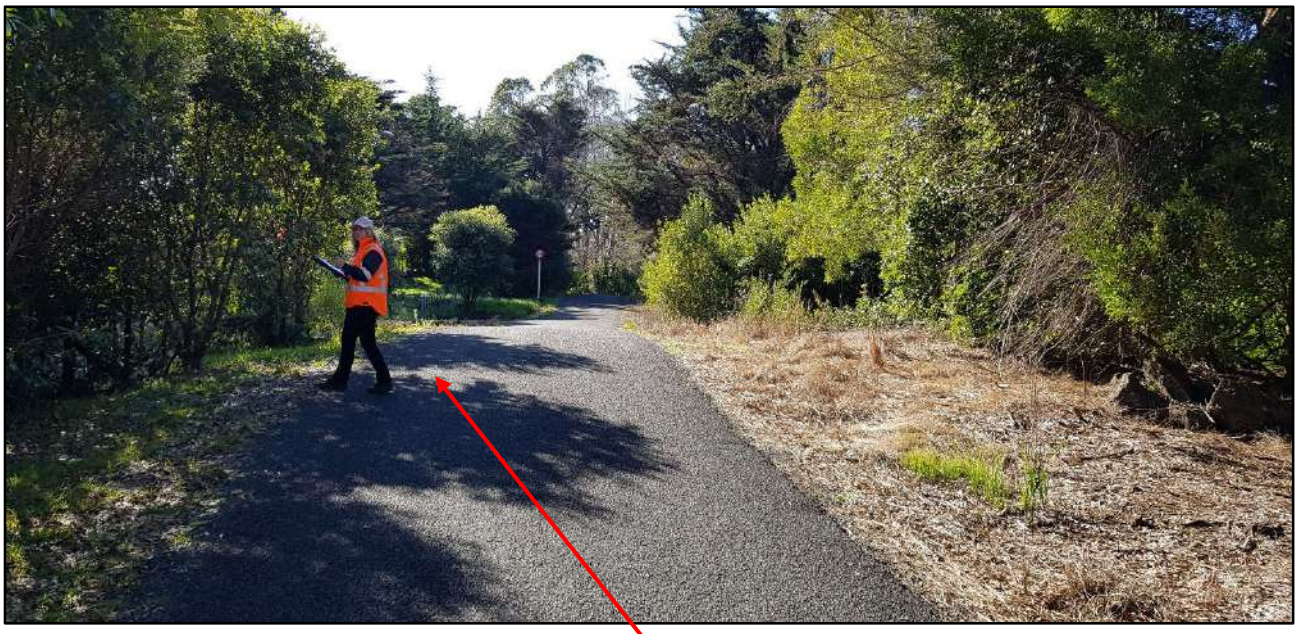
Appendix A – Photographs

Entrance to Hauparua Lane from Kerikeri Inlet Road



Entrance approx. 48m from Kerikeri Inlet Road. 2.5m lane width through gate, however there is adequate visibility on either side to see oncoming vehicles.

Chainage 120 - Entrance to no 12. 4.3m sealed carriageway width with vehicle crossing serving as a passing bay'



Chainage 220 4.7m seal width, proposed passing bay location (to be constructed at crossing)

Chainage 280m proposed passing bay location

Chainage 350m 4.2m seal width looking towards existing entrance proposed Lot 2

Chainage 380 Photo taken from entrance to proposed Lot 2

Chainage 420 looking right out of proposed Lot 2. Vegetation clearance required

Chainage 620 looking left out of proposed entrance to Lot 4 - 52m SSD

Chainage 620 looking right out of proposed entrance to Lot 4 - 55m SSD

Appendix B – Site Notes

Site Observations

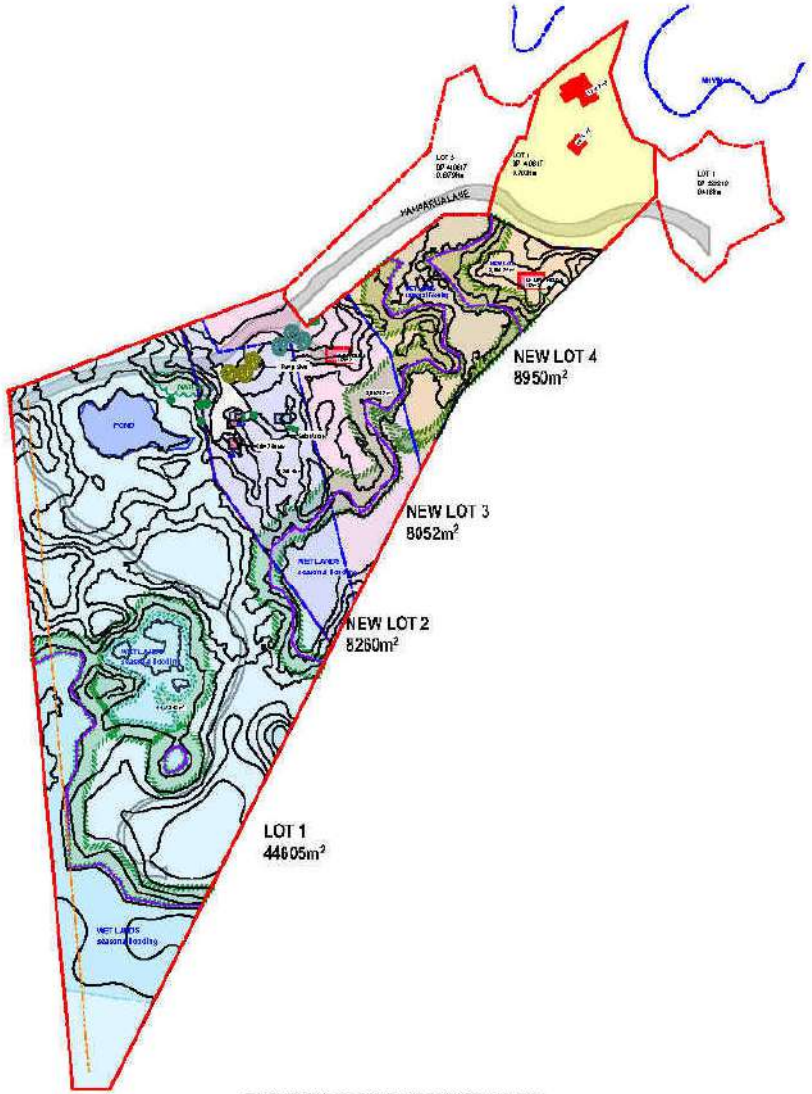
Chainage	Seal width	Current houses served	Proposed houses served	Comments
47	2.5	21	28	Entry gate
60	3.8			Wide shoulder
70	4.1			
90	4.2			Speed hump
110				Farm entrance to no 25
120		21	28	Entrance to no 12. Passing bay
140	4.7			
160				200 dia culvert under road
220		20	27	Possible passing bay location
270		19	26	Paddock entrance. Existing PB – Proposed Entrance to Lot 1
300				Culvert unknown dia under road
360	4.2			
420		18	25	New Lot 2 – Existing entrance to #44. Existing PB also.
440				35m SSD toward Inlet Rd. More with vegetation clearance
450		18	24	New Lot 3 – Existing entrance to cabin. Existing PB
460				42m SSD toward Inlet Rd achieved
560				Existing PB
580		17	23	Culvert to pond. Existing PB at no 57 entrance
600	5.9			
620	6.1	16	21	New Lot 4 proposed entrance. 52m SSD Left, 55m SSD Right
640	5.5			
680	5.3			
690	6	15	20	Bend
720	4.5	14	19	
750				Speed hump
760				Vegetation clearance needed to achieve 30m SSD
770	4.2			Possible PB location. Sharp bend
800		11	16	Existing PB. Vegetation clearance needed at 820. Location of access to Lot 2 (RC 2240057)
850	4.2			Narrow. Location of access to proposed new lot
870				Vegetation clearance needed
880				Gravel crossing. Possible PB
900				Speed hump
920				Paddock entrance
970	5.5	7	10	Possible PB. 300 dia culvert
1000				35m forward SSD toward Inlet Rd
1010	5.5			
1040				Entrance to 105. Existing PB
1050	3.5			
1080	3.2			Entrance to 111. Existing PB
1110				300 dia PVC culvert
1120		6	8	Speed hump
1140				Entrance to 114. Location of approved subdivision currently in progress.

Appendix C – Ventia Traffic Count

Appendix D – Summary of current and future Hauparua Lane Traffic Calculations

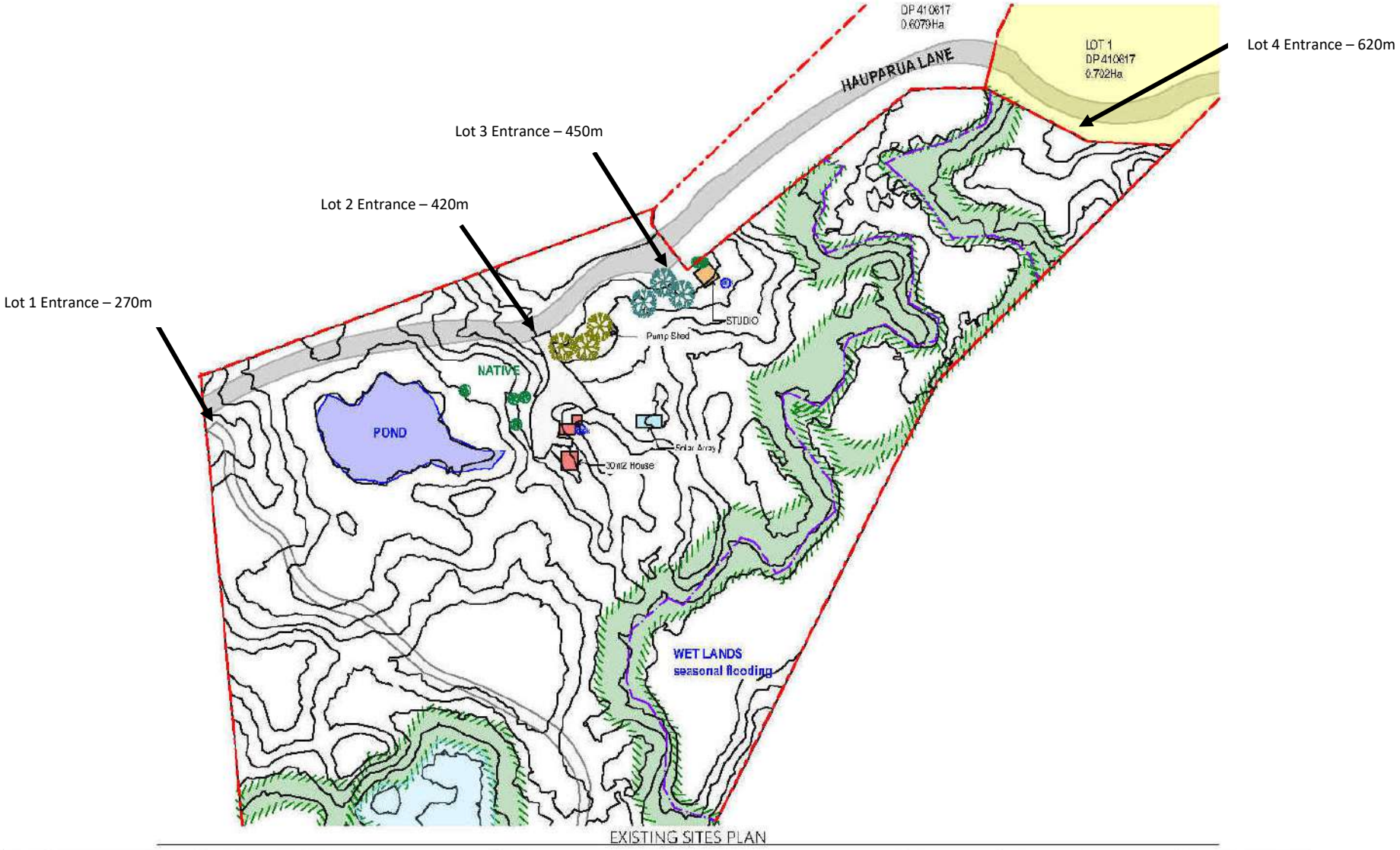
Appendix E – Hauparua Lane Plan & Survey Plan

EXISTING SITES PLAN

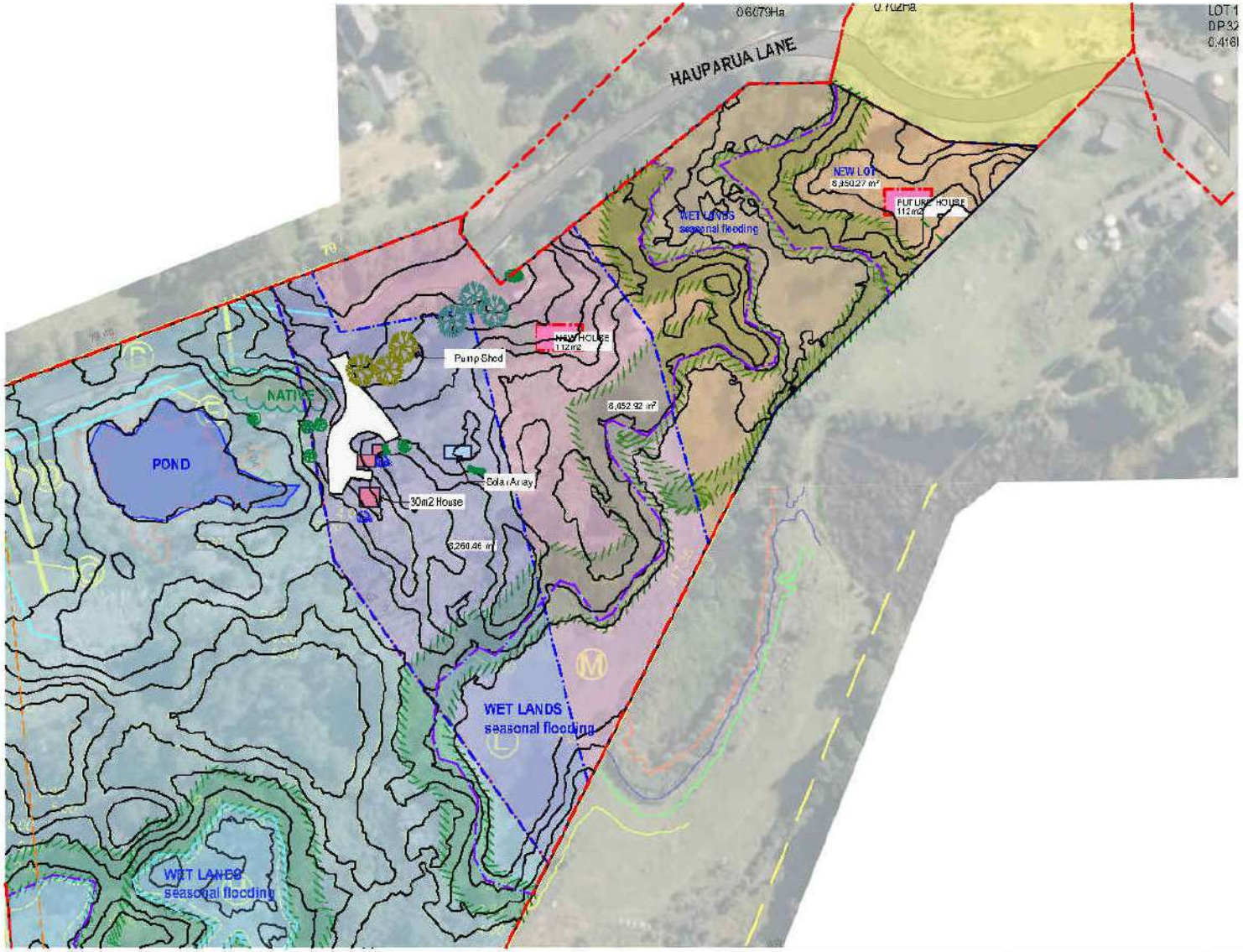


PROPOSED SUBDIVISION PLAN

PROJECT No #Pln	PERMIT SHOP	8 Bellevue Road, Mount Eden, Auckland 1025, PO Box 41226, Mt Roskill 1440, Auckland P: 09 - 634 6101 www.permitshop.co.nz	PROJECT NAME + ADDRESS #Project Name #STREET #SUBURB, #CITY	SHEET TITLE EXISTING + PROPOSED SITE PLANS	STATUS –	DESIGN – DRAWN – CHECKED – APPROVED –	SCALE Shown@A3 PRINT DATE 25/09/2024	SHEET NUMBER 1.1 REVISION - - WIP



PROJECT NO #Pln	PERMIT SHOP	8 Bellevue Road, Mount Eden, Auckland 1024	PROJECT NAME + ADDRESS #Project Name #STREET #SUBURB, #CITY	SHEET TITLE EXISTING PART SITE PLAN	STATUS –	DESIGN – DRAWN – CHECKED – APPROVED –	SCALE Shown@A3 PRINT DATE 25/06/2024	SHEET NUMBER 1.2	REVISION



PROJECT No #Pla	PERMIT SHOP	8 Bellevue Road, Mount Eden, Auckland 1024 PO Box 41276, Mt Roskill 1440, Auckland P (09) 636 6101 www.permitshop.co.nz	PROJECT NAME + ADDRESS #Project Name #STREET #SUBURB, #CITY	SHEET TITLE: PROPOSED sites with Aerial underlay	STATUS: –	DESIGN – DRAWN – CHECKED – APPROVED –	SCALE: Shown@A3 PRINT DATE: 25/06/2024	SHEET NUMBER: 1.3 REVISION

Top Energy Limited
Level 2, John Butler Centre
60 Kerikeri Road
P O Box 43
Kerikeri 0245
New Zealand
PH +64 (0)9 401 5440
FAX +64 (0)9 407 0611

20 March 2025

Rochelle Jacobs
Northland Planning & Development 2020 Ltd

Email: info@northplanner.co.nz

To Whom It May Concern:

RE: PROPOSED SUBDIVISION
Nik Morrison, Laminata Homes - 44 Hauparua Lane, Kerikeri. Lot 2 DP 410617.

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

Top Energy's requirements for this subdivision are nil.
Top Energy recommends provision for a power supply be made at the time of development.
Costs to supply power could be provided after application and an on-site survey have been completed.

Link to application: Top Energy | Top Energy

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

Yours sincerely

Aaron Birt
Planning and Design
T: 09 407 0685
E: aaron.birt@topenergy.co.nz

Far North District Council

NOTICE OF WRITTEN APPROVAL

Written Approval of Affected Parties in accordance with Section 95E of the Resource Management Act

PART A – To be completed by Applicant

Applicant/s Name:	NASTURTIUM TRUST - Nik Morrison and Jennifer Bland
Address of proposed activity:	44 HAUPARUA LANE
Legal description:	Lot 2 DP 410617
Description of the proposal (including why you need resource consent):	Combined Land use and Subdivision Resource Consent for; Subdivision to create 3 new lots at circa. 8000m2. New dwellings and waste water systems for each lot. New driveway / access for new lot 4.
Details of the application are given in the attached documents & plans (list what documents & plans have been provided to the party being asked to provide written approval):	1. Resource Consent Plan set - Proposed Subdivision 2. Cover Letter 3. 4. 5. 6.

Notes to Applicant:

1. Written approval must be obtained from all registered owners and occupiers.
2. The **original copy** of this signed form and **signed plans and accompanying documents** must be supplied to the Far North District Council.
3. The amount and type of information provided to the party from whom you seek written approval should be sufficient to give them a full understanding of your proposal, its effects and why resource consent is needed.

PART B – To be completed by Parties giving approval

Notes to the party giving written approval:

1. If the owner and the occupier of your property are different people then separate written approvals are required from each.
2. You should only sign in the place provided on this form and accompanying plans and documents if you **fully understand** the proposal and if you **support** or have **no opposition** to the proposal. Council will not accept conditional approvals. If you have conditions on your approval, these should be discussed and resolved with the applicant directly.
3. Please note that when you give your written approval to an application, council cannot take into consideration any actual or potential effects of the proposed activity on you unless you formally withdraw your written approval **before** a decision has been made as to whether the application is to be notified or not. After that time you can no longer withdraw your written approval.
4. Please sign and date all associated plans and documentation as referenced overleaf and return with this form.
5. If you have any concerns about giving your written approval or need help understanding this process, please feel free to contact the duty planner on 0800 920 029 or (09) 401 5200.

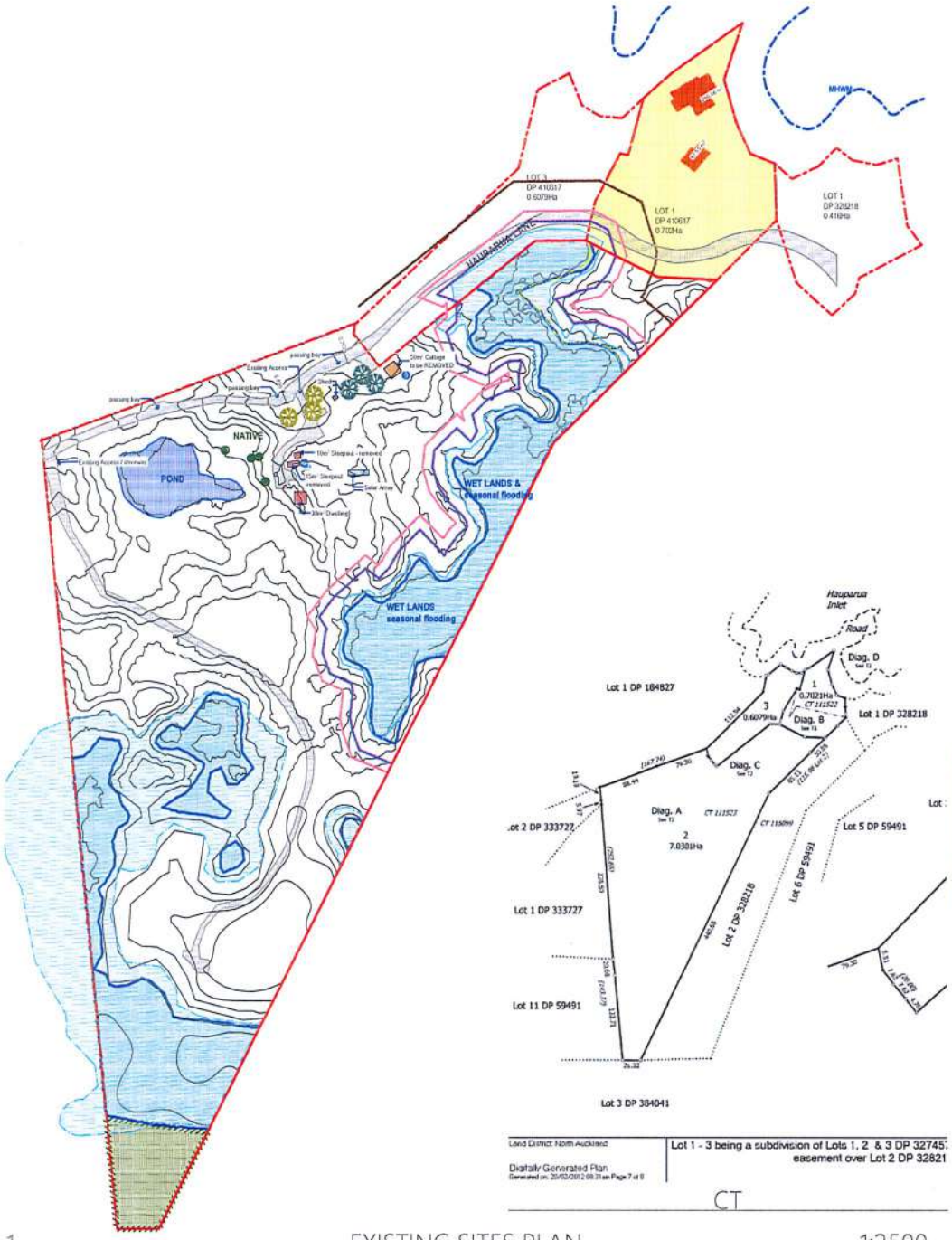
Full name/s of party giving approval:	PAGET STREET TRUST.
Address of affected property including legal description	LOT 2 / 114 WAIPAREIRA LANE. KERIKERI.
Contact Phone Number/s and email address	Daytime: 027 499 7731 email: mark@mtpokaka.co.nz.

I am/we are the OWNER(S) / OCCUPIER(S) of the property (circle which is applicable)

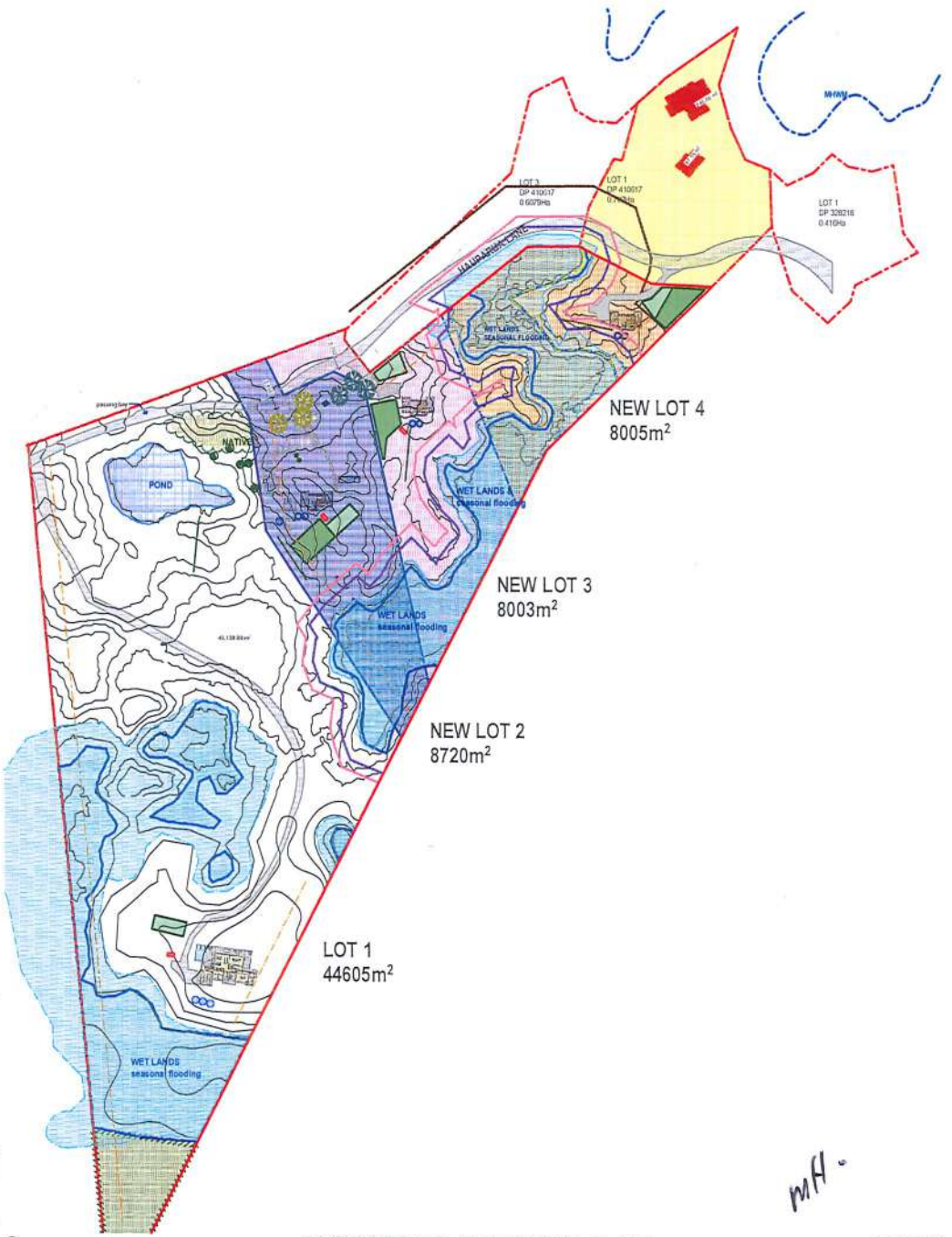
*Please note: in most instances the approval of **all** the legal owners and the occupiers of the affected property will be necessary.*

1. I/We have been provided with the details concerning the application submitted to Council and understand the proposal and aspects of non-compliance with the Operative District Plan.
2. I/We have signed each page of the plans and documentation in respect of this proposal (these need to accompany this form).
3. I/We understand and accept that once I/we give my/our approval the Consent Authority (Council) cannot take account of any actual or potential effect of the activity and/or proposal upon me/us when considering the application and the fact that any such effect may occur shall not be relevant grounds upon which the Consent Authority may refuse to grant the application.
4. I/We understand that at any time before the notification decision is made on the application, I/we may give notice in writing to Council that this approval is withdrawn.

Signature		Date	12/05/2025
AS AUTHORISED SIGNATORY ON BEHALF.			
Signature		Date	
Signature		Date	
Signature		Date	



1 EXISTING SITES PLAN 1:2500



2 PROPOSED SUBDIVISION PLAN 1:2500

PROJECT No. #PIn	PERMIT SHOP PRACTICAL ARCHITECTURE	8 Bellevue Road, Mount Eden, Auckland 1025 I PO Box 41226, Mt Roskill 1440, Auckland P: 09 - 634 6101 www.permitshop.co.nz	PROJECT NAME + ADDRESS #Project Name #STREET #SUBURB, #CITY	SHEET TITLE EXISTING + PROPOSED SITE PLANS	STATUS --	DESIGN: -- DRAWN: -- CHECKED: -- APPROVED: --	SCALE: Shown@A3 PRINT DATE: 25/11/2024	SHEET NUMBER 1.1 REVISION - - WIP

Far North District Council

NOTICE OF WRITTEN APPROVAL

Written Approval of Affected Parties in accordance with Section 95E of the Resource Management Act

PART A – To be completed by Applicant

Applicant/s Name:	NASTURTIUM TRUST - Nik Morrison and Jennifer Bland
Address of proposed activity:	44 HAUPARUA LANE
Legal description:	Lot 2 DP 410617
Description of the proposal (including why you need resource consent):	Combined Land use and Subdivision Resource Consent for; Subdivision to create 3 new lots at circa. 8000m2. New dwellings and waste water systems for each lot. New driveway / access for new lot 4.
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4. Please sign and date all associated plans and documentation as referenced overleaf and return with this form.
5. If you have any concerns about giving your written approval or need help understanding this process, please feel free to contact the duty planner on 0800 920 029 or (09) 401 5200.

Full name/s of party giving approval:	LAMINATT HOMES LTD.
Address of affected property including legal description	LOT3 / 114 MATAROA LANE KERIKERI
Contact Phone Number/s and email address	Daytime: 0274999731 email: MARC@NTPOKAKA.CO.NZ

I am/we are the OWNER(S) / OCCUPIER(S) of the property (circle which is applicable)

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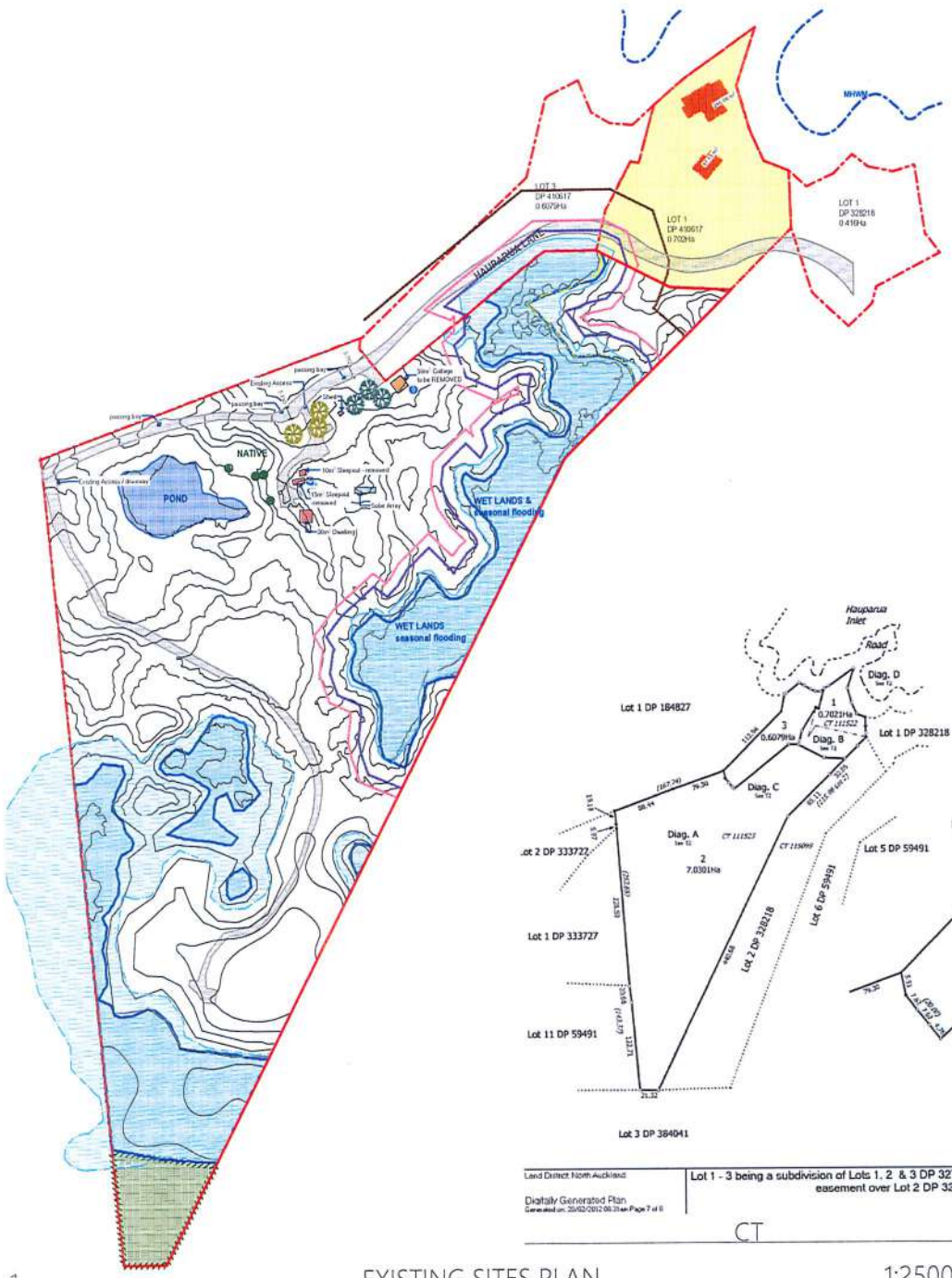

Land District: North Auckland

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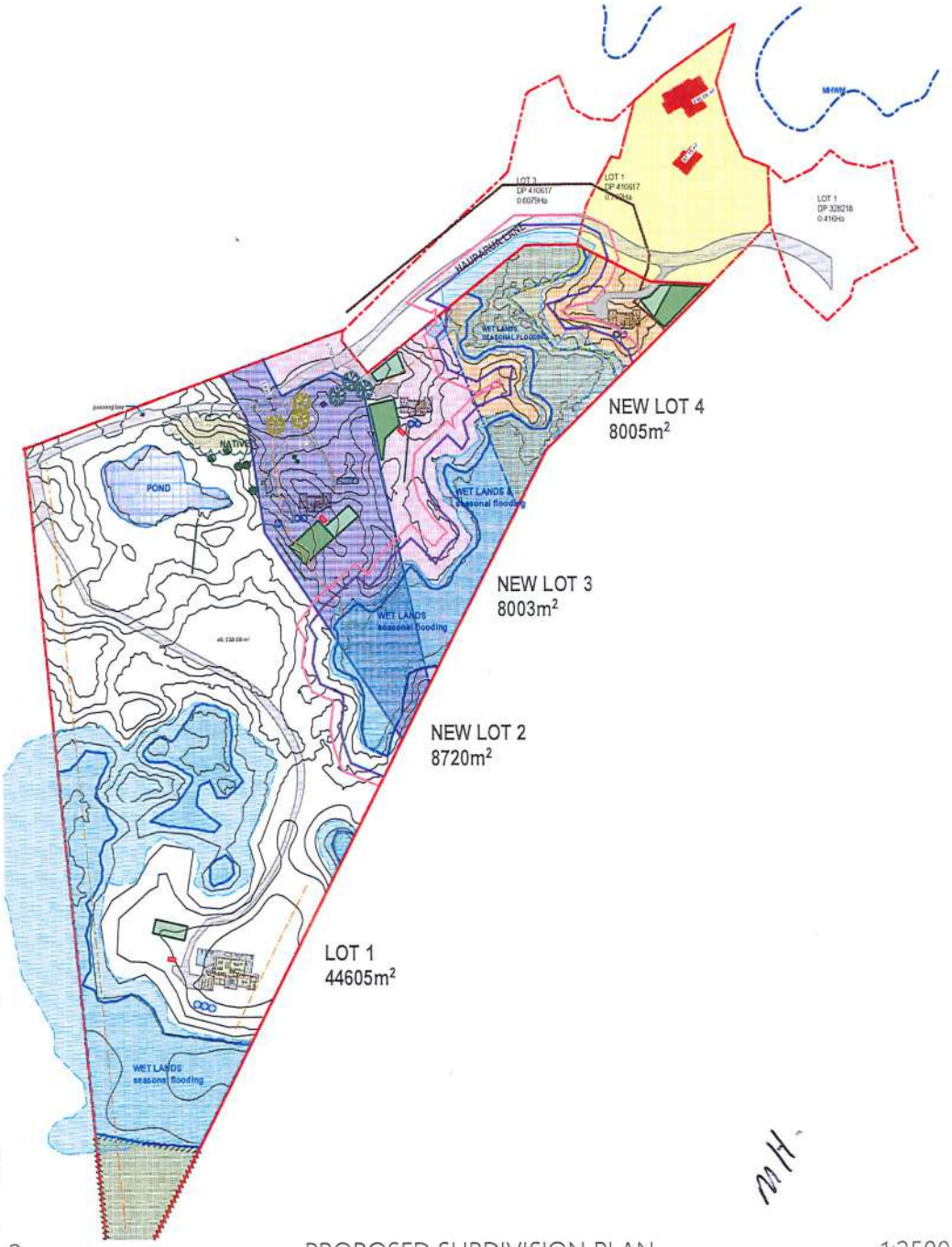
Lot 1 - 3 being a subdivision of Lots 1, 2 & 3 DP 32745; easement over Lot 2 DP 32821

CT

1 EXISTING SITES PLAN 1:2500



2 PROPOSED SUBDIVISION PLAN 1:2500

PROJECT No.									
#Pln	PERMIT SHOP PRACTICAL ARCHITECTURE	8 Bellevue Road, Mount Eden, Auckland 1025 I PO Box 41226, Mt Roskill 1440, Auckland P: 09 - 634 6101 www.permitshop.co.nz	PROJECT NAME + ADDRESS #Project Name #STREET #SUBURB, #CITY	SHEET TITLE EXISTING + PROPOSED SITE PLANS	STATUS --	DESIGN: -- DRAWN: -- CHECKED: -- APPROVED: --	SCALE: Shown@A3 PRINT DATE: 25/11/2024	SHEET NUMBER 1.1	REVISION - - WIP

Far North District Council

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PART B – To be completed by Parties giving approval

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Full name/s of party giving approval:	Graham William and Jennifer Frances Clouston
Address of affected property including legal description	12 Hauparoa Lane Kerikeri Lot 1 DP 333727
Contact Phone Number/s and email address	Daytime: 0274713929 email: clouston@xtra.co.nz

I am/we are the OWNER(S) / OCCUPIER(S) of the property (circle which is applicable)

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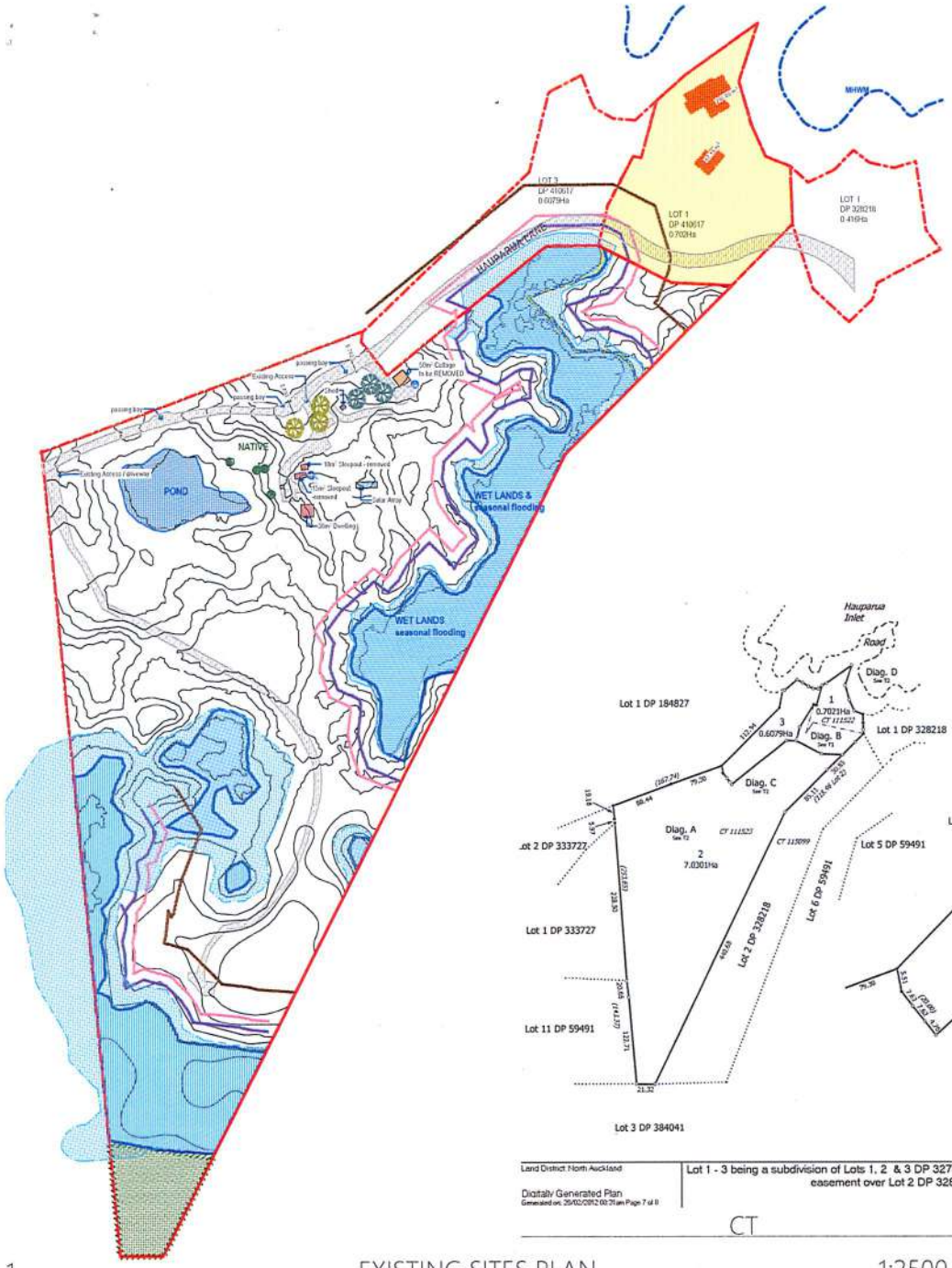
Signature		Date	4-12-24
Signature		Date	3·12·24
Signature		Date	
Signature		Date	

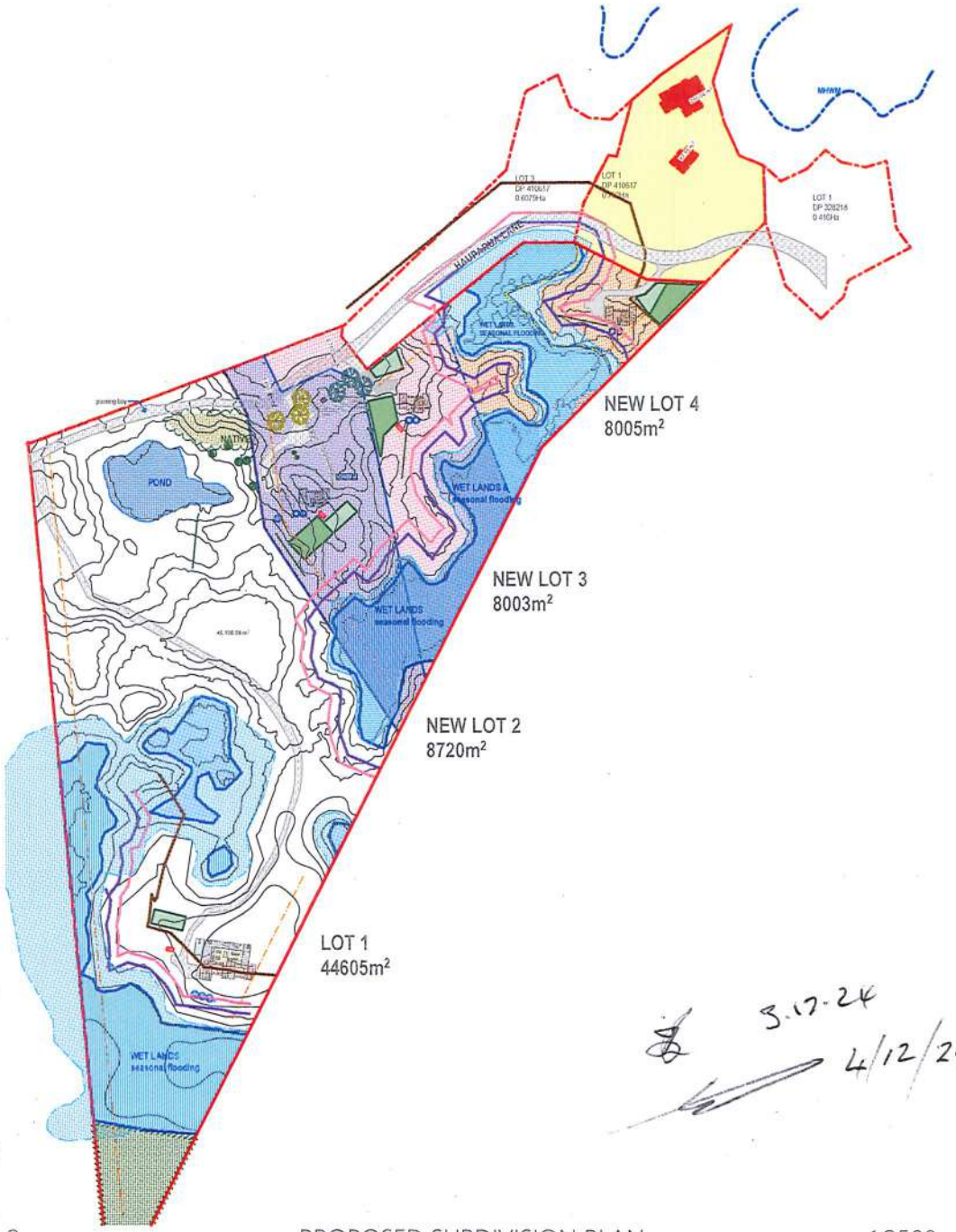


Land District: North Auckland

Digitally Generated Plan

Lot 1 - 3 being a subdivision of Lots 1, 2 & 3 DP 32745; easement over Lot 2 DP 32821

CT



3.12.24

4/12/24

1 EXISTING SITES PLAN 1:2500

2 PROPOSED SUBDIVISION PLAN 1:2500

PROJECT No. #Pln	PERMIT SHOP PRACTICAL ARCHITECTURE	8 Bellevue Road, Mount Eden, Auckland 1025 I PO Box 41226, Mt Roskill 1440, Auckland P: 09 - 634 6101 www.permitshop.co.nz	PROJECT NAME + ADDRESS #Project Name #STREET #SUBURB, #CITY	SHEET TITLE EXISTING + PROPOSED SITE PLANS	STATUS --	DESIGN: -- DRAWN: -- CHECKED: -- APPROVED: --	SCALE: Shown@A3 PRINT DATE: 22/11/2024	SHEET NUMBER 1.1 REVISION - - WIP

Far North District Council

NOTICE OF WRITTEN APPROVAL

Written Approval of Affected Parties in accordance with Section 95E of the Resource Management Act

PART A – To be completed by Applicant

Applicant/s Name:	NASTURTIUM TRUST - Nik Morrison and Jennifer Bland
Address of proposed activity:	44 HAUPARUA LANE
Legal description:	Lot 2 DP 410617
Description of the proposal (including why you need resource consent):	Combined Land use and Subdivision Resource Consent for; Subdivision to create 3 new lots at circa. 8000m2. New dwellings and waste water systems for each lot. New driveway / access for new lot 4.
Details of the application are given in the attached documents & plans (list what documents & plans have been provided to the party being asked to provide written approval):	1. Resource Consent Plan set - Proposed Subdivision 2. Cover Letter 3. 4. 5. 6.

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Full name/s of party giving approval:	Timothy Francis Brandon
Address of affected property including legal description	105 Hauparua Lane Kerikeri
Contact Phone Number/s and email address	Daytime: 0274437420 email: brandon.livestock@xtra.co.nz

I am/we are the OWNER(S) / OCCUPIER(S) of the property (circle which is applicable)

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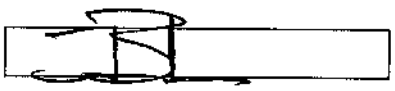
Signature		Date	3/12/24
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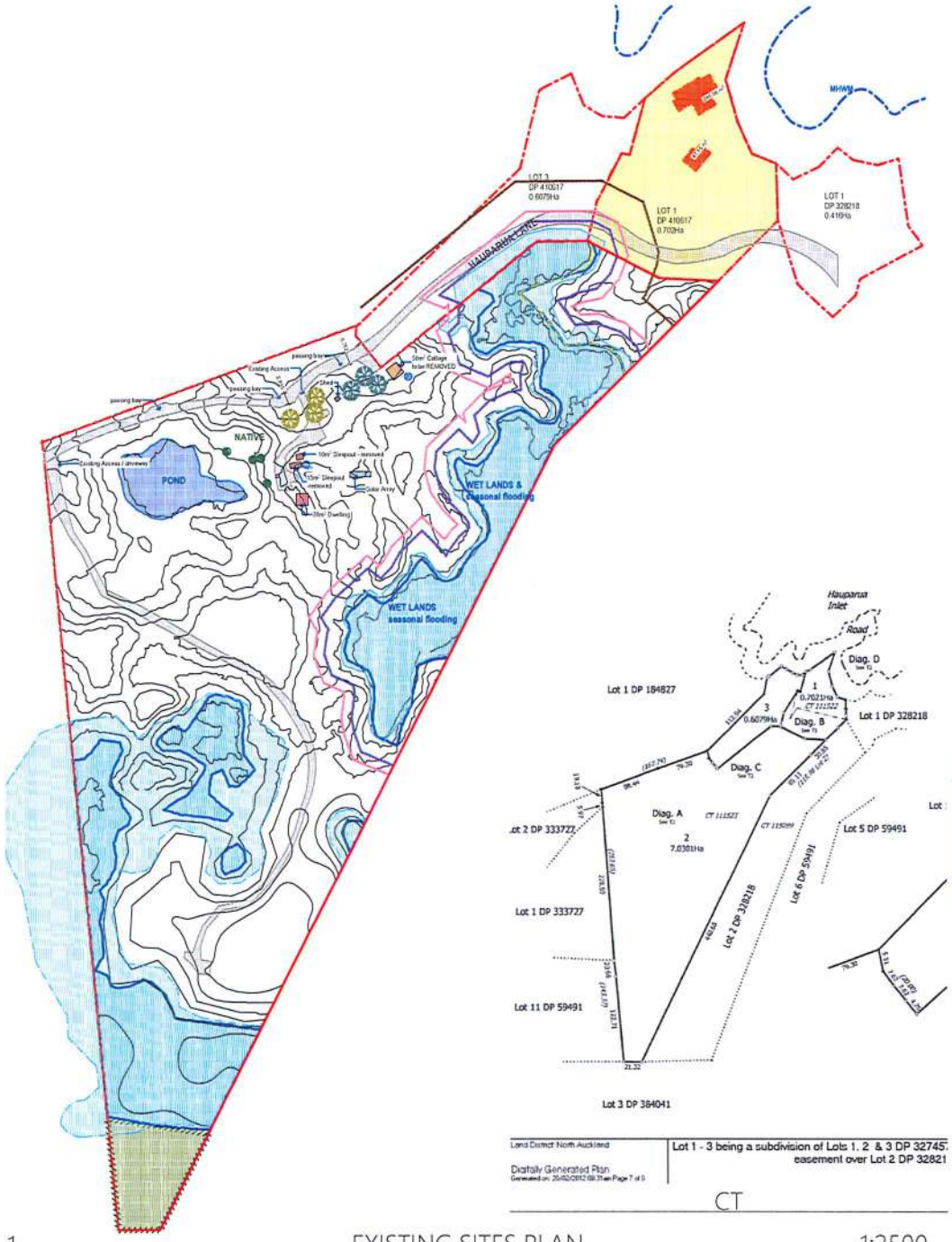
Signature		Date	



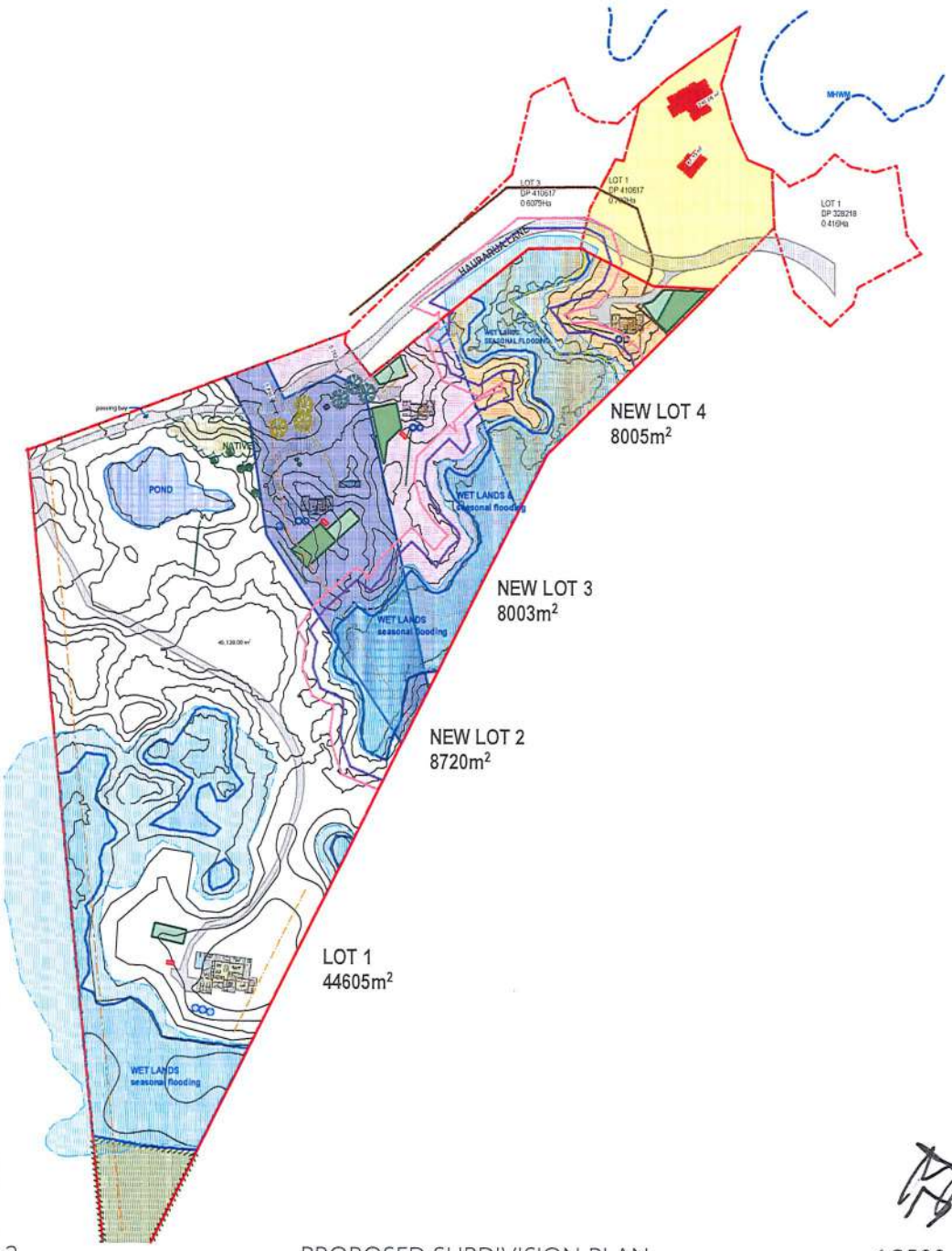
Land District North Auckland

Digitally Generated Plan

Lot 1 - 3 being a subdivision of Lots 1, 2 & 3 DP 32745; easement over Lot 2 DP 32821

CT

1 EXISTING SITES PLAN 1:2500



2 PROPOSED SUBDIVISION PLAN 1:2500

PROJECT No. #Pln	PERMIT SHOP PRACTICAL ARCHITECTURE	8 Bellevue Road, Mount Eden, Auckland 1025 I PO Box 41226, Mt Roskill 1440, Auckland P: 09 - 634 6101 www.permitshop.co.nz	PROJECT NAME + ADDRESS #Project Name #STREET #SUBURB, #CITY	SHEET TITLE EXISTING + PROPOSED SITE PLANS	STATUS --	DESIGN: -- DRAWN: -- CHECKED: -- APPROVED: --	SCALE: Shown@A3 PRINT DATE: 25/11/2024	SHEET NUMBER 1.1 REVISION - - WIP

Far North District Council

NOTICE OF WRITTEN APPROVAL

Written Approval of Affected Parties in accordance with Section 95E of the Resource Management Act

PART A – To be completed by Applicant

Applicant/s Name:	NASTURTIUM TRUST - Nik Morrison and Jennifer Bland
Address of proposed activity:	44 HAUPARUA LANE
Legal description:	Lot 2 DP 410617
Description of the proposal (including why you need resource consent):	Combined Land use and Subdivision Resource Consent for; Subdivision to create 3 new lots at circa. 8000m2. New dwellings and waste water systems for each lot. New driveway / access for new lot 4.
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Full name/s of party giving approval:	LEE FAMILY TRUST - BM & BC LEE
Address of affected property including legal description	83 MAUPARUA LANE, RD3 KERIKERI
Contact Phone Number/s and email address	Daytime: 021 1924741 email: b.b.lee@xtra.co.nz

I am/we are the OWNER(S) / OCCUPIER(S) of the property (circle which is applicable)

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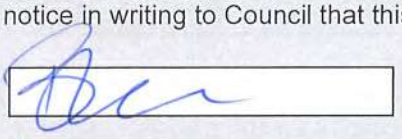
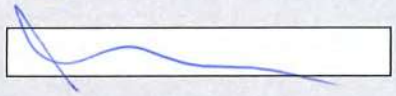
Signature		Date	03.12.24
Signature		Date	03.12.24
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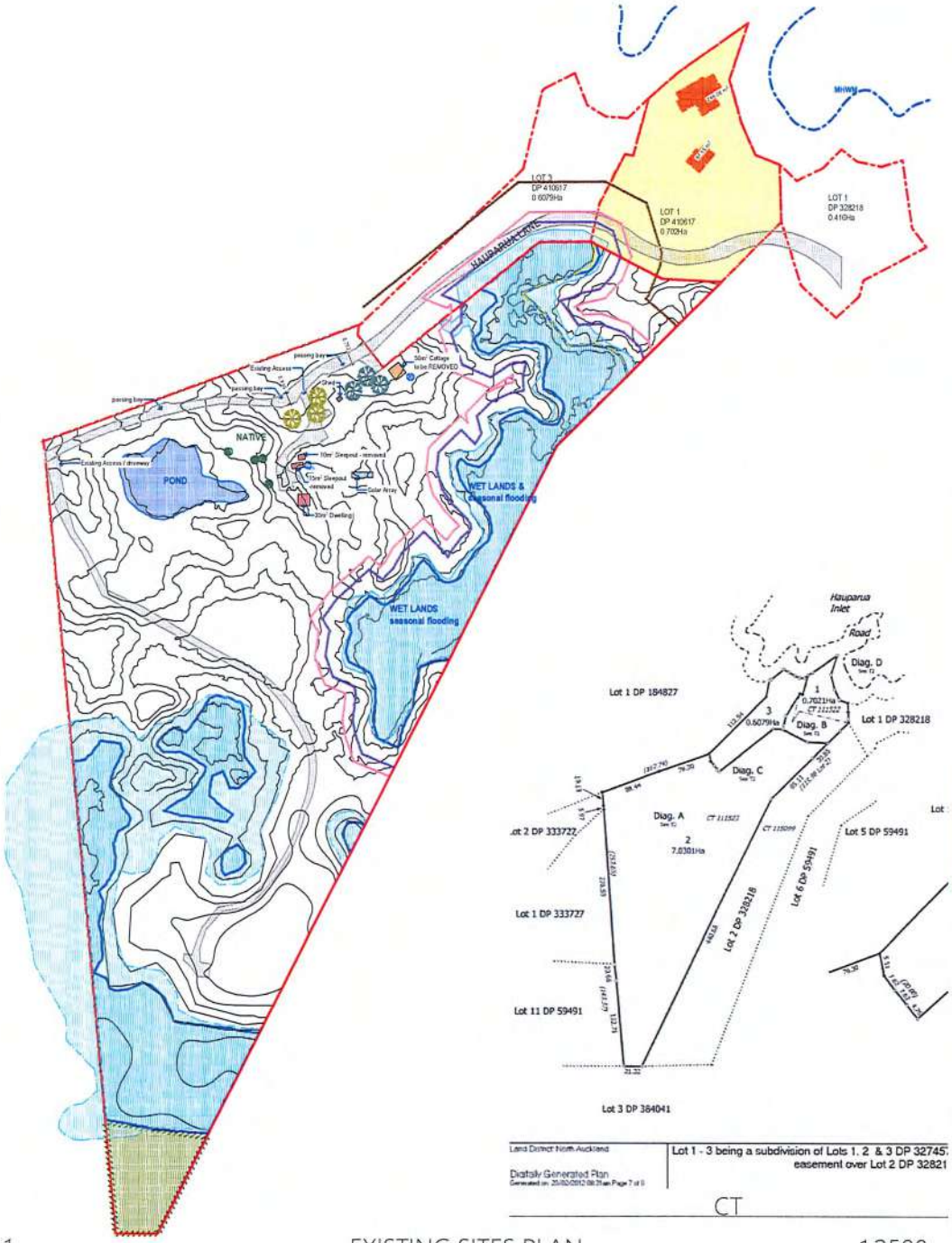


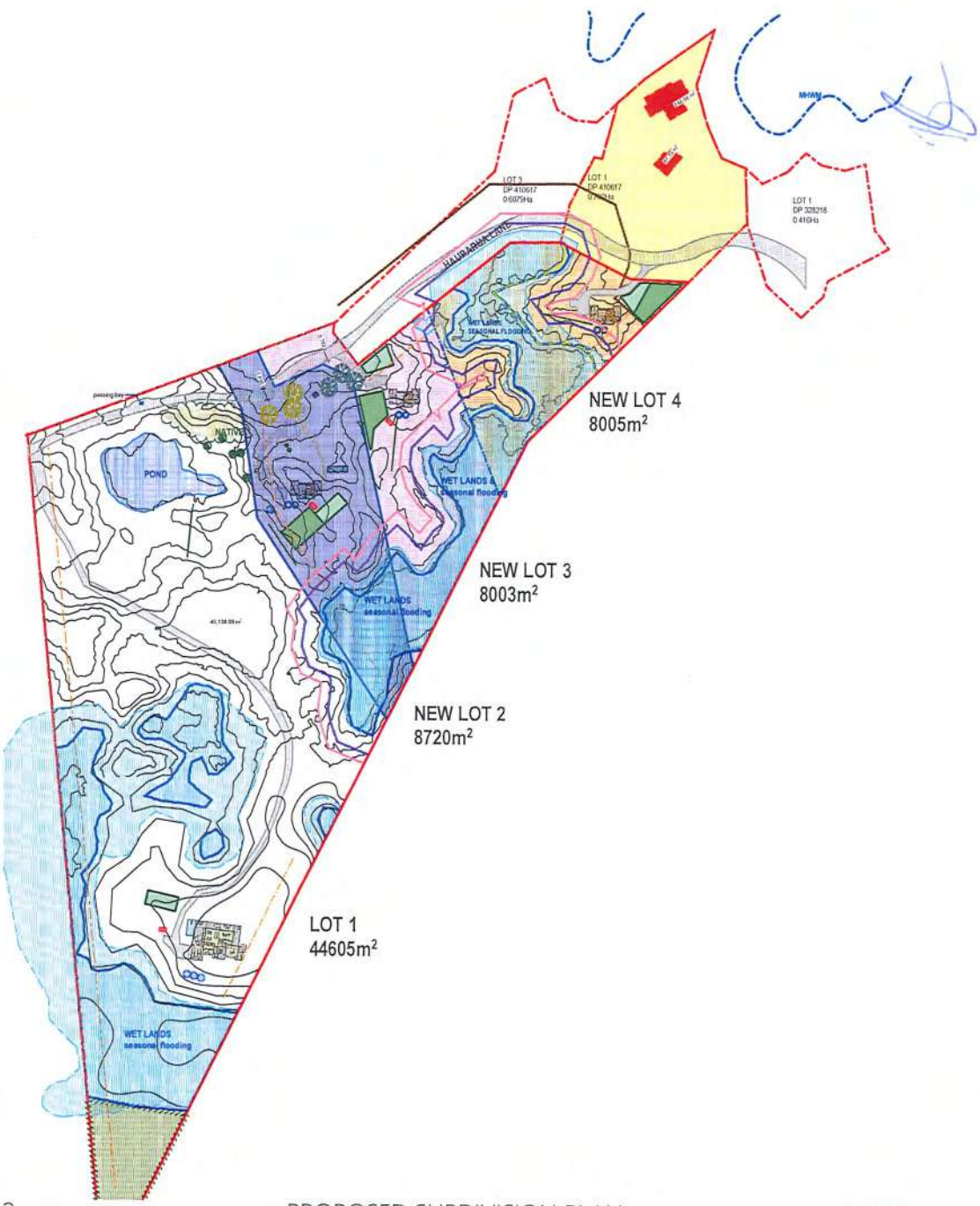
Land District North Auckland

Digitally Generated Plan

Lot 1 - 3 being a subdivision of Lots 1, 2 & 3 DP 32745[illegible] easement over Lot 2 DP 32821

CT

1 EXISTING SITES PLAN 1:2500



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Far North District Council

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Full name/s of party giving approval: IAN LINDSAY KENDALL. HEATHER MAREE KENDALL

Address of affected property including legal description: 69 HAUPARUA LANE. RD3/LOT1. KERIKERI 0293 / DP328218

Contact Phone Number/s and email address: Daytime: 027 2404759 09.4079760 email: ianebs@xtra.co.nz

I am/we are the OWNER(S) / OCCUPIER(S) of the property (circle which is applicable)

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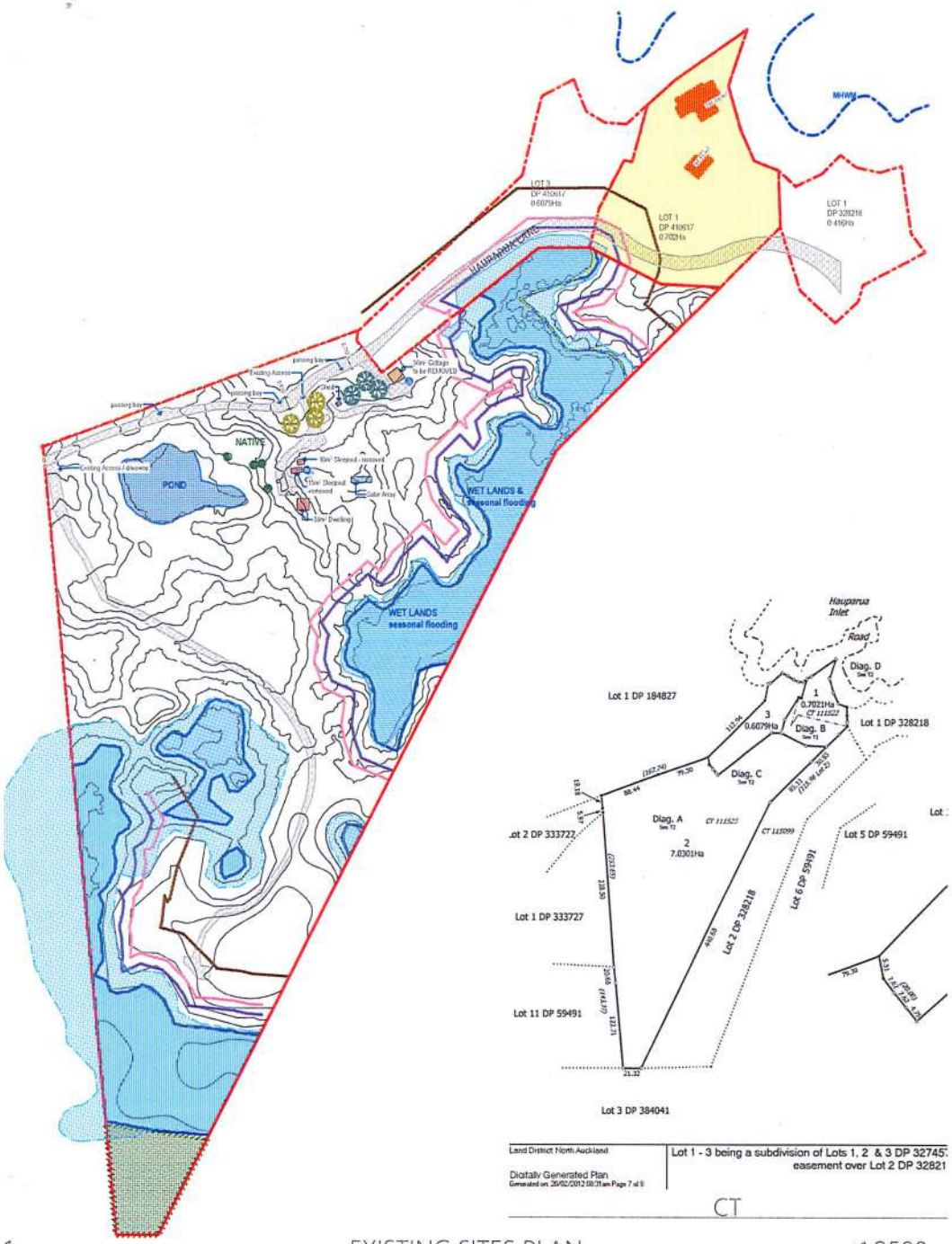
Signature		Date	26-11-24
Signature	I Kendall	Date	26/11/24
Signature		Date	
Signature		Date	



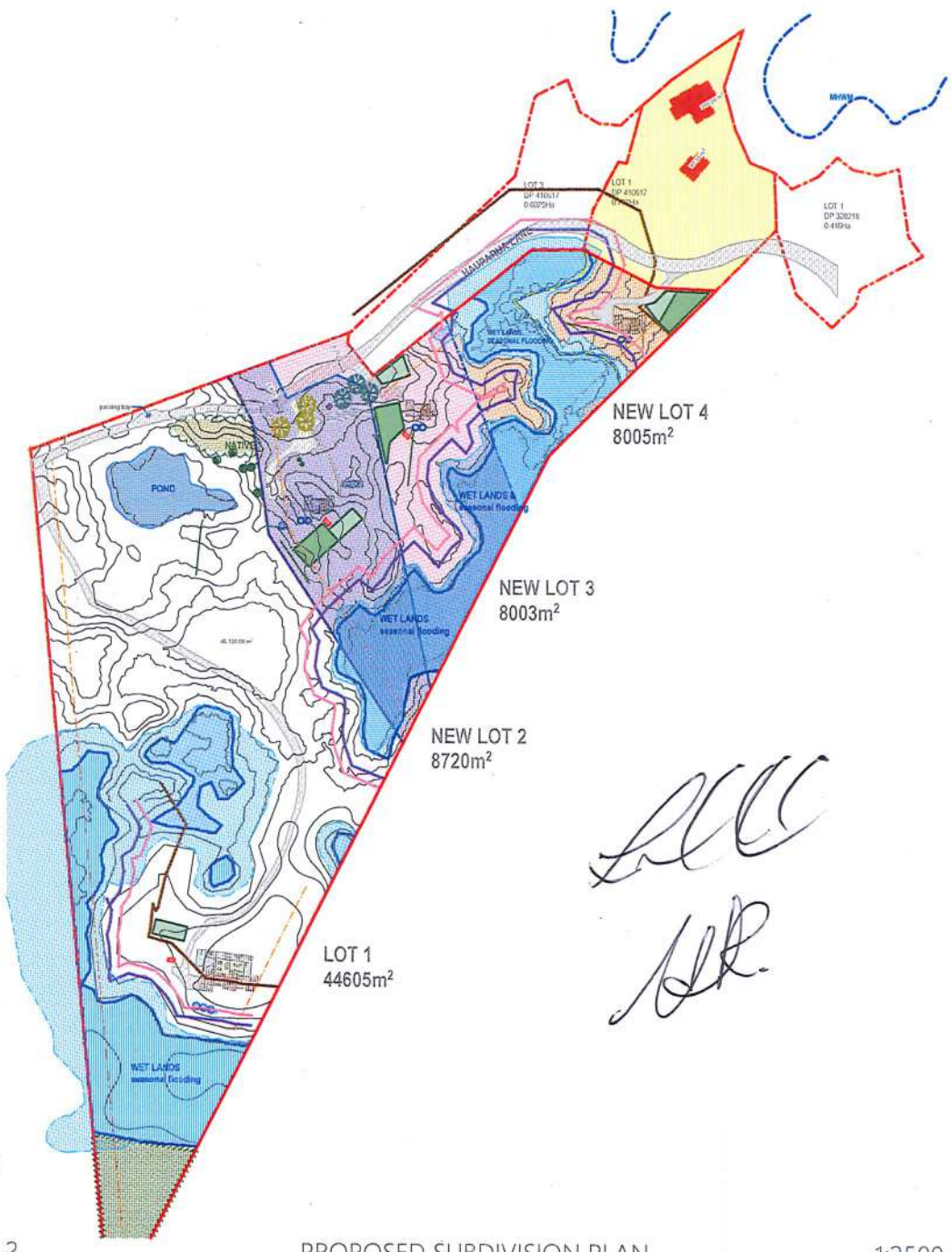
Land District North Auckland

Digitally Generated Plan

Lot 1 - 3 being a subdivision of Lots 1, 2 & 3 DP 32745; easement over Lot 2 DP 32821

CT

1 EXISTING SITES PLAN 1:2500



2 PROPOSED SUBDIVISION PLAN 1:2500

PROJECT No.									
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Friday, 22 November 2024

NASTURTIUM TRUST

Nik Morrison and Jennifer Bland

44 Hauparua Lane

Kerikeri RD3

COVER LETTER:

Combined LandUse and Resource Consent to create 3 new Lots at 44 Hauparua Lane.

Dear Neighbour,

We have prepared plans for a subdivision for lodgement with Far North District Council and would like to have your support for this application as an Affected Party on the Lane.

PROPOSAL:

We intend to subdivide off two new circa. 8000m^2 blocks around our existing houses so they can each sit on a separate title. These are on existing driveways and will be;

1. Lot 2, around our existing 30m^2 tiny house & sleep outs with the gardens and solar panels.
2. Lot 3, around the existing cottage which will be removed to make way for a 3 bedroom house.

The third lot, being that area around the road adjacent to number 57 to which we have no access at present. The will form Lot 4 circ. 8000m^2 and will need a new access from the lane.

The balance of the Land becomes Lot 1 and will be the site for our new house at the very rear of the property.

Thanks in advance for your support. We would like to get this application lodged with Council in mid December.

Feel free to call to ask any questions – Nik 021376983

Nik and Jennifer

Approved.

24/11/24

Far North District Council

NOTICE OF WRITTEN APPROVAL

Written Approval of Affected Parties in accordance with Section 95E of the Resource Management Act

PART A – To be completed by Applicant

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Full name/s of party giving approval: VALHALLA NORTH TRUST (D.J. & C.A. CALLESEN)

Address of affected property including legal description: 57 HAMARA LANE KERIKERI 0293. LOT 1, DP 410617

Contact Phone Number/s and email address: Daytime: 0274346492/021338310 email: valhallalodge@xtra.co.nz

I am/we are the OWNER(S) / OCCUPIER(S) of the property (circle which is applicable)

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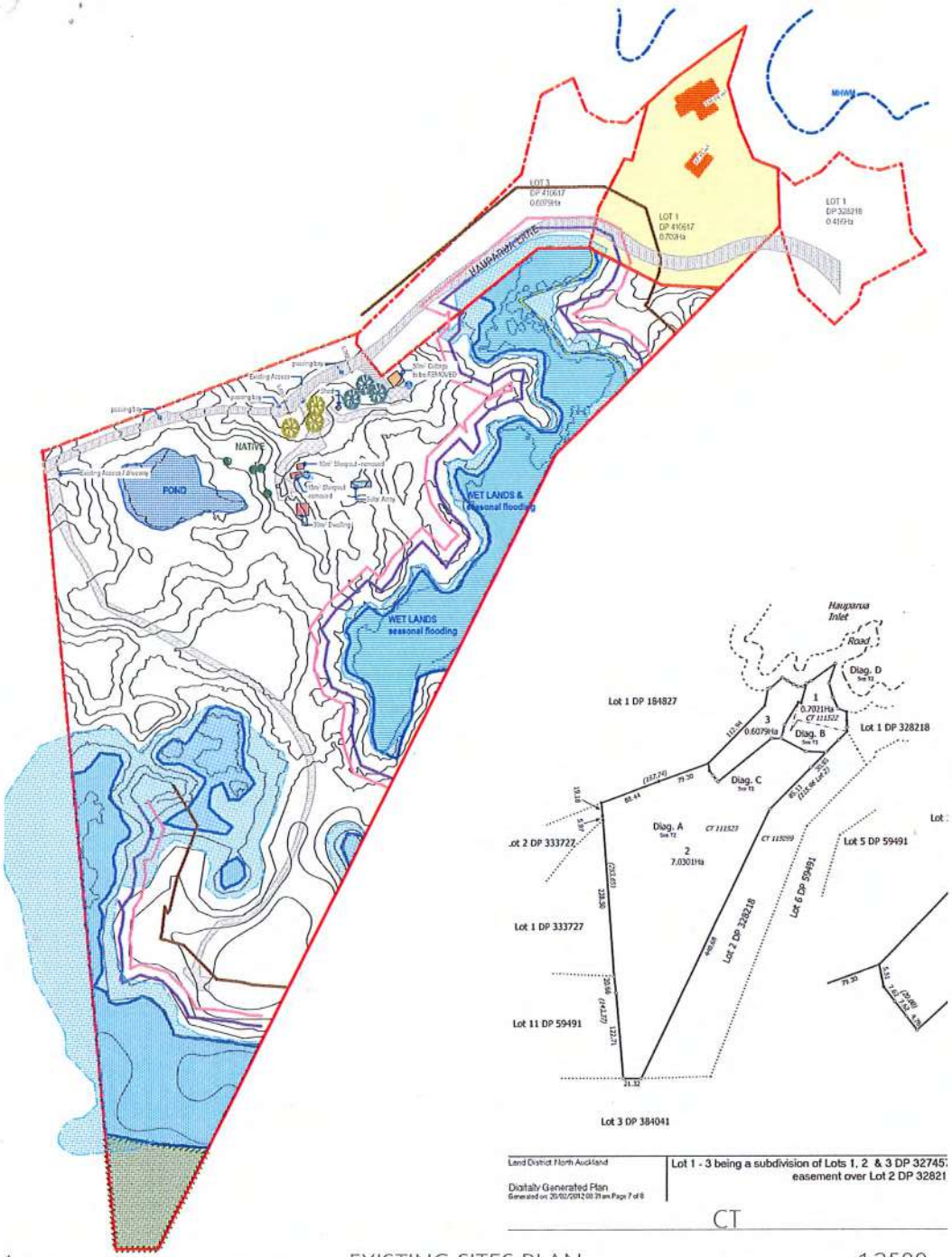
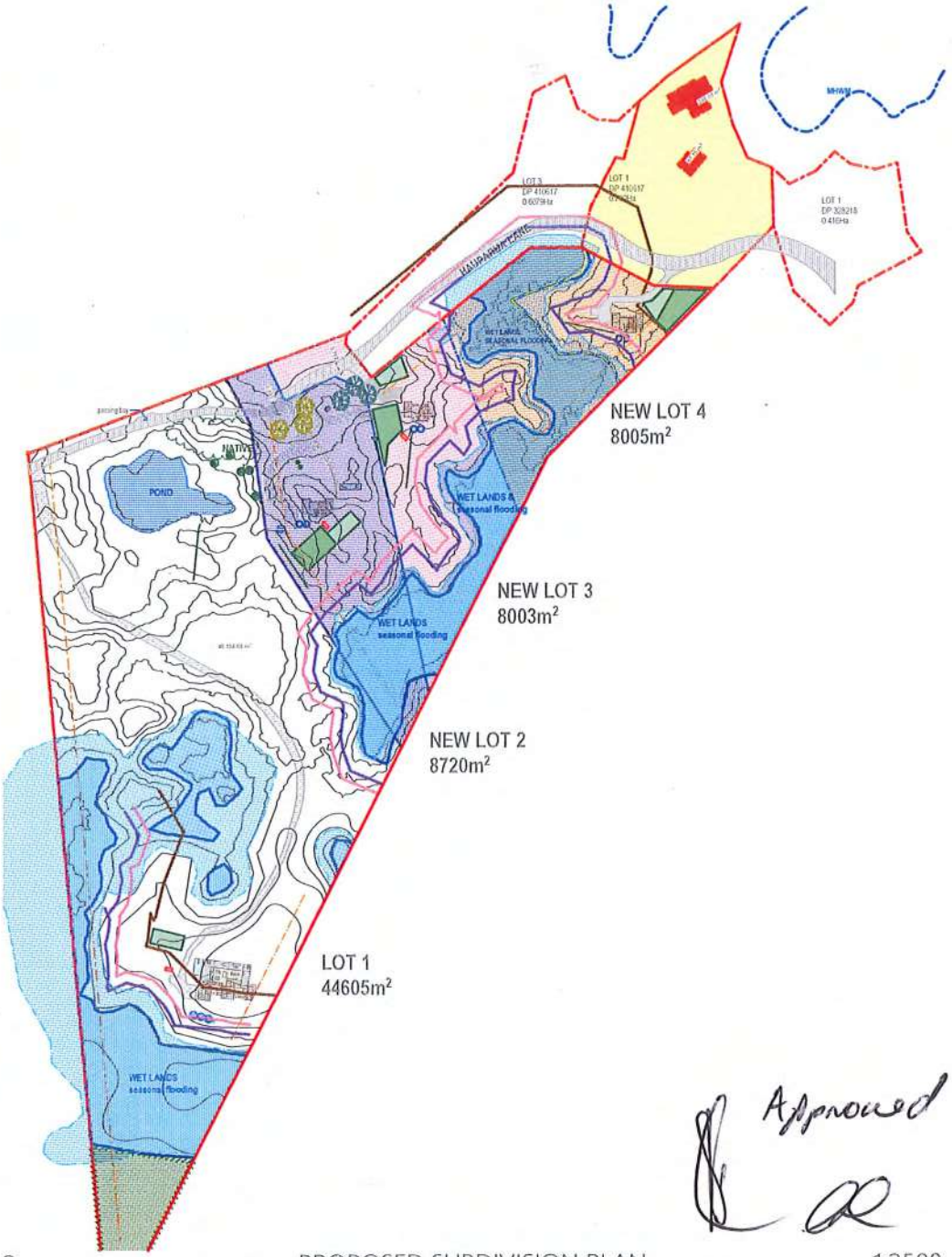
Signature		Date	24/11/2024
Signature		Date	24/11/2024
Signature		Date	
Signature		Date	



Land District North Auckland	Lot 1 - 3 being a subdivision of Lots 1, 2 & 3 DP 32745 easement over Lot 2 DP 32821
Digitally Generated Plan Generated on: 20/02/2012 08:31am Page 7 of 8	

CT

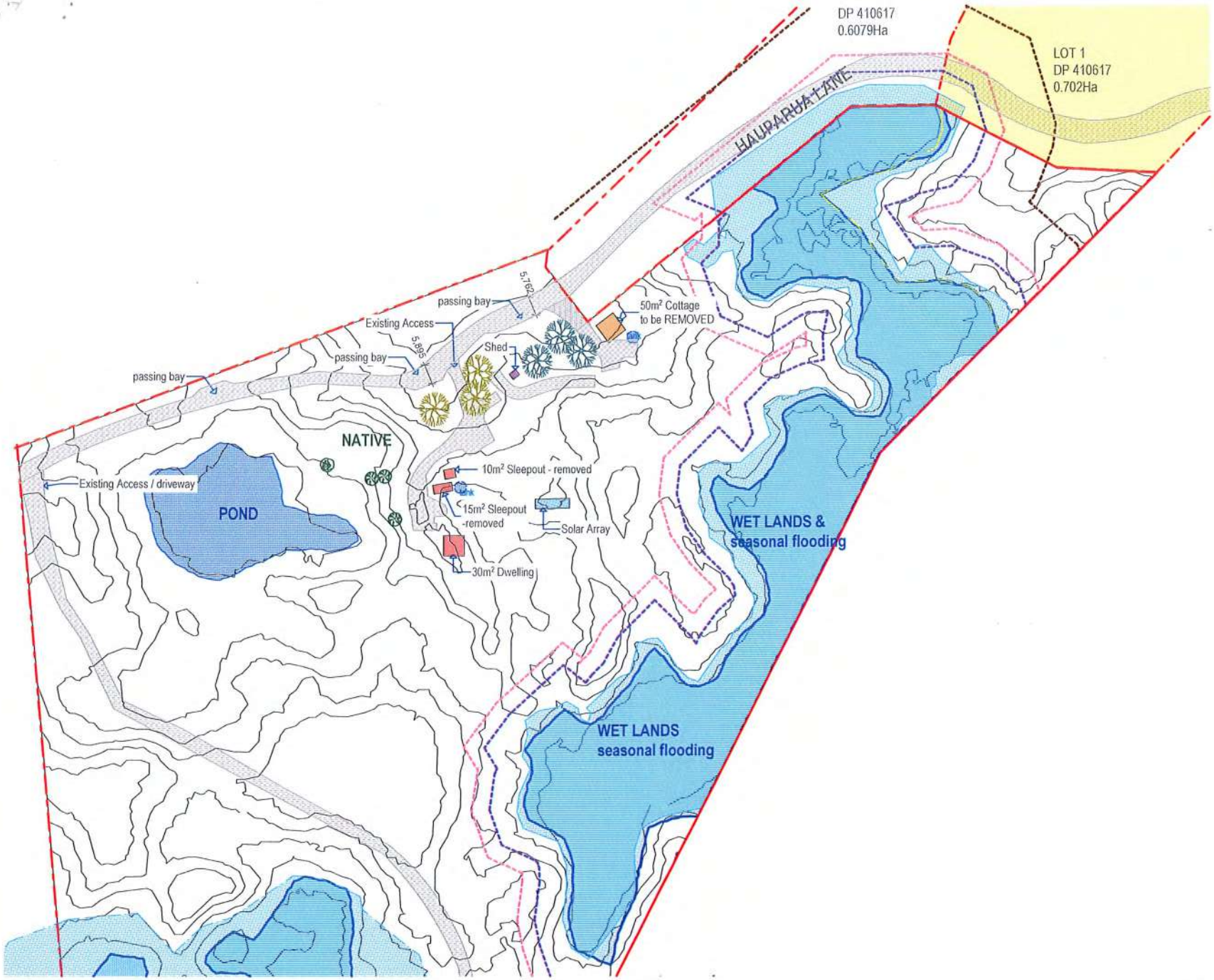
1 EXISTING SITES PLAN 1:2500



Approved

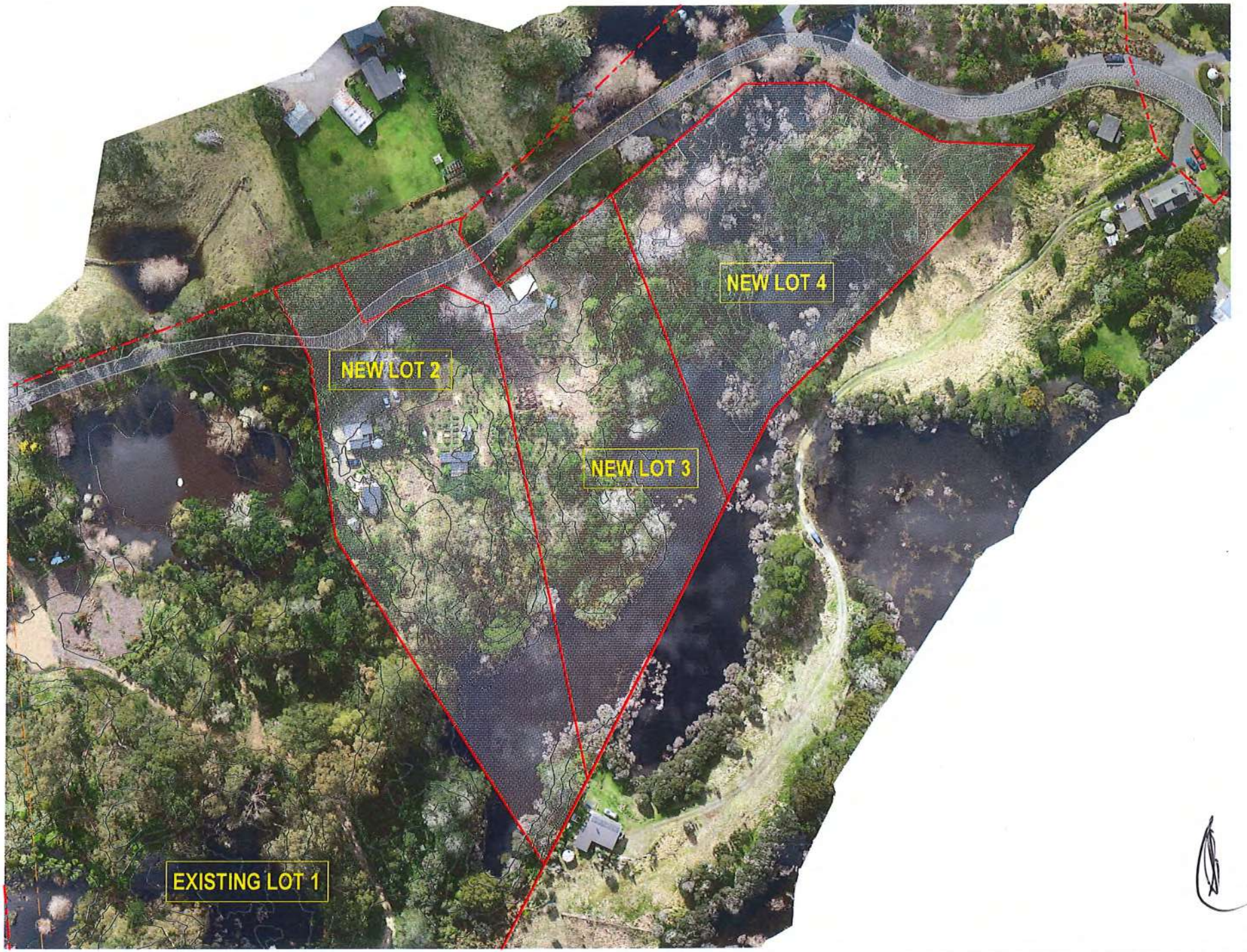
2 PROPOSED SUBDIVISION PLAN 1:2500

PROJECT No.									
#Pln	PERMIT SHOP PRACTICAL ARCHITECTURE	8 Bellevue Road, Mount Eden, Auckland 1025 I PO Box 41226, Mt Roskill 1440, Auckland P: 09 - 634 6101 www.permitshop.co.nz	PROJECT NAME + ADDRESS #Project Name #STREET #SUBURB, #CITY	SHEET TITLE EXISTING + PROPOSED SITE PLANS	STATUS --	DESIGN: -- DRAWN: -- CHECKED: -- APPROVED: --	SCALE: Shown@A3 PRINT DATE: 22/11/2024	SHEET NUMBER 1.1	REVISION - - WIP

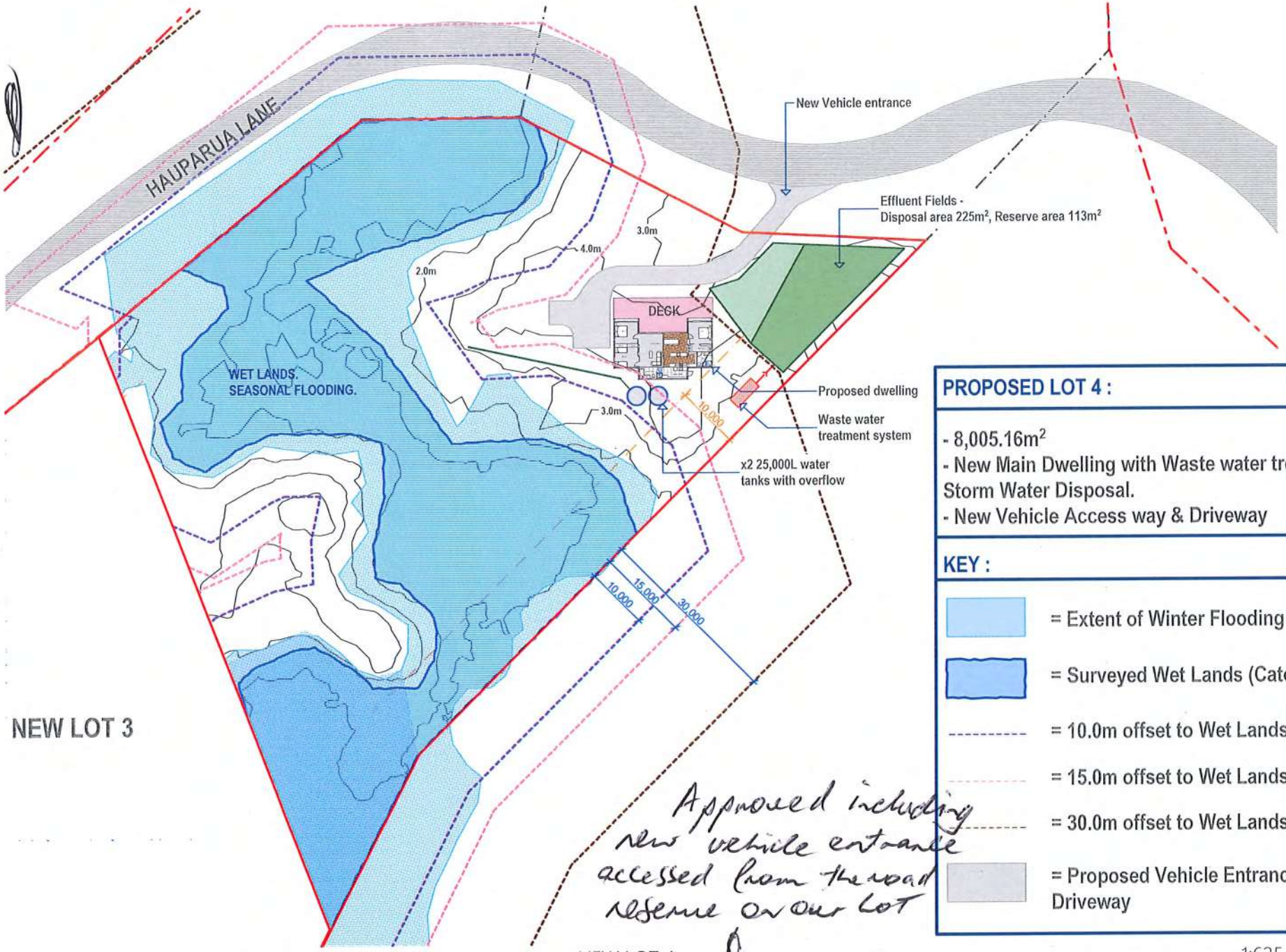


1 EXISTING PART SITES PLAN 1:1170

PROJECT No. #Pln	PERMIT SHOP PRACTICAL ARCHITECTURE	8 Bellevue Road, Mount Eden, Auckland 1025 I PO Box 41226, Mt Roskill 1440, Auckland P. 09 - 634 6101 www.permitshop.co.nz	PROJECT NAME + ADDRESS #Project Name #STREET #SUBURB, #CITY	SHEET TITLE EXISTING PART SITE PLAN	STATUS --	DESIGN: -- DRAWN: -- CHECKED: -- APPROVED: --	SCALE: Shown@A3 PRINT DATE: 22/11/2024	SHEET NUMBER 1.2 REVISION



PROJECT No. #Pln	PERMIT SHOP PRACTICAL ARCHITECTURE	6 Bellevue Road, Mount Eden, Auckland 1025 I PO Box 41226, Mt Roskill 1440, Auckland P: 09 - 634 6101 www.permitshop.co.nz	PROJECT NAME + ADDRESS #Project Name #STREET #SUBURB, #CITY	SHEET TITLE PROPOSED sites with Aerial underlay	STATUS --	DESIGN: -- DRAWN: -- CHECKED: -- APPROVED: --	SCALE: Shown@A3 PRINT DATE: 22/11/2024	SHEET NUMBER 1.3	REVISION



PROPOSED LOT 4 :

- 8,005.16m²
- New Main Dwelling with Waste water treatment + Storm Water Disposal.
- New Vehicle Access way & Driveway

KEY :

= Extent of Winter Flooding

= Surveyed Wet Lands (Cato Bolam, NRC RC)

= 10.0m offset to Wet Lands

= 15.0m offset to Wet Lands

= 30.0m offset to Wet Lands

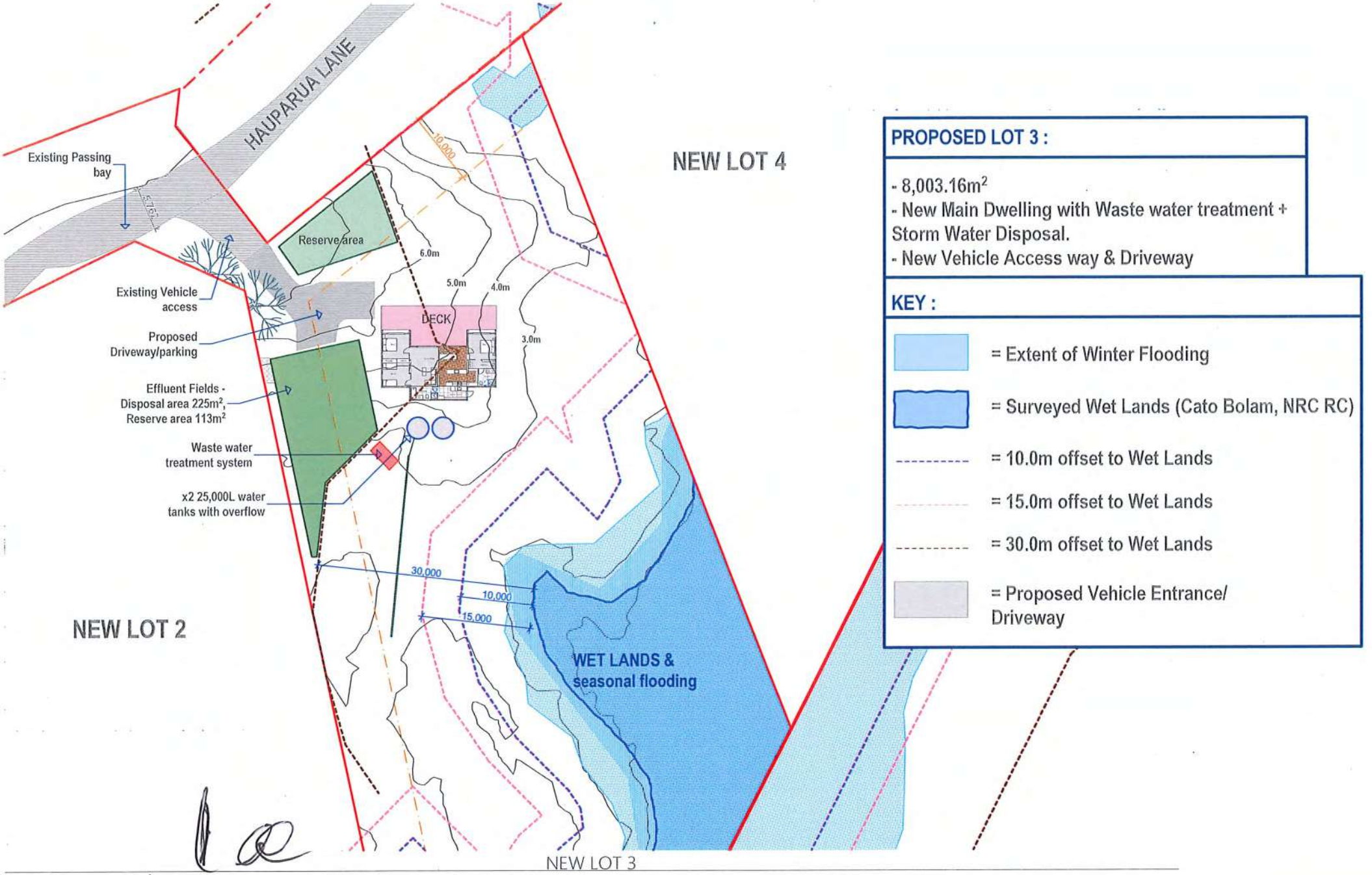
= Proposed Vehicle Entrance/ Driveway

Approved including new vehicle entrance accessed from the road reserve on our LOT

1

1:625

PROJECT No.								
#Pln	PERMIT SHOP PRACTICAL ARCHITECTURE	8 Bellevue Road, Mount Eden, Auckland 1025 I PO Box 41226, Mt Roskill 1440, Auckland P: 09 - 634 6101 www.permitshop.co.nz	PROJECT NAME + ADDRESS #Project Name #STREET #SUBURB, #CITY	SHEET TITLE	STATUS --	DESIGN: -- DRAWN: -- CHECKED: -- APPROVED: --	SCALE: Shown@A3 PRINT DATE: 22/11/2024	SHEET NUMBER 1.4 REVISION



PROPOSED LOT 3 :

- 8,003.16m²
- New Main Dwelling with Waste water treatment + Storm Water Disposal.
- New Vehicle Access way & Driveway

KEY :

= Extent of Winter Flooding

= Surveyed Wet Lands (Cato Bolam, NRC RC)

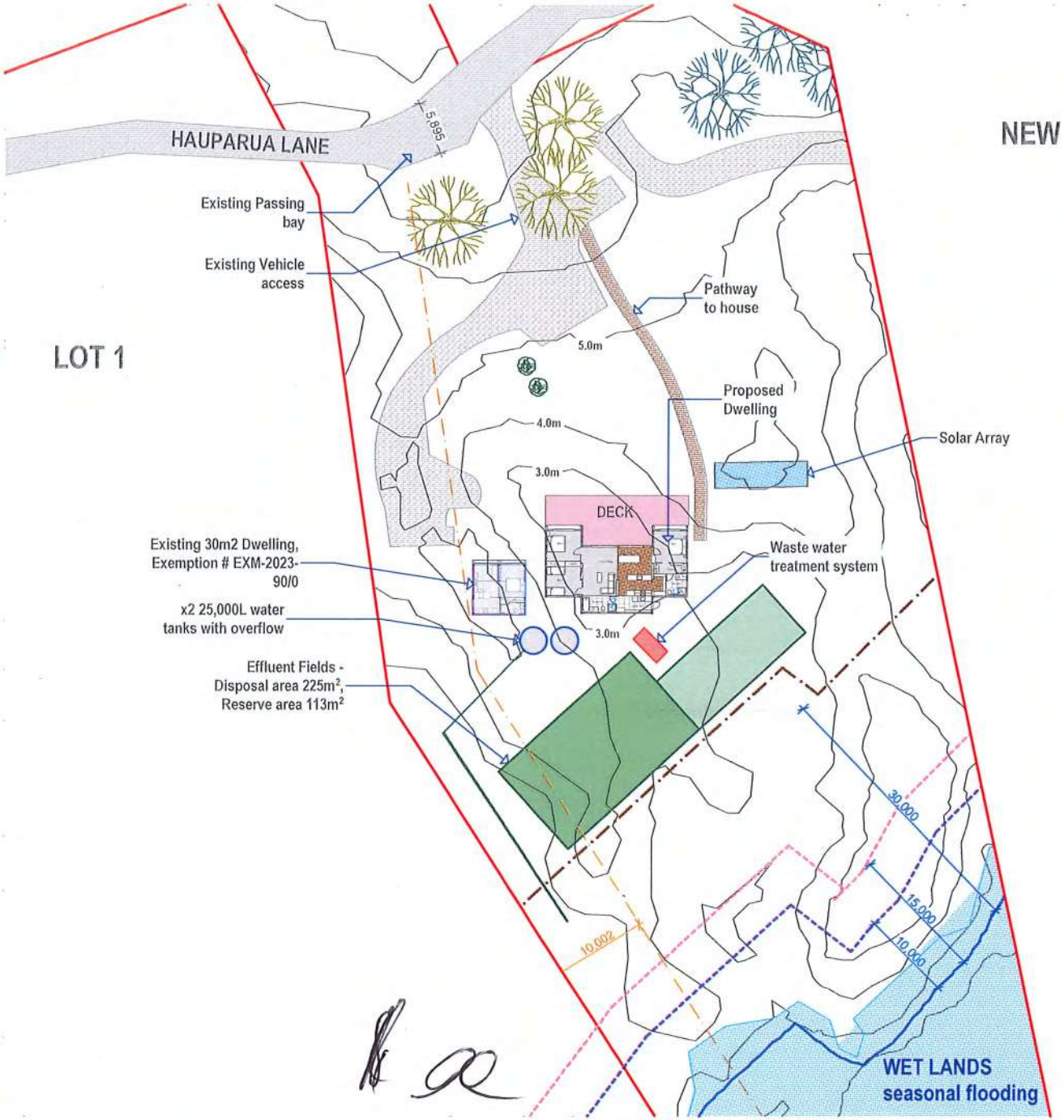
= 10.0m offset to Wet Lands

= 15.0m offset to Wet Lands

= 30.0m offset to Wet Lands

= Proposed Vehicle Entrance/ Driveway

PROJECT No. #Pln	PERMIT SHOP PRACTICAL ARCHITECTURE	8 Bellevue Road, Mount Eden, Auckland 1025 I PO Box 41226, Mt Roskill 1440, Auckland P: 09 - 634 6101 www.permitshop.co.nz	PROJECT NAME + ADDRESS #Project Name #STREET #SUBURB, #CITY	SHEET TITLE NEW LOT 3	STATUS --	DESIGN: -- DRAWN: -- CHECKED: -- APPROVED: --	SCALE: Shown@A3 PRINT DATE: 22/11/2024	SHEET NUMBER 1.5 REVISION



PROPOSED LOT 2 :

- 8,720.66m²
- New Main Dwelling with Waste water treatment + Storm Water Disposal.
- New Vehicle Access way & Driveway

KEY :

= Extent of Winter Flooding

= Surveyed Wet Lands (Cato Bolam, NRC RC)

= 10.0m offset to Wet Lands

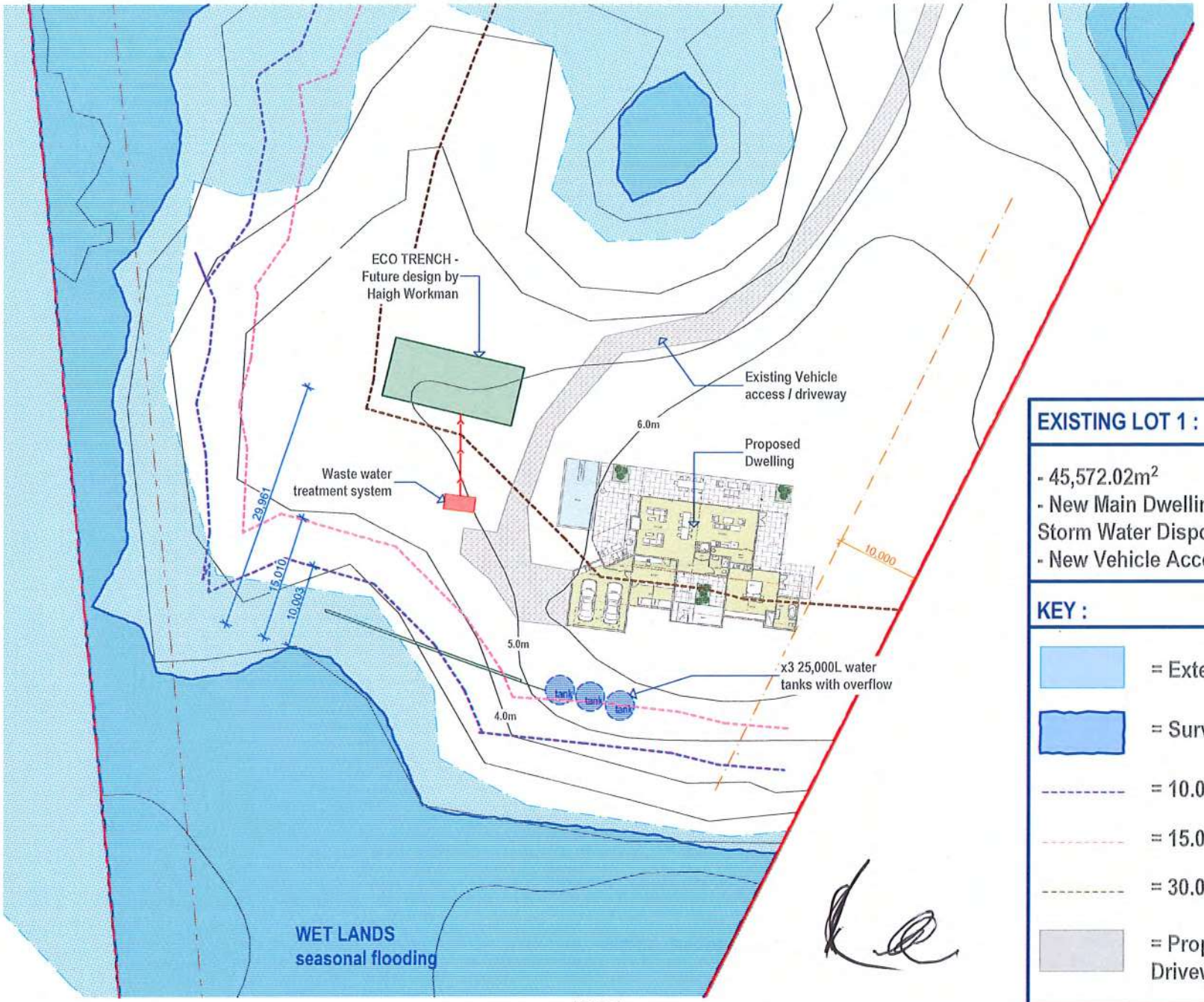
= 15.0m offset to Wet Lands

= 30.0m offset to Wet Lands

= Proposed Vehicle Entrance/ Driveway

1 NEW LOT 2 1:500

PROJECT No. #Pln	PERMIT SHOP PRACTICAL ARCHITECTURE	8 Bellevue Road, Mount Eden, Auckland 1025 I PO Box 41226, Mt Roskill 1440, Auckland P: 09 - 634 6101 www.permitshop.co.nz	PROJECT NAME + ADDRESS #Project Name #STREET #SUBURB, #CITY	SHEET TITLE NEW LOT 2	STATUS --	DESIGN: -- DRAWN: -- CHECKED: -- APPROVED: --	SCALE: Shown@A3 PRINT DATE: 22/11/2024	SHEET NUMBER 1.6	REVISION



LOT 1

EXISTING LOT 1 :

- 45,572.02m^2
- New Main Dwelling with Waste water treatment + Storm Water Disposal.
- New Vehicle Access way & Driveway

KEY :

= Extent of Winter Flooding

= Surveyed Wet Lands (Cato Bolam, NRC RC)

= 10.0m offset to Wet Lands

= 15.0m offset to Wet Lands

= 30.0m offset to Wet Lands

= Proposed Vehicle Entrance/ Driveway

PROJECT No #Pln	PERMIT SHOP PRACTICAL ARCHITECTURE	8 Bellevue Road, Mount Eden, Auckland 1025 I PO Box 41226, Mt Roskill 1440, Auckland P: 09 - 634 6101 www.permitshop.co.nz	PROJECT NAME + ADDRESS #Project Name #STREET #SUBURB, #CITY	SHEET TITLE LOT 1	STATUS --	DESIGN: -- DRAWN: -- CHECKED: -- APPROVED: --	SCALE: Shown@A3 PRINT DATE: 22/11/2024	SHEET NUMBER 1.7 REVISION

Far North District Council

NOTICE OF WRITTEN APPROVAL

Written Approval of Affected Parties in accordance with Section 95E of the Resource Management Act

PART A – To be completed by Applicant

Applicant/s Name:	NASTURTIUM TRUST - Nik Morrison and Jennifer Bland
Address of proposed activity:	44 HAUPARUA LANE
Legal description:	Lot 2 DP 410617
Description of the proposal (including why you need resource consent):	Combined Land use and Subdivision Resource Consent for; Subdivision to create 3 new lots at circa. 8000m2. New dwellings and waste water systems for each lot. New driveway / access for new lot 4.
Details of the application are given in the attached documents & plans (list what documents & plans have been provided to the party being asked to provide written approval):	1. Resource Consent Plan set - Proposed Subdivision 2. Cover Letter 3. 4. 5. 6.

Notes to Applicant:

1. Written approval must be obtained from all registered owners and occupiers.
2. The **original copy** of this signed form and **signed plans and accompanying documents** must be supplied to the Far North District Council.
3. The amount and type of information provided to the party from whom you seek written approval should be sufficient to give them a full understanding of your proposal, its effects and why resource consent is needed.

PART B – To be completed by Parties giving approval

Notes to the party giving written approval:

1. If the owner and the occupier of your property are different people then separate written approvals are required from each.
2. You should only sign in the place provided on this form and accompanying plans and documents if you **fully understand** the proposal and if you **support** or have **no opposition** to the proposal. Council will not accept conditional approvals. If you have conditions on your approval, these should be discussed and resolved with the applicant directly.
3. Please note that when you give your written approval to an application, council cannot take into consideration any actual or potential effects of the proposed activity on you unless you formally withdraw your written approval **before** a decision has been made as to whether the application is to be notified or not. After that time you can no longer withdraw your written approval.
4. Please sign and date all associated plans and documentation as referenced overleaf and return with this form.
5. If you have any concerns about giving your written approval or need help understanding this process, please feel free to contact the duty planner on 0800 920 029 or (09) 401 5200.

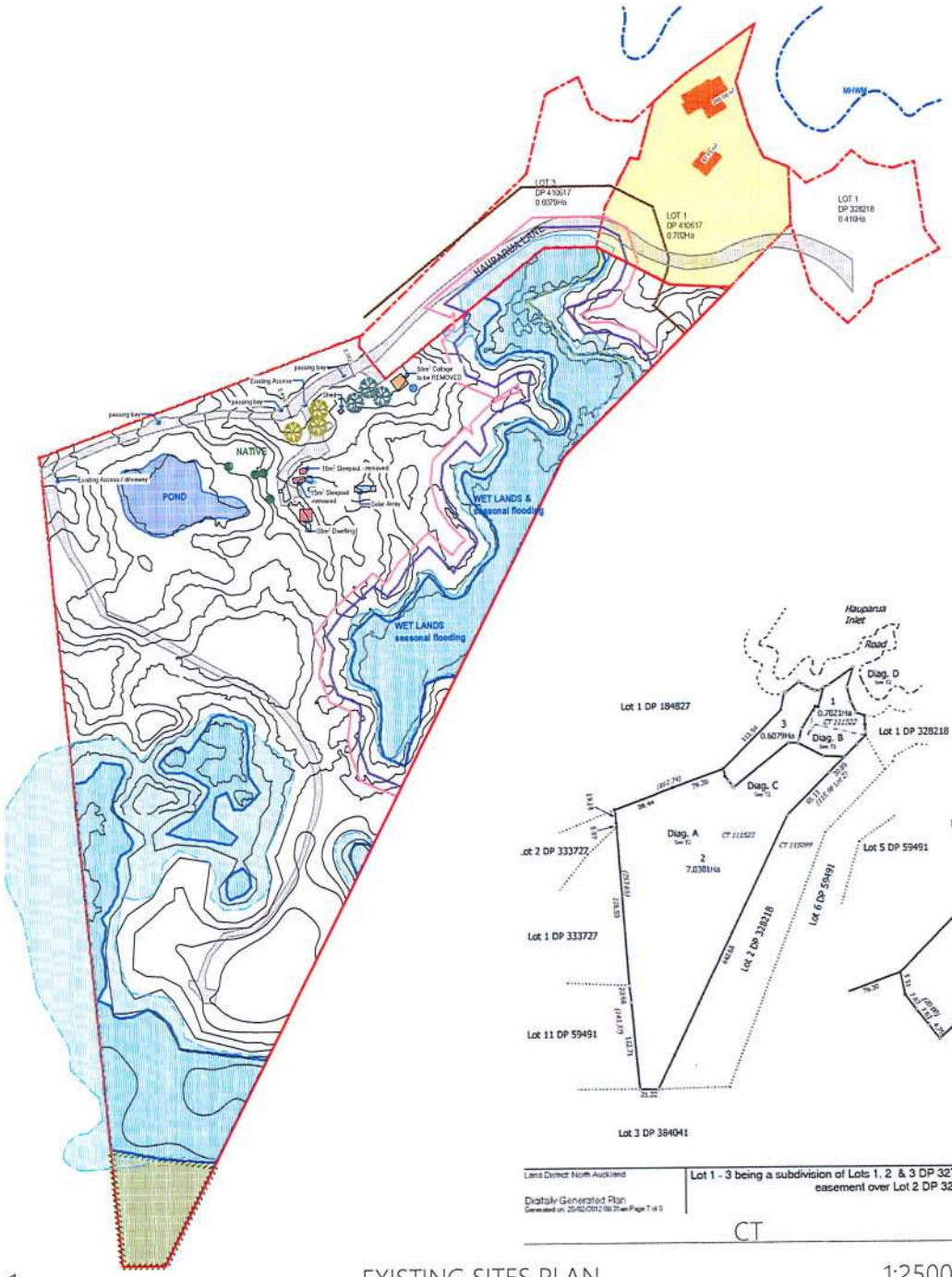
Full name/s of party giving approval:	RG & LM JORDAN.
Address of affected property including legal description	Lot 1 DP59491.
Contact Phone Number/s and email address	Daytime: 09 4076959 email: 021 023 33063

I am/we are the OWNER(S) / OCCUPIER(S) of the property (circle which is applicable)

*Please note: in most instances the approval of **all** the legal owners and the occupiers of the affected property will be necessary.*

1. I/We have been provided with the details concerning the application submitted to Council and understand the proposal and aspects of non-compliance with the Operative District Plan.
2. I/We have signed each page of the plans and documentation in respect of this proposal (these need to accompany this form).
3. I/We understand and accept that once I/we give my/our approval the Consent Authority (Council) cannot take account of any actual or potential effect of the activity and/or proposal upon me/us when considering the application and the fact that any such effect may occur shall not be relevant grounds upon which the Consent Authority may refuse to grant the application.
4. I/We understand that at any time before the notification decision is made on the application, I/we may give notice in writing to Council that this approval is withdrawn.

Signature		Date	04-03-25
Signature		Date	04-03-25
Signature		Date	
Signature		Date	



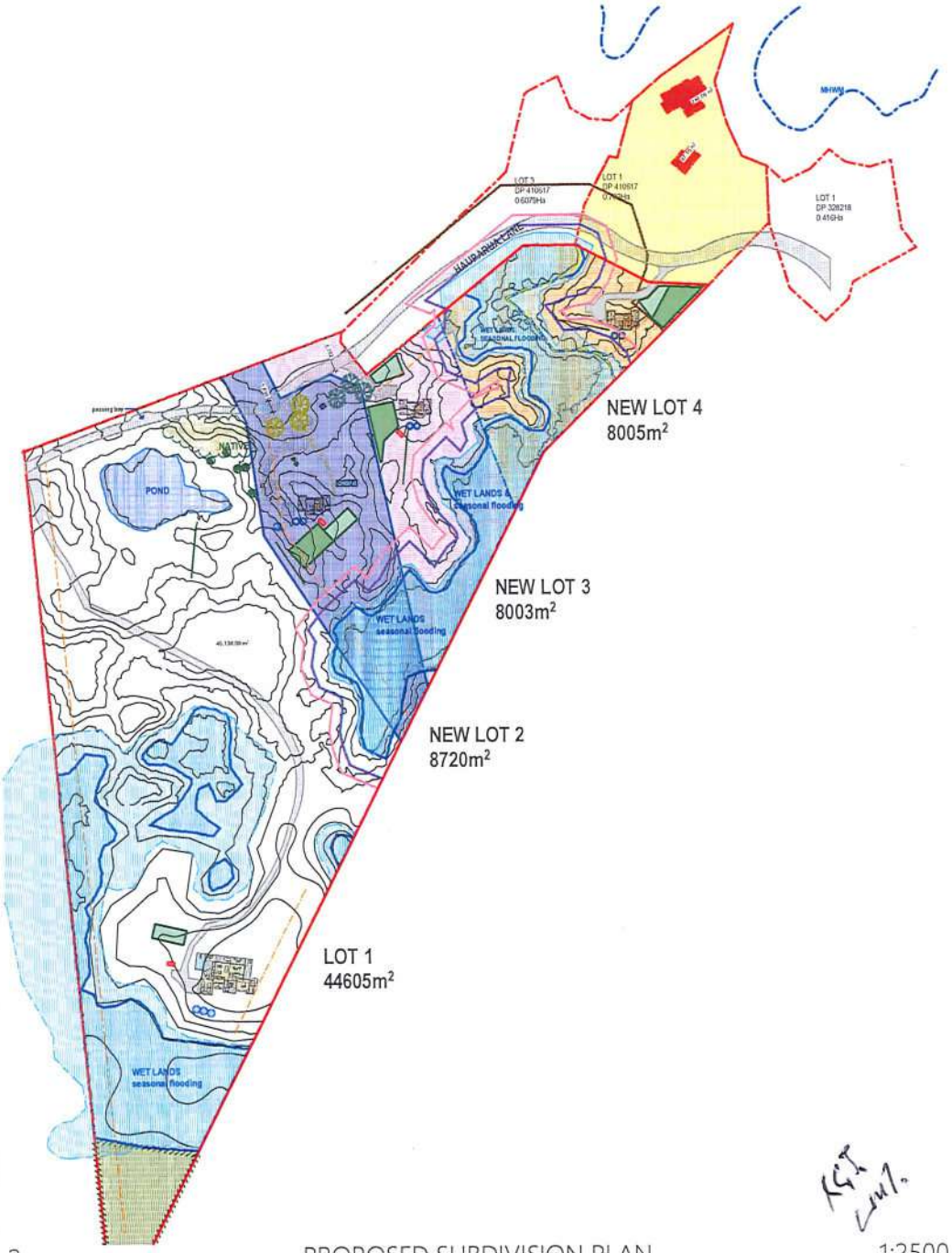
Land District North Auckland

Digitally Generated Plan

Lot 1 - 3 being a subdivision of Lots 1, 2 & 3 DP 32745
easement over Lot 2 DP 32821

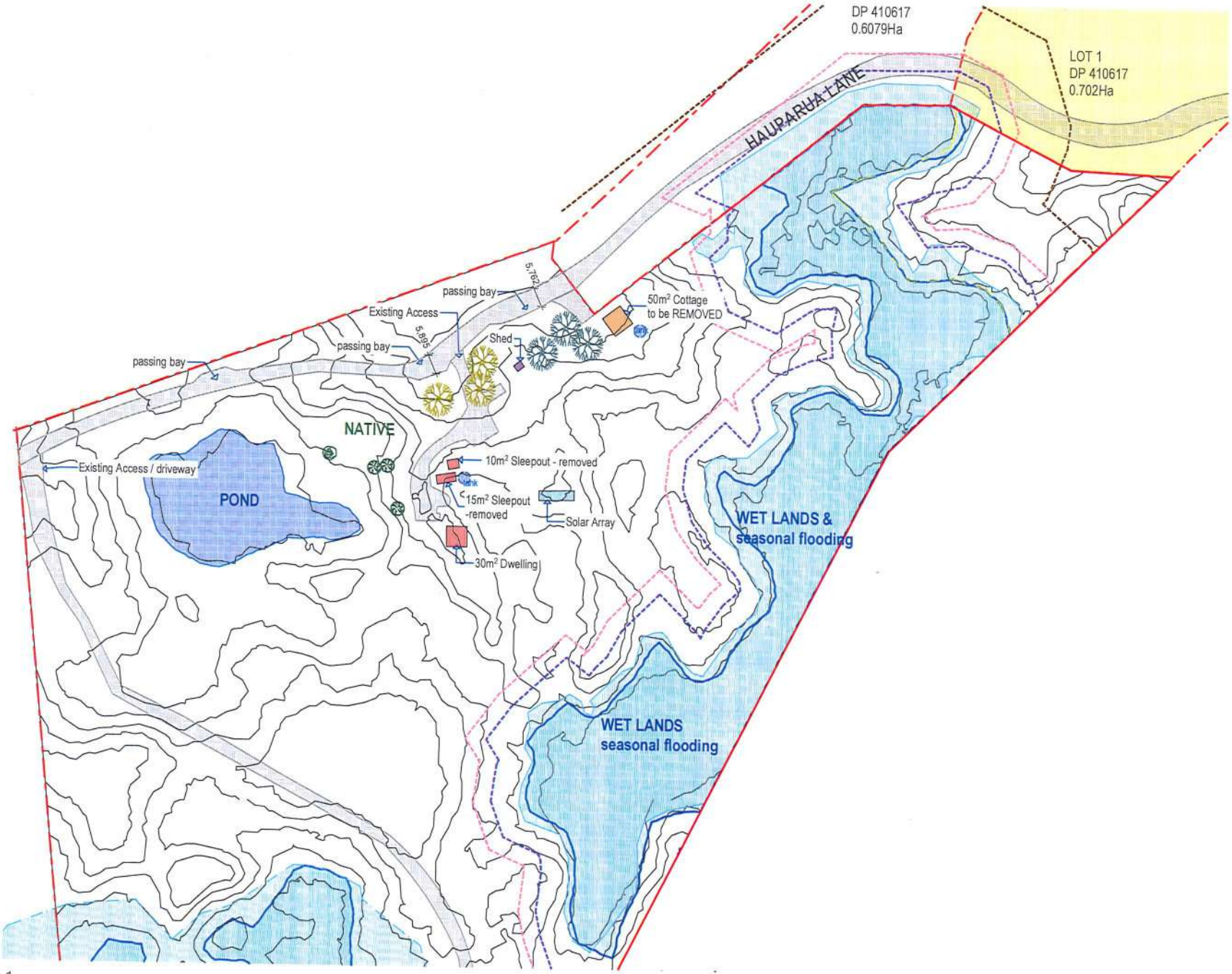
CT

1 EXISTING SITES PLAN 1:2500



2 PROPOSED SUBDIVISION PLAN 1:2500

PROJECT No.									
#Pln	PERMIT SHOP PRACTICAL ARCHITECTURE	8 Bellevue Road, Mount Eden, Auckland 1025 | PO Box 41226, Mt Roskill 1440, Auckland P: 09 - 634 6101 www.permitshop.co.nz	PROJECT NAME + ADDRESS #Project Name #STREET #SUBURB, #CITY	SHEET TITLE EXISTING + PROPOSED SITE PLANS	STATUS --	DESIGN: -- DRAWN: -- CHECKED: -- APPROVED: --	SCALE: Shown@A3 PRINT DATE: 25/11/2024	SHEET NUMBER 1.1	REVISION - - WIP



1 EXISTING PART SITES PLAN 1:1170

PROJECT No. #Pln	PERMIT SHOP PRACTICAL ARCHITECTURE	8 Bellevue Road, Mount Eden, Auckland 1025 I PO Box 41226, Mt Roskill 1440, Auckland P: 09 - 634 6101 www.permitshop.co.nz	PROJECT NAME + ADDRESS #Project Name #STREET #SUBURB, #CITY	SHEET TITLE EXISTING PART SITE PLAN	STATUS --	DESIGN: -- DRAWN: -- CHECKED: -- APPROVED: --	SCALE: Shown@A3 PRINT DATE: 25/11/2024	SHEET NUMBER 1.2 REVISION

Far North District Council

NOTICE OF WRITTEN APPROVAL

Written Approval of Affected Parties in accordance with Section 95E of the Resource Management Act

PART A – To be completed by Applicant

Applicant/s Name:	NASTURTIUM TRUST - Nik Morrison and Jennifer Bland
Address of proposed activity:	44 HAUPARUA LANE
Legal description:	Lot 2 DP 410617
Description of the proposal (including why you need resource consent):	Combined Land use and Subdivision Resource Consent for; Subdivision to create 3 new lots at circa. 8000m2. New dwellings and waste water systems for each lot. New driveway / access for new lot 4.
Details of the application are given in the attached documents & plans (list what documents & plans have been provided to the party being asked to provide written approval):	1. Resource Consent Plan set - Proposed Subdivision 2. Cover Letter 3. 4. 5. 6.

Notes to Applicant:

1. Written approval must be obtained from all registered owners and occupiers.
2. The **original copy** of this signed form and **signed plans and accompanying documents** must be supplied to the Far North District Council.
3. The amount and type of information provided to the party from whom you seek written approval should be sufficient to give them a full understanding of your proposal, its effects and why resource consent is needed.

PART B – To be completed by Parties giving approval

Notes to the party giving written approval:

1. If the owner and the occupier of your property are different people then separate written approvals are required from each.
2. You should only sign in the place provided on this form and accompanying plans and documents if you **fully understand** the proposal and if you **support** or have **no opposition** to the proposal. Council will not accept conditional approvals. If you have conditions on your approval, these should be discussed and resolved with the applicant directly.
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4. Please sign and date all associated plans and documentation as referenced overleaf and return with this form.
5. If you have any concerns about giving your written approval or need help understanding this process, please feel free to contact the duty planner on 0800 920 029 or (09) 401 5200.

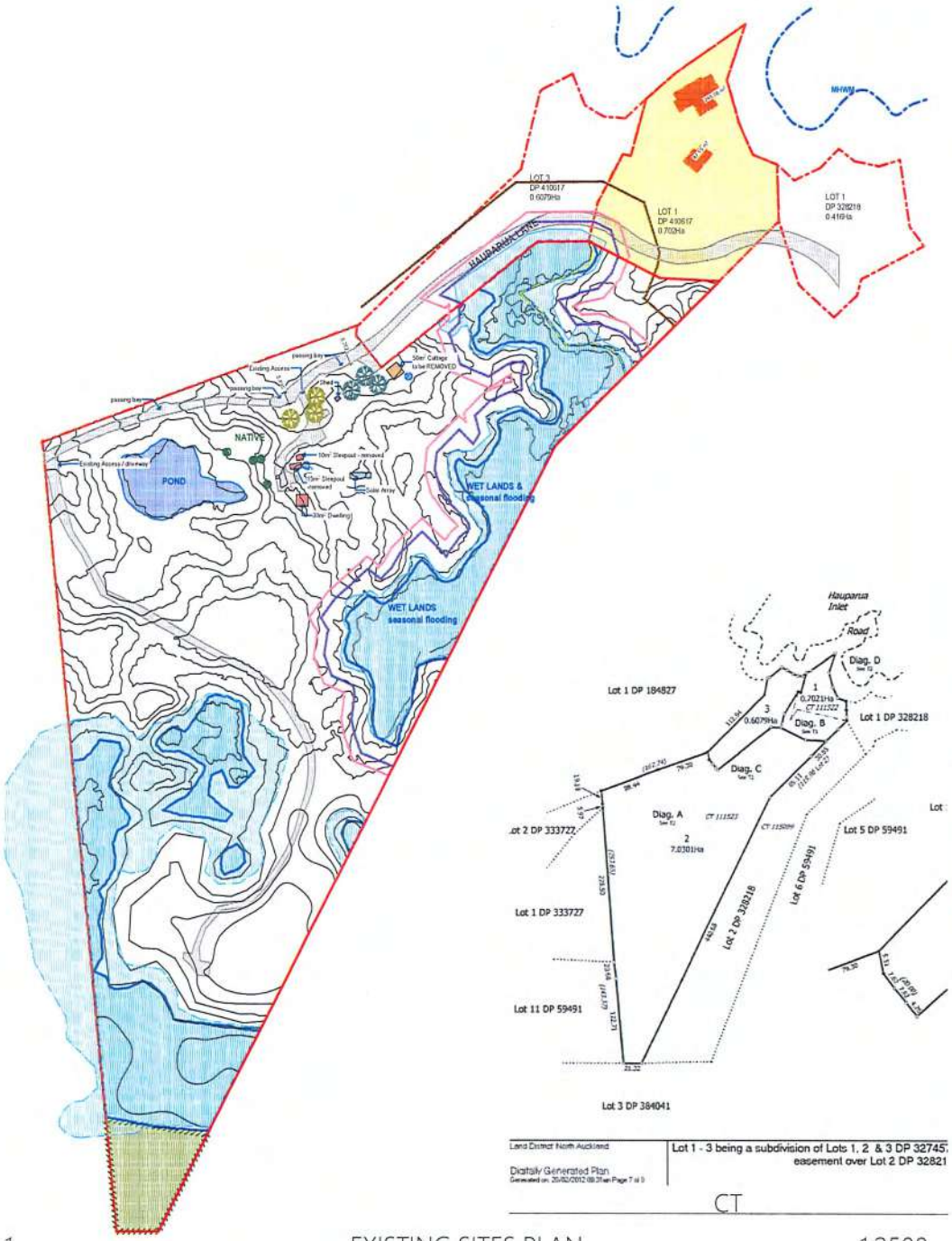
Full name/s of party giving approval:	Laurie Herd.
Address of affected property including legal description	118 Hauraki Lane
Contact Phone Number/s and email address	Daytime: 021 477295 email:

I am/we are the OWNER(S) / OCCUPIER(S) of the property (circle which is applicable)

*Please note: in most instances the approval of **all** the legal owners and the occupiers of the affected property will be necessary.*

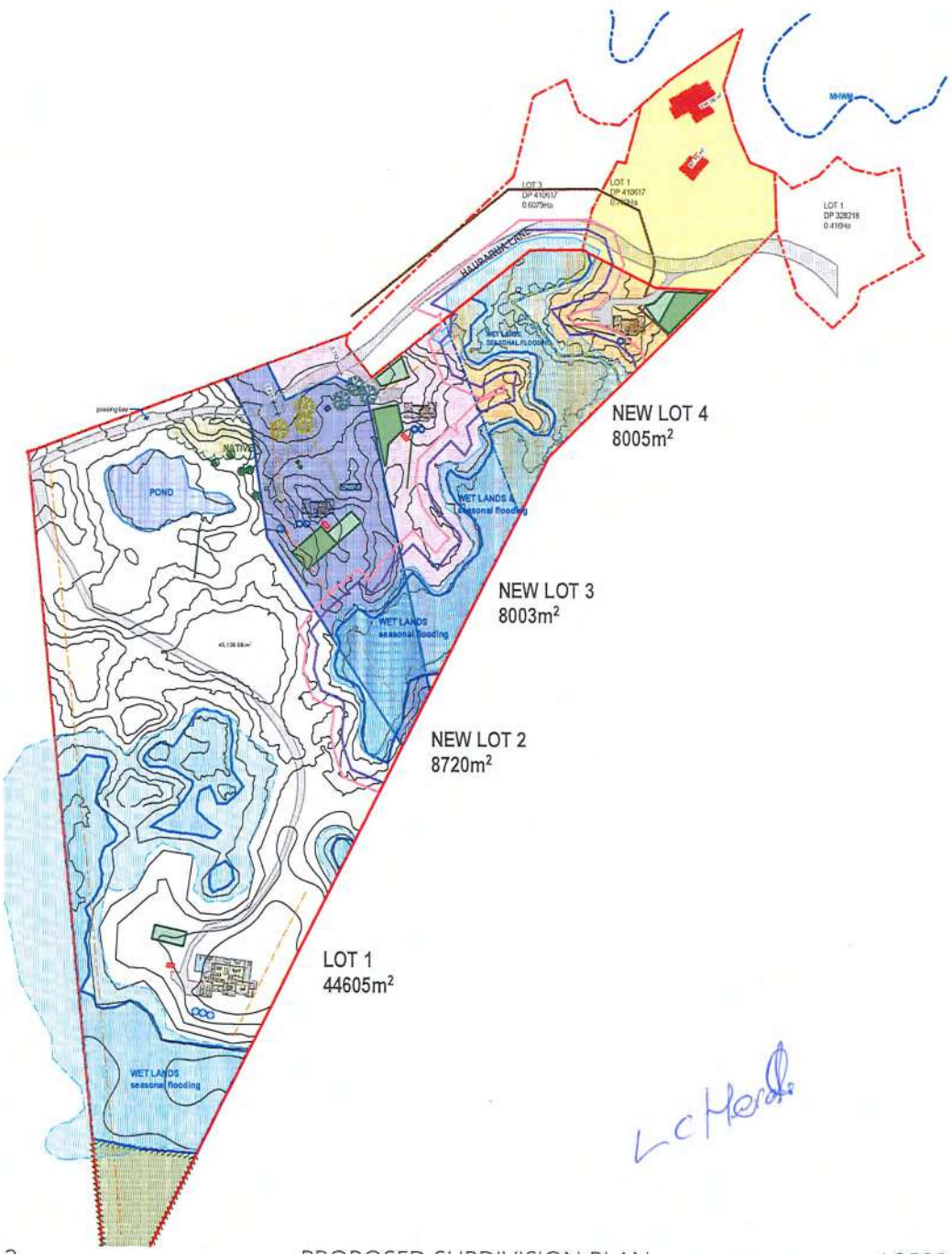
1. I/We have been provided with the details concerning the application submitted to Council and understand the proposal and aspects of non-compliance with the Operative District Plan.
2. I/We have signed each page of the plans and documentation in respect of this proposal (these need to accompany this form).
3. I/We understand and accept that once I/we give my/our approval the Consent Authority (Council) cannot take account of any actual or potential effect of the activity and/or proposal upon me/us when considering the application and the fact that any such effect may occur shall not be relevant grounds upon which the Consent Authority may refuse to grant the application.
4. I/We understand that at any time before the notification decision is made on the application, I/we may give notice in writing to Council that this approval is withdrawn.

Signature	L Herd.	Date	
Signature		Date	
Signature		Date	
Signature		Date	



Land District North Auckland	Lot 1 - 3 being a subdivision of Lots 1, 2 & 3 DP 32745; easement over Lot 2 DP 32821
Digitally Generated Plan	

CT



1 EXISTING SITES PLAN 1:2500

2 PROPOSED SUBDIVISION PLAN 1:2500

PROJECT No.								
#Pln	PERMIT SHOP PRACTICAL ARCHITECTURE	8 Bellevue Road, Mount Eden, Auckland 1025 I PO Box 41226, Mt Roskill 1440, Auckland P: 09 - 634 6101 www.permitshop.co.nz	PROJECT NAME + ADDRESS #Project Name #STREET #SUBURB, #CITY	SHEET TITLE EXISTING + PROPOSED SITE PLANS	STATUS --	DESIGN: -- DRAWN: -- CHECKED: -- APPROVED: --	SCALE: Shown@A3 PRINT DATE: 25/11/2024	SHEET NUMBER 1.1 REVISION - - WIP

Far North District Council

NOTICE OF WRITTEN APPROVAL

Written Approval of Affected Parties in accordance with Section 95E of the Resource Management Act

PART A – To be completed by Applicant

Applicant/s Name:	NASTURTIUM TRUST - Nik Morrison and Jennifer Bland
Address of proposed activity:	44 HAUPARUA LANE
Legal description:	Lot 2 DP 410617
Description of the proposal (including why you need resource consent):	Combined Land use and Subdivision Resource Consent for; Subdivision to create 3 new lots at circa. 8000m2. New dwellings and waste water systems for each lot. New driveway / access for new lot 4.
Details of the application are given in the attached documents & plans (list what documents & plans have been provided to the party being asked to provide written approval):	1. Resource Consent Plan set - Proposed Subdivision 2. Cover Letter 3. 4. 5. 6.

Notes to Applicant:

1. Written approval must be obtained from all registered owners and occupiers.
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PART B – To be completed by Parties giving approval

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5. If you have any concerns about giving your written approval or need help understanding this process, please feel free to contact the duty planner on 0800 920 029 or (09) 401 5200.

Full name/s of party giving approval:	NASTURTIUM TRUST.
Address of affected property including legal description	115 WAIPAPA LANE, KERIKERI 0293.
Contact Phone Number/s and email address	Daytime: 021376983 email: NIK.morrison@gmail.com.

I am/we are the OWNER(S) / OCCUPIER(S) of the property (circle which is applicable)

*Please note: in most instances the approval of **all** the legal owners and the occupiers of the affected property will be necessary.*

1. I/We have been provided with the details concerning the application submitted to Council and understand the proposal and aspects of non-compliance with the Operative District Plan.
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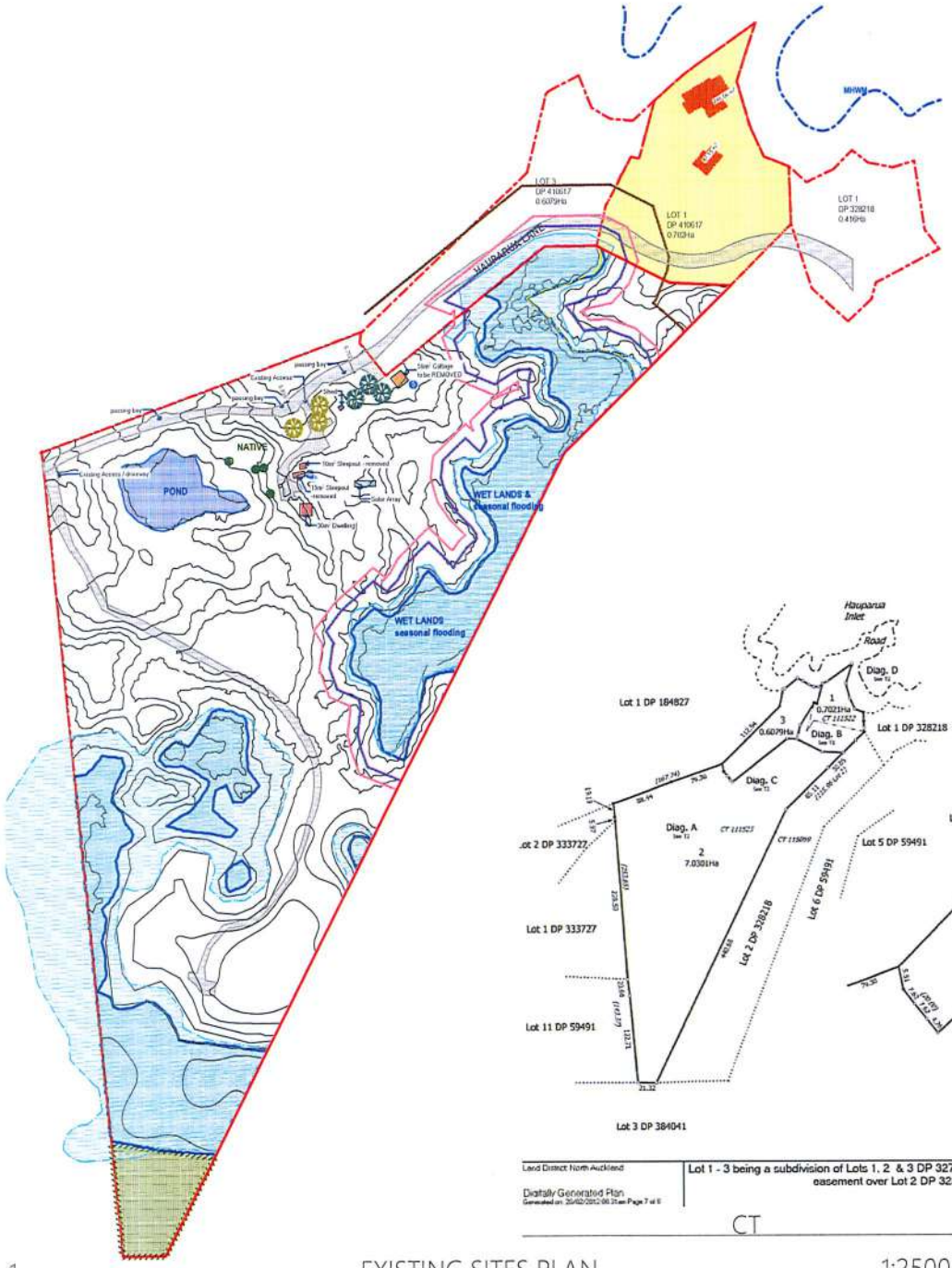
4. I/We understand that at any time before the notification decision is made on the application, I/we may give notice in writing to Council that this approval is withdrawn.

Signature		Date	05-05-2025
Signature		Date	05-05-2025.
Signature		Date	05-05-2025.
Signature		Date	



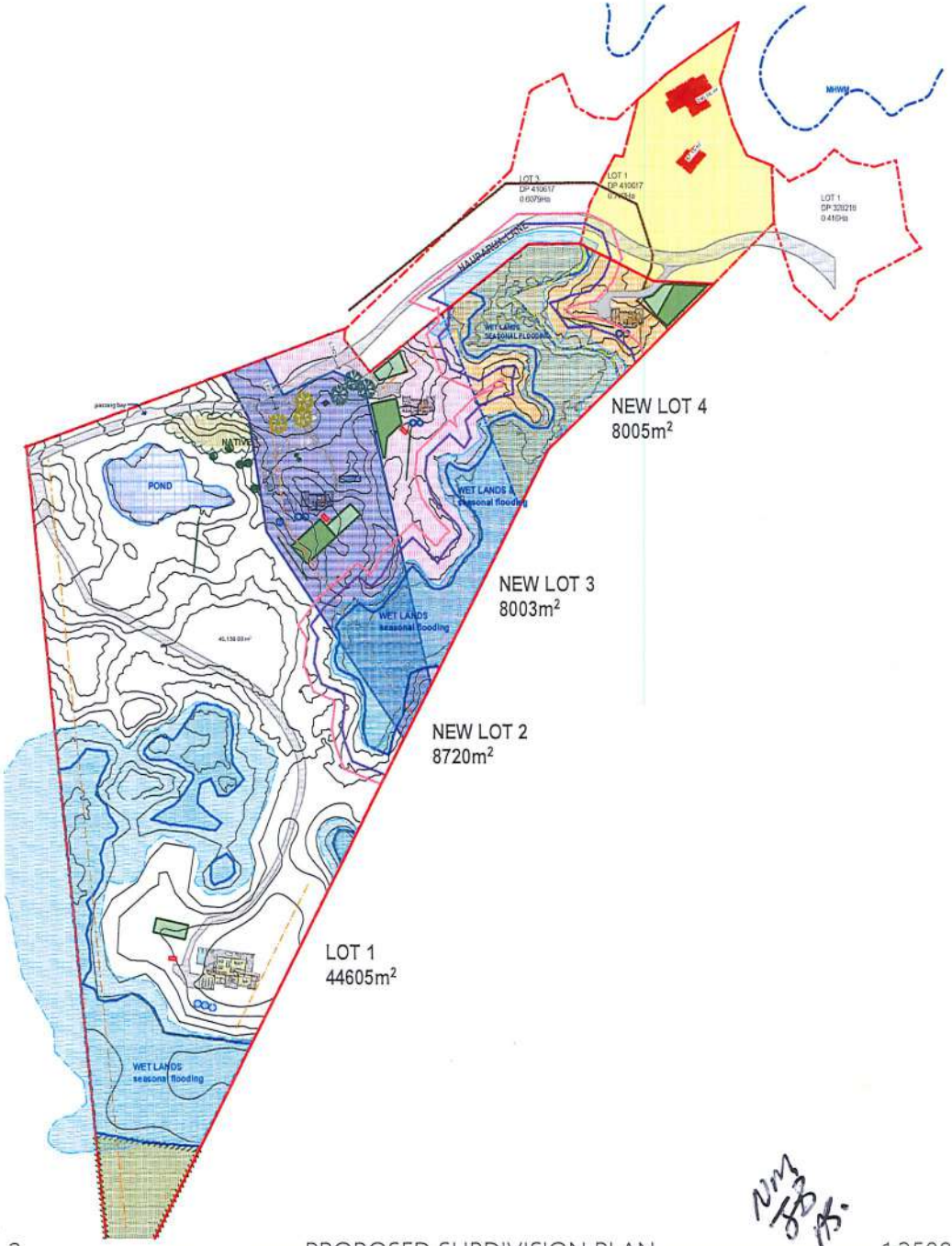
Land District: North Auckland

Digitally Generated Plan

Lot 1 - 3 being a subdivision of Lots 1, 2 & 3 DP 32745?
easement over Lot 2 DP 32821

CT

1 EXISTING SITES PLAN 1:2500



2 PROPOSED SUBDIVISION PLAN 1:2500

PROJECT No.								
#Pln	PERMIT SHOP PRACTICAL ARCHITECTURE	8 Bellevue Road, Mount Eden, Auckland 1025 | PO Box 41226, Mt Roskill 1440, Auckland P: 09 - 634 6101 www.permitshop.co.nz	PROJECT NAME + ADDRESS #Project Name #STREET #SUBURB, #CITY	SHEET TITLE EXISTING + PROPOSED SITE PLANS	STATUS --	DESIGN: -- DRAWN: -- CHECKED: -- APPROVED: --	SCALE: Shown@A3 PRINT DATE: 25/11/2024	SHEET NUMBER 1.1 REVISION - - WIP

Far North District Council

NOTICE OF WRITTEN APPROVAL

Written Approval of Affected Parties in accordance with Section 95E of the Resource Management Act

PART A – To be completed by Applicant

Applicant/s Name:	NASTURTIUM TRUST - Nik Morrison and Jennifer Bland
Address of proposed activity:	44 HAUPARUA LANE
Legal description:	Lot 2 DP 410617
Description of the proposal (including why you need resource consent):	Combined Land use and Subdivision Resource Consent for; Subdivision to create 3 new lots at circa. 8000m2. New dwellings and waste water systems for each lot. New driveway / access for new lot 4.
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PART B – To be completed by Parties giving approval

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4. Please sign and date all associated plans and documentation as referenced overleaf and return with this form.
5. If you have any concerns about giving your written approval or need help understanding this process, please feel free to contact the duty planner on 0800 920 029 or (09) 401 5200.

Full name/s of party giving approval:	Jillian Ann Cooper
Address of affected property including legal description	127 Haupara Lane, Kerikeri
Contact Phone Number/s and email address	Daytime: 021541053 email: j890k@icloud.com

I am/we are the OWNER(S) / OCCUPIER(S) of the property (circle which is applicable)

*Please note: in most instances the approval of **all** the legal owners and the occupiers of the affected property will be necessary.*

1. I/We have been provided with the details concerning the application submitted to Council and understand the proposal and aspects of non-compliance with the Operative District Plan.
2. I/We have signed each page of the plans and documentation in respect of this proposal (these need to accompany this form).
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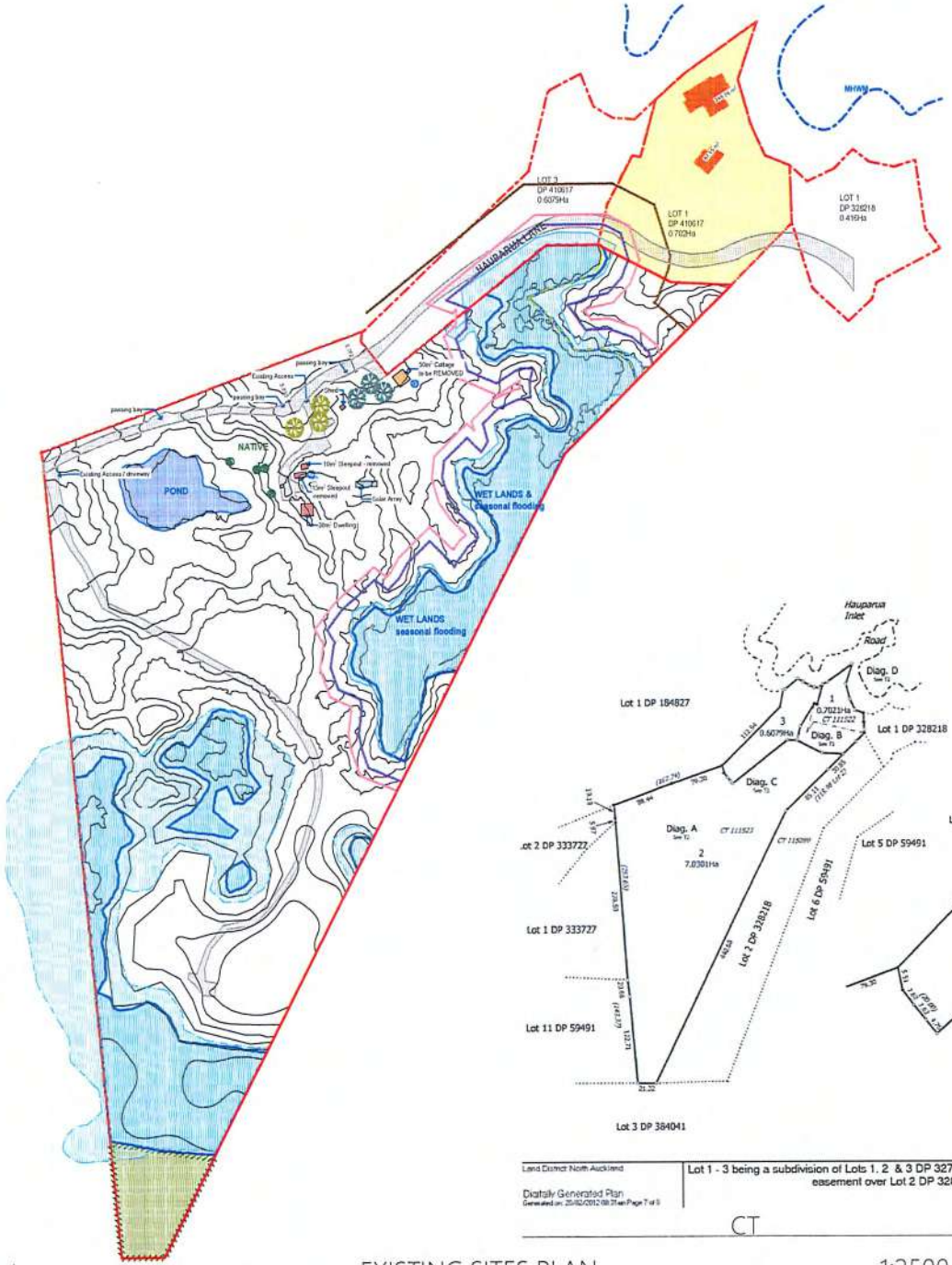
4. I/We understand that at any time before the notification decision is made on the application, I/we may give notice in writing to Council that this approval is withdrawn.

Signature		Date	6 December 2024
Signature		Date	
Signature		Date	
Signature		Date	



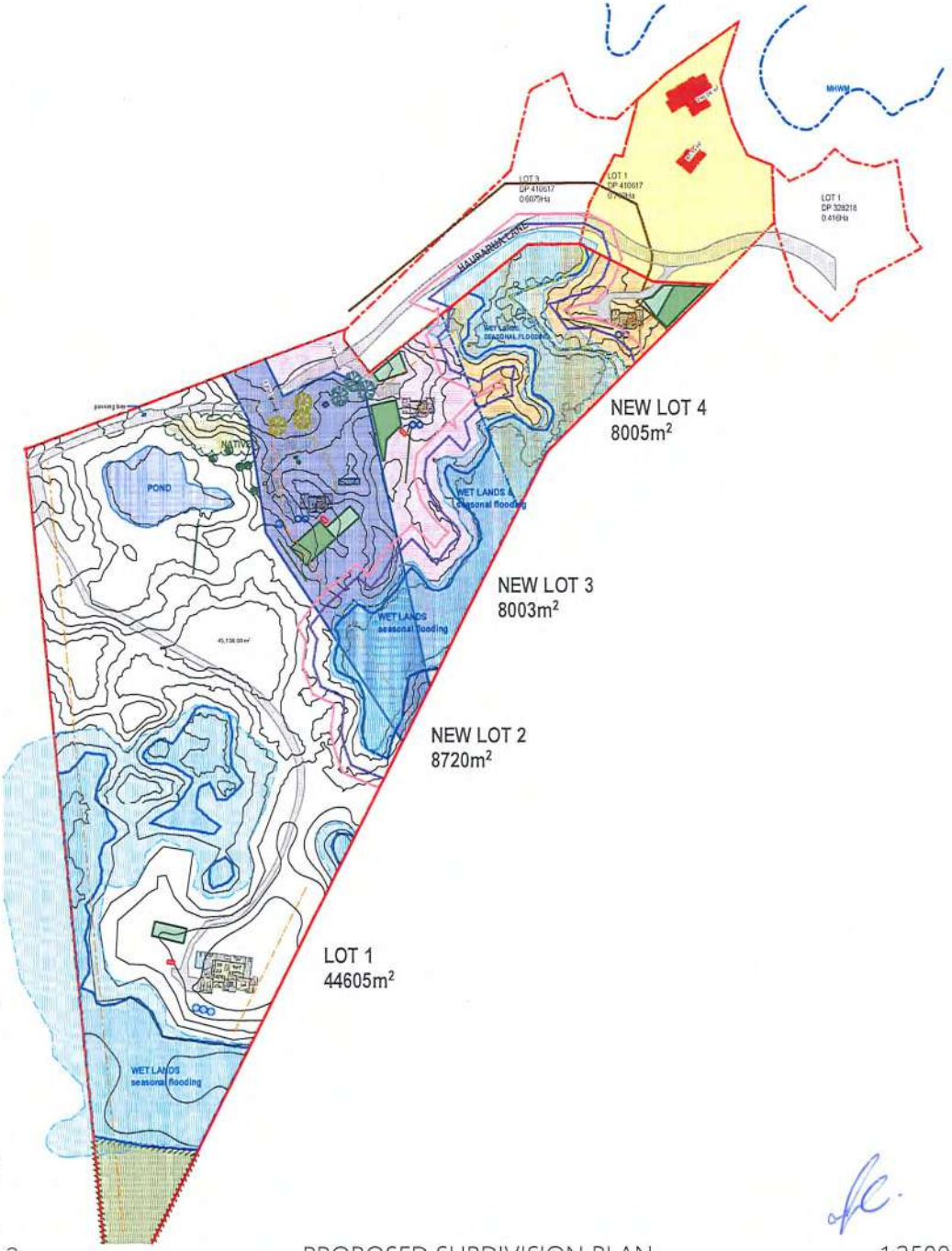
Land District North Auckland

Digitally Generated Plan

Lot 1 - 3 being a subdivision of Lots 1, 2 & 3 DP 32745; easement over Lot 2 DP 32821

CT

1 EXISTING SITES PLAN 1:2500



2 PROPOSED SUBDIVISION PLAN 1:2500

PROJECT No.									
#Pln	PERMIT SHOP PRACTICAL ARCHITECTURE	8 Bellevue Road, Mount Eden, Auckland 1025 I PO Box 41226, Mt Roskill 1440, Auckland P: 09 - 634 6101 www.permitshop.co.nz	PROJECT NAME + ADDRESS #Project Name #STREET #SUBURB, #CITY	SHEET TITLE EXISTING + PROPOSED SITE PLANS	STATUS --	DESIGN: -- DRAWN: -- CHECKED: -- APPROVED: --	SCALE: Shown@A3 PRINT DATE: 25/11/2024	SHEET NUMBER 1.1	REVISION - - WIP