

Application for resource consent or fast-track resource consent

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

1. Pre-Lodgement Meeting

Have you met with a council Resource Consent representative to discuss this application prior to lodgement? ☐ Yes ☒ No

2. Type of Consent being applied for

(more than one circle can be ticked):

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

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

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

☐ Yes ☒ No

4. Consultation

Have you consulted with Iwi/Hapū? ☐ Yes ☒ No

If yes, which groups have you consulted with?

Who else have you consulted with?

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

5. Applicant Details

Name/s:

Lodestone Energy Limited

Email:

Phone number:

Postal address:

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

6. Address for Correspondence

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

Name/s:

Reyburn & Bryant

Email:

Phone number:

Postal address:

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

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

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

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

Name/s:

Lodestone Energy Limited

**Property Address/
Location:**

552 and 558 Gill Road, Kaitaia

Postcode

8. Application Site Details

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

Name/s:

Lodestone Energy Limited

**Site Address/
Location:**

552 and 588 Gill Road, Kaitaia

Postcode

Legal Description:

Lot 1 DP 172560 and Section 1 Blo

Val Number:

Certificate of title:

NA105D/6 and NA75C/189

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.

Contact Thomas to sort site visit

9. Description of the Proposal:

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

The proposal is to subdivide the subject land into four sites, comprising three rural-residential sites and a large balance site accommodating the established solar farm and associated infrastructure.

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

10. Would you like to request Public Notification?

☐ Yes ☒ No

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

(more than one circle can be ticked):

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

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

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

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

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

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

13. Assessment of Environmental Effects:

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

Your AEE is attached to this application ☒ Yes

13. Draft Conditions:

Do you wish to see the draft conditions prior to the release of the resource consent decision? ☒ Yes ☐ No

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

14. Billing Details:

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

Name/s: (please write in full) Lodestone Energy Limited

Email:

Phone number:

Postal address:

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

Fees Information

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

Declaration concerning Payment of Fees

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

Name: (please write in full)

Jason Smith Vidaurre

Signature:

(signature of bill payer)

Date 11-Feb-2026

MANDATORY

15. Important Information:

Note to applicant

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

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

Fast-track application

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

Privacy Information:

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

15. Important information continued...

Declaration

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

Name: (please write in full)

Thomas Keogh

Signature:

Date 11-Feb-2026

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

Checklist (please tick if information is provided)

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

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

Application for subdivision consent

LODESTONE ENERGY LIMITED

552 and 588 Gill Road, Kaitaia



reyburn
& bryant

PLANNERS • SURVEYORS

Application for subdivision consent

LODESTONE ENERGY LIMITED

552 and 588 Gill Road, Kaitaia

Report prepared for:	Lodestone Energy Limited
Author	Thomas Keogh, <i>Associate</i>
Reviewed by:	Phillip Lash, <i>Director</i>
Consent authority:	Far North District Council
Report reference:	18612
Report status:	Final
Date:	February 2026

© Reyburn and Bryant Limited

This document and its contents are the property of Reyburn and Bryant Limited. Any unauthorised reproduction, in full or in part, is forbidden

Reyburn and Bryant
P.O. Box 191
Whangarei 0140
Telephone: (09) 438 3563

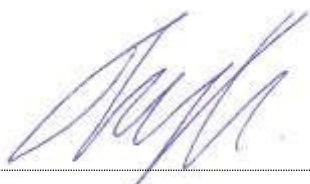
FORM 9

APPLICATION FOR RESOURCE CONSENT UNDER SECTION 88 OF THE RESOURCE MANAGEMENT ACT 1991

To Far North District Council
Private Bag 752
Kaikohe 0440

1. **Lodestone Energy Limited** applies for resource consent to subdivide the subject land into four sites.
2. The location of the proposed subdivision is 552 and 588 Gill Road, Kaitaia.
3. The title references and legal descriptions are:
 - NA105D/6 – Lot 1 DP 172560 and Section 2 Block I Ahipara Survey District.
 - NA75C/189 – Section 1 Block I Ahipara Survey District and Section 15 Block I Takahue Survey District.
4. The applicant is the owner of the sites.
5. There are no other activities that are part of the proposal to which this application relates.
6. No additional resource consents or statutory approvals are needed for the activity to which this application relates that are not being applied for as part of this application.
7. We attach an assessment of effects on the environment that:
 - (a) includes the information required by clause 6 of Schedule 4 of the Resource Management Act 1991; and
 - (b) addresses the matters specified in clause 7 of Schedule 4 of the Resource Management Act 1991; and
 - (c) includes such detail as corresponds with the scale and significance of the effects that the activity may have on the environment.

-
8. We attach an assessment of the proposed activity against the matters set out in Part 2 of the Resource Management Act 1991.
 9. We attach an assessment of the proposed activity against any relevant provisions of a document referred to in section 104(1)(b) of the Resource Management Act 1991, including information required by clause 2(2) of Schedule 4 of that Act.
 10. No other information is required to be included in the district or regional plan(s) or regulations.



Signature of person authorised to sign on behalf of applicant

Thomas Keogh

11 February 2026

Date

Address for service:

Reyburn and Bryant 1999 Ltd

PO Box 191, Whangarei

Telephone:

(09) 438 3563

Email:

thomas@reyburnandbryant.co.nz

Contact person:

Thomas Keogh

TABLE OF CONTENTS

1. INTRODUCTION	1
1.1 Report basis	1
1.2 Context – the Far North Proposed District Plan	1
1.3 Site details	2
1.4 Proposal summary	2
1.5 Resource consent sought	3
1.6 Relevant title memorials	4
1.7 Other approvals required	4
1.8 Processing requests	4
2. THE SITES AND SURROUNDING ENVIRONMENT	5
2.1 The sites	5
2.2 The surrounding environment	7
3. THE PROPOSED SUBDIVISION	9
3.1 General	9
3.2 Design rationale	10
3.3 Engineering suitability	10
3.4 Access arrangements	10
3.5 Servicing arrangements	11
3.6 Landscape controls	12
4. ASSESSMENT OF ENVIRONMENTAL EFFECTS	13
4.1 Existing environment	13
4.2 Permitted baseline	13
4.3 Amenity, character, and landscape effects	13
4.4 Reverse sensitivity and ongoing rural and renewable energy activities	14
4.5 Access effects	16
4.6 Servicing effects	16
4.7 Cultural effects	17
4.8 Adverse effects conclusion	17
5. PLANNING ASSESSMENT	18
5.1 Relevant planning documents	18
5.2 The Operative Far North District Plan	18
5.3 The Far North Proposed District Plan	24
5.4 The National Policy Statement for Highly Productive Land	28
5.5 National Policy Statement for Natural Hazards	29
5.6 National Environmental Standard – Soil Contamination	30
5.7 Part 2 – Resource Management Act, 1991	31
6. NOTIFICATION	33
7. CONCLUSION	34

LIST OF TABLES

Table 1: Site details.	2
Table 2: Subdivision configuration summary.	9

LIST OF FIGURES

Figure 1: The sites.	5
Figure 2: LUC soil classification (Source: Manaaki Landcare Research).	7

APPENDICES

1. Land use consents
2. Subdivision scheme plan
3. Records of title and memorials
4. Engineering report

ABBREVIATIONS

AEE	Assessment of Environmental Effects
FNDC	Far North District Council
FNPDP	Far North Proposed District Plan
NES-CS	National Environmental Standard – Contaminated Soils
NPS-HPL	National Policy Statement for Highly Productive Land
OFNDP	Operative Far North District Plan
RMA	Resource Management Act, 1991
RPZ	Rural Production Zone
SR	Soil & Rock Consultants

1. INTRODUCTION

1.1 Report basis

This report has been prepared for Lodestone Energy Limited (the applicant) in support of an application to subdivide the subject land into four sites at 552 and 588 Gill Road, Kaitaia.

The application has been prepared in accordance with Section 88 and the Fourth Schedule of the Resource Management Act 1991 (RMA). Section 88 of the RMA requires that resource consent applications be accompanied by an Assessment of Environmental Effects (AEE) in accordance with the Fourth Schedule.

The report also includes an analysis of the Operative Far North District Plan (OFNDP), Far North Proposed District Plan (FNPDP), National Policy Statement for Highly Productive Land (NPS-HPL), National Policy Statement for Natural Hazards (NPS-NH), and National Environmental Standards for Contaminated Soils (NES-CS), which are pertinent to the assessment and decision required under Section 104 of the RMA.

1.2 Context – the Far North Proposed District Plan

The Far North District Council (FNDC) is currently progressing the FNPDP through the relevant statutory process under the First Schedule of the RMA.

The hearing process for the FNPDP has now been completed, with commissioner recommendations, Council decisions, and the appeal process to follow.

While most of the rules in the FNPDP do not have legal effect, there are several chapters that contain rules that have immediate legal effect in accordance with s86B(3) of the RMA. The proposed subdivision does not require consent under any of the operative rules. The inoperative rules under which the proposal would require consent are identified, and an assessment in the context of the relevant objectives and policies is provided in section 5.3 of this

report. A weighting assessment is also provided, where it is concluded that more weight should be applied to the OFNDP.

1.3 Site details

Applicant and landowner	Lodestone Energy Limited
Location	522 and 588 Gill Road, Kaitaia
Title references, legals descriptions, and area	<ul style="list-style-type: none"> ▪ NA105D/6 – Lot 1 DP 172560 and Section 2 Block I Ahipara Survey District – 48.7300ha ▪ NA75C/189 – Section 1 Block I Ahipara Survey District and Section 15 Block I Takahue Survey District – 44.4901ha
Operative District Plan	Operative Far North District Plan
Zone	Rural Production Zone
Overlays	Flood Susceptible
Proposed District Plan	Far North Proposed District Plan
Zone	Rural Production Zone
Overlays	Coastal Flood Hazard Zone 1 and 2 (part) ¹ River Flood Hazard Zone – 10 and 100 Year ARI Event (part)

Table 1: Site details.

1.4 Proposal summary

The applicant owns two adjoining titles with a combined area of 93.2201ha on Gill Road, Kaitaia (the sites). In June 2021, the FNDC granted land use consent to construct and operate a utility-scale solar farm on the sites (FNDC reference 2300265-RMALUC). This consent has since been varied multiple times, most recently in September 2023 (2300265-RMAVAR/C). The solar farm has now been constructed and is fully operational. Copies of the land use consents are attached at **Appendix 1**.

The two titles are separated by a panhandle access lot (RT 725203 – Section 1 SO 462638) owned by Te Waka Pupuri Putea Trust. As part of the land use

¹ Plan Variation 1.

consent process, a right of way easement was granted over this land to facilitate access to the subject sites.

Now that the solar farm is operational, the applicant proposes to subdivide the land into four sites. These consist of a large balance lot containing the solar farm and three smaller lots, one accommodating an existing dwelling and the other two vacant. The purpose of the subdivision is to rationalise the applicant's title arrangement by separating those portions of the site that are not required for the ongoing functioning of the solar farm or any associated productive activities. This will allow the surplus land to be managed and utilised independently as appropriate rural-residential lots.

The solar farm will continue to be accessed via the existing right of way over RT 725203. One of the proposed smaller lots will also utilise this access, while the remaining two lots will gain access directly from Gill Road.

A copy of the subdivision scheme plan is attached at **Appendix 2**.

While presented as a single application, the proposal effectively comprises two subdivisions: a two-lot subdivision of NA105D/6 and a three-lot subdivision of NA75C/189, with the balance areas from each amalgamated to form the larger balance lot. Each component subdivision complies with the minimum lot sizes for a restricted discretionary activity subdivision in the Rural Production Zone (RPZ) under Table 13.7.2.1 of the OFNDP (a maximum of three lots, with minimum lot sizes of 4,000m² and one lot of at least 4ha). The proposal is therefore progressed as a **restricted discretionary activity** under the OFNDP.

1.5 Resource consent sought

The proposal requires resource consent under the following rule from the OFNDP:

- 13.8 'Restricted Discretionary Activities' – **restricted discretionary activity**.
The proposal complies with 13.8.1(c) as the subdivision of each title has a maximum of three lots, with minimum lot sizes of 4,000m² and one lot of at least 4ha. Both titles also pre-date 2000.

Overall, the proposal requires resource consent as a **restricted discretionary activity** under the OFNDP.

1.6 Relevant title memorials

There is a lease (12556720.1), easement instrument (12567988.1), covenant instrument (12567988.2), and caveats (12645999.1 and 12674862.1) registered on each of the titles. None are affected by the proposed subdivision.

Copies of the titles and memorials are attached in **Appendix 3**.

1.7 Other approvals required

No other approvals are required to give effect to the proposal.

1.8 Processing requests

Please forward the draft conditions for review.

2. THE SITES AND SURROUNDING ENVIRONMENT

2.1 The sites

Location

The sites are located on the western side of Gill Road, Kaitaia. They are shown in **Figure 1** below.

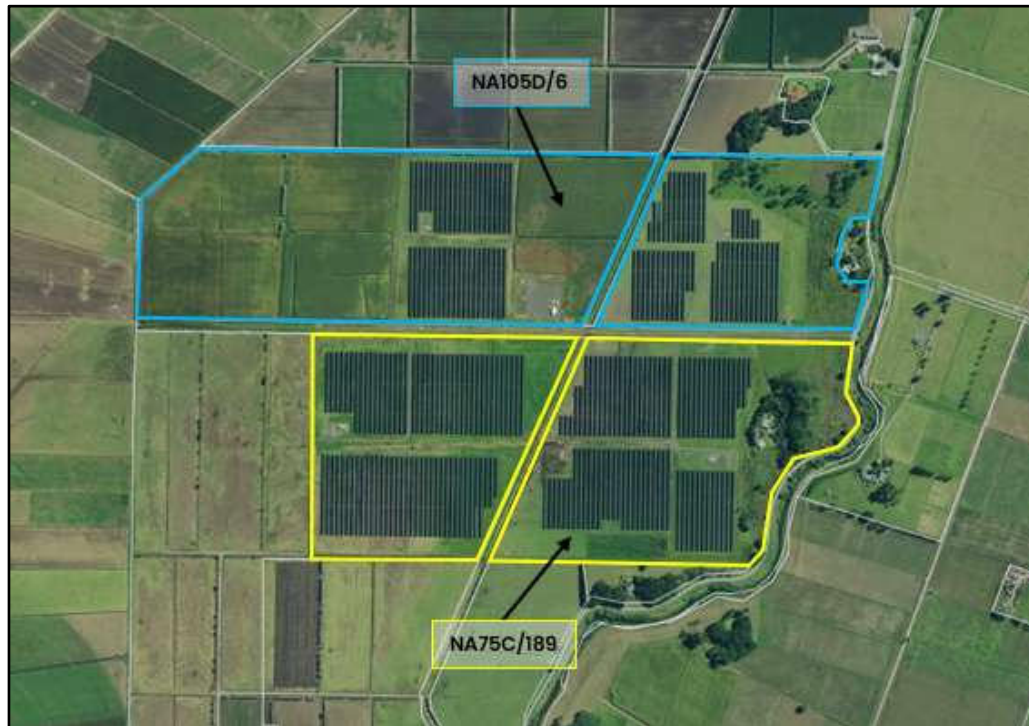


Figure 1: The sites.

Built development

As noted in Section 1.4 of this report, the site accommodates a utility scale solar farm constructed in accordance with 2300265-RMALUC (and associated variations). The solar farm consists of a number of modules (panels) attached to trackers (bases). The panels are connected to power conversion stations, which act as an intermediary piece of electrical equipment before the solar farm is connected to the external network via an E-house and connection point located in the eastern portion of NA105D/6 adjacent to the right of way over RT 725203.

There is also an existing residential unit located in the eastern portion of NA75C/189.

Access

There are two accesses associated with the site – the right of way over RT 725203 and a separate access associated with the residential unit, which also provides an alternative access to the southern part of the solar farm. Both crossings are unsealed, noting that the adjoining portion of Gill Road is currently unsealed.

Topography and drainage

The sites are generally flat, with some localised undulations.

Both sites are bisected by a drainage canal, which runs north/south and is managed under the FNDC Drainage Bylaw.

Ground cover and vegetation

The groundcover is generally pasture.

The applicant has implemented the landscape plan that was approved under 2300265-RMAVAR (and varied under 2300265-RMAVAR/C). The landscaping consists of:

- The retention of some existing bush remnants and revegetation planting in the eastern portion of the site between the solar farm infrastructure and Gill Road. There is also an area of revegetation planting along the southern boundary of NA75C/189.
- Shelter belt plantings along portions of the northern and southern boundaries, and adjacent to the solar farm infrastructure in the western portion of the sites.

The land use consent requires the retention and maintenance of the landscaping. A copy of the consents, including the landscaping plan, is included at **Appendix 1**.

Land Use Capability (LUC) – soil classification

Figure 2 below shows the classification of the soils at the sites under the LUC system. The soils are class 2.

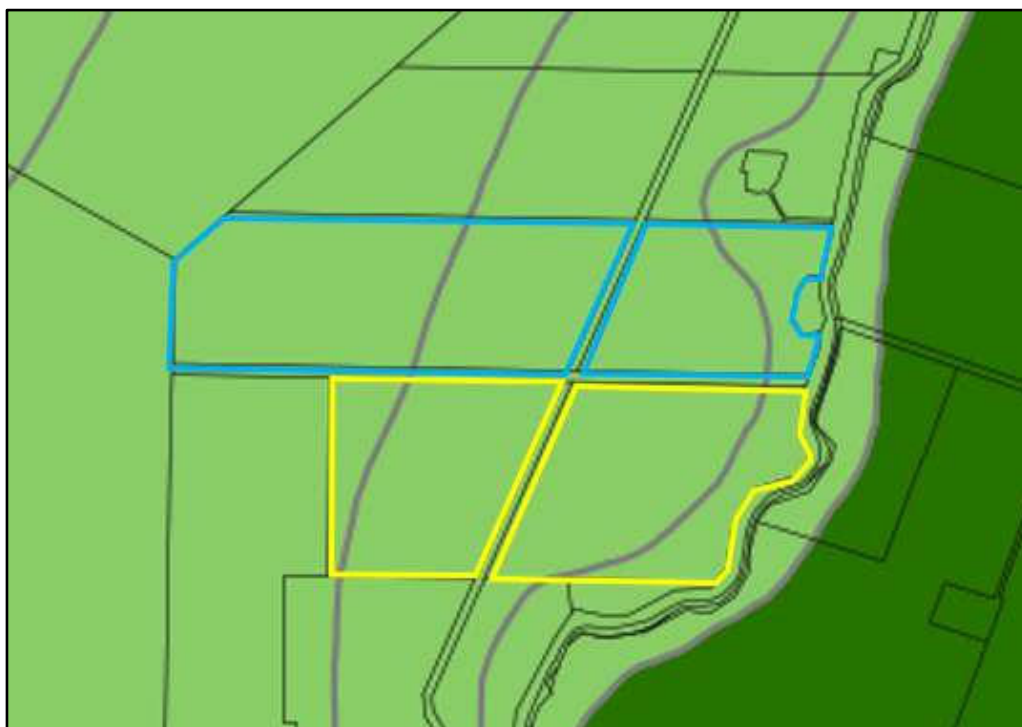


Figure 2: LUC soil classification (Source: Manaaki Landcare Research).

2.2 The surrounding environment

The subject sites are located within a predominantly rural landscape on the western side of Kaitiaki, forming part of a broad, gently undulating rural basin extending toward the west coast. The surrounding landscape is characterised by large pastoral landholdings interspersed with shelterbelts, pockets of remnant vegetation, and a degree of rural-residential development.

Although the area is zoned Rural Production under the OFNDP, the wider Gill Road locality contains a noticeable number of smaller rural-residential lots. These are typically located along road frontages or associated with historic farm dwellings and lifestyle conversions. Smaller holdings adjoin NA75C/189 to the south and NA105D/6 to the east and north, illustrating an established pattern of lifestyle-scale development occurring alongside more traditional pastoral uses. Notwithstanding this, pastoral farming remains the dominant

land use, with open pasture subdivided into large paddocks and defined by shelterbelts forming the prevailing visual pattern.

Vegetation in the area comprises a mix of shelterbelts, planting associated with rural dwellings, and scattered remnants of indigenous bush. These elements contribute to visual containment in places but generally maintain a high degree of openness and reinforce the area's productive landscape character. The terrain is predominantly flat to gently rolling.

The broader context includes the township of Kaitaia approximately 3km to the east and the west coast located approximately 3km to the west.

Overall, the surrounding environment reflects a rural landscape that continues to support productive land uses while accommodating a degree of smaller-scale rural-residential development, particularly along established transport corridors such as Gill Road.

3. THE PROPOSED SUBDIVISION

3.1 General

This application seeks consent to subdivide the subject land into four sites. The proposed lot configuration is depicted on the subdivision scheme plan (**Appendix 2**) and is summarised in **Table 2** below. The areas shown are approximate and are subject to final survey.

Rural-residential sites		
Lots	Area	Comment
Lot 1	2.5931ha (2.4544ha net)	Rural residential lot created as part of the subdivision of NA75C/189. Accommodates the existing residential unit.
Lot 2	3.4374ha	Vacant rural residential lot created as part of the subdivision of NA75C/189.
Lot 3	3.5570ha	Vacant rural residential lot created as part of the subdivision of NA105D/6.
Balance site (amalgamated pursuant to Section 220(1)(b)(ii) of the RMA)		
Lots	Area	Comment
Lot 4	12.8960ha	Balance area from subdivision of Lot 1 DP 172560 (eastern allotment associated with NA105D/6).
Lot 5	18.6553ha	Balance area from subdivision of Section 15 BLK I Takahue SD (eastern allotment associated with NA75C/189).
Section 2 BLK Ahipara SD	32.9945ha	Western portion of NA105D/6
Section 1 BLK I Ahipara SD	19.8043ha	Western portion of NA75C/189.

Table 2. Subdivision configuration summary.

3.2 Design rationale

The proposed subdivision is a logical and functional response to the established use of the land as a utility-scale solar farm. Now that the solar farm has been constructed and is fully operational, the subdivision seeks to rationalise the applicant's title arrangement by clearly separating land required for the ongoing operation of the solar farm from surplus land that is no longer needed for that purpose.

The proposal creates a large balance lot that contains the solar farm and all associated infrastructure, ensuring its continued efficient operation and access via the existing and proposed rights of way. The remaining land is subdivided into three smaller lots comprising the existing dwelling and two vacant sites, which are capable of being independently managed and utilised as rural residential lots. This approach enables more efficient land management without increasing development intensity beyond that anticipated by the OFNDP.

3.3 Engineering suitability

The Soil & Rock (SR) engineering report (**Appendix 4**) assesses the suitability of the identified building areas on Lots 2 and 3 (noting that Lot 1 accommodates an existing residential unit and the balance site the established solar farm). Subject to compliance with their recommendations, SR concludes that these lots are suitable for development pursuant to Section 106 of the RMA. Compliance with these recommendations is anticipated as a consent notice condition.

3.4 Access arrangements

The proposed access arrangements are summarised as follows:

- Proposed Lot 3 will obtain direct access from Gill Road. A vehicle crossing will be formed at the building consent stage in accordance with FNDC Engineering Standards and Council access requirements. The construction of this crossing will be secured by consent notice.

- The balance site (accommodating the solar farm) will continue to utilise the established access arrangements via the existing right of way over RT 725203 and the proposed right of way over Lot 1 (shown as 'A' on the subdivision scheme plan). Both accesses were upgraded/constructed in accordance with the relevant conditions of the land use consent for the solar farm and are therefore of an appropriate standard. Lot 2 will also gain access via the existing right of way over RT 725203.

3.5 Servicing arrangements

Water supply

There are no changes proposed to the water supply arrangements associated with the solar farm or the existing residential unit on Lot 1.

The future owners of Lots 2 and 3 will establish an on-site water supply at the building consent stage.

Stormwater management

There are no changes proposed to the stormwater management arrangements associated with the solar farm or the existing residential unit on Lot 1.

Stormwater from Lots 2 and 3 will be managed on-site in accordance with the recommendations of the SR suitability report and relevant FNDC requirements. The future owners will establish these arrangements at the building consent stage.

Wastewater management

There are no changes proposed to the wastewater management arrangements associated with the solar farm or the existing residential unit on Lot 1.

Lots 2 and 3 will manage wastewater on-site. The SR suitability report includes a preliminary design that complies with the relevant statutory requirements. The final site-specific design for each of these lots will be prepared at the

building consent stage. It is anticipated that this will be required via a consent notice condition.

Electricity

The balance site will retain the electricity arrangements associated with the solar farm, and Lot 1 the arrangements associated with the existing residential unit. Any required easements will be created at the survey stage.

It has not yet been determined whether Lots 2 and 3 will be provided with a connection to the reticulated network. It is requested that the consent conditions allow for either option.

Telecommunications

The proposed lots will rely on wireless telecommunications arrangements. No new hard-wired connections will be provided as part of the subdivision.

3.6 Landscape controls

Portions of the landscaping approved under the land use consent for the solar farm are located within the proposed smaller lots. To ensure the ongoing protection and maintenance of this landscaping, the applicant proposes to register landscaping covenants over the relevant areas. These are shown as 'B' – 'G' on the scheme plan. These covenants will be supported by consent notice conditions requiring the vegetation to be retained, protected, and maintained, except where replacement planting is required due to plant failure.

The continued retention of this landscaping will maintain the mitigation established as part of the solar farm development. In addition, the landscaping will provide a visual buffer for any future residential development on proposed Lots 2 and 3, noting that these planted areas are located between the identified building areas on those lots and Gill Road.

4. ASSESSMENT OF ENVIRONMENTAL EFFECTS

4.1 Existing environment

Section 104(1)(a) of the RMA requires a consideration of any actual and potential effects on the environment of allowing an activity. The existing environment has been described in Section 2 of this report.

4.2 Permitted baseline

Section 104(2) of the RMA allows a consent authority to disregard an adverse effect of an activity on the environment if a plan permits an activity with that effect. This is commonly referred to as the permitted baseline.

Under the OFNDP, the RPZ permits the construction of residential units at a density of 1 per 12ha of land. NA105D/6 (48.7300ha) could therefore accommodate four residential units and NA75C/189 (44.4901ha) three residential units as a permitted activity. This equates to a total of seven residential units across the sites.

This establishes the permitted baseline with respect to residential density on the subject sites.

4.3 Amenity, character, and landscape effects

The proposed subdivision will not result in an increase in residential development beyond the permitted baseline anticipated under the OFNDP. Prior to and following the subdivision, up to seven residential units could be established across the subject land as a permitted activity. The proposal therefore does not facilitate an increase in development intensity, but rather formalises a lot pattern that is consistent with the existing planning framework.

Future residential development enabled by the subdivision will be limited to Lots 2 and 3. These lots are located toward the eastern portion of the sites, adjoining Gill Road and in proximity to existing rural-residential development. This arrangement reflects an established pattern within the surrounding

environment, where smaller lifestyle-scale lots are interspersed within a predominantly pastoral landscape, particularly along transport corridors such as Gill Road.

Landscape planting implemented as part of the solar farm development will be retained and protected through landscaping covenants and consent notice conditions. This planting is located between the identified building areas on proposed Lots 2 and 3 and Gill Road, and will continue to provide visual containment and screening when viewed from the road corridor and surrounding properties. The retention of this planting will assist in integrating any future residential development into the surrounding rural landscape and maintaining a coherent visual transition between built form and open pasture.

The flat to gently rolling nature of the surrounding landform further limits the potential viewing audience, with no elevated public viewpoints available from which future residential development would be readily visible. Views into the site are generally localised and filtered by existing vegetation, shelterbelts, and the retained landscape planting.

Overall, the subdivision will result in a pattern of development that is consistent with the existing rural-residential and rural production character of the Gill Road locality. The amenity, character, and landscape effects arising from the proposal will therefore be less than minor.

4.4 Reverse sensitivity and ongoing rural and renewable energy activities

The proposed subdivision has been designed to avoid reverse sensitivity effects on both productive rural activities and the ongoing operation of the established solar farm.

The solar farm is located entirely within the large balance site, which will remain consolidated and unencumbered by residential development. All associated infrastructure and operational areas are contained within this balance lot, while the subdivision provides for the ongoing use of the existing

access arrangement (noting that the vehicle movement associated with the ongoing operation and maintenance of the solar farm are very low). This ensures that the subdivision will not constrain or interfere with the continued operation or maintenance of the solar farm.

The balance site will also remain available for productive rural activities that are compatible with the operation of the solar farm. As is typical for utility-scale solar developments, the land beneath and between the solar panels can continue to be used for low-intensity agricultural purposes, allowing the land to remain productive while supporting renewable energy generation. The subdivision does not alter or restrict this integrated land-use arrangement.

The proposed rural-residential lots (Lots 1, 2 and 3) are clustered toward the eastern edge of the sites, adjacent to Gill Road and in proximity to other existing rural-residential development. This layout limits the interface between sensitive residential activities and the balance site, reducing the potential for reverse sensitivity effects arising from either productive rural activities or the operation of the solar farm.

To further manage any residual reverse sensitivity risk, it is proposed that a consent notice condition be registered on the titles of the rural-residential lots requiring future owners and occupiers to forego the right to complain about effects arising from lawful productive activities and the ongoing operation of the solar farm on adjoining land. This approach is consistent with standard FNDC practice for rural-residential subdivision in the RPZ and provides long-term certainty for the continued operation of existing or permitted activities.

Having regard to the above, the subdivision will not give rise to reverse sensitivity effects that would compromise productive rural activities or the ongoing operation of the solar farm. Any adverse effects in this regard will therefore be less than minor.

4.5 Access effects

The proposed subdivision will utilise a combination of existing and future access arrangements.

The balance site accommodating the solar farm will continue to utilise the established right of way over RT 725203 and the proposed right of way over Lot 1. These access arrangements were constructed or upgraded as part of the solar farm development and are of an appropriate standard to serve the ongoing operation of the site.

Proposed Lot 3 will obtain direct access from Gill Road. This vehicle crossing will be formed at the building consent stage in accordance with FNDC Engineering Standards and access requirements. This will be secured by consent notice conditions.

Proposed Lot 2 will also utilise the existing right of way over RT 725203.

Overall, the subdivision will not give rise to unsafe or inefficient access arrangements, and any adverse effects on the transport network will be less than minor.

4.6 Servicing effects

The subdivision does not propose any changes to the existing servicing arrangements associated with the solar farm or the residential unit on Lot 1.

Lots 2 and 3 are capable of accommodating on-site servicing arrangements, including water supply, wastewater disposal and stormwater management. Preliminary assessments confirm that these services can be provided in accordance with FNDC requirements, with final designs to be confirmed at the building consent stage by future owners.

The balance site will retain the existing electricity infrastructure associated with the solar farm, while Lot 1 will continue to utilise the existing residential connection. Electricity supply options for Lots 2 and 3 will be determined at a

later stage, with consent conditions requested to allow for either reticulated or alternative supply arrangements.

Wireless telecommunication arrangements are available for all lots.

The subdivision will therefore not result in any adverse servicing effects.

4.7 Cultural effects

The subdivision proposal does not involve earthworks or modification to water bodies or natural features that would typically be associated with cultural values. Further, there are no sites of known cultural significance identified on the subject land.

While no specific consultation has been undertaken as part of this subdivision application, the scale and nature of the proposal are such that it is unlikely to result in adverse effects on cultural values. The FNDC will have the opportunity to circulate the application to relevant iwi and hapū as part of the processing of the consent, and any feedback received can be addressed as appropriate.

On this basis, and subject to any matters raised through the statutory process, the proposal is not anticipated to give rise to adverse cultural effects.

4.8 Adverse effects conclusion

Overall, any adverse effects associated with the proposal will be less than minor relative to the existing environment and permitted baseline.

5. PLANNING ASSESSMENT

5.1 Relevant planning documents

Section 104(1) of the RMA sets out the matters that a consent authority must, subject to Part 2, have regard to when considering resource consent applications.

For this application, the relevant documents that require consideration are the OFNDP, FNPDP, NPS-HPL, NPS-NH, and NES-CS. An assessment in the context of these documents is provided below.

While an assessment is not required given that there are no issues of invalidity, incomplete coverage, or uncertainty in the provisions of the relevant planning documents,² an assessment of Part 2 matters under the RMA is also provided for completeness.

5.2 The Operative Far North District Plan

Context

Pursuant to section 104(b)(vi) of the RMA, the following considers the proposal in the context of the relevant objectives and policies from the OFNDP.

The objectives and policies relevant to this application are contained within Chapter 8 (Rural Environment) and Chapter 13 (Subdivision). Collectively, these provisions seek to:

- protect productive rural activities and avoid reverse sensitivity effects;
- ensure subdivision is compatible with rural amenity, character and landscape values; and
- ensure that new allotments are appropriately serviced and accessed.

The relevant objectives and policies are identified and assessed below.

² R J Davidson Family Trust the Marlborough District Council [2018] NZCA 316

Assessment

Productive rural activities and reverse sensitivity

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

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

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

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

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

Objective 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.

Objective 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.

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

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

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

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

These provisions are directed at safeguarding productive rural land, enabling efficient land use, and avoiding conflicts between sensitive activities and established rural or infrastructure activities.

The proposal responds directly to these objectives by retaining the solar farm and all associated infrastructure within a large, consolidated balance lot. This ensures the continued operation and maintenance of the solar farm is not constrained by the introduction of new residential activities.

The proposed rural-residential lots are clustered along Gill Road and in proximity to existing lifestyle-scale development. This limits the interface between sensitive residential uses and the balance site, reducing the potential for reverse sensitivity effects on both the solar farm and any productive rural activities undertaken in conjunction with it (including grazing beneath the solar panels).

Further, the number and scale of rural-residential lots proposed is expressly anticipated by the subdivision provisions of the RPZ as a restricted discretionary activity. This confirms that such development is contemplated within the zone, subject to appropriate design and mitigation.

The proposed registration of consent notices on the rural-residential titles, preventing complaints about lawful productive activities and the operation of the solar farm, provides an additional and enduring mechanism to avoid reverse sensitivity effects.

Overall, the proposal enables efficient land use while protecting the productive and operational capacity of the balance site, and is consistent with the intent of the relevant objectives and policies.

Amenity, character, and landscape values

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

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

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

Policy 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.

Policy 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.

These provisions seek to ensure that subdivision and development maintain rural amenity and character, responds to landscape values, and is compatible with its surroundings.

The subdivision will not increase residential development beyond the permitted baseline anticipated by the OFNDP. The scale and density of development enabled by the proposal is therefore consistent with the expectations of the RPZ.

Future residential development will be visually contained within the eastern portion of the sites and will be filtered by existing landscape planting, the ongoing protection and maintenance of which will be secured through landscaping covenants and consent notice conditions. This planting will continue to provide visual integration when viewed from Gill Road and surrounding properties.

The flat to gently rolling nature of the surrounding landscape limits long-range views into the site, and no outstanding or notable landscape features are affected. The resulting pattern of development is consistent with the existing mix of pastoral land and rural-residential lots in the Gill Road locality.

Accordingly, the proposal maintains rural amenity, character and landscape values in a manner consistent with the relevant objectives and policies of the OFNDP.

Servicing and access

Objective 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.

Objective 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.

Objective 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.

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

Policy 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.

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

These provisions require new allotments to be appropriately serviced and accessed without adverse effects on the environment or infrastructure networks.

The balance site and Lot 1 will retain existing servicing arrangements associated with the solar farm and the existing dwelling. No changes are proposed, and the subdivision will not compromise their ongoing operation.

Lots 2 and 3 are capable of accommodating on-site water supply, wastewater disposal and stormwater management in accordance with FNDC requirements. These arrangements will be finalised at the building consent stage.

Access to the proposed lots will be provided via existing or future vehicle crossings constructed in accordance with FNDC Engineering Standards. This ensures safe and efficient access without adverse effects on the local road network.

The proposal therefore meets the intent of the servicing and access provisions of the OFNDP.

Conclusion

For the reasons outlined above, the proposed subdivision is consistent with the relevant objectives and policies of the OFNDP.

5.3 The Far North Proposed District Plan

Context

As outlined in section 1.2 of this report, the proposal does not require consent under any of the operative rules from the FNPDP.

The below identifies the inoperative rules that the proposal would require consent under and provides an assessment against the relevant objectives and policies.

Relevant rules and overall activity status

If operative, the proposal would require resource consent under the following rules from the FNPDP:

- SUB-R3 'Subdivision to create a new allotment' – **non-complying activity**. The proposal does not comply with the minimum lot sizes outlined for the RPZ.
- SUB-R4 'Subdivision that creates a private accessway' – **controlled activity**. The proposed rights of way have less than 8 users.
- SUB-R11 'Subdivision of a site within flood hazard areas' – **restricted discretionary activity**. Portions of the site are identified as flood susceptible.
- SUB-R12 'Subdivision of a site within coastal hazard areas' – **restricted discretionary activity**. Portions of the site are identified as flood susceptible.

Overall, the subdivision would be a **non-complying activity** under the FNPDP.

Assessment – objectives and policies

Pursuant to section 104(b)(vi) of the RMA, the following considers the proposal in the context of the relevant objectives and policies from the FNPDP.

Given the rules identified above, the objectives and policies most relevant to this application are those in the 'Subdivision' chapter.

Given that the subdivision would be a non-complying activity if the FNPDP was operative, the proposal does not align strongly with all subdivision-related objectives and policies. Notwithstanding this, the assessment below identifies the extent to which the proposal is consistent with the outcomes sought by the FNPDP.

SUB-O1 Subdivision that results in the efficient use of land, which:

- a. achieves the objectives of each relevant zone, overlays and district wide provisions;
- b. contributes to the local character and sense of place;
- c. avoids reverse sensitivity issues that would prevent or adversely affect activities already established on land from continuing to operate;
- d. avoids land use patterns which would prevent land from achieving the objectives and policies of the zone in which it is located;
- e. does not increase risk from natural hazards or risks are mitigated and existing risks reduced; and
- f. manages adverse effects on the environment.

SUB-P3 Provide for subdivision where it results in allotments that:

- a. are consistent with the purpose, characteristics and qualities of the zone;
- b. comply with the minimum allotment sizes for each zone;
- c. have an adequate size and appropriate shape to contain a building platform; and
- d. have legal and physical access.

SUB-P11 Manage 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, density, design and character of the environment and purpose of the zone;
- b. the location, scale and design of buildings and structures;
- c. the adequacy and capacity of available or programmed development infrastructure to accommodate the proposed activity; or the capacity of the site to cater for on-site infrastructure associated with the proposed activity;

- d. managing natural hazards;
- e. any adverse effects on areas with historic heritage and cultural values, natural features and landscapes, natural character or indigenous biodiversity values; and
- f. any historical, spiritual, or cultural association held by tangata whenua, with regard to the matters set out in Policy TW-P6.

These provisions seek efficient land use, subdivision patterns consistent with zone outcomes, and avoidance of reverse sensitivity effects.

The proposal responds to these provisions by consolidating the solar farm and all associated infrastructure within a large balance allotment, while separating land that is no longer required for that activity. This avoids inefficient land use patterns and enables more efficient long-term land management.

Although the creation of rural-residential allotments is not strongly anticipated in the RPZ, the proposed lots are clustered adjacent to Gill Road and existing lifestyle-scale development. This limits fragmentation across the wider site and reduces potential reverse sensitivity effects.

SUB-O1 Subdivision results in the efficient use of land, which:

- a. achieves the objectives of each relevant zone, overlays and district wide provisions;
- b. contributes to the local character and sense of place;
- c. avoids reverse sensitivity issues that would prevent or adversely affect activities already established on land from continuing to operate;
- d. avoids land use patterns which would prevent land from achieving the objectives and policies of the zone in which it is located;
- e. does not increase risk from natural hazards or risks are mitigated and existing risks reduced; and
- f. manages adverse effects on the environment.

SUB-O2 Subdivision provides for the:

- a. Protection of highly productive land; and
- b. Protection, restoration or enhancement of Outstanding Natural Features, Outstanding Natural Landscapes, Natural Character of the Coastal Environment, Areas of High Natural Character, Outstanding Natural Character, wetland, lake and river margins, Significant Natural Areas, Sites and Areas of Significance to Māori, and Historic Heritage.

SUB-P8 Avoid rural lifestyle subdivision in the Rural Production zone unless the subdivision:

- a. will protect a qualifying SNA in perpetuity and result in the SNA being added to the District Plan SNA schedule; and

- b. will not result in the loss of versatile soils for primary production activities.

SUB-P9 Avoid subdivision rural lifestyle subdivision in the Rural Production zone and Rural residential subdivision in the Rural Lifestyle zone unless the development achieves the environmental outcomes required in the management plan subdivision rule.

These provisions place strong emphasis on avoiding rural lifestyle subdivision in the RPZ unless specific environmental outcomes are achieved.

The proposal does not protect a qualifying Significant Natural Area and therefore does not align with the primary pathway anticipated by SUB-P8. However, limited support can be drawn insofar as the subdivision will retain the majority of the land for productive use in conjunction with the solar farm.

The layout of the subdivision, together with the proposed use of consent notices, also assists in managing reverse sensitivity effects, which is a key concern underpinning these provisions.

SUB-O3 Infrastructure is planned to service the proposed subdivision and development where:

- a. there is existing infrastructure connection, infrastructure should be provided in an integrated, efficient, coordinated and future-proofed manner at the time of subdivision; and
- b. where no existing connection is available infrastructure should be planned and consideration be given to connections with the wider infrastructure network.

SUB-P6 Require infrastructure to be provided in an integrated and comprehensive manner by:

- a. demonstrating that the subdivision will be appropriately serviced and integrated with existing and planned infrastructure if available; and
- b. ensuring that the infrastructure is provided in accordance with the purpose, characteristics and qualities of the zone.

SUB-P11 Manage 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, density, design and character of the environment and purpose of the zone;
- b. the location, scale and design of buildings and structures;
- c. the adequacy and capacity of available or programmed development infrastructure to accommodate the proposed activity; or the capacity of the site to cater for on-site infrastructure associated with the proposed activity;
- d. managing natural hazards;

- e. any adverse effects on areas with historic heritage and cultural values, natural features and landscapes, natural character or indigenous biodiversity values; and
- f. any historical, spiritual, or cultural association held by tangata whenua, with regard to the matters set out in Policy TW-P6.

The balance site and Lot 1 will retain existing servicing arrangements, while Lots 2 and 3 are capable of accommodating on-site servicing and access in accordance with Council requirements. Access relies primarily on existing infrastructure and does not introduce safety or efficiency concerns.

Although parts of the site are identified as flood susceptible, the subdivision does not introduce development into hazard-prone areas, and hazard risk will continue to be managed through detailed design at later stages.

Weighting and conclusion

Overall, the proposed subdivision does not align closely with the regulatory direction of the FNPDP, particularly in relation to rural lifestyle subdivision in the RPZ. This is reflected in the non-complying activity status that would apply if the Plan was operative.

Nevertheless, the proposal achieves several of the outcomes sought by the FNPDP, including efficient land use, avoidance of reverse sensitivity effects, and appropriate servicing and access arrangements.

Given the non-operative status of the FNPDP and the remaining stages in the plan-making process, limited weight should be applied to these provisions.

5.4 The National Policy Statement for Highly Productive Land

Pursuant to section 104(b)(iii) of the RMA, the following considers the proposal in the context of the relevant provisions from the NPS-HPL.

The NPS-HPL came into effect on 17 October 2022. The overarching objective of the document is to protect highly productive land for use in land-based production, both now and for future generations.

In accordance with clause 3.5(7), all consenting authorities are now required to apply the NPS-HPL where references to highly productive land are references to land that is zoned Rural (or Rural Production) and that has a soil classification of LUC 1 – 3.

As outlined in Section 2.1 of this report, the subject land consists of Class 3 soils. Given that the site is zoned RPZ under the OFNDP, the subject land is therefore considered highly productive under the NPS-HPL.

However, in practice FNDC has taken a pragmatic approach to the application of the NPS-HPL, whereby proposals that require consent as a controlled or restricted discretionary activity under the OFNDP are generally assessed within the scope of the relevant plan provisions, without the need for a separate assessment under the NPS-HPL.

In this case, the proposed subdivision requires resource consent as a restricted discretionary activity, with matters of discretion limited to those effects anticipated by the OFNDP. The proposal is appropriately assessed within that framework above.

In this context, the NPS-HPL does not materially influence the assessment of this application.

5.5 National Policy Statement for Natural Hazards

Pursuant to section 104(b)(iii) of the RMA, the following considers the proposal in the context of the NPS-NH.

The NPS-NH came into effect on 15 January 2026. Its objective is to manage natural hazard risk to people and property using a risk-based and proportionate approach, informed by the likelihood and consequences of hazard events and the best available information (including application of the risk matrix in Appendix 1).

Parts of the site are identified as being within coastal and river flood hazard overlays under the FNPDP and on NRC hazard maps. These overlays are

generally confined to lower-lying portions of the site and do not extend to the identified residential building areas on proposed Lots 2 and 3.

NRC tsunami mapping identifies the subject sites as being located within a mapped tsunami safe zone.

The SR geotechnical investigation report (**Appendix 4**) confirms that the identified building platforms on Lots 2 and 3 are suitable for residential development from a natural hazard perspective. Liquefaction risk is assessed as low, the site is generally flat, and no significant land instability constraints are identified. Applying a conservative, subdivision-stage assessment, the likelihood of hazard effects impacting the building areas is low to possible, with minor consequences. This equates to a low to moderate level of risk under the NPS-NH risk matrix.

The proposed subdivision does not involve significant earthworks, does not introduce development into mapped hazard-prone areas, and does not create or increase natural hazard risk on adjoining land. Any residual risk is appropriately managed through site layout, identification of geotechnically suitable building platforms, and future building consent controls, consistent with a proportionate response under Policies 1–4 of the NPS-NH.

Having regard to the above, the proposal applies a risk-based and proportionate approach to natural hazards, avoids the creation or exacerbation of significant risk, and is consistent with the objective and relevant policies of the NPS-NH.

5.6 National Environmental Standard – Soil Contamination

Pursuant to section 104(b)(i) of the RMA, the following considers the proposal in the context of the NES-CS.

Based on an analysis of aerial photography, and a review of the Northland Regional Councils 'selected land use sites' database, there is no evidence to suggest that the site has ever accommodated an activity from the HAIL. It is

also noted that the land use consent for the solar farm was processed as a permitted activity under the NES-CS.

The subject site is therefore not a piece of land described in clause 5(7) or (8) and the NES-CS regulations are not relevant to this application.

5.7 Part 2 – Resource Management Act, 1991

The proposal accords with the purpose of the RMA for the following reasons:

1. Sustainable management (section 5) is promoted by rationalising the title arrangement of land already developed for a utility-scale solar farm, enabling land to be used more efficiently.
2. People and communities are enabled to provide for their social and economic wellbeing by facilitating limited rural-residential development on land that is surplus to the ongoing operation of the solar farm, while retaining a large balance site that supports renewable energy generation and ongoing productive rural use.
3. Adverse effects are avoided or mitigated through a subdivision layout that clearly separates sensitive residential uses from the operational solar farm, the use of consent notices to manage reverse sensitivity effects, the protection of approved landscaping, and reliance on identified building platforms that avoid hazard-prone areas.
4. Natural and physical resources are safeguarded by retaining the majority of the site within a consolidated balance lot, managing natural hazard risk using a risk-based and proportionate approach, and ensuring future development is subject to appropriate building consent controls for servicing and geotechnical matters.
5. Sections 6, 7 and 8 have been appropriately considered, noting that the proposal does not adversely affect matters of national importance, has particular regard to the efficient use of land and the maintenance of rural amenity and character, and considers cultural values.

Overall, the proposal represents an efficient and effects-based use of land, avoids or mitigates adverse effects, and promotes the sustainable management purpose of the RMA. It is therefore consistent with Part 2 of the RMA.

6. NOTIFICATION

Public notification

The steps under s95A of the RMA are addressed as follows.

- Step 1: There is no requirement for mandatory public notification as the applicant has not requested it, notification is not required under s95C, and the proposal does not include any exchange of recreation reserve land.
- Step 2: Public notification is not precluded by any provisions in the OFNDP, while the proposal is not a controlled activity and is not a boundary activity.
- Step 3: Pursuant to s95D, any adverse effects on the environment will be less than minor as outlined in Section 4 of this report.
- Step 4: There are no special circumstances in relation to the proposed activity.

Having regard to the above, the proposal can proceed without public notification.

Limited notification

The steps under s95B are addressed below in the context of s95E–G of the RMA.

- Step 1: There are no affected protected customary rights groups or customary marine title groups, and the proposal is not adjacent to land that is subject to a statutory acknowledgement.
- Step 2: There are no rules in the OFNDP that preclude limited notification, while the application is not a controlled activity.
- Step 3: Pursuant to s95E of the RMA, Section 4 of this report confirms that no parties are adversely affected by the proposal.

Having regard to the above, the proposal can proceed without limited notification.

Notification conclusion

The application can proceed on a **non-notified** basis.

7. CONCLUSION

The proposal is to subdivide the subject land into four sites, comprising three rural-residential sites and a large balance site accommodating the established solar farm and associated infrastructure. The subdivision represents a logical and efficient response to the current and long-term use of the land, enabling the separation of land required for the ongoing operation of the solar farm from surplus land that is no longer needed for that purpose.

The subdivision layout has been designed to maintain the operational integrity of the solar farm and to limit potential reverse sensitivity effects through the consolidation of infrastructure within the balance site, the clustering of rural-residential lots adjacent to Gill Road, and the use of consent notices and landscaping covenants. This approach ensures that rural amenity, character, and landscape values are maintained, while allowing the surplus land to be utilised appropriately for rural-residential purposes.

The technical assessment prepared by SR confirms that the identified building platforms on the proposed residential lots are suitable for development from a natural hazard and servicing perspective, subject to standard site-specific controls at the building consent stage. The proposed access and servicing arrangements are appropriate and consistent with Council requirements, and the subdivision does not give rise to any material constraints on the surrounding environment or adjoining land uses.

The actual and potential environmental effects associated with the proposal have been assessed in Section 4 of this report and are determined to be less than minor. Appropriate regard has therefore been given to section 104(1)(a) of the RMA.

Sections 5 to 8 of this report consider the proposal in the context of the relevant statutory planning documents, being the OFNDP, the FNPDP, the NPS-HPL, the NPS-NH, and Part 2 of the RMA. While the proposal does not align with all aspects of the FNPDP framework, limited weight applies to those provisions at this stage, and the assessment confirms that the proposal is consistent with the relevant operative

provisions and the purpose and principles of the RMA. Appropriate regard has therefore been given to section 104(1)(b) of the RMA.

Having regard to the relevant matters in Sections 104(1) and 104C of the RMA, the proposal can be approved subject to appropriate conditions of consent.

APPENDIX 1

LAND USE CONSENTS

FAR NORTH DISTRICT COUNCIL

**FAR NORTH OPERATIVE DISTRICT PLAN
DECISION ON RESOURCE CONSENT APPLICATION (COMBINED SUBDIVISION AND
LAND USE) & DECISION ON RIGHT OF WAY APPLICATION (S348 OF THE LOCAL
GOVERNMENT ACT 1974)**

Resource Consent Number: 2300265-RMALUC

Pursuant to section 104B of the Resource Management Act 1991 (the Act), the Far North District Council hereby grants resource consent to:

Lodestone Energy Limited

The activity to which this decision relates:

Proposal to establish a utility scale solar farm breaching Stormwater Management and Renewable Energy and Energy Efficiency rules in the Rural Production zone.

Subject Site Details

Address: 588 Gill Road, Awanui 0483
Legal Description: Lot 1 DP 172560 Secs 1-2 Blk I Ahipara SD Sec 15 Blk I
Takahue SD, Sec 1 SO 462638
Certificate of Title reference: NA-105D/6, NA-75C/189, CT-725203

Pursuant to Section 108 of the Act, this consent is issued subject to the following conditions:

1. The activity shall be carried out in general accordance with the approved plans prepared by Lodestone Energy, referenced: Te Ahu Solar Project Single Axis Tracker Layout, dated: 2020-06-11, and attached to this consent with the Council's "Approved Stamp" affixed to it.
2. The activity shall be carried out in accordance with the assessment and approved plans prepared by Hawthorn Landscape Architects, referenced: Lodestone – Resource Consent Landscape Mitigation Plan – 588 -638 Gill Road, Kaitaia, and attached to this consent with the Council's "Approved Stamp" affixed to them:
 - i. Landscape Mitigation Plan – 001 – dated: 17.12.20
 - ii. Enlargement 1 – 002 – 17.12.20
 - iii. Enlargement 2 – 003 – 17.12.20
 - iv. Bund Planting Detail 1 – 004 – 17.12.20
 - v. Bund Planting Detail 2 – 005 – 17.12.2

Pre-Construction

3. Prior to the commencement of any works on site authorised by this consent, the consent holder shall submit to Council's resource consents engineer or designate, for certification, a Stormwater Management & Design Report that provides suitable details and supporting calculations for the stormwater management proposals. In particular, the Stormwater Management Design Report shall include but not be limited to the following:

- i. Stormwater Management Plan
 - ii. Stormwater catchments and overland flow paths. Details of the design for protection against erosion, stormwater concentration and stormwater quality, which shall be designed in general accordance with the report “ assessment of stormwater effects proposed solar generation plant at 588 gill rd, Awanui “ dated 31 March 2021 prepared by Hawthorn Geddes. Design shall include consideration of appropriate materials to avoid stormwater contamination and include details of mechanisms in case of scour and erosion arising from panel array discharges.
 - iii. The design shall be undertaken by a suitably experienced Chartered Professional Engineer.
4. The consent holder shall submit to Council a finalised Construction Management Plan (CMP) for approval prior to commencing construction. The plan shall contain information on, and site management procedures, for the following:
 - (i) The timing of construction works, including hours of work, key project and site management personnel.
 - (ii) The transportation of demolition and construction materials from and to the site and associated controls on vehicles through sign-posted site entrance/exits and the loading and unloading of materials.
 - (iii) The excavation works, including retaining structures and any necessary dewatering facilities, prepared by a suitably qualified geotechnical engineer.
 - (iv) Control of dust and noise on-site and any necessary avoidance or remedial measures.
 - (v) Prevention of earth and other material being deposited on surrounding roads from vehicles and remedial actions should it occur.
 - (vi) Publicity measures and safety measures, including signage, to inform adjacent landowners and occupiers, pedestrians and other users of Gill Road.
 - (vii) Erosion and sediment control measures to be in place for the duration of the works.
5. The consent holder shall submit to Council a Construction Traffic Management Plan (CTMP) prior to works commencing. The plan shall include the following:
 - i. The existing condition of the Gill Road carriageway.
 - ii. Mitigation measures against dust nuisance on Gill Road.
 - iii. Control of dust and noise on site
 - iv. Any remedial measures
 - v. Public safety measures including signage, to inform the users of Gill road, adjacent neighbours of the works.
6. The Consent holder shall, when conducting the upgrade of vehicle crossing to the project residence from Gill Road reserve, submit a Corridor Access Request (CAR) and subsequently obtain a Work Access Permit (WAP) from Council prior to any excavation or works commencing.
7. Implementation of the landscape plan prepared by Landscape Architects, referenced: Lodestone – Resource Consent Landscape Mitigation Plan is to be undertaken within the first two planting seasons (approximately March-September) directly following commencement of any of the works relating to the solar farm (from detailed design stage on) and shall be maintained by the consent holder from that point onwards to the satisfaction of the Far North District Council or duly delegated officer (see condition 18 - RMALUC.
8. Following approval of the plans (see conditions 3 – 5) and selection of the contractor, provide to Council;

- i. Details of the successful contractors
- ii. Details of the planned date and duration of the contracts
- iii. Details of the supervising engineer

Construction

9. The consent holder shall engage a suitably qualified Chartered Professional Engineer to monitor the construction implementation of the stormwater management design mechanisms. As a minimum, the consent holder is to engage an Engineer to provide CM3 level monitoring as defined by Engineering NZ. A completion report with site observations and accompanying certification confirmation by a Chartered Professional Engineer is to be provided to Council's resource consents monitoring officer upon completion (e.g. PS4 producer statement – construction).
10. Upgrade the existing entrance to the project residence to provide an entrance which complies with the Councils Engineering Standard FNDC/S/6 and 6B, and section 3.3.7.1 of the Engineering Standard and NZS4404:2004.
11. Provide evidence that a CTMP has been approved by Council's Corridor Access Engineer, a CAR and a WAP have been obtained. Applications for TMP and CAR are made via <https://www.fndc.govt.nz/Our-Services/Transport/Roads/Road-closures-and-restrictions>.
12. The consent holder shall ensure that all construction works shall be undertaken in accordance with the approved construction management plan (see condition 4).
13. Any debris deposited on the public or private road as a result of the development shall be removed by or at the expense of the applicant.
14. Provide evidence to the satisfaction of Council's duly delegated officer that there is a continuous stock proof fence along the extent of the subject site, the screening vegetation and shelterbelts (areas planted as per the Hawthorn Landscape Architects, referenced: Lodestone – Resource Consent Landscape Mitigation Plan approved for RC2300265 – RMALUC).
15. The consent holder shall ensure that stormwater diversion and silt control measures are in place prior to the commencement of bulk earthworks.

Post Construction

16. The consent holder is responsible for any repairs and reinstatement required of the Gill Road carriageway and roadside drain damaged as a result of the development. Such works, where required, will be completed to the satisfaction of the Northland Transport Alliance.
17. Upon completion of the works specified above, provide certification of the work from a Chartered Professional Engineer (CPEng) that all work has been completed in accordance with the approved plans (See condition 4 and 5).
18. The vegetation and shelters belts as identified within the landscape plan prepared by Hawthorn Landscape Architects, referenced: Lodestone – Resource Consent Landscape Mitigation Plan approved for RC2300265 – RMALUC on the site shall not be cut down, damaged or destroyed (except for the purposes of replacing any vegetation that has died) without the prior written consent of the Council. Such consent may be given in the form of resource consent.

19. The consent holder shall ensure the Council Drainage Board, or their chosen contractor has access to the drains on site at all times for the purpose of maintenance and repairs under the Far North District Council Land Drainage Bylaw 2019 or any new reiterations.

Review Clause:

20. Council may, in accordance with section 128 of the Resource Management Act 1991, serve notice on the consent holder of its intention to review the conditions of this consent. The review may be initiated for any one or more of the following purposes:
 - i. To deal with any adverse effects on the environment that may arise from the exercise of the consent and which it is appropriate to deal with at a later stage, or to deal with any such effects following assessment of the results of the monitoring of the consent and/or as a result of the Council's monitoring of the state of the environment in the area, i.e. any noise effects
 - ii. To require the adoption of the best practicable option to remove or reduce any adverse effect on the environment.
 - iii. To provide for compliance with rules in any district plan that has been made operative since the commencement of the consent.
 - iv. To deal with any inadequacies or inconsistencies Council considers there to be in the conditions of the consent, following the establishment of the activity the subject of the consent.
 - v. To deal with any material inaccuracies that may in future be found in the information made available with the application (notice may be served at any time for this reason). This includes, but is not limited to the stormwater, noise, solar glare and reflectivity and traffic.

The actual and reasonable costs of any review undertaken may be charged to the consent holder, in accordance with section 36 of the Act.

Advice Notes

1. Archaeological sites are protected pursuant to the Heritage New Zealand Pouhere Taonga Act 2014. It is an offence, pursuant to the Act, to modify, damage or destroy an archaeological site without an archaeological authority issued pursuant to that Act. Should any site be inadvertently uncovered, the procedure is that work should cease, with the Trust and local iwi consulted immediately. The New Zealand Police should also be consulted if the discovery includes koiwi (human remains). A copy of Heritage New Zealand's Archaeological Discovery Protocol (ADP) is attached for your information. This should be made available to all person(s) working on site.
2. The site is adjacent to and accessed off an unsealed road. Unsealed roads have been shown to create a dust nuisance from vehicle usage. It is advised that the dwelling is either located as far as possible or at least 80m from the road, and/or boundary planting within the site is utilised to assist with this nuisance. Alternatively, the applicant may consider sealing their road frontage to remove the issue.
3. The Solar Farm has been approved for construction over three Titles, it is recommended the three titles are held together by a legal instrument, so as to ensure they cannot be separated or sold individually.
4. The consent holder may require additional consent from Northland Regional Council under the National Environmental Standards for Freshwater Regulations 2020, due to a section of the site being potentially considered a marginal wetland.

5. The consent holder will require building consent for buildings located within the site such as inverters and the E.C House.
6. The consent holder and any prospective purchasers are to be informed that the Far North District Council Land Drainage Bylaw 2009 applies to the boundary of Lot 1 DP 172560, Sec 1 - 2 Blk I Ahipara SD, Sec 15 Blk I Takahue SD which states in part as follows;

“Without prior consent of the Council and then only subject to such conditions as Council shall impose, no owner of any land on the banks of any drainage channel shall plant or permit to grow any tree, shrub or hedge, or erect or maintain any fence, building, bridge or other construction or make any excavation in such a position as to interfere with or obstruct the free access of Council’s workmen or agents, plant or machinery along such drain or to any part thereof, for a distance of 10 meters from the edge of the drain, or such other distance as Council may specify in respect to any particular drain or part thereof.”

7. Council’s resource consents engineer recommends that the proposed stormwater design follows best practice such as Auckland Council publication GD01, incorporating low impact design to achieve hydraulic neutrality from the increased impermeable surfaces for a range of storm events.

Reasons for the Decision

1. The Council has determined (by way of an earlier report and resolution) that the adverse environmental effects associated with the proposed activity are no more than minor and that there are no affected persons or affected customary rights group or customary marine title group.
2. **District Plan Rules Affected:**
The proposal is a Discretionary application under Rule 8.6.5.2.1 - Stormwater Management and 12.9.6.3.2 – Any other renewable electricity generation or renewable energy development in the Rural Production zone.
3. **Principal Issues in Contention and Main Findings on those issues:**
The Council has determined (by way of an earlier notification report and resolution) that there are no affected persons or affected customary rights group or customary marine title group. The main issues in contention related to stormwater management, amenity values of the rural environment and reverse sensitivity/ land compatibility. These matters were carefully assessed in section 12 of the Notification Report where it was determined that subject to the recommended conditions of consent being imposed the adverse effects of the proposal on the environment would be no more than minor.
4. In accordance with an assessment under s104(1)(b) of the RMA the proposal is consistent with the relevant statutory documents.

Objectives and policies of the District Plan:

The proposal is considered to have adequately taken into account, and is consistent with relevant statutory provisions, including the following objectives and policies of the District Plan have been considered:

Chapter 8 – Rural Environment and Chapter 8.6 – Rural Production

The objectives and policies in the rural environment seek to enable activities while focusing on the maintenance and enhancement of amenity values; the avoidance of

conflict between land use activities (reverse sensitivity); the avoidance or mitigation of adverse effects of development on natural and physical resources; and requires consideration be given to the cumulative effects of non-farming activities.

The proposal is consistent with the objectives and policies of the rural production zone, as it is the most appropriate zone for the activity. The site will continue to be used for production purposes while allowing a second activity to occur therefore maximizing the usage of the site and its resources. The extensive landscaping ensures reserve sensitivity and adverse effects on the surrounding environment are encapsulated within the site, have minimal effects on the neighbours.

Chapter 12.9 – Renewable Energy & Energy Efficiency

The objectives and policies of this chapter support the encouragement and promotion of energy efficient and development of renewable energy while ensuring the special values of the District have been kept in regard; ensuring the renewable energy development is located in areas where the positive effects are optimised while adverse effects are managed; ensure the development promotes potential national, regional or local community benefit and is located within areas outside of urban and semi-urban areas.

The proposal is supported by the objectives and policies as the site is located in an area outside of the urban and semi urban environment while being close enough to support and provide electricity generation to the main power company supporting Kaitiaki and its surrounds. Positive effects are maximised due to the dual nature of the activity and the extensive screening and landscaping that is being carried out, along with the positive benefits to the adjacent neighbours and statutory acknowledgement iwi being Te Rararawa and Ngaitokoto and the local community.

It is noted that while the site is located within a flood hazard which is addressed later in this decision the proposal is not contrary to the relevant objectives and policies of the District Plan.

Northland Regional Policy 2016 (RPS)

The RPS contains high level policy guidance for the development of lower order statutory documents, including, for example, the Northland Regional Plan and the District Plan. District Plan's must give effect to the regional policy statement of a region and must not be inconsistent with regional plans.

The relevant parts of the RPS that have been considered in relation to this proposal are: Part 3 Objectives: 3.5 - Enabling economic wellbeing, 3.6 - Economic activities – reverse sensitivity and sterilisation, 3.7 - Regionally significant infrastructure 3.8 - Efficient and effective infrastructure, 3.9 – Security of energy supply, 3.12 - Tangata Whenua role in decision-making and 3.13 - Natural Hazard Risk are relevant to the proposal.

The proposal has been assessed against the above provisions with particular consideration given to the Part 5 Policies relating to effective and efficient infrastructure, regionally significant infrastructure, renewable energy and natural hazards.

The policies relating to efficient and effective infrastructure refer to:

- i. the maximisation of resources
- ii. future proofing the ability to harness natural resource such as solar energy,
- iii. using technologies that optimises resource consumption such as renewable technologies.

Policies relating to regionally significant infrastructure refer to:

- i. network electricity infrastructure supplying large communities

- ii. indirect benefits that may be significant

Policies relating to renewable energy refer to:

- i. the recognition and provision for renewable electricity generation activities that Council must provide for through the development, operation, maintenance and upgrading of the activity
- ii. Renewable energy including the maintenance or increase of security of electric supply at the local level
- iii. The diversification of the type and/ or location of the electricity generation
- iv. Promotion of Northland's renewable energy resource and their development.

Policies relating to natural hazards refer to:

- i. Ensuring development is provided for and is appropriate to the level of the risk faced
- ii. The vulnerability of activities within the hazard
- iii. Requiring decision - makers to exercise a degree of caution that reflects the level of uncertainty with regards to the likelihood or consequences of a natural hazard event.
- iv. Building resilience to the potential impacts of natural hazards.
- v. Regionally significant infrastructure being designed to maintain its integrity and function during hazard events.
- vi. Infrastructure providers have demonstrated that the proposed location within the hazard area is the most appropriate to service the needs of the community.
- vii. An assessment identifying the potential for infrastructure to exacerbate flood and erosion hazard risk on neighbouring properties and where the assessment shows that's risk the assessment must outline ways this risk can be minimised.

The proposal is supported by most of the objectives and polies within the RPS as the solar farm is a utility scale farm that will provide a source of renewable energy while creating resilience in the energy network of the Northland. This proposal in particular maximises the efficiency of the site by providing a development that provides a future proof resource while also ensuring the site can be retained in production through the continued farming of the site.

The proposal will be the first utility scale solar farm and provide additional renewable energy to feed into the existing electrify system assisting int the security of the Far North and supporting the energy supply that will be provided through the Ngawha geothermal power station.

With respect to the policies relating to natural hazards the level of risk of this development has been reviewed with a degree of caution specifically as the consequences on neighbouring properties and surrounding due to the hazard events are uncertain at this stage, therefore due to the uncertainty condition imposed regarding stormwater effects require the applicant to provide detailed design of worst case scenarios, so they can be implemented should they be required. Additionally, while the effects of the proposal have been considered there is an element of uncertainty due to this being the first large scale solar farm in the region. Therefore, a review clause was imposed to ensure effects could be captured and addressed in the future if required. In summary the proposal does comply with the relevant provisions of the RPS and is it concluded that the proposal is consistent with the objectives and policies of the RPS.

National Policy Statement for Renewable Energy Generation 2011 (NPS-REG)

The NPS – REG was gazetted on 14 April 2011, and by 13 May 2011 was applicable to resource consent decision making regardless of when they were lodged.

The matters of national significance to which the NPS - REG applies are:

- (a) The need to develop, operate, maintain and upgrade renewable electricity generation activities throughout New Zealand; and
- (b) The benefits of renewable electricity generation.

The key messaging guidance on the NPS-REG directs local authorities to adopt a positive and proactive approach when assessing resource consent applications, and have a particular regard to the practical implications of achieving NZ's renewable electricity target and the constraints associated with developing, operating, maintaining and upgrading new, existing and consents REG activities.

The policy statement directs Councils to assist central government in meeting its targets for renewable generation of 90% total generation by 2021 and 100% by 2035. There are a number of policies including policies to:

- i. Recognise the benefits of the renewable energy activities
- ii. Acknowledgment of the practical implications of achieving NZ's target for electricity generation
- iii. Acknowledgement of the practical constraints associated with the development operation, maintenance and upgrading of renewable energy generation

The proposal is supported by the NPS-REG and the project is located in an appropriate location and will assist in achieving the country's renewable generation targets.

5. In accordance with an assessment under s104(1)(c) of the RMA the consent authority considers following matters relevant and reasonably necessary in determining the application.

Land Drainage Bylaw 2019

The bylaw applies to land drainage identified under the bylaw; this includes the drainage system intersecting through the subject Titles.

The application was sent through to the local drainage board to ensure the proposal could be carried out without affecting the drains and their purpose under the bylaw. Conditions were imposed to ensure continued access to the drains were retained and remained unblocked, and compliance under the bylaw was requested.

As conditions were imposed no further concerns were raised and the proposal is supported by the drainage board.

No other matters were considered relevant in making this decision.

6. Part 2 Matters
The Council has taken into account the purpose & principles outlined in sections 5, 6, 7 & 8 of the Act. It is considered that granting this resource consent application achieves the purpose of the Act.
7. In summary it is considered that the activity is consistent with the sustainable management purpose of the RMA.

Approval

This resource consent has been prepared by Minnie Fox – Intermediate Resource Planner and is granted under delegated authority (pursuant to section 34A of the Resource Management Act 1991) from the Far North District Council by:



Pat Killalea, Principal Planner

Date: 9th June 2021

Right of Objection

If you are dissatisfied with the decision or any part of it, you have the right (pursuant to section 357A of the Act) to object to the decision. The objection must be in writing, stating reasons for the objection and must be received by Council within 15 working days of the receipt of this decision.

Lapsing of Consent

Pursuant to section 125 of the Act, this resource consent will lapse 5 years after the date of commencement of consent unless, before the consent lapses;

The consent is given effect to; or

An application is made to the Council to extend the period of consent, and the council decides to grant an extension after taking into account the statutory considerations, set out in section 125(1)(b) of the Act.

**DECISION ON RIGHT OF WAY APPLICATION (S348 OF THE LOCAL
GOVERNMENT ACT 1974)**

Consent Number: 2300265 - RMALUC

Pursuant to section 348 of the Local Government Act 1974 (LGA), the Far North District Council hereby grants permission to:

Lodestone Energy Limited

The activity to which this decision relates:

To create a right of way over Sec 1 SO Plan 462638 (RT 7255203) in favour of Lot 1 DP 172560, Sec 2 Blk I Ahipara SD (NA150D/6) and Sec 1 Blk I Ahipara SD, Sec 15 Blk I Takahue SD (NA75C/189).

Subject Site Details

Address: 588 Gill Road, Awanui 0483
Legal Description: Lot 1 DP 172560 Secs 1-2 Blk I Ahipara SD Sec 15 Blk I Takahue SD, Sec 1 SO 462638
Certificate of Title reference: NA-105D/6, NA-75C/189, CT-725203

Pursuant to Section 348(2) of the Act, this permission is issued subject to the following conditions:

General

1. The activity shall be carried out in accordance with the approved plans prepared by Reyburn & Bryant, referenced: Lodestone Energy Gill Rd Kaitaia, Titled: Proposed Easement Over Section 1 SP 462638, No. S15962, Dated: October 2020 and attached to this consent with the Council's "Approved Stamp" affixed to it.

Pre-construction

2. The consent holder shall submit plans & details of Stormwater Mitigation works, ROW A access road, for approval to Council's Engineer or duly designated person prior to commencing construction. In particular the plans and details shall show:
 - i. ROW A access road formation - Access road construction on R.O.W A to a minimum of A 5m finished carriageway width. The formation is to consist of a minimum of 200mm of compacted hard fill plus a GAP 30 or GAP 40 running course.
 - ii. The proposed stormwater control works to be in place prior to and during construction.
 - iii. Stormwater management and mitigation system
 - iv. Onsite Stormwater mitigation system maintenance plan
 - v. The system shall be designed such that the total stormwater discharged, after development, is no greater than the predevelopment flow from the site for rainfall events up to a 10% AEP

3. The Consent holder shall when creating the vehicle crossing to ROW A from Gill Road reserve submit a Corridor Access Request (CAR) and subsequently obtain a Work Access Permit (WAP) from Council prior to any excavation or works commencing.

Construction

4. Access road construction on ROW A shall be done as per the approved drawings (see condition 2).
5. Provide a formed double width entrance to ROW A which complies with the Councils Engineering Standard FNDC/S/6, 6D, and section 3.3.7.1 of the Engineering standards and NZS4404:2004.

Approval

This permission has been prepared by Minnie Fox, Intermediate Resource Planner and is granted under delegated authority from the Far North District Council by:

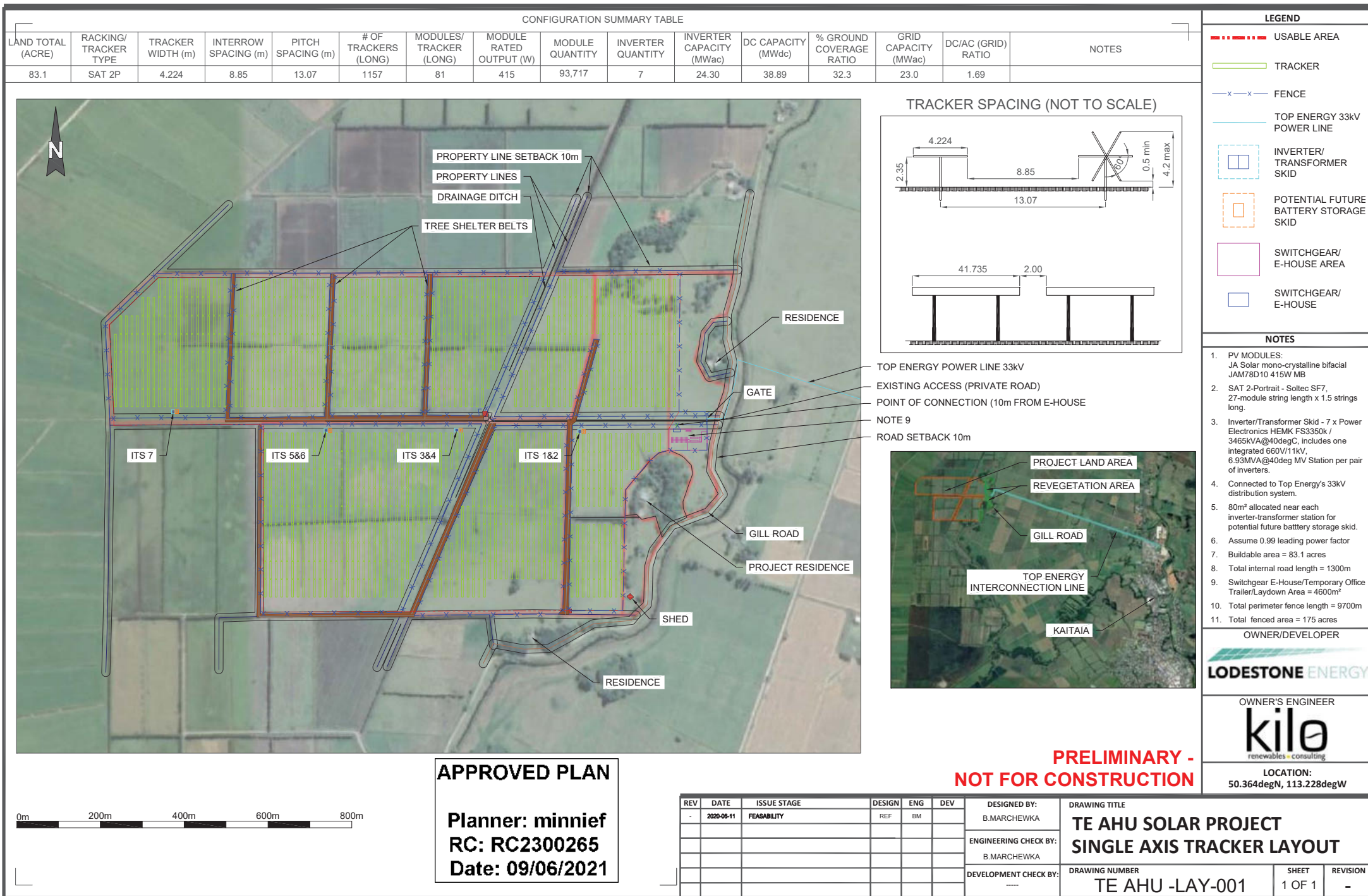


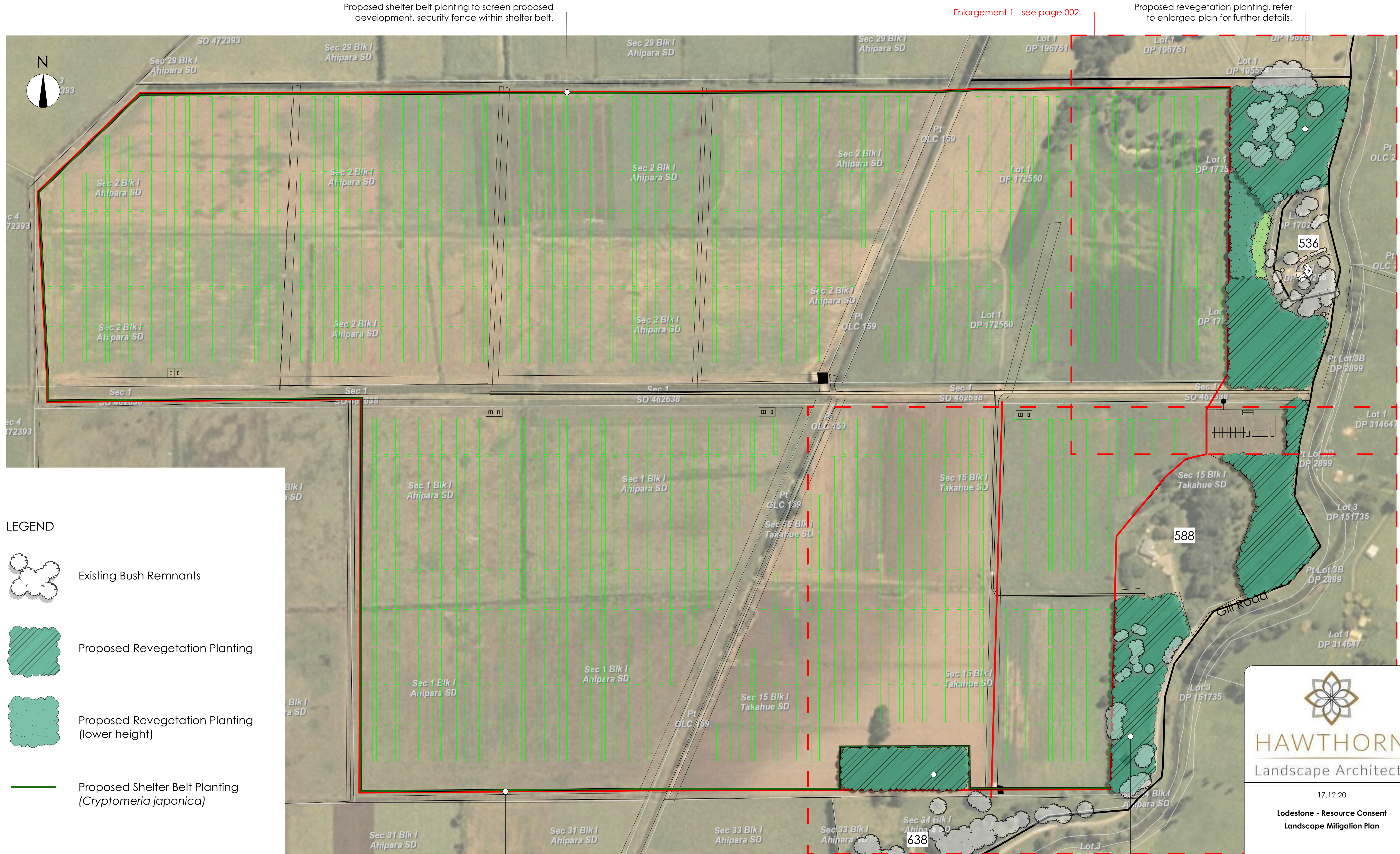
Pat Killalea, Principal Planner

Date: 9th June 2021

Lapsing of Consent

Pursuant to section 348(3) of the Local Government Act 1974, this permission will lapse 3 years after the granting of this decision unless the work has been completed to the satisfaction of the Council; but may from time to time be extended by the Council for a period or periods not exceeding one year at any time.





LEGEND

- Existing Bush Remnants
- Proposed Revegetation Planting
- Proposed Revegetation Planting (lower height)
- Proposed Shelter Belt Planting (Cryptomeria japonica)

Plant Schedule - Shelter Belt Hedging

Botanical Name	Common Name	Quantity	Spacing	Size
Cryptomeria japonica	Japanese Cedar	3,400	1m	PB 5

APPROVED PLAN
Planner: minnief
RC: RC2300265
Date: 09/06/2021

Proposed shelter belt planting to screen proposed development, security fence within shelter belt.

Enlargement 2 - see page 003.

Proposed revegetation planting, refer to enlarged plan for further details.

HAWTHORN
Landscape Architects

17.12.20

Lodestone - Resource Consent
Landscape Mitigation Plan

588-638 Gill Road, Kaitiaki

Scale	Drawn By
1:4000 @ A3	DOL
Drawing #	Rev #
001	

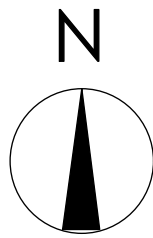
1. This drawing is the property of Hawthorn Landscape Architects Ltd and must not be used, copied or reproduced without prior written permission.

2. Contractors shall verify and be responsible for all dimensions on site.

3. Do not scale off this drawing.

4. Landscape Architect to be notified of any variations between on site dimensions and those shown on the plan. Hawthorn Landscape Architects accepts no liability for unauthorised changes to the details changes to the details shown in these drawings.

5. All construction work based on these plans is to comply with relevant local authority regulations and all NZ building codes and standards.



Proposed shelter belt planting to screen proposed development.
(The security fence will be placed within the shelter belt. The new plantings of cryptomeria will be adjacent to the existing mixed shelter belts which are old and have large gaps. The old trees will be removed once the new shelter planting become established).

Existing bush remnants in this area to be removed.

Area 1 - Proposed revegetation planting (refer to plant scheule).

Plant Schedule - Area 1 (25350m2)

Botanical Name	Common Name	Approx. Quantity	Max Height	Spacing
Cordyline australis	Cabbage tree	850	5m	1.5m
Coprosma repens	Taupata	1250	2m	1.5m
Coprosma robusta	Karamu	1500	2m	1.5m
Corynocarpus laevigatus	Karaka	400	10m+	1.5m
Kunzea ericoides	Kanuka	2600	10m+	1.5m
Leptospermum scoparium	Manuka	3200	4m	1.5m
Metrosideros excelsa	Pohutukawa	550	10m+	1.5m
Myoporum laetum	Ngaio	800	4m	1.5m
Myrsine australis	Red Matipo	700	4m	1.5m
Pittosproum crassifolium	Karo	700	5m	1.5m
Pittosporum eugenoides	Tarata	700	5m	1.5m
Pseudopanax arbor	Five Finger	800	2.5m	1.5m
Pseudopanax lessonii	Houpara	800	3m	1.5m
Phormium tenax	Harakeke/Flax	1500	2.5m	1.5m
Vitex lucens	Puriri	450	10m+	1.5m

Note: All plants sizes to be r/t, except larger tree species which are to be PB5.

Existing bush remnants to remain.

Area 2 - Proposed revegetation planting in this area to be lower growing species only, to retain sunset view from the residence at 536 Gill Road (refer to plant scheule).

Plant Schedule - Area 2 (4180m2)

Botanical Name	Common Name	Approx. Quantity	Max Height	Spacing
Coprosma repens	Taupata	500	2m	1.5m
Coprosma robusta	Karamu	350	2m	1.5m
Myoporum laetum	Ngaio	350	4m	1.5m
Pseudopanax arbor	Five Finger	400	2.5m	1.5m
Pseudopanax lessonii	Houpara	400	3m	1.5m
Phormium tenax	Harakeke/Flax	1500	2.5m	1.5m

Note: All plants sizes to be r/t.

Earth Bund and Planting (refer to Detail 1 on page 004).

Existing vegetation around residence at 536 Gill Road.

Area 1 - Proposed revegetation planting (refer to plant scheule).

APPROVED PLAN

Planner: minnief
RC: RC2300265
Date: 09/06/2021



HAWTHORN
Landscape Architects

17.12.20

Lodestone - Resource Consent
Landscape Mitigation Plan - Enlargement 1

588-638 Gill Road, Kaitiaki

Scale Drawn By

1:2000 @ A3 DOL

Drawing # Rev #

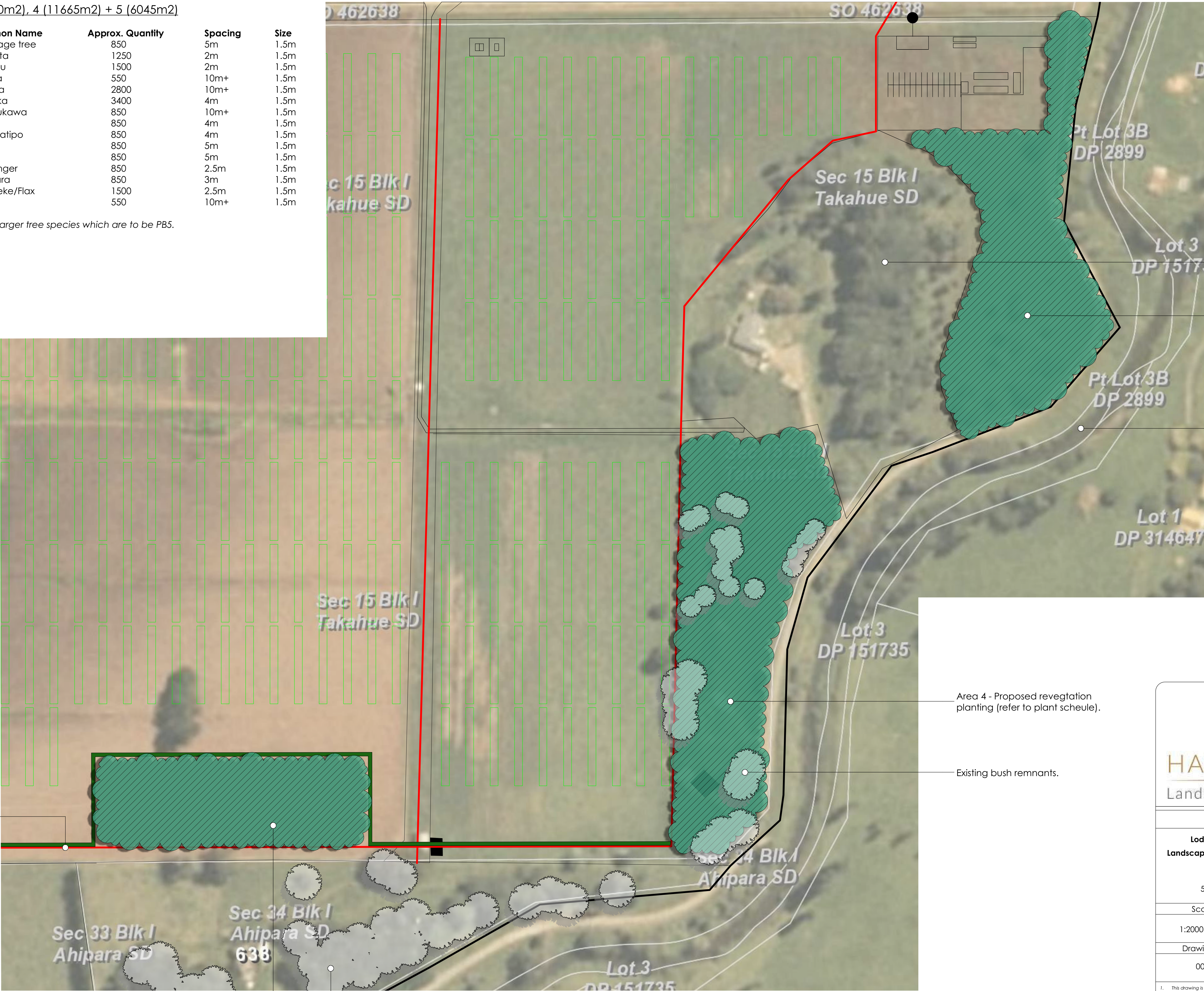
002

- This drawing is the property of Hawthorn Landscape Architects Ltd and must not be used, copied or reproduced without prior written permission.
- Contractors shall verify and be responsible for all dimensions on site.
- Do not scale off this drawing.
- Landscape Architect to be notified of any variations between on site dimensions and those shown on the plan. Hawthorn Landscape Architects accepts no liability for unauthorised changes to the details changes to the details shown in these drawings.
- All construction work based on these plans is to comply with relevant local authority regulations and all NZ building codes and standards.

Plant Schedule - Areas 3 (9940m2), 4 (11665m2) + 5 (6045m2)

Botanical Name	Common Name	Approx. Quantity	Spacing	Size
Cordyline australis	Cabbage tree	850	5m	1.5m
Coprosma repens	Taupata	1250	2m	1.5m
Coprosma robusta	Karamu	1500	2m	1.5m
Corynocarpus laevigatus	Karaka	550	10m+	1.5m
Kunzea ericoides	Kanuka	2800	10m+	1.5m
Leptospermum scoparium	Manuka	3400	4m	1.5m
Metrosideros excelsa	Pohutukawa	850	10m+	1.5m
Myoporum laetum	Ngaio	850	4m	1.5m
Myrsine australis	Red Matipo	850	4m	1.5m
Pittosprout crassifolium	Karo	850	5m	1.5m
Pittosporum eugenoides	Tarata	850	5m	1.5m
Pseudopanax arbor	Five Finger	850	2.5m	1.5m
Pseudopanax lessonii	Houpara	850	3m	1.5m
Phormium tenax	Harakeke/Flax	1500	2.5m	1.5m
Vitex lucens	Puriri	550	10m+	1.5m

Note: All plants sizes to be r/t, except larger tree species which are to be PB5.



Proposed shelter belt planting to screen proposed development. (The security fence will be placed within the shelter belt. The new plantings of cryptomeria will be adjacent to the existing mixed shelter belts which are old and have large gaps. The old trees will be removed once the new shelter planting become established).

Area 5 - Proposed revegetation planting (refer to plant scheule).

Existing bush remnants.

Existing landscaped grounds around residence at 588 Gill Road.

Area 3 - Proposed revegetation planting (refer to plant scheule).

Awanui River.

Area 4 - Proposed revegetation planting (refer to plant scheule).

Existing bush remnants.

APPROVED PLAN
Planner: minnief
RC: RC2300265
Date: 09/06/2021



HAWTHORN
Landscape Architects

17.12.20

Lodestone - Resource Consent
Landscape Mitigation Plan - Enlargement 2

588-638 Gill Road, Kaitia

Scale	Drawn By
1:2000 @ A3	DOL
Drawing #	Rev #
003	

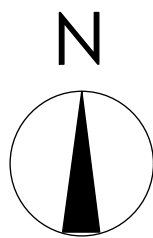
1. This drawing is the property of Hawthorn Landscape Architects Ltd and must not be used, copied or reproduced without prior written permission.

2. Contractors shall verify and be responsible for all dimensions on site.

3. Do not scale off this drawing.

4. Landscape Architect to be notified of any variations between on site dimensions and those shown on the plan. Hawthorn Landscape Architects accepts no liability for unauthorised changes to the details changes to the details shown in these drawings.

5. All construction work based on these plans is to comply with relevant local authority regulations and all NZ building codes and standards.



Plant Schedule - Bund Planting

Code	Quantity	Botanical Name	Common Name	Scheduled Size	Spacing
Gr	55	Griselinia lucida	Akapuka	PB 40	1.2m
Ld	70	Leptospermum 'Red Damask'	Manuka var.	PB 18	1.2m
Ls	40	Leptospermum 'Wiri Sandra'	Manuka var.	PB 18	1.2m
Ma	40	Myoporum laetum	Ngaio	PB 18	1.2m
Pt	255	Phormium tenax	Harakeke/Flax	PB 5	1.2m

Area 1 Planting.

Existing fenceline along boundary.

Area 2 Planting.

Sunset view from house and section at 536 Gill Road will be retained whilst still screening the development.

Bund planting to provide screening within 6 months - 1 year.

Proposed earth bund extent shown dashed, maximum height 1.5m.

Area 1 Planting.



APPROVED PLAN

Planner: minnief
RC: RC2300265
Date: 09/06/2021



HAWTHORN
Landscape Architects

17.12.20

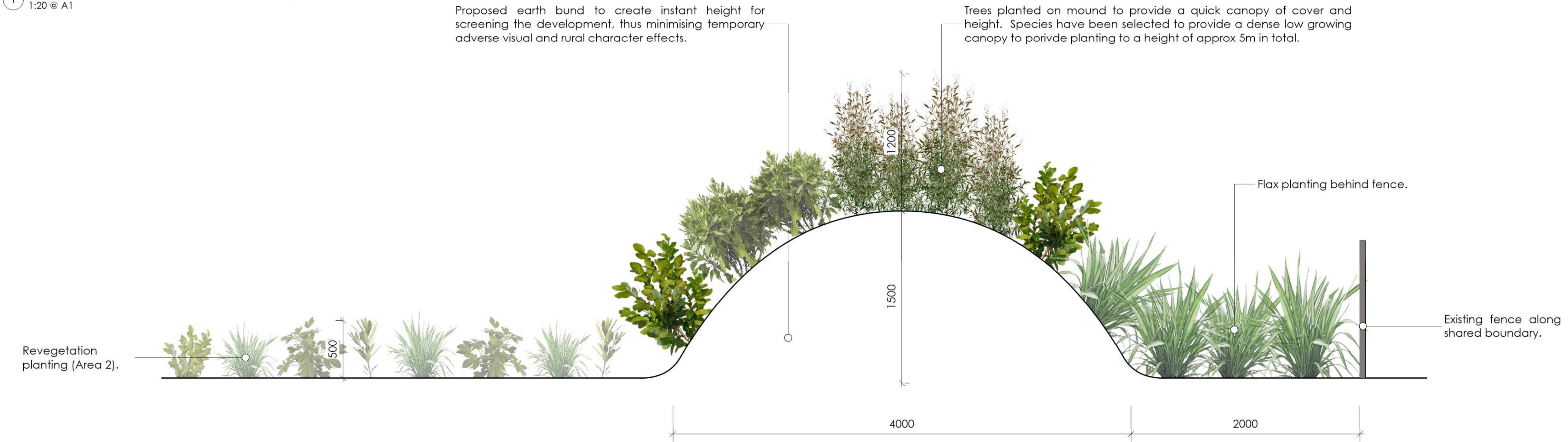
Lodestone - Resource Consent
Bund Planting Detail 1

588-638 Gill Road, Kaitia

Scale	Drawn By
1:400 @ A3	DOL
Drawing #	Rev #
004	

- This drawing is the property of Hawthorn Landscape Architects Ltd and must not be used, copied or reproduced without prior written permission.
- Contractors shall verify and be responsible for all dimensions on site.
- Do not scale off this drawing.
- Landscape Architect to be notified of any variations between on site dimensions and those shown on the plan. Hawthorn Landscape Architects accepts no liability for unauthorised changes to the details changes to the details shown in these drawings.
- All construction work based on these plans is to comply with relevant local authority regulations and all NZ building codes and standards.

1 Detail 2 - Bund Cross Section: At Time of Planting
1:20 @ A1



2 Detail 2 - Bund Cross Section: Established Planting (3-5 years growth)
1:20 @ A1



APPROVED PLAN

Planner: minnief
RC: RC2300265
Date: 09/06/2021



HAWTHORN
Landscape Architects

17.12.20

**Lodestone - Resource Consent
Bund Planting Detail 2**

588-638 Gill Road, Kaitiaia

Scale	Drawn By
as shown	DOL
Drawing #	Rev #
005	

1. This drawing is the property of Hawthorn Landscape Architects Ltd and must not be used, copied or reproduced without prior written permission.
2. Contractors shall verify and be responsible for all dimensions on site.
3. Do not scale off this drawing.
4. Landscape Architect to be notified of any variations between on site dimensions and those shown on the plan. Hawthorn Landscape Architects accepts no liability for unauthorised changes to the details changes to the details shown in these drawings.
5. All construction work based on these plans is to comply with relevant local authority regulations and all NZ building codes and standards.

Plant Palette - Bund Planting

Lodestone



Griselnea lucida



Leptospermum Wiri Sandra



Leptospermum Red Damask



Myoporum laetum



Phormium tenax

APPROVED PLAN
Planner: minnief
RC: RC2300265
Date: 09/06/2021

**DECISION ON RIGHT OF WAY APPLICATION (S348 OF THE LOCAL
GOVERNMENT ACT 1974)**

Consent Number: 2300265 - RMALUC

Pursuant to section 348 of the Local Government Act 1974 (LGA), the Far North District Council hereby grants permission to:

Lodestone Energy Limited

The activity to which this decision relates:

To create a right of way over Sec 1 SO Plan 462638 (RT 7255203) in favour of Lot 1 DP 172560, Sec 2 Blk I Ahipara SD (NA150D/6) and Sec 1 Blk I Ahipara SD, Sec 15 Blk I Takahue SD (NA75C/189).

Subject Site Details

Address: 588 Gill Road, Awanui 0483
Legal Description: Lot 1 DP 172560 Secs 1-2 Blk I Ahipara SD Sec 15 Blk I Takahue SD, Sec 1 SO 462638
Certificate of Title reference: NA-105D/6, NA-75C/189, CT-725203

Pursuant to Section 348(2) of the Act, this permission is issued subject to the following conditions:

General

1. The activity shall be carried out in accordance with the approved plans prepared by Reyburn & Bryant, referenced: Lodestone Energy Gill Rd Kaitaia, Titled: Proposed Easement Over Section 1 SP 462638, No. S15962, Dated: October 2020 and attached to this consent with the Council's "Approved Stamp" affixed to it.

Pre-construction

2. The consent holder shall submit plans & details of Stormwater Mitigation works, ROW A access road, for approval to Council's Engineer or duly designated person prior to commencing construction. In particular the plans and details shall show:
 - i. ROW A access road formation - Access road construction on R.O.W A to a minimum of A 5m finished carriageway width. The formation is to consist of a minimum of 200mm of compacted hard fill plus a GAP 30 or GAP 40 running course.
 - ii. The proposed stormwater control works to be in place prior to and during construction.
 - iii. Stormwater management and mitigation system
 - iv. Onsite Stormwater mitigation system maintenance plan
 - v. The system shall be designed such that the total stormwater discharged, after development, is no greater than the predevelopment flow from the site for rainfall events up to a 10% AEP

3. The Consent holder shall when creating the vehicle crossing to ROW A from Gill Road reserve submit a Corridor Access Request (CAR) and subsequently obtain a Work Access Permit (WAP) from Council prior to any excavation or works commencing.

Construction

4. Access road construction on ROW A shall be done as per the approved drawings (see condition 2).
5. Provide a formed double width entrance to ROW A which complies with the Councils Engineering Standard FNDC/S/6, 6D, and section 3.3.7.1 of the Engineering standards and NZS4404:2004.

Approval

This permission has been prepared by Minnie Fox, Intermediate Resource Planner and is granted under delegated authority from the Far North District Council by:



Pat Killalea, Principal Planner

Date: 9th June 2021

Lapsing of Consent

Pursuant to section 348(3) of the Local Government Act 1974, this permission will lapse 3 years after the granting of this decision unless the work has been completed to the satisfaction of the Council; but may from time to time be extended by the Council for a period or periods not exceeding one year at any time.



**FAR NORTH OPERATIVE DISTRICT PLAN
DECISION ON APPLICATION TO CHANGE CONDITIONS OF A RESOURCE CONSENT
(Section 127)**

Resource Consent Number: 2300265-RMAVAR/A

Pursuant to section 127 of the Resource Management Act 1991 (the Act), the Far North District Council hereby grants resource consent to:

Lodestone Energy Limited

The activity to which this decision relates:

To vary conditions of RC 2300265 RMAVUC including reduction in buildable area, structural details, inverter locations and landscape design in the rural production zone.

Subject Site Details

Address: 588 Gill Road, Awanui 0483, , Gill Road, Awanui 0483
Legal Description: Lot 1 DP 172560 Secs 1-2 Blk I Ahipara SD Sec 15 Blk I
Takahue SD, Sec 1 SO 462638
Certificate of Title reference: NA-105D/6, NA-75C/189, CT-725203

The following changes are made to the consent conditions:

Condition 1 amended to read:

1. The activity shall be carried out in general accordance with the approved plans prepared by Lodestone Energy, referenced: ~~Te Ahu Solar Project Single Axis Tracker Layout DC Electrical Drawings General Site Plan, Rev M, drawing number LDSTN-002-E100, dated: 2020-06-14~~ 2022-03-18, and attached to this consent with the Council's "Approved Stamp" affixed to it.

Condition 2 amended to read:

2. The activity shall be carried out in accordance with the assessment and approved plans prepared by Hawthorn Landscape Architects, referenced: Lodestone – Resource Consent Landscape Mitigation Plan – 588 -638 Gill Road, Kaitaia, and attached to this consent with the Council's "Approved Stamp" affixed to them:

- i. Landscape Mitigation Plan – 001 – dated: ~~17.12.20~~ 19.05.22
- ii. Enlargement 1 – 002 – ~~17.12.20~~ 19.05.22
- iii. Enlargement 2 – 003 – ~~17.12.20~~ 19.05.22
- iv. Bund Planting Detail 1 004 ~~17.12.20~~ 19.05.22
- v. Bund Planting Detail 2 005 ~~17.12.20~~ 19.05.22

Condition 7 amended to read:

Implementation of the landscape plan ~~prepared by Landscape Architects, referenced: Lodestone – Resource Consent Landscape Mitigation Plan~~ referenced under condition 2 of this consent is to be undertaken within the first two planting seasons (approximately March-September) directly following commencement of any of the works relating to the

solar farm (from detailed design stage on) and shall be maintained by the consent holder from that point onwards to the satisfaction of the Far North District Council or duly delegated officer (see condition 18 - RMALUC).

No additional District Plan permitted thresholds are breached as a result of the variation.

Condition 18 amended to read:

The vegetation and shelters belts as identified within the landscape plan prepared by Hawthorn Landscape Architects, referenced: Lodestone – Resource Consent Landscape Mitigation Plan approved for RC2300265 RMALUC on the site referenced under condition 2 of this consent shall not be cut down, damaged or destroyed (except for the purposes of replacing any vegetation that has died) without the prior written consent of the Council. Such consent may be given in the form of resource consent.

For the purpose of clarity the complete amended conditions of consent are as follows:

1. The activity shall be carried out in general accordance with the approved plans prepared by Lodestone Energy, referenced: DC Electrical Drawings General Site Plan, Rev M, drawing number LDSTN-002-E100, dated 2022-03-18, and attached to this consent with the Council's "Approved Stamp" affixed to it.
2. The activity shall be carried out in accordance with the assessment and approved plans prepared by Hawthorn Landscape Architects, referenced: Lodestone – Resource Consent Landscape Mitigation Plan – 588 -638 Gill Road, Kaitaia, and attached to this consent with the Council's "Approved Stamp" affixed to them:
 - i. Landscape Mitigation Plan – 001 – dated: 17.12.20 19.05.22
 - ii. Enlargement 1 – 002- 19.05.22
 - iii. Enlargement 2 – 003 - 19.05.22
 - iv. Bund Planting Detail 1 004 - 19.05.22
 - v. Bund Planting Detail 2 005 - 19.05.22

Pre-Construction

3. Prior to the commencement of any works on site authorised by this consent, the consent holder shall submit to Council's resource consents engineer or designate, for certification, a Stormwater Management & Design Report that provides suitable details and supporting calculations for the stormwater management proposals. In particular, the Stormwater Management Design Report shall include but not be limited to the following:
 - i. Stormwater Management Plan
 - ii. Stormwater catchments and overland flow paths. Details of the design for protection against erosion, stormwater concentration and stormwater quality, which shall be designed in general accordance with the report "assessment of stormwater effects proposed solar generation plant at 588 Gill Road, Awanui " dated 31 March 2021 prepared by Hawthorn Geddes. Design shall include consideration of appropriate materials to avoid stormwater contamination and include details of mechanisms in case of scour and erosion arising from panel array discharges.
 - iii. The design shall be undertaken by a suitably experienced Chartered Professional Engineer.

4. The consent holder shall submit to Council a finalised Construction Management Plan (CMP) for approval prior to commencing construction. The plan shall contain information on, and site management procedures, for the following:
 - (i) The timing of construction works, including hours of work, key project and site management personnel.
 - (ii) The transportation of demolition and construction materials from and to the site and associated controls on vehicles through sign-posted site entrance/exits and the loading and unloading of materials.
 - (iii) The excavation works, including retaining structures and any necessary dewatering facilities, prepared by a suitably qualified geotechnical engineer.
 - (iv) Control of dust and noise on-site and any necessary avoidance or remedial measures.
 - (v) Prevention of earth and other material being deposited on surrounding roads from vehicles and remedial actions should it occur.
 - (vi) Publicity measures and safety measures, including signage, to inform adjacent landowners and occupiers, pedestrians and other users of Gill Road.
 - (vii) Erosion and sediment control measures to be in place for the duration of the works.
5. The consent holder shall submit to Council a Construction Traffic Management Plan (CTMP) prior to works commencing. The plan shall include the following:
 - i. The existing condition of the Gill Road carriageway.
 - ii. Mitigation measures against dust nuisance on Gill Road.
 - iii. Control of dust and noise on site
 - iv. Any remedial measures
 - v. Public safety measures including signage, to inform the users of Gill Road, adjacent neighbours of the works.
6. The Consent holder shall, when conducting the upgrade of vehicle crossing to the project residence from Gill Road reserve, submit a Corridor Access Request (CAR) and subsequently obtain a Work Access Permit (WAP) from Council prior to any excavation or works commencing.
7. Implementation of the landscape plan referenced under Condition 2 of this consent is to be undertaken within the first two planting seasons (approximately March-September) directly following commencement of any of the works relating to the solar farm (from detailed design stage on) and shall be maintained by the consent holder from that point onwards to the satisfaction of the Far North District Council or duly delegated officer (see condition 18 – RMALUC).
8. Implementation of the landscape plan prepared by Hawthorn Landscape Architects, referenced: Lodestone – Resource Consent Landscape Mitigation Plan is to be undertaken within the first two planting seasons (approximately March-September) directly following commencement of any of the works relating to the solar farm (from detailed design stage on) and shall be maintained by the consent holder from that point onwards to the satisfaction of the Far North District Council or duly delegated officer (see condition 18 - RMALUC).
9. Following approval of the plans (see conditions 3 – 5) and selection of the contractor, provide to Council;
 - i. Details of the successful contractors
 - ii. Details of the planned date and duration of the contracts

iii. Details of the supervising engineer

Construction

10. The consent holder shall engage a suitably qualified Chartered Professional Engineer to monitor the construction implementation of the stormwater management design mechanisms. As a minimum, the consent holder is to engage an Engineer to provide CM3 level monitoring as defined by Engineering NZ. A completion report with site observations and accompanying certification confirmation by a Chartered Professional Engineer is to be provided to Council's resource consents monitoring officer upon completion (e.g. PS4 producer statement – construction).
11. Upgrade the existing entrance to the project residence to provide an entrance which complies with the Councils Engineering Standard FNDC/S/6 and 6B, and section 3.3.7.1 of the Engineering Standard and NZS4404:2004.
12. Provide evidence that a CTMP has been approved by Council's Corridor Access Engineer, a CAR and a WAP have been obtained. Applications for TMP and CAR are made via <https://www.fndc.govt.nz/Our-Services/Transport/Roads/Road-closures-and-restrictions>.
13. The consent holder shall ensure that all construction works shall be undertaken in accordance with the approved construction management plan (see condition 4).
14. Any debris deposited on the public or private road as a result of the development shall be removed by or at the expense of the applicant.
15. Provide evidence to the satisfaction of Council's duly delegated officer that there is a continuous stock proof fence along the extent of the subject site, the screening vegetation and shelterbelts (areas planted as per the Hawthorn Landscape Architects, referenced: Lodestone – Resource Consent Landscape Mitigation Plan approved for RC2300265 – RMALUC).
16. The consent holder shall ensure that stormwater diversion and silt control measures are in place prior to the commencement of bulk earthworks.

Post Construction

17. The consent holder is responsible for any repairs and reinstatement required of the Gill Road carriageway and roadside drain damaged as a result of the development. Such works, where required, will be completed to the satisfaction of the Northland Transport Alliance.
18. The vegetation and shelters belts identified–within the landscape plan referenced under condition 2 of this consent shall not be cut down, damaged or destroyed (except for the purposes of replacing any vegetation that has died) without the prior written consent of the Council. Such consent may be given in the form of resource consent.
19. Upon completion of the works specified above, provide certification of the work from a Chartered Professional Engineer (CPEng) that all work has been completed in accordance with the approved plans (See condition 4 and 5).
20. The vegetation and shelters belts as identified within the landscape plan prepared by Hawthorn Landscape Architects, referenced: Lodestone – Resource Consent

Landscape Mitigation Plan approved for RC2300265 – RMALUC on the site shall not be cut down, damaged or destroyed (except for the purposes of replacing any vegetation that has died) without the prior written consent of the Council. Such consent may be given in the form of resource consent.

21. The consent holder shall ensure the Council Drainage Board, or their chosen contractor has access to the drains on site at all times for the purpose of maintenance and repairs under the Far North District Council Land Drainage Bylaw 2019 or any new reiterations.

Review Clause:

22. Council may, in accordance with section 128 of the Resource Management Act 1991, serve notice on the consent holder of its intention to review the conditions of this consent. The review may be initiated for any one or more of the following purposes:
 - i. To deal with any adverse effects on the environment that may arise from the exercise of the consent and which it is appropriate to deal with at a later stage, or to deal with any such effects following assessment of the results of the monitoring of the consent and/or as a result of the Council's monitoring of the state of the environment in the area, i.e. any noise effects
 - ii. To require the adoption of the best practicable option to remove or reduce any adverse effect on the environment.
 - iii. To provide for compliance with rules in any district plan that has been made operative since the commencement of the consent.
 - iv. To deal with any inadequacies or inconsistencies Council considers there to be in the conditions of the consent, following the establishment of the activity the subject of the consent.
 - v. To deal with any material inaccuracies that may in future be found in the information made available with the application (notice may be served at any time for this reason). This includes, but is not limited to the stormwater, noise, solar glare and reflectivity and traffic.

The actual and reasonable costs of any review undertaken may be charged to the consent holder, in accordance with section 36 of the Act.

Advice Notes

1. Archaeological sites are protected pursuant to the Heritage New Zealand Pouhere Taonga Act 2014. It is an offence, pursuant to the Act, to modify, damage or destroy an archaeological site without an archaeological authority issued pursuant to that Act. Should any site be inadvertently uncovered, the procedure is that work should cease, with the Trust and local iwi consulted immediately. The New Zealand Police should also be consulted if the discovery includes koiwi (human remains). A copy of Heritage New Zealand's Archaeological Discovery Protocol (ADP) is attached for your information. This should be made available to all person(s) working on site.
2. The site is adjacent to and accessed off an unsealed road. Unsealed roads have been shown to create a dust nuisance from vehicle usage. It is advised that the dwelling is either located as far as possible or at least 80m from the road, and/or boundary planting within the site is utilised to assist with this nuisance. Alternatively, the applicant may consider sealing their road frontage to remove the issue.

3. The Solar Farm has been approved for construction over three Titles, it is recommended the three titles are held together by a legal instrument, so as to ensure they cannot be separated or sold individually.
4. The consent holder may require additional consent from Northland Regional Council under the National Environmental Standards for Freshwater Regulations 2020, due to a section of the site being potentially considered a marginal wetland.
5. The consent holder will require building consent for buildings located within the site such as inverters and the E.C House.
6. The consent holder and any prospective purchasers are to be informed that the Far North District Council Land Drainage Bylaw 2009 applies to the boundary of Lot 1 DP 172560, Sec 1 - 2 Blk I Ahipara SD, Sec 15 Blk I Takahue SD which states in part as follows;

“Without prior consent of the Council and then only subject to such conditions as Council shall impose, no owner of any land on the banks of any drainage channel shall plant or permit to grow any tree, shrub or hedge, or erect or maintain any fence, building, bridge or other construction or make any excavation in such a position as to interfere with or obstruct the free access of Council’s workmen or agents, plant or machinery along such drain or to any part thereof, for a distance of 10 meters from the edge of the drain, or such other distance as Council may specify in respect to any particular drain or part thereof.”
7. Council’s resource consents engineer recommends that the proposed stormwater design follows best practice such as Auckland Council publication GD01, incorporating low impact design to achieve hydraulic neutrality from the increased impermeable surfaces for a range of storm events.

Reasons for the Decision

1. The Council has determined (by way of an earlier report and resolution) that the adverse environmental effects associated with the proposed changes are no more than minor and that there are no affected persons or affected order holders.
2. There have been no changes to objectives and policies in the Operative District Plan since the original consent was issued, and the proposed changes being sought are considered to remain consistent with the existing objectives and policies in the Operative District Plan.

Relevant National planning provisions include:

- (a) National Policy Statement for Renewable Energy Generation 2011 (NPS-REG)

Relevant Regional planning provisions include:

- (b) The Northland Regional Policy Statement 2016;
 (c) The Northland Regional Plan 2019;

3. No other matters considered relevant in making this decision
4. Part 2 Matters
 The Council has taken into account the purpose & principles outlined in sections 5, 6, 7 & 8 of the Act. It is considered that granting/declining [delete one] this resource consent application for changes to consent conditions, achieves the purpose of the Act.

5. In summary it is considered that the proposed changes are consistent with the sustainable management purpose of the RMA.

Approval

This resource consent has been prepared by Trish Routley, Consultant Planner and is granted under delegated authority (pursuant to section 34A of the Resource Management Act 1991) from the Far North District Council by:



Pat Killalea, Principal Planner

Date: 27th June 2022

Right of Objection

If you are dissatisfied with the decision or any part of it, you have the right (pursuant to section 357A of the Resource Management Act 1991) to object to the decision. The objection must be in writing, stating reasons for the objection and must be received by Council within 15 working days of the receipt of this decision.

Lapsing of Consent

You should note that the granting of this consent for a change or cancellation of conditions does not affect the lapsing date of the underlying consent for the proposed activity.

DECISION ON SECTION 127 APPLICATION UNDER THE RESOURCE MANAGEMENT ACT 1991

Decision

Pursuant to section 34(1) and sections 104, 104B, 127 and Part 2 of the Resource Management Act 1991 (the Act), the Far North District Council **grants** resource consent to change conditions 2 and 20 of resource consent 2300265-RMAVAR/A to:

Applicant:	Lodestone Energy Limited
Council Reference:	2300265-RMAVAR/C
Property Address:	588 Gill Road, Awanui 0483, , Gill Road, Awanui 0483
Legal Description:	Lot 1 DP 172560 Secs 1-2 Blk I Ahipara SD Sec 15 Blk I Takahue SD, Sec 1 SO 462638
Description of Application:	Proposal seeks to vary conditions 2 and 20 of 2300265-RMAVAR/A to allow 3 changes to the approved landscaping plan

The following changes and/or cancellations to the conditions of resource consent 2300265-RMAVAR/A are made:

(~~Strike through~~ indicates deletions and underline indicates additions and changes)

For clarity a complete set of conditions, as amended, are provided in Schedule 1 to this decision.

Condition 2

The activity shall be carried out in accordance with the assessment and approved plans prepared by Hawthorn Landscape Architects, referenced: Lodestone – Resource Consent Landscape Mitigation Plan – 588 – 638 Gill Road, Kaitia, and attached to this consent with the Council’s “Approved Stamp” affixed to them:

- i. Landscape Mitigation Plan – 001 – dated ~~47.12.20~~ ~~19.05.22~~ 07.08.2023
- ii. Enlargement 1 – 002 – ~~10.05.22~~ 07.08.2023
- iii. Enlargement 2 – 003 – ~~19.05.22~~ 07.08.2023
- iv. Bund Planting Detail 1 004 – ~~10.05.22~~ 07.08.2023
- v. ~~Bund Planting Detail 2 005 – 10.05.22~~

Condition 20

The vegetation and shelter belts as identified within the landscape plan prepared by Hawthorn Landscape Architects, referenced: Lodestone – Resource Consent Landscape Mitigation Plan approved for RC2300265-RMAVAR/C on the site shall not be cut down, damaged or

destroyed (except for the purposes of replacing any vegetation that has died) without the prior written consent of the Council. Such consent may be given in the form of a resource consent.

Advice Notes

Lapsing of Consent

1. *The granting of this section 127 application does not alter the lapse date of the original consent. The consent holder is recommended to check that the original consent does not lapse before it is given effect to.*

Right of Objection

2. *If you are dissatisfied with the decision or any part of it, you have the right (pursuant to section 357A of the Act) to object to the decision. The objection must be in writing, stating reasons for the objection and must be received by Council within 15 working days of the receipt of this decision.*

Reasons for the Decision

1. By way of an earlier report that is contained within the electronic file of this consent, it was determined that pursuant to sections 95A and 95B of the Act the proposed activity will not have, and is not likely to have, adverse effects on the environment that are more than minor, there are no affected persons and no special circumstances exist. Therefore, under delegated authority, it was determined that the application be processed without notification.
2. The proposed change is within the scope of the original resource consent and therefore can be considered under section 127.
3. In regard to sections 104(1)(a) and 127(3) of the Act the actual and potential effects of the proposed change will be acceptable as:
 - a. Written approval has been provided by the adjacent property owner and occupier at 536 Gill Road, Kaitia. Any effects resulting from the removal of the earth bund on the adjacent property boundary have been disregarded.
 - b. No other visual changes are expected to occur outside of the property boundaries as a result of the landscaping changes.
4. In regard to sections 104(1)(ab) and 127(3) of the Act there are no offsetting or environmental compensation measures proposed or agreed to by the applicant for the activity.
5. In regard to sections 104(1)(b) and 127(3) of the Act the following statutory documents are considered to be relevant to the application:
 - a. Operative Far North District Plan 2009, and
 - b. Proposed Far North District Plan 2022.

The activity is consistent with these documents as the amendments have the same effect as what was originally consented, and do not conflict with any of the objectives and policies of the Operative or Proposed District Plan.

As the outcomes sought are the same under the operative and Proposed District Plan frameworks, no weighting is necessary.

6. In regard to sections 104(1)(c) and 127 of the Act there are no other matters relevant and reasonably necessary to determine the application.
7. Based on the assessment above the proposed change will be consistent with Part 2 of the Act. The proposed change will avoid, remedy or mitigate any potential adverse effects on the environment while providing for the sustainable management of natural and physical resources and is therefore in keeping with the Purpose and Principles of the Act. There are no matters under section 6 that are relevant to the proposed change. The proposal remains an efficient use and development of the site that will maintain existing amenity values without compromising the quality of the environment. The activity is not considered to raise any issues in regard to Te Tiriti o Waitangi.
8. Overall, for the reasons above it is appropriate for the changes of the conditions of consent to be granted.

Approval

This resource consent has been prepared by Hannah Kane, Intermediate Resource Planner. I have reviewed this and the associated information (including the application and electronic file material) and for the reasons and subject to the conditions above, and under delegated authority, grant this resource consent.



Name – Whitney Peat

Date: 18 September. 23

Title – Senior Resource Planner

Schedule 1

Complete set of Consent Conditions for 2300265-RMAVAR/A as Amended by 2300265-RMAVAR/C

1. The activity shall be carried out in general accordance with the approved plans prepared by Lodestone Energy, referenced: DC Electrical Drawings General Site Plan, Rev M, drawing number ~~LDSTN~~-002-E100, dated 2022-03-18, and attached to this consent with the Council's "Approved Stamp" affixed to it.
2. The activity shall be carried out in accordance with the assessment and approved plans prepared by Hawthorn Landscape Architects, referenced: Lodestone – Resource Consent Landscape Mitigation Plan – 588 -638 Gill Road, Kaitaia, and attached to this consent with the Council's "Approved Stamp" affixed to them:
 - i. Landscape Mitigation Plan – 001 – dated: 07.08.23
 - ii. Enlargement 1 – 002- 07.08.23
 - iii. Enlargement 2 – 003 - 07.08.23
 - iv. Bund Planting Detail 1 004 - 07.08.23

Pre-Construction

3. Prior to the commencement of any works on site authorised by this consent, the consent holder shall submit to Council's resource consents engineer or designate, for certification, a Stormwater Management & Design Report that provides suitable details and supporting calculations for the stormwater management proposals. In particular, the Stormwater Management Design Report shall include but not be limited to the following:
 - i. Stormwater Management Plan
 - ii. Stormwater catchments and overland flow paths. Details of the design for protection against erosion, stormwater concentration and stormwater quality, which shall be designed in general accordance with the report "assessment of stormwater effects proposed solar generation plant at 588 Gill Road, Awanui" dated 31 March 2021 prepared by Hawthorn Geddes. Design shall include consideration of appropriate materials to avoid stormwater contamination and include details of mechanisms in case of scour and erosion arising from panel array discharges.
 - iii. The design shall be undertaken by a suitably experienced Chartered Professional Engineer.
4. The consent holder shall submit to Council a finalised Construction Management Plan (CMP) for approval prior to commencing construction. The plan shall contain information on, and site management procedures, for the following:
 - (i) The timing of construction works, including hours of work, key project and site management personnel.
 - (ii) The transportation of demolition and construction materials from and to the site and associated controls on vehicles through sign-posted site entrance/exits and the loading and unloading of materials.
 - (iii) The excavation works, including retaining structures and any necessary dewatering facilities, prepared by a suitably qualified geotechnical engineer.

- (iv) Control of dust and noise on-site and any necessary avoidance or remedial measures.
 - (v) Prevention of earth and other material being deposited on surrounding roads from vehicles and remedial actions should it occur.
 - (vi) Publicity measures and safety measures, including signage, to inform adjacent landowners and occupiers, pedestrians and other users of Gill Road.
 - (vii) Erosion and sediment control measures to be in place for the duration of the works.
5. The consent holder shall submit to Council a Construction Traffic Management Plan (CTMP) prior to works commencing. The plan shall include the following:
 - i. The existing condition of the Gill Road carriageway.
 - ii. Mitigation measures against dust nuisance on Gill Road.
 - iii. Control of dust and noise on site
 - iv. Any remedial measures
 - v. Public safety measures including signage, to inform the users of Gill Road, adjacent neighbours of the works.
 6. The Consent holder shall, when conducting the upgrade of vehicle crossing to the project residence from Gill Road reserve, submit a Corridor Access Request (CAR) and subsequently obtain a Work Access Permit (WAP) from Council prior to any excavation or works commencing.
 7. Implementation of the landscape plan referenced under Condition 2 of this consent is to be undertaken within the first two planting seasons (approximately March-September) directly following commencement of any of the works relating to the solar farm (from detailed design stage on) and shall be maintained by the consent holder from that point onwards to the satisfaction of the Far North District Council or duly delegated officer (see condition 18 – RMALUC).
 8. Implementation of the landscape plan prepared by Hawthorn Landscape Architects, referenced: Lodestone – Resource Consent Landscape Mitigation Plan is to be undertaken within the first two planting seasons (approximately March-September) directly following commencement of any of the works relating to the solar farm (from detailed design stage on) and shall be maintained by the consent holder from that point onwards to the satisfaction of the Far North District Council or duly delegated officer (see condition 18 - RMALUC).
 9. Following approval of the plans (see conditions 3 – 5) and selection of the contractor, provide to Council;
 - i. Details of the successful contractors
 - ii. Details of the planned date and duration of the contracts
 - iii. Details of the supervising engineer

Construction

10. The consent holder shall engage a suitably qualified Chartered Professional Engineer to monitor the construction implementation of the stormwater management design mechanisms. As a minimum, the consent holder is to engage an Engineer to provide CM3 level monitoring as defined by Engineering NZ. A completion report with site

observations and accompanying certification confirmation by a Chartered Professional Engineer is to be provided to Council's resource consents monitoring officer upon completion (e.g. PS4 producer statement – construction).

11. Upgrade the existing entrance to the project residence to provide an entrance which complies with the Council's Engineering Standard FNDC/S/6 and 6B, and section 3.3.7.1 of the Engineering Standard and NZS4404:2004.
12. Provide evidence that a CTMP has been approved by Council's Corridor Access Engineer, a CAR and a WAP have been obtained. Applications for TMP and CAR are made via <https://www.fndc.govt.nz/Our-Services/Transport/Roads/Road-closures-and-restrictions>.
13. The consent holder shall ensure that all construction works shall be undertaken in accordance with the approved construction management plan (see condition 4).
14. Any debris deposited on the public or private road as a result of the development shall be removed by or at the expense of the applicant.
15. Provide evidence to the satisfaction of Council's duly delegated officer that there is a continuous stock proof fence along the extent of the subject site, the screening vegetation and shelterbelts (areas planted as per the Hawthorn Landscape Architects, referenced: Lodestone – Resource Consent Landscape Mitigation Plan approved for RC2300265 – RMA LUC).
16. The consent holder shall ensure that stormwater diversion and silt control measures are in place prior to the commencement of bulk earthworks.

Post Construction

17. The consent holder is responsible for any repairs and reinstatement required of the Gill Road carriageway and roadside drain damaged as a result of the development. Such works, where required, will be completed to the satisfaction of the Northland Transport Alliance.
18. The vegetation and shelterbelts identified within the landscape plan referenced under condition 2 of this consent shall not be cut down, damaged or destroyed (except for the purposes of replacing any vegetation that has died) without the prior written consent of the Council. Such consent may be given in the form of resource consent.
19. Upon completion of the works specified above, provide certification of the work from a Chartered Professional Engineer (CPEng) that all work has been completed in accordance with the approved plans (See condition 4 and 5).
20. The vegetation and shelterbelts as identified within the landscape plan prepared by Hawthorn Landscape Architects, referenced: Lodestone – Resource Consent Landscape Mitigation Plan approved for RC2300265 – RMAVAR/C on the site shall not be cut down, damaged or destroyed (except for the purposes of replacing any vegetation that has died) without the prior written consent of the Council. Such consent may be given in the form of resource consent.

21. The consent holder shall ensure the Council Drainage Board, or their chosen contractor has access to the drains on site at all times for the purpose of maintenance and repairs under the Far North District Council Land Drainage Bylaw 2019 or any new reiterations.

Review Clause:

22. Council may, in accordance with section 128 of the Resource Management Act 1991, serve notice on the consent holder of its intention to review the conditions of this consent. The review may be initiated for any one or more of the following purposes:
- i. To deal with any adverse effects on the environment that may arise from the exercise of the consent and which it is appropriate to deal with at a later stage, or to deal with any such effects following assessment of the results of the monitoring of the consent and/or as a result of the Council's monitoring of the state of the environment in the area, i.e. any noise effects
 - ii. To require the adoption of the best practicable option to remove or reduce any adverse effect on the environment.
 - iii. To provide for compliance with rules in any district plan that has been made operative since the commencement of the consent.
 - iv. To deal with any inadequacies or inconsistencies Council considers there to be in the conditions of the consent, following the establishment of the activity the subject of the consent.
 - v. To deal with any material inaccuracies that may in future be found in the information made available with the application (notice may be served at any time for this reason). This includes, but is not limited to the stormwater, noise, solar glare and reflectivity and traffic.

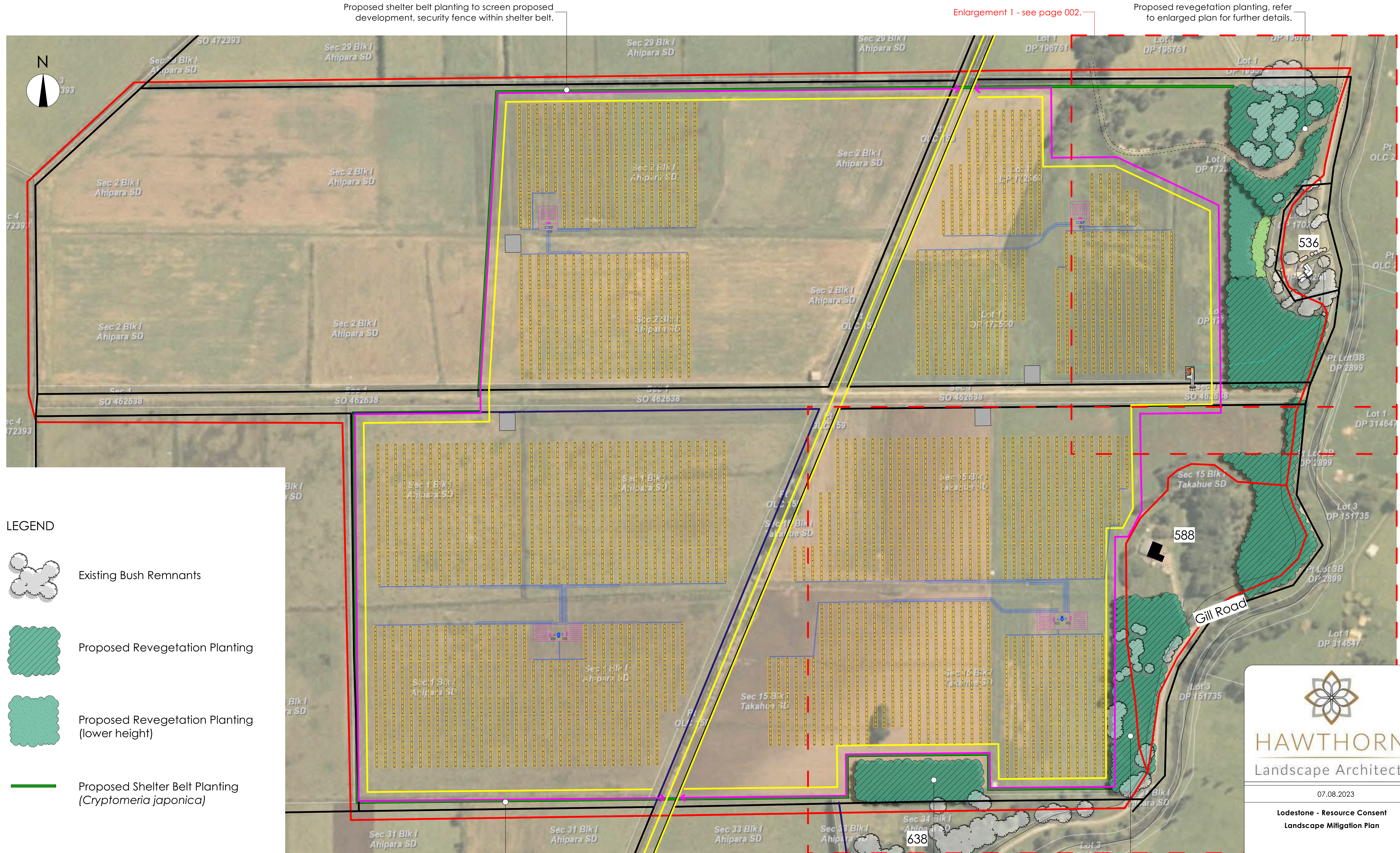
The actual and reasonable costs of any review undertaken may be charged to the consent holder, in accordance with section 36 of the Act.

Advice Notes

1. Archaeological sites are protected pursuant to the Heritage New Zealand Pouhere Taonga Act 2014. It is an offence, pursuant to the Act, to modify, damage or destroy an archaeological site without an archaeological authority issued pursuant to that Act. Should any site be inadvertently uncovered, the procedure is that work should cease, with the Trust and local iwi consulted immediately. The New Zealand Police should also be consulted if the discovery includes koiwi (human remains). A copy of Heritage New Zealand's Archaeological Discovery Protocol (ADP) is attached for your information. This should be made available to all person(s) working on site.
2. The site is adjacent to and accessed off an unsealed road. Unsealed roads have been shown to create a dust nuisance from vehicle usage. It is advised that the dwelling is either located as far as possible or at least 80m from the road, and/or boundary planting within the site is utilised to assist with this nuisance. Alternatively, the applicant may consider sealing their road frontage to remove the issue.

3. The Solar Farm has been approved for construction over three Titles, it is recommended the three titles are held together by a legal instrument, so as to ensure they cannot be separated or sold individually.
4. The consent holder may require additional consent from Northland Regional Council under the National Environmental Standards for Freshwater Regulations 2020, due to a section of the site being potentially considered a marginal wetland.
5. The consent holder will require building consent for buildings located within the site such as inverters and the E.C House.
6. The consent holder and any prospective purchasers are to be informed that the Far North District Council Land Drainage Bylaw 2009 applies to the boundary of Lot 1 DP 172560, Sec 1 - 2 Blk I Ahipara SD, Sec 15 Blk I Takahue SD which states in part as follows;

“Without prior consent of the Council and then only subject to such conditions as Council shall impose, no owner of any land on the banks of any drainage channel shall plant or permit to grow any tree, shrub or hedge, or erect or maintain any fence, building, bridge or other construction or make any excavation in such a position as to interfere with or obstruct the free access of Council’s workmen or agents, plant or machinery along such drain or to any part thereof, for a distance of 10 meters from the edge of the drain, or such other distance as Council may specify in respect to any particular drain or part thereof.”
7. Council’s resource consents engineer recommends that the proposed stormwater design follows best practice such as Auckland Council publication GD01, incorporating low impact design to achieve hydraulic neutrality from the increased impermeable surfaces for a range of storm events.



LEGEND

- Existing Bush Remnants
- Proposed Revegetation Planting
- Proposed Revegetation Planting (lower height)
- Proposed Shelter Belt Planting (*Cryptomeria japonica*)

Plant Schedule - Shelter Belt Hedging

Botanical Name	Common Name	Quantity	Spacing	Size
<i>Cryptomeria japonica</i>	Japanese Cedar	1,825	1.5m	PB 5

APPROVED PLAN
Planner: hkane
RC: 2300265-RMAVAR/C
Date: 18/09/2023

HAWTHORN
Landscape Architects

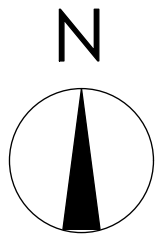
07.08.2023

**Lodestone - Resource Consent
Landscape Mitigation Plan**

588-638 Gill Road, Kaiaia

Scale	Drawn By
1:4000 @ A3	DOL
Drawing #	Rev #
001	A

1. This drawing is the property of Hawthorn Landscape Architects Ltd and must not be used, copied or reproduced without prior written permission.
2. Contractors shall verify and be responsible for all dimensions on site.
3. Do not scale off this drawing.
4. Landscape Architect to be notified of any variations between on site dimensions and those shown on the plan. Hawthorn Landscape Architects accepts no liability for unauthorised changes to the details shown in these drawings.
5. All construction work based on these plans is to comply with relevant local authority regulations and all NZ building codes and standards.



Proposed shelter belt planting to screen proposed development.
(The security fence will be placed within the shelter belt. The new plantings of cryptomeria will be adjacent to the existing mixed shelter belts which are old and have large gaps. The old trees will be removed once the new shelter planting become established).

Existing bush remnants in this area to be removed.

Historic River Bed (not to be planted).

Area 1 - Proposed revegetation planting (refer to plant scheule).

Plant Schedule - Area 1 (25350m2)

Botanical Name	Common Name	Approx. Quantity	Max Height	Spacing
Cordyline australis	Cabbage tree	850	5m	1.5m
Coprosma repens	Taupata	1250	2m	1.5m
Coprosma robusta	Karamu	1500	2m	1.5m
Corynocarpus laevigatus	Karaka	400	10m+	1.5m
Kunzea ericoides	Kanuka	2600	10m+	1.5m
Leptospermum scoparium	Manuka	3200	4m	1.5m
Metrosideros excelsa	Pohutukawa	550	10m+	1.5m
Myoporum laetum	Ngaio	800	4m	1.5m
Myrsine australis	Red Matipo	700	4m	1.5m
Pittosprout crassifolium	Karo	700	5m	1.5m
Pittosporum eugenoides	Tarata	700	5m	1.5m
Pseudopanax arbor	Five Finger	800	2.5m	1.5m
Pseudopanax lessonii	Houpara	800	3m	1.5m
Phormium tenax	Harakeke/Flax	1500	2.5m	1.5m
Vitex lucens	Puriri	450	10m+	1.5m

Note: All plants sizes to be r/t, except larger tree species which are to be PB5.

Existing bush remnants to remain.

Area 1 - Proposed revegetation planting (refer to plant scheule).

Area 2 - Proposed revegetation planting in this area to be lower growing species only, to retain sunset view from the residence at 536 Gill Road (refer to plant scheule).

Plant Schedule - Area 2 (4180m2)

Botanical Name	Common Name	Approx. Quantity	Max Height	Spacing
Coprosma repens	Taupata	500	2m	1.5m
Coprosma robusta	Karamu	350	2m	1.5m
Myoporum laetum	Ngaio	350	4m	1.5m
Pseudopanax arbor	Five Finger	400	2.5m	1.5m
Pseudopanax lessonii	Houpara	400	3m	1.5m
Phormium tenax	Harakeke/Flax	1500	2.5m	1.5m

Note: All plants sizes to be r/t.

Amenity Planting (refer to planting plan on page 004).

Existing vegetation around residence at 536 Gill Road.

Area 1 - Proposed revegetation planting (refer to plant scheule).



APPROVED PLAN
Planner: hkane
RC: 2300265-RMAVAR/C
Date: 18/09/2023



HAWTHORN
Landscape Architects

07.08.2023

Lodestone - Resource Consent

Landscape Mitigation Plan - Enlargement 1

588-638 Gill Road, Kaiaia

Scale	Drawn By
1:2000 @ A3	DOL
Drawing #	Rev #
002	A

1. This drawing is the property of Hawthorn Landscape Architects Ltd and must not be used, copied or reproduced without prior written permission.
2. Contractors shall verify and be responsible for all dimensions on site.
3. Do not scale off this drawing.
4. Landscape Architect to be notified of any variations between on site dimensions and those shown on the plan. Hawthorn Landscape Architects accepts no liability for unauthorised changes to the details changes to the details shown in these drawings.
5. All construction work based on these plans is to comply with relevant local authority regulations and all NZ building codes and standards.

Plant Schedule - Areas 3 (9940m2), 4 (11665m2) + 5 (6045m2)

Botanical Name	Common Name	Approx. Quantity	Spacing	Size
Cordyline australis	Cabbage tree	850	5m	1.5m
Coprosma repens	Taupata	1250	2m	1.5m
Coprosma robusta	Karamu	1500	2m	1.5m
Corynocarpus laevigatus	Karaka	550	10m+	1.5m
Kunzea ericoides	Kanuka	2800	10m+	1.5m
Leptospermum scoparium	Manuka	3400	4m	1.5m
Metrosideros excelsa	Pohutukawa	850	10m+	1.5m
Myoporum laetum	Ngaio	850	4m	1.5m
Myrsine australis	Red Matipo	850	4m	1.5m
Pittosprout crassifolium	Karo	850	5m	1.5m
Pittosporum eugenoides	Tarata	850	5m	1.5m
Pseudopanax arbor	Five Finger	850	2.5m	1.5m
Pseudopanax lessonii	Houpara	850	3m	1.5m
Phormium tenax	Harakeke/Flax	1500	2.5m	1.5m
Vitex lucens	Puriri	550	10m+	1.5m

Note: All plants sizes to be r/t, except larger tree species which are to be PB5.



Proposed shelter belt planting to screen proposed development. (The security fence will be placed within the shelter belt. The new plantings of cryptomeria will be adjacent to the existing mixed shelter belts which are old and have large gaps. The old trees will be removed once the new shelter planting becomes established).

Area 5 - Proposed revegetation planting (refer to plant scheule).

Existing bush remnants.

Area 4 - Proposed revegetation planting (refer to plant scheule).

Existing bush remnants.

Existing landscaped grounds around residence at 588 Gill Road.

Area 3 - Proposed revegetation planting (refer to plant scheule).

Awanui River.

APPROVED PLAN
Planner: hkane
RC: 2300265-RMAVAR/C
Date: 18/09/2023



HAWTHORN
Landscape Architects

07.08.2023

Lodestone - Resource Consent
Landscape Mitigation Plan - Enlargement 2

588-638 Gill Road, Kaitia

Scale	Drawn By
1:2000 @ A3	DOL
Drawing #	Rev #
003	A

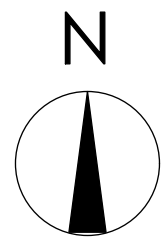
1. This drawing is the property of Hawthorn Landscape Architects Ltd and must not be used, copied or reproduced without prior written permission.

2. Contractors shall verify and be responsible for all dimensions on site.

3. Do not scale off this drawing.

4. Landscape Architect to be notified of any variations between on site dimensions and those shown on the plan. Hawthorn Landscape Architects accepts no liability for unauthorised changes to the details changes to the details shown in these drawings.

5. All construction work based on these plans is to comply with relevant local authority regulations and all NZ building codes and standards.



Plant Schedule - Amenity Planting

Code	Quantity	Botanical Name	Common Name	Scheduled Size	Spacing
Gr	55	Griselinia lucida	Akapuka	PB 40	1.2m
Ld	70	Leptospermum 'Red Damask'	Manuka var.	PB 18	1.2m
Ls	40	Leptospermum 'Wiri Sandra'	Manuka var.	PB 18	1.2m
Ma	40	Myoporum laetum	Ngaio	PB 18	1.2m
Pt	255	Phormium tenax	Harakeke/Flax	PB 5	1.2m



HAWTHORN
Landscape Architects

07.08.2023

Lodestone - Resource Consent
Bund Planting Detail 1

588-638 Gill Road, Kaitiaki

Scale	Drawn By
1:400 @ A3	DOL
Drawing #	Rev #
004	A

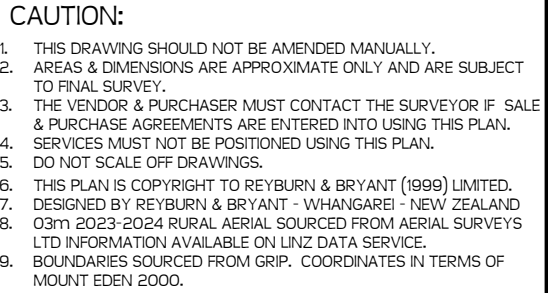
APPROVED PLAN

Planner: hkane
RC: 2300265-RMAVAR/C
Date: 18/09/2023

1. This drawing is the property of Hawthorn Landscape Architects Ltd and must not be used, copied or reproduced without prior written permission.
2. Contractors shall verify and be responsible for all dimensions on site.
3. Do not scale off this drawing.
4. Landscape Architect to be notified of any variations between on site dimensions and those shown on the plan. Hawthorn Landscape Architects accepts no liability for unauthorised changes to the details changes to the details shown in these drawings.
5. All construction work based on these plans is to comply with relevant local authority regulations and all NZ building codes and standards.

APPENDIX 2

SUBDIVISION SCHEME PLAN



- LAND COVENANT 12567988.2 IS TO REMAIN
- PROPOSED AMALGAMATION CONDITION**
- PURSUANT TO SECTION 220 (1)(b)(ii) OF THE RMA 1991
1. THAT LOTS 4 & 5 HEREON, SECTION 1 BLK 1
AHIKARA SD AND (RT: NA75C/189) AND SECTION 2
BLK 1 AHIKARA SD AND (RT: NA105D/6) BE HELD IN
THE SAME RECORD OF TITLE.

TOTAL TITLE AREA: 93.9376Ha
SUBD'N AREA: 41.1388Ha
COMPRISED IN: RST 1090155 (LEASE),
NA105D/6 (PT), NA103D/530 (ALL),
NA75C/189 (PT)

**reynburn
& bryant**

Ph: 09 438 3563 PO Box 191, Whangarei 0140
7 Selwyn Ave, Whangarei www.reynburnandbryant.co.nz

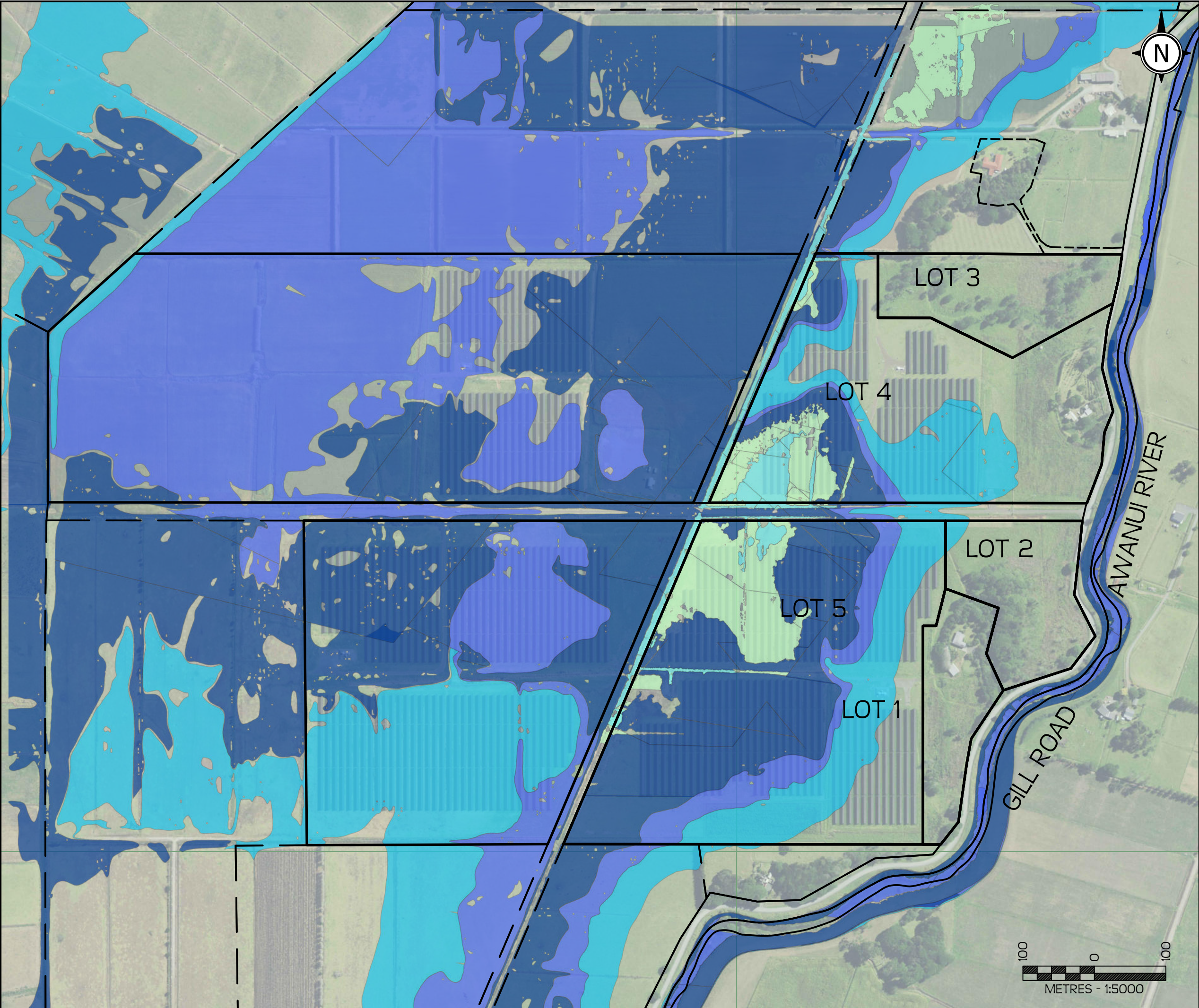
CLIENT

TITLE

PROPOSED SUBDIVISION OF LOT
1 DP 170256, LOT 1 DP 172560 &
SECTION 15 BLK I TAKAHUE SD

DATE	FEBRUARY 2026	SCALE	1:5000 @A3
DRAWING REF.	SHEET	REV	
S18612	01 OF 02	C	

PROPOSED LAND COVENANTS		
LANDSCAPE PLANTING		
SHOWN	UNDERLYING PARCEL	AREA
B	LOT1 HEREON	1.5215Ha
C	LOT 2 HEREON	1.2621Ha
D	LOT 3 HEREON	655m ²
E		623m ²
F		9387m ²
G		815m ²



CAUTION:

- THIS DRAWING SHOULD NOT BE AMENDED MANUALLY.
- AREAS & DIMENSIONS ARE APPROXIMATE ONLY AND ARE SUBJECT TO FINAL SURVEY.
- THE VENDOR & PURCHASER MUST CONTACT THE SURVEYOR IF SALE & PURCHASE AGREEMENTS ARE ENTERED INTO USING THIS PLAN. SERVICES MUST NOT BE POSITIONED USING THIS PLAN.
- DO NOT SCALE OFF DRAWINGS.
- THIS PLAN IS COPYRIGHT TO REYBURN & BRYANT (1999) LIMITED.
- DESIGNED BY REYBURN & BRYANT - WHANGAREI - NEW ZEALAND
- 03m 2023-2024 RURAL AERIAL SOURCED FROM AERIAL SURVEYS LTD INFORMATION AVAILABLE ON LINZ DATA SERVICE.
- BOUNDARIES SOURCED FROM GRIP. COORDINATES IN TERMS OF MOUNT EDEN 2000.

COASTAL FLOOD HAZARD ZONE 2

COASTAL FLOOD HAZARD ZONE 3

RIVER FLOOD HAZARD ZONE 10 YEARS

RIVER FLOOD HAZARD ZONE 50 YEARS

RIVER FLOOD HAZARD ZONE 100 YEARS

TOTAL TITLE AREA:93.9376Ha
SUBD'N AREA: 41.1388Ha
COMPRISED IN: RST 1090155 (LEASE),
NA105D/6 (PT), NA103D/530 (ALL),
NA75C/189 (PT)

THIS SITE IS ZONED 'RURAL PRODUCTION' AND THE BUILDING SETBACKS ARE THUS: 10m FROM ALL BOUNDARIES

C	04.02.25	ADDING LAND COVENANTS - TK/KM
B	11.11.25	BOUNDARY AMENDMENTS - PL/KM
A	30.10.25	FIRST ISSUE - PL/KM
REV	DATE	DESCRIPTION

REF. DATA:

reyburn & bryant

Ph: 09 438 3563
7 Selwyn Ave, Whangarei

PO Box 191, Whangarei 0140
www.reyburnandbryant.co.nz

CLIENT
LODESTONE KAITAIA
GILL ROAD,
KAITAIA

TITLE
PROPOSED SUBDIVISION OF LOT
1 DP 170256, LOY 1 DP 172560 &
SECTION 15 BLK I TAKAHUE SD

DATE FEBRUARY 2026

SCALE 1:5000 @A3

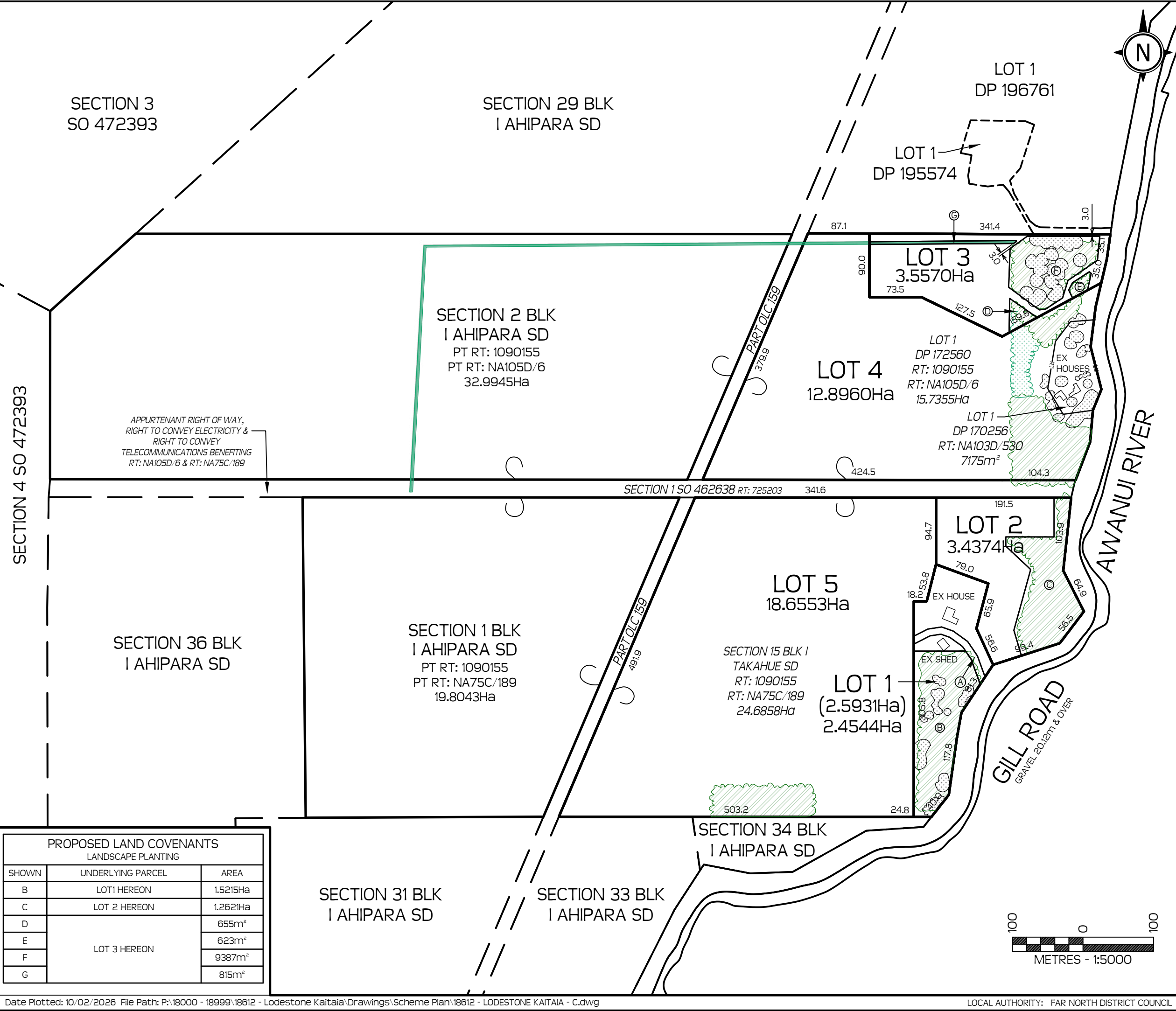
DRAWING REF.
S18612

SHEET
02 OF 02

REV
C

Date Plotted: 10/02/2026 File Path: P:\18000 - 18999\18612 - Lodestone Kaitaia\Drawings\Scheme Plan\18612 - LODESTONE KAITAIA - C.dwg

LOCAL AUTHORITY: FAR NORTH DISTRICT COUNCIL



- CAUTION:
- THIS DRAWING SHOULD NOT BE AMENDED MANUALLY.
 - AREAS & DIMENSIONS ARE APPROXIMATE ONLY AND ARE SUBJECT TO FINAL SURVEY.
 - THE VENDOR & PURCHASER MUST CONTACT THE SURVEYOR IF SALE & PURCHASE AGREEMENTS ARE ENTERED INTO USING THIS PLAN. SERVICES MUST NOT BE POSITIONED USING THIS PLAN.
 - DO NOT SCALE OFF DRAWINGS.
 - THIS PLAN IS COPYRIGHT TO REYBURN & BRYANT (1999) LIMITED.
 - DESIGNED BY REYBURN & BRYANT - WHANGAREI - NEW ZEALAND
 - 03m 2023-2024 RURAL AERIAL SOURCED FROM AERIAL SURVEYS LTD INFORMATION AVAILABLE ON LINZ DATA SERVICE.
 - BOUNDARIES SOURCED FROM GRIP. COORDINATES IN TERMS OF MOUNT EDEN 2000.

COMPLETED LANDSCAPING IN ACCORDANCE WITH 2300265 RMAVAR/C

PROPOSED REVEGETATION PLANTING

PROPOSED REVEGETATION PLANTING (LOWER HEIGHT)

EXISTING BUSH REMNANTS

PROPOSED SHELTER BELT PLANTING (CRYPTOMERIA JAPONICA)

LAND COVENANT 12567988.2 IS TO REMAIN

PROPOSED AMALGAMATION CONDITION

PURSUANT TO SECTION 220 (1)(b)(ii) OF THE RMA 1991

1. THAT LOTS 4 & 5 HEREON, SECTION 1 BLK 1 AHIPARA SD AND (RT: NA105D/6) AND SECTION 2 BLK 1 AHIPARA SD AND (RT: NA105D/6) BE HELD IN THE SAME RECORD OF TITLE.

PROPOSED EASEMENT SCHEDULE			
PURPOSE	SHOWN	BURDENED	BENEFITED
RIGHT OF WAY	A	LOT 1 HEREON	LOT 5 HEREON

TOTAL TITLE AREA:93.9376Ha

SUBD'N AREA: 41.1388Ha

COMPRISED IN: RST 1090155 (LEASE), NA105D/6 (PT), NA103D/530 (ALL), NA75C/189 (PT)

THIS SITE IS ZONED 'RURAL PRODUCTION' AND THE BUILDING SETBACKS ARE THUS: 10m FROM ALL BOUNDARIES

C	04.02.25	ADDING LAND COVENANTS - TK/KM
B	11.11.25	BOUNDARY AMENDMENTS - PL/KM
A	30.10.25	FIRST ISSUE - PL/KM
REV	DATE	DESCRIPTION

REF. DATA:

Ph: 09 438 3563

7 Selwyn Ave, Whangarei

PO Box 191, Whangarei 0140

www.reyburnandbryant.co.nz

CLIENT

LODESTONE KAITAIA

GILL ROAD,

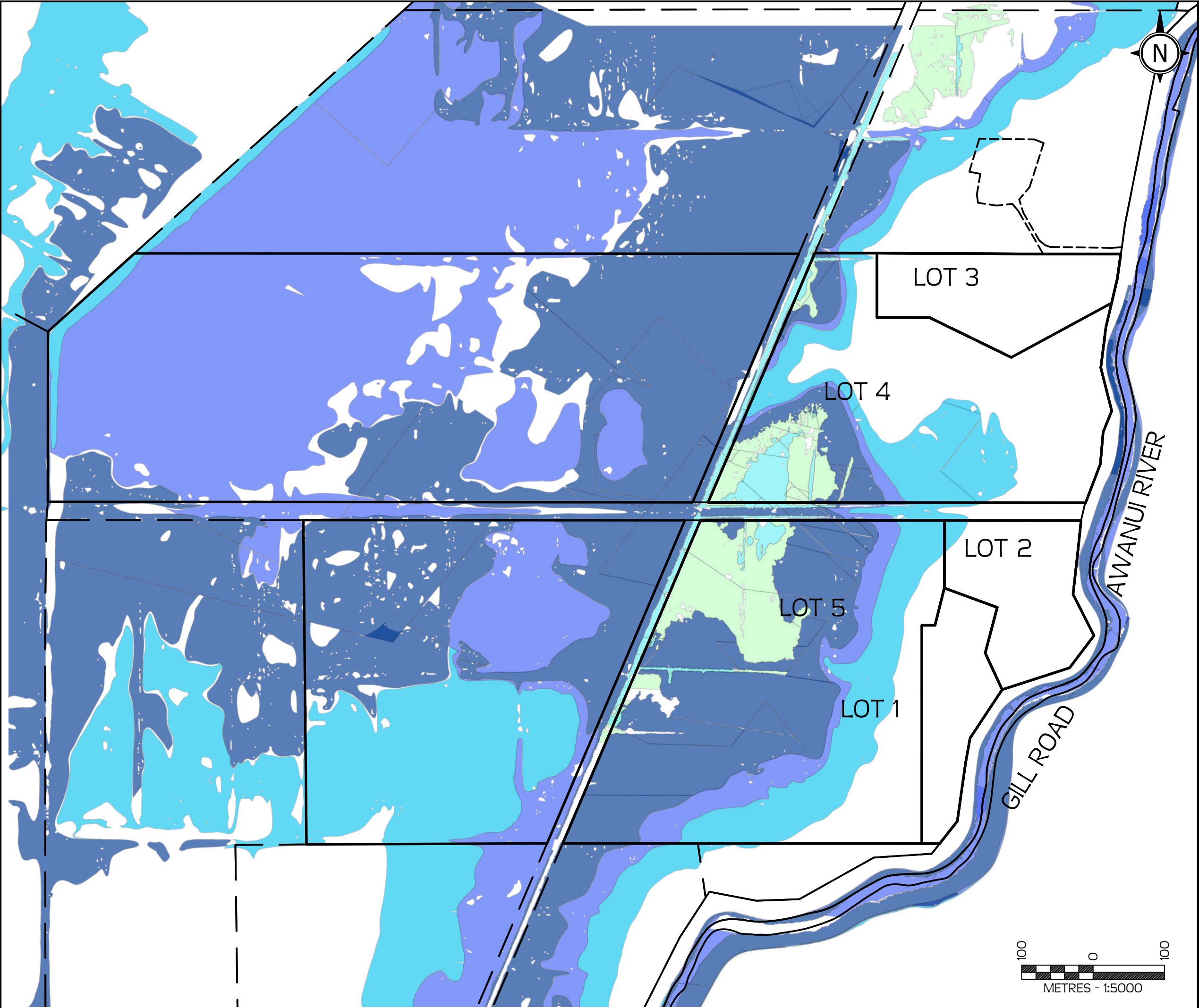
KAITAIA

TITLE

PROPOSED SUBDIVISION OF LOT 1 DP 170256, LOT 1 DP 172560 & SECTION 15 BLK 1 TAKAHUE SD

DATE	FEBRUARY 2026	SCALE	1:5000 @A3
DRAWING REF.	S18612	SHEET	01 OF 02
REV	C		

PROPOSED LAND COVENANTS LANDSCAPE PLANTING		
SHOWN	UNDERLYING PARCEL	AREA
B	LOT1 HEREON	1.5215Ha
C	LOT 2 HEREON	1.2621Ha
D	LOT 3 HEREON	655m²
E		623m²
F		9387m²
G		815m²



- CAUTION:
1. THIS DRAWING SHOULD NOT BE AMENDED MANUALLY.
 2. AREAS & DIMENSIONS ARE APPROXIMATE ONLY AND ARE SUBJECT TO FINAL SURVEY.
 3. THE VENDOR & PURCHASER MUST CONTACT THE SURVEYOR IF SALE & PURCHASE AGREEMENTS ARE ENTERED INTO USING THIS PLAN.
 4. SERVICES MUST NOT BE POSITIONED USING THIS PLAN.
 5. DO NOT SCALE OFF DRAWINGS.
 6. THIS PLAN IS COPYRIGHT TO REYBURN & BRYANT (1999) LIMITED.
 7. DESIGNED BY REYBURN & BRYANT - WHANGAREI - NEW ZEALAND
 8. 03m 2023-2024 RURAL AERIAL SOURCED FROM AERIAL SURVEYS LTD INFORMATION AVAILABLE ON LINZ DATA SERVICE.
 9. BOUNDARIES SOURCED FROM GRIP. COORDINATES IN TERMS OF MOUNT EDEN 2000.


- COASTAL FLOOD HAZARD ZONE 2
- COASTAL FLOOD HAZARD ZONE 3
- RIVER FLOOD HAZARD ZONE 10 YEARS
- RIVER FLOOD HAZARD ZONE 50 YEARS
- RIVER FLOOD HAZARD ZONE 100 YEARS

TOTAL TITLE AREA:93.9376Ha
SUBD'N AREA: 41.1388Ha
COMPRISED IN: RST 1090155 (LEASE),
NA105D/6 (PT), NA103D/530 (ALL),
NA75C/189 (PT)

THIS SITE IS ZONED 'RURAL PRODUCTION' AND THE BUILDING SETBACKS
ARE THUS: 10m FROM ALL BOUNDARIES

C	04.02.25	ADDING LAND COVENANTS - TK./KM
B	11.11.25	BOUNDARY AMENDMENTS - PL./KM
A	30.10.25	FIRST ISSUE - PL./KM
REV	DATE	DESCRIPTION

REF. DATA:



Ph: 09 438 3563 PO Box 191, Whangarei 0140
7 Selwyn Ave, Whangarei www.reyburnandbryant.co.nz

CLIENT

LODESTONE KAITAIA
GILL ROAD,
KAITAIA

TITLE

PROPOSED SUBDIVISION OF LOT
1 DP 170256, LOY 1 DP 172560 &
SECTION 15 BLK I TAKAHUE SD

DATE FEBRUARY 2026 SCALE 1:5000 @A3

DRAWING REF. S18612 SHEET 02 OF 02 REV C

APPENDIX 3

RECORDS OF TITLE AND MEMORIALS



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




R.W. Muir
Registrar-General
of Land

Identifier NA75C/189
Land Registration District North Auckland
Date Issued 18 May 1989

Prior References

NA58C/716

Estate Fee Simple
Area 44.4901 hectares more or less
Legal Description Section 1 Block I Ahipara Survey District
and Section 15 Block I Takahue Survey
District

Registered Owners

Lodestone Energy Limited

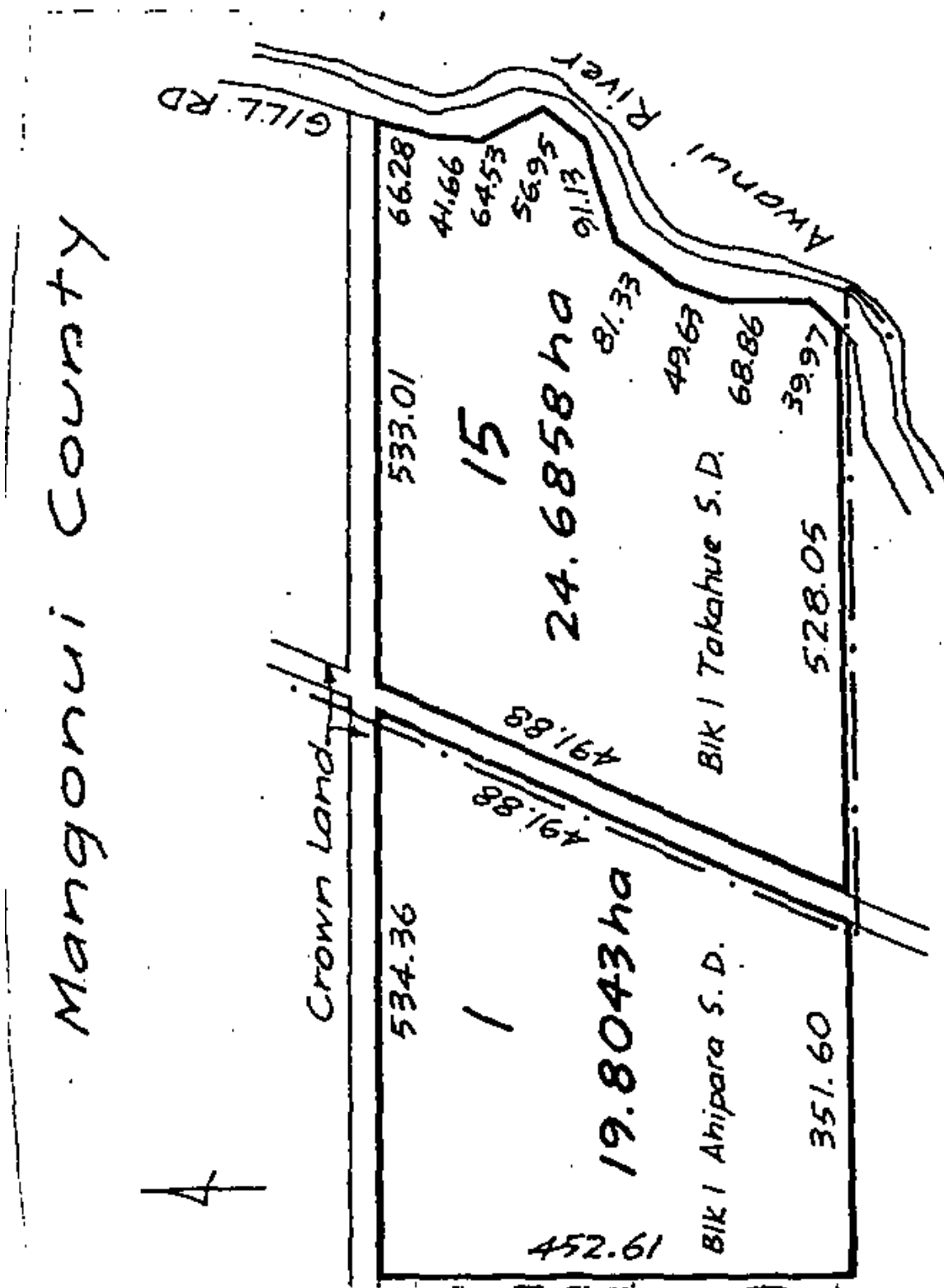
Interests

12556720.1 Lease Term 30 years commencing 13 September 2022 (right of renewal) Record of Title issued 1090155 - 16.9.2022 at 9:28 am

Appurtenant hereto is a right of way and the right to convey electricity and telecommunications created by Easement Instrument 12567988.1 - 23.9.2022 at 5:14 pm

Land Covenant in Covenant Instrument 12567988.2 - 23.9.2022 at 5:14 pm

12645999.1 CAVEAT BY TOP ENERGY LIMITED - 17.1.2023 at 10:29 am





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




R.W. Muir
Registrar-General
of Land

Identifier **NA105D/6**
Land Registration District **North Auckland**
Date Issued 16 January 1996

Prior References

NA75C/188

Estate Fee Simple
Area 48.7300 hectares more or less
Legal Description Lot 1 Deposited Plan 172560 and Section 2
Block I Ahipara Survey District

Registered Owners

Lodestone Energy Limited

Interests

12556720.1 Lease Term 30 years commencing 13 September 2022 (right of renewal) Record of Title issued 1090155 - 16.9.2022 at 9:28 am

Appurtenant hereto is a right of way and the right to convey electricity and telecommunications created by Easement Instrument 12567988.1 - 23.9.2022 at 5:14 pm

Land Covenant in Covenant Instrument 12567988.2 - 23.9.2022 at 5:14 pm

12645999.1 CAVEAT BY TOP ENERGY LIMITED - 17.1.2023 at 10:29 am

12674862.1 CAVEAT BY TOP ENERGY LIMITED - 28.2.2023 at 2:22 pm

CERTIFICATE OF TITLE No. <u>1</u>		
PARCEL	FORMERLY	CT FILE
Lot 1	PA 5607 28/7 Taharua S.D. (50.5769/1)	703/180
TOTAL AREA LOT 1		
1578.55 ha		
APPROVED FOR CT DIAGRAM PURPOSES		
7.12.196 <i>5/10/196</i>		
REPRODUCED FOR CT PURPOSES		
19.10.1996		
21.10.1996		
DP472560		

NEW CTS ALLOCATED Lot 1 hereon and Section 2 Bk. I Ahupara S.D. - 105D/6 (Total Area: 48.3300 ha.)

LOCAL AUTHORITY FAR NORTH DISTRICT

Prepared by *Scale - Proper Land*

Date *19.10.1996*

Plan of Lot 1

for CT Diagram Purposes

NORTH AUCKLAND LAND DISTRICT

SURVEY DISTRICT 1 AHUPARA, 1 TAKAHUE

NZMS 261 SHEET No. 0 04/13

View Instrument Details



Instrument No 12556720.1
Status Registered
Date & Time Lodged 16 September 2022 09:28
Lodged By Warren, Edward Alan Emerton
Instrument Type Lease



Affected Records of Title	Land District
NA105D/6	North Auckland
NA75C/189	North Auckland
1090155	North Auckland

Annexure Schedule Contains 35 Pages.

Lessor Certifications

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

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

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

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

Signature

Signed by Nicholas John Wilson as Lessor Representative on 16/09/2022 09:13 AM

Lessee Certifications

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

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

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

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

Signature

Signed by Nicholas John Wilson as Lessee Representative on 16/09/2022 09:14 AM

*** End of Report ***

Form 11**Lease instrument**

(Section 91 Land Transfer Act 2017)

Record of Title (unique identifier)	All/part	Area/Description of part
NA105D/6 NA75C/189	All	Lot 1 Deposited Plan 172560 and Section 2 Block I Ahipara Survey District Section 1 Block I Ahipara Survey District and Section 15 Block I Takahue Survey District

Lessor

Lodestone Energy Limited

Lessee

Lodestone Solar Limited

Estate or Interest

Insert "fee simple"; "leasehold in lease number" etc.

Fee simple

Lease Memorandum Number (if applicable)

N/A

Term

30 years

Rental

\$1,000 per hectare per annum

Lease and Terms of Lease*If required, set out the terms of lease in Annexure Schedule(s)*

The Lessor leases to the Lessee and the Lessee accepts the lease of the above Estate or Interest in the land in the affected record of title(s) for the Term and at the Rental and on the Terms of Lease set out in the above Lease Memorandum or in the Annexure Schedule(s) (if any)

Annexure Schedule

Page 1 of 34 Pages

Insert instrument type

Lease Instrument

*Continue in additional Annexure Schedule, if required***REFERENCE SCHEDULE**

Item 1 (clause 1.1)	Premises The Land, including the Lessor's Property, but excluding the Lessee's Property
Item 2 (clause 1.1)	Land The land comprised in the following record(s) of title: NA105D/6 being Lot 1 Deposited Plan 172560 and Section 2 Block I Ahipara Survey District NA75C/189 being Section 1 Block I Ahipara Survey District and Section 15 Block I Takahue Survey District
Item 3 (clause 1.1)	Initial Term 30 years
Item 4 (clause 1.1)	Commencement Date 13 September 2022
Item 5 (clause 1.1)	Expiry Date 12 September 2052
Item 6 (clauses 1.1, 3)	Renewal Terms 4 rights of renewal, each for a period of 5 years commencing on the relevant Renewal Date
Item 7 (clause 1.1)	Renewal Dates 13 September 2052 13 September 2057 13 September 2062 13 September 2067
Item 8 (clause 1.1)	Final Expiry Date 12 September 2072
Item 9 (clause 4.1)	Annual Rent \$1,000 per hectare per year
Item 10 (clause 5)	Monthly Rent One twelfth of the Annual Rent
Item 11 (clause 5)	Rent Review Dates Each date falling on the anniversary of the Commencement Date during the Term

Annexure Schedule

Page 2 of 34 Pages

Insert instrument type

Lease instrument

Continue in additional Annexure Schedule, if required

Item 12 (clauses 1.1 and 4)	Rent Payment Dates The Commencement Date and, for each month during the Term, the first day of that month.
Item 13 (clause 10.1)	Permitted Use The establishment and operation of a utility scale solar farm (including batteries) and any ancillary uses such as upgrading, adding to or redeveloping the solar farm, office use, on-site accommodation for staff, and storage of plant and equipment. Any farming activities which can occur at the same time as, and which do not adversely affect, to any material extent, the operation of the solar farm, including but not limited grazing, horticulture, and cropping.
Item 14 (clauses 6.1 and 8.2)	Interest Rate 10%

Annexure Schedule

Page 3 of 34 Pages

Insert instrument type

Lease instrument

Continue in additional Annexure Schedule, if required

SCHEDULE OF GENERAL TERMS AND CONDITIONS
CONTENTS

1. Definitions and Interpretation.....	4
2. Grant and Nature of Lease	10
3. Right of Renewal	12
4. Rent	13
5. Rent Review	13
6. Operating Costs	14
7. Payment for Charges and Services.....	15
8. Payment Obligations	16
9. Transferring, Subletting, Encumbering.....	17
10. Use of Premises	18
11. Insurance/Liability	19
12. Indemnities	19
13. Compliance with Laws and Regulatory Requirements	20
14. Work Health and Safety.....	21
15. Maintenance, Repair and Alteration of Premises.....	22
16. Signage.....	23
17. Lessee's Rights and Obligations	23
18. Destruction, Damage and REinstatement.....	24
19. Default.....	25
20. Lessee's Obligations on Expiry or Termination.....	27
21. Costs, Charges and Expenses.....	27
22. Notices	28
23. Miscellaneous	29
24. Confidentiality	30
25. Governing Law and Jurisdiction	31
26. GST.....	31
27. No Warranty as to Suitability of Premises.....	32
28. Resolution of Disputes.....	32
29. Property Law Act	33
30. Lessor's Consent	33
Schedule 1 – Lessee's Property	

Annexure Schedule

Page 4 of 34 Pages

Insert instrument type

Lease instrument

*Continue in additional Annexure Schedule, if required***THIS LEASE INSTRUMENT RECORDS THAT:****1. DEFINITIONS AND INTERPRETATION****1.1 Definitions:** In this Lease, unless the context indicates otherwise:

Annual Rent means the amount set out in Item 9, subject to any rent review under clause 5;

Approval means any permit, approval, consent, licence, permission, certificate or authorisation required to authorise any work on or use of the Premises, under a statute, by any Authority or otherwise;

Authority means any governmental, local, territorial or statutory authority having jurisdiction or authority over the Premises or their use;

Bank Direct Deed means the bank direct deed dated on or about the date of this Lease and executed by the Lessee, Lessor and Lender, and any additional or replacement deed entered into on materially the same terms as contemplated under clause 9.7;

Claim means any claim, demand, remedy, suit, injury, damage, loss, costs, liability, action, proceeding, and right of action;

Commencement Date means the date specified in Item 4;

Companies Act means the Companies Act 1993;

Event of Default has the meaning given to it in clause 19.1;

Expiry Date means the date specified in Item 5;

Final Expiry Date means the date set out in Item 8;

Good Industry Practice means, in relation to any activity, the exercise of a degree of skill, diligence, prudence and foresight which would reasonably and ordinarily be expected from a skilled and experienced person engaged in New Zealand in the same type of activity, under the same or similar circumstances;

GST means tax levied under the GST Act and includes any tax levied in substitution for that tax, but excluding any penalties or interest payable in respect of non-payment or late payment of such tax;

GST Act means the Goods and Services Tax Act 1985;

HSWA means the Health and Safety at Work Act 2015;

Annexure Schedule

Page 5 of 34 Pages

Insert instrument type

Lease instrument

Continue in additional Annexure Schedule, if required

HSW Laws means the Laws and any mandatory codes of practice relating to occupational health and safety that apply to the Premises and the use of them and including the HSWA;

Initial Term means the period set out in Item 3, starting on the Commencement Date and ending on the Expiry Date (unless terminated earlier in accordance with this Lease);

Insolvency Event means, in respect of either party:

- (a) **Insolvency:** an application to a court for an order appointing a liquidator, provisional liquidator or interim liquidator in respect of that party; or
- (b) **Resolutions:** the shareholders of that party passing a special resolution or the board of that party resolving to appoint a liquidator, or formal notice of a proposed resolution to do so being given or any other steps being taken evidencing an intention to do so;

Item means an item in the Reference Schedule;

Land means the land described in Item 2;

Land Covenant means an easement, covenant or other security interest affecting the Land during the Term, including each easement, covenant or other security interest registered on the record of title to the Land as at the Commencement Date;

Law means any statute, regulation, order, rule, subordinate legislation or other document enforceable under a statute, regulation, order, rule or subordinate legislation;

Lease means this lease instrument;

Lessee means the person specified as such on the first page of this Lease;

Lessee's Business means the business or activity carried on by the Lessee at or from the Premises, which consists primarily of the establishment and operation of a utility scale solar farm, and includes the other activities described in the Permitted Use;

Lessee's Employees and Agents means each of the Lessee's employees, officers, agents, contractors, service suppliers, sub-lessees, licensees and invitees;

Lessee's Insurance has the meaning given to it in clause 11.1;

Annexure Schedule

Page 6 of 34 Pages

Insert instrument type

Lease instrument

Continue in additional Annexure Schedule, if required

Lessee's Property means all items of plant and equipment required for the operation of a utility scale solar farm, which are on the Land and are owned or were paid for by the Lessee or leased by the Lessee from third parties or which the Lessee or any Lessee's Employees and Agents bring onto the Land or fix to the Premises, after the Commencement Date, including those items described in Schedule 1, but excluding:

- (a) any personal property belonging to the Lessee's Employees and Agents, including any personal computers or hard copy documents; and
- (b) any improvements installed or constructed on the Land after the Commencement Date, to the extent that they are paid for directly by the Lessor;

Lessor means the person specified as such on the first page of this Lease;

Lessor's Employees and Agents means any employees, officers, agents or contractors of the Lessor who at any time are in or on the Premises for the purposes of exercising a right or performing an obligation of the Lessor under this Lease, but excluding the Lessee and the Lessee's Employees and Agents;

Lessor's Property means all buildings, fixtures, fittings in, on or fixed to the Land as at the Commencement Date and any buildings, fixtures, fittings in, on or fixed to the Land after the Commencement Date that the Lessor and the Lessee agree in writing are Lessor's Property, including any replacements of such items, effected by or at the cost of the Lessee after the Commencement Date, but excluding in all cases all of the Lessee's Property;

Lender means the secured party under the Bank Direct Deed which, as at the Commencement Date, is Westpac New Zealand Limited, but which may change from time to time in accordance with the terms of the Bank Direct Deed;

LINZ means Land Information New Zealand and its successors;

Operating Costs means the total of all outgoings, costs and expenses in any way relating to the Premises or the interest of the Lessor in the Premises (to the extent not otherwise paid by the Lessee), including the following:

- (a) all rates, charges, levies, assessments, duties, impositions and fees from time to time payable by the Lessor to any Authority relating to the Premises or Lessee's Property irrespective of its ownership;
- (b) insurance premiums and amounts payable in respect of any insurance policies in respect of the Premises which are required by Law to be taken out and maintained by the Lessor (and cannot be discharged by requiring the Lessee to take them out); and

Annexure Schedule

Page 7 of 34 Pages

Insert instrument type

Lease instrument

Continue in additional Annexure Schedule, if required

- (c) any costs required to be met by the Lessee under this Lease but incurred by the Lessor in relation to repair or maintenance, including capital and structural repair and replacements and Structural Work, in respect of the Premises,

but excludes any such costs which are otherwise separately recoverable under this Lease;

Permitted Use has the meaning set out in Item 13;

PCBU has the meaning given to that term in section 17 of the HSWA;

Premises has the meaning set out in Item 1;

Producers Price Index or **PPI** means the producers price index as published by Statistics New Zealand or its successor (or, if that index ceases to be published or otherwise ceases to be available to the parties, means such other index as measures, in a manner which most closely resembles the manner in which the producers price index measures, inflation or deflation in New Zealand immediately prior to the producers price index published by Statistics New Zealand becoming unavailable to the parties or ceasing to be published);

Reference Schedule means the schedule at the beginning of this Lease;

Related Company has the meaning given to that term in section 2(3) of the Companies Act;

Rent Payment Date means each date described in Item 12;

Rent Review Date means each date described in Item 11;

Renewal Date means each date described as such in Item 7;

Renewal Term(s) means the periods specified in Item 6;

Services means the following items, where these exclusively service and are part of the Premises, and are not owned or controlled by any third party:

- (a) water, gas, electrical, plumbing and drainage installations and systems; and
- (b) any fittings, fixtures, appliances, plant and equipment utilised for any of the services described in paragraph (a) of this definition;

Annexure Schedule

Page 8 of 34 Pages

Insert instrument type

Lease instrument

Continue in additional Annexure Schedule, if required

Solar Farm Development Works means any development, construction, upgrading, repairing, maintaining or other work at the Premises which the Lessee in its sole discretion considers desirable or necessary for the establishment and operation of a solar farm, including:

- (a) installation of batteries, power plants and other electrical equipment;
- (b) erection of solar panels, piles, racks and tracking systems to support and operate the solar panels on the piles; and
- (c) installation of cables and other infrastructure required for the operation of a solar farm;

Structural Work means any of the following works to ensure the Lessee's use of the Premises complies with all applicable Laws, including any Approval relating to the Lessee's Business:

- (a) repairing or replacing any external or internal load bearing structures of the Premises, including foundations, columns, walls, floors and beams and other forms of support;
- (b) to the extent reasonably necessary to support the Lessee's Business:
 - (i) repairs and replacements of or in connection with any Services;
 - (ii) repair, replacement, renewal, reinstatement or resurfacing of any carpark, roads, paths and accessways forming part of the Premises; and
 - (iii) repairs and replacements to retaining walls, batter, kerbing and guttering forming part of the Premises; and
- (c) repairs and replacements necessary to keep the Premises structurally sound, weatherproof and watertight, including the roof or façade of any part of the Lessor's Property;

Term means the term of this Lease and includes the Initial Term and (to the extent this Lease is renewed in accordance with clause 3) any Renewal Term(s); and

Working Days has the meaning given to that term in section 4 of the Property Law Act 2007.

Annexure Schedule

Page 9 of 34 Pages

Insert instrument type

Lease instrument

Continue in additional Annexure Schedule, if required

- 1.2 Interpretation:** In this Lease, unless the context indicates otherwise:
- (a) **Defined Expressions:** expressions defined in the main body of this Lease have the defined meaning throughout this Lease;
 - (b) **Headings:** clause and other headings are for ease of reference only and will not affect this Lease's interpretation;
 - (c) **Parties:** references to any **party** include that party's executors, administrators, successors and permitted assigns;
 - (d) **Persons:** references to a **person** include an individual, company, corporation, partnership, firm, joint venture, association, trust, unincorporated body of persons, governmental or other regulatory body, authority or entity, in each case whether or not having a separate legal identity;
 - (e) **Plural and Singular:** references to the singular include the plural and vice versa;
 - (f) **Clauses:** references to clauses are to clauses in this Lease;
 - (g) **Statutory Provisions:** references to any statutory provision are to statutory provisions in force in New Zealand and include any statutory provision which amends or replaces it, and any by law, regulation, order, statutory instrument, determination or subordinate legislation made under it;
 - (h) **Negative Obligations:** any obligation not to do anything includes an obligation not to suffer, permit or cause that thing to be done;
 - (i) **Inclusive Expressions:** the term **includes** or **including** (or any similar expression) is deemed to be followed by the words "without limitation";
 - (j) **Monetary Amounts:** all monetary amounts are stated exclusive of GST and in New Zealand currency, and all amounts payable by a party under this Lease are to be paid in that currency. GST is payable at the same time and in the same manner as is any other amount payable under this Lease, where that amount is subject to GST under the GST Act;
 - (k) **Documents:** references to any document (however described) are references to that document as modified, novated, supplemented, varied or replaced from time to time and in any form, whether on paper or in an electronic form; and

Annexure Schedule

Page 10 of 34 Pages

Insert instrument type

Lease instrument

Continue in additional Annexure Schedule, if required

- (l) **Costs:** references to **costs** means any costs, charges and expenses, outgoings, payments or other expenditure of any nature (whether direct, indirect or consequential and whether accrued or paid) including where appropriate all rates and all legal fees on a full indemnity basis or a solicitor/client basis, whichever is higher, and fees of other experts and consultants.

2. GRANT AND NATURE OF LEASE

- 2.1 Grant of Lease:** The Lessor leases the Premises to the Lessee and the Lessee takes the Premises on lease for the Initial Term at the Annual Rent.

2.2 Nature of Tenancy:

- (a) The Lessee must, from and including the Commencement Date and throughout the Term, pay all Operating Costs in relation to the Premises, and the Lessor has no responsibility or obligation in that regard whatsoever on and from the Commencement Date until the expiry or earlier termination of this Lease, except as expressly provided in this Lease.

- (b) The Lessee takes the grant of the Lease set out in clause 2.1 subject to, and must observe and perform at its cost, the same responsibilities and liabilities (including all indemnity obligations) in relation to the Premises, including in respect of:

- (i) each Land Covenant; and
- (ii) Structural Work,

which the Lessee would take and be subject to if the Lessee was the owner of the Premises.

- 2.3 Ownership of Lessee's Property:** Subject to clause 20.2, the Lessor acknowledges and accepts the Lessee's title to the Lessee's Property, and that all Lessee's Property will be and will remain in the ownership of the Lessee, and will not, during the Term, become Lessor's Property or a fixture on the Premises. The Lessor will obtain written acknowledgement of the matters set out in this clause from any purchaser or mortgagee having any interest in the Premises.

Annexure Schedule

Page 11 of 34 Pages

Insert instrument type

Lease instrument

Continue in additional Annexure Schedule, if required

2.4 Grant of New Easements: If, during the Term, the Lessee determines that any Land Covenant, consent or licence is necessary or desirable for the operation of the Lessee's Business and:

- (a) where any such Land Covenant, consent or licence will:
- (i) burden the Land (or any other land owned by the Lessor); or
 - (ii) need to be granted by the Lessor as the owner of the Premises,

the Lessor will agree to the grant of such Land Covenant, consent or licence and (where necessary) registration of any Land Covenant on the records of title for the Land (or other land) in a form to be prepared by the Lessee's solicitors, and the Lessor will sign any authority and instruction form or any other document, and do any other thing required for the grant and/or registration of such Land Covenant, consent or licence; and

- (b) where any such Land Covenant, consent or licence will:
- (i) benefit the Land, and burden any other land (not owned by the Lessor); or
 - (ii) need to be granted by any other landowner or relevant Authority,

the Lessor will exercise reasonable endeavours to assist the Lessee in obtaining the grant by any other landowner or relevant Authority of such Land Covenant, consent or licence and (where necessary) registration of any Land Covenant on any relevant land.

2.5 Licence, Assignment or Transfer: Where the Lessor is party to or has the benefit of any Land Covenant, licence or consent relating to the Premises or the Lessee's Business which the Lessee does not automatically receive the benefit of as Lessee under this Lease, the Lessor will sign any document and do any other thing to license, assign, or transfer such Land Covenant, licence or consent to the Lessee. Where the licence, assignment or transfer is not entirely within the control of the Lessor, the Lessor will use reasonable endeavours to provide for such licence, assignment or transfer.

Insert instrument type

Lease instrument

*Continue in additional Annexure Schedule, if required***3. RIGHT OF RENEWAL****3.1 Preconditions:** If:

(a) **Written Notice:** at least 18 months before the Expiry Date, and, in the event that any rights of renewal under this clause 3 are exercised, at least 6 months before the expiry date of the relevant Renewal Term, the Lessee gives the Lessor written notice of the Lessee's wish to renew this Lease for a Renewal Term; and

(b) **Compliance by Lessee:** the Lessee is compliant, in all material respects, with all of the Lessee's obligations under this Lease;

then the Lessor will renew this Lease at the Lessee's cost for the Renewal Term beginning on the relevant Renewal Date which immediately follows the expiry of the Initial Term or previous Renewal Term (as relevant).

3.2 Terms of Renewed Lease: The renewed lease will be on the same terms as this Lease excluding this clause 3 unless further Renewal Term(s) are specified in the Reference Schedule. If there are further Renewal Term(s) remaining, the renewed lease will include this clause 3. The Term will never expire later than the Final Expiry Date.

3.3 Reviews of Rent: The Annual Rent payable by the Lessee during each Renewal Term will be subject to review on the Rent Review Dates in accordance with clause 5.

3.4 Holding Over: If, other than under a renewal of this Lease or the grant of a further lease, the Lessor permits the Lessee to remain in occupation of the Premises after the expiry or earlier termination of the Term, the occupation will be a periodic tenancy only, determinable by six months' notice by either the Lessor or the Lessee to the other of them, at the Annual Rent then payable and otherwise on the same terms and conditions (as far as applicable to a periodic tenancy) as are contained in this Lease. Any notice given under this clause must expire concurrently with the expiry of any six month tenancy period.

3.5 Registration of Renewed Lease: Where this Lease is renewed for a Renewal Term, the parties will each do all things necessary to register a renewal or replacement lease instrument for the Renewal Term on the record(s) of title for the Land with LINZ.

Annexure Schedule

Page 13 of 34 Pages

Insert instrument type

Lease instrument

Continue in additional Annexure Schedule, if required

4. RENT

4.1 Payment: The Lessee must pay the Annual Rent by equal monthly payments in advance on the Rent Payment Dates. However, while each monthly instalment of Annual Rent must be paid in full, this clause will not prejudice the Lessee's ability to separately pursue any other valid claim or defence that it may have following payment of that instalment in full.

4.2 No Implied Abatement Right: The parties acknowledge that, to the fullest extent permitted by law, the covenant implied into leases pursuant to section 245G(1) Property Law Act 2007 is negated and does not apply to this Lease.

5. RENT REVIEW

5.1 Method of Calculation: The Annual Rent payable on and from each Rent Review Date will be determined in accordance with the following formula:

$$B = A \times \left(\frac{C \text{ minus } E}{E} \right)$$

where:

A = Annual Rent payable immediately before the relevant Rent Review Date;

B = Annual Rent payable on and from the relevant Rent Review Date;

C = PPI ending on the quarter immediately preceding the relevant Rent Review Date;

D = 50% of (C minus E); and

E = PPI ending on the quarter immediately preceding the Commencement Date or the date of the immediately preceding relevant Rent Review Date, whichever is the later,

provided that $\left(\frac{C \text{ minus } E}{E} \right)$ will never be less than 1.015. The Lessor will, by written notice to the Lessee (**Rent Review Notice**) confirm, at the earliest available opportunity, any increase in the Annual Rent pursuant to this clause.

5.2 Rent Review Notice Late: If the Lessor fails to issue the Rent Review Notice to the Lessee before any Rent Review Date, the Lessor will not forfeit the right to review the Annual Rent. If the Lessor issues the Rent Review Notice later than the relevant Rent Review Date, that notice, whenever given, will have the same force as if it were served before that Rent Review Date (provided that any resulting shortfall in the Annual Rent paid by the Lessee will be payable at the same time as the next instalment of Annual Rent).

Annexure Schedule

Page 14 of 34 Pages

Insert instrument type

Lease instrument

Continue in additional Annexure Schedule, if required

5.3 Deed of Variation: The Lessee must, on the Lessor's request, sign a deed of variation prepared by the Lessor's solicitor(s) recording any change to the Annual Rent under clause 5.1. Each party will pay its own costs relating to the deed of variation.

6. OPERATING COSTS

6.1 Lessee to Pay Operating Costs:

- (a) The Lessee must, for the Term of this Lease, pay any Operating Costs invoiced directly to it in accordance with the terms of such invoice, or reimburse the Lessor within 20 Working Days after a request from the Lessor where any Operating Costs are invoiced to the Lessor.
- (b) If any Operating Costs are paid by the Lessor, the Lessee must reimburse the amount equal to the amount paid by the Lessor plus interest. Interest must be paid on the amount from the date which is 10 Working Days after a request from the Lessor for payment of the relevant Operating Cost until the date on which the amount is received from the Lessee and is:
 - (i) calculated on daily balances at the rate per annum specified in Item 14; and
 - (ii) capitalised on the last day of each month if unpaid.

6.2 Lessor to Provide Notices to Lessee:

- (a) The Lessor must promptly and, in any event, in sufficient time to enable the Lessee to pay on time, provide to the Lessee any notice which the Lessor receives, relating to the payment or assessment of Operating Costs.
- (b) The Lessor must promptly provide to the Lessee a copy of any document received by the Lessor which notifies the Lessor that:
 - (i) any Operating Costs; or
 - (ii) the basis of calculation of any Operating Costs (including valuations made by any Authority),
 may be or has been varied.

Annexure Schedule

Page 15 of 34 Pages

Insert instrument type

Lease instrument

Continue in additional Annexure Schedule, if required

- (c) If at any time the Lessee is required to pay insurance premiums (under paragraph (b) of the definition of Operating Costs in clause 1.1), the Lessor and the Lessee must act reasonably and in good faith in discussing and agreeing a regime which ensures that, consistently with the Lessee being required to pay those premiums as part of Operating Costs, the Lessee is entitled to receive the benefit of any proceeds under such policies to the extent those proceeds correspond to obligations under this Lease that the Lessee is obliged to perform at its cost.

6.3 Objection to Valuations:

- (a) The Lessor must notify the Lessee in writing of all valuations or assessments of the whole or any part of the Premises made by any Authority, to enable the Lessee to object if it wishes.
- (b) Such notice must be given by the Lessor to the Lessee within 10 Working Days following receipt of any valuation or assessment notice in relation to the Premises by the Lessor.
- (c) The Lessor must permit the Lessee to object to the valuation or assessment and, for that purpose, use the Lessor's name, and the Lessor agrees, at the Lessee's cost, to use reasonable endeavours to support any such objection by the Lessee, provided that:
- (i) the Lessee must indemnify the Lessor against all costs payable by the Lessor as a result of the Lessee objection; and
 - (ii) the Lessee must not reach any compromise agreement with the valuing or assessing Authority without the prior consent in writing of the Lessor (not to be unreasonably withheld or delayed), except in the circumstances of a valuation objection where the Lessee is seeking to reduce the valuation or assessment in a standard objection process.

7. PAYMENT FOR CHARGES AND SERVICES**7.1 Costs for Services:** The Lessee must pay on time during the Term:

- (a) all costs for Services; and
- (b) all rates, charges for water, and any other charges imposed directly on the Premises, resulting from the Lessee's Business, the Lessee's Property or the Lessee's occupation of the Premises.

Annexure Schedule

Page 16 of 34 Pages

Insert instrument type

Lease instrument

Continue in additional Annexure Schedule, if required

7.2 Rating Valuation Roll: During the Term, the Lessee must be entered as the ratepayer on the rating information database and district valuation roll pursuant to the Local Government Rating Act 2002.

8. PAYMENT OBLIGATIONS

8.1 Lessee to Pay: The Lessee must make payments due under this Lease:

- (a) without demand, unless this Lease states that demand must be made;
- (b) without set-off, counter claim, withholding or deduction, except where required by law or expressly provided for in this Lease;
- (c) to the Lessor (unless a payment is required to be paid by the Lessor to another party);
- (d) by electronic transfer, or such other method nominated by the Lessor and approved by the Lessee (acting reasonably); and
- (e) following receipt of a valid tax invoice (if applicable).

8.2 Interest: If the Lessee does not pay an amount by the date that it is due to be paid to the Lessor under this Lease, it must pay interest on that amount on demand from when the amount becomes due until it is paid in full. Interest is:

- (a) calculated on daily balances at the rate per annum in Item 14; and
- (b) capitalised on the last day of each month if unpaid,

but does not apply to any penalty or fine incurred due to the Lessor's delay or default.

8.3 Interest Gross Up: If the Lessee is required to make any deduction or withholding for or on account of tax from a payment of interest in accordance with clause 8.2, then the amount payable to the Lessor will be increased to the extent necessary to ensure that, after the relevant deduction or withholding is made, the Lessor receives and retains the amount it would have received had no such deduction or withholding been required.

8.4 Payments not Affected: The Lessee's obligations to make payments under this Lease for periods before the expiry or termination of this Lease are not affected by the expiry or termination of this Lease.

Annexure Schedule

Page 17 of 34 Pages

Insert instrument type

Lease instrument

*Continue in additional Annexure Schedule, if required***9. TRANSFERRING, SUBLETTING, ENCUMBERING****9.1 Transfer:**

- (a) The Lessee may assign or transfer its interest in this Lease to a Related Company of the Lessee, without the prior approval of the Lessor, subject to the Related Company entering into a direct covenant with the Lessor pursuant to clause 9.2 of this Lease;
- (b) The Lessee may assign or transfer its interest in this Lease to any person or entity without the prior approval of the Lessor if required to do so by the Lender in accordance with the terms of the Bank Direct Deed.
- (c) Without limiting clause 9.1(a), the Lessee may assign or transfer its interest in this Lease to any person or entity, subject to obtaining the Lessor's prior written consent to that assignment, such consent not to be unreasonably withheld or delayed if:
 - (i) the Lessee satisfies the Lessor (acting reasonably) that the proposed new Lessee is financially sound and has sufficient financial resources to comply with the Lessee's obligations under this Lease;
 - (ii) the Lessee is not in material default of its obligations under this Lease; and
 - (iii) the Lessee and the proposed new Lessee have complied with clause 9.2.

9.2 Deed on Transfer: Where this Lease is assigned or transferred by the Lessee, the Lessee, the proposed new Lessee and the Lessor must enter into a deed in a form reasonably required by the Lessor, which will include a covenant by the proposed new Lessee to be bound by this Lease as if the proposed new Lessee was the Lessee.

9.3 Change of Management or Control: The Lessee will not require the Lessor's consent for any change in the legal or beneficial ownership of the Lessee's shares, or any change in the legal or beneficial ownership of any holding company of the Lessee, or a change of effective management or control of the Lessee or any holding company of the Lessee.

9.4 Registration: At the time any transfer described in clause 9.1 takes place, the parties will take all necessary steps, at the Lessee's cost, to transfer the registered lease by registration with LINZ.

Annexure Schedule

Page 18 of 34 Pages

Insert instrument type

Lease instrument

Continue in additional Annexure Schedule, if required

- 9.5 Subletting and Licensing:** The Lessee may, without the Lessor's consent, sublet, or grant licences to any person for the occupation or use of, the whole or any part of the Premises, provided that:
- (a) the use of the Premises under the proposed sublease or licence is a Permitted Use;
 - (b) the proposed sublease or licence provides that the expiry date of the sublease or licence is no later than the date this Lease expires or is terminated; and
 - (c) the proposed sublease or licence provides that the subtenant acknowledges and agrees that if this Lease (the head lease) ends for any reason then the sublease automatically ends at the same time.
- 9.6 Security Interests:**
- (a) The Lessee will be entitled to grant a security interest over the Lessee's interest in this Lease in favour of its financier(s) (which may include the Lender).
 - (b) Except as set out in clause 9.6(a), the Lessee will not grant a security interest or do or allow anything that results in a security interest being created or arising over the Lessee's interest in this Lease, without the Lessor's consent, which cannot be unreasonably withheld or delayed.
 - (c) The Lessor must not register a security interest against the freehold title(s) for the Land without the relevant security holder acknowledging in writing that such security interest is subject to this Lease and that the relevant security holder (and any receiver they appoint) is bound by the Lessor's obligations under the Lease if they take possession of the Premises.
- 9.7 Lessor's Obligations:** The Lessor may not sell, dispose of, transfer, mortgage, grant any security interest over or otherwise encumber the whole or any part of the Land unless the Lessor has first procured that the proposed transferee, mortgagee, security holder or encumbrancee enters into a direct deed in a form materially the same as the Bank Direct Deed in place as at the Commencement Date. Any direct deed entered into under this clause will constitute a Bank Direct Deed as that term is defined in clause 1.1.
- 10. USE OF PREMISES**
- 10.1** The Lessee may use the Premises for the Permitted Use only. The Lessee must not use the Premises for any use outside the Permitted Use, unless the Lessor has given its prior written consent.

Annexure Schedule

Page 19 of 34 Pages

Insert instrument type

Lease instrument

*Continue in additional Annexure Schedule, if required***11. INSURANCE/LIABILITY**

11.1 Lessee's Insurance Obligations: During the Term, the Lessee must hold and maintain as current an insurance policy in respect of damage to or destruction of the Services and the Lessor's Property, in each case for full replacement value (**Lessee's Insurance**). The terms of the Lessee's Insurance must provide that all insurance proceeds are payable by the insurer to the Lessee. The Lessee must, whenever reasonably required by the Lessor to do so, provide to the Lessor written evidence of compliance by the Lessee with this clause.

11.2 Lessee's Other Insurance: During the Term, the Lessee may in its sole discretion hold and maintain any other insurance policies in respect of the Services, the Lessor's Property, the Lessee's Property or otherwise in relation to this Lease.

11.3 Exclusion of Lessor's Liability:

(a) The Lessee uses and occupies the Premises (and undertakes the Lessee's Business) at its own risk and all Lessee's Property is on the Premises at the sole risk of the Lessee.

(b) The Lessor and the Lessor's Employees and Agents are not liable for any Claim that the Lessee or the Lessee's Employees and Agents or any person claiming by, through or under the Lessee may incur or make or which arises from:

(i) the use or occupation of the Premises by the Lessee or the Lessee's Employees and Agents;

(ii) any fault in the construction or state of repair of the Premises or any part of them; or

(iii) any defect in any Service,

in each case, except to the extent that any deliberate or negligent act or omission or default of the Lessor or the Lessor's Employees and Agents have caused or contributed to the Claim.

11.4 Property Law Act: Pursuant to section 271 of the Property Law Act 2007, the Lessor has not insured, and has no responsibility to insure, the Premises.

12. INDEMNITIES

12.1 Lessor Indemnified: The Lessee indemnifies the Lessor against all Claims suffered or incurred by the Lessor resulting from a breach of the Lessee's obligations under this Lease.

Annexure Schedule

Page 20 of 34 Pages

Insert instrument type

Lease instrument

Continue in additional Annexure Schedule, if required

12.2 Repair Costs: The Lessee must pay to the Lessor on demand the Lessor's costs incurred in repairing any damage to the Premises resulting from the Lessee's act or omission.

12.3 Release: The Lessee releases the Lessor and the Lessor's Employees and Agents from, and agrees that the Lessor and the Lessor's Employees and Agents are not liable for, any Claim arising from, and any costs incurred in connection with:

- (a) any Claim relating to the Lessee's Property, the Lessee's Employees or Agents or any other person on the Premises or any part of them;
- (b) any damage, injury or death occurring on the Premises;
- (c) the Lessee's use and occupation of the Premises; or
- (d) the Premises not complying with any Law or the requirements of any Authority,

except to the extent the Claim arises from, or the cost is incurred as a result of, any deliberate or negligent act or omission or default of the Lessor or the Lessor's Employees and Agents.

13. COMPLIANCE WITH LAWS AND REGULATORY REQUIREMENTS

13.1 Compliance with Law: The Lessee must, at its cost, comply on time with all Laws and with the reasonable requirements of Authorities in connection with the Premises, the Lessee's Business, the Lessee's Property and the Lessee's use and occupation of the Premises.

13.2 Contamination: The Lessee will not contaminate the Premises during the Term.

13.3 Remediation: The Lessee will be required to decontaminate or remediate any contamination at the Premises where:

- (a) the contamination has been caused by the Lessee during the Term; or
- (b) the need to remediate contamination has arisen:
 - (i) due to enforcement action by an Authority (not initiated by the Lessor) during the Term; or
 - (ii) as a result of a resource consent or land use consent application by the Lessee, ground works by the Lessee or a proposed change in use of the Premises by the Lessee.

Annexure Schedule

Page 21 of 34 Pages

Insert instrument type

Lease instrument

*Continue in additional Annexure Schedule, if required***14. WORK HEALTH AND SAFETY**

- 14.1 Compliance with HSW Laws:** The parties acknowledge that they are both PCBU's under the HSWA in their respective capacities as Lessor and Lessee of the Premises for the purposes of the HSW Laws and as such both parties are required to comply with the provisions of the HSW Laws in relation to the activities carried out at the Premises.
- 14.2 No Risk:** The parties will each take all reasonably practicable steps and to the extent that their respective legal duties require, to ensure the health and safety of any worker or other persons are not put at risk from work carried out as part of the Lessee's Business.
- 14.3 Allocation of Responsibility:** As between the Lessor and the Lessee, the Lessee will have the primary responsibility to ensure that the Lessee's Business is undertaken in a manner that complies with the requirements of the HSW Laws. The Lessee will provide information to the Lessor as reasonably required by the Lessor to evidence that the Lessee is managing its use and occupation of the Premises in a manner to avoid any breach of the HSW Laws.
- 14.4 Consultation and Co-operation:** The Lessor and the Lessee are duty holders under the HSW Laws and under this Lease they will have some duties over the same matter. To assist each party to manage those duties, they agree to consult, co-operate and co-ordinate activities as required.
- 14.5 Representatives to Meet:** If required by the Lessor, representatives of the parties will meet to discuss and review the Lessee's site-specific safety plan for the Lessee's Business (**H&S Plan**), any health and safety incidents that have occurred during the Term, and other matters which concern the operation of the Premises in accordance with the HSW Laws.
- 14.6 Lessor's Review Does Not Relieve the Lessee of its Obligations:** The Lessor's review and approval of the H&S Plan under clause 14.5 (if required) will not relieve the Lessee of any of its obligations to comply with the HSW Laws otherwise set out in this clause.
- 14.7 Lessee Acknowledgement:** The Lessee acknowledges that the Lessor has no control or influence over health and safety matters in connection with the Lessee's Business and the Lessor will not be responsible for the provision of any safety training or inductions other than to persons engaged directly by the Lessor.

Annexure Schedule

Page 22 of 34 Pages

Insert instrument type

Lease instrument

*Continue in additional Annexure Schedule, if required***15. MAINTENANCE, REPAIR AND ALTERATION OF PREMISES****15.1 Lessee's Obligation to Maintain and Repair:**

- (a) The Lessee:
- (i) must keep the Premises clean and tidy and in good condition and repair (having regard to their condition at the Commencement Date of the Initial Term), fair wear and tear excepted, and the Lessee's obligation under this clause 15.1(a)(i) requires the Lessee to undertake any Structural Works required to ensure the Lessee's use and occupation of the Premises complies with all applicable Laws, including any Approval relating to the Lessee's Business; and
 - (ii) must keep the Lessee's Property clean and tidy and in good and operational condition and repair, fair wear and tear excepted, and the Lessee's obligation under this clause 15.1(a)(ii) requires the Lessee to keep the Lessee's Property in a condition which complies with all applicable Laws, including any Approval relating to the Lessee's Business.
- (b) The Lessor has no obligation under this Lease to carry out any Structural Works, repairs or maintenance.

15.2 Lessee's Works:

- (a) The Lessee may carry out:
- (i) Solar Farm Development Works;
 - (ii) any redevelopment, alterations or extensions to the Lessee's Property as required for the Lessee's Business (including, where required under clause 15.1(a)(i), any Structural Works); and
 - (iii) any works to the Premises necessary to ensure compliance with clause 15.1,
- without requiring the Lessor's approval.
- (b) The Lessee will provide the Lessor with a report advising of works (other than inconsequential works) carried out under clause 15.2(a) where reasonably requested by the Lessor.

Annexure Schedule

Page 23 of 34 Pages

Insert instrument type

Lease instrument

Continue in additional Annexure Schedule, if required

- (c) Where any proposed works are not expressly permitted under clause 15.2(a), the Lessee will obtain the Lessor's prior approval before undertaking such works (such consent not to be unreasonably withheld or delayed).
- (d) The Lessee must ensure that any works which are carried out to the Premises or Lessee's Property are done:
- (i) at its own cost;
 - (ii) in accordance with Good Industry Practice; and
 - (iii) in accordance with all Laws including the Resource Management Act 1991, the Building Act 2004 and the Health & Safety at Work Act 2015 and the requirements of Authorities.
- (e) The Lessor must promptly sign any necessary applications for Approvals, which are required to be signed by the landowner of the Premises, for the purposes of enabling the Lessee to comply with its obligations or exercise its rights under this clause 15.

16. SIGNAGE**16.1 Lessee's Signage:**

- (a) The Lessee may erect signs displaying the Lessee's company name, logo and any other associated branding on the Premises, subject to the Lessee obtaining and maintaining all required Approvals.
- (b) If the Lessor is requested by the Lessee to sign any necessary application for required Approvals for the purposes of clause 16.1(a) as landowner, the Lessor must sign the relevant application within 10 Working Days after being requested to do so by the Lessee.

16.2 Signage on Expiry Date: The Lessee must, if required by the Lessor, remove the signage that it has erected under clause 16.1 by no later than the expiry or earlier termination of this Lease.

17. LESSEE'S RIGHTS AND OBLIGATIONS

17.1 Quiet Enjoyment: While the Lessee complies with its obligations under this Lease, the Lessee may occupy the Premises during the Term without interruption or interference by the Lessor or others claiming through the Lessor.

17.2 Right to Deal with Land: The Lessee is entitled to appoint property managers and other service providers for the Premises at its sole discretion.

Annexure Schedule

Page 24 of 34 Pages

Insert instrument type

Lease instrument

Continue in additional Annexure Schedule, if required

17.3 Lessor Not to Subdivide: The Lessor may not subdivide the Land (including by unit title) or make an application for a private plan change to rezone the Land.

18. DESTRUCTION, DAMAGE AND REINSTATEMENT

18.1 Destruction or Damage to Services or Lessor's Property: If the Services or the Lessor's Property (or any part of them) are totally or partially destroyed or damaged by any cause, then:

- (a) subject to clause 18.1(c), the Lessee must fully reinstate the Services or the Lessor's Property from the destruction or damage described in this clause, except where:
 - (i) the Lessee is prevented by any Law from doing so;
 - (ii) the Lessee is unable to obtain all necessary Approvals from any relevant Authority;
 - (iii) the Lessee is not entitled to do so under the terms of any financing or security interest or arrangement that it is party to; or
 - (iv) this Lease is frustrated or the reinstatement is prevented for any other reason beyond the control of the Lessee; or
 - (v) the Lessee has applied all of the available insurance proceeds under the Lessee's Insurance to that reinstatement;
- (b) subject to clause 18.1(c), the Lessee must apply all available insurance proceeds received under the Lessee's Insurance towards the costs of any reinstatement of the Services or the Lessor's Property (as relevant) which it is required to undertake under clause 18.1(a); and
- (c) except for the obligation to apply insurance proceeds towards reinstatement costs under clause 18.1(b), the Lessee has no obligation or liability of any kind whatsoever for any reinstatement of the Services or Lessor's Property (as relevant) or any associated costs of reinstatement.

18.2 Destruction or Damage to Lessee's Property: If the Lessee's Property (or any part of the Lessee's Property) is totally or partially destroyed or damaged by any cause, then the Lessee must fully reinstate the Lessee's Property from the destruction or damage described in this clause, unless the Lessee gives notice to the Lessor that the Lessee elects not to reinstate the Lessee's Property (Non-Reinstatement Election Notice). The Lessee may give a Non-Reinstatement Election Notice to the Lessor only if:

Annexure Schedule

Page 25 of 34 Pages

Insert instrument type

Lease instrument

Continue in additional Annexure Schedule, if required

- (a) in the Lessee's opinion, acting reasonably, the destruction or damage described in this clause is of a significant nature such that it would not be economically viable to reinstate the Lessee's Property; or
- (b) the Lessee is not able to reinstate the Lessee's Property due to one or more of the following reasons:
 - (i) the Lessee is prevented by a Law from doing so;
 - (ii) the Lessee is unable to obtain all necessary Approvals from any relevant Authority;
 - (iii) the Lessee is not entitled to do so under the terms of any financing or security interest or arrangement that it is party to; or
 - (iv) this Lease is frustrated or the reinstatement is prevented for any other reason beyond the control of the Lessee.

18.3 Termination by Lessee: If the Lessee has given the Lessor a Non-Reinstatement Election Notice in accordance with clause 18.2, the Lessee may terminate this Lease by giving to the Lessor not more than 3 months', and not less than 10 Business Days', prior written notice.

18.4 No Abatement: In no circumstance will the Lessee be entitled to abate the payment of Annual Rent or Operating Costs as a result of any damage or destruction to the Premises. This does not limit the Lessee's rights to terminate the Lease under clause 18.3.

19. DEFAULT

19.1 Events of Default:

- (a) Each of the following circumstances constitutes an "Event of Default":
 - (i) an amount greater than 25% of the Annual Rent payable under this Lease is in arrears for two months after the due date to pay and the Lessee has failed to remedy that breach within six months after service on the Lessee of a notice in accordance with section 245 of the Property Law Act 2007, and that breach is continuing;
 - (ii) an Insolvency Event has occurred in respect of the Lessee.

Annexure Schedule

Page 26 of 34 Pages

Insert instrument type

Lease instrument

Continue in additional Annexure Schedule, if required

- (b) If the Lessee commits an Event of Default, the Lessor may terminate this Lease by re-entering the Premises at the time of the Event of Default or any time afterwards in accordance with the process set out in the Property Law Act 2007 (provided that the Lessor must, in doing so, comply with the Lessee's reasonable requirements for compliance with the HSW Laws).

19.2 No Waiver: The Lessor's waiver or failure to act in response to the Lessee's breach of any of the Lessee's obligations in this Lease will not operate as a waiver of:

- (a) the same breach on any later occasion; or
 (b) any other obligations in this Lease.

19.3 Acceptance of Rent or Other Acts Not a Waiver:

- (a) Money tendered by the Lessee after the termination of this Lease and accepted by the Lessor may be applied in the manner the Lessor decides.

- (b) If the Lessor:
- (i) accepts Annual Rent or other money under this Lease (before or after termination);
 - (ii) does not exercise or delays exercising any right under this Lease;
 - (iii) gives any concession to the Lessee; or
 - (iv) attempts to mitigate its loss,

it is not a waiver of any breach by the Lessee or of the Lessor's rights or an acceptance of a repudiation of this Lease by the Lessee. An attempt by the Lessor to mitigate its loss is not a surrender of this Lease.

19.4 Prior Breaches: Expiry or termination of this Lease does not affect any rights in connection with any prior breach of this Lease.

Annexure Schedule

Page 27 of 34 Pages

Insert instrument type

Lease instrument

Continue in additional Annexure Schedule, if required

20.	LESSEE'S OBLIGATIONS ON EXPIRY OR TERMINATION
20.1	<p>Lessee to Vacate: The Lessee must vacate the Premises on the earlier of the Final Expiry Date and the date on which this Lease terminates. Subject to clause 20.2, in vacating the Premises, the Lessee must leave the Premises:</p> <ul style="list-style-type: none"> (a) in a clean and tidy condition having regard to their condition on the Commencement Date, and fair wear and tear excepted (but has no obligation to remove fittings, fixtures or any Lessee's Property, or to reinstate any part of the Lessor's Property to its condition as at the Commencement Date where any alterations have been undertaken to that Lessor's Property under this Lease); and (b) with all rubbish removed.
20.2	<p>Lessee's Property: Prior to the expiry or earlier termination of this Lease, the Lessee may remove any Lessee's Property from the Premises. Following expiry or earlier termination of this Lease, ownership of the Lessee's Property will pass to the Lessor, subject to any security interests granted by the Lessee in respect of the Lessee's Property.</p>
20.3	<p>Lessor's Property: The Lessee must not remove any Lessor's Property from the Land otherwise than as expressly permitted under this Lease.</p>
21.	COSTS, CHARGES AND EXPENSES
21.1	<p>Lessee to Pay Costs: In connection with this Lease, the Lessee must:</p> <ul style="list-style-type: none"> (a) promptly pay all fees payable to LINZ for the registration of this Lease; (b) promptly pay for everything the Lessee must do under this Lease, unless this Lease expressly says otherwise; (c) promptly pay to the Lessor on demand all costs properly incurred in connection with: <ul style="list-style-type: none"> (i) obtaining or giving consent or approval and considering matters in connection with the Lessee's requests for consent or approval, provided that the costs payable under this clause 21.1(c)(i) are limited to third party costs which are reasonably and properly incurred;

Annexure Schedule

Page 28 of 34 Pages

Insert instrument type

Lease instrument

Continue in additional Annexure Schedule, if required

	(ii)	the Lessee's dealings and proposals under clause 9 to deal with this Lease or the Premises;
	(iii)	any Event of Default; and
	(d)	reimburse the Lessor on demand for all costs incurred in connection with exercising, enforcing or preserving, or attempting to exercise, enforce or preserve, rights under this Lease due to the Lessee's default.
21.2	Costs of Entry into Lease: Subject to clause 21.1(a), each party must pay its own costs in relation to the preparation, negotiation and execution of this Lease.	
22.	NOTICES	
22.1	Service of Notices: Any notice or document required or authorised to be given or served under this Lease must be given or served:	
	(a)	Sections 245 or 246 Property Law Act: in the case of a notice under sections 245 or 246 of the Property Law Act 2007, in the manner prescribed by section 353 of the Property Law Act 2007 and on the Lessee, its mortgagee (if any); and
	(b)	Other Cases: in all other cases, unless otherwise required by sections 352 to 361 of the Property Law Act 2007:
	(i)	in the manner authorised by sections 354 to 361 of the Property Law Act 2007 to the Lessee, and its mortgagee (if any); or
	(ii)	by personal delivery, or by email to the Lessee, its mortgagee (if any).
22.2	Time of Service: In respect of the means of service specified in clause 22.1(b)(ii) any notice or other document will be treated as given or served and received by the other party:	
	(a)	Personal Delivery: when received by the addressee; or
	(b)	Email: when acknowledged by the addressee by return email or otherwise in writing providing that return emails generated automatically will not constitute acknowledgement.

Annexure Schedule

Page 29 of 34 Pages

Insert instrument type

Lease instrument

Continue in additional Annexure Schedule, if required

22.3 Signature of Notices: Any notice or document to be given or served under this Lease must be in writing and may be signed by:

- (a) **Party:** the party giving or serving the notice;
- (b) **Attorney:** any attorney for the party serving or giving the notice; or
- (c) **Authorised Person:** the solicitor or any director, officer, employee or other agent who has authority to give or serve the notice.

23. MISCELLANEOUS

23.1 Waiver and Variation: No failure to exercise nor any delay in exercising any right, power or remedy under this Lease operates as a waiver. A single or partial exercise or waiver of the exercise of any right, power or remedy does not preclude any other or further exercise of that or any other right, power or remedy. A provision of or a right created under this Lease may not be waived or varied except in writing signed by the party or parties to be bound.

23.2 Amendments: This Lease may only be varied by another document executed by or on behalf of each party.

23.3 Inspection: The Lessor may on reasonable written notice enter onto the Premises at reasonable times in order to carry out inspections and valuations of the Premises.

23.4 Remedies Cumulative: The rights, powers and remedies provided in this Lease are cumulative with and not exclusive of the rights, powers or remedies provided by Law independently of this Lease.

23.5 Further Assurances: If asked by the Lessor the Lessee must, at its own cost:

- (a) execute and cause its successors to execute documents and do everything else necessary or appropriate to bind the Lessee and its successors under this Lease; and
- (b) use its best endeavours to cause relevant third parties to do likewise to bind every person intended to be bound under this Lease.

Annexure Schedule

Page 30 of 34 Pages

Insert instrument type

Lease instrument

Continue in additional Annexure Schedule, if required

- 23.6 Warranty:** Where the Lessor and / or Lessee are companies (including any successors), each such party warrant to the other party that:
- (a) the execution, delivery and performance of this Lease by that party has been duly and validly authorised by all necessary corporate action on its part and this Lease is a valid and binding agreement on the party; and
 - (b) the entering into of this Lease does not, and the transactions contemplated by it will not, result in a breach of the party's constitution.
- 23.7 Severance:** If at any time any provision of this Lease is or becomes illegal, invalid or unenforceable in any respect under the Law of any jurisdiction, that will not affect or impair:
- (a) the legality, validity or enforceability in that jurisdiction of any other provision of this Lease; or
 - (b) the legality, validity or enforceability under the Law of any other jurisdiction of that or any other provision of this Lease.
- 23.8 Indemnities Continue:**
- (a) Each indemnity by a party in this Lease is a continuing obligation, separate and independent from that party's other obligations and survives termination or expiry of this Lease.
 - (b) It is not necessary for the other party to incur expenses or to make any payment before enforcing a right of indemnity conferred by this Lease.
- 23.9 Further Assurances:** Each party will do all things and execute all documents reasonably required to give effect to the provisions and intent of this Lease.
- 24. CONFIDENTIALITY**
-
- 24.1 All Information Confidential:** All information provided to each party by the other party under or in connection with this Lease is confidential to the receiving party, its employees, legal advisers, auditors and other consultants and may not be disclosed to any person except:

Annexure Schedule

Page 31 of 34 Pages

Insert instrument type

Lease instrument

Continue in additional Annexure Schedule, if required

- (a) with the consent of the providing party (who must not unreasonably withhold or delay its consent);
- (b) if required by any Authority, Law or parliamentary or ministerial directive or any stock exchange;
- (c) in connection with legal proceedings relating to this Lease or the Premises;
- (d) if the information is generally and publicly available;
- (e) to a third party in connection with a sale of some or all of the business or assets of a party or a Related Company to a party; or
- (f) where reasonably required in connection with any capital raise by a party (including to potential financiers), provided the party seeking to undertake the capital raise will consult with the other party in regards to any announcements or disclosures prior to making any public announcement or disclosure.

25. GOVERNING LAW AND JURISDICTION**25.1 Governing Law:** This Lease is governed by the Laws of New Zealand.**25.2 Jurisdiction:** Each party irrevocably and unconditionally submits to the exclusive jurisdiction of the courts in New Zealand. Each party waives any right it has to object to an action being brought in those courts including by claiming that the action has been brought in an inconvenient forum or that those courts do not have jurisdiction.**26. GST****26.1 Default GST:** For the purpose of clause 26.3, **Default GST** means any penalty or interest levied against the Lessor under the GST Act and/or the Tax Administration Act 1994 by reason of the non-payment or late payment of the GST Amount (defined in clause 26.2) payable by the Lessee in accordance with clause 26.2, but does not include any interest or penalty levied against the Lessor:

- (a) in respect of or relating to the period preceding the applicable date for payment of the relevant GST Amount under clause 26.2; and
- (b) by reason of the non-payment or late payment of the relevant GST Amount to Inland Revenue by the Lessor in respect of any period commencing after the date of payment in full by the Lessee to the Lessor of both that GST Amount plus any such penalty or interest incurred in respect of any period (subject to clause 26.2(a)) up to and including that date.

Annexure Schedule

Page 32 of 34 Pages

Insert instrument type

Lease instrument

Continue in additional Annexure Schedule, if required

26.2 GST Payment Date: Any amount on account of GST (**GST Amount**) that is payable in respect of a monthly instalment of Annual Rent, is payable by the Lessee to the Lessor:

- (a) **Rent Payment Date:** on the applicable Rent Payment Date only if and to the extent that the Lessee has received, on or before the applicable Rent Payment Date, a valid Tax Invoice for that GST Amount; and
- (b) **Three Working Days:** where clause 26.2(a) does not apply, within three Working Days following receipt of a valid Tax Invoice for that GST Amount.

26.3 Default: If and to the extent that:

- (a) **Lessee Fails to Pay:** the Lessee fails to pay any GST Amount in accordance with clause 26.2; and
- (b) **Lessor Liable to Penalty:** the Lessor becomes liable to pay any Default GST to Inland Revenue;

then the Lessee must pay to the Lessor, on demand, and in addition to the GST Amount, an amount equal to the Default GST.

27. NO WARRANTY AS TO SUITABILITY OF PREMISES

27.1 No Warranty: The Lessor does not warrant that the Premises are or will be suitable for any use by the Lessee and to the extent permitted by law all implied warranties as to suitability of the Premises are expressly negated.

27.2 No Representations: The Lessee acknowledges that no representation, warranty or undertaking has been made by or on behalf of the Lessor in respect of the suitability of the Premises for any use by the Lessee.

28. RESOLUTION OF DISPUTES

28.1 References to Arbitration: A party may, at any time while there is a genuine dispute relating in any way to this Lease (**Dispute**), give written notice (**Dispute Notice**) to the other party referring the Dispute to arbitration by a single arbitrator:

Insert instrument type

Annexure Schedule

Page 33 of 34 Pages

Insert instrument type

Lease instrument

Continue in additional Annexure Schedule, if required

(a)	agreed upon in writing by the parties; or
(b)	if the parties are unable to agree on an arbitrator within 5 Working Days after delivery of the Dispute Notice, nominated by the president or vice president for the time being of the New Zealand Law Society (or his or her nominee).
28.2	Submission to Arbitration: Any reference to arbitration under clause 28.1 will be deemed a submission to arbitration within the meaning of the Arbitration Act 1996.
28.3	Action at Law: The parties must go to arbitration under this clause before they can begin any action at law (other than an application for injunctive relief).
29.	PROPERTY LAW ACT
29.1	The covenants and powers contained in Schedule 3 of the Property Law Act 2007 will not be implied in this Lease and are expressly negated.
30.	LESSOR'S CONSENT
30.1	Consent Required on Each Occasion: Where the Lessor's consent is required under this Lease, any such consent will be given only for the specific occasion for which it is sought, and any future consent must be separately requested by the Lessee.
30.2	Consent not to be Unreasonably Withheld: If this Lease states that the Lessor's consent is required for anything done or proposed to be done, then unless otherwise stated, in each case, the Lessor:
(a)	must not unreasonably withhold consent; and
(b)	must, within a reasonable time of the Lessor's consent being requested:
(i)	grant that consent; or
(ii)	notify the Lessee in writing that the consent is withheld.

Annexure Schedule

Page 34 of 34 Pages

Insert instrument type

Lease instrument

Continue in additional Annexure Schedule, if required

SCHEDULE 1 – LESSEE’S PROPERTY

Nil as at Commencement Date.

View Instrument Details



Instrument No 12567988.1
Status Registered
Date & Time Lodged 23 September 2022 17:14
Lodged By Sketchley, Lucy Catherine
Instrument Type Easement Instrument



Affected Records of Title	Land District
725203	North Auckland
NA105D/6	North Auckland
NA75C/189	North Auckland

Annexure Schedule Contains 6 Pages.

Grantor Certifications

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

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

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

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

Signature

Signed by Ryan Edward Renata Welsh as Grantor Representative on 23/09/2022 04:14 PM

Grantee Certifications

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

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

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

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

Signature

Signed by Gregory Neale Allen as Grantee Representative on 23/09/2022 04:26 PM

*** End of Report ***

Form 22

Easement Instrument to grant easement or *profit à prendre*

(Section 109 Land Transfer Act 2017)

Grantor

Te Waka Pupuri Pūtea Trust

Grantee

Lodestone Energy Limited

Grant of Easement or *Profit à prendre*

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

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

Purpose of easement, or <i>profit</i>	Shown (plan reference)	Burdened Land (Record of Title)	Benefited Land (Record of Title) or in gross
Right of way Right to Convey Electricity Right to Convey Telecommunications	All of the Burdened Land	725203	NA105D/6 NA75C/189

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

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

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

~~[the provisions set out in Annexure Schedule].~~

Annexure Schedule

Page 1 of 3 Pages

*Insert instrument type***Easement Instrument to grant easement or *profit a prendre****Continue in additional Annexure Schedule, if required***DEFINITIONS**

1. In this easement instrument, unless the context indicates otherwise:
 - 1.1 **benefited land** is the land owned by the Grantee described on page 1 as the benefited land;
 - 1.2 **burdened land** is the land owned by the Grantor described on page 1 as the burdened land;
 - 1.3 **easement area** is all of the burdened land; and
 - 1.4 **right of way** is the easement right described in section 2;
 - 1.5 **right to convey electricity and telecommunications** is the easement right described in section 3;
 - 1.6 **solar farm** means a utility scale solar farm to be constructed by the Grantee on the benefited land.

RIGHT OF WAY

2. The Grantor grants to the Grantee the right for the Grantee, the Grantee's tenants, agents, workmen, licensees and invitees (in common with the Grantor, the Grantor's tenants and any other persons lawfully entitled to do so) at all times to pass and repass on foot or with vehicles and with or without every kind of domestic animal, machine, equipment and implement over and along the easement area for all purposes connected with the use and enjoyment of the benefited land as a solar farm but not for any other purpose. At the time that this easement is registered, the Far North District Council has granted a resource consent for the use of the benefited land as a solar farm (reference number 2033265-RMALUC). For the avoidance of doubt, the Grantee may apply to vary 2033265-RMALUC or apply for additional consents, approvals, licences or other permissions as may be required, as determined from time to time by the Grantee in its sole discretion, to operate a solar farm.

RIGHT TO CONVEY ELECTRICITY AND TELECOMMUNICATIONS

3. The Grantor grants to the Grantee the right for the Grantee, the Grantee's tenants, agents, workmen, licensees and invitees (in common with the Grantor, the Grantor's tenants and any other persons lawfully entitled to do so):
 - 3.1 to convey electricity and electric impulses, and telecommunications, at all times in any quantity in a free and unimpeded flow along the conduits, cables or wires described in clauses 3.2 or 3.3 (as the case may be);
 - 3.2 to use any conduits, cables or wires already laid in and under the soil of the easement area for the purpose described in clause 3.1;
 - 3.3 where no conduits, cables or wires already exist, to lay and maintain conduits, cables or wires in and under the soil of the easement area for the purpose described in clause 3.1; and

Annexure Schedule

Page 2 of 3 Pages

*Insert instrument type***Easement Instrument to grant easement or *profit a prendre****Continue in additional Annexure Schedule, if required*

3.4 to enter on to the burdened land (at any time, on any notice and by any route which is reasonable in the circumstances) with any tools, equipment, machinery and vehicles which are necessary and to remain there for any reasonable time for the purpose of laying, inspecting, cleaning, repairing, maintaining and renewing the conduits, cables or wires and to dig up the soil of the burdened land to the extent necessary and reasonable, but in doing so the Grantee must:

3.4.1 cause as little disturbance as reasonably possible to the surface of the burdened land;

3.4.2 restore the surface of the burdened land as nearly as possible to its original condition; and

3.4.3 restore any other consequential damage.

for all purposes connected with the use and enjoyment of the benefited land as a solar farm but not for any other purpose. At the time that this easement is registered, the Far North District Council has granted a resource consent for the use of the benefited land as a solar farm (reference number 2033265-RMALUC). For the avoidance of doubt, the Grantee may apply to vary 2033265-RMALUC or apply for additional consents, approvals, licences or other permissions as may be required, as determined from time to time by the Grantee in its sole discretion, to operate a solar farm.

GENERAL COVENANTS

4. The grant of the right of way and the right to convey electricity and telecommunications will be forever appurtenant to each and every part of the benefited land.
5. No power is implied for the Grantor to terminate the right of way or the right to convey electricity and telecommunications for breach of any provision in this easement instrument by the Grantee or for any other cause, it being the parties' intention that the right of way and the right to convey electricity and telecommunications will continue forever unless surrendered.
6. The Grantor will not do anything which interferes with or restricts the rights of the Grantee or other authorised persons in relation to the right of way or the right to convey electricity and telecommunications.
7. The right of way and the right to convey electricity and telecommunications is in addition to those rights set out in Schedule 5 of the Land Transfer Regulations 2018 and the Fifth Schedule to the Property Law Act 2007. In the event of any inconsistency the rights set out in this easement instrument will prevail.

DEFAULT

8. If either party fails (**defaulting party**) to perform, or join with the other party (**other party**) in performing, any obligation under this easement instrument, the following provisions will apply:
 - 8.1** the other party may serve a written notice on the defaulting party (**default notice**) specifying the default and requiring the defaulting party to perform or to join in performing the obligation and stating that, after the expiry of one month from service of the default notice, the other party may perform the obligation;

Annexure Schedule

Page 3 of 3 Pages

*Insert instrument type***Easement Instrument to grant easement or *profit a prendre****Continue in additional Annexure Schedule, if required*

8.2 if after the expiry of one month from service of the default notice, the defaulting party has not performed or joined in performing the obligation, the other party may:

8.2.1 perform the obligation; and

8.2.2 for that purpose enter on to the benefited land or the burdened land;

8.3 the defaulting party must pay to the other party the costs of:

8.3.1 the default notice; and

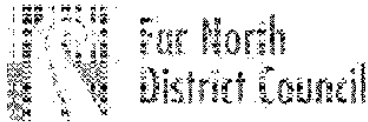
8.3.2 the other party in performing the obligation of the defaulting party;

within one month of receiving written notice of the other party's costs; and

8.4 the other party may recover any money payable under clause 8.3 from the defaulting party as a liquidated debt.

DISPUTES

9. If any dispute arises between the Grantor and Grantee concerning the rights created by this easement instrument, the parties must enter into negotiations in good faith to resolve their dispute. If the dispute is not resolved within one month of the date on which the parties begin their negotiations, the parties must submit to the arbitration of an independent arbitrator appointed jointly by the parties. If the parties cannot agree on an independent arbitrator within 14 days, the parties will submit to the arbitration of an independent arbitrator appointed by the President or any vice president for the time being of the New Zealand Law Society (or his or her nominee). That arbitration will be determined under the Arbitration Act 1996 and its amendments or any enactment passed in substitution. The parties' execution of this easement instrument will be deemed a submission to arbitration.



DECISION ON RIGHT OF WAY APPLICATION (S348 OF THE LOCAL GOVERNMENT ACT 1974)

Consent Number: 2300265 - RMALUC

Pursuant to section 348 of the Local Government Act 1974 (LGA), the Far North District Council hereby grants permission to:

Lodestone Energy Limited

The activity to which this decision relates:

To create a right of way over Sec 1 SO Plan 462638 (RT 7255203) in favour of Lot 1 DP 172560, Sec 2 Blk I Ahipara SD (NA150D/6) and Sec 1 Blk I Ahipara SD, Sec 15 Blk I Takahue SD (NA75C/189).

Subject Site Details

Address: 588 Gill Road, Awanui 0483
Legal Description: Lot 1 DP 172560 Secs 1-2 Blk I Ahipara SD Sec 15 Blk I Takahue SD, Sec 1 SO 462638
Certificate of Title reference: NA-105D/6, NA-75C/189, CT-725203

Pursuant to Section 348(2) of the Act, this permission is issued subject to the following conditions:

General

1. The activity shall be carried out in accordance with the approved plans prepared by Reyburn & Bryant, referenced: Lodestone Energy Gill Rd Kaitaia, Titled: Proposed Easement Over Section 1 SP 462638, No. S15962, Dated: October 2020 and attached to this consent with the Council's "Approved Stamp" affixed to it.

Pre-construction

2. The consent holder shall submit plans & details of Stormwater Mitigation works, ROW A access road, for approval to Council's Engineer or duly designated person prior to commencing construction. In particular the plans and details shall show:
 - i. ROW A access road formation - Access road construction on R.O.W.A to a minimum of A 5m finished carriageway width. The formation is to consist of a minimum of 200mm of compacted hard fill plus a GAP 30 or GAP 40 running course.
 - ii. The proposed stormwater control works to be in place prior to and during construction.
 - iii. Stormwater management and mitigation system
 - iv. Onsite Stormwater mitigation system maintenance plan
 - v. The system shall be designed such that the total stormwater discharged, after development, is no greater than the predevelopment flow from the site for rainfall events up to a 10% AEP

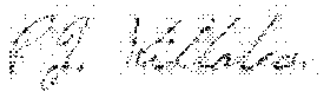
3. The Consent holder shall when creating the vehicle crossing to ROW A from Gill Road reserve submit a Corridor Access Request (CAR) and subsequently obtain a Work Access Permit (WAP) from Council prior to any excavation or works commencing.

Construction

4. Access road construction on ROW A shall be done as per the approved drawings (see condition 2).
5. Provide a formed double width entrance to ROW A which complies with the Councils Engineering Standard FNDC/S/6, 6D, and section 3.3.7.1 of the Engineering standards and NZS4404:2004.

Approval

This permission has been prepared by Minnie Fox, Intermediate Resource Planner and is granted under delegated authority from the Far North District Council by:



Pat Killalea, Principal Planner

Date: 9th June 2021

Lapsing of Consent

Pursuant to section 348(3) of the Local Government Act 1974, this permission will lapse 3 years after the granting of this decision unless the work has been completed to the satisfaction of the Council; but may from time to time be extended by the Council for a period or periods not exceeding one year at any time.

View Instrument Details



Instrument No 12567988.2
Status Registered
Date & Time Lodged 23 September 2022 17:14
Lodged By Sketchley, Lucy Catherine
Instrument Type Land Covenant under s116(1)(a) or (b) Land Transfer Act 2017



Affected Records of Title	Land District
719765	North Auckland
NA105D/6	North Auckland
NA75C/189	North Auckland

Annexure Schedule Contains 2 Pages.

Covenantor Certifications

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

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

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

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

Signature

Signed by Gregory Neale Allen as Covenantor Representative on 31/08/2022 04:32 PM

Covenantee Certifications

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

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

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

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

Signature

Signed by Ryan Edward Renata Welsh as Covenantee Representative on 28/07/2022 12:45 PM

*** End of Report ***

Covenant Instrument to note land covenant
(Section 116(1)(a) & (b) Land Transfer Act 2017)

Covenantor

Lodestone Energy Limited

Covenantee

Te Waka Pupuri Pūtea Trust

Grant of Covenant

The Covenantor, being the registered owner of the burdened land(s) set out in Schedule A, **grants to the Covenantee** (and, if so stated, in gross) the covenant(s) set out in Schedule A, with the rights and powers or provisions set out in the Annexure Schedule(s).

Schedule A

Continue in additional Annexure Schedule, if required

Purpose of covenant	Shown (plan reference)	Burdened Land (Record of Title)	Benefited Land (Record of Title) or in gross
Land Covenant (No Objection)		NA105D/6 NA75C/189	719765

Covenant rights and powers (including terms, covenants and conditions)

Delete phrases in [] and insert memorandum number as required. Continue in additional Annexure Schedule if required.

The provisions applying to the specified covenants are those set out in:

~~[Memorandum number _____, registered under section 209 of the Land Transfer Act 2017].~~

Annexure Schedule.

Annexure Schedule*Insert instrument type***Covenant Instrument***Continue in additional Annexure Schedule, if required***THE PARTIES AGREE:****1. Covenants**

1.1. In this Instrument, unless the context indicates otherwise:

1.1.1 Definitions:

Operations and Activities means any existing or future agricultural or horticultural production operations and activities (including any associated services and infrastructure, such as packing and transportation facilities) lawfully carried out by the Grantee on the Grantee's Land.

1.1.2 A reference to legislation or to a provision of legislation includes a modification or re-enactment of it, a legislative provision substituted for it, and a regulation or statutory instrument issued under it.

1.2. The Grantor acknowledges and accepts that:

1.2.1 The Grantee will undertake (and is legally entitled to undertake) the Operations and Activities.

1.2.3 The Operations and Activities of the Grantee (which potentially occur 24 hours a day, seven days a week) may generate certain adverse effects (including offsite effects), including in relation to noise, visual/landscape effects, traffic, public safety and discharges to air.

1.2.4 The Operations and Activities undertaken by the Grantee will, or may, have adverse effects on the Grantor and the Grantor's Land, including (but not limited to) noise and discharges to air.

1.3. The Grantor agrees:

1.3.1 Not to object to, complain about, inhibit, hinder or otherwise obstruct the Operations and Activities.

1.3.2 Not to do, or permit to be done, any act, matter or thing which is intended to restrict or has the effect of restricting, the Operations and Activities in any way whatsoever, including taking any civil action (including nuisance) and/or any enforcement proceedings pursuant to the Resource Management Act 1991 ("RMA") or any other statute.

1.3.3 Without limiting the above, not to make, lodge, or be party to any submission, application, proceeding or appeal (under the RMA or otherwise) designed or intended to oppose, restrict, modify or prohibit future proposals/activities relating to the Operations and Activities (including resource consent applications, plan change applications, and/or notices of requirement for new activities/development and applications to renew, extend or vary existing resource consents or designations.

1.3.4 Not to fund, or otherwise be involved in any act, matter or thing that if carried out by the Grantor would breach paragraphs 1.3.1 to 1.3.3 of this Instrument.

1.3.5 To pay all legal costs and disbursements in the enforcement and any ultimate release of the Covenant and in respect of the performance and observance by the Grantor of the covenants in this Instrument and to otherwise indemnify the Grantee against any claims, loss and expense of whatever kind incurred by the Grantee as a consequence of the Grantor failing to comply with the provisions and terms of this Instrument.



View Instrument Details

Instrument Type	Caveat against dealings with land under Section 138 Land Transfer Act 2017
Instrument No	12645999.1
Status	Registered
Date & Time Lodged	17 January 2023 10:29
Lodged By	Lin, Clifton Hsi-Yi

Affected Records of Title	Land District
NA105D/6	North Auckland
NA75C/189	North Auckland

Registered Owner
Lodestone Energy Limited

Caveator
Top Energy Limited

Estate or Interest claimed
Pursuant to an agreement to grant easement dated 22 December 2022 between the registered owner as grantor and the caveator as grantee for the right to convey electricity.

Notice
Take notice that the Caveator forbids the registration of any instrument, or the recording of any matter in the register that transfers, charges, or prejudicially affects the estate or interest protected by this caveat until this caveat is withdrawn by the Caveator, removed by order of the High Court, or until the same has lapsed under the provisions of section 143 of the Land Transfer Act 2017. The exceptions are:
None.

Address for Service of Caveator
Top Energy Limited
C/- Taryn Collins (taryn.collins@topenergy.co.nz)
PO Box 43
Kerikeri
New Zealand
0245

Address for Registered Owner
Lodestone Energy Limited
C/- Daniel Cunningham (dcunningham@lodestoneenergy.co.nz)
Level 2, 51 Hurstmere Road
Takapuna, Auckland
New Zealand
0622



View Instrument Details

Caveator Certifications

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

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

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

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

Signature

Signed by Clifton Hsi-Yi Lin as Caveator Representative on 17/01/2023 10:28 AM

*** End of Report ***



View Instrument Details

Instrument Type	Caveat against dealings with land under Section 138 Land Transfer Act 2017
Instrument No	12674862.1
Status	Registered
Date & Time Lodged	28 February 2023 14:22
Lodged By	Lin, Clifton Hsi-Yi

Affected Records of Title	Land District
NA105D/6	North Auckland

Registered Owner
Lodestone Energy Limited

Caveator
Top Energy Limited

Estate or Interest claimed

Pursuant to an agreement to grant easement dated 22 February 2023 between the registered owner as grantor and the caveator as grantee for the right to convey electricity.

Notice

Take notice that the Caveator forbids the registration of any instrument, or the recording of any matter in the register that transfers, charges, or prejudicially affects the estate or interest protected by this caveat until this caveat is withdrawn by the Caveator, removed by order of the High Court, or until the same has lapsed under the provisions of section 143 of the Land Transfer Act 2017. The exceptions are:

None.

Address for Service of Caveator

Top Energy Limited
C/- Taryn.Collins@topenergy.co.nz
John Butler Centre (level 2), 60 Kerikeri Road
Kerikeri
New Zealand
0230

Address for Registered Owner

Lodestone Energy Limited
Level 2, 51 Hurstmere Road
Takapuna
New Zealand
0622

Caveator Certifications



View Instrument Details

Caveator Certifications

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

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

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

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

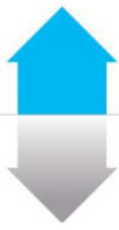
Signature

Signed by Clifton Hsi-Yi Lin as Caveator Representative on 28/02/2023 02:19 PM

*** End of Report ***

APPENDIX 4

ENGINEERING REPORT



Soil&Rock Consultants

Your responsive & cost-effective engineers

30+ YEARS OF
SOIL&ROCK
since 1987



Geotechnical Investigation for Proposed Subdivision at 552 Gill Road, Kaitaia, Far North

Rev A

29 January 2026

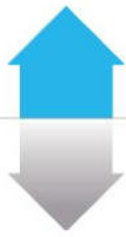
Job No. NL250161



Auckland
(09) 835 1740

www.soilandrock.co.nz

Northland
(09) 982 8053



Soil&Rock Consultants

Your responsive & cost-effective engineers

Job Number:	NL250161
Name of Project:	552 Gill Road, Kaitaia, Far North
Client:	Lodestone Solar Limited
Author:	Nikora Ngaropo, Engineering Geologist, MEngNZ
Reviewer/Authoriser:	Shael Hand-Fromont, Senior Geotechnical Engineer, CMEngNZ, CPEng
Document Version:	A
Published:	29 January 2026
Author Signature:	PP for Nikora Ngaropo by Dave Ouwejan
Reviewer/Authoriser Signature:	

COPYRIGHT:

The information presented in this document is the property of Soil & Rock Consultants. Use or copying of this document in whole or in part without the previous permission of Soil & Rock Consultants implies a breach of copyright.

Table of Contents

Report Summary	3
1.0 Introduction	4
1.1 Limitations	4
2.0 Site Description	5
2.1 Proposed Development	5
3.0 Geology.....	6
4.0 Previous Geotechnical Reporting	7
5.0 Field Investigation	7
5.1 Ground Model.....	8
6.0 Expansive Soils.....	9
7.0 Sensitive Soils.....	10
8.0 Seismic Design Parameters	10
8.1 Liquefaction Vulnerability.....	10
9.0 Land Instability	11
10.0 Settlement.....	11
11.0 Geotechnical Discussion.....	11
12.0 Site Formation.....	12
13.0 Foundation Design Recommendations	12
13.1 Shallow Foundations	12
13.2 Pile Foundations - Preliminary	13
14.0 Floor Slabs and Pavements	13
15.0 Underground Services	13
16.0 Stormwater.....	14
17.0 On-site Wastewater Disposal – Preliminary Suitability.....	15

Appendices:

Appendix A: Drawings

Appendix B: Investigation Logs

Appendix C: Laboratory Test Results

Appendix D: Cone Penetration Testing (CPT) Results

Appendix E: Stormwater Disposal Schematic

Report Summary

The following summarises the findings of this report however is not to be taken in isolation. It is a requirement that any user of this report review the document in its entirety, including all appendices.

Feature	Commentary
Proposed Development	The proposed development involves subdivision resulting in two new residential lots and balance lot(s) occupied by existing solar farm operations.
Resource Management Act	No geotechnical natural hazards were identified (as listed in this Act) that are considered an undue impediment to development or that cannot be reasonably addressed by typical engineering design and construction.
Fill	Not encountered
Natural Soils	The soils encountered are estuary, river and swamp deposits, comprising a stiff to very stiff crust of silts, clayey silts, and sandy silts, over firm to stiff materials.
Unduly Weak, Sensitive, or Compressible Soils	Not encountered
Groundwater	Encountered at depths ranging between 2.7m and 3.4m bpgl.
Seismic Site Class	Site Class C
Liquefaction	The site is considered to have a "Low Liquefaction Vulnerability".
Expansive Soils	Conservatively classified as Highly Expansive in accordance with B1/AS1 or AS2870:2011.
Slope Stability	The ground is generally near-flat with no nearby slopes other than banks of watercourses and drains. We consider the indicative building platforms to be suitable for construction of a dwelling from a global land stability perspective.
Settlement	We consider any potential total or differential settlement as a result of the proposed development to be within typical tolerable limits.
Foundations	Shallow foundations are considered suitable for future residential development, subject to the recommendations provided.
Stormwater	Concentrated stormwater related to subdivision development must be collected from impermeable surfaces and safely disposed.
Wastewater	Proposed Lots 2 and 3 have ample space suitable to support on-site wastewater treatment and dispersal systems for a notional four-bedroom dwelling. Systems for larger dwellings are likely to be feasible.

1.0 Introduction

Soil & Rock Consultants (S&RC) were engaged by Lodestone Solar Limited to carry out a geotechnical investigation Lot 1 DP 170256 and Section 15 Block 1 Takahue SD, Gill Road, Awanui with respect to a proposed subdivision. This report presents the findings of our investigation and is intended to support a Resource Consent (Subdivision) application to Far North District Council (FNDC).

Our investigation has been informed by the Resource Management Act which list(s) 'Natural Hazards' that must be considered by Council when assessing a Resource Consent application. We have considered the geotechnical related 'Natural Hazards' in the preparation of this report (i.e. earthquake, landslip, subsidence).

Our report is intended to identify geotechnical constraints to development and provide associated remedial, mitigating, and design recommendations in order that Consent can be granted. Information and advice related to good construction practices are also provided.

1.1 Limitations

This report has been prepared by S&RC for the sole benefit of Lodestone Solar Limited (the client) with respect to Lot 1 DP 170256 and Section 15 Block 1 Takahue SD, Gill Road, Awanui, and the brief given to us. The data and/or opinions contained in this report may not be used in other contexts, for any other purpose or by any other party without our prior review and agreement. This report may only be read or transmitted in its entirety, including the appendices.

This report has been prepared solely for use at the subdivision consenting stage and is not intended to be used for any building consent application. Proposed Lots 2 and 3 would require further geotechnical investigation and review at the building consent stage to meet the specific needs of the site-specific development at each lot.

The recommendations given in this report are based on data obtained from discrete locations and soil conditions between locations are inferred only. Our geotechnical models are based on those actual and inferred conditions however variations between test locations may occur and S&RC should be contacted in this event.

S&RC should also be contacted should the scope or scale of the development proposal vary from that currently indicated.

2.0 Site Description

The subject site, legally described as Lot 1 DP 170256 and Section 15 Block 1 Takahue SD, borders Gill Road to the east and is irregular in shape, covering a total subdivision area of approximately 41.14Ha (see Figure 1). Across the wider property, large areas have been developed for the operating solar farm, with the remaining areas containing by grazing pasture and trees.

The focus of this assessment is Lots 2 and 3 which will each contain new residential building platforms. Lot 1 contains an existing dwelling, while Lots 4 and 5 contain established solar farm operations.

The overall site is generally flat with cut-off drains near fence boundaries and ephemeral overland flow paths present throughout the property. Underground public services do not appear to be available to the sites.

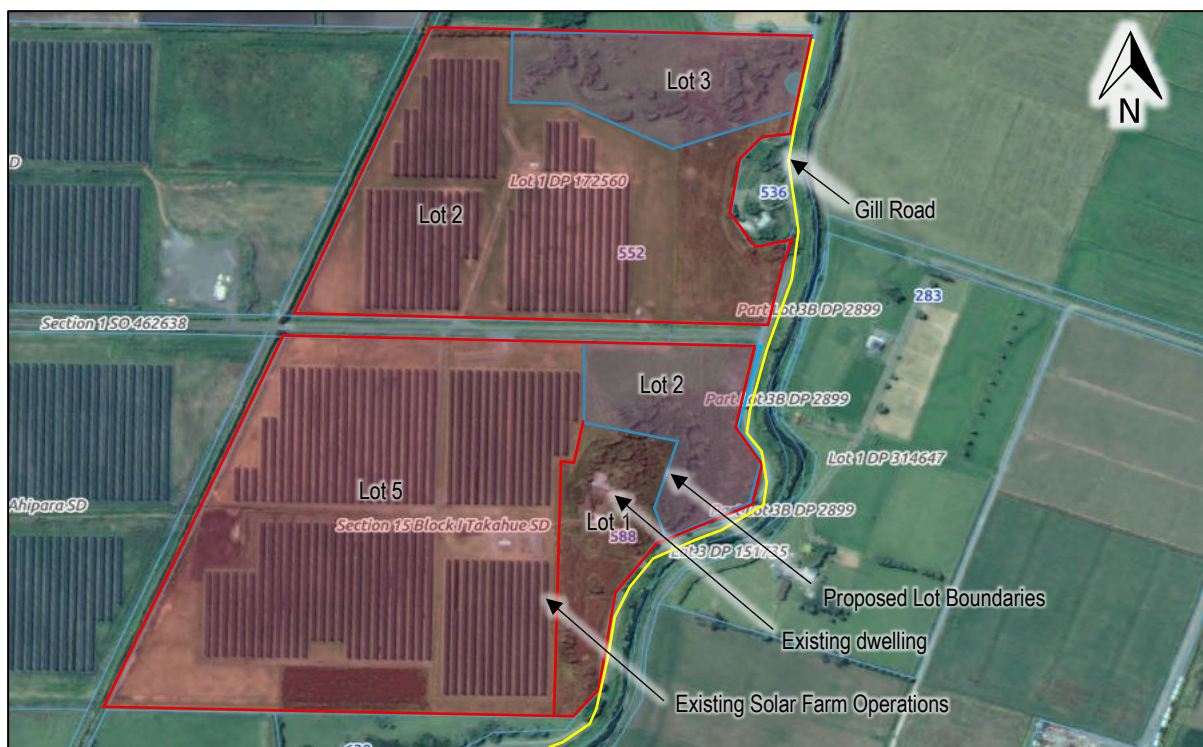


Figure 1: Aerial Image (Source: FNDC GIS Maps)

2.1 Proposed Development

Drawings prepared by Reyburn and Bryant Ltd show the proposed development the subdivision of existing properties Lot 1 DP 170256 and Section 15 Block 1 Takahue SD, Gill Road, Awanui, as shown in Figure 2. The proposed lot details are summarised as follows:

- Lot 1 – 2.4544 ha: Existing dwelling to remain. (Not assessed by this report).

- Lot 2 – 3.4374 ha: New residential lot, subject of our current assessment.
- Lot 3 – 3.5570 ha: New residential lot, subject of our current assessment.
- Lot 4 – 12.8960 ha: Previously assessed for Solar Farm Operations. (Not assessed by this report).
- Lot 5 – 18.6553 ha: Previously assessed for Solar Farm Operations. (Not assessed by this report).

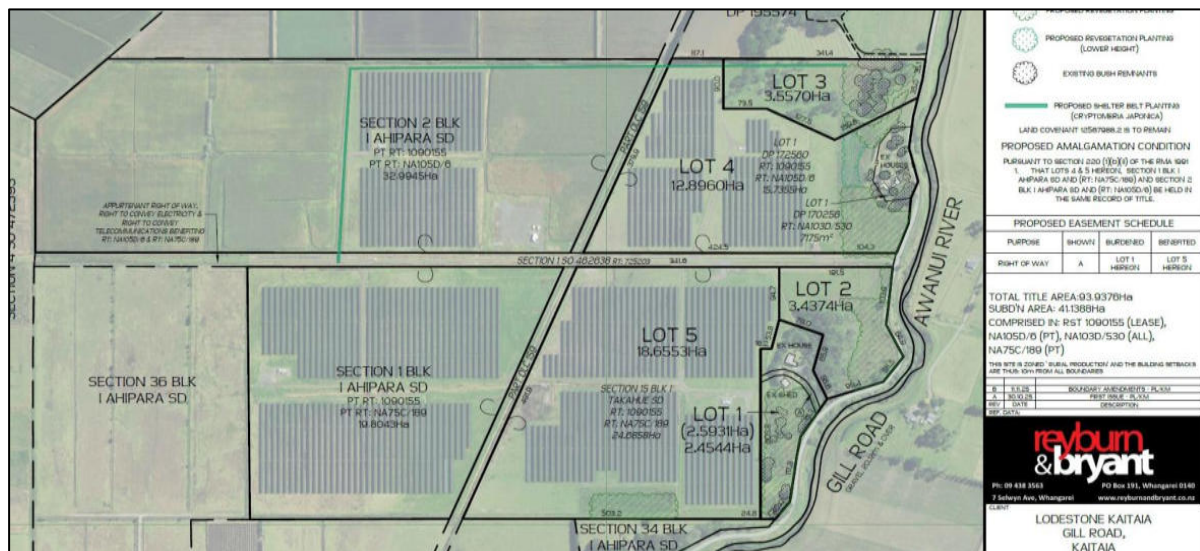


Figure 2: Proposed Development (Source: Reyburn and Bryant Ltd)

3.0 Geology

Reference to the GNS New Zealand Geological Web Map 1:250,000 Geology map, indicates the site is underlain by estuary, river and swamp deposits of the Late Pleistocene to Holocene age (see Figure 3).

Generally, recent alluvium is variable in terms of consistency and strength and typically found along stream channels, flood plains, or localised gully features. The soils include silts, clays, sands, and gravels, with larger rock fragments in places and may include organic clays and peat deposits. Alluvial soils are often susceptible to consolidation (resulting in settlement) when subjected to foundation or fill loads, particularly where organic soils are present. Lower strength soils are common, particularly where saturated, and can be sensitive, often rapidly losing strength in response to disturbance by construction plant and/or exposure to the elements.

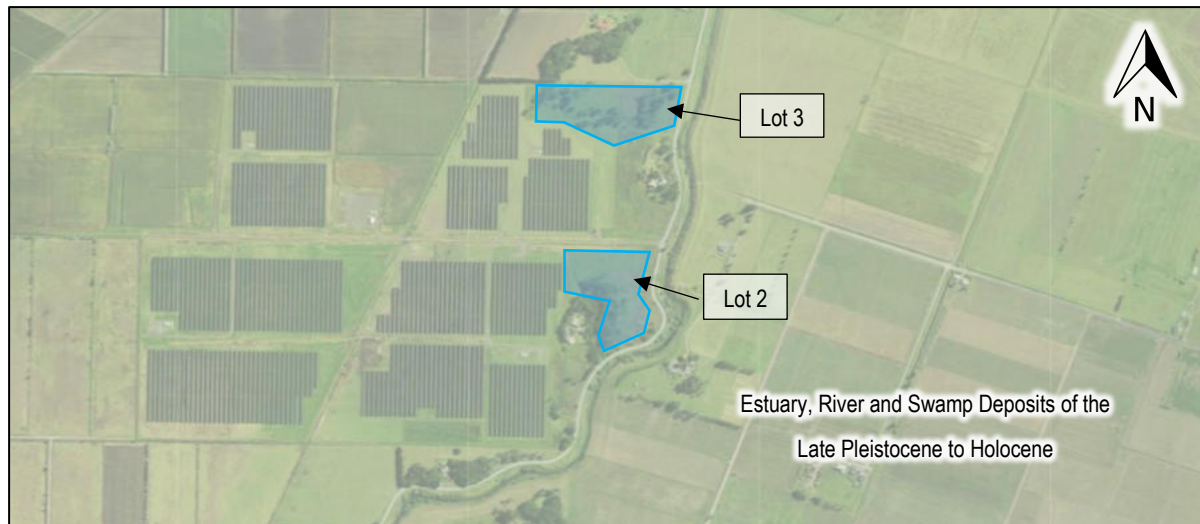


Figure 3: Geological Map (Source: GNS Webmaps)

4.0 Previous Geotechnical Reporting

A geotechnical investigation and assessment for the Te Ahu Solar Farm site were previously completed by Jacobs New Zealand Ltd (Jacobs) with findings presented in the following reports:

- Geotechnical Factual Report, ref: IS331400-103-CG-RP-0001 , dated: 12 Feb 2021
- Geotechnical Interpretative Report, ref: IS331400-103-CG-RP-0002, dated: 15 Feb 2021.

These reports highlights the following key ground conditions relevant to the wider area:

- Geological setting: The site is located on the low-lying Awanui Plains within a historic 'back-barrier lagoon' environment, underlain by soft, unconsolidated estuarine and alluvial deposits.
- The investigation confirms a variable stratigraphy common to the Awanui Plains, including layers of very soft peat, loose estuarine sands, and stiff alluvial clays
- Key Data Source: The deep investigation data referenced in this assessment were obtained from the Cone Penetrometer Tests (CPTu) and machine boreholes detailed in the Jacobs Factual Report.

5.0 Field Investigation

The field investigation carried out on 8 January 2026 comprised:

- Visual appraisal of the site
- Drilling of four hand augerholes (AH01 to AH04), to a target depth of 3.0m and 5.0m. All hand auger boreholes were logged generally in accordance with NZGS guidelines. Shear vane

measurements were included at select intervals within cohesive soils and Scala penetrometer measurements were undertaken from the base of AH02 and AH03. – Appendix B

- Drilling of four shallow hand augerholes (WW01 to WW04), to a target depth of 1.5m in the vicinity of indicative wastewater dispersal field locations. – Appendix B

Previous investigations carried out by Jacobs in September 2020 included:

- The advancement of Cone Penetration Tests labelled CPT016 and CPT007 at the locations of proposed Lots 2 and 3, respectively – Appendix D
- The Machine Excavation of a Borehole labelled BH009 at the location of Proposed Lot 2. – Appendix B
- The borehole Standpipe installation for Shallow Groundwater Level monitoring at Proposed Lot 3 – Appendix B

The test locations are shown on the Site Plan and Cross Sections, Drawing No NL250161/1-1A and NL250161/2A-2B (Appendix A). The locations of S&RC investigated boreholes were measured from existing site features using hand-held GPS and are therefore approximate only. A visual-tactile field classification of the soils encountered during drilling was carried out in accordance with the NZGS 'Guideline for the Field Description of Soil and Rock' (2005).

5.1 Ground Model

Subsurface conditions have been interpolated between the test locations and localised variations between and away from the test locations will exist.

In general, the soils encountered in the site comprised alluvial deposits of the Late Pleistocene to Holocene age. An outline of the soil conditions and investigation results is given below and summarised in Table 1, and detailed descriptions of the soils are given on the attached logs (Appendix B).

- **Topsoil.** Topsoil was encountered at each test location to a maximum depth of 0.2m below present ground level (bpgl). These materials are unsuitable for the support of permanent structures (i.e., building foundations, floor slabs, pavements, etc.).
- **Alluvial Deposits.** Alluvial deposits were encountered underlying the topsoil to the termination depth of the augerholes. These soils predominantly comprised stiff to very stiff silts, clayey silts, and sandy silts with lesser amounts of clay. Vane shear strengths ranged from 55 kPa to >200 kPa with isolated layers of loose to firm sandy and silty material at 4.5m to 5.0m depth in AH02 and AH3, respectively.

- **Scala Penetrometer Testing.** Scala Penetrometer testing was carried out from the base of AH02 and AH03 to a termination depth of 8.0m. Scala results undertaken from 5.0m to 7.0m are indicative of a soft to firm strata while becoming firm to stiff at a maximum investigated depth of 8.0m.
- **Groundwater.** Groundwater was encountered on the day of drilling. Groundwater measurements carried out within the hand augerholes at the completion of drilling recorded groundwater with AH01 at a depth of 3.2m, AH02 at a depth of 3.4m, and AH03 at a depth of 2.7m. Groundwater measurements taken on the day of drilling are not always an accurate portrayal of the actual long-term groundwater table. Tactile descriptions of 'wet' soils are shown on the logs at slightly shallower depths than recorded at the completion of drilling. We infer these depths better represent 'actual' groundwater levels and these depths are shown in brackets in Table 1.

Table 1 – Summary of Ground Conditions

Test ID	Termination Depth	Depth of Topsoil/Fill	Vane Shear Strength Range (kPa)	Scala Penetrometer Termination	Groundwater Depth
AH01	5.0 (target)	0.2	55 - >200	NT	3.2
AH02	5.0 (target)	0.2	34 - 147	7.0 (target)	3.4
AH03	5.0 (target)	0.2	48 - 185	7.0 (target)	2.7
AH04	3.0 (target)	0.2	68 - 185	NT	NE (2.9)
WW01	1.5 (target)	0.2	NT	NT	NE
WW02	1.5 (target)	0.2	NT	NT	NE
WW03	1.5 (target)	0.2	NT	NT	NE (1.0)
WW04	1.5 (target)	0.2	NT	NT	NE
SP002	6.5	0.15	21 - 166	NT	0.75
BH009	8.0	NT	6 - 61	NT	1.85
CPT007	14.0	NT	NT	NT	0.5
CPT016	11.3	NT	NT	NT	0.5

All depths measured in (m) below present ground level. (Rounded to 1 DP)

NE = Not Encountered NT = Not Tested

6.0 Expansive Soils

Our experience with these types of soils, and laboratory testing in the wider area indicate the soils have highly variable soil expansivity characteristics, including some soils which lie in the range of 'Class H –

Highly Expansive' category with reference to B1/AS1. Foundation design would be require characterisation and/or mitigation of the effects of soil expansivity.

Supporting laboratory data from previous reporting by Jacobs New Zealand Ltd included Shrink-Swell Index testing (AS1289: Test 7.1.1 – 2003) presented in Report 63879#L/SS, October 2020 by Babbage Geotechnical Laboratory. This indicated Iss between 3.3 and 16.3 across eight samples (i.e. Moderate to exceeding extreme), including a result of 4.7 from a sample collected at Location SP002 at 0.5m depth within Lot 5 (i.e. 'Class H – Highly Expansive' category with reference to B1/AS1).

We recommend that soil expansivity testing be completed at the building consent stage once the building platform locations are confirmed. Unless site specific testing indicates otherwise, the soil expansivity should be assumed to be "Class H – Highly Expansive".

7.0 Sensitive Soils

The ratio of peak to remoulded vane shear strength values recorded during our investigation generally ranges between 2 and 5, indicative of a sensitive subgrade. These soils are particularly susceptible to mechanical disturbance and/or exposure to the elements. Soils that test well in-situ can perform poorly when construction is underway.

Care is therefore required during construction to ensure the soils are protected to ensure favourable short and long-term subgrade and foundation performance. Subgrade protection measures are provided in Section 14.0 of this report.

8.0 Seismic Design Parameters

The site is considered a Class C – 'Shallow Soil Site' as defined by NZS 1170.5:2004.

8.1 Liquefaction Vulnerability

Typically, the two principal factors which can result in liquefaction occurring under seismic conditions are the presence of unconsolidated/loose sands/sandy silts, and groundwater. Recent Alluvial deposits of the Tauranga Group soils potentially contain liquefiable soils. However, groundwater was typically not encountered in the upper 3m depth and soils encountered by this investigation were typically stiff to hard and cohesive in nature over the upper 3m depth. These soils are generally less susceptible to liquefaction.

Previous reporting by Jacobs included liquefaction analysis of CPT data. Their results (Interpretative Report IS331400-103-CG-RP-0002, Feb 2021, Table 5.4) indicate that materials susceptible to liquefaction were interpreted at CPT016 between depths of 3.5m and 5.5m.

Typically, in the absence of significant slopes, moderate liquefaction occurring below a depth of 3m will have no more than minor surface expression where it is overlain by a liquefaction resistant crust (Ishihara).

Although sand-dominant layers were encountered, the near-surface soil profile is clay-dominated. This, combined with the relatively dense composition and age of the soil and the absence of continuous, saturated, loose granular layers, suggests a low risk of significant liquefaction damage at any design-level seismic event.

Based on our Level B 'Calibrated Desktop Assessment' and the available Jacobs data, the site is considered to have a 'Low' liquefaction vulnerability.

9.0 Land Instability

The sites are generally flat with no steep slopes for more than 100m away in all directions from the proposed lot locations. We consider there to be no risk of land instability to the proposed structures from a global land stability point of view, contingent upon the recommendations of this report being adopted in design and construction.

10.0 Settlement

Potentially compressible soils were encountered within proposed Lot 2 and 3 and by Jacobs within the wider area. Typically compressible soils are present at depths greater than 3.5m

Provided the recommendations of this report are adopted in design and construction, including limitation of fill thickness, we consider any potential total or differential settlement as a result of the proposed development to be within typical tolerable limits.

11.0 Geotechnical Discussion

We consider the site to be geotechnically suitable for the proposed development provided the recommendations given in this report are observed. Geotechnical constraints that will require particular consideration by the designer are outlined below and specific geotechnical recommendations and parameters to mitigate these constraints are provided in subsequent sections of this report.

12.0 Site Formation

Any proposal to create cuts or fills greater than 300mm in height within 2m of building platforms, or 600mm elsewhere, other than those indicated/inferred at the time of preparation of this report should be the subject of specific design advice.

Groundwater may be encountered within future excavations, and in this event, sumps/pumps will be required to remove groundwater from the excavations. The contractor must be vigilant in this respect and summertime construction is beneficial. Similarly, any springs or seepage of water intercepted by stripping operations should be captured and taken to a safe discharge point as per S&RC advice. In any case, should a zone of 'wet' soil be encountered this increases the potential for cut-face collapse and S&RC should be contacted for advice.

Temporary cuts no deeper than 1.2m and/or located a greater distance from the boundary than the depth/height of the cut may be battered no steeper than 1V:1H. Deeper, steeper, or cuts closer to the boundary will require a specific construction methodology by the designer and/or the installation of temporary support to maintain the stability of neighbouring properties or boundary fences during and post construction.

13.0 Foundation Design Recommendations

S&RC should inspect all foundation excavations to determine whether the exposed soil and foundation conditions are consistent with those described in this report. Any non-engineered fill should be removed from the building platform, unless building loads and floor slabs are to be fully suspended by pile foundations.

13.1 Shallow Foundations

The natural site soils are considered suitable for the use of shallow and pile foundations designed to accommodate the expansivity characteristics of the soils, classified as Expansive Soil Class H as per Section 6.0 of this report.

A Design (Dependable) Bearing Capacity of 150kPa is available for Ultimate Limit State Design of shallow foundations carried out in accordance with B1/AS1, B1/VM4 and AS/NZS 1170:2002. A Strength Reduction Factor (ϕ_{bc}) of 0.5 has been applied to the Geotechnical Ultimate Bearing Capacity value to determine the Design Bearing Capacity.

13.2 Pile Foundations - Preliminary

Pile foundations are not expected to be required, except where structural or civil design calls for:

- The bridging of public underground services.
- Bearing capacity requirements greater than those given for shallow foundations.
- Non-engineered fill or other unsuitable material to remain in-situ.

Pile foundation design parameters and recommendations can be provided on request.

14.0 Floor Slabs and Pavements

Any topsoil, non-engineered fill, vegetation, organic or otherwise unsuitable material should be removed from under floor slab and pavement areas prior to construction.

Any concrete floor-slab or pavement should be underlain by a basecourse of clean, free-draining granular fill as specified by the designer and should be subjected to compaction by a device of appropriate weight and energy. Silty or sandy subgrades are generally sensitive to disturbance and 'static' rolling only (no vibration) is recommended.

Subgrade Protection

Any subgrade should be protected from desiccation, rain damage, and plant-trafficking immediately upon excavating or filling to grade following inspection by S&RC.

Protection may take the form of topsoil, mulching, or by placing a protective layer of granular fill. The granular fill can later be left in-situ as a construction sub-base or basecourse if managed well and protected from damage. We recommend watering expansive subgrades approximately 48 hours prior to concrete placement to return the subgrade to its inferred pre-excavation moisture content.

15.0 Underground Services

Underground services, public or private, mapped or unmapped, of any type (gas, pipelines, fibre, electricity, etc.) could be present. A thorough service-search should be carried out prior to commencement of excavations for future residential development, once building platforms are confirmed.

16.0 Stormwater

To appropriately mitigate increased stormwater runoff from introduced impermeable areas associated with the proposed development, we recommend that stormwater management be provided utilising 'Low Impact Design' Methods.

Guidance for design may be taken from 'Countryside Living Toolbox' design document, and where necessary the document 'Stormwater Management Devices in the Auckland Region Guideline Documents 2017/001 (GD01), dated December 2017' can be adopted.

Future residential construction could include the creation of significant areas of impermeable ground that requires some form of neutrality design and avoidance of erosional threats. It is recommended that all rainwater captured from roofs be directed to rainwater storage tanks for use as potable water supply.

Overflow from water storage tanks should be directed through sealed pipes to an appropriate controlled discharge location.

It is envisaged that driveways would generally be modest and gravelled, in keeping with the rural setting. In this case, surface water should be directed away from buildings and allowed to sheet flow downslope, without concentrated discharge to slopes. Where impermeable surfaces are proposed for driveways, stormwater collection should be appropriately sized and positioned to collect stormwater and direct it through sealed pipes to an appropriate controlled discharge location.

The dispersal mechanism may take the form of a T-bar dispersal pipe (i.e. at ground surface or suspended just above the ground on a frame constructed of long-life material), or in-ground (trenched) dispersal pipe installed parallel to the ground contours. If installed in-ground, the trench depth must be limited to the topsoil layer as the water needs to 'bubble-up' to run over the ground surface and should not be allowed to soak into the ground.

Drawings No. NL250161/1 & 1A provide an indicative location of the stormwater dispersal devices, however future design can modify these as appropriate. Notional concept design for the mentioned dispersal mechanism is provided in Appendix F.

17.0 On-site Wastewater Disposal – Preliminary Suitability

No reticulated sanitary sewer is servicing the proposed Lots 2 and 3. On-site wastewater treatment disposal systems will be required on each lot.

The purpose of this section is to confirm to Council that on-site treatment and dispersal of domestic wastewater is feasible. We have assessed the feasibility of onsite effluent disposal in accordance with AS/NZS 1547:2012 and the Proposed Regional Plan for Northland (PRPN).

Actual designs will be carried out as part of the preparation for Building Consent when development proposals are available, as wastewater treatment and dispersal designs should be specific to the residential development.

Based on the subsoils encountered in the augerholes (Alluvial Soils), we categorize them as Soil Category 5 ‘Light clays’, following Table 5.1 of AS/NZS1547:2012.

For Soil Category 5, Table M1 of AS/NZS1547:2012 recommends a Design Irrigation Rate (DIR) for drip irrigation of 3.0mm/day. Alternatively, for dispersal via raised beds, a design loading rate of 10mm/day would likely be available (Table L1 of AS/NZS1547:2012).

Table 5 below presents the indicative wastewater dispersal field for a notional four-bedroom dwelling with standard fixtures (full water usage) and ‘Secondary’ effluent treatment level. Dispersal via a Pressure Compensated Dripper Irrigation (PCDI) system is assumed. The table also presents the area that would be required to be set aside as a reserve area, being 30% of the primary field area is available in order to demonstrate compliance with the Northland Regional Plan. The feasibility calculations below are for one dwelling and are applicable for the proposed Lots 2 and 3.

Table 5 – Summary of Onsite Effluent Dispersal Field Sizing

Number of bedrooms	4 bedrooms	
Design Occupancy (Table 6.1 of TP58)	6	
Per-Capita Allowance (Table 6.2 of TP58)	180 L/p/day	
Design Discharge Rate	6 x 180 = 1,080 L	
Treatment Type	Secondary Treatment	
Dispersal Type	Dripper Irrigation	Bed (Raised or In-ground)
Areal Loading Rate (Table M1 of AS/NZS1547:2012)	Category 5: 3.0mm/day	Category 5: 10.0mm/day
Required Dispersal Field Area	360m ²	108m ²
30% Reserve Area	108m ²	33m ²

We conclude that:

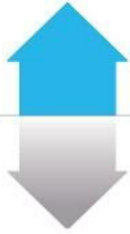
- Secondary-level (or higher) treatment of wastewater is recommended.
- Proposed Lots 2 and 3 are capable of supporting an on-site wastewater treatment and dispersal system for a 4-bedroom dwelling with Standard water reduction fixtures installed.
- For any development that involves occupancy of more than 6 people, the disposal areas would be increased. However, if extra water reduction fixtures are adopted, the disposal area may be decreased.
- Wastewater irrigation lines should be covered by a minimum of 100mm of topsoil or mulch.
- Dispersal of treated wastewater via PCDI at the rate adopted above will have no undue negative effect on slope stability. Designers may wish to consider alternatives to PCDI, however we recommend that in-ground soakage systems be avoided.
- The dispersal field at each lot should be set-back to a minimum of 3m from buildings, 1.5m from boundaries, 15m from streams/OLFP's (etc) and 20m from any water supply bore. Minimum vertical separation of 0.6m from the winter groundwater table is required.
- If shallow groundwater is present within the preferred wastewater dispersal area, a raised bed dispersal type may be adopted. This alternative is considered suitable and sufficient area is available.

Our appended site plans (Dwg Ref: NL250161/1-1A) presents indicative locations for wastewater dispersal field at each proposed lot based on the provided scheme plan prepared by Reyburn and

Bryant Ltd. This is indicative only to illustrate that there is sufficient area available within the proposed lots for wastewater dispersal. The actual location may be varied to suit the site development, ground conditions and subject to specific design. Minimum setback to building, surface water features and boundary must be achieved in accordance with Section C.6.1 of the PRPN.

Design should be carried out by an appropriate professional and suitable qualified engineer experienced in onsite wastewater dispersal design. We also note that feasibility study given above relates to a notional 4-bedroom 6-person dwelling to indicate to Council that the activity is feasible for a typical residential development – it is likely that larger installations could be designed and installed.

End of Report Text – Appendices Follow



Soil&Rock Consultants

Your responsive & cost-effective engineers

Appendix A

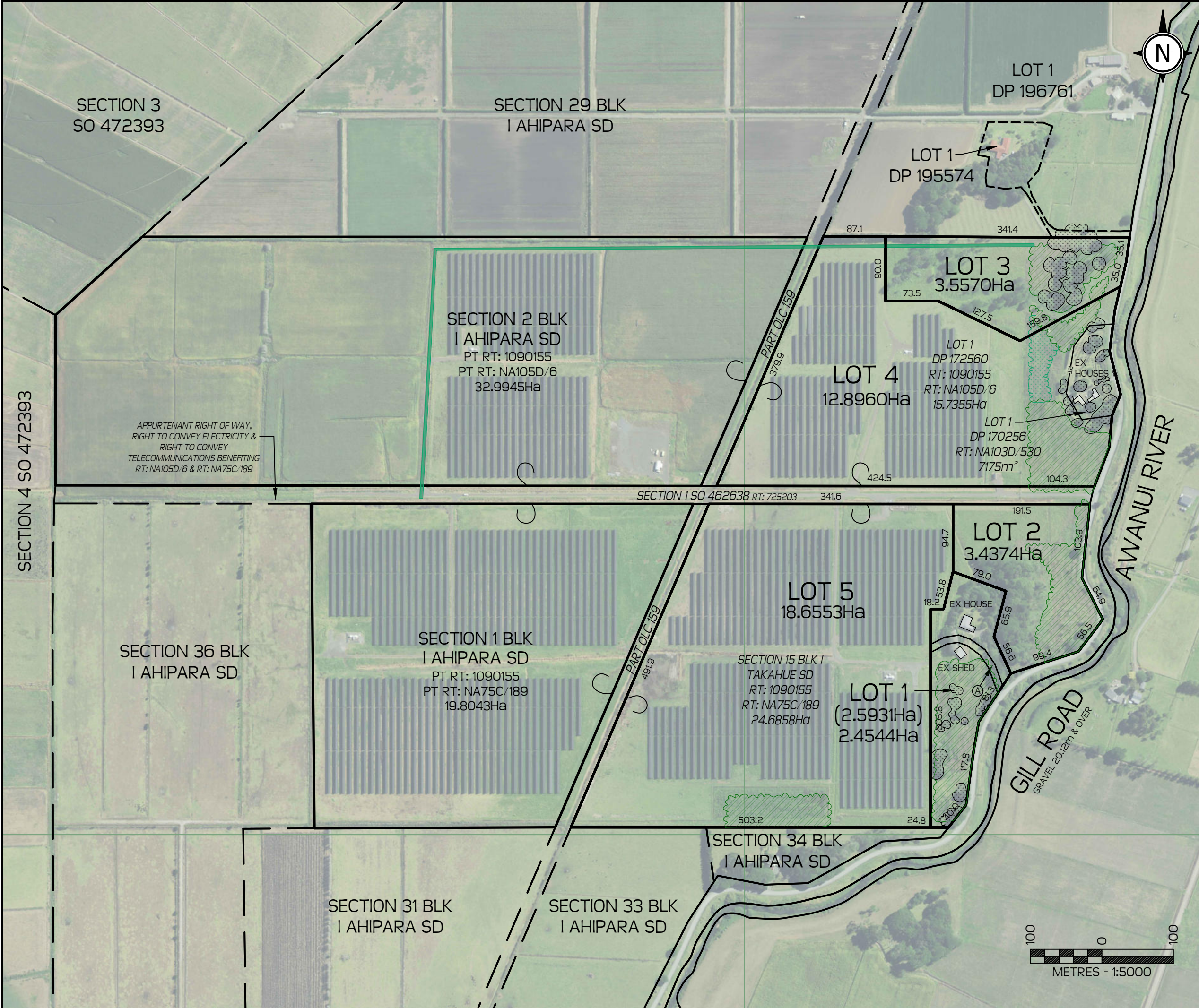
Drawings

Geotechnical

Environmental


Stormwater

Hydrogeology




CAUTION:


- THIS DRAWING SHOULD NOT BE AMENDED MANUALLY.
- AREAS & DIMENSIONS ARE APPROXIMATE ONLY AND ARE SUBJECT TO FINAL SURVEY.
- THE VENDOR & PURCHASER MUST CONTACT THE SURVEYOR IF SALE & PURCHASE AGREEMENTS ARE ENTERED INTO USING THIS PLAN. SERVICES MUST NOT BE POSITIONED USING THIS PLAN.
- DO NOT SCALE OFF DRAWINGS.
- THIS PLAN IS COPYRIGHT © REYBURN & BRYANT (1999) LIMITED.
- DESIGNED BY REYBURN & BRYANT - WHANGAREI - NEW ZEALAND
- 03m 2023-2024 RURAL AERIAL SOURCED FROM AERIAL SURVEYS LTD INFORMATION AVAILABLE ON LINZ DATA SERVICE.
- BOUNDARIES SOURCED FROM GRIP. COORDINATES IN TERMS OF MOUNT EDEN 2000.




PROPOSED REVEGETATION PLANTING



PROPOSED REVEGETATION PLANTING (LOWER HEIGHT)



EXISTING BUSH REMNANTS



PROPOSED SHELTER BELT PLANTING (CRYPTOMERIA JAPONICA)

LAND COVENANT 12567988.2 IS TO REMAIN

PROPOSED AMALGAMATION CONDITION

PURSUANT TO SECTION 220 (1)(b)(ii) OF THE RMA 1991

- THAT LOTS 4 & 5 HEREON, SECTION 1 BLK I AHIPARA SD AND (RT: NA75C/189) AND SECTION 2 BLK I AHIPARA SD AND (RT: NA105D/6) BE HELD IN THE SAME RECORD OF TITLE.

PROPOSED EASEMENT SCHEDULE


PURPOSE	SHOWN	BURDENED	BENEFITED
RIGHT OF WAY	A	LOT 1 HEREON	LOT 5 HEREON

TOTAL TITLE AREA:93.9376Ha
SUBD'N AREA: 41.1388Ha
COMPRISED IN: RST 1090155 (LEASE),
NA105D/6 (PT), NA103D/530 (ALL),
NA75C/189 (PT)

THIS SITE IS ZONED 'RURAL PRODUCTION' AND THE BUILDING SETBACKS ARE THUS: 10m FROM ALL BOUNDARIES

REV	DATE	DESCRIPTION
B	11.11.25	BOUNDARY AMENDMENTS - PL/KM
A	30.10.25	FIRST ISSUE - PL/KM

REF. DATA:



Ph: 09 438 3563
7 Selwyn Ave, Whangarei

PO Box 191, Whangarei 0140
www.reyburnandbryant.co.nz

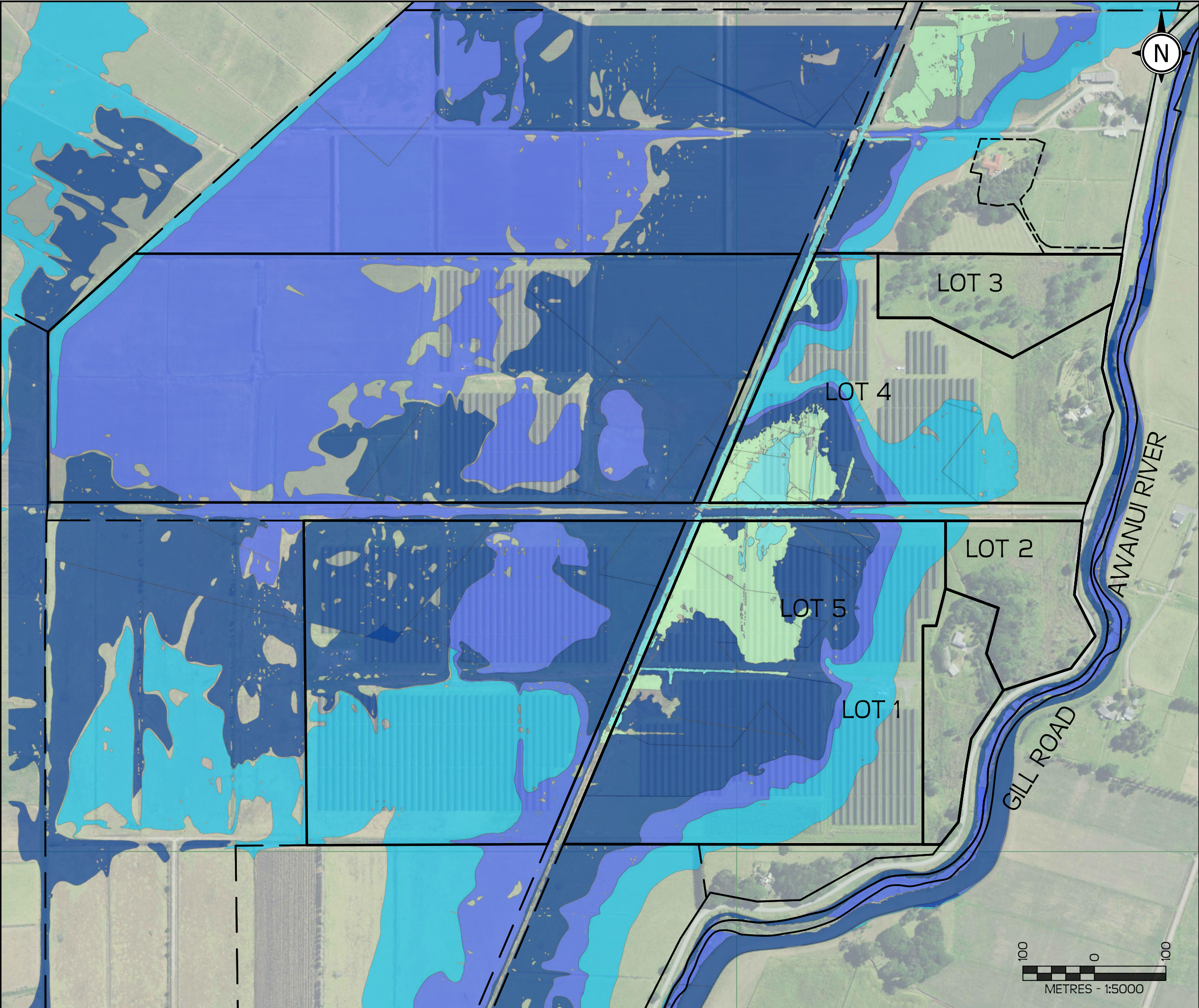
CLIENT

**LODESTONE KAITAIA
GILL ROAD,
KAITAIA**

TITLE

**PROPOSED SUBDIVISION OF LOT
1 DP 170256, LOT 1 DP 172560 &
SECTION 15 BLK I TAKAHUE SD**

DATE	NOVEMBER 2025	SCALE	1:5000 @A3
DRAWING REF.	S18612	SHEET	01 OF 02
		REV	B



CAUTION:

- THIS DRAWING SHOULD NOT BE AMENDED MANUALLY.
- AREAS & DIMENSIONS ARE APPROXIMATE ONLY AND ARE SUBJECT TO FINAL SURVEY.
- THE VENDOR & PURCHASER MUST CONTACT THE SURVEYOR IF SALE & PURCHASE AGREEMENTS ARE ENTERED INTO USING THIS PLAN. SERVICES MUST NOT BE POSITIONED USING THIS PLAN.
- DO NOT SCALE OFF DRAWINGS.
- THIS PLAN IS COPYRIGHT TO REYBURN & BRYANT (1999) LIMITED.
- DESIGNED BY REYBURN & BRYANT - WHANGAREI - NEW ZEALAND
- 03m 2023-2024 RURAL AERIAL SOURCED FROM AERIAL SURVEYS LTD INFORMATION AVAILABLE ON LINZ DATA SERVICE.
- BOUNDARIES SOURCED FROM GRIP. COORDINATES IN TERMS OF MOUNT EDEN 2000.

COASTAL FLOOD HAZARD ZONE 2

COASTAL FLOOD HAZARD ZONE 3

RIVER FLOOD HAZARD ZONE 10 YEARS

RIVER FLOOD HAZARD ZONE 50 YEARS

RIVER FLOOD HAZARD ZONE 100 YEARS

TOTAL TITLE AREA:93.9376Ha
SUBD'N AREA: 41.1388Ha
COMPRISED IN: RST 1090155 (LEASE),
NA105D/6 (PT), NA103D/530 (ALL),
NA75C/189 (PT)

THIS SITE IS ZONED 'RURAL PRODUCTION' AND THE BUILDING SETBACKS ARE THUS: 10m FROM ALL BOUNDARIES

B	11.11.25	BOUNDARY AMENDMENTS - PL/KM
A	30.10.25	FIRST ISSUE - PL/KM
REV	DATE	DESCRIPTION

REF. DATA:

Ph: 09 438 3563

7 Selwyn Ave, Whangarei

PO Box 191, Whangarei 0140

www.reyburnandbryant.co.nz

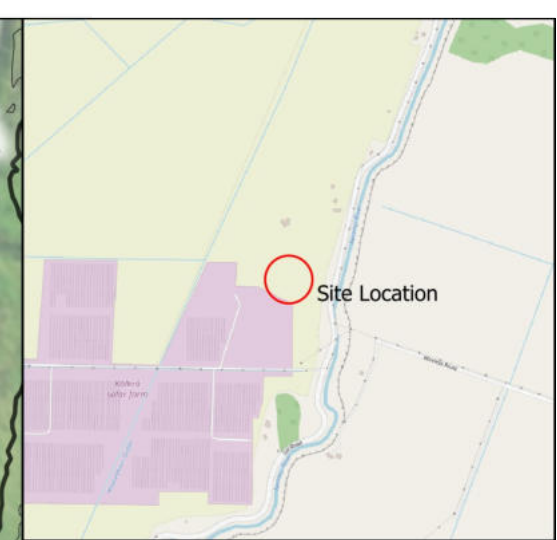
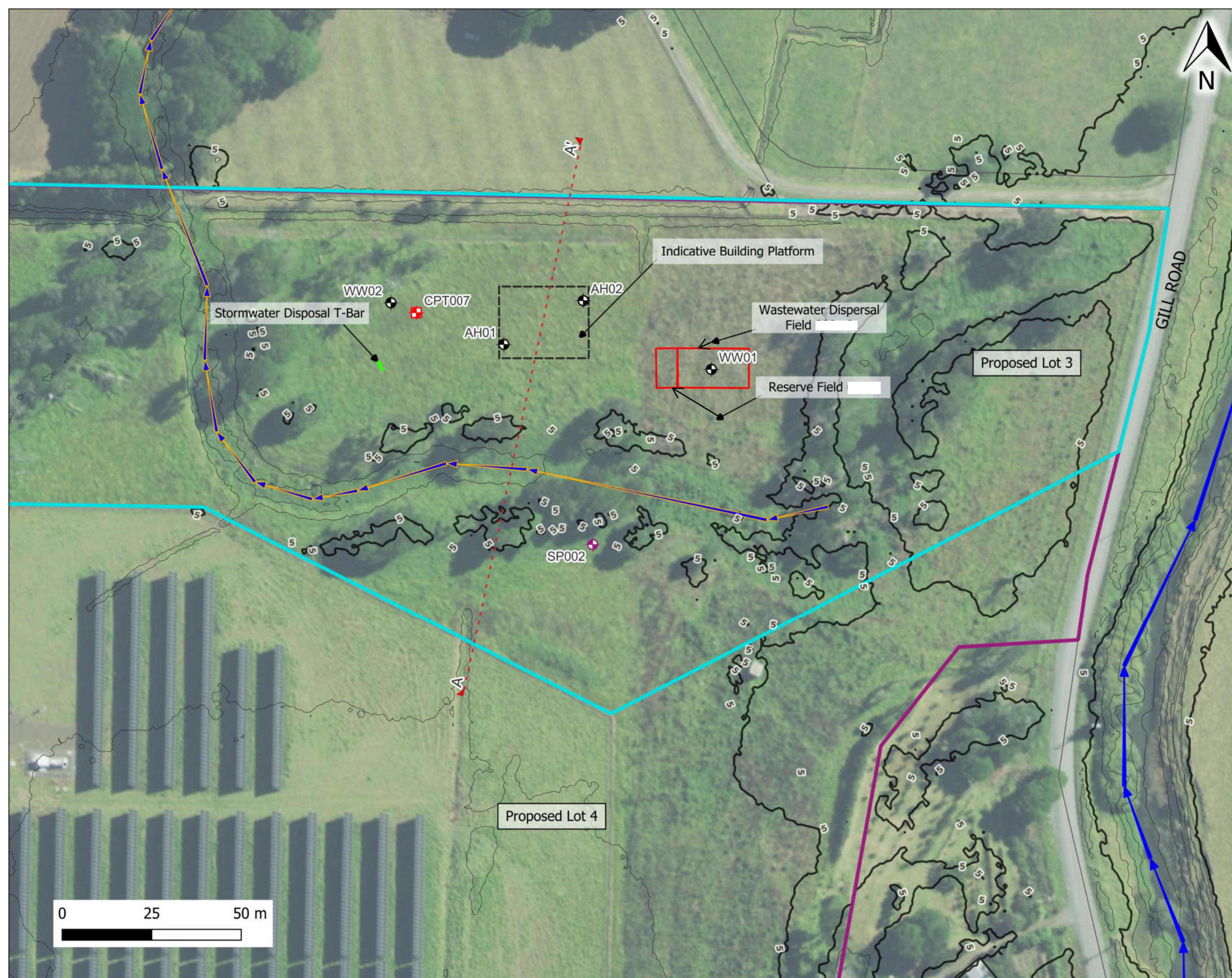
CLIENT

LODESTONE KAITAIA
GILL ROAD,
KAITAIA

TITLE

PROPOSED SUBDIVISION OF LOT
1 DP 170256, LOY 1 DP 172560 &
SECTION 15 BLK I TAKAHUE SD

DATE	NOVEMBER 2025	SCALE	1:5000 @A3
DRAWING REF.	S18612	SHEET	02 OF 02
		REV	B



- NOTES:
- 1. Locations of features approximate only.
 - 2. Buried service locations to be verified on site.
 - 3. Original sheet size A3.
 - 4. Boundary data obtained from Council GIS.

- Key:
- Existing Property Boundary
 - Proposed Lot Boundary
 - Existing Dwelling
 - Indicative Building Platform
 - Wastewater Dispersal & Reserve Field
 - S&RC Cross Section Locations Jan 2026
 - S&RC Hand Augerhole Locations Jan 2026
 - CPT Locations Sep 2020
 - Machine Borehole Locations Sep 2020



AMENDMENTS		
Rev	Date	Description
A	Jan 25	Geotechnical Investigation Plan



Soil&Rock Consultants
Your responsive & cost-effective engineers

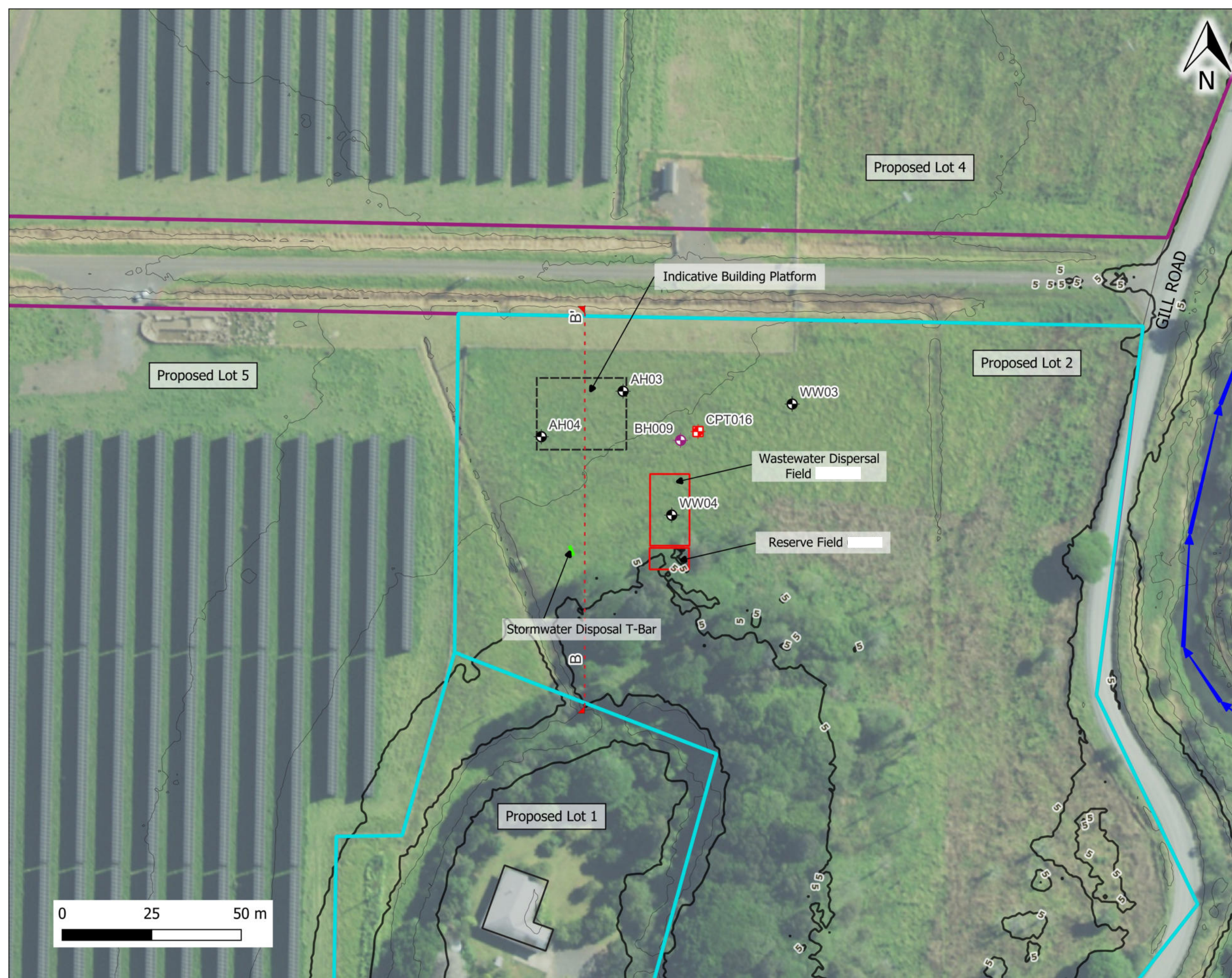
289 Lincoln Road, Waitakere
PO Box 21-424 Henderson, 0650
Ph 09 835 1740 Fax 09 835 1847
www.soilandrock.co.nz

This drawing remains the property of Geotechnical Engineering Ltd and may not be reproduced without the written permission of Geotechnical Engineering Ltd.

Gill Road Solar Farm Kaitaia

Site Plan

Dwg No.	NL250161/1A		
Scale:	1:1000	Drawn By:	H.Heym
Date:	28/01/2026	Revision:	A
Filename:	O:\Whangarei\NL25-10100 - 0199\NL250161\GIS\NL250161 - Site Plan - Jul2025.qgd		



- NOTES:
1. Locations of features approximate only.
 2. Buried service locations to be verified on site.
 3. Original sheet size A3.
 4. Boundary data obtained from Council GIS.


- Key:
- Existing Property Boundary
 - Proposed Lot Boundary
 - Existing Dwelling
 - Indicative Building Platform
 - Wastewater Dispersal & Reserve Field
 - S&RC Cross Section Locations Jan 2026
 - S&RC Hand Augerhole Locations Jan 2026
 - Machine Borehole Locations Sep 2020
 - CPT Locations Sep 2020



AMENDMENTS		
Rev	Date	Description
A	Jan 25	Geotechnical Investigation Plan



Soil&Rock Consultants
Your responsive & cost-effective engineers



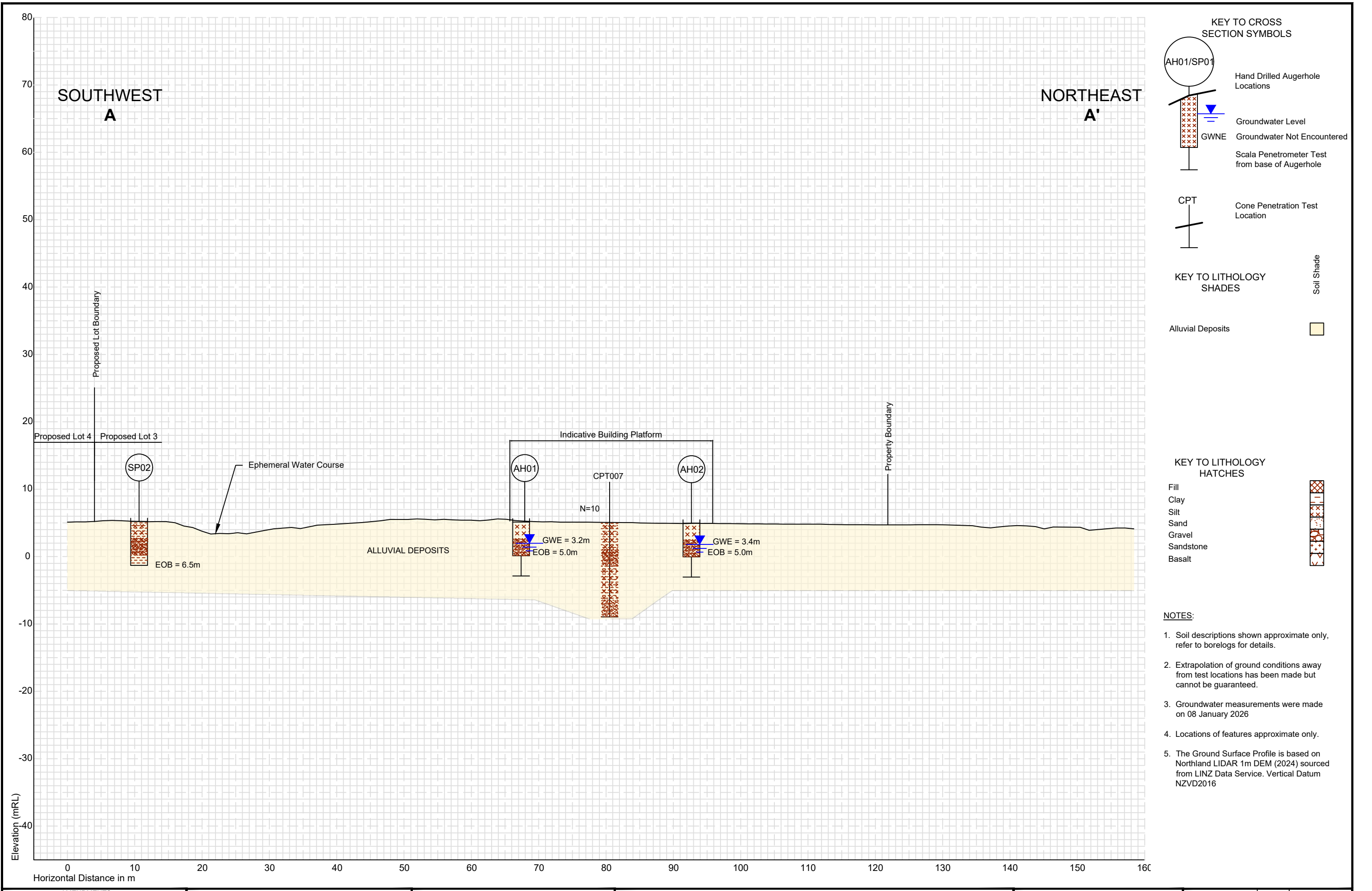
289 Lincoln Road, Waitakere
PO Box 21-424 Henderson, 0650
Ph 09 835 1740 Fax 09 835 1847
www.soilandrock.co.nz

This drawing remains the property of Geotechnical Engineering Ltd and may not be reproduced without the written permission of Geotechnical Engineering Ltd.

Gill Road Solar Farm Kaitiaia

Site Plan


Dwg No.	NL250161/1		
Scale:	1:1000	Drawn By:	H.Heym
Date:	16/01/2026	Revision:	A
Filename:	0:\Whangarei\NL25-10100-0199\NL250161\GIS\NL250161 - Site Plan - Jul2025.qgs		



AMENDMENTS		
DATE	REV	DESCRIPTION
JAN 2026	A	SUBDIVISION ASSESSMENT

**Soil&Rock Consultants**
Your responsive & cost-effective engineers

Check all dimensions and levels on site before commencing construction.
This drawing and design remains the property of Geotechnical Engineering Ltd. and may not be reproduced without the written permission of Geotechnical Engineering Ltd.

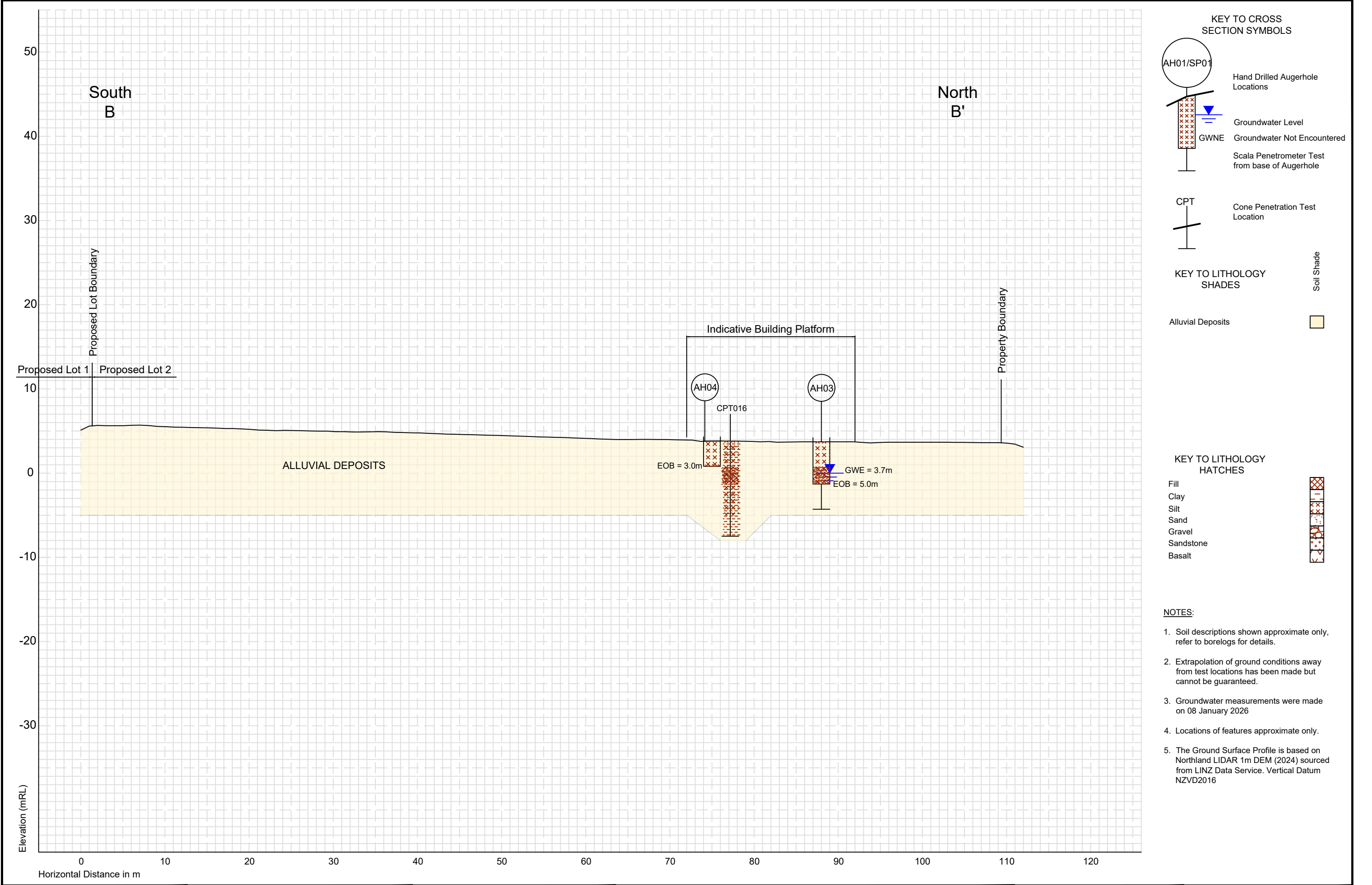


289 Lincoln Road, Waitakere
PO Box 21-424 Henderson, Waitakere 0650
Ph 09 835 1740 Fax 09 835 1847
www.soilandrock.co.nz

**GILL ROAD SOLAR FARM
KAITAIA**

CROSS SECTION A-A'

NL250161/2A		DRAWN: NN	DATE: 12-Jan-26
SCALES: 1: 500 AT A3	CHECKED: SHF		REV. A
	DESIGNED:		
Filename: nl250161 - section a-a.dwg			



AMENDMENTS		
DATE	REV	DESCRIPTION
JAN 2026	A	SUBDIVISION ASSESSMENT



Soil&Rock Consultants
Your responsive & cost-effective engineers

Check all dimensions and levels on site before commencing construction.
This drawing and design remains the property of Geotechnical Engineering Ltd. and may not be reproduced without the written permission of Geotechnical Engineering Ltd.



289 Lincoln Road, Waitakere
PO Box 21-424 Henderson, Waitakere 0650
Ph 09 835 1740 Fax 09 835 1847
www.soilandrock.co.nz

**GILL ROAD SOLAR FARM
KAITAIA**

CROSS SECTION B-B'

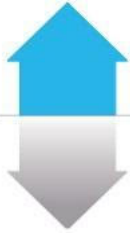
NL250161/2B

SCALES: 1: 400
AT A3

Filename: nl250161 - section b-b.dwg

DRAWN: NN
CHECKED: SHF
DESIGNED:

DATE: 12-Jan-26
REV.



Soil&Rock Consultants

Your responsive & cost-effective engineers

Appendix B

Investigation Logs

Geotechnical

Environmental

Stormwater

Hydrogeology



CLIENT: Lodestone Solar Limited

Auger Hole No: AH01

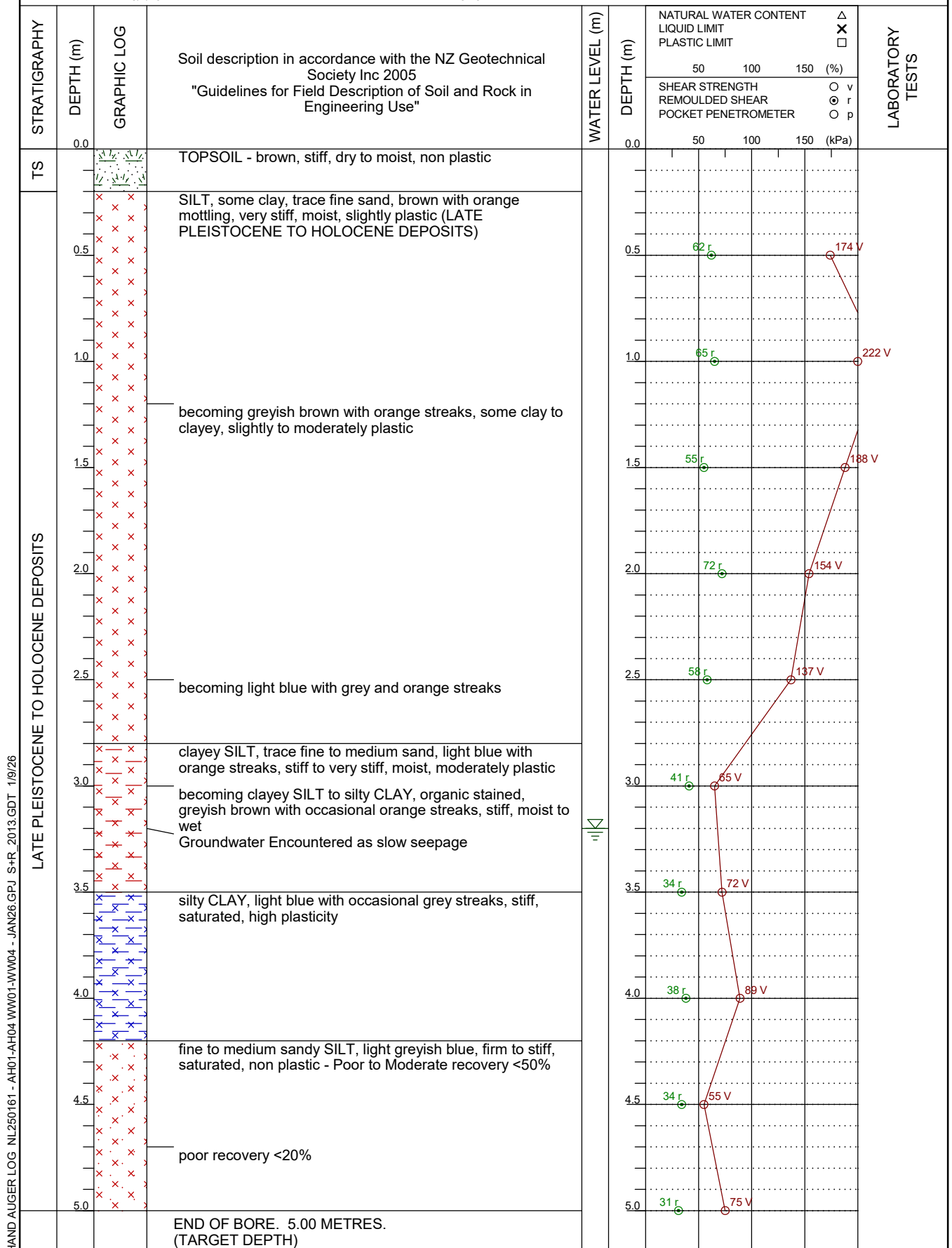
PROJECT: Geotechnical Investigation for Subdivision, Gill Road Solar Farm (552 Gill Road), Awanui, Far North

Sheet 1 of 1

Drill Type: 50mmØ Handauger
Drilled By: NN
Date Started: 8/1/26
Date Finished: 8/1/26

Project No: NL250161
Coordinates:
Ground Elevation:
Water Level: 3.20m

Logged By: NN
Shear Vane No - Calibration Date: DR1768 - 4/09/2025
Surface Conditions: Near Level, Long Grass



HAND AUGER LOG NL250161 - AH01-AH04 WW01-WW04 - JAN26.GPJ S-R 2013.GDT 1/9/26



CLIENT: Lodestone Solar Limited

Auger Hole No: AH02

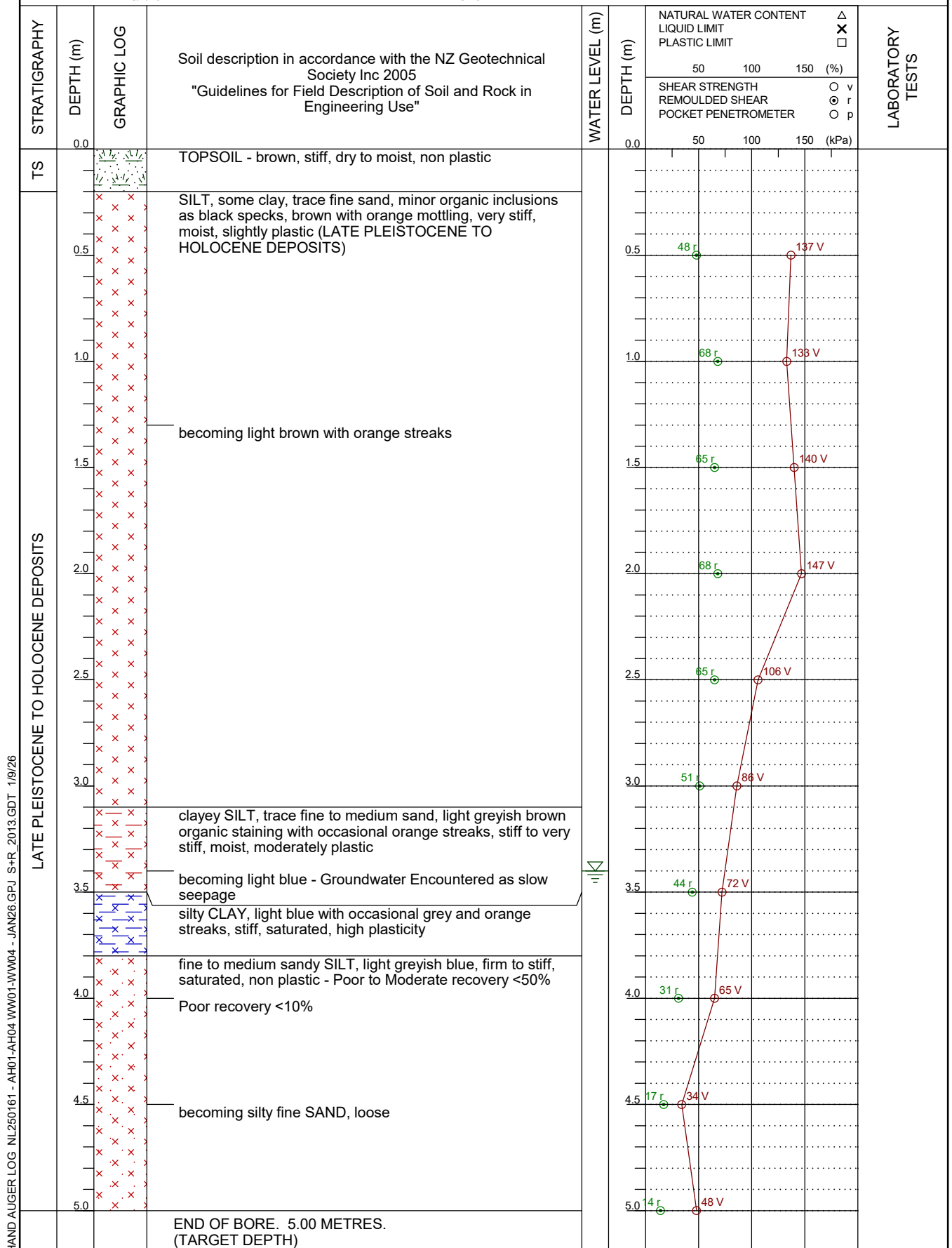
PROJECT: Geotechnical Investigation for Subdivision, Gill Road Solar Farm (552 Gill Road), Awanui, Far North

Sheet 1 of 1

Drill Type: 50mmØ Handauger
Drilled By: NN
Date Started: 8/1/26
Date Finished: 8/1/26

Project No: NL250161
Coordinates:
Ground Elevation:
Water Level: 3.40m

Logged By: NN
Shear Vane No - Calibration Date: DR1768 - 4/09/2025
Surface Conditions: Near Level, Long Grass



HAND AUGER LOG NL250161 - AH01-AH04 WW01-WW04 - JAN26.GPJ S-R 2013.GDT 1/9/26



CLIENT: Lodestone Solar Limited

Auger Hole No: AH03

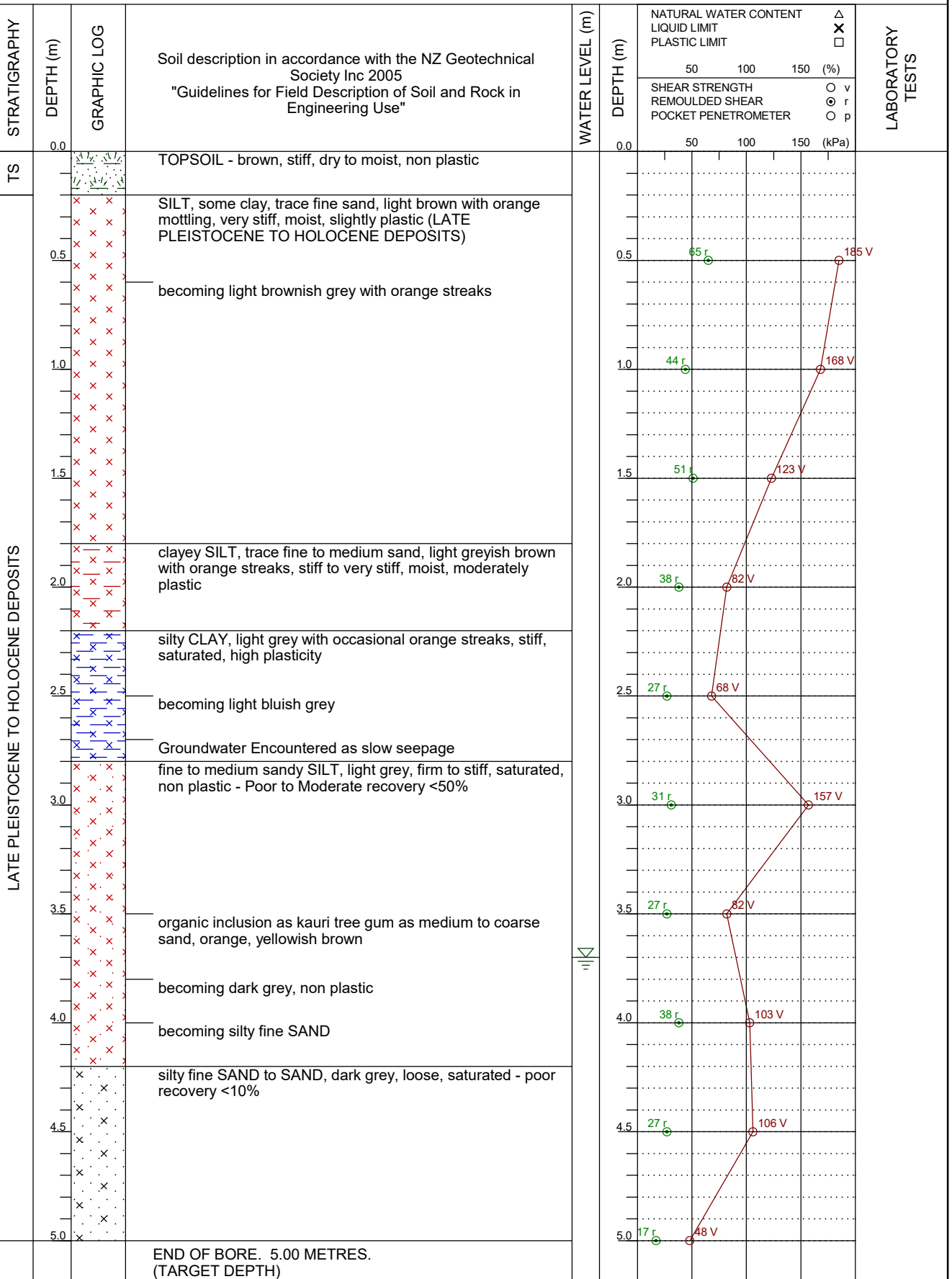
PROJECT: Geotechnical Investigation for Subdivision, Gill Road Solar Farm (552 Gill Road), Awanui, Far North

Sheet 1 of 1

Drill Type: 50mmØ Handauger
Drilled By: NN
Date Started: 8/1/26
Date Finished: 8/1/26

Project No: NL250161
Coordinates:
Ground Elevation:
Water Level: 3.70m

Logged By: NN
Shear Vane No - Calibration Date: DR1768 - 4/09/2025
Surface Conditions: Near Level, Long Grass



HAND AUGER LOG NL250161 - AH01-AH04 WW01-WW04 - JAN26.GPJ S+R 2013.GDT 1/9/26



CLIENT: Lodestone Solar Limited

Auger Hole No: AH04

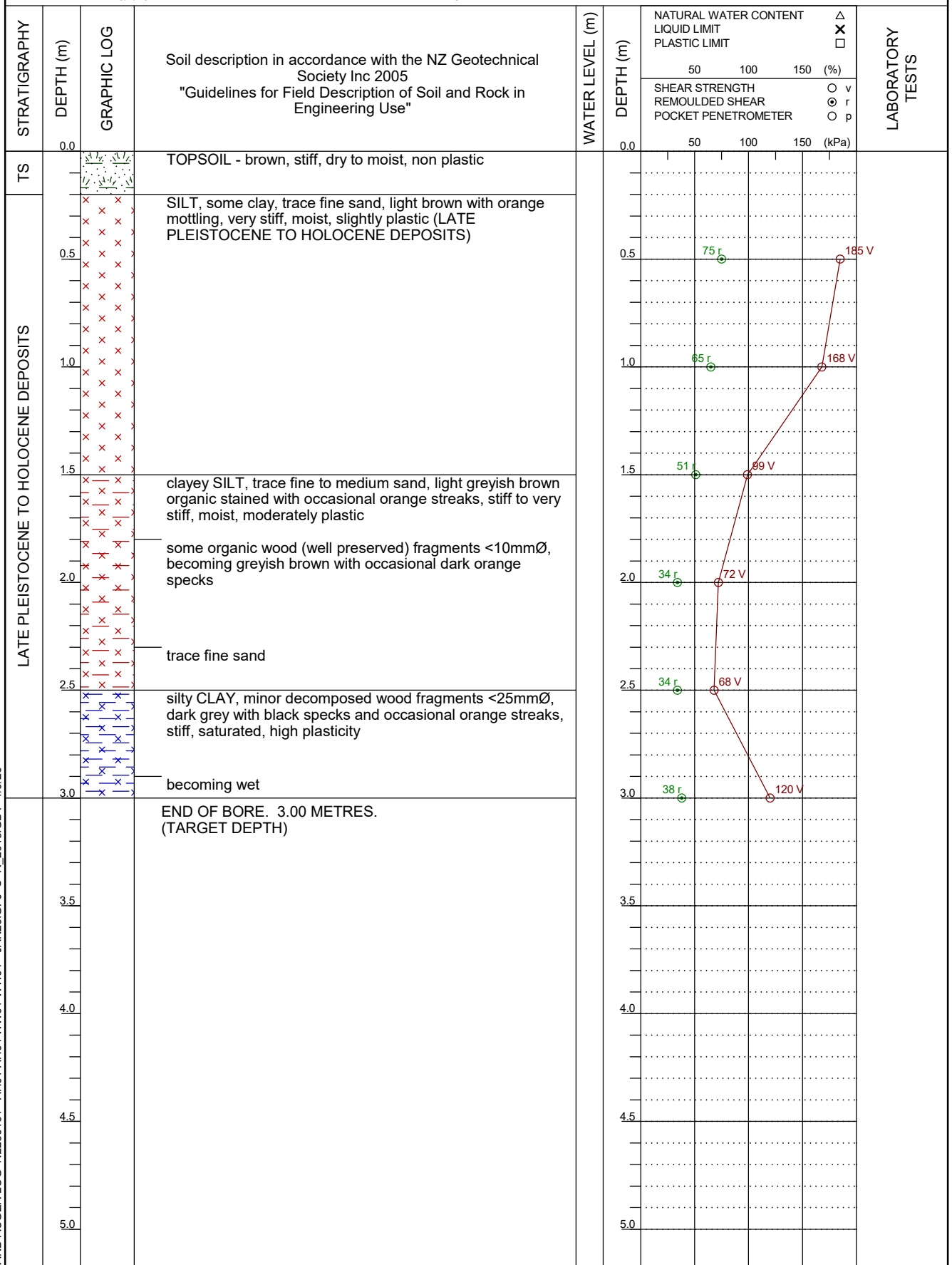
PROJECT: Geotechnical Investigation for Subdivision, Gill Road Solar Farm (552 Gill Road), Awanui, Far North

Sheet 1 of 1

Drill Type: 50mmØ Handauger
Drilled By: NN
Date Started: 8/1/26
Date Finished: 8/1/26

Project No: NL250161
Coordinates:
Ground Elevation:
Water Level: Groundwater Not Encountered

Logged By: NN
Shear Vane No - Calibration Date: DR1768 - 4/09/2025
Surface Conditions: Near Level, Long Grass



HAND AUGER LOG NL250161 - AH01-AH04 WW01-WW04 - JAN26.GPJ S-R 2013.GDT 1/9/26



CLIENT: Lodestone Solar Limited

Auger Hole No: WW01

PROJECT: Geotechnical Investigation for Subdivision, Gill Road Solar Farm (552 Gill Road), Awanui, Far North

Sheet 1 of 1

Drill Type: 50mmØ Handauger

Project No: NL250161

Logged By: NN

Drilled By: NN

Coordinates:

Shear Vane No - Calibration Date: DR1768 - 4/09/2025

Date Started: 8/1/26

Ground Elevation:

Surface Conditions: Near Level, Long Grass

Date Finished: 8/1/26

Water Level: Groundwater Not Encountered

STRATIGRAPHY	DEPTH (m)	GRAPHIC LOG	Soil description in accordance with the NZ Geotechnical Society Inc 2005 "Guidelines for Field Description of Soil and Rock in Engineering Use"	WATER LEVEL (m)	DEPTH (m)	NATURAL WATER CONTENT LIQUID LIMIT PLASTIC LIMIT				LABORATORY TESTS
						50	100	150	(%)	
TS	0.0		TOPSOIL - brown, stiff, dry to moist, non plastic		0.0					
	0.5		SILT, some clay, trace fine sand, brown with orange mottling, very stiff, moist, slightly plastic (LATE PLEISTOCENE TO HOLOCENE DEPOSITS)		0.5					
LATE PLEISTOCENE TO HOLOCENE DEPOSITS	1.0		some black specks		1.0					
	1.5		becoming clayey SILT, slightly to moderately plastic		1.5					
	2.0		END OF BORE. 1.50 METRES. (TARGET DEPTH)		2.0					
	2.5				2.5					
	3.0				3.0					

HAND AUGER LOG NL250161 - AH01-AH04 WW01-WW04 - JAN26.GPJ S+R 2013.GDT 1/9/26



CLIENT: Lodestone Solar Limited

Auger Hole No: WW03

PROJECT: Geotechnical Investigation for Subdivision, Gill Road Solar Farm (552 Gill Road), Awanui, Far North

Sheet 1 of 1

Drill Type: 50mmØ Handauger

Project No: NL250161

Logged By: NN

Drilled By: NN

Coordinates:

Shear Vane No - Calibration Date: DR1768 - 4/09/2025

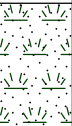

Date Started: 8/1/26


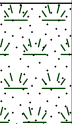

Ground Elevation:

Surface Conditions: Near Level, Long Grass

Date Finished: 8/1/26

Water Level: Groundwater Not Encountered

STRATIGRAPHY	DEPTH (m)	GRAPHIC LOG	Soil description in accordance with the NZ Geotechnical Society Inc 2005 "Guidelines for Field Description of Soil and Rock in Engineering Use"	WATER LEVEL (m)	DEPTH (m)	NATURAL WATER CONTENT				LABORATORY TESTS
						LIQUID LIMIT	50	100	150 (%)	
						PLASTIC LIMIT				
	0.0					0.0	50	100	150 (kPa)	
TS			TOPSOIL - brown, stiff, dry to moist, non plastic							
			SILT, some clay, trace fine sand, trace rootlets <2mmØ, light brown with orange streaks, very stiff, moist, slightly plastic (LATE PLEISTOCENE TO HOLOCENE DEPOSITS)							
LATE PLEISTOCENE TO HOLOCENE DEPOSITS	0.5				0.5					
	1.0		becoming wet, light brownish grey organic stained		1.0					
			some decomposed wood fragments <10mmØ							

			CLIENT: Lodestone Solar Limited PROJECT: Geotechnical Investigation for Subdivision, Gill Road Solar Farm (552 Gill Road), Awanui, Far North			Auger Hole No: WW04 Sheet 1 of 1		
Drill Type: 50mmØ Handauger Drilled By: NN Date Started: 8/1/26 Date Finished: 8/1/26			Project No: NL250161 Coordinates: Ground Elevation: Water Level: Groundwater Not Encountered			Logged By: NN Shear Vane No - Calibration Date: DR1768 - 4/09/2025 Surface Conditions: Near Level, Long Grass		
STRATIGRAPHY	DEPTH (m)	GRAPHIC LOG	Soil description in accordance with the NZ Geotechnical Society Inc 2005 "Guidelines for Field Description of Soil and Rock in Engineering Use"	WATER LEVEL (m)	DEPTH (m)	NATURAL WATER CONTENT LIQUID LIMIT PLASTIC LIMIT 50 100 150 (%)		LABORATORY TESTS
						SHEAR STRENGTH REMOULDED SHEAR POCKET PENETROMETER 50 100 150 (kPa)		
TS	0.0		TOPSOIL - brown, stiff, dry to moist, non plastic		0.0			
LATE PLEISTOCENE TO HOLOCENE DEPOSITS	0.5		SILT, some clay, trace fine sand, trace rootlets <2mmØ, light brown with orange streaks, very stiff, moist, slightly plastic (LATE PLEISTOCENE TO HOLOCENE DEPOSITS)		0.5			
	1.0		becoming light grey with orange streaks		1.0			
	1.5		becoming clayey, slightly to moderately plastic		1.5			
	2.0				2.0			
	2.5				2.5			
	3.0				3.0			
				END OF BORE. 1.50 METRES. (TARGET DEPTH)				

HAND AUGER LOG NL250161 - AH01-AH04 WW01-WW04 - JAN26.GPJ S+R 2013.GDT 1/9/26

<div> <div>Jacobs</div> <div>Engineering Log - Borehole</div> <div>BH009</div> </div>		<div> <div>Project: Te Ahu - Northland 23MW Solar Farm</div> <div>Page: 1 of 1</div> </div>		<div> <div>Client: Lodestone Energy</div> <div>Location: Kaitaia</div> </div>		<div> <div>Contractor: Pro-Drill</div> <div>Easting: 1620423.00</div> <div>Elevation: 4.66</div> <div>Started: 17/09/2020</div> </div>		<div> <div>Plant: T-REX Kubota Tractor Rig</div> <div>Northing: 6117809.00</div> <div>Datum: Mean sea level - One Tree Point Datum</div> <div>Finished: 17/09/2020</div> </div>		<div> <div>Logged By: Luke Janett</div> <div>Checked By: Charlie Watts</div> <div>Grid: NZGD2000 / New Zealand Transverse Mercator 2000</div> <div>Inclination: Vertical</div> </div>	
DRILLING INFORMATION					MATERIAL SUBSTANCE						
Method	Casing	Groundwater Levels	Samples	RL (m)	Depth (m)	Graphic	Material Description SOIL TYPE: Plasticity or Particle Characteristics, Colour, Secondary and Minor Components	Moisture	Consistency	Relative Density	Field Test Data & Other Observations
OB			CS	4.5			Silty CLAY with trace rootlets; reddish brown. Low plasticity.	M	S		TOPSOIL
			D		0.5		Silty CLAY trace fine sand; pale brown stained red. High plasticity, moderately sensitive.				ALLUVIUM
PT				4.0							0.40 : HV P = 100kPa R = 41kPa
OB				3.5					VSt		0.90 : HV P = 116kPa R = 61kPa
PT				3.0				M			
OB			D	2.0			Becomes sensitive.				1.90 : HV P = 33kPa R = 8kPa
PT				2.5					F		
OB				2.0							
			D	3.0			Silty CLAY with minor organics and trace fine sand; light brownish grey. High plasticity.	M	S		ESTUARINE DEPOSITS
				1.5							
			SPT N=2 0,2,0	3.5			Silty fine to medium SAND with minor clay; pale grey. Poorly graded, silt and clay is low plasticity.	W	VL		ESTUARINE DEPOSITS
				4.0							
			D	4.5							
				0.0			CLAY with some sand; grey. Low plasticity. Sand is fine, poorly graded, liquefied.	W	VS		ESTUARINE DEPOSITS
				5.0			Clayey fine SAND with trace rootlets; grey. Uniformly graded, clay is low plasticity.	W			ESTUARINE DEPOSITS
				5.5					L		
				6.0			Becomes liquefied.	S			
				6.5							
PT				7.0			CLAY with some silt and trace organics; greyish brown. High plasticity, moderately sensitive. Becomes pale grey.				ESTUARINE DEPOSITS
				7.5							6.50 : HV P = 22kPa R = 6kPa
OB				8.0				W	S		
				8.5							
				9.0			Becomes grey.				
				9.5							
				10.0							
				10.5							
				11.0							
				11.5							
				12.0							
				12.5							
				13.0							
				13.5							
				14.0							
				14.5							
				15.0							
				15.5							
				16.0							
				16.5							
				17.0							
				17.5							
				18.0							
				18.5							
				19.0							
				19.5							
				20.0							
				20.5							
				21.0							
				21.5							
				22.0							
				22.5							
				23.0							
				23.5							
				24.0							
				24.5							
				25.0							
				25.5							
				26.0							
				26.5							
				27.0							
				27.5							
				28.0							
				28.5							
				29.0							
				29.5							
				30.0							
				30.5							
				31.0							
				31.5							
				32.0							
				32.5							
				33.0							
				33.5							
				34.0							
				34.5							
				35.0							
				35.5							
				36.0							
				36.5							
				37.0							
				37.5							
				38.0							
				38.5							
				39.0							
				39.5							
				40.0							
				40.5							
				41.0							
				41.5							
				42.0							
				42.5							
				43.0							
				43.5							
				44.0							
				44.5							
				45.0							
				45.5							
				46.0							
				46.5							
				47.0							
				47.5							
				48.0							
				48.5							
				49.0							
				49.5							
				50.0							
				50.5							
				51.0							
				51.5							
				52.0							
				52.5							
				53.0							
				53.5							
				54.0							
				54.5							
				55.0							
				55.5							
				56.0							
				56.5							
				57.0							
				57.5							
				58.0							
				58.5							
				59.0							
				59.5							
				60.0							
				60.5							
				61.0							
				61.5							
				62.0							
				62.5							
				63.0							
				63.5							
				64.0							
				64.5							
				65.0							
				65.5							
				66.0							
				66.5							
				67.0							
				67.5							
				68.0							
				68.5							
				69.0							
				69.5							
				70.0							
				70.5							
				71.0							
				71.5							
				72.0							
				72.5							
				73.0							
				73.5							
				74.0							
				74.5							
				75.0							
				75.5							
				76.0							
				76.5							
				77.0							
				77.5							
				78.0							
				78.5							
				79.0							
				79.5							
				80.0							
				80.5							
				81.0							
				81.5							
				82.0							
				82.5							
				83.0							
				83.5							
				84.0							
				84.5							
				85.0							
				85.5							
				86.0							
				86.5							
				87.0							
				87.5							
				88.0							
				88.5							
				89.0							
				89.5							
				90.0							
				90.5							
				91.0							
				91.5							
				92.0							
				92.5							
				93.0							



BH009, Box 1, 0.0 m to 4.0 m



BH009, Box 2, 4.0 m to 6.0 m



BH009, Box 3, 6.0 to 8.0 m

SPT Sample @ 3.5 m



Standard Penetrometer Test Photos

Project: Te Ahu - Northland 23MW Solar Farm

Page: 1 of 1

Client: Lodestone Energy

Location: Kaitaia

Project No: IS331400

Contractor: Pro-Drill

Easting: 1620441.00

Elevation: 5.00

Started: 14/09/2020

Plant: T-REX Kubota Tractor Rig

Northing: 6118129.00

Datum: Mean sea level - One Tree Point Datum

Finished: 15/09/2020

Logged By: Luke Janett **Checked By:** Charlie Watts

Grid: NZGD2000 / New Zealand
Transverse Mercator 2000

Inclination: Vertical

[illegible]

This log was created for Jacobs' client. Jacobs accepts no responsibility for any reliance on this information by third parties.



SP002, Box 1, 0.00 m to 5.60 m



SP002, Box 2, 5.60 m to 6.45 m

SPT Sample @ 4.5 m



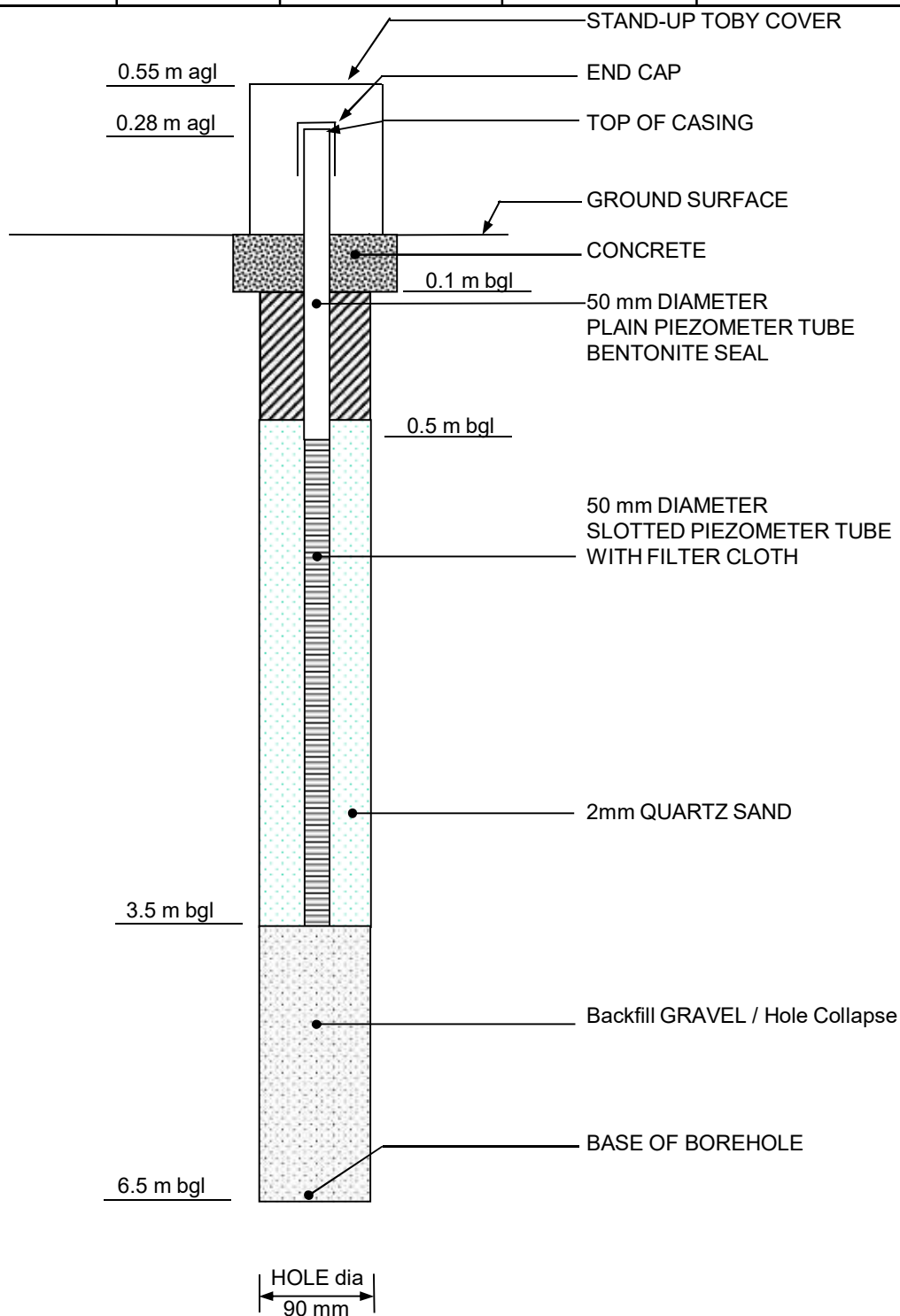
SPT Sample @ 6.0 m



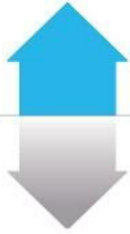
Note: Photos not the same scale, use tape for scale

Standard Penetrometer Test Photos

Project Name	Te Ahu Solar Farm	Client	Lodestone Energy	Easting (m)	1620441
Project Number	IS331400	Contractor	Pro Dill Limited	Northing (m)	6118129
Project Location	Kaitaia	Prepared by	LAJ	Grid	NZGD 2000
Date Installed	15 September 2020	Checked by	CW	Datum	One Tree Point 1964



NOT TO SCALE (bgl = below ground level; agl = above ground level)



Soil&Rock Consultants

Your responsive & cost-effective engineers

Appendix C

Laboratory Test Results

Geotechnical

Environmental

Stormwater

Hydrogeology

Please reply to: W.E. Campton

Page 1 of 3

Jacobs New Zealand Limited
Level 8
1 Grey Street
Wellington 6011

Job Number: 63879#L
BGL Registration Number: 2860
Checked by: WEC

Attention: LUKE JANETT

30th October 2020

SHRINK-SWELL INDEX TESTING

Dear Sir,

Re: TE AHU SOLAR FARM
Report Number: 63879#L/SS

The following report presents the results of Shrink-swell Index testing at BGL of 60mm diameter undisturbed push-tube soil samples delivered to this laboratory on the 9th of October 2020. The test standards used were:

Water Content:	NZS4402:1986:Test 2.1
Sampling Tube in situ Density:	NZS4402:1986:Test 5.1.3
Shrink-swell Index:	AS 1289:Test 7.1.1 - 2003

Sample Descriptions (not part of BGL IANZ Accreditation)

BH003 / TUBE / 0.50 – 1.00m: PEAT, amorphous, soft to firm, plastic, dark brownish black, fibrous at one end of sample.

BH004 / TUBE / 1.00 – 1.50m: CLAY, silty, firm to stiff, moderately to highly plastic, brownish grey with numerous orange veins, moist.

BH006 / TUBE / 0.50 – 1.00m: PEAT, amorphous & fibrous, firm, black, low density.

BH006 / TUBE / 6.50 – 7.00m: ORGANIC CLAY, firm to stiff, moderately to highly plastic, dark grey, brown & black, very moist.

BH009 / TUBE / 6.00 – 6.30m: CLAY, firm, highly plastic, greenish grey with occasional black organic flecks.

BH010 / TUBE / 0.50 – 1.00m: CLAY with silty inclusions, stiff to very stiff, moderately to highly plastic, mottled light orangish brown & grey with dark orange inclusions.

SP001 / TUBE / 0.50 – 1.00m: PEAT, fibrous, black, low density, fresh rootlets.

SP002 / TUBE / 0.50 – 1.00m: CLAY, silty, very stiff, moderately to highly plastic, brown.

SHRINK-SWELL TEST RESULTS									
BH Number		BH003*	BH004	BH006*	BH006*	BH009	BH010	SP001*	SP002
Sample Number		TUBE	TUBE	TUBE	TUBE	TUBE	TUBE	TUBE	TUBE
Depth (m)		0.50 – 1.00	1.00 – 1.50	0.50 – 1.00	6.50 – 7.00	6.00 – 6.30	0.50 – 1.00	0.50 – 1.00	0.50 – 1.00
SWELL TEST									
Initial Water Content	%	120	44.8	372	121	76.1	53.8	91.8	37.7
Initial Bulk Density	t/m ³	1.50	1.66	0.96	1.26	1.56	1.68	1.40	1.80
Initial Dry Density	t/m ³	0.82	1.14	0.18	0.52	0.88	1.10	0.78	1.34
Initial Air Voids	%	0.0	6.0	10	6.3	0.0	0.18	0.0	2.4
Total Swell	mm	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.1
Swelling Strain	%	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.6
SHRINKAGE TEST									
Water Content	%	269	46.2	307	125	71.0	52.1	85.0	39.1
Initial Bulk Density	t/m ³	1.08	1.70	1.08	1.34	1.58	1.70	1.38	1.80
Initial Dry Density	t/m ³	0.30	1.16	0.26	0.60	0.92	1.12	0.74	1.30
Initial Air Voids	%	2.5	2.5	1.2	3.6	0.0	0.0	0.0	0.14
Total Shrinkage	mm	29.5	7.3	24.6	35.5	25.1	17.6	7.0	9.7
Shrinkage Strain	%	24.6	6.0	20.2	29.4	20.8	14.6	5.9	8.1
SHRINK-SWELL INDEX									
SHRINK-SWELL INDEX	%	13.7	3.4	11.2	16.3	11.6	8.4	3.3	4.7

* = peat or organic soil

As per the reporting requirements of AS1289: Test 7.1.1 – 2003: the shrink-swell index value has been reported to the nearest 0.1%. As per the reporting requirements of NZS4402: 1986: Test 2.1: water content is reported to two significant figures for values below 10%, and to three significant figures for values of 10% or greater. As per the reporting requirements of NZS4402: 1986: Test 5.1.3: sampling tube density, all density values have been reported to the nearest 0.02t/m³ and air voids have been reported to two significant figures.

For calculating the air voids percentages a solid density of 1.50t/m^3 was assumed for the peat samples (BH003 / TUBE / 0.50 – 1.00m, BH006 / TUBE / 0.50 – 1.00m, and SP001 / TUBE / 0.50 – 1.00m), and 2.65t/m^3 was assumed for the other samples tests. Note that these assumed values are not part of the IANZ endorsement for this report.

Please note that the test results relate only to the samples as-received, and relate only to the samples under test. Some of the samples for simplified core shrinkage showed moderate to extreme cracking over the drying period, but measurements of length were still able to be made. Crumbling of the sample did not affect final water content readings.

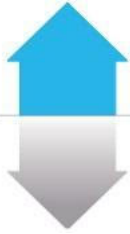
Thank you for the opportunity to carry out this testing. If you have any queries regarding the content of this report please contact the person authorising this report below at your convenience.

Yours faithfully,

Justin Franklin
Signatory (Assistant Laboratory Manager)
Babbage Geotechnical Laboratory



All tests reported herein have been performed in accordance with the laboratory's scope of accreditation. This report may not be reproduced except in full & with written approval from BGL.



Soil&Rock Consultants

Your responsive & cost-effective engineers

Appendix D


Cone Penetration Testing (CPT) Results

Geotechnical

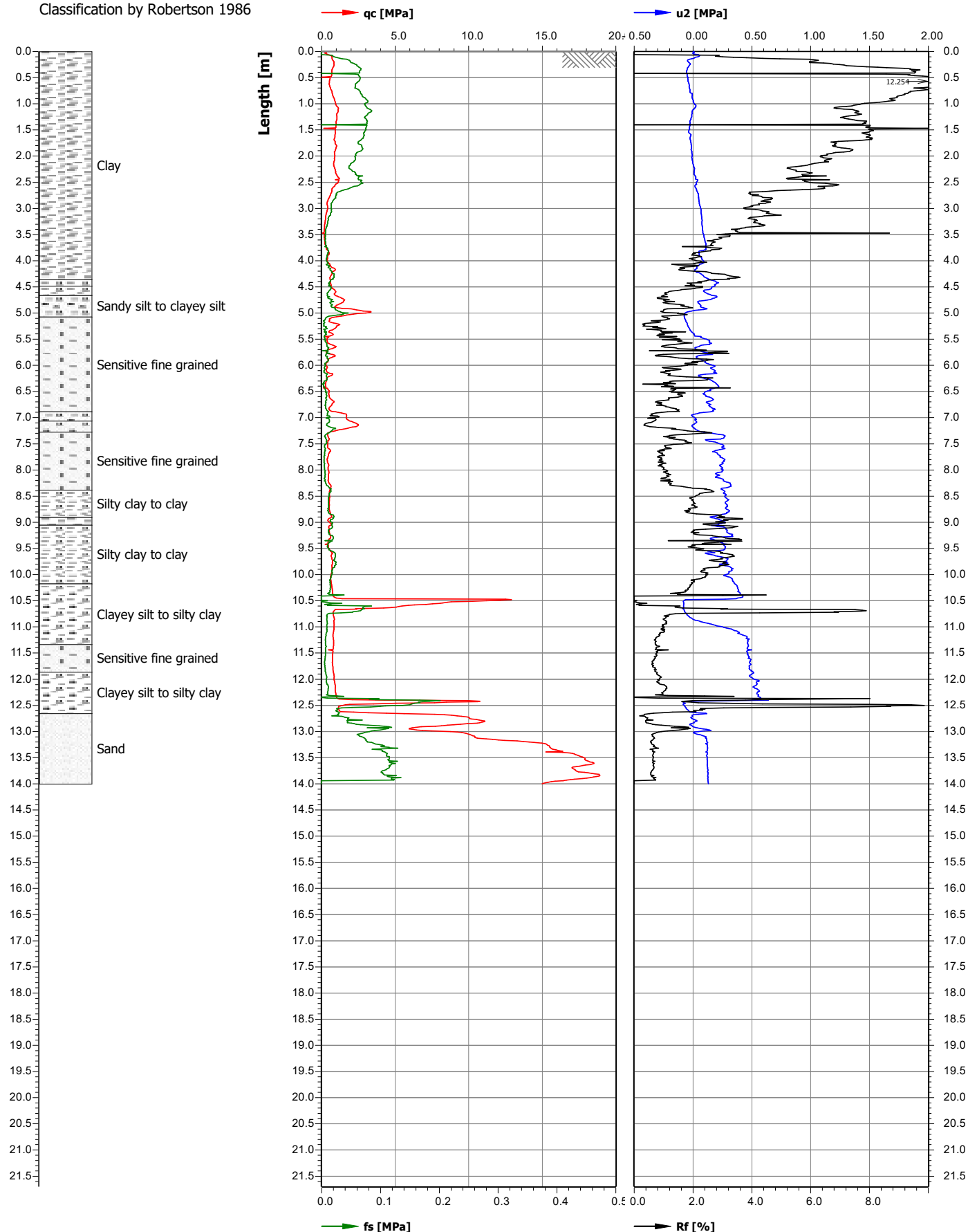
Environmental

Stormwater

Hydrogeology

	Project name	JacobsKaitiaSolarFarm		Date investigation	10/09/2020	
	Test name	CPT007		Cone name	S10CFIIP.1734	
Test location name	Client	Jacobs		Net surface area quotient of ...	0.800/0.000	Nominal surface area of cone...
X coordinate [m]/Y coordinat...	Project contractors			Fig. no.:		
Z value [m]	Project engineer			Scale	1:100	Page
Remarks1					1/1	

Classification by Robertson 1986



LIQUEFACTION ANALYSIS REPORT

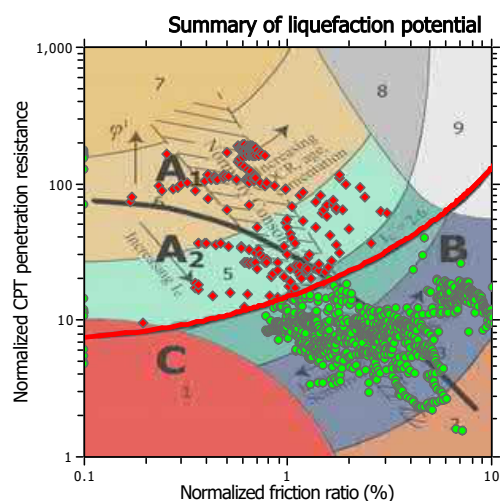
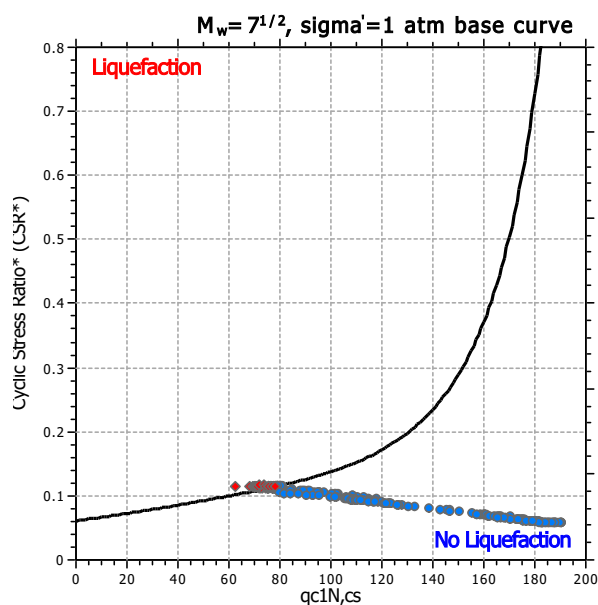
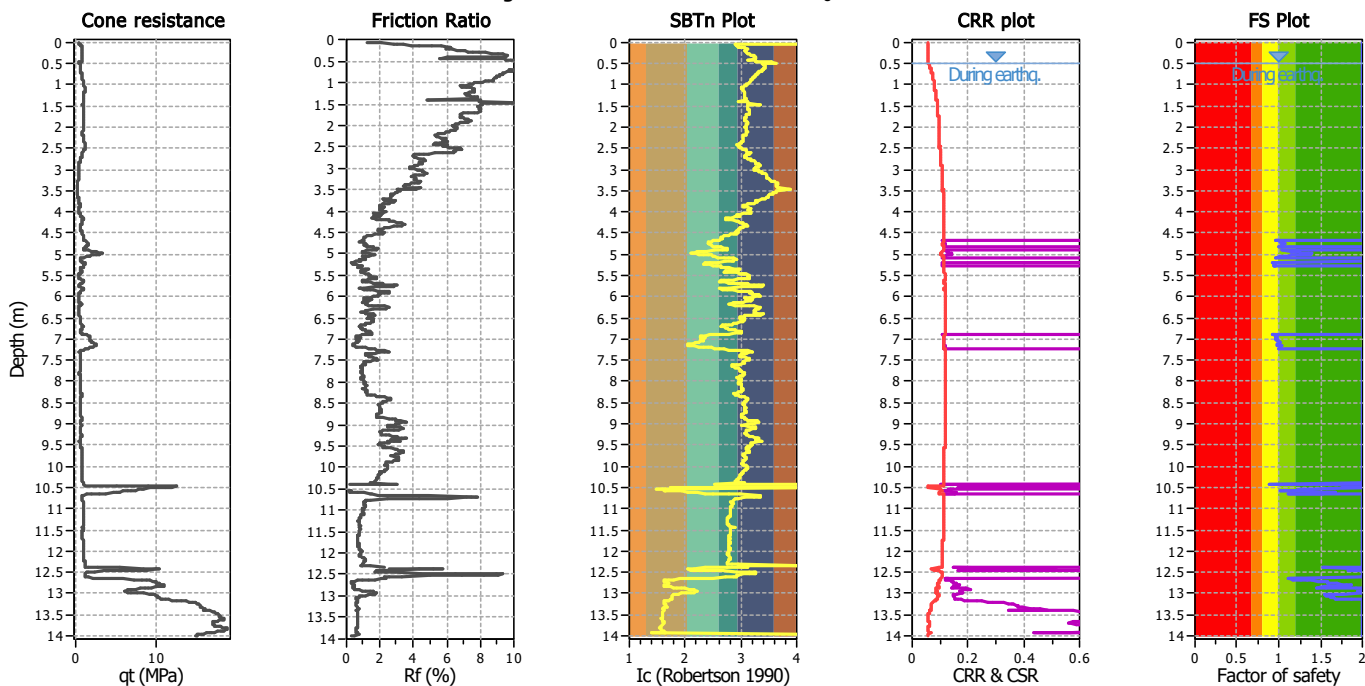
Project title : Te Ahu - Northland Solar Farm

Location : Kaitaia

CPT file : CPT007

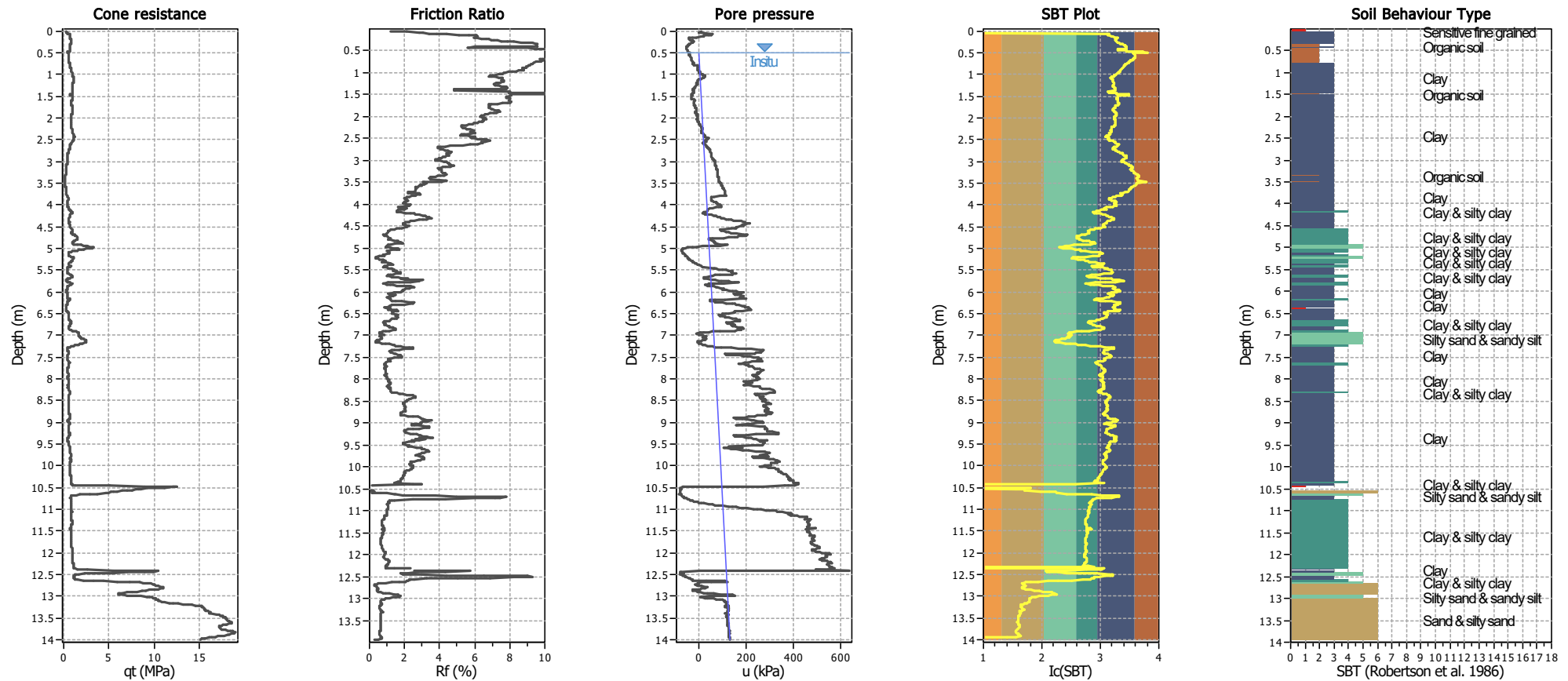
Input parameters and analysis data

Analysis method:	B&I (2014)	G.W.T. (in-situ):	0.50 m	Use fill:	No	Clay like behavior	
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	0.50 m	Fill height:	N/A	applied:	Sands only
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth applied:	No
Earthquake magnitude M_w :	5.55	Ic cut-off value:	2.60	Trans. detect. applied:	No	Limit depth:	N/A
Peak ground acceleration:	0.11	Unit weight calculation:	Based on SBT	K_0 applied:	Yes	MSF method:	Method base



Zone A₁: Cyclic liquefaction likely depending on size and duration of cyclic loading
 Zone A₂: Cyclic liquefaction and strength loss likely depending on loading and ground geometry
 Zone B: Liquefaction and post-earthquake strength loss unlikely, check cyclic softening
 Zone C: Cyclic liquefaction and strength loss possible depending on soil plasticity, brittleness/sensitivity, strain to peak undrained strength and ground geometry

CPT basic interpretation plots



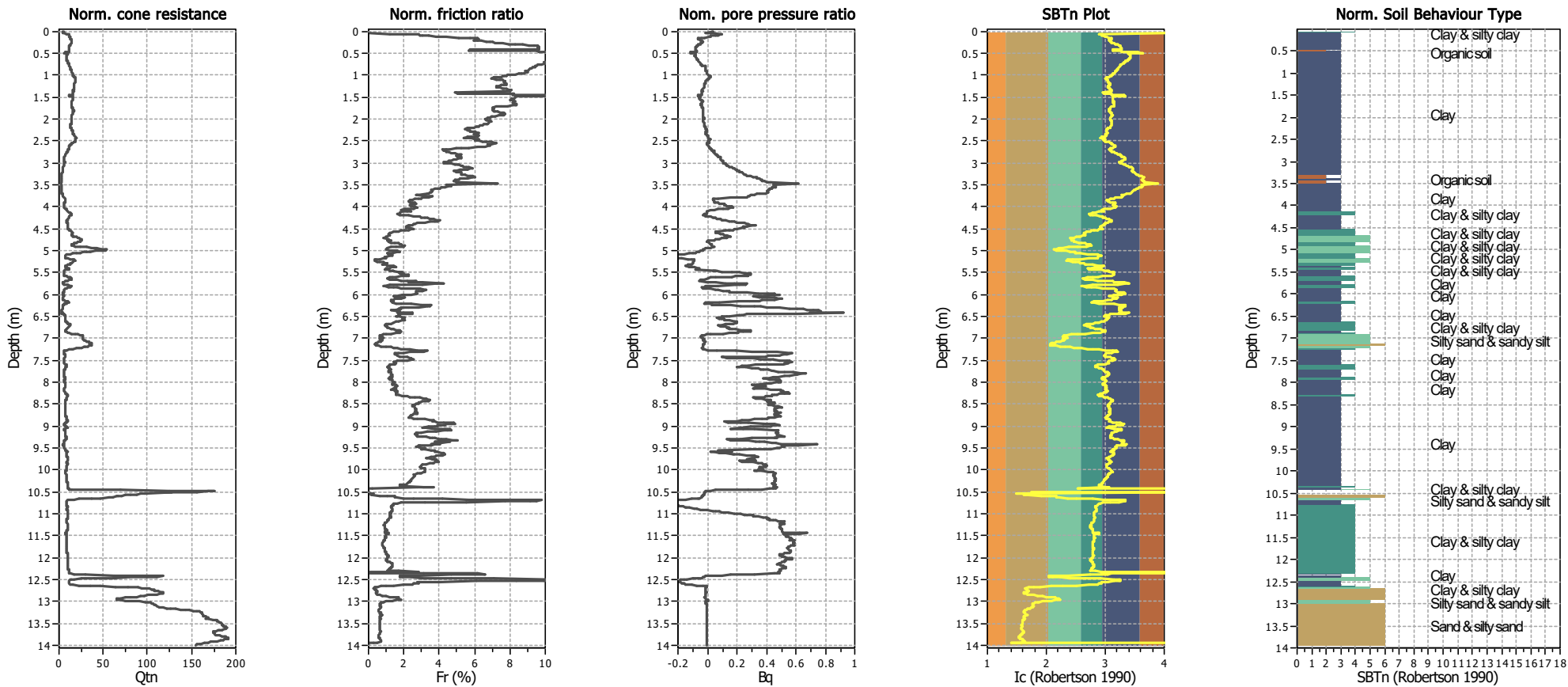
Input parameters and analysis data

Analysis method:	B&I (2014)	Depth to GWT (erthq.):	0.50 m	Fill weight:	N/A
Fines correction method:	B&I (2014)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K ₀ applied:	Yes
Earthquake magnitude M _w :	5.55	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.11	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	0.50 m	Fill height:	N/A	Limit depth:	N/A

SBT legend

1. Sensitive fine grained	4. Clayey silt to silty	7. Gravely sand to sand
2. Organic material	5. Silty sand to sandy silt	8. Very stiff sand to
3. Clay to silty clay	6. Clean sand to silty sand	9. Very stiff fine grained

CPT basic interpretation plots (normalized)



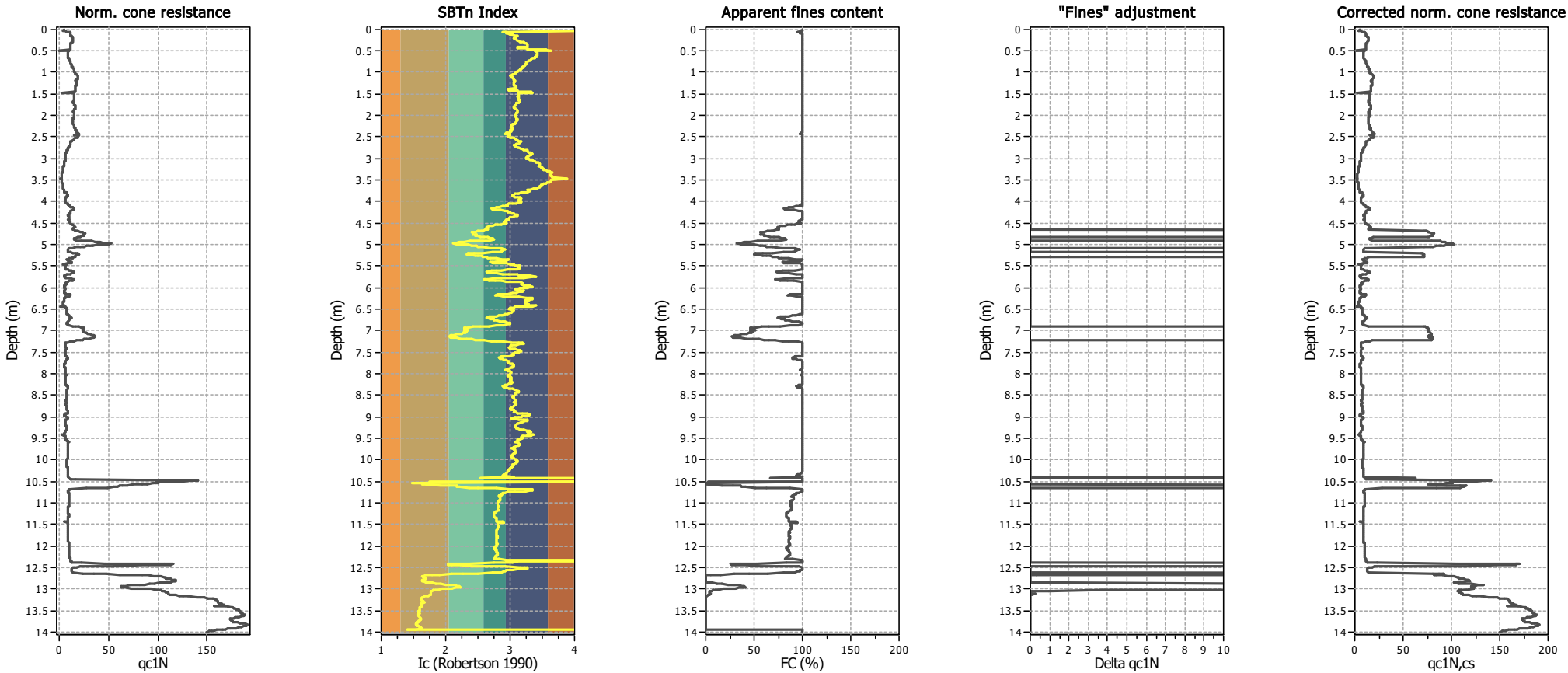
Input parameters and analysis data

Analysis method:	B&I (2014)	Depth to GWT (erthq.):	0.50 m	Fill weight:	N/A
Fines correction method:	B&I (2014)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K ₀ applied:	Yes
Earthquake magnitude M _w :	5.55	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.11	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	0.50 m	Fill height:	N/A	Limit depth:	N/A

SBTn legend

1. Sensitive fine grained	4. Clayey silt to silty	7. Gravely sand to sand
2. Organic material	5. Silty sand to sandy silt	8. Very stiff sand to
3. Clay to silty clay	6. Clean sand to silty sand	9. Very stiff fine grained

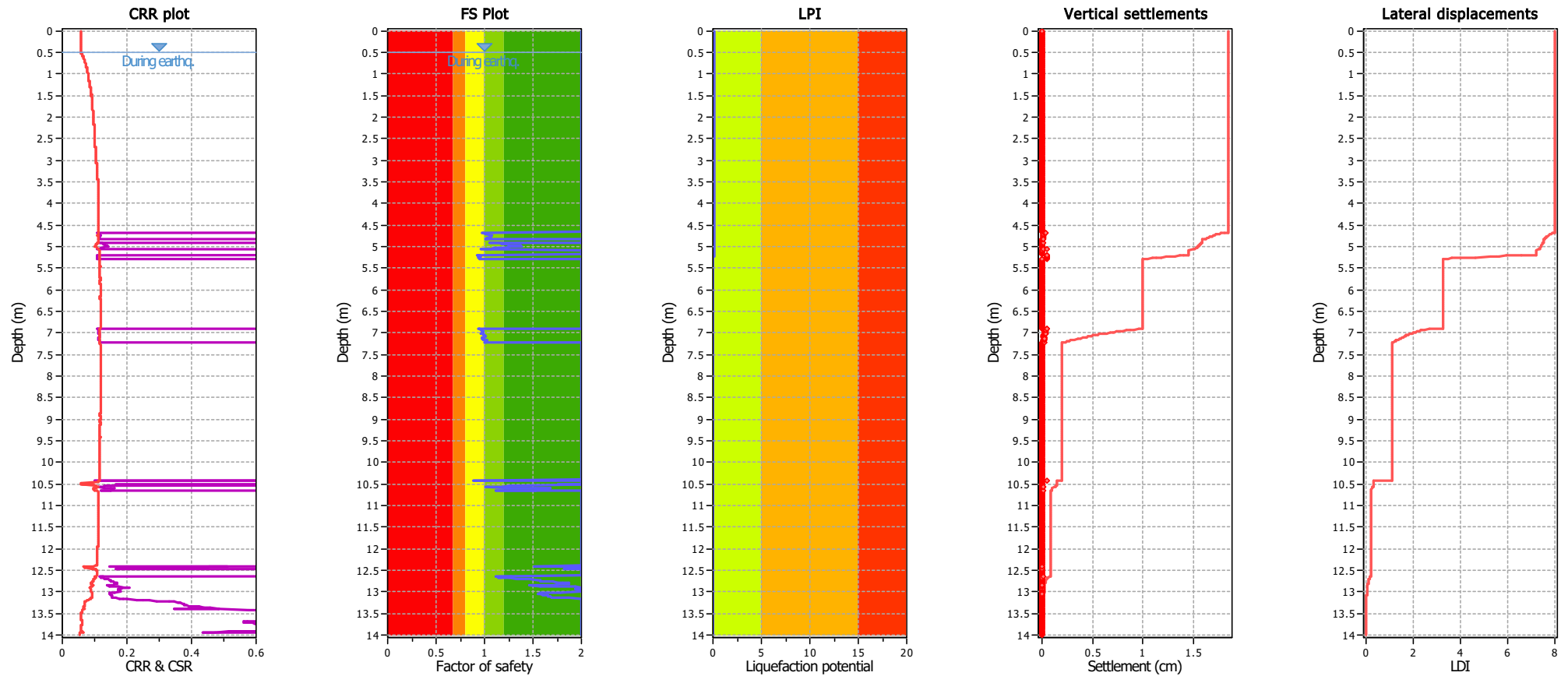
Liquefaction analysis overall plots (intermediate results)



Input parameters and analysis data

Analysis method:	B&I (2014)	Depth to GWT (erthq.):	0.50 m	Fill weight:	N/A
Fines correction method:	B&I (2014)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on I_c value	I_c cut-off value:	2.60	K_s applied:	Yes
Earthquake magnitude M_w :	5.55	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.11	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	0.50 m	Fill height:	N/A	Limit depth:	N/A

Liquefaction analysis overall plots



Input parameters and analysis data

Analysis method:	B&I (2014)	Depth to GWT (earthq.):	0.50 m	Fill weight:	N/A
Fines correction method:	B&I (2014)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_0 applied:	Yes
Earthquake magnitude M_w :	5.55	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.11	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	0.50 m	Fill height:	N/A	Limit depth:	N/A

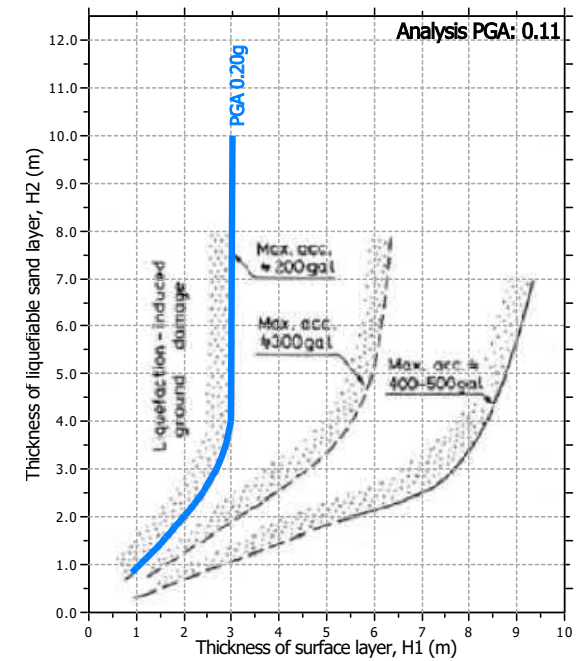
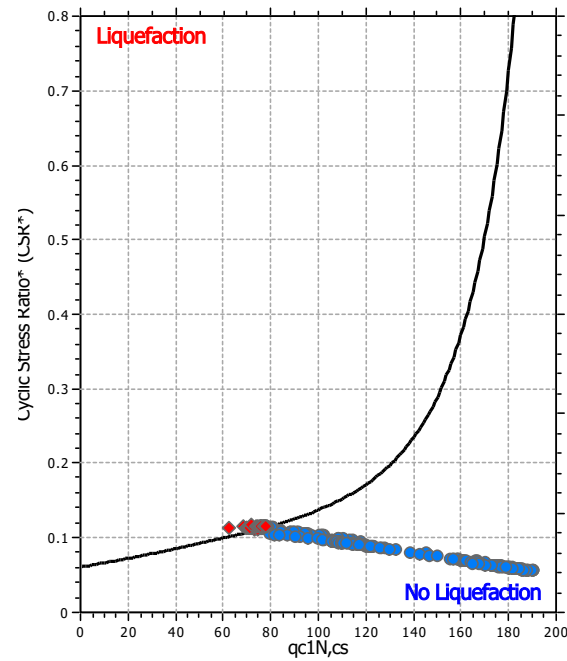
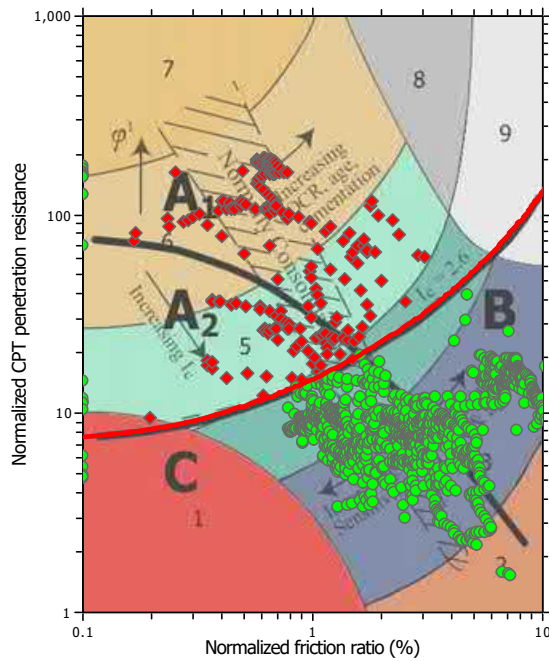
F.S. color scheme

Red	Almost certain it will liquefy
Orange	Very likely to liquefy
Yellow	Liquefaction and no liq. are equally likely
Green	Unlike to liquefy
Dark Green	Almost certain it will not liquefy

LPI color scheme

Red	Very high risk
Orange	High risk
Yellow	Low risk

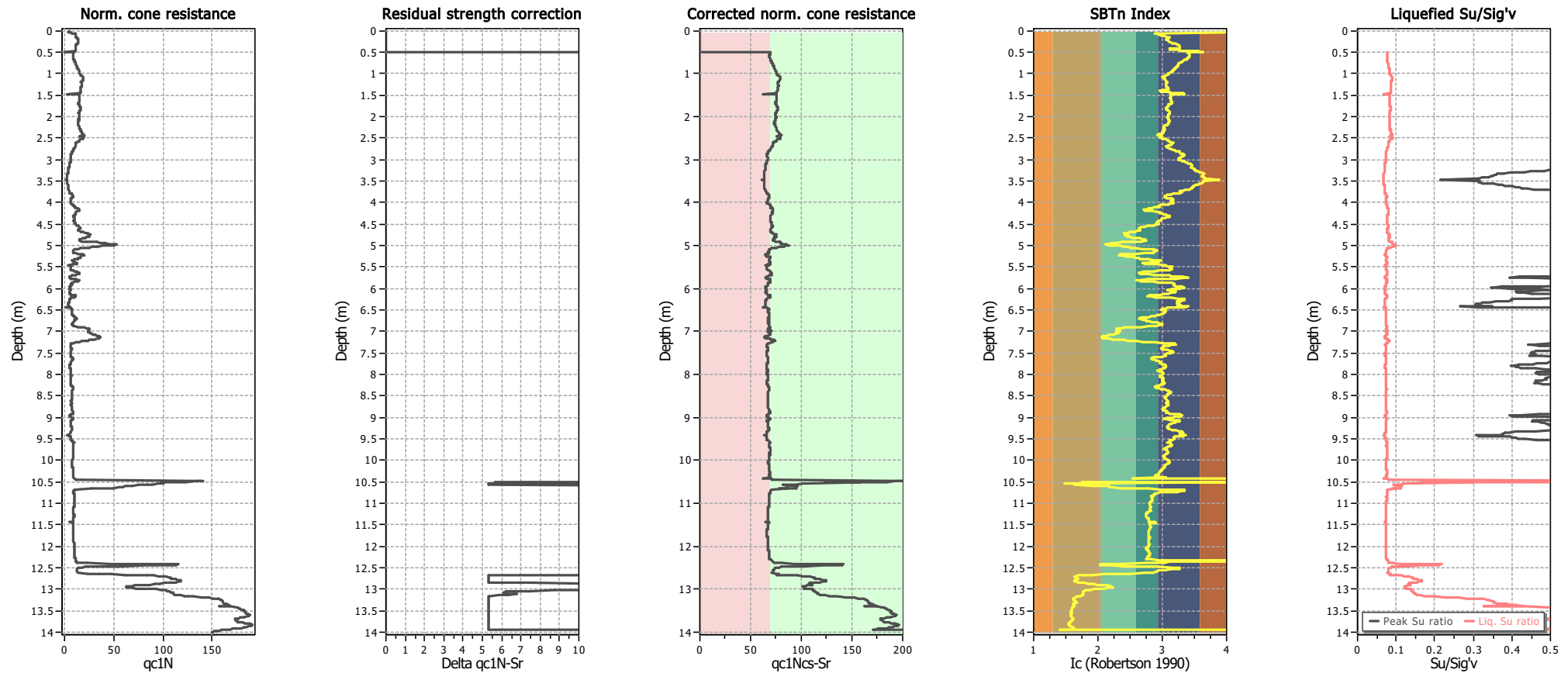
Liquefaction analysis summary plots



Input parameters and analysis data


Analysis method:	B&I (2014)	Depth to GWT (erthq.):	0.50 m	Fill weight:	N/A
Fines correction method:	B&I (2014)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on I_c value	I_c cut-off value:	2.60	K_0 applied:	Yes
Earthquake magnitude M_w :	5.55	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.11	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	0.50 m	Fill height:	N/A	Limit depth:	N/A

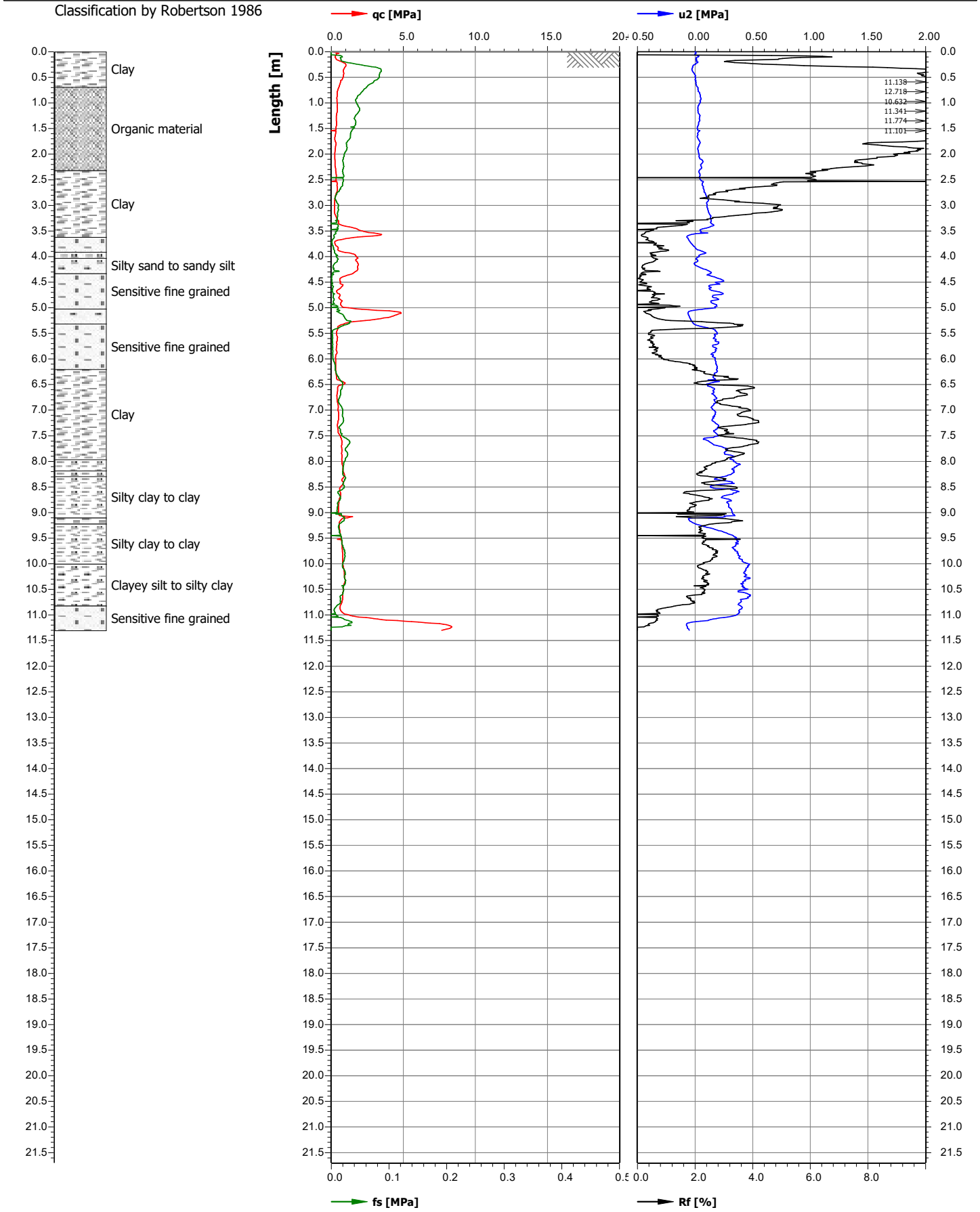
Check for strength loss plots (Idriss & Boulanger (2008))



Input parameters and analysis data

Analysis method:	B&I (2014)	Depth to GWT (erthq.):	0.50 m	Fill weight:	N/A
Fines correction method:	B&I (2014)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K ₀ applied:	Yes
Earthquake magnitude M _w :	5.55	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.11	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	0.50 m	Fill height:	N/A	Limit depth:	N/A

	Project name	JacobsKaitiaSolarFarm		Date investigation	10/09/2020	
	Test name	CPT016		Cone name	S10CFIIP.1734	
Test location name	Client	Jacobs		Net surface area quotient of ...	0.800/0.000	Nominal surface area of cone...
X coordinate [m]/Y coordinat...	Project contractors			Fig. no.:		
Z value [m]	Project engineer			Scale	1:100	Page
Remarks1					1/1	



LIQUEFACTION ANALYSIS REPORT

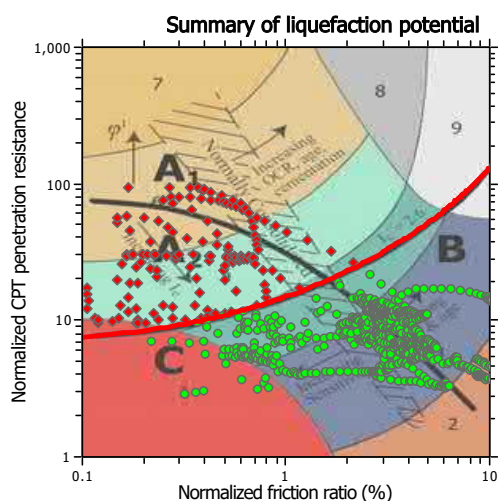
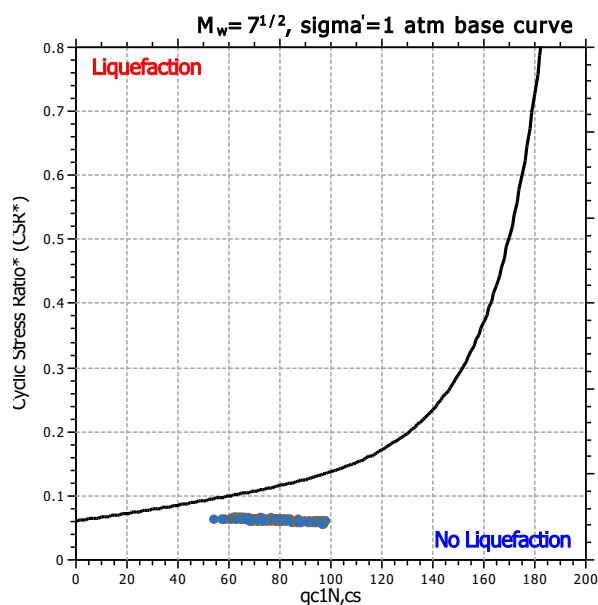
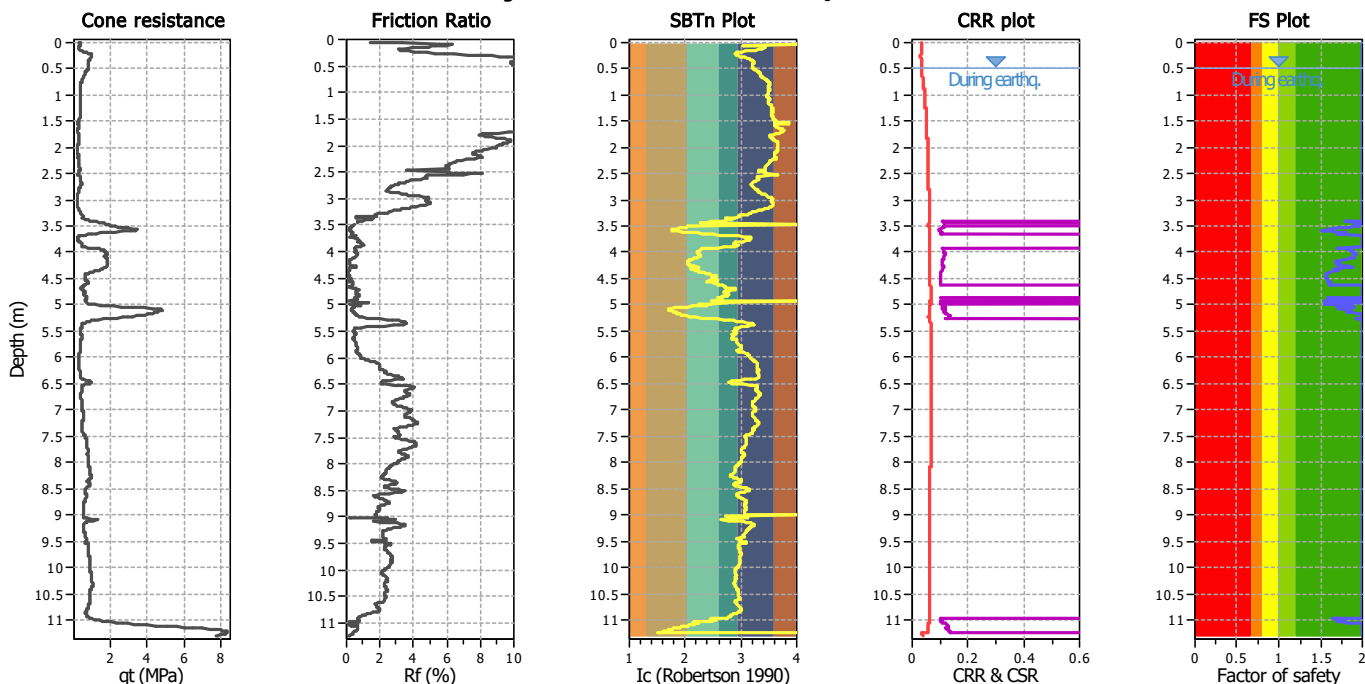
Project title : Te Ahu - Northland Solar Farm

Location : Kaitia

CPT file : CPT016

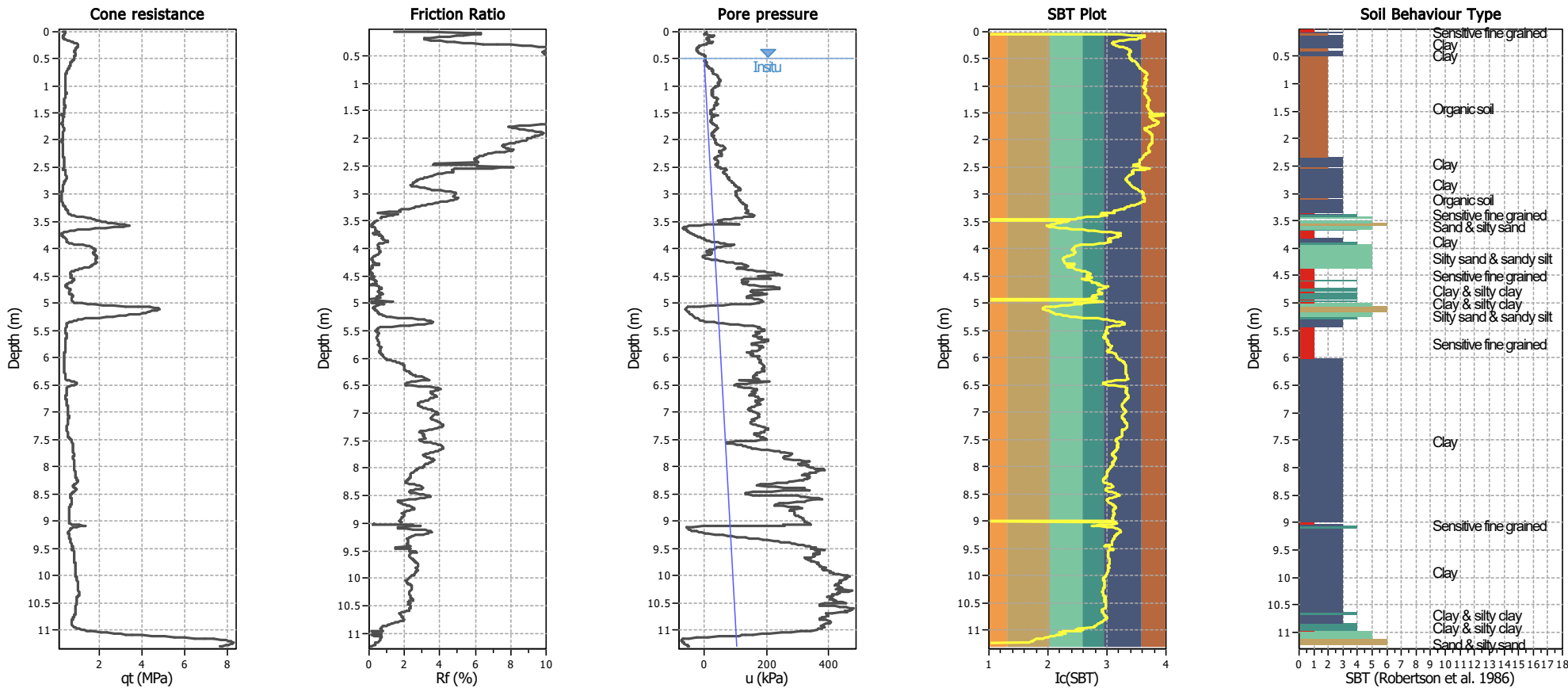
Input parameters and analysis data

Analysis method:	B&I (2014)	G.W.T. (in-situ):	0.50 m	Use fill:	No	Clay like behavior	
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	0.50 m	Fill height:	N/A	applied:	Sands only
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth applied:	No
Earthquake magnitude M_w :	5.50	Ic cut-off value:	2.60	Trans. detect. applied:	No	Limit depth:	N/A
Peak ground acceleration:	0.06	Unit weight calculation:	Based on SBT	K_0 applied:	Yes	MSF method:	Method base



Zone A₁: Cyclic liquefaction likely depending on size and duration of cyclic loading
 Zone A₂: Cyclic liquefaction and strength loss likely depending on loading and ground geometry
 Zone B: Liquefaction and post-earthquake strength loss unlikely, check cyclic softening
 Zone C: Cyclic liquefaction and strength loss possible depending on soil plasticity, brittleness/sensitivity, strain to peak undrained strength and ground geometry

CPT basic interpretation plots



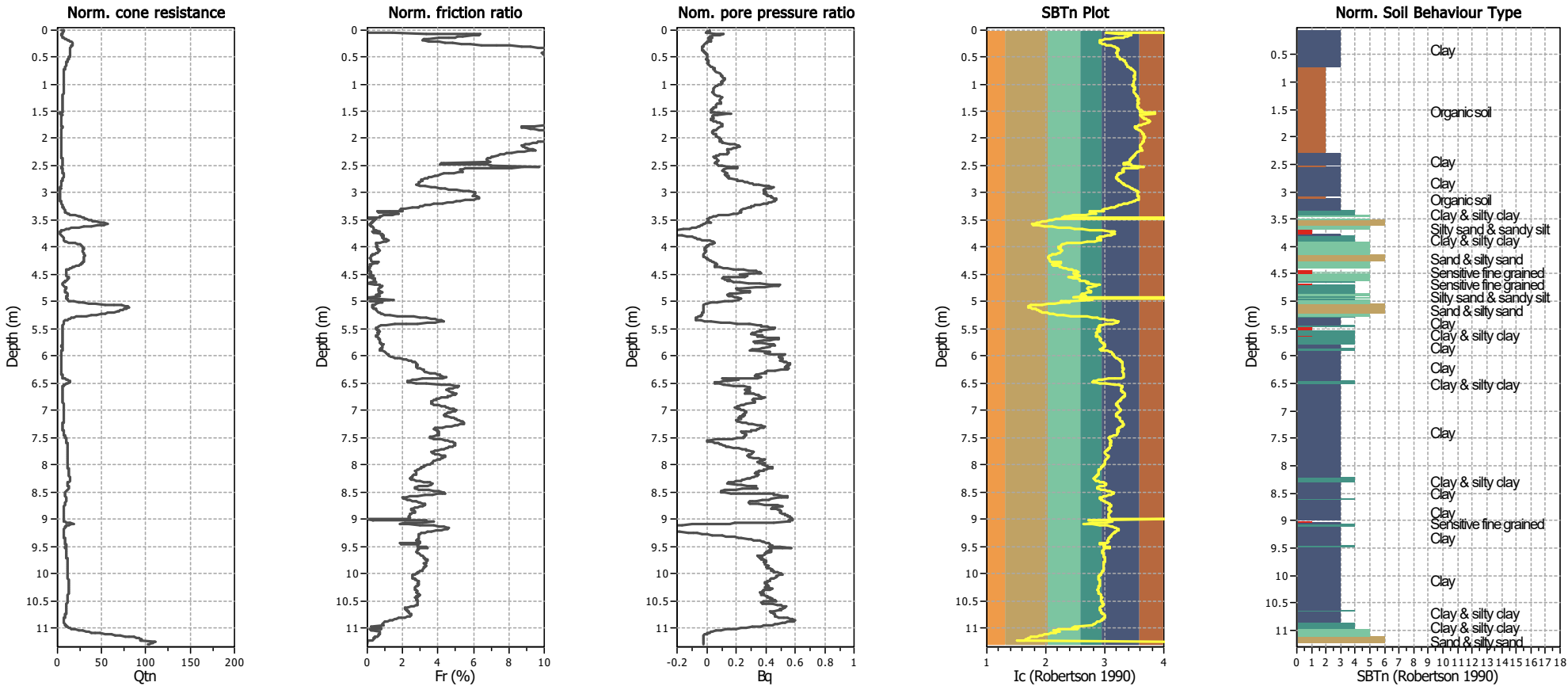
Input parameters and analysis data

Analysis method:	B&I (2014)	Depth to GWT (erthq.):	0.50 m	Fill weight:	N/A
Fines correction method:	B&I (2014)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on I_c value	I_c cut-off value:	2.60	K_0 applied:	Yes
Earthquake magnitude M_w :	5.50	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.06	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	0.50 m	Fill height:	N/A	Limit depth:	N/A

SBT legend

1. Sensitive fine grained	4. Clayey silt to silty	7. Gravely sand to sand
2. Organic material	5. Silty sand to sandy silt	8. Very stiff sand to
3. Clay to silty clay	6. Clean sand to silty sand	9. Very stiff fine grained

CPT basic interpretation plots (normalized)



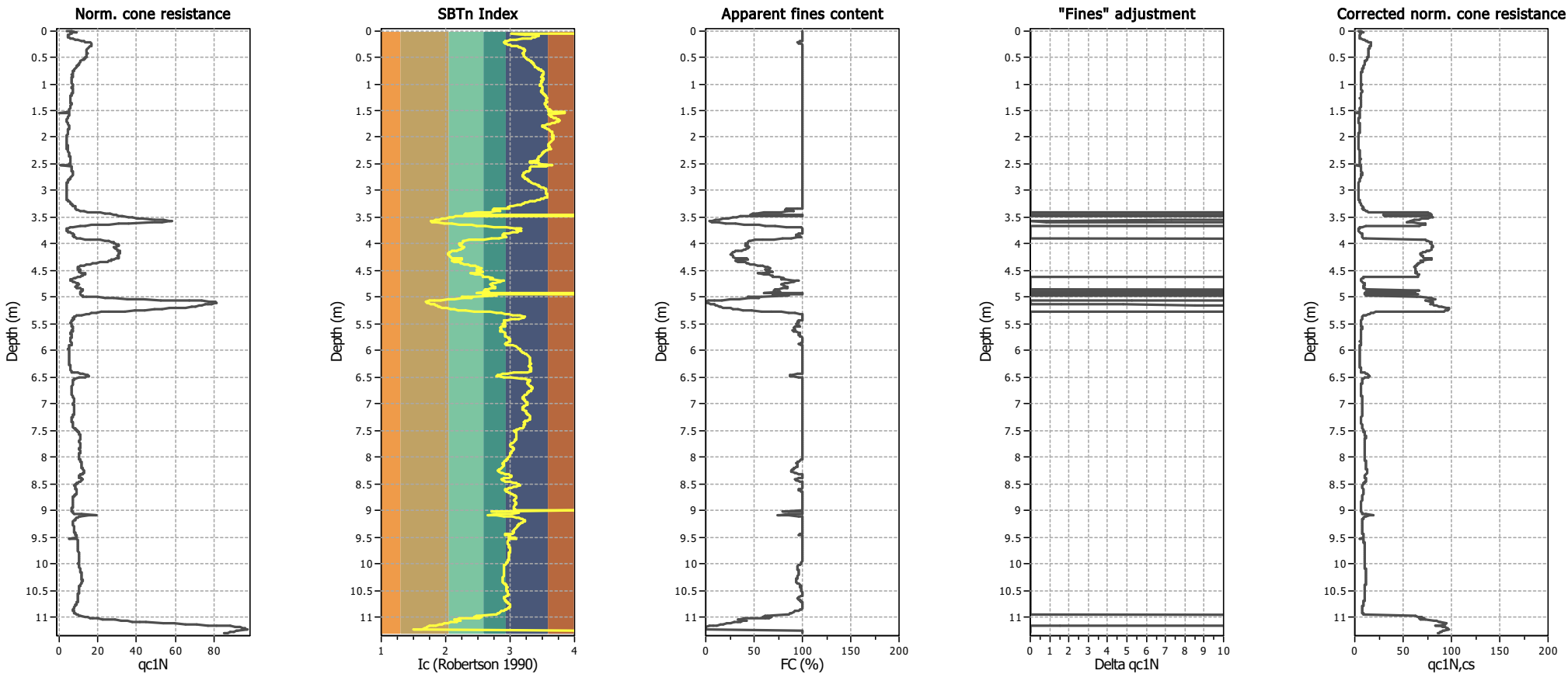
Input parameters and analysis data

Analysis method:	B&I (2014)	Depth to GWT (erthq.):	0.50 m	Fill weight:	N/A
Fines correction method:	B&I (2014)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K ₀ applied:	Yes
Earthquake magnitude M _w :	5.50	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.06	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	0.50 m	Fill height:	N/A	Limit depth:	N/A

SBTn legend

1. Sensitive fine grained	4. Clayey silt to silty	7. Gravely sand to sand
2. Organic material	5. Silty sand to sandy silt	8. Very stiff sand to
3. Clay to silty clay	6. Clean sand to silty sand	9. Very stiff fine grained

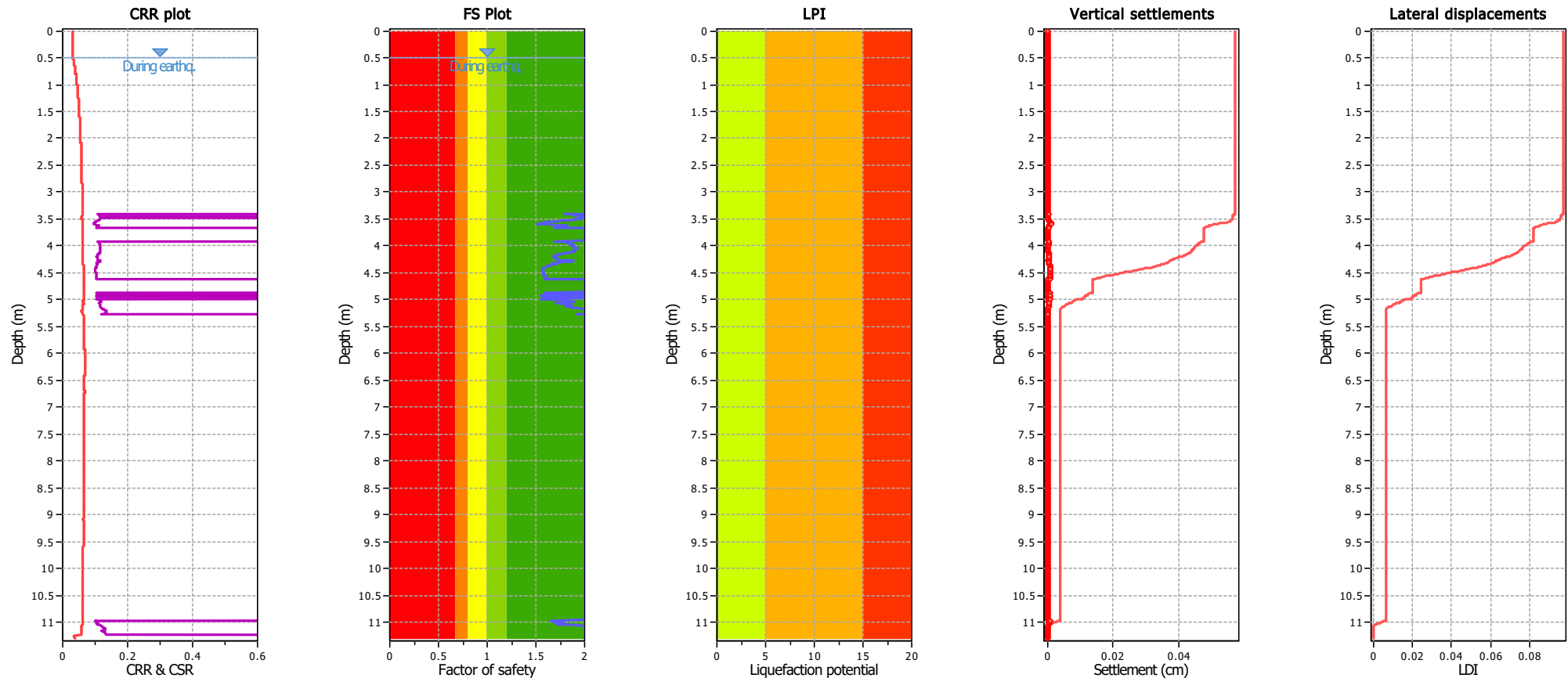
Liquefaction analysis overall plots (intermediate results)



Input parameters and analysis data

Analysis method:	B&I (2014)	Depth to GWT (erthq.):	0.50 m	Fill weight:	N/A
Fines correction method:	B&I (2014)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K ₀ applied:	Yes
Earthquake magnitude M _w :	5.50	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.06	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	0.50 m	Fill height:	N/A	Limit depth:	N/A

Liquefaction analysis overall plots



Input parameters and analysis data

Analysis method:	B&I (2014)	Depth to GWT (erthq.):	0.50 m	Fill weight:	N/A
Fines correction method:	B&I (2014)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_0 applied:	Yes
Earthquake magnitude M_w :	5.50	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.06	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	0.50 m	Fill height:	N/A	Limit depth:	N/A

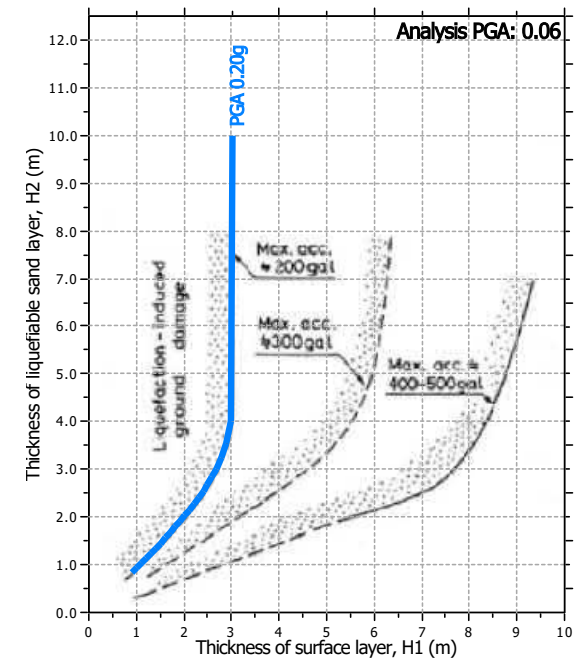
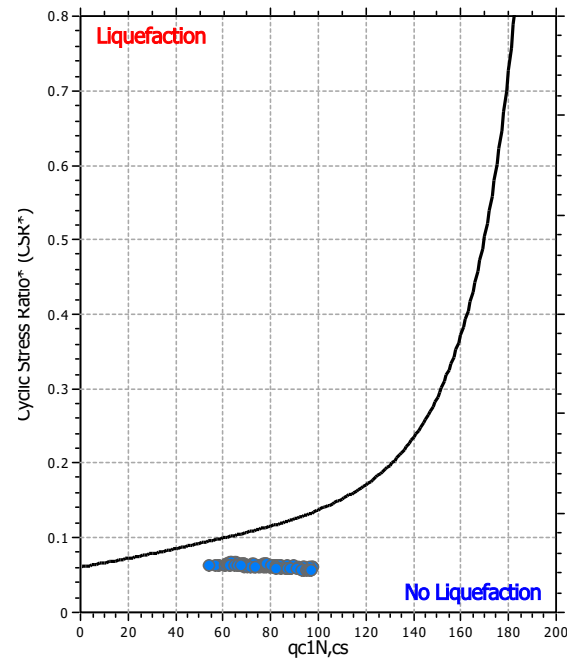
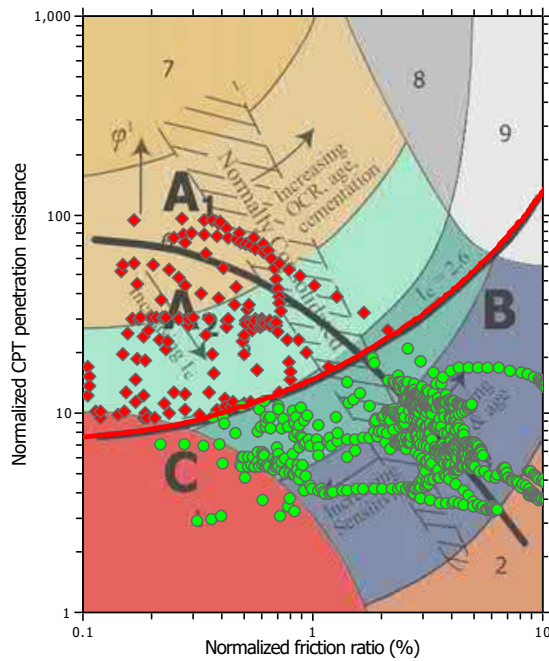
F.S. color scheme

Red	Almost certain it will liquefy
Orange	Very likely to liquefy
Yellow	Liquefaction and no liq. are equally likely
Green	Unlike to liquefy
Dark Green	Almost certain it will not liquefy

LPI color scheme

Red	Very high risk
Orange	High risk
Yellow	Low risk

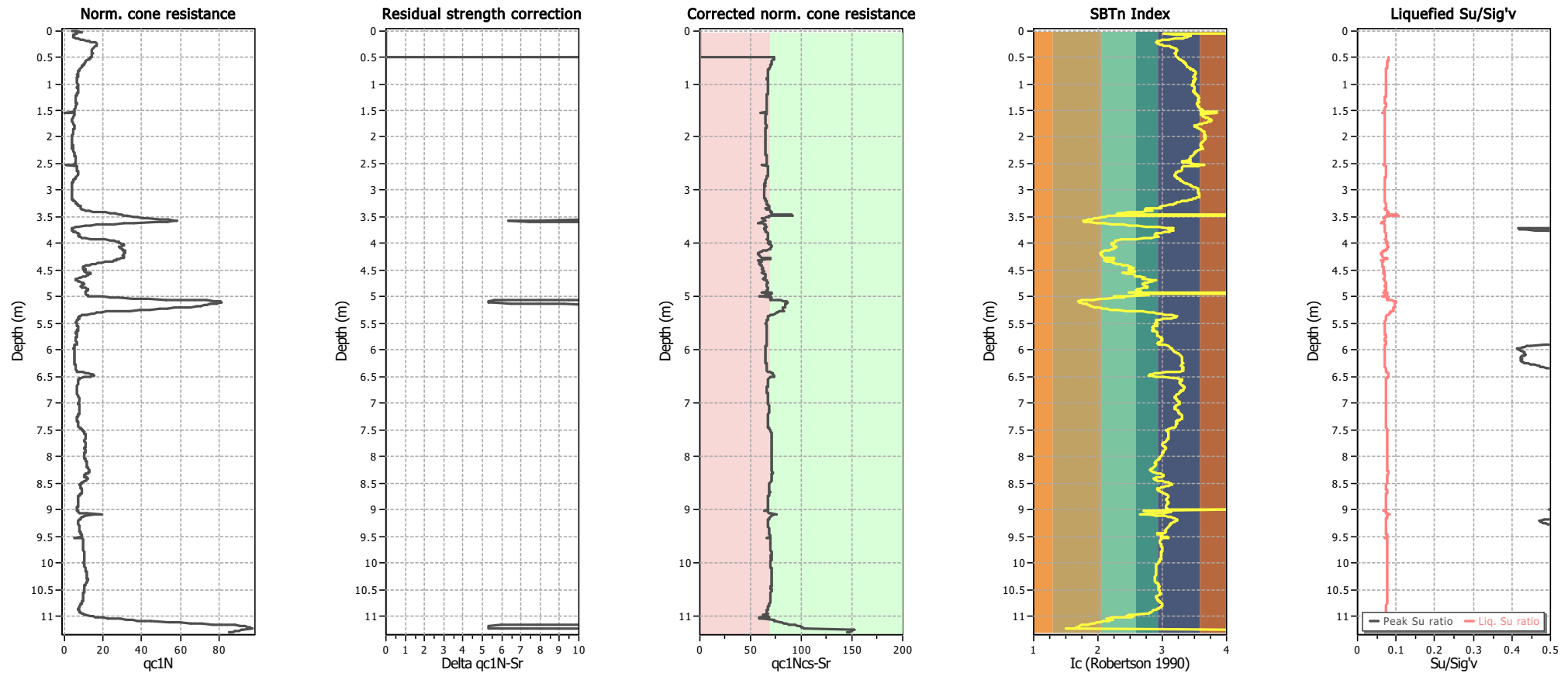
Liquefaction analysis summary plots



Input parameters and analysis data

Analysis method:	B&I (2014)	Depth to GWT (erthq.):	0.50 m	Fill weight:	N/A
Fines correction method:	B&I (2014)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K _o applied:	Yes
Earthquake magnitude M _w :	5.50	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.06	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	0.50 m	Fill height:	N/A	Limit depth:	N/A

Check for strength loss plots (Idriss & Boulanger (2008))



Input parameters and analysis data

Analysis method:	B&I (2014)	Depth to GWT (erthq.):	0.50 m	Fill weight:	N/A
Fines correction method:	B&I (2014)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K ₀ applied:	Yes
Earthquake magnitude M _w :	5.50	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.06	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	0.50 m	Fill height:	N/A	Limit depth:	N/A

Appendix E

Stormwater Disposal Schematic

Figure C21
 Conceptual Layout of Flow Dispersal Trench

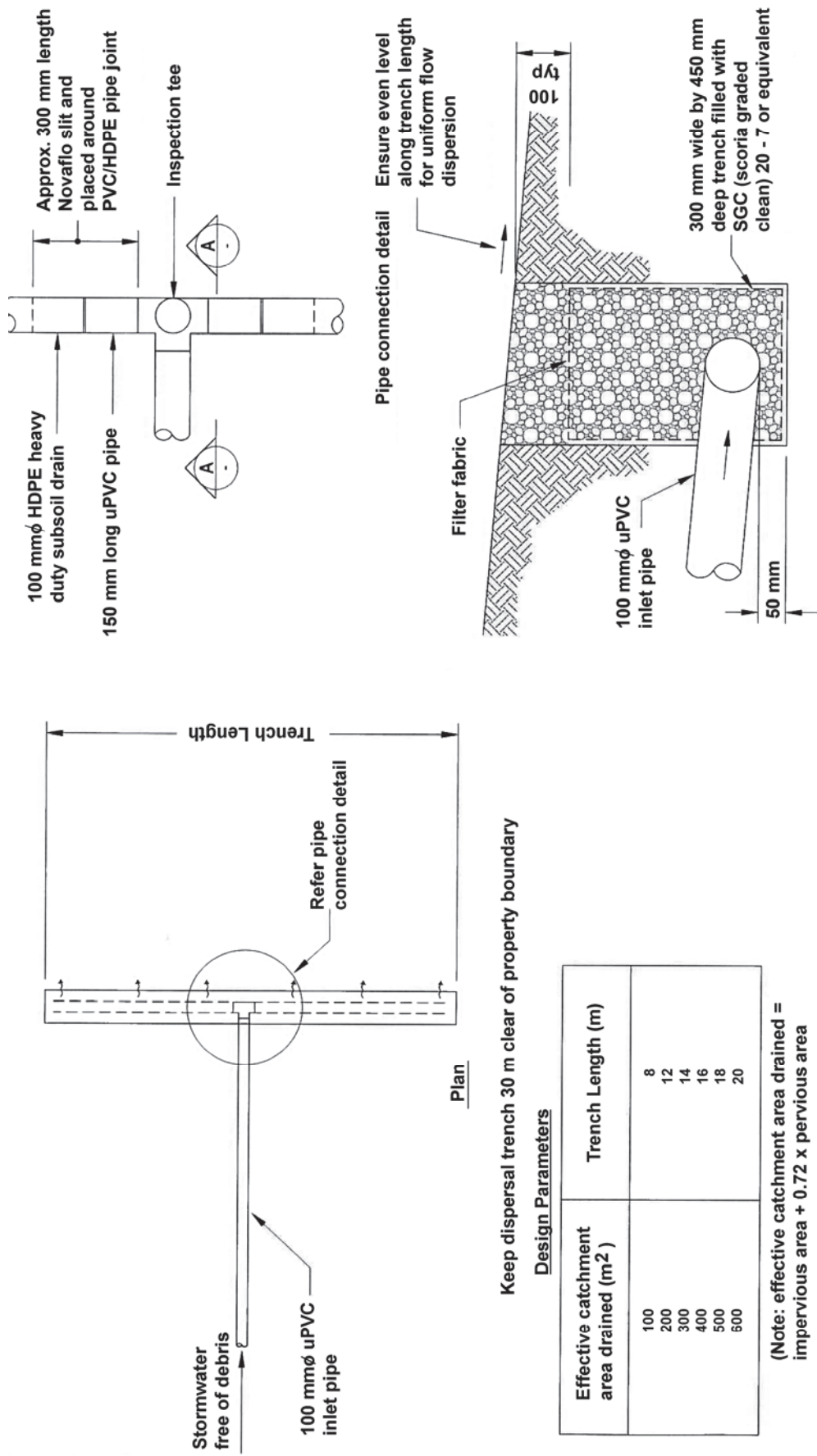


Figure C22
Above Ground Flow Dispersal

