Otaihanga Estates

Resource Consent Applications and Assessment of Environmental Effects

[Photo Source – David Compton-Moen]

Prepared by Chris Hansen Consultants Ltd

Contents

Part A: Application for Resource Consent

Applications to Kapiti Coast District Council (KCDC) for a Resource Consents under Section 88 of the Resource Management Act (the Act)

To: Resource Consents & Compliance Manager
Kapiti Coast District Council
Private Bag 60601
Paraparaumu 5032

1. Details of Applicant(s)

Richard & Alistair Mansell applies for the resource consents described below.

2. Details for Service of Documents (if different from applicant's name and address)

Full Names/s: Chris Hansen
Postal Address: 220 Ross Road
Whakamarama, RD 7
Tauranga 3179
Mobile Phone: 021 026 45108
Email: chris@rmaexpert.co.nz

3. Details of Owner of the land to which the application relates (if different from applicant)

Full Name/s: M R Mansell, R P Mansell & A J Mansell
Address: P. O. Box 99
Paraparaumu
Phone: 04 902 9770

4. Site Information

The location (street address) of the site for which the application relates – 48 & 58 Tieko Street; 131, 139 & 147 Otaihanga Road, Paraparaumu.

Legal Description: Pt Lots 1 & 3 DP 303764; Pt 1 Lot 6 DP 53191; Lot 3 DP 84524; Lot 2 DP 84524; Lot 4 DP 84524; road reserve (refer to Certificate of Titles in **Appendix A**).

5. Type/s of Resource Consents sought from the District Council

The proposed subdivision (including earthworks and infrastructure) requires the following subdivision and land use resource consents under the Proposed Kapiti Coast District Plan (PDP):

- A Subdivision Consent under Rule 7A.5.3 as standard 4 for restricted discretionary activities in Rule 7A.3.2 cannot be met – non-complying activity.
- A Subdivision Consent under Rule 9A.3.2 as the proposed subdivision is on a site where there is a ponding area – restricted discretionary activity subject to standards.
- A Subdivision Consent under Rule 9B.3.3 as the proposed subdivision is on peat or sand soils – restricted discretionary activity subject to standards.
- A Subdivision Consent under Rule 11B.5.1 as the proposed subdivision creates new lots in the rural zone and is not provided for in Rule 11B.3.2 – non-complying activity.
- A Land Use Consent under Rule 3A.3.4 as the permitted activity standards for earthworks in Rule 3A.1.6 cannot be met – restricted discretionary activity (not subject to any standards).

- A Land Use Consent under Rule 9A.3.4 as the permitted activity standards for earthworks in ponding areas in Rule 9A.1.4 cannot be met – restricted discretionary activity under Rule 9A.3.4 (not subject to standards).
- A Land Use Consent under Rule 3A.3.1 as the permitted activity standards for the trimming/modification of indigenous vegetation within 20m of a water body – restricted discretionary activity (not subject to standards).

6. Description of Activities

The proposal is to subdivide a 17ha (western) portion of the Mansell Farm that has been severed by the Kapiti Expressway located in Otaihanga, just south of the Waikanae River.

The proposed Otaihanga Estates subdivision will create 49 lots: 22 rural life-style lots in the northern part of the site, and 27 residential lots adjacent to Otaihanga Road in the southern part of the site.

The proposed subdivision involves earthworks, construction of roads, installation of services, and the identification of a notional 20m building circle area on the rural life-style lots.

7. Other Resource Consents

The proposed subdivision (including earthworks and infrastructure) requires the following discharge and land use resource consents under the National Environmental Standards – Freshwater (NES-F) and the Proposed Wellington Natural Resources Plan (PNRP):

- A Discharge Consent under Regulation 54 of the NES-F as the discharge of stormwater water from roofs and roads to land within the rural life-style lots is within 100m of a natural inland wetland as defined in the National Policy Statement Freshwater Management – non-complying activity.
- A Discharge Consent under Rule R52A of the PNRP for stormwater from a new subdivision (including earthworks and infrastructure) – restricted discretionary activity.
- A Land Use Consent under Rule R101 for the use of land, and the associated discharge of sediment-laden runoff into water or onto or into land where it may enter water from earthworks not permitted by Rule R99 - discretionary activity.

Resource consent applications have been lodged with Greater Wellington Regional Council for these activities.

In addition, two subdivision resource consents have been prepared by Cuttriss for a minor boundary adjustment for two access lots that go through the subject site to land to the east that have been severed by the Kapiti Expressway. This minor boundary adjustment is necessary to allow the applicant to include the access strips within the proposed subdivision the subject of this consent application.

8. Is this application to replace an existing Resource Consent?

No

9. Supporting Information

I/We provide the following information in support of this application to satisfy the requirements of Section 88(4) of the Resource Management Act 1991:

- Information required by Schedule 4 of the Resource Management Act (as at 13 April 2021);
- Assessment against Part 2 of the Resource Management Act (as at 13 April 2021);
- Certificate of Title for the site (refer to **Appendix A**);

- Scheme Plans showing the proposed subdivision (including earthworks and infrastructure) and the following technical reports:
    - A landscape and visual impact assessment
    - A traffic assessment report
    - A geotechnical report
    - An ecological report
    - A water resources report
    - An engineering and infrastructure report
    - An archaeological assessment Report

10. Previous contact with Council

Pre-application meeting with Marnie Rydon (KCDC on 10 March 2021) and subsequent follow up session. Discussions with Infrastructure, Roading, Stormwater Teams and Parks and Reserves officers as part of project development.

11. Fee for application

The fee of $4,710 for the processing of these resource consent applications on a notified basis will be paid to KCDC account accordingly.

Signature of Agent of Applicant **Date:** 29 June 2021

PART B: Assessment of Environmental Effects

1 Introduction

1.1 Background

These subdivision and land use resource consent applications have been prepared by Chris Hansen Consultants Ltd (CHC) for the Mansell Family. The proposal is to subdivide a 17ha (western) portion of the Mansell Farm that has been severed by the Kapiti Expressway located in Otaihanga, just south of the Waikanae River.

The proposed Otaihanga Estates subdivision will create 49 lots: 22 rural life-style lots in the northern part of the site, and 27 residential lots adjacent to Otaihanga Road in the south of the site.

The subdivision of this area involves earthworks, construction of roads, installation of services and the identification of a notional building area on the larger life-style lots

The proposed subdivision (including earthworks and infrastructure) requires the following subdivision and land use resource consent under the Proposed Kapiti Coast District Plan (PDP):

- A Subdivision Consent under Rule 7A.5.3 as standard 4 for restricted discretionary activities in Rule 7A.3.2 cannot be met – non-complying activity.
- A Subdivision Consent under Rule 9A.3.2 as the proposed subdivision is on a site where there is a ponding area – restricted discretionary activity subject to standards.
- A Subdivision Consent under Rule 9B.3.3 as the proposed subdivision is on peat or sand soils – restricted discretionary activity subject to standards.
- A Subdivision Consent under Rule 11B.5.1 as the proposed subdivision creates new lots in the rural zone and is not provided for in Rule 11B.3.2 – non-complying activity.
- A Land Use Consent under Rule 3A.3.4 as the permitted activity standards for earthworks in Rule 3A.1.6 cannot be met – restricted discretionary activity (not subject to any standards).
- A Land Use Consent under Rule 9A.3.4 as the permitted activity standards for earthworks in ponding areas in Rule 9A.1.4 cannot be met – restricted discretionary activity under Rule 9A.3.4 (not subject to standards).
- A Land Use Consent under Rule 3A.3.1 as the permitted activity standards for the trimming/modification of indigenous vegetation within 20m of a water body – restricted discretionary activity (not subject to standards).

1.2 Purpose of Document

The purpose of this AEE is to provide the information necessary to support an application for subdivision and land use consents from the Kapiti Coast District Council (the Council) to enable the proposed subdivision (including earthworks and infrastructure) on a site adjoining Otaihanga Road, Paraparaumu. This AEE has been prepared in accordance with s.88 of the Resource Management Act 1991 (the RMA) and includes the prescribed form (Part A) and an assessment of environmental effects (Part B) in accordance with Schedule 4, as amended by the Resource Management Amendment Act 2013 (RMAA 2013).

Table 1 below identifies the requirements of Schedule 4 and where in this document that information can be found.

Schedule 4 Requirement	AEE Section
Description of activity	Section 3
Description of the site at which the activity is to occur	Section 2
Full name and address of each owner or occupier of the site	Part A
Description of any other activities that are part of the proposal to which the application relates	N/A
Description of any other resource consents required for the proposal to which the application relates	Part A
An assessment of the activity against the matters set out in Part 2 (of RMA)	Section 8
An assessment of the activity against any relevant provisions of a document referred to in section 104(1)(b) (including matters identified in Clause 2 (2) of Schedule 4 and section 104D	Section 8
An assessment of the activity's effects on the environment including information required in Clause 6; addressing matters specified in Clause 7; in such detail as corresponds with the scale and significance of the effects that the activity may have on the environment	Section 5
A description of the permitted activity (part of the proposal) that demonstrates that it complies with the requirements, conditions, and permissions for the permitted activity	Section 8

Table 1: Requirements of Schedule 4 of the RMA and where in this AEE that information can be found

This AEE is accompanied by the following specialist technical reports as outlined in Table 2:

Subject Area	Report Name/Author
Landscape & Visual Assessment	*DCM Urban Design Limited*
Transport Assessment	*Harriett Fraser Traffic Engineering & Transportation Planning*
Geotechnical	*RDCL*
Ecological	*Wildlands*
Flood Hazard	*Awa Environmental Ltd*

Engineering & Infrastructure	*Cuttriss*
Archaeological Assessment	*Kevin L. Jones Archaeologist Ltd*

Table 2 – Specialist Reports accompanying this AEE

1.3 Structure of this Document

This AEE has been structured to meet statutory requirements, and to facilitate an understanding of:

- The site and surrounding environment;
- The design elements and principles that have shaped the proposal;
- The actual and potential effects on the environment associated with the proposed subdivision; and
- The methods to avoid, remedy, mitigate or compensate those effects, if any.

Part A of this document contains the Resource Consent Application Form (Form 9) for the required resource consent.

Part B of this document contains the AEE supporting the resource consent application. It contains the following sections:

- Section 1 – Introduction, which sets the scene for the information that follows
- Section 2 – Description of the site and the surrounding environment
- Section 3 – Description of the proposed activity for which resource consent is sought
- Section 4 – Outline of the resource consent requirements
- Section 5 – Assessment of effects on the environment of the proposed activity and a description of proposed mitigation (if any)
- Section 6 – Summary of the consultation undertaken by the applicant
- Section 7 – Notification considerations under Section 95 of the RMA
- Section 8 – Planning assessment of the proposed activity against relevant legislative requirements; and
- Section 9 – Summary

The following specialist technical reports and information are included in the Appendices:

- Appendix C – Subdivision Scheme Plans (including earthworks and infrastructure) - Cuttriss
- Appendix D – Landscape & Visual Impact Assessment - DCM
- Appendix E – Transport Assessment Report – Harriet Fraser
- Appendix F - Geotechnical Report – RDCL
- Appendix G– Ecological Report – Wildlands
- Appendix H – Flood Hazard Report – Awa
- Appendix I – Engineering Infrastructure Report & Preliminary Erosion & Sediment Control Plan – Cuttriss
- Appendix J – Archaeological Assessment Report – Kevin Jones

2 Description of the Site and Environment

2.1 Site Description

The site is 17 ha and is located east of Otaihanga, north of Paraparaumu (refer to **Figure 1** below). The site was originally part of the Mansell Farm severed by the Kapiti Expressway, which runs along the eastern boundary of the site. The site is rural in character, with one existing house located in the southern eastern corner that has access from Otaihanga Road. The Mansell's progressively purchased portions of the site from mid-1984 through the 1990's to add to their larger property to the east.

The land was grazed since 1984 by Bruce Mansell who ran about 40 head of Simmental cattle, breeding bulls for sale. Being sand country it dried out over summer and a lot of supplementary feed was required so stock numbers needed to be kept low. In winter the land was very wet in the lower areas so grass growth was always a problem. Farming the land for higher productive uses was not viable because it was either too wet or too dry. As a result of the Kapiti Expressway severing this portion off from the larger farm, it has become even more uneconomic for farming purposes.

A view of the southern part of the site looking north from Otaihanga Rd is shown in Photo 1 below. A view of the northern part of the site looking south-east is shown in **Photo 2** below. More photos of the site and surrounding area are included in **Appendix B** of this AEE.

Access to 19 of the rural lifestyle lots in the northern area of the site will be from a formed legal right of way from the end of Tieko Street. Access to the remainder of the rural lifestyle lots (lots 20, 21 and 22) and 27 residential lots in the southern area of the site will be via a new road from Otaihanga Road. The site is currently held in 5 separate titles.

A brief description of the site includes:

- The site is within the Coastal Environment as defined in the Proposed Kapiti Coast District Plan;
- The site supports wetlands, dunes, and terrestrial vegetation;
- There are four wetland areas on the site that have been assessed as being *natural inland wetlands* in terms of the National Policy Standards Freshwater Management (NPS-FM);
- Indigenous bird species include swallow, grey warbler, paradise shelduck and swamp harrier, silvereye and fantail; introduced species include blackbird and Australian magpie – none of the species are classified as 'threatened' or 'at risk';
- Northern grass skink have been found on the site – these are not 'threatened';
- A low-lying area to the north of the site is shown to have ponding on the KCDC GIS Flood Hazards Map;
- The vegetation on the site is characterised by pasture with shelter belts and remnant kānuka
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  t groves;
- The site lies across dune land and includes swale and wetland areas;
- The soil profile of the site is silty/sand topsoil (to approx. 0.25m below ground level) overlaying loose dense silty sand to 16m below ground level;
- Ultimate bearing capacity of 300kPa is generally available between 0.3m and 1.7m below ground level;

- While little evidence of archaeological sites were observed on the site, the cultural associations due to the proximity of the wahi tapu, the precedent of past sites in the Kapiti Expressway earthworks and along the Waikanae River, and the historical documentation of a number of Māori settlements in the region, suggests that undetected archaeological sites may exist on the property;
- Current access to the northern area of the site is via a private right of way off Tieko Street to the west; with access to the southern area from Otaihanga Road in the south west corner of the site; a private driveway also provides access to one house on the site from Otaihanga Road in the south east corner of the site; and
- While the site is located on the edge of the urban area, there is ready access to the cycleway and walkway along Otaihanga Road and the Kapiti Expressway alignment. The site is located within a five minute drive of Paraparaumu railway station and less than a 15 minute cycle ride from central Paraparaumu.

A more detail description of the site is included in the LVIA Report in **Appendix D**.

A more detail description of the geotechnical conditions of the site is included in the Geotechnical Report prepared by RDCL included in **Appendix F** of this AEE.

A more detail description of the ecology of the site, including the assessment to determine the four natural wetlands in terms of the NPS-FM, is included in the Ecology Report prepared by Wildlands in **Appendix G** of this AEE.

A more detail description of the water resources of the site is included in the Flood Hazard Assessment of Effects Report prepared by Awa in **Appendix H** of this AEE.

A more detail description of the archaeological values of the site is included in the Archaeological Assessment Report in **Appendix J**.

Figure 1: The location of the Site – Otaihanga Road, Paraparaumu

Photo 1: The site look north from Otaihanga Rd

Photo 2: The site look north from Otaihanga Rd

2.2 Surrounding Environment

An aerial image of the site is shown in **Figure 1** above, and photographs of the surrounding area are included in **Appendix B**.

The site is located within the wider area known as Otaihanga (the place made by the tide), bounded by the Waikanae River to the north, the main railway line to the east, Paraparaumu Beach to the west and the Waikanae River Estuary to the northwest. The area is characterised by farmland paddock grasses; a number of stands of large exotic trees including conifers, pines and silver birch trees; and sporadic residential settlement nestled within a wider rolling dune land landscape, predominantly grassed with exotic specimen trees and shelterbelts.

The site is located in a rural setting south of the Waikanae River and east of the Otaihanga settlement (refer to photos in **Appendix B**). The area immediately to the east of the site has been highly modified with the construction of the Kapiti Expressway that is now operational. Most of the neighbouring properties only graze a few animals, with no highly productive farming activities in the surrounding area.

Otaihanga Road to the south of the site is classified in the road hierarchy in the PDP as a Local Community Connector road which: provides main access routes through suburbs; connects local centres; has traffic movement that is mainly locally generated; includes walkways/cycleways between local centres, schools and employment areas; may have relatively high traffic volumes; and moderate speeds can be expected. There is a shared path along the northern side of Otaihanga Road at this location.

To the west of the site is Tieko Street which is approx. 270m long and has a generally straight alignment with a curve towards the left at the end. The road rises slightly from Otaihanga Road along its length. There is no kerb and channel. The road has a sealed width of around 5.6m at each end with the width typically varying between 4.5 and 5.0m along its length with around a 50m length with a width of less than 4.5m. There is no existing street lighting along Tieko Street or along the right-of-way off the end of Tieko Street which is owned by the Applicant.

Residential activity in the area is of a rural residential density transitioning to low suburban and of no consistent style or character with lot sizes within a 500m radius varying considerably from 500m^2 (on Pitoitoi Street) to over 10,000m^2. Dwellings are a mix of single and double storey and range from small standalone dwellings to large dwellings with multi-car garaging. There is no 'infill' or medium density

housing in the immediate area with the closest higher density areas being either in central Paraparaumu, at the beach, in Waikanae, or the Ngarara Farm development just east of Waikanae beach.

A search of the Waka Kotahi NZTA crash database for the area shows that there have been six reported crashes on the local road network during the most recent five year period.

Immediately to the east of the site is the Kapiti Expressway that includes the Kapiti Coast walking/cycling/bridleway.

A more detail description of the surrounding environment is included in the LVIA in **Appendix D**.

A more detail description of the traffic environment associated with Otaihanga Road is included in the Traffic Assessment Report in **Appendix E**.

3 Project Description

3.1 Overview of proposal

The proposal involves the subdivision (including earthworks and provision of infrastructure) of a 17ha (western) portion of the Mansell Farm that has been severed by the Kapiti Expressway.

The proposed Otaihanga Estates subdivision will create 49 lots: 22 rural life-style lots in the northern area of the site, and 27 residential lots adjacent to Otaihanga Road in the southern area of the site.

In addition to the 49 lots, the following additional lots will be included in the subdivision:

- Lots 100 and 101 will provide for two internal roads to be vested in KCDC or be dedicated as road;
- Lots 102 and 103 will be provided for road widening along Otaihanga Road to be vested in KCDC or be dedicated as road;
- Lot 104 to be vested in KCDC as local purpose reserve (walkway/cycleway/bridleway) linking the two internal roads (Lots 100, 101);
- Lot 105 to be vested in KCDC as recreation reserve with access via an existing accessway from Otaihanga Road; and
- Lot 200 to be vested in KCDC as local purpose reserve (stormwater) providing for drainage and water storage (constructed wetland) adjacent to Otaihanga Road.

The proposed subdivision of this area involves earthworks, construction of roads, installation of services and the identification of a notional 20m building circle area on the rural life-style lots

This application and AEE is supported by a range of expert technical reports included as appendices that address:

- Landscape and visual effects;
- Traffic effects;
- Geotechnical effects;
- Ecological effects;
- Flood hazards effects; and
- Engineering and Infrastructure; and
- Archaeological effects.

3.2 Detailed Description of Proposed Subdivision

3.2.1 Subdivision Design

The proposed subdivision design is shown in **Figure 2** and includes the following elements:

- There will be two access points to the proposed subdivision:
    - An access 6m wide and approx. 450m long with a 2.5m shared path along one side from the legal right of way at the end of Tieko Street to access lots rural lifestyle lots 1 – 19 in the northern area of the site; and

  - A new access from Otaihanga Road with a legal width of 15m, a carriageway width of 5.7m wide, and approx. 230m long with a 2m wide shared path along the eastern side to access the remaining 3 rural lifestyle lots 20 -22 (4.5m access shared with the walkway/cycleway/bridleway users) and residential lots 23 – 49 in the southern area of the site.
  - The existing formed access to the site from Otaihanga Road will provide access to the proposed community recreational reserve on Lot 105 (no vehicle access to the subdivision will be provided from this access).
- Retention of all existing natural inland wetland areas, addition of protective planted 10m buffers[1] and notional building areas identified within the lots with natural wetland areas that are further set back from the wetlands;
- Proposed weeding, fencing and legal protection of the 4 natural wetlands;
- Provision of a 1 ha lizard area adjacent to the northern most natural wetland 1 to mitigate the loss of lizard habitat is the remainder of the site;
- Separation of smaller residential lots from Otaihanga Rd by a small dune and constructed wetland;
- Provisions of a community park;
- Retention of the main dune within Lots 21, 22 and 30 and identified no build areas;
- Retention of the dunes that run north-south adjacent to the Kapiti Expressway with further no build areas;
- Provision of walking, cycling and bridleway facilities within the subdivision, and connections with the existing Kapiti WCB system and Tieko Street;
- Sewerage and wastewater system to be connected to nearby existing Council systems servicing Otaihanga;
- Clearance of mature trees (mainly exotic) and vegetation and intensive mitigation planting; and
- Internal fencing.

The design of the elements of the subdivision has been informed by:

- Retaining existing natural inland wetland areas on the site and protecting these;
- Retaining as much as possible the dominant dunes on the site;
- Ensuring walking, cycling and bridleway links to existing Kapiti WCB;
- Ensuring views of the smaller residential-lots from Otaihanga Rd appear as a natural extension of existing development within Otaihanga; and
- Ensuring stormwater is retained and managed so the site is hydraulically neutral.

[1] It should be noted that Wetland 6 on lot 1 is immediately adjacent to the right of way access to a property to the north, and is already fenced along its western boundary. It is not possible therefore to include a 10m buffer along the western boundary of the wetland due to the existing right of way, and this boundary will remain 'as is.

Figure 2 – Subdivision Design

The earthworks to be undertaken as part of the subdivision are shown in **Figure 3** below. The footprint of the earthworks is approx. 75,000m^2 with the volumes of earthworks involving approx. 70,000m^3 of cut material and 54,000m^3 of fill material. Approx. 2,500m^3 of compacted material will be imported.

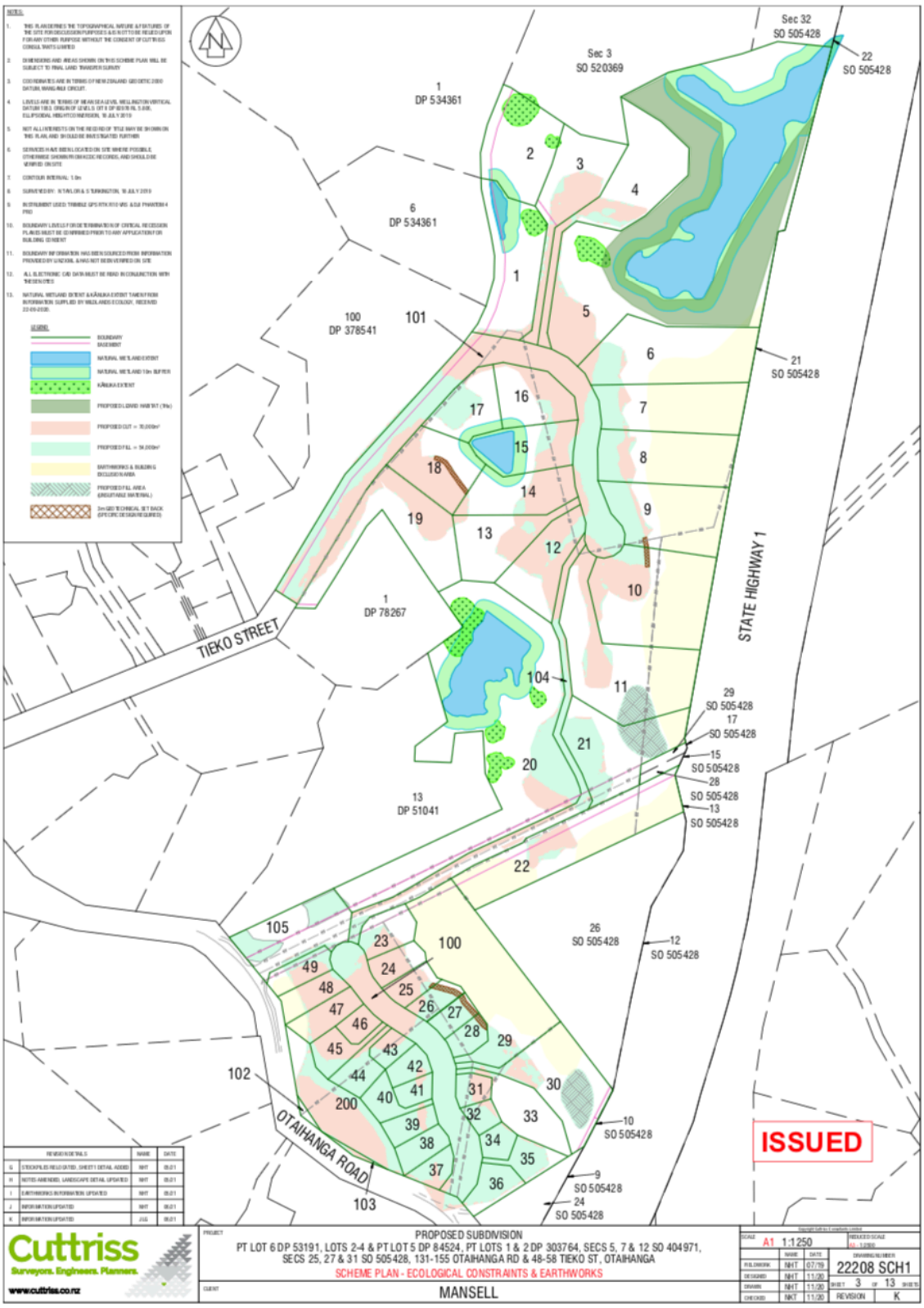


Figure 3 – Earthworks Design

The key elements of the proposed earthworks include:

- The scale of the earthworks are sympathetic to the landform, with an effort made to preserve the landscape features and values within the site;
- The introduction of the NPS-FM and NES-F has meant earthworks have been designed to be setback from the edge of the natural inland wetlands;
- Cut and fill earthworks to provide for the smaller residential-lots and notional building areas on the larger life-style lots; and
- Levelling of the site to allow for gravity-fed sewerage and wastewater systems.

The infrastructure to be provided includes:

Wastewater

- Installation of a low-pressure (LPS) network that will include a centralised pumping main within the road reserve and connecting walkway, with individual service connections being provided to the boundary of each new lot.
- A boundary kit is to be installed which allows the private landowner a connection point.
- Detailed sizing, valve locations and flushing points are to be confirmed at the detailed design stage as part of the engineering approvals stage of the project.

Water Supply

- The likely demand for any new water infrastructure will be residential demand and fire-fighting demand.
- No network upgrade is required to the existing water reticulation infrastructure (refer to Stantec Report in Appendix D of the Engineering and Infrastructure Report).
- 150mmØ & 100mmØ watermains and associated 50mmØ rider-mains will be installed within the site to meet the residential demand and to provide fire-fighting supply in accordance with the SDPR and SNZ PAS 4509:2008 requirements.
- All new lots will be serviced with individual 20mmØ MDPE connections and a manifold box containing a water meter and backflow preventer.
- Proposed new valves and connections will be installed in accordance with KCDC standard details.

Stormwater

- Stormwater from the northern area (Lots 1 – 22) will be to on-site soakage pits with stormwater to the access road being into swales and to ground via a bio-infiltration device (refer to Awa Report in **Appendix H** of this AEE)
- Stormwater from proposed Lots 23-49 will be discharged to the kerb.
- Stormwater from the roading network off the new cul-de-sac connecting to Otaihanga Road will be collected via sumps and conveyed to the proposed constructed wetland.
- The road levels have been set to accommodate secondary overflow out to the constructed wetland in the event of a system failure.
- The constructed wetland area has been sized to accommodate the runoff from the proposed subdivision to ensure less than minor effects on the surrounding flood levels.

Transportation

- The proposed road carriageway is 5.7m wide, in accordance with NZS4404:2010.
- The minimum 15m legal road width has also been observed, with widening allowed for on the corners to improve sight lines.

- A connection has been made through the site for walking, cycling and bridleway linkages. The width of Lot 104 (adjacent to Lot 21) has been agreed with KCDC as 5.5m.
- Lot 104 is to be vested in KCDC as a Local Purpose Reserve (Walkway).
- Existing (historic) rights of way are to be surrendered, and new rights of way registered in favour of Lots 20-22.
- The formed access will be 4.5m wide, to accommodate both private vehicular access to Lots 20-22 as well as pedestrians, horses and cyclists.
- It is noted that the levels of the proposed roading network have been set to mimic the natural stormwater system as much as possible, particularly in the northern area of the site and minimising effects on wetlands and no build areas of remnant dunes.

Power and Telecommunications

- While upgrade works will be required to the existing networks, the power and telecommunications companies have confirmed the site can be adequately services.
- All service connections will be underground.

Further detail regarding the proposed earthworks and the infrastructure to be provided and compliance with KCDC's Subdivision and Development Principles and Requirements 2012 (SDPR) are included in the Engineering and Infrastructure Report in **Appendix I** of this AEE. Detail regarding the stormwater disposal and attenuation design is included in the Water Resources Report prepared by Awa in **Appendix H** of this AEE.

3.2.2 Construction Sequencing and Duration

The construction methodology will depend on the staging of the subdivision (including earthworks and infrastructure) and the contractors programme and method of works. The detail of the anticipated construction methodology is outlined in the Preliminary Erosion and Sediment Control Plan attached as Appendix C to the Engineering and Infrastructure Report (**Appendix I** of this AEE)

The following outlines the proposed construction sequencing:

- Establishment of a suitable access point on the site for each stage;
- Installation of sediment control measures for the duration of the earthworks;
- Removal and stockpiling of topsoil and clearance of vegetation/trees that are to be removed – stockpiled topsoil will be located and managed in accordance with criteria included in Section 5.7 of the Engineering and Infrastructure Report (refer to **Appendix I** of this AEE);
- Earthworks to level the site as per the cut/fill areas shown in **Figure 3** above;
- Unsuitable material will be disposed of within the site (areas identified in **Figure 3** above), outside of the likely notional building areas;
- Importing of suitable roading aggregate (approx. 2,500m^2);
- Installation of infrastructure and forming/construction of access roads off Otaihanga Road to service the southern residential lots, and the right of way at the end of Tieko Street to service the northern rural lifestyle lots;
- Re-grassing of exposed areas to avoid erosion and stormwater runoff;
- Internal fencing; and
- Mitigation planting.

It is anticipated the earthworks will be completed within 3 months, and the overall works completed within 6 months.

4 Resource Consent Requirements

4.1 Planning Context

The Proposed Kapiti Coast District Plan (PDP) was notified in 2012 and has been through the plan process with hearings and appeals, and will be operative 30 June 2021. This resource consent has been assessed against the provisions of the 2018 Appeals version which is the most recent version of the PDP available. The provisions of the previous operative Kapiti Coast District Plan have not been considered in this application.

The Proposed Natural Resources Plan (PNRP) for the Wellington region was publicly notified in July 2015, hearings held between 2015 -2018, with decisions released in July 2019. At this point in time, there are still a number of outstanding appeals, and GWRC is working through a mediation process to have these appeals resolved. The Appeals version 2019 is the current PNRP used for the regional resource consent applications filed separately with GWRC.

In September 2020 the National Policy Statement Freshwater Management (NPSFM) and National Environmental Standards Freshwater (NES-F) came into force. Of relevance to the proposed subdivision (including earthworks and infrastructure) are provisions relating to the removal of vegetation within a natural wetland and the discharge of water within 100m of a natural wetland. The regional resource consent applications filed separately with GWRC addresses these activities. Due the presence of four natural wetlands on site, the proposal was extensively re-designed as a result of the NPS-FM and associated regulations coming into force.

4.2 Consents Required

The proposed subdivision (including earthworks and infrastructure) requires the following subdivision and land use resource consents under the PDP:

- A Subdivision Consent under Rule 7A.5.3 as standard 4 for restricted discretionary activities in Rule 7A.3.2 cannot be met – non-complying activity.
- A Subdivision Consent under Rule 9A.3.2 as the proposed subdivision is on a site where there is a ponding area – restricted discretionary activity subject to standards [Note: discretionary activity under Rule 9A.4.1 if RDA standards not met].
- A Subdivision Consent under Rule 9B.3.3 as the proposed subdivision is on peat or sand soils – restricted discretionary activity subject to standards.
- A Subdivision Consent under Rule 11B.5.1 as the proposed subdivision creates new lots in the rural zone and is not provided for in Rule 11B.3.2 – non-complying activity.
- A Land Use Consent under Rule 3A.3.4 as the permitted activity standards for earthworks in Rule 3A.1.6 cannot be met – restricted discretionary activity (not subject to any standards).
- A Land Use Consent under Rule 9A.3.4 as the permitted activity standards for earthworks in ponding areas in Rule 9A.1.4 cannot be met – restricted discretionary activity under Rule 9A.3.4 (not subject to standards).
- A Land Use Consent under Rule 3A.3.1 as the permitted activity standards for the trimming/modification of indigenous vegetation within 20m of a water body – restricted discretionary activity (not subject to standards).

Overall the proposed subdivision (including earthworks and infrastructure) is a **non-complying** activity.

As identified in Part A above, a discharge and land use resource consents are also required from the GWRC, and these applications have already been filed with Council.

5 Assessment of Actual and Potential Effects

It is considered that the actual and potential adverse effects that could reasonably be expected from the proposed subdivision (including earthworks and infrastructure) are:

- Landscape, natural character and visual amenity effects
- Traffic effects
- Construction effects
- Flood hazard effects
- Geotechnical effects
- Biodiversity effects
- Archaeological effects
- Cultural effects
- Positive benefits

5.1 Landscape and Visual Effects

5.1.1 Landscape Character and Natural Character

A detail description of the landscape character and natural character of the site is included in section 3.1.2 of the LVIA report in **Appendix** D. The assessment has identified the project site has a relatively open character in parts but an enclosed, compartmentalised character in others due to existing vegetation and topography.

In terms of effects on *landscape character*, it is recognised that the proposal modifies the landscape from one that is semi-open and agricultural in character to one that is denser and more suburban in nature, where infrastructure and amenities are more concentrated for Lots 20-49. Where lots 1-19 are proposed, the open rural-residential character will be retained to a degree due to the lots being of a larger size with an average size of almost 4,000m^2 (discounting Lot 5 which is 2.8Ha. and contains the largest wetland pushes the average lot size up to 5,300m^2). The character of existing housing is typically detached dwellings, which the proposal intends to continue, albeit at a higher density. DCM has determined through its assessment that:

- The landscape character of the receiving environment is considered to have a **moderate** sensitivity to change given the existing level of modification which has occurred in the area (Kapiti Expressway/existing residential development patterns) combined with the presence of some natural features;
- The topography has a **moderate** sensitivity to change given its undulating form, reduced due to the degree of modification that has already occurred to the Expressway; and
- The sensitivity to change of the existing vegetation is considered to be **low**.

In terms of *natural character*, the site is highly modified having been cleared for agricultural use, which has also had an effect on amenity values. The site has 6 potential wetlands, with four of these wetlands assessed by Wildlands as being natural inland wetlands in terms of the NPS Freshwater Management (NPSFM) (refer below). There are no waterways on the site, the Muaūpoko Stream being 125m to the east (beyond the Expressway), and the Waikanae River approx. 300m to the north. The site is highly modified, having been cleared for agricultural land use and subsequently invested by rabbits. This is reflective in the lack of native vegetation present in the wider area. While the current dominant dunes on the site are no

longer functional (as per Wildlands Report), they have been retained with no build zones placed on them which will retain their natural character. DCM has determined through its assessment the sensitivity to change to the natural character is **moderate**.

Overall, DCM have determined the character and land use of the area will shift from open and agriculturally focused to a more concentrated, high amenity development for Lots 20-49. The proposed recreation reserve (lot 105) fronting Otaihanga Road will assist with retaining an open character, with the majority of lots setback from the road, separated by the proposed constructed wetland which will occupy the majority of this frontage. For lots 1-19 an open, rural residential character will be maintained.

Mitigations

The following mitigations measures have been proposed by DCM to manage any potential adverse environmental effects on landscape character and natural character values:

- A Landscape Concept Plan (refer to LVIA Report in **Appendix D**)
- Provide a diversity of house size and lot size to provide choice, with higher density development located in less sensitive locations - this is provided for through the proposed location of low and rural-residential density housing
- Locate higher density towards Otaihanga Road, buffered by lower density development along the Expressway and adjoining rural residential area - this is provided for through the placement of smaller sections close to Otaihanga Road
- Create streets which have a high level of amenity, provide for different modes, and allow for the use of low impact design techniques including grass swales and detention basins. Suggested street tree species included, but will be confirmed after consultation with KCDC:
    - Rhopalostylis sapida, nikau
    - Cordyline australis, ti kouka
    - Podocarpus totara, totara
    - Alectryon excelsus var. excelsus, titoki
    - Sophora microphylla, SI Kowhai
    - Hoheria sextylosa, Lacebark
- Create a well-connected walking/cycling/bridleway network which combines with the green / blue network and existing facilities, prioritising walking and cycling with a mix of on-road, separate, and off-road facilities to promote active transport modes – key connections are provided for through the site, linking the Tieko Street extension with the proposed cul-de-sac and Otaihanga Road.
- Identify and protect important topographical features on site – restrict buildings to less prominent locations
- Solid fencing should preferably be restricted to side yards to retain an open character along streets and existing roads or at a minimum front boundary fencing will have restrictions. Side fencing should not extend forward of the front wall closest to the street of a house or would need to be limited in height – refer to Landscape Concept Plan included in LVIA Report in **Appendix D**
- Identify and protect important wetland features on site – create a 10m wide buffer around existing natural inland wetland areas[2] to prevent future buildings or earthworks having a detrimental effect. The following species are proposed around the natural wetlands, being Mix A – Wetland

[2] Except for Wetland 6 (lot 1) as discussed in footnote 1 above.

Planting in the following percentages at 750mm,1500mm or 3,000mm centres depending on the species:

- Cordyline australis - 5%, 3,000mm crs
- Phormium tenax – 20%, 1,500mm crs
- Leptospermum scoparium – 5%, 3,000mm crs
- Kunzea robusta (raised land only) – 10%, 3,000mm crs
- Coprosma propinqua – 10%, 1500mm crs
- Coprosma robusta (raised land only) - 10%, 1500mm crs
- Podocarpus totara (raised land only) - 5%, 3,000mm crs
- Muehlenbeckia complexa – 10%, 1,500mm crs
- Carex geminata (plant closest to wetland margin) – 25%, 750mm crs

- Identify and protect important vegetation features on site – protect existing kānuka t stands from development. A 10m buffer is proposed around existing kānuka trees which is to be planted with:
  - Kunzea robusta –3,000mm crs

Assessment

The potential adverse environmental effects of the proposed subdivision (including earthworks and infrastructure) on the landscape character and natural character of the site will be different for the northern area where the rural life-style lots will retain the open and agricultural character of the rural-residential zoning, while the southern area will have a more residential character similar to the surrounding urban area in Tieko Street and Pitoitoi Street.

The receiving environment in the northern area is to maintain aspects of openness through the protection of hillocks, native vegetation and the avoidance of development near wetlands, as well as controls on fencing.

The Expressway has made a major effect on the character of the area with substantial earthworks undertaken, the installation of road related infrastructure including signs, and the imposition of traffic.

The proposed recreation reserve (lot 105) fronting Otaihanga Road will assist with retaining an open character in the southern area, with the majority of lots setback from the road, separated by the proposed constructed wetland which will occupy the majority of this frontage and will be extensively planted. Through mitigation measures proposed, open character and significant landscape components will be retained and enhanced, where possible.

Existing amenity of the natural landscape is to be enhanced and retained through the planting and development of green networks connecting the wider landscape. Shared walkway/cycleway/bridleway connections to adjoining developments and access to areas which are not currently accessible enhances the amenity of the site.

DCM consider that the effects on landscape and natural character will be **low to very low** (or less than minor in RMA terms – refer to the Section 2.5 of the LVIA Report) due to the modified rural-residential character of the receiving environment and key landscape elements being retained. DCM also determines that through mitigation measures, open character and significant landscape components will be retained and enhanced, where possible.

Overall, in terms of landscape character and natural character of the area, subject to the mitigation measures proposed, it is considered the proposal will have adverse effects that are less than minor and will result in an acceptable magnitude of change on the existing rural-residential landscape character and values. The existing character of the receiving environment is already modified with any natural features of note being protected, and enhanced, through the proposed mitigation measures.

5.1.2 Visual Amenity

A detail description of the visual amenity of the site and surrounding area is provided in section 3.2 of the LVIA Report (refer to **Appendix D**). The visual context of the receiving environment is considered to be relatively contained from the edge of the proposed development. This is due to the receiving environment's undulating topography limiting views into the site, resulting in views from further away either not being possible or being indiscernible at distance.

DCM selected a series of key viewpoints to show a representative sample of the likely visual effects which could result from the proposal, and these are an appendix to the LVIA Report. Viewpoints are generally located on public land, and where possible located as close as possible to existing or proposed residential dwellings. The quality and openness of the view is considered by identifying visually sensitive receptors.

The potential visual effects each visually sensitive receptor might receive has been assessed by DCM (refer to section 3.3 of the LVIA Report). The effects take into account the likely sensitivity of the receptor (based on type), combined with the likely magnitude of effects (a combination of distance from the proposal and degree of change) to determine what the likely residual effects from the proposal will be.

DCM determined that the overall change in character from open and rural-residential character to one that is more dense and suburban in nature for Lots 20-49, though this activity is not inconsistent with nearby residential or rural residential areas.

Mitigations

The mitigations discussed above to address landscape character and natural character adverse effects will also mitigate any adverse visual effects of the proposed subdivision (including earthworks and infrastructure).

Assessment

DCM have determined that the adjacent rural-residential properties will experience a change in the existing views but these are not necessarily considered adverse. Nearby suburban residential properties, current and future, overlooking the subdivision area will have a mix of open, partial, and screened views of future development. Changes to experience by these residents are considered by DCM to be **low** given the character of existing views and existing boundary treatments.

Middle distance views are largely contained along the road corridor with large grass hillocks or knolls framing views, as well as screening views of the proposed site from nearby properties. Management of fencing and bulk and location of the development will also help create a sense of openness throughout the site and limit visual effects for passing motorists.

DCM have also determined that the highest likely effects after mitigation will be experienced by those residential properties closest to the proposal, along Otaihanga Road and Tieko Street although views are often blocked by either vegetation or topography or a combination of both. Though there is a change from rural-residential to a higher density for lots 20-49, the magnitude of change is considered low as the proposal appears as a natural extension of existing development to the west of the proposal.

The open, rural residential character will be maintained for lots 1 -19, while the scale and bulk and location of the higher density of lots 20-49 would allow it to appear as a natural extension of existing development within Otaihanga, with an anticipated low magnitude of change to the existing visual amenity. Overall, with the proposed mitigations that include no build areas, fencing restrictions, a Landscape Concept Plan and extensive planting, it is considered any adverse visual effects are less than minor for the southern area of the site, and negligible for the norther area.

5.2 Traffic Effects

A description of the traffic environment adjacent to the site is provided in the Transport Assessment Report (refer to **Appendix E**). Otaihanga Road will provide access to the southern area of the site, while Tieko Street via a right of way will provide access to the northern area of the site.

Potential effects of the proposed subdivision (including earthworks and infrastructure) on the transport network include: traffic generation; intersection safety; footpaths, cycle lanes and bridleway; and construction traffic.

There are also a number of positive traffic effects including: provision of a shared path within the site; able to take advantage of the proximity to the recreational active mode routes along Otaihanga Road and the Expressway; and easy access to the wider road network and to central Paraparaumu and Waikanae via the old SH1 route.

5.2.1 Traffic Generation

The proposed subdivision (including earthworks and infrastructure) has the potential to generate traffic that may impact on the operation of the local road network.

Harriett Fraser has identified in her report that a KCDC traffic count for Otaihanga Road in February 2019 in the immediate vicinity of the site shows an average daily two-way traffic volume of 4,853 vehicle movements per day with weekday peak flows of around 470 vehicle movements per hour between 5pm and 6pm. The traffic volumes on Otaihanga Road have reduced since the opening of the Kapiti Expressway with a traffic count on Otaihanga Road prior to the opening of the Expressway showing 5,860 vehicle movements per day.

Traffic movements at the intersection of Tieko Street and Otaihanga Road have previously been counted on Tuesday 15 May 2018 during the morning and afternoon traffic peaks and on Saturday 12 May 2018 during the midday peak. The results of these surveys are summarised on page 4 of the Transport Assessment report (refer to **Appendix E**).

Harriett Fraser has estimated that Tieko Street provides access to some 24 existing dwellings. As such the trip rate per dwelling is 1.0, 0.8 and 1.2 during the weekday morning, weekday afternoon and Saturday midday peaks respectively. From reviewing aerial images Harriett Fraser has determined that there are some four undeveloped lots and a yet to be implemented resource consent (RM 170306) that allows for a further five additional dwellings to access Tieko Street off the right of way at the end of the street. Based on the observed traffic activity, nine dwellings could be expected to generate 9vph, 7vph and 11vph during the weekday morning, weekday afternoon and Saturday midday peaks respectively.

The forecast total traffic activity at the Otaihanga Road end of Tieko Street including existing traffic, traffic associated with undeveloped lots and associated with the consented subdivision would be expected to be around 32vph, 26vph and 40vph during the weekday morning, weekday afternoon and Saturday midday peaks respectively.

Mitigations

New intersection on Otaihanga Road with a right turn bay providing access to the residential lots in the southern area of the site (refer to Sheet 12 in the Scheme Plans in **Appendix C**).

Assessment

Harriett Fraser has determined that the site can be expected to generate a total of some 392 to 490 vehicle movements per day (vpd) with up to around 60 vehicle movements per hour in the busiest hours. Traffic flows on Otaihanga Road will remain below the level of activity prior to the opening of the Expressway.

It is noted that Standard 2 in permitted activity Rule 11.7.3 of the PDP provides for activities within this zone to generate up to 100 vpd (except extractive industries). Discussions with Council's planner (Marnie

Rydon) clarified that this 100 vpd trigger applied to each new section created by the subdivision, meaning overall 4,900 vpd could be generated from the 49 lots resulting from the proposed subdivision. Therefore the expected 392 – 490 vpd is considerable less than the permitted activity standard.

The Council traffic counts show a directional split in travel of 54% eastbound and 46% westbound in the morning peak and 49% eastbound and 51% westbound in the afternoon peak. Equal arrivals and departures are expected during the Saturday midday peak.

Harriett Fraser has determined that given the low level of traffic activity, the even distribution of traffic flows to and from the east and west along with the inclusion of a right turn bay, the proposed new intersection with Otaihanga Road can be expected to perform with no discernible change in traffic capacity or delays for existing users of Otaihanga Road.

Harriett Fraser has also determined the forecast vehicle turning movements at the Tieko Street intersection amount to around one turning movement per minute at the busiest times. At peak times there are two-way traffic flows through the intersection of up to 150vph. This level of traffic flow includes large gaps in the traffic flow and vehicles will be able to continue to turn to and from Tieko Street with little if any queuing.

Overall it is considered based that any adverse traffic effects from the increased traffic generated from the proposed subdivision will be less than minor or negligible.

5.2.2 Intersection/Access Safety

The proposed subdivision (including earthworks and infrastructure) has the potential to generate traffic that may impact on safety of the intersections/access to the site.

Harriett Fraser's Transport Report assesses the location of the proposed new access road to the southern area (providing access to rural-residential lots 20 – 22, and residential lots 23 – 49) and identifies Otaihanga Road in this location has both centreline and edge-line markings. Sight lines looking east (towards the Kapiti Expressway) is approx. 150m, and west approx. 105m. The sight line towards the west is limited by vegetation within the roadside paddock.

Along Otaihanga Road further to the west is the existing main access to the site, which is intended to be used to access the community park (lot 105). A sight line of 125m was measured towards the left on exiting from 5m back from the edge line, this increased closer to the edge line. A sight line of 92m was measured towards the right on exiting from 5m back from the edge line, this was measured in front of the power pole located within the road reserve on the opposite side of the road. The sight line increased to around 96m at a distance of 3.5m from the edge line and looking between the power pole and the fence

With regard to safe intersection sight distances for Tieko Street, Harriett Fraser determined there is a clear sight line to the left from Tieko Street all the way along Otaihanga Road to the adjacent intersection with Ratanui Road, a distance of some 95m. There is a potential sight distance to the right from Tieko Street along Otaihanga Road of 128m which is obstructed by vegetation next to the power pole.

<u>Mitigations</u>

- Trimming/removal and control of planting along Otaihanga Road and at Tieko Street intersection
- New intersection on Otaihanga Road with a right turn bay

<u>Assessment</u>

The key design parameter with regard to the design of a safe intersection is the available sight lines. The Austroads Guides to Road Design are generally considered to provide best practice guidance in this regard. With the trimming/removal and control of planting close to the Otaihanga Road carriageway, the proposed new intersection can meet the Austroads sight line requirements. The inclusion of the right turn bay will ensure that following traffic can continue along Otaihanga Road without being disrupted.

While there is no history of a safety problem at the Tieko Street intersection, it is recommended that the sight line towards the north from Tieko Street by trimming the vegetation over a length of 1m back from

the power pole immediately to the north of the intersection. With this improvement the Austroads sight line provisions can be readily achieved with benefits for existing and future users of the intersection.

Overall, and with the mitigations proposed, it is considered Austroads Guidelines for sight lines can be met, and any adverse effects on intersection safety will be less than minor or negligible.

5.2.3 Shared Use Path

The proposed subdivision (including earthworks and infrastructure) includes a shared use path that has the potential to increase the number of walkers/cyclists/horse riders on the local road network in the area.

Harriet Fraser has determined that given the expected usage level in this peripheral part of the suburban road network, pedestrians, cyclists and horse riders will be able to safely share the paths. The exception to this is Tieko Street which is currently narrow (one lane for traffic) and does not have a formed pedestrian pathway. There is the potential for the proposed shared pathway through the subdivision to create a circular route that links back to the existing shared use path along Otaihanga Rd that increased the number of pedestrians using Tieko Street.

Where the paths are located next to roads they will benefit from street lighting. The paths away from roads within the rural residential part of the site will not be lit in line with the more rural environment. The shared path within the rural residential area is set within a width of at least 5.5m between adjacent boundaries with any planting controlled so as not to create entrapment spots (in accordance with CPTED guidelines.

Mitigations

- Provision and design of facilities to meet CPTED standards
- Controlled planting
- Working with KCDC to ensure pedestrian safety along Tieko Street is improved.

Assessment

Harriett Fraser advises that for roads serving more than 20 dwellings or that are longer than 100m, NZS4404: 2010 includes the provision for footpaths on both sides of the road. However, given the Rural Residential zoning with the site being on the edge of the urban area along with the no exit nature of the roads with low traffic flows, the inclusion of a footpath in the form of a shared path along one side of each of the roads is considered a balanced approach well matched to the local environment.

While NZS4404:2010 anticipates that cyclists will share the traffic movement lane on roads serving up to 200 dwellings, the standards included in the Proposed District Plan include for cycle paths to be provided on new roads either as on-street cycle lanes, off-street shared paths or off-street dedicated cycle paths. The expectation with the proposed subdivision is that confident (commuter and sports) cyclists will cycle in the traffic lanes and that less confident cyclists can choose to use the shared paths within the site. As such the provision for cyclists within the site is well matched to the District Plan requirements.

In terms of Tieko Street, the current lack of any formed pedestrian walkway or the management of pedestrians using the existing sealed road needs to be addressed regardless of whether the proposed subdivision goes ahead. The applicant has been working with KCDC to identify options to ensure pedestrians can safely use Tieko Street, including by addressing overdue maintenance of this road, and has indicated a willingness to be part of this solution which may include installing a footpath along the length of one-side of Tieko Street, or a management system that could involve clear 'share the road' signage, and street lighting where appropriate.

Overall, with the mitigations proposed it is considered that any adverse effects associated with the proposed shared use path are less than minor.

5.2.4 Construction Traffic

The proposed subdivision (including earthworks and infrastructure) has the potential to create construction traffic which can have short term effects on the operation of the local road network.

As outlined in section 2.2 above, the earthworks have been designed to be contained within the site with areas set aside for unsuitable material and also for topsoil stockpiles. The only material to be imported is roading aggregate with a preliminary estimate of 2,500m^3 of compacted material needed. With a compaction factor of 1.2 and assuming 8m^3 per truckload this equates to 375 loads (750 movements total) over a 3 – 6 month period.

How this relates to daily truck movements will vary due to a number of factors. It is estimated that it would take 15 to 20 minutes to spread each load, so between 3 and 4 loads could be received each hour. With an eight hour working day Harriett Fraser has determined there might be up to 24 to 32 loads per day with an associated 48 to 64 truck movements equating to 6 to 8 truck movements per hour. Trucks will need to access the site from both Otaihanga Road and Tieko Street. It is understood that a similar number of truck movements could be expected on each approach, that is a total of 375 truck movements with up to 64 truck movements per day or 8 truck movements per hour. In practice the delivery rates will vary and this is considered a high daily estimate of truck activity.

Mitigations

- Construction Traffic Management Plan

Assessment

The Proposed District Plan includes a calculation whereby a single rigid truck is equivalent to six vehicle movements. Harriett Fraser has determined that as such, 64 truck movements per day would be equivalent to 384 vehicle movements per day with up to 48 vehicle movements per hour. This level of vehicle activity is similar to that expected with the subdivision completed and occupied. As such, the construction traffic is expected to be able to be safely and efficiently accommodated.

A Construction Traffic Management Plan will be provided to cover such matters as days and hours of construction traffic access, access to the site to avoid trucks queuing on Otaihanga Road, avoiding trucks passing on Tieko Street and the right of way, and wheel washing.

Overall it is considered that any adverse effects associate with construction traffic, with the mitigations proposed, will be less than minor.

5.3 Construction Effects

A description of the anticipated construction methodology is included in Section 5.3 of the Engineering and Infrastructure Report prepared by Cuttriss (refer to **Appendix I**) and the Preliminary Erosion & Sediment Control Plan (Appendix C to the Infrastructure Report). The following actual and potential adverse effects can be expected from the construction activities associated with earthworks and the installation of infrastructure (including roads and stormwater infrastructure):

- Sediment entering natural wetlands
- Erosion caused by land disturbance
- Dust
- Topsoil storage sites
- Deposition of unsuitable materials on site

These potential effects have been addressed in detail in the discharge and land use resource consent applications lodged with GWRC, and are summarised here to inform the assessment of the relevant PDP provisions as assessed in Section 8 below.

5.3.1 Sediment entering natural wetlands

There is potential for sediment to enter natural wetlands if there are extreme rain events during the earthworks phase of the proposed subdivision and installation of infrastructure. The potential for dust to enter natural wetlands is discussed Sections 5.1.3 and 5.4.4 below. Sediment entering natural wetlands can affect the environmental health of the wetland ecosystem, and water quality.

As described in the Ecology Report (refer to **Appendix G**), Wildlands undertook detail investigations of the possible wetlands on the site to determine if they meet the criteria to be classified as natural inland wetlands under the NPS-FM, and delineated the extent of those wetlands that met this criteria.

As a result of this work, the original subdivision scheme (which proposed only one access to the northern rural life-style area of the site from Otaihanga Road via a spine road) was significantly altered to ensure all earthworks and infrastructure were outside the required 10m buffer from natural wetlands required by the NES-F. To achieve this, access to the northern area of the site was changed to be via Tieko St and the legal right of way to the site.

In addition to this change in the subdivision scheme plan, a Preliminary Erosion and Sediment Control Plan has been prepared and is submitted with this resource consent application to demonstrate how potential effects from sediment from the earthworks stage will are minimised through compliance with the GWRC Erosion and Sediment Control Guidelines (February 2021).

Mitigations

The following mitigation is proposed to ensure any adverse effects of sediment from entering waterways:

- A full suite of measures are proposed to ensure that possibility of sediment entering a natural wetland from extreme rain is minimised or avoided. These are set out in the Preliminary Erosion and Sediment Control Plan (refer to Appendix C in the Engineering and Infrastructure Report in **Appendix I** accompanying this AEE); and
- Criteria has been developed for the selection of the location and management of topsoil stockpile sites. These criteria are set out in Section 5.7 of the Engineering and Infrastructure Report in **Appendix I** accompanying this AEE.

Assessment

It is acknowledged that sediment from earthworks entering a natural wetland can have a significant adverse environmental effect on a natural wetland ecosystem and water quality. Recognising this significance, the subdivision scheme plan has been substantially amended to ensure no earthworks are undertaken within the 10m buffer from a natural wetland required by the NES-F by shifting the earthworks and roading infrastructure away from the wetland areas. Placement of unusable material and topsoil stockpiles will also be managed to ensure that this is kept out of flow paths, located well away from the wetlands, buffer areas, proposed lizard habitat and no build areas.

There are no construction activities proposed for the installation of the infrastructure that are different or exceptions than what would normally be expected for a subdivision of this size in the Kapiti District, which is primarily on a sand base (which is generally less susceptible to sediment laden run off). The Preliminary Erosion and Sediment Control Plan details the measures to be undertaken to ensure the GWRC's Erosion and Sediment Control Guidelines are complied with. Criteria has been developed for the selection of the location and management of topsoil stockpile sites.

Based on the above, it is considered that the risk that sediment may enter a natural wetland during an extreme rain event has been managed, and any actual or potential adverse effects associated with sediment entering a natural wetland from construction activities is less than minor with the mitigations proposed.

5.3.2 Erosion caused by land disturbance

The proposed subdivision (including earthworks and infrastructure) involves land disturbance of an area of approx. 75,000m^2 with the volumes of earthworks involving approx. 70,000m^3 of cut material and 54,000m^3 of fill material. With this amount of land disturbance, there is the potential to cause erosion effects on existing dunes and areas to be modified.

Site investigations undertaken by RDCL to investigate the geotechnical condition of the site are summarised in the Geotechnical Report in **Appendix F** accompanying this AEE. In particular it is noted that RDCL observed evidence of shallow slope instability localised to a single dune in the northern part of the site (refer to Figure 1 in the Geotechnical Report). RDCL recommended batter slopes of 1V:2H as a minimum for permanent batters, and a nominal setback of 5m from slopes > 15^0 to protect against the potential for shallow slope instability (specified areas shown on Sheet 3 of Scheme Plans in **Appendix C**).

The Engineering and Infrastructure Report (refer to **Appendix I**) recognises the potential for earthworks to accelerate erosion during both bulk earthworks and civil works construction, and as a result of the finished earthworks. The Report provides details of the approach taken to ensure such acceleration of erosion does not occur, and includes a Preliminary Erosion and Sediment Control Plan (Appendix C to the Engineering and Infrastructure Report) that complies with the GWRC Erosion and Sediment Control Guidelines.

Mitigations

- Preliminary Erosion and Sediment Control Plan (refer to Appendix C in the Engineering and Infrastructure Report in **Appendix I** accompanying this AEE)
- Minimum batter slope of 1V:2H for permanent batters
- A nominal setback of 5m from slopes > 15^0

Assessment

Due to the nature of the geology of the site, and the level of cut and fill activities proposed, it is acknowledged that there is a potential for erosion to occur during earthworks, civil construction works and as a result of the finished earthworks.

The Preliminary Erosion and Sediment Control Plan accompanying the Engineering and Infrastructure Report proposes a range actions and measures to ensure the risk of any potential erosion from the proposed works is managed, including site stabilisation; topsoiling and grassing; hydroseeding; mulching; turfing, geotextiles and erosion control blankets (refer to Section 4 of the Preliminary Erosion and Sediment Control Plan).

In addition, RDCL have recommended a minimum batter slope for permanent batters and a 5m setback from slopes greater than 15^0 as design parameters to ensure the risk of any land stability is minimised.

Overall, it is considered any actual or potential adverse environmental effects of erosion caused by the land disturbance is less than minor with the mitigations proposed.

5.3.3 Dust

There are a number of construction activities that have the potential to generate dust, including from land where the vegetation has been removed, the stock piling of topsoil, and the movement of construction vehicles along the proposed haul road. Dust becomes an issue when it enters a natural wetland or goes beyond the boundary of a site and may cause a nuisance effect on adjoining land owners/residents or the wider public (such as when using nearby local roads).

There is a responsibility on the applicant to ensure provisions are in place to mitigate any actual or potential adverse effects from dust beyond the boundary of the site caused by construction activities.

The control of dust is a critical component of the Preliminary Erosion and Sediment Control Plan as it is anticipated that construction may happen during dry conditions. A range of controls are proposed including: use of a water cart; soil binders; progressive site stabilisation; consolidate loose surface materials; avoid certain activities (such as loading trucks) in windy conditions; limit traffic movements; control construction vehicle speeds; maintain haul road surfaces; geotextiles. As discussed above, criteria has been developed for the selection of the location and management of topsoil stockpile sites. There is also a requirement for the contractor to monitor any dust nuisance, and respond to any complaints.

Mitigations

- Preliminary Erosion and Sediment Control Plan (refer to Appendix C in the Engineering and Infrastructure Report in **Appendix I** accompanying this AEE) including the controls discussed above; and
- Criteria has been developed for the selection of the location and management of topsoil stockpile sites. These criteria are set out in Section 5.7 of the Engineering and Infrastructure Report in **Appendix I** accompanying this AEE.

Assessment

Construction activities inevitably create dust issues, and the extent of the mitigations required is in response to the receiving environment, and whether any sensitive receivers (including natural wetlands) are located close to the proposed works. In this case the surrounding environment is semi-rural, with some existing residents nearby, albeit some distance away from the proposed works.

The Preliminary Erosion and Sediment Control Plan proposes a number of measures to ensure the risk of dust nuisance that might be created from construction activities on natural wetlands and beyond the site minimised, with a monitoring requirement on the contractor and a complaints procedure to address any issues. Overall it is considered that any actual or potential adverse environmental effects from dust generated by construction activities is less than minor or negligible with the mitigations proposed.

5.3.4 Topsoil storage sites

As part of the construction activities, topsoil will be stripped and stockpiled for reuse at locations to be determined by the contractor using the criteria outlined in Section 5.7 of the Engineering and Infrastructure Report. This topsoil will be reused to stabilise cut and fill areas and for replanted with grass seed.

The actual and potential adverse effects associated with the stock piling of topsoil relate to dust and sediment runoff from a wet weather event. These effects have been discussed above.

To minimise the potential adverse effects, the location of the topsoil stockpile sites will be carefully located to be:

- Outside the natural inland wetlands and natural inland wetland buffer zones (as shown on Sheet 3 of the Scheme Plans);
- 10m beyond the edge of any drain;
- Offline from natural drainage and overflow paths;
- Shall not be located within the ponding areas identified by AWA (Figure 12 of the Flood Hazard Report);
- Avoid ridges and tops of dunes to minimise wind disturbance;
- 10m beyond the dripline of kānuka trees (as shown on Sheet 3 of the Scheme Plans);
- Avoid earthworks exclusion areas (as shown on Sheet 3 of the Scheme Plans);
- Avoid slopes greater than 1:5;
- Avoid roads and other impermeable surfaces;

- Positioned to minimise storage time and truck movements; and
- Located in areas that will remain undisturbed for the longest period of time as construction progresses.

In addition, the Preliminary Erosion and Sediment Control Plan includes a number of measures to manage adverse effects including:

- The stockpiles are to be sealed off to minimise sediment runoff;
- Silt fences are to be constructed downhill of the stockpiles;
- For stockpiles in active use, a stabilised designated access point shall be provided;
- If a stockpile is to be left for longer than a month, it is to be stabilised using grass seeding or hydroseeding, with silt fences to remain in place until an 80% strike is achieved; and
- Silt fences shall be inspected daily to ensure they are operating effectively.

Mitigations

- Careful location of the topsoil stockpile sites in accordance with the criteria included in Section 5.7 of the Engineering and Infrastructure Report;
- Preliminary Erosion and Sediment Control Plan (refer to Appendix C in the Engineering and Infrastructure Report in **Appendix I** accompanying this AEE) including the controls discussed above.

Assessment

Any adverse environmental effects that are caused by the stock piling of topsoil on the site will be temporary in nature and can be managed through the careful location of the sites and through the criteria identified and the measures to manage the sites included in the Preliminary Erosion and Sediment Control Plan. It is considered that these measures would mean any adverse effects are less than minor or negligible with the mitigations proposed.

5.3.5 Deposition of unsuitable materials on site

As noted in the Section 5.2 of the Engineering and Infrastructure Report, it is anticipated that a cut to fill balance can be achieved for the site, with unsuitable material to be disposed of within the site, within areas not intended for building sites. This unsuitable material is likely to be comprised of organic material including excess topsoil and peaty material excavated in preparation of the roading subgrade.

Indicative locations for the disposal of unsuitable material are shown on Sheet 3 of the Scheme Plan (refer to **Appendix C**). The deposition of any unsuitable material on-site will significantly reduce construction traffic and dust emissions.

The actual and potential adverse environmental effects from the deposition of unsuitable material relate to dust and sediment runoff from a wet weather event. The effects of dust have been addressed above.

To minimise the potential adverse effects, the sites for the deposition of unsuitable material has been carefully located away from natural wetlands, buffer areas, lizard habitat, building platforms and overland drainage flow pathways and dwellings on nearby properties.

Any effects from sediment runoff with be managed by the provisions included in the Preliminary Erosion and Sediment Control Plan as discussed above in Section 5.1.1.

Mitigations

- Careful location of the sites for unsuitable material.

- Preliminary Erosion and Sediment Control Plan (refer to Appendix C in the Engineering and Infrastructure Report in **Appendix I** accompanying this AEE) including the controls discussed above in Section 5.1.1.

Assessment

Any adverse environmental effects that are caused by the deposition of unsuitable material on-site will be temporary in nature and can be managed through the careful location of the two sites as identified on the scheme plans, and through the measures included in the Preliminary Erosion and Sediment Control Plan. It is considered that these measures would mean any adverse effects are less than minor or negligible with the mitigations proposed.

5.4 Flood Hazard & Hydrology Effects

The proposed subdivision (including earthworks and infrastructure) has the potential to have flood hazard effects of the site from stormwater discharges and changes to ground levels that may increase flooding. Other potential effects include changing groundwater flows and the recharging of wetlands.

These potential effects have been addressed in detail in the discharge and land use resource consent applications lodged with GWRC, and are summarised here to inform the assessment of the relevant PDP provisions as assessed in Section 8 below.

5.4.1 Overview of Flood Hazard & Hydrological Investigations

Awa has investigated and assessed the potential flood hazard and hydrological impacts of the proposed subdivision (including earthworks and infrastructure), and the findings of these investigations are included in **Appendix H**. Awa have identified two distinct areas reflecting the two different subdivision methodologies and proposed mitigation measures: the northern area (rural life-style lots) and the southern area (residential) (refer to Figure 2 of the Awa Report).

RDCL has undertaken soakage testing at 7 locations across the site to determine soakage rates. These soakage tests returned rates between 120 mm and 1200 mm/hour. A 0.25 reduction factor has been applied to the soakage rate return values (as per the KCDC Subdivision and development Principles and Requirements document) to determine rates in key locations, discussed below.

An assessment of the hydrological impacts has been undertaken in HEC-HMS while the assessment of effects has been modelled using Mike Flood.

5.4.2 Flood Hazard

Northern Area - Soakage

The northern (rural life-style) area will encompass larger lot sizes in the order of 2,400m^2 to 2,800m^2. The primary form of stormwater mitigation for these lots will be via individual lot soakage.

Awa determined that given the larger lot sizes and natural rates associated with dune environment, mitigation via soakage field on the property is achievable. This methodology distributes the soakage over a dispersed area rather than concentrating discharge at a single location. Individual lot soakage devices will be sized at building consent stage for individual properties.

The hydrological impacts of the vehicle/pedestrian/cycle access to the northern area (rural life-style lots), including formalisation of the Tieko Street entrance, has been assessed in HEC-HMS. Under-drained bio-infiltration devices are proposed as the primary form of stormwater disposal and have been sized using a standard soakage calculation spreadsheet.

Northern Area – Flooding

The northern extent of the site is shown on the KCDC's flood hazard planning map as being affected by ponding (Figure 5 of the Awa Report). This plan incorporates flooding from sources including ponding and overflow paths from the local stormwater network and flooding from local waterways. It also incorporates a freeboard component, 500mm in the vicinity of open channels and 300mm on the ground surface ponding and is used to inform recommended building levels.

The inclusion of the Kapiti Expressway into the Waikanae River flood hazard model has modified the flood extent and depth in this location (Figure 6 of the Awa Report shows the base scenario).

Awa determined that while Lots 2, 3 and 5 have flooding within their boundaries in the base scenario, no earthworks or dwellings will be located within the base flood hazard extent and therefore no compensatory storage needs to be considered. Awa also determined that while Lots 6 and 7 are located within the freeboard water surface level of RL 6.1, fill earthworks will raise the building pad levels above this to RL 7.05 and RL 7.90 respectively.

Access to the northern area will via a formed right of way from Tieko Street (refer to **Figure 2** above). Run-off from this vehicle/pedestrian/cycle access has been assessed to determine if the level of mitigation required to ensure the increased discharge does not affect the surrounding area (refer to Sections 2.1.3 and 2.1.4 of the Awa Report). Peak discharge (l/s) and volume (m^3) were calculated for the access to the northern area, and soakage calculations using the soakage test results provided by RDCL were used to size under-drained bio-infiltration devices (refer to Appendix A of the Awa Report for full calculations).

Northern Area – Flood Mitigations

The following mitigations are proposed in the northern area to manage any effects of the proposed subdivision (including earthworks and infrastructure):

- Buildings – roof water to soakage field on each site; conditions to control building roof materials (i.e. restricting the use of zinc or copper roofing materials) and paint to minimise any contaminants from roofs;
- Elevated building platforms on Lots 6 and 7 within freeboard water surface level; and
- Under-drain bio-infiltration devices for run-off from access to northern area.

Southern Area – Soakage

The southern (residential) area will encompass smaller lot sizes with a majority in the order of 500 to 1,000m^2. Two larger lots, in the order of 4000 to 7000 m^2 are included in this area. The primary form of mitigation for these lots will be stormwater retention in a single retention device adjacent to Otaihanga Road.

Southern Area – Flooding

There are no areas of ponding or flood hazard shown on the KCDC flood hazard planning maps on the southern area.

Awa have modelled the peak flood depths for the 100-Year ARI climate change base scenario event which showed on-site flooding, within the southern area site extent, is localised to isolated low-lying areas (refer to Figure 12 of the Awa Report). There is no flooding from the open channel adjacent the site due to the throttling of flow from upstream restricting the volume and peak discharge into the channel.

Awa have determined that the modification of the land from greenfield to residential will increase peak discharge and volume associated with an increase in impervious cover and changes in levels to create building platforms where fill displaces storage volume. Awa have therefore recommended a number of mitigation measures, as outlined below.

Awa have modelled the peak flood depths for the 100-Year ARI climate change subdivision scenario (with the mitigations proposed) within the southern area extent. The result is the localised flooding has been removed, and the loss of storage from earthwork fill has been off-set by the addition of the compensatory storage area (refer to Figure 16 of the Awa Report).

It is noted that an area to the east of the site (owned by NZTA as part of the Kapiti Expressway) does have an increase in flood level due to the change of height of the lots within the adjoining subdivision site. This is proposed to be addressed by the addition of an overflow pipe from the isolated ponding area within the KCDC road reserve, and the inclusion of this additional volume in the compensatory storage area included within the subdivision site.

Modifications are also proposed to the downstream open channel connectivity (adjacent to Otaihanga Rd) to address any increase in off-site flood depths and levels in the downstream ponding area to the west.

Southern Area – Mitigations

- Provide an outlet controlled compensatory storage area to manage the impacts associated with earthworks (loss of existing flood storage) and subdivision (increased run-off). The concept design of the storage area has an invert level at RL 5.8 with a 'throttling' culvert leaving the storage area at RL 5.8. The downstream controlling culvert is at RL 5.75.
- Modify the open channel adjacent to Otaihanga Road as part of the formalisation of the compensatory storage area.
- Traditional kerb and channel will convey run-off from the subdivision to the low point adjacent to lots 36 and 37 where it will be captured by sumps and conveyed via pipe to the compensatory storage area.
- In the existing scenario an isolated area of ponding occurs adjacent to the Kāpiti Expressway. This will be maintained to its existing extent and depth in the subdivision scenario using an overflow pipe connected into the existing stormwater network which outlets to the compensatory storage area.
- A non-return valve upstream of the storage pond to mitigate the potential for backflow.
- Ground levels will be located above the top level of the pond and above the crest level of Otaihanga Road.

Assessment

Within the northern area (rural life-style lots), stormwater discharges from roofs will be to soakage field on each individual lot. As shown on Sheet 1 of the Scheme Plans (refer to **Appendix C**), it is likely that a number of rural lots will have buildings that will discharge stormwater from roofs within 100m of an identified natural wetland. Given the larger lot sizes and good soakage rates associated with the dune environment, mitigation via soakage is considered achievable. This methodology distributes the soakage over a dispersed area rather than concentrating discharge at a single location. Individual lot soakage devices will be sized at building consent stage.

In terms of the access to the northern rural life-style area from Tieko Street, swales will be used to convey run-off from the connected impervious areas to the under-drained bio-infiltration devices. The under-drained bio-infiltration devices have been sized to accommodate the peak discharge from the 100-YR ARI Climate Change rainfall event.

Overall Awa have determined that the Modelling results indicate the subdivision can be implemented with less than minor effects on surrounding flood levels and, within the subdivision, the proposed mitigation measures are sufficient to ensure the subdivision will not be flooded in a 100-YR ARI event including the impacts of climate change.

5.4.3 Groundwater Flows

RDCL site investigations showed groundwater levels encountered on the site varied from 1.4m – 2.9m below ground level (blg). Awa have used the RDCL findings to determine the hydrogeological effects of the earthworks and any stormwater mitigations on the groundwater flows. These matters are of direct relevance to the GWRC discharge consents, and are summarised here to inform the assessment of the relevant PDP provisions as assessed in Section 8 below.

Northern Area

In the northern area groundwater levels ranged from 1.4 (approx. RL 3.9) – 2.9m bgl (approx. RL 3.5), with the lower levels to the north. Awa have assessed the low point in the post-earthworks design, located on the boundary of Lots 5 and 6, to be RL 7.0 – at this point groundwater levels are approx. RL 3.5m between the design ground level and groundwater.

The under-drained bio-infiltration devices are also located adjacent this design low point. Given a depth of 1 metre to the base of the devices leaves a depth between the base of the device and groundwater of 2.5 metres.

The northern area contains the four identified natural wetlands, identified in the Wildlands Ecology Report (refer to **Appendix G**). Ensuring groundwater flows that recharge these natural wetlands are retained is important for their ecological health.

Southern Area

The southern area groundwater levels ranged from 1.6 (approx. RL 5.0) – 2.5m bgl (refer to Section 3.2 and Figure 1 in the RDCL Geotech Report).

The site drains under Otaihanga Road through a dip and dune landscape out to the Mazengarb Stream. Existing groundwater levels within the area are being controlled by the surrounding drains and culvert network which would have originally been constructed to drain low lying land for farming.

The culvert under Otaihanga Road, is at an invert level of RL 5.75. Given the underlying, highly transmissive, poorly graded sands Awa's experience is that groundwater will largely be controlled at a level similar to this invert.

Mitigation

To mitigate any adverse effects of the proposed subdivision (including earthworks and infrastructure) on the existing hydrological processes occurring within the natural wetland areas, the proposed design methodology will:

- Look to put all stormwater back into the ground by focusing on soakage solutions;
- Look to do this in a distributed way by having swales along the roads and soakage fields at household rain tank overflows; and
- For larger events runoff from roads will be directed via the swales to under-drained bio-infiltration devices at the low point in the road. These devices are designed to return all the runoff to ground.

Assessment

From the above assessments undertaken by RDCL and Awa, it can be determined that the post-earthworks design of the levels of the proposed subdivision will have less than minor effects on the flow of groundwater on the site because:

(a) The groundwater levels are well below the changed ground levels (as outlined above); and

(b) The soakage and drainage solutions developed for northern area (adjacent to the natural wetlands) allows for rain that falls on impervious surfaces to be returned to ground as close to the source as possible to avoid effects on the groundwater hydrology (see Section 2.1.6 of the Awa Report).

It is Awa's expectation in rural dune soils that there will rarely be significant runoff overland due to high natural soakage rates. For this reason, focusing the design on soakage to accommodate up to a 100-year climate change event, will in Awa's opinion map natural system responses to rainfall. Overland flows that do occur in events above the 100-year climate change event will be directed towards wetlands as is currently the case.

5.5 Geotechnical Effects

RDCL advise there are no active faults directly impacting the site identified in the New Zealand Active Faults Database (GNS Science, 2018)

GWRC hazard mapping for this region indicates the proposed subdivision has:

- A liquefaction risk category of 'high';
- A ground shaking hazard rating of 'moderate'; and
- A combined hazard rating of 'moderate-high' [RDCL Report; Section 2.2.3].

The RDCL investigations determined that the Ultimate Bearing Capacity of 300kPa is generally available across the site between 0.3m and 1.7m below ground level. These results indicate little or no risk of liquefaction hazards across the site, including free field and lateral spreading.

Based on the results and investigations, RDCL conclude the proposed subdivision is suitable from a geotechnical perspective.

Mitigations

The following mitigations are recommended (refer to the RDCL Geotechnical Report in **Appendix F**):

- Building setback of at least 5m is maintained from slopes > 15°; and
- NZS3604:2011 foundations are considered appropriate.

Assessment

While the RDCL investigations have determined that there is little or no risk of liquefaction hazards across the site, it has recommended two mitigation measures to ensure there is no geotechnical effects relating to slope stability and foundations of buildings. It is considered these two measures would manage any geotechnical risks associated with the proposed subdivision (and earthworks and infrastructure) and any adverse effects would be less than minor or negligible with the mitigations proposed.

5.6 Biodiversity Effects

The potential adverse effects of the proposed subdivision (including earthworks and infrastructure) relate to discharges within 100m of a natural wetland and the proposed earthworks and include:

- Loss of exotic vegetation and dune plant communities;
- Loss of habitat for avifauna;
- Loss of habitat for indigenous lizards;
- Wetland sedimentation;
- Impacts on wetland hydrology; and
- Stormwater runoff and contamination of receiving environments.

These matters have been assessed in detail collectively in and Wildlands Ecology Report (refer to **Appendix G**) and Awa Flood Hazard Report (refer to **Appendix H**).

These potential effects have been addressed in detail in the discharge and land use resource consent applications lodged with GWRC, and are summarised here to inform the assessment of the relevant PDP provisions as assessed in Section 8 below.

5.6.1 Loss of vegetation

The proposed subdivision design intends to avoid the loss of all indigenous vegetation, which primarily comprises kānuka. There may be some trimming of some of kānuka retained if this is required to improve the health of the stands. The proposal will remove retired grassland and exotic shelter belt tress that have been assessed by Wildlands as having limited ecological value.

The proposal also potentially adversely affects 9.74ha of low-lying modified dune habitat. The assessment by Wildlands determined there are no indigenous dune plant communities at the site given the extent of the modification by farming activities and the dominance of exotic plant species. Wildlands also considered that the dunes are no longer actively functioning as 'active dune systems' due to the stabilising effect of pasture grass and exotic shelterbelts. The proposal intends to retain the dominant dunes at the site, some of which will be planted with appropriate indigenous tree and shrub species.

Mitigation

- Retention of identified kānuka stands with pest plant management and underplanting within the groves.

Assessment

As identified by Wildlands, the site is highly modified by previous farming activities, and the proposed subdivision intends to retain the existing kānuka stands on the site. The removal of the retired grass pasture and exotic shelter belt is considered by Wildlands to have a less than minor adverse ecological effect. Wildlands has also determined that the adverse effects on indigenous dune communities are negligible and the loss of dune function is low. Overall it is considered that adverse environmental effects of the loss of vegetation through the proposed subdivision is less than minor or negligible.

5.6.2 Loss of habitat for avifauna

It is recognised that noise and movement associated with construction activities may disturb (such as during the breeding season) or temporarily displace bird species.

The subdivision has been planned to retain habitat for wetland birds, but the removal of the exotic shelterbelts will result in the localised loss of feeding and breeding habitat for indigenous bird species.

Mitigation

All woody vegetation to be removed outside of the bird breeding season (September – March (if possible).

Assessment

Wildlands have determined that the disturbance or temporary displacement effects caused by noise and movement associated with construction activities are likely to be no more than minor as the bird species present are all common and mobile. They also consider any disturbance during the breeding season is unlikely to result in more than minor adverse effects as any breeding individuals will be able to produce extra clutches to compensate for failed breeding attempts.

Furthermore, the bird species recorded at the site are all common and widespread and there is an abundance of similar habitat within the local area to which displaced birds can disperse.

Overall it is considered that any adverse effects of the proposed subdivision (including earthworks and infrastructure) are less than minor, and no specific mitigation is required.

5.6.3 Loss of habitat for indigenous lizards

The field surveys undertaken by Wildlands has determined there is a population of northern grass skink onsite, in low, but detectable numbers. The northern grass skink is classified as 'Not Threatened' by Hitchmough et al. (2016).

Earthworks onsite will adversely affect this population through injuries and/or deaths and loss of habitat. The species is legally protected from harm or destruction via the Wildlife Act 1953 and permits will be sought under that Act.

To compensate for the loss of habitat, it is proposed to establish a 1ha lizard habitat area on-site that will be fenced, planted and covenanted (refer to **Figure 3** above). The relocation of northern grass skink will be undertaken in accordance with a Lizard Relocation Management Plan to be submitted as part of the Wildlife Act permit.

Mitigation

- Provision of a new on-site 1ha lizard habitat area;
- Preparation of a Lizard Management Plan; and
- Wildlife Act permit.

Assessment

It is recognised that the earthworks associated with the proposed subdivision will have an adverse effect on the habitat and population of the of northern grass skink found on the site. Wildlands have calculated the area of habitat required to replace the current habitat as 1ha, and this has been set aside as part of the proposed subdivision. This area will be fenced, planted, and the Lot 5 title will have a covenant placed on it to retain this habitat. Relocation of the skink will be undertaken in accordance with a Management Plan and Wildlife Permit. It is considered that with the mitigations proposed, the adverse effects on the habitat and northern grass skink population can be managed to be no more than minor.

5.6.4 Wetland sedimentation

The assessment of the wetlands on the site undertaken by Wildlands has determined 4 wetlands meet the NPS-FM criteria for natural inland wetlands. While these wetlands are not recognised as significant in the KCDC District Plan, any natural wetland is considered significant under the RPS Policy P23 (refer to the planning assessment in Section 8 below) and the NPS-FM and NES-F.

As there are substantial earthworks proposed as part of the subdivision, undertaking earthworks in the vicinity of wetlands has the potential to result in sediment discharge into the wetland environment. The soil at the site is predominantly sand, which is easily mobilised during strong wind and rain events. This could result in reclamation of a wetland and a reduction in ecosystem services provided by wetlands such as water quality management and carbon sequestration.

The actual or potential adverse effects of sediment entering the wetlands has been addressed in Section 5.1.1 and 5.1.3 as part of the construction activities assessment.

Mitigation

- A Preliminary Erosion and Sediment Control Plan (refer to Appendix C in the Engineering and Infrastructure Report in **Appendix I** accompanying this AEE).

Assessment

It is acknowledged that sediment from earthworks entering a natural wetland can have a significant adverse environmental effect on a natural wetland ecosystem and water quality. Recognising this significance, the subdivision scheme plan has been substantially amended to ensure no earthworks are undertaken within the 10m buffer from natural wetlands required by the NES-F by shifting the roading infrastructure away from the wetland areas.

The Preliminary Erosion and Sediment Control Plan details the measures to be undertaken to ensure the GWRC's Erosion and Sediment Control Guidelines are complied with.

Based on the above, it is considered that the risk that sediment may enter a natural wetland during an extreme weather event has been managed, and any actual or potential adverse effects associated with

sediment entering a natural wetland from construction activities is negligible when considered with the mitigations proposed.

5.6.5 Impacts on wetland hydrology

Wildlands have identified the potential for adverse effects from the proposed subdivision (including earthworks and infrastructure) on the existing hydrological processes occurring within wetland areas.

This matters has been address through the design methodology adopted by Awa in the Flood Hazard Report (refer to **Appendix H**) that include on-site soakage pits on individual sites, swales and bio-filtration devices in the access to the northern area of the site, and storage retention in the southern area of the site. Wildlands concur with the design principles developed by Awa as discussed in Section 5.2 above.

Mitigation

To mitigate any adverse effects of the proposed subdivision (including earthworks and infrastructure) on the existing hydrological processes occurring within the wetland areas, the proposed design methodology will:

- Direct all stormwater back into the ground by focusing on soakage solutions;
- Look to do this in a distributed way by having swales along the roads and soakage fields at household rain tank overflows; and
- For larger events runoff from roads will be directed via the swales to under-drained bio-infiltration devices at the low point in the road. These devices are designed to return all the runoff to ground.

Assessment

Based on the findings of the Awa assessment and the mitigations proposed as outlined in Section 5.2 above, it is considered that any adverse effects on the wetland hydrology from the proposed subdivision (including earthworks and infrastructure) can be managed to be negligible.

5.6.6 Stormwater runoff and contamination of receiving environments

The discharge of stormwater from building roofs and the access road within 100m of a natural wetland (as defined in the NPS-FM) will only occur in the northern area of the proposed subdivision. There are actual and potential adverse effects associated with contaminants being in stormwater from roofs and the access road.

Awa investigated effects of stormwater discharges on natural wetlands as discussed in Section 5.2.3 above, and have proposed on-site soakage pits for the disposal of roof stormwater and a bio-infiltration device being part of the stormwater swales alongside the access road to minimise the risk of contaminants entering the groundwater.

Wildlands have determined that, in consideration of the Awa Report, the a combination of stormwater design measures and measures proposed in the Preliminary Erosion Control Sediment Plan to protect the wetland from the effects of sediment laden stormwater runoff in combination with the wetland buffers, will ensure that the wetlands are adequately protected.

Mitigation

The following mitigations are proposed in the northern area for discharges within 100m of a natural wetland to manage any effects of the proposed subdivision (including earthworks and infrastructure):

- Buildings – roof water to soakage field on each site; conditions to control building roof materials and paint to minimise any contaminants from roofs;

- Establishment of wetland buffers prior to the commencement of earthworks;
- Elevated building platforms on Lots 6 and 7 within freeboard water surface level; and
- Under-drain bio-infiltration devices for run-off from the access road to northern area.

Assessment

Based on the findings of the Awa assessment and the mitigations proposed as outlined in Section 5.2 above, it is considered that any adverse effects from stormwater runoff from the proposed subdivision (including earthworks and infrastructure) on natural wetlands is negligible.

5.7 Archaeological & Cultural Effects

5.7.1 Archaeological Effects

The proposed subdivision (including earthworks and infrastructure) involves earthworks as described in section 3.2.1 above, and has the potential to uncover archaeological sites of interest. An Archaeological Authority has been gained from Heritage New Zealand (27 January 2020) for earthworks proposed for an earlier subdivision scheme that involved much greater area and volume of earthworks than the current proposal. An Archaeological Assessment Report prepared by Kevin Jones, Archaeologist, support the application for the authorisation gained. An Archaeological Management Plan was also prepared and submitted to Heritage NZ for the earlier subdivision scheme plan. This authority also provided for a number of geotechnical test pits to be undertaken on the site which occurred on 27 and 28 February 2020.

As previously discussed above, due to the introduction of the NPS-FM, the proposed subdivision scheme plans have been significantly modified to avoid the natural inland wetlands located on the site, and Kevin Jones prepared a revised Archaeological Assessment Report dated 20 February 2021 based on the amended scheme plans (refer to **Appendix J**). This Report also incorporated the results of the archaeological monitoring of the Geotechnical Test [its undertaken in February 2020. While there have been a number of changes to the proposed subdivision scheme plans since then, they did not change the site footprint, as a result the Archaeological Assessment by Kevin Jones remains unchanged. Furthermore, Heritage NZ have advised that while a new authorisation is not required, they would like a copy of the final revised scheme plans (should resource consents be granted), and a revised Archaeological Management Plan to reflect these final scheme plans. These will be updated and providing accordingly (should resource consents be granted).

The Archaeological Report provides a summary of the documents researched that outline the settlement of the area in the early nineteenth century and the subsequent conflicts between tribes. Today the area of the proposed subdivision is recognised as part of the mana whenua of Te Ati Awa ki Whakarongotai. The general area of the proposed subdivision is just south of the Kaiwarehou Pa which is adjacent to the south bank of the Waikanae River.

From the site inspections and investigations Kevin Jones has determined:

- There is a high risk of finding archaeological remains on the hilly sections surrounding the northern wetland area (Wetland 1) based on the height of the dunes, proximity to wetland and to the wahi tapu Kaiwarehou
- The batters on land running along the western side of the Expressway will not contain archaeology
- The crests of the hills adjacent to and west of the top of the batters (the western extent of lots 6, 7, 8, 9 and 10 was likely to have archaeological sites
- There are likely to be continuations of the archaeological sites ArchSite R27/490, 544, 547, 548, 549 uncovered during M2PP excavations

- The dune crest of the building and earthwork exclusion zone in sections 29 – 30 is likely to contain archaeological sites
- Along the southwestern boundary adjacent to Otaihanga Road an area is being turned into a constructed wetland (lot 200) - this area would have originally been a natural wetland and may have played an important role in Māori subsistence with dune slopes around the wetland likely to contain archaeological sites relating to this
- The hill crest running approximately east-west through lot 30 has a series of linear depressions - due to their proximity and alignment Kevin Jones concluded these are a result of modern fencing and stock water facilities and are not archaeological sites
- On sections 10 and 11 there is a prominent broad based trench or linear depression across the crest of the ridge running east west - it runs for about 30 m and is about 2 m wide at the base; on the cadastral SO 12296 c. 1870 a dray track is marked running along the south side of the Waikanae River and taking a loop across the general area of the Mansell subdivision; this trench feature may be the base of the dray track at this position. It appears to have eased the passage across the crest of the sandhill and perhaps continued to the west along the ridge line of which the new road
- Retrolens historic aerial imagery of lot 43 at the northern end of the dune ridge shows a cluster of pits on the ridge crest - these were not observed on the field visit, it is possible these have already been destroyed

Overall Kevin Jones concluded that there are some signs of ancient settlement near the central and northern wetlands (and small valley to the south of the latter) and a trace of possible settlement disturbance near the former wetland by Otaihanga Road. Archaeological values that may be present on the site include: possible middens, haangi bases, horticulture etc.; possible dray track.

Future archaeological monitoring should cover under cutting and topsoil stripping in the vicinity of the wetlands on the site.

Mitigations

- Retention of the dunes and no build exclusion areas will ensure archaeological sites on these features will be untouched
- Monitoring of areas of interest (including in the vicinity of wetlands; ridge crests) identified in the Archaeological Assessment Report
- Undated Archaeological Management Plan and implement in accordance with Heritage NZ authorisation
- Accidental Discovery Protocols offered as a condition of consent

Assessment

Kevin Jones assesses the importance of the possible archaeological values that may be present on the site (middens, haangi bases, horticulture etc) and has determined that middens or haangi are very common on the Kapiti Coast and they are representative only with low to moderate significance. However, where they are found that will have moderate to high significance to tangata whenua.

In relation to the dray track, Kevin Jones identified there are widespread 19th C archaeological site type found throughout New Zealand and often recorded on 19th C maps. Where found these tracks are likely to be of low to moderate importance to tangata whenua.

Kevin Jones also identified that there remains a low to moderate risk that Kōiwi tangata (human bones) could be found on the site in the course of the re-contouring and bulk earthworks.

Overall it is considered that any adverse effects of the proposed subdivision (including earthworks and infrastructure) is less than minor with the mitigations proposed.

5.7.2 Cultural Effects

Ātiawa ki Whakarongotai (Ātiawa) are mana whenua and kaitiaki of all that between Kūkūtauāki and the Whareroa with overlapping interests with Ngāti Toarangatira to Paripari (the Ātiawa Takiwā). As kaitiaki, Ātiawa have a responsibility to protect the environment within the Ātiawa Takiwā.

The Ātiawa ki Whakarongotai Charitable Trust (the Trust) is the mandated iwi authority that represents the interests of Te Ātiawa. The Trust has previously provided mana whenua assessments on two earlier proposed subdivision schemes in April 2019 and December 2019. As discussed above, the proposed subdivision the subject of these resource consent applications is significantly different to the earlier proposals, and the trust has been provided with the latest scheme plans and have provided an updated mana whenua assessment. Please note that the Trust have requested that the Applicant does not disseminate any information shared in the Assessment, and only utilises the information for assessing the purposes of assessing the effects of the proposed works.

The following are the key cultural that may be affected by the proposed subdivision identified by the Ātiawa ki Whakarongotai Charitable Trust (from 2019 Assessment):

- Whakapapa
- Wairua
- Mana
- Māramatanga
- Te Ao Tūroa
- Mauri

The Trust has provided specific detail on how these values are affected, and the mitigations sought to address any adverse effects.

[NOTE: the Trust is providing an updated response to the proposed subdivision the subject of this application, and this will be forwarded to KCDC as soon as it is available]

Mitigations

Whakapapa

- The Applicant works with Ātiawa to seek ways in which the identity of Ātiawa can be reflected through the development including by utilising within the development existing Ātiawa names of sites, features and areas on or surrounding the site

Wairua

- The earthworks and building exclusion zone must not be altered without a further archaeological authority
- The applicant's archaeologist undertakes a monitoring programme to determine the likelihood or otherwise of archaeological sites on site and to guide prospective land purchasers as to whether or not a further archaeological authority is required to develop their property
- The Trust requests that opportunity is provided to the Trust to undertake a karakia prior to the monitoring programme beginning and that an iwi monitor to be on Site during the monitoring programme in accordance with Ātiawa's Cultural Monitoring Protocols
- In the event any earthworks on the Site uncovers koīwi tangata, then the Trust reserves its rights to reconsider our position on the development
- That the Trust's accidental discovery protocol is adopted as a consent condition and is used in the event archaeological sites are uncovered during earthworks (see Appendix A, Kaitiakitanga Plan)

Te Ao Tūroa

- The Trust requests that buildings are sufficiently setback from wetlands
- The Trust requests that buildings are excluded from ponding zones
- The Trust requests that impervious areas are avoided where possible
- The Trust requests that wetlands and dune systems are legally protected from future development through covenants

Mauri

- The Trust requests that the applicant establish a planting plan that addresses the planting of appropriate native species on the main dune and explores protecting this area through covenants. The planting plan should also explore opportunities for native vegetation planting throughout the site in open space areas where appropriate.
- Existing native vegetation remains on site or is replaced should they be required to be removed.

Assessment

The applicant has provided the Trust with the updated scheme plans and is seeking their response to the revised scheme. A comparative review of the latest scheme plans is being prepared for the Trust is by a cultural consultant, and is currently with the Trust for review.

Until such time as this comparative review is received, it is unclear whether the Trust has any further concerns regarding the amended proposed subdivision. It is noted that the amended proposal is for a much smaller earthworks volume and footprint, retains the earthworks exclusion and no build areas relating to dunes, and protects and enhances the natural wetlands that are all matters of interest to iwi.

The applicant has also previously indicated to the Trust that they wish to work together to provide the mitigations proposed by the Trust in its earlier reports outlined above.

Overall it is considered that should the Trust confirm it can support the amended proposal, that with the mitigations previously sought, any adverse effects on the cultural values of the site would be less than minor.

5.8 Positive Effects

Section 88 of the Act requires an assessment of environmental effects, and Section 3 of the Act includes positive effects as part of the definition of 'effect'.

For this proposed subdivision (including earthworks and infrastructure), the following positive effects can be anticipated:

- Sustainable management of a natural and physical resource – the use of land no longer viable for farming;
- Wetland protection and improvement;
- Improvement of the existing Kānuka Groves
- Development in a location well serviced by existing infrastructure;
- Mix of residential types to meet housing demand on Kapiti Coast – Wellington Regional Growth Strategy; and
- Community benefits – walking and cycling; community recreational park; easy access to wider road network.

5.8.1 Sustainable Management of a Natural and Physical Resource

Section 5 of the Act requires the sustainable management of the use, development and protection of natural and physical resources while enabling people and communities to provide for their social and economic wellbeing, while ensuring environmental parameters are met.

The proposed subdivision (including earthworks and infrastructure) promotes the use of rural land that is no longer viable for farming to be sustainably managed. From the sustainable management of the rural land comes positive social and economic benefits to the community including more diverse housing opportunities.

5.8.2 Wetland improvements

In addition to the measures that have been identified above to manage and adverse effects on the natural wetlands on the site, the following protection and enhancement measures are also proposed (while the Wildlands Report only recommends these measures for Natural Wetlands 1 and 3, it is proposed to undertake the recommended measures for all natural wetlands on the site):

- Fencing all wetlands using seven-wire post and batten fencing with barbed upper and middle wires;
- Ten-metre buffer planting of natural wetlands to protect them from works on the adjacent land;
- Pest plant control within all the natural wetlands and planted buffer areas including, but not limited to, gorse and blackberry;
- Legally protect each natural inland wetland under covenants;
- All plants should be appropriately eco-sourced from the Foxton Ecological District. Maintenance and pest plant control will be required for a minimum of two years to ensure that the plants establish successfully. An indicative plant schedule for the wetland buffers is provided in Table 3 of the Wildlands Ecology, to be finalised within a planting plan.

5.8.3 Housing benefits

The proposal does have benefits by providing an additional mix of housing typology in the Kapiti District. This mix will include rural residential, and more affordable residential which is consistent with the RPS and the NPS-Urban Development 2020. A detail assessment of the proposed subdivision against the requirements of the National Policy Statement -Urban Development Capacity and the Wellington Regional Growth Framework is provided in Section 8 of this AEE.

5.8.4 Community benefits

The proposal does have wider community benefits by enhancing the walking, cycling and bridleway linkages with Kapiti Expressway that brings health and wellbeing; includes a community recreational park in a location that can be accessed from Otaihanga Rd and would be available to the wider community, and economic benefits in the form of construction jobs. Also easy access to the wider road network and to central Paraparaumu and Waikanae via the old SH1 route.

5.9 Summary

The following table summarises the potential adverse effects of the proposed subdivision (including earthworks and infrastructure) on the environment:

Topic	Activity	Mitigations Proposed	Assessment of effects after mitigation
Landscape and Visual	Landscape modified Rural-residential in northern area Higher density residential in southern area	Landscape Concept Plan Careful location of high density residential Street planting for amenity Walking/cycling/bridleway No build areas; retention of dunes Careful design of fencing Wetland 10m buffer fencing/planting[3] Kānuka stands 10m buffer	Less than minor; negligible
Traffic	Traffic generation	New intersection with right turning bay	Less than minor; negligible
	Intersection/access safety	Trim/removal vegetation (including at the Tieko Street intersection) and controlled planting New intersection on Otaihanga Road with right turning bay	Less than minor; negligible
	Shared Use Path	Design using CPTED guidelines Controlled planting Work with KCDC for safe pedestrian movement along Tieko Street	Less than minor
	Construction traffic	Construction Traffic Management Plan	Less than minor; negligible
Construction	Sediment entering water	Preliminary Erosion and Sediment Control Plan	Less than minor
	Erosion from land disturbance	Preliminary Erosion and Sediment Control Plan Minimum batter slope of 1V:2H for permanent batters A nominal setback of 5m from slopes > 15^0	Less than minor
	Dust	Preliminary Erosion and Sediment Control Plan	Less than minor

[3] Except for Wetland 6 (lot 1) as discussed in footnote 1 above.

	Topsoil storage sites	Careful location using criteria proposed Preliminary Erosion and Sediment Control Plan	Less than minor/negligible
	Deposition of unsuitable materials	Preliminary Erosion and Sediment Control Plan Careful location	Less than minor/negligible
Flood Hazard & Hydrological	Flood hazards	Design solutions Conditions Stormwater devices	Less than minor
	Groundwater flows	Design solutions Stormwater devices	Less than minor
Geotechnical	Slope stability Building foundations	Building setback Foundation standards	Less than minor/negligible
Biodiversity	Loss of exotic vegetation/dune communities	Retention of identified kānuka stands; pest plant management and underplanting	Less than minor/negligible
	Loss of habitat for avifauna	None specifically proposed	Less than minor
	Loss of habitat for indigenous lizards	1ha of lizard habitat Lizard Management Plan Wildlife permit	No more than minor
	Wetland sedimentation	Preliminary Erosion and Sediment Control Plan	Negligible
	Impacts on wetland hydrology	Design solutions Stormwater devices	Negligible
	Stormwater runoff and contamination of receiving environments	Design solutions Conditions Stormwater devices	Negligible
Archaeological	Archaeological values Dray track	No build exclusion areas on dunes Monitoring of earthworks Updated Archaeological MP Accidental Discover Protocol condition	Less than minor
Cultural	Cultural values	Utilising existing Ātiawa names	Less than minor (pending further

		Retain earthworks and building exclusion zone Archaeological Monitoring Accidental Discover Protocol condition Buildings setback from wetlands; excluded from ponding zones Avoid impervious surfaces Protect wetlands through covenants Planting plan Retain existing native vegetation or replace	response being received from iwi)

Table 3 – summary of assessment of adverse effects

This AEE has demonstrated that any actual and potential adverse environmental effects of the proposed subdivision (including earthworks and infrastructure) will be no more than minor (on lizard habitat), and less than minor or negligible on all other matters, and that there are positive social and economic benefits, including improved natural wetlands on the site, increasing the mix of housing typology in Kapiti, and community benefits with the additional measures proposed.

6 Consultation

Schedule 4 Clause 6 (1) (f) of the RMA requires a resource consent application to identify any persons affected by the activity, any consultation undertaken, and any response to the views of any person consulted.

The identification of any persons affected by the proposed subdivision (including earthworks and infrastructure) is undertaken in Section 7 below.

In terms of consultation, the applicant has consulted with Waka Kotahi (New Zealand Transport Agency) regarding the need to ensure any ponding on their property east of the site next to the Kapiti Expressway can be directed to the roadside drain (owned by KCDC). The proposal would mean the existing ponding on the Waka Kotahi site from the local catchment remains unchanged, and hydraulic neutrality is achieved. These discussions are on-going as Waka Kotahi currently reviewing the Certificate of Titles to check for any encumbrances. For avoidance of doubt the Applicant does not consider that a s176 RMA approval is required for these works, as there is no work proposed on Waka Kotahi's land, however in the event that discussions with Waka Kotahi determined that it is required, the Applicant confirms that that will be applied for as a separate application.

Local iwi Ātiawa ki Whakarongotai (Ātiawa) has been consulted during various stages of the project over the last several years, and to date have provided two CIAs. Iwi have been provided with an opportunity to review the final scheme plans and technical reports and a response will be provided to KCDC as soon as it is available. The key matters raised by the Ātiawa ki Whakarongotai Charitable Trust in its previous reports, and the responses to these matters, is outlined in Section 5.7.1 above.

Iwi are aware that applications have being made separately to GWRC for regional resource consents.

Two parties who have legal right of way over part of the property giving access to land on the eastern side of the Kapiti Expressway have been consulted about these access agreements.

The applicant has consulted with a number of neighbours over the years, including: Brent and Liz Waterhouse (115 Otaihanga Rd); Wlison and Deb Lattey; Katherine Corich and Marteen Van der Bas; Graham and Tracey Orchard (current tenant at 155 Otaihanga Rd), Paula Keene 68 Tieko Street; and John McKay 67 Tieko St.

7 Section 95 Notification Considerations

Section 95A of the Resource Management Act 1991(RMA) states when resource consent applications must be notified. In this case, the applicant has requested that the application be public notified as per Section 95A(3)(a).

By requesting the application to be publicly notified, there is no need to go through the notification considerations outlined in Sections 95A – 95E of the RMA.

8 Resource Management Act 1991

8.1 Part II (Purpose and Principles) – Sections 5, 6, 7 & 8

Part 2 of the Act provides a common set of principles to be applied to the management of all resources.

8.1.1 Section 5 Assessment

The Act has a single overarching purpose: to promote the sustainable management of natural and physical resources. Sustainable management is defined in Section 5 as "*managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural wellbeing and for their health and safety while –*

> *(a) Sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and*
>
> *(b) Safeguarding the life-supporting capacity of air, water, soil, and ecosystems; and*
>
> *(c) Avoiding, remedying, or mitigating any adverse effects of activities on the environment."*

The proposed subdivision (including earthworks and infrastructure) is considered to be consistent with the requirements of Section 5 of the Act as it will promote the sustainable management of the Mansell farm severed by the Kapiti Expressway as a natural and physical resource, safe-guards the life-supporting capacity of water, soil and ecosystems, and provides for a mix of housing type and associated social and economic wellbeing.

It is considered that any actual and potential adverse environmental effects of the proposed subdivision (including earthworks and infrastructure) will be no more than minor (on lizard habitat), and less than minor or negligible on all other matters considered with the mitigations proposed.

8.1.2 Section 6 Assessment

Section 6 of the Act describes the Matters of National Importance that are to be recognised and provided for. The following section 6 matters relevant to the site proposed to be subdivided:

> *(a) the preservation of the natural character of the … wetlands, and … their margins, and the protection of them from inappropriate subdivision, use and development;*
>
> *(c) the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna;*
>
> *(d) relationship of Māori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga;*

Assessment

In relation to sub-clause (a), as discussed in Section 3.2 above, the proposed subdivision (including earthworks and infrastructure) avoids any earthworks or infrastructure within or close to natural wetlands through the amended scheme plan that has responded to the requirements of the NPS-FM. The proposal also proposes to fence, remove pest plants, and plant appropriate wetland species within a 10m buffer area around natural wetlands[4], and proposes covenants be placed on the titles of those lots that contain a

[4] Refer to footnote 1 above.

natural wetland to ensure their long term protection. It is considered that these mitigations will ensure the natural character of the natural wetlands on the site will be preserved.

In relation to sub-clause (b), as discussed in Section 5.6.1 above, the proposal retains all of the kānuka stands on the site and therefore protection of this significant indigenous vegetation is provided for.

In relation to sub-clause (d), the relationship of Māori and the culture and traditions with water and sites has been considered as part of the development of the subdivision proposal, as discussed in Section 5.7.1 above.

8.1.3 Section 7 Assessment

Section 7 of the Act describes the 'Other Matters' that are to be given particular regard to. 'Other matters' relevant to the regional consents required for the proposed subdivision (including earthworks and infrastructure) include:

(b) the efficient use and development of natural and physical resources

(c) the maintenance and enhancement of amenity values;

(f) maintenance and enhancement of the quality of the environment

Assessment

In relation to sub-clause (b), the proposed subdivision (including earthworks and infrastructure) is considered to be an efficient use and development of a natural and physical resources. This part of the Mansell farm has been severed by the Kapiti Expressway and a combination of the size of the property, location and topography of the site means it is no longer economically viable to be used for rural farming activities.

In relation to sub-clause (c), the LVIA Report (refer to **Appendix D**) identifies the landscape and visual amenity values of the site. DCM have identified in Section 3.1.3 a number of elements of the proposed subdivision that will ensure landscape amenity values are maintained and enhanced, including:

- The existing amenity of the natural landscape is to be enhanced and retained through the planting and development of green networks connecting the wider landscape
- Shared pedestrian/cycle/bridleway connections to adjoining developments and access to areas which are not currently accessible enhances the amenity of the site
- Natural wetlands on the northern part of the site have been avoided, and in addition to mitigation measures proposed to manage any adverse environmental effects discussed in Section 5.6 above, a number of protection and enhancement measures have been proposed, as discussed in Section 5.6.6 above, to improve the natural wetlands on the site
- The provision of a community park (lot 105) connected to the residential activity in the southern area will also enhance the amenity value of this area

In relation to visual amenity, as discussed in Section 5.1.2 above, the open, rural residential character will be maintained for lots 1 -19, while the scale and bulk and location of the higher density of lots 20-49 would allow it to appear as a natural extension of existing development within Otaihanga, with an anticipated low magnitude of change to the existing visual amenity.

In relation to sub-clause (f), the proposed subdivision has been carefully designed to ensure the existing rural-residential nature of the environment is retained in the northern area including the retention and protection of natural wetlands and kānuka stands, while residential use is proposed in the southern area similar to the nearby Otaihanga urban area. The inclusion of a community park (lot 105) to service the southern area, and the proposed walkway/cycleway/bridleway connections through the site to the surrounding Otaihanga community will ensure the quality of the environment is maintained and enhanced.

Overall it is considered the proposed subdivision (including earthworks and infrastructure) is consistent with the above other matters that have to be given regard to.

8.1.4 Section 8 Assessment

Section 8 of the Act sets out the purposes and principles relevant to the Treaty of Waitangi:

> *In achieving the purpose of this Act, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall take into account the principles of the Treaty of Waitangi (Te Tiriti o Waitangi).*

These principles have been taken into account in the development of the proposed subdivision (including earthworks and infrastructure). Iwi have provided their views on earlier subdivision scheme plans and the archaeological assessment, and have been asked to provide their view on the final scheme plans and technical reports supporting this consent application, as outlined in Section 5.7.2 above.

8.2 Section 104 Assessment

8.2.1 Section 104D

As the proposed subdivision (including earthworks and infrastructure) requires a non-complying resource consent under Rules 7A.5.3 and 11B.5.1 (refer to Section 8.2.8 below), there is a need to assess the proposal against the two-gateway test under section 104 (D) of the Act, being whether the adverse effects of the proposed activity are minor; OR that the proposed activity is not contrary to the objectives and policies of an operative or proposed plan. The activity must meet one of these 'gateway' tests.

To pass the first 'limb' of section 104 (D), the Council must be satisfied that the adverse effects of the activity on the environment will be minor. The test is not that there would be no adverse effects or 'less than minor' adverse effects, but that the effects are 'minor' but not 'more than minor'. In determining whether the adverse effects are 'minor', regard has to be given to any avoiding, remedying or mitigating of the effects that may be achieved by imposing conditions.

Section 5 of this AEE assesses in detail the actual and potential adverse environmental effects that could be reasonably expected from the proposed subdivision (including earthworks and infrastructure). These potential adverse effects relate to:

- Landscape effects – landscape character; natural character; visual amenity
- Traffic effects – traffic generation; intersection/access safety; shared use path; construction traffic
- Construction effects – sediment entering water; erosion from land disturbance; dust; spoil sites; deposition of unusable material
- Flood hazard effects – flood hazards; groundwater flows
- Geotechnical effects – slope stability; building foundations
- Biodiversity effects – loss of vegetation; loss of habitat for avifauna; loss of habitat for indigenous lizards; wetland sedimentation; impacts on wetland hydrology; stormwater runoff and contamination of the receiving environment
- Archaeological effects – values; dray track
- Cultural effects - values

Where required, mitigations have been proposed to ensure the potential adverse effects are managed to acceptable levels. A summary of the potential adverse effects and the mitigations proposed is included in Table 3 in Section 5.9 above. The overall conclusion is that with the mitigations proposed, any actual and potential adverse environmental effects of the proposed subdivision (including earthworks and

infrastructure) will be no more than minor (on lizard habitat), and less than minor or negligible on all other matters considered with the mitigations proposed, and meets the first 'limb' of the section 104D assessment.

In relation to the second 'limb' of section 104 (D), case law has determined that "not contrary to" means that a proposal is not opposed to or 'repugnant to' objectives and policies of the relevant plan(s). Objectives and policies in plan(s) need to be considered and read collectively, and a broad judgement is required. While a proposed activity may seem contrary to a single objective or policy, this does not mean the proposed activity is contrary to overall objectives and policies of the plan, and can still meet the second 'limb'.

In this case, the relevant objectives and policies are included in the NPS-FM, Wellington Regional Policy Statement (RPS), Proposed Natural Resources Plan (PNRP), and Kapiti Coast Proposed District Plan (PDP). A detail assessment of the objectives and policies in relevant planning instruments and consideration as to whether the proposed subdivision (including earthworks and infrastructure) is contrary to any of these provisions is provided below. That assessment concludes there proposal is not contrary to the relevant objectives and policies are included in the NPS-FM, RPS, PNRP, and PDP and meets the second 'limb' of the section 104D assessment.

Overall, it is considered that:

- Any adverse environmental effects of the proposed subdivision (including earthworks and infrastructure) will be no more than minor (on lizard habitat), and less than minor or negligible on all other matters considered with the mitigations proposed.
- The proposed subdivision (including earthworks and infrastructure) is not contrary to the objectives and policies of relevant planning mechanisms

It is therefore considered that the proposed subdivision (including earthworks and infrastructure) can meet one or both of the 'gateway' tests, and proceed through to a section 104 assessment accordingly.

8.2.2 Section 104 (1)(a)

This section of the Act requires that regard is given to any actual and potential effects on the environment of allowing the activity.

An assessment of the actual and potential adverse environmental effects of the proposed subdivision (including earthworks and infrastructure) is included in Section 5 of this AEE. The actual and potential effects assessed relevant to the regional resource consent required are associated with landscape/natural character and visual amenity; traffic; construction activities; flood hazard and hydrological; geotechnical; biodiversity; archaeological and cultural matters. Where required, mitigations have been proposed to ensure the potential adverse effects are managed to acceptable levels. A summary of the potential adverse effects and the mitigations proposed is included in Table 3 in Section 5.9 above.

This assessment has determined that any adverse environmental effects of the proposed subdivision (including earthworks and infrastructure) will be no more than minor (on lizard habitat), and less than minor or negligible on all other matters considered with the mitigations proposed. The proposal does have positive effects including the sustainable management of the Mansell farm severed by the Kapiti Expressway as a physical and natural resources, protection and enhancement measures to improve natural wetlands on the site, an increase in the typology of housing in the district, and social and economic benefits.

8.2.3 Section 104 (1)(b)(i)

This section of the Act requires that regard be given to any national environmental standard that is relevant to the proposal.

The Resource Management Act (National Environmental Standards for Freshwater) Regulations 2020 (NES-F) is relevant to the proposed subdivision (including earthworks and infrastructure) which proposes the discharge of stormwater in the northern area (rural life-style lots) within 100m of a natural wetland. A non-complying activity resource consent is required under Regulation 54 of the NES-F, and a discharge consent application has been lodged with GWRC accordingly.

The proposal also includes the removal of pest weeds and the planting of appropriate wetland species to restore the natural wetlands. These activities are permitted under Regulation 38 of the NES-F. A copy of the application and supporting AEE lodged with GWRC can be provided on request.

8.2.4 Section 104 (1)(b)(ii)

This section of the Act requires that regard be given to any 'other regulations' relevant to the proposal.

There are no 'other regulations' relevant to the proposed subdivision (including earthworks and infrastructure).

8.2.5 Section 104 (1)(b)(iii)

This section of the Act requires that regard be given to any national policy statement that is relevant to the proposal.

The National Policy Statement for Freshwater Management 2020 (NPS-FM)

The NPS-FM is relevant to the proposed subdivision (including earthworks and infrastructure). In particular, as assessed in the Ecology Report (refer to **Appendix G**) and discussed in Sections 2 and 5 above, there are 4 natural wetlands on the site that meet the criteria included in the NPS-FM and are classified as natural inland wetlands. The NPS-FM objectives and policies relevant to the proposed subdivision (including earthworks and infrastructure) are considered to be:

Objective

The objective of this National Policy Statement is to ensure that natural and physical resources are managed in a way that prioritises:

(a) first, the health and well-being of water bodies and freshwater ecosystems
(b) second, the health needs of people (such as drinking water)
(c) third, the ability of people and communities to provide for their social, economic, and cultural well-being, now and in the future.

Policies

Policy 6 - There is no further loss of extent of natural inland wetlands, their values are protected, and their restoration is promoted

Policy 15 – Communities are enabled to provide for their social, economic, and cultural well-being in a way that is consistent with this National Policy Statement

Assessment

In relation to the **Objective**, the proposal ensures that all earthworks and building sites are outside the natural wetland 10m buffer areas required by the NES-F. This is in response to the first priority of the Objective to ensure the health and well-being of the water body and the freshwater ecosystem is managed. The potential or actual adverse effects from the discharge within 100m of a natural wetland have been assessed in Section 5 of this AEE as being less than minor or negligible with mitigations proposed by the technical experts. This will also contribute to how the health and well-being of the water body and the freshwater ecosystem is managed. The proposal also addresses the ability of people and communities to provide for their social, economic and cultural well-being for now and in the future.

In relation to **Policy 6**, as discussed in the Project Description in Section 3 above, the subdivision has been designed to ensure there is no further loss of extent of the 4 natural inland wetlands identified on the northern area of the site, and the values are protected and will be restored through the proposed weed pest control, plantings in the buffer areas, and fencing of all the buffer areas[5]. It is noted that the LVIA Report (Section 3.5.1) identifies the loss of amenity a matter a regional council should assess when considering a resource consent application for an activity that includes the loss of extent of wetland. While this application is for land use consents from the KCDC, it is noted the proposed subdivision does not include any loss of extent of the natural wetlands on the site, and the proposed enhancement and protection of the natural wetlands will retain and enhance associated amenity values.

In relation to **Policy 15**, as discussed in Section 5.8 above, there are positive benefits from the proposed subdivision (including an increase in the housing typology of the District; walking/cycling/bridleway facilities) that enables people and communities to provide for their social, economic and cultural well-being to be achieved in a way consistent with NPS-FM.

Overall it is considered that the proposed subdivision (including earthworks and infrastructure) is consistent with intent of the relevant objective and helps to achieve the outcomes sought in the policies of NPS-FM.

National Policy Statement on Urban Development 2020 (NPS-UD)

The NPS-UD aim to ensure town and cities are well-functioning urban environments that meet changing needs of a diverse community. The NPS-UD intends to do this by directing local authorities to enable greater supply and ensure planning is responsive to changes in demand in a form and in locations that meet the diverse needs of the community and encourages well-functioning, liveable urban environments.

While the NPS-UD requires a tier 1 or tier 2 local authority (KCDC is tier 1) to prepare a Housing and Business Development Capacity Assessment (HBA) and apply it to urban environments as a minimum, it may also apply to a wider area. The definition of *'urban environment'* includes land that is *'intended to be*' urban in character. KCDC is required to have completed the HBA by 31 July 2021, and give effect to the NPS-UD as soon as practicable.

The intent of the NPS-UD policies is for a local authority to produce more realistic evidence-based forecasts and projections of demand and the feasible development capacity that plans need to enable, and to understand the key drivers and demand and capacity for housing to be well placed to adapt to change in these.

The NPS-UD objectives and policies relevant to the proposed subdivision (including earthworks and infrastructure) are considered to be:

Objectives

Objective 1 *- New Zealand has well-functioning urban environments that enable all people and communities to provide for their social, economic, and cultural wellbeing, and for their health and safety, now and into the future.*

Objective 2*: Planning decisions improve housing affordability by supporting competitive land and development markets.*

Objective 4*: New Zealand's urban environments, including their amenity values, develop and change over time in response to the diverse and changing needs of people, communities, and future generations.*

Objective 6*: Local authority decisions on urban development that affect urban environments are:*

(a) integrated with infrastructure planning and funding decisions; and

[5] Refer to footnote 1

(b) strategic over the medium term and long term; and

(c) responsive, particularly in relation to proposals that would supply significant development capacity.

***Objective 8**: New Zealand's urban environments:*

(a) support reductions in greenhouse gas emissions; and

(b) are resilient to the current and future effects of climate change

Policies

***Policy 1**: Planning decisions contribute to well-functioning urban environments, which are urban environments that, as a minimum:*

(a) have or enable a variety of homes that:

(i) meet the needs, in terms of type, price, and location, of different households; and

(ii) enable Māori to express their cultural traditions and norms; and

(c) have good accessibility for all people between housing, jobs, community services, natural spaces, and open spaces, including by way of public or active transport; and

(f) are resilient to the likely current and future effects of climate change.

***Policy 6:** When making planning decisions that affect urban environments, decision-makers have particular regard to the following matters:*

(a) the planned urban built form anticipated by those RMA planning documents that have given effect to this National Policy Statement

(b) that the planned urban built form in those RMA planning documents may involve significant changes to an area, and those changes:

(i) may detract from amenity values appreciated by some people but improve amenity values appreciated by other people, communities, and future generations, including by providing increased and varied housing densities and types; and

(ii) are not, of themselves, an adverse effect

(c) the benefits of urban development that are consistent with well-functioning urban environments (as described in Policy 1)

(d) any relevant contribution that will be made to meeting the requirements of this National Policy Statement to provide or realise development capacity

(e) the likely current and future effects of climate change.

***Policy 8**: Local authority decisions affecting urban environments are responsive to plan changes that would add significantly to development capacity and contribute to well-functioning urban environments, even if the development capacity is:*

(a) unanticipated by RMA planning documents; or

(b) out-of-sequence with planned land release.

Assessment

The Wellington Region Housing and Business Capacity Assessment (HBA) 2017 in response to the NPS-UDC 2016 identified that there is sufficient residential development capacity at the District level to meet forecast demand for housing over the short term (2017 – 2020) and medium term (2020 – 2027), but

insufficient capacity to meet demand across the long-term (2027 – 2047). It is understood KCDC is currently working on an updated HBA in response to the NPS-UD 2020.

The (draft) Wellington Regional Growth Framework (February 2021) (WRGF) provides a context for KCDC to prepare the updated HBA. This growth strategy identifies how the Wellington-Horowhenua region could accommodate a future population of 760,000 and an additional 100,000 jobs in the next 30 years, representing an additional 200,000 people living in the region. The predicted growth in Wellington region will be facilitated and enabled by completion of transport infrastructure. The WRGF recommends (amongst other things) further investigation into greenfield sites north of Paraparaumu.

To respond to the forecast growth predictions over the next 30 years in the Kapiti District, KCDC will need to adopt a range of approaches to ensuring urban capacity is provided including intensification in existing urban areas and identifying greenfield and enabling development. Providing developing capacity is contingent on available land and servicing by development infrastructure – water supply; wastewater; stormwater; transport links etc.

It is understood that as part of preparing the HBA, KCDC is undertaking initial investigations to determine the appropriateness of land currently zoned rural-residential for future urban development, including the site the subject of this consent application.

From an urban design perspective, DCM have determined the proposed subdivision is a natural extension of existing residential development at Otaihanga. At the edge of existing residential settlement, the continuation of residential dwellings at a similar density is likely to be seen as an anticipated natural extension when compared to the broader context. While the proposed density is higher than the existing environment, the proposed subdivision retains similar levels of density when compared to nearby residential development in Tieko and Pitoitoi Streets. DCM consider that the subdivision area is in-sequence developments adding to developments capacity of the receiving area, while retaining a similar level to existing surrounding development.

It is also considered that the site is suitable for future urban development, and meets the intent of the objectives and policies of the NPS-UD outlined above which focus on well-functioning, liveable urban environments. In particular the proposed subdivision (including earthworks and infrastructure):

- provides for rural life-style lots and more intensive residential lots that are more affordable and are not out of keeping with other intensive residential lots in the area;
- retains the rural-lifestyle amenity values in the northern area by retaining, protecting and enhancing the natural wetland areas and dominant dunes
- enhances residential amenity in the southern area by providing a community park, open spaces associated with the constructed wetland;
- improves walking/cycling/bridle activities through connectivity with the Kapiti Expressway CWB and existing paths along Otaihanga road;
- utilises the existing local road network that provides access to Waikanae, Paraparaumu and the Expressway; and
- is serviced by existing water supply, wastewater, and sewerage infrastructure and there is capacity to accommodate this development within existing services.

Overall it is considered that the proposed subdivision is on a site that is ideally suited for the typology of residential activity proposed, and is consistent with the intent of the objectives and policies of the NPS-UD.

8.2.6 Section 104 (1)(b)(iv)

This section of the Act requires that regard is given to any New Zealand Coastal Policy Statement 2010(NZCPS) that is relevant to the proposal. The purpose of the NZCPS is to achieve the sustainable management purpose of the RMA in relation to the coastal environment.

Under the PDP, the site is included within the Coastal Environment (Planning Map 9D). Due to the distance of the site from the Coastal Marine Area, and the only elements on the site relevant to the NZCPS being the dunes and natural wetlands (although they are not coastal wetlands), the objectives and policies of the NZCPS considered relevant to the proposed subdivision are:

Objectives

Objective 1 *- To safeguard the integrity, form, functioning and resilience of the coastal environment and sustain its ecosystems, including … dunes and land, by:*

- *maintaining or enhancing natural biological and physical processes in the coastal environment and recognising their dynamic, complex and interdependent nature;*
- *protecting representative or significant natural ecosystems and sites of biological importance and maintaining the diversity of New Zealand's indigenous coastal flora and fauna; and*

Objective 2 *- To preserve the natural character of the coastal environment and protect natural features and landscape values through:*

- *recognising the characteristics and qualities that contribute to natural character, natural features and landscape values and their location and distribution;*
- *identifying those areas where various forms of subdivision, use, and development would be inappropriate and protecting them from such activities; and*
- *encouraging restoration of the coastal environment.*

Objective 6 *- To enable people and communities to provide for their social, economic, and cultural wellbeing and their health and safety, through subdivision, use, and development, recognising that:*

- *the protection of the values of the coastal environment does not preclude use and development in appropriate places and forms, and within appropriate limits;*
- *some uses and developments which depend upon the use of natural and physical resources in the coastal environment are important to the social, economic and cultural wellbeing of people and communities;*

Policies

Policy 6 – Activities in the coastal environment

(1) In relation to the coastal environment:

> *(b) consider the rate at which built development and the associated public infrastructure should be enabled to provide for the reasonably foreseeable needs of population growth without compromising the other values of the coastal environment*
>
> *(f) consider where development that maintains the character of the existing built environment should be encouraged, and where development resulting in a change in character would be acceptable*
>
> *(j) where appropriate, buffer areas and sites of significant indigenous biological diversity …*

Policy 11 – Indigenous biological diversity (biodiversity)

To protect indigenous biological diversity in the coastal environment:

> *(b) avoid significant adverse effects and avoid, remedy or mitigate other adverse effects of activities on:*
>
> > *(iii) indigenous ecosystems and habitats that are only found in the coastal environment and are particularly vulnerable to modification, including … dunelands, …*

Policy 13 – Preservation of natural character

(1) To preserve the natural character of the coastal environment and to protect it from inappropriate subdivision, use, and development:

> *(b) avoid significant adverse effects and avoid, remedy or mitigate other adverse effects of activities on natural character in all other areas of the coastal environment;*

(2) Recognise that natural character is not the same as natural features and landscapes or amenity values and may include matters such as:

> *(a) natural elements, processes and patterns;*
>
> *(c) natural landforms such as … dunes, wetlands …;*

Policy 14 - Restoration of natural character

Promote restoration or rehabilitation of the natural character of the coastal environment, including by :

> *(a) Identifying areas and opportunities for restoration or rehabilitation; …*

Policy 15 – Natural features and natural landscapes

(1) To protect the natural features and natural landscapes … of the coastal environment from inappropriate subdivision, use, and development:

> *(b) avoid significant adverse effects and avoid, remedy or mitigate other adverse effects of activities on natural features and natural landscapes in the coastal environment;*

Assessment

Wildlands have identified that the site lies across dune land and has dune values related to the coastal environment. However, Wildlands have surveyed the site and have determined that there are no indigenous dune plant communities and the ecological values of the dunes on the property are low due to the vegetation present on the site being dominated by introduced species (Section 8.1 of the Ecology Report - refer to **Appendix G**).

In addition Wildlands consider in their Ecology Report the dunes are no longer functioning as 'active dunes' due to the stabilising effect the pasture grass and exotic shelterbelts on the site. The proposed subdivision retains the dominant dunes at the site, some of which will be planted with appropriate indigenous tree and shrub species (proposed as part of the landscape treatment accompanying the district land use consents).

Overall it has been determined by Wildlands that adverse effects indigenous dune communities are negligible and the loss of dune function is considered to be negligible.

From a landscape and natural character perspective, DCM determines in the LVIA Report (refer to **Appendix D**) that by creating no build and no earthworks areas (Earthwork and Building exclusion areas), the design has worked with the underlying landform (i.e. dominant dunes and ridges) to minimise proposed cut and fill works while creating build sites for additional housing for people (the community). Where earthworks are proposed, the scale of the dunes is much lower and have been modified to a degree by farming practices.

The installation of infrastructure has been minimised with low impact design solutions proposed for stormwater collection/detention and the road design being modified to avoid sensitive areas or result in significant amounts of earthworks. The type of infrastructure is considered appropriate for the needs of the future population without compromising other values of the coastal environment. The development will connect to the existing urban infrastructure, being an extension of the development in Tieko and Pitoitoi Streets.

DCM also determines the preservation of natural character has heavily influenced the design and layout of the proposed subdivision and landuse. Wetlands, native vegetation and important dune features have been identified and protected from development. Enhancement planting around wetlands is proposed, which will assist in restoring the natural character of these wetlands which are currently degraded with weed species and stock grazing. Existing stands of kānuka have been mapped and will be supplemented with additional plantings. This work is likely to create improved habitats for indigenous species.

Having regard to the intent of the objectives and relevant policy of the NZCPS to protect the values of the coastal environment while not precluding appropriate use and development, the findings of Wildlands that any effects on the values of the coastal environment and loss of dune function are negligible, and DCM that the land scape character and natural character of the coastal environment preserved, it is considered overall the proposed subdivision (including earthworks and infrastructure) with the mitigations proposed are consistent with the outcomes sought by the NZCPS.

8.2.7 Section 104 (1)(b)(v)

This section of the Act requires that regard is given to any regional policy statement that is relevant to the proposed subdivision (including earthworks and infrastructure). The Wellington Regional Policy Statement (operative April 2013) (RPS) is the relevant RPS for the area the proposal is located in.

As discussed above, an application for regional resource consents has been lodged with GWRC for the discharge of stormwater within 100m of a natural wetland. That resource consent application has addressed and assessed the proposed subdivision against the relevant RPS objectives and policies relating to: the quality of freshwater; functional and healthy ecosystems of water bodies; erosion and sediment control; and stormwater contamination. For completeness, these RPS provisions are:

- Objective 12 – The quantity and quality of fresh water; and associated Policies 40, 41 and 42
- Objective 13 – Protecting aquatic ecological function of water bodies; and associated Policy 43
- Objective 16 - Indigenous ecosystems and habitats with significant biodiversity values are maintained and restored to a healthy functioning state; and associated Policy 47
- Objective 29 - Land management practices do not accelerate soil erosion; and associated Policy 41

A copy of the regional resource consent application can be provided if KCDC wish to review the assessment of these RPS provisions.

The following RPS provisions are considered relevant to the district land use consents (i.e. natural character; natural features and landscapes; urban development) being sought for proposed subdivision (including earthworks and infrastructure):

Objectives and Policies

Objective 3 *– Habitats and features in the coastal environment that have significant indigenous biodiversity values are protected; and Habitats and features in the coastal environment that have recreational, cultural, historical or landscape values that are significant are protected from inappropriate subdivision, use and development.*

Policy 35*: Preserving the natural character of the coastal environment*

When considering an application for a resource consent, notice of requirement, or a change, variation or review of a district or regional plan, particular regard shall be given to preserving the natural character of the coastal environment by:

(b) protecting the values associated with … dune systems, including the unique physical processes that occur within and between them from inappropriate subdivision, use and development, so that healthy ecosystems are maintained;

(c) maintaining or enhancing amenity – such as, open space and scenic values – …;

(f) maintaining or enhancing biodiversity and the functioning of ecosystems; and

***Objective 4** - The natural character of the coastal environment is protected from the adverse effects of inappropriate subdivision, use and development*

***Policy 36**: Managing effects on natural character in the coastal environment*

When considering an application for a resource consent, notice of requirement or a change, variation or review of a district or regional plan, a determination shall be made as to whether an activity may affect natural character in the coastal environment, and in determining whether an activity is inappropriate particular regard shall be given to:

(b) the degree to which the natural character will be modified, damaged or destroyed including:

(i) the duration and frequency of any effect, and/or

(ii) the magnitude or scale of any effect;

(iii) the irreversibility of adverse effects on natural character values;

(iv) whether the activity will lead to cumulative adverse effects on the natural character of the site/area.

(c) the resilience of the site or area to change;

(d) the opportunities to remedy or mitigate previous damage to the natural character;

(e) the existing land uses on the site.

[Also **Policy 35** discussed above]

***Objective 22** - A compact well designed and sustainable regional form that has an integrated, safe and responsive transport network and:*

(e) urban development in existing urban areas, or when beyond urban areas, development that reinforces the region's existing urban form

(g) a range of housing (including affordable housing);

(h) integrated public open spaces;

(k) efficiently use existing infrastructure (including transport network infrastructure);

***Policy 55** - Maintaining a compact, well designed and sustainable regional form*

When considering an application for a resource consent, or a change, variation or review of a district plan for urban development beyond the region's urban areas (as at March 2009), particular regard shall be given to whether:

(a) the proposed development is the most appropriate option to achieve Objective 22; and

(b) the proposed development is consistent with the Council's growth and/or development framework or strategy that describes where and how future urban development should occur in that district; and/or

(c) a structure plan has been prepared.

***Policy 56** - Managing development in rural areas*

When considering an application for a resource consent or a change, variation or review of a district plan, in rural areas (as at March 2009), particular regard shall be given to whether:

(a) the proposal will result in a loss of productive capability of the rural area, including cumulative impacts that would reduce the potential for food and other primary production and reverse sensitivity issues for existing production activities, including extraction and distribution of aggregate minerals;

(b) the proposal will reduce aesthetic and open space values in rural areas between and around settlements;

(c) the proposal's location, design or density will minimise demand for non-renewable energy resources; and

(d) the proposal is consistent with the relevant city or district council growth and/or development framework or strategy that addresses future rural development; or

(e) in the absence of such a framework or strategy, the proposal will increase pressure for public services and infrastructure beyond existing infrastructure capacity.

Policy 58: Co-ordinating land use with development and operation of infrastructure

When considering an application for a resource consent, notice of requirement, or a plan change, variation or review of a district plan for subdivision, use or development, particular regard shall be given to whether the proposed subdivision, use or development is located and sequenced to:

(a) make efficient and safe use of existing infrastructure capacity; and/or

(b) coordinate with the development and operation of new infrastructure.

[Also **Policy 36** discussed above)]

Assessment

In relation to **Objective 3 and 4**, and **Policies 35 and 36** which address landscape character and natural character values, these matters have been addressed in detail in the LVIA (included in **Appendix D**) and the effects have been assessed in Section 5.1.1 above. To summarise, the site has natural wetlands (as determined using the NPS-FM criteria) that have significant indigenous biodiversity that are protected and restored through the subdivision proposal, and remnant dunes that have no build and earthworks exclusion zones on dominant dunes. The site is not identified an Outstanding Natural Landscape or Feature (ONLF) in the regional or district plans, but the proposal has identified and protected elements which contribute to the natural character of the coastal environment. Existing amenity of the natural landscape is to be enhanced and retained through the planting and development of green networks connecting the wider landscape.

In relation to **Objective 22**, and **Policies 55, 56 and 58** which relates to a compact urban form, DCM have addressed this matter in Section 3.5.2 of the LVIA Report. DCM determine that the form, density and layout of the design recognises the receiving environment, landscape and natural features which are of value, developing the site to a density which is appropriate for one which is on the edge of existing suburban development. The design has a high level of connectivity, while the development of long cul-de-sacs is not usually a preferred option from a traffic design perspective, connectivity has been retained by the provision of a shared path through the design linking Tieko Street to Otaihanga Road and has several other environmental benefits including reduction of the earthworks required, provides the ability to retain more remnant dune formation and is more sensitive to the protected wetland areas. Previous designs had a connected road but this would have resulted in significant earthworks close to wetlands and dune features, discounting this layout as an option. The proposal provides a mix of housing types with different lot sizes propose, and a community park for the higher density residential development within the southern area with shared use path linkages to the wider community.

As discussed above in Section 8.2.5, it is considered the proposed subdivision is consistent with the NPS-UD and the strategic growth directions included in the WRGF, and it understood KCDC is looking at this area as providing for future urban growth. The proposal utilises existing council utilities infrastructure, and the local transport infrastructure provides connectivity to Paraparaumu, Waikanae and the Kapiti Expressway.

While the subdivision is greenfield with the current district plan zoning being rural-residential, as discussed above the land is no longer economical to farm as it has been severed from the larger farm (to the east) by the Kapiti Expressway, and the proposed subdivision is an appropriate way of sustainably managing this natural and physical resource.

Overall, it is considered the proposed subdivision (including earthworks and infrastructure) is not contrary to the relevant objectives and policies of the RPS discussed above and achieves or contributes to many of the outcomes sought in the relevant provisions.

8.2.8 Section 104 (1)(b)(vi)

Section 104 (1)(b)(vi) of the Act requires that regard is given to any plan or proposed plan that is relevant to the proposed subdivision (including earthworks and infrastructure). The two relevant plans when considering the proposed subdivision (including earthworks and infrastructure) are the Wellington PNRP and the Kapiti Coast PDP.

Wellington Proposed Natural Resources Plan (PNRP)

Similar to above with respect to the RPS, the regional resource consent application has addressed and assessed the proposed subdivision against the relevant PNRP objectives and policies relating to: the quality of freshwater; functional and healthy ecosystems of water bodies; erosion and sediment control; and stormwater contamination. For completeness, the relevant PNRP objectives and policies included in the PNRP can be grouped into two areas:

- Fresh water bodies, including natural wetlands – Objectives 04, 023, 027, and 028; and policies P31, P37, P40, P41, P42
- Adverse effects of land use activities, including discharges and stormwater runoff – Objectives 044, 046, 047; and policies P67, P73, P79 and P95

A copy of the regional resource consent can be provided if KCDC wish to review the assessment of these PNRP provisions.

The following PNRP provisions are considered relevant to the district land use consents (i.e. natural character; natural features and landscapes; urban development) being sought for proposed subdivision (including earthworks and infrastructure). Points that area under appeal have been underlined or struck through accordingly.

Objectives

Objective 015 *- Kaitiakitanga is recognised and mana whenua actively participate in planning and decision-making in relation to the use, development and protection of natural and physical resources.*

Objective 017 *– The natural character of … natural wetlands, … is preserved and protected from inappropriate use and development.*

Objective 020 *– The hazard risk~~,~~ and residual hazard risk, ~~and adverse effects~~ from natural hazards and adverse effects of climate change, on people, the community and infrastructure are acceptable.*

Objective 032 *– Outstanding natural features and landscapes and their values are protected from inappropriate use and development.*

Policies

Policy P19 – Māori values

The cultural relationship of Māori with air, land and water shall be recognised and the adverse effects on this relationship and their values shall be minimised.

Policy P20 – Kaitiakitanga

Kaitiakitanga shall be recognised and provided for by involving mana whenua in the assessment and decision-making processes associated with use and development of natural and physical resources including;

(b) the identification and inclusion of mana whenua attributes and values in the kaitiaki information and monitoring strategy in accordance with Method M2, and

(c) identification of mana whenua values and attributes and their application through tikanga and kaupapa Māori in the maintenance and enhancement of mana whenua relationships with Ngā Taonga Nui a Kiwa.

Policy P24 – Assessing natural character

Areas of outstanding natural character in the … natural wetlands, will be preserved by:

(c) avoiding significant adverse effects and avoiding, remedying or mitigating other adverse effects of activities on all other areas of natural character.

Policy P28 – Hazard mitigation measures

Hard hazard engineering mitigation and protection methods shall be avoided except where it is necessary to protect existing development from unacceptable hazard risk, assessed using the risk-based approach~~,~~ and;

(a) any adverse effects are no more than minor, or

Policy P29 – Effects of climate change

Particular regard shall be given to the potential for climate change to threaten biodiversity, aquatic ecosystem health and mahinga kai, or to cause or exacerbate natural hazard events over at least the next 100 years that could adversely affect use and development including:

(c) stormwater ponding and impeded drainage, and

Policy P30 – Natural buffers

Provide for the restoration or enhancement of ~~The adverse effects of use and development on~~ natural features such … dunes or wetlands that buffer development from natural hazards ~~shall be~~ and ensure the adverse effects of use and development on them are minimised.

Policy P48 – Protection of ~~outstanding~~ natural features and landscapes

The natural features and landscapes … of … natural wetlands shall be protected from inappropriate use and development by:

(c) avoiding significant adverse effects and avoiding, remedying or mitigating other adverse effects of activities on all other natural features and landscapes.

Assessment

The relevant objectives and policies included in the PNRP can be grouped into three areas:

(a) Kaitiakitanga

(b) Natural character, natural features and landscape

(c) Hazards

Kaitiakitanga

The intent of **Objective O15**, and **Policies P19 and P20** is to ensure Māori values are recognised and mana whenua have a kaitiakitanga role in the assessment and decision-making processes associated with use and development.

As discussed in Sections 5.7.2, 6, and 8.1.2 above, local iwi have been consulted on the proposed subdivision (including earthworks and infrastructure) as the project has been developed over time, and have provided information on the values if the site and mitigations they wish to see be adopted to ensure these values are recognised and protected from any adverse effects.

[NOTE: the Trust is providing an updated response to the proposed subdivision the subject of this application, and this will be forwarded to KCDC as soon as it is available]

Natural Character, natural features and landscape

The intent of **Objectives O17, 032** and Policies **P24, P48** is to preserve and protect (in this case) the natural character of natural wetlands, from inappropriate subdivision, use and development, and to ensure outstanding natural landscapes and features are protected from inappropriate use and development.

The site is not identified as an Outstanding Natural Landscape or Feature (ONL/F) in the PNRP (or the KCDC PDP). Notwithstanding this, the proposal has identified, and protected, elements which contribute to the natural character of the coastal environment. In particular the proposed subdivision design avoids earthworks and building in and adjacent to habitats (natural wetlands) and features (dominant dunes) in the coastal environment that have significant natural character and landscape values. As a result, as determined in Section 5 above, with the mitigations proposed including for natural wetlands a 10m buffer area to be fenced, pest weeds removed, and planting of appropriate wetland native species and legal protection through consent notices on the titles of relevant new lots, and the major dune forms protected by the creation of Earthworks and Buildings Exclusion areas, any potential adverse environmental effects are considered to be less than minor or negligible, as required by Policies P24 and P48.

DCM have determined in the LVIA that the form, density and layout of the design recognises the receiving environment, landscape and natural character features which are of value, developing the site to a density which is appropriate for one which is on the edge of existing suburban development.

Overall it is considered that the proposed subdivision (including earthworks and infrastructure) with the mitigations proposed is consistent with and implements the intent of **Objectives O17, 032** and Policies **P24, P48**.

Hazards

The intent of **Objective O20** and Policies **P28, P29, P30** is to ensure the risks from natural hazards, and in this case flooding, and the adverse effects of climate change on people, the community and infrastructure are managed to acceptable levels (i.e. no more than minor).

Awa have investigated the current flood hazard experienced on the site and have designed different stormwater systems for the northern area (life-style lots) and southern area (residential lots) as outlined in sections 3.2.1 and 5.4.2 above, and in detail in the Flood Hazard Report (refer to **Appendix H**). Overall Awa have determined that the Modelling results indicate the subdivision can be implemented with less than minor effects on surrounding flood levels and, within the subdivision, the proposed mitigation measures are sufficient to ensure the subdivision will not be flooded in a 100-YR ARI event including the impacts of climate change.

Section 5.4 above assesses the potential effects of the proposed subdivision (including earthworks and infrastructure) on flood hazards and groundwater flows, and determines that with the drainage solutions, stormwater devices and conditions proposed any adverse effects will be less than minor.

It is therefore considered that the proposed subdivision is consistent with and implements the intent of **Objective O20** and Policies **P28, P29, P30**.

Overall, and based on the above assessments relating to: kaitiakitanga natural features, natural character and landscape; and natural hazards, it is considered the proposed subdivision (including earthworks and infrastructure) is consistent with the relevant objectives and policies of the PNRP.

Kapiti Coast Proposed District Plan (PDP)

As discussed in Section 4.1 above, the PDP will become operative on 30 June 2021. This resource consent has been assessed against the provisions of the 2018 Appeals version which is the most recent version of the PDP available at the time of preparing the application. The provisions of the previous operative Kapiti Coast District Plan have not been considered in this application.

Objectives and Policies

There are a considerable number of objectives and policies included in the PDP that are considered relevant to the proposed subdivision (including earthworks and infrastructure). For completeness and easy reference, these relevant objectives and policies are included verbatim in **Appendix K** of this AEE.

In order to assess the proposal against the objectives and policies, these have been grouped under topics and assessed below:

Tangata Whenua – Objective 2.1; Policies 3.10, 11.3

The general intent of these provisions is to ensure tangata whenua have an opportunity to exercise kaitiakitanga in the management of the District's resources.

As discussed in Sections 5.7.2, 6, and 8.1.2 above, local iwi have been consulted on the proposed subdivision (including earthworks and infrastructure) as the project has been developed over time, and have provided information on the values if the site and mitigations they wish to see be adopted to ensure these values are recognised and protected from any adverse effects.

[NOTE: the Trust is providing an updated response to the proposed subdivision the subject of this application, and this will be forwarded to KCDC as soon as it is available]

Indigenous biodiversity – Objective 2.2; Policies 3.1, 3.3, 3.8, 3.8A, 3.9

The general intent of these provisions is to ensure significant indigenous vegetation and significant habitats of indigenous fauna are protected and the ecological integrity of indigenous ecosystems are restored. Adverse effects are required to be manged using a range of mechanisms included in Policy 3.8. The potential adverse effects of the proposed subdivision (including earthworks and infrastructure) have been have been assessed in detail collectively in and Wildlands Ecology Report (refer to **Appendix G** and Awa Flood Hazard Report (refer to **Appendix H**, and summarised in Section 5.6 above. These adverse effects relate to:

- Loss of exotic vegetation and dune plant communities;
- Loss of habitat for avifauna;
- Loss of habitat for indigenous lizards;
- Wetland sedimentation;
- Impacts on wetland hydrology; and
- Stormwater runoff and contamination of receiving environments

A suite of mitigation measures are proposed to manage these effects to acceptable levels, including:

- Retention of identified kānuka stands; pest plant management and underplanting
- 1ha of lizard habitat around the northern natural wetland; Lizard Management Plan; Wildlife Act permit
- Erosion and Sediment Control Plan
- Design solutions
- Stormwater devices
- Conditions on any consents granted

Overall it is considered that the proposed subdivision (including earthworks and infrastructure) with the mitigations proposed is consistent with the objectives and policies in the PDP relating to indigenous biodiversity and will ensure significant indigenous vegetation and significant habitats of indigenous fauna are protected, the ecological integrity of indigenous ecosystems (natural wetlands and kānuka stands) are restored, and any adverse effects will be managed to acceptable levels.

Urban form; built environment; infrastructure – Objectives 2.3, 2.12, 2.13, 2.14; Policies DW1, DW3, DW4, DW5, DW16, DW17, 11.7, 11.11, 11.14, 11.16, 11.18, 11.19, 11.20, 11.30, 11.31, 11.35, 11.36

The general intent of these provisions is to ensure urban form is maintained and consolidated within existing and identified growth areas, efficiently serviced by infrastructure (including network utilities and transport), provides housing forms and types to meet future demand with quality urban design outcomes.

In terms of urban form and housing form and type, DCM notes the site is positioned between the existing low density suburban development of Otaihanga and the Expressway with the receiving environment having a rural-residential character on the fringe of urban development. As discussed in Section 8.2.5 above, it is understood this area is being considered by KCDC as a future growth area in response to the Wellington Regional Growth Framework and the need to predicted growth in Kapiti.

DCM also notes the proposal has been designed with high density development (lots 20-49) located where the landscape can readily absorb more housing while less houses are planned in the area which is more open and has higher landscape character (lots 1-19). The density proposed strikes a good balance between providing much needed additional dwellings and working with the existing landform to retain its character. Building bulk and scale are managed through the creation of non-build areas to ensure future buildings are visually subservient to existing landforms, retaining a high degree of local amenity and character.

In terms of the site being serviced by the necessary infrastructure, the site is well positioned to provide the necessary wastewater, water supply, stormwater and power and telecommunication utilities required by the subdivision, as discussed in the Engineering and Infrastructure Report (refer to **Appendix I**) and summarised in Section 3.2.1 above. The Transport Assessment Report (refer to **Appendix E**) also determines the proposed access to the site is safe with the mitigations proposed. The proposed subdivision will have less than minor or negligible effects on the existing local road network, and has good connectivity with nearby urban areas.

Overall it is considered that the proposed subdivision (including earthworks and infrastructure) with the mitigations proposed is consistent with the objectives and policies in the PDP relating to urban form, built environment and infrastructure and will provide a mix of housing typology to meet demands for rural residential and residential properties, will provide a high quality environment with high amenity values in both areas, and can provide the infrastructure necessary to service the proposal.

Rural developments – Policies 7.2, 7.10, 7.11

The general intent of these provisions is to ensure subdivision, use and development in the rural zones maintain or enhance the rural character including a general sense of openness, natural landforms, low density of development and predominance of primary production activities. There is also an intent to ensure environmental effects of new residential activities are controlled, particularly in relation to location.

It is considered that a general sense of openness will be maintained for the majority of site by protecting and enhancing the natural wetlands and existing kānuka stands, excluding building and earthworks on the dominant dunes and ridgelines in the northern area (life style lots), and through the constructed wetland and the provision of a community park for the southern area (residential lots). Controls on the location of development, including building location in the rural lifestyle lots and fencing, will ensure natural landforms are largely unaffected. The higher density residential area (but still considered low density in urban terms) is located in a less sensitive area, close to Otaihanga Road and the Expressway. DCM has determined that the lots close to Otaihanga will be seen as an extension of existing residential development on Tieko and Pitoitoi Streets which front Otaihanga Road.

As previously discussed above, the Kapiti Expressway has already severed the original Mansell farm and has reduced any primary production potential of the site.

Overall it is considered that the proposed subdivision (including earthworks and infrastructure) with the mitigations proposed is consistent with the objectives and policies in the PDP relating to rural developments as it will maintain and enhance the rural character, particularly in the northern area, and any

potential environmental effects of the new residential activities are managed through the scheme design and mitigations proposed.

Natural hazards – Objective 2.5; Policies 9.2, 9.3, 9.4, 9.5, 9.10, 9.11, 9.13, 9.16, 9.18

The general intent of these provisions is to ensure any increase in the levels of risk from natural hazards on people and communities from subdivision, use and development are avoided. The policies specify a range of mechanisms designed to ensure this outcome is achieved, including flood and erosion-free building areas based on 1% AEP flood modelling. The key natural hazard relevant to the site is flood hazard, with ponding areas located on areas of the site as outlined in Section 2.1 above. Also relevant is the subdivision is located on sandy soils.

Awa have undertaken flood modelling for the 100-year ARI with climate change, as outlined in Section 3.1 of the Flood Hazard Report (refer to **Appendix H** of this AEE). The potential effects of the proposed subdivision (including earthworks and infrastructure) has been provided in Section 5.4.2 above. Awa have determined that the Modelling results indicate the subdivision can be implemented with less than minor effects on surrounding flood levels and, within the subdivision, the proposed mitigation measures are sufficient to ensure the subdivision will not be flooded in a 100-YR ARI event including the impacts of climate change. Specifically the mitigations have ensured flood-free building areas in all lots (i.e. outside of any ponding areas), as required by Policy 9.10. The assessment of the potential flood hazard effects has determined that with the mitigations proposed (including design solutions; conditions; and stormwater devices) and adverse effects would be less than minor.

In relation to natural features and the role they play in flood hazards, the existing natural inland wetlands are to remain with buffers to provide further protection. The location of building footprints are to be setback from the wetland areas and the main dune features to be retained.

In relation to the location of the proposed subdivision on sandy soils, a geotechnical investigation has been undertaken by RDCL and their findings are included in the Geotechnical Report (refer to **Appendix F**) and the effects are assessed in Section 5.5 above. While the RDCL investigations have determined that there is little or no risk of liquefaction hazards across the site, it has recommended two mitigation measures to ensure there is no geotechnical effects relating to slope stability and foundations of buildings. With these mitigations it is considered any adverse effects would be less than minor or negligible.

Overall it is considered that the proposed subdivision (including earthworks and infrastructure) with the mitigations proposed is consistent with the objectives and policies in the PDP relating to ensuring any increase in the levels of risk from natural hazards on people and communities are avoided.

Productive land – Objectives 2.3, 2.6

The general intent of these provisions is to ensure productive potential of land is sustained. As discussed above in Sections 2.1 and 2.2, and rural developments above, the Mansell farm has been severed by the Kapiti Expressway, with the larger land holding now on the eastern side of the Expressway. The western side of the site is now not economically viable for normal farming activities, and the location and topography of the land restricts any other type of primary production. In the context of the Wellington Regions Growth Strategy, and the future growth forecasts for the Kapiti District, it is considered appropriate for this land to be utilised for a range of residential activities, as per the proposed subdivision.

Overall it is considered the proposed subdivision (including earthworks and infrastructure) is not contrary to the relevant objectives seeking to ensure the productive potential of land in the District is sustained.

Historic heritage – Objective 2.7; Policy 4.1

The general intent of these provisions is to ensure the protection of historic heritage for the social, cultural and economic well-being of the community and future generations. As identified in the Archaeological Assessment Report (refer to **Appendix J**) and discussed in Section 5.7.1, a Dray Track has been identified as passing through part of the site. Kevin Jones identified there are widespread 19th C

archaeological site type found throughout New Zealand and often recorded on 19th C maps. Where found these tracks are likely to be of low to moderate importance to tangata whenua. The assessment of effects concluded that any adverse effects of the proposed subdivision (including earthworks and infrastructure) is less than minor with the mitigations proposed.

Overall it is considered the proposed subdivision (including earthworks and infrastructure) is consistent with the provisions seeking to ensure historic heritage is protected.

Community – Objective 2.8; Policies DW13, 11.37

The general intent of these provisions is to ensure a cohesive and inclusive community where people, amongst other things, have easy access and connectivity to quality and attractive public places and improved health through opportunities for active living.

As outlined in Section 3 above, the proposed subdivision provides walkway/cycleway/bridleway connections to adjoining developments and facilities (including the Kapiti Expressway CWB) and access to areas which are not currently accessible. This facility will also connect to the proposed community park (lot 105) that will enhances the amenity of the site and provides opportunities for active living.

Overall it is considered that the proposed subdivision (including earthworks and infrastructure) with the walkway/cycleway/bridleway and community park proposed is consistent with the objectives and policies in the PDP relating to the community outcomes sought.

Natural features; natural character; landscapes; amenity (including Coastal Environment) – Objectives 2.3, 2.4, 2.9, 2.11; Policies DW14, 3.12, 3.13, 4.1, 4.2, 4.3, 4.4, 4.5, 4.7

The general intent of these provisions is to ensure natural features and landscapes (including within the coastal environment) with outstanding natural character and high natural character and special amenity landscapes are identified and protected from inappropriate subdivision, use and development. The policies identify a number of measures to achieve this outcome.

The PDP has identified Special Amenity Landscapes (SAL), Outstanding Natural Landscapes/Features (ONL/F) and areas of Outstanding Natural Character (ONC) on Planning Map 9D. There are no SALs, ONL/Fs of ONC on or immediately adjacent to the site. The nearest ONL/F is the Waikanae River margins to the north which is not affected by the proposal.

As identified in Section 2.1 of this AEE, there are several natural and landscape features on the site that have high natural character and amenity value - in particular the four natural inland wetlands (as defined by the NPS-FM), the undulating dune form of the topography that provides a degree of natural amenity, and the kānuka stands. These features have been avoided in the subdivision scheme plan (outlined in Section 3.2 of this AEE) to ensure natural processes and natural amenity is maintained or enhanced (and in the case of the natural wetlands and kānuka stands), and any adverse environmental effects of the proposed subdivision have been managed through and a number of development controls proposed as mitigations (as outlined in Section 5 of this AEE).

In particular, buffers with fencing and weed management and planting are proposed for natural wetland areas. The constructed wetland in lot 200 adjacent to Otaihanga Road provides the opportunity for native landscape planting which will add to the natural character of the road corridor. The subdivision (both layout and earthworks) has been designed to minimise effects on the underlying dune form and ensuring that key elements are retained and protected from inappropriate development. Kānuka stands are to be fenced and planted to encourage restoration.

DCM have determined in their LVIA Report (refer to **Appendix D**) that the proposed subdivision design is of a scale appropriate to its rural-residential setting on the fringe of urban development without adversely affecting the character of adjoining land uses. Views into the site are relatively limited due to the underlying landform and existing vegetation, and with the proposed retention of key landforms combined with the low density of development, the unique character and amenity values of the receiving environment will be maintained. A key aspect to maintain the existing character is controls over solid,

close board timber fencing where its installation in the inappropriate locations could compartmentalise the open, undulating character of the site.

The amenity values, of the of the site, while altered will not be compromised with the proposal retaining the key elements of the receiving environment while allowing for residential development to occur.

As outlined above in the Landscape Character Assessment section of the LVIA, there are no significant adverse effects on the landscape elements which provide natural character with the proposed mitigation measures, including the subdivision layout and density, ensuring that the elements which provide natural character are not adversely affected significantly.

Overall it is considered the proposed subdivision (including earthworks and infrastructure) is consistent with the provisions seeking to ensure natural features and landscapes (including within the coastal environment) with outstanding natural character and high natural character and special amenity landscapes are identified and protected, and a number of measures identified in the relevant policies are proposed that will implement this outcome.

Open Space – Objectives 2.17; Policies DW1, DW4, DW10, DW11, DW15, P4.5

The general intent of these provisions is to ensure there is a rich and diverse network of open spaces that protect cultural, ecological and amenity values and supports the needs of the community. Policy DW10 requires subdivision, land use and development is to be undertaken in a way that enables all urban residents to have access to public open space (within a distance of 400m) and DW11 sets requirements for new publicly accessible local parks.

The proposed subdivision has a high level of pedestrian connectivity and accessibility to open spaces. While currently the closest existing open space is approximately 800m away from the site on Otaihanga Road, a new local park proposed for lot 105 with access from Otaihanga Road will allow the development to achieve the minimum 400m distance. Within the development, the proposed walkways will provide a high level of passive recreation (walking) and connectivity.

This new local park has been developed in consultation with the Parks Department of KCDC, and while the final design of this space is yet to be resolved, lot 105 has been identified as an area KCDC wishes to have vested as a local purpose reserve.

Overall it is considered the proposed subdivision (including earthworks and infrastructure) is consistent with the provisions seeking to ensure the proposed subdivision includes a local park that contributes to the rich and diverse network of open spaces in the district and supports the existing and future community that will develop from the proposed subdivision.

Earthworks – Objective 2.9, Policies 3.14, 11.16

The general intent of these provisions is to ensure any adverse effects of earthworks on natural features and landforms are avoided, remedied or mitigated, particularly ONF/L and geological features identified in the schedules. There is also a requirement for earthwork activities to avoid erosion and off-site silt and sedimentation runoff (Policy 3.14).

There are no ONF/L or geological features identified in the schedules of the PDP on the site. The earthworks associated with the proposed subdivision are summarised in detail in Section 5 of the Engineering Infrastructure report (refer to **Appendix I** of this AEE). The potential adverse effects associated with earthworks, including erosion and sediment effects, are summarised and assessed in Section 5 above. A number of mitigations are proposed and included in the Preliminary Erosion and Sediment Control Plan which accompanies the Engineering Infrastructure Report that is prepared in accordance with the GWRC guidelines. The assessment of the potential earthworks effects determines any effects are less than minor, with the mitigations proposed.

Overall it is considered the proposed subdivision (including earthworks and infrastructure) is consistent with the provisions seeking to ensure any adverse effects of earthworks on natural features and landforms, including erosion and off-site sedimentation runoff, are avoided, remedied or mitigated.

Stormwater – Policies 11.16, 11.17

The general intent of these policies is to ensure subdivision and development is designed so that peak stormwater runoff is managed to replicate the pre-development situation (as required by the RPS) and that any adverse effects, including accumulative effects, are minimised. Policy 11.17 includes assessment criteria for considering subdivision and development consent applications.

RDCL have undertaken soakage tests on the site as outlined in the Geotechnical Report (refer to **Appendix F**). Awa have undertaken calculations of the stormwater from impervious surfaces for the two different areas of the proposed subdivision (the northern area lifestyle lots; the southern residential lots) and have designed stormwater collection and disposal systems for these areas utilising the RDCL soakage data (refer to the Flood Hazard Report in **Appendix H**). A summary of the proposed Awa systems is included in Section 3.2.1 above.

The potential adverse effects of stormwater are assessed and summarised in Section 5.4 above. It is Awa's expectation in rural dune soils that there will rarely be significant runoff overland due to high natural soakage rates. For this reason, focusing the design on soakage to accommodate up to a 100-year climate change event, will in Awa's opinion map natural system responses to rainfall. Overland flows that do occur in events above the 100-year climate change event will be directed towards wetlands as is currently the case. The assessment in Section 5.4 determines that any potential adverse effects of stormwater is less than minor.

Overall it is considered the proposed subdivision (including earthworks and infrastructure) is consistent with the provisions seeking to ensure subdivision and development is designed so that peak stormwater runoff is managed to replicate the pre-development situation (as required by the RPS) and that any adverse effects, including accumulative effects, are less than minor.

Rules

As discussed in Section 4 above, the proposed subdivision (including earthworks and infrastructure) require a number of resource consents under the rules in the PDP. The following is an assessment of the proposed subdivision (including earthworks and infrastructure) against the relevant rules.

Rule 7A.3.2

Restricted Discretionary Activities	Standards	Matter over which Council will restrict its discretion
Subdivision in all Rural *Zones* except the Future Urban Development *Zone* and *subdivisions* which are *controlled activities* under Rule 7A.2.2	2. Additional standards for the Rural Residential *Zone*: a) *subdivisions* must create *lots* with a minimum average area of 1ha across the *subdivision* and a minimum individual *lot* area of 4,000m^2; and …	1. The design and layout of the *subdivision* including *earthworks*, the clustering of nominated *building* area and the suitability for *primary production activities*. 2. The degree of compliance with the Kāpiti Coast District Council Subdivision and Development Principles and Requirements 2012. 3. The imposition of *financial contributions* in accordance with Chapter 12 of this Plan. 4. *Vehicle access* points onto *legal road* including the *State Highway* Network and any effects on the *transport network*. 5. The location of any *building* area relative to *natural hazards*, *historic heritage features, ecological sites, geological features, outstanding natural features and landscapes*. 6. The provision of walking, cycle pathways and bridleways. 7. Consistency with relevant appendices and schedules to all Chapters of this Plan. 8. Provision of an adequate water supply for firefighting purposes. 9. The location of sensitive activity *building* sites to avoid, remedy or mitigate potential adverse *reverse sensitivity effects* on lawfully established *primary production activities* and *intensive farming* activities on adjoining *properties*. 10. *Effects* on *natural character* in the *coastal environment*

Rule 7A.5.3

Non-Complying Activities
3. *Subdivision* in any Rural *Zone* which does not comply with one or more of the *restricted discretionary activity subdivision* Standards 2 to 7 in Rule 7A.3.2

<u>Assessment</u>

A Subdivision Consent under Rule 7A.5.3 as standard 4 a minimum individual *lot* area of 1 hectare for restricted discretionary activities in Rule 7A.3.2 cannot be met, and therefore a non-complying activity resource consent is being applied for under Rule 7A.5.3. As a non-complying activity, the matters of discretion listed in Rule 7A.5.3 are no longer applicable, but can provide some guidance for the consideration of the application. The following points are made in relation to the matters Council has restricted its discretion to:

- Nominated building sites have been identified for the northern area (rural lifestyle lots) in locations that avoid dunes and ridgelines, are located away from natural wetlands, and are appropriate locations for on-site stormwater discharges

- Primary production activities are no longer economically viable on the site as discussed in Section 2.1 above
- The degree of compliance with the Council's Subdivision and Development Principles and Requirements 2012 is addressed in the Engineering Infrastructure Report (refer to **Appendix I**)
- Vehicle access points is addressed in the Transport Assessment Report (refer to **Appendix E**) and with the mitigations proposed are assessed as safe and appropriate
- There are no building platforms identified in the ponding area in the northern part of the site
- A shared use path for walking, cycling and bridleway is proposed
- An adequate water supply is available for fire-fighting purposes as outlined in the Engineering Infrastructure Report
- There are no lawfully established primary production activities and intensive farming activities on neighbouring sites that would be affected by any building sites on the property
- The effects of the proposed subdivision on the natural character in the coastal environment has been assessed in the LVIA Report (refer to **Appendix D**) and assessed in Section 5.1.1 and is assessed as being less than minor or negligible.

Rule 9A.3.2

Restricted Discretionary Activities	Standards	Matter over which Council will restrict its discretion
Subdivision where any part of the land contains *flood storage, ponding, residual ponding or shallow surface flow areas*.	2. Each *building* area shall be located above the estimated *1% AEP* flood event level. *3. Formed vehicle access* does not adversely affect the *1% AEP* flood hazard *risk* on other *properties* in the same flood catchment.	1. The design and layout of the *subdivision*. 2. *Council's* Subdivision and Development Principles and Requirements 2012. 3. The imposition of *financial contributions* in accordance with Chapter 12 of this Plan. 4. The location of any *building* platform or area relative to the *natural hazards*, *historic heritage* features, *ecological sites, outstanding natural features and landscapes, and geological sites*. 5. The location and design of any servicing of the *subdivision*. 6. The extent and *effects* of *earthworks*.

Assessment

A Subdivision Consent under Rule 9A.3.2 is required as the proposed subdivision is on a site where there is a ponding area. The proposed subdivision meets the restricted discretionary activity standards as each building area is located above the estimated 1% AEP flood level event, and formed access does not adversely affect the 1% flood hazard risk on other properties in the same flood catchment.

In relation to the matters Council will restricted its discretion:

- The design and layout of the subdivision are summaries in Section 3, and the scheme plans are included in **Appendix C** of this AEE
- Nominated building sites have been identified for the northern area (rural lifestyle lots) in locations that avoid dunes and ridgelines, are located away from natural wetlands, and are appropriate locations for on-site stormwater discharges

- The design and location of the servicing of the subdivision is outlined in the Engineering Infrastructure Report (refer to **Appendix I**) and have been determined in consultation with KCDC's infrastructure and services team
- The extent of the effects of earthworks have been assessed in Section 5.3 above and have been determined to be less than minor with the mitigations proposed, including a Preliminary Erosion and Sediment Control Plan accompanying the Engineering Infrastructure report – there is no effect of earthworks on the functioning of the ponding area as assessed and reported in the Flood Hazard Report (refer to **Appendix H**)

Rule 9B.3.3

Restricted Discretionary Activities	Standards	Matter over which Council will restrict its discretion
Subdivision (excluding *boundary adjustments* or *subdivision* of land where no additional *lots* are created) of land with peat or sand soils.	1. Geotechnical information must be provided by a suitably qualified and experienced person (to building consent level) on *liquefaction risk*. 2. Proposed *building* areas with a minimum dimension of 20 metres must be identified for each *lot*.	1. The outcomes of the geotechnical investigation on liquefaction risk. 2. Whether the potential risk to the health and safety of people, and property from liquefaction can be avoided or mitigated. 3. The design and layout of the subdivision including *earthworks*, servicing and the location of any building platforms. 4. Council's Subdivision and Development Principles and Requirements 2012. 5. The imposition of financial contributions in accordance with Chapter 12 of this Plan.

Assessment

A Subdivision Consent under Rule 9B.3.3 is required as the proposed subdivision is on sand soils. The proposed subdivision meets the restricted discretionary activity standards as a Geotechnical Report is provided on liquefaction (refer to **Appendix F**) that determines there is little or no risk of liquefaction hazards across the site, and proposed building areas with a minimum dimension of 20 metres must be identified for each lot (refer to **Figure 2** above).

In relation to the matters Council will restrict its discretion to:

- The geotechnical investigations determines there is little or no risk of liquefaction hazards across the site
- There is no risk to the health and safety of people and property from liquefaction
- The design and location of the servicing of the subdivision is outlined in the Engineering Infrastructure Report (refer to **Appendix I**) and have been determined in consultation with KCDC's infrastructure and services team
- KCDC's SDPR have been considered and complied with as outlined in the Engineering and Infrastructure Report (refer to **Appendix I**)

Rule 11B.3.2

Restricted Discretionary Activities	Standards	Matter over which Council will restrict its discretion
Subdivision of land creating new *lots* in the rural zones, all *open space zones*, the private recreation and leisure *zone* and the r*iver corridor zone*, that complies with all *restricted discretionary activity* standards under	Water Supply 1. It shall be demonstrated (as evidenced by a report including an environmental impact report from a suitably qualified and experienced person) that:	1. Those matters listed under rules: a) 7A.3.2 for restricted discretionary subdivision in rural zones 2. (Chapter 7);

Rules 7A.3.2 and 8A.3.3	a) a water supply of sufficient quality (potable for drinking purposes) and quantity can be provided for the activities proposed for the subdivision, including fire-fighting; b) the proposed water supply will have no adverse effects on other water users; c) the proposed supply will have no adverse effects on the water resource; and d) the proposed water supply will have no adverse effects on natural and physical resources. 2. Any risk likely to adversely affect a registered drinking-water supply or water collection area as identified on District Plan Maps, will be managed to avoid the threat. 3. All new buildings and impervious surfaces shall have on-site attenuation and treatment of stormwater including the use of on-site vegetation to slow down run-off rates and improve water filtration. Grassed swales shall be provided to direct road run-off instead of concrete kerb and channel. Effluent Disposal 4. Where subdivision occurs on land that is not serviced by an existing community sewage system, the application shall demonstrate that on-site domestic effluent disposal is suitable for each proposed lot or multiple lots in accordance with AS/NZS 1547:2010 "On Site Domestic Wastewater Management". Note: any discharge into land, air or waterbodies may require resource consent from the Wellington Regional Council. Applicants should contact the Regional Council to confirm whether or not consent is required. Underground services 5. Any underground services must avoid waahi tapu, archaeological and ecological sites.	b) 8.3.3 for restricted discretionary subdivision in Open Space 3. Zones (Chapter 8); and c) 11B.3.1 and 11B.3.2 for restricted discretionary subdivision 4. in all zones. 5. Degree of compliance with Council's Subdivision and 6. Development Principles and Requirements, 2012 7. Effect on water catchment areas and any registered drinking- water supply source.

Rule 11B.5.1

Non-Complying Activities 1. *Subdivision* that does not comply with one or more of the activity standards for water, wastewater and stormwater or electricity and telecommunications under rules 11B.3.2 and 11B.3.3.

<u>Assessment</u>

A Subdivision Consent under Rule 11B.5.1 may be required as the proposed subdivision creates new lots in the rural zone and does not comply with the restricted discretionary activity standards of Rule 7A.3.2 and is therefore not provided for in Rule 11B.3.2. It is noted that Rule 11B.5.1 requires a non-complying activity if the standards relating specifically to water, wastewater and stormwater or electricity and

telecommunications under Rule 11B.3.2. The proposed subdivision (including earthworks and infrastructure) does meet the standards in Rule 11B.5.1, and in particular:

- The water supply proposed is from the KCDC system is outlined in the Engineering Infrastructure Report (refer to **Appendix I**) and meets the requirements of Standard 1
- There are no registered drinking-water supply or water collection areas identified on District Plan Maps in the vicinity of the site
- On-site stormwater attenuation systems have been designed by Awa as outlined in the Flood Hazard Report (refer to **Appendix H**), with grass swales to direct runoff from the access roads
- Effluent disposal is proposed to be to the KCDC reticulation system
- Underground services avoid waahi tapu, archaeological and ecological sites

In relation to the matters Council will restricted its discretion:

- The matters listed under Rule 7A.3.2 for restricted discretionary activities in rural zones is assessed above
- The degree of compliance with the Council's Subdivision and Development Principles and Requirements 2012 is addressed in the Engineering Infrastructure Report (refer to **Appendix I**)
- There are no registered drinking-water supply or water collection areas identified on District Plan Maps in the vicinity of the site

For completeness an application under Rule 11B.5.1 is being applied for.

Rule 3A.1.6

Permitted Activities	Standards
Earthworks, excluding those listed in Rule 3A.1.8, in all areas except areas subject to flood hazards, *outstanding natural features and landscapes, ecological sites, geological features, areas of outstanding natural character, areas of high natural character.*	1. *Earthworks* must not be undertaken: a) on slopes of more than 28 degrees; or b) within 20 metres of a *waterbody*, including *wetlands* and coastal water. 2. In all other areas … *earthworks* must not: b) disturb more than 100m^3 (volume) of land per site within a 5 year period; and 5. Any *earthworks* must ensure that: a) Surface runoff from the *site* is isolated from other *sites* and existing *infrastructure*; and b) The potential for silt and sediment to enter the stormwater system or *waterbodies* in surface runoff from the *site*, is minimised; and c) Erosion and sediment control measures are installed and maintained for the duration of the construction period, where necessary.

Rule 3A.3.4

Restricted Discretionary Activities	Standards	Matter over which Council will restrict its discretion
Earthworks not complying with one or more of the *permitted activity* standards in Rule 3A.1.6 or Rule 3A.1.8.	-	1. The degree of compliance with the Kapiti Coast District Council Subdivision and Development Principles and Requirements 2012. 2. The *effects* on *water collection areas.* 3. The degree of compliance with any applicable Environmental Management Plan or *Structure Plan* applicable to the *development.* 4. Ecological *effects.*

		5. Visual and amenity *effects*.

Assessment

A Land Use Consent under Rule 3A.3.4 is required as the following permitted activity standards in Rule 3A.1.6 cannot be met:

- Standard 1(b) cannot be met as earthworks are within 20m of a wetland (but not within 10m being the buffer required by the NPS-FM)
- Standard 2b) as the volume of earthworks is well in excess of the 100m^3 trigger

The requirements of standard 5 can be met as outlined in the Engineering Infrastructure Report and the accompanying Preliminary Erosion and Sediment Control Plan (refer to **Appendix I**).

In relation to the matters Council will restricted its discretion listed in Rule 3A.3.4:

- The degree of compliance with the Council's Subdivision and Development Principles and Requirements 2012 is addressed in the Engineering Infrastructure Report (refer to **Appendix I**)
- There are no water collection areas within the vicinity of the site
- There is no applicable Environmental Management Plan or Structure Plan
- Ecological effects are identified and assessed in the Ecology Report (refer to **Appendix G**) and summarised in Section 5.6 – it is considered any actual and potential adverse environmental effects of the proposed subdivision (including earthworks and infrastructure) will be no more than minor (on lizard habitat), and less than minor or negligible on other ecological matters with the mitigations proposed
- Visual and amenity effects are identified and assessed in the LVIA Report (refer to **Appendix D**) and summarised in Section 5.1 - any actual and potential adverse environmental effects of the proposed subdivision (including earthworks and infrastructure) will be less than minor or negligible on visual and amenity matters with the mitigations proposed

Rule 9A.1.4

Permitted Activities	Standards
Earthworks except where associated with the matters listed below: [no matters relevant]	2. In *ponding* areas (excluding *residual ponding areas*) and *shallow surface flow* areas, *earthworks*: a) shall not involve the disturbance of more than 20m^3 (volume) of land in any 10 year period; and b) shall not alter the *original ground level* by more than 1.0 metre, measured vertically.

Rule 9A.3.4

Restricted Discretionary Activities	Standards	Matter over which Council will restrict its discretion
In a *ponding* or *shallow surface flow* area, *earthworks* which do not comply with one or more of the *permitted activity* standards under Rule 9A.1.4	-	1. The *effect* of the *earthworks* on the effective functioning of the *overflow path, residual overflow path* or *ponding* or *shallow surface flow* area. 2. The avoidance or mitigation of adverse *effects* on the effective functioning of the *overflow path, residual overflow path* or *ponding* or *shallow surface flow* area.

Assessment

A Land Use Consent under Rule 9A.3.4 as the permitted activity standard 2 for earthworks in ponding areas in Rule 9A.1.4 cannot be met. As outlined in the Flood Hazard Report (refer to **Appendix H**), there will be earthworks within several lots in the northern area that have ponding areas identified on the District Plan Maps. Earthworks will be substantially greater than the 20m^3 trigger and will increase the height of the finished ground level to ensure buildings are located above the 100 Year ARI climate change subdivision scenario.

In relation to the matters Council will restricted its discretion listed in Rule 9A.3.4:

- The effect of the earthworks on the ponding area has been assessed by Awa in the Flood Hazard Report and summarised in Section 5.4.2 above – any adverse effects of the earthworks on the ponding area has been assessed as less than minor with the mitigations proposed

Rule 3A.3.1

Restricted Discretionary Activities	Standards	Matter over which Council will restrict its discretion
Trimming or *modification* of any *indigenous vegetation* that: e) is in or within 20 metres of a *water body* or the coastal marine area where is it not within an *urban environment* (excluding planted vegetation*)*;	-	1. *Effects* on: a) biodiversity values; b) visual, urban character and *amenity values*; c) the *natural character* of the *coastal environment*; d) public safety; e) any vegetation loss. f) *Tāngata whenua* values.

Assessment

A Land Use Consent under Rule 3A.3.1 as the permitted activity standards for the trimming/modification of indigenous vegetation within 20m of a water body where it is not within an urban environment. – restricted discretionary activity (not subject to standards). There may be some trimming of some of kānuka retained if this is required to improve the health of the stands.

8.2.9 Section 104 (1)(c)

This section of the Act requires that regard is given to any other matter the consent authority considers relevant and reasonably necessary to determine at the application.

It is considered there are no other matter relevant to this application.

9 Conclusion

The proposal is to subdivide a 17ha (western) portion of the Mansell Farm that has been severed by the Kapiti Expressway located in Otaihanga, just south of the Waikanae River.

The proposed Otaihanga Estates subdivision will create 49 lots: 22 rural life-style lots in the northern area of the site, and 27 residential lots adjacent to Otaihanga Road in the southern area of the site.

The proposed subdivision of this area involves earthworks, construction of roads, installation of services and the identification of a notional 20m building circle area on the rural life-style lots.

The proposed subdivision (including earthworks and infrastructure) requires the following subdivision and land use resource consents under the PDP:

- A Subdivision Consent under Rule 7A.5.3 as standard 4 for restricted discretionary activities in Rule 7A.3.2 cannot be met – non-complying activity.
- A Subdivision Consent under Rule 9A.3.2 as the proposed subdivision is on a site where there is a ponding area – restricted discretionary activity subject to standards [Note: discretionary activity under Rule 9A.4.1 if RDA standards not met].
- A Subdivision Consent under Rule 9B.3.3 as the proposed subdivision is on peat or sand soils – restricted discretionary activity subject to standards.
- A Subdivision Consent under Rule 11B.5.1 as the proposed subdivision creates new lots in the rural zone and is not provided for in Rule 11B.3.2 – non-complying activity.
- A Land Use Consent under Rule 3A.3.4 as the permitted activity standards for earthworks in Rule 3A.1.6 cannot be met – restricted discretionary activity (not subject to any standards).
- A Land Use Consent under Rule 9A.3.4 as the permitted activity standards for earthworks in ponding areas in Rule 9A.1.4 cannot be met – restricted discretionary activity under Rule 9A.3.4 (not subject to standards).
- A Land Use Consent under Rule 3A.3.1 as the permitted activity standards for the trimming/modification of indigenous vegetation within 20m of a water body – restricted discretionary activity (not subject to standards).

Overall the proposed subdivision (including earthworks and infrastructure) is a **non-complying** activity.

The proposal also requires regional resource consent under the National Environmental Standard Freshwater (NES-F) and the proposed Natural Resources Plan (PNRP) and these consents have been applied for separately from GWRC.

Section 5 of this AEE has demonstrated that any actual and potential adverse environmental effects of the proposed subdivision (including earthworks and infrastructure) will be no more than minor (on lizard habitat), and less than minor or negligible on all other matters, and that there are positive social and economic benefits, including improved natural wetlands on the site with the additional measures proposed.

Section 8 of this AEE assesses the proposed subdivision (including earthworks and infrastructure) against the requirements of Part 2 and section 104 of the RMA, including a section 104D assessment to determine whether the non-complying activity resource consent meets one of the two 'gateway' tests (or limbs) before proceeding to a section 104 assessment. The Part 2 assessment concluded that the proposed subdivision (including earthworks and infrastructure) promotes the sustainable management of that part of the Mansell farm severed by the Kapiti Expressway, which is a natural and physical resource, and is therefore consistent with the purpose of the RMA. By way of a broad judgement, the proposed subdivision

(including earthworks and infrastructure) is not contrary to the relevant provisions of the NPS-FM and NES-F, NPS-UD, NZCPS, Wellington RPS, the PNRP and the KCDC PDP.

The applicant has requested the proposed subdivision application be notified. It is considered that the application can be granted (with conditions adopting the mitigations proposed) as it meets the purpose of the Resource Management Act to promote the sustainable management of the Mansell farm as a natural and physical resource, safe-guards the life-supporting capacity of water, soil and ecosystems, and provides for a mix of housing type and associated social and economic wellbeing benefits.

Appendix A – Certificate of Title

RECORD OF TITLE
UNDER LAND TRANSFER ACT 2017
FREEHOLD

Search Copy

R.W. Muir
Registrar-General
of Land

Identifier	**WN52A/678**
Land Registration District	**Wellington**
Date Issued	29 April 1998

Prior References

WN27A/770 WN44B/379

Estate	Fee Simple
Area	1.0090 hectares more or less
Legal Description	Lot 4 Deposited Plan 84524

Registered Owners

Megan Ruth Mansell as to a 1/2 share

Alastair John Mansell as to a 1/4 share

Richard Paul Mansell as to a 1/4 share

Interests

Appurtenant hereto is a drainage right created by Transfer 57300 - 20.4.1906 at 12.30 pm (affects part formerly in CT WN44B/379)

Subject to a drainage right created by Transfer 57300 - 20.4.1906 at 12.30 pm (affects part formerly in CT WN44B/379)

Subject to a drainage right created by Transfer 58646 - 2.8.1906 at 3.00 pm (affects part formerly in CT WN44B/379)

Appurtenant hereto is a drainage right created by Transfer 113927 - 29.7.1918 at 10.30 am (affects part formerly in CT WN44B/379)

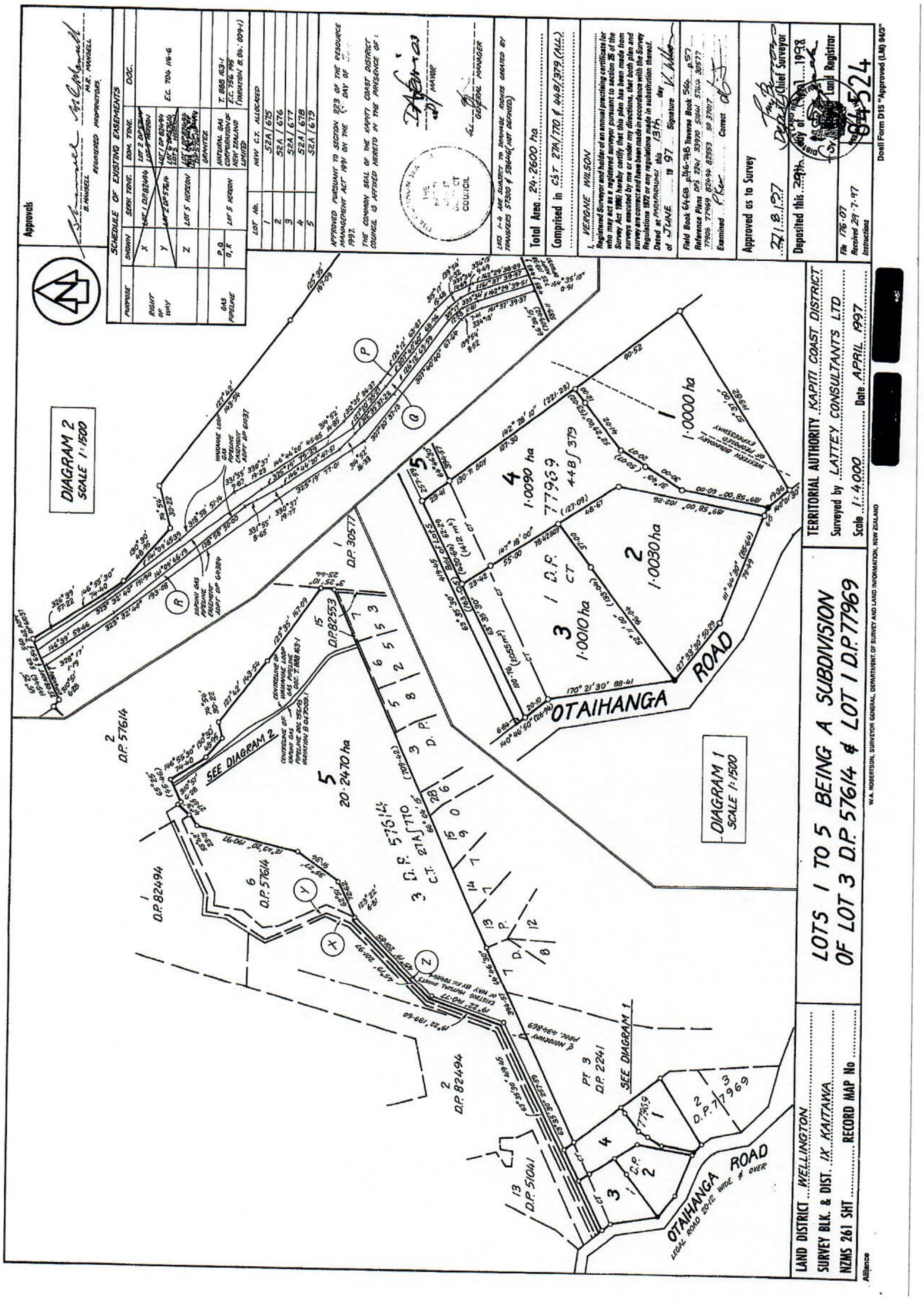
Appurtenant hereto are rights of way specified in Easement Certificate 704116.6 - 24.7.1985 at 9.30 am (affects part formerly in CT WN27A/770)

704116.10 Mortgage of the part formerly in CT WN27A/770 to Bank of New Zealand - 24.7.1985 at 9.30 am

808907.1 Mortgage of the part formerly in CT WN27A/770 to Bank of New Zealand - 3.10.1986 at 3.00 pm

B414548.1 Mortgage of the part formerly in CT WN27A/770 to Bank of New Zealand - 18.1.1995 at 11.48 am

B663195.2 Consent Notice under Section 221(1) Resource Management Act 1991 - 29.4.1998 at 12.34 pm


Approvals
DIAGRAM 2
SCALE 1:1500
DIAGRAM 1
SCALE 1:1500
OTAIHANGA ROAD
SEE DIAGRAM 1
SEE DIAGRAM 2
Total Area 24·2600 ha
Approved as to Survey
TERRITORIAL AUTHORITY KAPITI COAST DISTRICT
Surveyed by LATTEY CONSULTANTS LTD
Scale 1:4000 Date APRIL 1997
LOTS 1 TO 5 BEING A SUBDIVISION
OF LOT 3 D.P. 57614 & LOT 1 D.P. 77969
LAND DISTRICT WELLINGTON
SURVEY BLK. & DIST. IX KAITAWA
NZMS 261 SHT .... RECORD MAP No

RECORD OF TITLE
UNDER LAND TRANSFER ACT 2017
FREEHOLD

Search Copy

R.W. Muir
Registrar-General
of Land

Identifier **15068**

Part-Cancelled

Land Registration District **Wellington**

Date Issued 28 June 2002

Prior References

WN49A/378 WN49A/379

Estate Fee Simple

Area 14.8553 hectares more or less

Legal Description Lot 1, 3 Deposited Plan 303764

Registered Owners

Megan Ruth Mansell as to a 1/2 share

Alastair John Mansell as to a 1/4 share

Richard Paul Mansell as to a 1/4 share

Interests

Appurtenant to part formerly in CT WN44D/893 are drainage rights created by Transfer 57300

Appurtenant to part formerly CT WN44D/893 are drainage rights created by Transfer 113927

434869 Proclamation defining the middle line of portion of the Wellington-Foxton motorway (Affects parts formerly in CTs WN27A/768 & WN49A/378)

Land Covenant in Transfer 496729.1 - 17.6.1982 (Affects part formerly in CT WN44D/893)

Appurtenant to part formerly CT WN 44D/893 are stormwater drainage rights specified in Easement Certificate 496727.2

The easements specified in Easement Certificate 496727.2 are subject to Section 309 (1) (a) Local Government Act 1974

Subject to a right of way over part lot 3 DP 303764 marked D on DP 303764 specified in Easement Certificate 704116.6

Appurtenant to parts formerly CTs WN27A/768 & WN49A/378) are rights of way specified in Easement Certificate 704116.6

Appurtenant to part formerly CT WN44D/893 are rights of way and rights to water supply, sewage drainage and telephone specified in Easement Certificate B377870.3

Subject to rights of way and rights to water supply, sewage drainage and telephone over part lot 1 DP 303764 marked B on DP 303764 specified in Easement Certificate B377870.3

The easements specified in Easement Certificate B377870.3 are subject to Section 243 (a) Resource Management Act 1991

B548822.5 Mortgage of part formerly CT WN49A/379 to Bank of New Zealand - 18.11.1996 at 3.46 pm

5269965.3 Consent Notice pursuant to Section 221 Resource Management Act 1991 - 28.6.2002 at 3:42 pm

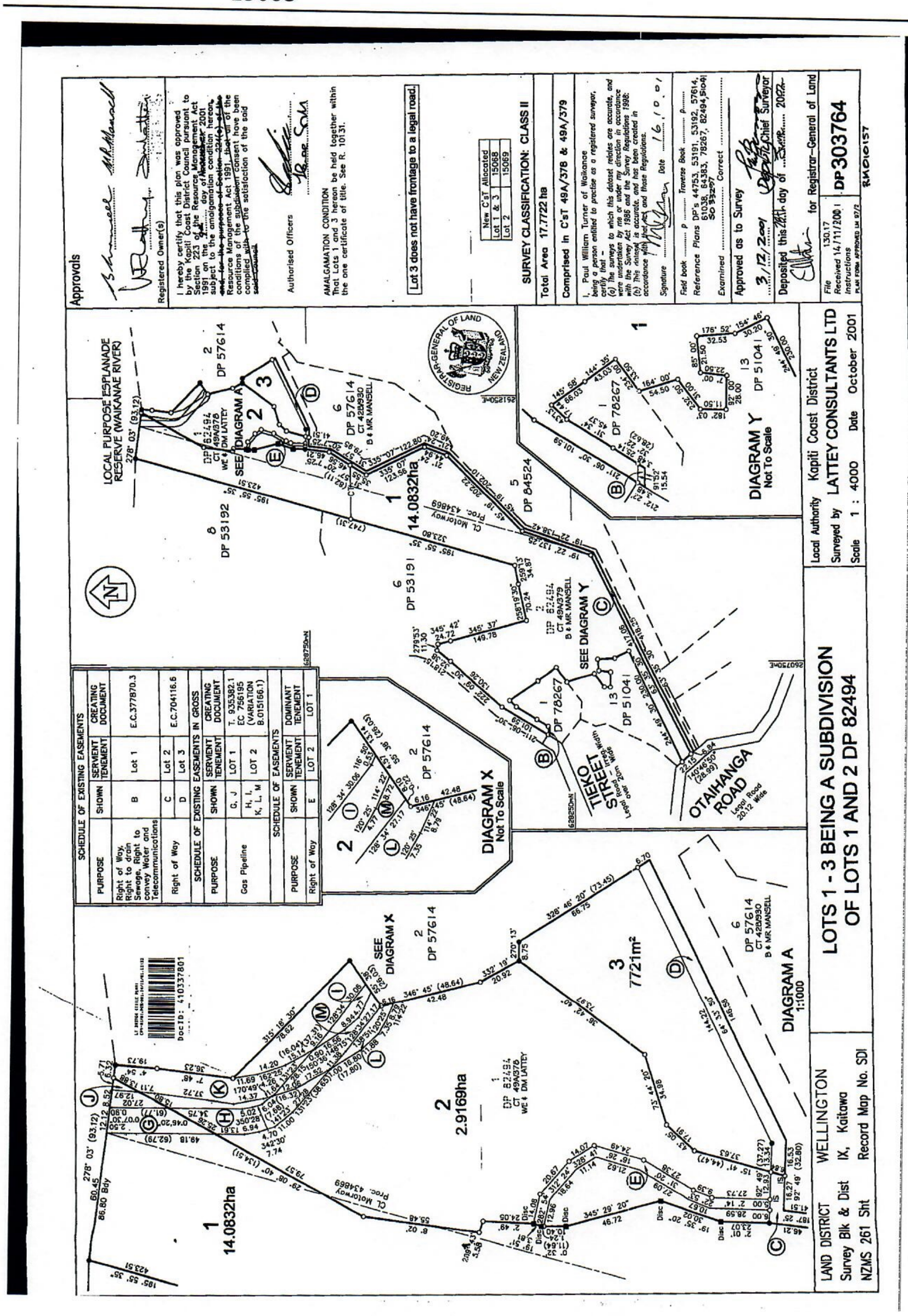
Subject to Section 241(2) and Section 242(1) Resource Management Act 1991(affects DP 303764)

Appurtenant to lot 1 DP 303764 is a right of way created by Transfer 5269965.8 - 28.6.2002 at 3:42 pm

8135489.1 Gazette Notice (2009 p1181) declaring part herein (5.9839 ha shown as Section 3, 140m² shown as Section 4 and 34m² shown as Section 5 SO 404791) is acquired for use in connection with a road and shall vest in the Kapiti Coast District Council on 9.4.2009 subject to Pipeline Certificate 756195, Variation of Pipeline Certificate B015166.1 and Consent Notice 5269965.3 - 22.4.2009 at 2:50 pm CIR 474886 issued

9521743.1 Notice pursuant to Section 18 Public Works Act 1981.- 20.9.2013 at 12:45 pm

9749432.1 Compensation Certificate pursuant to Section 19 Public Works Act 1981 by Her Majesty the Queen - 6.6.2014 at 4:05 pm


LOTS 1 - 3 BEING A SUBDIVISION
OF LOTS 1 AND 2 DP 82494
LAND DISTRICT WELLINGTON
Survey Blk & Dist IX, Kaitawa
NZMS 261 Sht Record Map No. SDI
Local Authority Kapiti Coast District
Surveyed by LATTEY CONSULTANTS LTD
Scale 1 : 4000 Date October 2001
DP 303764
SURVEY CLASSIFICATION: CLASS II
Total Area 17.7722 ha
Comprised in C'sT 49A/378 & 49A/379
Lot 3 does not have frontage to a legal road.
DIAGRAM A
1:1000
DIAGRAM X
Not To Scale
DIAGRAM Y
Not To Scale
OTAIHANGA ROAD
TIEKO STREET
LOCAL PURPOSE ESPLANADE RESERVE (WAIKANAE RIVER)
14.0832ha
2.9169ha
7721m²
Approvals

RECORD OF TITLE
UNDER LAND TRANSFER ACT 2017
FREEHOLD

Search Copy

R.W. Muir
Registrar-General
of Land

Identifier **WN23A/206**

Part-Cancelled

Land Registration District **Wellington**

Date Issued 17 June 1982

Prior References

WN21D/206 WN22A/589

Estate Fee Simple

Area 7.4766 hectares more or less

Legal Description Lot 6 Deposited Plan 53191

Registered Owners

Megan Ruth Mansell as to a 1/2 share

Alastair John Mansell as to a 1/4 share

Richard Paul Mansell as to a 1/4 share

Interests

Appurtenant hereto are drainage rights created by Transfer 57300

Appurtenant hereto are drainage rights created by Transfer 113927 (affects part formerly contained in CT WN21D/206)

Land Covenant in Transfer 496729.1 - 17.6.1982 at 10.28 am

Subject to a right of way over parts marked C, D & E on DP 53191 specified in Easement Certificate 496727.2 - 17.6.1982 at 10.28 am

Appurtenant hereto is a stormwater drainage right specified in Easement Certificate 496727.2 - 17.6.1982 at 10.28 am

The easements specified in Easement Certificate 496727.2 are subject to Section 309 (1) (a) Local Government Act 1974

B471909.3 Mortgage to Bank of New Zealand - 13.10.1995 at 2.43 pm

Subject to water and electricity supply rights over parts marked A, B, C & D on DP 79803 created by Transfer B539248.3 - 17.9.1996 at 10.02 am

8135489.1 Gazette Notice (2009 p1181) declaring part herein (2.0931 ha shown as Section 6 and 76m² shown as Section 7 SO 404791) is acquired for use in connection with a road and shall vest in the Kapiti Coast District Council on 9.4.2009 subject to Land Covenant in Transfer 496729.1 RT 474886 - 22.4.2009 at 2:50 pm

10933767.2 Variation of the conditions of the easement specified in Easement Certificate 496727.2 - 17.12.2018 at 3:32 pm

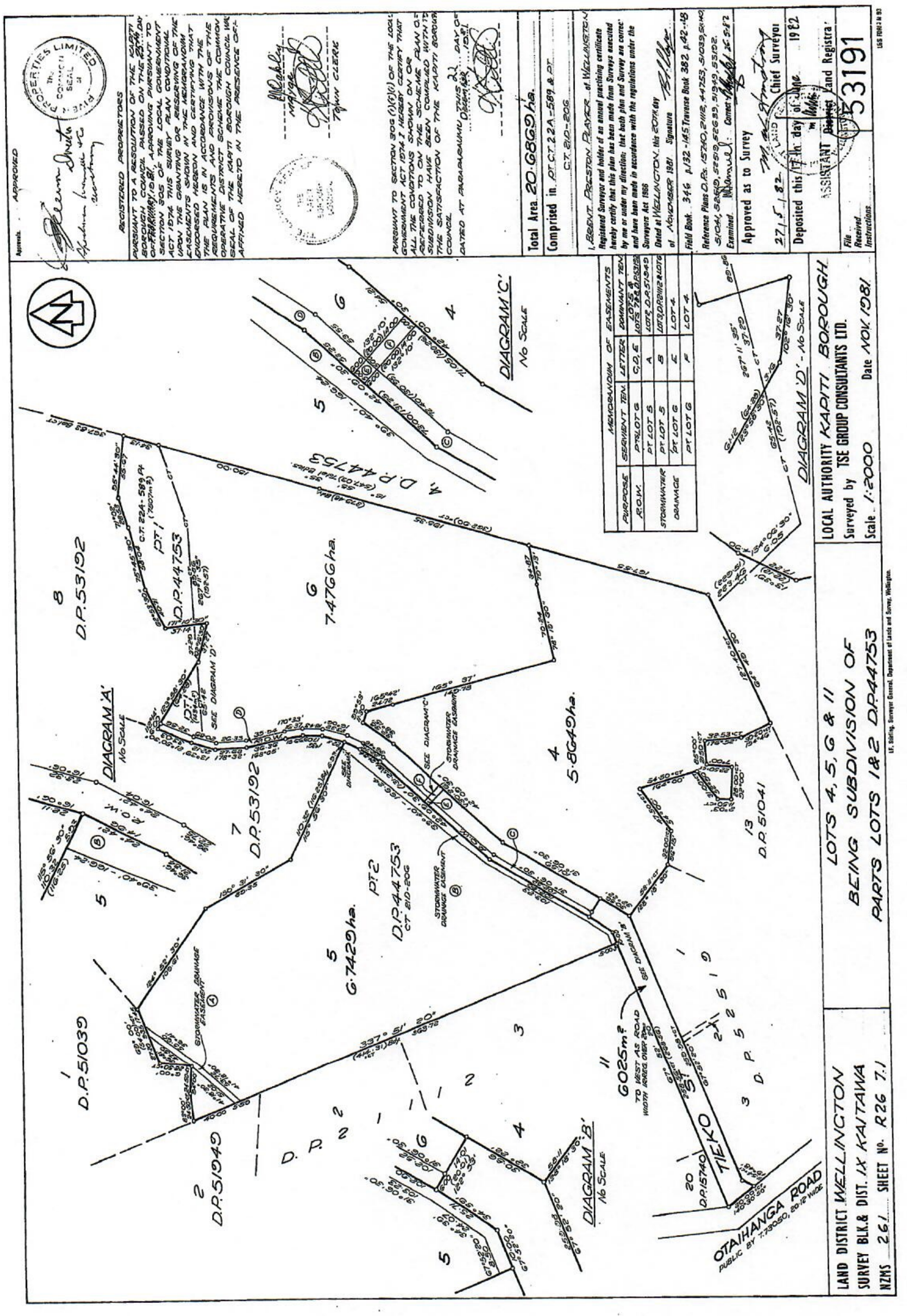


DIAGRAM 'A'
DIAGRAM 'B'
DIAGRAM 'C'
DIAGRAM 'D'
D.P. 53192
D.P. 44753
D.P. 51041
D.P. 51039
D.P. 51049
OTAIHANGA ROAD
LAND DISTRICT WELLINGTON
SURVEY BLK.& DIST. IX KAITAWA
LOTS 4, 5, 6 & 11
BEING SUBDIVISION OF
PARTS LOTS 1&2 DP.44753
LOCAL AUTHORITY KAPITI BOROUGH
Surveyed by TSE GROUP CONSULTANTS LTD.
Scale 1:2000
Date NOV 1981
Total Area 20.6869 ha.
53191

RECORD OF TITLE
UNDER LAND TRANSFER ACT 2017
FREEHOLD

Search Copy

R.W. Muir
Registrar-General
of Land

Identifier	**WN52A/676**
Land Registration District	**Wellington**
Date Issued	29 April 1998

Prior References
WN44B/379

Estate	Fee Simple
Area	1.0030 hectares more or less
Legal Description	Lot 2 Deposited Plan 84524

Registered Owners
Megan Ruth Mansell as to a 1/2 share
Alastair John Mansell as to a 1/4 share
Richard Paul Mansell as to a 1/4 share

Interests

Appurtenant hereto is a drainage right created by Transfer 57300 - 20.4.1906 at 12.30 pm

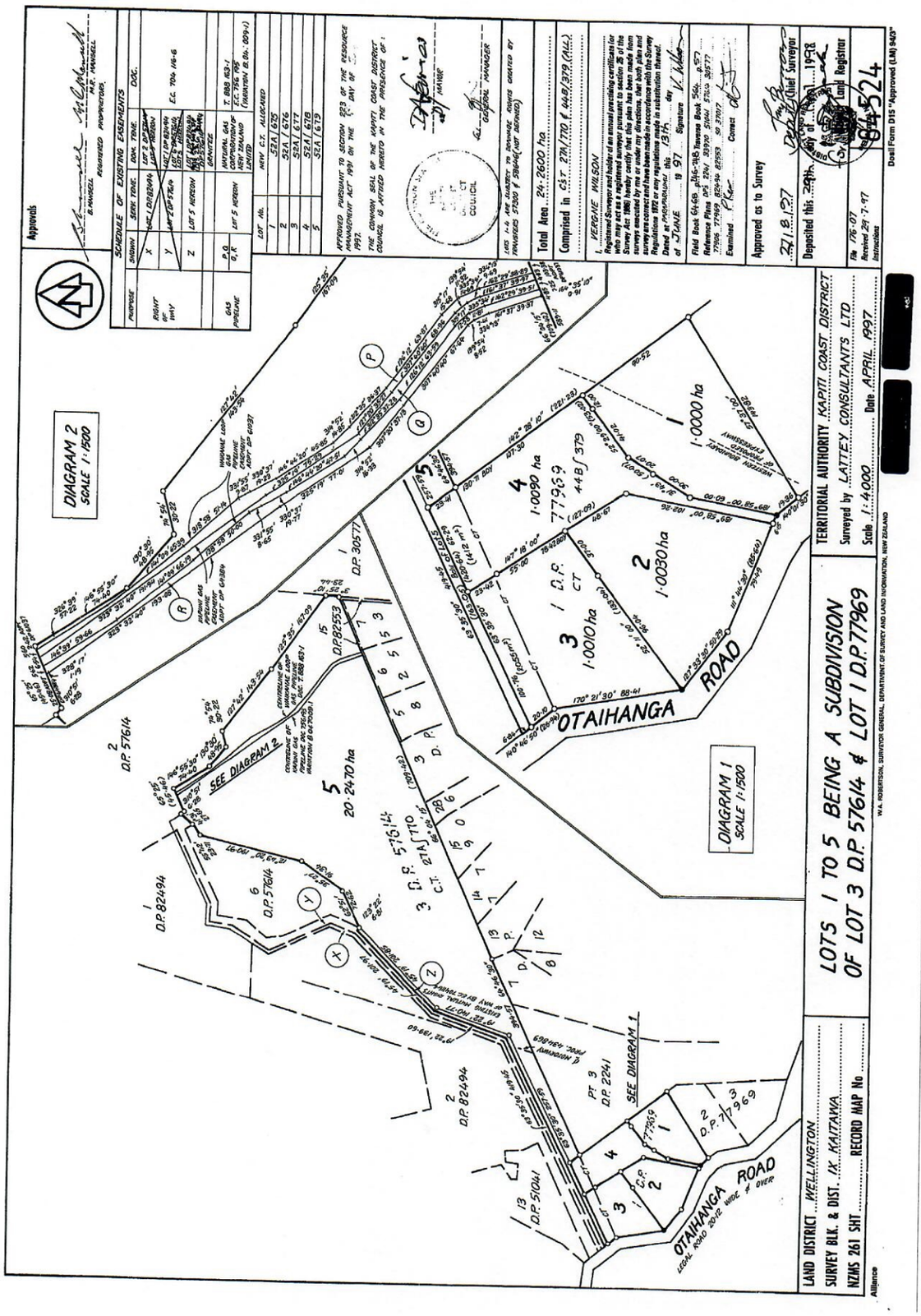
Subject to a drainage right created by Transfer 57300 - 20.4.1906 at 12.30 pm

Subject to a drainage right created by Transfer 58646 - 2.8.1906 at 3.00 pm

Appurtenant hereto is a drainage right created by Transfer 113927 - 29.7.1918 at 10.30 am

B414548.1 Mortgage to Bank of New Zealand - 18.1.1995 at 11.48 am

B663195.2 Consent Notice under Section 221(1) Resource Management Act 1991 - 29.4.1998 at 12.34 pm


LOTS 1 TO 5 BEING A SUBDIVISION OF LOT 3 D.P. 57614 & LOT 1 D.P. 77969
TERRITORIAL AUTHORITY KAPITI COAST DISTRICT
Surveyed by LATTEY CONSULTANTS LTD
Scale 1:4000 Date APRIL 1997
LAND DISTRICT WELLINGTON
SURVEY BLK. & DIST. IX KAITAWA
NZMS 261 SHT RECORD MAP No
DIAGRAM 2 SCALE 1:1500
DIAGRAM 1 SCALE 1:1500
OTAIHANGA ROAD
SEE DIAGRAM 2
SEE DIAGRAM 1
Approved as to Survey
Deposited this 28th day of April 1998
Land Registrar
94524
Duell Form D15 "Approved (LM) 9424"

Appendix B – Photographs of site

Appendix B – Site Photos

View looking east across southern residential area

View looking north along existing access from Otaihanga Rd – dominant dune to be retained

View looking south-east across Natural Wetland 3

View looking north towards northern area and Natural Wetland 1

View looking south-east – dune ridgeline between site and Expressway to be retained and no build area

View looking east across northern area Natural Wetland 1 and Expressway

View from northern area looking south-east across the site

Appendix C – Scheme Plans

Cuttriss

Surveyors. Engineers. Planners.

APPENDIX A

DEVELOPMENT SCHEME PLAN

NOTES:

1. THIS PLAN DERIVES THE TOPOGRAPHICAL NATURE & FEATURES OF THE SITE FOR DISCUSSION PURPOSES & IS NOT TO BE RELIED UPON FOR ANY OTHER PURPOSE WITHOUT THE CONSENT OF CUTTRISS CONSULTANTS LIMITED
2. DIMENSIONS AND AREAS SHOWN ON THIS SCHEME PLAN WILL BE SUBJECT TO FINAL LAND TRANSFER SURVEY
3. COORDINATES ARE IN TERMS OF NEW ZEALAND GEODETIC 2000 DATUM, WANGANUI CIRCUIT.
4. LEVELS ARE IN TERMS OF MEAN SEA LEVEL WELLINGTON VERTICAL DATUM 1953. ORIGIN OF LEVELS: OIT II DP 82978 RL 5.806, ELLIPSOIDAL HEIGHT CONVERSION, 18 JULY 2019
5. NOT ALL INTERESTS ON THE RECORD OF TITLE MAY BE SHOWN ON THIS PLAN, AND SHOULD BE INVESTIGATED FURTHER
6. SERVICES HAVE BEEN LOCATED ON SITE WHERE POSSIBLE, OTHERWISE SHOWN FROM KCDC RECORDS, AND SHOULD BE VERIFIED ON SITE
7. CONTOUR INTERVAL: 1.0m
8. SURVEYED BY: N TAYLOR & S TURKINGTON, 18 JULY 2019
9. INSTRUMENT USED: TRIMBLE GPS RTK R10 VRS & DJI PHANTOM 4 PRO
10. BOUNDARY LEVELS FOR DETERMINATION OF CRITICAL RECESSION PLANES MUST BE CONFIRMED PRIOR TO ANY APPLICATION FOR BUILDING CONSENT
11. BOUNDARY INFORMATION HAS BEEN SOURCED FROM INFORMATION PROVIDED BY LINZ XML & HAS NOT BEEN VERIFIED ON SITE
12. ALL ELECTRONIC CAD DATA MUST BE READ IN CONJUNCTION WITH THESE NOTES
13. NATURAL WETLAND EXTENT & KĀNUKA EXTENT TAKEN FROM INFORMATION SUPPLIED BY WILDLANDS ECOLOGY, RECEIVED 22-09-2020.

LEGEND

- BOUNDARY
- EASEMENT
- 40m OFFSET FROM EDGE OF HIGHWAY
- 80m OFFSET FROM EDGE OF HIGHWAY
- DEVELOPMENT SITE
- NOTIONAL 20m BUILDING CIRCLE
- NATURAL WETLAND EXTENT

Sec 32 SO 505428
Sec 3 SO 520369
22 SO 505428
1 DP 534361
6 DP 534361
100 DP 378541
101 TO VEST IN KCDC OR BE DEDICATED AS ROAD
21 SO 505428
1 DP 78267
TIEKO STREET
STATE HIGHWAY 1
104 TO VEST IN KCDC / ROW TO LOTS 20,21 & 22
29 SO 505428
17 SO 505428
15 SO 505428
28 SO 505428
13 SO 505428
13 DP 51041
105 TO VEST IN KCDC AS RECREATION RESERVE
100 TO VEST IN KCDC OR BE DEDICATED AS ROAD
26 SO 505428
12 SO 505428
102 TO VEST IN KCDC OR BE DEDICATED AS ROAD (WIDENING)
200 TO VEST IN KCDC AS LOCAL PURPOSE RESERVE (STORMWATER)
OTAIHANGA ROAD
10 SO 505428
9 SO 505428
24 SO 505428
103 TO VEST IN KCDC OR BE DEDICATED AS ROAD (WIDENING)

ISSUED

	REVISION DETAILS	NAME	DATE
G	STOCKPILES RELOCATED, SHEET1 DETAIL ADDED	NHT	05/21
H	NOTES AMENDED, LANDSCAPE DETAIL UPDATED	NHT	05/21
I	EARTHWORKS INFORMATION UPDATED	NHT	05/21
J	INFORMATION UPDATED	NHT	06/21
K	INFORMATION UPDATED	JLG	06/21

Cuttriss
Surveyors. Engineers. Planners.
www.cuttriss.co.nz

PROJECT
PROPOSED SUBDIVISION
PT LOT 6 DP 53191, LOTS 2-4 & PT LOT 5 DP 84524, PT LOTS 1 & 2 DP 303764, SECS 5, 7 & 12 SO 404971, SECS 25, 27 & 31 SO 505428, 131-155 OTAIHANGA RD & 48-58 TIEKO ST, OTAIHANGA
SCHEME PLAN - DEVELOPMENT OVERVIEW

CLIENT
MANSELL

SCALE A1 1:1250
REDUCED SCALE A3 - 1:2500

	NAME	DATE
FIELDWORK	NHT	07/19
DESIGNED	NHT	11/20
DRAWN	NHT	11/20
CHECKED	NKT	11/20

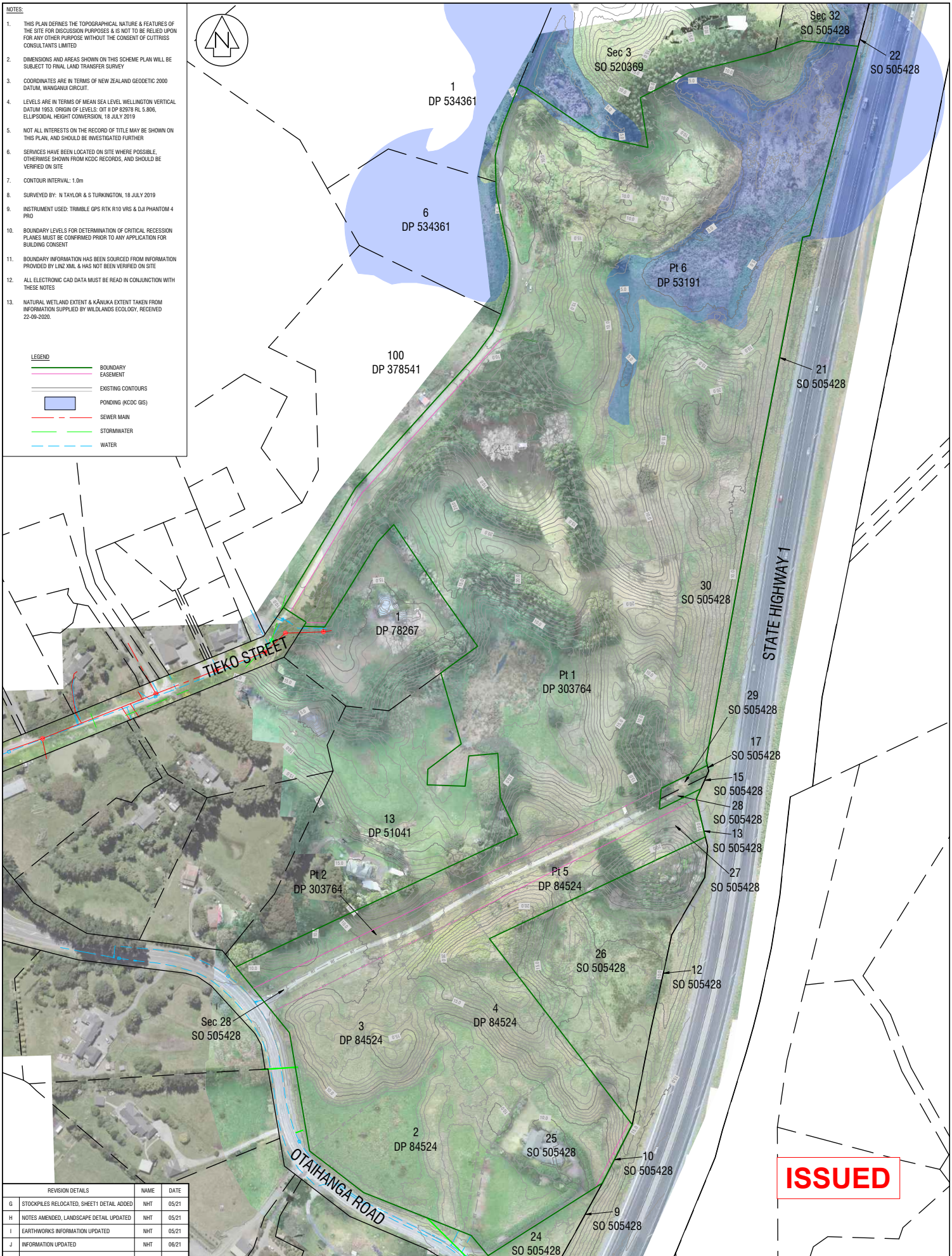
DRAWING NUMBER 22208 SCH1
SHEET 1 OF 13 SHEETS
REVISION K

NOTES:

1. THIS PLAN DERIVES THE TOPOGRAPHICAL NATURE & FEATURES OF THE SITE FOR DISCUSSION PURPOSES & IS NOT TO BE RELIED UPON FOR ANY OTHER PURPOSE WITHOUT THE CONSENT OF CUTTRISS CONSULTANTS LIMITED
2. DIMENSIONS AND AREAS SHOWN ON THIS SCHEME PLAN WILL BE SUBJECT TO FINAL LAND TRANSFER SURVEY
3. COORDINATES ARE IN TERMS OF NEW ZEALAND GEODETIC 2000 DATUM, WANGANUI CIRCUIT.
4. LEVELS ARE IN TERMS OF MEAN SEA LEVEL WELLINGTON VERTICAL DATUM 1953. ORIGIN OF LEVELS: OIT II DP 82978 RL 5.806, ELLIPSOIDAL HEIGHT CONVERSION, 18 JULY 2019
5. NOT ALL INTERESTS ON THE RECORD OF TITLE MAY BE SHOWN ON THIS PLAN, AND SHOULD BE INVESTIGATED FURTHER
6. SERVICES HAVE BEEN LOCATED ON SITE WHERE POSSIBLE, OTHERWISE SHOWN FROM KCDC RECORDS, AND SHOULD BE VERIFIED ON SITE
7. CONTOUR INTERVAL: 1.0m
8. SURVEYED BY: N TAYLOR & S TURKINGTON, 18 JULY 2019
9. INSTRUMENT USED: TRIMBLE GPS RTK R10 VRS & DJI PHANTOM 4 PRO
10. BOUNDARY LEVELS FOR DETERMINATION OF CRITICAL RECESSION PLANES MUST BE CONFIRMED PRIOR TO ANY APPLICATION FOR BUILDING CONSENT
11. BOUNDARY INFORMATION HAS BEEN SOURCED FROM INFORMATION PROVIDED BY LINZ XML & HAS NOT BEEN VERIFIED ON SITE
12. ALL ELECTRONIC CAD DATA MUST BE READ IN CONJUNCTION WITH THESE NOTES
13. NATURAL WETLAND EXTENT & KĀNUKA EXTENT TAKEN FROM INFORMATION SUPPLIED BY WILDLANDS ECOLOGY, RECEIVED 22-09-2020.

LEGEND

- BOUNDARY
- EASEMENT
- EXISTING CONTOURS
- PONDING (KCDC GIS)
- SEWER MAIN
- STORMWATER
- WATER



ISSUED

REVISION DETAILS		NAME	DATE
G	STOCKPILES RELOCATED, SHEET1 DETAIL ADDED	NHT	05/21
H	NOTES AMENDED, LANDSCAPE DETAIL UPDATED	NHT	05/21
I	EARTHWORKS INFORMATION UPDATED	NHT	05/21
J	INFORMATION UPDATED	NHT	06/21
K	INFORMATION UPDATED	JLG	06/21

Cuttriss
Surveyors. Engineers. Planners.
www.cuttriss.co.nz

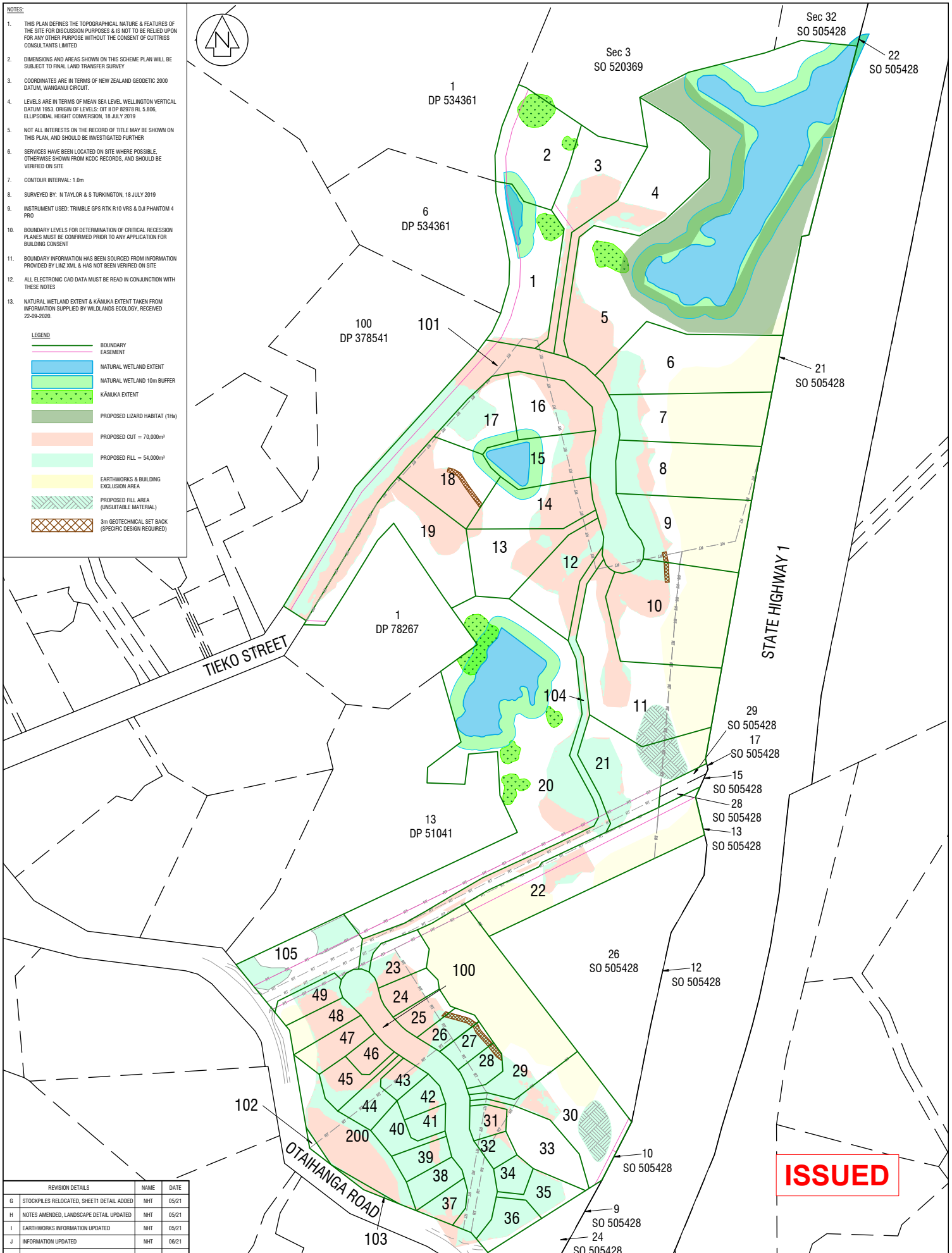
PROJECT
PROPOSED SUBDIVISION
PT LOT 6 DP 53191, LOTS 2-4 & PT LOT 5 DP 84524, PT LOTS 1 & 2 DP 303764, SECS 5, 7 & 12 SO 404971, SECS 25, 27 & 31 SO 505428, 131-155 OTAIHANGA RD & 48-58 TIEKO ST, OTAIHANGA
SCHEME PLAN - EXISTING SITE

CLIENT
MANSELL

SCALE A1 1:1250
REDUCED SCALE A3 - 1:2500

	NAME	DATE
FIELDWORK	NHT	07/19
DESIGNED	NHT	11/20
DRAWN	NHT	11/20
CHECKED	NKT	11/20

DRAWING NUMBER
22208 SCH1
SHEET 2 OF 13 SHEETS
REVISION K



REVISION DETAILS		NAME	DATE
G	STOCKPILES RELOCATED, SHEET1 DETAIL ADDED	NHT	05/21
H	NOTES AMENDED, LANDSCAPE DETAIL UPDATED	NHT	05/21
I	EARTHWORKS INFORMATION UPDATED	NHT	05/21
J	INFORMATION UPDATED	NHT	06/21
K	INFORMATION UPDATED	JLG	06/21

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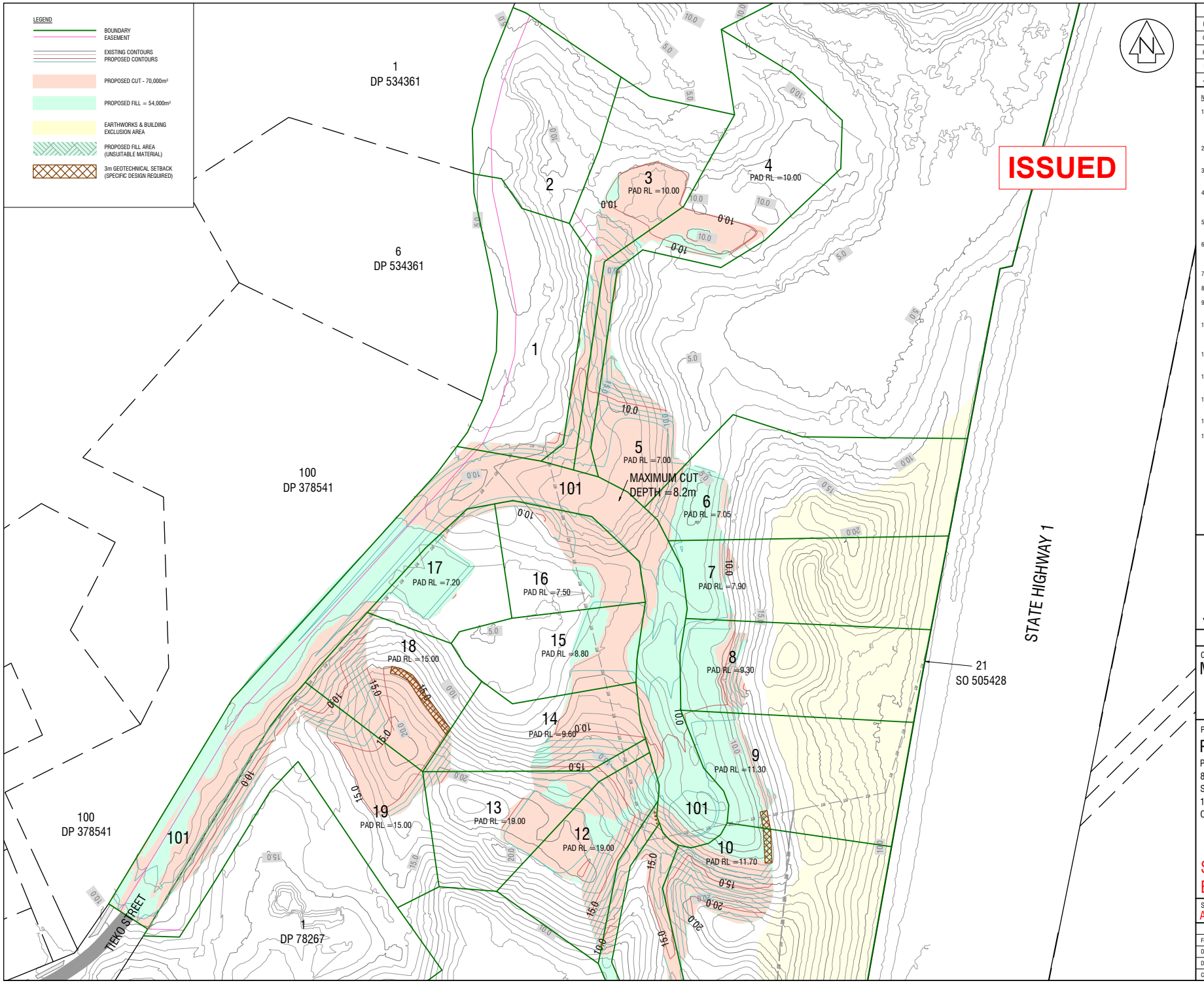
www.cuttriss.co.nz

PROJECT
PROPOSED SUBDIVISION
PT LOT 6 DP 53191, LOTS 2-4 & PT LOT 5 DP 84524, PT LOTS 1 & 2 DP 303764, SECS 5, 7 & 12 SO 404971, SECS 25, 27 & 31 SO 505428, 131-155 OTAIHANGA RD & 48-58 TIEKO ST, OTAIHANGA
SCHEME PLAN - ECOLOGICAL CONSTRAINTS & EARTHWORKS

CLIENT
MANSELL

SCALE	A1 1:1250	REDUCED SCALE A3 - 1:2500	
	NAME	DATE	DRAWING NUMBER
FIELDWORK	NHT	07/19	22208 SCH1
DESIGNED	NHT	11/20	
DRAWN	NHT	11/20	SHEET 3 OF 13 SHEETS
CHECKED	NKT	11/20	REVISION K



	REVISION DETAILS	NAME	DATE
F	LAYOUT AMENDED, GEOTECH DETAIL ADDED	NHT	04/21
G	STOCKPILES RELOCATED, SHEET1 DETAIL ADDED	NHT	05/21
H	NOTES AMENDED, LANDSCAPE DETAIL UPDATED	NHT	05/21
I	EARTHWORKS INFORMATION UPDATED	NHT	05/21
J	INFORMATION UPDATED	NHT	06/21

NOTES:

1. THIS PLAN DEFINES THE TOPOGRAPHICAL NATURE & FEATURES OF THE SITE FOR DISCUSSION PURPOSES & IS NOT TO BE RELIED UPON FOR ANY OTHER PURPOSE WITHOUT THE CONSENT OF CUTTRISS CONSULTANTS LIMITED
2. DIMENSIONS AND AREAS SHOWN ON THIS SCHEME PLAN WILL BE SUBJECT TO FINAL LAND TRANSFER SURVEY
3. COORDINATES ARE IN TERMS OF NEW ZEALAND GEODETIC 2000 DATUM, WANGANUI CIRCUIT.
4. LEVELS ARE IN TERMS OF MEAN SEA LEVEL WELLINGTON VERTICAL DATUM 1953. ORIGIN OF LEVELS: OIT II DP 82978 RL 5.806, ELLIPSOIDAL HEIGHT CONVERSION, 18 JULY 2019
5. NOT ALL INTERESTS ON THE RECORD OF TITLE MAY BE SHOWN ON THIS PLAN, AND SHOULD BE INVESTIGATED FURTHER
6. SERVICES HAVE BEEN LOCATED ON SITE WHERE POSSIBLE, OTHERWISE SHOWN FROM KCDC RECORDS, AND SHOULD BE VERIFIED ON SITE
7. CONTOUR INTERVAL: 1.0m
8. SURVEYED BY: N TAYLOR & S TURKINGTON, 18 JULY 2019
9. INSTRUMENT USED: TRIMBLE GPS RTK R10 VRS & DJI PHANTOM 4 PRO
10. BOUNDARY LEVELS FOR DETERMINATION OF CRITICAL RECESSION PLANES MUST BE CONFIRMED PRIOR TO ANY APPLICATION FOR BUILDING CONSENT
11. BOUNDARY INFORMATION HAS BEEN SOURCED FROM INFORMATION PROVIDED BY LINZ XML & HAS NOT BEEN VERIFIED ON SITE
12. ALL ELECTRONIC CAD DATA MUST BE READ IN CONJUNCTION WITH THESE NOTES
13. WETLAND EXTENT & KĀNUKA EXTENT TAKEN FROM INFORMATION SUPPLIED BY WILDLANDS ECOLOGY, RECEIVED 22-09-2020.
14. EXISTING EASEMENTS TO BE SURRENDERED AS NECESSARY.
15. EXTENT OF UNSUITABLE MATERIAL DISPOSAL AREAS TO BE CONFIRMED DURING CONSTRUCTION.

Cuttriss
Surveyors. Engineers. Planners.
www.cuttriss.co.nz

CLIENT
MANSELL

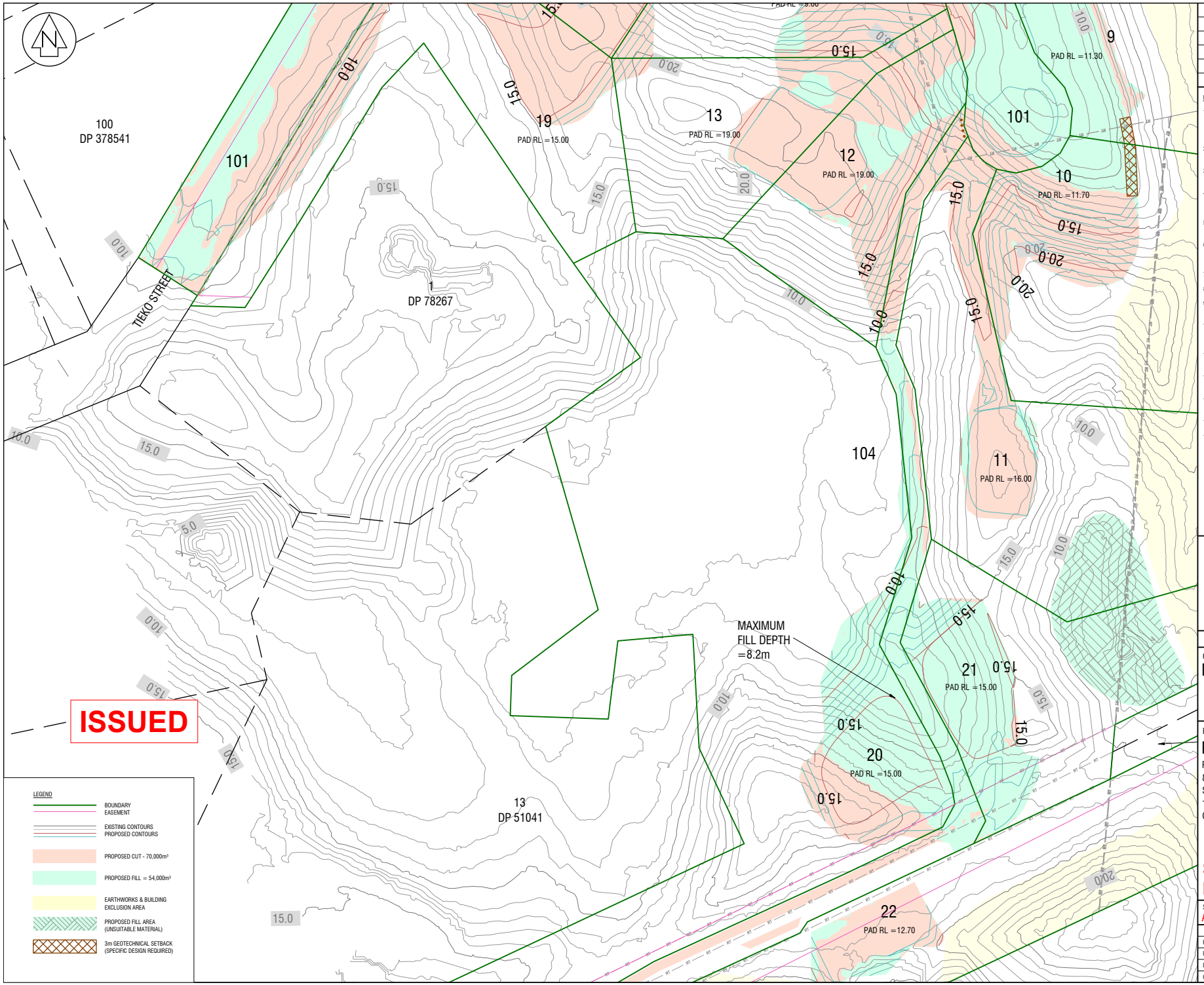
PROJECT
PROPOSED SUBDIVISION
PT LOT 6 DP 53191, LOTS 2-4 & PT LOT 5 DP 84524, PT LOTS 1 & 2 DP 303764, SECS 5, 7 & 12 SO 404971, SECS 25, 27 & 31 SO 505428
131-155 OTAIHANGA RD & 48-58 TIEKO ST, OTAIHANGA

SCHEME PLAN EARTHWORKS

SCALE	REDUCED SCALE
A1 - 1:750	A3 - 1:1500

	NAME	DATE
FIELDWORK	NHT	07/19
DESIGNED	NHT	11/20
DRAWN	NHT	11/20
CHECKED	NKT	11/20

DRAWING NUMBER 22208 SCH
SHEET 4 OF 13 SHEETS
REVISION K



REVISION DETAILS		NAME	DATE
F	LAYOUT AMENDED, GEOTECH DETAIL ADDED	NHT	04/21
G	STOCKPILES RELOCATED, SHEET1 DETAIL ADDED	NHT	05/21
H	NOTES AMENDED, LANDSCAPE DETAIL UPDATED	NHT	05/21
I	EARTHWORKS INFORMATION UPDATED	NHT	05/21
J	INFORMATION UPDATED	NHT	06/21

NOTES:

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3. COORDINATES ARE IN TERMS OF NEW ZEALAND GEODETIC 2000 DATUM, WANGANUI CIRCUIT.
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6. SERVICES HAVE BEEN LOCATED ON SITE WHERE POSSIBLE, OTHERWISE SHOWN FROM KCDC RECORDS, AND SHOULD BE VERIFIED ON SITE
7. CONTOUR INTERVAL: 1.0m
8. SURVEYED BY: N TAYLOR & S TURKINGTON, 18 JULY 2019
9. INSTRUMENT USED: TRIMBLE GPS RTK R10 VRS & DJI PHANTOM 4 PRO
10. BOUNDARY LEVELS FOR DETERMINATION OF CRITICAL RECESSION PLANES MUST BE CONFIRMED PRIOR TO ANY APPLICATION FOR BUILDING CONSENT
11. BOUNDARY INFORMATION HAS BEEN SOURCED FROM INFORMATION PROVIDED BY LINZ XML & HAS NOT BEEN VERIFIED ON SITE
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13. WETLAND EXTENT & KĀNUKA EXTENT TAKEN FROM INFORMATION SUPPLIED BY WILDLANDS ECOLOGY, RECEIVED 22-09-2020.
14. EXISTING EASEMENTS TO BE SURRENDERED AS NECESSARY.
15. EXTENT OF UNSUITABLE MATERIAL DISPOSAL AREAS TO BE CONFIRMED DURING CONSTRUCTION.

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MANSELL

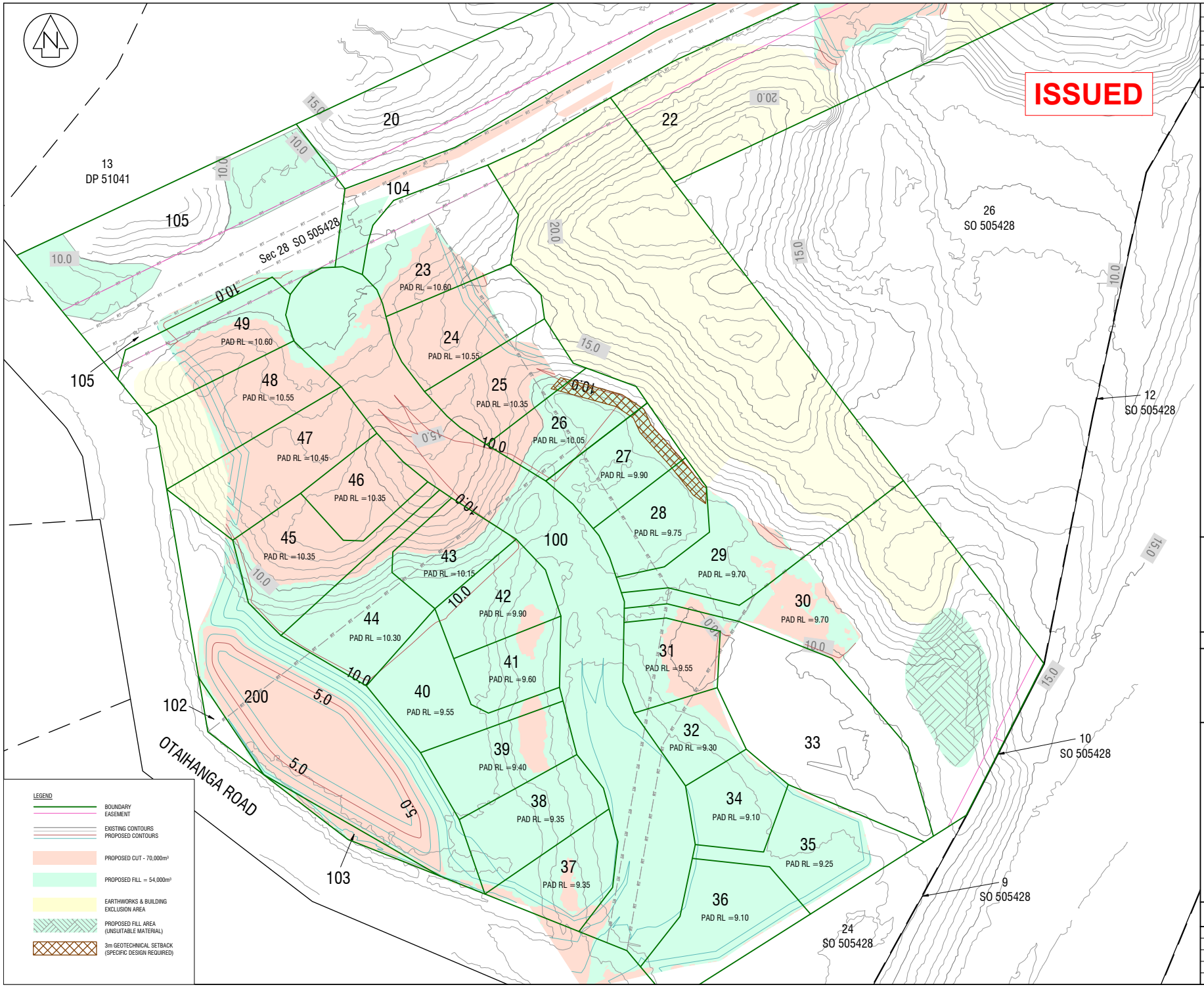
PROJECT
PROPOSED SUBDIVISION
PT LOT 6 DP 53191, LOTS 2-4 & PT LOT 5 DP 84524, PT LOTS 1 & 2 DP 303764, SECS 5, 7 & 12 SO 404971, SECS 25, 27 & 31 SO 505428
131-155 OTAIHANGA RD & 48-58 TIEKO ST, OTAIHANGA

SCHEME PLAN
EARTHWORKS

SCALE	REDUCED SCALE
A1 - 1:500	A3 - 1:1000

	NAME	DATE
FIELDWORK	NHT	07/19
DESIGNED	NHT	11/20
DRAWN	NHT	11/20
CHECKED	NKT	11/20

DRAWING NUMBER
22208 SCH
SHEET 5 OF 13 SHEETS
REVISION K



	REVISION DETAILS	NAME	DATE
F	LAYOUT AMENDED, GEOTECH DETAIL ADDED	NHT	04/21
G	STOCKPILES RELOCATED, SHEET1 DETAIL ADDED	NHT	05/21
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I	EARTHWORKS INFORMATION UPDATED	NHT	05/21
J	INFORMATION UPDATED	NHT	06/21

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PROJECT
PROPOSED SUBDIVISION
PT LOT 6 DP 53191, LOTS 2-4 & PT LOT 5 DP 84524, PT LOTS 1 & 2 DP 303764, SECS 5, 7 & 12 SO 404971, SECS 25, 27 & 31 SO 505428
131-155 OTAIHANGA RD & 48-58 TIEKO ST, OTAIHANGA

SCHEME PLAN
EARTHWORKS

SCALE
A1 - 1:500
REDUCED SCALE
A3 - 1:1000

	NAME	DATE
FIELDWORK	NHT	07/19
DESIGNED	NHT	11/20
DRAWN	NHT	11/20
CHECKED	NKT	11/20

DRAWING NUMBER
22208 SCH
SHEET 6 OF 13 SHEETS
REVISION K

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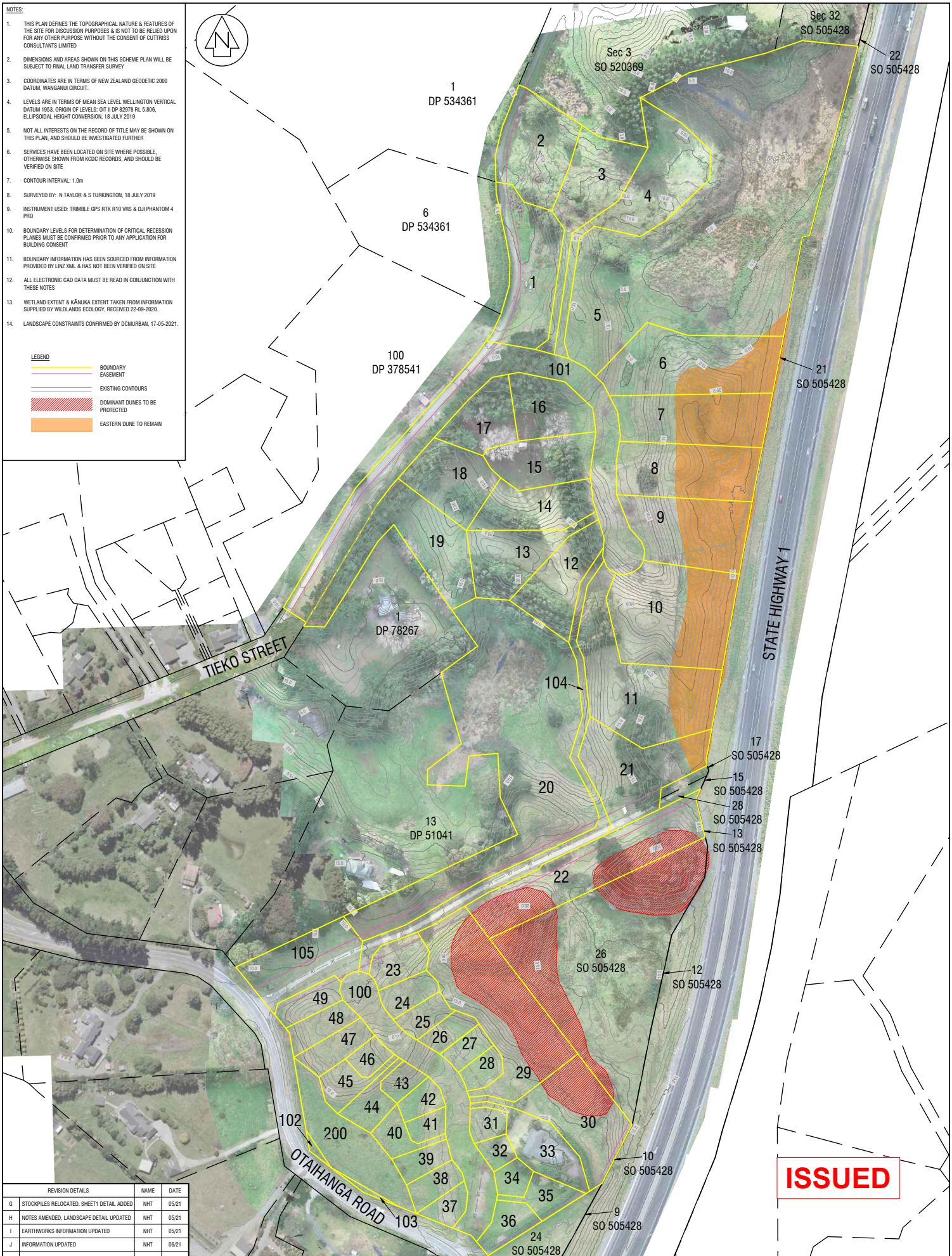
13. WETLAND EXTENT & KĀNUKA EXTENT TAKEN FROM INFORMATION SUPPLIED BY WILDLANDS ECOLOGY, RECEIVED 22-09-2020.
14. LANDSCAPE CONSTRAINTS CONFIRMED BY DCMURBAN, 17-05-2021.

LEGEND

- BOUNDARY
- EASEMENT
- EXISTING CONTOURS
- DOMINANT DUNES TO BE PROTECTED
- EASTERN DUNE TO REMAIN



ISSUED

	REVISION DETAILS	NAME	DATE
G	STOCKPILES RELOCATED, SHEET1 DETAIL ADDED	NHT	05/21
H	NOTES AMENDED, LANDSCAPE DETAIL UPDATED	NHT	05/21
I	EARTHWORKS INFORMATION UPDATED	NHT	05/21
J	INFORMATION UPDATED	NHT	06/21
K	INFORMATION UPDATED	JLG	06/21

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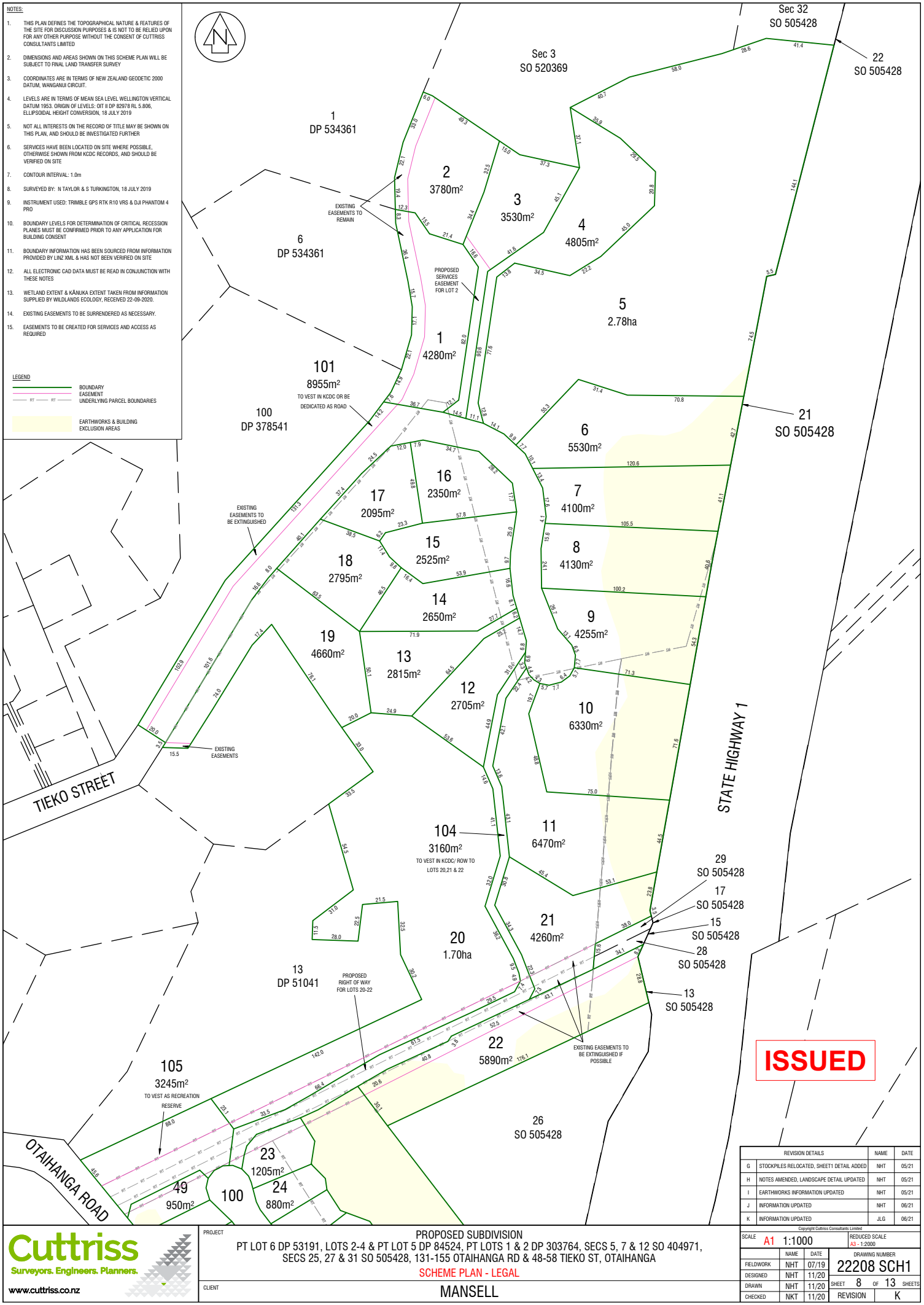
PROJECT
PROPOSED SUBDIVISION
PT LOT 6 DP 53191, LOTS 2-4 & PT LOT 5 DP 84524, PT LOTS 1 & 2 DP 303764, SECS 5, 7 & 12 SO 404971, SECS 25, 27 & 31 SO 505428, 131-155 OTAIHANGA RD & 48-58 TIEKO ST, OTAIHANGA
SCHEME PLAN - LANDSCAPE CONSTRAINTS

CLIENT
MANSELL

SCALE A1 1:1250 | REDUCED SCALE A3 - 1:2500

	NAME	DATE
FIELDWORK	NHT	07/19
DESIGNED	NHT	11/20
DRAWN	NHT	11/20
CHECKED	NKT	11/20

DRAWING NUMBER 22208 SCH1
SHEET 7 OF 13 SHEETS
REVISION K



REVISION DETAILS		NAME	DATE
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J	INFORMATION UPDATED	NHT	06/21
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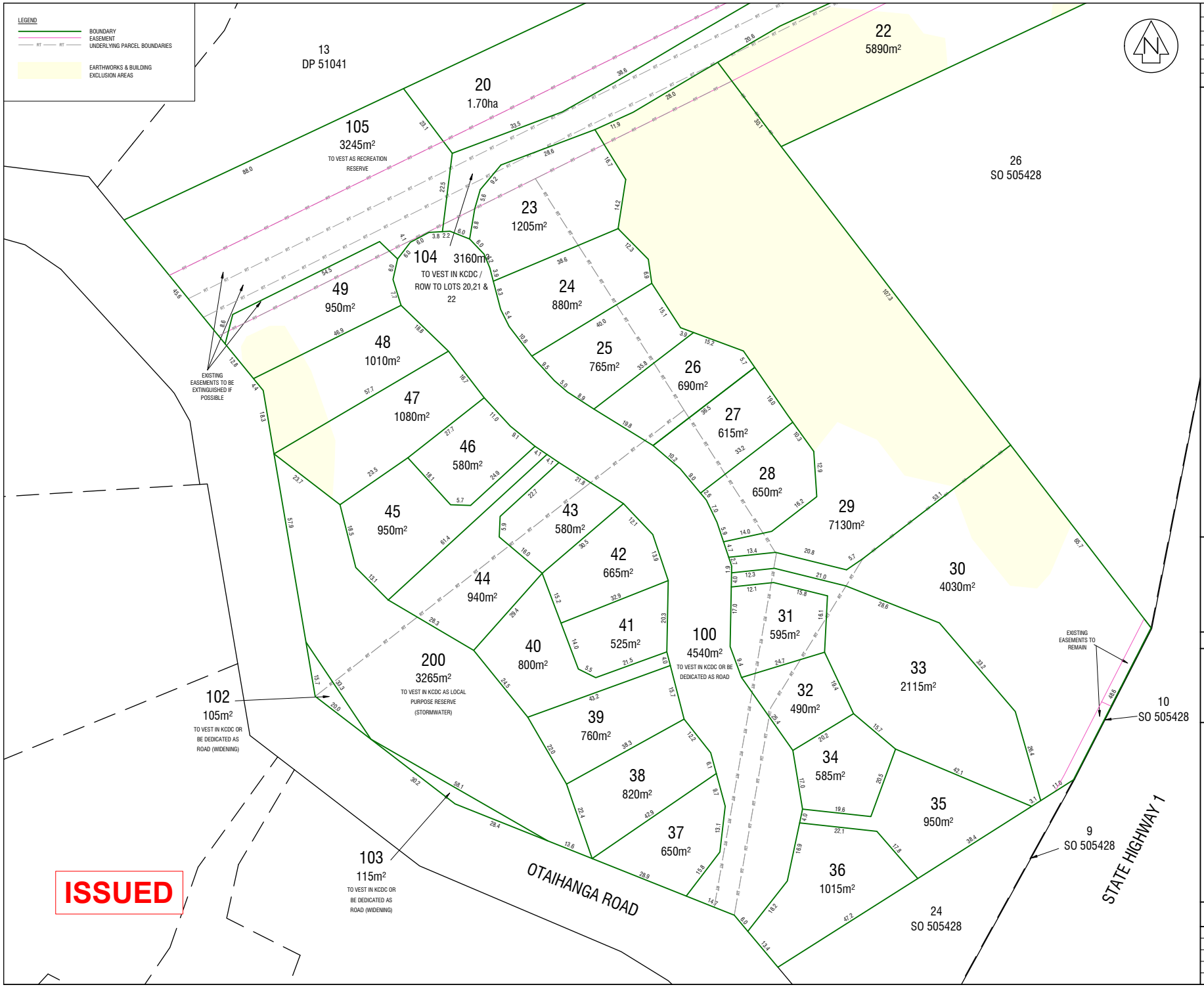
SCHEME PLAN - LEGAL

CLIENT
MANSELL

SCALE A1 1:1000
REDUCED SCALE A3 - 1:2000

	NAME	DATE
FIELDWORK	NHT	07/19
DESIGNED	NHT	11/20
DRAWN	NHT	11/20
CHECKED	NKT	11/20

DRAWING NUMBER 22208 SCH1
SHEET 8 OF 13 SHEETS
REVISION K



	REVISION DETAILS	NAME	DATE
F	LAYOUT AMENDED, GEOTECH DETAIL ADDED	NHT	04/21
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I	EARTHWORKS INFORMATION UPDATED	NHT	05/21
J	INFORMATION UPDATED	NHT	06/21

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15. EASEMENTS TO BE CREATED FOR SERVICES AND ACCESS AS REQUIRED

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PROJECT
PROPOSED SUBDIVISION
PT LOT 6 DP 53191, LOTS 2-4 & PT LOT 5 DP 84524, PT LOTS 1 & 2 DP 303764, SECS 5, 7 & 12 SO 404971, SECS 25, 27 & 31 SO 505428
131-155 OTAIHANGA RD & 48-58 TIEKO ST, OTAIHANGA

SCHEME PLAN
LEGAL

SCALE	REDUCED SCALE
A1 - 1:500	A3 - 1:1000

	NAME	DATE
FIELDWORK	NHT	07/19
DESIGNED	NHT	11/20
DRAWN	NHT	11/20
CHECKED	NKT	11/20

DRAWING NUMBER
22208 SCH
SHEET 9 OF 13 SHEETS
REVISION K

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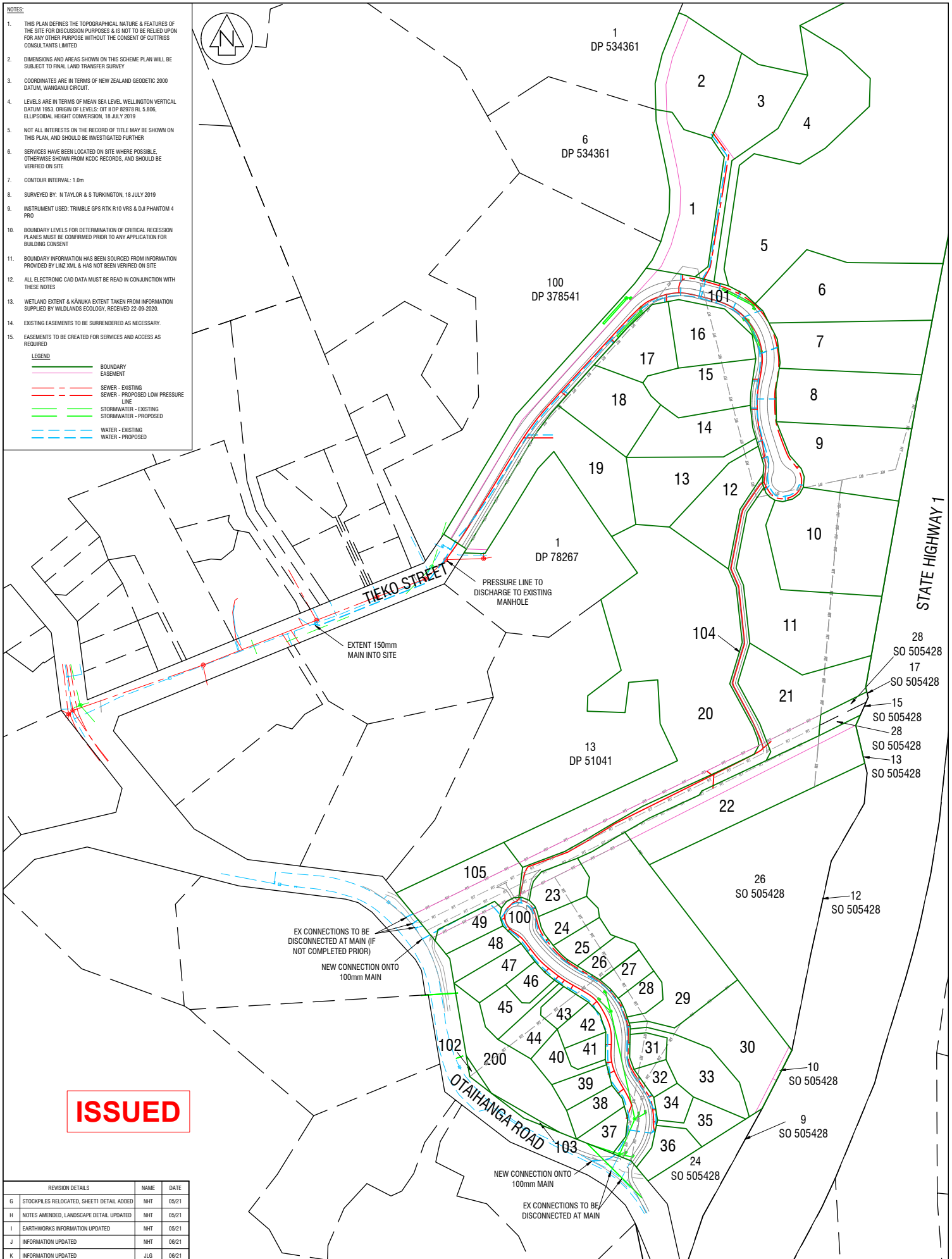
LEGEND

- BOUNDARY
- EASEMENT
- SEWER - EXISTING
- SEWER - PROPOSED LOW PRESSURE LINE
- STORMWATER - EXISTING
- STORMWATER - PROPOSED
- WATER - EXISTING
- WATER - PROPOSED



ISSUED

	REVISION DETAILS	NAME	DATE
G	STOCKPILES RELOCATED, SHEET1 DETAIL ADDED	NHT	05/21
H	NOTES AMENDED, LANDSCAPE DETAIL UPDATED	NHT	05/21
I	EARTHWORKS INFORMATION UPDATED	NHT	05/21
J	INFORMATION UPDATED	NHT	06/21
K	INFORMATION UPDATED	JLG	06/21

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PROJECT
PROPOSED SUBDIVISION
PT LOT 6 DP 53191, LOTS 2-4 & PT LOT 5 DP 84524, PT LOTS 1 & 2 DP 303764, SECS 5, 7 & 12 SO 404971, SECS 25, 27 & 31 SO 505428, 131-155 OTAIHANGA RD & 48-58 TIEKO ST, OTAIHANGA
SCHEME PLAN - SERVICES

CLIENT
MANSELL

SCALE	A1 1:1250	REDUCED SCALE	A3 - 1:2500

	NAME	DATE
FIELDWORK	NHT	07/19
DESIGNED	NHT	11/20
DRAWN	NHT	11/20
CHECKED	NKT	11/20

DRAWING NUMBER 22208 SCH1
SHEET 10 OF 13 SHEETS
REVISION K

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LEGEND

- BOUNDARY
- EASEMENT
- PROPOSED/EXISTING ROAD/RIGHT OF WAY
- PROPOSED FOOTPATH
- PROPOSED BIOFILTRATION SWALE

1 DP 534361
6 DP 534361
100 DP 378541
1 DP 78267
13 DP 51041
13 DP 51041

TIEKO STREET
STATE HIGHWAY 1
OTAIHANGA ROAD

LOW POINT
2.5m WIDE CYCLEWAY, WALKWAY & BRIDLEWAY
EXISTING SEALED DRIVEWAY TO REMAIN AS SHARED CYCLEWAY, WALKWAY & BRIDLEWAY
BOLLARDS TO PREVENT VEHICULAR THROUGH TRAFFIC
CONNECTION TO EXISTING SEALED DRIVEWAY
EXISTING SEALED DRIVEWAY TO BE WIDENED FOR PASSING BAYS
CONNECTION TO EXISTING SEALED DRIVEWAY
5.5m WIDE ENTRANCE
BOLLARDS TO PREVENT VEHICULAR THROUGH TRAFFIC, WHILST ALLOWING CONNECTION TO EXISTING CYCLEWAY AND FOOTPATH NETWORK
KERB & CHANNEL
LOW POINT

26 SO 505428
12 SO 505428
10 SO 505428
9 SO 505428
24 SO 505428
29 SO 505428
17 SO 505428
15 SO 505428
28 SO 505428
13 SO 505428

ISSUED

	REVISION DETAILS	NAME	DATE
G	STOCKPILES RELOCATED, SHEET1 DETAIL ADDED	NHT	05/21
H	NOTES AMENDED, LANDSCAPE DETAIL UPDATED	NHT	05/21
I	EARTHWORKS INFORMATION UPDATED	NHT	05/21
J	INFORMATION UPDATED	NHT	06/21
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PROJECT
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PT LOT 6 DP 53191, LOTS 2-4 & PT LOT 5 DP 84524, PT LOTS 1 & 2 DP 303764, SECS 5, 7 & 12 SO 404971, SECS 25, 27 & 31 SO 505428, 131-155 OTAIHANGA RD & 48-58 TIEKO ST, OTAIHANGA
SCHEME PLAN - ROADING

CLIENT
MANSELL

SCALE A1 1:1250
REDUCED SCALE A3 - 1:2500

	NAME	DATE
FIELDWORK	NHT	07/19
DESIGNED	NHT	11/20
DRAWN	NHT	11/20
CHECKED	NKT	11/20

DRAWING NUMBER 22208 SCH1
SHEET 11 OF 13 SHEETS
REVISION K

	REVISION DETAILS	NAME	DATE
F	LAYOUT AMENDED, GEOTECH DETAIL ADDED	NHT	04/21
G	STOCKPILES RELOCATED, SHEET1 DETAIL ADDED	NHT	05/21
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LEGEND

BOUNDARY
EASEMENT
SIGHT LINES - TURNING IN
SIGHT LINES - TURNING OUT

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PROJECT
PROPOSED SUBDIVISION
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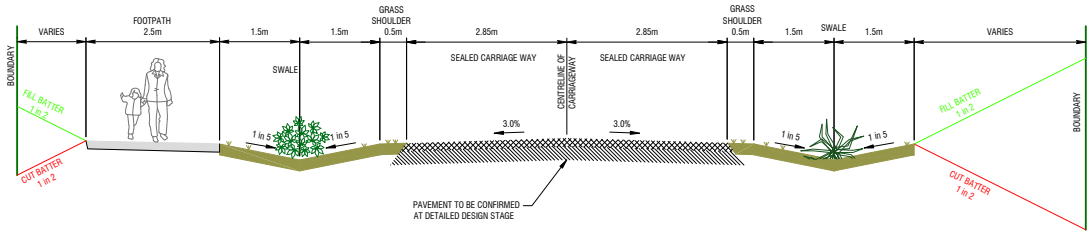
131-155 OTAIHANGA RD & 48-58 TIEKO ST, OTAIHANGA

SCHEME PLAN
OTAIHANGA RD SIGHT LINES

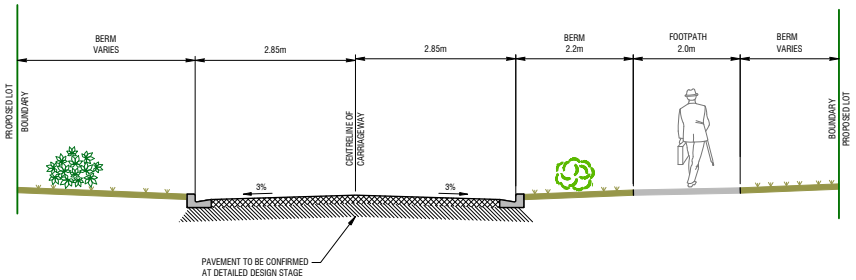
SCALE
A1 - 1:500
REDUCED SCALE
A3 - 1:1000

	NAME	DATE
FIELDWORK	NHT	07/19
DESIGNED	NHT	11/20
DRAWN	NHT	11/20
CHECKED	NKT	11/20

DRAWING NUMBER
22208 SCH
SHEET 12 OF 13 SHEETS
REVISION K



A 11 TYPICAL ROAD CROSS SECTION - SWALE
1:50 (1:100 @ A3)



B 11 TYPICAL ROAD CROSS SECTION - KERB & CHANNEL
1:50 (1:100 @A3)

ISSUED

	REVISION DETAILS	NAME	DATE
F	LAYOUT AMENDED, GEOTECH DETAIL ADDED	NHT	04/21
G	STOCKPILES RELOCATED, SHEET1 DETAIL ADDED	NHT	05/21
H	NOTES AMENDED, LANDSCAPE DETAIL UPDATED	NHT	05/21
I	EARTHWORKS INFORMATION UPDATED	NHT	05/21
J	INFORMATION UPDATED	NHT	06/21

NOTES:

1. THIS PLAN DEFINES THE TOPOGRAPHICAL NATURE & FEATURES OF THE SITE FOR DISCUSSION PURPOSES & IS NOT TO BE RELIED UPON FOR ANY OTHER PURPOSE WITHOUT THE CONSENT OF CUTTRISS CONSULTANTS LIMITED
2. DIMENSIONS AND AREAS SHOWN ON THIS SCHEME PLAN WILL BE SUBJECT TO FINAL LAND TRANSFER SURVEY
3. COORDINATES ARE IN TERMS OF NEW ZEALAND GEODETIC 2000 DATUM, WANGANUI CIRCUIT.
4. LEVELS ARE IN TERMS OF MEAN SEA LEVEL WELLINGTON VERTICAL DATUM 1953. ORIGIN OF LEVELS: OIT II DP 82978 RL 5.806, ELLIPSOIDAL HEIGHT CONVERSION, 18 JULY 2019
5. NOT ALL INTERESTS ON THE RECORD OF TITLE MAY BE SHOWN ON THIS PLAN, AND SHOULD BE INVESTIGATED FURTHER
6. SERVICES HAVE BEEN LOCATED ON SITE WHERE POSSIBLE, OTHERWISE SHOWN FROM KCDC RECORDS, AND SHOULD BE VERIFIED ON SITE
7. CONTOUR INTERVAL: 1.0m
8. SURVEYED BY: N TAYLOR & S TURKINGTON, 18 JULY 2019
9. INSTRUMENT USED: TRIMBLE GPS RTK R10 VRS & DJI PHANTOM 4 PRO
10. BOUNDARY LEVELS FOR DETERMINATION OF CRITICAL RECESSION PLANES MUST BE CONFIRMED PRIOR TO ANY APPLICATION FOR BUILDING CONSENT
11. BOUNDARY INFORMATION HAS BEEN SOURCED FROM INFORMATION PROVIDED BY LINZ XML & HAS NOT BEEN VERIFIED ON SITE
12. ALL ELECTRONIC CAD DATA MUST BE READ IN CONJUNCTION WITH THESE NOTES
13. PLANTING DETAIL TO BE CONFIRMED BY LANDSCAPE ARCHITECT

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PROJECT
PROPOSED SUBDIVISION
PT LOT 6 DP 53191, LOTS 2-4 & PT LOT 5 DP 84524, PT LOTS 1 & 2 DP 303764, SECS 5, 7 & 12 SO 404971, SECS 25, 27 & 31 SO 505428
131-155 OTAIHANGA RD & 48-58 TIEKO ST, OTAIHANGA

SCHEME PLAN
TYPICAL CROSS SECTIONS

SCALE
A1 - 1:50
REDUCED SCALE
A3 - 1:100

	NAME	DATE
FIELDWORK	NHT	07/19
DESIGNED	NHT	11/20
DRAWN	NHT	11/20
CHECKED	NKT	11/20

DRAWING NUMBER
22208 SCH
SHEET 13 OF 13 SHEETS
REVISION K