

Proposed Waimakariri District Plan - Hearing Stream 12E

B & A Stokes - Graphic Attachment

Tab 1: Site Location

Tab 2: LIDAR Topographical Plan

Tab 3: Existing Waterways and Springs Mapping

Tab 4: Flood Mapping

Tab 5: Site Analysis and Site Photograph Location Plan

Tab 6: Ravenswood Road Network

Tab 7: Woodend/Ravenswood/Pegasus Cycle Network

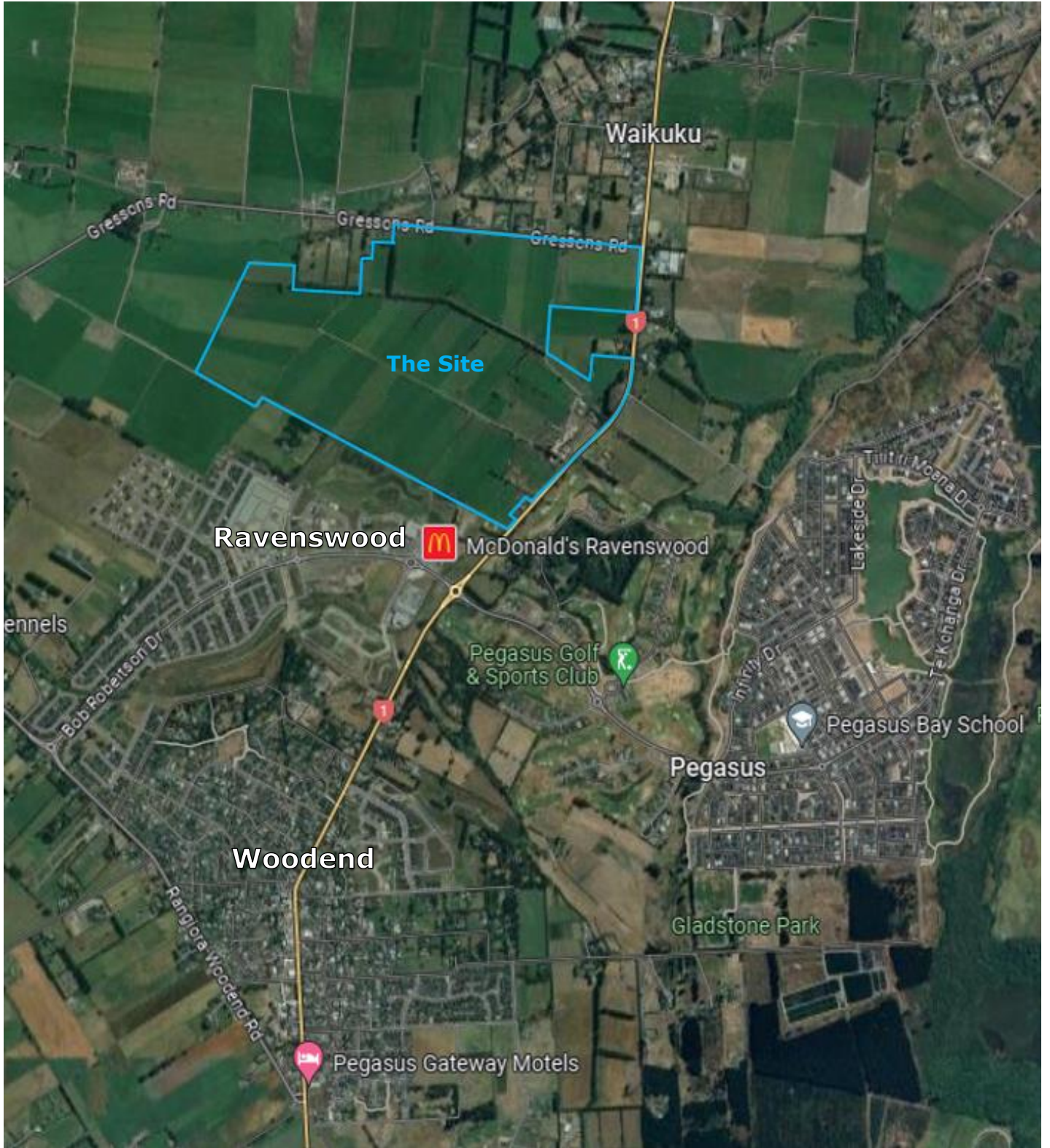
Tab 8: Proximity to Ravenswood Key Activity Centre

Tab 9: Outline Development Plan

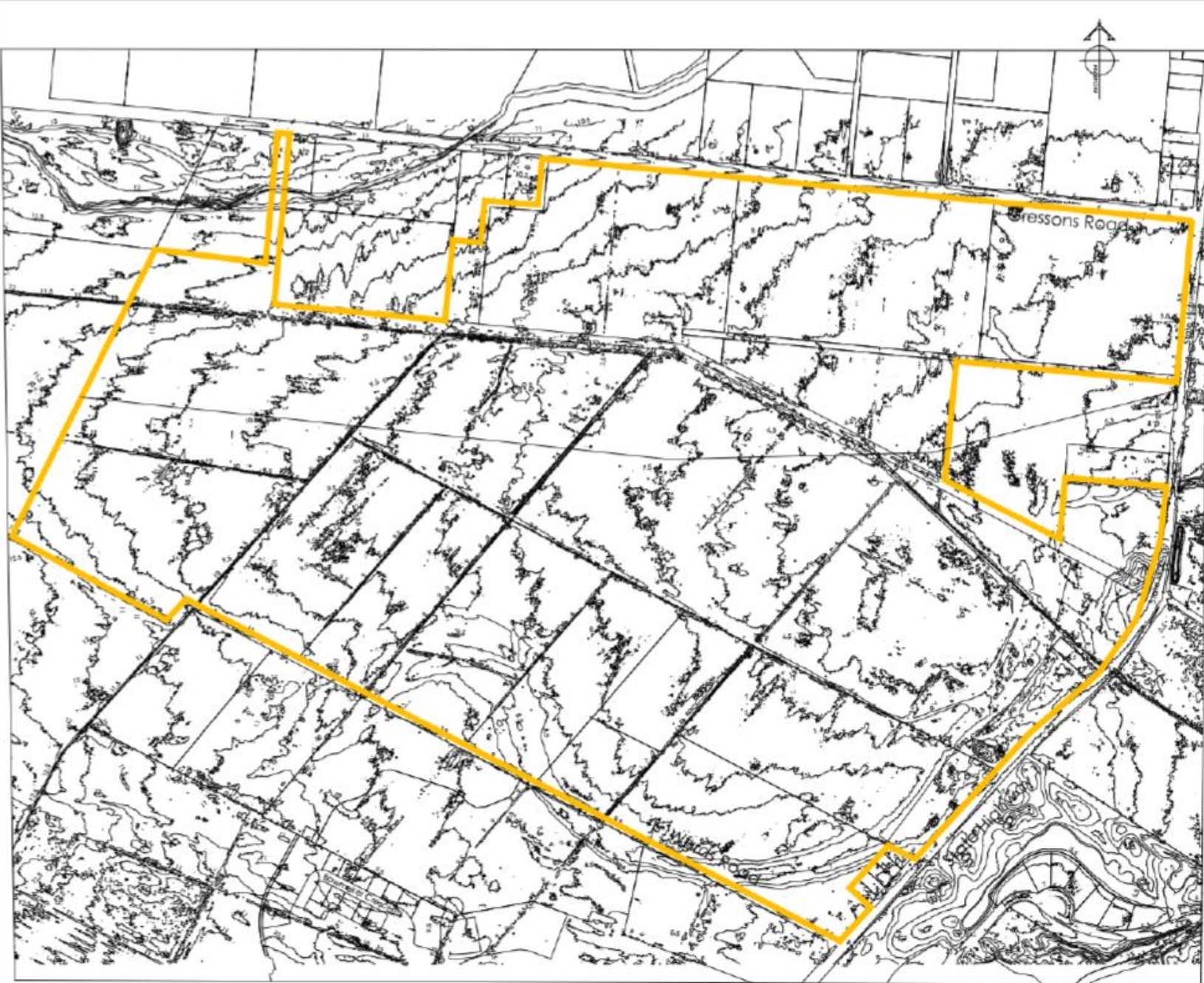
Tab 10: ODP Cross Sections

Tab 11: ODP Narrative

Site Location



LIDAR Topographical Plan



Notes: Photographic and LIDAR contour data from the LIDAR Data Service and obtained by the Council from the LIDAR Data Service for use under the Creative Commons Attribution 4.0 International License

REVISIONS		
NO.	DATE	DESCRIPTION

- Notes:**
1. Area and dimensions are approximate only and are subject to field survey and detail of plans.
 2. Service easements to be created as required.
 3. This plan has been prepared for submission concept & discussion purposes only. No liability is accepted if the plan is used for any other purpose.
 4. CONTOUR SHOWS ARE FROM COUNCIL CITY COUNCIL 2019 Data or 2020 Contour Interval and based on LIDAR version Contour 2016.

Total Area:
Comprised in:

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PROJECT: Stokes - Waikuku

SHEET TITLE: BASE PLAN

DRAWING STATUS: For Discussion Purposes

SCALE: 1:3000@A1 DATE: November 2021
1:2000@A3

PROJECT NO:	DRAWING NO:	SHEET NO:	SCALE:
E020605	1 OF 1	RO	

Existing Waterways and Springs Mapping



- Legend**
- Property boundary
 - Culvert
 - x Plot points
 - Wahi Tapu
 - E Eel
 - I Inanga
 - Waterways**
 - Main waterway
 - - - Tributary waterway
 - · - · - Intermittent waterway
 - x Springs
 - Wetland

Data Acknowledgment
 *Custom data sourced from the GNC Data Service
 Licensed for reuse under CC BY 4.0

Report: 7043
 Ref: 11148
 Client:
 Name: Maramoa Park
 Path: E:\gis\1323 Main North Road, Waikuku.mxd

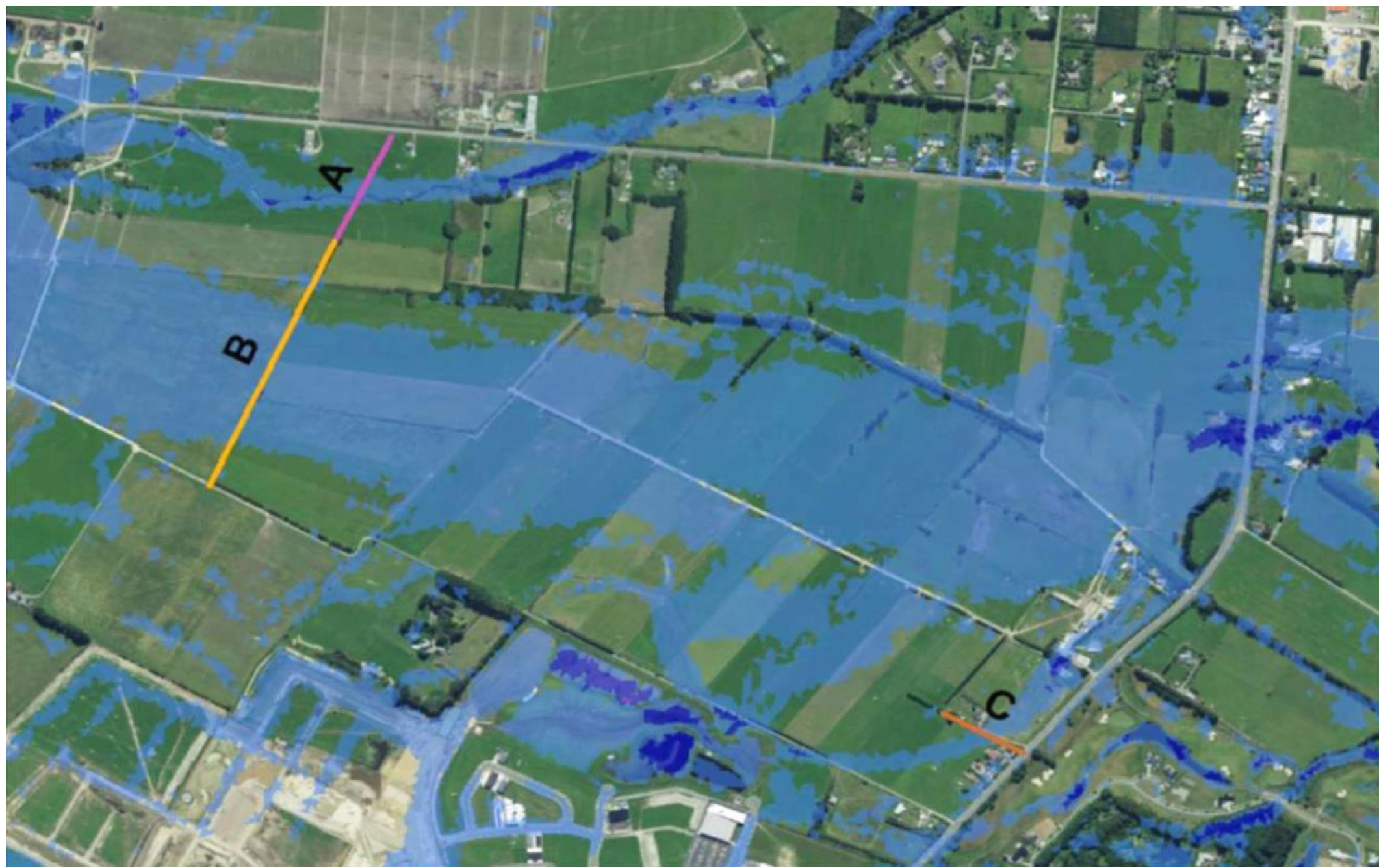
Figure 2. Observed waterways and wetlands of 1323 Main North Road, Waikuku, November 2023



Wildlands
 www.wildlands.co.nz, 0508 951 017

Scale: 1:6,500
 Date: 12/02/2024
 Cartographer: BL
 Format: A3R

Flood Mapping



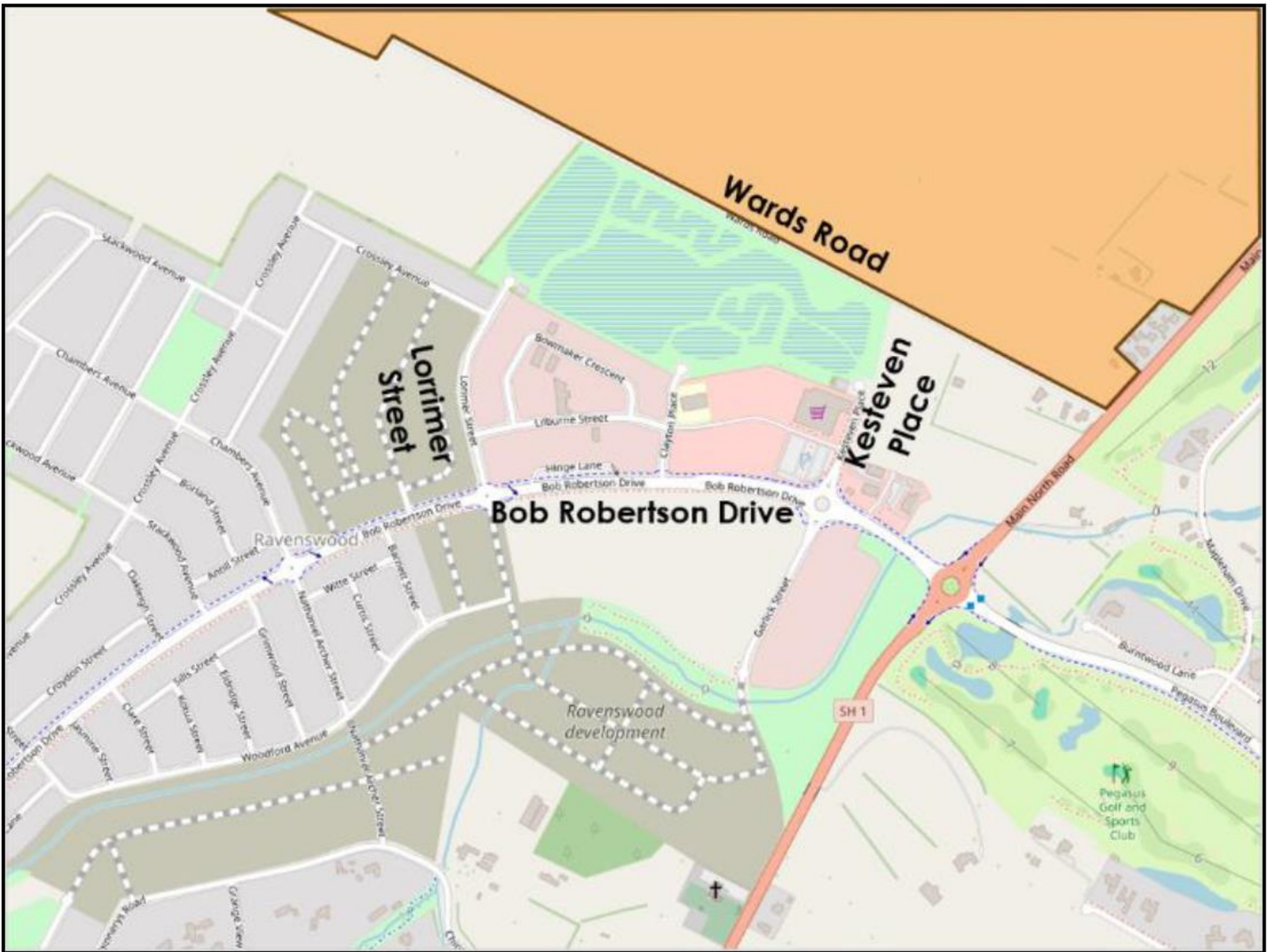
Site Analysis and Site Photograph Location Plan



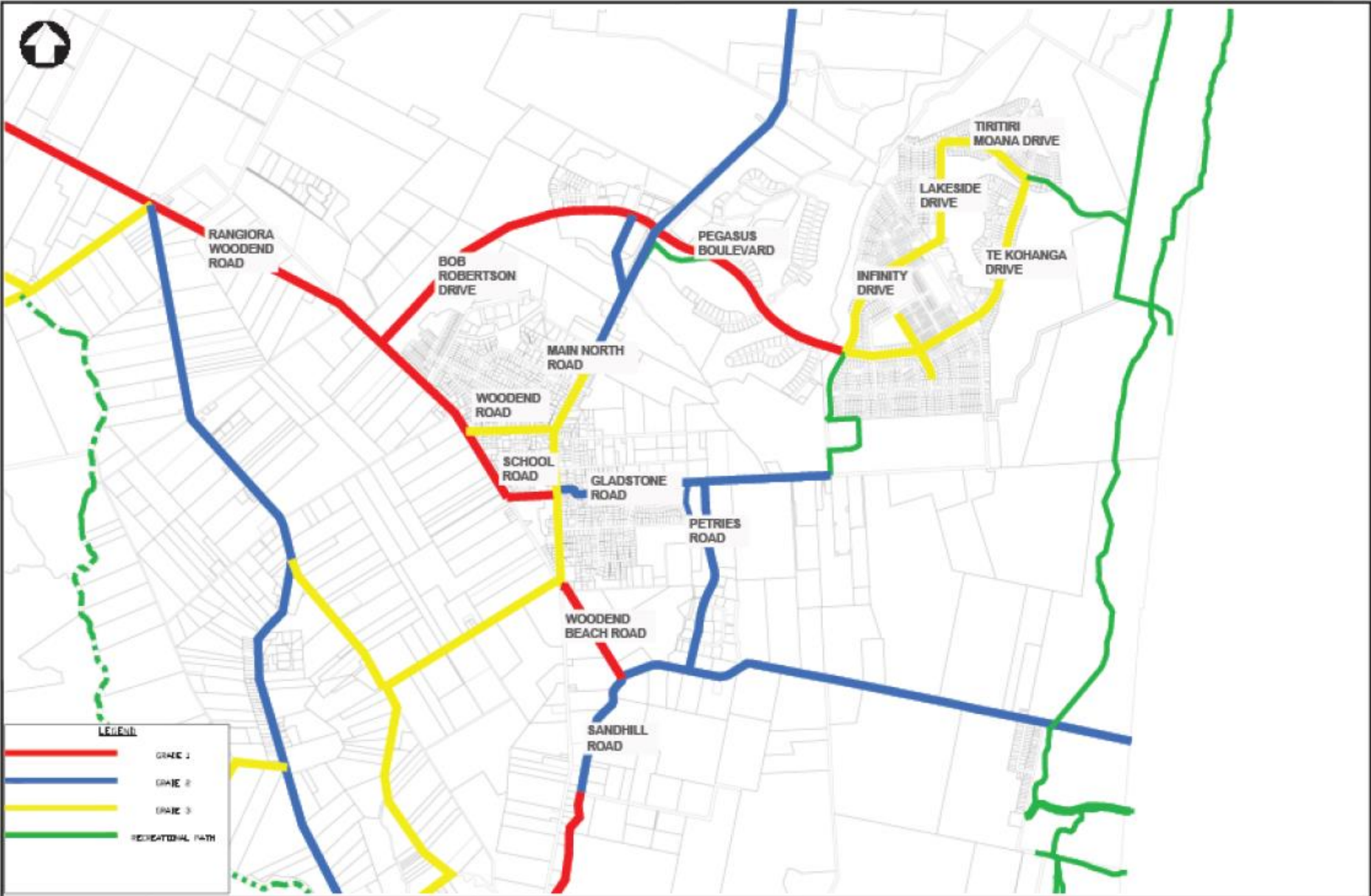
Not to Scale



Ravenswood Road Network



Woodend / Ravenswood / Pegasus Cycle Network Plan



REV	REVISION/DETAILS	DRN	CHK	APP	DATE
A	FOR COMMUNITY ROAD	AME	RS	--	JUL 2022
B	FOR COUNCIL	AME	RS	--	AUG 2022

SURVEYED	DATE
DESIGNED	DATE
DESIGNED CHD	DATE
APPROVED	DATE

PROJECT NO.	PROJECT
4296	WALKING AND CYCLING NETWORK PLAN

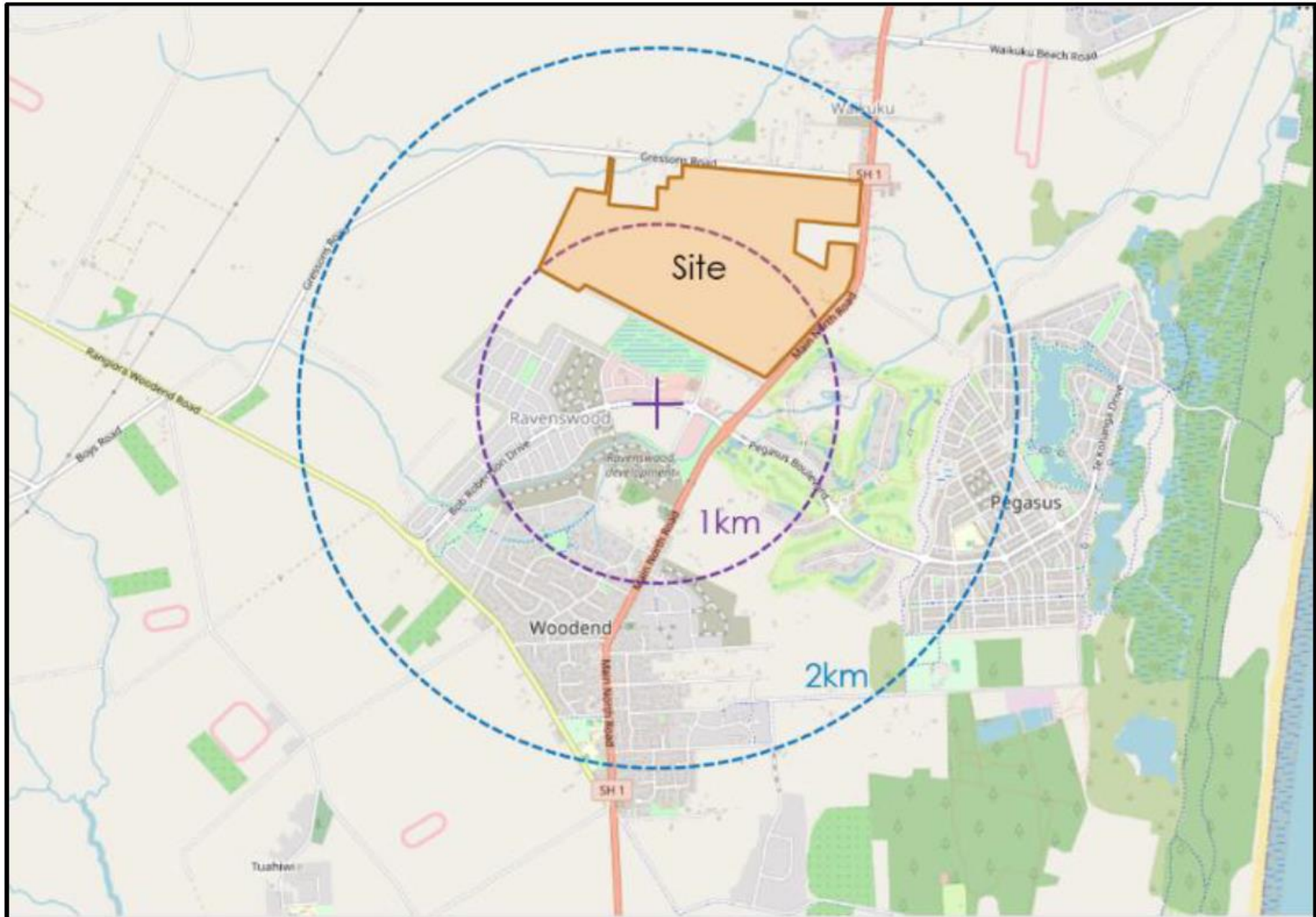


SHEET TITLE
WOODEND/PEGASUS (RECOMMENDED NETWORK PLAN)

FOR INFORMATION
4296
05

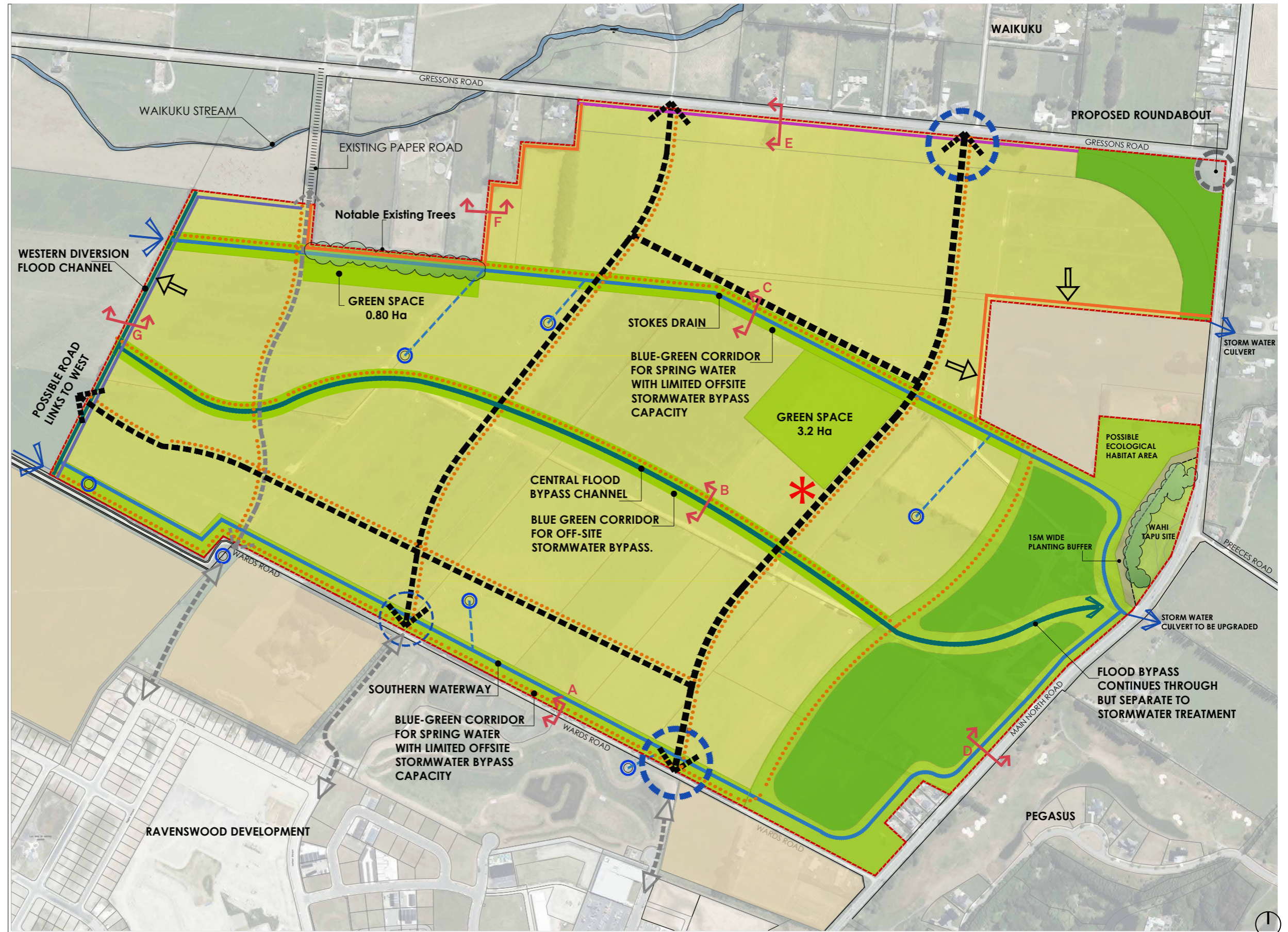
FOR INFORMATION
4296
05

Proximity to Key Activity Centre



Outline Development Plan

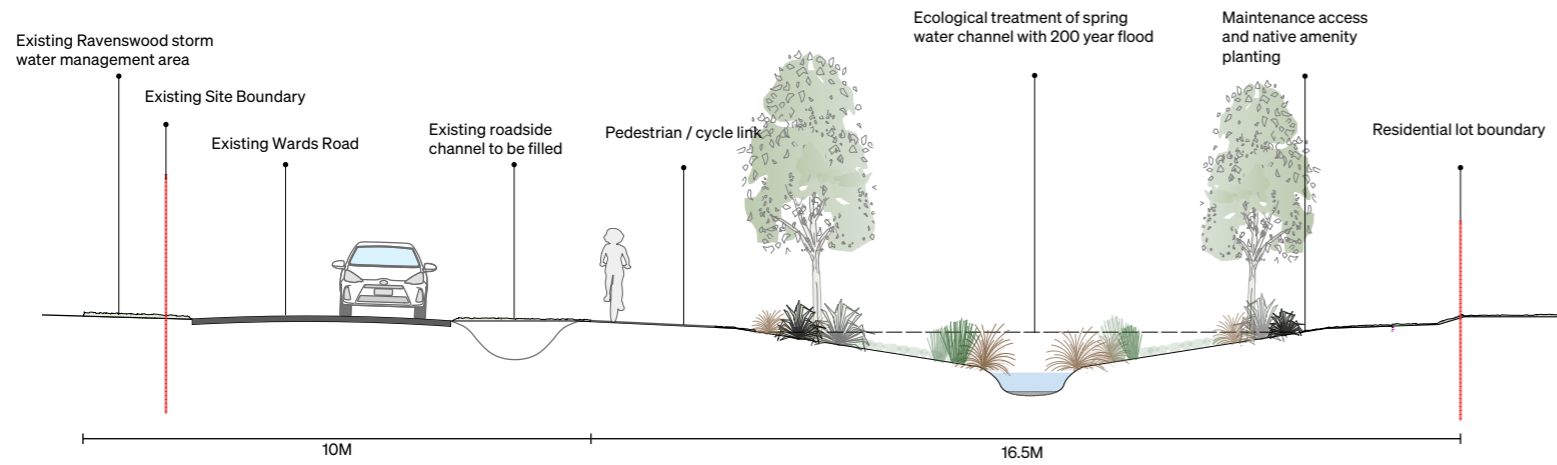
- Legend**
- Green Space Network
 - Stormwater Conveyance and Treatment Network
 - Spring Water Collection and Conveyance Network
 - Standard Density Residential
 - Adjacent Private Land
 - Outline Development Plan Area
 - Indicative Collector Road
 - Indicative Key Local Road
 - Storm Water Bypass
 - 10.0 M Wide Landscape Treatment
 - Development Gateways
 - Potential Minor Threshold
 - Indicative Pedestrian - Cycle Network
 - Potential Community Hub
 - Existing Springs (approx. location)
 - Cross Illustrative Section Line- (Refer Pages 10 -12)
 - Gressons Road Boundary Treatment Zone
 - Existing Rural Lot Boundary Treatment Zone
 - Boundary Treatment at Western Diversion Treatment Zone



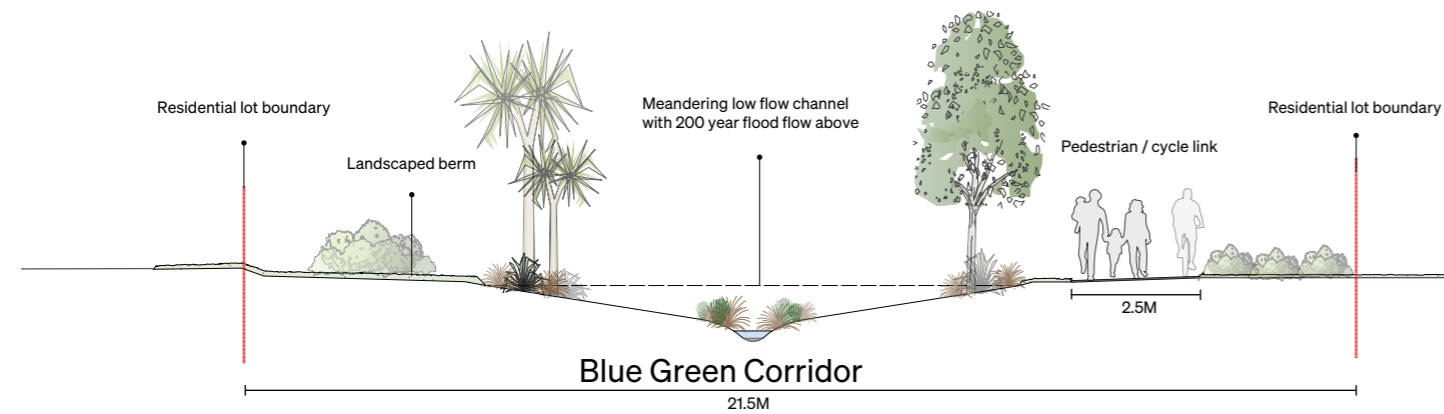
Scale 1 to 8000 @ A3

Cross Sections

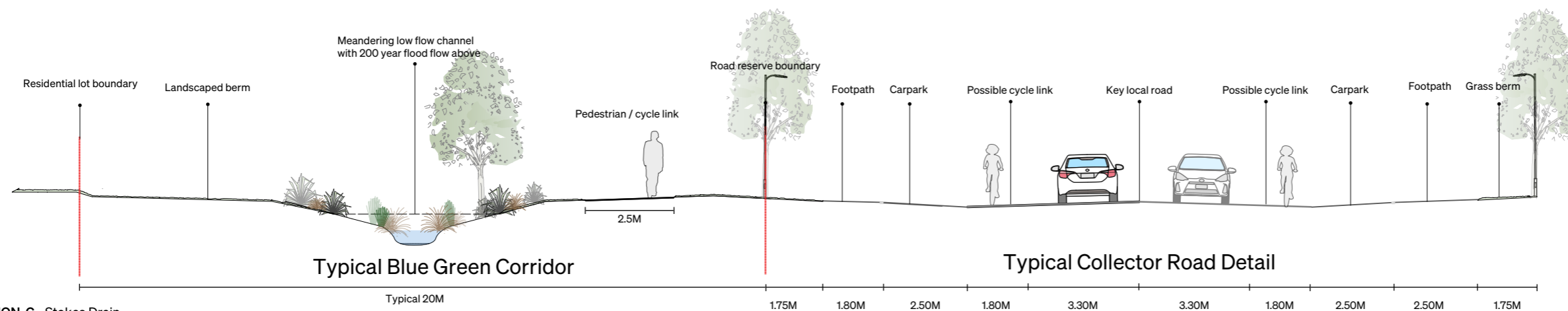
DIMENSIONS & NOTES TO BE CONFIRMED



SECTION A - Southern Waterway
Scale 1 to 100 @ A3



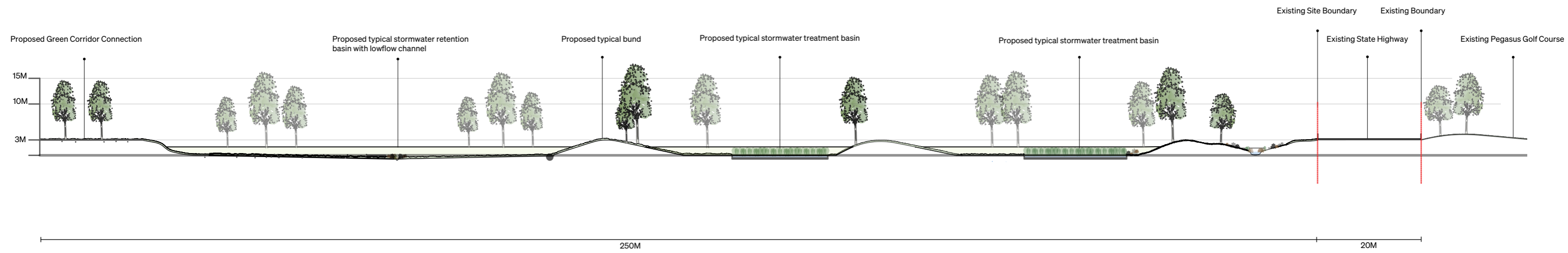
SECTION B - Central Flood Bypass Channel
Scale 1 to 100 @ A3



SECTION C - Stokes Drain
Scale 1 to 100 @ A3

Cross Sections

DIMENSIONS & NOTES TO BE CONFIRMED

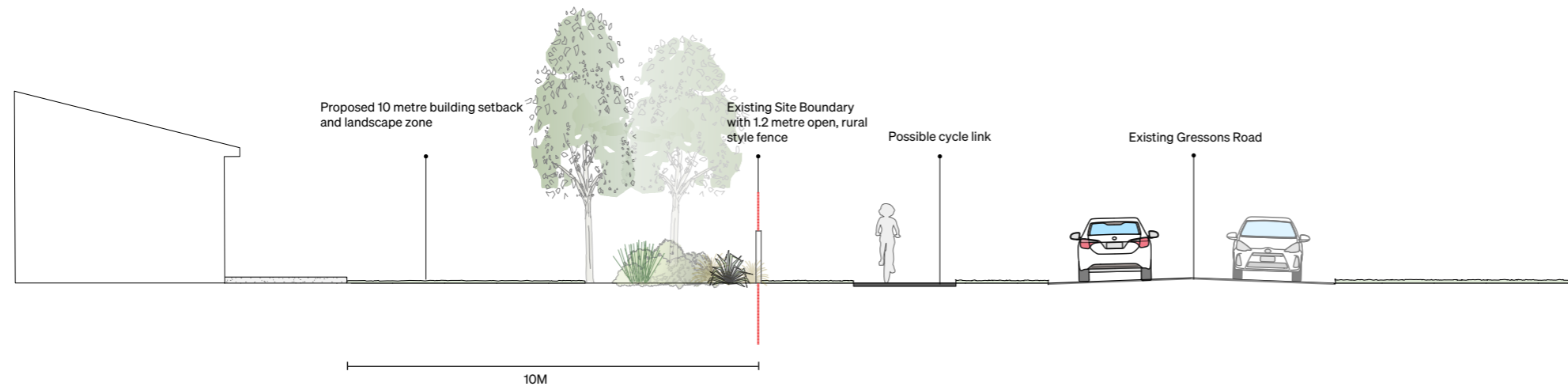


SECTION D - SH1 Main North Road

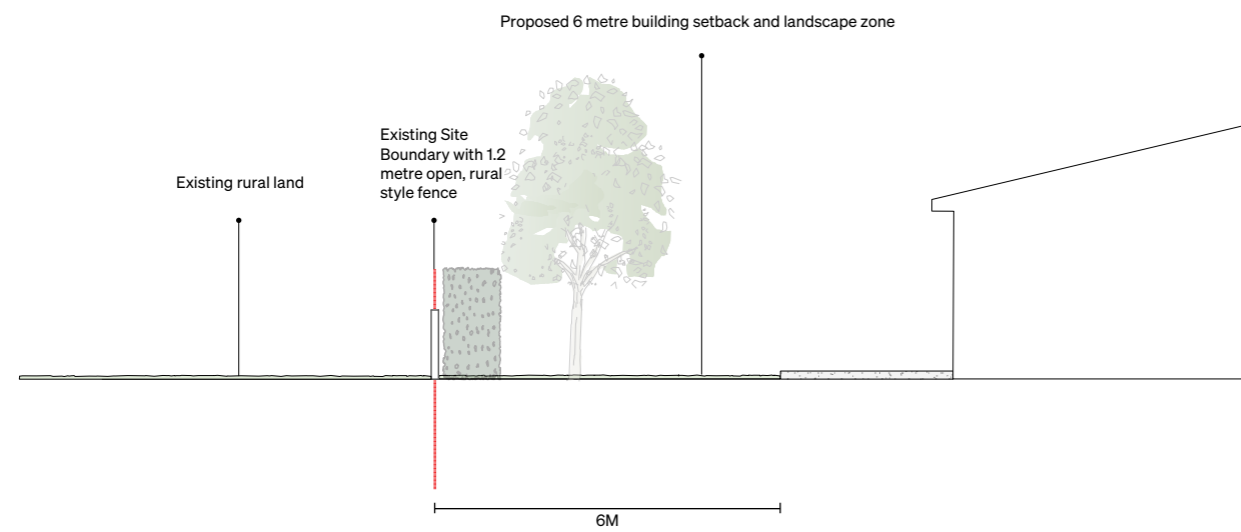
Scale 1 to 1000 @ A3

Cross Sections

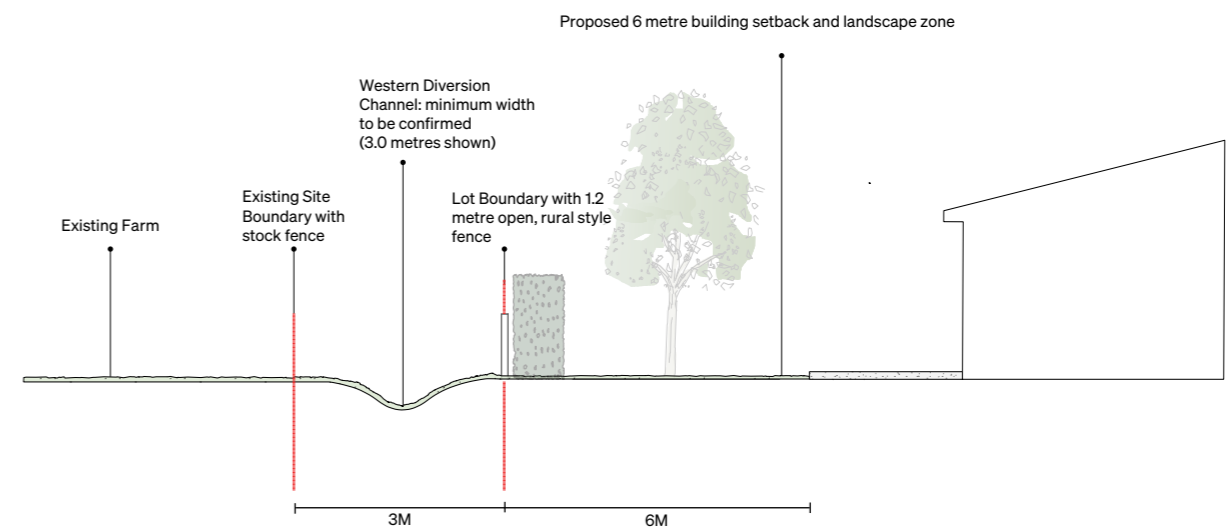
DIMENSIONS & NOTES TO BE CONFIRMED



SECTION E - Proposed Boundary Treatment at Gressons Road
Scale 1 to 100 @ A3



SECTION F - Proposed Boundary Treatment at Existing Rural Lot Boundary
Scale 1 to 100 @ A3



SECTION G - Proposed Boundary Treatment at Western Diversion
Scale 1 to 100 @ A3

GD – Gressons Road Development Area

Introduction

The Gressons Road Development Area covers a 144ha area located between Ravenswood and Waikuku. The development provides for a Residential Medium Density Zone, with a small community hub towards its centre. The area includes two north-south collector roads that link through the site between Gressons Road and the Ravenswood commercial area.

The key features of DEV-GD-APP1 include:

- Retention and enhancement of Stokes Drain and the formation of a central west-east flood by-pass channel and separate waterway along the area's southern boundary;
- Extensive stormwater management areas and associated landscaping along the eastern boundary with State Highway 1 that are designed to attenuate stormwater flows to a 1:50 AEP event.
- Retention Protection of a wāhi tapu site that is to be kept free of urban development;
- Provision of a central park that is at least 3.2ha in area; and
- Provision of a pedestrian and cycle network that is integrated with the blue/ green networks and collector roads.

Activity Rules

DEV-GD-R1 Gressons Road Development Area Outline Development Plan	
<p>Activity status: PER</p> <p>Where:</p> <p>1. Development shall be in accordance with DEV-GD-APP1</p>	<p>Activity status when compliance not achieved: DIS</p>
<p>Advisory Note</p> <ul style="list-style-type: none"> • For the avoidance of doubt, where an Activity or built Form Standard is in conflict with this ODP, the ODP shall substitute the provision. 	

Appendix

DEV-GD-APP1 – Gressons Road ODP

Land Use Plan

This Outline Development Plan for the Gressons Road Development Area provides for a range of section sizes and housing types to respond to the wider needs of the community, with a minimum density of ~~42~~ 15 households per hectare, reflecting set within the site's extensive green/ blue network. Intensification of residential density is to be prioritised near to key open spaces and/or within easy walking distance (~~400m~~ 800m) of the Ravenswood commercial area, with larger lots prioritised on the outer edge of the ODP area where it adjoins Rural Lifestyle zoning or Gressons Road.

Subdivision may include the creation of super lots in order to achieve the required ~~42-15~~ 15hh/ha density. If super lots are proposed within the subdivision, a minimum residential unit yield shall be registered by way of consent notice on the individual super lots, to ensure the minimum density overall is achieved.

The boundary treatment of sites adjacent to the Rural Lifestyle Zone and Gressons Road is to be undertaken in general accordance with cross-sections that form part of the ODP.

The Community Hub identified in the ODP shall have a total Gross Floor Area between 1,000m² – 1,500m². It shall provide for small-scale commercial tenancies, along with community facilities such as a preschool or medical centre that directly support the daily needs of the immediate residential neighbourhood, with no individual retail tenancy anticipated to be larger than 250m². The scale of commercial activity is to remain small so as not to detract from the Ravenswood Commercial area as a focal point for commercial activities. The Community Hub is to be located adjacent to the central park and an internal collector road to facilitate accessibility and to help activate the open space.

At the time of subdivision, consultation with the Ministry of Education will consider whether it is appropriate and necessary for any land to be provided for education purposes within the Development Area.

Movement network

The Outline Development Plan for the Gressons Road Development Area provides access to this growth area through a network of primary collector and secondary roads that ensure development integration, efficient traffic management and public transport corridors. Only these more significant roads are identified in the movement network shown on the ODP. The layout of additional tertiary roads to service the residential areas will respond to detailed subdivision design of those areas. The specific roading classification of all roads will be ultimately determined at the time of development, to provide flexibility and match the eventual roading classification system made operative through the District Plan.

A key movement network feature for the Gressons Road Development Area are two main north/south [primary collector](#) roads running through the site from Gressons Road to the Ravenswood commercial area. These north/south [primary collector](#) roads provide structure, a high degree of connectivity to the Key Activity Centre, and are designed to facilitate future public transport services. A complementary north-south pedestrian and cycle route is provided along the western edge of the large stormwater management area that is located along the full length of the Development Area's eastern boundary.

East/west movement through the site is provided via two collector roads. Connections are provided to the rural land to the west, to facilitate movement to the west in the event that this adjacent land is urbanised at some point in the future. Three east-west pedestrian and cycle corridors are provided via integration with the water networks.

Walkability and connectivity are key principles of the ODP, with a hierarchy of street types and connections provided throughout the area. The aim of the movement network is to provide a range of modal options for residents, to reduce car-dependency for short local trips, while recognising private vehicle use is necessary for longer trips. In addition to off-road cycle and pedestrian routes integrated with greenspace, the ODP anticipates that collector roads will include sufficient road reserve width to allow the provision of a shared pedestrian/cycle path, separate from the main vehicle carriageway.

The provision of a roundabout to the Gressons Road/ State Highway 1 intersection is enabled in the ODP to assist in improving the safety and efficiency of this intersection but is not a requirement of subdivision.

The formation of roads and adjacent green/ blue networks is to be undertaken in general accordance with the cross-sections which form part of the ODP.

Open Space and Stormwater Reserves

An integral component of the ODP is the need to deliver ecologically enhanced spring-fed waterways and the separate management, detention, and treatment of stormwater and overland flood flows while integrating these blue networks with open space and reserves where appropriate.

Stokes Drain runs through the northern third of the Development Area in a west-east direction. This waterway is to be retained and enhanced with riparian native planting and provision for adjacent cycle and pedestrian routes. Existing farm drains are to be rationalised into a second waterway [with associated native riparian planting](#) to be established parallel with the Development Area's southern boundary with Wards Road. These two spring-fed waterways are to be kept separate from stormwater utility functions.

Overland flood flows entering the Development Area from the west are to be captured via a green link running along the western boundary and then directed into a central flood by-pass channel which passes through the middle of the site. [The central flood by-pass channel is to be sized to accommodate a 1:200 AEP event.](#) Stormwater is to be separately piped into a large

stormwater management area located on the Development Area's eastern boundary with the basins sized to attenuate a 1:50 AEP event. Culverts under State highway 1 are to be sized to accommodate at least the pre-development flows generated by a 1:50 AEP event.

These three types of water-based networks provide opportunities for ecological restoration and enhancement, along with providing important amenity and passive recreation opportunities.

A wāhi tapu site located in the northeast of the Development Area is to be retained as open space and kept free of urban development. This area is to be buffered by an ecological restoration area that forms part of the wider stormwater management area. The treatment and management of the wāhi tapu site is to be informed by consultation with mana whenua.

In addition to the extensive water network and associated green space, the ODP includes a large central open space reserve located towards the middle of the Development Area west of the key north/south primary road, and adjoining Stokes Drain and a small community hub. The total size of this central park will be approximately 3.2ha. A second smaller open space reserve is located south of a strip of established oak trees in the northwest of the area. This 0.8ha reserve provides for the retention of these mature trees and also aligns with Stokes Drain. Small local parks are also anticipated, especially in areas with higher density housing typologies, with their size and location to be determined through the subdivision consent process.

Water and Wastewater network

An application for subdivision of the ODP area shall include supporting infrastructure assessments, with detailed design for the provision of water, sewer and stormwater to any allotments proposed. Wastewater is to be reticulated and connected with the Woodend Wastewater Treatment Plant.

Fixed Outline Development Plan features for the Gressons Road Development Area:

- A minimum density of 12-15hh/ha is achieved;
- Two collector road connections are to be provided through the site between Gressons Road and the Ravenswood commercial area;
- Pedestrian and cycle connections are to be provided between the Development Area and the Ravenswood commercial area;
- Stokes Drain is to be retained and its riparian margins enhanced with predominantly indigenous species;
- Formation of a centralised west-east overland flow channel and a southern interceptor channel parallel to Wards Road;
- The wāhi tapu site is to remain free of urban development and is to be provided with a landscaped buffer comprised of indigenous species;
- The community hub shall have a maximum Gross Floor Area of 1,500m²;
- Site edges, waterways, and collector roads are to be general accordance with the dimensions and facilities shown in the cross-sections which form part of the ODP.