Evan Alexander Peters

Director - Aspire Consulting Engineers Limited
(Founded October 2014)

EDUCATION

Qualifications: New Zealand Certificate of Engineering (Civil) (NZCE, 2006)
Bachelor of Construction (Management) 2008
Chartered Professional Engineer (CPEng)

Education: Bachelor of Construction (Management) Unitec Institute of Technology
New Zealand Certificate in Engineering (Civil) - Unitec Institute of Technology
Chartered Member of Engineers New Zealand
Site Safe Consultants Passpo t – Site Safe (cur ent)
First Aid – St John (current)

PROFESSIONAL HISTORY

Professional History:

Aspire Consulting Engineers 2014 - present
HEB Construction - 2013 to 2014
URS New Zealand, Senior Civil Engineer, 2010 - 2013
Hyder Consulting, S nior Water Engineer, 2009 -2010
Opus International Consultants, Water Engineer, 2008 -2009
Chester Consultants, Civil Engineer, 2005 - 2008
Rogers C vil Limited, Project Manager/Civil Engineer, 2001 - 2005
Fulton Hogan Auckland, Asphalt job manager, 2000 - 2001
C ty D sign Limited, Engineers Assistant, 1999 - 2000

ASPIRATIONS

Aspirations: To become a key market leader and advisor in the management of infrastructure strategy and delivery. Evans breadth of experience across a number of disciplines has delivered longstanding results for clients across the public and private sectors.

KE' COMPETENCIES

Key Competencies:

Strategic/Feasibility Studies
Project Management
Cost Estimation and Tender Preparation
Contract Management and Supervision
Transport and Civil Engineering
Water and Wastewater Engineering
Drainage and Flood Mitigation Engineering
Engineer to Contract
Environmental & Water Quality Design

Memorandum

To: Burnette O'Connor

From: Evan Peters

Date: 26/8/2021

Job No: 1690

Subject: 1092 Coatesville Riverhead Highway - Stage 1 Civils

Good Afternoon Burnette.

Introduction

My name is Evan Alexander Peters, I am Chartered Civil Engineer (Reg #1009452) with 20 years' experience in Civil Engineering and Development

I have worked as Design Engineer and Engineer to the Contract on a number of projects in and around New Zealand and the Pacific, including l rge cale Auckland developments in Silverdale, Westgate and Pukekohe.

I am well versed in the current infrastructure design standards and best practice within the industry and look to incorporate these values in projects which I am involved.

I will provide high level commentary on Civil Engineering aspects for the project including.

- Stormwater management and treatment
- Roading connections
- Earthworks

Site Characteristics

The site is located on corner of Coatesville Riverhead Highway and Riverhead Road and is made up of 2 separate titles, Lot 2 164590 and Lot 1 164590, Coatesville Riverhead Highway, Riverhead.

The site area in total is 9.9Ha and was previously operated as a market garden producer.

The site has a gradual to steep fall from south to north with a highest elevation of 30mRL down to a lowest level of 20mRL at the northern boundary.

The majority of the site is grass or tree vegetation with several existing dwellings, driveways and ancillary buildings.

The proposal for the development is to create a retirement village within the property with a mixture of standalone duplex houses, apartments and care facilities.

- Stormwater

Existing stormwater features include an overland flow path located through the centre of the site which connects downstream through a series of farm drains.

The overland flows will be formalised into a proper, naturalised stormwater network/system and be managed through low impact design as part of the site design including the addition of new greenbelts which provide amenity and stormwater function.

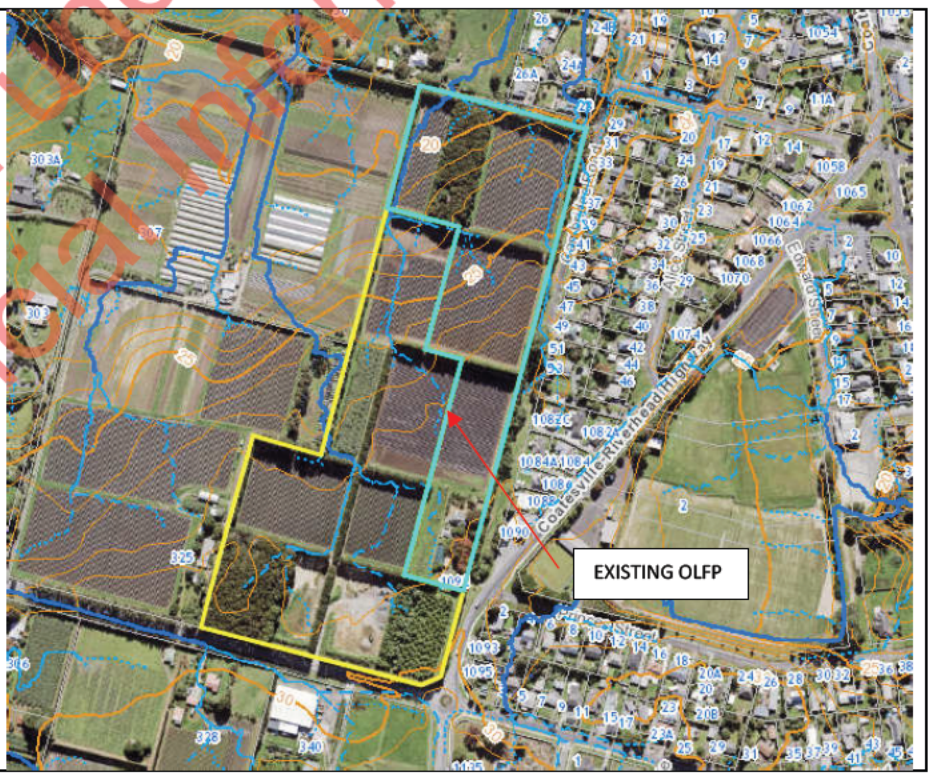
Runoff will be treated from contaminant generating surfaces to provide improved water quality and environmental outcomes.

A wider Catchment Management Plan being prepared for the rezoning of the Future Urban area. Flows will be attenuated to predevelopment levels for the 1% AEP (100yr) storm event.

The site is stand alone and at the highest portion of the sub catchment, as a result, no neighbouring flows are impacted from the proposed development

It is anticipated that the applicant wi l prepare a specific Stormwater Management Plan for the development which will align with the Catchment Management Plan under development.

Fig. 1
Existing aerial of the site



- Roading

The site is bordered by Riverhead Road and Coatesville Riverhead Highway with a small section of the site bordering Cambridge Road on the eastern boundary.

The proposal will extend a new road along the northern boundary to future proof neighbouring development connections and also provide an extension to Cambridge Road to an urban standard.

- Earthworks

The site will be earth worked to create formal building platforms, accessways and landscape areas. It is likely the fall through the site will be maintained.

Due to the previous landuse as a market garden, it is expected that some contaminated material will be identified which will be managed in accordance with best practice. Appropriate assessments have been instructed.

- Water and Wastewater

Currently the site has no water or wastewater connections. The proposed development will extend the existing network to service the proposed development and also provide future proofing for future development in the wider community.

A development assessment for water and wastewater is being prepared by GHD to support the application. This assessment also aligns to the larger Plan Change request, which is currently being progressed with neighbouring landowners.

Development Considerations

The primary issues are outlined below from a Civil Engineering perspective, along with expected investigations and the issues complexity are outlined below:

Item	Complexity	Management/Investigations required
Capacity of Wastewater and Water Services	Medium	Requires network capacity assessment and likely minor extensions to the wider water and wastewater network external to the site. Investigations to date confirm that supply will be available with only minor upgrading required.
Conveyance and Treatment of Stormwater including climate change impacts	Low	Requires assessment of flows pre and post development, inclusion of low impact design options within site including detention basin/wetland, swales etc. No wider network upgrades are required.
Flooding management for protection of property	Low	Requires assessment of flood flows downstream, management of excess runoff can be managed

		onsite via detention basins, swales etc.
Management of Contaminated material from previous landsue	Low	Standard investigations of contamination including PSI, DIS and Remedial plan to be prepared Likely to require disposal of some material to landfill
Transport connections, minimising climate change impacts through multimodal transport options.	Medium	Requires investigatio s into traffic flow and pedestrian movements, Likely to require upgrades to frontage of external roads and futureproofing for connections o township.

High – Requires significant investigation works/large scale wider infrastructure upgrades
Medium – Requires standard investigative works/minimal wider infrastructure upgrades
Low – Compliance with standards/no wider infrastructure upgrades

Conclusions

The development proposal aligns to the goals of the fast track Consen ing process. There are very little infrastructure limitations which cannot be managed.

Stormwater can be managed and important y is independent of adjoining properties and will align to the Stormwater strategy being developed for the catchment

Water and Wastewater will require upg ades to existing infrastructure, but these are considered standard development constra nts and there are viable solutions that can be constructed to service the development. Again, these solutions will be ndependent of surrounding landowners.

I see no reason as to why this development should not proceed through the fast-track process from a Civil Engineering perspective.

Regards

Evan Peters
Director/Engineer

Attachments
CV – Evan Peters