



Kaipara District Council

Unit 6 - The Hub, 6 Molesworth Drive, Mangawhai 0505

buildingsupport@kaipara.govt.nz

(09) 439 3123

BC210456

Alpha ID: 210456

Application Type: Building Consent with PIM

Site Address: 752 Settlement Road Hakeru

Project Description: Second Hand Relocatable 4 Bedroom Dwelling - Foundations and Drainage Only

Project Status: Code Compliance Certificate Issued

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Date Submitted: Friday, 02 July 2021



Form 2

Application for project information memorandum and/or building consent

Section 33 or section 45, Building Act 2004

The building

Street address of building: 760 Settlement Road
Northland
0975

Legal description of land where building is located: Lot 3 DP 560279

Building name: Main Building

Location of building within site/block number: 760 Settlement Road
Northland
0975

Number of levels: No information provided

Level/unit number: No information provided

Area: Total: 96.35 m², Change: Not provided

Current, lawfully established, use: 2.0 Housing: 2.0.2 Detached Dwelling

Year first constructed: 1970

The owner

Name of owner: Gina Yutting & Dawn Owens

Mailing address: 15 Brookview Heights
Northland
0582

Street address/registered office: No information provided

Phone number: Landline: 0212670725 Mobile: 0212670725

Daytime: Landline: 0212670725 Mobile: 0212670725

After hours: Landline: 0212670725 Mobile: 0212670725

Facsimile number: No information provided

Email address: ginautting@gmail.com

Website: No information provided

The following evidence of ownership is attached to this application:

1. Certificate_of_Title.pdf (180.60K)

Agent

Name of agent: Bruce Wood
 Mailing address: 54 Halsey Drive
 Lynfield
 Auckland
 1042
 Street address/registered office: 54 Halsey Drive
 Lynfield
 Auckland
 Phone number: Landline: 6496263803 Mobile: 6496263803
 Daytime: Landline: 6496263803 Mobile: 6496263803
 After hours: Landline: 6496263803 Mobile: 6496263803
 Facsimile number: No information provided
 Email address: bruce@bcwdesign.co.nz
 Website: No information provided
 Relationship to owner: Application made on owners behalf
 First point of contact for communications with the council/building consent authority:
 Full name: Bruce Wood
 Mailing address: 54 Halsey Drive
 Lynfield
 Auckland
 Auckland 1042
 Phone number(s): 6496263803
 Facsimile number(s): N/A
 Email address(es): bruce@bcwdesign.co.nz

Application

I request that you issue a building consent for the building work described in this application.

Signature of agent on behalf of and with the authority of the owner:

BRUCE WOOD

Date: 2 Jul 2021

space for council use

Application Type: Building Consent only
 Reference Key: 67535719KP
 Name: Bruce Wood
 Application Role: Agent

The project

Description of the building work:

Relocation 4 bedroom 2nd hand dwelling. San sewer drainage, new treatment plant and disposal field.
Stormwater tanks and drainage

Will the building work result in a change of use of the building? No

Intended life of the building if less than 50 years: 50 years

List building consents previously issued for this project (if any): No information provided

Estimated value of the building work on which the building \$40,000

levy will be calculated (including goods and services tax):

Restricted building work

Will the building work include any restricted building work? Yes

If Yes, provide the following details of all licensed building practitioners who will be involved in carrying out or supervising the restricted building work:

Name	Bruce Wood
Licensing class	Design
Licensed building practitioner number (or registration number if treated as being licensed under section 291 of Act)	BP113680

Name	Karl Fenton
Licensing class	Foundations
Licensed building practitioner number (or registration number if treated as being licensed under section 291 of Act)	BP136808

Building consent

The following plans and specifications are attached to this application:

1. BC_Dwgs_for_Utting_Owens.pdf (2.93M)
2. Specification.pdf (416.29K)

The building work will comply with the building code as follows:

Main Building

B1 - Structure	AS1
B2 - Durability	AS1
D1 - Access Routes	AS1

E1 - Surface Water	AS1
F5 - Construction and Demolition Hazards	AS1
F7 - Warning Systems	AS1
G4 - Ventilation	AS1
G9 - Electricity	AS1
G12 - Water Supplies	AS1
G13 - Foul Water	AS1
Waiver / Modification Required:	N/A

Compliance schedule

There are no specified systems in the building.

Attachments

The following documents are attached to this application:

Plans and specifications

1. BC_Dwgs_for_Utting_Owens.pdf (2.93M)
2. Specification.pdf (416.29K)

Record of title

1. Certificate_of_Title.pdf (180.60K)

Restricted building work memorandums / Owner-builder declaration

1. COW_Bruce.pdf (587.40K)

Supporting documents

1. Authority.pdf (636.74K)
2. 2nd_Hand_Report.pdf (1.48M)
3. Devan_25000L_Water_Tank.pdf (918.13K)
4. FS-200139_Geotech_20200518.pdf (219.96K)
5. Devan_First_Flush_Diverter.pdf (47.98K)
6. Sub_Floor_Bracing_Calcs.pdf (21.89K)
7. Geo_Final_760_Settlement_Road_Hakarua.pdf (0.96M)
8. UV_filter.pdf (525.33K)
9. Signed_Rules_for_Relocated_Dwellings.pdf (102.77K)
10. FS-200139_Flood_Assessment_20200626.pdf (5.02M)
11. On-site_wastewater_760_Settlement_Rd._Utting.pdf (6.57M)

Date Submitted: Friday, 02 July 2021

FORM PLG 1

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

For assistance in answering these questions please refer to (PLG 1A)

Please note that any inaccuracies may result in the applicant being in breach of the Resource Management Act 1991 and/or exposed to liability if the site is subsequently found to be contaminated, including being liable for remedial works.

Is the building work and all associated activities:

Changing the use of the land?

YES

(Please note that "changing the use of the land" includes erecting a dwelling on an area of land which previously had no dwelling erected upon it.)

Disturbing soil?

NO

*(more than 25m³ per 500m² of land) or removing soil? (more than 5m³ per 500m² of land)
(e.g.: foundations, on-site effluent treatment and disposal systems, wells or bores)*

Is the land currently being used, has been used in the past, or is likely to have been used for an activity described on the HAIL?

NO

For more information on this process please contact the Duty Planner on 09 439 3123 or go the Ministry for the Environment website: <http://www.mfe.govt.nz/laws/standards/contaminants-in-soil/>

Signature

The name below as AGENT has the authority for the application to proceed to processing and accept the associated charges.

Signed By:

Bruce Wood

2 Jul 2021

The Agent will be the first point of contact for communications with the Council/Building Consent authority regarding this application / building work and will receive all correspondence including all invoices.



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



R. W. Muir
Registrar-General
of Land

Identifier **988296**
Land Registration District **North Auckland**
Date Issued 23 April 2021

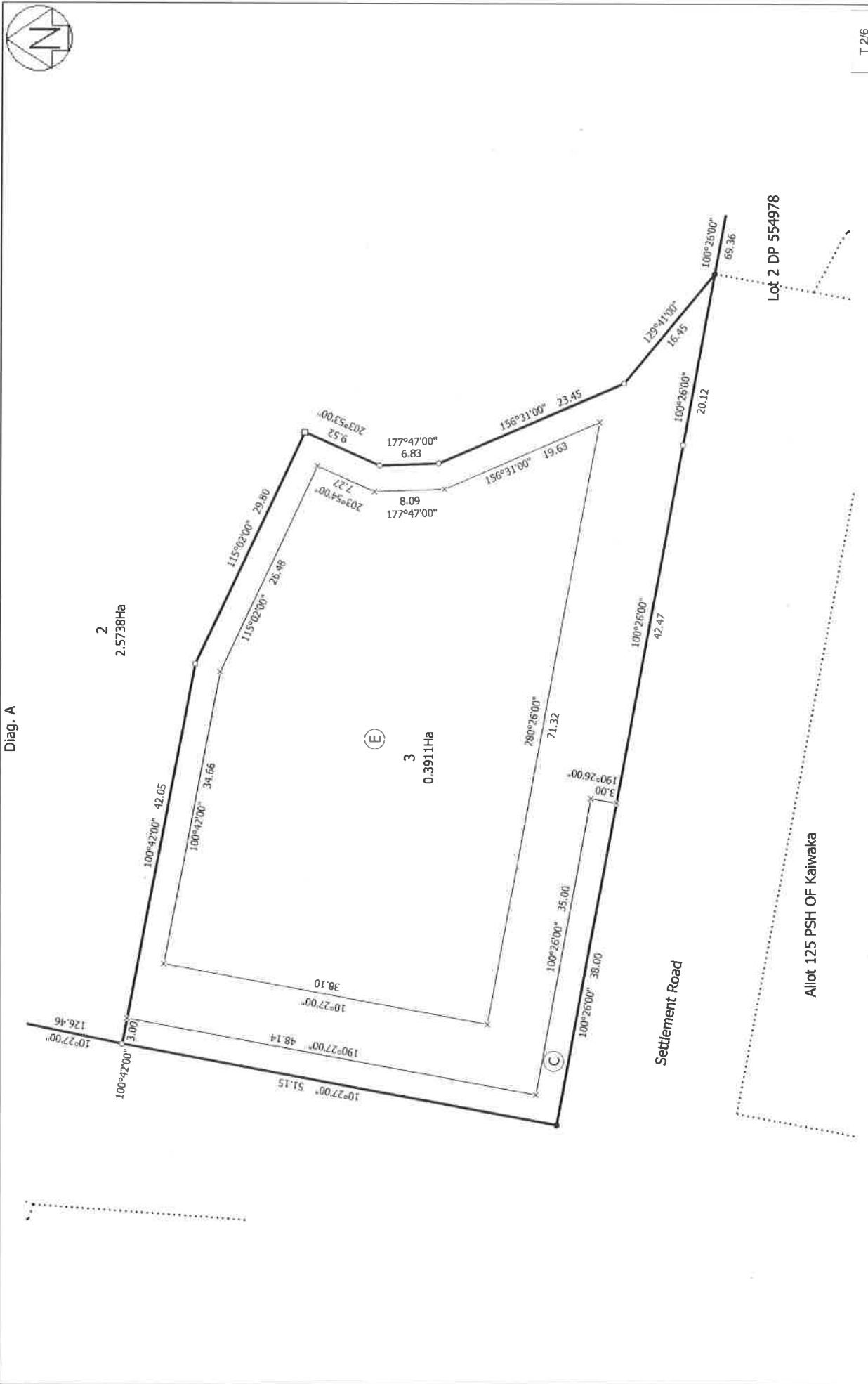
Prior References
NA42B/368

Estate Fee Simple
Area 3911 square metres more or less
Legal Description Lot 3 Deposited Plan 560279

Registered Owners
Gina Maree Utting and Dawn Owens

Interests

Subject to Section 59 Land Act 1948
12086992.2 Consent Notice pursuant to Section 221 Resource Management Act 1991 - 23.4.2021 at 11:29 am
12126265.3 Mortgage to ANZ Bank New Zealand Limited - 2.6.2021 at 3:49 pm



T 2/6

Title Plan
LT 560279
Approved on: 17/05/2021

Surveyor: Adam Paul Stanley Booth
Firm: Pacific Coast Surveys Limited (Mang

Lots 1 - 3 Being a Subdivision of Allotment 310 Parish of Kaiwaka

Land District: North Auckland
Digitally Generated Plan
Generated on: 17/05/2021 10:23am Page 4 of 8



View Instrument Details

Instrument No.	12086992.2
Status	Registered
Date & Time Lodged	23 Apr 2021 11:29
Lodged By	Fallon, Bridget Amanda
Instrument Type	Consent Notice under s221(4)(a) Resource Management Act 1991

Toitu te
Land whenua
Information
 New Zealand



Affected Records of Title	Land District
988294	North Auckland
988296	North Auckland

Annexure Schedule Contains 2 Pages.

Signature

Signed by John Muru Walters as Territorial Authority Representative on 16/04/2021 10:52 AM

***** End of Report *****

IN THE MATTER of the Resource Management
Act 1991 ("**Act**")

A N D

IN THE MATTER of the subdivision of land
shown in Deposited Plan
560279 (North Auckland Land
Registration District) ("**Plan**")

CONSENT NOTICE
(Section 221 of the Act)

KAIPARA DISTRICT COUNCIL ("**Council**") being the territorial authority of the district within which the land described in the First Schedule below ("**Land**") is located has consented to the subdivision of the Land as shown in the Plan, subject to the conditions of the Second Schedule below to be complied with on a continuing basis by the Owner (as defined in the Act).

FIRST SCHEDULE
(Land)

ALL of the land contained in Record of Title NA42B/368

SECOND SCHEDULE
(Conditions)

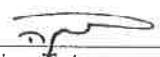
The Owner (as defined in the Act) must, on a continuing basis, to the satisfaction of the Council, comply with the following conditions of the Council's Subdivision Consent RM200139 namely:

1. In respect of Lots 1 and 3 on the Plan (each a "Lot").
 - (i) Earthworks, the location of buildings, building foundations and stormwater and wastewater disposal shall be subject to specific engineering design by a suitably qualified Chartered Professional Engineer having regard to any soil instability/saturation issues that may exist or arise as a result of the development. Design shall take into account the recommendations identified in the reports titled "Geotechnical Investigation Report", reference 20034, dated 18/05/2020, prepared by Wiley Geotechnical and "Flood Assessment", reference 97465, revision 1, dated 26/06/2020, prepared by Wilton Joubert, and submitted to Council with subdivision consent RM200139.

- (ii) The lots have been identified as being susceptible to inundation in a 100-year Annual Average Recurrence Interval (ARI) flood event. To provide for a 500mm freeboard for habitable buildings and 300mm freeboard for non-habitable, commercial and industrial buildings above the 100-year ARI flood level, taking into account the effects of climate change, the following finished floor levels are required for any new dwelling within the lots:
 - Lot 1 and 3 – 35.00 for all buildings using One Tree Point (OTP) Datum.
- (iii) A site specific onsite effluent treatment and disposal system shall be designed and submitted to Council for approval prior to lodgement of building consent which shall refer to the soil issues and other observations and recommendations made in the Geotechnical Report.
- (iv) Sufficient firefighting water supply shall be provided for any single residential dwelling on the lot with a minimum volume of 10,000 litres and shall remain accessible and available all year round.
- (v) Unless specifically authorised in writing by Fire and Emergency New Zealand, sufficient firefighting water supply shall be provided for any commercial or industrial land use. Sufficient firefighting water supply is deemed to mean meeting full criteria of the Code of Practice for firefighting water supplies (SNZ PAS 4509:2008 New Zealand Fire Service Firefighting Water Supplies Code of Practice).
- (vi) All buildings must be located wholly within the designated building areas shown on the survey plan. For Lot 1 this is shown as area D. For Lot 2 this is shown as area E.
- (vii) Landscape planting undertaken in area B on Lot 1 and area C on Lot 3 in accordance with the approved Landscape Management Plan prepared by Evolve Planning and Landscape Architecture, dated November 2020 shall be the responsibility of the lot owner and shall be managed in accordance with the Landscape Management Plan and protected in perpetuity.
Diseased, dying or dangerous plants must be removed and replaced in accordance with the approved Landscape Management Plan.

DATED the 15th day of April 2021

SIGNED by
KAIPARA DISTRICT COUNCIL
by its authorised signatory

)
)
)


Dina Tetzner

Form 2A

Memorandum from licensed building practitioner: Certificate of design work

Section 45 and Section 30C, Building Act 2004

Please fill in the form as fully and correctly as possible.

If there is insufficient room on the form for requested details, please continue on another sheet and attach the additional sheet(s) to this form.

THE BUILDING

Street address: 760 Settlement Road

Kakaru

Town/City Kaiwaka

Postcode: 0975

THE OWNER

Name(s): Gina Utting & Dawn

Mailing address: 15 Brookview Hieghts

Suburb: RD2 Waipu

PO Box/Private Bag:

Town/City:

Postcode: 0582

Phone number: 0212670724 (Gina)

Email address: ginautting@gmail.com

BASIS FOR PROVIDING THIS MEMORANDUM

I am providing this memorandum in my role as the: Please tick the option that applies (✓)

(✓)	sole designer of all of the RBW design outlined in this memorandum – I carried out all of the RBW design myself – no other person will be providing any additional memoranda for the project
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IDENTIFICATION OF DESIGN WORK THAT IS RESTRICTED BUILDING WORK (RBW)

I Bruce Wood carried out the following design work that is restricted building work

PRIMARY STRUCTURE: B1

Design work that is restricted building work	Description	Carried out/supervised	Reference to plans and specifications
<i>Tick(✓)if included</i> <i>Cross (X) if excluded</i>	<i>[If appropriate, provide details of the restricted building work]</i>	<i>[Specify whether you carried out this design work or supervised someone else carrying out this design work]</i>	<i>[If appropriate, specify references]</i>
All RBW Design work relating to B1 (✓)		(✓) Carried out	
Foundations and subfloor framing (✓)	House Foundation Layout	(✓) Carried Out	Refer sheet 105
Walls ()		() Carried out	
Roof ()		()	

Columns and beams	()		() Carried out	
Bracing	(✓)	<i>Foundation Bracing</i>	(✓) Carried out	Refer Sheet 105 & calculations
Other	()		() Carried out	

EXTERNAL MOISTURE MANAGEMENT SYSTEMS: E2

All RBW design work relating to E2	(✓)		(✓) Carried out	
Damp proofing	()		() Carried out () Supervised	
Roof cladding or roof cladding system	()		() Carried out	
Ventilation system (for example, subfloor or cavity)	(✓)	<i>Sub floor ventilation</i>	(✓) Carried Out	Refer sheets 106 & 107
Wall cladding or wall cladding system	()		() Carried Out	
Flashings	()		() Carried Out	
Other	()		() Carried Out	

FIRE SAFETY SYSTEMS: C1 – C6

Emergency warning systems, evacuation and fire service operation systems, suppression or control systems, or other	(✓)	<i>Smoke Alarms</i>	(✓) Carried out	Refer sheet 104
--	------	---------------------	------------------	-----------------

Cp cp Note: The design of fire safety systems is only restricted building work when it involves small-to-medium apartment buildings as defined by the Building (Definition of Restricted Building Work) Order 2011.

Note: continue on another page if necessary.

WAIVERS AND MODIFICATIONS

Waivers or modifications of the building code are required () Yes (✓) No

If Yes, provide details of the waivers or modifications below:

Clause	Waiver/modification required
<i>[List relevant clause numbers of building code]</i>	<i>[Specify nature of waiver or modification of building code]</i>

Note: continue on another page if necessary.

ISSUED BY

Name: Bruce Wood	LBP or Registration number: 113680
The practitioner is a: ☒ Design LBP ☐ Registered architect ☐ Chartered professional engineer	
Design Entity or Company (optional): BCW Design Ltd	
Mailing address (if different from below):	
Street address / Registered office: 54 Halsey Drive	
Suburb: Lynfield	Town/City: Auckland
PO Box/Private Bag:	Postcode: 1042
Phone number: 09 626 3803	Mobile: 0274 887 377
After Hours:	Fax: 09 626 3804
Email address: bruce@bcwdesign.co.nz	Website: NA

DECLARATION

I Bruce Wood *[name of practitioner]*, LBP,
state that I have applied the skill and care reasonably required of a competent design professional in carrying out or supervising the Restricted Building Work (RBW) described in this form, and that based on this, I also state that the RBW:

- Complies with the building code;



Signature:

Date: 28.06.2021

Specification for **G. M. Utting & D. Owens**

1.1 Plans and Specifications

In the event of there being any difference between plans and specifications, the information contained in this specification shall take precedence. Bring discrepancies to the attention of the Designer. Figured dimensions shall take precedence over scaled dimensions. Large scaled drawings take precedence over small scale dimensions.

1.2 Location

The proposed development is located at **760 Settlement Road - Hakarau**

Legal description is **Lot 3 DP 560279**

1.3 Provide and Fix

The words 'provide' and 'fix' where used separately shall be construed to mean 'provide and fix', unless otherwise specified.

1.4 Variations and Extra Work

all work extra to contract ordered, shall be ordered in writing to main Contractor and Designer and paid for at order.

1.5 Permits and Fees

The Owner shall obtain all Local Authority approved Building Consent Applications before commencement of work.

Any Local Authority charges for providing a water meter shall be paid by the Owner.

1.6 Vehicle Crossing

Where a vehicle crossing is called for by the Local Authority, any fees arising shall be the responsibility of the Owner and do not form part of the Building Contract.

1.7 Clean Up and Make Good

The site is to be left clean at all times from accumulation of rubbish resulting from builders rubbish and provision is to be made for the regular removal of same from the site. Excavated soil is the responsibility of the Owner.

The Builder is responsible for leaving the structure broom clean. All materials placed on site by the Contractor for the proposed building remain the property of the Contractor in the case of not being used. All waste material and boxing remain the property of the contractor.

1.8 Sub-Contractors

All sub-contractors shall be engaged by the Owner and supervised by the Building Contractor except where prior arrangements are made in writing between Contractor and Employer.

Every sub-contractor jointly and separately shall collaborate, wait on, assist and render all necessary assistance to complementary trades.

The individual sub-contracts as itemized in the following specification are respectively the responsibility of the sub-contractor under which they are listed.

Any sub-contractor working on the contract without his/her own set of plans and specifications does so at their own risk and errors must be rectified at their expense.

1.9 Standards

All work shall be in accordance with the following standards and regulations:-

- NZS 3604:2011 Light timber framed building not requiring specific design.
Incorporating Ammendments 1 & 2
- NZS 2295:2006 Building Papers (Breather type).
- NZS 3601:1973 Metric dimensions of timber. Amend 1 & 2
- MP 3640:2003 Minimum requirements for the NZ Timber Preservation Council
Amend A1 – A4 Inc.
- Building Act 2004
- Building Code Compliance Documents
referred to
 - B1/AS1 Structure-General
 - B1/AS2 Structure and Timber Barriers
 - B1/AS4 Foundations
 - B2/AS1 Durability
 - D1/AS1 Access Routes
 - E1/AS1 Surface Water
 - E2/AS1 External Moisture
 - F4/AS1 Saftey From falling
 - F5/AS1 Construction and Demolition Hazards
 - G9/AS1 Electricity AS/NZS 3000:2007 Electrical Instalations,
Amends 1 and 2 plus NZECP 51:2004 and NZECP
54:2001
 - G12/AS1 Water Supplies
 - G13/AS1 Foul water- Sanitary plumbing
 - G13/AS2 Foul water- Drainage

1.10 Site Encumbrance

Contractor and sub-contractor to note presence of overhead high voltage power lines at site with regard to high load vehicles, cranes and the like.

Any damage to existing structure by main contractor or sub-contractors is the responsibility of that person and is to be made good to the approval of the Owner at that person's cost.

1.11 Site Activity

Main Contractor to note all engaged employees and sub-contractors to act with a responsible and tradesmanlike manner.

Considerations for residents and Owner to be given maximum attention with respect to foul language, noise from radios and vehicles.

All works on site only between the hours of 7.30am & 6.00pm.

Owner has right to refuse entry to property of any person not acting in a professional manner.

1.12 O.S.H. Requirements

Main Contractor responsible for public notification of construction zone.

Signage to be displayed at road frontage indicating "construction zone" "keep out" as per the recommendations of O.S.H.

2.0 Earth Works and Site Preparation

2.1 Setting Out

The Contractor is responsible for the locating and the clear flagging of all survey pegs before the setting out of the building site. The Contractor will be responsible for the accurate setting out of all work to the dimensions shown on the drawings.

2.2 Levels

Foundation heights shown on the plan are an approximation and should be checked on the site by the Contractor. Any variation in the ground level requiring extra foundation will be charged as an extra.

2.3 Ground Conditions

Foundations in this contract provide for solid bearing down to 450mm below ground surface level.

Where soft, unsuitable or unusual strata or below ground conditions are encountered, requiring additional depth of concrete and other foundation to provide a solid platform to build on and/or comply with mortgagees and/or Local Authority's requirements, additional costs incurred shall be charged to the Owner as an extra.

Where unusual ground conditions are found and special foundation works have to be carried out, they too shall be treated as an extra and have charged as above.

2.4 Temporary Services

Electric Power – The Contractor is responsible for the supply of temporary power to the building site.

2.5 Site Preparation

To comply with NZS 3604:2011 Sec . 3.5 'Site Preparation'.

Excavation of the building site, if required, shall be arranged by the Contractor and if the cost is not included in the contract, an extra charge will be made.

The Contractor is responsible for the supervision of the excavation and the progress of levels to establish the required platform.

For the purpose of this contract, soil for conditions are taken to solid ground – approved by the Local Authority. It will be the Contractor's responsibility to ensure that he/her is in attendance when excavations are carried out on the building site.

Should the Contractor require any excess soil to be carted off the property, then the cost thereof shall be an extra charge.

2.6 Clearing of Site

The Contractor shall arrange and pay charges for the clearing of the building site of vegetation, scrub, trees etc, which encroach on the building platform.

Any exposed area of ground that have been excavated to be either metaled or watered down to control dust on the site and to neighbours.

2.7 Site Access

The Owner shall be responsible for providing access suitable for the Contractor's vehicles including heavy vehicles and such access is to be supplied by the Owner at the cost of the Owner, prior to commencement of building.

In the event of any damage, whatsoever, to any existing or providing access or services adjacent to or running with such access including neighbouring properties, shall be maintained or repaired at the responsibility of the Owner.

The Owner acknowledges that he/she is not relying on any representation or inspections by the Contractor as to suitability, stability or otherwise of access so that if in the opinion of the Contractor access is not suitable, any extra costs on getting vehicles/materials or otherwise to the site shall be at the cost of the Owner.

If during the works it is necessary to provide hardfill for access, this will be handled by the Contractor and charged to the Owner accordingly.

Where access is only available through an adjacent property, it shall be the responsibility of the owner to obtain prior approval from the Owner of that property.

Traffic control if required to be controlled by the Site Manger to make sure there is minimal traffic flow disturbance to neighbours and other residences in the street.

2.8 Footpath Damage

The Contractor will be responsible for any damage to Local Body footpaths and/or road crossings, resulting from any vehicles used by their or their sub-trades, or delivery vehicles of materials ordered by them, providing such crossings are constructed to an acceptable standards.

2.9 Registered Engineer

If the Lending Authority of the Local Authority requests an Engineer's Report, instructions or calculations, then the costs for such services will be applied as an extra to this contract. Where the section has been filled, the Owner is to supply Engineer's Certificate of Compaction.

2.10 Earth Fill

The contractor shall not be liable for any damage or deterioration of any work to the building or to the site caused by or resulting from the inadequacy of earth fill or by the negligent application thereof and the Owner indemnifies the Contractor against any claim against him/her by any person whatsoever for damages or expenses incurred.

3.0 Concrete – Foundations

3.1 Materials and Workmanship

Aggregate shall be sharp, clean sand and crushed hard metal, free from decomposable matter and material. Aggregate to be sized to pass through a 25mm grid.

Water to be used in mix to be suitable for human consumption, free from impurities.

All concrete used to be certified and batched from approved concrete producer. No hand mixed or site batched concrete to be used without approval of Designer.

3.2 Concrete Footings

All slab concrete to be ordinary grade concrete with 28 days crushing strength of 17.5 Mpa., unless otherwise state on plans or in specifications.

Concrete footing to foundation shall be sized as per details and drawings.

3.3 Pre-Placing Inspection

The contractor shall notify the building Inspector at the stage prior to placement of concrete.

4.0 Carpentry

4.1 General

The contractor shall provide all labour and materials, supply and maintain the required tools, plan, scaffold, sheds etc. All work is to be carried out in accordance with the best trade practice, NZS 3603:1993 and NZBC 1991.

4.2 House Foundations, Base Sheathing and Deck Framing Materials

4.2.1 Timber Piles

Timber piles to be (minimum) 125 x 125 square tanapile.

Treatment to pile to be H5 (minimum) of NZS 3605.

Concrete to pile footing to be 17.5 Mpa at 28 days crushing strength. Footing to be sized refer foundation plan and deck details.

4.2.2 Timber Bearers

Check plans for bearer sizes, new bearers to be

Bearers to be 2/140x45 pine radiata SG8 H3.2

Bearers to be 90x90 SG8 H3.2

Nail laminate bearers together with 1/100 x 3.75 dia. Galvanised nail at 250mm staggers CRS.

Fixing of bearers to tanapile to be 2 s/s wiredog ties per pile/bearer connection.

4.2.3 Timber Joists for Decks

Joists to be 140 x 45 pine radiata SG8 H3.2

Joists to be spaced at 600mm CRS maximum, refer attached deck details.

Fix joist to bearer with 2/100x3.75 galvanised nails, one each side.

Block to joist at 1500mm CRS to prevent twisting of joist.

4.2.4 Timber Decking Material

Decking to be 100 x 40 pine radiata decking member.

Decking to be styreated to provide slip resistant surface.

Treatment to decking to be H3.2

Nail fix decking to joist with 2/75 x 3.75 dia. nails at every joist connection.

4.2.5 Timber Steps

Steps to be constructed as follows:-

Stringers 290 x 45

Treads 140 x 45

Framing to be pine radiata.

Treatment to timber framing members to be H3.2 SG8.

4.2.6 Sub Floor Bracing Diagonal Brace

Contractor to provide all framing members and fix in place as per the details provided.

Diagonal braces to be 100x75 pine radiata max length of 3m

Diagonal braces to be 100 x 100 pine radiata max length of 5m
 Treatment to joists to be H3.2 SG8.
 Nail laminate diagonal brace with 1/100 x 3.75 galvanised nail @ 300 mm CRS

4.2.6 Sub-floor Fixings

Refer attached details

All holding down devices to be Stainless Steel within 600mm of the ground and exposed to weather.

4.2.7 Base Sheathing

1. 100x25 RS H3.2 base boards with 20mm gap and base door to be fitted inappropriate location
 Roofing Underlay Thermakraft 407 Bituminous self supporting Roofing Underlay, installed to
 Manufacturers Specification.

5.0 Plumbing

5.1 General

Provide all materials and plant necessary to complete the work set out in the plans and specifications in accordance with best trade practice and the requirements of local authorities.

The work shall be carried out by a competent tradesman using materials consistent with sound trade practice and in no case inferior to any requirement of NZB:1992.

Water pipes and tubes shall be set out in straight runs of even gradients, avoiding all places where airlocks are likely to occur.

Use easy bends and unless avoidable, elbow fittings are not to be used. Polybutylene piping is to be secured in a position by plastic straps. All piping where practical to be concealed.

All work shall be left in a thoroughly sound and watertight condition or in a perfect working order as the case may be.

5.2 Spouting and Downpipes

Fit spouting and downpipes in compliance with regulations set down in the Building Regulations.

All spouting to be fixed in place, straight and with even falls and downpipes as shown on the plans.

5.3 Vents and Soil Stacks

Soil stacks and back vents to wastes shall be approved rigid PVC. Thermal vents shall be rigid PVC of approved size and quality.

Allow for all back vents as required and install soil pipes and vents in accordance with the appropriate Code of Practice and the manufacturer's instructions.

Where possible vent pipes and soil stacks shall be concealed.

5.4 Sewer Foul Water Drain

Join WC pans to drain above level of the floor with spun yarn ring sealed with mastic or other approved material which will provide a non-rigid gas tight joint.

Domestic foul water drain from WC's to be 80mm Ø UPVC to drain to 110mm Ø foul water drain.

Terminate to new treatment plant as shown on plan.

Vent as per Clause 5.3

5.5 Domestic Foul Water Drain

Domestic water pipes to be UPVC drain to UPVC gully trap or sewer foul water drain pipe – back vent as necessary. Pipe sizes to be:-

Kitchen sink	40mm Ø
WHB	40mm Ø
Laundry Tub	40mm Ø
Bath Tub	40mm Ø
Vanity	40mm Ø

5.7 Cold Water Supply to Dwelling

Take 20mm Ø PVC pipe from existing supply to new dwelling. Connect to existing services.

5.8 Foul Water and Stormwater Mains

Mains pipe to be 150mm dia. PVC pipe laid and connected as per council directions. Refer to site plan for connection positions.

6.0 Drainlayer

6.1 Preliminary

The whole of the drainage work shall be carried out in accordance with the Building Regulations:1992 and to the satisfaction of the Local Authority Inspector.

6.2 General

Provide all fittings necessary to complete the drainage work and provide an acceptable foul water waste system.

6.3 Piping

To be run in uPVC to the falls required in the Building Code and to good trade workmanship and common trade practice.

Piping to be laid in constant falls and trenched as follows:

Excavation

Trench to be 200 – 400mm wider than the pipe OD. Trench to be excavated 80-100mm below the pipe invert to allow pipe bedding to be placed.

Bedding

Bedding material to be free running, non cohesive, granular and free from stones (larger than 20mm dia).

Excavated trench material may be reused if dry and well broken up. Refer to NZS 7643 App. B Wet Clay or soil is not acceptable as bedding material.

Pipelaying

Pipe to be placed on bedding and to be set to line and grade.

Pipe barrel to be uniformly and continuously supported on the bedding with holes scooped out under the jointing sockets.

The bedding material should be haunched up to give one-quarter dia. haunching.

Pipe may be jointed on the ground surface and placed in long strings on prepared bedding. Care must be taken that the pipe joints remain undisturbed by this handling.

Pipe grade to be checked every two meters.

Sidefill and cover

As soon as practical after laying, place sidefill to fill the space between the pipe and trench sides, taking care to leave no large voids.

Trenching timber to be lifted out to allow the sidefill material to fill the trench. Sidefill material may be reused excavated material well broken down with lumps no larger than 75mm, no stones over 20mm, free from roots, vegetation and rubbish and sufficiently dry to accept tamping.

Material to be moderately tamped using light hand equipment.

Where the depth to invert is less than 900mm and vehicular traffic likely, the sidefill material to be gravel or scoria, either single size or graded with a minimum particle size of 20mm.

Material must completely fill the space between the pipe and the trench wall.

Backfill

No mechanical compaction to be used until at least 300mm of backfill has been placed over the sidefill. Material for backfill to be reused excavated material.

Testing

At the request of the Local Authority either Air test or Water test pipework in final resting place.

6.4 Stormwater

To be Marley Co. (NZ) Ltd. 100 Ø mm Twinwall Stormwater pipe laid as per instructions set by manufacturer.

Stormwater to 2/25,000 litre water tanks, overflow to dispersal trench. Refer to site plan.

7.0 Electrical work

7.1 General

Provide all materials, labour and plant necessary to complete the work set out in the plans and specifications in accordance with the best trade practice, The Electrical Regulations:1993 and to the satisfaction of the Local Authority.

Testing, inspection and certification to comply with NZMP 11:1993.

7.2 Mains Service

Mains Service connection to meter board to be underground. Allow of network connection fee by owner.

8.0 Site Works

8.1 General

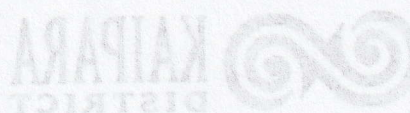
Provide all materials, labour and plant necessary to complete the work set out to the instructions of the owner.

8.2 Driveways, Planting and Fencing

All exterior work to be as per the owners instructions.

10.0 Water Supplies

10.1 All tank water supplies to go thru UV filter



Kaipara District Council
Private Bag 1001
Dargaville
26.06.2021

To Whom it May Concern

We, Gina Utting & Dawn Owens owners of 760 Settlement Road
- Kakaru (Lot 3 DP 560279) authorize Bruce Wood of BCW
Design Ltd to act as our agent and sign documents on our behalf
relating to Building Consent application for Relocation of a house
to 760 Settlement Road

Gina

Signed.....

Dated.....

25/6/21

Dawn

Signed.....

Dated.....

25/6/21

Office Use Only

Christopher Swain, Building Consultant, NZCD
2/50 Kesteven Avenue, Glendowie, Auckland
Phone: 021 585 140
Email: christopherswainconsulting@gmail.com

30/6/2021

SENIOR BUILDING INSPECTOR

Auckland Council, CBD Offices

Dear Sir,

REPORT ON: House at 5 Topliss Drive, Torbay, Auckland

FOR: 370 Settlement Road, Hakaru, Kaiwaka, Kaipara District

PROPOSED FOR: Gina Utting, Phone: 021 267 0724 & Email:
ginautting@gmail.com

BRIEF: I have inspected the above house to ascertain its suitability for resiting.

EXTERIOR AND GENERAL OBSERVATION

The existing single storey house has horizontal weatherboard cladding, a timber stud frame and a heavy tile roof.

The aluminium window joinery, was built to specifications acceptable at the time of construction with solid soffits in good condition.





The ceiling space has 90x45mm rafters, with battens and insulation.



The subfloor to the house has 230x45mm & 140x45mm joists on 2/140x45 bearers on edge with a structural particle board

flooring.





The walls are Gib/plaster board, with soft plaster ceiling panels.
The four bedrooms have carpet flooring, with wardrobes, power points,
and
windows.



The lounge area has carpet flooring, an exit door, windows and power points.

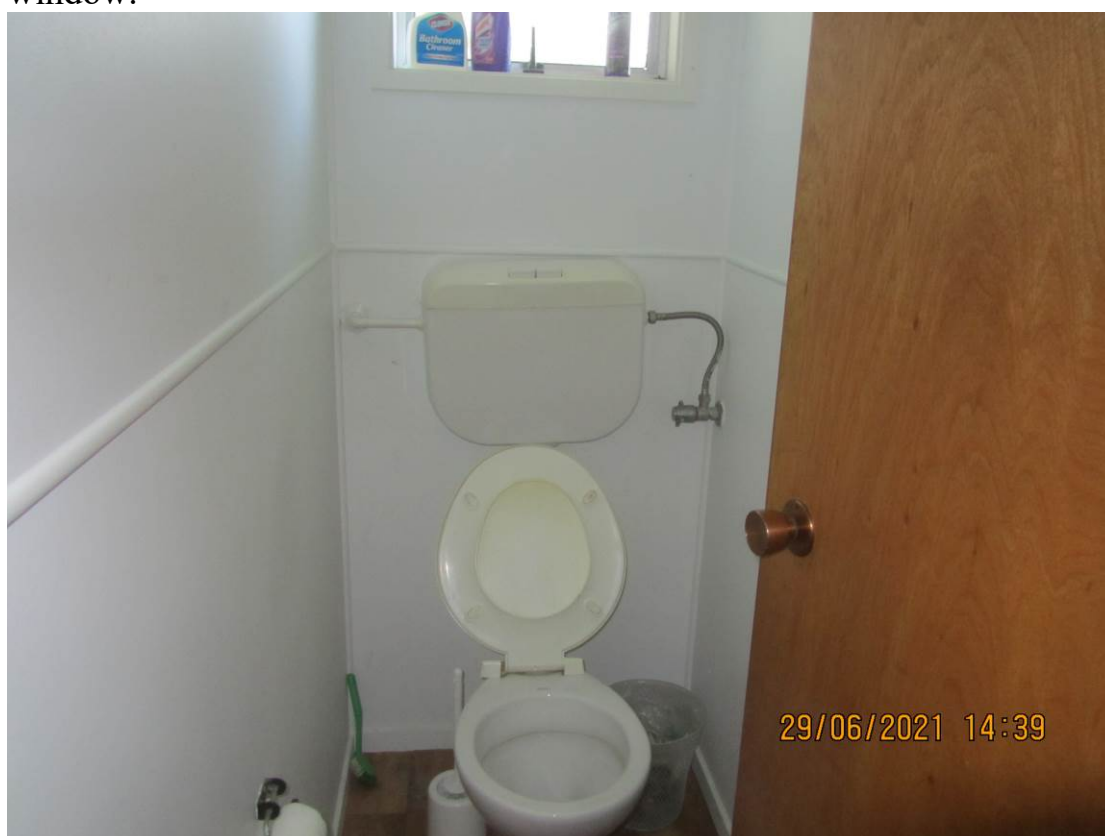


The kitchen and dining areas have varnished timber flooring, with the kitchen having a stove with rangehood, a stainless steel sink and bench, a pantry, with cupboards underneath and wall fixed, a power points, and windows.



The bathroom has timber flooring, a shower, bath, vanity, a ceiling vent, power points and windows.

There is a separate toilet with timber flooring, WC, and window.





The laundry has timber flooring, a stainless steel tub, washing machine, a HWC cupboard with timber shelving, and window.



Smoke alarms will be provided to comply with F7/AS1.

Any unbonded component of any notifiable asbestos in building elements, or any other noticeable presence of any form of asbestos in the building, if established to be a hazard, will be contained and disposed of in a work safe manner and as per the requirements of the building code.

NOTE:

A detailed condition sheet is attached to this report.

Note: a Registered Electrician will check the electrical wiring when rewiring and before reconnecting the house to the grid.

EXCLUSIONS

This report has been prepared on the basis of a visual inspection of the premises using normal readily available access and without testing of components for the assessment of the overall structural condition of the house and associated items, and without recourse to the construction drawings.

*No detailed technical investigation has been included in this brief.
No warranty can be given as to other defects not apparent to visual inspection at the time.*

This report has been prepared solely for the benefit of the client, with respect to the brief, and the local City/ District Council.

The reliance by other parties on the information or opinions contained in this report shall, without our prior review and agreement in writing, be at such party's sole risk.

RECOMMENDATION

The building will be a one-piece move.

The visible framing shows little signs of any active borer or timber rot. Any amount found in the sub floor and framing on moving and relocation can be killed by treatment and remedial work after lifting of the house.

The building will be brought back to a good condition after removal to

the site.

Yours Sincerely

A handwritten signature in black ink, appearing to read 'C Swain'.

Christopher Swain NZCD
Building Consultant.
Ex. Waitakere City Council Building Surveyor
(Approved Building Inspector)

BUILDING DETAIL

5 Topliss Drive, Torbay, Auckland

Framing	Size	Spacing	Type	Condition Rot/Borer	Recommendation
Bearers	2/140x45mm	2.25 mt.	Pine	Good	Acceptable
Floor joists	140x45mm & 230x45mm	600mm & 450mm	Pine	Good	Acceptable
Flooring	Particle board	Sheets	Composite timbers	Good	Acceptable
Wall Framing	90x45mm	Approx. 600mm	Pine	Good	Acceptable
Roof: Rafters	Ex.90x45mm	900mm	Pine	Good	Acceptable
Roof Battens	Ex40mm	370mm	Pine	Good	Acceptable
Underpurlin struts/beam	Metal truss connectors			Good	Acceptable

KEY: Good, Fair & Poor condition

	Type	Condition	Comments
Exterior Sheathing	Ex.220mm Horizontal fibrolite weatherboards	Good	Acceptable
Interior Linings (Walls)	Gib/Board	Good	Acceptable
Interior Linings (Ceilings)	Soft plaster ceiling panels	Good	Acceptable
Insulation (Floor)	"Greenstuff " type R1.5	Good	Acceptable
Insulation (Walls)	None		
Insulation (Ceiling)	Loose batts type	Fair	Suggest fixing batts blanket type
Joinery:	Aluminium sectional joinery	Good	Acceptable
Roof	Concrete tiles	Good	Acceptable
Spouting	Upvc & downpipes	Good	Acceptable
Finish (Interior)	Painted walls & ceiling	Good	Acceptable

Finish (Exterior)	Painted exterior cladding and roof	Good	Acceptable
----------------------	---------------------------------------	------	------------

GENERAL COMMENTS

The building elements are suitable for the relocation of the building
to a new site

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- 1 x 50mm Hansen Male Straight
- 1 x 50mm Hansen Male Bend

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18 May 2020

Allan & Denise Rogers
deniserogers81@gmail.com

RE: Geotechnical Investigation for Proposed Subdivision at Settlement Road, Mangawhai.

Wiley Geotechnical Limited (WGL) was requested by Allan and Denise Rogers to provide a geotechnical investigation to support an application for a 3 Lot subdivision. We understand proposed Lot 2 contains an existing dwelling. We have received and reviewed a proposed subdivision scheme plan produced by Pacific Coast Surveys (Ref 2889, dated January 2020).

WGL visited the site on 19th March 2020 and made the following observations:

- The site trends along the western side of the Hakaru River.
- Lot 1 contains a ridged knoll formation to the north western corner upon which a suitably building platform was identified. The knoll formation is relatively level on top with 15° sloping ground to the south and 10° sloping ground to the north. The knoll is elevated approximately 4-5 m in elevation from the southern side of the Lot.
- A tributary creek of the Hakaru River trends along the south western side of proposed Lot 1 flowing into Lot 2. A non-engineered crossing is present providing access to the northern part to Lot 1.
- Lot 3 is situated upon a gentle south west slope angled at 2° with the northern treed area sloping to the north between 3-5°. A potentially suitable building site was identified towards the end of Lot 3.
- No obvious signs of instability were noted in the vicinity of both identified building platforms.
- Two hand augers and a Scala Penetrometer (Scala) test were undertaken within potentially suitable building sites to a maximum depth of 2.1 m below ground level.

Geology

The GNS map for the site indicates that it is underlain by alluvium of the Tauranga Group comprising "Partly consolidated mud, sand, gravel and peat or lignite of alluvial, colluvial, lacustrine, swamp and estuarine origins".

The GNS map shows a geological boundary 250 m west of the site and indicates that it is underlain by undifferentiated melange of the Northland Allochthon Group comprising "melange, comprising a matrix of sheared mudstone with included tectonic blocks of Northland Allochthon, Te Kuiti Group and Waitemata".

Seismic Hazards

Since there are no known active faults crossing the property, it is our opinion that ground rupture is unlikely at the subject property. Granular soils, such as sand, are susceptible to liquefaction in the event of future earthquakes. This may result in settlement or lateral deformation. Based on the regional earthquake risk (discussed further below) and depth to groundwater, it is our opinion that there is a relatively low risk of liquefaction induced settlement or lateral movement such that specific liquefaction design is not required.

We recommend that the future structures and improvements are designed to account for seismic shaking and ground motions. For seismic design at the site and in line with NZS 1170.5:2004 the corresponding design peak ground accelerations (PGA) for the site have been calculated from NZS 1170.5:2004 using the recommendations of the New Zealand Geotechnical Society as follows:

$$a_h = Z R C$$

In which:

Z = base PGA called "Hazard factor" and is given by Table 3.3 and Figures 3.3 and 3.4 of NZS 1170.5:2004. Z = 0.13 for areas north of Auckland.

R = "Return period factor" and is given by Table 3.5 of NZS 1170.5:2004 (R = 1.0 for 500 year return period and R = 0.25 for a 25 year return period)

C = Site response factor called "Spectral shape factor" in NZS 1170.5:2004 and is based on the seismic site classification. We consider this site to be **Class C**, based on soil depth and therefore C = 1.33.

The design PGA at the site is given as:

$$\text{ULS: } a_h = 0.13 \times 1.00 \times 1.33 = 0.17 \text{ (i.e. PGA = 0.17 g)}$$

$$\text{SLS: } a_h = 0.13 \times 0.25 \times 1.33 = 0.04 \text{ (i.e. PGA = 0.04 g)}$$

Field Exploration and Subsurface Conditions

WGL carried out a shallow subsurface investigation consisting of two hand augers with shear vane testing within the approximate areas shown on the site plan below.



Figure 1: Approximate Subsurface

Exploration Locations & Wastewater Disposal Fields

The hand augers were carried out to a depth of 2.1 m depth. The subsurface material encountered in our hand auger investigation generally consisted of topsoil underlain by slightly to moderately clayey silt with occasional manganese and limonite. Desiccation cracking was observed to 0.9 m depth. The measured undrained shear strengths generally all exceeded an inferred >200 kPa.

Groundwater was not encountered during our testing. The groundwater level may vary from the depth measured at the time of exploration, as a result of seasonal change, recent precipitation and/or irrigation practices.

Based on this, it is our opinion that the material encountered in our subsurface investigation is broadly consistent with published geologic mapping. The bore logs are presented as an appendix to this report and are written in general accordance with the New Zealand Geotechnical Society field classification guidelines (NZGS, 2005).

Expansive Soils

Expansive clay and silt soils are common in the wider Northland region and have the tendency to shrink and swell, particularly with seasonal fluctuations of soil water content. This behavior has implications for foundation design and surface structures and should be incorporated during foundation design.

Based on our visual and field assessment of the soils encountered onsite, and our experience in the area, we consider that the Expansive Site Class for this site is "M - moderate" - in accordance with AS 2870. Accordingly, the minimum footing depth is 600 mm below cleared ground level.

Conclusions and Recommendations

It is our opinion that the proposed development is feasible from a geotechnical point of view, provided the recommendations presented in this report and standard development practices are incorporated in the design and construction of the project.

The results of the geotechnical investigation indicate a suitable bearing capacity is available for future residential development, with readings generally greater than 100 kPa.

We consider the site to be suitable for the proposed subdivision in accordance with the provision of Section 106 of the Resource Management Act 1991, and that standard earthwork and construction practises will not result significant increase or risk of erosion, subsidence, falling debris, slippage or inundation by soil or rock.

Foundations

It is our opinion that wooden piles designed in accordance with NZS3604 (2011) would likely provide a suitable foundation for future dwellings with anchor piles embedded to a minimum depth of 0.9 m, and all other piles are embedded to a minimum depth of 0.6 m. Piles on a sloping building pad should be embedded to have a toe level extending at least 600 mm below the lowest ground surface within 2 m. Additional evaluation may be required if the building site is sloped at greater than 3:1 (H:V).

A concrete foundation may also be feasible. We would expect that a minimum 300 mm layer of compacted hard fill is placed prior to applying blinding sand for any reinforced concrete slab and foundation elements having a minimum embedment depth of 0.6 m.

We expect that a geotechnical ultimate bearing capacity of 300 kPa would be available; however, further geotechnical investigations and design shall have to be carried out at the building consent stage.

Onsite Wastewater Disposal

We consider the site would be suitable for either a Secondary wastewater system depending on your requirement for the land that will be used as a disposal field. Both the Primary and the Secondary systems require the effluent field to be fenced if the land intends to be grazed.

The final onsite wastewater disposal system must conform to G13 of the NZ Building code. There are a number of proprietary systems available to suit the requirements of future residential development, which are a function of the building footprint and total number of occupants.

Any treated material must be dispersed in a controlled manner across a relatively level discharge area in order to maximise the efficient infiltration of material without compromising the stability of any slopes. To this end, we recommend that the effluent disposal fields be located clear of the building locations.

In terms of AS/NZS: 1547-2000) a Soil Category of 5 (i.e. "Light Clays – poorly drained") should be adopted. This is based on the findings of the geotechnical investigation and the assessment of the soil regarding its relevant soil category, as per the guidance document.

Considering the results of the geotechnical investigation we consider Category 5 with a DIR of 3.0mm/day. Based on a standard 4 bedroom house with an occupancy of 6 persons with roof supply water and standard water reduction fixtures this would require $6 \times 145\text{L} = 870\text{L/day}/3.0 = 290\text{m}^2$ effluent field.

We have illustrated above suitable areas for a standard wastewater disposal field with sufficient area included for 50% reserve. There are other locations upon each of the Lot which may also be suitable to utilise as a wastewater disposal field.

The Northland Regional Council rules refer to a winter ground water level and require the following;

- Primary systems - The lowest point of the disposal system is not less than 1.2 metres above winter (June, July or August) groundwater table.
- Secondary systems – The lowest point of the disposal system is not less than 0.6 metres (600 millilitres) above the winter (June, July or August) groundwater table.

WGL have assessed the autumn ground water levels to be greater than 2.5 m depth, and do not consider groundwater to exceed a depth of 0.6 m for a secondary system.

Stormwater

We recommend that stormwater overflow from newly developed dwelling water tanks from Lot 1 is directed to the creek to the south west of the Lot while stormwater from Lot 3 is directed to the existing open road side drain. The outlet of the stormwater pipe should not be positioned above sloping ground where the risk of slope instability would be increased. We recommend the outlet pipe directs water in to rip rap erosion protection. This should consist of geotextile cloth placed upon insitu soil with clean rock of 150-300 mm in diameter. This area should be a minimum of 1 m wide and 3 m in length.

If a suitable overland flow path is not available, we recommend implementing suitable subsoil level spreader to disperse stormwater runoff from future water tank overflow pipe(s). This should consist of a 0.5 m wide by a 0.5 m deep excavation with a perforated 110 mm novacoil pipe backfilled with clean drainage rock. The base and side should be wrapped with a geotextile cloth (Bidim A29, Cirtex AS410 or similar approved product) and fold over the top of the drainage metal enclosing it. The subsoil level spreader should be constructed to have 1 m length for every 10 m³ of roof area of the proposed dwelling.

If the total impervious area being developed on any lot (roofs, driveways, paving etc.) is greater than 10% of the entire lot area (15% if not in any Overlay), then specific stormwater design shall have to be carried out with regards to attenuation in order to offset the increase in stormwater runoff up to the 100

year storm event. Specific design must reach Kaipara District Council standards. This shall be determined at the building consent stage once final impervious areas are known.

LIMITATIONS

- (i) This report has been prepared for the use of our client, Allan & Denise Rogers and their professional advisers and the relevant Regional Authorities in relation to the specified project brief described in this report. No liability is accepted for the use of any part of the report for any other purpose or by any other person or entity.
- (ii) Assessments made in this report are based on the ground conditions indicated from published sources, site inspections and subsurface investigations described in this report based on accepted normal methods of site investigations. Variations in ground conditions may exist between test locations and therefore have not been taken into account in the report. If variations are found during excavation or at foundation preparation stage WGL should be notified immediately so we can amend our recommendations.
- (iii) This Limitation should be read in conjunction with the IPENZ/ACENZ Standard Terms of Engagement.

We trust that this information meets your current requirements. Please do not hesitate to contact the undersigned on 021 0399 385 or matt@wileygeotechnical.co.nz if you require any further information.



John Rowland, BEng, MEngNZ

Associate Geotechnical Engineer



Matt Wiley, CPEng, CMEngNZ

Principal Engineer

Attachments:

- Bore Logs

BOREHOLE No. 1

REF: 20034

Sheet 1 of 1

NOTES Groundwater was not encountered.	LOGGED BY: MW & JR DATE DRILLED: 19-Mar-20 DRILL METHOD 50 mm Hand Auger
--	--

BOREHOLE No. 2

REF: 20034

Sheet 1 of 1

NOTES Groundwater was not encountered.

LOGGED BY: MW & JR
DATE DRILLED: 19-Mar-20
DRILL METHOD 50 mm Hand Auger

Devan"

Home / Shop / Accessories / Rain Harvesting / First Flush diverter 80/90mm



○ FIRST FLUSH DIVERTER 80/90MM

\$79.00

1

ADD TO CART

SKU: TAFF80

Category: Rain Harvesting

If you'd like an installation or further details, just send us an enquiry and we'll get one of our team to call you back.

SEND AN ENQUIRY

ADD TO BUILD A QUOTE CART

Description

PRODUCT DESCRIPTION

Downpipe First Flush Water Diverters improve water quality and reduce tank maintenance by preventing the first flush of water, which may contain roof contaminants, from entering the tank.

Features and Benefits

- Install video [click here](#)
- Prevents sediment, bird droppings, spiders, insects, mosquito eggs and debris from entering the rainwater tank
- Improves water quality, protects pumps and internal appliances
- Ideal to use in conjunction with a leaf diverter
- Easy installation, just add pipe and glue
- No mechanical parts. Low maintenance requirements.

Please note: If using on 80mm pipe, the flush chamber will still require 90mm pipe (not included).

Demand Calculation Sheet

Job Details

Name: G. M. Utting & D. Owens (sub floor bracing)
 Street and Number: 760 Settlement Road
 Lot and DP Number: Lot 3 DP 560279
 City/Town/District: Hlakaru
 Designer: Bruce Wood
 Company: BCW Design Ltd
 Date: 25.06.2021

Building Specification

Number of Storeys: 1
 Floor Loading: 2 kPa
 Foundation Type: Subfloor
 Subfloor Cladding Weight: Heavy

Single

Cladding Weight: Light
 Roof Weight: Light
 Room in Roof Space: No
 Roof Pitch (degrees): 20
 Roof Height above Eaves (m): 1.6
 Building Height to Apex (m): 4.69
 Ground to Lower Floor (m): 0.81

Average Stud Height (m): 2.4
 Building Length (m): 14.34
 Building Width (m): 6.72
 Building Plan Area (m²): 96.36

Building Location

Wind Zone = High

Earthquake Zone 1

Soil Type: D & E (Deep to Very Soft)
 Annual Prob. of Exceedance: 1 in 500 (Default)

Bracing Units required for Wind

	Along	Across
Single Level	291	529
Subfloor Level	607	858

Bracing Units required for Earthquake

	Along & Across
Single Level	500
Subfloor Level	726

GIB EzyBrace® Bracing Software



Subfloor Level Along Resistance Sheet

Job Name: G. M. Utting & D. Owens (sub floor bracing)

									Wind	EQ
									Demand	
									607	726
									Achieved	
Line	Element	Length (m)	Angle (degrees)		Type	Supplier	Wind (BUs)	EQ (BUs)	1120 185%	840 116%
A	1	3.00			Anchor Pile	NZS3604	480	360		
									480 OK	360 OK
B	1	2.00			Anchor Pile	NZS3604	320	240		
									320 OK	240 OK
C	1	2.00			Anchor Pile	NZS3604	320	240		
									320 OK	240 OK

GIB EzyBrace® Bracing Software



Subfloor Level Across Resistance Sheet

Job Name: G. M. Utting & D. Owens (sub floor bracing)

									Wind	EQ
									Demand	
									858	726
									Achieved	
Line	Element	Length (m)	Angle (degrees)		Type	Supplier	Wind (BUs)	EQ (BUs)	1120 131%	840 116%
M	1	2.00			Anchor Pile	NZS3604	320	240		
									320 OK	240 OK
N	1	2.00			Anchor Pile	NZS3604	320	240		
									320 OK	240 OK
O	1	1.00			Anchor Pile	NZS3604	160	120		
									160 OK	120 OK
P	1	2.00			Anchor Pile	NZS3604	320	240		
									320 OK	240 OK



23 June 2021

Gina Utting
ginautting@gmail.com

RE: Geotechnical Investigation for Proposed Residence at Lot 3, 760 Settlement Road, Hakaru.

Wiley Geotechnical Limited (WGL) was requested by Gina Utting to provide a geotechnical investigation and guidance on foundation design for a proposed relocation of a 4-bedroom dwelling and the construction of a new shed. We have received and reviewed a site plan produced by BCW Design Ltd (Ref 21036, dated April 2021). We understand the house is proposed to be constructed upon a timber pile foundation, and the shed is to be constructed upon a concrete foundation.

We have previously undertaken a geotechnical investigation on the property as part of the subdivision process (Our Reference #20034, dated May 2020). In our earlier investigation a single borehole was undertaken on the site near the proposed house location, this earlier borehole has been included in this report.

WGL visited the site on the 9th of June 2021 and made the following observations:

- The site is located on a relatively flat section and is currently grassed
- The site is situated upon a gentle south west slope angled at 2 degrees with the northern treed area sloping to the north between 3 to 5 degrees.
- BH1 was conducted on the house building site, while BH2 was conducted on the shed site.
- The shed is located 3.0 m from back boundary, a 2.0 m high rock wall.
- The building platform for the dwelling has not been formed.
- No obvious signs of instability were noted.
- Two hand augers and six Scala Penetrometer (Scala) test were undertaken within potentially suitable building sites to a maximum depth of 2.1 m below ground level.

Geology

The GNS map for the site indicates that it is underlain by alluvium of the Tauranga Group comprising "Partly consolidated mud, sand, gravel and peat or lignite of alluvial, colluvial, lacustrine, swamp and estuarine origins".

Seismic Hazards

Since there are no known active faults crossing the property, it is our opinion that ground rupture is unlikely at the subject property. Granular soils, such as sand, are susceptible to liquefaction in the event of future earthquakes. This may result in settlement or lateral deformation. Based on the regional earthquake risk (discussed further below) and depth to groundwater, it is our opinion that there is a

relatively low risk of liquefaction induced settlement or lateral movement such that specific liquefaction design is not required.

We recommend that the future structures and improvements are designed to account for seismic shaking and ground motions. For seismic design at the site and in line with NZS 1170.5:2004 the corresponding design peak ground accelerations (PGA) for the site have been calculated from NZS 1170.5:2004 using the recommendations of the New Zealand Geotechnical Society as follows:

$$a_h = Z R C$$

In which:

Z = base PGA called "Hazard factor" and is given by Table 3.3 and Figures 3.3 and 3.4 of NZS 1170.5:2004. Z = 0.13 for areas north of Auckland.

R = "Return period factor" and is given by Table 3.5 of NZS 1170.5:2004 (R = 1.0 for 500 year return period and R = 0.25 for a 25 year return period)

C = Site response factor called "Spectral shape factor" in NZS 1170.5:2004 and is based on the seismic site classification. We consider this site to be **Class C**, based on soil depth and therefore C = 1.33.

The design PGA at the site is given as:

$$\text{ULS: } a_h = 0.13 \times 1.00 \times 1.33 = 0.17 \text{ (i.e. PGA = 0.17 g)}$$

$$\text{SLS: } a_h = 0.13 \times 0.25 \times 1.33 = 0.04 \text{ (i.e. PGA = 0.04 g)}$$

Field Exploration and Subsurface Conditions

WGL carried out a shallow subsurface investigation consisting of two hand augers with shear vane testing and six Scala Penetrometer (Scala) tests within the approximate areas shown on the site plan below.



Figure 1: Approximate Subsurface Exploration Locations

The hand augers were carried out to depths of 2.1 m. The subsurface material encountered in our hand auger investigation generally consisted of a fill/topsoil underlain by a fill/silt with occasional topsoil inclusions. A buried topsoil layer was encountered for 50 mm at 0.45 m at BH1. A natural silt is then encountered from 0.5 m, with clay and plasticity increasing with depth and occasional orange brown and limonitic staining. The measured undrained shear strengths generally all exceeded 100 kPa. The results of the individual Scala tests are shown below. Our previous hand auger (HA1 in blue) encountered very stiff natural soils with measured undrained shear strengths greater than 200 kPa

Groundwater was not encountered during our testing. The groundwater level may vary from the depth measured at the time of exploration, as a result of seasonal change, recent precipitation and/or irrigation practices.

Based on this, it is our opinion that the material encountered in our subsurface investigation is broadly consistent with published geologic mapping. The bore logs are presented as an appendix to this report and are written in general accordance with the New Zealand Geotechnical Society field classification guidelines (NZGS, 2005).

Scala Results

Scala blows/100mm at Lot 3, 760 Settlement Road, Hakaru						
(m)	Scala 1 (SP1)	Scala 2 (SP2)	Scala 3 (SP3)	Scala 4 (SP4)	Scala 5 (SP5)	Scala 6 (SP6)
0.1	1	1	1	1	1	1
0.2	3	2	2	1	1	3
0.3	2	2	2	3	1	2
0.4	2	3	3	3	2	2
0.5	3	3	4	2	2	3
0.6	1	3	3	2	4	2
0.7	3	4	3	3	5	3
0.8	3	3	2	4	5	4
0.9	4	4	2	4	5	4

Expansive Soils

Expansive clay and silt soils are common in the wider Northland region and have the tendency to shrink and swell, particularly with seasonal fluctuations of soil water content. This behavior has implications for foundation design and surface structures and should be incorporated during foundation design.

Based on our visual and field assessment of the soils encountered onsite, and our experience in the area, we consider that the Expansive Site Class for this site is "M - moderate" - in accordance with AS 2870. Accordingly, the minimum footing depth is 600 mm below cleared ground level.

Conclusions and Recommendations

It is our opinion that the proposed development is feasible from a geotechnical point of view, provided the recommendations presented in this report and standard development practices are incorporated in the design and construction of the project.

The soil underlying the site does **not** reach "good ground" in the upper metre as defined in NZS 3604 (2011) based on the Scala results as the requirement is 5 blows per 100 mm with a Scala Penetrometer; however, the shear vane readings indicate a suitable bearing capacity is available for the proposed house, with readings generally greater than 100 kPa.

Pile Foundation (Relocatable Dwelling)

It is our opinion that wooden piles designed in accordance with NZS3604 (2011) will provide a suitable foundation for the proposed dwelling. We recommend all piles are H5 treated and have a minimum 125 x 125 mm dimensions. We recommend that anchor piles are embedded to a minimum depth of 0.9 m, and all other piles are embedded to a minimum depth of 0.6 m. Pile holes should be bored with a minimum diameter of 400 mm.

If a second-hand dwelling is being utilised, we recommend piles are located along the existing bearers in the same positions as previously located to transfer existing loads and provide supports for internal loads previously supported. If an alternative pile plan is proposed it will shall to be approved by a professional Structural Engineer familiar with this report.

The piles should meet NZS3640 Class H5, and cut surfaces should be retreated with a protective coating in accordance with the manufacturer's recommendations. The pile length should be sufficient to extend to the design foundation level, and provide the stick-up length necessary for the super-structure and planned floor levels. Piles should not be spliced.

All bored holes should be inspected by WGL, or a qualified geotechnical engineer, prior to continuing with foundation construction

A geotechnical ultimate bearing capacity of 450 kPa should be available.

Concrete Foundation (Shed)

We recommend that a minimum 300 mm layer of compacted hard fill is placed prior to applying blinding sand for any reinforced concrete slab and foundation elements have a minimum embedment depth of 0.6 m. We recommend a minimum 100 mm layer of compacted hard fill is placed for a waffle slab (i.e Rib-Raft) with the foundation being designed for expansive site class 'M – Moderate', as per AS 2870. All topsoil and fill material must be removed before foundation construction commences.

We recommend the following regarding hard fill and its placement:

- Underslab hard fill comprising GAP40/GAP65, or an equivalent approved product, should be placed across the building platform in 100 mm lifts and compacted using appropriate compaction plant (e.g. a hand held or excavator mounted vibrating compaction plate), and brought up to the finished design levels. We would recommend a high quality gravel without too many fines.
- For fills greater than 0.6 m. Every third layer of hard fill lift should be observed and tested by WGL to confirm that it has been placed to an appropriate specification. At this stage it is anticipated that compaction should be to achieve 95% of the maximum dry density (MDD) of the material, to be confirmed onsite using either a NDM (nuclear densometer) or Impact Hammer testing (Target 15 CBR).

A geotechnical ultimate bearing capacity of 300 kPa may be used in the design of a reinforced concrete slab or a waffle slab (i.e. Rib Raft). The ultimate bearing capacity should be available provided that the hard fill has been placed and certified according to the construction specification. We recommend WGL, or a qualified geotechnical engineer, inspect any excavations prior to the placing of any fill or foundation elements.

LIMITATIONS

- (i) This report has been prepared for the use of our client, Gina Utting and their professional advisers and the relevant Regional Authorities in relation to the specified project brief described

in this report. No liability is accepted for the use of any part of the report for any other purpose or by any other person or entity.

- (ii) Assessments made in this report are based on the ground conditions indicated from published sources, site inspections and subsurface investigations described in this report based on accepted normal methods of site investigations. Variations in ground conditions may exist between test locations and therefore have not been taken into account in the report. If variations are found during excavation or at foundation preparation stage WGL should be notified immediately so we can amend our recommendations.
- (iii) This Limitation should be read in conjunction with the IPENZ/ACENZ Standard Terms of Engagement.

We trust that this information meets your current requirements. Please do not hesitate to contact the undersigned on 021 0399 385 or matt@wileygeotechnical.co.nz if you require any further information.



Matt Wiley, CPEng

Principal Engineer

Attachments:

- Bore Logs

 WILEY GEOTECHNICAL LTD		BOREHOLE No. BH1						
SITE: Lot 3, 760 Settlement Road, Hakaru		REF: 21150						
Sheet 1 of 1								
REDUCED LEVEL (RL) INFERRED GEOLOGY	DESCRIPTION OF SOIL	SOIL SYMBOL	DEPTH (m)	SAMPLE TYPE	WATER CONTENT (%)	WATER LEVEL	CORRECTED VANE SHEAR STRENGTH (kPa) ● Peak Field Vane ○ Remoulded Field vane 50 100 150	SCALA PENETROMETER BLOWS / 100 mm 5 10 15
FILL	FILL/TOPSOIL							
	FILL/SILT slightly clayey, slight plasticity, light brown, rare topsoil inclusions						200 ●	
	TOPSOIL buried							
Alluvium of the Tauranga Group	SILT slightly clayey, slight plasticity, light brown						87 ○ 147 ●	
	at 0.8 m increase in clay and plasticity		1				102 ○ 192 ●	
							200 ●	
	at 1.5 m light grey with orange brown staining						200 ●	
			2				200 ●	
	E.O.B: 2.1 m (target depth)						200 ●	
			3					
			4					
			5					

NOTES Groundwater was not encountered.
House site

LOGGED BY: CS & NH
DATE DRILLED: 09-Jun-21
DRILL METHOD 50 mm Hand Auger

BOREHOLE No. BH2

REF: 21150

Sheet 1 of 1

REDUCED LEVEL (RL) INFERRED GEOLOGY	DESCRIPTION OF SOIL	SOIL SYMBOL	DEPTH (m)	SAMPLE TYPE	WATER CONTENT (%)	WATER LEVEL	CORRECTED VANE SHEAR STRENGTH (kPa)			SCALA PENETROMETER BLOWS / 100 mm		
							●Peak Field Vane ○Remoulded Field vane					
							50	100	150	5	10	15
TS	TOPSOIL dark brown, possible fill											
Alluvium of the Tauranga Group	SILT slightly clayey, slight plasticity, brown											
	at 0.6 m increase in clay and plasticity											
			1									
	at 1.2 m light grey with orange brown staining											
	occasional limonitic staining, dark brown/orange brown		2									
	E.O.B: 2.1 m (target depth)											
			3									
			4									
			5									

NOTES Groundwater was not encountered.
TS = Topsoil
Shed site

LOGGED BY: CS & NH
DATE DRILLED: 09-Jun-21
DRILL METHOD 50 mm Hand Auger

BOREHOLE No. 1

REF: 20034

Sheet 1 of 1

REDUCED LEVEL (RL) INFERRED GEOLOGY	DESCRIPTION OF SOIL	SOIL SYMBOL	DEPTH (m)	SAMPLE TYPE	WATER CONTENT (%)	WATER LEVEL	CORRECTED VANE SHEAR STRENGTH (kPa)			SCALA PENETROMETER BLOWS / 100 mm								
							● Peak Field Vane ○ Remoulded Field vane											
							50	100	150	5	10	15						
	TOPSOIL very fine silt, dark brown																	
Undifferentiated Melange of the Northland Allochthon	SILT slightly clayey, friable, light brown with orange/brown staining, desiccation cracking, dry powdery slightly to moderately clayey		1															
	E.O.B: 2.1 m		2															
			3															
			4															
			5															

NOTES

Groundwater was not encountered.

LOGGED BY:

MW & JR

DATE DRILLED:

19-Mar-20

DRILL METHOD

50 mm Hand Auger

 **0800 473 414**

 9a Lovell Court Albany, Auckland

December 23, 24, 30, 31 Open
 December 27 Closed
 January 3 open
 January 6 onwards normal hours resume

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2 of 30



Save 25%



TREVOLI - Whole House UV Option 1 - For Rainwater Tank

Trevoli

[Write a review](#)

RRP: ~~\$769.00~~

\$578.00

(Including GST)

You save: \$191.00 (25%)

Bracket Type (1):

Standard ▼

Ballast Type 

Deluxe Countdown Ballast (+\$99.00) ▼

Pressure Gauge 

CODE:

UV-OPT1

Quantity:

1

+

-

ADD TO CART

Add to wish list

Add to comparison list

Description

Features

Reviews

TREVOLI - Whole House UV Option 1 - For Rainwater Tank

TREVOLI Ultraviolet Water Sterilizer & Filtration OPT 1 - For Medium homes
This U.V system destroys 99.99% of Harmful micro-organisms, including E-coli, Cryptosporidium, campylobacter and Giardia.
Cost Effective, Enviroment friendly disinfection of water without chemicals.

- * Optional Stainless mounting bracket available
- * Optional pressure gauge available

For Best results install cartridge filtration before the UV system.

- Included:
- * 1 x 10" Jumbo Big Blue water filter Housing Kit
 - * 1 x 10" Big Dual Filter 25-1micron
 - * 1 x 12 GPUV-55W UV Can

(Does not include plumbing Fittings for connection)

Please contact us if you would like the connection Kit supplied at an additional cost.

Applications:

This is the most cost effective and efficient method For the treatment of Biological contaminated water containing "faecal coliforms" caused by Birds,Opossums on exposed gutters and Live stock faecal run off into streams or shallow Bores.

Specifications:

- * Recommended Flow 45 LPM (30 mJ/cm2)
- * Max Flow 84 LPM (16 mJ/cm2)
- * 1 x 55watt replaceable lamp
- * Dimension: 910mm long - 2.5" Dia
- * Port size 3/4"
- * Temperature range-2-40 degrees

Dropdown Option Explanations

Bracket Type - standard is powder coated steel, dropdown is stainless steel
Ballast Type - standard is budget type, dropdown is ballast with countdown timer and earth point connection



[UV Brochure](#)



[Click here for spare filters and U.V](#)



[Giardia /Cryptosporidium](#)



[Why do we need Water Filters?](#)

TWO YEAR WARRANTY on housings

How to set up your UV can

Trevoli Ultra Violet Systems & Filtration



A Guide to Setting up your UV



Related Products



Save 29%

TREVOLI - Jumbo Poly Spun Filters - 10"
\$25.00



Save 29%

TREVOLI - Jumbo Pleated Cartridge - ...
\$30.00



S

Lamps for TREVOLI UV systems
\$65.00

Customers also bought



Save 36%

Anka Male Coupling 15mm-50mm
\$3.70



Save 42%

Compact Ball Valve
\$5.75



Microlene Under Bench (R...
\$120.00





Kaipara Te Orangahau • Teo Ocean • Teo Harbours

New Rules for Relocated Dwellings KAIPARA DISTRICT COUNCIL

Confirmation from Dwelling Relocation Applicant

I/we Gina Utting & Dawn Owens understand that Resource Consent approval for relocating a dwelling is not necessary if the following criteria are met:

- i. Any relocated building can comply with the relevant standards for **Permitted Activities** in the Kaipara District Plan; and
- ii. Any relocated **dwelling** must have been previously designed built and used as a dwelling; and
- iii. A building inspection report shall accompany the Building Consent. The report is to identify all reinstatement work required to the exterior of the building; and
- iv. All work required to reinstate the exterior of any relocated building, including the siting of the building on permanent foundations, shall be completed within **12 months** of the building being delivered to the site.

Having taken into account the information sheet supplied by Kaipara District Council and my available resources, I/we can confirm that I/we will be able to meet all of the above criteria for the house I/we propose to relocate.

Further, I/we understand that if I/we fail to complete the required reinstatement of the exterior of the building within the prescribed **12 months** I/we will be obliged to seek Resource Consent from the Kaipara District Council to avoid enforcement action under Section 322 of the Resource Management Act 1991. I/we understand that this enforcement action could include being served a Court order to remove the building.

Pursuant to Kaipara District Plan Rules 12.10.13 or 13.10.10 a **site inspection will be carried out by Kaipara District Council's Monitoring and Compliance Officer** to ensure compliance with **clause (iii)** of this application has been met.

This inspection will incur a minimum fee as quoted in Kaipara District Council's Fees and Charges, and any further inspections should they be required, will be invoiced to you.

Gina [Signature]
Signature

Dawn [Signature]

25/6/21
Date

25/6/21

Office Use Only:

Building Consent Number:

Relocate a Dwelling Application

These applications can be processed speedily and for least cost if you, the applicant, provide **all** the information needed with the application at the outset. This includes:

- ☒ A completed Building Consent application form - be sure to provide your name and contact address and telephone number
- ☒ Signed agreement to reinstate exterior of dwelling within 12 months of delivery to site ("Confirmation from Dwelling Relocation Applicant")
- ☒ A site plan drawn reasonably to scale, preferably on A4 paper using black ball point pen (photocopies more easily). The plan should show the proposed location of the dwelling in relation to boundaries, existing buildings, location of proposed access and effluent disposal/sewer connection
- ☒ A foundation plan for timber floors to show the location of all piles and sub-floor timber braces, foundation perimeter walls and internal piling system. For concrete floors a detailed cross section is required
- ☒ A drainage plan and design to show how wastewater and stormwater will be disposed. This plan must be designed for the specific project and certified (by a registered professional person familiar with the area)
- ☒ A floor plan of the dwelling to be relocated. Elevations (drawings of what it looks like from the outside) are also beneficial
- ☒ Photographs of the dwelling (in its present position) and the proposed site are also very desirable
- ☒ Report on structural soundness of dwelling and its suitability for relocation. This report must be completed by an independently qualified person (IQP); for example an architect, engineer, and registered building surveyor or similar. Most relocation companies have the services of suitable building assessors available
- ☐ House Relocation Application to be submitted in triplicate if land use consent is required



PROJECT
Flood Assessment

Address
ALLOTMENT 310 PSH OF KAIWAKA
760 Settlement Road
KAIWAKA

DATE
26th June 2020

JOB REFERENCE
#97465

WWW.WILTONJOUBERT.CO.NZ . STRUCTURAL . GEOTECH . STORMWATER . WASTEWATER

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QUALITY CONTROL

Revision History

Revision No.	Prepared By	Description	Date
01	Ben Steenkamp	Resource Consent Stage	26.06.2020

Acceptance

Action	Name	Signed	Date
Prepared by	Ben Steenkamp		26.06.2020
Reviewed by	Frans Krause		26.06.2020
Approved by	Frans Krause		26.06.2020
on behalf, of	Wilton Joubert Limited		

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1. INTRODUCTION

Wilton Joubert Ltd (WJL) was engaged to carry out a flood assessment at 760 Settlement Road, Kaiwaka. The purpose of this investigation is to provide a “desktop” analysis of the potential flood risks associated with the proposed development, which is to be considered through a consent application to the Kaipara District Council.

The information provided herein relates to data abstracted from the LINZ database, Site Plan sketches supplied by the client, Kaipara District Plan - Operative in part, Kaipara District Council Standards, and relevant Codes of Practice as well as the New Zealand Building Code E1/VM1.

2. SITE DESCRIPTION

The property is legally described as ALLOTMENT 310 KAIWAKA PSH BLK XV WAIPU SD and is located on the southern side of Kaiwaka-Mangawhai Road, Kaiwaka. Access to the property is via a single private accessway crossing off Settlement Road. The property is 4.2567 ha in extent and is assessed as having a relatively flat surface, which generally descends towards the east.

GIS data suggests that the Hakaru River is located along the eastern boundary with some wetlands and overland flow paths located migrating through the centre of the land parcel.

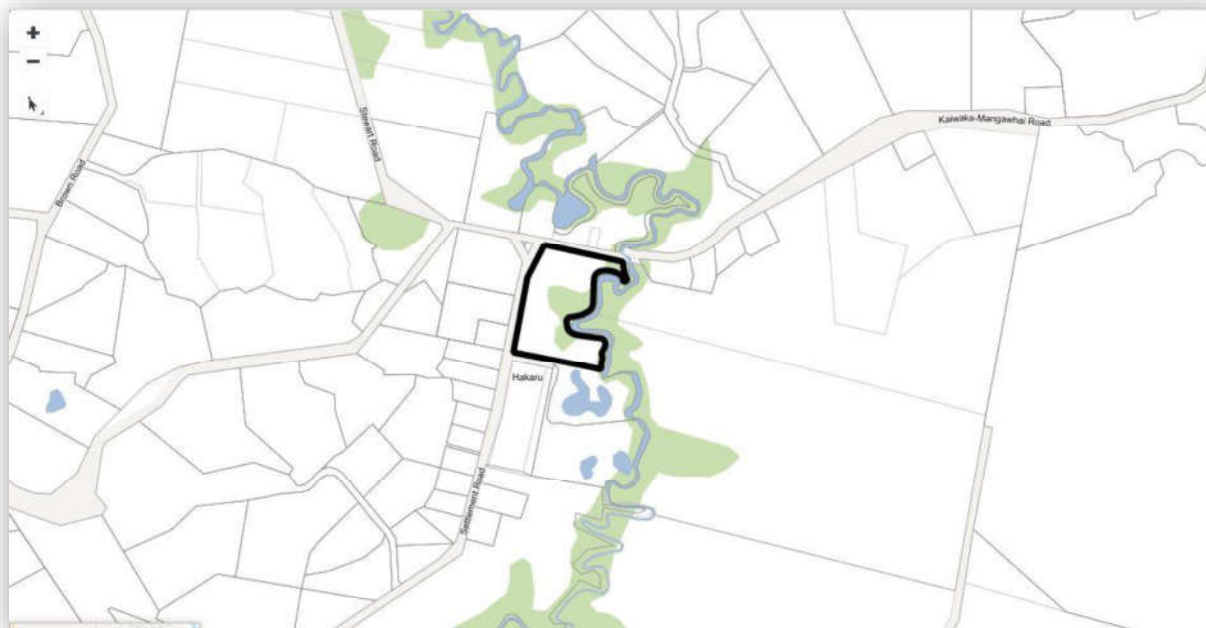


Figure 1: Locality Map – 760 Settlement Road (KDC - Geomaps)

The flood susceptibility map obtained from the Kaipara District Council GIS system, shows the site to be located within a flood susceptibility area of a flood plain generated by the Hakaru River.

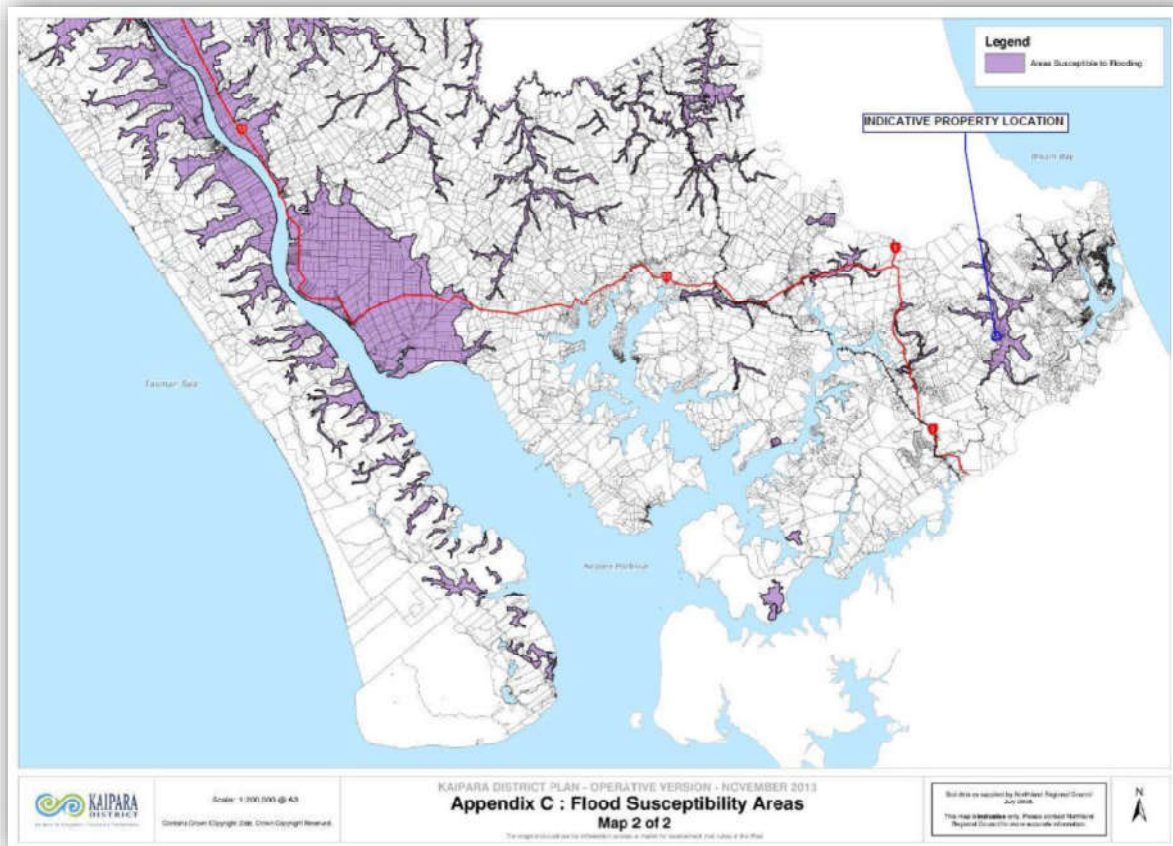


Figure 2: Kaipara - Flood Susceptibility Map

3. CATCHMENTS

The total catchment area is 3664.0937 hectares, as depicted in figure 3, below.

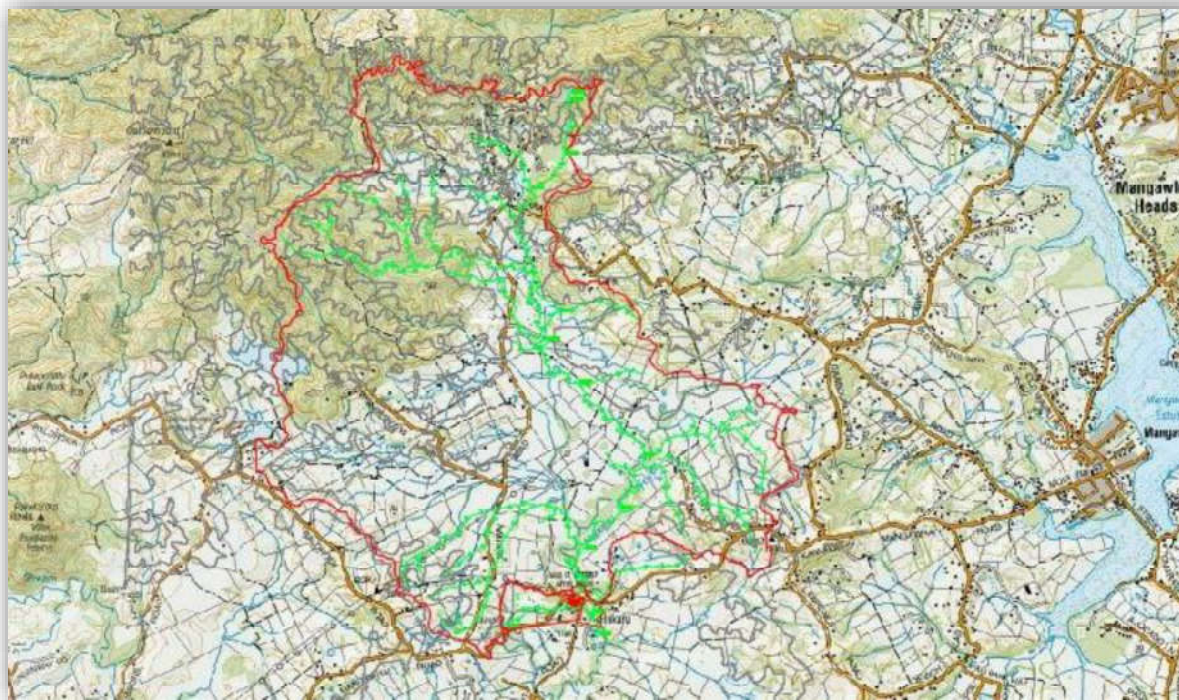


Figure 3: Catchment

All the contributing tributaries converge in close proximity of the south eastern corner of the site from where it continues in an southern direction as the Hakaru River discharging into the Kaipara Harbour.

4. METHODOLOGY

A terrain model was constructed of the complete catchment, using the terrain data abstracted from the LINZ Topographical Basemap and the site survey provided by the client. Run-off from all contributing catchments was calculated through the use of HydroCAD software, the results of which are presented in the appendices of this report.

An HEC-RAS model represented through the Autodesk “River” module, was prepared for all main tributaries and populated with the flow data abstracted at various flow change positions identified through the interrogation of the flood model.

The flood model was calibrated by comparing and adjusting the channel cross-sections and grades with those obtained through the terrain model.

5. ANALYSIS

A summary of the input values used in the analysis is presented in Table 1 below.

Table 1: HydroCAD Values

<u>Catchment</u>	<u>Area [ha]</u>	<u>Rainfall depth</u> <u>20%AEP [inc CC]</u>	<u>Rainfall depth</u> <u>1%AEP [inc CC]</u>	<u>Tc</u> <u>(min)</u>	<u>Channel</u> <u>Length (m)</u>	<u>20%AEP</u> <u>Flows m³/s</u>	<u>1%AEP</u> <u>Flows m³/s</u>
1	3654.1286	173 mm	324 mm	147	12 009	220.10	507.25
2	57.1094	173 mm	324 mm	28	1 414	8.33	19.06
3	4.2567	173 mm	324 mm	10	150	1.00	2.11

The above flows were analysed in the flood model to determine the effect on the subject property. The results of which were depicted graphically in the terrain model.

The Kaipara District Council Engineering Standards lists the following minimum requirements for the development of sites affected by flooding:

“6.1.1 Minimum Requirements

(ii) Recognise and protect existing overland flow paths, ephemeral watercourses and natural wetlands, streams and rivers;

(iii) Protect buildings from flooding in accordance with clause 6.2.3 and 6.2.4” where 6.2.3 is applicable:

“6.2.3 Freeboard

The following requirements shall be met:

(a) The minimum freeboard height to floor level above the 100 year ARI flood level shall be as follows.

Table 6.3: Freeboard

<i>Building</i>	<i>Minimum Freeboard</i>
<i>Habitable Building floors</i>	<i>500mm</i>
<i>Commercial and Industrial Buildings and nonhabitable buildings such as garages and sheds</i>	<i>300mm”</i>

It is further noted in section 6.1.2 (B) that *“in areas zoned Rural, all overland flow paths on lots of less than 4.0ha shall be identified and protected by an easement in gross in favour of Council.”*

6. DISCUSSION

As mentioned elsewhere in this report, a terrain model was constructed utilising the GIS data abstracted from the Kaipara District Council GIS system, LINZ data as well as survey data received from the client. The proposed subdivision lines were superimposed on the terrain model.

Two main tributaries were identified and modelled. The main tributary is the Hakaru River, and the second is the tributary crossing the site from west to east, merging into the Hakaru River to the east. The Kaiwaka-Mangawhai Road crosses the Hakaru River via a bridge, which was also incorporated into the model.

Cross-sections were generated to assist in the creation of the river stations and identifiable cross-sections for utilisation in the flood model.

Both the 1% (Secondary) and 20% (Primary) AEP-storms were analysed for each of the tributaries. The output of each scenario is included in the Appendices to this report. Further analysis of water levels achieved during the 1% AEP and the 20% AEP, revealed water levels of **34.471MSL** for the 1% AEP and **33.119MSL** for the 20% AEP respectively in the upper portion of the site and **34.407MSL** for the 1% AEP and **33.071MSL** for the 20% AEP respectively for the lower section.

The flood model indicates that the water will build-up from the position where the two tributaries merge, upstream to the subject site, during a 1% AEP event. The data also concludes that the water level may build-up at the Kaiwaka-Mangawhai Bridge during the same storm event.

Please consult *Figure 4* below for further clarification.

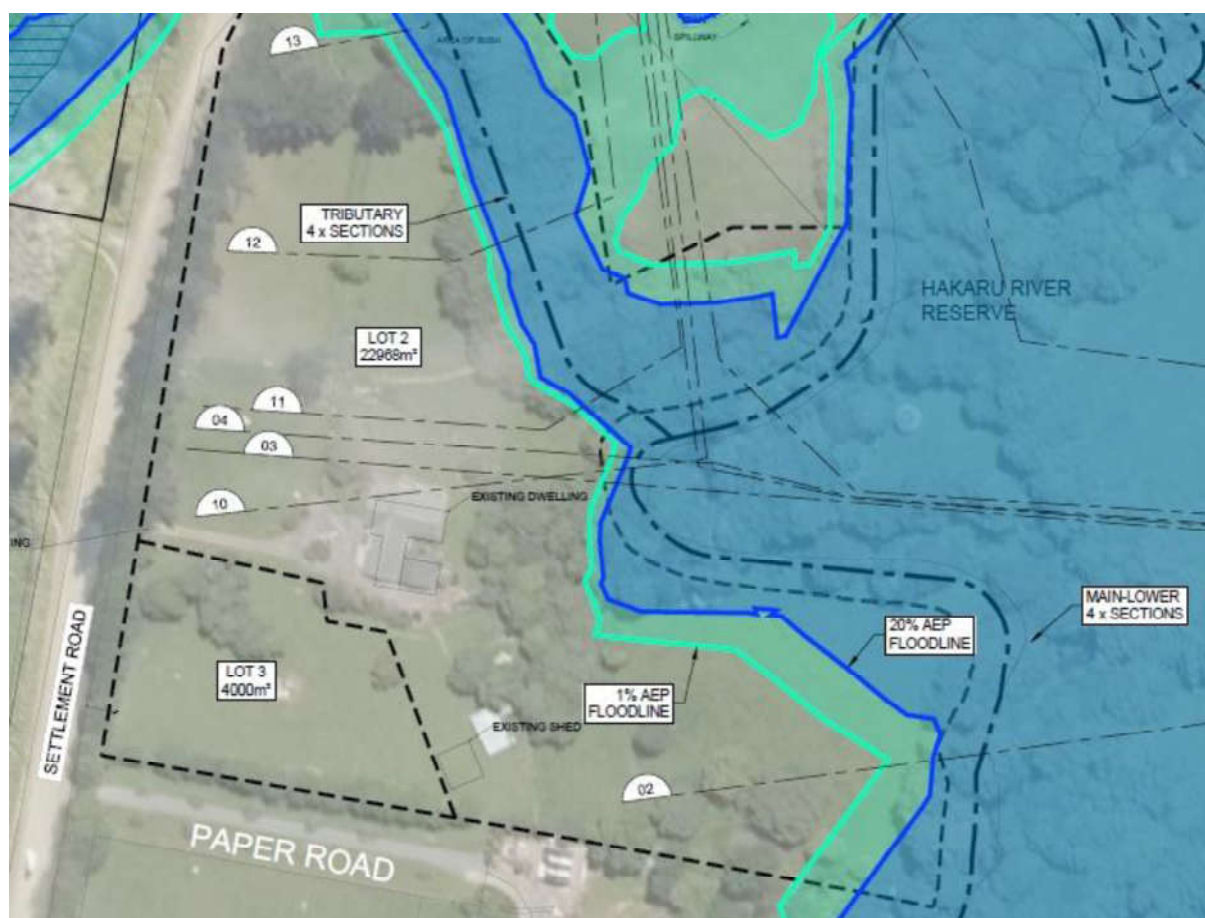


Figure 4: Indicative Flood Lines

7. CONCLUSION AND RECOMMENDATIONS

In accordance with the Kaipara District Council's Code of Practice, Table 6.3, Freeboard requirements, for the 1% AEP storm event, the following apply:

- 500mm for Habitable Building Floors
- 300mm for Commercial and Industrial Buildings and non-habitable buildings such as garages and sheds

WJL will, therefore, recommend that the minimum proposed floor levels to be in compliance with the above freeboard requirements. With the above in mind, it is anticipated that the following minimum finished floor levels will be required:

Building	Minimum Level – Upper part of site	Minimum Level – Lower part of site
Habitable Building floors	34.971	34.907
Commercial and Industrial Buildings and non-habitable buildings such as garages and sheds	34.771	34.707

8. LIMITATIONS

The recommendations and opinions contained in this report are based on information from GIS data obtained from the Kaipara District Council database, Northland Geomaps, as well as data obtained from the Client.

This report has been prepared solely for the use of our Client with respect to both the particular brief and specific purpose provided to Wilton Joubert Ltd (WJL), with regards to the specific project described herein.

Both no liability and any duty of care is acknowledged or accepted for the use of any part of this report in any other context or for any other purpose, or by any other person, other party or entity.

The performance behaviour outlined by this report is dependent on the construction activity and actions of the builder/contractor. Inappropriate actions during the construction phase may cause behaviour outside the limits given in this report.

This report has been prepared for the particular project described to us, and no responsibility is accepted for the use of any part of this report in any other context or for any other purpose.

Yours faithfully,

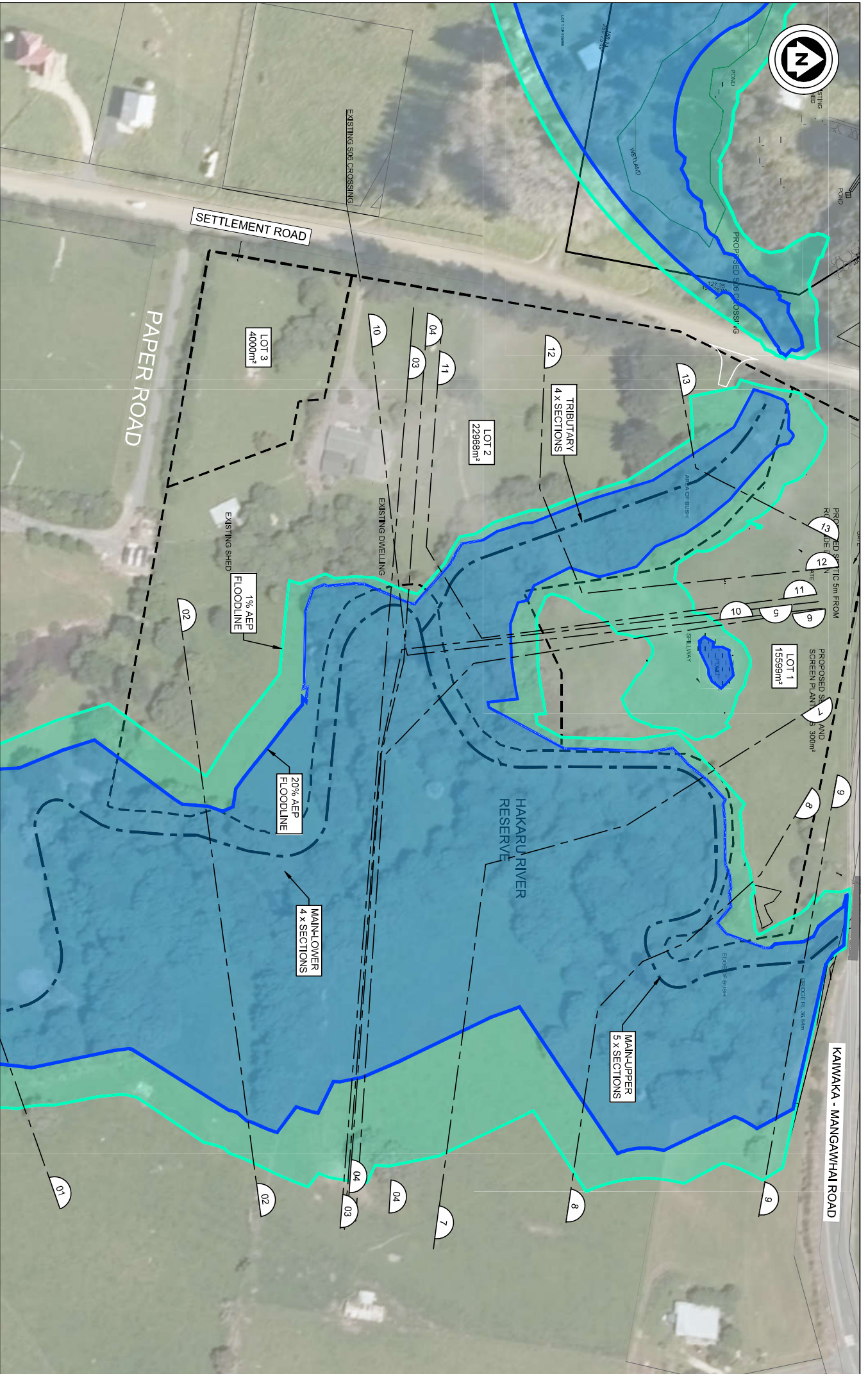
Wilton Joubert Ltd.



Frans Krause
IntPE CPEng APEC RPEQ NZIMS
BEng Civil TechHDipEng PGDip Bus

APPENDICES

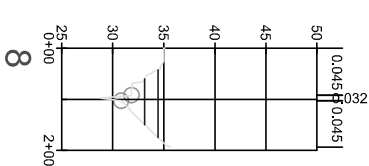
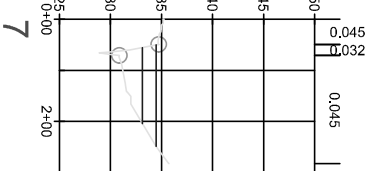
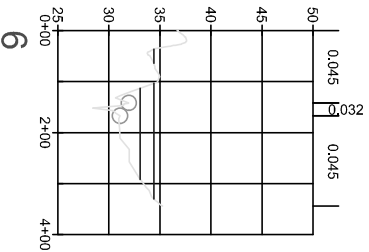
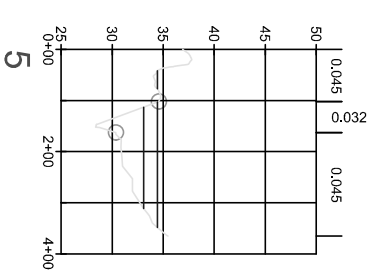
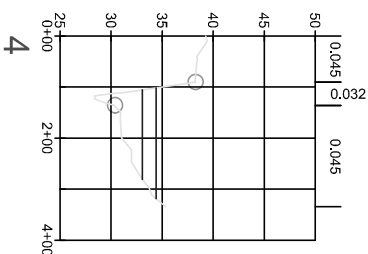
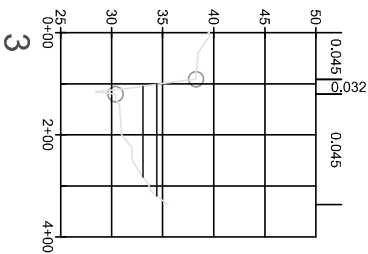
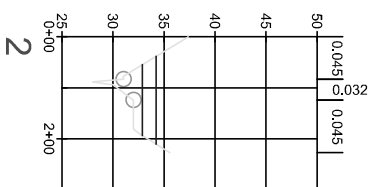
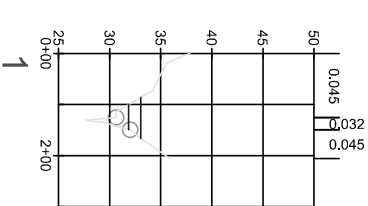
1. Calculations
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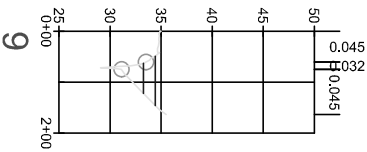




WILTON JOUBERT
Consulting Engineers

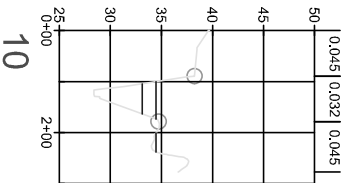
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JUL 45										KQ. AUG 45										KR. SEP 45										KS. OCT 45										KT. NOV 45										KU. DEC 45										KV. JAN 46										KW. FEB 46										KX. MAR 46										KY. APR 46										KZ. MAY 46										LA. JUN 46										LB. JUL 46										LC. AUG 46										LD. SEP 46										LE. OCT 46										LF. NOV 46										LG. DEC 46										LH. JAN 47										LI. FEB 47										LJ. MAR 47										LK. APR 47										LL. MAY 47										LM. JUN 47										LN. JUL 47										LO. AUG 47										LP. SEP 47										LQ. OCT 47										LR. NOV 47										LS. DEC 47										LT. JAN 48										LU. FEB 48										LV. MAR 48										LW. APR 48										LX. MAY 48										LY. JUN 48										LZ. JUL 48										MA. AUG 48										MB. SEP 48										MC. OCT 48										MD. NOV 48										ME. DEC 48										MF. JAN 49										MG. FEB 49										MH. MAR 49										MI. APR 49										MJ. MAY 49										MK. JUN 49										ML. JUL 49										MN. AUG 49										MO. 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NOV 53										OO. DEC 53										OP. JAN 54										OQ. FEB 54										OR. MAR 54										OS. APR 54										OT. MAY 54										OU. JUN 54										OV. JUL 54										OW. AUG 54										OX. SEP 54										OY. OCT 54										OZ. NOV 54										PA. DEC 54										PB. JAN 55										PC. FEB 55										PD. MAR 55										PE. APR 55										PF. MAY 55										PG. JUN 55										PH. JUL 55										PI. AUG 55										PJ. SEP 55										PK. OCT 55										PL. NOV 55										PM. DEC 55										PN. JAN 56										PO. FEB 56										PP. MAR 56										PQ. APR 56										PR. MAY 56										PS. JUN 56										PT. JUL 56										PU. AUG 56										PV. SEP 56										PW. OCT 56										PX. NOV 56										PY. DEC 56										PZ. JAN 57										QA. FEB 57										QB. MAR 57										QC. APR 57										QD. MAY 57										QE. JUN 57										QF. JUL 57										QG. AUG 57										QH. SEP 57										QI. OCT 57										QJ. NOV 57										QK. DEC 57										QL. 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MAY 66										UI. JUN 66										UJ. JUL 66										UK. AUG 66										UL. SEP 66										UM. OCT 66										UN. NOV 66										UO. DEC 66										UP. JAN 67										UQ. FEB 67										UR. MAR 67										US. APR 67										UT. MAY 67										UU. JUN 67										UV. JUL 67										UW. AUG 67										UX. SEP 67										UY. OCT 67										UZ. NOV 67										VA. DEC 67										VB. JAN 68										VC. FEB 68										VD. MAR 68										VE. APR 68										VF. MAY 68										VG. JUN 68										VH. JUL 68										VI. AUG 68										VJ. SEP 68										VK. OCT 68										VL. NOV 68										VM. DEC 68										VN. JAN 69										VO. FEB 69										VP. MAR 69										VQ. APR 69										VR. MAY 69										VS. JUN 69										VT. JUL 69										VU. AUG 69										VV. SEP 69										VW. OCT 69										VX. NOV 69										VY. DEC 69										VZ. JAN 70										WA. FEB 70										WB. MAR 70										WC. APR 70										WD. MAY 70										WE. JUN 70										WF. 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SEP 74										YG. OCT 74										YH. NOV 74										YI. DEC 74										YJ. JAN 75										YK. FEB 75										YL. MAR 75										YM. APR 75										YN. MAY 75										YO. JUN 75										YP. JUL 75										YQ. AUG 75										YR. SEP 75										YS. OCT 75										YT. NOV 75										YU. DEC 75										YV. JAN 76										YW. FEB 76										YZ. MAR 76										ZA. APR 76										ZB. MAY 76										ZC. JUN 76										ZD. JUL 76										ZE. AUG 76										ZF. SEP 76										ZG. OCT 76										ZH. NOV 76										ZI. DEC 76										ZJ. JAN 77										ZK. FEB 77										ZL. MAR 77										ZM. APR 77										ZN. MAY 77										ZO. JUN 77										ZP. JUL 77										ZQ. AUG 77										ZR. SEP 77										ZS. OCT 77										ZT. NOV 77										ZU. DEC 77										ZV. JAN 78										ZW. FEB 78										ZX. MAR 78										ZY. APR 78										ZZ. MAY 78										AA. JUN 78										AB. JUL 78										AC. AUG 78										AD. SEP 78										AE. OCT 78										AF. NOV 78										AG. DEC 78										AH. JAN 79										AI. FEB 79										AJ. MAR 79										AK. APR 79										AL. MAY 79										AM. JUN 79										AN. JUL 79										AO. AUG 79										AP. SEP 79										AQ. OCT 79										AR. NOV 79										AS. DEC 79										AT. JAN 80										AU. FEB 80										AV. MAR 80										AW. APR 80										AX. MAY 80										AY. JUN 80										AZ. JUL 80										BA. AUG 80										BB. SEP 80										BC. OCT 80										BD. NOV 80										BE. DEC 80										BF. JAN 81										BG. FEB 81										BH. MAR 81										BI. APR 81										BJ. MAY 81										BK. JUN 81										BL. JUL 81										BM. AUG 81										BN. SEP 81										BO. OCT 81										BP. NOV 81										BQ. DEC 81										BR. JAN 82										BS. FEB 82										BT. MAR 82										BU. APR 82										BV. MAY									





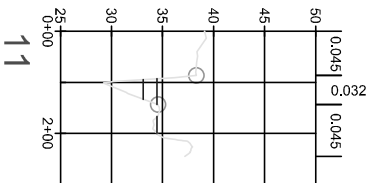
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Flow Discharge = 507.00 cms
Computed Water Surface = 34.43 m

Profile: 5yr
Flow Discharge = 220.00 cms
Computed Water Surface = 33.28 m



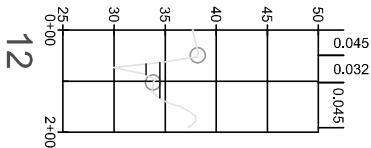
Profile: 100yr
Flow Discharge = 19.00 cms
Computed Water Surface = 34.47 m

Profile: 5yr
Flow Discharge = 8.33 cms
Computed Water Surface = 33.12 m



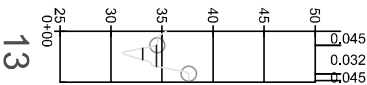
Profile: 100yr
Flow Discharge = 19.00 cms
Computed Water Surface = 34.47 m

Profile: 5yr
Flow Discharge = 8.33 cms
Computed Water Surface = 33.12 m



Profile: 100yr
Flow Discharge = 19.00 cms
Computed Water Surface = 34.47 m

Profile: 5yr
Flow Discharge = 8.33 cms
Computed Water Surface = 33.12 m

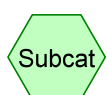
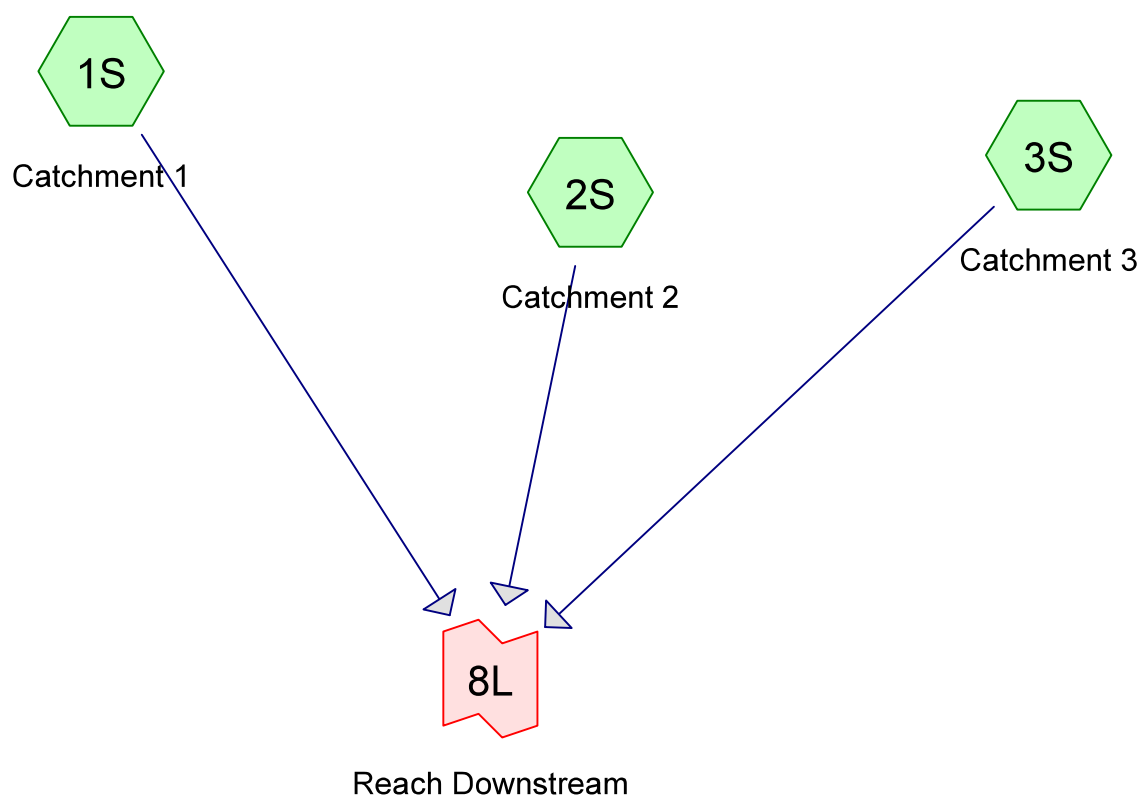


Profile: 100yr
Flow Discharge = 19.00 cms
Computed Water Surface = 34.47 m

Profile: 5yr
Flow Discharge = 8.33 cms
Computed Water Surface = 33.12 m

HEC-RAS Profile Output Table - Standard Table 1

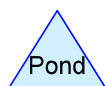
River Station	Profile	Q Total (m³/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m²)	Top Width (m)	Froude # Chl
9	100yr	507.00	29.07	34.431	34.147	35.055	0.006770	4.69	166.03	96.59	0.89732
9	5yr	220.00	29.07	33.274	33.274	33.830	0.009108	4.24	76.24	58.91	0.96788
8	100yr	507.00	28.80	34.440		34.736	0.002177	3.58	267.55	132.54	0.55255
8	5yr	220.00	28.80	33.141		33.452	0.002976	3.29	119.85	89.69	0.60817
7	100yr	507.00	28.88	34.472		34.544	0.000766	1.66	451.25	198.35	0.31383
7	5yr	220.00	28.88	33.146		33.210	0.001011	1.61	220.85	149.16	0.34361
6	100yr	507.00	28.43	34.424		34.483	0.000426	1.56	556.11	254.87	0.25042
6	5yr	220.00	28.43	33.085		33.132	0.000527	1.32	276.48	178.59	0.26022
5	100yr	507.00	28.39	34.434		34.471	0.000219	1.08	680.43	280.74	0.18138
5	5yr	220.00	28.39	33.095		33.120	0.000195	0.87	373.56	198.80	0.16477
13	100yr	19.00	31.14	34.471		34.475	0.000042	0.28	68.16	41.59	0.06950
13	5yr	8.33	31.14	33.119		33.125	0.000094	0.33	25.56	22.57	0.09775
12	100yr	19.00	29.97	34.470		34.473	0.000026	0.24	91.01	69.19	0.05546
12	5yr	8.33	29.97	33.117		33.121	0.000043	0.26	31.81	20.90	0.06774
11	100yr	19.00	29.21	34.471		34.472	0.000005	0.13	149.30	83.84	0.02576
11	5yr	8.33	29.21	33.119		33.119	0.000005	0.10	79.53	38.82	0.02335
10	100yr	19.00	28.39	34.472		34.472	0.000001	0.07	265.96	110.51	0.01258
10	5yr	8.33	28.39	33.119		33.119	0.000001	0.05	166.87	59.15	0.00949
4	100yr	528.00	28.39	34.403		34.461	0.000331	1.45	583.19	216.57	0.22513
4	5yr	230.00	28.39	33.069		33.112	0.000295	1.18	321.07	175.21	0.20476
3	100yr	528.00	28.36	34.407		34.454	0.000430	1.36	574.23	218.11	0.23893
3	5yr	230.00	28.36	33.071		33.105	0.000474	1.22	307.85	177.58	0.24034
2	100yr	528.00	28.03	34.235		34.372	0.000746	2.01	395.08	172.39	0.33285
2	5yr	230.00	28.03	32.884		33.008	0.001043	1.76	184.73	139.09	0.36512
1	100yr	528.00	27.63	33.047	33.047	34.035	0.006214	5.03	144.79	80.21	0.91347
1	5yr	230.00	27.63	31.871	31.871	32.603	0.007532	4.10	69.12	49.14	0.93242



Subcat



Reach



Pond



Link

Routing Diagram for 760Settlement

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760 Settlement Road

760Settlement

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Area Listing (all nodes)

Area (hectares)	CN	Description (subcatchment-numbers)
4.2567	80	>75% Grass cover, Good, HSG D (3S)
3,711.2380	77	Brush, Poor, HSG C (1S, 2S)
3,715.4947	77	TOTAL AREA

760 Settlement Road

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Soil Listing (all nodes)

Area (hectares)	Soil Group	Subcatchment Numbers
0.0000	HSG A	
0.0000	HSG B	
3,711.2380	HSG C	1S, 2S
4.2567	HSG D	3S
0.0000	Other	
3,715.4947		TOTAL AREA

760 Settlement Road

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Ground Covers (all nodes)

HSG-A (hectares)	HSG-B (hectares)	HSG-C (hectares)	HSG-D (hectares)	Other (hectares)	Total (hectares)	Ground Cover	Subcatchment Numbers
0.0000	0.0000	0.0000	4.2567	0.0000	4.2567	>75% Grass cover, Good	
0.0000	0.0000	3,711.2380	0.0000	0.0000	3,711.2380	Brush, Poor	
0.0000	0.0000	3,711.2380	4.2567	0.0000	3,715.4947	TOTAL AREA	

760Settlement 760 Settlement Road
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Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 points
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
 Reach routing by Sim-Route method - Pond routing by Sim-Route method

Subcatchment 1S: Catchment 1 Runoff Area=3,654.1286 ha 0.00% Impervious Runoff Depth=248 mm
 Tc=147.0 min CN=77 Runoff=507.2533 m³/s 9,059.280 MI

Subcatchment 2S: Catchment 2 Runoff Area=57.1094 ha 0.00% Impervious Runoff Depth=248 mm
 Tc=28.0 min CN=77 Runoff=19.0578 m³/s 141.585 MI

Subcatchment 3S: Catchment 3 Runoff Area=4.2567 ha 0.00% Impervious Runoff Depth=259 mm
 Tc=10.0 min CN=80 Runoff=2.1061 m³/s 11.006 MI

Link 8L: Reach Downstream Inflow=510.9520 m³/s 9,211.871 MI
 Primary=510.9520 m³/s 9,211.871 MI

Total Runoff Area = 3,715.4947 ha Runoff Volume = 9,211.871 MI Average Runoff Depth = 248 mm
100.00% Pervious = 3,715.4947 ha 0.00% Impervious = 0.0000 ha

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760 Settlement Road
ARC TP 108 24 Hour 1% AEP Rainfall=324 mm

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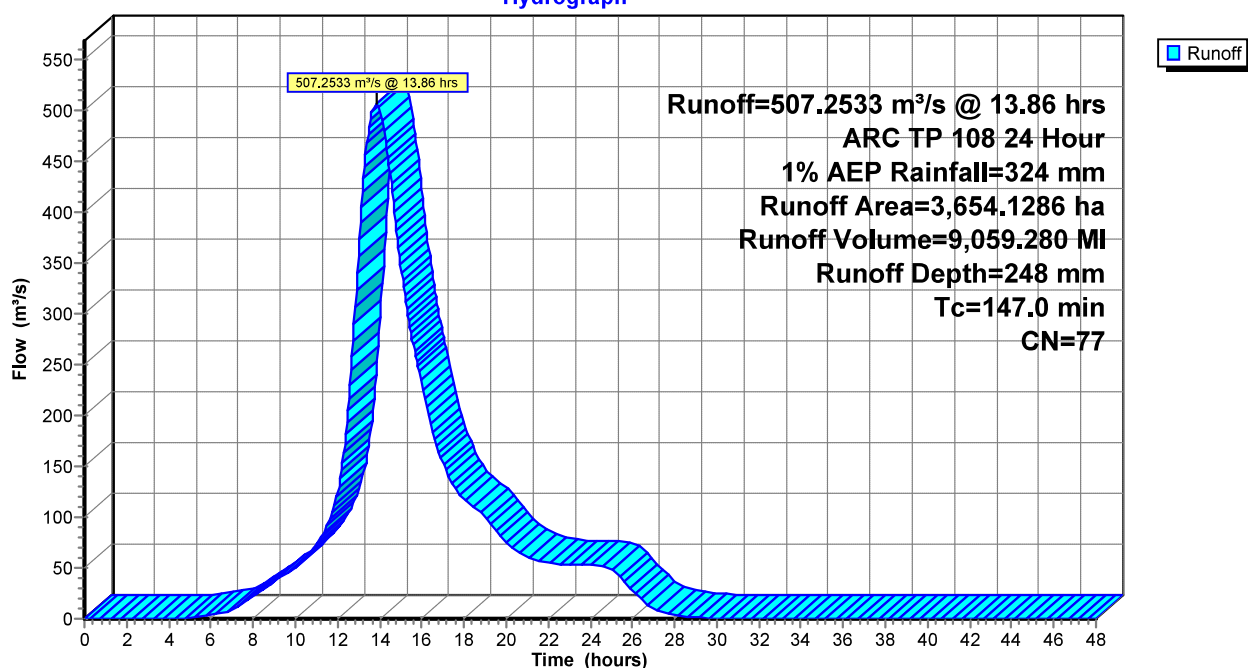
Summary for Subcatchment 1S: Catchment 1Runoff = 507.2533 m³/s @ 13.86 hrs, Volume= 9,059.280 MI, Depth= 248 mmRunoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
ARC TP 108 24 Hour 1% AEP Rainfall=324 mm

Area (ha)	CN	Description
3,654.1286	77	Brush, Poor, HSG C
3,654.1286		100.00% Pervious Area

Tc (min)	Length (meters)	Slope (m/m)	Velocity (m/sec)	Capacity (m ³ /s)	Description
147.0					Direct Entry, Tc From TP108 Calcs

Subcatchment 1S: Catchment 1

Hydrograph



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760 Settlement Road
ARC TP 108 24 Hour 1% AEP Rainfall=324 mm

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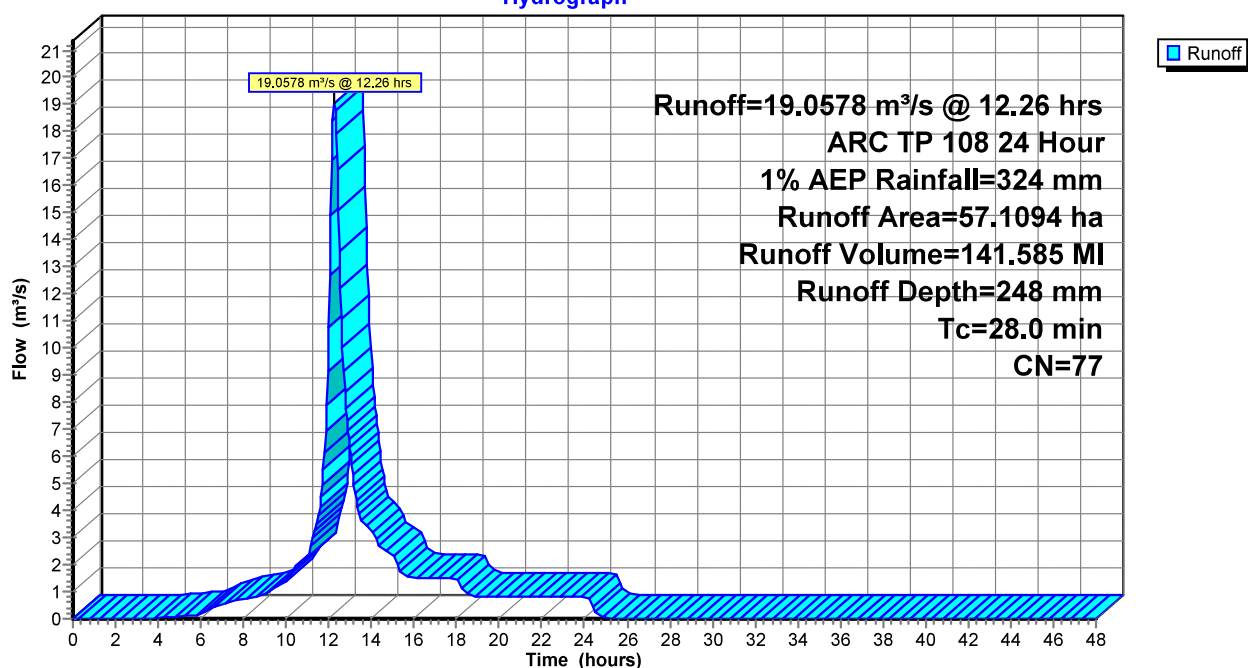
Summary for Subcatchment 2S: Catchment 2Runoff = 19.0578 m³/s @ 12.26 hrs, Volume= 141.585 MI, Depth= 248 mmRunoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
ARC TP 108 24 Hour 1% AEP Rainfall=324 mm

Area (ha)	CN	Description
57.1094	77	Brush, Poor, HSG C
57.1094		100.00% Pervious Area

Tc (min)	Length (meters)	Slope (m/m)	Velocity (m/sec)	Capacity (m ³ /s)	Description
28.0					Direct Entry,

Subcatchment 2S: Catchment 2

Hydrograph



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ARC TP 108 24 Hour 1% AEP Rainfall=324 mm

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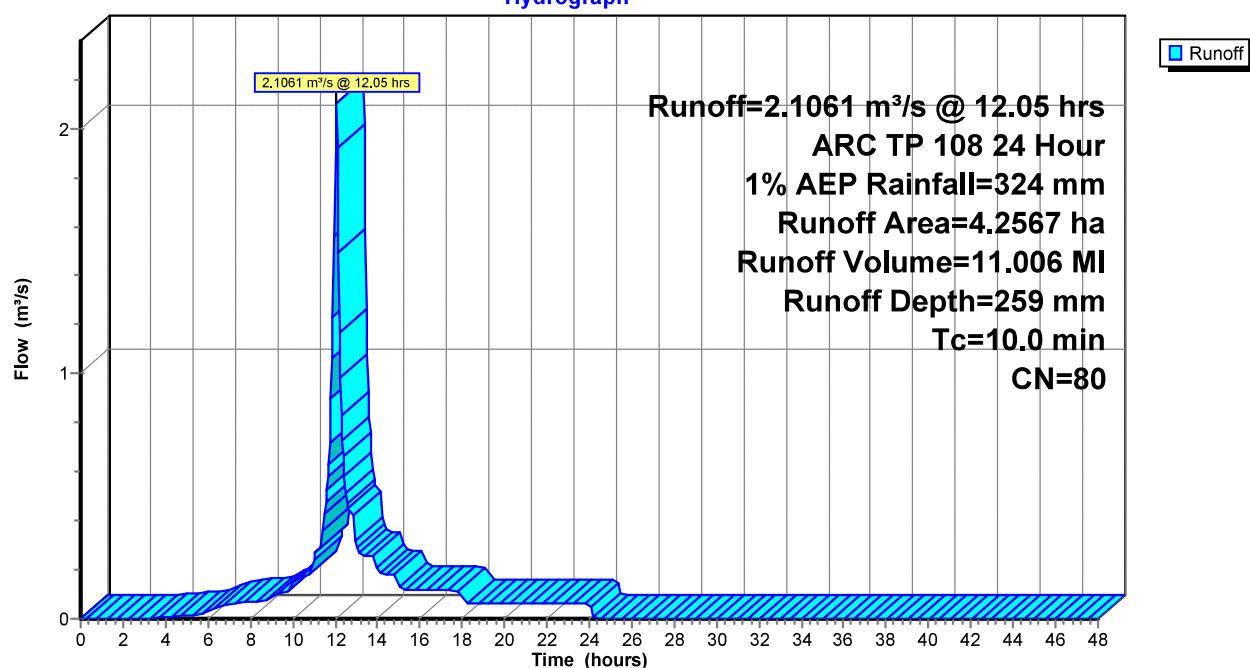
Summary for Subcatchment 3S: Catchment 3Runoff = 2.1061 m³/s @ 12.05 hrs, Volume= 11.006 MI, Depth= 259 mmRunoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
ARC TP 108 24 Hour 1% AEP Rainfall=324 mm

Area (ha)	CN	Description
4.2567	80	>75% Grass cover, Good, HSG D
4.2567		100.00% Pervious Area

Tc (min)	Length (meters)	Slope (m/m)	Velocity (m/sec)	Capacity (m ³ /s)	Description
10.0					Direct Entry,

Subcatchment 3S: Catchment 3

Hydrograph



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760 Settlement Road
ARC TP 108 24 Hour 1% AEP Rainfall=324 mm

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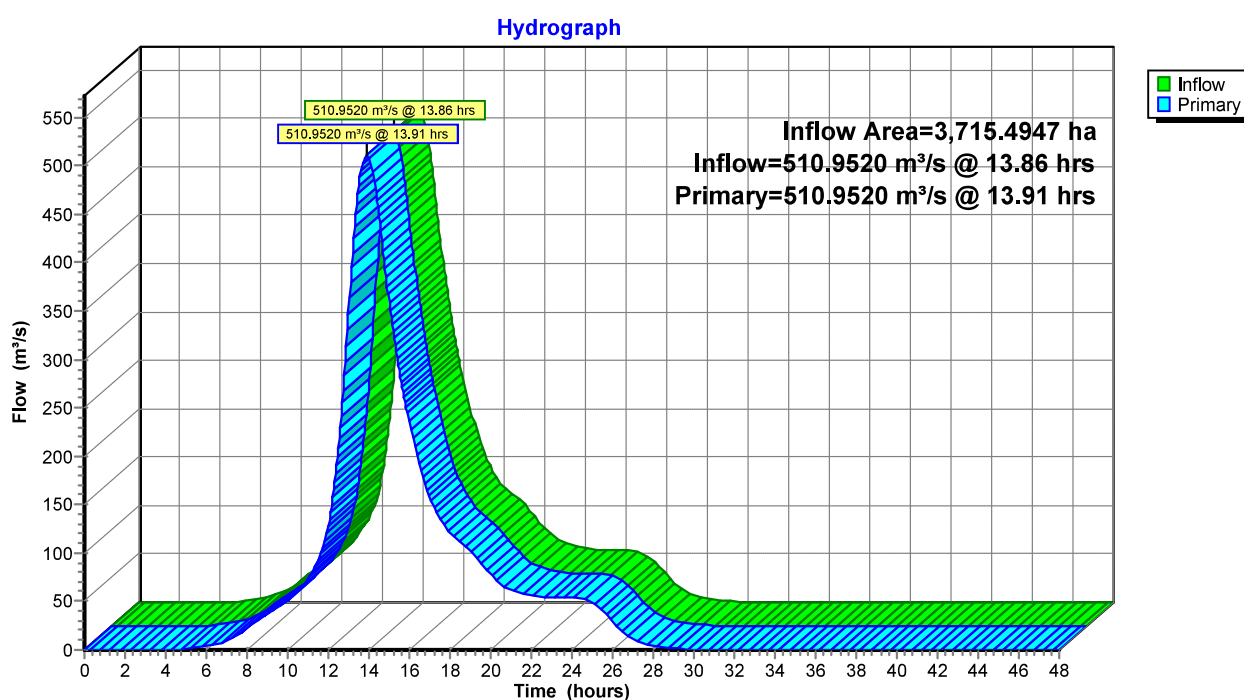
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Summary for Link 8L: Reach Downstream

Inflow Area = 3,715.4947 ha, 0.00% Impervious, Inflow Depth = 248 mm for 1% AEP event

Inflow = 510.9520 m³/s @ 13.86 hrs, Volume= 9,211.871 MIPrimary = 510.9520 m³/s @ 13.91 hrs, Volume= 9,211.871 MI, Atten= 0%, Lag= 3.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link 8L: Reach Downstream

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Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 points
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
 Reach routing by Sim-Route method - Pond routing by Sim-Route method

Subcatchment 1S: Catchment 1 Runoff Area=3,654.1286 ha 0.00% Impervious Runoff Depth=107 mm
 Tc=147.0 min CN=77 Runoff=220.0985 m³/s 3,894.837 MI

Subcatchment 2S: Catchment 2 Runoff Area=57.1094 ha 0.00% Impervious Runoff Depth=107 mm
 Tc=28.0 min CN=77 Runoff=8.3319 m³/s 60.871 MI

Subcatchment 3S: Catchment 3 Runoff Area=4.2567 ha 0.00% Impervious Runoff Depth=115 mm
 Tc=10.0 min CN=80 Runoff=0.9657 m³/s 4.887 MI

Link 8L: Reach Downstream Inflow=221.8614 m³/s 3,960.596 MI
 Primary=221.8614 m³/s 3,960.596 MI

Total Runoff Area = 3,715.4947 ha Runoff Volume = 3,960.596 MI Average Runoff Depth = 107 mm
100.00% Pervious = 3,715.4947 ha 0.00% Impervious = 0.0000 ha

760Settlement

Prepared by Wilton Joubert Limited

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760 Settlement Road
ARC TP 108 24 Hour 20% AEP Rainfall=173 mm

Printed 26/06/2020

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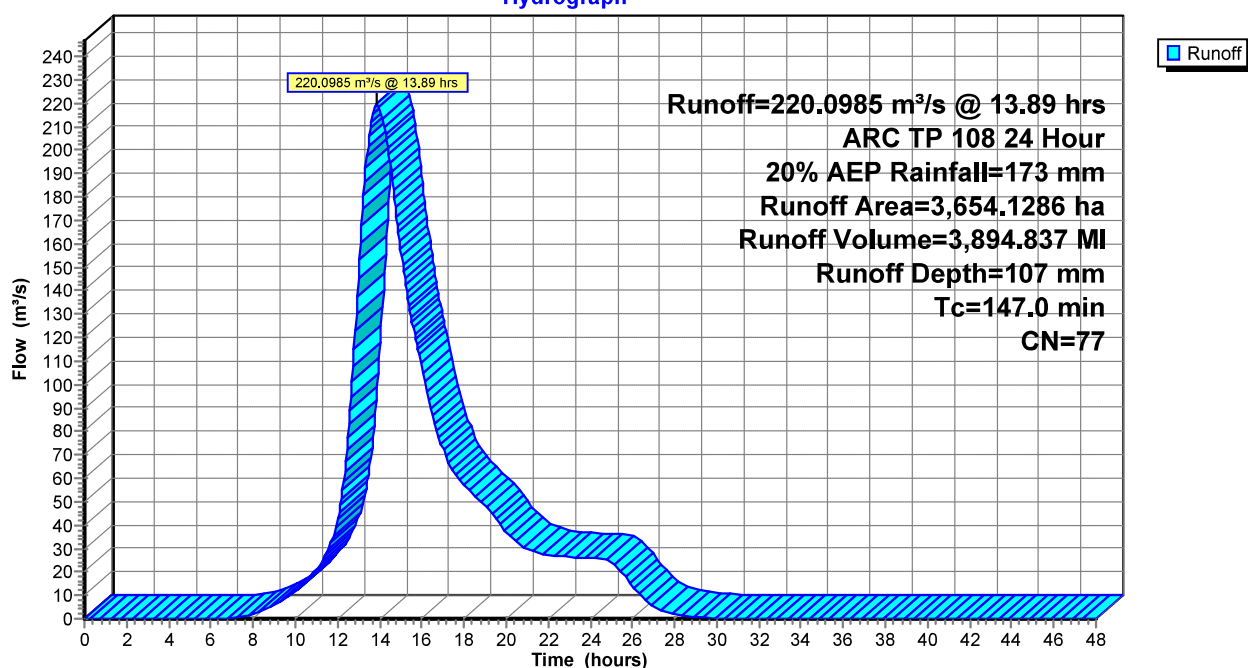
Summary for Subcatchment 1S: Catchment 1Runoff = 220.0985 m³/s @ 13.89 hrs, Volume= 3,894.837 MI, Depth= 107 mmRunoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
ARC TP 108 24 Hour 20% AEP Rainfall=173 mm

Area (ha)	CN	Description
3,654.1286	77	Brush, Poor, HSG C
3,654.1286		100.00% Pervious Area

Tc (min)	Length (meters)	Slope (m/m)	Velocity (m/sec)	Capacity (m ³ /s)	Description
147.0					Direct Entry, Tc From TP108 Calcs

Subcatchment 1S: Catchment 1

Hydrograph



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760 Settlement Road
ARC TP 108 24 Hour 20% AEP Rainfall=173 mm

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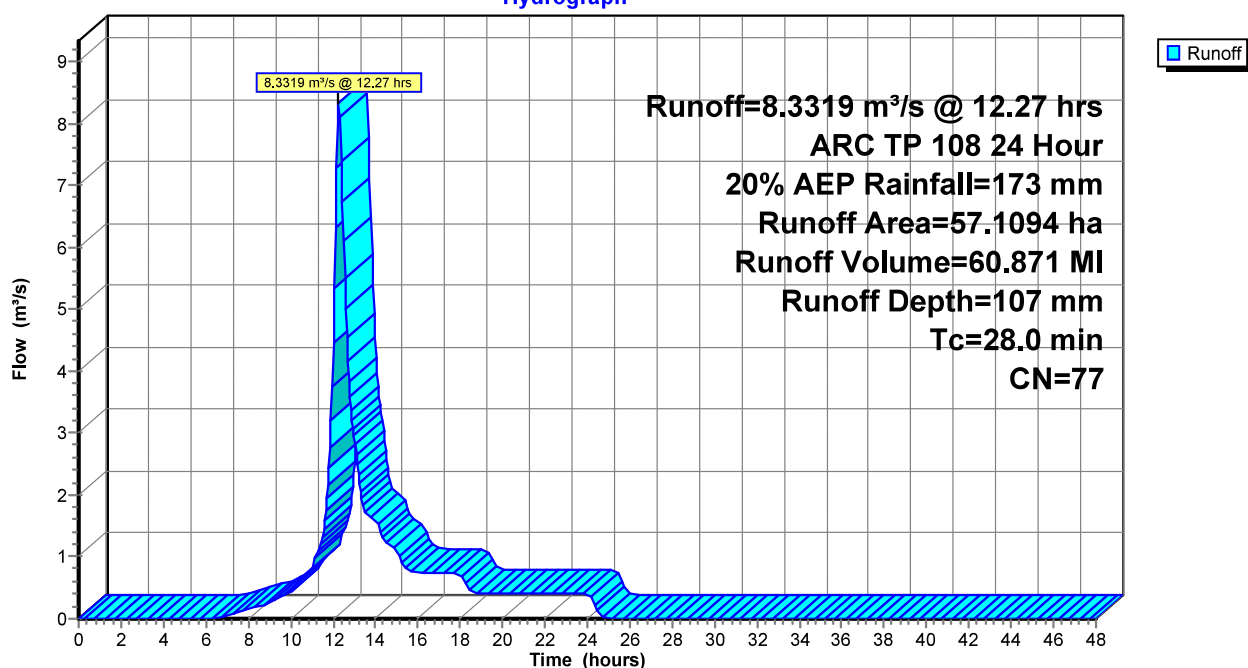
Summary for Subcatchment 2S: Catchment 2Runoff = 8.3319 m³/s @ 12.27 hrs, Volume= 60.871 MI, Depth= 107 mmRunoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
ARC TP 108 24 Hour 20% AEP Rainfall=173 mm

Area (ha)	CN	Description
57.1094	77	Brush, Poor, HSG C
57.1094		100.00% Pervious Area

Tc (min)	Length (meters)	Slope (m/m)	Velocity (m/sec)	Capacity (m ³ /s)	Description
28.0					Direct Entry,

Subcatchment 2S: Catchment 2

Hydrograph



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760 Settlement Road
ARC TP 108 24 Hour 20% AEP Rainfall=173 mm

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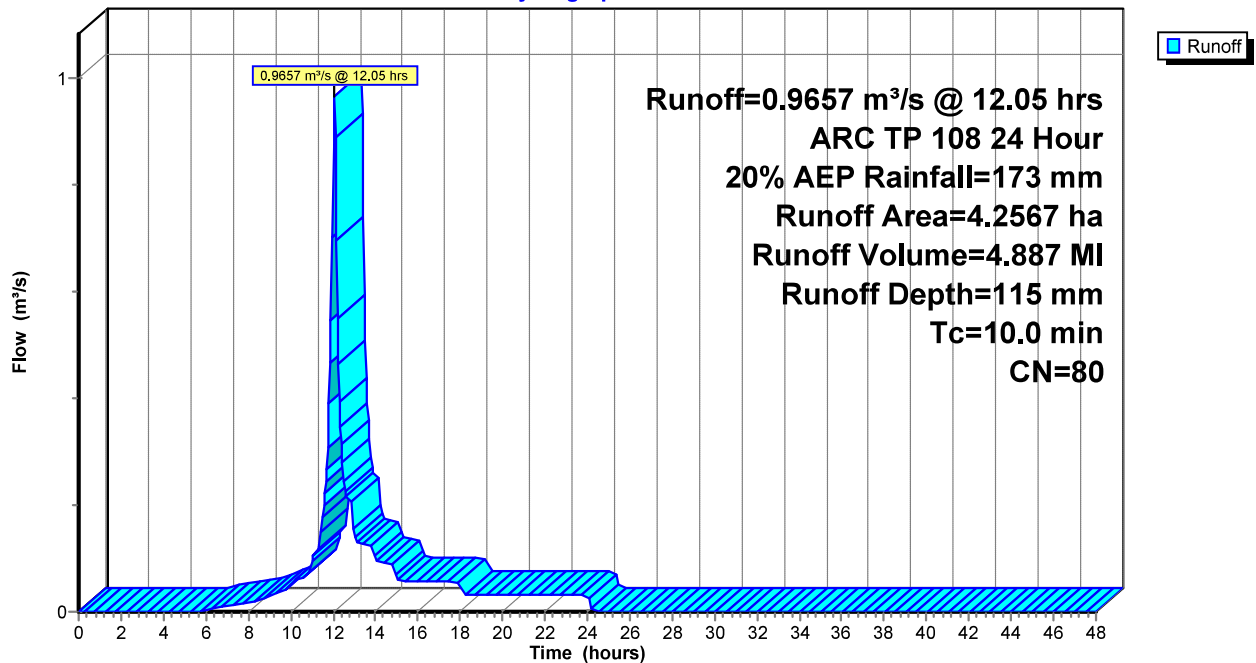
Summary for Subcatchment 3S: Catchment 3Runoff = 0.9657 m³/s @ 12.05 hrs, Volume= 4.887 MI, Depth= 115 mmRunoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
ARC TP 108 24 Hour 20% AEP Rainfall=173 mm

Area (ha)	CN	Description
4.2567	80	>75% Grass cover, Good, HSG D
4.2567		100.00% Pervious Area

Tc (min)	Length (meters)	Slope (m/m)	Velocity (m/sec)	Capacity (m ³ /s)	Description
10.0					Direct Entry,

Subcatchment 3S: Catchment 3

Hydrograph



760Settlement

Prepared by Wilton Joubert Limited

HydroCAD® 10.00-22 s/n 10413 © 2018 HydroCAD Software Solutions LLC

760 Settlement Road
ARC TP 108 24 Hour 20% AEP Rainfall=173 mm

Printed 26/06/2020

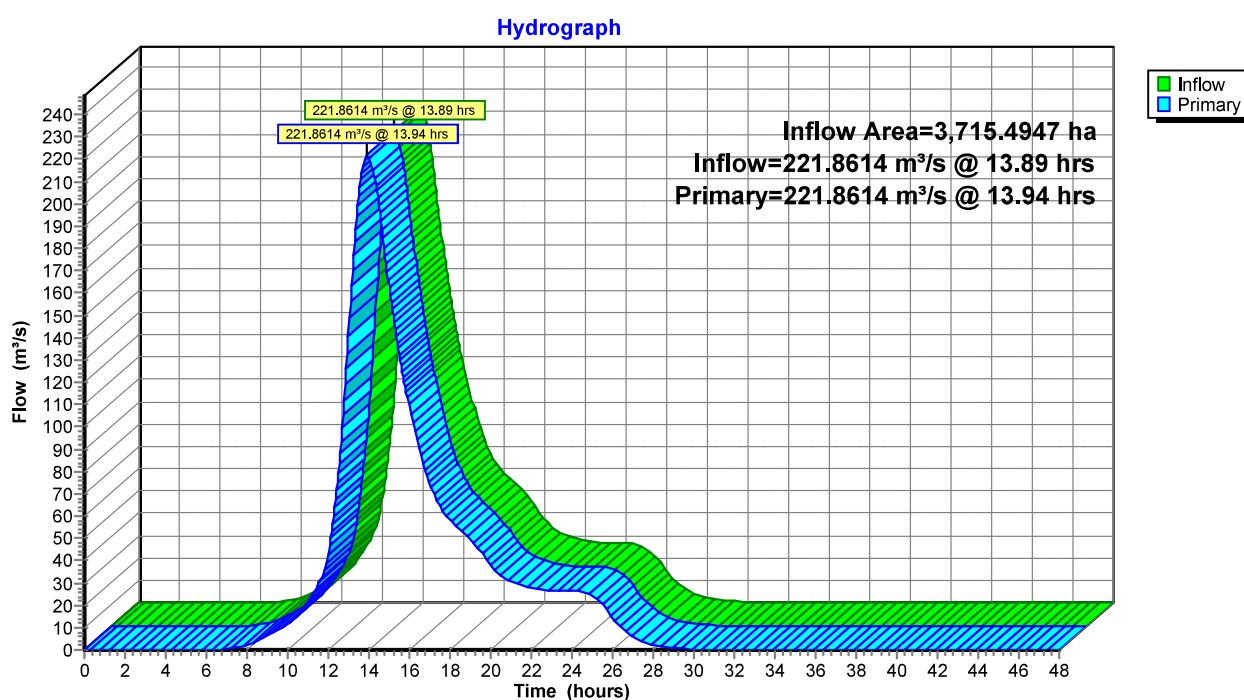
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Summary for Link 8L: Reach Downstream

Inflow Area = 3,715.4947 ha, 0.00% Impervious, Inflow Depth = 107 mm for 20% AEP event

Inflow = 221.8614 m³/s @ 13.89 hrs, Volume= 3,960.596 MIPrimary = 221.8614 m³/s @ 13.94 hrs, Volume= 3,960.596 MI, Atten= 0%, Lag= 3.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link 8L: Reach Downstream



25 June 2021

Client: Gina Utting
ginautting@gmail.com

WGL 21150

RE: On-site 'secondary' wastewater treatment / disposal system for a four-bedroom house and a sleepout at Lot 3, 760 Settlement Road, Hakaru.

Introduction

This document is to form part of building consent application for the relocation of a four-bedroom house and the construction of a sleepout (with toilet and shower) at 760 Settlement Road, Hakaru. Lot 3, DP 560279 (3991 m²). Title and floor plan attached.

This report outlines the design and technical specifications for the on-site wastewater treatment and disposal system and ensures the chosen wastewater system meets all the relevant requirements from the Proposed Regional Plan for Northland, section C.6.1 (PRPN), Kaipara District Council as outlined in AS/NZS 1547:2012 and G13/VM4 of the NZ building code.

Site Assessment

WGL visited the site on the 9 June 2021 and made the following observations:

- Lot 3 is a flat site with a gentle slope to the north.
- The proposed effluent site is to be located at the western (settlement road side) boundary of the section.
- A hand auger investigation was undertaken within a potential effluent field site. Ground cover is grass with some mature trees immediately adjacent to the boundary.
- No obvious signs of instability were noted.
- No evidence was seen or heard of the site being used for activities which could have led to site contamination.

Geology

The GNS geological unit QMAP shows the soils at the proposed site of the effluent field as being alluvium of the Tauranga Group. A geotechnical report for subdivision was undertaken by Wiley Geotechnical Ltd in May 2020 (report 20034). This report deems the soils to be "light clays" and Category 5 in terms of AS/NZS 1547 2012 with a DiR of 3.0 mm/day. Our borehole investigation was consistent with this with a dark brown topsoil to 250mm underlain by a light brown silt.

Design Recommendations: Re AS/NZS 1547 2012

Four-bedroom house equates to a six-person occupancy, and a sleepout with a toilet and shower equates to a 2-person occupancy. (6 + 2 = 8).

The house is to have roof collection of potable water and standard water fixtures installed in the house including an automatic washing machine, daily effluent amounts to 180L/day/person, typical for a relocated house (table H3). Total daily wastewater for the house to be treated is $6 \times 180\text{L/day} = 1080\text{L/day}$.

The sleepout is to have standard water reduction fixtures including a dual flush cistern, shower flow restrictors, aerator faucets and a front-loading washing machine daily effluent amounts to 145L/day/person (table H3). Total daily wastewater to be treated is $2 \times 145\text{L/day} = 290\text{L/day}$

Total daily wastewater = $1080 + 290 = 1370\text{L/day}$.

$1,370\text{L/day}/3.0 = 457\text{ m}^2$ **Effluent Field = 457 m².**

The owner has decided to install a 'Biocycle 8200' secondary wastewater an aerated filter wastewater treatment plant using a submerged fixed growth filter system. The Biocycle 8200 is manufactured and distributed by Biocycle Ltd, Hamilton. Manufacturers rated design capacity is 1400L/day and emergency storage 1600L. Technical specifications and OSET results are attached.

The effluent field is to be mole ploughed into the topsoil at a depth of at least 150mm. Where topsoil is less than 200mm extra topsoil will need to be added. A likely source of this extra topsoil is from the sleepout excavation. Effluent field is to be at least 1.5m off any boundary, 15m from any water body/course and 5m from any stormwater flow path downslope of the effluent field. The effluent field is to be installed on slopes under 10°.

A reserve area is required to be made available in case of effluent field failure, the minimum size to be 30% of the effluent field size. **Reserve = $457 \times 0.3 = 137$, reserve = 137m².**

Stormwater to be discharged without attenuation as site coverage is less than 15%. Stormwater overflow from the rain water tanks to be taken to a dispersal trench downslope and north of the house. Final roof area of the house plus sleepout will be over 200m² but under 300m² and so length of in-ground trench to be 14m. See fig C21 attached. Any runoff from driveways should preferably be evenly spread across adjacent grass or into a grassed swale drain so as to abstract heavy metals and other pollutants before entering a watercourse. Piped discharge directly into a watercourse is not accepted these days as it adds to risk of pollution and to peak flood flow and scour of stream banks etc.

Key Environmental Effects

- **The Impact on ground-water quantity** from the system will be close to zero as no more water will arrive on the Lot as supply is roof-water, and effluent will be taken up by the grass on the effluent field and stimulate growth. Ground water *quality* will be protected by these taking up the nutrients (nitrates and phosphates) and by micro-organisms in the soil digesting any *e coli*.
- **The Impact on surface-water.** The amount of surface water run-off will be reduced by the increased vegetative growth. Some of the surface water will be taken up by the grass. The extra grass will provide a protective layer above the soils reducing erosion in times of heavy rainfall. The flow on effect is an improvement of **water quality** down-stream. Having some of the roof water applied to the effluent field on fine days will even out the application of water to the ground on the Lot, thereby tending to reduce peak flows to ground. This is a desirable effect.
- **The Impact on soils.** The effect on the soils will be beneficial as the nutrients will not only promote plant growth but also increase the micro-biological activity in the soils themselves and slowly convert any inorganic clays to organics. The topsoil depth will therefore increase over the years as the subsoils become more organic. Less topsoil can be washed away by heavy

rain as it is protected by the increased grass growth. The soils will benefit from the aeration from the installation of the dripper lines.

- **The Impact on Amenity Values.** The effects to flora will be positive in that the adjacent trees will get added nutrients and moisture. The effects on fauna will also be positive in that the boosted tree and grass growth will provide a habitat attractive to birds, insects and people. Not only will this support local diversity, it will create a more pleasantly aesthetic setting for residents and neighbours.

Mitigation Measures

- **Potential odour and noise.**
When the irrigation pump operates a very small noise can be heard as the effluent fills the dripper lines. The sound is negligible. A slight hum can be heard from the aerator which operates 24/7. When operating correctly the system is odorless.
- **Measures to protect against system failure**
In the case of a mechanical failure, a high level float is installed in the irrigation chamber with a visible alarm on the control box. This will allow plenty of time to rectify any faults with plenty of emergency storage available (1600L). In the case of a dripper line failure in the effluent field, a 137m² (30%) reserve area is available.
- **Maintenance plan**
An annual service is recommended for all secondary wastewater systems. This is to be organized by the owner before COC is issued.

Items not to be flushed:

- No bleaches or chlorine (i.e. Napisan – Bleach – Janola). These products are designed to kill bugs and will kill off the bacteria in the tank causing smells and constant blocking of the Bio (internal) filter. You can use these products if used in a bucket and tip on the lawn or safe place, not down your drain
- **No fats or oils down drains.** Fats and oils may block the tank filters and kill the bacteria in the tank.
- No tea leaves or coffee grounds down drains. These may block the filters in the tank and the external filter.
- No washing paint brushes or disposing of paints down drains. These products will not only kill bacteria in the tank, but the residue is very difficult and costly to remove.
- No disposable nappies, sanitary napkins, tampons or condoms. These products do not break down and cause a mass build up in the tank, and can cause blockages that can be costly to clean.
- Do not have a waste disposal unit. This waste takes a long time to break down and the system will require frequent emptying which is very costly.
- Use low sudsing laundry powder/liquid and non-caustic dish washing powder.

Wastewater Summary for Drainlayer

- 1 Install a Biocycle 8200 wastewater system approved to AS/NZS 1547:2012 standards, at least 3m away and downhill from the house and sleepout sites.
- 2 Mole plough into the topsoil (at least 150mm deep) 457m² of pressure compensating drip irrigation line with an emitter flow rate of 1.6lph, 500mm dripper spacing and 1.0m spacing between laterals. At no point should the lines be closer than, 1.5m from any boundary or 5m from the settlement road water table, see wastewater site sketch for location.
- 3 Where the existing topsoil is under 200mm deep extra topsoil will need to be added. The topsoil from the shed excavation a possible source.
- 4 Do not install on slopes over 10°.
- 5 System to be installed and maintained as per manufacturers recommendations, including regular de-sludging of the primary treatment tank and dripper line flush.
- 6 Because the effluent field is sub surface laid this area is to be fenced from stock.
- 7 Once the system is operational obtain a commissioning statement from the drainlayer who installed it and send it to the supplier to obtain a warranty.
- 8 Stormwater overflow from the rain water tanks to be taken to an inground dispersal trench downslope and north of the house. Length of in-ground trench to be 14m. See fig C21 attached.
- 9 Ensure a service contract is in place.

I trust that this information meets your current requirements. Please do not hesitate to contact the undersigned on 09 421 5353 or cam@wileygeotechnical.co.nz if you require any further information.

Report prepared by:



Cameron Shaw

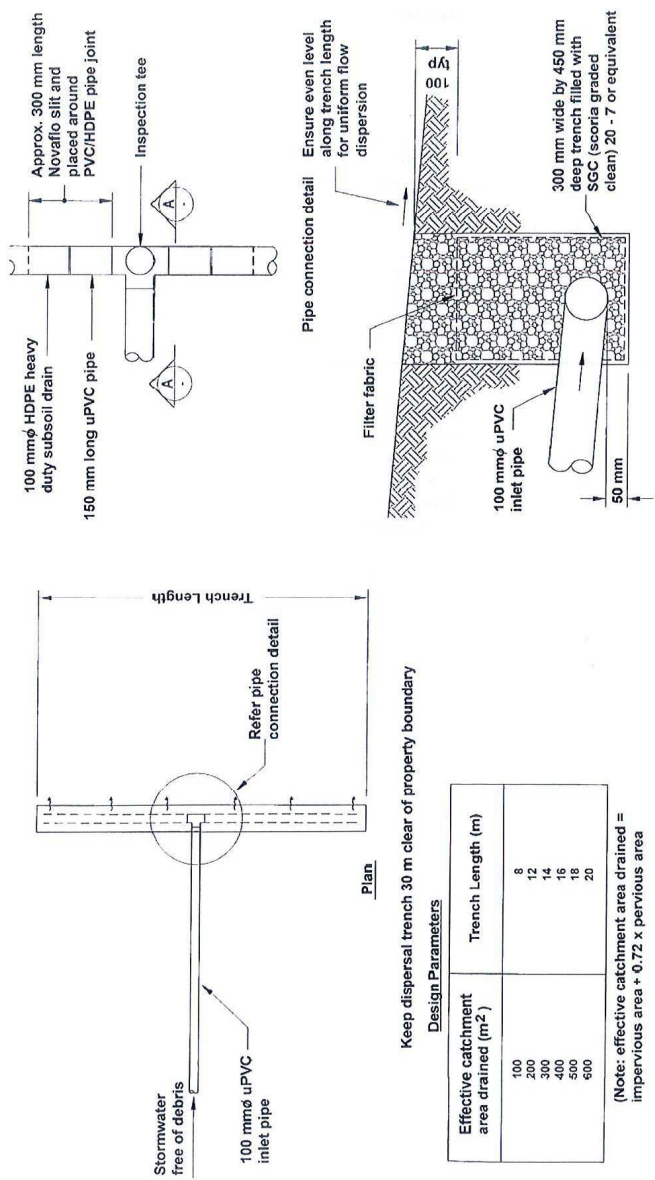
Wastewater Designer reg 3298



Matt Wiley, CPEng

Principal Engineer

Figure C21
Conceptual Layout of Flow Dispersal Trench





Wiley Geotechnical Ltd

Client: Gina Utting
ginautting@gmail.com

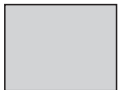
WGL 21150

RE: On-site 'secondary' wastewater treatment / disposal system for a four-bedroom house and a sleepout at Lot 3, 760 Settlement Road, Hakaru.

Wastewater site sketch



457m2 effluent field. To be mole ploughed.



137m2 reserve area.



Producer Statement**Design: On-Site Effluent Disposal Systems (AS/NZS 1547:2012)**

Issued by: Cameron Shaw (approved qualified design professional)

To: Gina Utting (owner)

To be supplied to: Kaipara District Council
760 Settlement Road, Hakaru

Property Location:
.....

Lot.3 DP.560279 Valuation Number.....

To Provide: Design an onsite effluent disposal system that will comply with the principles and procedures of AS/NZS 1547:2012 and provide a schedule to the owner for the system's maintenance.

The Design: Has been designed in accordance with Verification Method G13/VM4 On-Site Disposal and B2 (durability 15 years) of the Building Regulations 1992 in Compliance with the New Zealand

Building Code

As an independent approved design professional covered by a current policy of Professional Indemnity Insurance (Design) to a minimum value of \$200,000, **I believe on reasonable grounds** that subject to:

- 1 Site verification – An Installation and commissioning report verifying the system and all components have been installed and operate in conformity with the design is required upon completion in accordance with 6.2.5.4, AS/NZS1547(2012).
- 2 The proposal All proprietary products met the performance requirements.
the proposed design will meet the relevant provisions of the Building Code and Northland Regional Council discharges rules.

☐ I understand and accept that Council may rely on this document, for the purposes of establishing compliance with the above building consent and that the content including the signature, whether electronic or not, is truly representative and authoritative of the information contained.

Cameron Shaw (Signature of approved design professional)
Digitally signed by Cameron Shaw
 DN: C=US, E=csmangawhai@gmail.com,
 O=Wiley Geotechnical Ltd,
 OU=Wastewater Design, CN=Cameron
 Shaw
 Date: 2019.12.27 09:27:35+13'00'

Approved designer, BSc (Professional qualifications)

3298 (Licence Number or professional Registration number)

Address Unit 4, 6 Molesworth Drive, Mangawhai

Telephone Number 09.4315353 Fax Number

Cellphone Date 24 June 2021

Note: This form is to accompany every application for a Building Consent incorporating AS/NZS 1547:2012 Approval as a design professional is at Council's discretion.

Kaipara District Council

AS/NZS 1547:2012

On-site Wastewater Disposal Site and Soil Evaluation

Part A: Owners Details

1 Applicant Details:

Applicant Name	Gina Utting		
Company Name			
	First Name(s)	Surname	
Property Owner Name(s)	Gina & Dawn	Utting & Owens	
Nature of Applicant*	Owner		

(*i.e. Owner, Leaser, Prospective Purchaser, Developer)

2 Consultant / Site Evaluator Details:

Consultant/Agent Name	Wiley Geotechnical Ltd			
Site Evaluator Name	Cameron Shaw			
Postal Address				
Telephone Number	Business	094315353	Private	
	Mobile		Fax	
Name of Contact Person				
E-mail Address	cam@wileygeotechnical.co.nz			

3 Are there any previous existing discharge consents relating to this proposal or other waste discharge on this site?

Yes	☐	No	☒	Please tick
If yes, give reference numbers and description				

4 List any other consent in relation to this proposal site and indicate whether or not they have been applied for or granted

If so, specify Application Details and Consent N°.

(E.g. Land Use, Water Take, Subdivision, Earthworks Stormwater Consent)

--	--

Part B: Property Details

1 Location Details

Physical Address of Property	760 Settlement Rd, Hakaru.		
Territorial Local Authority	Kaipara District Council		
Regional Council	Northland Regional Council		
Legal Status of Activity	Permitted: ☒	Controlled: ☐	Discretionary: ☐
Relevant Regional Rule(s)	section C.6.1 (PRPN),		
Total Property Area (m ²)	3,911		
Map Grid Reference of Property if Known	36 08 27.50S 174 30 33.69E		

2 Legal description of land (as shown on Certificate of Title)

Lot N°	3	DP N°	560279	CT N°	
Other (specify)					

Please ensure copy of Certificate of Title is attached.

Part C: On-Site Evaluation

(Refer AS/NZS 1547:2012 See Appendix D)

Has a relevant property history study been conducted?

Yes	☐	No	☒
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(Please tick one)

If yes, please specify the findings of the history study, and if not please specify why this was not considered necessary.

No evidence of pre-European or early European settlement at the time of our site visit.
recent council approved subdivision

1 Has a Slope Stability Assessment been carried out on the property?

Yes	☐	No	☒
-----	--------------------------	----	-------------------------------------

If **No**, why not?

effluent field on flat land

Please tick

If **Yes**, please give details of report (if possible, please attach report):

Author	
Company/Agency	
Date of Report	
Brief Description of Report Findings:	

2 Site Information (See Table 1 attached):

Provide descriptive details below:
<u>Performance of Adjacent Systems:</u> primary on next door house working well.
<u>Estimated Rainfall</u> and Seasonal Variation:
Information available from N.I.W.A MET RESEARCH
<u>Vegetation / Tree Cover:</u> grass
<u>Slope Shape: (Please provide diagrams)</u> flat
<u>Slope Angle:</u> under 2 degrees
<u>Surface Water Drainage</u> Characteristics: downhill to north
Flooding Potential: Yes ☐ / No ☒
If Yes , specify relevant flood levels on appended site plan i.e. one in five years and/or 20 year and/or 100 year return period flood level, relative to disposal area.
<u>Surface Water Separation:</u> 110m north east to Hakaru river
<u>Site Characteristics: or any other limitation influencing factors</u> proximity to boundary, topsoil depth

3 Site Geology

Check Rock Maps

Alluvium of the Tauranga Group	
Geological Map Reference Number	NZL GNS

4 What Aspect(s) does the proposed disposal system face? (please tick)

North	☐	West	☐
North-West	☐	South-West	☐
North-East	☒	South-East	☐
East	☐	South	☐

5 Site clearances (Indicate on site plan where relevant)

Separation Distance from	Proposed Clearances (m)	Septic Tank Treated Allowed(KDC+	Secondary Treated Allowed (KDC+NRC)
Boundaries	1.5	1.5 m	1.5 m
Surface water (i.e. permanent or intermittently flowing rivers, creeks,	110m		
Groundwater Bores horizontal distance	na	20 m	20 m
Subsurface water vertical separation	>1.2m		
Embankments/retaining walls	na	1.5 m	1.5 m
Other			
Reserve area set aside	30%	100 %	30 %

Part D: Site Assessment - Subsoil Investigation

(Refer AS/NZS 1547:2012 clause D2, Appendix D Site-and-Soil for Individual Lots

1 Please identify the soil profile determination method:

Test Pit		(Depth_____m)	N° of Test Pits	
Bore Hole	1	(Depth_____m)	N° of Bore Holes	1
Other (specify):				

Soil Report attached?

Yes	☒	No	☐
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Please tick

2 Was fill material intercepted during the subsoil investigation?

Yes	☐	No	☒
-----	--------------------------	----	-------------------------------------

Please tick

If yes, please specify the effect of the fill on wastewater disposal

--

3 Percolation testing (Soil Permeability) (Recommended for conventional trenches in all clay soils)

Please specify the method (refer to Appendix G AS/NZS 1547:2012)					
Test Report Attached?	Yes	☐	No	☐	Please tick

4 Are surface water interception/diversion drains required?

Yes	☐	No	☒	Please tick
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If yes, please show on site plan

4a Are subsurface drains required

Yes	☐	No	☒	Please tick
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If yes enter details

5 Please state the depth of the seasonal water table:

Winter	>1.2	m	Measured	☒	Estimated	☐
Summer	>1.2	m	Measured	☐	Estimated	☒

6 Are there any potential storm water short circuit paths?

Yes	☐	No	☒	Please tick
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If the answer is yes, please explain how these have been addressed

7 Estimated soil category (Refer AS/NZS 1547:2012 (See E4.1 and Table E1))

Is Topsoil Present? cat 5	If so, Topsoil Depth?	0.2	(m)
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Classification	Properties	Tick One
Sand	Very little to no coherence, cannot be molded., single grains	☐
Loamy sand	Slightly coherence, give a short ribbon 5mm that breaks easy	☐
Sandy loam	Forms a cast but will not roll in a ball. Individual sand grains can be seen	☐
Fine sandy loam	As for Sandy loam. Individual sand grains cannot be seen	☐
Loam	As for Sandy loam. But cast feels spongy	☐
Silty loam	As for loams but not spongy. Very smooth and silky	☐
Sandy clay loam	Can be rolled into a ball. Sand grains can be felt	☐
Fine sandy clay Loam	As for sandy clay loam but no sand grains visible	☐
Clay loam	Can be rolled into a ball with spongy feel, slightly plastic	☐
Silty clay loam	As for clay loams but not very spongy. Very smooth and silky	☐
Sandy clay	Forms a plastic ball in which sand grains can be seen, felt and heard	☒

Light clay	Smooth plastic ball that can be rolled into a rod. Slight resistance to shearing	☒
Silty clay	As for light clay but very smooth and silky	☐
Medium clay	Smooth plastic ball like plasticine. Can be moulded. Some resistance to ribboning	☐
Heavy clay	Smooth plastic ball like plasticine. Can be moulded. Firm resistance to ribboning	☐

Reasons for placing in stated category

PART E: Discharge Details

1 Water supply source for the property (please tick):

Rainwater (roof collection)	☒
Bore/well	☐
Public supply	☐

2 Calculate the maximum daily volume of wastewater to be discharged, unless accurate water meter readings are available

(Refer AS/NZS 1547:2012 See 5.5.5 and Appendix L, M and N)

Number of Bedrooms	1 - 2 - 3 - 4 - 5 - 6			4 + 1
Design Occupancy	8			(Number of People)
Per capita Wastewater Production	140	160	180	(tick) (Litres per person per day)
Other - specify	200	220	145	
Total Daily Wastewater Production	1370			(litres per day)

3 Do any special conditions apply regarding water saving devices

A) Full water Conservation Devices?	Yes	☐	No	☒	Please tick
b) Water Recycling – what %?	%	☐	No	☐	Please tick

If you have answered yes, please state what conditions apply and include the estimated reduction in water usage.

roof collection and standard water reduction fixtures dual flush cistern, shower flow restrictors, aerator faucets and front-loading washing machine roof (only for sleepout, house standard features) (145L/pp/day sleepout) (180L/day/pp house)

4 Is Daily Wastewater Discharge Volume more than 3000 litres per day:

Yes	☐	Please tick
No	☒	Please tick

Note if answer to the above is yes, an N.R.C wastewater discharge permit will be required

PART F: Primary Treatment
(Please also refer to NRC rules)

- 1 Please indicate below the no. and capacity (litres) of all septic tanks including type (single/dual chamber grease traps) to be installed or currently existing: If not 4500 litre dual chamber, explain why not.

Number of Tanks	Type of Tank	Capacity of Tank (Litres)
	primary 2,900L Anoxic 600L aeration 2,800L Clarification 1,200L +	
	Total Capacity	7,800L

- 2 Type of Septic Tank Outlet Filter to be installed?

(min 3.5mm screen required see NRC rules)

Azud 130 micron final filter

+

PART G: Secondary and Tertiary Treatment
(Please also refer to NRC rules)

- 1 Will the discharge effluent have a 5-day biochemical oxygen demand (BOD5) that is less than or equal to 30 grams per cubic metre and the total suspended solids (TSS) concentration that that is less than or equal to 45 grams per cubic metre?

(Manufacturers specifications required see NRC rules)

Yes	☒	No	☐	(Please tick)	No means this is considered a primary system
-----	-------------------------------------	----	--------------------------	---------------	--

2 Please indicate the type of additional treatment, if any, proposed to be installed in the system: (please tick)

Secondary Treatment	☒	
Home aeration plant	☒	
Commercial aeration plant	☐	
Intermediate sand filter	☐	
Recirculating sand filter	☐	
Recirculating textile filter	☐	
Clarification tank	☒	
Tertiary Treatment	☐	
Ultraviolet disinfection	☐	
Chlorination	☐	
Other	☐	Specify

PART H: Land Disposal Method

(Refer AS/NZS 1547:2012 appendices L, M and N)

1 Please indicate the proposed loading method: (please tick)

Gravity	☐
Dosing Siphon	☐
Pump	☒

2 High water level alarm to be installed in pump chamber(s)

Yes	☒	No	☐
-----	-------------------------------------	----	--------------------------

If not to be installed, explain why.

3 If a pump is being used, please provide the following information:

Total Design Head	26 or 32	(m)
Pump Chamber Volume	300L	(Litres)
Emergency Storage Volume	1600L	(Litres)

4 Please identify the type(s) of land disposal method (land application systems) proposed for this site: (please tick)

(Refer AS/NZS 1547:2012 appendix K)

Surface Dripper Irrigation	☐		
Sub-surface Dripper irrigation	☒		
Standard Trench	☐		
Deep Trench	☐		
Mound	☐		
Evapo-transpiration Beds	☐		
Other	☐	Specify	

5 Please identify the loading rate you propose for the option selected in the above, stating the reasons for selecting this loading rate:

(Refer to AS/NZS 1547:2012 appendix L)

Loading Rate 3.0mm/m2/day		(Litres/m2/day)
Disposal Area 594	Design 457	(m2)
	Reserve 137	(m2)

Explanation

(2 x 145 = 290) + (6 x 180 = 1080) = 1370/3.0 = 457m2. reserve 457 x 30% = 137m2
--

6 What is the available reserve wastewater disposal area?

Reserve Disposal Area (m ²)	137m ²
Percentage of Primary Disposal Area (%)	30

7 Please provide a detailed description of the design and dimensions of the disposal field and attach a detailed plan of the field relative to the property site:
Description and Dimensions of Disposal Field:

see wastewater site sketch					
Plan Attached?	Yes	☒	No	☐	Please tick

If not, explain why not

--

PART I: Maintenance & Management
(Please also refer to NRC rules)
1 Has a maintenance agreement been made with the treatment and disposal system suppliers?

Yes	☐	No	☐	Please tick
-----	--------------------------	----	--------------------------	-------------

Name of Suppliers

Biocycle Hamilton

PART J: Assessment of Environmental Concerns

1 Is an assessment of environmental concerns included with application? (Refer Fig 4.1C3)

Yes	☒	No	☐
-----	-------------------------------------	----	--------------------------

 Please tick

If Yes, list and explain possible effects

--

PART K: Is Your Application Complete?

1 Is a Northland Regional Council Discharge Consent Required?

Yes	☐	No	☒
-----	--------------------------	----	-------------------------------------

 Please tick

2 In order to provide a complete application you have remembered to:

Fully Complete this Assessment Form	yes
Include a <i>Location Plan</i> and <i>Site Plan</i> (with Scale Bars)	yes
Attach an Assessment of Environmental Concerns	yes

3 Declaration

☐ I understand and accept that Council may rely on this document, for the purposes of establishing compliance with the above building consent and that the content including the signature, whether electronic or not, is truly representative and authoritative of the information contained.

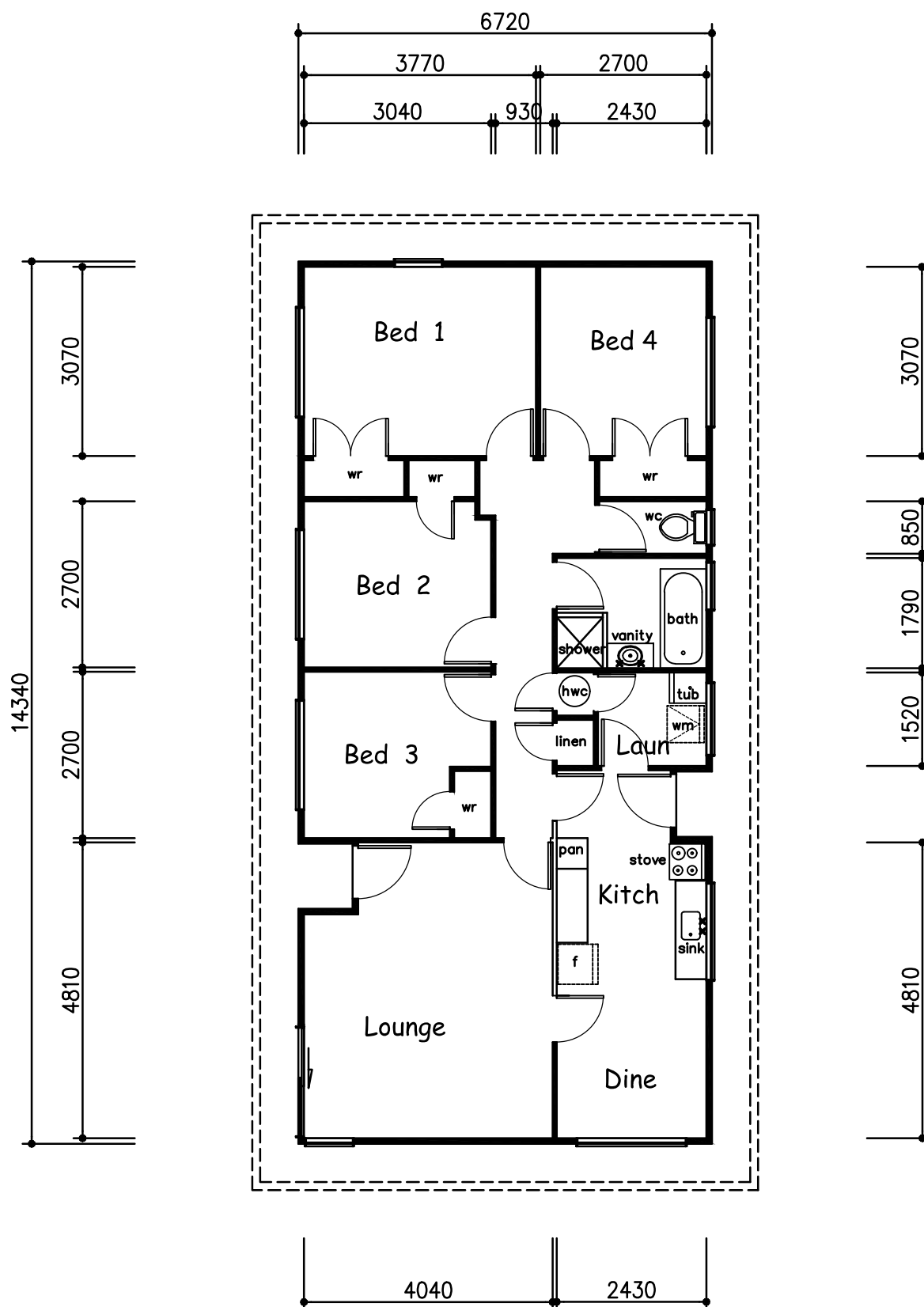
I hereby certify that, to the best of knowledge and belief, the information given in this application is true and complete.

Name	Matt Wiley	Signature	Matt Wiley Digitally signed by Matt Wiley DN: G=NZ, E=matt@wileygeotechnical.co.nz, OU=Wiley Geotechnical Ltd, CN=Matt Wiley Date: 2021.06.24 15:13:07
Position	Principle engineer. CPENG	Date	24 June 2021

Note:

Any alteration to the site plan or design after approval will result in non-compliance.

An Installation and commissioning report verifying the system and all components have been installed and operate in conformity with the design is required upon completion in accordance with 6.2.5.4, AS/NZS1547(2012) is required before the Code Compliance Certificate can be issued.



Floor Layout

96.36m²

All dimensions are to the framing,
before commencing any works on
the building verify dimensions.

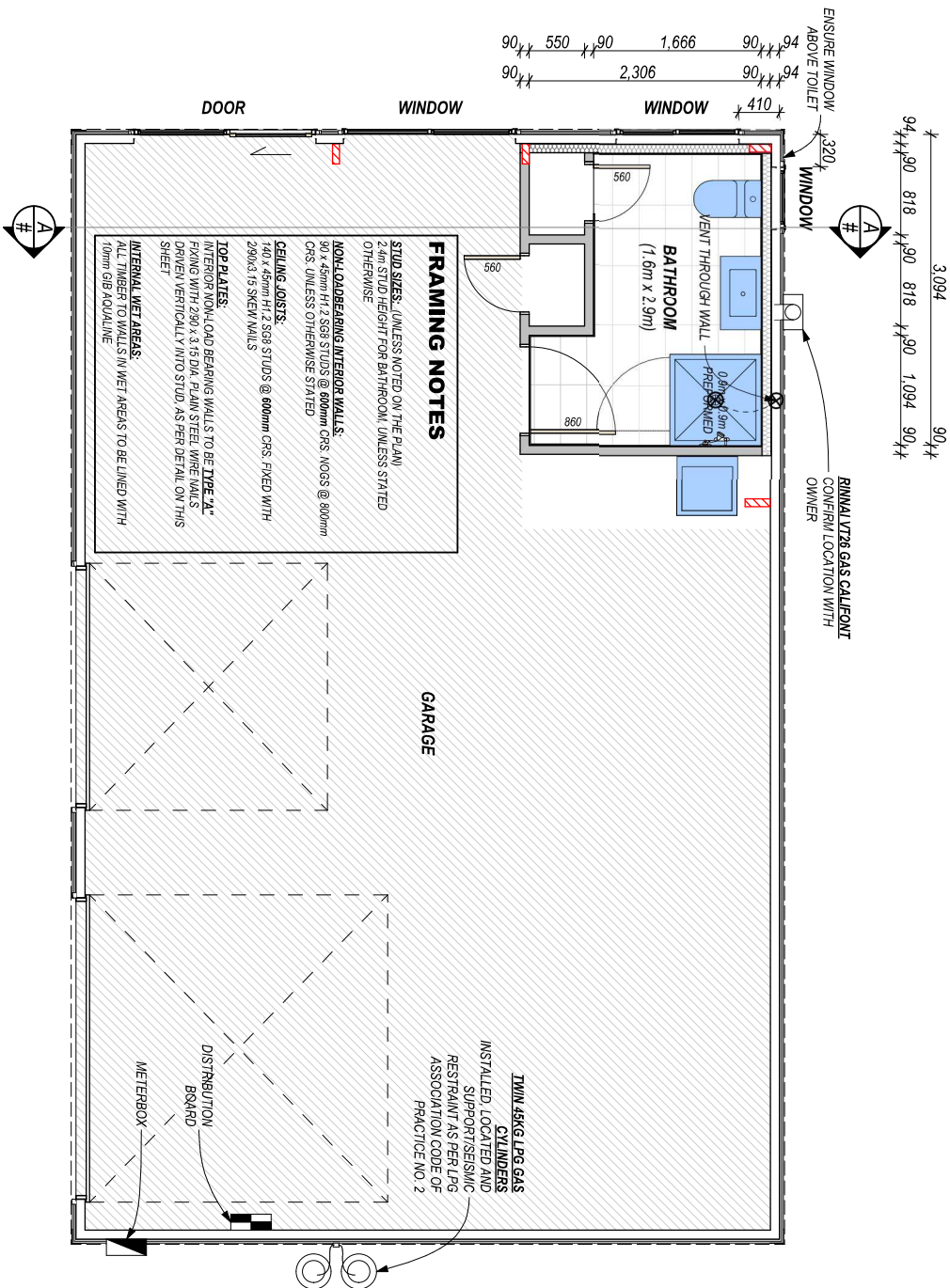
BCW Design Ltd
54 Halsey Drive
Lynfield 1042
Ph 09 626 3803
Mob 0274 887 377
bruce@bcwdesign.co.nz

House for Relocation
ex 5 Topliss Drive

HHR 126

Drawn by B. C. Wood
Scale 1:100 (A4)
Date 22.04.2021

Job No 21036



FLOOR PLAN

1:50

EXPOSURE ZONE C: FINISHES ARE TO COMPLY WITH NZBC B2 DURABILITY AND NZS 3604:2017 SECTION 4 - DURABILITY. ALL EXPOSED FRAMES AND FRAMES WITHIN 100mm OF GROUND LEVEL (SHELFED & EXPOSED) TO BE TYPE 304 STAINLESS STEEL. NOTE ALL BOLTS SHALL HAVE 5000 X 3MM WASHERS TO TIMBER FACES FLASHING AND WRAP SYSTEMS ALL FLASHINGS FLASHING TAPES, WRAPS, UNDER LAYS AND ASSOCIATED ACCESSORIES ARE TO BE INSTALLED STRICTLY IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS. LIGHTING ARTIFICIAL LIGHTING TO COMPLY WITH NZBC GRAS1 SMOKE ALARMS IF REQUIRED SMOKE ALARMS SHALL COMPLY WITH APPROVED DOCUMENT F7 WARNING SYSTEMS.	COVER THE LOCATION OF THE FOLLOWING WITH OWNER PRIOR TO INSTALLATION: • INTERNAL FINISHES - CONFIRM LOCATION, EXTENT AND DIRECTION OF FLOOR COVERINGS SHOWN • METER BOX & DISTRIBUTION BOARD WET AREAS WATERPROOFING SYSTEM OPTIONS: ALL DETAILS/WINDOWS TO COMPLY WITH NZBC E3 INTERNAL MOISTURE AND MANUFACTURERS PRODUCT DETAILS PROVIDE AN IMPERVIOUS AND EASY TO CLEANABLE SURFACE TO ALL WALLS & FLOOR AREAS LIKELY TO BE SPASHED TO COMPLY WITH EXAS1 (WALLS) GIB AQUALINE TO BATHROOM WALLS WET AREA VENTILATION: TO COMPLY WITH NZBC G4 VENTILATION	INTERIOR DOORS INTERNAL DOORS TO BE QUALITY HOLLOW CORE DOORS WITH 18mm PAINT QUALITY DOOR JAMBS UNLESS STATED OTHERWISE INSULATION <u>WALL INSULATION:</u> R2.2 WALL INSULATION TO EXTERIOR BATHROOM WALL	TIMBER TREATMENT: ALL TIMBER TO COMPLY WITH NZBC CLAUSE B241 DURABILITY NZS3802. TIMBER AND JOIST BASED PRODUCTS FOR USE IN BUILDING AND NZS3640 CHEMICAL PRESERVATION OF ROUND AND SQUARE TIMBER. H1.2 ALL WALL FRAMING AND ASSOCIATED MEMBERS ROOF FRAMING, TRUSSES AND CEILING JOISTS ENCLOSED FRAMING WITHIN SKILLOW / FLAT ROOFS H3.1 CLADDING CAVITY BATTENS STUD GRADE UNLESS SPECIFIED OTHERWISE WALL FRAMING IS GRADED TO S24 AS PER NZS3604:2017 STUD SIZE 50x65 STUDS
--	---	--	---

FLOOR FINISHES:

HATCHING SHOWN INDICATING FLOORING FINISH

INDICATIVE ONLY. CONFIRM LOCATION AND EXTENT WITH OWNER

DIMENSIONS:

CONTRACTOR IS TO CONFIRM ALL DIMENSIONS ON SITE BEFORE COMMENCING ANY WORKS

G4 VENTILATION:

NATURAL VENTILATION =

3% OF FLOOR AREA (OPENABLE WINDOW)

MECHANICAL VENTILATION =

REFERENCE AS1668.2 TABLE B1 EXTRACT RATES

BATHROOM/TOILETS: MIN. 25L/S

LAUNDRIES: MIN. 20L/S

KITCHENS: MIN. 50L/S

JOINERY NOTES:

(JOINERY)

DOUBLE GLAZED CLEAR, ALUMINIUM POWDERCOATED JOINERY.

ALL UNITS VIEWED FROM EXTERIOR

ALL DIMENSIONS ARE **THIN** SIZE (NOT WINDOW SIZE)

CONFIRM BEFORE COMMENCING CONSTRUCTION.

ALL JOINERY TO BE POWDERCOATED ALUMINIUM AND BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURERS REQUIREMENTS.

ALL JOINERY TO HAVE H3.1 JAMB LINERS.

ALL GLAZING BELOW 800mm FROM F.L. TO BE TOUGHENED SAFETY GLASS

JOINERY MANUFACTURER TO CHECK AND VERIFY ALL DIMENSIONS, AND STRUCTURAL SUPPORTS WHERE REQUIRED.

GLAZING TO COMPLY WITH THE FOLLOWING STANDARDS

NZS 5504: SPECIFICATION FOR ALUMINIUM WINDOWS

NZS 4223: CODE OF PRACTICE FOR GLAZING IN BUILDINGS

NZS 4211: SPECIFICATION FOR THE PERFORMANCE OF WINDOWS

ALL GLASS SHOWER SCREENS TO BE TOUGHENED SAFETY GLASS TO COMPLY WITH NZS 4223:

ANY WINDOW SILL CLOSER THAN 180mm TO THE TOP OF A TOILET SEAT OR WINDOW SEAT TO HAVE RESTRAINTS INSTALLED AS PER TABS1.20 AND BE TOUGHENED SAFETY GLASS TO COMPLY WITH NZS 4223.

GLASS TOUGHENED AS REQUIRED FOR PANE SIZE

ALL FINISHES AND FLASHINGS TO MANUFACTURERS DETAILS AND SPECIFICATIONS

INSTALL WITH FLASHING TAPE SYSTEM TO WRAP MANUFACTURERS SPECIFICATIONS AND DETAILS.

FINISHES TO ALL SILL TRAYS AND FLASHINGS TO MATCH JOINERY FRAMES

A	07/10/19	WDC REF	CC
REV.	DATE	DESCRIPTION	DRAWN

BARNIES SHED

TUDEHOPE ROAD, MATARAU,
WHANGAREI

FLOOR PLAN

JOB NO.:	0097
REVISION:	A
SHEET SIZE:	A3
PAGE:	03 OF 5
DATE:	14/10/2019
DRAWN:	CC

CLAYTON

DRAFTING & DESIGN LTD

0274 489 000

0274 489 000

0274 489 000

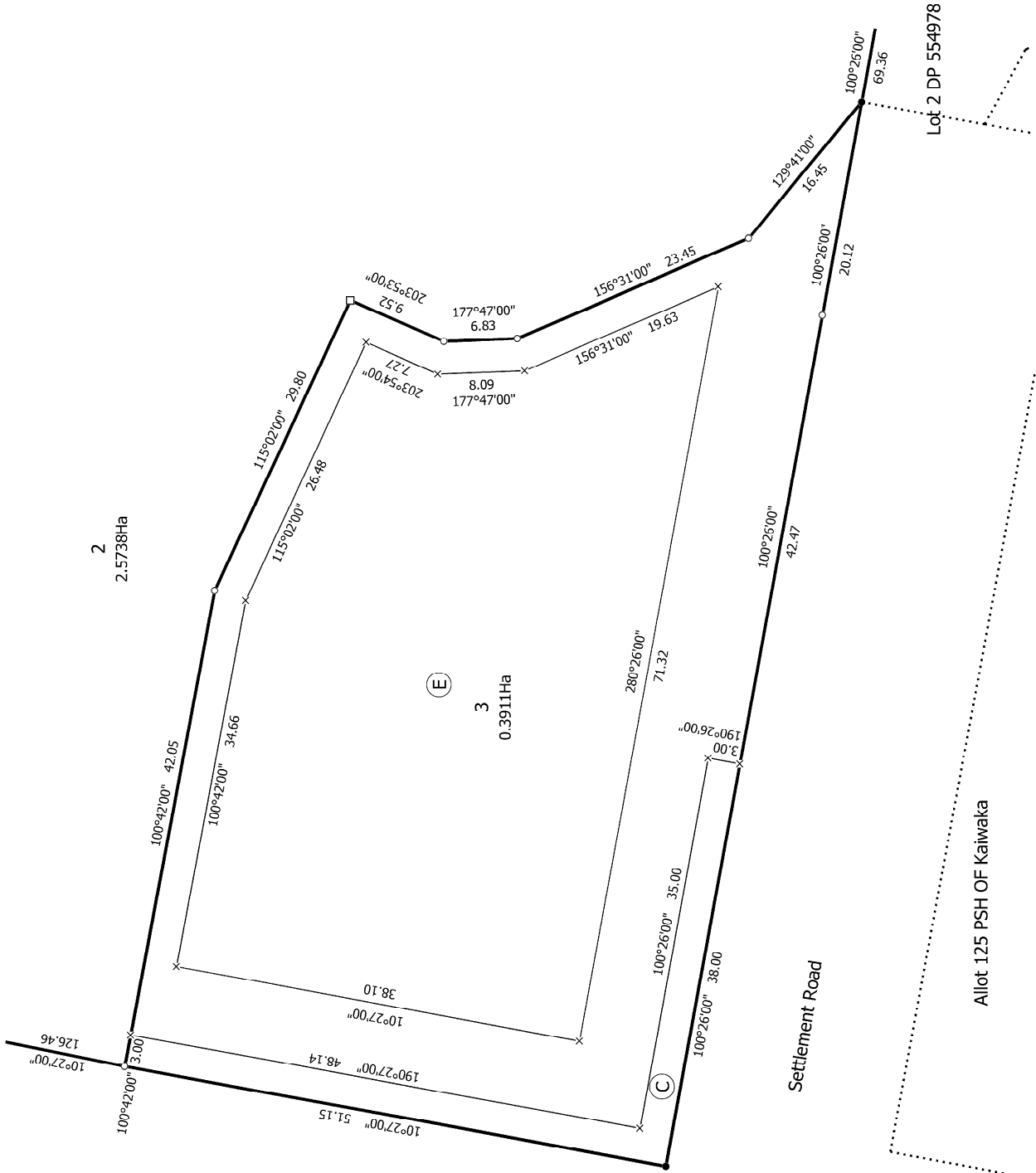
ONLY COUNCIL STAMPED PLANS TO BE USED FOR CONSTRUCTION

© COPYRIGHT CLAYTON DRAFTING & DESIGN LTD

0097-BARNIES-(BC REV-A)-14/10/19.ppt



Diag. A



T 2/6



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




 R.W. Muir
 Registrar-General
 of Land

Identifier **988296**
Land Registration District **North Auckland**
Date Issued 23 April 2021

Prior References

NA42B/368

Estate	Fee Simple
Area	3911 square metres more or less
Legal Description	Lot 3 Deposited Plan 560279

Registered Owners

Gina Maree Utting and Dawn Owens

Interests

Subject to Section 59 Land Act 1948

12086992.2 Consent Notice pursuant to Section 221 Resource Management Act 1991 - 23.4.2021 at 11:29 am

12126265.3 Mortgage to ANZ Bank New Zealand Limited - 2.6.2021 at 3:49 pm



BioCycle Systems Ltd
15 Mexted Place
P O Box 9262
HAMILTON
0800 246 292

Technical Design Specifications - BioCycle 8200 Aerated Treatment Plant

The BioCycle 8200 Aerated Wastewater Treatment System can be used to treat domestic effluent from residential or light commercial properties to a level where it can be safely dispersed on site without any negative effect on the environment.

The modular construction of the BioCycle plant makes it possible to manufacture a system for any flow rate that may be required. It is a cost-effective alternative for areas where ground porosity is at varying ends of the spectrum. On undulating sites where the land at lower levels is consumed by buildings or other facilities the BioCycle system allows effluent to be distributed on a level above the tanks location.

The BioCycle system complies with all specifications for AWTs treatment units in New Zealand providing effective and reliable wastewater treatment over a long period of time. The design parameters have been derived from proven technology in the field of on-site wastewater treatment. This is achieved by application of the specified parameters with excellent design and construction principals, including thorough testing of the system and final effluent.

The Biocycle 8200 system is capable of treating up to 1600Litres per day. The large primary septic chamber allows raw sewage a minimum 24 hours of primary treatment to be achieved enabling a minimum 20% reduction of BOD's through sedimentation before secondary processing is commenced.

Inside The BioCycle 8200 system

Septic Tank:

Raw effluent enters the primary tank (2900L) from the dwelling. The primary tank also receives the return activated sludge from the clarification tank, providing a stimulant for further breakdown of the influent load. The capacity of the primary tank allows 24 hours of residence for effluent ensuring sufficient BOD reduction and anaerobic breakdown has occurred.

Anoxic Chamber:

Filtered effluent enters the anoxic chamber from the primary holding via a 4' Biotube filter. This chamber acts as an additional septic, anaerobic zone which also receives recycled sludge from the clarification chamber to assist the further removal of nitrates.



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0800 246 292

Aeration Chamber:

Following primary treatment, aeration is provided in a 2800L chamber which contains submerged media. This purpose-built media is attached to the walls of the tank allowing even distribution of air through the chamber and media.

Diffused air at a minimum rate of 100Litres/min is required for adequate oxygenation. Air is blown via a pipe into the Aeration Chamber and released at the bottom by way of purpose made fine air bubble diffuser assemblies.

The aeration system is designed to maintain a minimum dissolved oxygen concentration of 2mg/L in the aerobic chamber within the maximum two hourly flow.

Clarification Chamber:

With a capacity of 1200L, effluent is further polished within the clarification chamber. This chamber is provided to remove settling and floatable solids passing through from the aerobic chamber.

Provision is made for constant automatic return of settled solids to the anoxic chamber by means of a subsurface sludge mechanism operated by venturi suction off the air supply manifold; this is done so that sufficient nitrified waste is recycled back to the oxygen deficient anoxic stage for denitrification to occur.

Pump Out Chamber:

Treated effluent enters the final 300L chamber where it will be pumped out to the irrigation field via a fine 130-micron disc filter to assist further removal of fine particles and ensuring a long-lasting irrigation field.

Tank Construction

In New Zealand, the BioCycle Systems Ltd standard concrete tank is constructed of steel reinforced concrete to a strength of 40Mpa. Tank walls are monolithic. The lid is constructed separately and sealed to the tanks walls to prevent leakage.

Dart Concrete Ltd manufacture the tank in accordance with the structural requirements of AS/NZS 1546.1.2008.

Manhole lids are formed in HDPE and internal components are PVC pressure pipe.

All electrical box housings and electrical control units are made of HDPE, fastened to the tank lid.

Each system is fitted out prior to leaving the factory. Prerequisite drainage, irrigation and electrical connections are completed on the destination building site.



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Operating Plant Specifications

Aeration

LP80 HN Air Pump located inside the HDPE enclosure on top of the tank

- 85-watt power rating is single phase
- Exhaust capacity is 100 litres per minute per pump
- Noise level at 1.0m from the tank is approximately 35dB(A)

Irrigation Pump

A Bianco B42A/B (or Davey D42A/B, or similar) submersible pump with a maximum Head of at least 29m is fitted.

Power consumption is subjective and varies with total flow during any day and the type of irrigation system installed.

An estimated cost of power consumption used by the Biocycle blower and irrigation pump is around \$150.00 per year, based on around 1.6kWhr/day at 0.25c/kWhr.

Monitoring System

All BioCycle units are installed with two alarms as warning devices. An alarm plate (audible/visual) is supplied to be installed in a convenient position inside the house. The alarm plate is commercial grade, similar to a light switch, with two coloured LED lights. A switch plate provides for the alarm to sound and to be switched to 'mute' when heard.

The alarm panel is incorporated into an electrical circuit breaker, located at the Biocycle system or fuse box, as a safeguard against electrical faults.

The two LED lights indicate:

1. High-Water level, designed to sound if water level in the irrigation chamber reaches a critical level. This indicates that the submersible pump is malfunctioning, or the irrigation filter is blocked.
2. Air pressure fault, designed to sound if the blower ceases to operate or there is an air blockage.

The home occupants are responsible for keeping the irrigation filter clean and ensuring the irrigation drip lines and flush valves are not obstructed or broken.

BioCycle 8200 Wastewater Treatment System



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Final Effluent Quality

A properly maintained system produces treated water of a very high quality.

Testing of the BioCycle 8200 at the OSET facility in Rotorua has reported the following:

AS/NZS 1547:2012 Secondary Effluent Quality Requirements

These requirements are that 90% of all test samples must achieve a BOD₅ of $\leq 20 \text{ g/m}^3$ and TSS of $\leq 30 \text{ g/m}^3$ with no one result for BOD₅ being $>30 \text{ g/m}^3$ and no one result for TSS being $>45 \text{ g/m}^3$.

The **BioCycle 8200 system** achieved a performance level of **100%** for BOD₅ and **100%** for TSS based on the full set of 37 test results in weeks 9 to 35, with no results exceeding the maximums. The **BioCycle 8200 system** thus **meets** the secondary effluent quality requirements of **AS/NZS 1547:2012** at the test flow rate of 1,000 L/day (ie at 70% of the plants advised design capacity).

Benchmark Ratings

The **BioCycle 8200 system** achieved the following effluent quality ratings for the sixteen benchmarking results in weeks 20 to 35.

Indicator Parameters	Median	Std Dev	Rating	Rating System				
				A+	A	B	C	D
BOD (mg/L)	4.5	1.4	A+	<5	<10	<20	<30	≥30
TSS (mg/L)	7.7	3.6	A	<5	<10	<20	<30	≥30
Total Nitrogen (mg/L)	22.1	2.4	B	<5	<15	<25	<30	≥30
NH ₄ - Nitrogen (mg/L)	0.2	0.1	A+	<1	<5	<10	<20	≥20
Total phosphorus (mg/L)	4.4	0.3	B	<1	<2	<5	<7	≥7
Faecal Coliforms (cfu/100mL)	54,000	23,660	C	<10	<200	<10,000	<100,000	≥100,000
Energy (kWh/d) (mean)	6.3	1.9	D	0	<1	<2	<5	≥5

Ongoing testing on the BioCycle 8200 allows for continuous improvement to exceed final effluent quality expectations.

BioCycle Guarantee / Warranty

Each BioCycle system is covered by a limited warranty of 10 years on the concrete tank, and two years (24 months from date of installation) on all electrical components within the system.

Within the warranty periods stated above, BioCycle Systems Ltd guarantees to repair or replace any part of the system requiring remedy due to defective manufacture, provided BioCycle is given notice of the problem within 24 hours of the customer being aware of the problem.

BioCycle 8200 Wastewater Treatment System



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Essential rules for the care of your wastewater system.

All wastewater (toilets, bathrooms, laundry) produced on a rural property is discharged via pipes to an on-site wastewater treatment and land disposal system. The wastewater treatment system is a fragile biological (bacterial) process and therefore requires care by all residents and visitors.

You can help maintain an effective wastewater treatment system on your site by ensuring **no toxic chemicals** are put down sinks or toilets and by using only environmentally friendly cleaning products. Toxic chemicals, drugs (e.g. antibiotics) kill bacteria in the treatment system. These organisms are needed to treat wastewater and if healthy populations are not maintained, the system will fail resulting in poorly treated wastewater discharging into the soil, offensive odour and increased maintenance costs. You should also manage your water use to protect the system from overloading.

DO

- Try to take short showers in preference to baths.
- Use bio-degradable soaps and cleaners.
- Check all your cleaning products to see if they are suitable for septic tanks.
- Use natural soaps (rather than chemicals) for cleaning.
- Scrape all plates and dishes to compost/rubbish, removing as much food/fat as possible.
- Repair/fix all leaking taps as soon as possible.
- Use phosphate free or low phosphorus laundry detergents.

DO NOT

- Do Not pour any toxic/strong chemicals (paint, oil, grease, thinners, pesticides down any drains).
- **Do Not flush any products other than standard toilet paper** down the toilet! This means no tampons, pads, condoms, cigarette butts or 'wet-wipes'.
- Do Not discard any drugs down the toilet or sink.
- Do Not use strong cleaners (bleach, Canesten, Napisan, strong citrus or alcohol base).
- Do Not tip chlorine, anti-**septic**, anti-**bacterial**, or disinfectant type products down drain.
- Do Not use chemical drain cleaning products to clear a blockage – call a plumber.
- Do Not do all your laundry in one day – spread your loads through the week.
- Do Not install sink garbage grinders. If a grinder exists, don't discharge high volumes of scraps, especially carbohydrates, bones or fats & oils into it.
- Do Not put coffee grinds down the sink drain.



On-site Effluent Treatment National Testing Programme (OSET NTP)

PERFORMANCE CERTIFICATE
BioCycle 8200 On-site Domestic Wastewater Treatment System,
OSET NTP Trial 11, 2015/2016

System Tested

The **BioCycle 8200 system** is a Submerged Aerated Filter Wastewater Treatment Plant using Kompakt 2 tubular submerged fixed growth filter system [298 m² (2.16 m³)]. The manufacturers rated design capacity is 1,400 litres/day. Total operational liquid volume is 7,800 litres (Primary Chamber 2,900 litres; Anoxic chamber 600 litres; Aeration Chamber 2,800 litres; Clarification Chamber 1,200 litres; Pump Chamber 300 litres; Emergency storage 1,600 litres). No tertiary treatment (such as UV disinfection) is incorporated. It comprises a single 5 chamber concrete tank. The air blower is Thomas LP-80, 0.08kW, running continuously and operating a continuous venturi airlift recirculation pump at 40 lph. There is a 100mm Biotube effluent filter in the Primary Chamber and an Azud 130 micron final effluent filter. The discharge pump was a Davey D42A/B 0.90kW. The manufacturers stated service frequency is 6 monthly.

Test Flow Rate

The **BioCycle 8200 system** was tested at 1,000 litres/day (equivalent to servicing a 3-bedroom 5 to 6 person household) over an 8 month (35 week) period November 2015 to July 2016 followed by a 1 month (4 week) high load effects test involving 3 days at 1,500 litres/day followed by 2 days at 2,000 litres/day then 1,000 litres/day over the following 2 weeks.

Testing and Evaluation Procedures

A total of 37 treated effluent samples of organic matter (BOD₅) and suspended solids (TSS) at generally six day intervals during weeks 9 to 35 were tested and evaluated against the secondary effluent quality requirements of the joint Australia/NZ standard AS/NZS 1547:2012.

A total of 16 treated effluent samples of organic matter (BOD₅), total suspended solids (TSS), total nitrogen (TN), ammonia nitrogen (NH₄-N), total phosphorus (TP) and faecal coliforms (FC) at generally six day intervals during weeks 23 through 35 were tested and the results benchmarked and rated on their median values. In addition, the energy used by the treatment system was assessed on the mean of consumption levels over the 16 sample days.

General Performance

The BioCycle 8200 plant had a number of major issues throughout the testing period requiring frequent operator attendance including: correction to wiring of the discharge pump, repair of a significant air leak, repair of a significant water leak and attendance to clean a clogged effluent filter on a number of occasions. **This number of structural and operational errors is considered by the Audit Group to be unsatisfactory.**

AS/NZS 1547:2012 Secondary Effluent Quality Requirements

These requirements are that 90% of all test samples must achieve a BOD₅ of ≤ 20 g/m³ and TSS of ≤ 30 g/m³ with no one result for BOD₅ being >30 g/m³ and no one result for TSS being >45 g/m³. The **BioCycle 8200 system achieved** a performance level of **100%** for BOD₅ and **100%** for TSS based on the full set of 37 test results in weeks 9 to 35, with no results exceeding the maximums. The **BioCycle 8200 system thus meets** the secondary effluent quality requirements of AS/NZS 1547:2012 at the test flow rate of 1,000 L/day (ie at 70% of the plants advised design capacity).

Benchmark Ratings

The **BioCycle 8200 system achieved** the following effluent quality ratings for the sixteen benchmarking results in weeks 20 to 35.

Indicator Parameters	Median	Std Dev	Rating	Rating System				
				A+	A	B	C	D
BOD (mg/L)	4.5	1.4	A+	<5	<10	<20	<30	≥30
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Total Nitrogen (mg/L)	22.1	2.4	B	<5	<15	<25	<30	≥30
NH ₄ - Nitrogen (mg/L)	0.2	0.1	A+	<1	<5	<10	<20	≥20
Total phosphorus (mg/L)	4.4	0.3	B	<1	<2	<5	<7	≥7
Faecal Coliforms (cfu/100mL)	54,000	23,660	C	<10	<200	<10,000	<100,000	≥100,000
Energy (kWh/d) (mean)	6.3	1.9	D	0	<1	<2	<5	≥5

On-site Effluent Treatment National Testing Programme,
c/- Technical Manager 10 Tide Close, Mount Wellington, AUCKLAND 2013
Mob: 021 626 772 E-mail: ray@hedgland.co.nz



On-site Effluent Treatment National Testing Programme (OSET NTP)

This Performance Certificate is specific to the **BioCycle 8200** model as specified above when operated at a flow rate of 1,000 litres/day (70% of advised plants design capacity), and is valid for 5 years from the date below. For the full OSET NTP report on the performance of the **BioCycle 8200 system** contact Murray White of **BioCycle Systems**, Hamilton, P: 0800 246 292, or M: 0274 998 799 or E: murray@biocyclesystems.co.nz.

Authorised By:

A handwritten signature in black ink, appearing to read "Ray Hedgland".

Ray Hedgland, Technical Manager, OSET NTP
1 February 2017

SUBMERSIBLE DRAINAGE PUMPS

Model Numbers: D42A, D42M,
D42A/B

DEPEND ON
DAVEY

WATER PRODUCTS

SUMP PUMPS

PRODUCT DESCRIPTION

Submersible sump pump with twin impeller design for higher pressure, up to 32m head

APPLICATIONS

- Lawn & garden irrigation
- Sump emptying to higher heads
- Treated effluent disposal
- Water transfer from wells
- Model D42A/B specially designed for non potable rainwater applications

"A" suffix models equipped with present length automatic float switch fitted for automatic operation.



FEATURES & BENEFITS

Double mechanical seal, one in oil bath on motor and extra mechanical seal on pump

- Superior reliability
- Long service life

Corrosion resistant 304 stainless steel shaft, motor shell and fasteners

- Long service life

D42A/B has cast 316 stainless steel motor caps and super tough engineered thermo plastic pump casing

- Outstanding corrosion resistance
- Long life

Centrifugal multistage twin impeller design

- Higher pressures & increased efficiency

Closed vane impellers with long engagement "D" drives

- Positive operation
- Long service life

D42A & D42M have labyrinth impeller neck rings

- Maintain pump performance
- Less susceptible to wear

D42A/B has patented independently floating neck rings

- Outstanding pump performance
- Long pump life

Corrosion resistant hard wearing polycarbonate impellers

- Long service life

Corrosion resistant stainless steel fine mesh suction strainer with large surface area

- Prevents blockages of the pump by solids

In-built automatic thermal overload

- Protects the motor in the event of blockage or voltage supply problems

HO7RNF oil resistant leads, 10 metres long with 3 pin power plug

- Easy to connect to power supply
- Longer life in dirty water

OPERATING LIMITS

	D42A,M	D42A/B
Capacities to	110lpm	130lpm
Max. total head	26m	32m
Max. submergence		12m
Max. pumped water temperature		40°C
Max. soft solids		1.9mm O.D.
Outlet size (BSP)		1" F

Suitable Fluids

Clean water of neutral pH containing up to 1% small solids. Some wear should be expected while pumping hard solids in suspension.

TECHNICAL SPECIFICATIONS

MATERIALS OF CONSTRUCTION

PART	MATERIAL
Impeller	Glass filled polycarbonate
Lock nut	304 stainless steel
Pump casing	Cast iron - FC200 (D42A&M)
Diffuser and blanking ring	Glass filled polycarbonate (D42A/B)
Mechanical seal - pump	Glass filled noryl
Mechanical seal - motor	Carbon/ceramic
Shaft seal elastomer	Silicon carbide/ceramic in oil bath
Pump shaft	Nitrile rubber
Orings	304 stainless steel
Motor shell	Nitrile rubber
Bottom bearing housing	304 stainless steel
Upper motor cover	Cast iron - FC200 (D42A&M)
Handle	Cast 316 stainless steel (D42A/B)
Fasteners	Cast iron - FC200 (D42A&M)
Float & power supply leads	Cast 316 stainless steel (D42A/B)
	304 stainless steel
	HO7RN-F oil resistant

ELECTRICAL DATA

Supply voltage	220-240V
Supply frequency	50Hz single phase
Speed	2 pole, 2850rpm
Full load current	4.0A
Locked rotor current	14A
Input power (P _i)	0.94kW
Output power (P _o)	0.60kW
IP rating	X8
Insulation class	Class F
Starting	P.S.C.
Lead	10m long

INSTALLATION & PRIMING

Use a rope to position and retrieve the pump. Do not lower or retrieve the pump using the power lead as this may damage the cable entry seals, causing water leaks and unsafe operation.

Don't use this product for recirculating or filtering swimming pools, spas, etc. While these pumps are built to high safety standards, they are not approved for installations where people will be in the water while they are operating.

Don't pump abrasive materials. Sand and grit in the water being pumped will accelerate wear, causing shortened pump life.

Keep your pump clean, particularly in situations where lint, hair or fibrous materials may get bound around the pump shaft. Regular inspection and cleaning will extend pump life.

Make room for the float switch to operate. Automatic models have a float switch to turn them on when the water level rises and turn them off again when it has been pumped down to the safe operating level of the pump. If the float switch is not free to rise and fall, correct pump operation may not be possible.

Don't run your pump dry. Non-automatic models must be switched off manually or by way of an external float/level switch when the water level is reduced to the top of the pump housing.

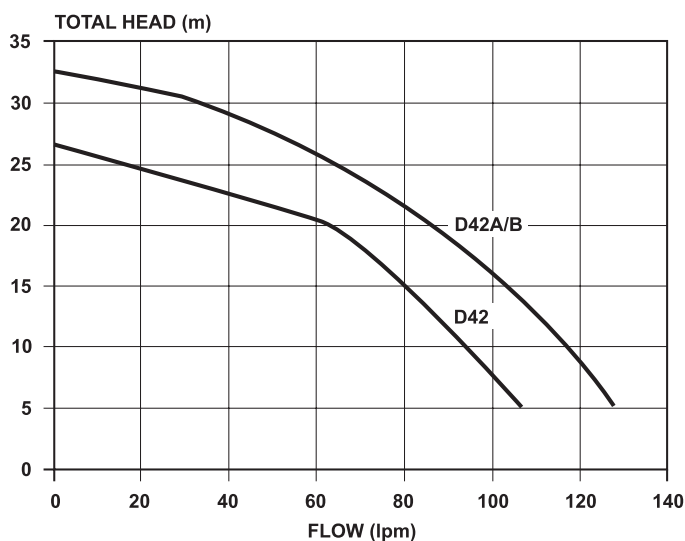
This literature is not a complete guide to product usage. Further information is available from your Davey dealer, Davey Customer Service Centre and from the relevant product installation and Operating Instructions. This data sheet must be read in conjunction with the relevant product installation and Operating Instructions and all applicable statutory requirements. Product specifications may change without notice.

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DEPEND ON
DAVEY

WATER PRODUCTS

HYDRAULIC PERFORMANCE



DIMENSIONS

Model	A	B	C	D	E	F	Outlet B.S.P.	Net Weight (kg)
D42A	475	130	370	235	195	330	1" F	20
D42M	475	130	370	235	195	330	1" F	19.5
D42A/B	475	130	370	235	195	330	1" F	18.5

All dimensions in mm unless otherwise stated.



Visit Davey on-line for further information
www.davey.com.au

Davey Products Pty Ltd

Member of the GUD Holdings Ltd Group
ABN 18 066 327 517

Head Office and Manufacturing

6 Lakeview Drive,
Scoresby, Australia 3179
Ph: +61 3 9730 9222
Fax: +61 3 9753 4100
Website: www.davey.com.au

Customer Service Centre

Ph: 1300 367 866
Fax: 1300 369 119
E-mail: sales@davey.com.au

Interstate Offices

Sydney - Brisbane - Adelaide
Perth - Townsville

International

6 Lakeview Drive,
Scoresby, Australia 3179
Ph: +61 3 9730 9121
Fax: +61 3 9753 4248
E-mail: export@davey.com.au

Germany

Kantstrasse 47,
04275 Leipzig
Ph: +49 341 301 0412
Fax: +49 341 301 0413
E-mail: akrenz@daveyeurope.com

New Zealand

2 Rothwell Avenue,
North Harbour, Auckland 1330
Ph: +64 9 914 3680
Fax: +64 9 914 3685
E-mail: sales@daveynz.co.nz

USA - Davey Pumps Inc.

1005 N. Commons Drive
Aurora, Illinois 60504
Ph: +1 630 898 6976
Fax: +1 630 851 7744
Website: www.daveyusa.com
E-mail: sales@daveyusa.com

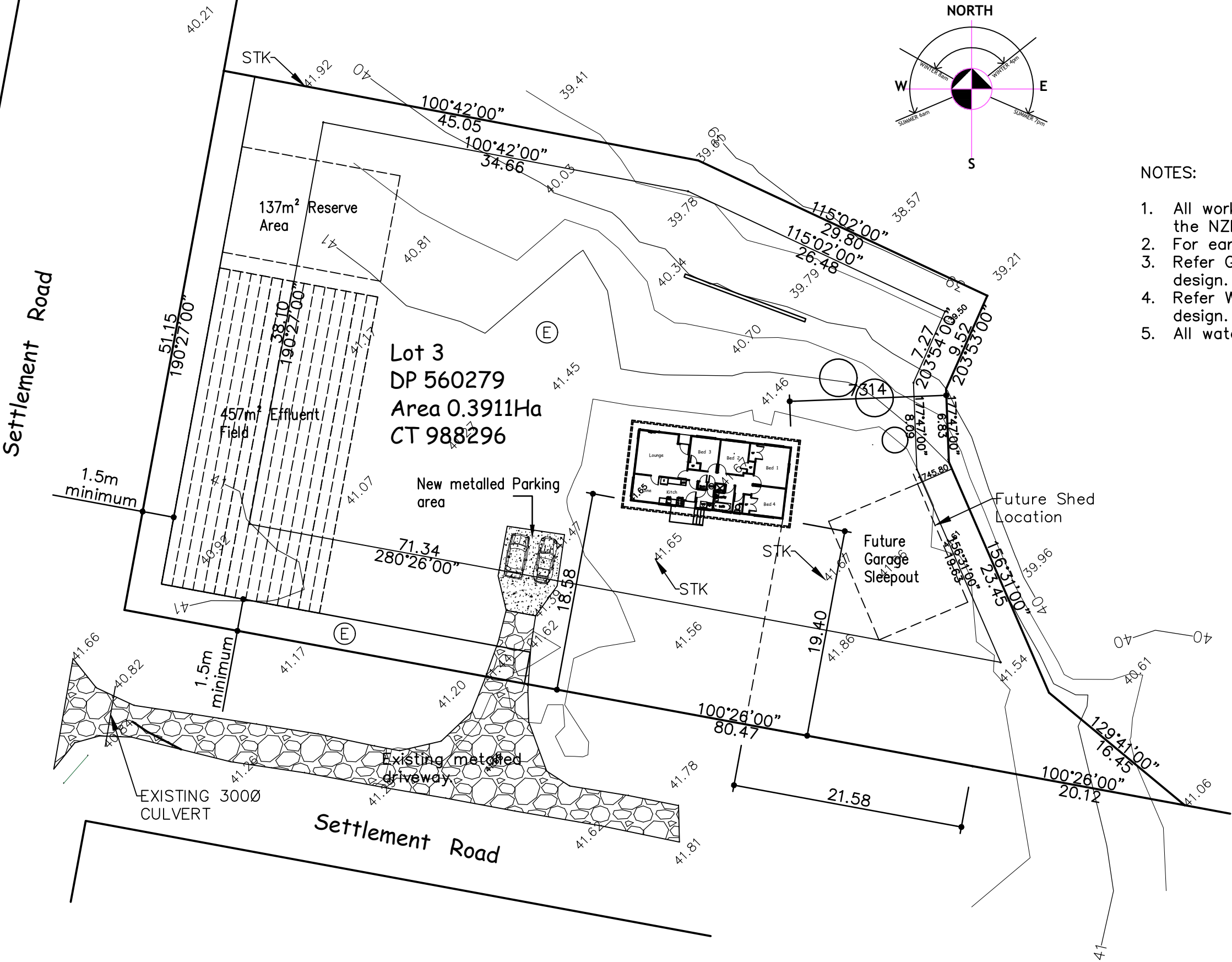
BOREHOLE No. 1

SITE: Lot 3, 760 Settlement Road, Hakaru (Effluent Field)

REF: 21150

Sheet 1 of 1

REDUCED LEVEL (RL) INFERRED GEOLOGY		DESCRIPTION OF SOIL	SOIL SYMBOL	DEPTH (m)	SAMPLE TYPE	WATER CONTENT (%)	WATER LEVEL	CORRECTED VANE SHEAR STRENGTH (kPa)			SCALA PENETROMETER BLOWS / 100 mm								
● Peak Field Vane ○ Remoulded Field vane																			
50	100							150	5	10	15								
		FILL/TOPSOIL dark brown																	
Alluvium of the Tauranga Group		SILT slightly clayey, slightly plastic, brown increase clay and plasticity		1															
		E.O.H: 1.2m		2															
								NOTES Groundwater was not encountered.						LOGGED BY: CS DATE DRILLED: 9-Jun-21 DRILL METHOD 50 mm Hand Auger					



- NOTES:
- 1. All works to comply to NZS 3604 2011 and the NZBC unless noted.
 - 2. For earthworks plan refer sheet 102.
 - 3. Refer Geotechnical report for foundation design.
 - 4. Refer Waste Water report for Waste Water design.
 - 5. All water to be treated with UV filter.

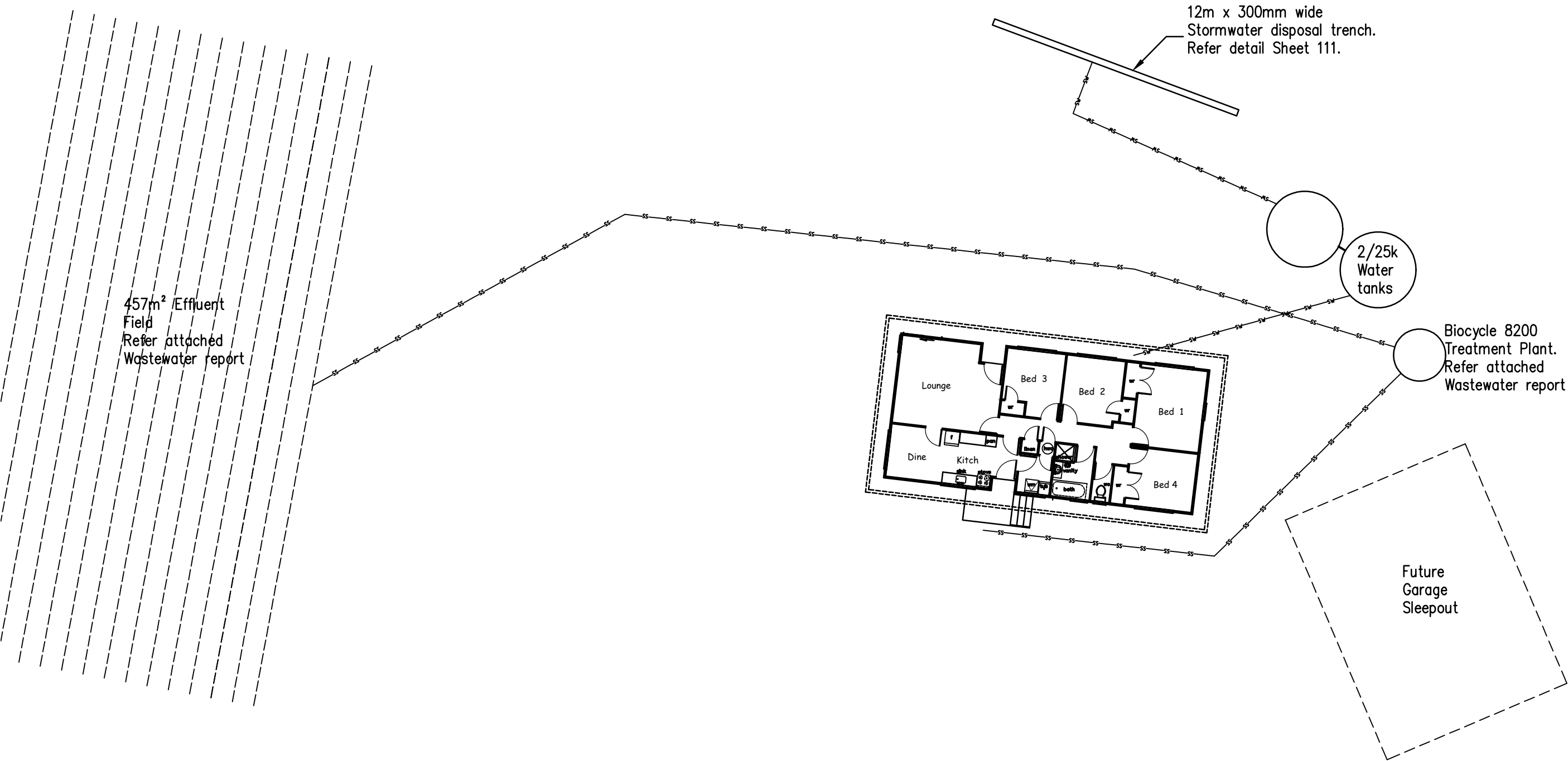
SCHEDULE OF AREAS Site Area 3911m ²							
BUILDING COVERAGE		Driveway IMPERMEABLE		Total IMPERMEABLE		LANDSCAPE PERMEABLE	
(m ²)	(%)	(m ²)	(%)	(m ²)	(%)	(m ²)	(%)
96.36	2.5	60	1.5	156.36	4	4067.36	80.04

BCW Design Ltd
54 Halsey Drive
Lynfield 1042
Ph 09 626 3803
Mob 0274 887 377
bruce@bcwdesign.co.nz

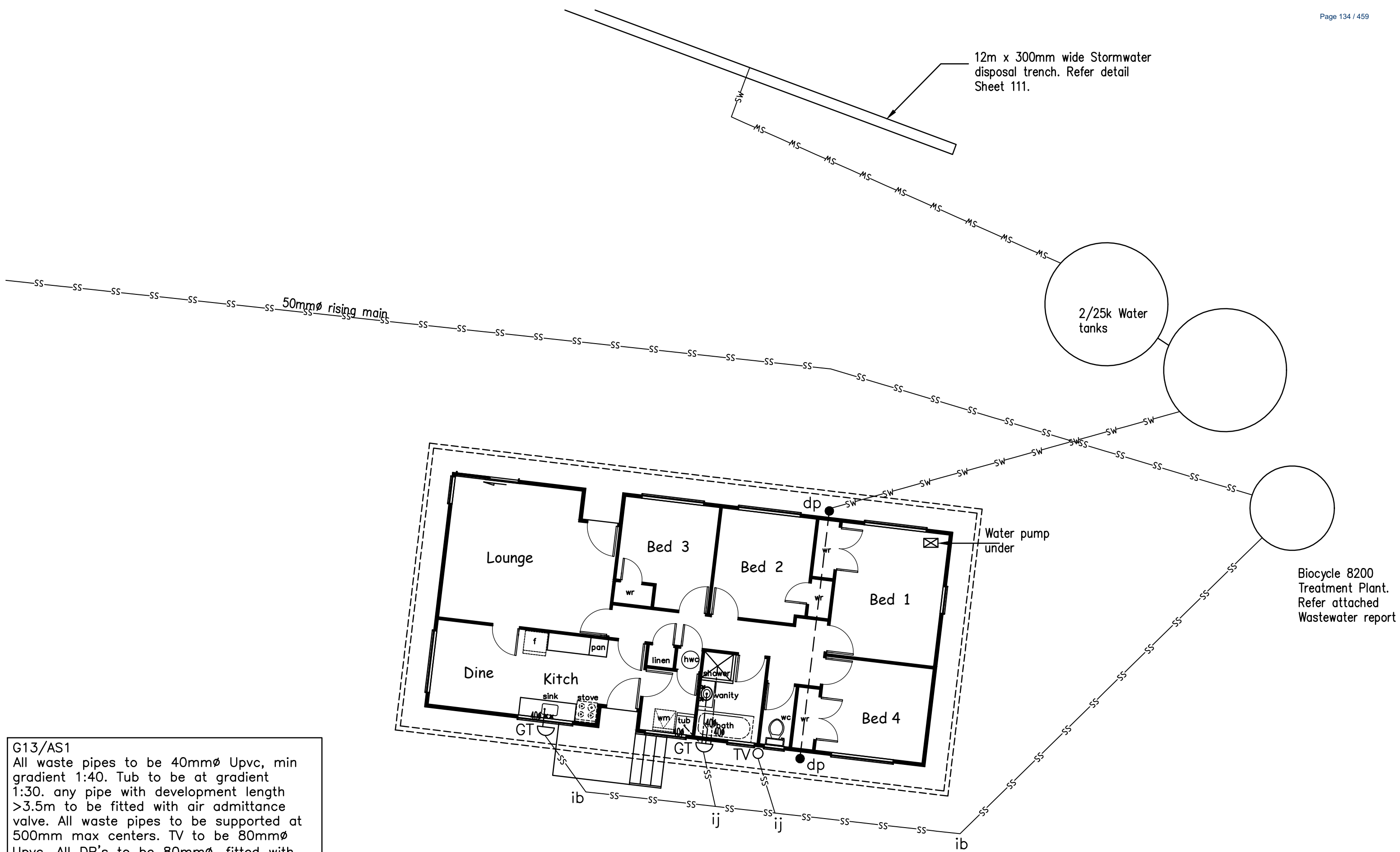
Site Layout
at 760 Settlement Road - Kaiwaka
for G. M. Utting & D. Owens

Drawn B. C. Wood
Scale 1:400 (A3)
Date 25.06.2021
Sheet 100

Job No 21038

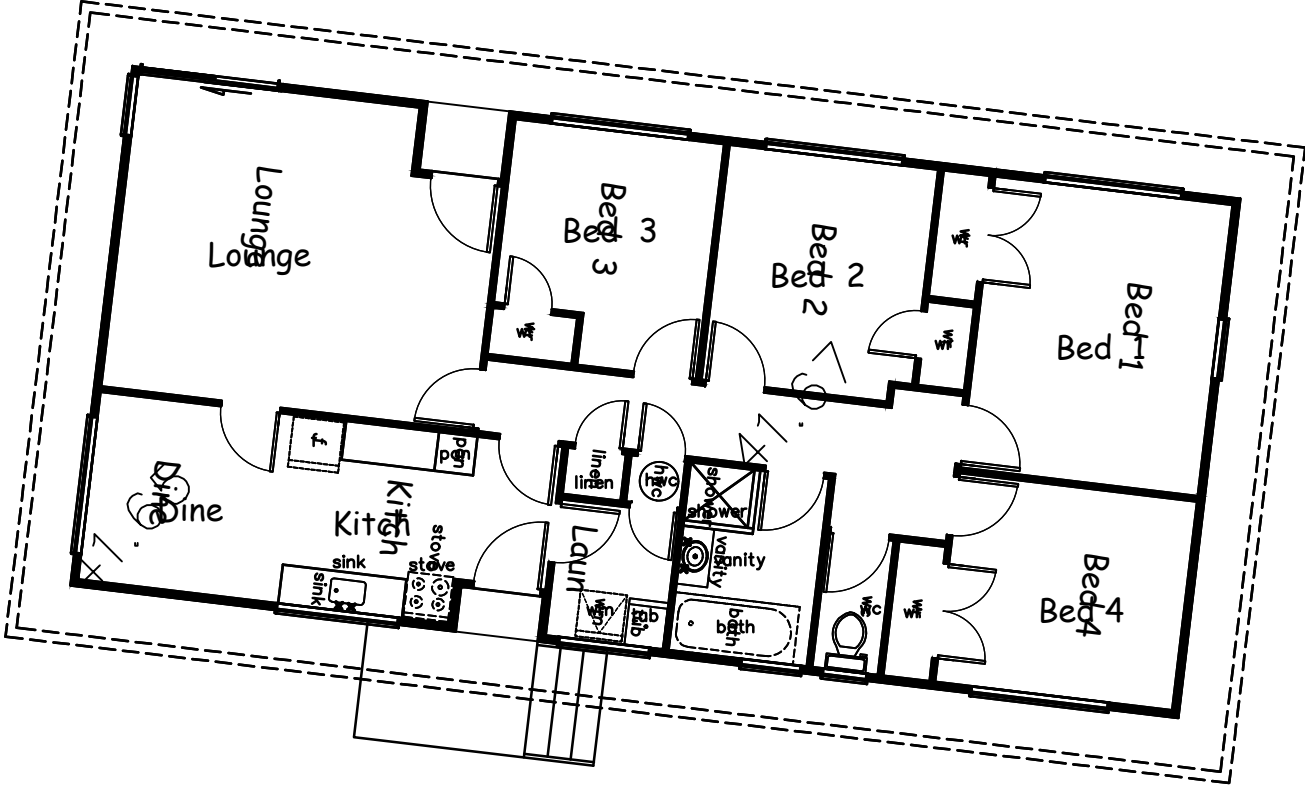


BCW Design Ltd 54 Halsey Drive Lynfield 1042 Ph 09 626 3803 Mob 0274 887 377 bruce@bcwdesign.co.nz	Drainage Plan at 760 Settlement Road - Kaiwaka for G. M. Utting & D. Owens	Drawn	B. C. Wood
		Scale	1:200 (A3)
		Date	25.06.2021
		Sheet	101
		Job No	21038

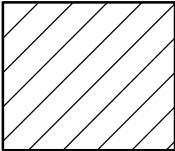


G13/AS1
All waste pipes to be 40mmØ Upvc, min gradient 1:40. Tub to be at gradient 1:30. any pipe with development length >3.5m to be fitted with air admittance valve. All waste pipes to be supported at 500mm max centers. TV to be 80mmØ Upvc. All DP's to be 80mmØ, fitted with First Flush Diverters.
All drainage pipes to be 100mmØ Upvc at a min gradient 1:80.
Any new hot and cold reticulation within house to be 12mmØ Polybutlene comply to AS/NZ 2642: Parts 1, 2 & 3.
All water to be UV filtered

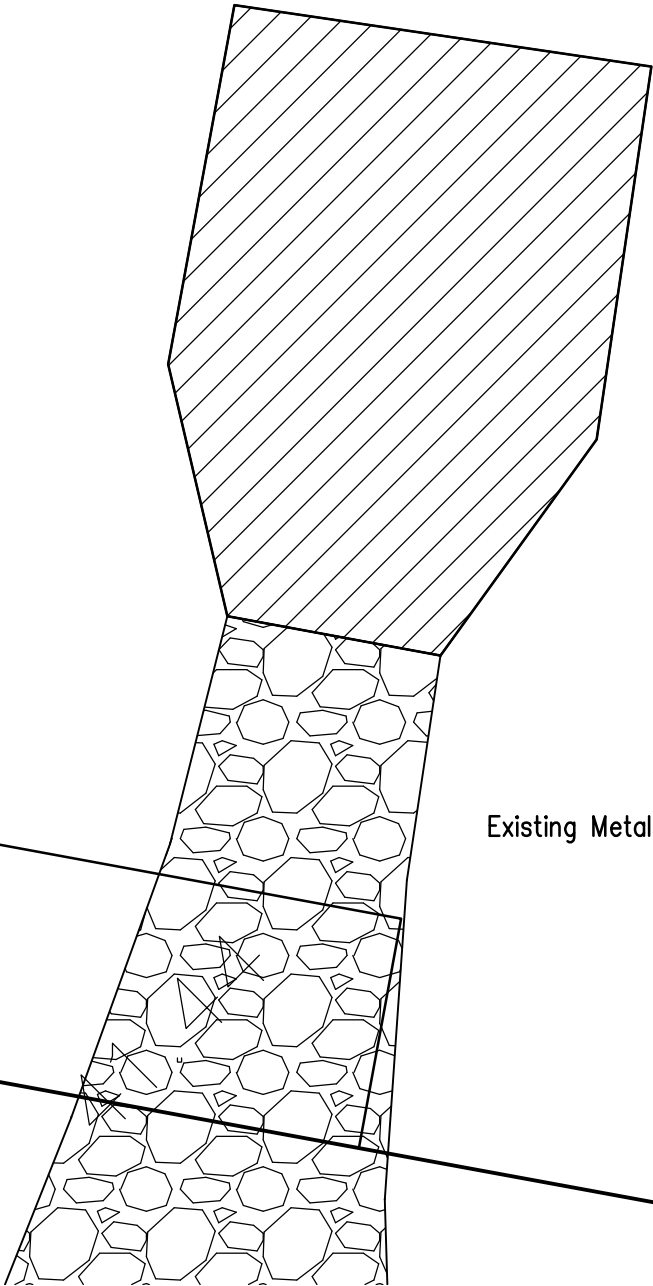
BCW Design Ltd 54 Halsey Drive Lynfield 1042 Ph 09 626 3803 Mob 0274 887 377 bruce@bcwdesign.co.nz	Plumbing & Drainage Plan at 760 Settlement Road - Hakaru for G. M. Utting & D. Owens	Drawn	B. C. Wood
		Scale	1:100 (A3)
		Date	25.06.2021
		Sheet	102
		Job No 21038	



KEY:



Earthworks
Cut = 7.5m³
Area = 40m²



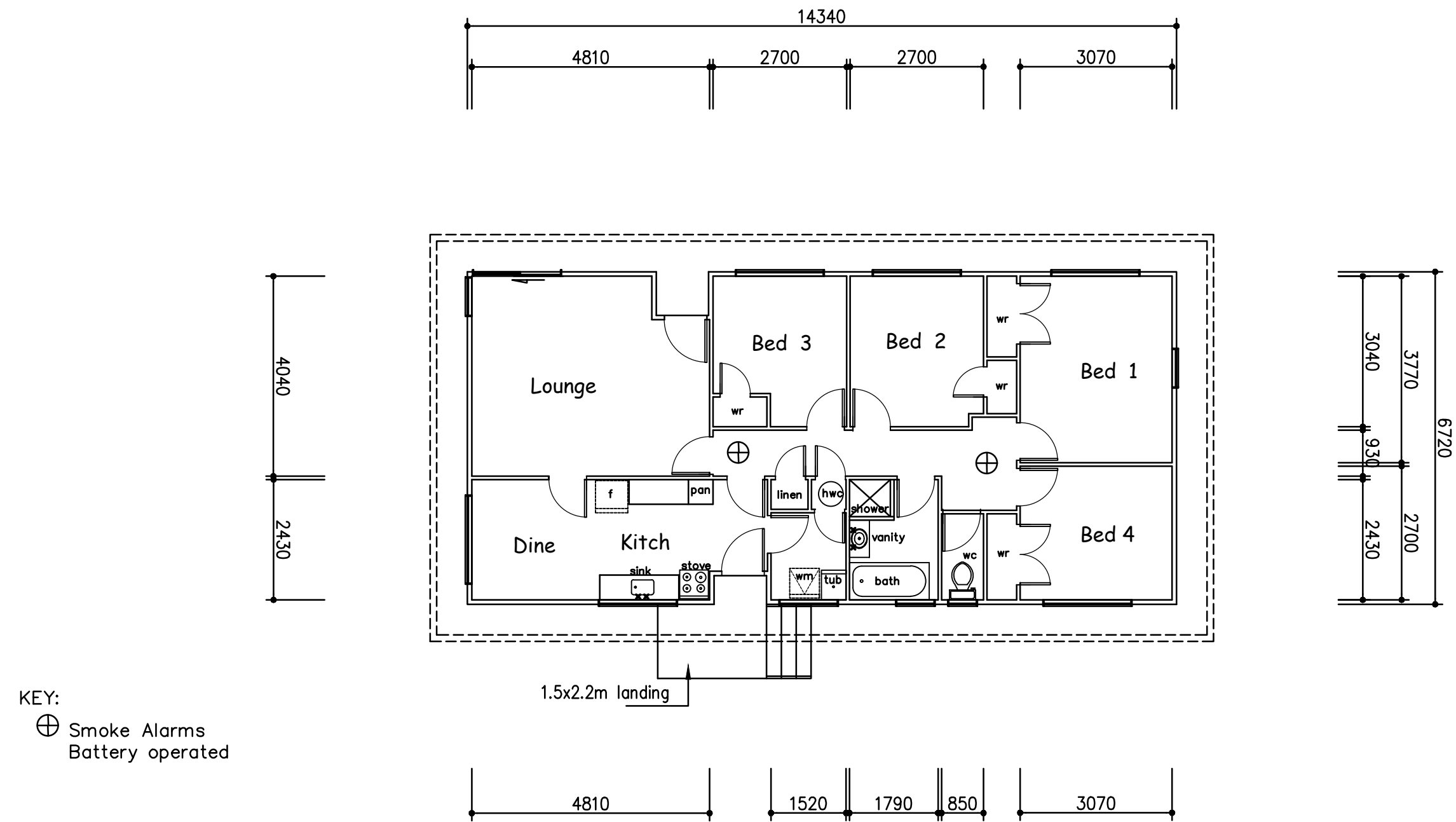
Existing Metalled Driveway

BCW Design Ltd
54 Halsey Drive
Lynfield 1042
Ph 09 626 3803
Mob 0274 887 377
bruce@bcwdesign.co.nz

Earthworks Plan at 760 Settlement Road - Hakaru for G. M. Utting & D. Owens

Drawn B. C. Wood
Scale 1:100 (A3)
Date 25.06.2021
Sheet 103

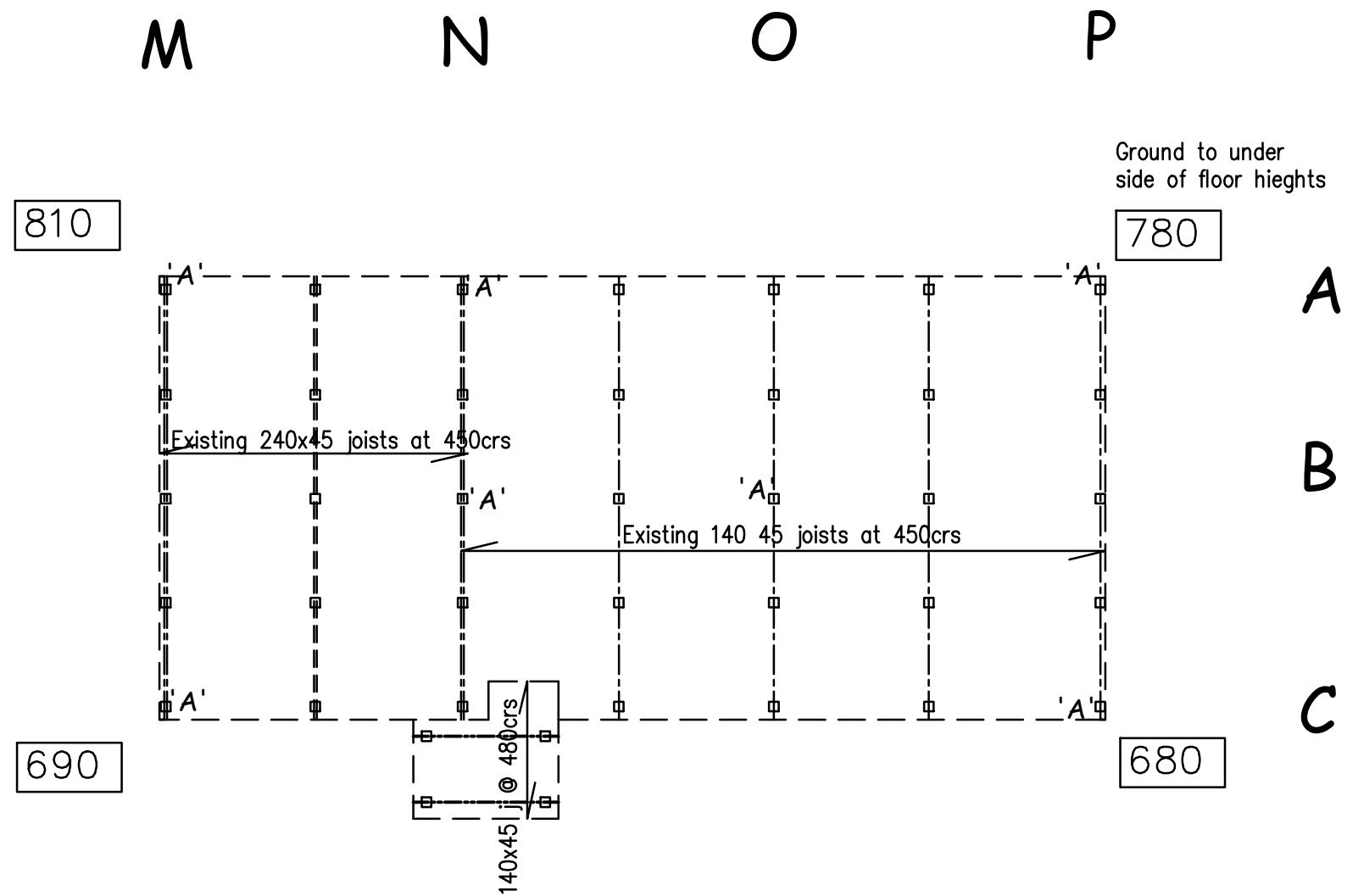
Job No 21038



Floor Layout
96.36m²

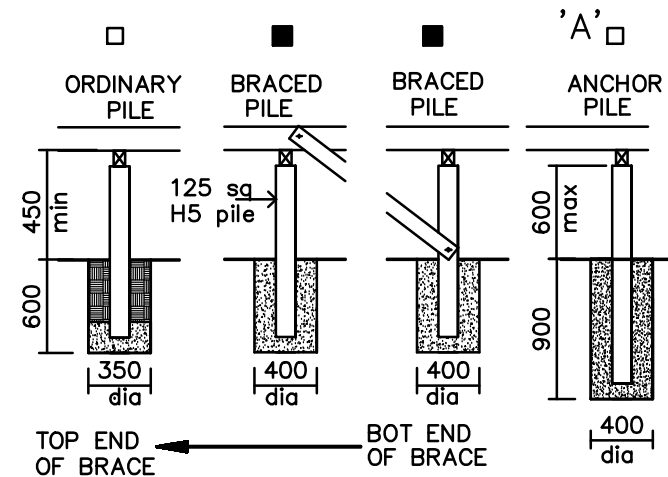
All dimensions are to the framing, before commencing any works on the building verify dimensions.

BCW Design Ltd 54 Halsey Drive Lynfield 1042 Ph 09 626 3803 Mob 0274 887 377 bruce@bcwdesign.co.nz	House Relocation to 760 Settlement Road - Hakaru for G. M. Utting & D. Owens	Drawn B. C. Wood Scale 1:100 (A3) Date 25.06.2021 Sheet 104 Job No 21038
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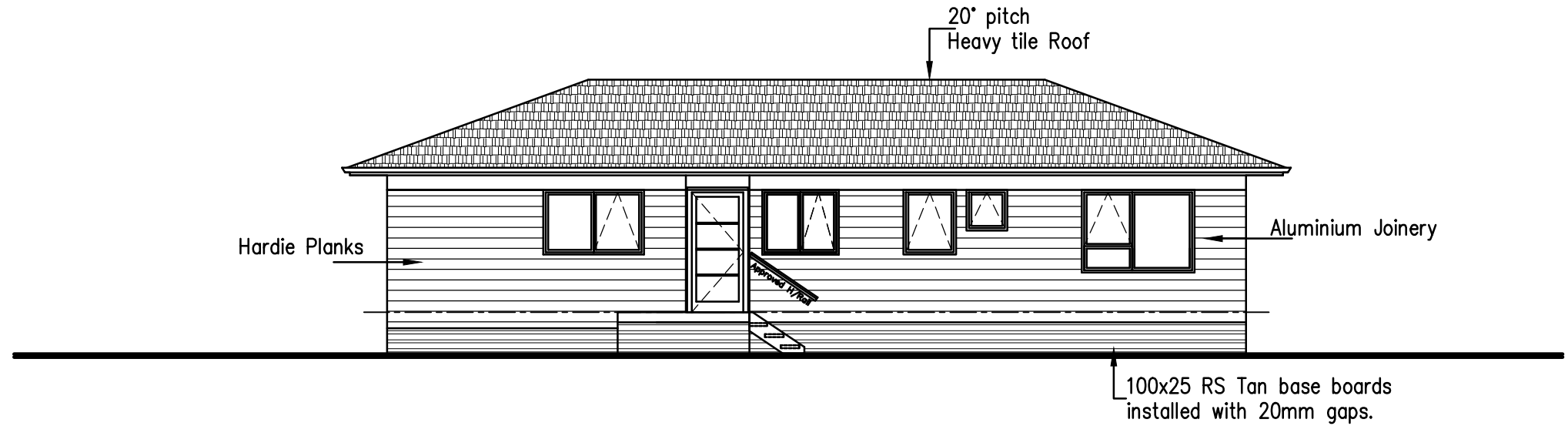
Foundation Layout

All concrete to have max aggregate size 19mm. Concrete to have a 28 day crushing strength of 17.5Mpa

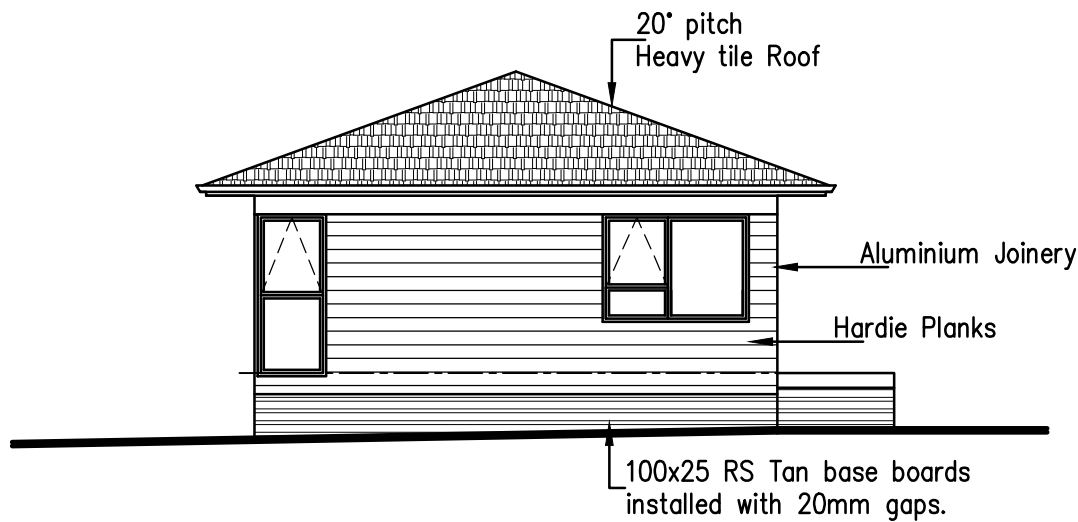


- Existing 90x90 bearers
Piles at 1575crs
- Existing 2/140x45 bearers
Piles at 1575crs
- New 2/140x45 SG8 H3.2 bearer
Piles at 1575crs
- Landing Bearer 2/140x45 SG8 H3.2 dPiles
at 1800crs

BCW Design Ltd 54 Halsey Drive Lynfield 1042 Ph 09 626 3803 Mob 0274 887 377 bruce@bcwdesign.co.nz	House Relocation to 760 Settlement Road - Hakaru for G. M. Utting & D. Owens	Drawn B. C. Wood Scale 1:100 (A3) Date 25.06.2021 Sheet 105 Job No 21038
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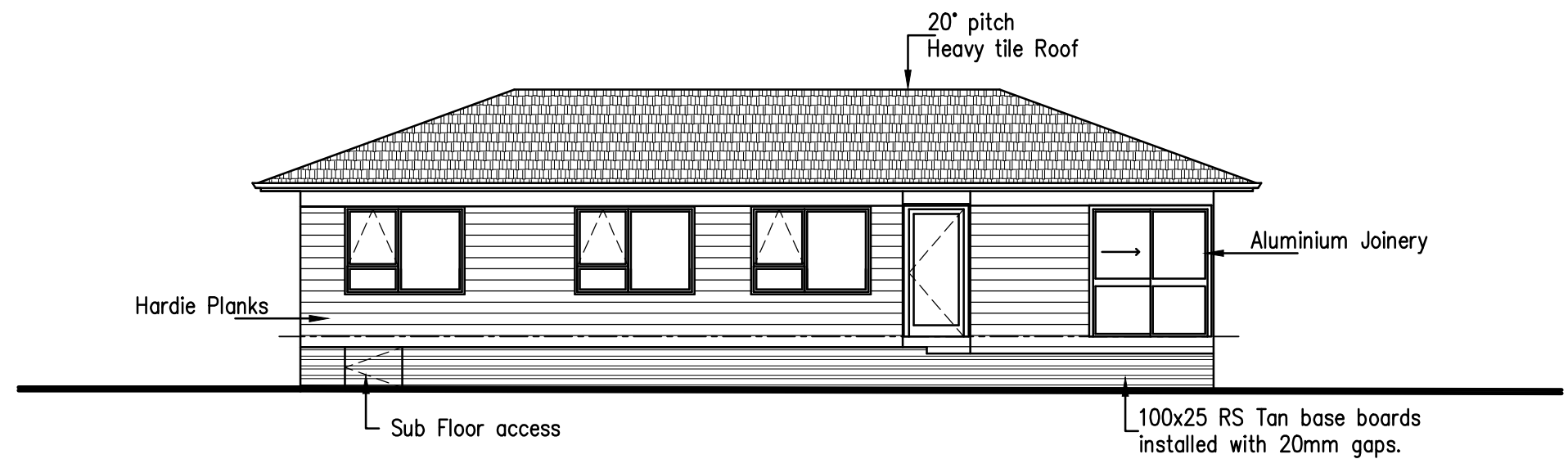


South Elevation

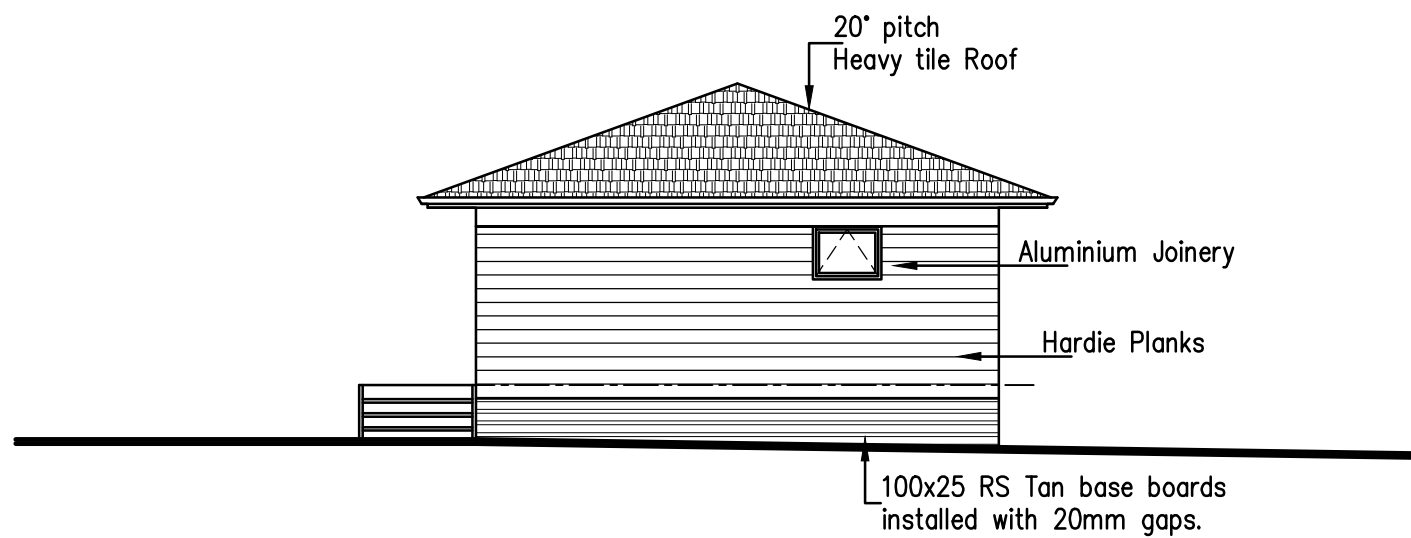


West Elevation

BCW Design Ltd 54 Halsey Drive Lynfield 1042 Ph 09 626 3803 Mob 0274 887 377 bruce@bcwdesign.co.nz	House Relocation to 760 Settlement Road - Hakaru for G. M. Utting & D. Owens	Drawn B. C. Wood Scale 1:100 (A3) Date 25.06.2021 Sheet 106 Job No 21038
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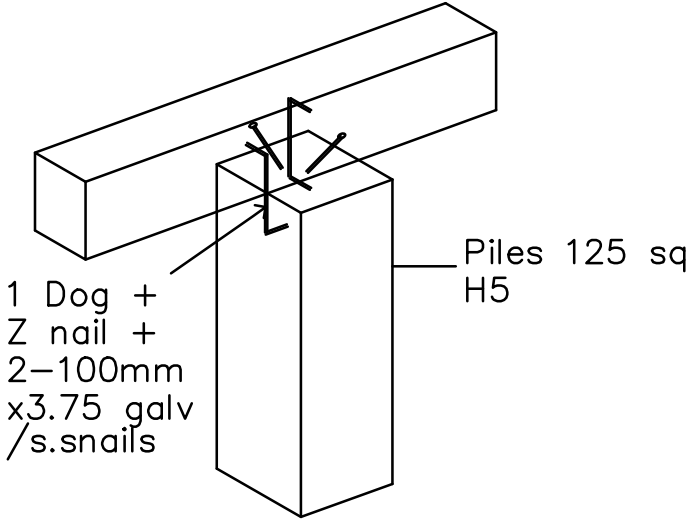


North Elevation

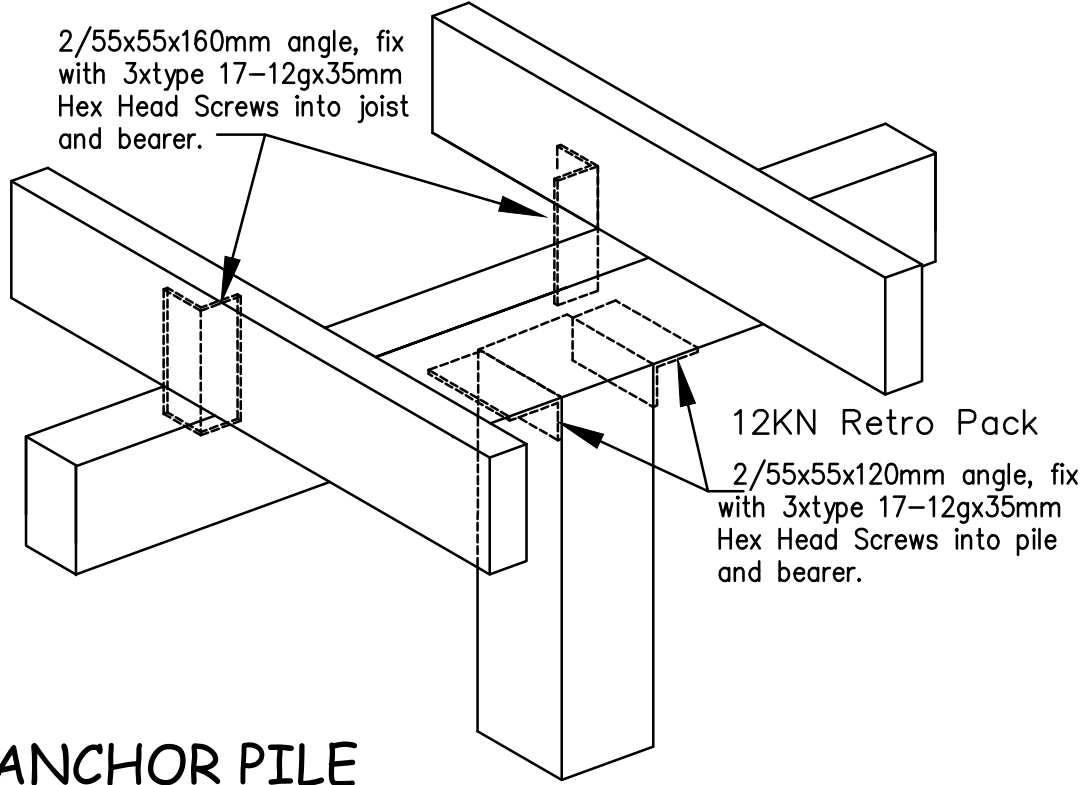


East Elevation

BCW Design Ltd 54 Halsey Drive Lynfield 1042 Ph 09 626 3803 Mob 0274 887 377 bruce@bcwdesign.co.nz	House Relocation to 760 Settlement Road - Hakaru for G. M. Utting & D. Owens	Drawn B. C. Wood Scale 1:100 (A3) Date 25.06.2021 Sheet 107 Job No 21038
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ORDINARY PILE



ANCHOR PILE

NOTE:

ALL FOUNDATION CONNECTIONS
WITHIN 600mm FROM THE
GROUND TO BE STAINLESS
STEEL 304-2B (BOLTS, PLATES,
NAILS, DOGS) to NZS 3604

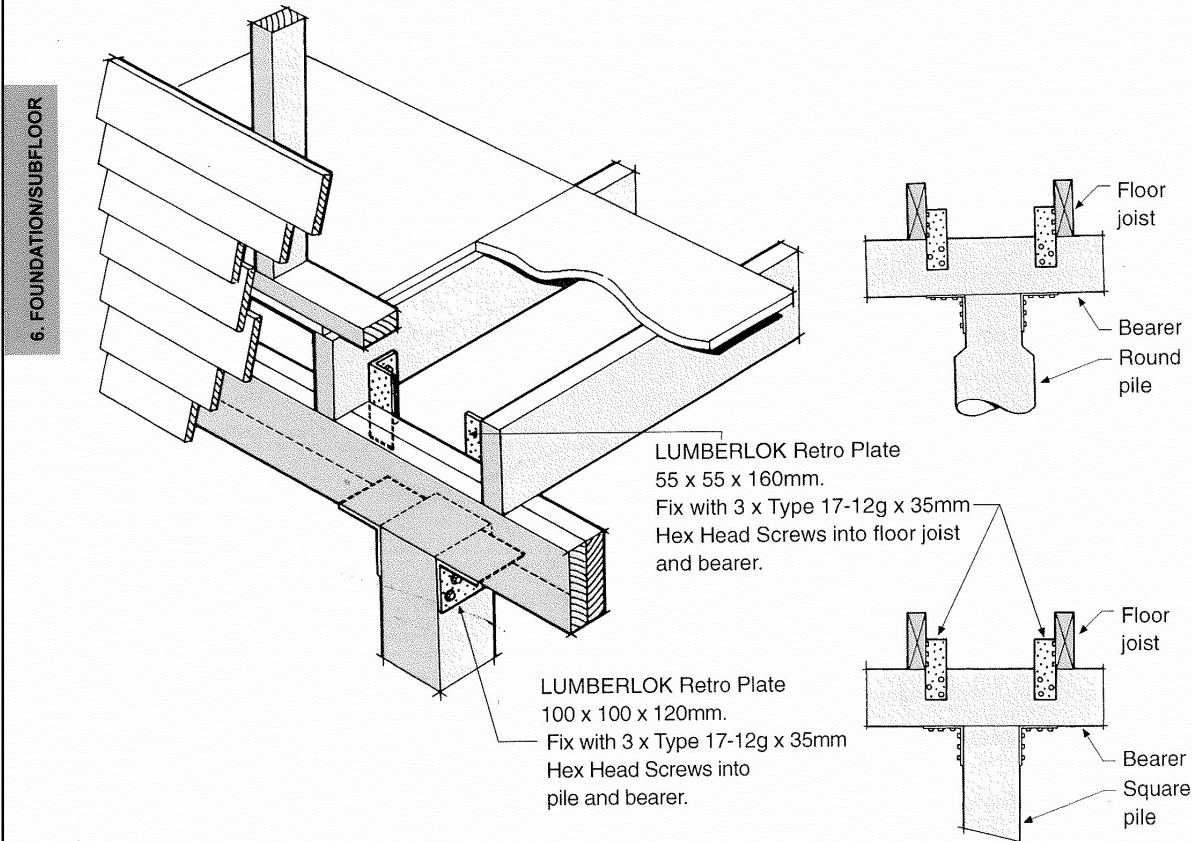
Sub Floor Fixings using 12kN Retro Pack

BCW Design Ltd 54 Halsey Drive Lynfield 1042 Ph 09 626 3803 Mob 0274 887 377 bruce@bcwdesign.co.nz	House Relocation to 760 Settlement Road - Hakaru for G. M. Utting & D. Owens	Drawn B. C. Wood Scale 1:10 (A3) Date 25.06.2021 Sheet 108 Job No 21038
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12kN RETRO SUBFLOOR FIXING

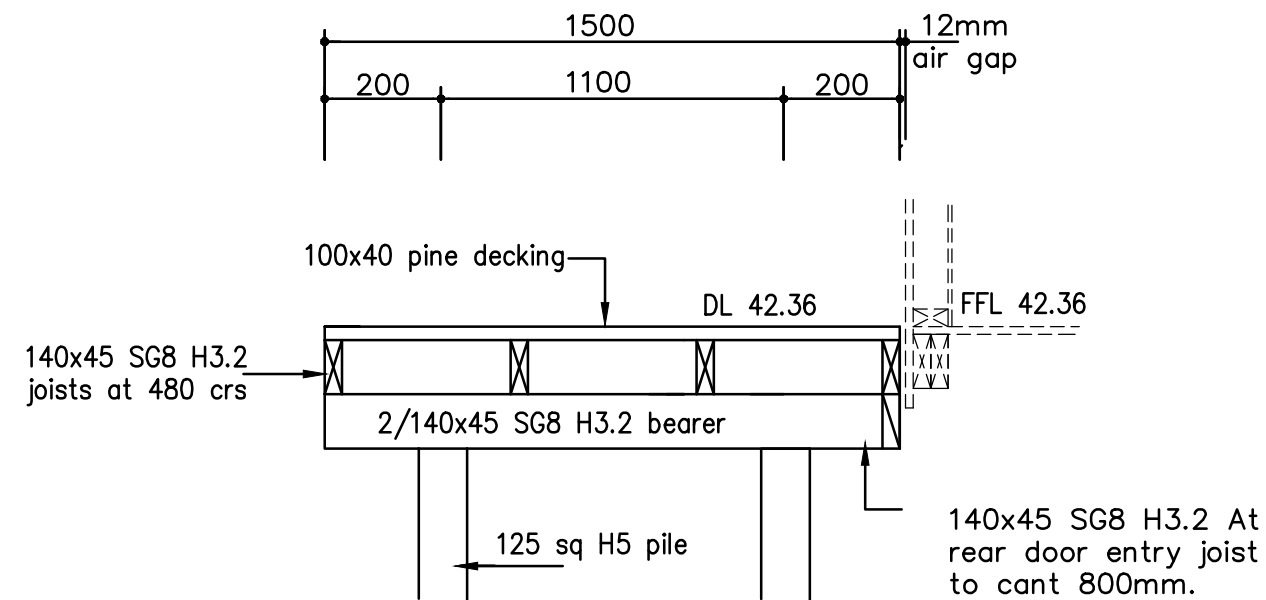
- ★ Fixing to be used when the outside face of the bearer is not accessible e.g. fixing relocatable houses to piles.
- ★ Hot Dip Galvanised or Stainless Steel options available for required corrosive zone.



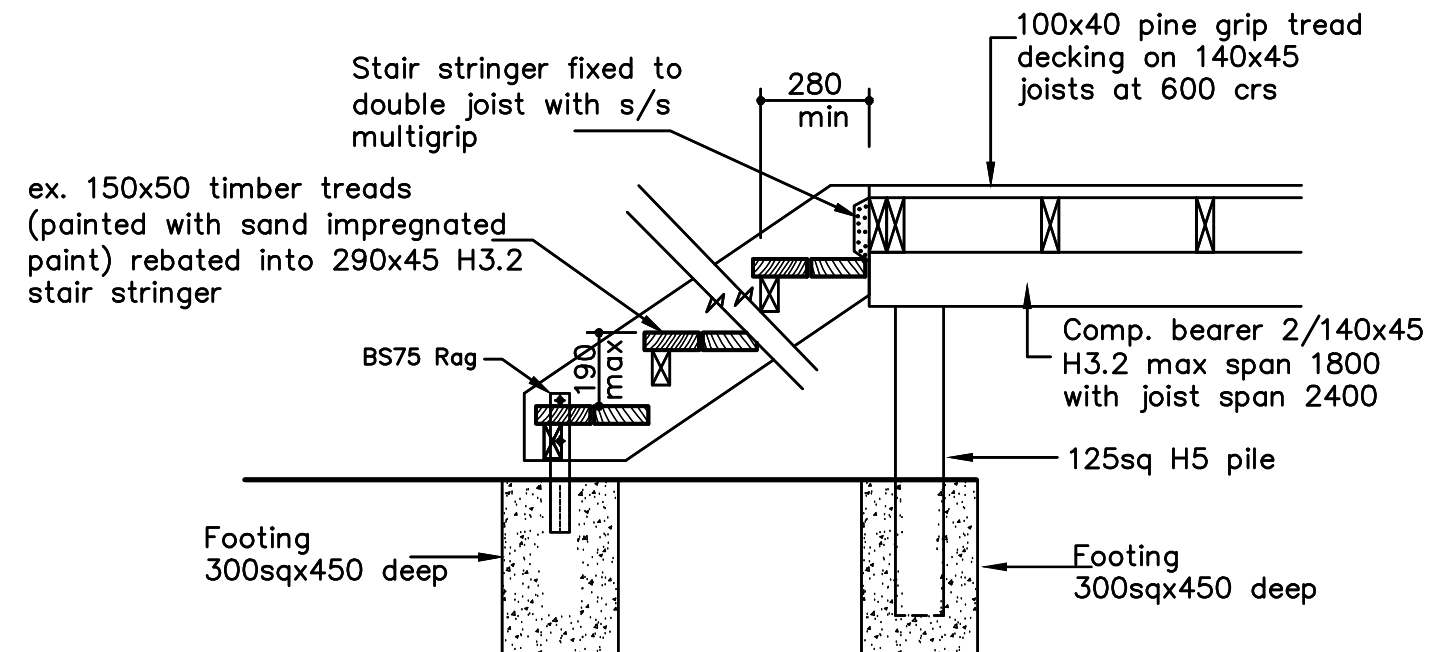
Code: 12KNRF
Material: 0.91mm G300 Z275 (Hot Dip Galvanised Steel)
Code: 12KNRFH
Material: 0.9mm Stainless Steel 304-2B
Pack Includes: 8 x Retro Plate 55 x 55 x 160mm
8 x Retro Plate 100 x 100 x 120mm
100 x Type 17-12g x 35mm Hex Head Screws

Sub Floor Fixings using 12kN Retro Pack

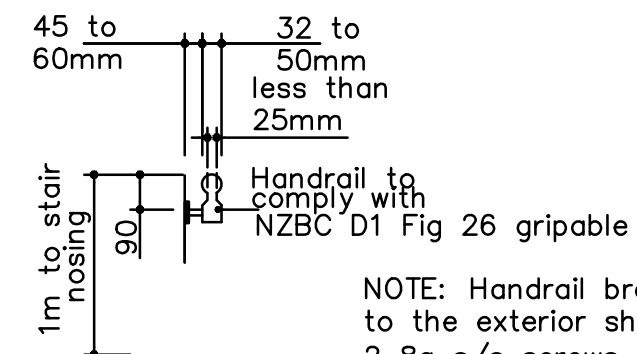
BCW Design Ltd 54 Halsey Drive Lynfield 1042 Ph 09 626 3803 Mob 0274 887 377 bruce@bcwdesign.co.nz	House Relocation to 760 Settlement Road - Hakaru for G. M. Utting & D. Owens	Drawn B. C. Wood Scale 1:10 (A3) Date 25.06.2021 Sheet 109 Job No 21038
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1.50m Deck



GENERAL STAIR / LANDING DETAIL



NOTE: Handrail bracket to be screwed to the exterior sheathing into a stud, 2 8g s/s screws per bracket, brackets at 1200 crs. Use epoxy sealant between bracket and wall sheathing

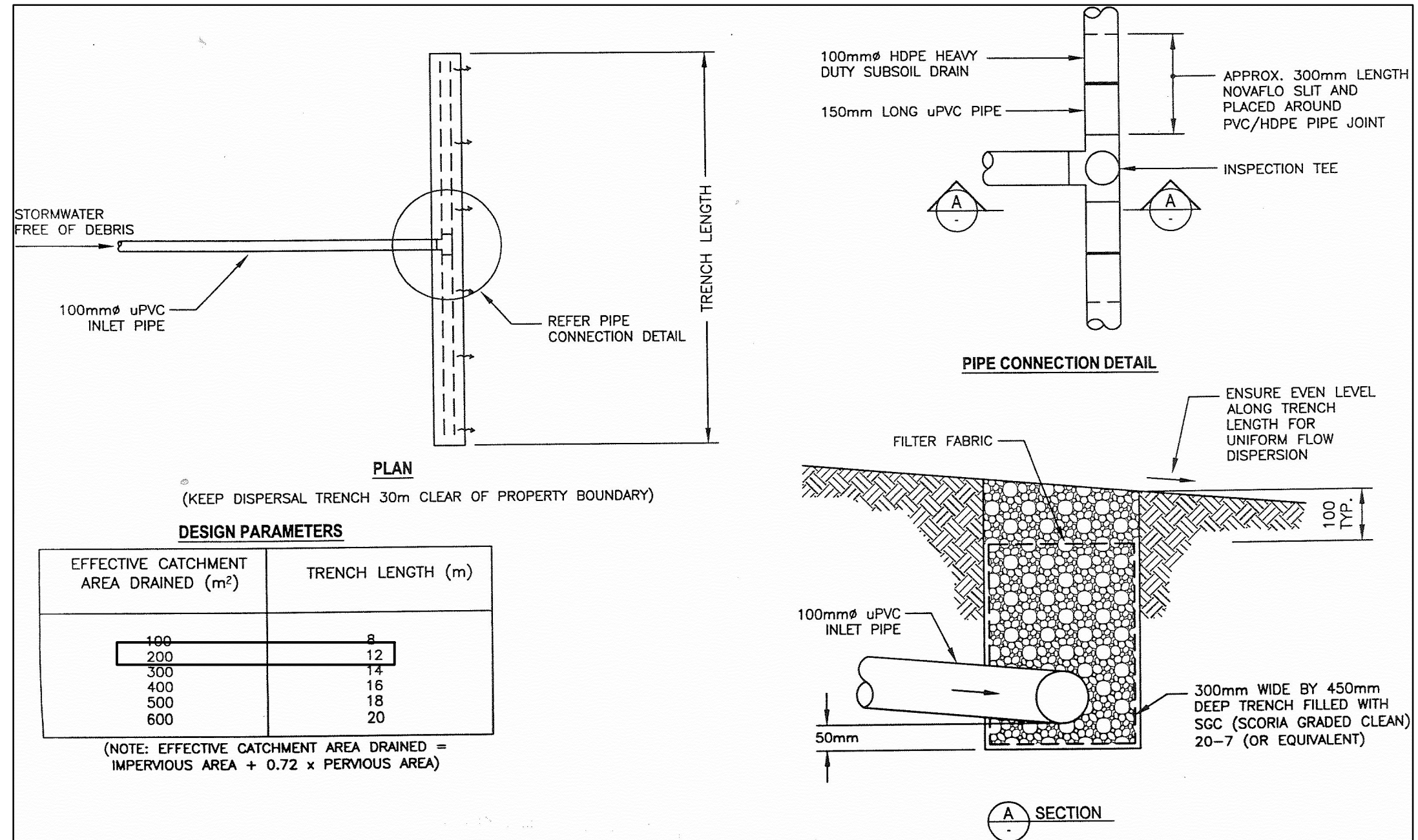
APPROVED HANDRAIL

NOTE:
All exposed fixings to be stainless steel.
All timber grades to be SG8

BCW Design Ltd
54 Halsey Drive
Lynfield 1042
Ph 09 626 3803
Fax 09 626 3804
Mob 0274 887 377
bruce@bcwdesign.co.nz

House Relocation
to 760 Settlement Road - Hakaru
for G. M. Utting & D. Owens

Drawn B. C. Wood
Scale 1:20 (A3)
Date 25.06.2021
Sheet 110
Job No 21038



BCW Design Ltd
54 Halsey Drive
Lynfield 1042
Ph 09 626 3803
Fax 09 626 3804
Mob 0274 887 377
bruce@bcwdesign.co.nz

Stormwater Dispersal Trench to 760 Settlement Road - Hakaru for G. M. Utting & D. Owens

Drawn B. C. Wood
Scale 1:20 (A3)
Date 25.06.2021
Sheet 111
Job No 21038



06 July 2021

Gina Utting and Dawn Owens
15 Brookview Heights
RD 2
Waipu 0582

Dear Gina Utting and Dawn Owens,

Section 45 request for further information on Building Consent including PIM

Reference Number: 210456

Project Location: 752 Settlement Road
Hakaru

Project Description: Second Hand Relocatable 4 Bedroom Dwelling - Foundations and Drainage Only

This communication is to advise that your application has been checked for compliance with section 45 of the Building Act and does not contain sufficient information to enable building consent processing to begin.

MBIE recommend returning or rejecting applications that are not complete. This is sub-optimal, so rather than rejecting your application could you simply attach and return the information requested below to this email.

All information is to be supplied within 28 days (or the application may be refused). Please keep us informed if additional time is required.

We will advise you when we are in receipt of a complying section 45 application and start the building consent process and statutory time tracking in accordance with section 48 of the Act.

Should further information be required during processing we will communicate via email. An email request for further information will stop the statutory time clock until sufficient information is provided to enable processing to be completed.

Main Building

Deposit / Fee

Please arrange payment of the deposit fee to complete the s45 lodgment process. The deposit/fee for the application is \$2735.00 Bank Details for internet banking are shown at the bottom of this letter. Please quote the reference number off the top of this letter in the particulars field.

The invoice has been emailed to - ginautting@gmail.com

Plumbing & Drainage Detailing

Amended Waste Water Design and associated documents to be provided - as per email from Owner

My apologies if any of the above matters are already covered by the documents but have been overlooked.

Should you have any queries regarding this letter, please reply to this email or phone our technical administration team on (09) 439 3123.

Yours sincerely,



Fay Fergus
Building Technical Support
On behalf of: Kaipara District Council

Kaipara District Council Bank Details
BNZ Dargaville
02 0308 0090743 07

Project information memorandum

Section 34, Building Act 2004

Application

Owner: Gina Utting and Dawn Owens
 C/- Bruce Wood
 54 Halsey Drive
 Lynfield
 Auckland 1042

Issue Date: 29 July 2021

Project

Description: Second Hand Relocatable 4 Bedroom Dwelling -
 Foundations and Drainage Only

Intended use: 2.0 Housing: 2.0.2 Detached Dwelling

Location: 752 Settlement Road
 Hakaru

Legal description: Lot 3 DP 560279

Valuation number: 0122004103

Please Note: This is not an approval to start building work. Please ensure your Building Consent is issued prior to commencing any work. Upon receiving your building consent please check carefully and ensure that compliance with any Conditions, District Planning restrictions or Resource Consent conditions are satisfied. The information below should be read with the understanding that should changes be made at building consent stage then this may alter the requirements listed below.

This project information memorandum does NOT constitute a building consent.

Heritage status of the building

Building work associated with this project will not be affecting land or structures that have heritage status. This project is exempt from the rules of the district plan that relate to heritage buildings.

Notable trees

Council is not aware of there being any notable trees associated with this site. Therefore the project is exempt from the rules of the District Plan that relate to Notable Trees.

Special features of the land concerned

There are no known special features of the land concerned - this includes potential natural hazards, or the likely presence of hazardous contaminants that is likely to be relevant to the design and construction or alteration of the building or proposed buildings; and that is known to the Territorial Authority; and that is not apparent from the district plan under the Resource Management Act 1991.

"Land concerned" means the land on which the proposed building work is to be carried out; and includes any other land likely to affect or be affected by the building work.

"Special feature of the land concerned" includes, without limitation, potential natural hazards, or the likely presence of hazardous contaminants, that -

- a) are likely to be relevant to the design and construction or alteration of the building or proposed building; and*
- b) is known to the Territorial Authority; and*
- c) is not apparent from the District Plan under the Resource Management Act 1991.*

Other information

Once a Building Consent is issued, the Council will follow up on building work not completed within two years of building consent issue.

A Building Consent lapses and is of no effect if the building work has not been started within 12 months of the date of issue.

If the building is public premises it may not be occupied until either a Code Compliance Certificate or Certificate for Public Use has been issued.

If the building is wholly or partly a dam, a Project Information Memorandum and Building Consent must be obtained from the regional authority.

The Northland Regional Council has a register of contaminated sites. Please contact them on 0800 002 004 if you suspect that your property may be contaminated e.g. historic timber treatment sites, service stations, landfill sites.

Please check your Certificate of Title for any encumbrances (such as easements, section 73 notice) before you make an application for a Building Consent.

All archaeological sites are protected under the provisions of the Historic Places Act 1993. If subsurface archaeological evidence (shell, midden, hangi, storage pits, etc) should be unearthed during construction, work should cease in the immediate vicinity of the remains and the Historic Places Trust should be contacted.

The proposed project complies with the District Plan zoning as it does meet the Rural Zone Rules.

Consent Notice 12086992.2

Please be advised there are consent notices registered against this property. A breach of these conditions may result in legal action.

Council's desktop assessment has found that the site wind zone rating is high

The Council's desktop assessment has found that the site exposure zone is zone C - Inland

Development Contributions do not apply to this project.

ATTACHMENTS:

- Consent Notices 12086992.2
- Vehicle Crossing application form

Notes:

1. The information supplied in the sections of this project information memorandum is specific to the building project to which the application relates by reference to Council files and records. No property inspection, or title search, has been undertaken. To enable the Council to measure the accuracy of this document based on our current records we would appreciate your response should you find any information contained herein which may be considered to be incorrect or omitted. Please telephone the Council (09) 439 3123.
2. The Council has used its best endeavors to ensure that all information provided in this project information memorandum is correct and complete in all material respects. In the event that a material error or omission can be proven the Council's liability, whether in contract or in tort shall be limited to the fee paid to Council to obtain this report.
3. This information reflects the Kaipara District Council's current understanding of information which is relevant to the project. This is based only on the information thus far provided to it and held on record. As a result the Council is not in a position to warrant that the information is complete or without error and accepts no liability for any inaccuracy in, or omission from, this information.
4. The information contained in this project information memorandum is current at the date the memorandum is issued. Further relevant information may come into the Council's possession subsequent to the date of issue.



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



R.W. Muir
Registrar-General
of Land

Identifier **988296**
Land Registration District **North Auckland**
Date Issued 23 April 2021

Prior References
NA42B/368

Estate Fee Simple
Area 3911 square metres more or less
Legal Description Lot 3 Deposited Plan 560279

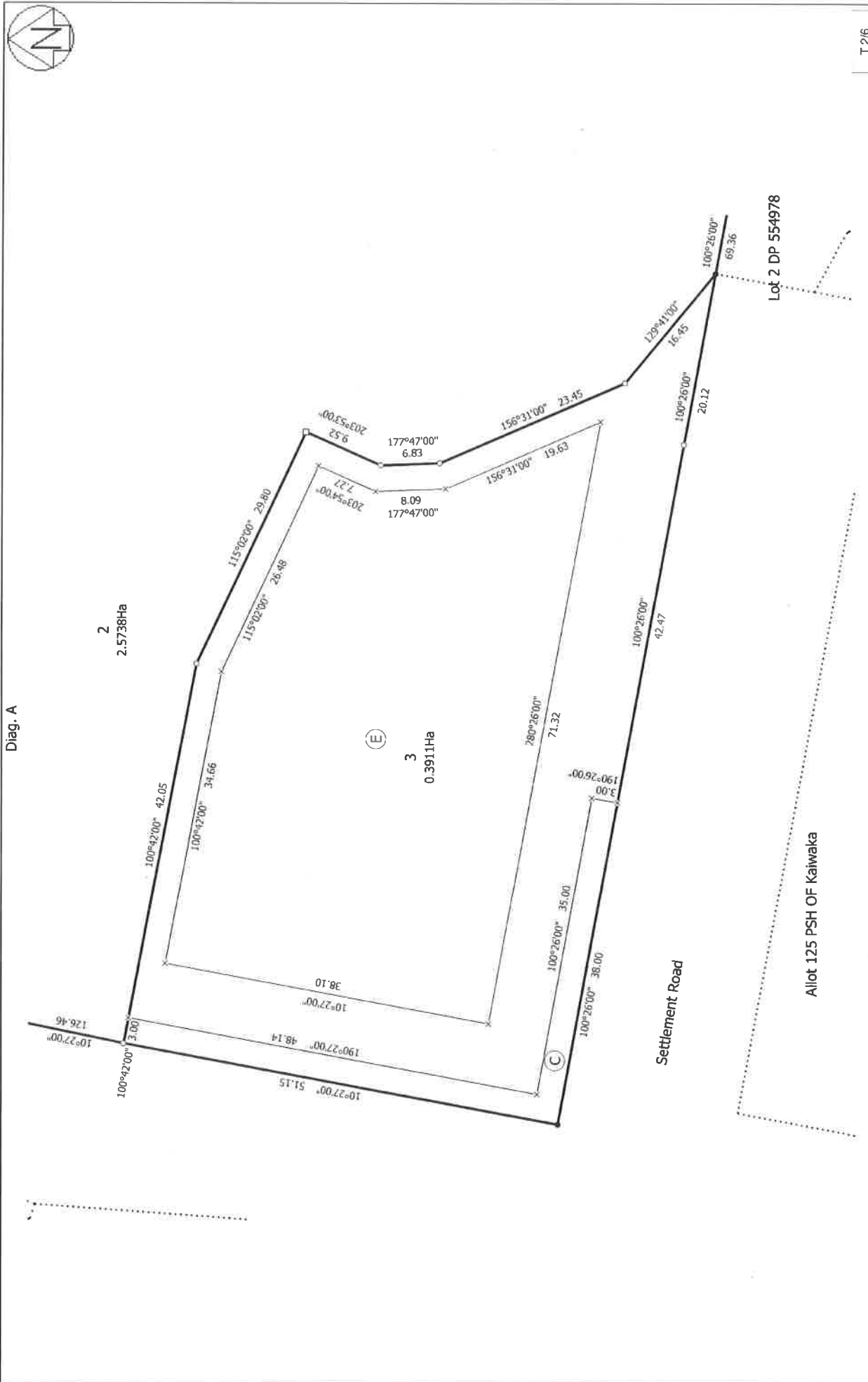
Registered Owners
Gina Maree Utting and Dawn Owens

Interests

Subject to Section 59 Land Act 1948

12086992.2 Consent Notice pursuant to Section 221 Resource Management Act 1991 - 23.4.2021 at 11:29 am

12126265.3 Mortgage to ANZ Bank New Zealand Limited - 2.6.2021 at 3:49 pm



T 2/6

Land District: North Auckland	Lots 1 - 3 Being a Subdivision of Allotment 310 Parish of Kaiwaka	Surveyor: Adam Paul Stanley Booth Firm: Pacific Coast Surveys Limited (Mang	Title Plan LT 560279 Approved on: 17/05/2021
Digitally Generated Plan Generated on: 17/05/2021 10:23am Page 4 of 8			



View Instrument Details

Instrument No.	12086992.2
Status	Registered
Date & Time Lodged	23 Apr 2021 11:29
Lodged By	Fallon, Bridget Amanda
Instrument Type	Consent Notice under s221(4)(a) Resource Management Act 1991

Toitu te
Land whenua
Information
 New Zealand



Affected Records of Title	Land District
988294	North Auckland
988296	North Auckland

Annexure Schedule Contains 2 Pages.

Signature

Signed by John Muru Walters as Territorial Authority Representative on 16/04/2021 10:52 AM

***** End of Report *****

IN THE MATTER of the Resource Management
Act 1991 ("**Act**")

A N D

IN THE MATTER of the subdivision of land
shown in Deposited Plan
560279 (North Auckland Land
Registration District) ("**Plan**")

CONSENT NOTICE
(Section 221 of the Act)

KAIPARA DISTRICT COUNCIL ("**Council**") being the territorial authority of the district within which the land described in the First Schedule below ("**Land**") is located has consented to the subdivision of the Land as shown in the Plan, subject to the conditions of the Second Schedule below to be complied with on a continuing basis by the Owner (as defined in the Act).

FIRST SCHEDULE
(Land)

ALL of the land contained in Record of Title NA42B/368

SECOND SCHEDULE
(Conditions)

The Owner (as defined in the Act) must, on a continuing basis, to the satisfaction of the Council, comply with the following conditions of the Council's Subdivision Consent RM200139 namely:

1. In respect of Lots 1 and 3 on the Plan (each a "Lot").
 - (i) Earthworks, the location of buildings, building foundations and stormwater and wastewater disposal shall be subject to specific engineering design by a suitably qualified Chartered Professional Engineer having regard to any soil instability/saturation issues that may exist or arise as a result of the development. Design shall take into account the recommendations identified in the reports titled "Geotechnical Investigation Report", reference 20034, dated 18/05/2020, prepared by Wiley Geotechnical and "Flood Assessment", reference 97465, revision 1, dated 26/06/2020, prepared by Wilton Joubert, and submitted to Council with subdivision consent RM200139.

- (ii) The lots have been identified as being susceptible to inundation in a 100-year Annual Average Recurrence Interval (ARI) flood event. To provide for a 500mm freeboard for habitable buildings and 300mm freeboard for non-habitable, commercial and industrial buildings above the 100-year ARI flood level, taking into account the effects of climate change, the following finished floor levels are required for any new dwelling within the lots:
 - Lot 1 and 3 – 35.00 for all buildings using One Tree Point (OTP) Datum.
- (iii) A site specific onsite effluent treatment and disposal system shall be designed and submitted to Council for approval prior to lodgement of building consent which shall refer to the soil issues and other observations and recommendations made in the Geotechnical Report.
- (iv) Sufficient firefighting water supply shall be provided for any single residential dwelling on the lot with a minimum volume of 10,000 litres and shall remain accessible and available all year round.
- (v) Unless specifically authorised in writing by Fire and Emergency New Zealand, sufficient firefighting water supply shall be provided for any commercial or industrial land use. Sufficient firefighting water supply is deemed to mean meeting full criteria of the Code of Practice for firefighting water supplies (SNZ PAS 4509:2008 New Zealand Fire Service Firefighting Water Supplies Code of Practice).
- (vi) All buildings must be located wholly within the designated building areas shown on the survey plan. For Lot 1 this is shown as area D. For Lot 2 this is shown as area E.
- (vii) Landscape planting undertaken in area B on Lot 1 and area C on Lot 3 in accordance with the approved Landscape Management Plan prepared by Evolve Planning and Landscape Architecture, dated November 2020 shall be the responsibility of the lot owner and shall be managed in accordance with the Landscape Management Plan and protected in perpetuity.
Diseased, dying or dangerous plants must be removed and replaced in accordance with the approved Landscape Management Plan.

DATED the 15th day of April 2021

SIGNED by
KAIPARA DISTRICT COUNCIL
by its authorised signatory

)
)
)

Dina Tetzner



Kaipara te Orangahui • Two Oceans Two Harbours

Vehicle Crossing Permit Application

KAIPARA DISTRICT COUNCIL

Application No

Resource Consent No

(only required if current RC exists of which a VC permit is a part of)

Applicants Details

Owner's Name

Postal Address

Contact Telephone No Email

Agent Name

Postal Address

Contact Telephone No Email

Send permit to:

☐ Owner☐ Agent

Site Location

Street/Rapid No Road Name

Town or Locality

Legal Description Valuation No

Contractor/Traffic Management Plan Details

Please Note: Application will not be accepted by Council if a Plan is not attached for the location of your vehicle access. If constructing a vehicle crossing, your application will be rejected if a Traffic Management Plan is not attached.

Name of person/firm constructing the crossing

Person in Charge of Traffic Management

Postal Address

Contact Telephone No Email

Crossing Information Required

Location:

Adjacent Road is:

☐ Urban (S05)☐ Rural (S06)☐ Sealed with kerb and channel☐ Sealed with no kerb and channel☐ Metalled

Intended Use

☐ Residential☐ Commercial☐ Other (please specify).....



Kaipara te Orangahui • Two Oceans Two Harbours

Vehicle Crossing Permit Application

KAIPARA DISTRICT COUNCIL

SITE LOCALITY PLAN

SITE LOCALITY PLAN	
Map Showing Location of Vehicle Crossing	Please show the following: - Roads - Property boundaries - Location of entranceway – including distances from boundaries and adjacent numbered property entrances - Other identifiable land marks, buildings etc.
Property Description:	
Road Name:	

The Application Fee must be paid before permit the can be processed.

If the applicant has a current resource consent of which the Vehicle Crossing is a part of the fee to be charged is \$345.00, an additional inspection fee will be charged as part of the consent application. For all other applications the fee is \$485.00 which includes the pre and post approval inspections.

NB: A further \$150.00 will be charged if an additional inspection is required.

Signed by Owner/Agent: Date:

Office Use Only

Receipt No: Date:

RCA consent (eg CAR/WAP) and/or RCA contract reference

TRAFFIC MANAGEMENT PLAN (TMP) – SHORT FORM

Complete **short form** if simple activity and RCA permits. Refer to the NZ Transport Agency's Traffic control devices manual, part 8 Code of practice for temporary traffic management (CoPTTM), section E, appendix A for a guide on how to complete each field.

Organisations/ TMP reference	TMP reference:	Contractor:	Principal (Client):				
			RCA:				
Location details and road characteristics	Road names and suburb		House no. / RPs (From and to)	Road level	Permanent speed	AADT/Peak flows	
Description of work activity							
Planned work programme							
Start date		Time		End date		Time	
Consider significant stages, for example:	- road closures - detours - no activity periods.						
Alternative dates if activity delayed							
Road aspects affected (delete either Yes or No to show which aspects are affected)							
Pedestrians affected?	Yes	No	Property access affected?	Yes	No	Traffic lanes affected?	Yes No
Cyclists affected?	Yes	No	Restricted parking affected?	Yes	No	Delays or queuing likely?	Yes No
TSL/ Diagram (see TSL decision matrix for guidance)	TSL details as required Approval of Temporary Speed Limits (TSL) are in terms of Section 5 of Land Transport Rule: Setting of Speed Limits 2003, Rule 54001 (List speed, length and location)			Times (From and to)	Dates (Start and finish)	Diagram ref. no's (Layout drawings or TMDs)	
Attended day/ night	A temporary maximum speed limit of km/h is hereby fixed for motor vehicles travelling over the length of m situated between (House no./RP) and (House no./RP) on (street or road name)						
Unattended day/ night	A temporary maximum speed limit of km/h is hereby fixed for motor vehicles travelling over the length of m situated between (House no./RP) and (House no./RP) on (street or road name)						

RCA consent (eg CAR/WAP) and/or RCA contract reference

Contingency plan

If long queues form or delays exceed 5mins (or any other period required by RCA), site to be disestablished or additional lanes made available.	Adjust TMD to suit unforeseen circumstances (eg weather or site overlaps with another work site).	Emergency services will be accommodated and access provided through the site as required.
---	---	---

Add additional contingencies:

Contact details

	Name	24/7 contact number	CoPTTM ID	Qualification	Expiry date
Principal					
TMC					
Engineers' representative					
Contractor					
STMS					
TC					
Others as required					

TMP preparation (or approval if STMS delegated authority to approve TMPs)

Delete the option that does not apply (either prepared or approved)

Prepared / Approved						
	Name	Date	Signature	ID no.	Qualification	Expiry date

This TMP meets CoPTTM requirements	Number of diagrams attached	
------------------------------------	-----------------------------	--

TMP returned for correction						
	Name	Date	Signature	ID no.	Qualification	Expiry date

Engineer/TMC to complete following section when approval or acceptance required

Approved by TMC or engineer (<i>delete one</i>)						
	Name	Date	Signature	ID no.	Qualification	Expiry date
Acceptance by TMC (<i>if required</i>)						
	Name	Date	Signature	ID no.	Qualification	Expiry date

Qualifier for engineer or TMC approval

RCA consent (eg CAR/WAP) and/or RCA contract reference	
---	--

Approval of this TMP authorises the use of any regulatory signs included in the TMP or attached traffic management diagrams.

This TMP is approved on the following basis:

1. To the best of the approving engineer's/TMC's judgment this TMP conforms to the requirements of CoPTTM.
2. This plan is approved on the basis that the activity, the location and the road environment have been correctly represented by the applicant. Any inaccuracy in the portrayal of this information is the responsibility of the applicant.
3. The STMS for the activity is reminded that it is the STMS's duty to postpone, cancel or modify operations due to the adverse traffic, weather or other conditions that affect the safety of this site.



18 July 2021

Gina Utting and Dawn Owens
15 Brookview Heights
RD 2
Waipu 0582

Dear Sir or Madam,

Request for further information on project information memorandum / building consent application - section 48

Reference Number: 210456.1

Project Location: 752 Settlement Road

Hakaru

Project Description: Second Hand Relocatable 4 Bedroom Dwelling - Foundations and Drainage Only

Processing of your building consent application in accordance with section 48 of the Act is currently in progress. To enable this work to be completed the following additional information / clarification is required to ensure compliance with the building code is demonstrated:

Main Building

Site Considerations

I am unable to determine the proposed finish floor level to a known datum, information within the consent suggests (although not confirmed by departments in council) that some sort of flooding issues may/ have occurred and therefore a minimum floor level is likely, please review and clarify.

G7, G8, G9: Light and Electricity

I am unable to determine if/how electricity will be installed and provided to the building to comply with G9 of the Building Code, please clarify by specifying the meter location and its installation to comply with G9.3.1 -3 of the Building Code.

When responding via email, just select "reply" which will automatically link your reply back to your application and ensure it receives prompt attention.

Please ensure that:

- Drawing amendments are clearly identified and document changes are referenced (e.g revision clouds);
- All attached files are in PDF format and all documents are printable at the correct scale;
- Maximum document size for printing is A3;
- All information is to be supplied within 28 days (or the application may be refused). Please keep us informed if additional time is required.

Your consent application has been temporarily placed on hold while we await this information.

Yours Faithfully,

Daniel Wetherill
Building Officer
On behalf of: Kaipara District Council

Form 5

Building consent - BC210456

Section 51, Building Act 2004

The building

Street address of building:	752 Settlement Road Hakaru
Legal description of land where building is located:	Lot 3 DP 560279
Building name:	
Location of building within site/block number:	752 Settlement Road Hakaru
Level/unit number:	0

The owner

Name of owner:	Gina Utting and Dawn Owens
Contact person:	Gina Utting
Mailing address:	15 Brookview Heights RD 2 Waipu 0582
Street address/registered office:	
Phone number:	Landline: Mobile: 0212670724
Daytime:	No information provided
After hours:	No information provided
Facsimile number:	No information provided
Email address:	ginautting@gmail.com
Website:	No information provided
First point of contact for communications with the building consent authority:	
Bruce Wood ; Mailing Address:	54 Halsey Drive Lynfield Auckland 1042; Phone: 6496263803; Email: bruce@bcwdesign.co.nz

Building work

The following building work is authorised by this building consent:

Second Hand Relocatable 4 Bedroom Dwelling - Foundations and Drainage Only

This building consent is issued under section 51 of the Building Act 2004. This building consent does not relieve the owner of the building (or proposed building) of any duty or responsibility under any other Act relating to or affecting the building (or proposed building). This building consent also does not permit the

construction, alteration, demolition, or removal of the building (or proposed building) if that construction, alteration, demolition, or removal would be in breach of any other Act.

Conditions

This building consent is subject to the following conditions:

Section 90 - Inspections by Building Consent Authorities: (1) Every building consent is subject to the condition that agents authorised by the building consent authority for the purposes of this section are entitled, at all times during normal working hours or while building work is being done, to inspect-

- (a) land on which building work is being or is proposed to be carried out; and
- (b) building work that has been or is being carried out on or off the building site; and
- (c) any building.

(2) The provisions (if any) that are endorsed on a building consent in relation to inspection during the carrying out of building work must be taken to include the provisions of this section.

(3) In this section, inspection means the taking of all reasonable steps to ensure that building work is being carried out in accordance with a building consent.

Construction monitoring requirements

Please contact the following consultants directly to arrange the construction monitoring identified which they have been engaged to carry out.

- Geotechnical Engineer: All bored holes should be inspected by WGL, or a qualified geotechnical engineer, prior to continuing with foundation construction

Copies of all site reports/records must be provided to the Building Consent Authority as work proceeds for their records, please forward these to buildingsupport@kaipara.govt.nz referencing the building consent number.

Inspections

The following inspections are required:

- Prepour
- Wastepipes

- Sub-floor Framing
- Final
- Drainage

Documents required

Prepour

- B1: Piles - Construction monitoring records

Wastepipes

- G12: Pipework pressure test documentation

Drainage

- E1: Stormwater drain leakage test and as-built plans
- G13: As-builts, drainlayer details, pipework test

Final

- G9: Energy works certificate

Compliance schedule

A compliance schedule is not required for the building.

Attachments

Copies of the following documents are attached to this building consent:

- Advice notes
- Project Information Memorandum (PIM): BC210456

Signature: Vikrant Singh

Position: Building Services Officer

On behalf of: Kaipara District Council

Issue Date: 03 August 2021

Advice notes

KDC AN46: On-site effluent disposal systems - An Installation and commissioning report verifying the system and all components have been installed and operate in conformity with the design is required upon completion in accordance with 6.2.5.4, AS/NZS1547(2012).

Waste water maintenance contract: A signed copy of a maintenance contract between the property owner and a suitably qualified wastewater maintenance contractor is required for all onsite waste water systems prior to issue of Code Compliance Certificate.

Section 92 (2A) - Code Compliance Certificate Application - Restricted Building Work: An application for Code Compliance Certificate is required to be applied for within 24 months of the Building Consent issued date, please complete this within the AlphaOne system.

As the building work involves restricted building work, all licensed building practitioners who carry out or supervise restricted building work under this consent must on completion of the work provide the Owner and the Territorial Authority (Kaipara District Council) with a record of work, in the prescribed form (Form 6A), detailing what restricted building work has been carried out or supervised.

In accordance with S92 of the Building Act records of work must be included with the application for Code Compliance Certificate.

The records of building work may be submitted via the customer portal as follows:

Sign in;

Search for the appropriate project in My Applications;

Go to the Action menu by the application progress bar and select Upload Documents;

On the Miscellaneous document select attach file and upload your document.

Site Safety: Please ensure all appropriate site safety measures are provided throughout the contract works to comply with NZ Building Code Clause F5 and all occupational safety and health requirements.

Pressure Test Certificate: Upon completion of the building work the plumber shall provide a pressure test certificate to the owner to submit with their documentation for code compliance certificate application.

Electrical Energy Works Certificate: The Building Consent Authority places full reliance of the issue of energy work certificates to verify that the installation and completion of electrical services comply with the provisions of New Zealand Building Code Clauses G9. Code compliance certificate will not be issued unless the energy works certificates identifies compliance with this specific code clause and confirms compliance with this building consent.

Inspection Schedule: This sets out the required inspections for each building individually, the inspection charges however are based on both buildings being constructed and inspected at the same time. If inspected separately additional inspections will be charged accordingly.

Ground Bearing: Confirmation of suitability of ground bearing conditions to support imposed loads will be required at time of inspection and before commencement of pouring of any concrete.

Potable Water Supply: Confirmation of potability of the individual supply criteria of New Zealand Drinking Water Standards 1995, is required to be supplied as part of the documentation for code compliance certificate application.

Proof of potability of water supply must be demonstrated before the code compliance certificate is issued by provision of suitable bacteriological and chemical test results from an approved laboratory. Sampling results provided from a sampling routine of one chemical and one bacteriological test from pipe work as close to the well head as possible, followed by two further bacteriological tests at 30 day intervals from the same sampling point will be accepted as giving adequate assessment of water quality.

KDC AN15: Effluent disposal system - limitation of inspections - Inspection of any onsite effluent system by Kaipara District Council is limited to relevant "building work" which terminates at the discharge point to the septic tank/ effluent treatment system and excludes the effluent field/drip lines/bore discharge system from that point.

The monitoring of the system function, including effluent field etc. is a function of the regional council.

Northland Regional Council require that:-

When the construction of the treatment and land application system or soakage hole is completed:-

- a) The work be certified by a suitably qualified and competent person (typically the designer or registered drainlayer) as having been carried out in accordance with the design plan; and
- b) A copy of the certificate shall be forwarded to Regional Council within twenty working days following the completion of the work.

Applicants are advised that a code compliance certificate for any building work which includes an onsite effluent disposal system, will not be issued unless appropriate discharge approval has been confirmed by Regional Council.

ADDENDA TO THIS BUILDING CONSENT:

1. This building consent will lapse and be of no effect if the building work to which it relates does not commence within 12 months after the date of issue. The consent may be extended for any further period at the discretion of council.
2. No deviation or alteration from the original plans and specifications can be carried out without written approval of Council and no building may be converted to any other use other than that stated on the building consent.
3. IMPORTANT: YOU ARE FULLY RESPONSIBLE FOR ANY DAMAGE DONE TO ANY WORKS SUCH AS TELEPHONE CABLES, POWER CABLES, WATER MAINS, GAS MAINS, SEWERS, PIPES, FOOTPATHS, ROADS OR OTHER SERVICES.
4. As the property owner is responsible for the correct siting of all works in accordance with the NZ Building Code and the Resource Management Act, the owner must ascertain the true position of the survey pegs before work commences.
5. NOTICE THAT BUILDING WORK IS READY FOR INSPECTION. For the purposes of Section 222 of the Building Act 2004, and unless otherwise provided by the building consent, the owner or other person undertaking any building work shall give at least 2 working days notice of the covering up of any
 - i) drainage or plumbing
 - ii) excavation for a foundation
 - iii) reinforcing steel for a foundation
 - iv) timber required to have a specific moisture content
 - v) other work required to give notice as a condition
6. Council MUST be notified at the completion of building work on the attached form.

BUILDING CONSENT FEES:

Please note that further fees may be required to be paid before a Code Compliance Certificate is issued for this Building Consent. All fees must be paid before a Code Compliance Certificate will be issued.

Project information memorandum

Section 34, Building Act 2004

Application

Owner: Gina Utting and Dawn Owens
 C/- Bruce Wood
 54 Halsey Drive
 Lynfield
 Auckland 1042

Issue Date: 29 July 2021

Project

Description: Second Hand Relocatable 4 Bedroom Dwelling -
 Foundations and Drainage Only

Intended use: 2.0 Housing: 2.0.2 Detached Dwelling

Location: 752 Settlement Road
 Hakaru

Legal description: Lot 3 DP 560279

Valuation number: 0122004103

Please Note: This is not an approval to start building work. Please ensure your Building Consent is issued prior to commencing any work. Upon receiving your building consent please check carefully and ensure that compliance with any Conditions, District Planning restrictions or Resource Consent conditions are satisfied. The information below should be read with the understanding that should changes be made at building consent stage then this may alter the requirements listed below.

This project information memorandum does NOT constitute a building consent.

Heritage status of the building

Building work associated with this project will not be affecting land or structures that have heritage status. This project is exempt from the rules of the district plan that relate to heritage buildings.

Notable trees

Council is not aware of there being any notable trees associated with this site. Therefore the project is exempt from the rules of the District Plan that relate to Notable Trees.

Special features of the land concerned

There are no known special features of the land concerned - this includes potential natural hazards, or the likely presence of hazardous contaminants that is likely to be relevant to the design and construction or alteration of the building or proposed buildings; and that is known to the Territorial Authority; and that is not apparent from the district plan under the Resource Management Act 1991.

"Land concerned" means the land on which the proposed building work is to be carried out; and includes any other land likely to affect or be affected by the building work.

"Special feature of the land concerned" includes, without limitation, potential natural hazards, or the likely presence of hazardous contaminants, that -

- a) are likely to be relevant to the design and construction or alteration of the building or proposed building; and*
- b) is known to the Territorial Authority; and*
- c) is not apparent from the District Plan under the Resource Management Act 1991.*

Other information

Once a Building Consent is issued, the Council will follow up on building work not completed within two years of building consent issue.

A Building Consent lapses and is of no effect if the building work has not been started within 12 months of the date of issue.

If the building is public premises it may not be occupied until either a Code Compliance Certificate or Certificate for Public Use has been issued.

If the building is wholly or partly a dam, a Project Information Memorandum and Building Consent must be obtained from the regional authority.

The Northland Regional Council has a register of contaminated sites. Please contact them on 0800 002 004 if you suspect that your property may be contaminated e.g. historic timber treatment sites, service stations, landfill sites.

Please check your Certificate of Title for any encumbrances (such as easements, section 73 notice) before you make an application for a Building Consent.

All archaeological sites are protected under the provisions of the Historic Places Act 1993. If subsurface archaeological evidence (shell, midden, hangi, storage pits, etc) should be unearthed during construction, work should cease in the immediate vicinity of the remains and the Historic Places Trust should be contacted.

The proposed project complies with the District Plan zoning as it does meet the Rural Zone Rules.

Consent Notice 12086992.2

Please be advised there are consent notices registered against this property. A breach of these conditions may result in legal action.

Council's desktop assessment has found that the site wind zone rating is high

The Council's desktop assessment has found that the site exposure zone is zone C - Inland

Development Contributions do not apply to this project.

ATTACHMENTS:

- Consent Notices 12086992.2
- Vehicle Crossing application form

Notes:

1. The information supplied in the sections of this project information memorandum is specific to the building project to which the application relates by reference to Council files and records. No property inspection, or title search, has been undertaken. To enable the Council to measure the accuracy of this document based on our current records we would appreciate your response should you find any information contained herein which may be considered to be incorrect or omitted. Please telephone the Council (09) 439 3123.
2. The Council has used its best endeavors to ensure that all information provided in this project information memorandum is correct and complete in all material respects. In the event that a material error or omission can be proven the Council's liability, whether in contract or in tort shall be limited to the fee paid to Council to obtain this report.
3. This information reflects the Kaipara District Council's current understanding of information which is relevant to the project. This is based only on the information thus far provided to it and held on record. As a result the Council is not in a position to warrant that the information is complete or without error and accepts no liability for any inaccuracy in, or omission from, this information.
4. The information contained in this project information memorandum is current at the date the memorandum is issued. Further relevant information may come into the Council's possession subsequent to the date of issue.



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



R. W. Muir
Registrar-General
of Land

Identifier **988296**
Land Registration District **North Auckland**
Date Issued 23 April 2021

Prior References
NA42B/368

Estate Fee Simple
Area 3911 square metres more or less
Legal Description Lot 3 Deposited Plan 560279

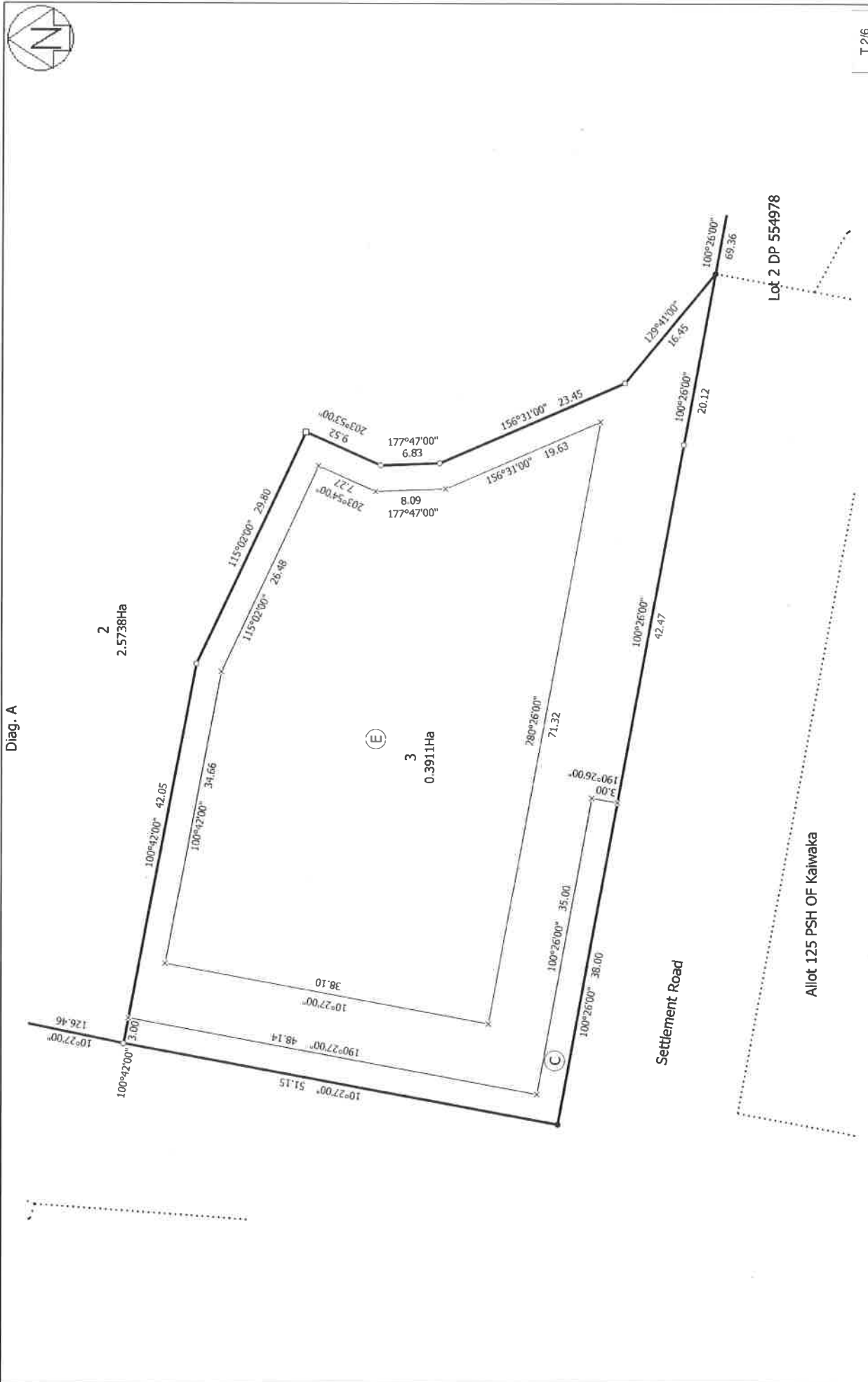
Registered Owners
Gina Maree Utting and Dawn Owens

Interests

Subject to Section 59 Land Act 1948

12086992.2 Consent Notice pursuant to Section 221 Resource Management Act 1991 - 23.4.2021 at 11:29 am

12126265.3 Mortgage to ANZ Bank New Zealand Limited - 2.6.2021 at 3:49 pm



T 2/6

Land District: North Auckland	Lots 1 - 3 Being a Subdivision of Allotment 310 Parish of Kaiwaka	Surveyor: Adam Paul Stanley Booth Firm: Pacific Coast Surveys Limited (Mang	Title Plan LT 560279 Approved on: 17/05/2021
Digitally Generated Plan Generated on: 17/05/2021 10:23am Page 4 of 8			



View Instrument Details

Instrument No.	12086992.2
Status	Registered
Date & Time Lodged	23 Apr 2021 11:29
Lodged By	Fallon, Bridget Amanda
Instrument Type	Consent Notice under s221(4)(a) Resource Management Act 1991

Toitu te
Land whenua
Information
 New Zealand



Affected Records of Title	Land District
988294	North Auckland
988296	North Auckland

Annexure Schedule Contains 2 Pages.

Signature

Signed by John Muru Walters as Territorial Authority Representative on 16/04/2021 10:52 AM

***** End of Report *****

IN THE MATTER of the Resource Management
Act 1991 ("**Act**")

A N D

IN THE MATTER of the subdivision of land
shown in Deposited Plan
560279 (North Auckland Land
Registration District) ("**Plan**")

CONSENT NOTICE
(Section 221 of the Act)

KAIPARA DISTRICT COUNCIL ("**Council**") being the territorial authority of the district within which the land described in the First Schedule below ("**Land**") is located has consented to the subdivision of the Land as shown in the Plan, subject to the conditions of the Second Schedule below to be complied with on a continuing basis by the Owner (as defined in the Act).

FIRST SCHEDULE
(Land)

ALL of the land contained in Record of Title NA42B/368

SECOND SCHEDULE
(Conditions)

The Owner (as defined in the Act) must, on a continuing basis, to the satisfaction of the Council, comply with the following conditions of the Council's Subdivision Consent RM200139 namely:

1. In respect of Lots 1 and 3 on the Plan (each a "Lot").
 - (i) Earthworks, the location of buildings, building foundations and stormwater and wastewater disposal shall be subject to specific engineering design by a suitably qualified Chartered Professional Engineer having regard to any soil instability/saturation issues that may exist or arise as a result of the development. Design shall take into account the recommendations identified in the reports titled "Geotechnical Investigation Report", reference 20034, dated 18/05/2020, prepared by Wiley Geotechnical and "Flood Assessment", reference 97465, revision 1, dated 26/06/2020, prepared by Wilton Joubert, and submitted to Council with subdivision consent RM200139.

- (ii) The lots have been identified as being susceptible to inundation in a 100-year Annual Average Recurrence Interval (ARI) flood event. To provide for a 500mm freeboard for habitable buildings and 300mm freeboard for non-habitable, commercial and industrial buildings above the 100-year ARI flood level, taking into account the effects of climate change, the following finished floor levels are required for any new dwelling within the lots:
 - Lot 1 and 3 – 35.00 for all buildings using One Tree Point (OTP) Datum.
- (iii) A site specific onsite effluent treatment and disposal system shall be designed and submitted to Council for approval prior to lodgement of building consent which shall refer to the soil issues and other observations and recommendations made in the Geotechnical Report.
- (iv) Sufficient firefighting water supply shall be provided for any single residential dwelling on the lot with a minimum volume of 10,000 litres and shall remain accessible and available all year round.
- (v) Unless specifically authorised in writing by Fire and Emergency New Zealand, sufficient firefighting water supply shall be provided for any commercial or industrial land use. Sufficient firefighting water supply is deemed to mean meeting full criteria of the Code of Practice for firefighting water supplies (SNZ PAS 4509:2008 New Zealand Fire Service Firefighting Water Supplies Code of Practice).
- (vi) All buildings must be located wholly within the designated building areas shown on the survey plan. For Lot 1 this is shown as area D. For Lot 2 this is shown as area E.
- (vii) Landscape planting undertaken in area B on Lot 1 and area C on Lot 3 in accordance with the approved Landscape Management Plan prepared by Evolve Planning and Landscape Architecture, dated November 2020 shall be the responsibility of the lot owner and shall be managed in accordance with the Landscape Management Plan and protected in perpetuity.
Diseased, dying or dangerous plants must be removed and replaced in accordance with the approved Landscape Management Plan.

DATED the 15th day of April 2021

SIGNED by
KAIPARA DISTRICT COUNCIL
by its authorised signatory

)
)
)

Dina Tetzner



Kaipara te Orangahui • Two Oceans Two Harbours

Vehicle Crossing Permit Application

KAIPARA DISTRICT COUNCIL

Application No

Resource Consent No

(only required if current RC exists of which a VC permit is a part of)

Applicants Details

Owner's Name

Postal Address

Contact Telephone No Email

Agent Name

Postal Address

Contact Telephone No Email

Send permit to: ☐ Owner ☐ Agent

Site Location

Street/Rapid No Road Name

Town or Locality

Legal Description Valuation No

Contractor/Traffic Management Plan Details

Please Note: Application will not be accepted by Council if a Plan is not attached for the location of your vehicle access. If constructing a vehicle crossing, your application will be rejected if a Traffic Management Plan is not attached.

Name of person/firm constructing the crossing

Person in Charge of Traffic Management

Postal Address

Contact Telephone No Email

Crossing Information Required

Location:

Adjacent Road is:

☐ Urban (S05) ☐ Rural (S06)

☐ Sealed with kerb and channel ☐ Sealed with no kerb and channel ☐ Metalled

Intended Use

☐ Residential ☐ Commercial ☐ Other (please specify).....



Kaipara te Orangahui • Two Oceans Two Harbours

Vehicle Crossing Permit Application

KAIPARA DISTRICT COUNCIL

SITE LOCALITY PLAN

SITE LOCALITY PLAN	
Map Showing Location of Vehicle Crossing	Please show the following: - Roads - Property boundaries - Location of entranceway – including distances from boundaries and adjacent numbered property entrances - Other identifiable land marks, buildings etc.
Property Description:	
Road Name:	

The Application Fee must be paid before permit the can be processed.

If the applicant has a current resource consent of which the Vehicle Crossing is a part of the fee to be charged is \$345.00, an additional inspection fee will be charged as part of the consent application. For all other applications the fee is \$485.00 which includes the pre and post approval inspections.

NB: A further \$150.00 will be charged if an additional inspection is required.

Signed by Owner/Agent: Date:

Office Use Only

Receipt No: Date:

RCA consent (eg CAR/WAP) and/or RCA contract reference

TRAFFIC MANAGEMENT PLAN (TMP) – SHORT FORM

Complete **short form** if simple activity and RCA permits. Refer to the NZ Transport Agency's Traffic control devices manual, part 8 Code of practice for temporary traffic management (CoPTTM), section E, appendix A for a guide on how to complete each field.

Organisations/ TMP reference	TMP reference:	Contractor:	Principal (Client):					
			RCA:					
Location details and road characteristics	Road names and suburb		House no. / RPs (From and to)	Road level	Permanent speed	AADT/Peak flows		
Description of work activity								
Planned work programme								
Start date		Time		End date		Time		
Consider significant stages, for example:	- road closures - detours - no activity periods.							
Alternative dates if activity delayed								
Road aspects affected (delete either Yes or No to show which aspects are affected)								
Pedestrians affected?	Yes	No	Property access affected?	Yes	No	Traffic lanes affected?	Yes	No
Cyclists affected?	Yes	No	Restricted parking affected?	Yes	No	Delays or queuing likely?	Yes	No
TSL/ Diagram (see TSL decision matrix for guidance)	TSL details as required Approval of Temporary Speed Limits (TSL) are in terms of Section 5 of Land Transport Rule: Setting of Speed Limits 2003, Rule 54001 (List speed, length and location)			Times (From and to)	Dates (Start and finish)	Diagram ref. no's (Layout drawings or TMDs)		
Attended day/ night	A temporary maximum speed limit of km/h is hereby fixed for motor vehicles travelling over the length of m situated between (House no./RP) and (House no./RP) on (street or road name)							
Unattended day/ night	A temporary maximum speed limit of km/h is hereby fixed for motor vehicles travelling over the length of m situated between (House no./RP) and (House no./RP) on (street or road name)							

RCA consent (eg CAR/WAP) and/or RCA contract reference

Contingency plan

If long queues form or delays exceed 5mins (or any other period required by RCA), site to be disestablished or additional lanes made available.	Adjust TMD to suit unforeseen circumstances (eg weather or site overlaps with another work site).	Emergency services will be accommodated and access provided through the site as required.
---	---	---

Add additional contingencies:

Contact details

	Name	24/7 contact number	CoPTTM ID	Qualification	Expiry date
Principal					
TMC					
Engineers' representative					
Contractor					
STMS					
TC					
Others as required					

TMP preparation (or approval if STMS delegated authority to approve TMPs)

Delete the option that does not apply (either prepared or approved)

Prepared / Approved						
	Name	Date	Signature	ID no.	Qualification	Expiry date

This TMP meets CoPTTM requirements	Number of diagrams attached	
------------------------------------	-----------------------------	--

TMP returned for correction						
	Name	Date	Signature	ID no.	Qualification	Expiry date

Engineer/TMC to complete following section when approval or acceptance required

Approved by TMC or engineer (<i>delete one</i>)						
	Name	Date	Signature	ID no.	Qualification	Expiry date
Acceptance by TMC (<i>if required</i>)						
	Name	Date	Signature	ID no.	Qualification	Expiry date

Qualifier for engineer or TMC approval

RCA consent (eg CAR/WAP) and/or RCA contract reference	
---	--

Approval of this TMP authorises the use of any regulatory signs included in the TMP or attached traffic management diagrams.

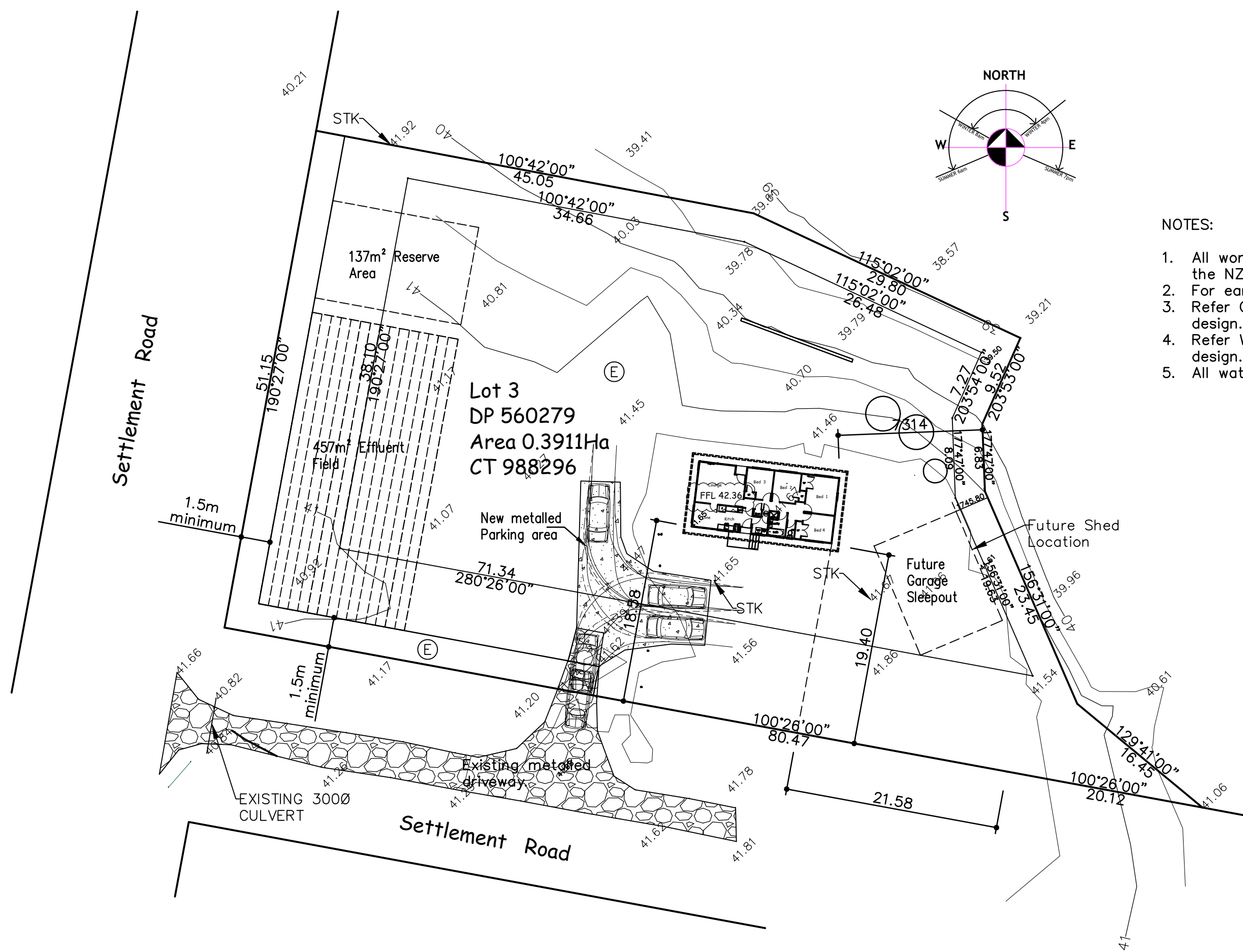
This TMP is approved on the following basis:

1. To the best of the approving engineer's/TMC's judgment this TMP conforms to the requirements of CoPTTM.
2. This plan is approved on the basis that the activity, the location and the road environment have been correctly represented by the applicant. Any inaccuracy in the portrayal of this information is the responsibility of the applicant.
3. The STMS for the activity is reminded that it is the STMS's duty to postpone, cancel or modify operations due to the adverse traffic, weather or other conditions that affect the safety of this site.

Approved Building Consent Documents

Please note: A copy of the stamped, approved documents must be available onsite for **all** inspections.

KDC - Approved Building Consent Document - BC210456_PL_ISSUED - Pg 2 of 13 - 3/08/2021 - vsingh



NOTES:

1. All works to comply to NZS 3604 2011 and the NZBC unless noted.
2. For earthworks plan refer sheet 102.
3. Refer Geotechnical report for foundation design.
4. Refer Waste Water report for Waste Water design.
5. All water to be treated with UV filter.

Site
Climate Zone 1
Exposure Zone C
Wind Zone High

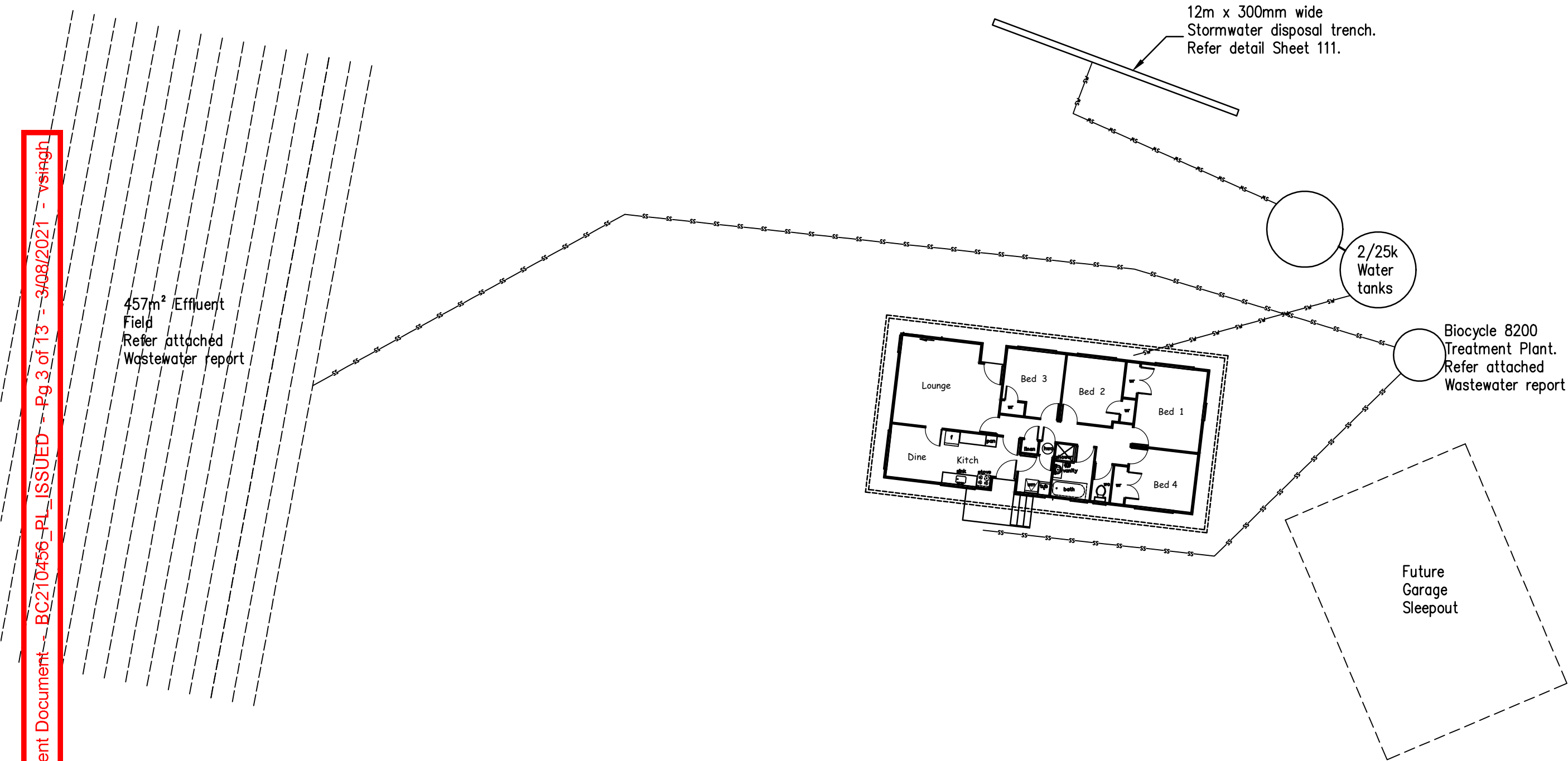
SCHEDULE OF AREAS Site Area 3911m ²							
BUILDING COVERAGE		Driveway IMPERMEABLE		Total IMPERMEABLE		LANDSCAPE PERMEABLE	
(m ²)	(%)	(m ²)	(%)	(m ²)	(%)	(%)	(%)
96.36	2.5	160	4.1	256.36	6.6	3654.64	93.4

BCW Design Ltd
54 Halsey Drive
Lynfield 1042
Ph 09 626 3803
Mob 0274 887 377
bruce@bcwdesign.co.nz

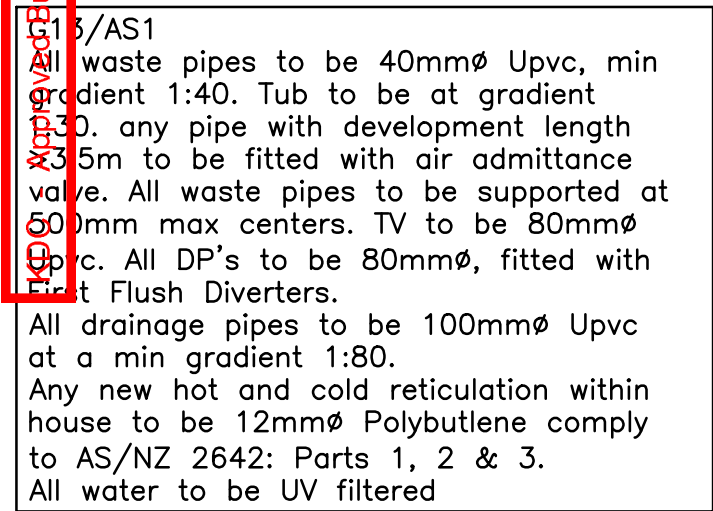
Site Layout
at 760 Settlement Road - Kaiwaka
for G. M. Utting & D. Owens

Drawn B. C. Wood
Scale 1:400 (A3)
Date 19.07.2021
Sheet 100
Rev 3 add FFL
Job No 21038

KDC - Approved Building Consent Document - BC210456_PL_ISSUED - Pg 3 of 13 - 3/08/2021 - vsingh

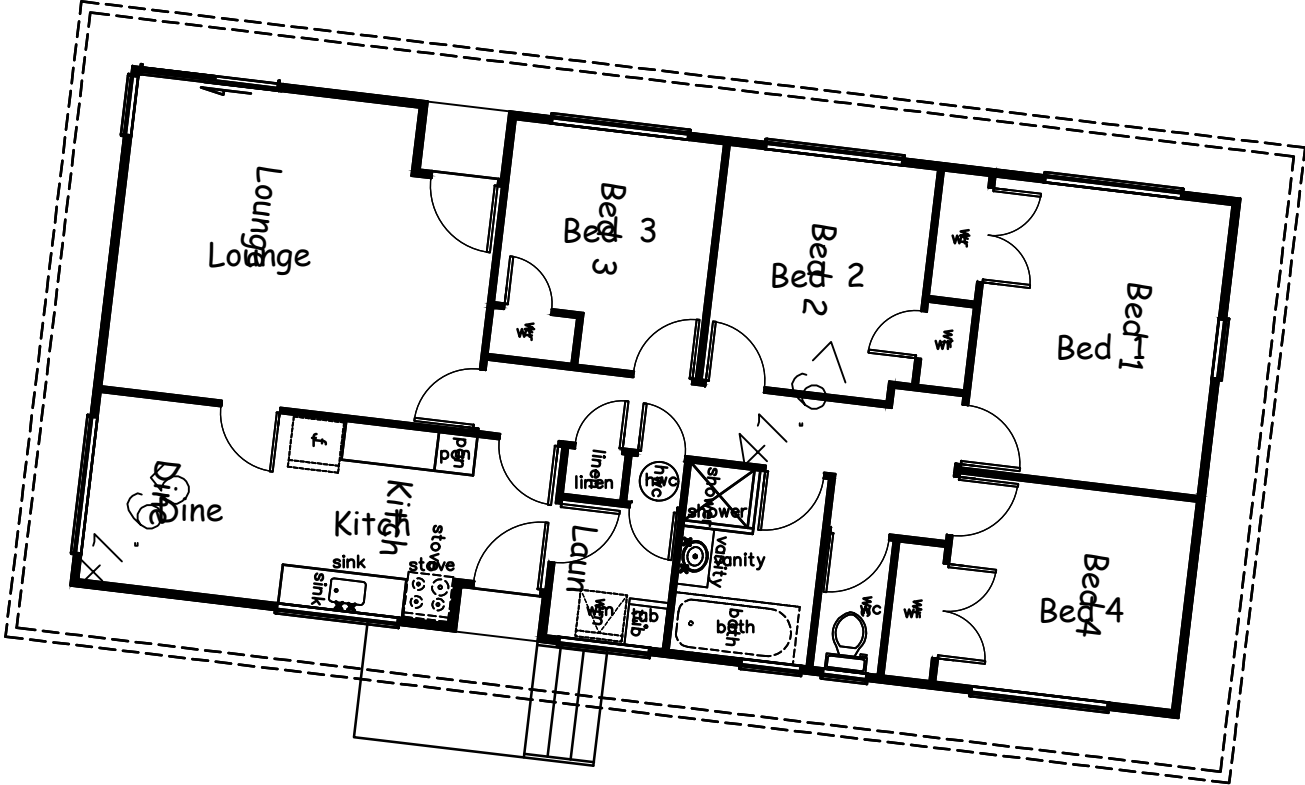


BCW Design Ltd 54 Halsey Drive Lynfield 1042 Ph 09 626 3803 Mob 0274 887 377 bruce@bcwdesign.co.nz	Drainage Plan at 760 Settlement Road - Kaiwaka for G. M. Utting & D. Owens	Drawn B. C. Wood Scale 1:200 (A3) Date 25.06.2021 Sheet 101 Job No 21038
---	--	--

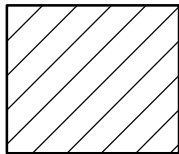


Plumbing & Drainage Plan at 760 Settlement Road - Hakaru for G. M. Utting & D. Owens

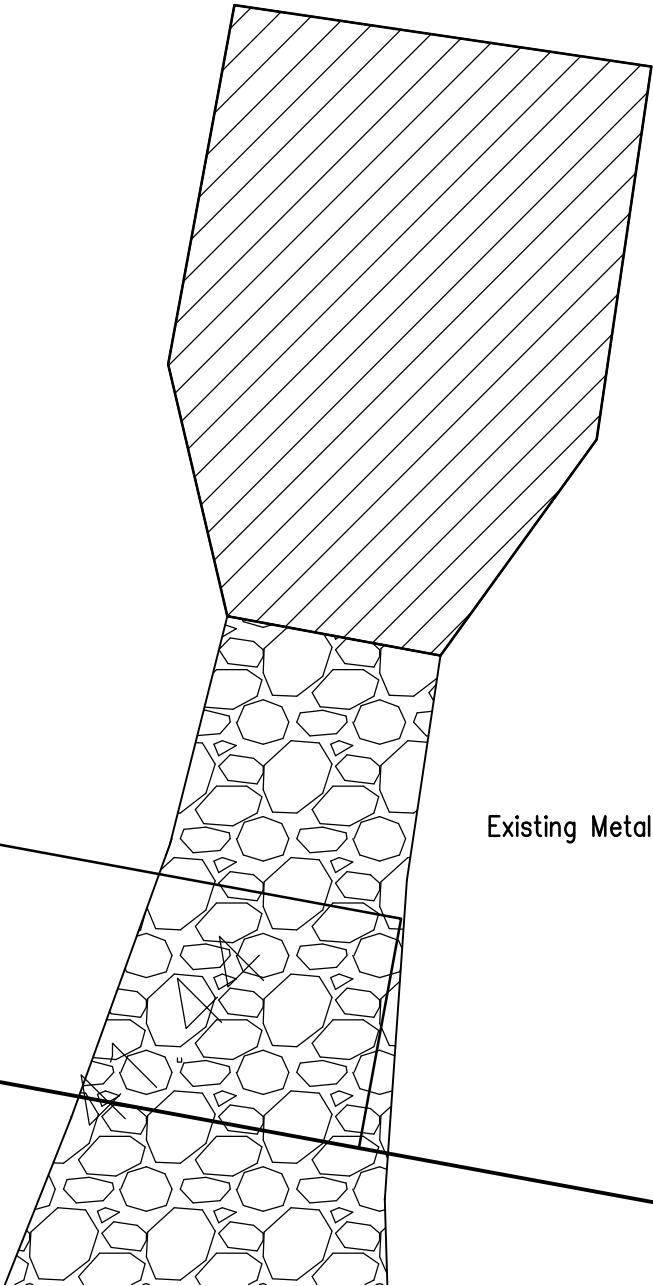
Drawn B. C. Wood
 Scale 1:100 (A3)
 Date 13.07.2021
 Sheet 102
 Rev 1 note re fire
 storage tank
 Job No 21038



KEY:



Earthworks
Cut = 7.5m³
Area = 40m²



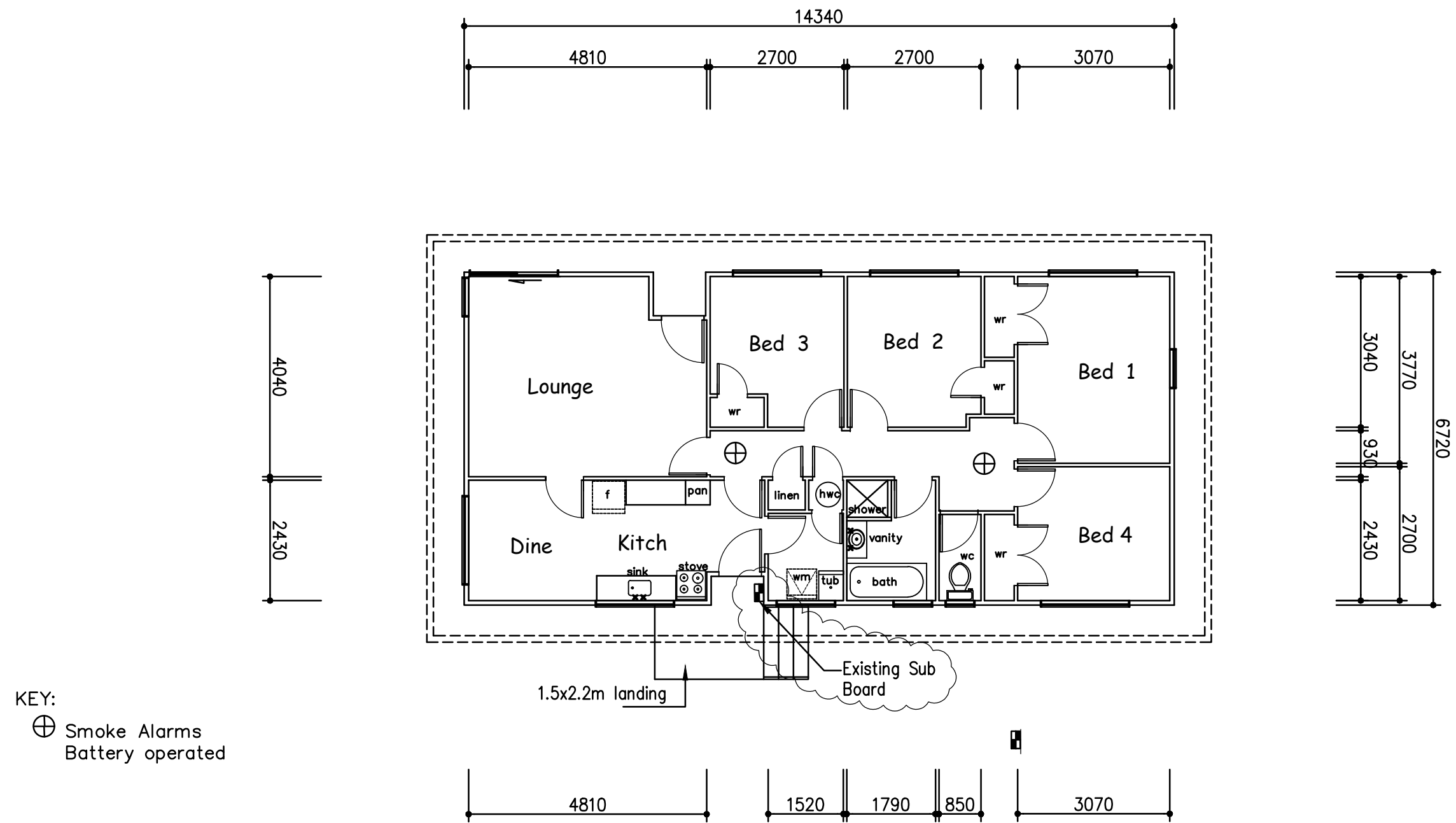
Existing Metalled Driveway

BCW Design Ltd
54 Halsey Drive
Lynfield 1042
Ph 09 626 3803
Mob 0274 887 377
bruce@bcwdesign.co.nz

Earthworks Plan
at 760 Settlement Road - Hakaru
for G. M. Utting & D. Owens

Drawn B. C. Wood
Scale 1:100 (A3)
Date 25.06.2021
Sheet 103

Job No 21038

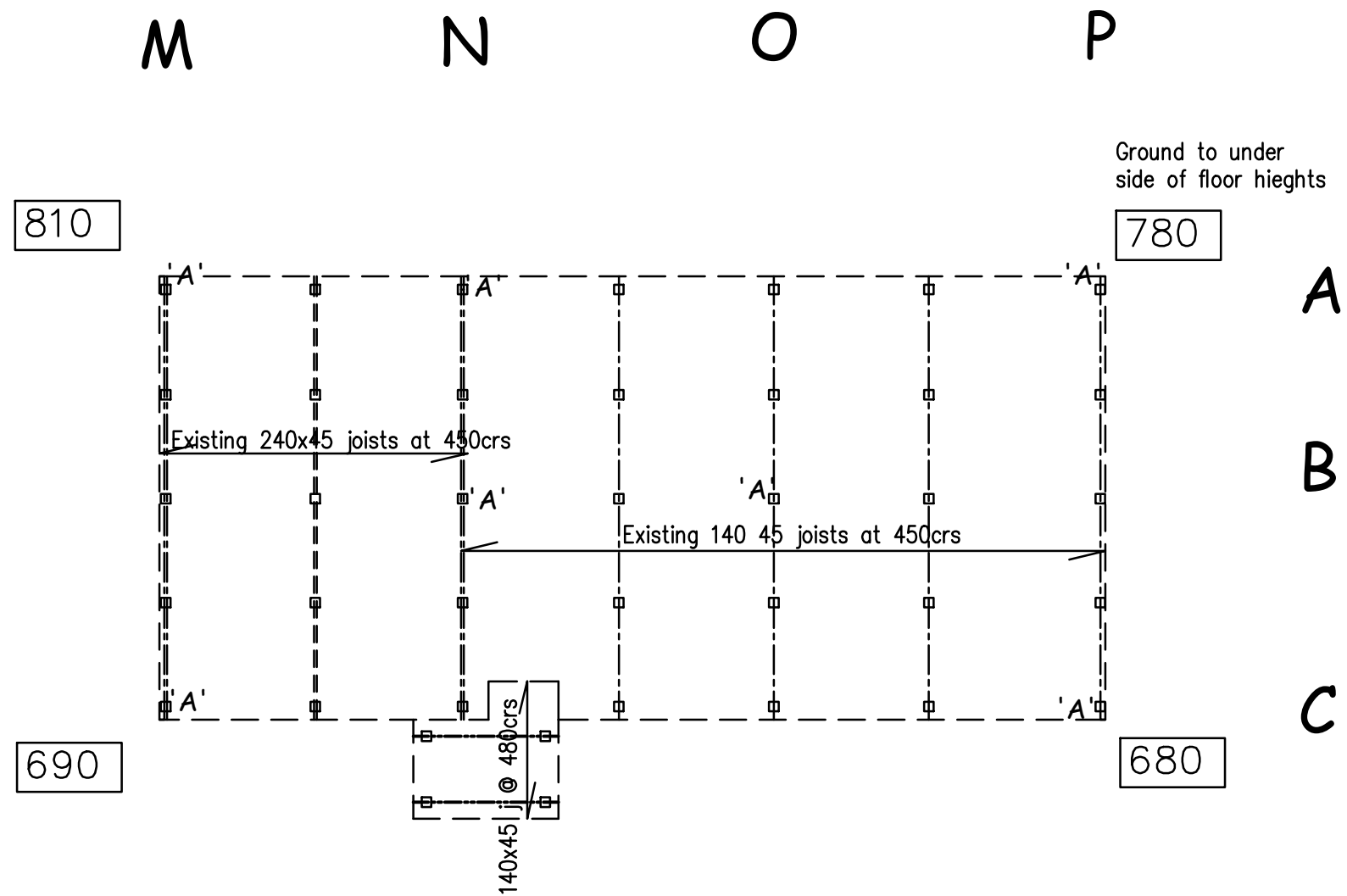


Floor Layout
96.36m²

All dimensions are to the framing, before commencing any works on the building verify dimensions.

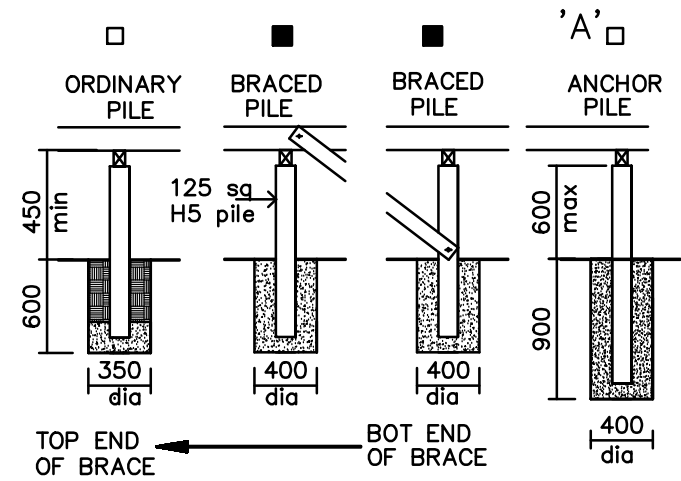
BCW Design Ltd 54 Halsey Drive Lynfield 1042 Ph 09 626 3803 Mob 0274 887 377 bruce@bcwdesign.co.nz	House Relocation to 760 Settlement Road - Hakaru for G. M. Utting & D. Owens	Drawn B. C. Wood Scale 1:100 (A3) Date 19.07.2021 Sheet 104 Rev 1 add s/board Job No 21038
---	---	---

KDC - Approved Building Consent Document - BC210456_PL_ISSUED - Pg 7 of 13 - 3/08/2021 - vsingh



Foundation Layout

All concrete to have max aggregate size 19mm. Concrete to have a 28 day crushing strength of 17.5Mpa



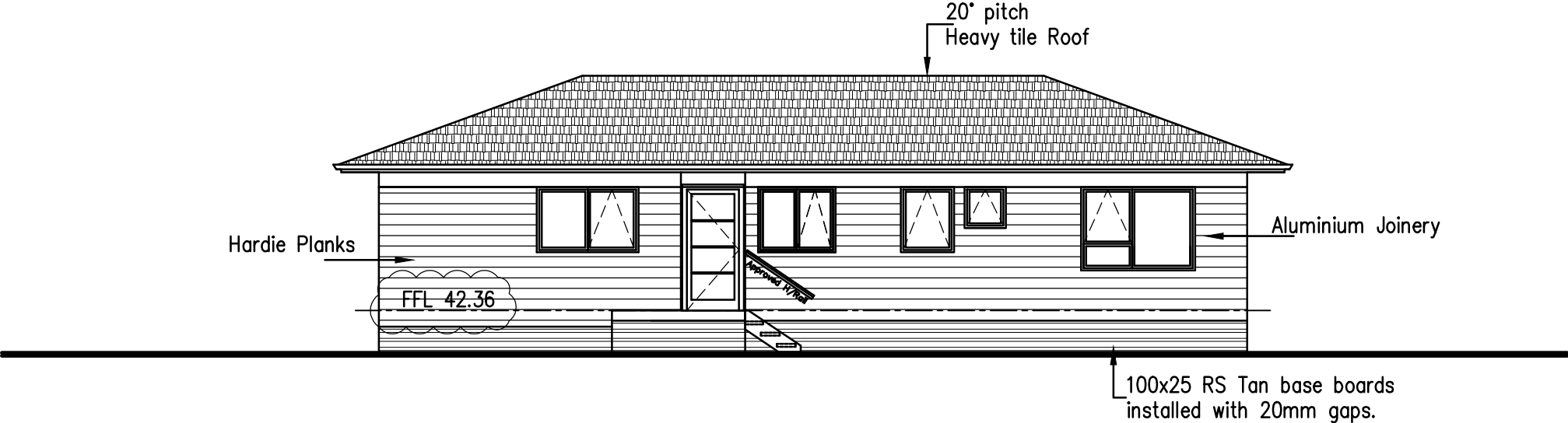
Existing 90x90 bearers
Piles at 1575crs

Existing 2/140x45 bearers
Piles at 1575crs

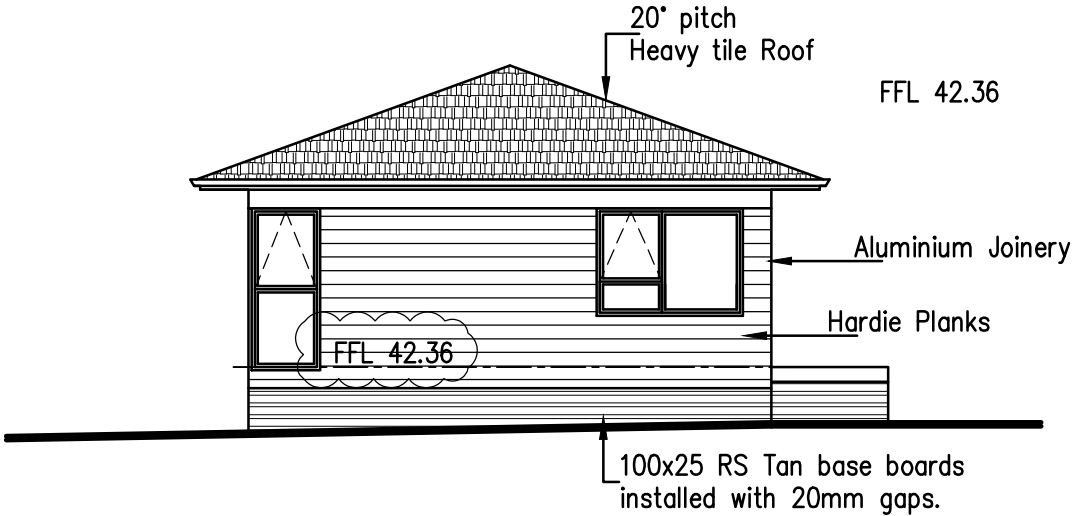
New 2/140x45 SG8 H3.2 bearer
Piles at 1575crs

Landing Bearer 2/140x45 SG8 H3.2 dPiles
at 1800crs

BCW Design Ltd 54 Halsey Drive Lynfield 1042 Ph 09 626 3803 Mob 0274 887 377 bruce@bcwdesign.co.nz	House Relocation to 760 Settlement Road - Hakaru for G. M. Utting & D. Owens	Drawn B. C. Wood Scale 1:100 (A3) Date 25.06.2021 Sheet 105 Job No 21038
---	--	--

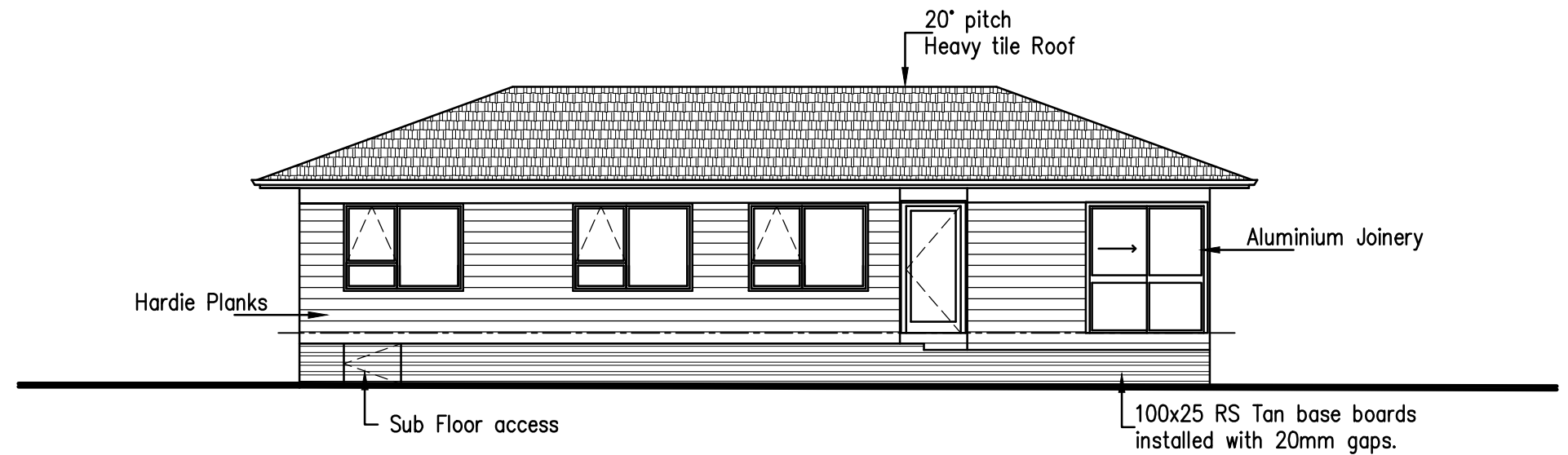


South Elevation

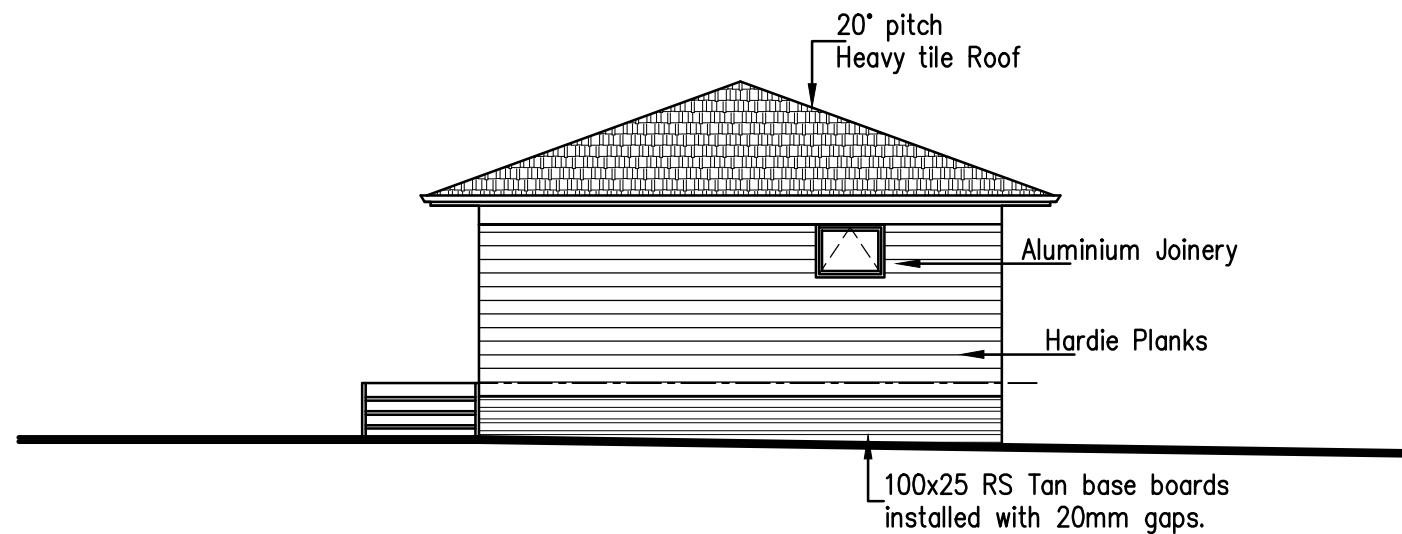


West Elevation

BCW Design Ltd 54 Halsey Drive Lynfield 1042 Ph 09 626 3803 Mob 0274 887 377 bruce@bcwdesign.co.nz	House Relocation to 760 Settlement Road - Hakaru for G. M. Utting & D. Owens	Drawn B. C. Wood Scale 1:100 (A3) Date 19.07.2021 Sheet 106 Rev 1 add FFL Job No 21038
---	---	---



North Elevation



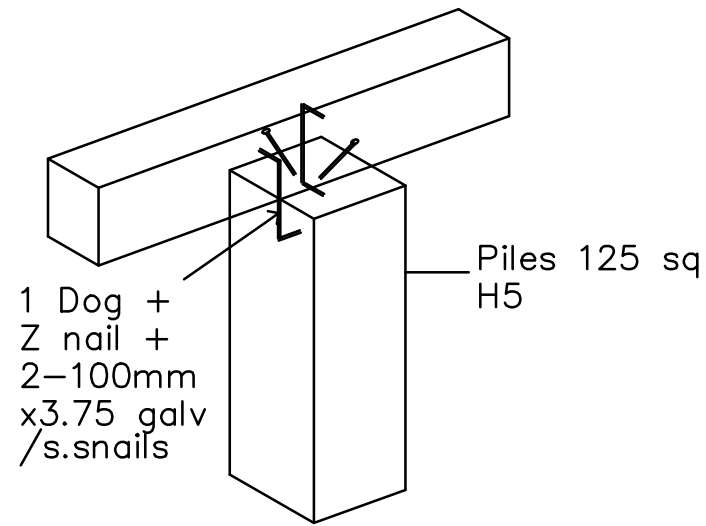
East Elevation

BCW Design Ltd
54 Halsey Drive
Lynfield 1042
Ph 09 626 3803
Mob 0274 887 377
bruce@bcwdesign.co.nz

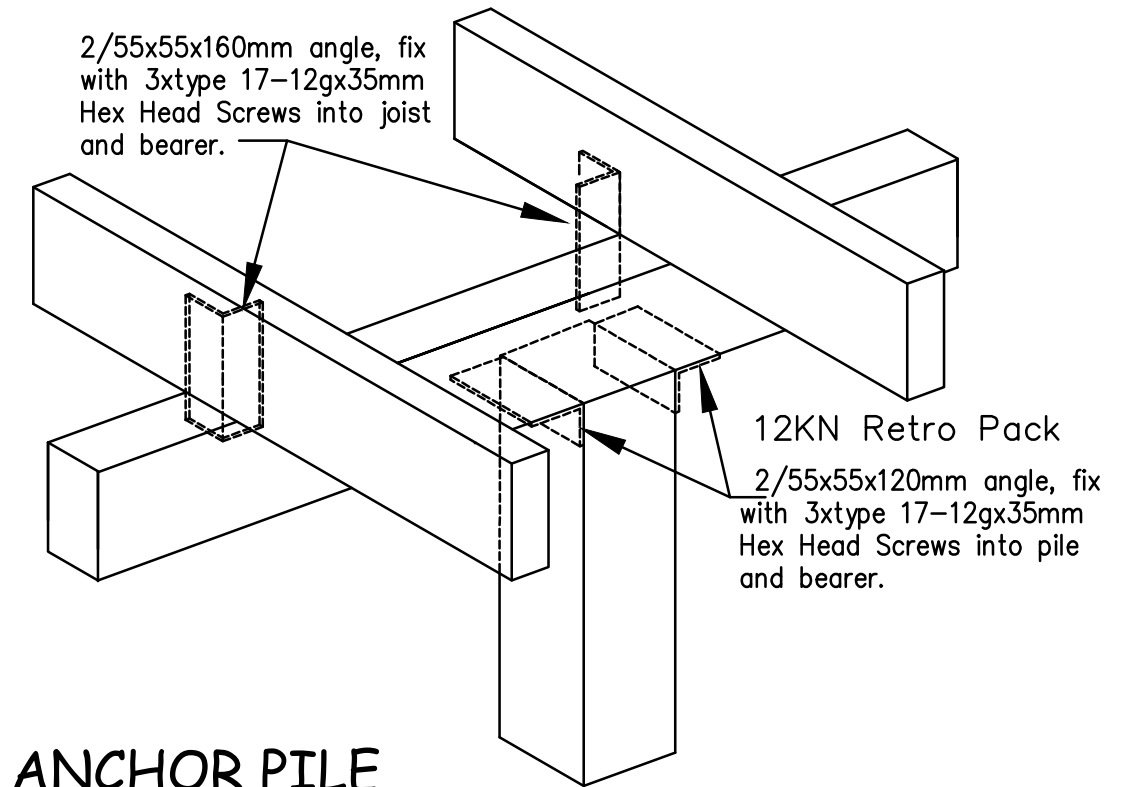
House Relocation
to 760 Settlement Road - Hakaru
for G. M. Utting & D. Owens

Drawn B. C. Wood
Scale 1:100 (A3)
Date 25.06.2021
Sheet 107

Job No 21038



ORDINARY PILE



ANCHOR PILE

NOTE:

ALL FOUNDATION CONNECTIONS
WITHIN 600mm FROM THE
GROUND TO BE STAINLESS
STEEL 304-2B (BOLTS, PLATES,
NAILS,DOGS) to NZS 3604

Sub Floor Fixings using 12kN Retro Pack

BCW Design Ltd
54 Halsey Drive
Lynfield 1042
Ph 09 626 3803
Mob 0274 887 377
bruce@bcwdesign.co.nz

House Relocation
to 760 Settlement Road - Hakaru
for G. M. Utting & D. Owens

Drawn B. C. Wood
Scale 1:10 (A3)
Date 25.06.2021
Sheet 108
Job No 21038

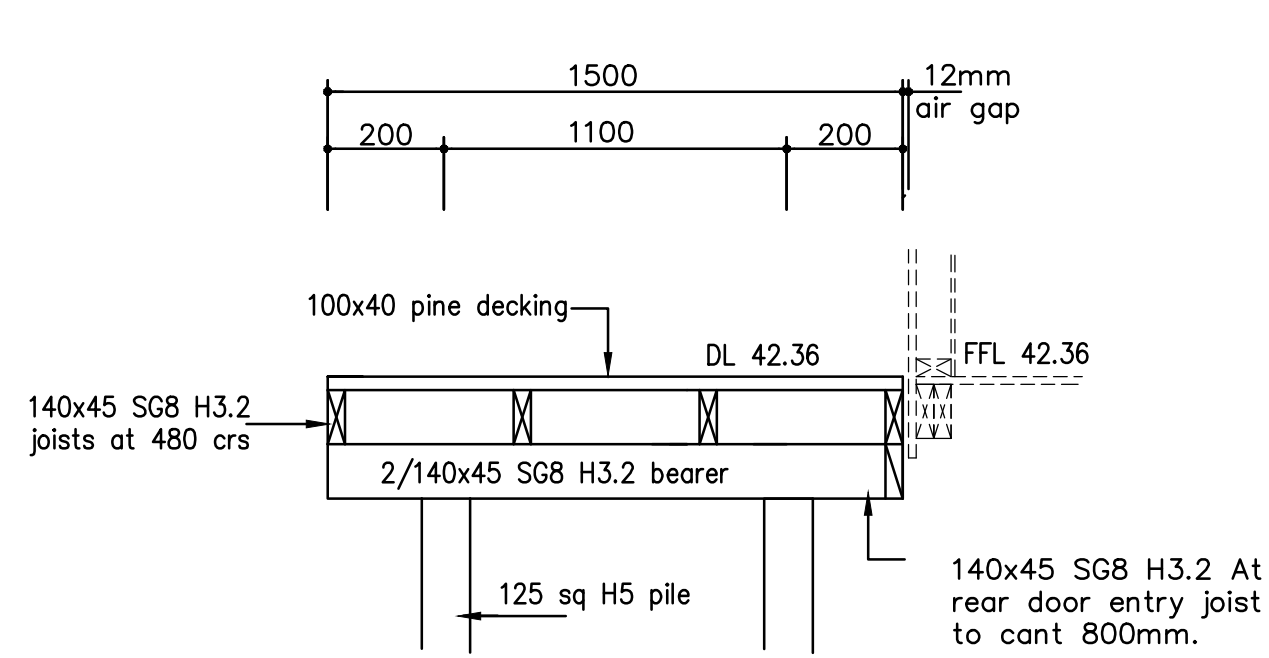
6 FOUNDATION/SIIBEI QOR



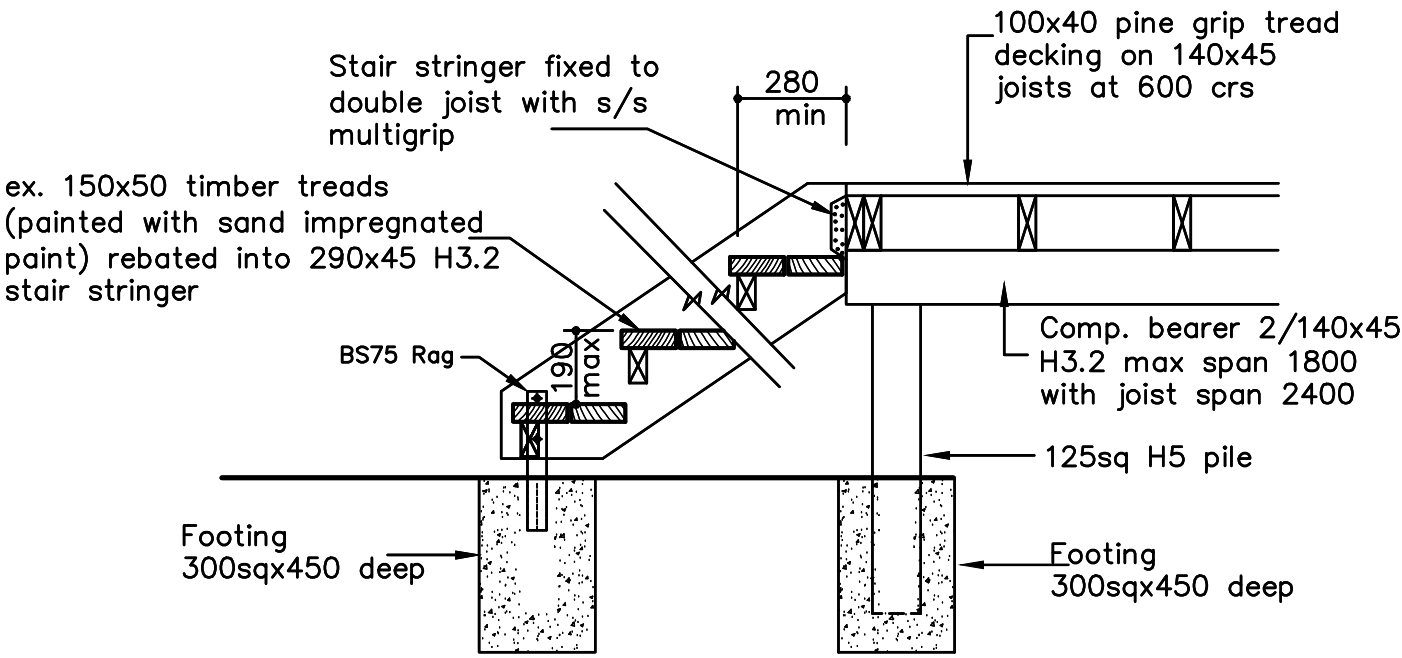
House Relocation
to 760 Settlement Road - Hakaru
for G. M. Utting & D. Owens

Drawn	B. C. Wood
Scale	1:10 (A3)
Date	25.06.2021
Sheet	109
Job No	21038

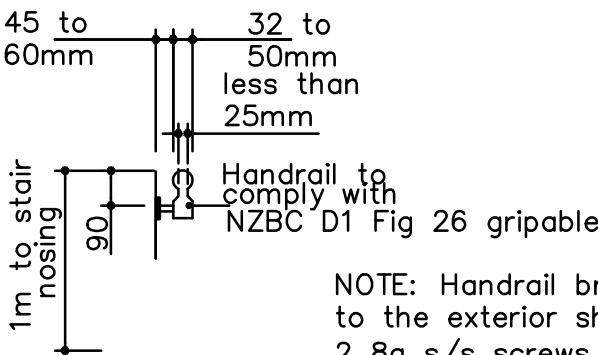
KDC - Approved Building Consent Document - BC210456_PL_ISSUED - Pg 12 of 13 - 3/08/2021 - vsingh



1.50m Deck



GENERAL STAIR / LANDING DETAIL

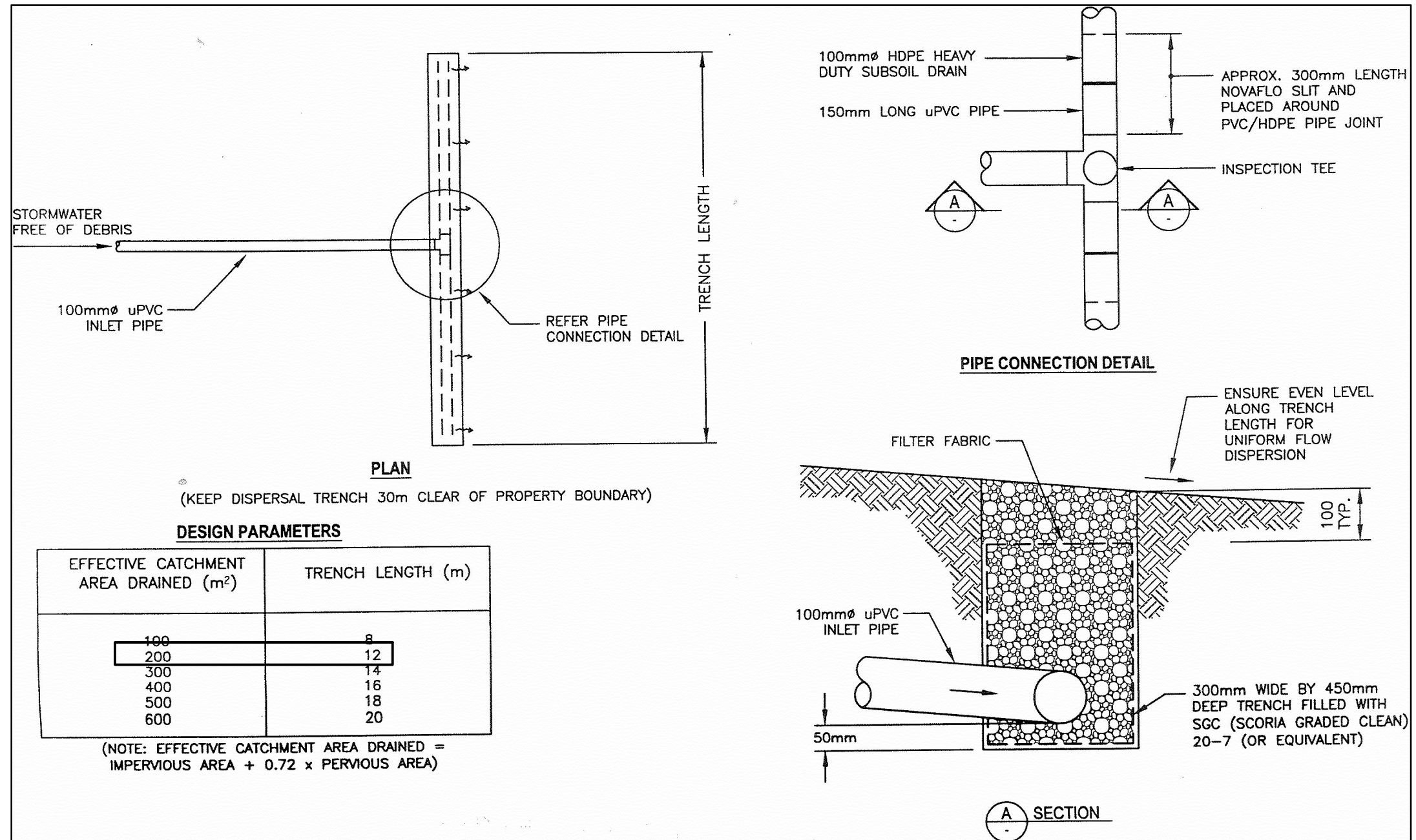


NOTE: Handrail bracket to be screwed to the exterior sheathing into a stud, 2 8g s/s screws per bracket, brackets at 1200 crs. Use epoxy sealant between bracket and wall sheathing

APPROVED HANDRAIL

NOTE:
All exposed fixings to be stainless steel.
All timber grades to be SG8

BCW Design Ltd 54 Halsey Drive Lynfield 1042 Ph 09 626 3803 Fax 09 626 3804 Mob 0274 887 377 bruce@bcwdesign.co.nz	House Relocation to 760 Settlement Road - Hakaru for G. M. Utting & D. Owens	Drawn B. C. Wood Scale 1:20 (A3) Date 25.06.2021 Sheet 110 Job No 21038
--	--	---



BCW Design Ltd
 54 Halsey Drive
 Lynfield 1042
 Ph 09 626 3803
 Fax 09 626 3804
 Mob 0274 887 377
 bruce@bcwdesign.co.nz

Stormwater Dispersal Trench to 760 Settlement Road - Hakaru for G. M. Utting & D. Owens

Drawn B. C. Wood
 Scale 1:20 (A3)
 Date 25.06.2021
 Sheet 111
 Job No 21038

Approved Building Consent Documents

Please note: A copy of the stamped, approved documents must be available onsite for **all** inspections.



Kaipara District Council
Private Bag 1001
Dargaville
26.06.2021

To Whom it May Concern

We, Gina Utting & Dawn Owens owners of 760 Settlement Road
- Kakaru (Lot 3 DP 560279) authorize Bruce Wood of BCW
Design Ltd to act as our agent and sign documents on our behalf
relating to Building Consent application for Relocation of a house
to 760 Settlement Road

Gina

Signed.....

Dated.....

Dawn

Signed.....

Dated.....

25/6/21

25/6/21

Building Consent Number: _____ Office Use Only: _____



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



R. W. Muir
Registrar-General
of Land

Identifier **988296**
Land Registration District **North Auckland**
Date Issued 23 April 2021

Prior References
NA42B/368

Estate Fee Simple
Area 3911 square metres more or less
Legal Description Lot 3 Deposited Plan 560279

Registered Owners
Gina Maree Utting and Dawn Owens

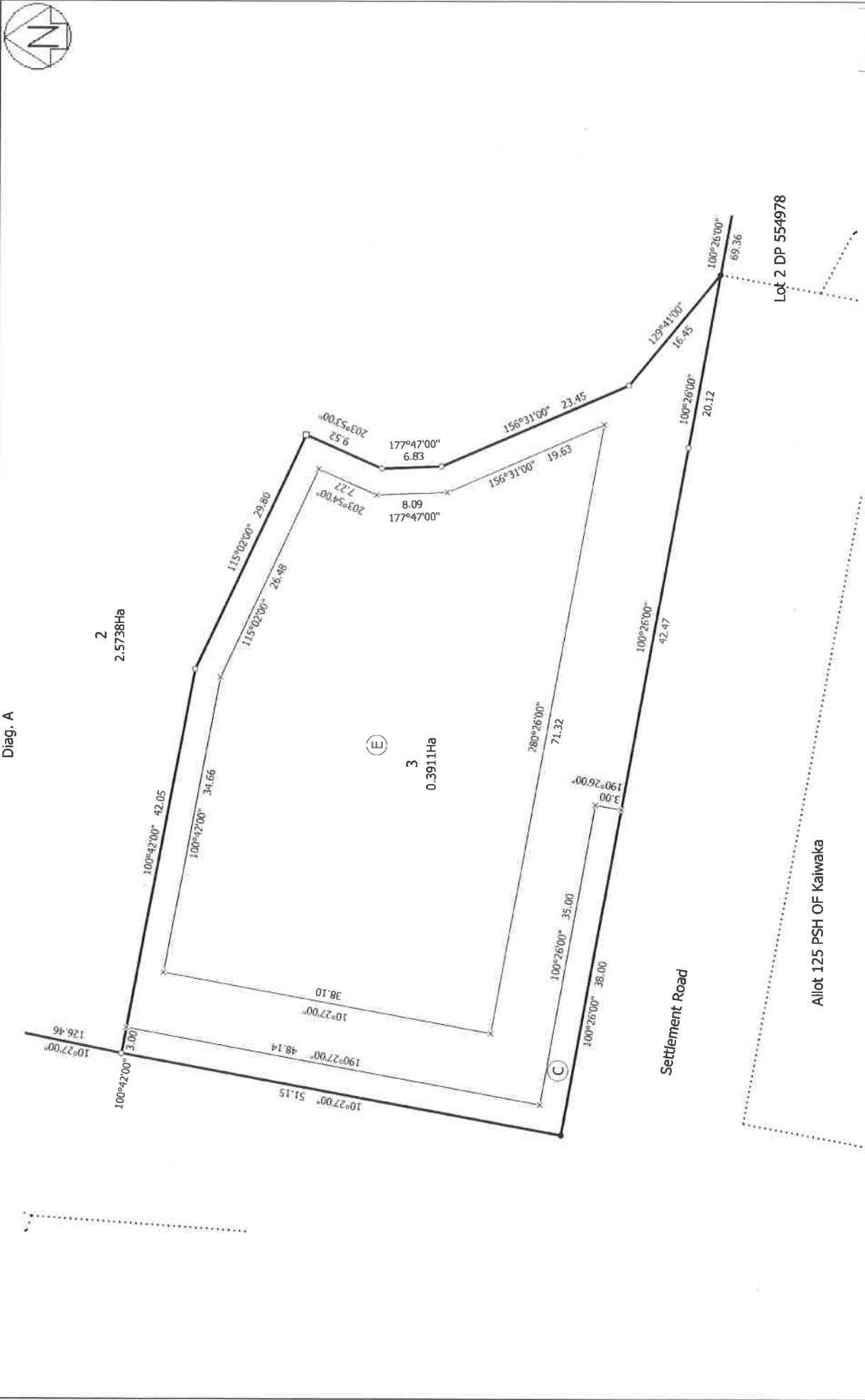
Interests

Subject to Section 59 Land Act 1948

12086992.2 Consent Notice pursuant to Section 221 Resource Management Act 1991 - 23.4.2021 at 11:29 am

12126265.3 Mortgage to ANZ Bank New Zealand Limited - 2.6.2021 at 3:49 pm

KDC - Approved Building Consent Document - BC210456_SP_ISSUED - Pg 3 of 81 - 3/08/2021 - vsingh



Land District: North Auckland	Lots 1 - 3 Being a Subdivision of Allotment 310 Parish of Kaiwaka	Surveyor: Adam Paul Stanley Booth Firm: Pacific Coast Surveys Limited (Mang	Title Plan LT 560279 Approved on: 17/05/2021
Digitally Generated Plan Generated on: 17/05/2021 10:23am Page 4 of 8			T 2/6



View Instrument Details

Instrument No. 12086992.2
Status Registered
Date & Time Lodged 23 Apr 2021 11:29
Lodged By Fallon, Bridget Amanda
Instrument Type Consent Notice under s221(4)(a) Resource Management Act 1991

Toitu te
Land whenua
Information
 New Zealand



Affected Records of Title	Land District
988294	North Auckland
988296	North Auckland

Annexure Schedule Contains 2 Pages.

Signature

Signed by John Muru Walters as Territorial Authority Representative on 16/04/2021 10:52 AM

*** End of Report ***

KDC - Approved Building Consent Document - BC210456_SP_ISSUED - Pg 5 of 81 - 3/08/2021 - vsingh

IN THE MATTER of the Resource Management
Act 1991 ("**Act**")

A N D

IN THE MATTER of the subdivision of land
shown in Deposited Plan
560279 (North Auckland Land
Registration District) ("**Plan**")

CONSENT NOTICE
(Section 221 of the Act)

KAIPARA DISTRICT COUNCIL ("**Council**") being the territorial authority of the district within which the land described in the First Schedule below ("**Land**") is located has consented to the subdivision of the Land as shown in the Plan, subject to the conditions of the Second Schedule below to be complied with on a continuing basis by the Owner (as defined in the Act).

FIRST SCHEDULE
(Land)

ALL of the land contained in Record of Title NA42B/368

SECOND SCHEDULE
(Conditions)

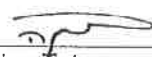
The Owner (as defined in the Act) must, on a continuing basis, to the satisfaction of the Council, comply with the following conditions of the Council's Subdivision Consent RM200139 namely:

1. In respect of Lots 1 and 3 on the Plan (each a "Lot").
 - (i) Earthworks, the location of buildings, building foundations and stormwater and wastewater disposal shall be subject to specific engineering design by a suitably qualified Chartered Professional Engineer having regard to any soil instability/saturation issues that may exist or arise as a result of the development. Design shall take into account the recommendations identified in the reports titled "Geotechnical Investigation Report", reference 20034, dated 18/05/2020, prepared by Wiley Geotechnical and "Flood Assessment", reference 97465, revision 1, dated 26/06/2020, prepared by Wilton Joubert, and submitted to Council with subdivision consent RM200139.

- (ii) The lots have been identified as being susceptible to inundation in a 100-year Annual Average Recurrence Interval (ARI) flood event. To provide for a 500mm freeboard for habitable buildings and 300mm freeboard for non-habitable, commercial and industrial buildings above the 100-year ARI flood level, taking into account the effects of climate change, the following finished floor levels are required for any new dwelling within the lots:
 - Lot 1 and 3 – 35.00 for all buildings using One Tree Point (OTP) Datum.
- (iii) A site specific onsite effluent treatment and disposal system shall be designed and submitted to Council for approval prior to lodgement of building consent which shall refer to the soil issues and other observations and recommendations made in the Geotechnical Report.
- (iv) Sufficient firefighting water supply shall be provided for any single residential dwelling on the lot with a minimum volume of 10,000 litres and shall remain accessible and available all year round.
- (v) Unless specifically authorised in writing by Fire and Emergency New Zealand, sufficient firefighting water supply shall be provided for any commercial or industrial land use. Sufficient firefighting water supply is deemed to mean meeting full criteria of the Code of Practice for firefighting water supplies (SNZ PAS 4509:2008 New Zealand Fire Service Firefighting Water Supplies Code of Practice).
- (vi) All buildings must be located wholly within the designated building areas shown on the survey plan. For Lot 1 this is shown as area D. For Lot 2 this is shown as area E.
- (vii) Landscape planting undertaken in area B on Lot 1 and area C on Lot 3 in accordance with the approved Landscape Management Plan prepared by Evolve Planning and Landscape Architecture, dated November 2020 shall be the responsibility of the lot owner and shall be managed in accordance with the Landscape Management Plan and protected in perpetuity.
Diseased, dying or dangerous plants must be removed and replaced in accordance with the approved Landscape Management Plan.

DATED the 15th day of April 2021

SIGNED by
KAIPARA DISTRICT COUNCIL
by its authorised signatory

)
)
)

Dina Tetzner

Form 2A

Memorandum from licensed building practitioner: Certificate of design work

Section 45 and Section 30C, Building Act 2004

Please fill in the form as fully and correctly as possible.

If there is insufficient room on the form for requested details, please continue on another sheet and attach the additional sheet(s) to this form.

THE BUILDING

Street address: 760 Settlement Road

Kakaru

Town/City Kaiwaka

Postcode: 0975

THE OWNER

Name(s): Gina Utting & Dawn

Mailing address: 15 Brookview Hieghts

Suburb: RD2 Waipu

PO Box/Private Bag:

Town/City:

Postcode: 0582

Phone number: 0212670724 (Gina)

Email address: ginautting@gmail.com

BASIS FOR PROVIDING THIS MEMORANDUM

I am providing this memorandum in my role as the: Please tick the option that applies (✓)

(✓)

sole designer of all of the RBW design outlined in this memorandum – I carried out all of the RBW design myself – no other person will be providing any additional memoranda for the project

IDENTIFICATION OF DESIGN WORK THAT IS RESTRICTED BUILDING WORK (RBW)

I Bruce Wood carried out the following design work that is restricted building work

PRIMARY STRUCTURE: B1

Design work that is restricted building work	Description	Carried out/supervised	Reference to plans and specifications
<i>Tick(✓)if included</i> <i>Cross (X) if excluded</i>	<i>[If appropriate, provide details of the restricted building work]</i>	<i>[Specify whether you carried out this design work or supervised someone else carrying out this design work]</i>	<i>[If appropriate, specify references]</i>
All RBW Design work relating to B1 (✓)		(✓) Carried out	
Foundations and subfloor framing (✓)	<i>House Foundation Layout</i>	(✓) Carried Out	Refer sheet 105
Walls ()		() Carried out	
Roof ()		()	

Columns and beams	()		() Carried out	
Bracing	(✓)	<i>Foundation Bracing</i>	(✓) Carried out	Refer Sheet 105 & calculations
Other	()		() Carried out	

EXTERNAL MOISTURE MANAGEMENT SYSTEMS: E2

All RBW design work relating to E2	(✓)		(✓) Carried out	
Damp proofing	()		() Carried out () Supervised	
Roof cladding or roof cladding system	()		() Carried out	
Ventilation system (for example, subfloor or cavity)	(✓)	<i>Sub floor ventilation</i>	(✓) Carried Out	Refer sheets 106 & 107
Wall cladding or wall cladding system	()		() Carried Out	
Flashings	()		() Carried Out	
Other	()		() Carried Out	

FIRE SAFETY SYSTEMS: C1 – C6

Emergency warning systems, evacuation and fire service operation systems, suppression or control systems, or other	(✓)	<i>Smoke Alarms</i>	(✓) Carried out	Refer sheet 104
--	------	---------------------	------------------	-----------------

Cp cp Note: The design of fire safety systems is only restricted building work when it involves small-to-medium apartment buildings as defined by the Building (Definition of Restricted Building Work) Order 2011.

Note: continue on another page if necessary.

WAIVERS AND MODIFICATIONS

Waivers or modifications of the building code are required () Yes (✓) No

If Yes, provide details of the waivers or modifications below:

Clause	Waiver/modification required
<i>[List relevant clause numbers of building code]</i>	<i>[Specify nature of waiver or modification of building code]</i>

Note: continue on another page if necessary.

ISSUED BY

Name: Bruce Wood	LBP or Registration number: 113680
The practitioner is a: ☒ Design LBP ☐ Registered architect ☐ Chartered professional engineer	
Design Entity or Company (optional): BCW Design Ltd	
Mailing address (if different from below):	
Street address / Registered office: 54 Halsey Drive	
Suburb: Lynfield	Town/City: Auckland
PO Box/Private Bag:	Postcode: 1042
Phone number: 09 626 3803	Mobile: 0274 887 377
After Hours:	Fax: 09 626 3804
Email address: bruce@bcwdesign.co.nz	Website: NA

DECLARATION

I Bruce Wood [name of practitioner], LBP,

state that I have applied the skill and care reasonably required of a competent design professional in carrying out or supervising the Restricted Building Work (RBW) described in this form, and that based on this, I also state that the RBW:

- Complies with the building code;



Signature:

Date: 28.06.2021



23 June 2021

Gina Utting
ginautting@gmail.com

**RE: Geotechnical Investigation for Proposed Residence at Lot 3, 760
 Settlement Road, Hakaru.**

Wiley Geotechnical Limited (WGL) was requested by Gina Utting to provide a geotechnical investigation and guidance on foundation design for a proposed relocation of a 4-bedroom dwelling and the construction of a new shed. We have received and reviewed a site plan produced by BCW Design Ltd (Ref 21036, dated April 2021). We understand the house is proposed to be constructed upon a timber pile foundation, and the shed is to be constructed upon a concrete foundation.

We have previously undertaken a geotechnical investigation on the property as part of the subdivision process (Our Reference #20034, dated May 2020). In our earlier investigation a single borehole was undertaken on the site near the proposed house location, this earlier borehole has been included in this report.

WGL visited the site on the 9th of June 2021 and made the following observations:

- The site is located on a relatively flat section and is currently grassed
- The site is situated upon a gentle south west slope angled at 2 degrees with the northern treed area sloping to the north between 3 to 5 degrees.
- BH1 was conducted on the house building site, while BH2 was conducted on the shed site.
- The shed is located 3.0 m from back boundary, a 2.0 m high rock wall.
- The building platform for the dwelling has not been formed.
- No obvious signs of instability were noted.
- Two hand augers and six Scala Penetrometer (Scala) test were undertaken within potentially suitable building sites to a maximum depth of 2.1 m below ground level.

Geology

The GNS map for the site indicates that it is underlain by alluvium of the Tauranga Group comprising "Partly consolidated mud, sand, gravel and peat or lignite of alluvial, colluvial, lacustrine, swamp and estuarine origins".

Seismic Hazards

Since there are no known active faults crossing the property, it is our opinion that ground rupture is unlikely at the subject property. Granular soils, such as sand, are susceptible to liquefaction in the event of future earthquakes. This may result in settlement or lateral deformation. Based on the regional earthquake risk (discussed further below) and depth to groundwater, it is our opinion that there is a

relatively low risk of liquefaction induced settlement or lateral movement such that specific liquefaction design is not required.

We recommend that the future structures and improvements are designed to account for seismic shaking and ground motions. For seismic design at the site and in line with NZS 1170.5:2004 the corresponding design peak ground accelerations (PGA) for the site have been calculated from NZS 1170.5:2004 using the recommendations of the New Zealand Geotechnical Society as follows:

$$a_h = Z R C$$

In which:

Z = base PGA called "Hazard factor" and is given by Table 3.3 and Figures 3.3 and 3.4 of NZS 1170.5:2004. Z = 0.13 for areas north of Auckland.

R = "Return period factor" and is given by Table 3.5 of NZS 1170.5:2004 (R = 1.0 for 500 year return period and R = 0.25 for a 25 year return period)

C = Site response factor called "Spectral shape factor" in NZS 1170.5:2004 and is based on the seismic site classification. We consider this site to be **Class C**, based on soil depth and therefore C = 1.33.

The design PGA at the site is given as:

$$\text{ULS: } a_h = 0.13 \times 1.00 \times 1.33 = 0.17 \text{ (i.e. PGA = 0.17 g)}$$

$$\text{SLS: } a_h = 0.13 \times 0.25 \times 1.33 = 0.04 \text{ (i.e. PGA = 0.04 g)}$$

Field Exploration and Subsurface Conditions

WGL carried out a shallow subsurface investigation consisting of two hand augers with shear vane testing and six Scala Penetrometer (Scala) tests within the approximate areas shown on the site plan below.



Figure 1: Approximate Subsurface

Exploration Locations & Wastewater Disposal Fields

The hand augers were carried out to a depth of 2.1 m depth. The subsurface material encountered in our hand auger investigation generally consisted of topsoil underlain by slightly to moderately clayey silt with occasional manganese and limonite. Desiccation cracking was observed to 0.9 m depth. The measured undrained shear strengths generally all exceeded an inferred >200 kPa.

Groundwater was not encountered during our testing. The groundwater level may vary from the depth measured at the time of exploration, as a result of seasonal change, recent precipitation and/or irrigation practices.

Based on this, it is our opinion that the material encountered in our subsurface investigation is broadly consistent with published geologic mapping. The bore logs are presented as an appendix to this report and are written in general accordance with the New Zealand Geotechnical Society field classification guidelines (NZGS, 2005).



Figure 1: Approximate Subsurface Exploration Locations

The hand augers were carried out to depths of 2.1 m. The subsurface material encountered in our hand auger investigation generally consisted of a fill/topsoil underlain by a fill/silt with occasional topsoil inclusions. A buried topsoil layer was encountered for 50 mm at 0.45 m at BH1. A natural silt is then encountered from 0.5 m, with clay and plasticity increasing with depth and occasional orange brown and limonitic staining. The measured undrained shear strengths generally all exceeded 100 kPa. The results of the individual Scala tests are shown below. Our previous hand auger (HA1 in blue) encountered very stiff natural soils with measured undrained shear strengths greater than 200 kPa

Groundwater was not encountered during our testing. The groundwater level may vary from the depth measured at the time of exploration, as a result of seasonal change, recent precipitation and/or irrigation practices.

Based on this, it is our opinion that the material encountered in our subsurface investigation is broadly consistent with published geologic mapping. The bore logs are presented as an appendix to this report and are written in general accordance with the New Zealand Geotechnical Society field classification guidelines (NZGS, 2005).

Scala Results

Scala blows/100mm at Lot 3, 760 Settlement Road, Hakaru						
(m)	Scala 1 (SP1)	Scala 2 (SP2)	Scala 3 (SP3)	Scala 4 (SP4)	Scala 5 (SP5)	Scala 6 (SP6)
0.1	1	1	1	1	1	1
0.2	3	2	2	1	1	3
0.3	2	2	2	3	1	2
0.4	2	3	3	3	2	2
0.5	3	3	4	2	2	3
0.6	1	3	3	2	4	2
0.7	3	4	3	3	5	3
0.8	3	3	2	4	5	4
0.9	4	4	2	4	5	4

Expansive Soils

Expansive clay and silt soils are common in the wider Northland region and have the tendency to shrink and swell, particularly with seasonal fluctuations of soil water content. This behavior has implications for foundation design and surface structures and should be incorporated during foundation design.

Based on our visual and field assessment of the soils encountered onsite, and our experience in the area, we consider that the Expansive Site Class for this site is "M - moderate" - in accordance with AS 2870. Accordingly, the minimum footing depth is 600 mm below cleared ground level.

Conclusions and Recommendations

It is our opinion that the proposed development is feasible from a geotechnical point of view, provided the recommendations presented in this report and standard development practices are incorporated in the design and construction of the project.

The soil underlying the site does **not** reach "good ground" in the upper metre as defined in NZS 3604 (2011) based on the Scala results as the requirement is 5 blows per 100 mm with a Scala Penetrometer; however, the shear vane readings indicate a suitable bearing capacity is available for the proposed house, with readings generally greater than 100 kPa.

Pile Foundation (Relocatable Dwelling)

It is our opinion that wooden piles designed in accordance with NZS3604 (2011) will provide a suitable foundation for the proposed dwelling. We recommend all piles are H5 treated and have a minimum 125 x 125 mm dimensions. We recommend that anchor piles are embedded to a minimum depth of 0.9 m, and all other piles are embedded to a minimum depth of 0.6 m. Pile holes should be bored with a minimum diameter of 400 mm.

If a second-hand dwelling is being utilised, we recommend piles are located along the existing bearers in the same positions as previously located to transfer existing loads and provide supports for internal loads previously supported. If an alternative pile plan is proposed it will shall to be approved by a professional Structural Engineer familiar with this report.

The piles should meet NZS3640 Class H5, and cut surfaces should be retreated with a protective coating in accordance with the manufacturer's recommendations. The pile length should be sufficient to extend to the design foundation level, and provide the stick-up length necessary for the super-structure and planned floor levels. Piles should not be spliced.

All bored holes should be inspected by WGL, or a qualified geotechnical engineer, prior to continuing with foundation construction

A geotechnical ultimate bearing capacity of 450 kPa should be available.

Concrete Foundation (Shed)

We recommend that a minimum 300 mm layer of compacted hard fill is placed prior to applying blinding sand for any reinforced concrete slab and foundation elements have a minimum embedment depth of 0.6 m. We recommend a minimum 100 mm layer of compacted hard fill is placed for a waffle slab (i.e Rib-Raft) with the foundation being designed for expansive site class 'M – Moderate', as per AS 2870. All topsoil and fill material must be removed before foundation construction commences.

We recommend the following regarding hard fill and its placement:

- Underslab hard fill comprising GAP40/GAP65, or an equivalent approved product, should be placed across the building platform in 100 mm lifts and compacted using appropriate compaction plant (e.g. a hand held or excavator mounted vibrating compaction plate), and brought up to the finished design levels. We would recommend a high quality gravel without too many fines.
- For fills greater than 0.6 m. Every third layer of hard fill lift should be observed and tested by WGL to confirm that it has been placed to an appropriate specification. At this stage it is anticipated that compaction should be to achieve 95% of the maximum dry density (MDD) of the material, to be confirmed onsite using either a NDM (nuclear densometer) or Impact Hammer testing (Target 15 CBR).

A geotechnical ultimate bearing capacity of 300 kPa may be used in the design of a reinforced concrete slab or a waffle slab (i.e. Rib Raft). The ultimate bearing capacity should be available provided that the hard fill has been placed and certified according to the construction specification. We recommend WGL, or a qualified geotechnical engineer, inspect any excavations prior to the placing of any fill or foundation elements.

LIMITATIONS

- This report has been prepared for the use of our client, Gina Utting and their professional advisers and the relevant Regional Authorities in relation to the specified project brief described

in this report. No liability is accepted for the use of any part of the report for any other purpose or by any other person or entity.

- (ii) Assessments made in this report are based on the ground conditions indicated from published sources, site inspections and subsurface investigations described in this report based on accepted normal methods of site investigations. Variations in ground conditions may exist between test locations and therefore have not been taken into account in the report. If variations are found during excavation or at foundation preparation stage WGL should be notified immediately so we can amend our recommendations.
- (iii) This Limitation should be read in conjunction with the IPENZ/ACENZ Standard Terms of Engagement.

We trust that this information meets your current requirements. Please do not hesitate to contact the undersigned on 021 0399 385 or matt@wileygeotechnical.co.nz if you require any further information.



Matt Wiley, CPEng

Principal Engineer

Attachments:

- Bore Logs



WILEY GEOTECHNICAL LTD

BOREHOLE No. BH1

SITE: Lot 3, 760 Settlement Road, Hakaru

REF: 21150

Sheet 1 of 1

KDC - Approved Building Consent Document - BC210456 - SP_ISSUED - Pg 18 of 81 - 3/08/2021

INFERRED GEOLOGY	DESCRIPTION OF SOIL	SOIL SYMBOL	DEPTH (m)	SAMPLE TYPE	WATER CONTENT (%)	WATER LEVEL	CORRECTED VANE SHEAR STRENGTH (kPa)			SCALA PENETROMETER BLOWS / 100 mm		
							● Peak Field Vane	○ Remoulded Field vane		5	10	15
	FILL/TOPSOIL											
	FILL/SILT slightly clayey, slight plasticity, light brown, rare topsoil inclusions								200			
	TOPSOIL buried											
	SILT slightly clayey, slight plasticity, light brown						87	147				
	at 0.8 m increase in clay and plasticity		1				102	192				
									200			
	at 1.5 m light grey with orange brown staining								200			
			2						200			
	E.O.B: 2.1 m (target depth)								200			
			3									
			4									
			5									

NOTES Groundwater was not encountered.
House site

LOGGED BY: CS & NH
DATE DRILLED: 09-Jun-21
DRILL METHOD 50 mm Hand Auger



WILEY GEOTECHNICAL LTD

BOREHOLE No. BH2

SITE: Lot 3, 760 Settlement Road, Hakaru

REF: 21150

Sheet 1 of 1

KDC - Approved Building Consent Document - BC210456 - SP ISSUED - Pg 19 of 81 - 3/08/2021

INFERRED GEOLOGY	DESCRIPTION OF SOIL	SOIL SYMBOL	DEPTH (m)	SAMPLE TYPE	WATER CONTENT (%)	WATER LEVEL	CORRECTED VANE SHEAR STRENGTH (kPa)			SCALA PENETROMETER BLOWS / 100 mm		
							● Peak Field Vane	○ Remoulded Field vane		5	10	15
	TOPSOIL dark brown, possible fill											
	SILT slightly clayey, slight plasticity, brown											
	at 0.6 m increase in clay and plasticity											
	at 1.2 m light grey with orange brown staining		1									
	occasional limonitic staining, dark brown/orange brown		2									
	E.O.B: 2.1 m (target depth)											
			3									
			4									
			5									

NOTES Groundwater was not encountered.

TS = Topsoil

Shed site

LOGGED BY: CS & NH

DATE DRILLED: 09-Jun-21

DRILL METHOD 50 mm Hand Auger

BOREHOLE No. 1

REF: 20034

Sheet 1 of 1

KDCI - Approved Building Consent Document - BC210456_SP_ISSUED - Pg 20 of 81 - 3/08/2021 - YSINGH REDUCED

LOGGED BY: MW & JR
DATE DRILLED: 19-Mar-20
DRILL METHOD 50 mm Hand Auger



18 May 2020

Allan & Denise Rogers
deniserogers81@gmail.com

RE: Geotechnical Investigation for Proposed Subdivision at Settlement Road, Mangawhai.

Wiley Geotechnical Limited (WGL) was requested by Allan and Denise Rogers to provide a geotechnical investigation to support an application for a 3 Lot subdivision. We understand proposed Lot 2 contains an existing dwelling. We have received and reviewed a proposed subdivision scheme plan produced by Pacific Coast Surveys (Ref 2889, dated January 2020).

WGL visited the site on 19th March 2020 and made the following observations:

- The site trends along the western side of the Hakaru River.
- Lot 1 contains a ridged knoll formation to the north western corner upon which a suitably building platform was identified. The knoll formation is relatively level on top with 15° sloping ground to the south and 10° sloping ground to the north. The knoll is elevated approximately 4-5 m in elevation from the southern side of the Lot.
- A tributary creek of the Hakaru River trends along the south western side of proposed Lot 1 flowing into Lot 2. A non-engineered crossing is present providing access to the northern part to Lot 1.
- Lot 3 is situated upon a gentle south west slope angled at 2° with the northern treed area sloping to the north between 3-5°. A potentially suitable building site was identified towards the end of Lot 3.
- No obvious signs of instability were noted in the vicinity of both identified building platforms.
- Two hand augers and a Scala Penetrometer (Scala) test were undertaken within potentially suitable building sites to a maximum depth of 2.1 m below ground level.

Geology

The GNS map for the site indicates that it is underlain by alluvium of the Tauranga Group comprising "Partly consolidated mud, sand, gravel and peat or lignite of alluvial, colluvial, lacustrine, swamp and estuarine origins".

The GNS map shows a geological boundary 250 m west of the site and indicates that it is underlain by undifferentiated melange of the Northland Allochthon Group comprising "melange, comprising a matrix of sheared mudstone with included tectonic blocks of Northland Allochthon, Te Kuiti Group and Waitemata".

Seismic Hazards

Since there are no known active faults crossing the property, it is our opinion that ground rupture is unlikely at the subject property. Granular soils, such as sand, are susceptible to liquefaction in the event of future earthquakes. This may result in settlement or lateral deformation. Based on the regional earthquake risk (discussed further below) and depth to groundwater, it is our opinion that there is a relatively low risk of liquefaction induced settlement or lateral movement such that specific liquefaction design is not required.

We recommend that the future structures and improvements are designed to account for seismic shaking and ground motions. For seismic design at the site and in line with NZS 1170.5:2004 the corresponding design peak ground accelerations (PGA) for the site have been calculated from NZS 1170.5:2004 using the recommendations of the New Zealand Geotechnical Society as follows:

$$a_h = Z R C$$

In which:

Z = base PGA called "Hazard factor" and is given by Table 3.3 and Figures 3.3 and 3.4 of NZS 1170.5:2004. Z = 0.13 for areas north of Auckland.

R = "Return period factor" and is given by Table 3.5 of NZS 1170.5:2004 (R = 1.0 for 500 year return period and R = 0.25 for a 25 year return period)

C = Site response factor called "Spectral shape factor" in NZS 1170.5:2004 and is based on the seismic site classification. We consider this site to be **Class C**, based on soil depth and therefore C = 1.33.

The design PGA at the site is given as:

$$\text{ULS: } a_h = 0.13 \times 1.00 \times 1.33 = 0.17 \text{ (i.e. PGA = 0.17 g)}$$

$$\text{SLS: } a_h = 0.13 \times 0.25 \times 1.33 = 0.04 \text{ (i.e. PGA = 0.04 g)}$$

Field Exploration and Subsurface Conditions

WGL carried out a shallow subsurface investigation consisting of two hand augers with shear vane testing within the approximate areas shown on the site plan below.

Expansive Soils

Expansive clay and silt soils are common in the wider Northland region and have the tendency to shrink and swell, particularly with seasonal fluctuations of soil water content. This behavior has implications for foundation design and surface structures and should be incorporated during foundation design.

Based on our visual and field assessment of the soils encountered onsite, and our experience in the area, we consider that the Expansive Site Class for this site is "M - moderate" - in accordance with AS 2870. Accordingly, the minimum footing depth is 600 mm below cleared ground level.

Conclusions and Recommendations

It is our opinion that the proposed development is feasible from a geotechnical point of view, provided the recommendations presented in this report and standard development practices are incorporated in the design and construction of the project.

The results of the geotechnical investigation indicate a suitable bearing capacity is available for future residential development, with readings generally greater than 100 kPa.

We consider the site to be suitable for the proposed subdivision in accordance with the provision of Section 106 of the Resource Management Act 1991, and that standard earthwork and construction practises will not result significant increase or risk of erosion, subsidence, falling debris, slippage or inundation by soil or rock.

Foundations

It is our opinion that wooden piles designed in accordance with NZS3604 (2011) would likely provide a suitable foundation for future dwellings with anchor piles embedded to a minimum depth of 0.9 m, and all other piles are embedded to a minimum depth of 0.6 m. Piles on a sloping building pad should be embedded to have a toe level extending at least 600 mm below the lowest ground surface within 2 m. Additional evaluation may be required if the building site is sloped at greater than 3:1 (H:V).

A concrete foundation may also be feasible. We would expect that a minimum 300 mm layer of compacted hard fill is placed prior to applying blinding sand for any reinforced concrete slab and foundation elements having a minimum embedment depth of 0.6 m.

We expect that a geotechnical ultimate bearing capacity of 300 kPa would be available; however, further geotechnical investigations and design shall have to be carried out at the building consent stage.

Onsite Wastewater Disposal

We consider the site would be suitable for either a Secondary wastewater system depending on your requirement for the land that will be used as a disposal field. Both the Primary and the Secondary systems require the effluent field to be fenced if the land intends to be grazed.

The final onsite wastewater disposal system must conform to G13 of the NZ Building code. There are a number of proprietary systems available to suit the requirements of future residential development, which are a function of the building footprint and total number of occupants.

Any treated material must be dispersed in a controlled manner across a relatively level discharge area in order to maximise the efficient infiltration of material without compromising the stability of any slopes. To this end, we recommend that the effluent disposal fields be located clear of the building locations.

In terms of AS/NZS: 1547-2000) a Soil Category of 5 (i.e. "Light Clays – poorly drained") should be adopted. This is based on the findings of the geotechnical investigation and the assessment of the soil regarding its relevant soil category, as per the guidance document.

Considering the results of the geotechnical investigation we consider Category 5 with a DIR of 3.0mm/day. Based on a standard 4 bedroom house with an occupancy of 6 persons with roof supply water and standard water reduction fixtures this would require $6 \times 145\text{L} = 870\text{L/day}$ $870\text{L/day} / 3.0 = 290\text{m}^2$ effluent field.

We have illustrated above suitable areas for a standard wastewater disposal field with sufficient area included for 50% reserve. There are other locations upon each of the Lot which may also be suitable to utilise as a wastewater disposal field.

The Northland Regional Council rules refer to a winter ground water level and require the following;

- Primary systems - The lowest point of the disposal system is not less than 1.2 metres above winter (June, July or August) groundwater table.
- Secondary systems – The lowest point of the disposal system is not less than 0.6 metres (600 millilitres) above the winter (June, July or August) groundwater table.

WGL have assessed the autumn ground water levels to be greater than 2.5 m depth, and do not consider groundwater to exceed a depth of 0.6 m for a secondary system.

Stormwater

We recommend that stormwater overflow from newly developed dwelling water tanks from Lot 1 is directed to the creek to the south west of the Lot while stormwater from Lot 3 is directed to the existing open road side drain. The outlet of the stormwater pipe should not be positioned above sloping ground where the risk of slope instability would be increased. We recommend the outlet pipe directs water in to rip rap erosion protection. This should consist of geotextile cloth placed upon insitu soil with clean rock of 150-300 mm in diameter. This area should be a minimum of 1 m wide and 3 m in length.

If a suitable overland flow path is not available, we recommend implementing suitable subsoil level spreader to disperse stormwater runoff from future water tank overflow pipe(s). This should consist of a 0.5 m wide by a 0.5 m deep excavation with a perforated 110 mm novacoil pipe backfilled with clean drainage rock. The base and side should be wrapped with a geotextile cloth (Bidim A29, Cirtex AS410 or similar approved product) and fold over the top of the drainage metal enclosing it. The subsoil level spreader should be constructed to have 1 m length for every 10 m³ of roof area of the proposed dwelling.

If the total impervious area being developed on any lot (roofs, driveways, paving etc.) is greater than 10% of the entire lot area (15% if not in any Overlay), then specific stormwater design shall have to be carried out with regards to attenuation in order to offset the increase in stormwater runoff up to the 100

year storm event. Specific design must reach Kaipara District Council standards. This shall be determined at the building consent stage once final impervious areas are known.

LIMITATIONS

- (i) This report has been prepared for the use of our client, Allan & Denise Rogers and their professional advisers and the relevant Regional Authorities in relation to the specified project brief described in this report. No liability is accepted for the use of any part of the report for any other purpose or by any other person or entity.
- (ii) Assessments made in this report are based on the ground conditions indicated from published sources, site inspections and subsurface investigations described in this report based on accepted normal methods of site investigations. Variations in ground conditions may exist between test locations and therefore have not been taken into account in the report. If variations are found during excavation or at foundation preparation stage WGL should be notified immediately so we can amend our recommendations.
- (iii) This Limitation should be read in conjunction with the IPENZ/ACENZ Standard Terms of Engagement.

We trust that this information meets your current requirements. Please do not hesitate to contact the undersigned on 021 0399 385 or matt@wileygeotechnical.co.nz if you require any further information.



John Rowland, BEng, MEngNZ

Associate Geotechnical Engineer



Matt Wiley, CPEng, CMEngNZ

Principal Engineer

Attachments:

- Bore Logs

BOREHOLE No. 1

REF: 20034

Sheet 1 of 1

KDC - Approved Building Consent Document - BC210456_SP_ISSUED - Pg 26 of 81 - 3/08/2021 - YSIGH REDUCED

LOGGED BY: MW & JR
DATE DRILLED: 19-Mar-20
DRILL METHOD 50 mm Hand Auger



WILEY GEOTECHNICAL LTD

BOREHOLE No. 2

SITE: Settlement Road, Mangawhai

REF: 20034

Sheet 1 of 1

INFERRED GEOLOGY	DESCRIPTION OF SOIL	SOIL SYMBOL	DEPTH (m)	SAMPLE TYPE	WATER CONTENT (%)	WATER LEVEL	CORRECTED VANE SHEAR STRENGTH (kPa)			SCALA PENETROMETER BLOWS / 100 mm		
							● Peak Field Vane ○ Remoulded Field vane					
							50	100	150	5	10	15
	TOPSOIL dry, fine											
	SILT minor clay, light brown with orange/brown staining, desiccation cracking to 0.3 m											
	slightly clayey											
			1									
	manganese nodules											
	occasional rootlets											
	remnant rock structure											
	limonite		2									
	E.O.B: 2.1 m											
			3									
			4									
			5									

KDC - Approved Building Consent Document - BC-210456-SP ISSUED - Pg 27 of 81 - 3/08/2021 - VS10990

NOTES Groundwater was not encountered.

LOGGED BY: MW & JR

DATE DRILLED: 19-Mar-20

DRILL METHOD 50 mm Hand Auger



PROJECT
Flood Assessment

Address
ALLOTMENT 310 PSH OF KAIWAKA
760 Settlement Road
KAIWAKA

DATE
26th June 2020

JOB REFERENCE
#97465

WWW.WILTONJOUBERT.CO.NZ . STRUCTURAL . GEOTECH . STORMWATER . WASTEWATER

NORTHLAND

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QUALITY CONTROL

Revision History

Revision No.	Prepared By	Description	Date
01	Ben Steenkamp	Resource Consent Stage	26.06.2020

Acceptance

Action	Name	Signed	Date
Prepared by	Ben Steenkamp		26.06.2020
Reviewed by	Frans Krause		26.06.2020
Approved by	Frans Krause		26.06.2020
on behalf, of	Wilton Joubert Limited		

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4. METHODOLOGY	5
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6. DISCUSSION	7
7. CONCLUSION AND RECOMMENDATIONS	8
8. LIMITATIONS	9

1. INTRODUCTION

Wilton Joubert Ltd (WJL) was engaged to carry out a flood assessment at 760 Settlement Road, Kaiwaka. The purpose of this investigation is to provide a “desktop” analysis of the potential flood risks associated with the proposed development, which is to be considered through a consent application to the Kaipara District Council.

The information provided herein relates to data abstracted from the LINZ database, Site Plan sketches supplied by the client, Kaipara District Plan - Operative in part, Kaipara District Council Standards, and relevant Codes of Practice as well as the New Zealand Building Code E1/VM1.

2. SITE DESCRIPTION

The property is legally described as ALLOTMENT 310 KAIWAKA PSH BLK XV WAIPU SD and is located on the southern side of Kaiwaka-Mangawhai Road, Kaiwaka. Access to the property is via a single private accessway crossing off Settlement Road. The property is 4.2567 ha in extent and is assessed as having a relatively flat surface, which generally descends towards the east.

GIS data suggests that the Hakaru River is located along the eastern boundary with some wetlands and overland flow paths located migrating through the centre of the land parcel.

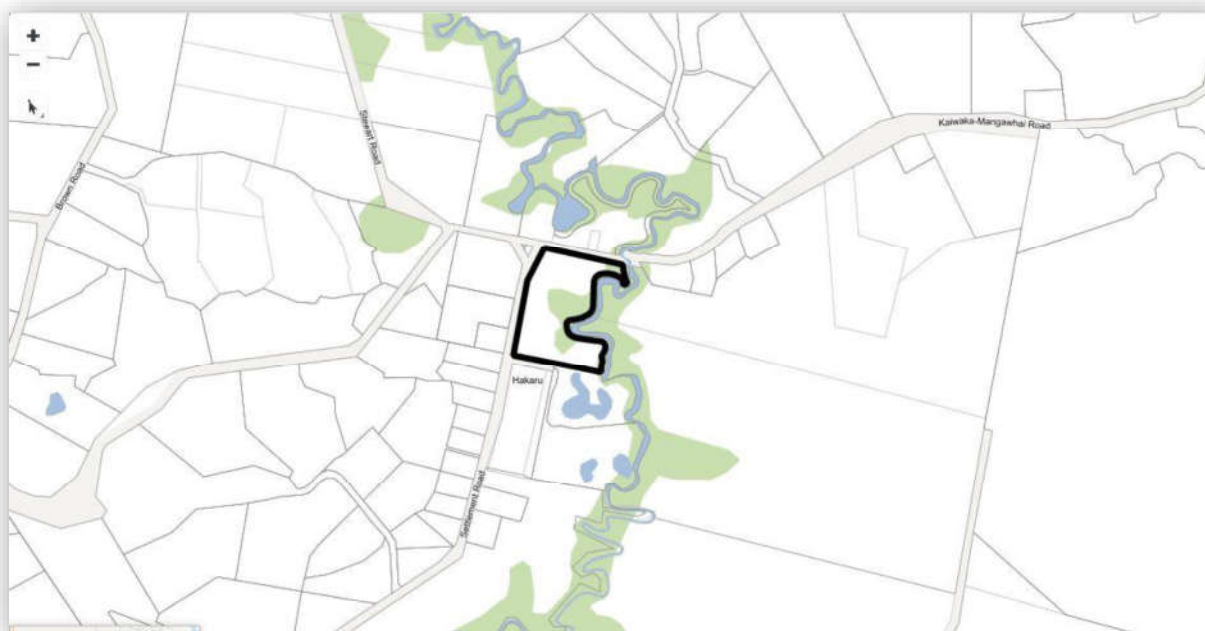


Figure 1: Locality Map – 760 Settlement Road (KDC - Geomaps)

The flood susceptibility map obtained from the Kaipara District Council GIS system, shows the site to be located within a flood susceptibility area of a flood plain generated by the Hakaru River.

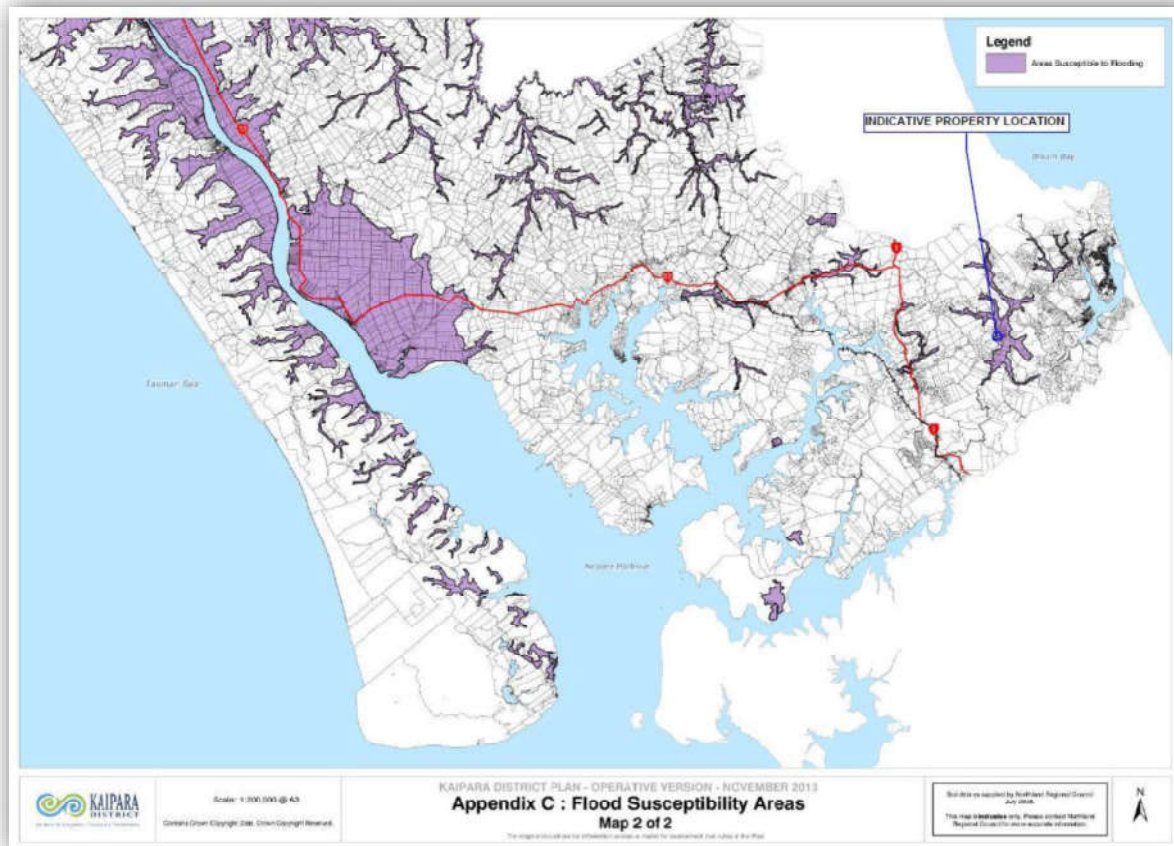


Figure 2: Kaipara - Flood Susceptibility Map

3. CATCHMENTS

The total catchment area is 3664.0937 hectares, as depicted in figure 3, below.

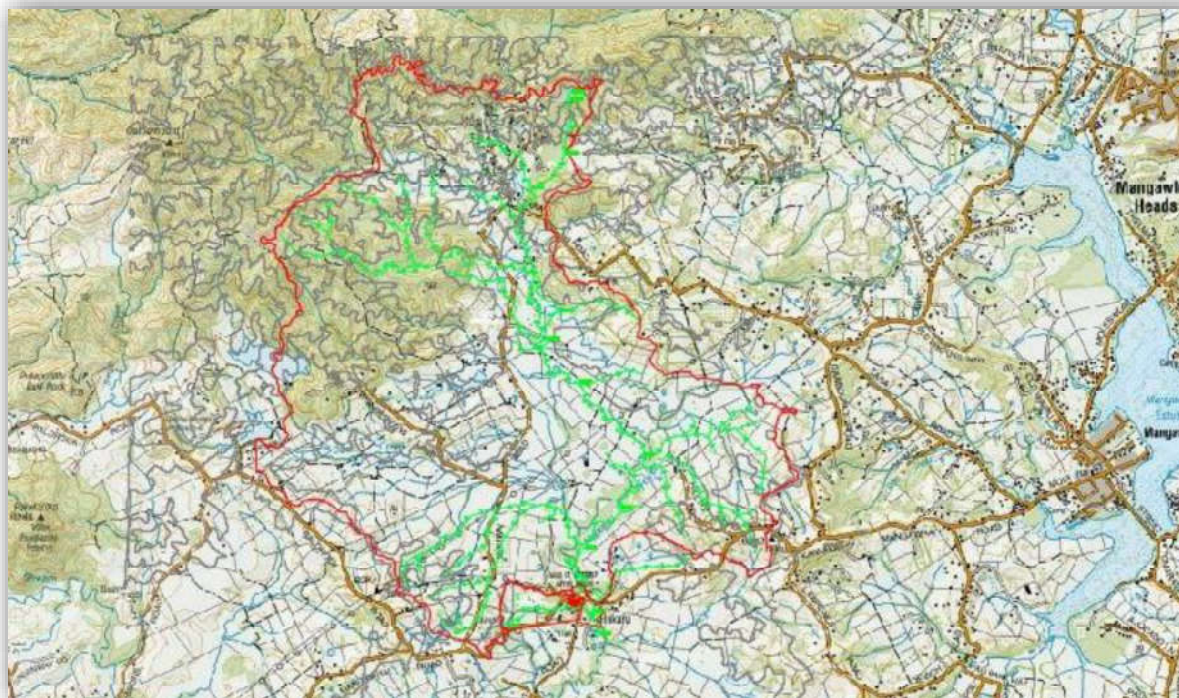


Figure 3: Catchment

All the contributing tributaries converge in close proximity of the south eastern corner of the site from where it continues in an southern direction as the Hakaru River discharging into the Kaipara Harbour.

4. METHODOLOGY

A terrain model was constructed of the complete catchment, using the terrain data abstracted from the LINZ Topographical Basemap and the site survey provided by the client. Run-off from all contributing catchments was calculated through the use of HydroCAD software, the results of which are presented in the appendices of this report.

An HEC-RAS model represented through the Autodesk "River" module, was prepared for all main tributaries and populated with the flow data abstracted at various flow change positions identified through the interrogation of the flood model.

The flood model was calibrated by comparing and adjusting the channel cross-sections and grades with those obtained through the terrain model.

5. ANALYSIS

A summary of the input values used in the analysis is presented in Table 1 below.

Table 1: HydroCAD Values

<u>Catchment</u>	<u>Area [ha]</u>	<u>Rainfall depth</u> <u>20%AEP [inc CC]</u>	<u>Rainfall depth</u> <u>1%AEP [inc CC]</u>	<u>Tc</u> <u>(min)</u>	<u>Channel</u> <u>Length (m)</u>	<u>20%AEP</u> <u>Flows m³/s</u>	<u>1%AEP</u> <u>Flows m³/s</u>
1	3654.1286	173 mm	324 mm	147	12 009	220.10	507.25
2	57.1094	173 mm	324 mm	28	1 414	8.33	19.06
3	4.2567	173 mm	324 mm	10	150	1.00	2.11

The above flows were analysed in the flood model to determine the effect on the subject property. The results of which were depicted graphically in the terrain model.

The Kaipara District Council Engineering Standards lists the following minimum requirements for the development of sites affected by flooding:

“6.1.1 Minimum Requirements

(ii) Recognise and protect existing overland flow paths, ephemeral watercourses and natural wetlands, streams and rivers;

(iii) Protect buildings from flooding in accordance with clause 6.2.3 and 6.2.4” where 6.2.3 is applicable:

“6.2.3 Freeboard

The following requirements shall be met:

(a) The minimum freeboard height to floor level above the 100 year ARI flood level shall be as follows.

Table 6.3: Freeboard

<i>Building</i>	<i>Minimum Freeboard</i>
<i>Habitable Building floors</i>	<i>500mm</i>
<i>Commercial and Industrial Buildings and nonhabitable buildings such as garages and sheds</i>	<i>300mm”</i>

It is further noted in section 6.1.2 (B) that “*in areas zoned Rural, all overland flow paths on lots of less than 4.0ha shall be identified and protected by an easement in gross in favour of Council.*”

6. DISCUSSION

As mentioned elsewhere in this report, a terrain model was constructed utilising the GIS data abstracted from the Kaipara District Council GIS system, LINZ data as well as survey data received from the client. The proposed subdivision lines were superimposed on the terrain model.

Two main tributaries were identified and modelled. The main tributary is the Hakaru River, and the second is the tributary crossing the site from west to east, merging into the Hakaru River to the east. The Kaiwaka-Mangawhai Road crosses the Hakaru River via a bridge, which was also incorporated into the model.

Cross-sections were generated to assist in the creation of the river stations and identifiable cross-sections for utilisation in the flood model.

Both the 1% (Secondary) and 20% (Primary) AEP-storms were analysed for each of the tributaries. The output of each scenario is included in the Appendices to this report. Further analysis of water levels achieved during the 1% AEP and the 20% AEP, revealed water levels of **34.471MSL** for the 1% AEP and **33.119MSL** for the 20% AEP respectively in the upper portion of the site and **34.407MSL** for the 1% AEP and **33.071MSL** for the 20% AEP respectively for the lower section.

The flood model indicates that the water will build-up from the position where the two tributaries merge, upstream to the subject site, during a 1% AEP event. The data also concludes that the water level may build-up at the Kaiwaka-Mangawhai Bridge during the same storm event.

Please consult *Figure 4* below for further clarification.

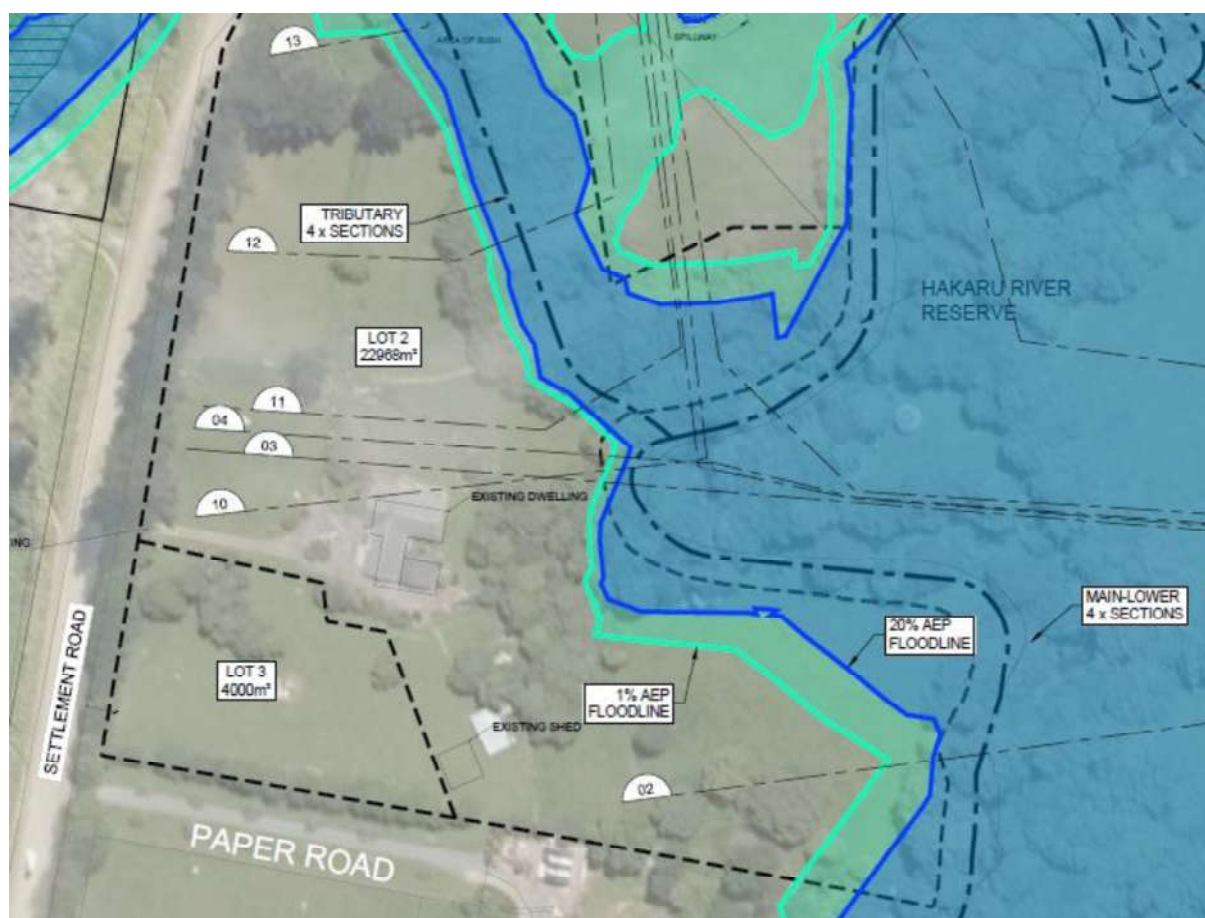


Figure 4: Indicative Flood Lines

7. CONCLUSION AND RECOMMENDATIONS

In accordance with the Kaipara District Council's Code of Practice, Table 6.3, Freeboard requirements, for the 1% AEP storm event, the following apply:

- 500mm for Habitable Building Floors
- 300mm for Commercial and Industrial Buildings and non-habitable buildings such as garages and sheds

WJL will, therefore, recommend that the minimum proposed floor levels to be in compliance with the above freeboard requirements. With the above in mind, it is anticipated that the following minimum finished floor levels will be required:

Building	Minimum Level – Upper part of site	Minimum Level – Lower part of site
Habitable Building floors	34.971	34.907
Commercial and Industrial Buildings and non-habitable buildings such as garages and sheds	34.771	34.707

8. LIMITATIONS

The recommendations and opinions contained in this report are based on information from GIS data obtained from the Kaipara District Council database, Northland Geomaps, as well as data obtained from the Client.

This report has been prepared solely for the use of our Client with respect to both the particular brief and specific purpose provided to Wilton Joubert Ltd (WJL), with regards to the specific project described herein.

Both no liability and any duty of care is acknowledged or accepted for the use of any part of this report in any other context or for any other purpose, or by any other person, other party or entity.

The performance behaviour outlined by this report is dependent on the construction activity and actions of the builder/contractor. Inappropriate actions during the construction phase may cause behaviour outside the limits given in this report.

This report has been prepared for the particular project described to us, and no responsibility is accepted for the use of any part of this report in any other context or for any other purpose.

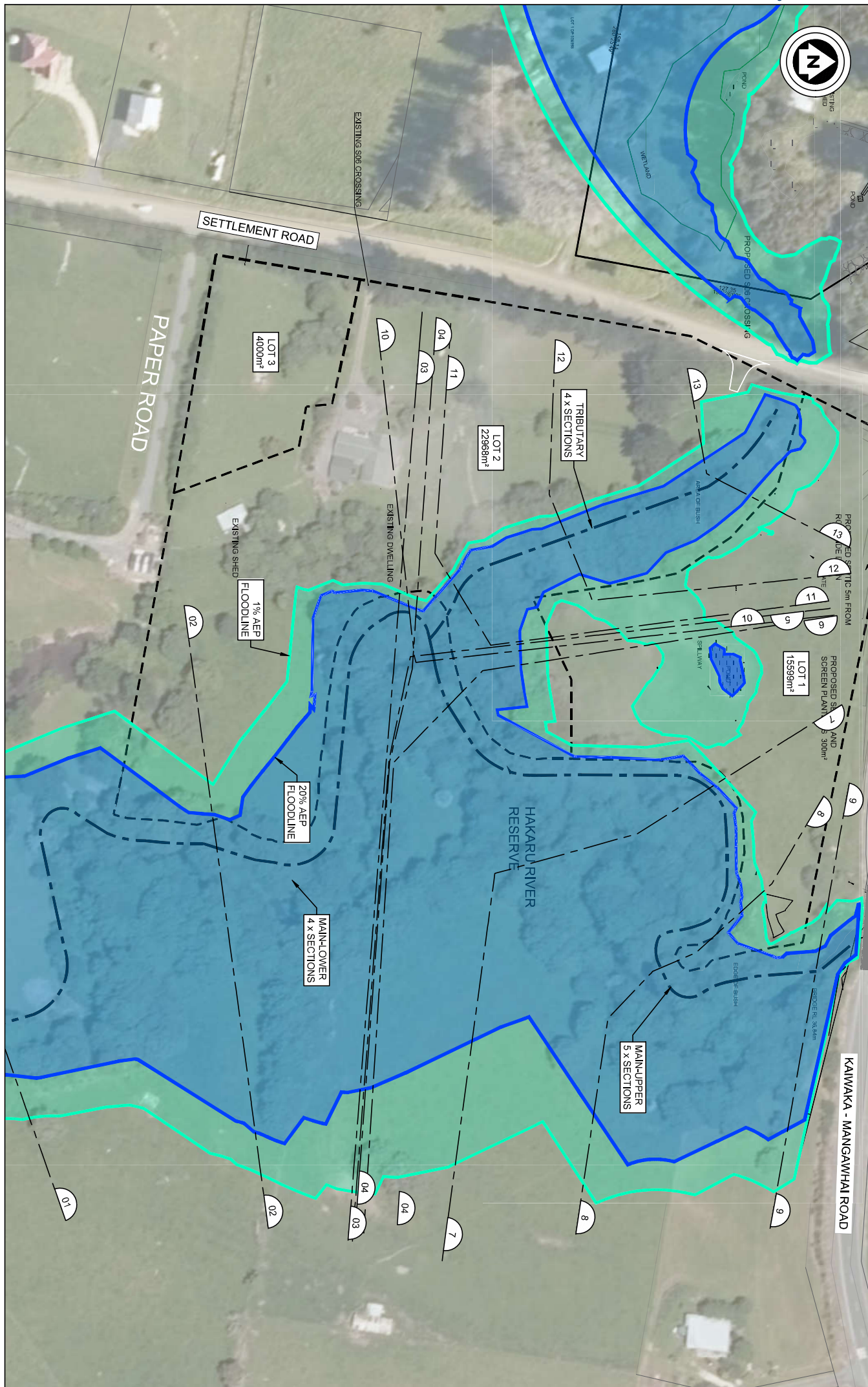
Yours faithfully,
Wilton Joubert Ltd.

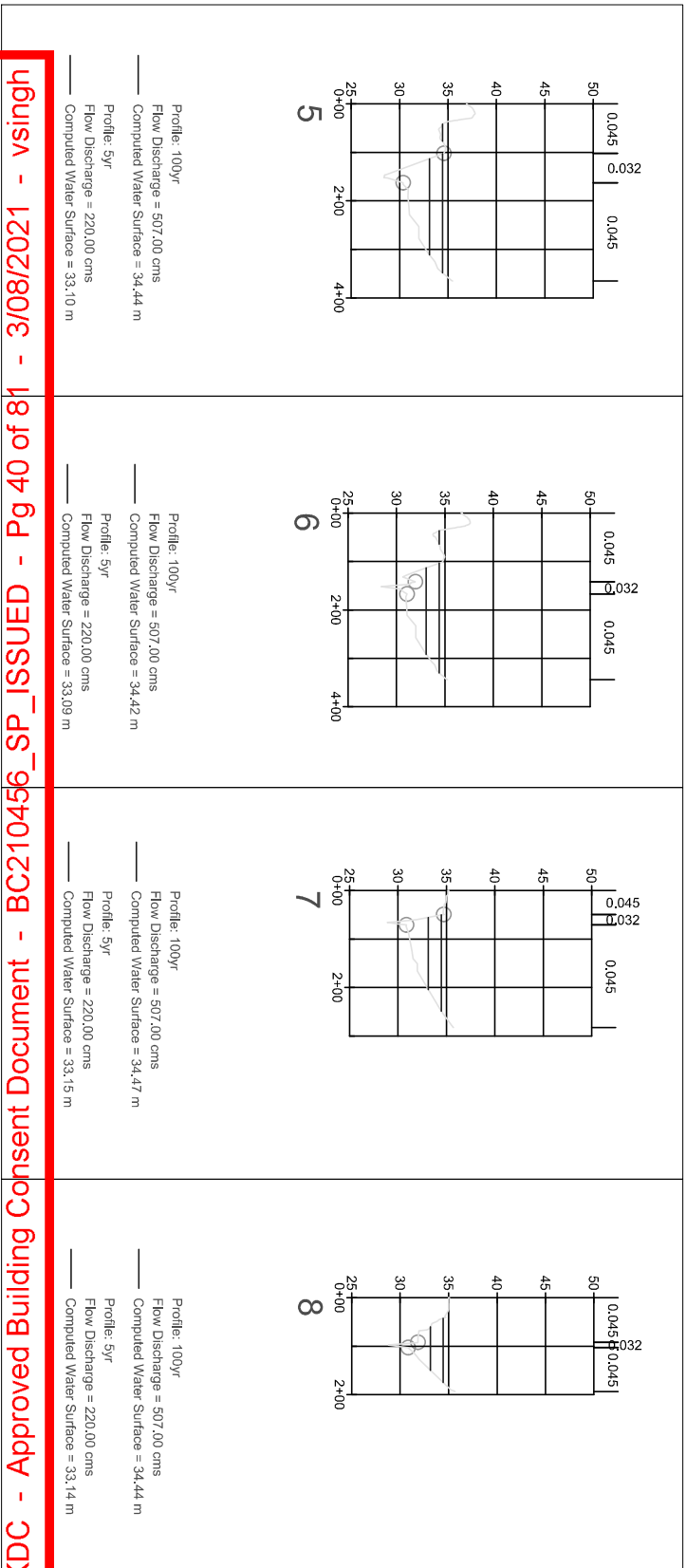
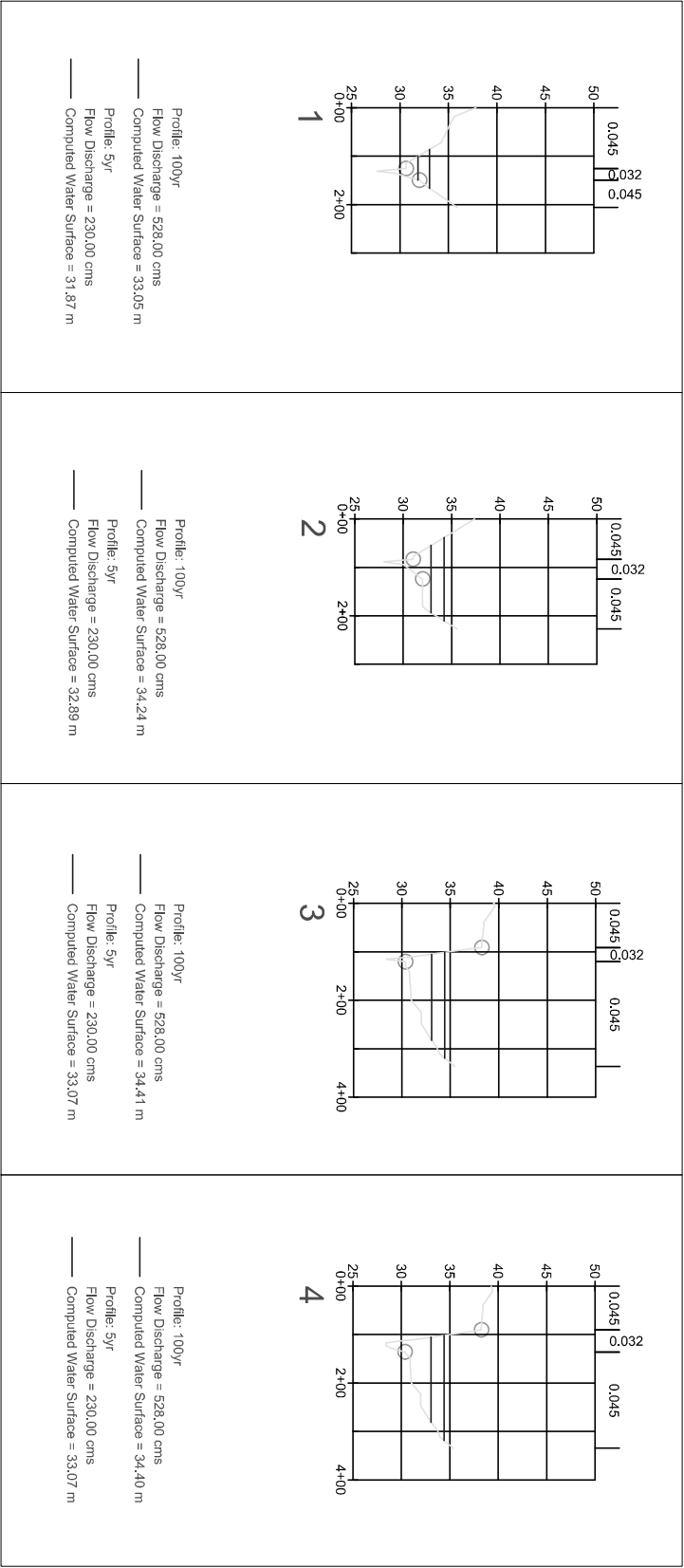


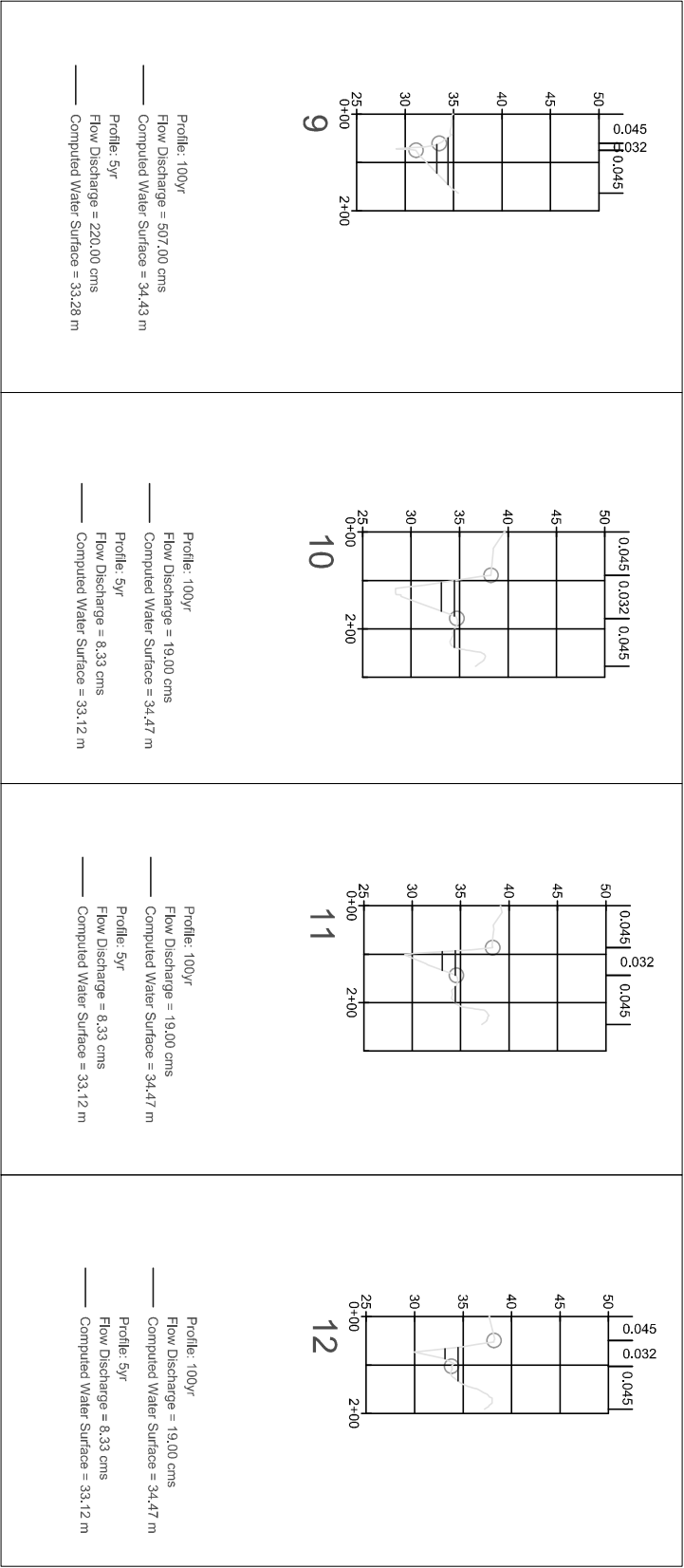
Frans Krause
IntPE CPEng APEC RPEQ NZIMS
BEng Civil TechHDipEng PGDip Bus

APPENDICES

1. Calculations
2. Output data

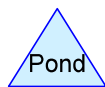
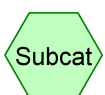
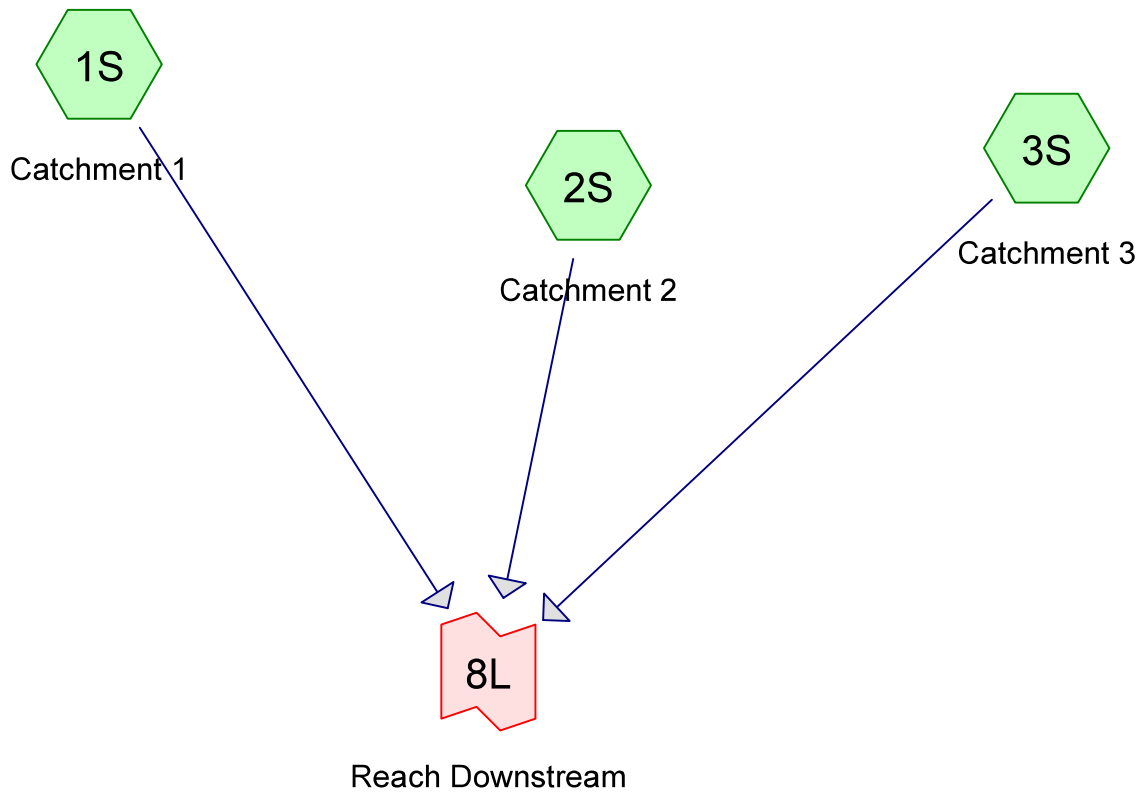






HEC-RAS Profile Output Table - Standard Table 1

River Station	Profile	Q Total (m³/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m²)	Top Width (m)	Froude # Chl
9	100yr	507.00	29.07	34.431	34.147	35.055	0.006770	4.69	166.03	96.59	0.89732
9	5yr	220.00	29.07	33.274	33.274	33.830	0.009108	4.24	76.24	58.91	0.96788
8	100yr	507.00	28.80	34.440		34.736	0.002177	3.58	267.55	132.54	0.55255
8	5yr	220.00	28.80	33.141		33.452	0.002976	3.29	119.85	89.69	0.60817
7	100yr	507.00	28.88	34.472		34.544	0.000766	1.66	451.25	198.35	0.31383
7	5yr	220.00	28.88	33.146		33.210	0.001011	1.61	220.85	149.16	0.34361
6	100yr	507.00	28.43	34.424		34.483	0.000426	1.56	556.11	254.87	0.25042
6	5yr	220.00	28.43	33.085		33.132	0.000527	1.32	276.48	178.59	0.26022
5	100yr	507.00	28.39	34.434		34.471	0.000219	1.08	680.43	280.74	0.18138
5	5yr	220.00	28.39	33.095		33.120	0.000195	0.87	373.56	198.80	0.16477
13	100yr	19.00	31.14	34.471		34.475	0.000042	0.28	68.16	41.59	0.06950
13	5yr	8.33	31.14	33.119		33.125	0.000094	0.33	25.56	22.57	0.09775
12	100yr	19.00	29.97	34.470		34.473	0.000026	0.24	91.01	69.19	0.05546
12	5yr	8.33	29.97	33.117		33.121	0.000043	0.26	31.81	20.90	0.06774
11	100yr	19.00	29.21	34.471		34.472	0.000005	0.13	149.30	83.84	0.02576
11	5yr	8.33	29.21	33.119		33.119	0.000005	0.10	79.53	38.82	0.02335
10	100yr	19.00	28.39	34.472		34.472	0.000001	0.07	265.96	110.51	0.01258
10	5yr	8.33	28.39	33.119		33.119	0.000001	0.05	166.87	59.15	0.00949
4	100yr	528.00	28.39	34.403		34.461	0.000331	1.45	583.19	216.57	0.22513
4	5yr	230.00	28.39	33.069		33.112	0.000295	1.18	321.07	175.21	0.20476
3	100yr	528.00	28.36	34.407		34.454	0.000430	1.36	574.23	218.11	0.23893
3	5yr	230.00	28.36	33.071		33.105	0.000474	1.22	307.85	177.58	0.24034
2	100yr	528.00	28.03	34.235		34.372	0.000746	2.01	395.08	172.39	0.33285
2	5yr	230.00	28.03	32.884		33.008	0.001043	1.76	184.73	139.09	0.36512
1	100yr	528.00	27.63	33.047	33.047	34.035	0.006214	5.03	144.79	80.21	0.91347
1	5yr	230.00	27.63	31.871	31.871	32.603	0.007532	4.10	69.12	49.14	0.93242



Routing Diagram for 760Settlement

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760 Settlement Road

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Page 2

Area Listing (all nodes)

Area (hectares)	CN	Description (subcatchment-numbers)
4.2567	80	>75% Grass cover, Good, HSG D (3S)
3,711.2380	77	Brush, Poor, HSG C (1S, 2S)
3,715.4947	77	TOTAL AREA

760 Settlement Road

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Page 3

Soil Listing (all nodes)

Area (hectares)	Soil Group	Subcatchment Numbers
0.0000	HSG A	
0.0000	HSG B	
3,711.2380	HSG C	1S, 2S
4.2567	HSG D	3S
0.0000	Other	
3,715.4947		TOTAL AREA

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Ground Covers (all nodes)

HSG-A (hectares)	HSG-B (hectares)	HSG-C (hectares)	HSG-D (hectares)	Other (hectares)	Total (hectares)	Ground Cover	Subcatchment Numbers
0.0000	0.0000	0.0000	4.2567	0.0000	4.2567	>75% Grass cover, Good	
0.0000	0.0000	3,711.2380	0.0000	0.0000	3,711.2380	Brush, Poor	
0.0000	0.0000	3,711.2380	4.2567	0.0000	3,715.4947	TOTAL AREA	

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ARC TP 108 24 Hour 1% AEP Rainfall=324 mm

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Page 5

Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 points

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Sim-Route method - Pond routing by Sim-Route method

Subcatchment 1S: Catchment 1 Runoff Area=3,654.1286 ha 0.00% Impervious Runoff Depth=248 mm
Tc=147.0 min CN=77 Runoff=507.2533 m³/s 9,059.280 MI

Subcatchment 2S: Catchment 2 Runoff Area=57.1094 ha 0.00% Impervious Runoff Depth=248 mm
Tc=28.0 min CN=77 Runoff=19.0578 m³/s 141.585 MI

Subcatchment 3S: Catchment 3 Runoff Area=4.2567 ha 0.00% Impervious Runoff Depth=259 mm
Tc=10.0 min CN=80 Runoff=2.1061 m³/s 11.006 MI

Link 8L: Reach Downstream

Inflow=510.9520 m³/s 9,211.871 MI

Primary=510.9520 m³/s 9,211.871 MI

Total Runoff Area = 3,715.4947 ha Runoff Volume = 9,211.871 MI Average Runoff Depth = 248 mm
100.00% Pervious = 3,715.4947 ha 0.00% Impervious = 0.0000 ha

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760 Settlement Road
ARC TP 108 24 Hour 1% AEP Rainfall=324 mm

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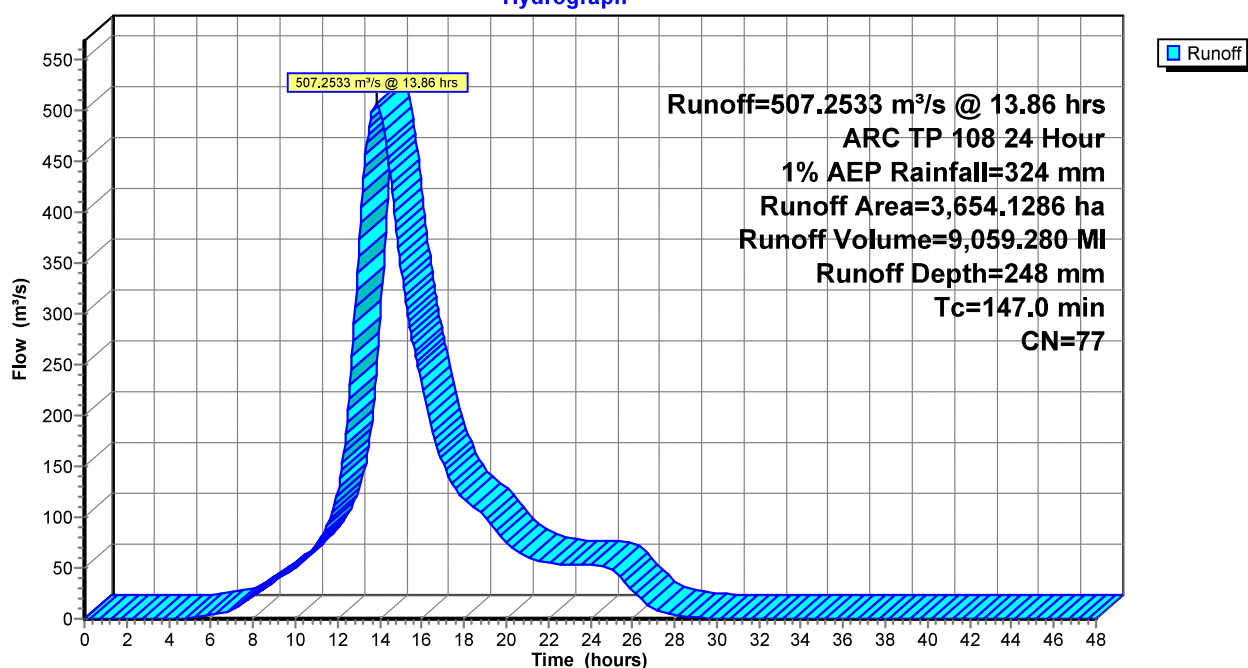
Summary for Subcatchment 1S: Catchment 1Runoff = 507.2533 m³/s @ 13.86 hrs, Volume= 9,059.280 MI, Depth= 248 mmRunoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
ARC TP 108 24 Hour 1% AEP Rainfall=324 mm

Area (ha)	CN	Description
3,654.1286	77	Brush, Poor, HSG C
3,654.1286		100.00% Pervious Area

Tc (min)	Length (meters)	Slope (m/m)	Velocity (m/sec)	Capacity (m ³ /s)	Description
147.0					Direct Entry, Tc From TP108 Calcs

Subcatchment 1S: Catchment 1

Hydrograph



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760 Settlement Road
ARC TP 108 24 Hour 1% AEP Rainfall=324 mm

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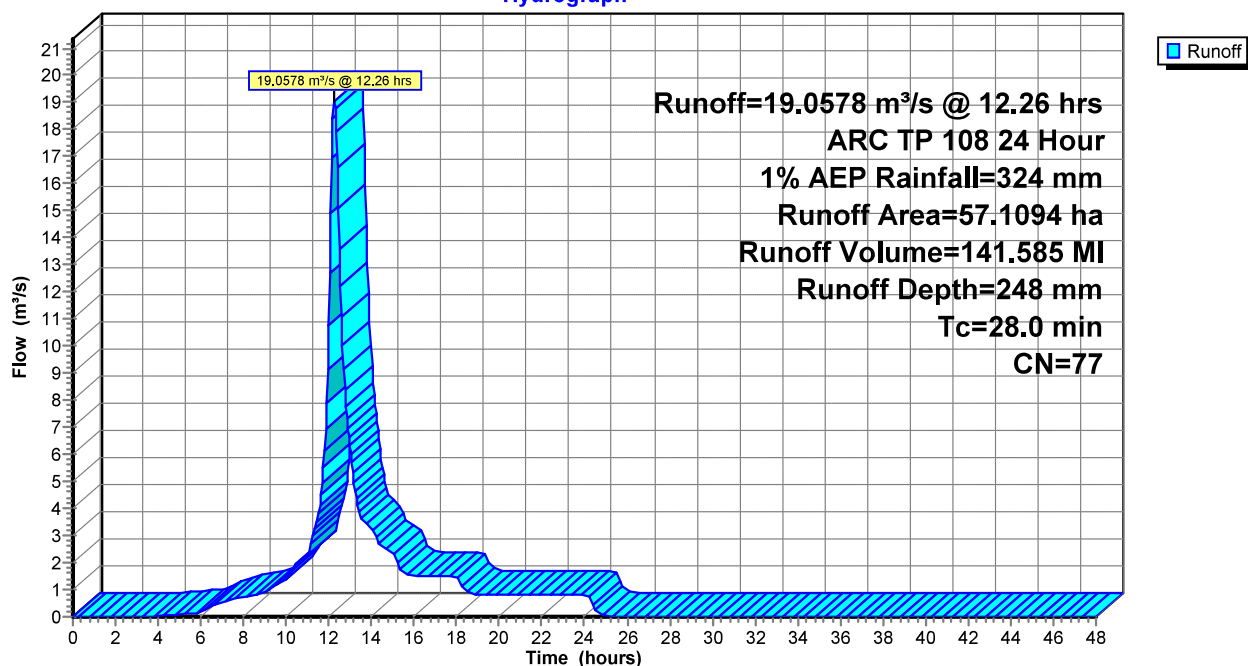
Summary for Subcatchment 2S: Catchment 2Runoff = 19.0578 m³/s @ 12.26 hrs, Volume= 141.585 MI, Depth= 248 mmRunoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
ARC TP 108 24 Hour 1% AEP Rainfall=324 mm

Area (ha)	CN	Description
57.1094	77	Brush, Poor, HSG C
57.1094		100.00% Pervious Area

Tc (min)	Length (meters)	Slope (m/m)	Velocity (m/sec)	Capacity (m ³ /s)	Description
28.0					Direct Entry,

Subcatchment 2S: Catchment 2

Hydrograph



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760 Settlement Road
ARC TP 108 24 Hour 1% AEP Rainfall=324 mm

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Page 8

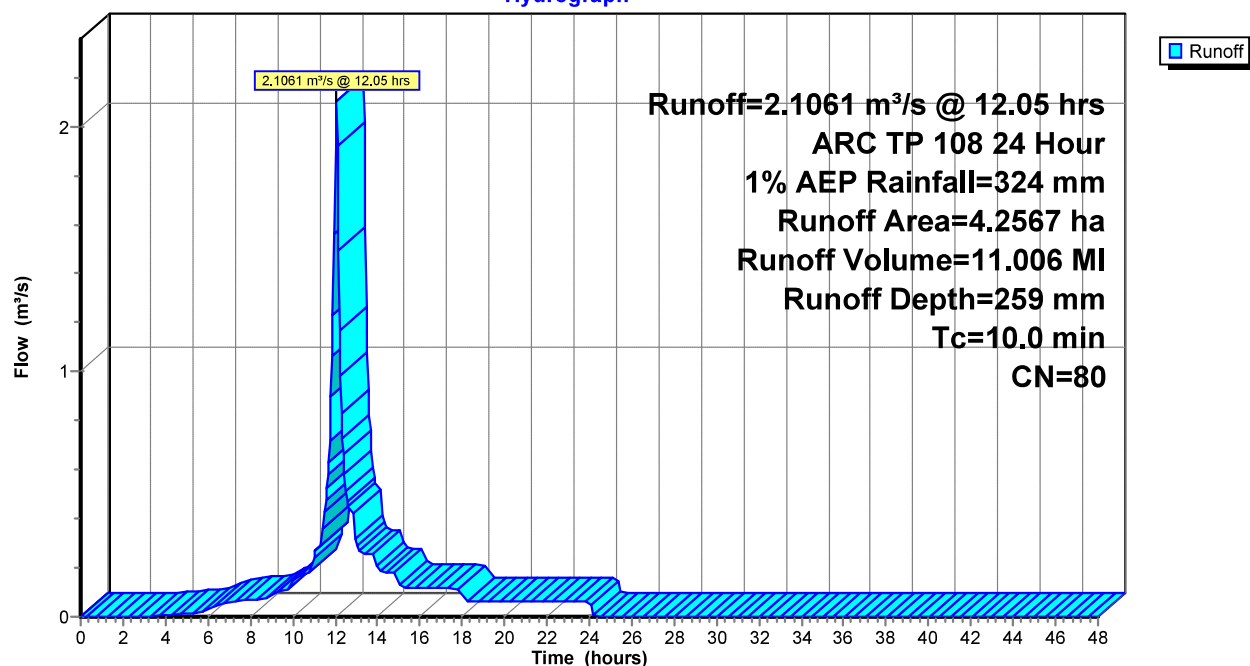
Summary for Subcatchment 3S: Catchment 3Runoff = 2.1061 m³/s @ 12.05 hrs, Volume= 11.006 MI, Depth= 259 mmRunoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
ARC TP 108 24 Hour 1% AEP Rainfall=324 mm

Area (ha)	CN	Description
4.2567	80	>75% Grass cover, Good, HSG D
4.2567		100.00% Pervious Area

Tc (min)	Length (meters)	Slope (m/m)	Velocity (m/sec)	Capacity (m ³ /s)	Description
10.0					Direct Entry,

Subcatchment 3S: Catchment 3

Hydrograph



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760 Settlement Road
ARC TP 108 24 Hour 1% AEP Rainfall=324 mm

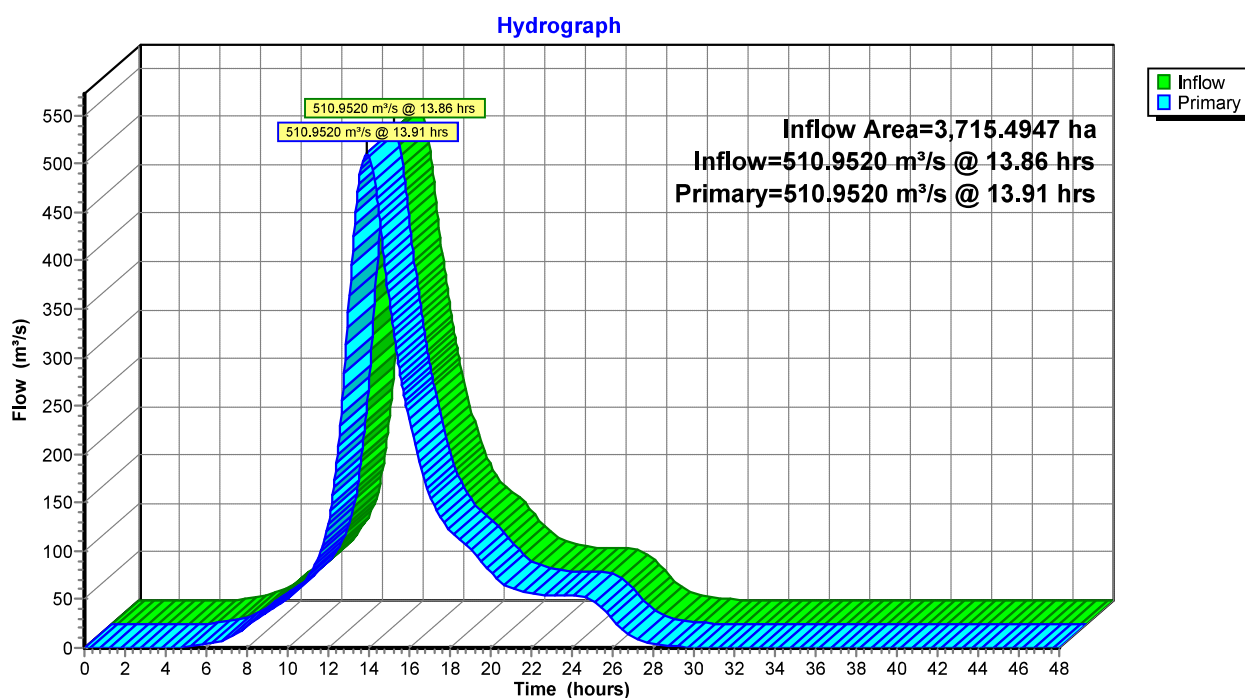
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Summary for Link 8L: Reach Downstream

Inflow Area = 3,715.4947 ha, 0.00% Impervious, Inflow Depth = 248 mm for 1% AEP event
 Inflow = 510.9520 m³/s @ 13.86 hrs, Volume= 9,211.871 MI
 Primary = 510.9520 m³/s @ 13.91 hrs, Volume= 9,211.871 MI, Atten= 0%, Lag= 3.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link 8L: Reach Downstream

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760 Settlement Road
ARC TP 108 24 Hour 20% AEP Rainfall=173 mm

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Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 points

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Sim-Route method - Pond routing by Sim-Route method

Subcatchment 1S: Catchment 1 Runoff Area=3,654.1286 ha 0.00% Impervious Runoff Depth=107 mm
Tc=147.0 min CN=77 Runoff=220.0985 m³/s 3,894.837 MI

Subcatchment 2S: Catchment 2 Runoff Area=57.1094 ha 0.00% Impervious Runoff Depth=107 mm
Tc=28.0 min CN=77 Runoff=8.3319 m³/s 60.871 MI

Subcatchment 3S: Catchment 3 Runoff Area=4.2567 ha 0.00% Impervious Runoff Depth=115 mm
Tc=10.0 min CN=80 Runoff=0.9657 m³/s 4.887 MI

Link 8L: Reach Downstream

Inflow=221.8614 m³/s 3,960.596 MI

Primary=221.8614 m³/s 3,960.596 MI

Total Runoff Area = 3,715.4947 ha Runoff Volume = 3,960.596 MI Average Runoff Depth = 107 mm
100.00% Pervious = 3,715.4947 ha 0.00% Impervious = 0.0000 ha

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760 Settlement Road
ARC TP 108 24 Hour 20% AEP Rainfall=173 mm

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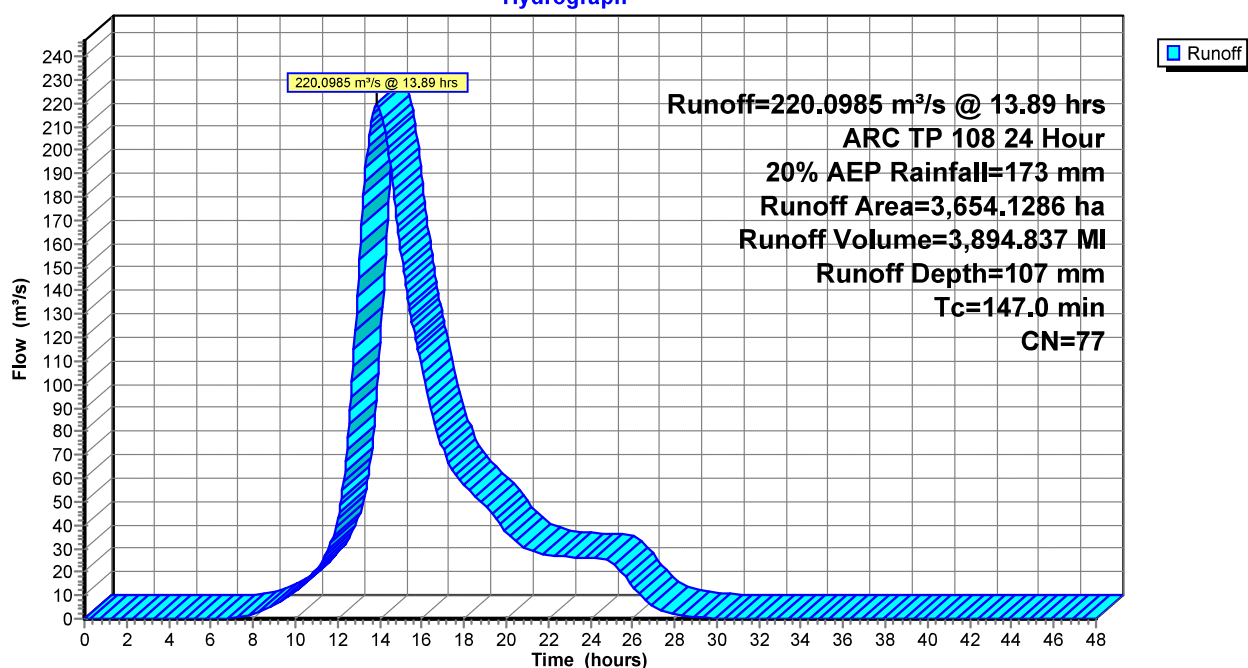
Summary for Subcatchment 1S: Catchment 1Runoff = 220.0985 m³/s @ 13.89 hrs, Volume= 3,894.837 MI, Depth= 107 mmRunoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
ARC TP 108 24 Hour 20% AEP Rainfall=173 mm

Area (ha)	CN	Description
3,654.1286	77	Brush, Poor, HSG C
3,654.1286		100.00% Pervious Area

Tc (min)	Length (meters)	Slope (m/m)	Velocity (m/sec)	Capacity (m ³ /s)	Description
147.0					Direct Entry, Tc From TP108 Calcs

Subcatchment 1S: Catchment 1

Hydrograph



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760 Settlement Road
ARC TP 108 24 Hour 20% AEP Rainfall=173 mm

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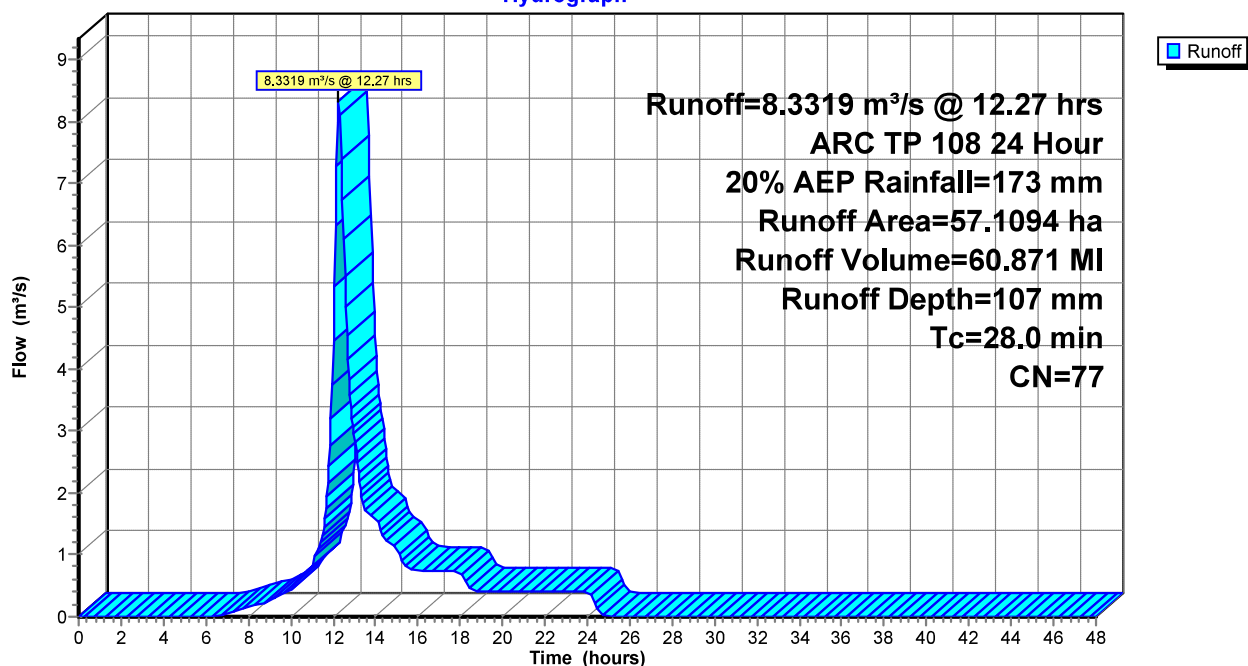
Summary for Subcatchment 2S: Catchment 2Runoff = 8.3319 m³/s @ 12.27 hrs, Volume= 60.871 MI, Depth= 107 mmRunoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
ARC TP 108 24 Hour 20% AEP Rainfall=173 mm

Area (ha)	CN	Description
57.1094	77	Brush, Poor, HSG C
57.1094		100.00% Pervious Area

Tc (min)	Length (meters)	Slope (m/m)	Velocity (m/sec)	Capacity (m ³ /s)	Description
28.0					Direct Entry,

Subcatchment 2S: Catchment 2

Hydrograph



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760 Settlement Road
ARC TP 108 24 Hour 20% AEP Rainfall=173 mm

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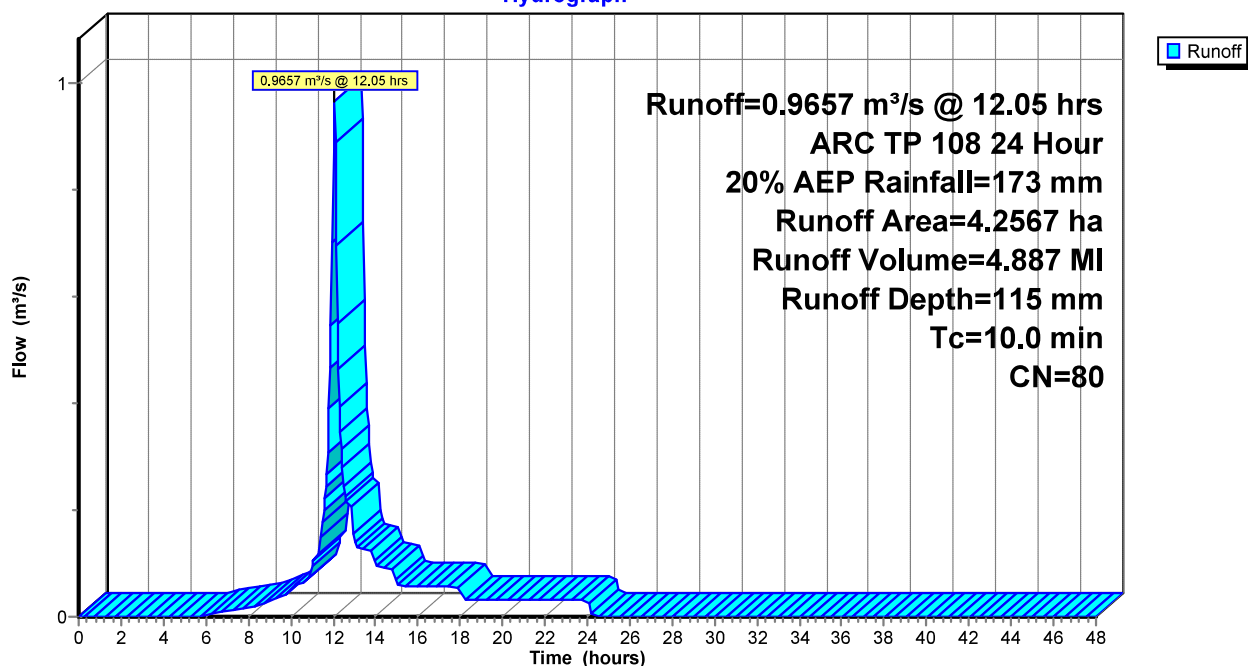
Summary for Subcatchment 3S: Catchment 3Runoff = 0.9657 m³/s @ 12.05 hrs, Volume= 4.887 MI, Depth= 115 mmRunoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
ARC TP 108 24 Hour 20% AEP Rainfall=173 mm

Area (ha)	CN	Description
4.2567	80	>75% Grass cover, Good, HSG D
4.2567		100.00% Pervious Area

Tc (min)	Length (meters)	Slope (m/m)	Velocity (m/sec)	Capacity (m ³ /s)	Description
10.0					Direct Entry,

Subcatchment 3S: Catchment 3

Hydrograph



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760 Settlement Road
ARC TP 108 24 Hour 20% AEP Rainfall=173 mm

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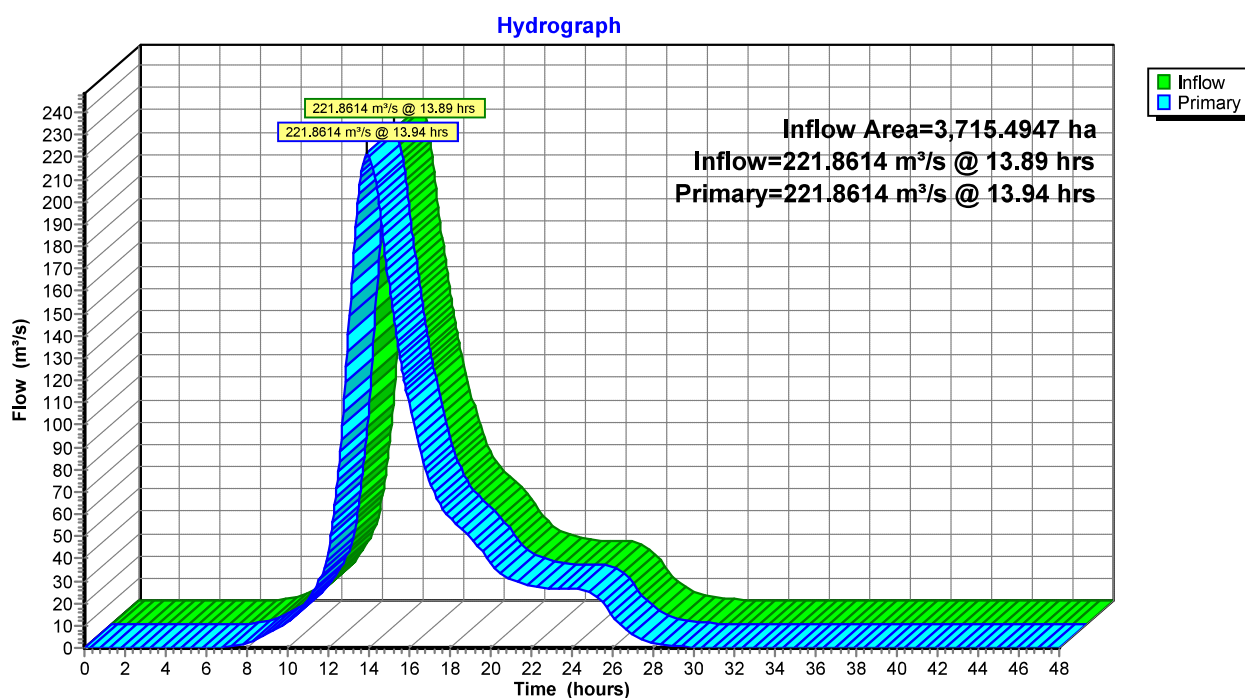
Page 14

Summary for Link 8L: Reach Downstream

Inflow Area = 3,715.4947 ha, 0.00% Impervious, Inflow Depth = 107 mm for 20% AEP event

Inflow = 221.8614 m³/s @ 13.89 hrs, Volume= 3,960.596 MIPrimary = 221.8614 m³/s @ 13.94 hrs, Volume= 3,960.596 MI, Atten= 0%, Lag= 3.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link 8L: Reach Downstream

GIB EzyBrace® Bracing Software



Demand Calculation Sheet

Job Details

Name: G. M. Utting & D. Owens (sub floor bracing)
 Street and Number: 760 Settlement Road
 Lot and DP Number: Lot 3 DP 560279
 City/Town/District: Hlakaru
 Designer: Bruce Wood
 Company: BCW Design Ltd
 Date: 25.06.2021

Building Specification

Number of Storeys: 1
 Floor Loading: 2 kPa
 Foundation Type: Subfloor
 Subfloor Cladding Weight: Heavy
 Cladding Weight: **Single** Light
 Roof Weight: Light
 Room in Roof Space: No
 Roof Pitch (degrees): 20
 Roof Height above Eaves (m): 1.6
 Building Height to Apex (m): 4.69
 Ground to Lower Floor (m): 0.81
 Average Stud Height (m): 2.4
 Building Length (m): 14.34
 Building Width (m): 6.72
 Building Plan Area (m²): 96.36

Building Location

Wind Zone = High

Earthquake Zone 1

Soil Type: D & E (Deep to Very Soft)
 Annual Prob. of Exceedance: 1 in 500 (Default)

Bracing Units required for Wind

	Along	Across
Single Level	291	529
Subfloor Level	607	858

Bracing Units required for Earthquake

	Along & Across
Single Level	500
Subfloor Level	726

GIB EzyBrace® Bracing Software



Subfloor Level Along Resistance Sheet

Job Name: G. M. Utting & D. Owens (sub floor bracing)

Wind	EQ
Demand	
607	726
Achieved	
1120	840
185%	116%

Line	Element	Length (m)	Angle (degrees)	Type	Supplier	Wind (BUs)	EQ (BUs)		
A	1	3.00		Anchor Pile	NZS3604	480	360		
								480 OK	360 OK
B	1	2.00		Anchor Pile	NZS3604	320	240		
								320 OK	240 OK
C	1	2.00		Anchor Pile	NZS3604	320	240		
								320 OK	240 OK

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GIB EzyBrace® Bracing Software



Subfloor Level Across Resistance Sheet

Job Name: G. M. Utting & D. Owens (sub floor bracing)

Wind	EQ
Demand	
858	726
Achieved	
1120	840
131%	116%

Line	Element	Length (m)	Angle (degrees)	Type	Supplier	Wind (BUs)	EQ (BUs)		
M	1	2.00		Anchor Pile	NZS3604	320	240		
								320 OK	240 OK
N	1	2.00		Anchor Pile	NZS3604	320	240		
								320 OK	240 OK
O	1	1.00		Anchor Pile	NZS3604	160	120		
								160 OK	120 OK
P	1	2.00		Anchor Pile	NZS3604	320	240		
								320 OK	240 OK

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Kaipara Te Orangahau - Two Oceans Two Harbours

New Rules for Relocated Dwellings KAIPARA DISTRICT COUNCIL

Confirmation from Dwelling Relocation Applicant

I/we Gina Utting & Dawn Owens understand that Resource Consent approval for relocating a dwelling is not necessary if the following criteria are met:

- i. Any relocated building can comply with the relevant standards for **Permitted Activities** in the Kaipara District Plan; and
- ii. Any relocated **dwelling** must have been previously designed built and used as a dwelling; and
- iii. A building inspection report shall accompany the Building Consent. The report is to identify all reinstatement work required to the exterior of the building; and
- iv. All work required to reinstate the exterior of any relocated building, including the siting of the building on permanent foundations, shall be completed within **12 months** of the building being delivered to the site.

Having taken into account the information sheet supplied by Kaipara District Council and my available resources, I/we can confirm that I/we will be able to meet all of the above criteria for the house I/we propose to relocate.

Further, I/we understand that if I/we fail to complete the required reinstatement of the exterior of the building within the prescribed **12 months** I/we will be obliged to seek Resource Consent from the Kaipara District Council to avoid enforcement action under Section 322 of the Resource Management Act 1991. I/we understand that this enforcement action could include being served a Court order to remove the building.

Pursuant to Kaipara District Plan Rules 12.10.13 or 13.10.10 a **site inspection will be carried out by Kaipara District Council's Monitoring and Compliance Officer** to ensure compliance with **clause (iii)** of this application has been met.

This inspection will incur a minimum fee as quoted in Kaipara District Council's Fees and Charges, and any further inspections should they be required, will be invoiced to you.

Gina [Signature]
Signature

Dawn [Signature]

25/6/21
Date

25/6/21

Office Use Only:

Building Consent Number: BC210456

Relocate a Dwelling Application

These applications can be processed speedily and for least cost if you, the applicant, provide **all** the information needed with the application at the outset. This includes:

- ☒ A completed Building Consent application form - be sure to provide your name and contact address and telephone number
- ☒ Signed agreement to reinstate exterior of dwelling within 12 months of delivery to site ("Confirmation from Dwelling Relocation Applicant")
- ☒ A site plan drawn reasonably to scale, preferably on A4 paper using black ball point pen (photocopies more easily). The plan should show the proposed location of the dwelling in relation to boundaries, existing buildings, location of proposed access and effluent disposal/sewer connection
- ☒ A foundation plan for timber floors to show the location of all piles and sub-floor timber braces, foundation perimeter walls and internal piling system. For concrete floors a detailed cross section is required
- ☒ A drainage plan and design to show how wastewater and stormwater will be disposed. This plan must be designed for the specific project and certified (by a registered professional person familiar with the area)
- ☒ A floor plan of the dwelling to be relocated. Elevations (drawings of what it looks like from the outside) are also beneficial
- ☒ Photographs of the dwelling (in its present position) and the proposed site are also very desirable
- ☒ Report on structural soundness of dwelling and its suitability for relocation. This report must be completed by an independently qualified person (IQP); for example an architect, engineer, and registered building surveyor or similar. Most relocation companies have the services of suitable building assessors available
- ☐ House Relocation Application to be submitted in triplicate if land use consent is required

Christopher Swain, Building Consultant, NZCD
2/50 Kesteven Avenue, Glendowie, Auckland
Phone: 021 585 140
Email: christopherswainconsulting@gmail.com

30/6/2021

SENIOR BUILDING INSPECTOR

Auckland Council, CBD Offices

Dear Sir,

REPORT ON: House at 5 Topliss Drive, Torbay, Auckland

FOR: 370 Settlement Road, Hakaru, Kaiwaka, Kaipara District

PROPOSED FOR: Gina Utting, Phone: 021 267 0724 & Email:
ginautting@gmail.com

BRIEF: I have inspected the above house to ascertain its suitability for resiting.

EXTERIOR AND GENERAL OBSERVATION

The existing single storey house has horizontal weatherboard cladding, a timber stud frame and a heavy tile roof.

The aluminium window joinery, was built to specifications acceptable at the time of construction with solid soffits in good condition.





The ceiling space has 90x45mm rafters, with battens and insulation.



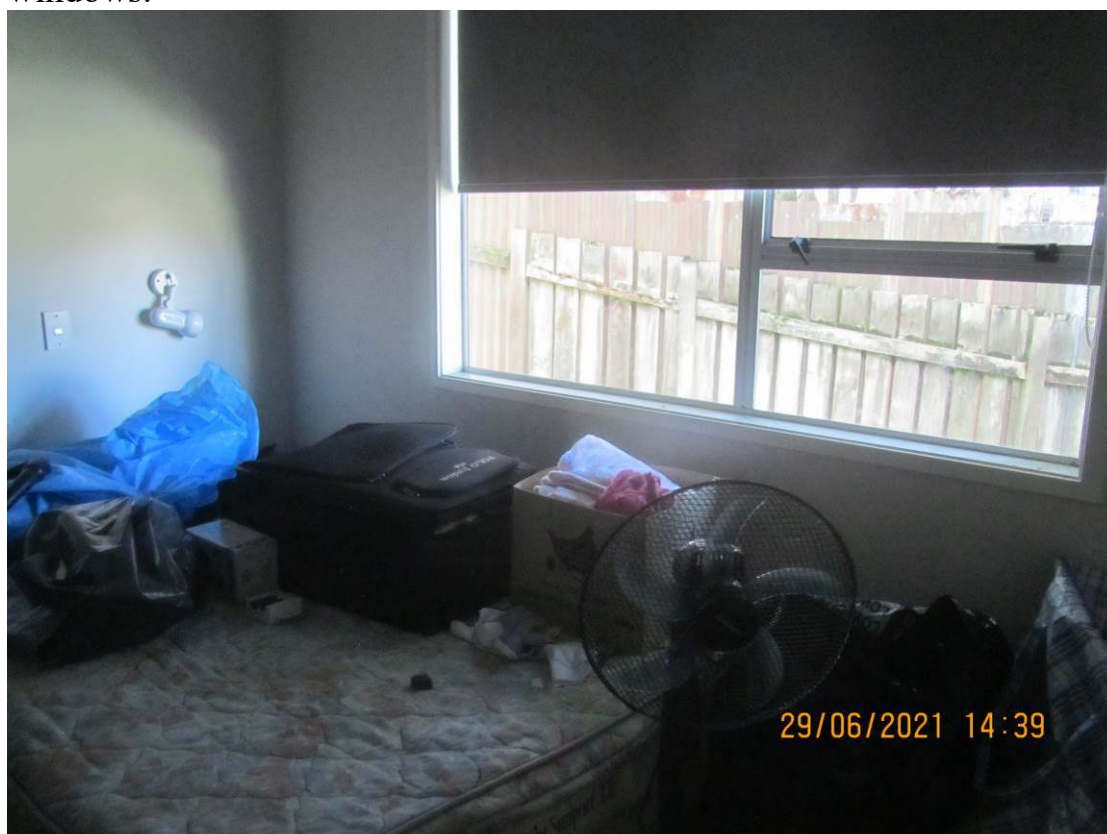
The subfloor to the house has 230x45mm & 140x45mm joists on 2/140x45 bearers on edge with a structural particle board

flooring.





The walls are Gib/plaster board, with soft plaster ceiling panels. The four bedrooms have carpet flooring, with wardrobes, power points, and windows.



The lounge area has carpet flooring, an exit door, windows and power points.

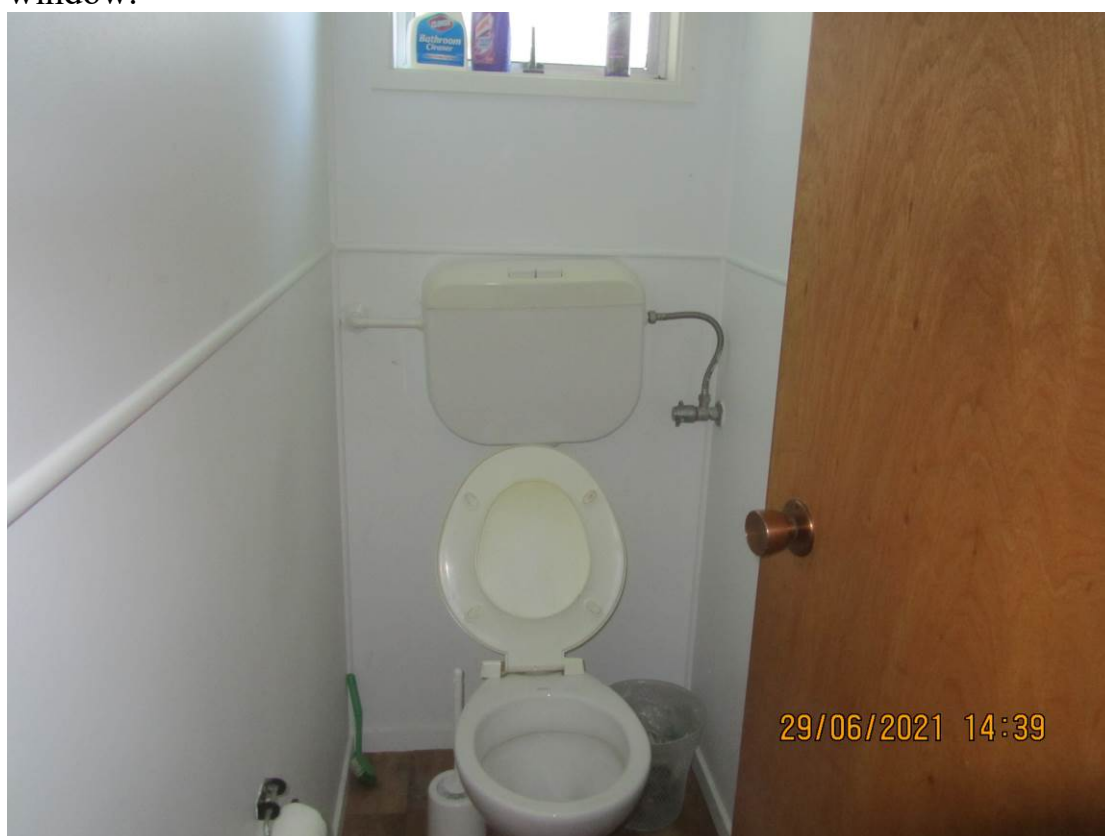


The kitchen and dining areas have varnished timber flooring, with the kitchen having a stove with rangehood, a stainless steel sink and bench, a pantry, with cupboards underneath and wall fixed, a power points, and windows.



The bathroom has timber flooring, a shower, bath, vanity, a ceiling vent, power points and windows.

There is a separate toilet with timber flooring, WC, and window.





The laundry has timber flooring, a stainless steel tub, washing machine, a HWC cupboard with timber shelving, and window.



Smoke alarms will be provided to comply with F7/AS1.

Any unbonded component of any notifiable asbestos in building elements, or any other noticeable presence of any form of asbestos in the building, if established to be a hazard, will be contained and disposed of in a work safe manner and as per the requirements of the building code.

NOTE:

A detailed condition sheet is attached to this report.

Note: a Registered Electrician will check the electrical wiring when rewiring and before reconnecting the house to the grid.

EXCLUSIONS

This report has been prepared on the basis of a visual inspection of the premises using normal readily available access and without testing of components for the assessment of the overall structural condition of the house and associated items, and without recourse to the construction drawings.

*No detailed technical investigation has been included in this brief.
No warranty can be given as to other defects not apparent to visual inspection at the time.*

This report has been prepared solely for the benefit of the client, with respect to the brief, and the local City/ District Council.

The reliance by other parties on the information or opinions contained in this report shall, without our prior review and agreement in writing, be at such party's sole risk.

RECOMMENDATION

The building will be a one-piece move.

The visible framing shows little signs of any active borer or timber rot. Any amount found in the sub floor and framing on moving and relocation can be killed by treatment and remedial work after lifting of the house.

The building will be brought back to a good condition after removal to

the site.

Yours Sincerely

A handwritten signature in black ink, appearing to read 'C Swain'.

Christopher Swain NZCD
Building Consultant.
Ex. Waitakere City Council Building Surveyor
(Approved Building Inspector)

BUILDING DETAIL

5 Topliss Drive, Torbay, Auckland

Framing	Size	Spacing	Type	Condition Rot/Borer	Recommendation
Bearers	2/140x45mm	2.25 mt.	Pine	Good	Acceptable
Floor joists	140x45mm & 230x45mm	600mm & 450mm	Pine	Good	Acceptable
Flooring	Particle board	Sheets	Composite timbers	Good	Acceptable
Wall Framing	90x45mm	Approx. 600mm	Pine	Good	Acceptable
Roof: Rafters	Ex.90x45mm	900mm	Pine	Good	Acceptable
Roof Battens	Ex40mm	370mm	Pine	Good	Acceptable
Underpurlin struts/beam	Metal truss connectors			Good	Acceptable

KEY: Good, Fair & Poor condition

	Type	Condition	Comments
Exterior Sheathing	Ex.220mm Horizontal fibrolite weatherboards	Good	Acceptable
Interior Linings (Walls)	Gib/Board	Good	Acceptable
Interior Linings (Ceilings)	Soft plaster ceiling panels	Good	Acceptable
Insulation (Floor)	"Greenstuff " type R1.5	Good	Acceptable
Insulation (Walls)	None		
Insulation (Ceiling)	Loose batts type	Fair	Suggest fixing batts blanket type
Joinery:	Aluminium sectional joinery	Good	Acceptable
Roof	Concrete tiles	Good	Acceptable
Spouting	Upvc & downpipes	Good	Acceptable
Finish (Interior)	Painted walls & ceiling	Good	Acceptable

Finish (Exterior)	Painted exterior cladding and roof	Good	Acceptable
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GENERAL COMMENTS

The building elements are suitable for the relocation of the building to a new site

Specification for G. M. Utting & D. Owens

1.1 Plans and Specifications

In the event of there being any difference between plans and specifications, the information contained in this specification shall take precedence. Bring discrepancies to the attention of the Designer. Figured dimensions shall take precedence over scaled dimensions. Large scaled drawings take precedence over small scale dimensions.

1.2 Location

The proposed development is located at **760 Settlement Road - Hakarau**

Legal description is **Lot 3 DP 560279**

1.3 Provide and Fix

The words 'provide' and 'fix' where used separately shall be construed to mean 'provide and fix', unless otherwise specified.

1.4 Variations and Extra Work

all work extra to contract ordered, shall be ordered in writing to main Contractor and Designer and paid for at order.

1.5 Permits and Fees

The Owner shall obtain all Local Authority approved Building Consent Applications before commencement of work.

Any Local Authority charges for providing a water meter shall be paid by the Owner.

1.6 Vehicle Crossing

Where a vehicle crossing is called for by the Local Authority, any fees arising shall be the responsibility of the Owner and do not form part of the Building Contract.

1.7 Clean Up and Make Good

The site is to be left clean at all times from accumulation of rubbish resulting from builders rubbish and provision is to be made for the regular removal of same from the site. Excavated soil is the responsibility of the Owner.

The Builder is responsible for leaving the structure broom clean. All materials placed on site by the Contractor for the proposed building remain the property of the Contractor in the case of not being used. All waste material and boxing remain the property of the contractor.

1.8 Sub-Contractors

All sub-contractors shall be engaged by the Owner and supervised by the Building Contractor except where prior arrangements are made in writing between Contractor and Employer.

Every sub-contractor jointly and separately shall collaborate, wait on, assist and render all necessary assistance to complementary trades.

The individual sub-contracts as itemized in the following specification are respectively the responsibility of the sub-contractor under which they are listed.

Any sub-contractor working on the contract without his/her own set of plans and specifications does so at their own risk and errors must be rectified at their expense.

1.9 Standards

All work shall be in accordance with the following standards and regulations:-

- NZS 3604:2011 Light timber framed building not requiring specific design. Incorporating Ammendments 1 & 2
- NZS 2295:2006 Building Papers (Breather type).
- NZS 3601:1973 Metric dimensions of timber. Amend 1 & 2
- MP 3640:2003 Minimum requirements for the NZ Timber Preservation Council Amend A1 – A4 Inc.
- Building Act 2004
- Building Code Compliance Documents referred to

B1/AS1	Structure-General
B1/AS2	Structure and Timber Barriers
B1/AS4	Foundations
B2/AS1	Durability
D1/AS1	Access Routes
E1/AS1	Surface Water
E2/AS1	External Moisture
F4/AS1	Saftey From falling
F5/AS1	Construction and Demolition Hazards
G9/AS1	Electricity AS/NZS 3000:2007 Electrical Instalations, Amends 1 and 2 plus NZECP 51:2004 and NZECP 54:2001
G12/AS1	Water Supplies
G13/AS1	Foul water- Sanitary plumbing
G13/AS2	Foul water- Drainage

1.10 Site Encumbrance

Contractor and sub-contractor to note presence of overhead high voltage power lines at site with regard to high load vehicles, cranes and the like.

Any damage to existing structure by main contractor or sub-contractors is the responsibility of that person and is to be made good to the approval of the Owner at that person's cost.

1.11 Site Activity

Main Contractor to note all engaged employees and sub-contractors to act with a responsible and tradesmanlike manner.

Considerations for residents and Owner to be given maximum attention with respect to foul language, noise from radios and vehicles.

All works on site only between the hours of 7.30am & 6.00pm.

Owner has right to refuse entry to property of any person not acting in a professional manner.

1.12 O.S.H. Requirements

Main Contractor responsible for public notification of construction zone.

Signage to be displayed at road frontage indicating "construction zone" "keep out" as per the recommendations of O.S.H.

2.0 Earth Works and Site Preparation

2.1 Setting Out

The Contractor is responsible for the locating and the clear flagging of all survey pegs before the setting out of the building site. The Contractor will be responsible for the accurate setting out of all work to the dimensions shown on the drawings.

2.2 Levels

Foundation heights shown on the plan are an approximation and should be checked on the site by the Contractor. Any variation in the ground level requiring extra foundation will be charged as an extra.

2.3 Ground Conditions

Foundations in this contract provide for solid bearing down to 450mm below ground surface level.

Where soft, unsuitable or unusual strata or below ground conditions are encountered, requiring additional depth of concrete and other foundation to provide a solid platform to build on and/or comply with mortgagees and/or Local Authority's requirements, additional costs incurred shall be charged to the Owner as an extra.

Where unusual ground conditions are found and special foundation works have to be carried out, they too shall be treated as an extra and have charged as above.

2.4 Temporary Services

Electric Power – The Contractor is responsible for the supply of temporary power to the building site.

2.5 Site Preparation

To comply with NZS 3604:2011 Sec . 3.5 'Site Preparation'.

Excavation of the building site, if required, shall be arranged by the Contractor and if the cost is not included in the contract, an extra charge will be made.

The Contractor is responsible for the supervision of the excavation and the progress of levels to establish the required platform.

For the purpose of this contract, soil for conditions are taken to solid ground – approved by the Local Authority. It will be the Contractor's responsibility to ensure that he/her is in attendance when excavations are carried out on the building site.

Should the Contractor require any excess soil to be carted off the property, then the cost thereof shall be an extra charge.

2.6 Clearing of Site

The Contractor shall arrange and pay charges for the clearing of the building site of vegetation, scrub, trees etc, which encroach on the building platform.

Any exposed area of ground that have been excavated to be either metaled or watered down to control dust on the site and to neighbours.

2.7 Site Access

The Owner shall be responsible for providing access suitable for the Contractor's vehicles including heavy vehicles and such access is to be supplied by the Owner at the cost of the Owner, prior to commencement of building.

In the event of any damage, whatsoever, to any existing or providing access or services adjacent to or running with such access including neighbouring properties, shall be maintained or repaired at the responsibility of the Owner.

The Owner acknowledges that he/she is not relying on any representation or inspections by the Contractor as to suitability, stability or otherwise of access so that if in the opinion of the Contractor access is not suitable, any extra costs on getting vehicles/materials or otherwise to the site shall be at the cost of the Owner.

If during the works it is necessary to provide hardfill for access, this will be handled by the Contractor and charged to the Owner accordingly.

Where access is only available through an adjacent property, it shall be the responsibility of the owner to obtain prior approval from the Owner of that property.

Traffic control if required to be controlled by the Site Manager to make sure there is minimal traffic flow disturbance to neighbours and other residences in the street.

2.8 Footpath Damage

The Contractor will be responsible for any damage to Local Body footpaths and/or road crossings, resulting from any vehicles used by their or their sub-trades, or delivery vehicles of materials ordered by them, providing such crossings are constructed to an acceptable standards.

2.9 Registered Engineer

If the Lending Authority of the Local Authority requests an Engineer's Report, instructions or calculations, then the costs for such services will be applied as an extra to this contract. Where the section has been filled, the Owner is to supply Engineer's Certificate of Compaction.

2.10 Earth Fill

The contractor shall not be liable for any damage or deterioration of any work to the building or to the site caused by or resulting from the inadequacy of earth fill or by the negligent application thereof and the Owner indemnifies the Contractor against any claim against him/her by any person whatsoever for damages or expenses incurred.

3.0 Concrete – Foundations

3.1 Materials and Workmanship

Aggregate shall be sharp, clean sand and crushed hard metal, free from decomposable matter and material. Aggregate to be sized to pass through a 25mm grid.

Water to be used in mix to be suitable for human consumption, free from impurities.

All concrete used to be certified and batched from approved concrete producer. No hand mixed or site batched concrete to be used without approval of Designer.

3.2 Concrete Footings

All slab concrete to be ordinary grade concrete with 28 days crushing strength of 17.5 Mpa., unless otherwise state on plans or in specifications.

Concrete footing to foundation shall be sized as per details and drawings.

3.3 Pre-Placing Inspection

The contractor shall notify the building Inspector at the stage prior to placement of concrete.

4.0 Carpentry

4.1 General

The contractor shall provide all labour and materials, supply and maintain the required tools, plan, scaffold, sheds etc. All work is to be carried out in accordance with the best trade practice, NZS 3603:1993 and NZBC 1991.

4.2 House Foundations, Base Sheathing and Deck Framing Materials

4.2.1 Timber Piles

Timber piles to be (minimum) 125 x 125 square tanapile.

Treatment to pile to be H5 (minimum) of NZS 3605.

Concrete to pile footing to be 17.5 Mpa at 28 days crushing strength. Footing to be sized refer foundation plan and deck details.

4.2.2 Timber Bearers

Check plans for bearer sizes, new bearers to be

Bearers to be 2/140x45 pine radiata SG8 H3.2

Bearers to be 90x90 SG8 H3.2

Nail laminate bearers together with 1/100 x 3.75 dia. Galvanised nail at 250mm staggers CRS.

Fixing of bearers to tanapile to be 2 s/s wire dog ties per pile/bearer connection.

4.2.3 Timber Joists for Decks

Joists to be 140 x 45 pine radiata SG8 H3.2

Joists to be spaced at 600mm CRS maximum, refer attached deck details.

Fix joist to bearer with 2/100x3.75 galvanised nails, one each side.

Block to joist at 1500mm CRS to prevent twisting of joist.

4.2.4 Timber Decking Material

Decking to be 100 x 40 pine radiata decking member.

Decking to be styrofoam to provide slip resistant surface.

Treatment to decking to be H3.2

Nail fix decking to joist with 2/75 x 3.75 dia. nails at every joist connection.

4.2.5 Timber Steps

Steps to be constructed as follows:-

Stringers 290 x 45

Treads 140 x 45

Framing to be pine radiata.

Treatment to timber framing members to be H3.2 SG8.

4.2.6 Sub Floor Bracing Diagonal Brace

Contractor to provide all framing members and fix in place as per the details provided.

Diagonal braces to be 100x75 pine radiata max length of 3m

Diagonal braces to be 100 x 100 pine radiata max length of 5m
 Treatment to joists to be H3.2 SG8.
 Nail laminate diagonal brace with 1/100 x 3.75 galvanised nail @ 300 mm CRS

4.2.6 Sub-floor Fixings

Refer attached details

All holding down devices to be Stainless Steel within 600mm of the ground and exposed to weather.

4.2.7 Base Sheathing

1. 100x25 RS H3.2 base boards with 20mm gap and base door to be fitted inappropriate location
 Roofing Underlay Thermakarft 407 Bituminous self supporting Roofing Underlay, installed to
 Manufacturers Specification.

5.0 Plumbing

5.1 General

Provide all materials and plant necessary to complete the work set out in the plans and specifications in accordance with best trade practice and the requirements of local authorities.

The work shall be carried out by a competent tradesman using materials consistent with sound trade practice and in no case inferior to any requirement of NZB:1992.

Water pipes and tubes shall be set out in straight runs of even gradients, avoiding all places where airlocks are likely to occur.

Use easy bends and unless avoidable, elbow fittings are not to be used. Polybutylene piping is to be secured in a position by plastic straps. All piping where practical to be concealed.

All work shall be left in a thoroughly sound and watertight condition or in a perfect working order as the case may be.

5.2 Spouting and Downpipes

Fit spouting and downpipes in compliance with regulations set down in the Building Regulations.

All spouting to be fixed in place, straight and with even falls and downpipes as shown on the plans.

5.3 Vents and Soil Stacks

Soil stacks and back vents to wastes shall be approved rigid PVC. Thermal vents shall be rigid PVC of approved size and quality.

Allow for all back vents as required and install soil pipes and vents in accordance with the appropriate Code of Practice and the manufacturer's instructions.

Where possible vent pipes and soil stacks shall be concealed.

5.4 Sewer Foul Water Drain

Join WC pans to drain above level of the floor with s pun yarn ring sealed with mastic or other approved material which will provide a non-rigid gas tight joint.

Domestic foul water drain from WC's to be 80mm Ø UPVC to drain to 110mm Ø foul water drain.

Terminate to new treatment plant as shown on plan.

Vent as per Clause 5.3

5.5 Domestic Foul Water Drain

Domestic water pipes to be UPVC drain to UPVC gully trap or sewer foul water drain pipe – back vent as necessary. Pipe sizes to be:-

Kitchen sink	40mm Ø
WHB	40mm Ø
Laundry Tub	40mm Ø
Bath Tub	40mm Ø
Vanity	40mm Ø

5.7 Cold Water Supply to Dwelling

Take 20mm Ø PVC pipe from existing supply to new dwelling. Connect to existing services.

5.8 Foul Water and Stormwater Mains

Mains pipe to be 150mm dia. PVC pipe laid and connected as per council directions. Refer to site plan for connection positions.

6.0 Drainlayer

6.1 Preliminary

The whole of the drainage work shall be carried out in accordance with the Building Regulations:1992 and to the satisfaction of the Local Authority Inspector.

6.2 General

Provide all fittings necessary to complete the drainage work and provide an acceptable foul water waste system.

6.3 Piping

To be run in uPVC to the falls required in the Building Code and to good trade workmanship and common trade practice.

Piping to be laid in constant falls and trenched as follows:

Excavation

Trench to be 200 – 400mm wider than the pipe OD. Trench to be excavated 80-100mm below the pipe invert to allow pipe bedding to be placed.

Bedding

Bedding material to be free running, non cohesive, granular and free from stones (larger than 20mm dia).

Excavated trench material may be reused if dry and well broken up. Refer to NZS 7643 App. B Wet Clay or soil is not acceptable as bedding material.

Pipelaying

Pipe to be placed on bedding and to be set to line and grade.

Pipe barrel to be uniformly and continuously supported on the bedding with holes scooped out under the jointing sockets.

The bedding material should be haunched up to give one-quarter dia. haunching.

Pipe may be jointed on the ground surface and placed in long strings on prepared bedding. Care must be taken that the pipe joints remain undisturbed by this handling.

Pipe grade to be checked every two meters.

Sidefill and cover

As soon as practical after laying, place sidefill to fill the space between the pipe and trench sides, taking care to leave no large voids.

Trenching timber to be lifted out to allow the sidefill material to fill the trench. Sidefill material may be reused excavated material well broken down with lumps no larger than 75mm, no stones over 20mm, free from roots, vegetation and rubbish and sufficiently dry to accept tamping.

Material to be moderately tamped using light hand equipment.

Where the depth to invert is less than 900mm and vehicular traffic likely, the sidefill material to be gravel or scoria, either single size or graded with a minimum particle size of 20mm.

Material must completely fill the space between the pipe and the trench wall.

Backfill

No mechanical compaction to be used until at least 300mm of backfill has been placed over the sidefill. Material for backfill to be reused excavated material.

Testing

At the request of the Local Authority either Air test or Water test pipework in final resting place.

6.4 Stormwater

To be Marley Co. (NZ) Ltd. 100 Ø mm Twinwall Stormwater pipe laid as per instructions set by manufacturer.

Stormwater to 2/25,000 litre water tanks, overflow to dispersal trench. Refer to site plan.

7.0 Electrical work

7.1 General

Provide all materials, labour and plant necessary to complete the work set out in the plans and specifications in accordance with the best trade practice, The Electrical Regulations:1993 and to the satisfaction of the Local Authority.

Testing, inspection and certification to comply with NZMP 11:1993.

7.2 Mains Service

Mains Service connection to meter board to be underground. Allow of network connection fee by owner.

8.0 Site Works

8.1 General

Provide all materials, labour and plant necessary to complete the work set out to the instructions of the owner.

8.2 Driveways, Planting and Fencing

All exterior work to be as per the owners instructions.

10.0 Water Supplies

10.1 All tank water supplies to go thru UV filter

Approved Building Consent Documents

Please note: A copy of the stamped, approved documents must be available onsite for **all** inspections.

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KDC - Approved Building Consent Document - BC210456_SD_ISSUED - Pg 3 of 45 - 3/08/2021 - vsingh

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Devan 25,000L Water Tank

Width: 3.5 metres Height: 3.0 metres
 Outlet(s): 2 x 50mm (2 inch) brass BSPT fittings

- Full 20 Year Warranty (not a pro-rata)
- Bury up to 500mm deep with clean backfill.
- Super tough dome – with space frame substructure

Devan Plumbing Kit 50mm

all Hansen, a quality New Zealand made product.

- 1 x metre 50mm Flexible Hose
- 1 x 50mm Hansen Ball Valve (Frost Friendly)
- 1 x 50mm Hansen Hex Nipple
- 1 x 50mm Hansen Male Straight
- 1 x 50mm Hansen Male Bend

Devan Level Indicator Float (Large)

Devan ball float indicators are highly visible, simple to install and fit into the rebate in the dome of the tank for quick level reference.

- Suitable for tanks up to 3.1m tall
- Length of Shaft: 2m

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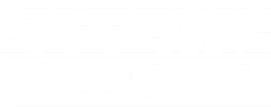
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KDC - Approved Building Consent Document BC2104566_SQ_ISSUED - Pg 6 of 45 - 3/08/2021 - vsingh



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servicing the wider Hawke's Bay, Waikato, Bay of Plenty, Manawatu & Wellington regions including: Napier, Hastings, Havelock North, Waipukurau, Hamilton, Cambridge, Tauranga, Dannevirke, Fielding, Levin, Palmerston North, Kapiti & Wellington.

Devan

Home / Shop / Accessories / Rain Harvesting / First Flush diverter 80/90mm



FIRST FLUSH DIVERTER 80/90MM

\$79.00

1

ADD TO CART

SKU: TAFF80

Category: Rain Harvesting

If you'd like an installation or further details, just send us an enquiry and we'll get one of our team to call you back.

SEND AN ENQUIRY

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Description

PRODUCT DESCRIPTION

Downpipe First Flush Water Diverters improve water quality and reduce tank maintenance by preventing the first flush of water, which may contain roof contaminants, from entering the tank.

Features and Benefits

- Install video [click here](#)
- Prevents sediment, bird droppings, spiders, insects, mosquito eggs and debris from entering the rainwater tank
- Improves water quality, protects pumps and internal appliances
- Ideal to use in conjunction with a leaf diverter
- Easy installation, just add pipe and glue
- No mechanical parts. Low maintenance requirements.

Please note: If using on 80mm pipe, the flush chamber will still require 90mm pipe (not included).

 **0800 473 414**

 9a Lovell Court Albany, Auckland

December 23, 24, 30, 31 Open
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 January onwards normal hours resume

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Space
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Home / Filtration / Whole House Systems / Ultraviolet Systems / TREVOLI - Whole House UV Option 1 - For Rainwater Tank

◀ 2 of 30 ▶



Save 25%



TREVOLI - Whole House UV Option 1 - For Rainwater Tank

Reviews
 Write a review

RRP: \$799.00

\$578.00

(including GST)

You save: \$191.00 (25%)

Bracket Type (1):

Standard ▼

Ballast Type ⓘ:

Deluxe Countdown Ballast (+\$99.00) ▼

Pressure Gauge ⓘ:

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CODE: UV-OPT1

Quantity:

1

+

-

ADD TO CART

Add to wish list

Add to comparison list

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Description

Features

Reviews

TREVOLI - Whole House UV Option 1 - For Rainwater Tank

TREVOLI Ultraviolet Water Sterilizer & Filtration OPT 1 - For Medium homes
This UV system destroys 99.99% of Harmful micro-organisms, including E-coli, Cryptosporidium, campylobacter and Giardia
Cost Effective, Enviroment friendly disinfection of water without chemicals.

Optional Stainless mounting bracket available
Optional pressure gauge available

For Best results install cartridge filtration before the UV system.

Includes :
1 x 10" Jumbo Big Blue water filter Housing Kit
1 x 10" Big Dual Filter 25-1micron
1 x 12 GPUV-55W UV Can

Does not include plumbing Fittings for connection)

Please contact us if you would like the connection Kit supplied at an additional cost.

Applications:

This is the most cost effective and efficient method For the treatment of Biological contaminated water containing "faecal coliforms" caused by Birds,Opossums on exposed gutters and Live stock faecal run off into streams or shallow Bores.

Specifications:

Recommended Flow 45 LPM (30 mJ/cm2)
Max Flow 84 LPM (16 mJ/cm2)
1 x 55 watt replaceable lamp
Dimension: 910mm long - 2.5" Dia
Port size 3/4"
Temperature range-2-40 degrees

Dropdown Option Explanations

Bracket Type - standard is powder coated steel, dropdown is stainless steel
Ballast type - standard is budget type, dropdown is ballast with countdown timer and earth point connection

 UV Brochure

 [Click here for spare filters and U.V](#)

 Giardia /Cryptosporidium

 Why do we need Water Filters?

TWO YEAR WARRANTY on housings

How to set up your UV can

Trevoli Ultra Violet Systems & Filtration



A Guide to Setting up your UV



Related Products

Save 29%



TREVOLI - Jumbo Poly Spun Filters - 10"

\$25.00

Save 29%



TREVOLI - Jumbo Pleated Cartridge - ...

\$30.00

Save 29%



Lamps for TREVOLI UV systems

\$65.00

Customers also bought



Save 36%



Ana Male Coupling 15mm-50mm

\$3.70

Save 42%



Compact Ball Valve

\$5.75



Microlene Under Bench (R)

\$120.00

Home / Filtration / Whole House Systems / Ultraviolet Systems / TREVOLI - Whole House UV Option 1 - For Rainwater Tank

2 of 30





6 July 2021

Client: Gina Utting
ginautting@gmail.com

WGL 21150

RE: On-site 'secondary' wastewater treatment / disposal system for a four-bedroom house and a future sleepout at 760 Settlement Road, Hakaru.

Introduction

This document is to form part of building consent application for the relocation of a four-bedroom house at 760 Settlement Road, Hakaru, lot 3 Dp 560279 (3,911m²). Because the owner wishes to build a one-bedroom sleepout (with toilet and shower) sometime in the future on the property the on-site wastewater is to be for both the four -bedroom house and future sleepout. Property title and house floor plan attached.

This report outlines the design and technical specifications for the on-site wastewater treatment and disposal system and ensures the chosen wastewater system meets all the relevant requirements from the Proposed Regional Plan for Northland, section C.6.1 (PRPN), Kaipara District Council as outlined in AS/NZS 1547:2012 and G13/VM4 of the NZ building code.

Site Assessment

WGL visited the site on the 9 June 2021 and made the following observations:

- Lot 3 is a flat site with a gentle slope to the north.
- The proposed effluent site is to be located at the western (settlement road side) boundary of the section.
- A hand auger investigation was undertaken within a potential effluent field site. Ground cover is grass with some mature trees immediately adjacent to the boundary.
- No obvious signs of instability were noted.
- No evidence was seen or heard of the site being used for activities which could have led to site contamination.

Geology

The GNS geological unit QMAP shows the soils at the proposed site of the effluent field as being alluvium of the Tauranga Group. A geotechnical report for subdivision was undertaken by Wiley Geotechnical Ltd in May 2020 (report 20034). This report deems the soils to be "light clays" and Category 5 in terms of AS/NZS 1547 2012 with a DiR of 3.0 mm/day. Our borehole investigation was consistent with this with a dark brown topsoil to 250mm underlain by a light brown silt.

Design Recommendations: Re AS/NZS 1547 2012

Four-bedroom house equates to a six-person occupancy, and a sleepout with a toilet and shower equates to a 2-person occupancy. ($6 + 2 = 8$).

The house is to have roof collection of potable water and standard water fixtures installed in the house including an automatic washing machine, daily effluent amounts to 180L/day/person, typical for a relocated house (table H3). Total daily wastewater for the house to be treated is $6 \times 180\text{L/day} = 1080\text{L/day}$.

The sleepout is to have standard water reduction fixtures including a dual flush cistern, shower flow restrictors, aerator faucets and a front-loading washing machine daily effluent amounts to 145L/day/person (table H3). Total daily wastewater to be treated is $2 \times 145\text{L/day} = 290\text{L/day}$

Total daily wastewater = $1080 + 290 = 1370\text{L/day}$.

$1,370\text{L/day}/3.0 = 457\text{ m}^2$ **Effluent Field = 457 m².**

The owner has decided to install a 'Biocycle 8200' secondary wastewater an aerated filter wastewater treatment plant using a submerged fixed growth filter system. The Biocycle 8200 is manufactured and distributed by Biocycle Ltd, Hamilton. Manufacturers rated design capacity is 1400L/day and emergency storage 1600L. Technical specifications and OSET results are attached.

The effluent field is to be mole ploughed into the topsoil at a depth of at least 150mm. Where topsoil is less than 200mm extra topsoil will need to be added. A likely source of this extra topsoil is from the sleepout excavation. Effluent field is to be at least 1.5m off any boundary, 15m from any water body/course and 5m from any stormwater flow path downslope of the effluent field. The effluent field is to be installed on slopes under 10° .

A reserve area is required to be made available in case of effluent field failure, the minimum size to be 30% of the effluent field size. **Reserve = $457 \times 0.3 = 137$, reserve = 137m².**

Stormwater to be discharged without attenuation as site coverage is less than 15%. Stormwater overflow from the rain water tanks to be taken to a dispersal trench downslope and north of the house. Final roof area of the house plus sleepout will be over 200m² but under 300m² and so length of in-ground trench to be 14m. See fig C21 attached. Any runoff from driveways should preferably be evenly spread across adjacent grass or into a grassed swale drain so as to abstract heavy metals and other pollutants before entering a watercourse. Piped discharge directly into a watercourse is not accepted these days as it adds to risk of pollution and to peak flood flow and scour of stream banks etc.

Key Environmental Effects

- **The Impact on ground-water quantity** from the system will be close to zero as no more water will arrive on the Lot as supply is roof-water, and effluent will be taken up by the grass on the effluent field and stimulate growth. Ground water *quality* will be protected by these taking up the nutrients (nitrates and phosphates) and by micro-organisms in the soil digesting any *e coli*.
- **The Impact on surface-water.** The amount of surface water run-off will be reduced by the increased vegetative growth. Some of the surface water will be taken up by the grass. The extra grass will provide a protective layer above the soils reducing erosion in times of heavy rainfall. The flow on effect is an improvement of **water quality** down-stream. Having some of the roof water applied to the effluent field on fine days will even out the application of water to the ground on the Lot, thereby tending to reduce peak flows to ground. This is a desirable effect.

- **The Impact on soils.** The effect on the soils will be beneficial as the nutrients will not only promote plant growth but also increase the micro-biological activity in the soils themselves and slowly convert any inorganic clays to organics. The topsoil depth will therefore increase over the years as the subsoils become more organic. Less topsoil can be washed away by heavy rain as it is protected by the increased grass growth. The soils will benefit from the aeration from the installation of the dripper lines.
- **The Impact on Amenity Values.** The effects to flora will be positive in that the adjacent trees will get added nutrients and moisture. The effects on fauna will also be positive in that the boosted tree and grass growth will provide a habitat attractive to birds, insects and people. Not only will this support local diversity, it will create a more pleasantly aesthetic setting for residents and neighbours.

Mitigation Measures

- **Potential odour and noise.**
When the irrigation pump operates a very small noise can be heard as the effluent fills the dripper lines. The sound is negligible. A slight hum can be heard from the aerator which operates 24/7. When operating correctly the system is odorless.
- **Measures to protect against system failure**
In the case of a mechanical failure, a high level float is installed in the irrigation chamber with a visible alarm on the control box. This will allow plenty of time to rectify any faults with plenty of emergency storage available (1600L). In the case of a dripper line failure in the effluent field, a 137m² (30%) reserve area is available.
- **Maintenance plan**
An annual service is recommended for all secondary wastewater systems. This is to be organized by the owner before COC is issued.

Items not to be flushed:

- No bleaches or chlorine (i.e. Napisan – Bleach – Janola). These products are designed to kill bugs and will kill off the bacteria in the tank causing smells and constant blocking of the Bio (internal) filter. You can use these products if used in a bucket and tip on the lawn or safe place, not down your drain
- **No fats or oils down drains.** Fats and oils may block the tank filters and kill the bacteria in the tank.
- No tea leaves or coffee grounds down drains. These may block the filters in the tank and the external filter.
- No washing paint brushes or disposing of paints down drains. These products will not only kill bacteria in the tank, but the residue is very difficult and costly to remove.
- No disposable nappies, sanitary napkins, tampons or condoms. These products do not break down and cause a mass build up in the tank, and can cause blockages that can be costly to clean.
- Do not have a waste disposal unit. This waste takes a long time to break down and the system will require frequent emptying which is very costly.
- Use low sudsing laundry powder/liquid and non-caustic dish washing powder.

Wastewater Summary for Drainlayer

- 1 Install a Biocycle 8200 wastewater system approved to AS/NZS 1547:2012 standards, at least 3m away and downhill from the house and sleepout sites.
- 2 Mole plough into the topsoil (at least 150mm deep) 457m² of pressure compensating drip irrigation line with an emitter flow rate of 1.6lph, 500mm dripper spacing and 1.0m spacing between laterals. At no point should the lines be closer than, 1.5m from any boundary or 5m from the settlement road water table, see wastewater site sketch for location.
- 3 Where the existing topsoil is under 200mm deep extra topsoil will need to be added. The topsoil from the shed excavation a possible source.
- 4 Do not install on slopes over 10°.
- 5 System to be installed and maintained as per manufacturers recommendations, including regular de-sludging of the primary treatment tank and dripper line flush.
- 6 Because the effluent field is sub surface laid this area is to be fenced from stock.
- 7 Once the system is operational obtain a commissioning statement from the drainlayer who installed it and send it to the supplier to obtain a warranty.
- 8 Stormwater overflow from the rain water tanks to be taken to an inground dispersal trench downslope and north of the house. Length of in-ground trench to be 14m. See fig C21 attached.
- 9 Ensure a service contract is in place.

I trust that this information meets your current requirements. Please do not hesitate to contact the undersigned on 09 421 5353 or cam@wileygeotechnical.co.nz if you require any further information.

Report prepared by:



Cameron Shaw

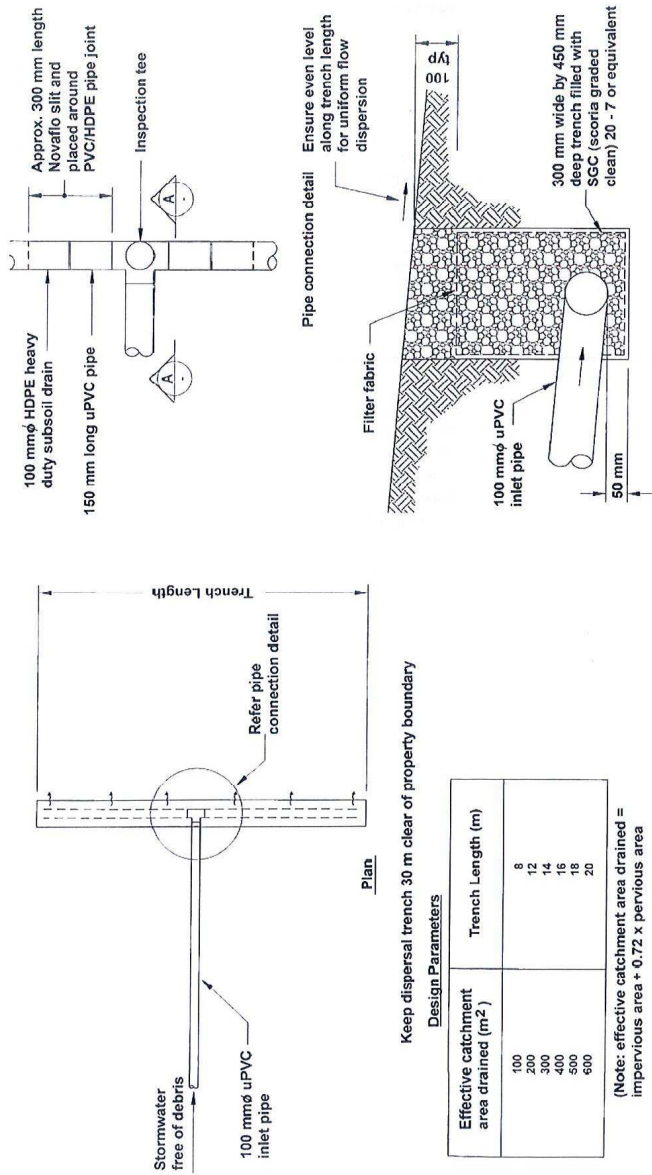
Wastewater Designer reg 3298



Matt Wiley, CPEng

Principal Engineer

Figure C21
Conceptual Layout of Flow Dispersal Trench





Wiley Geotechnical Ltd

Client: Gina Utting
ginautting@gmail.com

WGL 21150

RE: On-site 'secondary' wastewater treatment / disposal system for a four-bedroom house and a future sleepout at 760 Settlement Road, Hakaru.

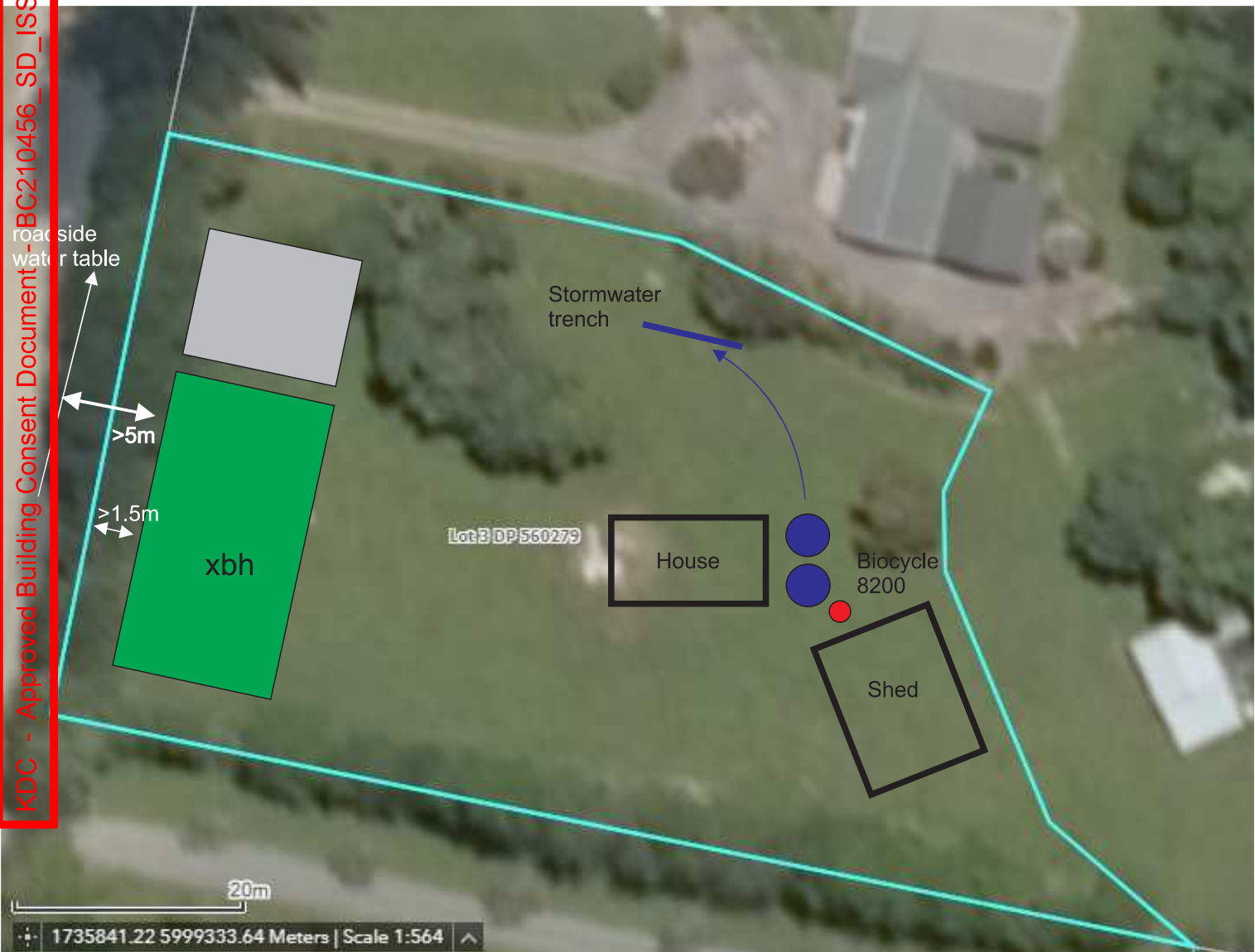
Wastewater site sketch



457m2 effluent field. To be mole ploughed.



137m2 reserve area.



Producer Statement**Design: On-Site Effluent Disposal Systems (AS/NZS 1547:2012)**

Issued by: Cameron Shaw (approved qualified design professional)

To: Gina Utting (owner)

To be supplied to: Kaipara District Council
760 Settlement Road, Hakaru

Property Location:
.....

Lot.3.....DP.560279.....Valuation Number.....

To Provide: Design an onsite effluent disposal system that will comply with the principles and procedures of AS/NZS 1547:2012 and provide a schedule to the owner for the system's maintenance.

The Design: Has been designed in accordance with Verification Method G13/VM4 On-Site Disposal and B2 (durability 15 years) of the Building Regulations 1992 in Compliance with the New Zealand

Building Code

As an independent approved design professional covered by a current policy of Professional Indemnity Insurance (Design) to a minimum value of \$200,000, **I believe on reasonable grounds** that subject to:

- 1 Site verification – An Installation and commissioning report verifying the system and all components have been installed and operate in conformity with the design is required upon completion in accordance with 6.2.5.4, AS/NZS1547(2012).
- 2 The proposal All proprietary products met the performance requirements.
the proposed design will meet the relevant provisions of the Building Code and Northland Regional Council discharges rules.

☐ I understand and accept that Council may rely on this document, for the purposes of establishing compliance with the above building consent and that the content including the signature, whether electronic or not, is truly representative and authoritative of the information contained.

Digitally signed by Cameron Shaw
DN: C=US, E=csmangawhai@gmail.com,
O=Wiley Geotechnical Ltd,
OU=Wastewater Design, CN=Cameron
Shaw
Date: 2019.12.27 09:27:35+13'00'

Cameron Shaw (Signature of approved design professional)

Approved designer, BSc (Professional qualifications)

3298 (Licence Number or professional Registration number)

Address Unit 4, 6 Molesworth Drive, Mangawhai

Telephone Number 09.4315353 Fax Number

Cellphone Date 24 June 2021



Kaipara te Orangahui • Two Oceans Two Harbours

KAIPARA DISTRICT COUNCIL

Note: This form is to accompany every application for a Building Consent incorporating AS/NZS 1547:2012 Approval as a design professional is at Council's discretion.

Kaipara District Council

AS/NZS 1547:2012

On-site Wastewater Disposal Site and Soil Evaluation

KDC - Approved Building Consent Document - BC210456_SD_ISSUED - Pg 19 of 45 - 3/08/2021 - vsingh

Part A: Owners Details

1 Applicant Details:

Applicant Name	Gina Utting		
Company Name			
	First Name(s)	Surname	
Property Owner Name(s)	Gina & Dawn	Utting & Owens	
Nature of Applicant*	Owner		

(*i.e. Owner, Leaser, Prospective Purchaser, Developer)

2 Consultant / Site Evaluator Details:

Consultant/Agent Name	Wiley Geotechnical Ltd			
Site Evaluator Name	Cameron Shaw			
Postal Address				
Telephone Number	Business	094315353	Private	
	Mobile		Fax	
Name of Contact Person				
E-mail Address	cam@wileygeotechnical.co.nz			

3 Are there any previous existing discharge consents relating to this proposal or other waste discharge on this site?

Yes	☐	No	☒	Please tick
If yes, give reference numbers and description				

4 List any other consent in relation to this proposal site and indicate whether or not they have been applied for or granted

If so, specify Application Details and Consent N°.

(E.g. Land Use, Water Take, Subdivision, Earthworks Stormwater Consent)

--	--

Part B: Property Details

1 Location Details

Physical Address of Property	760 Settlement Rd, Hakaru.		
Territorial Local Authority	Kaipara District Council		
Regional Council	Northland Regional Council		
Legal Status of Activity	Permitted: ☒	Controlled: ☐	Discretionary: ☐
Relevant Regional Rule(s)	section C.6.1 (PRPN),		
Total Property Area (m ²)	3,911		
Map Grid Reference of Property if Known	36 08 27.50S 174 30 33.69E		

2 Legal description of land (as shown on Certificate of Title)

Lot N°	3	DP N°	560279	CT N°	
Other (specify)					

Please ensure copy of Certificate of Title is attached.

Part C: On-Site Evaluation

(Refer AS/NZS 1547:2012 See Appendix D)

Has a relevant property history study been conducted?

Yes	☐	No	☒
-----	--------------------------	----	-------------------------------------

(Please tick one)

If yes, please specify the findings of the history study, and if not please specify why this was not considered necessary.

No evidence of pre-European or early European settlement at the time of our site visit.
recent council approved subdivision

1 Has a Slope Stability Assessment been carried out on the property?

Yes	☐	No	☒
-----	--------------------------	----	-------------------------------------

If **No**, why not?

effluent field on flat land

Please tick

If **Yes**, please give details of report (if possible, please attach report):

Author	
Company/Agency	
Date of Report	
Brief Description of Report Findings:	

2 Site Information (See Table 1 attached):

Provide descriptive details below:	
<u>Performance of Adjacent Systems:</u> primary on next door house working well.	
<u>Estimated Rainfall</u> and Seasonal Variation:	
Information available from N.I.W.A MET RESEARCH	
<u>Vegetation / Tree Cover:</u> grass	
<u>Slope Shape: (Please provide diagrams)</u> flat	
<u>Slope Angle:</u> under 2 degrees	
<u>Surface Water Drainage</u> Characteristics: downhill to north	
<u>Flooding Potential:</u> Yes ☐ / No ☒	
If Yes , specify relevant flood levels on appended site plan i.e. one in five years and/or 20 year and/or 100 year return period flood level, relative to disposal area.	
<u>Surface Water Separation:</u> 110m north east to Hakaru river	
<u>Site Characteristics: or any other limitation influencing factors</u> proximity to boundary, topsoil depth	

3 Site Geology

Check Rock Maps

Alluvium of the Tauranga Group	
Geological Map Reference Number	NZL GNS

4 What Aspect(s) does the proposed disposal system face? (please tick)

North	☐	West	☐
North-West	☐	South-West	☐
North-East	☒	South-East	☐
East	☐	South	☐

5 Site clearances (Indicate on site plan where relevant)

Separation Distance from	Proposed Clearances (m)	Septic Tank Treated Allowed(KDC+)	Secondary Treated Allowed (KDC+NRC)
Boundaries	1.5	1.5 m	1.5 m
Surface water (i.e. permanent or intermittently flowing rivers, creeks,	110m		
Groundwater Bores horizontal distance	na	20 m	20 m
Subsurface water vertical separation	>1.2m		
Embankments/retaining walls	na	1.5 m	1.5 m
Other			
Reserve area set aside	30%	100 %	30 %

Part D: Site Assessment - Subsoil Investigation

(Refer AS/NZS 1547:2012 clause D2, Appendix D Site-and-Soil for Individual Lots)

1 Please identify the soil profile determination method:

Test Pit		(Depth_____m)	N° of Test Pits	
Bore Hole	1	(Depth_____m)	N° of Bore Holes	1
Other (specify):				

Soil Report attached?

Yes	☒	No	☐
-----	-------------------------------------	----	--------------------------

Please tick

2 Was fill material intercepted during the subsoil investigation?

Yes	☐	No	☒
-----	--------------------------	----	-------------------------------------

Please tick

If yes, please specify the effect of the fill on wastewater disposal

3 Percolation testing (Soil Permeability) (Recommended for conventional trenches in all clay soils)

Please specify the method (refer to Appendix G AS/NZS 1547:2012)				
Test Report Attached?	Yes	☐	No	☐ Please tick

4 Are surface water interception/diversion drains required?

Yes	☐	No	☒	Please tick
-----	--------------------------	----	-------------------------------------	-------------

If yes, please show on site plan

4a Are subsurface drains required

Yes	☐	No	☒	Please tick
-----	--------------------------	----	-------------------------------------	-------------

If yes enter details

5 Please state the depth of the seasonal water table:

Winter	>1.2	m	Measured	☒	Estimated	☐
Summer	>1.2	m	Measured	☐	Estimated	☒

6 Are there any potential storm water short circuit paths?

Yes	☐	No	☒	Please tick
-----	--------------------------	----	-------------------------------------	-------------

If the answer is yes, please explain how these have been addressed

7 Estimated soil category (Refer AS/NZS 1547:2012 (See E4.1 and Table E1)

Is Topsoil Present? cat 5	If so, Topsoil Depth? 0.2 (m)
---------------------------	-------------------------------

Classification	Properties	Tick One
Sand	Very little to no coherence, cannot be molded., single grains	☐
Loamy sand	Slightly coherence, give a short ribbon 5mm that breaks easy	☐
Sandy loam	Forms a cast but will not roll in a ball. Individual sand grains can be seen	☐
Fine sandy loam	As for Sandy loam. Individual sand grains cannot be seen	☐
Loam	As for Sandy loam. But cast feels spongy	☐
Silty loam	As for loams but not spongy. Very smooth and silky	☐
Sandy clay loam	Can be rolled into a ball. Sand grains can be felt	☐
Fine sandy clay Loam	As for sandy clay loam but no sand grains visible	☐
Clay loam	Can be rolled into a ball with spongy feel, slightly plastic	☐
Silty clay loam	As for clay loams but not very spongy. Very smooth and silky	☐
Sandy clay	Forms a plastic ball in which sand grains can be seen, felt and heard	☒
Light clay	Smooth plastic ball that can be rolled into a rod. Slight resistance to shearing	☒
Silty clay	As for light clay but very smooth and silky	☐
Medium clay	Smooth plastic ball like plasticine. Can be moulded. Some resistance to ribboning	☐
Heavy clay	Smooth plastic ball like plasticine. Can be moulded. Firm resistance to ribboning	☐

Reasons for placing in stated category

PART E: Discharge Details

1 Water supply source for the property (please tick):

Rainwater (roof collection)	☒
Bore/well	☐
Public supply	☐

2 Calculate the maximum daily volume of wastewater to be discharged, unless accurate water meter readings are available

(Refer AS/NZS 1547:2012 See 5.5.5 and Appendix L, M and N)

Number of Bedrooms	1 - 2 - 3 - 4 - 5 - 6			4 + 1
Design Occupancy	8			(Number of People)
Per capita Wastewater Production	140	160	180	(tick) (Litres per person per day)
Other - specify	200	220	145	
Total Daily Wastewater Production	1370			(litres per day)

3 Do any special conditions apply regarding water saving devices

A) Full water Conservation Devices?	Yes	☐	No	☒	Please tick
b) Water Recycling – what %?	%	☐	No	☐	Please tick

If you have answered yes, please state what conditions apply and include the estimated reduction in water usage.

roof collection and standard water reduction fixtures dual flush cistern, shower flow restrictors, aerator faucets and front-loading washing machine roof (only for sleepout, house standard features) (145L/pp/day sleepout) (180L/day/pp house)

4 Is Daily Wastewater Discharge Volume more than 3000 litres per day:

Yes	☐	Please tick
No	☒	Please tick

Note if answer to the above is yes, an N.R.C wastewater discharge permit will be required

PART F: Primary Treatment
(Please also refer to NRC rules)

- 1 Please indicate below the no. and capacity (litres) of all septic tanks including type (single/dual chamber grease traps) to be installed or currently existing: If not 4500 litre dual chamber, explain why not.

Number of Tanks	Type of Tank	Capacity of Tank (Litres)
	primary 2,900L Anoxic 600L aeration 2,800L Clarification 1,200L +	
	Total Capacity	7,800L

- 2 Type of Septic Tank Outlet Filter to be installed?

(min 3.5mm screen required see NRC rules)

Azud 130 micron final filter

+

PART G: Secondary and Tertiary Treatment
(Please also refer to NRC rules)

- 1 Will the discharge effluent have a 5-day biochemical oxygen demand (BOD5) that is less than or equal to 30 grams per cubic metre and the total suspended solids (TSS) concentration that that is less than or equal to 45 grams per cubic metre?

(Manufacturers specifications required see NRC rules)

Yes	☒	No	☐	(Please tick)	No means this is considered a primary system
-----	-------------------------------------	----	--------------------------	---------------	--

2 Please indicate the type of additional treatment, if any, proposed to be installed in the system: (please tick)

Secondary Treatment	☒	
Home aeration plant	☒	
Commercial aeration plant	☐	
Intermediate sand filter	☐	
Recirculating sand filter	☐	
Recirculating textile filter	☐	
Clarification tank	☒	
Tertiary Treatment	☐	
Ultraviolet disinfection	☐	
Chlorination	☐	
Other	☐	Specify

PART H: Land Disposal Method

(Refer AS/NZS 1547:2012 appendices L, M and N)

1 Please indicate the proposed loading method: (please tick)

Gravity	☐
Dosing Siphon	☐
Pump	☒

2 High water level alarm to be installed in pump chamber(s)

Yes	☒	No	☐
-----	-------------------------------------	----	--------------------------

If not to be installed, explain why.

3 If a pump is being used, please provide the following information:

Total Design Head	26 or 32	(m)
Pump Chamber Volume	300L	(Litres)
Emergency Storage Volume	1600L	(Litres)

4 Please identify the type(s) of land disposal method (land application systems) proposed for this site: (please tick)

(Refer AS/NZS 1547:2012 appendix K)

Surface Dripper Irrigation	☐		
Sub-surface Dripper irrigation	☒		
Standard Trench	☐		
Deep Trench	☐		
Mound	☐		
Evapo-transpiration Beds	☐		
Other	☐	Specify	

5 Please identify the loading rate you propose for the option selected in the above, stating the reasons for selecting this loading rate:

(Refer to AS/NZS 1547:2012 appendix L)

Loading Rate 3.0mm/m2/day		(Litres/m2/day)
Disposal Area 594	Design 457	(m2)
	Reserve 137	(m2)

Explanation

$(2 \times 145 = 290) + (6 \times 180 = 1080) = 1370 / 3.0 = 457\text{m}^2$. reserve $457 \times 30\% = 137\text{m}^2$

6 What is the available reserve wastewater disposal area?

Reserve Disposal Area (m ²)	137m ²
Percentage of Primary Disposal Area (%)	30

7 Please provide a detailed description of the design and dimensions of the disposal field and attach a detailed plan of the field relative to the property site:
Description and Dimensions of Disposal Field:

see wastewater site sketch					
Plan Attached?	Yes	☒	No	☐	Please tick

If not, explain why not

--

PART I: Maintenance & Management
(Please also refer to NRC rules)
1 Has a maintenance agreement been made with the treatment and disposal system suppliers?

Yes	☐	No	☐	Please tick
-----	--------------------------	----	--------------------------	-------------

Name of Suppliers

Biocycle Hamilton

PART J: Assessment of Environmental Concerns

1 Is an assessment of environmental concerns included with application? (Refer Fig 4.1C3)

Yes	☒	No	☐
-----	-------------------------------------	----	--------------------------

 Please tick

If Yes, list and explain possible effects

--

PART K: Is Your Application Complete?

1 Is a Northland Regional Council Discharge Consent Required?

Yes	☐	No	☒
-----	--------------------------	----	-------------------------------------

 Please tick

2 In order to provide a complete application you have remembered to:

Fully Complete this Assessment Form	yes
Include a <i>Location Plan</i> and <i>Site Plan</i> (with Scale Bars)	yes
Attach an Assessment of Environmental Concerns	yes

3 Declaration

☐ I understand and accept that Council may rely on this document, for the purposes of establishing compliance with the above building consent and that the content including the signature, whether electronic or not, is truly representative and authoritative of the information contained.

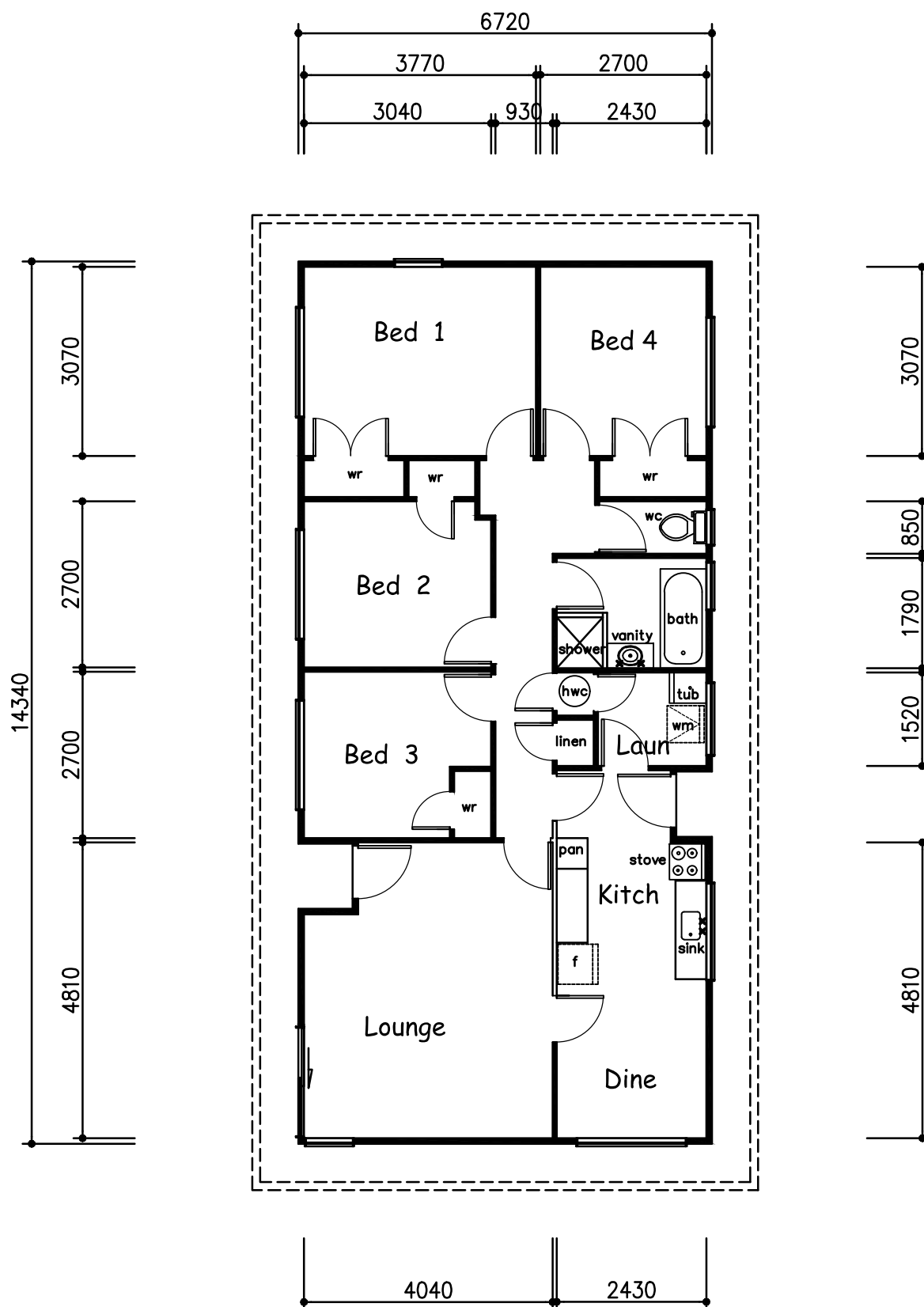
I hereby certify that, to the best of knowledge and belief, the information given in this application is true and complete.

Name	Matt Wiley	Signature	Matt Wiley Digitally signed by Matt Wiley DN: G=NZ, E=matt@wileygeotechnical.co.nz, OU=Wiley Geotechnical Ltd, CN=Matt Wiley Date: 2021.06.24 10:25:14 +1300
Position	Principle engineer. CPENG	Date	24 June 2021

Note:

Any alteration to the site plan or design after approval will result in non-compliance.

An Installation and commissioning report verifying the system and all components have been installed and operate in conformity with the design is required upon completion in accordance with 6.2.5.4, AS/NZS1547(2012) is required before the Code Compliance Certificate can be issued.



Floor Layout

96.36m²

All dimensions are to the framing,
before commencing any works on
the building verify dimensions.

HHR 126

BCW Design Ltd
54 Halsey Drive
Lynfield 1042
Ph 09 626 3803
Mob 0274 887 377
bruce@bcwdesign.co.nz

**House for Relocation
ex 5 Topliss Drive**

Drawn by B. C. Wood
Scale 1:100 (A4)
Date 22.04.2021

Job No 21036



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



R. W. Muir
Registrar-General
of Land

Identifier **988296**
Land Registration District **North Auckland**
Date Issued 23 April 2021

Prior References
NA42B/368

State Fee Simple
Area 3911 square metres more or less
Legal Description Lot 3 Deposited Plan 560279

Registered Owners
Cina Maree Utting and Dawn Owens

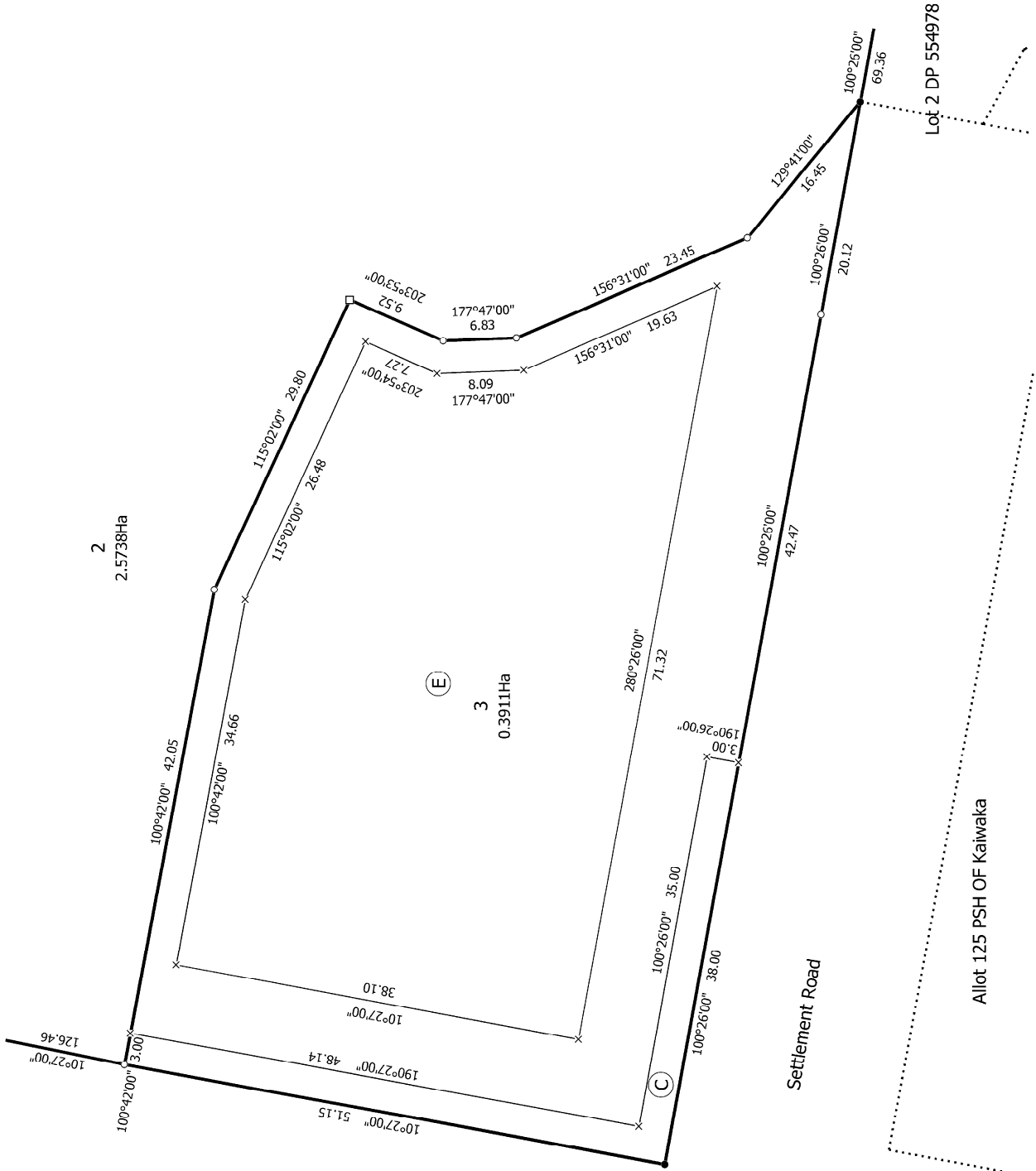
Interests

Subject to Section 59 Land Act 1948
12086992.2 Consent Notice pursuant to Section 221 Resource Management Act 1991 - 23.4.2021 at 11:29 am
12126265.3 Mortgage to ANZ Bank New Zealand Limited - 2.6.2021 at 3:49 pm

KDC - Approved Building Consent Document - BC210456 - SD ISSUED - Pg 34 of 45 - 3/08/2021 - vsingh



Diag. A



T 2/6

Land District: North Auckland	Lots 1 - 3 Being a Subdivision of Allotment 310 Parish of Kaiwaka		Surveyor: Adam Paul Stanley Booth Firm: Pacific Coast Surveys Limited (Mang	Title Plan LT 560279 Approved on: 17/05/2021
Digitally Generated Plan Generated on: 17/05/2021 10:23am Page 4 of 8				



BioCycle Systems Ltd
 15 Mexted Place
 P O Box 9262
 HAMILTON
 0800 246 292

Technical Design Specifications - BioCycle 8200 Aerated Treatment Plant

The BioCycle 8200 Aerated Wastewater Treatment System can be used to treat domestic effluent from residential or light commercial properties to a level where it can be safely dispersed on site without any negative effect on the environment.

The modular construction of the BioCycle plant makes it possible to manufacture a system for any flow rate that may be required. It is a cost-effective alternative for areas where ground porosity is at varying ends of the spectrum. On undulating sites where the land at lower levels is consumed by buildings or other facilities the BioCycle system allows effluent to be distributed on a level above the tanks location.

The BioCycle system complies with all specifications for AWTs treatment units in New Zealand providing effective and reliable wastewater treatment over a long period of time. The design parameters have been derived from proven technology in the field of on-site wastewater treatment. This is achieved by application of the specified parameters with excellent design and construction principals, including thorough testing of the system and final effluent.

The Biocycle 8200 system is capable of treating up to 1600Litres per day. The large primary septic chamber allows raw sewage a minimum 24 hours of primary treatment to be achieved enabling a minimum 20% reduction of BOD's through sedimentation before secondary processing is commenced.

Inside The BioCycle 8200 system

Septic Tank:

Raw effluent enters the primary tank (2900L) from the dwelling. The primary tank also receives the return activated sludge from the clarification tank, providing a stimulant for further breakdown of the influent load. The capacity of the primary tank allows 24 hours of residence for effluent ensuring sufficient BOD reduction and anaerobic breakdown has occurred.

Anoxic Chamber:

Filtered effluent enters the anoxic chamber from the primary holding via a 4' Biotube filter. This chamber acts as an additional septic, anaerobic zone which also receives recycled sludge from the clarification chamber to assist the further removal of nitrates.



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 0800 246 292

Aeration Chamber:

Following primary treatment, aeration is provided in a 2800L chamber which contains submerged media. This purpose-built media is attached to the walls of the tank allowing even distribution of air through the chamber and media.

Diffused air at a minimum rate of 100Litres/min is required for adequate oxygenation. Air is blown via a pipe into the Aeration Chamber and released at the bottom by way of purpose made fine air bubble diffuser assemblies.

The aeration system is designed to maintain a minimum dissolved oxygen concentration of 2mg/L in the aerobic chamber within the maximum two hourly flow.

Clarification Chamber:

With a capacity of 1200L, effluent is further polished within the clarification chamber. This chamber is provided to remove settling and floatable solids passing through from the aerobic chamber.

Provision is made for constant automatic return of settled solids to the anoxic chamber by means of a subsurface sludge mechanism operated by venturi suction off the air supply manifold; this is done so that sufficient nitrified waste is recycled back to the oxygen deficient anoxic stage for denitrification to occur.

Pump Out Chamber:

Treated effluent enters the final 300L chamber where it will be pumped out to the irrigation field via a fine 130-micron disc filter to assist further removal of fine particles and ensuring a long-lasting irrigation field.

Tank Construction

In New Zealand, the BioCycle Systems Ltd standard concrete tank is constructed of steel reinforced concrete to a strength of 40Mpa. Tank walls are monolithic. The lid is constructed separately and sealed to the tanks walls to prevent leakage.

Dart Concrete Ltd manufacture the tank in accordance with the structural requirements of AS/NZS 1546.1.2008.

Manhole lids are formed in HDPE and internal components are PVC pressure pipe.

All electrical box housings and electrical control units are made of HDPE, fastened to the tank lid.

Each system is fitted out prior to leaving the factory. Prerequisite drainage, irrigation and electrical connections are completed on the destination building site.

BioCycle 8200 Wastewater Treatment System



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Operating Plant Specifications

Aeration

LP80 HN Air Pump located inside the HDPE enclosure on top of the tank

- 85-watt power rating is single phase
- Exhaust capacity is 100 litres per minute per pump
- Noise level at 1.0m from the tank is approximately 35dB(A)

Irrigation Pump

A Bianco B42A/B (or Davey D42A/B, or similar) submersible pump with a maximum Head of at least 29m is fitted.

Power consumption is subjective and varies with total flow during any day and the type of irrigation system installed.

An estimated cost of power consumption used by the Biocycle blower and irrigation pump is around \$150.00 per year, based on around 1.6kWhr/day at 0.25c/kWhr.

Monitoring System

All BioCycle units are installed with two alarms as warning devices. An alarm plate (audible/visual) is supplied to be installed in a convenient position inside the house. The alarm plate is commercial grade, similar to a light switch, with two coloured LED lights. A switch plate provides for the alarm to sound and to be switched to 'mute' when heard.

The alarm panel is incorporated into an electrical circuit breaker, located at the Biocycle system or fuse box, as a safeguard against electrical faults.

The two LED lights indicate:

1. High-Water level, designed to sound if water level in the irrigation chamber reaches a critical level. This indicates that the submersible pump is malfunctioning, or the irrigation filter is blocked.
2. Air pressure fault, designed to sound if the blower ceases to operate or there is an air blockage.

The home occupants are responsible for keeping the irrigation filter clean and ensuring the irrigation drip lines and flush valves are not obstructed or broken.

BioCycle 8200 Wastewater Treatment System



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15 Mexted Place
P O Box 9262
HAMILTON
0800 246 292

Final Effluent Quality

A properly maintained system produces treated water of a very high quality.

Testing of the BioCycle 8200 at the OSET facility in Rotorua has reported the following:

AS/NZS 1547:2012 Secondary Effluent Quality Requirements

These requirements are that 90% of all test samples must achieve a BOD₅ of $\leq 20 \text{ g/m}^3$ and TSS of $\leq 30 \text{ g/m}^3$ with no one result for BOD₅ being $>30 \text{ g/m}^3$ and no one result for TSS being $>45 \text{ g/m}^3$.

The **BioCycle 8200 system** achieved a performance level of **100%** for BOD₅ and **100%** for TSS based on the full set of 37 test results in weeks 9 to 35, with no results exceeding the maximums. The **BioCycle 8200 system** thus **meets** the secondary effluent quality requirements of **AS/NZS 1547:2012** at the test flow rate of 1,000 L/day (ie at 70% of the plants advised design capacity).

Benchmark Ratings

The **BioCycle 8200 system** achieved the following effluent quality ratings for the sixteen benchmarking results in weeks 20 to 35.

Indicator Parameters	Median	Std Dev	Rating	Rating System				
				A+	A	B	C	D
BOD (mg/L)	4.5	1.4	A+	<5	<10	<20	<30	≥ 30
TSS (mg/L)	7.7	3.6	A	<5	<10	<20	<30	≥ 30
Total Nitrogen (mg/L)	22.1	2.4	B	<5	<15	<25	<30	≥ 30
NH ₄ - Nitrogen (mg/L)	0.2	0.1	A+	<1	<5	<10	<20	≥ 20
Total phosphorus (mg/L)	4.4	0.3	B	<1	<2	<5	<7	≥ 7
Faecal Coliforms (cfu/100mL)	54,000	23,660	C	<10	<200	<10,000	<100,000	$\geq 100,000$
Energy (kWh/d) (mean)	6.3	1.9	D	0	<1	<2	<5	≥ 5

Ongoing testing on the BioCycle 8200 allows for continuous improvement to exceed final effluent quality expectations.

BioCycle Guarantee / Warranty

Each BioCycle system is covered by a limited warranty of 10 years on the concrete tank, and two years (24 months from date of installation) on all electrical components within the system.

Within the warranty periods stated above, BioCycle Systems Ltd guarantees to repair or replace any part of the system requiring remedy due to defective manufacture, provided BioCycle is given notice of the problem within 24 hours of the customer being aware of the problem.

BioCycle 8200 Wastewater Treatment System



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 HAMILTON
 0800 246 292

Essential rules for the care of your wastewater system.

All wastewater (toilets, bathrooms, laundry) produced on a rural property is discharged via pipes to an on-site wastewater treatment and land disposal system. The wastewater treatment system is a fragile biological (bacterial) process and therefore requires care by all residents and visitors.

You can help maintain an effective wastewater treatment system on your site by ensuring **no toxic chemicals** are put down sinks or toilets and by using only environmentally friendly cleaning products. Toxic chemicals, drugs (e.g. antibiotics) kill bacteria in the treatment system. These organisms are needed to treat wastewater and if healthy populations are not maintained, the system will fail resulting in poorly treated wastewater discharging into the soil, offensive odour and increased maintenance costs. You should also manage your water use to protect the system from overloading.

DO

- Try to take short showers in preference to baths.
- Use bio-degradable soaps and cleaners.
- Check all your cleaning products to see if they are suitable for septic tanks.
- Use natural soaps (rather than chemicals) for cleaning.
- Scrape all plates and dishes to compost/rubbish, removing as much food/fat as possible.
- Repair/fix all leaking taps as soon as possible.
- Use phosphate free or low phosphorus laundry detergents.

DO NOT

- Do Not pour any toxic/strong chemicals (paint, oil, grease, thinners, pesticides down any drains).
- **Do Not flush any products other than standard toilet paper** down the toilet! This means no tampons, pads, condoms, cigarette butts or 'wet-wipes'.
- Do Not discard any drugs down the toilet or sink.
- Do Not use strong cleaners (bleach, Canesten, Napisan, strong citrus or alcohol base).
- Do Not tip chlorine, anti-**septic**, anti-**bacterial**, or disinfectant type products down drain.
- Do Not use chemical drain cleaning products to clear a blockage – call a plumber.
- Do Not do all your laundry in one day – spread your loads through the week.
- Do Not install sink garbage grinders. If a grinder exists, don't discharge high volumes of scraps, especially carbohydrates, bones or fats & oils into it.
- Do Not put coffee grinds down the sink drain.

SUBMERSIBLE DRAINAGE PUMPS

Model Numbers: D42A, D42M,
D42A/B

DEPEND ON
DAVEY

WATER PRODUCTS

SUMP PUMPS

PRODUCT DESCRIPTION

Submersible sump pump with twin impeller design for higher pressure, up to 32m head

APPLICATIONS

- Lawn & garden irrigation
- Sump emptying to higher heads
- Treated effluent disposal
- Water transfer from wells
- Model D42A/B specially designed for non potable rainwater applications

"A" suffix models equipped with present length automatic float switch fitted for automatic operation.



D42A, D42M

D42A/B

FEATURES & BENEFITS

Double mechanical seal, one in oil bath on motor and extra mechanical seal on pump

- Superior reliability
- Long service life

Corrosion resistant 304 stainless steel shaft, motor shell and fasteners

- Long service life

D42A/B has cast 316 stainless steel motor caps and super tough engineered thermo plastic pump casing

- Outstanding corrosion resistance
- Long life

Centrifugal multistage twin impeller design

- Higher pressures & increased efficiency

Closed vane impellers with long engagement "D" drives

- Positive operation
- Long service life

D42A & D42M have labyrinth impeller neck rings

- Maintain pump performance
- Less susceptible to wear

D42A/B has patented independently floating neck rings

- Outstanding pump performance
- Long pump life

Corrosion resistant hard wearing polycarbonate impellers

- Long service life

Corrosion resistant stainless steel fine mesh suction strainer with large surface area

- Prevents blockages of the pump by solids

In-built automatic thermal overload

- Protects the motor in the event of blockage or voltage supply problems

HO7RNF oil resistant leads, 10 metres long with 3 pin power plug

- Easy to connect to power supply
- Longer life in dirty water

OPERATING LIMITS

	D42A,M	D42A/B
Capacities to	110lpm	130lpm
Max. total head	26m	32m
Max. submergence		12m
Max. pumped water temperature		40°C
Max. soft solids		1.9mm O.D.
Outlet size (BSP)		1" F

Suitable Fluids

Clean water of neutral pH containing up to 1% small solids. Some wear should be expected while pumping hard solids in suspension.

TECHNICAL SPECIFICATIONS

MATERIALS OF CONSTRUCTION

PART

MATERIAL

Impeller	Glass filled polycarbonate
Lock nut	304 stainless steel
Pump casing	Cast iron - FC200 (D42A&M)
Diffuser and blanking ring	Glass filled polycarbonate (D42A/B)
Mechanical seal - pump	Glass filled noryl
Mechanical seal - motor	Carbon/ceramic
Shaft seal elastomer	Silicon carbide/ceramic in oil bath
Pump shaft	Nitrile rubber
Orings	304 stainless steel
Motor shell	Nitrile rubber
Bottom bearing housing	304 stainless steel
Upper motor cover	Cast iron - FC200 (D42A&M)
Handle	Cast 316 stainless steel (D42A/B)
Fasteners	Cast iron - FC200 (D42A&M)
Float & power supply leads	Cast 316 stainless steel (D42A/B)
	304 stainless steel
	HO7RN-F oil resistant

ELECTRICAL DATA

Supply voltage	220-240V
Supply frequency	50Hz single phase
Speed	2 pole, 2850rpm
Full load current	4.0A
Locked rotor current	14A
Input power (P _i)	0.94kW
Output power (P _e)	0.60kW
IP Rating	X8
Insulation class	Class F
Starting	P.S.C.
Lead	10m long

INSTALLATION & PRIMING

Use a rope to position and retrieve the pump. Do not lower or retrieve the pump using the power lead as this may damage the cable entry seals, causing water leaks and unsafe operation.

Do not use this product for recirculating or filtering swimming pools, spas, etc.

While these pumps are built to high safety standards, they are not approved for installations where people will be in the water while they are operating.

Do not pump abrasive materials. Sand and grit in the water being pumped will accelerate wear, causing shortened pump life.

Keep your pump clean, particularly in situations where lint, hair or fibrous materials may get bound around the pump shaft. Regular inspection and cleaning will extend pump life.

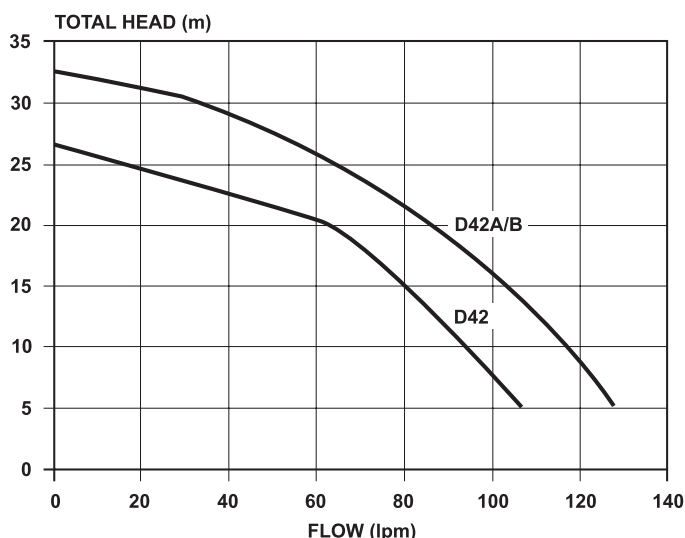
Make room for the float switch to operate. Automatic models have a float switch that turns them on when the water level rises and turn them off again when it has been pumped down to the safe operating level of the pump. If the float switch is not free to rise and fall, correct pump operation may not be possible.

Do not run your pump dry. Non-automatic models must be switched off manually or by way of an external float/level switch when the water level is reduced to the top of the pump housing.

This literature is not a complete guide to product usage. Further information is available from your Davey dealer, Davey Customer Service Centre and from the relevant product installation and Operating Instructions. This data sheet must be read in conjunction with the relevant product installation and Operating Instructions and all applicable statutory requirements. Product specifications may change without notice.

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HYDRAULIC PERFORMANCE



DIMENSIONS

Model	A	B	C	D	E	F	Outlet B.S.P.	Net Weight (kg)
D42A	475	130	370	235	195	330	1" F	20
D42M	475	130	370	235	195	330	1" F	19.5
D42A/B	475	130	370	235	195	330	1" F	18.5

All dimensions in mm unless otherwise stated.

DEPEND ON
DAVEY

WATER PRODUCTS

Davey Products Pty Ltd

Member of the GUD Holdings Ltd Group

ABN 18 066 327 517

Head Office and Manufacturing

6 Lakeview Drive,

Scoresby, Australia 3179

Ph: +61 3 9730 9222

Fax: +61 3 9753 4100

Website: www.davey.com.au

Customer Service Centre

Ph: 1300 367 866

Fax: 1300 369 119

E-mail: sales@davey.com.au

Interstate Offices

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E-mail: sales@daveynz.co.nz

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1005 N. Commons Drive

Aurora, Illinois 60504

Ph: +1 630 898 6976

Fax: +1 630 851 7744

Website: www.daveyusa.com

E-mail: sales@daveyusa.com



On-site Effluent Treatment National Testing Programme (OSET NTP)

PERFORMANCE CERTIFICATE
BioCycle 8200 On-site Domestic Wastewater Treatment System,
OSET NTP Trial 11, 2015/2016

System Tested

The **BioCycle 8200 system** is a Submerged Aerated Filter Wastewater Treatment Plant using Kompakt 2 tubular submerged fixed growth filter system [298 m² (2.16 m³)]. The manufacturers rated design capacity is 1,400 litres/day. Total operational liquid volume is 7,800 litres (Primary Chamber 2,900 litres; Anoxic chamber 600 litres; Aeration Chamber 2,800 litres; Clarification Chamber 1,200 litres; Pump Chamber 300 litres; Emergency storage 1,600 litres). No tertiary treatment (such as UV disinfection) is incorporated. It comprises a single 5 chamber concrete tank. The air blower is Thomas LP-80, 0.08kW, running continuously and operating a continuous venturi airlift recirculation pump at 40 lph. There is a 100mm Biotube effluent filter in the Primary Chamber and an Azud 130 micron final effluent filter. The discharge pump was a Davey D42A/B 0.90kW. The manufacturers stated service frequency is 6 monthly.

Test Flow Rate

The **BioCycle 8200 system** was tested at 1,000 litres/day (equivalent to servicing a 3-bedroom 5 to 6 person household) over an 8 month (35 week) period November 2015 to July 2016 followed by a 1 month (4 week) high load effects test involving 3 days at 1,500 litres/day followed by 2 days at 2,000 litres/day then 1,000 litres/day over the following 2 weeks.

Testing and Evaluation Procedures

A total of 37 treated effluent samples of organic matter (BOD₅) and suspended solids (TSS) at generally six day intervals during weeks 9 to 35 were tested and evaluated against the secondary effluent quality requirements of the joint Australia/NZ standard AS/NZS 1547:2012.

A total of 16 treated effluent samples of organic matter (BOD₅), total suspended solids (TSS), total nitrogen (TN), ammonia nitrogen (NH₄-N), total phosphorus (TP) and faecal coliforms (FC) at generally six day intervals during weeks 23 through 35 were tested and the results benchmarked and rated on their median values. In addition, the energy used by the treatment system was assessed on the mean of consumption levels over the 16 sample days.

General Performance

The BioCycle 8200 plant had a number of major issues throughout the testing period requiring frequent operator attendance including: correction to wiring of the discharge pump, repair of a significant air leak, repair of a significant water leak and attendance to clean a clogged effluent filter on a number of occasions. **This number of structural and operational errors is considered by the Audit Group to be unsatisfactory.**

AS/NZS 1547:2012 Secondary Effluent Quality Requirements

These requirements are that 90% of all test samples must achieve a BOD₅ of ≤ 20 g/m³ and TSS of ≤ 30 g/m³ with no one result for BOD₅ being >30 g/m³ and no one result for TSS being >45 g/m³. The **BioCycle 8200 system achieved** a performance level of **100%** for BOD₅ and **100%** for TSS based on the full set of 37 test results in weeks 9 to 35, with no results exceeding the maximums. The **BioCycle 8200 system thus meets** the secondary effluent quality requirements of AS/NZS 1547:2012 at the test flow rate of 1,000 L/day (ie at 70% of the plants advised design capacity).

Benchmark Ratings

The **BioCycle 8200 system achieved** the following effluent quality ratings for the sixteen benchmarking results in weeks 20 to 35.

Indicator Parameters	Median	Std Dev	Rating	Rating System				
				A+	A	B	C	D
BOD (mg/L)	4.5	1.4	A+	<5	<10	<20	<30	≥30
TSS (mg/L)	7.7	3.6	A	<5	<10	<20	<30	≥30
Total Nitrogen (mg/L)	22.1	2.4	B	<5	<15	<25	<30	≥30
NH ₄ - Nitrogen (mg/L)	0.2	0.1	A+	<1	<5	<10	<20	≥20
Total phosphorus (mg/L)	4.4	0.3	B	<1	<2	<5	<7	≥7
Faecal Coliforms (cfu/100mL)	54,000	23,660	C	<10	<200	<10,000	<100,000	≥100,000
Energy (kWh/d) (mean)	6.3	1.9	D	0	<1	<2	<5	≥5

On-site Effluent Treatment National Testing Programme,
c/- Technical Manager 10 Tide Close, Mount Wellington, AUCKLAND 2013
Mob: 021 626 772 E-mail: ray@hedgland.co.nz



On-site Effluent Treatment National Testing Programme (OSET NTP)

This Performance Certificate is specific to the **BioCycle 8200** model as specified above when operated at a flow rate of 1,000 litres/day (70% of advised plants design capacity), and is valid for 5 years from the date below. For the full OSET NTP report on the performance of the **BioCycle 8200 system** contact Murray White of **BioCycle Systems**, Hamilton, P: 0800 246 292, or M: 0274 998 799 or E: murray@biocyclesystems.co.nz.

Authorised By:

A handwritten signature in black ink, appearing to read "Ray Hedgland", written over a horizontal line.

Ray Hedgland, Technical Manager, OSET NTP
1 February 2017

On-site Effluent Treatment National Testing Programme,
c/- Technical Manager 10 Tide Close, Mount Wellington, AUCKLAND 2013
Mob: 021 626 772 E-mail: ray@hedgland.co.nz

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WILEY GEOTECHNICAL LTD

BOREHOLE No. 1

SITE: Lot 3, 760 Settlement Road, Hakaru (Effluent Field)

REF: 21150

Sheet 1 of 1

INFERRED GEOLOGY	DESCRIPTION OF SOIL	SOIL SYMBOL	DEPTH (m)	SAMPLE TYPE	WATER CONTENT (%)	WATER LEVEL	CORRECTED VANE SHEAR STRENGTH (kPa)			SCALA PENETROMETER BLOWS / 100 mm		
							● Peak Field Vane	○ Remoulded Field vane		5	10	15
Group Alluvium of the Tauranga	FILL/TOPSOIL dark brown											
	SILT slightly clayey, slightly plastic, brown increase clay and plasticity											
	E.O.H: 1.2m											

NOTES Groundwater was not encountered.

LOGGED BY: CS

DATE DRILLED: 9-Jun-21

DRILL METHOD 50 mm Hand Auger

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 Alluvium of the Tauranga



08 December 2021

Gina Utting and Dawn Owens
15 Brookview Heights
RD 2
Waipu 0582

Dear Sir or Madam,

Reference Number: BC210456

Project Location: 752 Settlement Road

Hakaru

Legal description of land where building is located: Lot 3 DP 560279

Project Description: Second Hand Relocatable 4 Bedroom Dwelling - Foundations and Drainage Only

IR Number: 1

Inspection Results:

DRAINAGE - 08 Dec 2021 @ 14:01 by Greg Bellam

Inspection Outcome: **PASS** - The BCA is satisfied, on reasonable grounds, that the aspects of building work pertaining to this inspection demonstrate compliance with the building consent.

Inspection Summary: Storm and foul water completed for garage and dwelling, both line on air test. All 100mm lines supported with bedding. joints primed and glued. Greater than 1:60 fall. Over flow from tank discharging to soakage trench. Foul water completed to septic tank, dripper lines still to go. As built on site, to be uploaded onto consent portal. Drain layer, Mark Wharfe

Your next inspection will be: **Prepour**

Please contact us 48 hours before you require this to book your inspection.

Outstanding Required Documents for this Building

Prepour

- B1: Piles - Construction monitoring records

Wastepipes

- G12: Pipework pressure test documentation

Drainage

- E1: Stormwater drain leakage test and as-built plans
- G13: As-builts, drainlayer details, pipework test

Final

- G9: Energy works certificate

History

Inspection Name

Prepour

Wastepipes

Sub-floor Framing

Drainage

Final

Summary

-

-

-

PASS - 08 Dec 2021

-

Yours Sincerely,



Greg Bellam

Senior Building Services Officer

On behalf of: Kaipara District Council

Notes: .



Notes: .





01 February 2022

Gina Utting and Dawn Owens
15 Brookview Heights
RD 2
Waipu 0582

Dear Sir or Madam,

Reference Number: BC210456

Project Location: 752 Settlement Road

Hakaru

Legal description of land where building is located: Lot 3 DP 560279

Project Description: Second Hand Relocatable 4 Bedroom Dwelling - Foundations and Drainage Only

IR Number: 2

Inspection Results:

PREPOUR - 01 Feb 2022 @ 13:31 by John Edwards

Inspection Outcome: **FAIL** - The following aspects of this inspection have resulted in a Fail result -- see the item(s) below:

Required Docs:

Ps4 good ground required

These may be viewed at time of next inspection.

Formal Directive: 1-please upload all outstanding paperwork to the portal

2- ensure 100mm punch pads are maintained under piles

3- ensure any excess water or spoil is cleaned out prior to pouring if required

Site Communication: Karl Fenton 136808

Inspection Summary: Dwelling

Positioned by surveyor, pile holes 400 mm diameter x 600mm ordinary piles, 900mm deep anchors , holes are clean , extra holes have been drilled around the entrance ways , engineers sight notes onsite , ok to continue.

Your next inspection will be: **Sub-floor Framing**

Please contact us 48 hours before you require this to book your inspection.

Outstanding Required Documents for this Building

Prepour

- B1: Piles - Construction monitoring records

Wastepipes

- G12: Pipework pressure test documentation

Drainage

- E1: Stormwater drain leakage test and as-built plans
- G13: As-builts, drainlayer details, pipework test

Final

- G9: Energy works certificate

History

Inspection Name

Prepour

Wastepipes

Sub-floor Framing

Drainage

Final

Summary

FAIL - 01 Feb 2022

View at next inspection

-

-

PASS - 08 Dec 2021

-

Yours Sincerely,

John Edwards

building control officer

On behalf of: Kaipara District Council

Notes: Prepour - Default #1 01/02/22



Notes: Prepour - Default #2 01/02/22



Notes: Prepour - Default #1 01/02/22



- BC710456

Engineer's / Inspector's Report

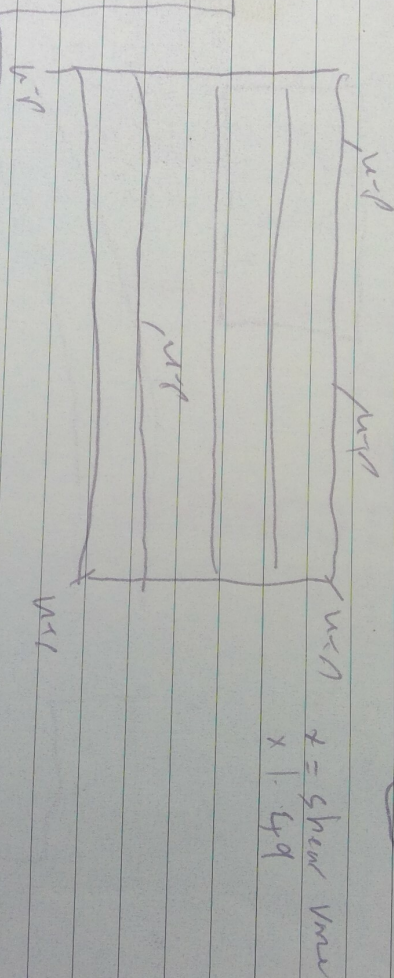
Gina Altin

Project Name:	752 Settlement Rd, Hakara	Date:	1-2-22
Project No.:		Weather:	overcast
Time arrived on site:		Contractor's Working Hours:	
Time left site:			
Travel time:			
Total time:	BC 210456		

Page 6 of 6

Inspection of piles for second hand relocatable dwelling. Piles holes 4500, 2000 + 600 mm deep into v. stiff natural soils.

OK Tank



Ground

Concrete

Pile holes clean & dry with measured undisturbed strength > 200 kPa. OK for 600 kPa capacity.

Distribution

Initials

OK to place piles & pour super concrete. Will issue PS4



14 February 2022

Gina Utting and Dawn Owens
15 Brookview Heights
RD 2
Waipu 0582

Dear Sir or Madam,

Reference Number: BC210456

Project Location: 752 Settlement Road

Hakaru

Legal description of land where building is located: Lot 3 DP 560279

Project Description: Second Hand Relocatable 4 Bedroom Dwelling - Foundations and Drainage Only

IR Number: 3

Inspection Results:

PREPOUR - 14 Feb 2022 @ 13:58 by Aaron Brown

Inspection Outcome: **PASS** - The BCA is satisfied, on reasonable grounds, that the aspects of building work pertaining to this inspection demonstrate compliance with the building consent.

SUB-FLOOR FRAMING - 14 Feb 2022 @ 14:00 by Aaron Brown

Inspection Outcome: **FAIL** - The following aspects of this inspection have resulted in a Fail result -- see the item(s) below:

Required Docs:

Please provide the LBP ROW for all pile and subfloor fixings

These may be viewed at time of next inspection.

Formal Directive: Please provide the following documents to the portal..

- 1-LBP ROW
- 2- Drainlayers asbuilt plans
- 3- Drainlayers PS3 and commissioning statement
- 4- Wastewater service agreement if on septic tank.

5- Electrical certificate when electrical works is complete

6- Plumbers Pressure test results and PS3

Your next inspection will be: **Final**

Please contact us 48 hours before you require this to book your inspection.

Outstanding Required Documents for this Building

Wastepipes

- G12: Pipework pressure test documentation

Drainage

- E1: Stormwater drain leakage test and as-built plans
- G13: As-builts, drainlayer details, pipework test

Final

- G9: Energy works certificate

History

Inspection Name

Prepour

Wastepipes

Sub-floor Framing

Drainage

Final

Summary

PASS - 14 Feb 2022

-

IN-PROGRESS - 14 Feb 2022

View at next inspection

PASS - 08 Dec 2021

-

Yours Sincerely,

Aaron Brown

Principal Building Lead

On behalf of: Kaipara District Council



11 March 2022

Gina Utting and Dawn Owens
15 Brookview Heights
RD 2
Waipu 0582

Dear Sir or Madam,

Reference Number: BC210456

Project Location: 752 Settlement Road

Hakaru

Legal description of land where building is located: Lot 3 DP 560279

Project Description: Second Hand Relocatable 4 Bedroom Dwelling - Foundations and Drainage Only

IR Number: 4

Inspection Results:

WASTEPIPES - 11 Mar 2022 @ 12:02 by Aaron Brown

Inspection Outcome: **PASS** - The BCA is satisfied, on reasonable grounds, that the aspects of building work pertaining to this inspection demonstrate compliance with the building consent.

SUB-FLOOR FRAMING - 11 Mar 2022 @ 12:02 by Aaron Brown

Inspection Outcome: **PASS** - The BCA is satisfied, on reasonable grounds, that the aspects of building work pertaining to this inspection demonstrate compliance with the building consent.

FINAL - 11 Mar 2022 @ 12:02 by Aaron Brown

Inspection Outcome: **PASS** - The BCA is satisfied, on reasonable grounds, that the aspects of building work pertaining to this inspection demonstrate compliance with the building consent.

Your next inspection will be: **No further inspection required**

Outstanding Required Documents for this Building

Wastepipes

- G12: Pipework pressure test documentation

Final

- G9: Energy works certificate

History**Inspection Name**

Prepour

Wastepipes

Sub-floor Framing

Drainage

Final

Summary**PASS** - 14 Feb 2022**PASS** - 11 Mar 2022**PASS** - 11 Mar 2022**PASS** - 08 Dec 2021**PASS** - 11 Mar 2022

Yours Sincerely,

Aaron Brown

Principal Building Lead

On behalf of: Kaipara District Council

Inspection Photos Record on Project 210456

Building: Main Building
Inspection: Prepour
Question: Have all construction monitoring records and required documents that are required as at this point of the construction process been provided?
 [These may include: Location certificate; Ground bearing verification; Pipework pressure tests; As-built drawings; Warrantie...
Inspector: John Edwards
Timestamp: 2022-02-01 16:31:39
Comment: Prepour - Default #1 01/02/22



Building: Main Building
Inspection: Prepour
Question: Have all construction monitoring records and required documents that are required as at this point of the construction process been provided?
 [These may include: Location certificate; Ground bearing verification; Pipework pressure tests; As-built drawings; Warrantie...
Inspector: John Edwards
Timestamp: 2022-02-01 16:31:39
Comment: Prepour - Default #2 01/02/22

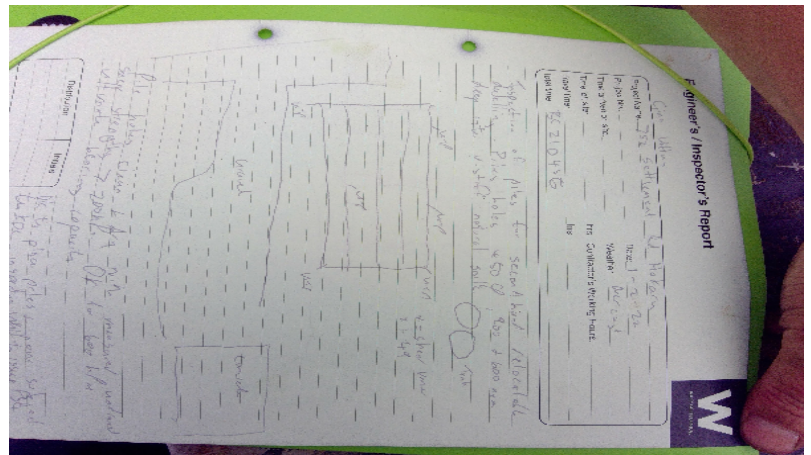


Building: Main Building
Inspection: Prepour
Question: Is site safety properly managed?
 [Check: Work site hazards are identified and mitigated; Suitable barriers, fences / hoardings are provided to protect public and restrict unauthorised site access by children].
Inspector: John Edwards
Timestamp: 2022-02-01 16:31:39
Comment: Prepour - Default #1 01/02/22



Inspection Photos Record on Project 210456

Building: Main Building
Inspection: Prepour
Question: Have the following matters been checked:
Inspector: John Edwards
Timestamp: 2022-02-01 16:31:39
Comment: Prepour - Default #1 01/02/22



Building: Main Building
Inspection: Final
Question: Have all construction monitoring records and required documents that are required as at this point of the construction process been provided?
[These may include: Location certificate; Ground bearing verification; Pipework pressure tests; As-built drawings; Warrantie...]
Inspector: Aaron Brown
Timestamp: 2022-03-11 12:12:38
Comment: Final - Default #1 11/03/22



Building: Main Building
Inspection: Final
Question: Have all construction monitoring records and required documents that are required as at this point of the construction process been provided?
[These may include: Location certificate; Ground bearing verification; Pipework pressure tests; As-built drawings; Warrantie...]
Inspector: Aaron Brown
Timestamp: 2022-03-11 12:12:38
Comment: Final - Default #2 11/03/22



Inspection Photos Record on Project 210456

Building: Main Building
Inspection: Final
Question: Have all construction monitoring records and required documents that are required as at this point of the construction process been provided?
 [These may include: Location certificate; Ground bearing verification; Pipework pressure tests; As-built drawings; Warrantie...
Inspector: Aaron Brown
Timestamp: 2022-03-11 12:12:38
Comment: Final - Default #3 11/03/22



Building: Main Building
Inspection: Final
Question: Have all construction monitoring records and required documents that are required as at this point of the construction process been provided?
 [These may include: Location certificate; Ground bearing verification; Pipework pressure tests; As-built drawings; Warrantie...
Inspector: Aaron Brown
Timestamp: 2022-03-11 12:12:38
Comment: Final - Default #4 11/03/22



Building: Main Building
Inspection: Final
Question: Have all construction monitoring records and required documents that are required as at this point of the construction process been provided?
 [These may include: Location certificate; Ground bearing verification; Pipework pressure tests; As-built drawings; Warrantie...
Inspector: Aaron Brown
Timestamp: 2022-03-11 12:12:38
Comment: Final - Default #5 11/03/22



Inspection Photos Record on Project 210456

Building: Main Building
Inspection: Final
Question: Is the smoke alarm and location of detectors complying?
Inspector: Aaron Brown
Timestamp: 2022-03-11 12:12:38
Comment: Final - Default #1 11/03/22



Form 6A

Memorandum from licensed building practitioner: Record of building work

Section 88, Building Act 2004

Please fill in the form as fully and correctly as possible.

If there is insufficient room on the form for requested details, please continue on another sheet and attach the additional sheet(s) to this form.

THE BUILDING

Street address: **752 Settlement Rd,**

Suburb: **Hakaru,**

Town/City: **Northland.**

Postcode: **0975**

THE PROJECT

Building consent number: **BC210456**

THE OWNER(S)

Name(s): **Gina Utting & Dawn Owens**

Mailing address: **15 Brookview Heights, RD 2.**

Suburb: **Waipu,**

PO Box/Private Bag:

Town/City: **Auckland.**

Postcode: **0582**

Phone number: **0212670724**

Email address: **ginautting@gmail.com**

RECORD OF WORK THAT IS RESTRICTED BUILDING WORK

PRIMARY STRUCTURE

Work that is restricted building work	Description of restricted building work	Carried out or supervised
Tick ☒	If necessary, describe the restricted building work.	Tick ☒ whether you carried out the restricted building work or supervised someone else carrying out the restricted building work.
Foundations and subfloor framing ☒	Foundations Only	☐ Carried out ☒ Supervised
Walls ☐		☐ Carried out ☐ Supervised
Roof ☐		☐ Carried out ☐ Supervised
Columns and beams ☐		☐ Carried out ☐ Supervised
Bracing ☐		☐ Carried out ☐ Supervised
Other ☐		☐ Carried out ☐ Supervised

EXTERNAL MOISTURE MANAGEMENT SYSTEMS		
Work that is restricted building work	Description of restricted building work	Carried out or supervised
Tick ☒	If necessary, describe the restricted building work.	Tick ☒ whether you carried out the restricted building work or supervised someone else carrying out the restricted building work.
Damp proofing ☐		☐ Carried out ☐ Supervised
Roof cladding or roof cladding system ☐		☐ Carried out ☐ Supervised
Ventilation system (for example, subfloor or cavity) ☐		☐ Carried out ☐ Supervised
Wall cladding or wall cladding system ☐		☐ Carried out ☐ Supervised
Waterproofing ☐		☐ Carried out ☐ Supervised
Other ☐		☐ Carried out ☐ Supervised

ISSUED BY

Name and contact details of the licensed building practitioner who is licensed to carry out or supervise restricted building work.

Name: **Karl Fenton**

LBP number: **BP136808**

Class(es) licensed in:

Foundations.

Plumbers, Gasfitters and Drainlayers registration number (if applicable):

Mailing address (if different from below):

Street address/Registered office: **2 Garfield Rd,**

Suburb: **Helensville,**

Town/City: **Auckland**

PO Box/Private Bag

Postcode: **0800**

Phone number: **094167026**

Mobile: **0275376338**

After hours:

Fax:

Email address: **karl@removalhomes.co.nz**

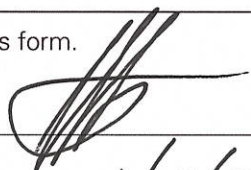
Website:

DECLARATION

I **Karl Fenton** carried out or supervised the restricted building work recorded on this form.

Signature: _____

Date: _____


1/2/22



14 February 2022

Gina Utting
ginautting@gmail.com

**RE: PS 4 for insitu soil below foundation elements – Lot 3, DP 560279, 752
Settlement Road, Hakaru. Building Consent BC 210456.**

Wiley Geotechnical Limited (WGL) was requested by Gina Utting to visit the site and perform geotechnical site observations for a proposed new pile foundation for a relocatable dwelling.

WGL visited the site on the 1st of February 2022. The augered holes for the pile foundation were 450 mm in diameter and had a depth of 0.6 m to 0.9 m into very stiff natural soils. The augered holes were clean and dry, and had been carried out in line with the approved engineering plans. Shear vane testing indicated that the insitu soil at the base of the augered boreholes had a shear strength greater than 200 kPa, as per the approved design requirements.

Conclusions and Recommendations

We consider the site to be suitable for the construction of the proposed dwelling. The insitu soil material was in line with that assumed at the design stage.

Based on our site visit, it is our opinion that a geotechnical ultimate bearing capacity of 600 kPa is available at the base of the augered boreholes.

LIMITATIONS

- (i) This report has been prepared for the use of our client, Gina Utting and their professional advisers and the relevant Regional Authorities in relation to the specified project brief described in this report. No liability is accepted for the use of any part of the report for any other purpose or by any other person or entity.
- (ii) Assessments made in this report are based on the ground conditions indicated from published sources, site inspections and subsurface investigations described in this report based on accepted normal methods of site investigations. Variations in ground conditions may exist between test locations and therefore have not been taken into account in the report. If variations are found during excavation or at foundation preparation stage WGL should be notified immediately so we can amend our recommendations.
- (iii) This Limitation should be read in conjunction with the IPENZ/ACENZ Standard Terms of Engagement.

752 Settlement Road, Hakaru

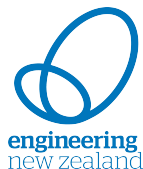
We trust that this information meets your current requirements. Please do not hesitate to contact the undersigned on 021 0399 385 or matt@wileygeotechnical.co.nz if you require any further information.

**Matt Wiley, CPEng**

Principal Engineer

Attachments:

- PS 4 – Construction Review
- Site Notes



association of
consulting and
engineering

Building Code Clause(s) **B1/VM4**

PRODUCER STATEMENT – PS4 – CONSTRUCTION REVIEW

ISSUED BY: Wiley Geotechnical Ltd

(Construction Review Firm)

TO: Gina Utting

(Owner/Developer)

TO BE SUPPLIED TO: Kaipara District Council

(Building Consent Authority)

IN RESPECT OF: Inspection of in situ soil below foundations elements.

(Description of Building Work)

AT: 752 Settlement Road

(Address)

Town/City: HAKARU

(Address)

LOT 3

DP 560279

SO

We Wiley Geotechnical Ltd

(Construction Review Firm)

have been engaged by Gina Utting

To provide ☐ CM1 ☒ CM2 ☐ CM3 ☐ CM4 ☐ CM5 (Engineering Categories) or ☐ observation as per agreement with

owner/developer Gina Utting

or ☐ other services

(Extent of Engagement)

in respect of clause(s) B1 & B2 of the Building Code for the building work described in

documents relating to Building Consent No. BC 210456 and those relating to

Building Consent Amendment(s) Nos. issued during the course of the works. We have sighted these Building Consents and the conditions of attached to them.

Authorised instructions/variation(s) No. (copies attached) or by the attached Schedule ☐ have been issued during the course of the works.

On the basis of ☐ this review ☒ these review(s) and information supplied by the contractor during the course of the works and **on behalf of the firm** undertaking this Construction Review, **I believe on reasonable grounds** that

☐ All or ☐ Part only of the building works have been completed in accordance with the relevant requirements of the

Building Consent and Building Consent Amendments identified above, with respect to Clause(s) B1/VM4 of the Building Code. I also believe on reasonable grounds that the persons who have undertaken this construction review have the necessary competency to do so.

I, Matthew Lewis Wiley am: ☒ CPEng.# 200767

(Name of Construction Review Professional)

I am a member of: ☒ Engineering New Zealand and hold the following qualifications BSc, MSc (Hons)

The Construction Review Firm issuing this statement holds a current policy of Professional Indemnity Insurance no less than \$200,000*.

The Construction Review Firm is a member of ACE New Zealand: ☐

SIGNED BY Matthew Lewis Wiley

(Signature)

(Name of Construction Review Professional)

ON BEHALF OF Wiley Geotechnical Ltd

Date 1 Feb 22

(Construction Review Firm)

Note: This statement shall only be relied upon by the Building Consent Authority named above. Liability under this statement accrues to the Design Firm only. The total maximum amount of damages payable arising from this statement and all other statements provided to the Building Consent Authority in relation to this building work, whether in contract, tort or otherwise (including negligence), is limited to the sum of \$200,000.*

This form is to accompany **Forms 6 or 8 of the Building (Form) Regulations 2004** for the issue of a Code Compliance Certificate.

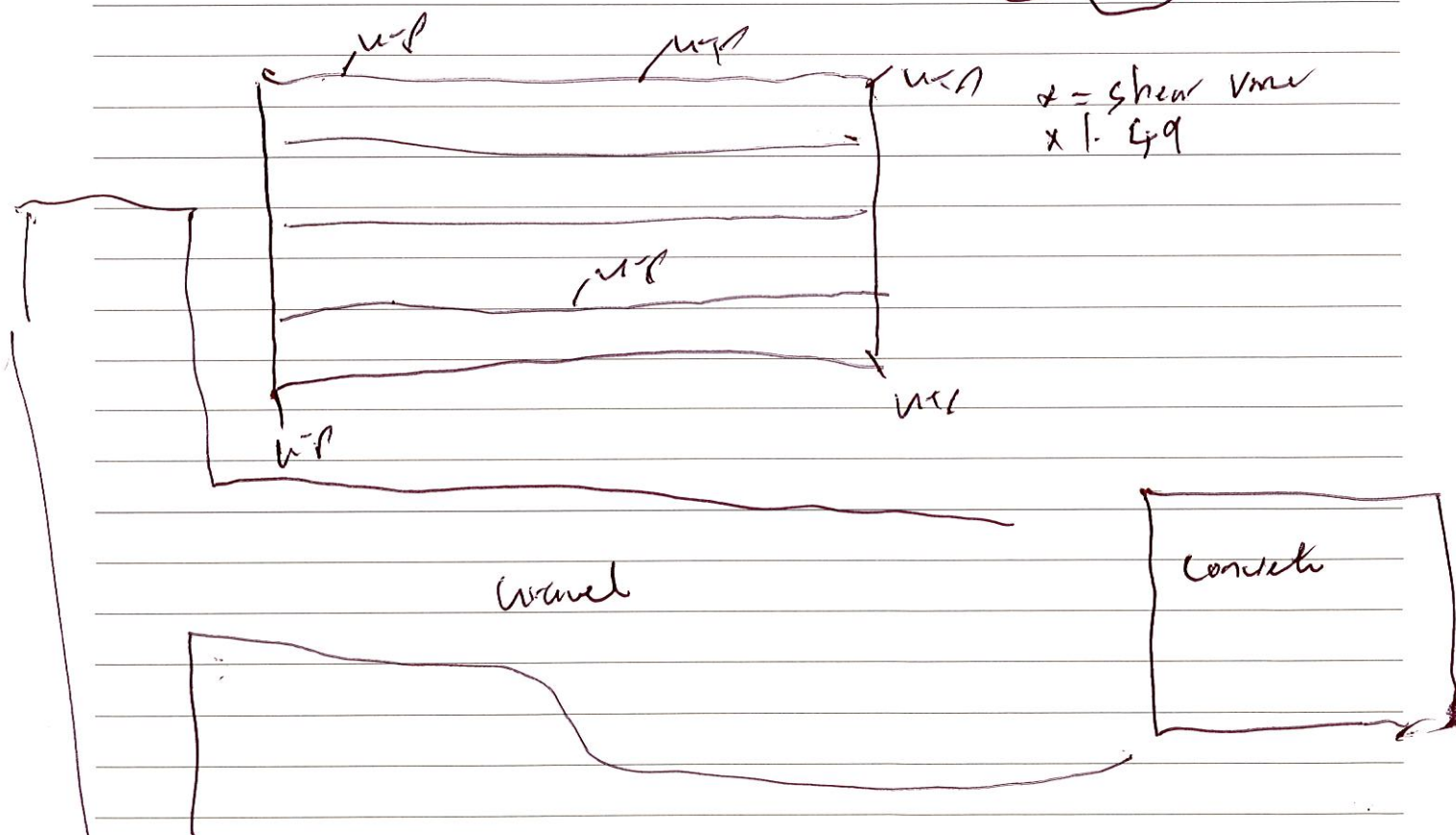
THIS FORM AND ITS CONDITIONS ARE COPYRIGHT TO ACE NEW ZEALAND AND ENGINEERING NEW ZEALAND

Engineer's / Inspector's Report

Gina Uffens

Project Name: 752 Settlement Rd, Hakaru
 Project No.: 21150 Date: 1-2-22
 Time arrived on site: Weather: overcast
 Time left site: hrs Contractor's Working Hours:
 Travel time: hrs
 Total time: BC 210456

Inspection at piles for second hand relocatable dwelling. Piles holes 450 Ø, 900 x 600 mm deep into v. stiff natural soils.



Pile holes clean & dry with measured undrained shear strength > 200 kPa. OK for 600 kPa ultimate bearing capacity

Distribution	Initials

OK to place piles & pour subject to KDC inspection. Will issue AS4

Engineer / Inspector:

Reviewed by:

M. J. Wilson
 CPENG 210707

Memorandum from licensed building practitioner: Record of building work

Section 88, Building Act 2004

Please fill in the form as fully and correctly as possible.

If there is insufficient room on the form for requested details, please continue on another sheet and attach the additional sheet(s) to this form.

THE BUILDING

Street address: 752 Settlement Rd,

Suburb: Hakaru,

Town/City: Northland.

Postcode: 0975

THE PROJECT

Building consent number: BC210456

THE OWNER(S)

Name(s): Gina Utting & Dawn Owens

Mailing address: 15 Brookview Heights, RD 2.

Suburb: Waipu,

PO Box/Private Bag:

Town/City: Auckland.

Postcode: 0582

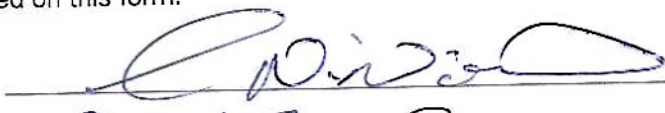
Phone number: 0212670724

Email address: ginautting@gmail.com

RECORD OF WORK THAT IS RESTRICTED BUILDING WORK		
PRIMARY STRUCTURE		
Work that is restricted building work	Description of restricted building work	Carried out or supervised
Tick ☒	If necessary, describe the restricted building work.	Tick ☒ whether you carried out the restricted building work or supervised someone else carrying out the restricted building work.
Foundations and subfloor framing ☒	Excludes foundations. Supplied and installed subfloor framing fixings.	☒ Carried out ☐ Supervised
Walls ☐		☐ Carried out ☐ Supervised
Roof ☐		☐ Carried out ☐ Supervised
Columns and beams ☐		☐ Carried out ☐ Supervised
Bracing ☐		☐ Carried out ☐ Supervised
Other ☐		☐ Carried out ☐ Supervised

EXTERNAL MOISTURE MANAGEMENT SYSTEMS		
Work that is restricted building work	Description of restricted building work	Carried out or supervised
Tick ☒	If necessary, describe the restricted building work.	Tick ☒ whether you carried out the restricted building work or supervised someone else carrying out the restricted building work.
Damp proofing ☐		☐ Carried out ☐ Supervised
Roof cladding or roof cladding system ☐		☐ Carried out ☐ Supervised
Ventilation system (for example, subfloor or cavity) ☐		☐ Carried out ☐ Supervised
Wall cladding or wall cladding system ☐		☐ Carried out ☐ Supervised
Waterproofing ☐		☐ Carried out ☐ Supervised
Other ☐		☐ Carried out ☐ Supervised

ISSUED BY	
Name and contact details of the licensed building practitioner who is licensed to carry out or supervise restricted building work.	
Name: C Nivian	LBP number: 116645
Class(es) licensed in: CARPENTRY	
Plumbers, Gasfitters and Drainlayers registration number (if applicable):	
Mailing address (if different from below):	
Street address/Registered office: 14 KYLA PLACE	
Suburb: HAKARU	Town/City: KAIWAKA
PO Box/Private Bag	Postcode: 0986
Phone number: 021 721 395	Mobile:
After hours:	Fax:
Email address: C.Nivian@gmail.com	Website:

DECLARATION	
I, C Nivian, carried out or supervised the restricted building work recorded on this form.	
Signature:	
Date:	8 FEB 22

Producer Statement Construction (PS3) - Plumbing

Issued by: Andrew Whitehead being a Registered Certifying Plumber.

In respect of the testing of water pipework prior to concealment for:

(Owner) Gina Utting

At (Address) 752 Settlement Road Hakaru

752 Settlement Road Hakaru

Legal Description: Lot _____ DP _____ Valuation _____

I have sighted the issued building consent (BC 210456) and have constructed the plumbing pipes and fitting in accordance with the approved building consent, the New Zealand Building Code, and the manufacturers specifications and requirements.

I have tested the water supply system as follows:

- ☒ By pressurising the water supply system by subjecting the hot and cold system to a pressure of 1500kPa for a period of not less than 15 minutes and inspecting the system to ensure that there are no leaks, in accordance with NZBC G12/AS1 Clause 7.5.1
- ☒ By pressurising the UPVC water piping systems to 1.5 times the working pressure for a period not less than 15 minutes and checking that there are no leaks, as given in section 9 of NZS 7643, in accordance with NZBC G12/AS1 clause 7.5.2

I believe on reasonable grounds that the pipework has passed that test.

I also understand that Kaipara District Council in accepting this producer statement construction (PS3), will be relying on it to establish compliance at the completion of the building work.

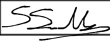
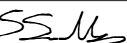
- ☒ I understand and accept that Council may rely on this document, for the purposes of establishing compliance with the above building consent and that the content including the signature, whether electronic or not, is truly representative and authoritative of the information contained.

Signature of Registered Certifying Plumber: 

Registration Number: 25378 Reg Expiry Date: 31/3/22

Date: 7/3/22

File: 3117.03

	ELECTRICAL CERTIFICATE OF COMPLIANCE & ELECTRICAL SAFETY CERTIFICATE															
	REFERENCE/CERTIFICATE ID No.: i-4193C1															
This form has been designed to be used by licensed electrical workers to certify that installations or Part installations under Part 1 or Part 2 of AS/NZS 3000 are safe to be connected to the <u>specified</u> system of electrical supply.																
Location Details:	752 Settlement Road, Hakaru															
Contact Details: (Name and address)	Gina Utting ginautting@gmail.com															
Name of Electrical worker:	Steve Solley	Registration/Practising licence number:														
0211846859		E253151														
Phone & email:	Aran Clews (E278730), Daniel Archer															
Name and registration number of person(s) supervised:																
Certificate of Compliance																
Type of work: ☐ Addition ☒ Alteration ☐ New work																
The prescribed electrical work is: ☐ Low risk ☐ General ☒ High-risk (Specify):																
Mains cables, Main Earthing system, MEN Link																
Means of compliance: ☐ Part 1 of AS/NZS 3000 ☒ Part 2 of AS/NZS 3000																
Additional Standards or electrical code of practice were required: ☒ No ☐ Yes (specify):																
Date or range of dates that prescribed electrical work undertaken: 29/9/2021 to 22/2/2022																
Contains fittings that are safe to connect to a power supply? ☒ Yes ☐ No																
Specify type of supply system: 3 Phase 60A																
The installation has an earthing system that is correctly rated (where applicable) ☒ Yes ☐ No																
Parts of the installation to which this certificate relates that are safe to connect to a power supply?																
☒ All ☐ Parts (specify):																
The work relies on manufacturers instructions: ☐ Yes ☒ No																
If yes – identify the instruction manual including name, date and version. Also attach a copy of manufacturer's instructions to this certificate. (Or provide reference to readily accessible electronic format, eg Internet link.)																
Identify: Link:																
The work has been done in accordance with a certified design: ☒ Yes ☐ No																
If yes – identify the certified design including name, date and version. Also attach a copy of the certified design to this certificate. (Or provide reference to readily accessible electronic format, eg Internet link.)																
Identify: 752 Settlement Road, Site Plan V3.png Link: https://www.dropbox.com/s/xuezpjuo5nriis7/752%20Settlement%20Road%2C%20Site%20Plan%20-%20V3.png?dl=0																
The work relies on a Supplier Declaration of Conformity (SDoC): ☒ Yes ☐ No																
If yes - identify the SDoC including name, date and version OR EESS registration. Also attach a copy of the SDoC to this certificate. (Or provide reference to readily accessible electronic format, eg Internet link.)																
Identify: J.A Russell Ltd Link: https://www.jarussell.co.nz/compliance																
The installation has been satisfactorily tested in accordance with the Electricity (Safety) Regulations 2010 ☐ No ☒ Yes																
Description of Work: Run new 3phase 70mm 4C Ali mains cable underground. Upgrade internal Switchboard, Add new phase to internal switchboard. Upgrade MeterBox to allow for 3 phase. New Main Earth Peg + Conductor Wire + connect Water Pump + Septic System Replace 5x Wall lights.	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: center;">Test Results (provide values)</th> </tr> </thead> <tbody> <tr> <td>Polarity (Independent earth):</td> <td>Correct</td> </tr> <tr> <td>Insulation resistance:</td> <td>>25M Ohms</td> </tr> <tr> <td>Earth Continuity:</td> <td>.02 Ohms</td> </tr> <tr> <td>Bonding:</td> <td>.01 Ohms</td> </tr> <tr> <td>Fault Loop impedance</td> <td>Ohms</td> </tr> <tr> <td>Other (specify):</td> <td>Visual OK</td> </tr> </tbody> </table>		Test Results (provide values)		Polarity (Independent earth):	Correct	Insulation resistance:	>25M Ohms	Earth Continuity:	.02 Ohms	Bonding:	.01 Ohms	Fault Loop impedance	Ohms	Other (specify):	Visual OK
Test Results (provide values)																
Polarity (Independent earth):	Correct															
Insulation resistance:	>25M Ohms															
Earth Continuity:	.02 Ohms															
Bonding:	.01 Ohms															
Fault Loop impedance	Ohms															
Other (specify):	Visual OK															
By signing this document I certify that the completed prescribed electrical work to which this Certificate of Compliance applies has been done lawfully and safely, and the information in the certificate is correct.																
Certifier's signature:		Date:														
		18/2/2022														
Electrical Safety Certificate																
By signing this document I certify that the installation, or part of the installation, to which this Electrical Safety Certificate applies is connected to a power supply and is safe to use.																
Certifier's name:	Steve Solley	Registration/Practising licence number:														
		E253151														
Certifier's signature:		Connection Date:														
		18/2/2022														
Certificate Issue Date:																
CUSTOMER COPY – THIS IS AN IMPORTANT DOCUMENT AND SHOULD BE RETAINED FOR A MINIMUM OF 7 YEARS																

This Electrical Safety Certificate also confirms that the electrical work complies with the building code for the purposes of Section 19(1)(e) of the Building Act 2004.

Commissioning Statement (PS3) – AS/NZS 1547

Issued by: Mark Whake being a Registered Drainlayer.

In respect of installation and commissioning report for the onsite wastewater disposal for:

(Owner) Go Living

At (Address) 752 Settlement Road

Legal Description: Lot 3 DP 560279 Valuation _____

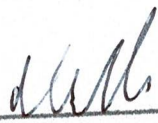
I have sighted the issued building consent (BC 210456) and have tested the onsite wastewater system including the pipes and fittings in accordance with the AS/ NZS 1547 clause 4.5.6, the New Zealand Building Code, and the manufacturers specifications and requirements.

I have tested and checked the onsite waste water system and installed the system as follows:

- (+) Tested the onsite effluent disposal system in accordance with AS/NZS 1547:2000 and provide a schedule to the owner for the systems maintenance.
- (+) Has been installed in accordance with G13 (Foul Water) and G14 (Industrial Liquid Waste) and B2 (durability 15 years) of the Building Regulations 1992.

I believe on reasonable grounds that the work complies with the Building Consent issued.

I also understand that Kaipara District Council in accepting this commissioning report (PS3), will be relying on it to establish compliance at the completion of the building work.

Signature of Registered Drainlayer: 

Drainlayer's Registration Number: 17721

Registration Expiry Date: 3/22

Date: 4/3/22

Private Utility Service As-Built Record

(Section 216, Building Act 2004)

Part A Consent Details (to be completed in all cases)

Building Consent Number Shed, House 210608/210456.

Applicants Name G. Utting

Applicants Mailing Address

Site Address 752 Settlement Road

Part B As Built Services Information (to be completed in relation to service provided, ticking each box as appropriate)**Stormwater**

Pipe Diameter	Pipe Material	Connection Type
☐ 80mm	☒ uPVC	☐ Public Utility Service Connection
☒ 100mm	☐ Vitrified Clay	☒ Soak Hole - 15m.
☐ 150mm	☐ Ductile Iron	☐ Stream
☐ 225mm	☐ Concrete	☐ Drain
☐ Other _____ mm	☐ Other _____	☒ Other <u>w/tak x2</u>

Water Supply

Pipe Material - Cold	Hot Water Cylinder						
☐ uPVC	☐ High Pressure _____ Litre						
☐ Copper	☐ Low Pressure _____ Litre						
☐ Polybutylene	Meter Type						
☐ Other _____	Make _____ Model _____						
Pipe Material - Hot	Diameter _____						
☐ uPVC	Serial Number _____						
☐ Copper	Reading <table border="1" style="display: inline-table;"><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr></table> m ³						
☐ Polybutylene	(Quote all black figures inclusive of zeros only)						
☐ Other _____							

Note Part B As Built Services Information

Wastewater - Pressure (Pump Make/Model) _____

Connection Diameter	Pipe Material	Connection Type
☐ 40mm	☐ uPVC	☐ Public Utility Service Connection
☐ 50mm	☐ Vitrified Clay	☐ Septic Tank
☐ 80mm	☐ Concrete	☐ Other _____
☐ Other _____ mm	☐ Other _____	

Wastewater - Gravity

Connection Diameter	Pipe Material	Connection Type
☐ 65mm	☒ uPVC	☐ Public Utility Service Connection
☐ 80mm	☐ Vitrified Clay	☐ Soak Hole
☒ 100mm	☐ Concrete	☐ Stream
☐ Other _____ mm	☐ Other _____	☒ Other <u>onsite</u>

Wastewater - Disposal System Description

Septic Tank

Size: 8200 litres

Type ☐ Septic tank DECOMMISSIONED ☐ Ecotank ☒ Biocycle

Effluent Field

Trench 450 m

☐ Deep Soakhole

Depth _____ m

Number of holes _____ m

☒ Other Ram drainage

Sanitary Facilities

☒ Toilet Number 1

☐ Bidet Number _____

☐ Urinal Number _____

Waste Disposal Unit

☒ No ☐ Yes Type _____

Certification

I, Mark White being _____

☐ Owner	☐ Craftsman plumber	Registration Number _____
☐ Occupier	☒ Registered drainlayer	Registration Number <u>1721</u>

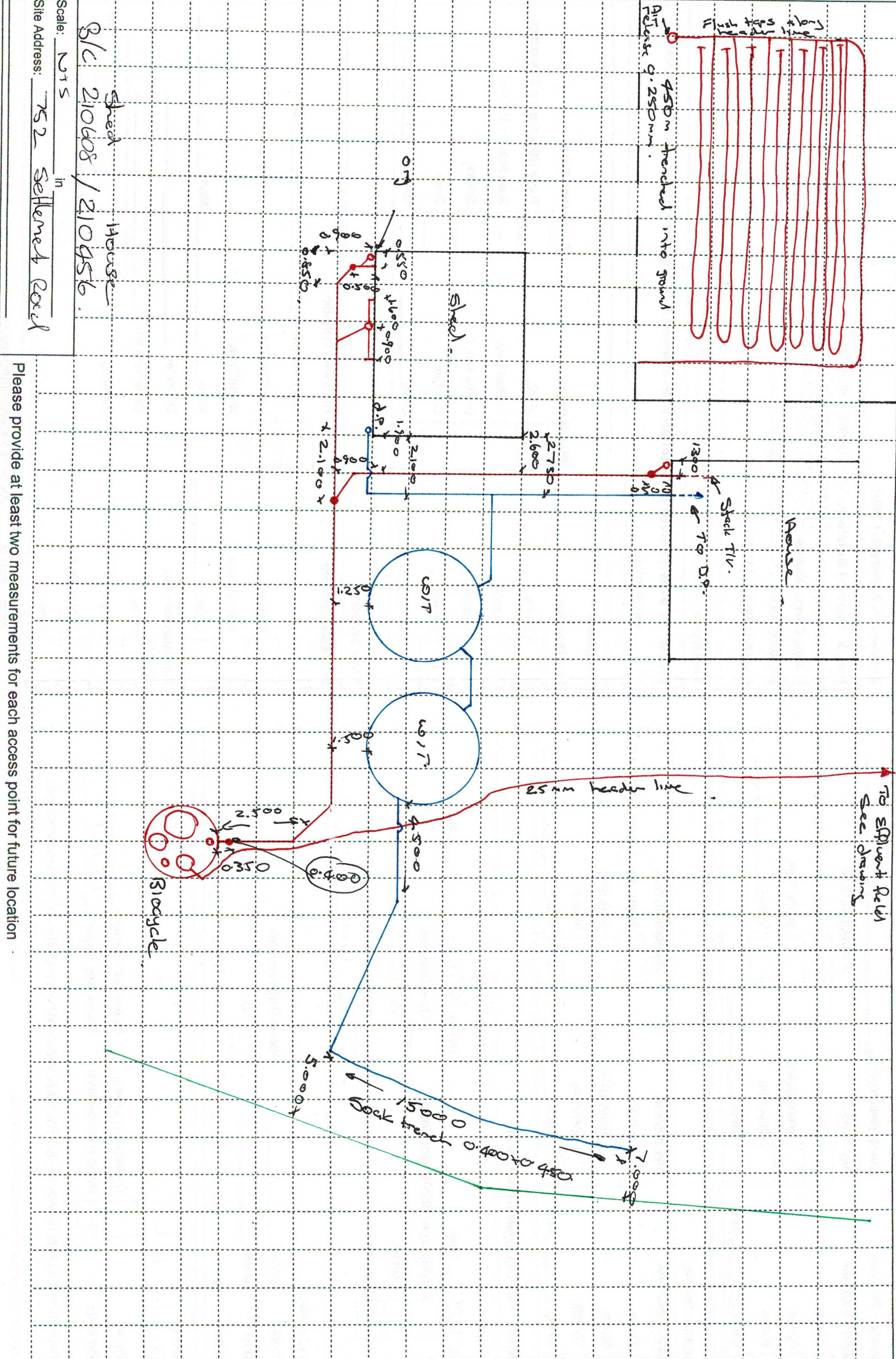
certify that this Private Utility Service As-Built Record is an accurate representation of the work carried out.

Signature

Date

PART C: As Built Services Plan

(To be completed in all cases. If details are already noted on separate drawings then provide copies in duplicate as appropriate and attach to this sheet. Ensure that drawing numbers, etc, are noted below.)



Scale: N 15 in
 Site Address: 752 Settlement Road

Please provide at least two measurements for each access point for future location

Private Utility Service As-Built Record

(Section 216, Building Act 2004)

Part A Consent Details (to be completed in all cases)Building Consent Number 210608/1210456Applicants Name G. Luthins

Applicants Mailing Address

Site Address 752 Settlers Road**Part B As Built Services Information** (to be completed in relation to service provided, ticking each box as appropriate)**Stormwater****Pipe Diameter**☐ 80mm☒ 100mm☐ 150mm☐ 225mm

Other _____ mm

Pipe Material☒ uPVC☐ Vitrified Clay☐ Ductile Iron☐ Concrete

Other _____

Connection Type☒ Public Utility Service Connection☐ Soak Hole - 15 m☐ Stream☐ DrainOther soak x2**Water Supply****Pipe Material - Cold**☐ uPVC☐ Copper☐ Polybutylene

Other _____

Hot Water Cylinder

High Pressure _____ Litre

Low Pressure _____ Litre

Meter Type

Make _____ Model _____

Pipe Material - Hot☐ uPVC☐ Copper☐ Polybutylene

Other _____

Diameter _____

Serial Number _____

Reading _____

(Quote all black figures inclusive of zeros only)

m³**Note Part B As Built Services Information****Wastewater - Pressure** (Pump Make/Model) _____**Connection Diameter**☐ 40mm☐ 50mm☐ 80mm

Other _____ mm

Pipe Material☒ uPVC☐ Vitrified Clay☐ Concrete

Other _____

Connection Type☐ Public Utility Service Connection☐ Septic Tank

Other _____

Wastewater - Gravity**Connection Diameter**☐ 65mm☐ 80mm☒ 100mm

Other _____ mm

Pipe Material☒ uPVC☐ Vitrified Clay☐ Concrete

Other _____

Connection Type☐ Public Utility Service Connection☐ Soak Hole☐ StreamOther soak**Wastewater - Disposal System Description****Septic Tank**Size: 8200 litres**Septic tank DECOMMISSIONED**Type ☐ Ecotank☒ Biocycle**Effluent Field**Trench 450 m☐ Deep Soakhole

Depth _____ m

Number of holes _____ m

☒ Other Ream discharge**Sanitary Facilities**☒ Toilet Number 1

Bidet Number _____

Urinal Number _____

Waste Disposal Unit☐ No

Yes Type _____

CertificationI Mark White being☐ Owner Craftsman plumber☒ Occupier Registered drainlayerRegistration Number 17721

Registration Number _____

certify that this Private Utility Service As-Built Record is an accurate representation of the work carried out.

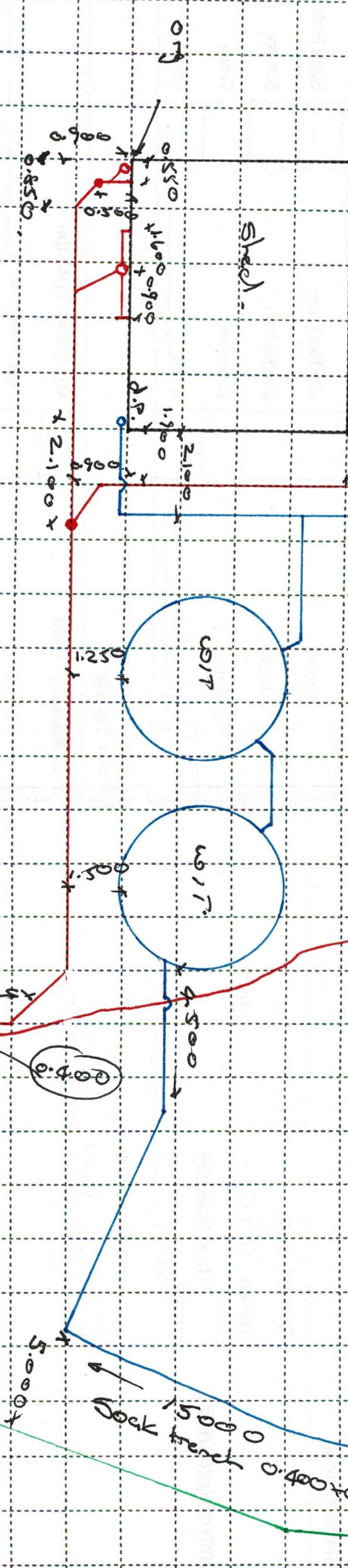
Mark White

Signature

Date

(To be completed in all cases. If details are already noted on separate drawings then provide copies in duplicate as appropriate and attach to this sheet. Ensure that drawing numbers etc are noted below.)

To SP)vent fire
See drawing



Site Address: 752 Selkirk Road

Please provide at least two measurements for each access point for future location

A Rated Waste Water Services Ltd

52 Fork Road
RD 1
KUMEU 0891
AUCKLAND
09 412 7588 or 027 273 6967
aratedwws@xtra.co.nz

Accredited Service Agent for

*"Turn Your Ones and Twos into Trees"***SERVICING & MAINTENANCE CONTRACT**Customer Register/Tank Number Biocycle Model # 8200THIS AGREEMENT is between**A RATED WASTE WATER SERVICES LTD** (the Company)

Registered office: 52 Fork Road, RD 1, Kumeu 0891, Auckland

and

GINA UTTING

(the Customer)

of

KAIWAKA

(area)

is for the maintenance of your waste water treatment system installed at :

Site address: **752 SETTLEMENT ROAD, KAIWAKA**Postal address: 752 Settlement Rd, ROS, Wellsford

Landline Phone Number:

Mobile Number: **021 267 0724**0975Email Address: ginautting@gmail.com

Which shall operate under the following terms and conditions:

1. Once each six (6) months of the term agreed, the Company shall inspect the system and carry out the following work:
 - (a) Check and adjust air intake where necessary.
 - (b) Clean where necessary the inside of the tank from which the Irrigation network runs.
 - (c) Check the blower, irrigation pump and electrical system, including the alarm system.
 - (d) Monitor and maintain the balance of purifiers.
 - (e) Clean the irrigation discharge lines and repair defective drippers at Customer's expense.
 - (f) Report to the Customer and local authority of any problems that which have arisen.
 - (g) Check and if necessary clean the irrigation filter. If filter needs replacing this would be at Customer's expense. Regular cleaning of the irrigation filter is the responsibility of the homeowner and should be done on a monthly basis.
(Cleaning of the irrigation filters on a monthly basis can be carried out by A Rated Waste Water Services Ltd at an extra charge of \$60.00 (incl GST) – this will be additional to the service cost as per paragraph 5 below.)
2. In the event of the alarm system becoming active, the customer will notify the authorised Biocycle agent A Rated Waste Water Services Ltd, telephone Kevin Carr on 09 412 7588 or 027 273 6967 and advise that the system has malfunctioned. A Rated Waste Water Services Ltd will undertake to attend the call within 48 hours of receiving the advice that the alarm system has activated, or that there is a malfunction of the system.

3. If the customer requests the Company to carry out work to the system other than in Clause 1. above, or that covered by the guarantee, then the Customer will have to pay the Company's reasonable additional charges for such work and any necessary materials. Travel kilometres and call out fees will be additional to the above. Also the customer shall pay the Company's reasonable additional charges for work done and materials supplied pursuant to Clause 1. above where the need for such work and materials results from the Customer's failure to ensure compliance with any operating instructions, suggestions or recommendations given by the Company or from negligent or wilfully damaging actions of any person, or from the system being required to bear a workload which is in excess of design loading for the site, or from earthquake, fire, flood, storm, lightening, tempest, landslip, or from persons not authorized by the Company interfacing with the present system in any way, or from the Customer's failure to advise of any alarm warning or failure to comply with this agreement.
4. The Company (A Rated Waste Water Services Ltd) cannot be held responsible for: any defects arising from the installation of the system and it's irrigation fields, either by the manufacturer, installers, drain layers or engineers, etc. Any such defects and subsequent remedies or repairs required, will be the liability of the aforementioned above, or the home owner.
5. The Company will invoice the Customer for any reasonable additional charges for work done and materials supplied and the Customer shall make payment within seven (7 days) of the said invoice. (Late payment will incur penalties of 5%).
6. The maintenance fee is \$212.75 per visit, (including GST) payable within 7 days of the work being performed. This fee is the current maintenance charge and is subject to change if an adjustment is required. An invoice and maintenance form will be provided after each visit.

This contract is effective from **10th March 2022** and expires on the sale of the above mentioned property unless notice is given by the Customer to the Company of termination of this agreement. If this agreement is terminated, A Rated Waste Water Services Ltd will be obliged to inform council that an on-going service agreement no longer stands between the parties.

Dated this 10th day of March 2022

Signed by (Mr / Mrs / Ms / Miss)

Gina Utting (Customer's Name)

[Signature] (Customer's Signature)

For and on behalf of **A RATED WASTE WATER SERVICES LTD**

A Rated Waste Water Services Ltd

Signed [Signature] Kevin Carr (Director)

PLEASE RETURN ONE COPY TO A RATED WASTE WATER SERVICES LTD
AND RETAIN A COPY FOR YOUR OWN RECORDS.

THE THIRD COPY OF THIS AGREEMENT SHALL BE GIVEN TO THE COUNCIL BY THE INSTALLER or HOME OWNER

This document is not for distribution and is invalid unless signed by ARated Director

Form 7

Code compliance certificate

Section 95, Building Act 2004

The building

Street address of building: 752 Settlement Road, Hakaru

Legal description of land where building is located: Lot 3 DP 560279

Building name: N/A

Location of building within site/block number: 752 Settlement Road
Hakaru

Level/unit number: 0

Current, lawfully established, use: 2.0 Housing: 2.0.2 Detached Dwelling

Year first constructed: 1981

The owner

Name of owner: Gina Utting and Dawn Owens

Contact person: Gina Utting

Mailing address: 15 Brookview Heights, RD 2, Waipu

Street address/registered office: N/A

Phone number: Landline: N/A Mobile: 0212670724

Daytime: Landline: N/A Mobile: 0212670724

After hours: Landline: N/A Mobile: 0212670724

Facsimile number: No information provided

Email address: ginautting@gmail.com

Website: No information provided

First point of contact for communications with the council/building consent authority:
Bruce Wood ; Mailing Address: 54 Halsey Drive
Lynfield
Auckland 1042; Phone: 6496263803; Email: bruce@bcwdesign.co.nz

Building work

Building consent number: BC210456

Description: Second Hand Relocatable 4 Bedroom Dwelling -
Foundations and Drainage Only

Issued by: Kaipara District Council

Code compliance

The building consent authority named below is satisfied, on reasonable grounds, that -
the building work complies with the building consent.

Signature: Aaron Brown

Position: Principal Building Lead

On behalf of: Kaipara District Council

Date: 11 March 2022

Date Submitted: Friday, 11 March 2022



Form 6

Application for code compliance certificate

Section 92, Building Act 2004

The building consent

Building consent number: BC210456
 Issued by: Kaipara District Council

The owner

Name of owner: Gina Utting & Dawn Owens
 Contact person: Gina
 Mailing address: 752 Settlement Road
 Rd 5
 Wellsford
 0975
 Street address/registered office: 752 Settlement Road
 Hakaru
 0975
 Phone number: Landline: 021267024 Mobile: 0212670724
 Daytime: Landline: 021267024 Mobile: 0212670724
 After hours: Landline: 021267024 Mobile: 0212670724
 Facsimile number: No information provided
 Email address: ginautting@gmail.com
 Website: No information provided

The following evidence of ownership is attached to this application:

Provided at time of building consent application (refer form 2).

Application

All building work to be carried out under the building consent specified on this form was completed on:

10 February 2022

The licensed building practitioner(s) who carried out or supervised the restricted building work is/are as follows:

Name	Bruce Wood
Licensing class	Design
Licensed building practitioner number (or registration number if treated as being licensed under section 291 of Act)	BP113680
Particular work carried out or supervised	Foundation Design

Name	Karl Fenton
Licensing class	Foundations
Licensed building practitioner number (or registration number if treated as being licensed under section 291 of Act)	BP136808
Particular work carried out or supervised	Foundation Installation

Name	Colin Ninian
Licensing class	Carpentry
Licensed building practitioner number (or registration number if treated as being licensed under section 291 of Act)	BP116645
Particular work carried out or supervised	fixing piles to house

The personnel who carried out building work other than restricted building work are as follows:

Name	Virgil
Address	No information provided
Phone number	0210322873
Registration number	N/A
Licensed building practitioner number	N/A

Name	Mark Wharfe
Address	No information provided
Phone number	0274 778 678
Registration number	N/A
Licensed building practitioner number	N/A

Name	Gina Utting
Address	No information provided
Phone number	0212670724
Registration number	N/A
Licensed building practitioner number	N/A

Name	Steve Solley
Address	54 Hawera Road, Kohimarama, Auckland, New Zealand
Phone number	0211846859
Registration number	E253151
Licensed building practitioner number	N/A

Name	Andrew Whitehead
------	------------------

Address	20 Doctors Hill Road, Northland, Maungaturoto, 0520
Phone number	0211489814
Registration number	25378
Licensed building practitioner number	N/A

The following specified systems are contained on the compliance schedule for the building and, in the opinion of the personnel who installed them, are capable of performing to the performance standards set out in the building consent:

There are no specified systems in the building.

I request that you issue a code compliance certificate for this work under section 95 of the Building Act 2004. The code compliance certificate should be sent to:

Owner: 752 Settlement Road, Rd 5, Wellsford 0975

Signature of owner:

GINA MAREE UTTING

Name of person signing: Gina Utting & Dawn Owens

Date: 11 Mar 2022

Attachments

The following documents are attached to this application:

No attachments

Commissioning Statement (PS3) – AS/NZS 1547

Issued by: Mark Whake being a Registered Drainlayer.

In respect of installation and commissioning report for the onsite wastewater disposal for:

(Owner) Go Living

At (Address) 752 Settlement Road

Legal Description: Lot 3 DP 560279 Valuation _____

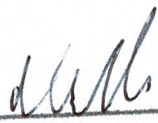
I have sighted the issued building consent (BC 210456) and have tested the onsite wastewater system including the pipes and fittings in accordance with the AS/ NZS 1547 clause 4.5.6, the New Zealand Building Code, and the manufacturers specifications and requirements.

I have tested and checked the onsite waste water system and installed the system as follows:

- (+) Tested the onsite effluent disposal system in accordance with AS/NZS 1547:2000 and provide a schedule to the owner for the systems maintenance.
- (+) Has been installed in accordance with G13 (Foul Water) and G14 (Industrial Liquid Waste) and B2 (durability 15 years) of the Building Regulations 1992.

I believe on reasonable grounds that the work complies with the Building Consent issued.

I also understand that Kaipara District Council in accepting this commissioning report (PS3), will be relying on it to establish compliance at the completion of the building work.

Signature of Registered Drainlayer: 

Drainlayer's Registration Number: 17721

Registration Expiry Date: 3/22

Date: 4/3/22

Private Utility Service As-Built Record

(Section 216, Building Act 2004)

Part A Consent Details (to be completed in all cases)

Building Consent Number Shed, House 210608/210456.

Applicants Name G. Utting

Applicants Mailing Address _____

Site Address 752 Settlement Road

Part B As Built Services Information (to be completed in relation to service provided, ticking each box as appropriate)**Stormwater**

Pipe Diameter	Pipe Material	Connection Type
☐ 80mm	☒ uPVC	☐ Public Utility Service Connection
☒ 100mm	☐ Vitrified Clay	☒ Soak Hole - 15m.
☐ 150mm	☐ Ductile Iron	☐ Stream
☐ 225mm	☐ Concrete	☐ Drain
☐ Other _____ mm	☐ Other _____	☒ Other <u>w/tak x2</u>

Water Supply**Pipe Material - Cold**

☐ uPVC

☐ Copper

☐ Polybutylene

☐ Other _____

Hot Water Cylinder

☐ High Pressure _____ Litre

☐ Low Pressure _____ Litre

Meter Type

Make _____ Model _____

Pipe Material - Hot

☐ uPVC

☐ Copper

☐ Polybutylene

☐ Other _____

Diameter _____

Serial Number _____

Reading

--	--	--	--	--	--	--

 m³
 (Quote all black figures inclusive of zeros only)

Note Part B As Built Services Information

Wastewater - Pressure (Pump Make/Model) _____

Connection Diameter	Pipe Material	Connection Type
☐ 40mm	☐ uPVC	☐ Public Utility Service Connection
☐ 50mm	☐ Vitrified Clay	☐ Septic Tank
☐ 80mm	☐ Concrete	☐ Other _____
☐ Other _____ mm	☐ Other _____	

Wastewater - Gravity

Connection Diameter	Pipe Material	Connection Type
☐ 65mm	☒ uPVC	☐ Public Utility Service Connection
☐ 80mm	☐ Vitrified Clay	☐ Soak Hole
☒ 100mm	☐ Concrete	☐ Stream
☐ Other _____ mm	☐ Other _____	☒ Other <u>onsite</u>

Wastewater - Disposal System Description**Septic Tank**

Size: 8200 litres

Type ☐ **Septic tank DECOMMISSIONED**

☐ Ecotank

☒ Biocycle

Effluent Field

Trench 450 m

☐ Deep Soakhole

Depth _____ m

Number of holes _____ m

☒ Other Ram drainage

Sanitary Facilities

☒ Toilet Number 1

☐ Bidet Number _____

☐ Urinal Number _____

Waste Disposal Unit

☒ No

☐ Yes Type _____

Certification

I, Mark White being _____

☐ Owner	☐ Craftsman plumber	Registration Number _____
☐ Occupier	☒ Registered drainlayer	Registration Number <u>1721</u>

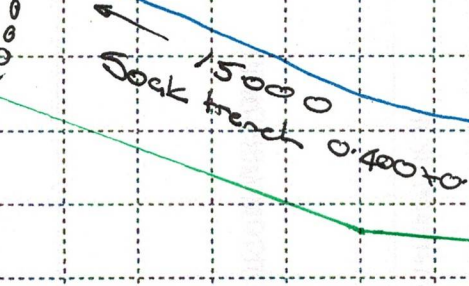
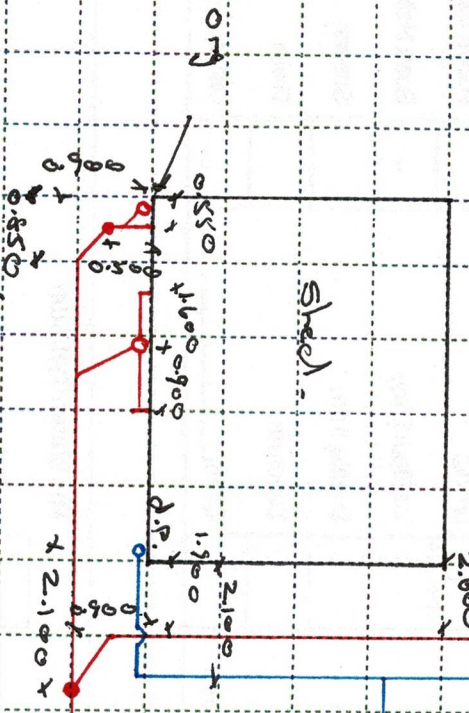
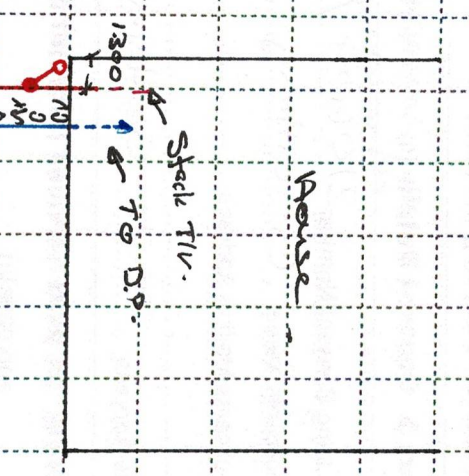
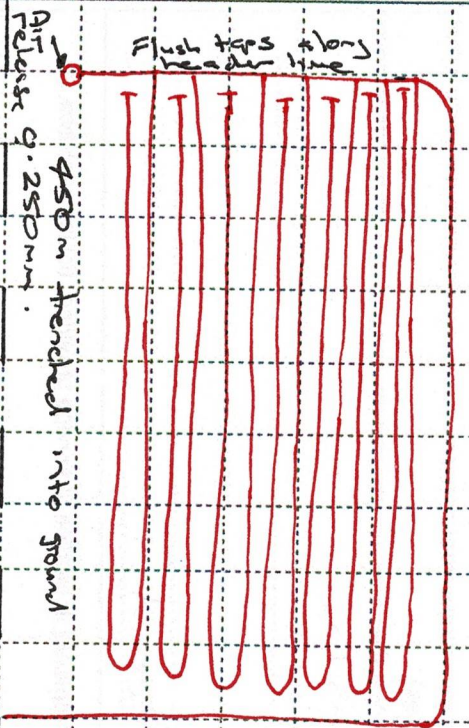
certify that this Private Utility Service As-Built Record is an accurate representation of the work carried out.

Mark White
Signature

3/21
Date

PART C: As Built Services Plan

(To be completed in all cases. If details are already noted on separate drawings then provide copies in duplicate as appropriate and attach to this sheet. Ensure that drawing numbers, etc, are noted below.)



Scale: N 1:5 in

Site Address: 752 Settlement Road

Shed: 210608 / 210456

House: 210608 / 210456

Please provide at least two measurements for each access point for future location

Form 6A

Memorandum from licensed building practitioner: Record of building work

Section 88, Building Act 2004

Please fill in the form as fully and correctly as possible.

If there is insufficient room on the form for requested details, please continue on another sheet and attach the additional sheet(s) to this form.

THE BUILDING

Street address: **752 Settlement Rd,**

Suburb: **Hakaru,**

Town/City: **Northland.**

Postcode: **0975**

THE PROJECT

Building consent number: **BC210456**

THE OWNER(S)

Name(s): **Gina Utting & Dawn Owens**

Mailing address: **15 Brookview Heights, RD 2.**

Suburb: **Waipu,**

PO Box/Private Bag:

Town/City: **Auckland.**

Postcode: **0582**

Phone number: **0212670724**

Email address: **ginautting@gmail.com**

RECORD OF WORK THAT IS RESTRICTED BUILDING WORK

PRIMARY STRUCTURE

Work that is restricted building work	Description of restricted building work	Carried out or supervised
Tick ☒	If necessary, describe the restricted building work.	Tick ☒ whether you carried out the restricted building work or supervised someone else carrying out the restricted building work.
Foundations and subfloor framing ☒	Foundations Only	☐ Carried out ☒ Supervised
Walls ☐		☐ Carried out ☐ Supervised
Roof ☐		☐ Carried out ☐ Supervised
Columns and beams ☐		☐ Carried out ☐ Supervised
Bracing ☐		☐ Carried out ☐ Supervised
Other ☐		☐ Carried out ☐ Supervised

EXTERNAL MOISTURE MANAGEMENT SYSTEMS

Work that is restricted building work	Description of restricted building work	Carried out or supervised
Tick ☒	If necessary, describe the restricted building work.	Tick ☒ whether you carried out the restricted building work or supervised someone else carrying out the restricted building work.
Damp proofing ☐		☐ Carried out ☐ Supervised
Roof cladding or roof cladding system ☐		☐ Carried out ☐ Supervised
Ventilation system (for example, subfloor or cavity) ☐		☐ Carried out ☐ Supervised
Wall cladding or wall cladding system ☐		☐ Carried out ☐ Supervised
Waterproofing ☐		☐ Carried out ☐ Supervised
Other ☐		☐ Carried out ☐ Supervised

ISSUED BY

Name and contact details of the licensed building practitioner who is licensed to carry out or supervise restricted building work.

Name: **Karl Fenton**

LBP number: **BP136808**

Class(es) licensed in:

Foundations.

Plumbers, Gasfitters and Drainlayers registration number (if applicable):

Mailing address (if different from below):

Street address/Registered office: **2 Garfield Rd,**

Suburb: **Helensville,**

Town/City: **Auckland**

PO Box/Private Bag

Postcode: **0800**

Phone number: **094167026**

Mobile: **0275376338**

After hours:

Fax:

Email address: **karl@removalhomes.co.nz**

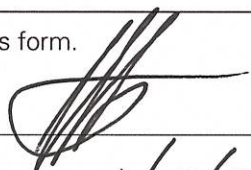
Website:

DECLARATION

I **Karl Fenton** carried out or supervised the restricted building work recorded on this form.

Signature: _____

Date: _____


1/2/22



14 February 2022

Gina Utting
ginautting@gmail.com

**RE: PS 4 for insitu soil below foundation elements – Lot 3, DP 560279, 752
 Settlement Road, Hakaru. Building Consent BC 210456.**

Wiley Geotechnical Limited (WGL) was requested by Gina Utting to visit the site and perform geotechnical site observations for a proposed new pile foundation for a relocatable dwelling.

WGL visited the site on the 1st of February 2022. The augered holes for the pile foundation were 450 mm in diameter and had a depth of 0.6 m to 0.9 m into very stiff natural soils. The augered holes were clean and dry, and had been carried out in line with the approved engineering plans. Shear vane testing indicated that the insitu soil at the base of the augered boreholes had a shear strength greater than 200 kPa, as per the approved design requirements.

Conclusions and Recommendations

We consider the site to be suitable for the construction of the proposed dwelling. The insitu soil material was in line with that assumed at the design stage.

Based on our site visit, it is our opinion that a geotechnical ultimate bearing capacity of 600 kPa is available at the base of the augered boreholes.

LIMITATIONS

- (i) This report has been prepared for the use of our client, Gina Utting and their professional advisers and the relevant Regional Authorities in relation to the specified project brief described in this report. No liability is accepted for the use of any part of the report for any other purpose or by any other person or entity.
- (ii) Assessments made in this report are based on the ground conditions indicated from published sources, site inspections and subsurface investigations described in this report based on accepted normal methods of site investigations. Variations in ground conditions may exist between test locations and therefore have not been taken into account in the report. If variations are found during excavation or at foundation preparation stage WGL should be notified immediately so we can amend our recommendations.
- (iii) This Limitation should be read in conjunction with the IPENZ/ACENZ Standard Terms of Engagement.

752 Settlement Road, Hakaru

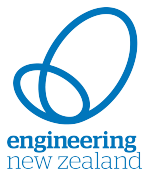
We trust that this information meets your current requirements. Please do not hesitate to contact the undersigned on 021 0399 385 or matt@wileygeotechnical.co.nz if you require any further information.

**Matt Wiley, CPEng**

Principal Engineer

Attachments:

- PS 4 – Construction Review
- Site Notes



association of
consulting and
engineering

Building Code Clause(s) **B1/VM4**

PRODUCER STATEMENT – PS4 – CONSTRUCTION REVIEW

ISSUED BY: **Wiley Geotechnical Ltd**

(Construction Review Firm)

TO: **Gina Utting**

(Owner/Developer)

TO BE SUPPLIED TO: **Kaipara District Council**

(Building Consent Authority)

IN RESPECT OF: **Inspection of in situ soil below foundations elements.**

(Description of Building Work)

AT: **752 Settlement Road**

(Address)

Town/City: **Hakaru**

(Address)

LOT **3**

DP **560279**

SO

We **Wiley Geotechnical Ltd**

(Construction Review Firm)

have been engaged by **Gina Utting**

To provide ☐ CM1 ☒ CM2 ☐ CM3 ☐ CM4 ☐ CM5 (Engineering Categories) or ☐ observation as per agreement with

owner/developer **Gina Utting**

or ☐ other services

(Extent of Engagement)

in respect of clause(s) **B1 & B2** of the Building Code for the building work described in

documents relating to Building Consent No. **BC 210456** and those relating to

Building Consent Amendment(s) Nos. issued during the course of the works. We have sighted these Building Consents and the conditions of attached to them.

Authorised instructions/variation(s) No. (copies attached) or by the attached Schedule ☐ have been issued during the course of the works.

On the basis of ☐ this review ☒ these review(s) and information supplied by the contractor during the course of the works and **on behalf of the firm** undertaking this Construction Review, **I believe on reasonable grounds** that

☐ All or ☐ Part only of the building works have been completed in accordance with the relevant requirements of the

Building Consent and Building Consent Amendments identified above, with respect to Clause(s) **B1/VM4** of the Building Code. I also believe on reasonable grounds that the persons who have undertaken this construction review have the necessary competency to do so.

I, **Matthew Lewis Wiley** am: ☒ CPEng.# **200767**

(Name of Construction Review Professional)

I am a member of: ☒ Engineering New Zealand and hold the following qualifications **BSc, MSc (Hons)**

The Construction Review Firm issuing this statement holds a current policy of Professional Indemnity Insurance no less than \$200,000*.

The Construction Review Firm is a member of ACE New Zealand: ☐

SIGNED BY **Matthew Lewis Wiley**

(Name of Construction Review Professional)

(Signature)

ON BEHALF OF **Wiley Geotechnical Ltd**

(Construction Review Firm)

Date **1 Feb 22**

Note: This statement shall only be relied upon by the Building Consent Authority named above. Liability under this statement accrues to the Design Firm only. The total maximum amount of damages payable arising from this statement and all other statements provided to the Building Consent Authority in relation to this building work, whether in contract, tort or otherwise (including negligence), is limited to the sum of \$200,000.*

This form is to accompany **Forms 6 or 8 of the Building (Form) Regulations 2004** for the issue of a Code Compliance Certificate.

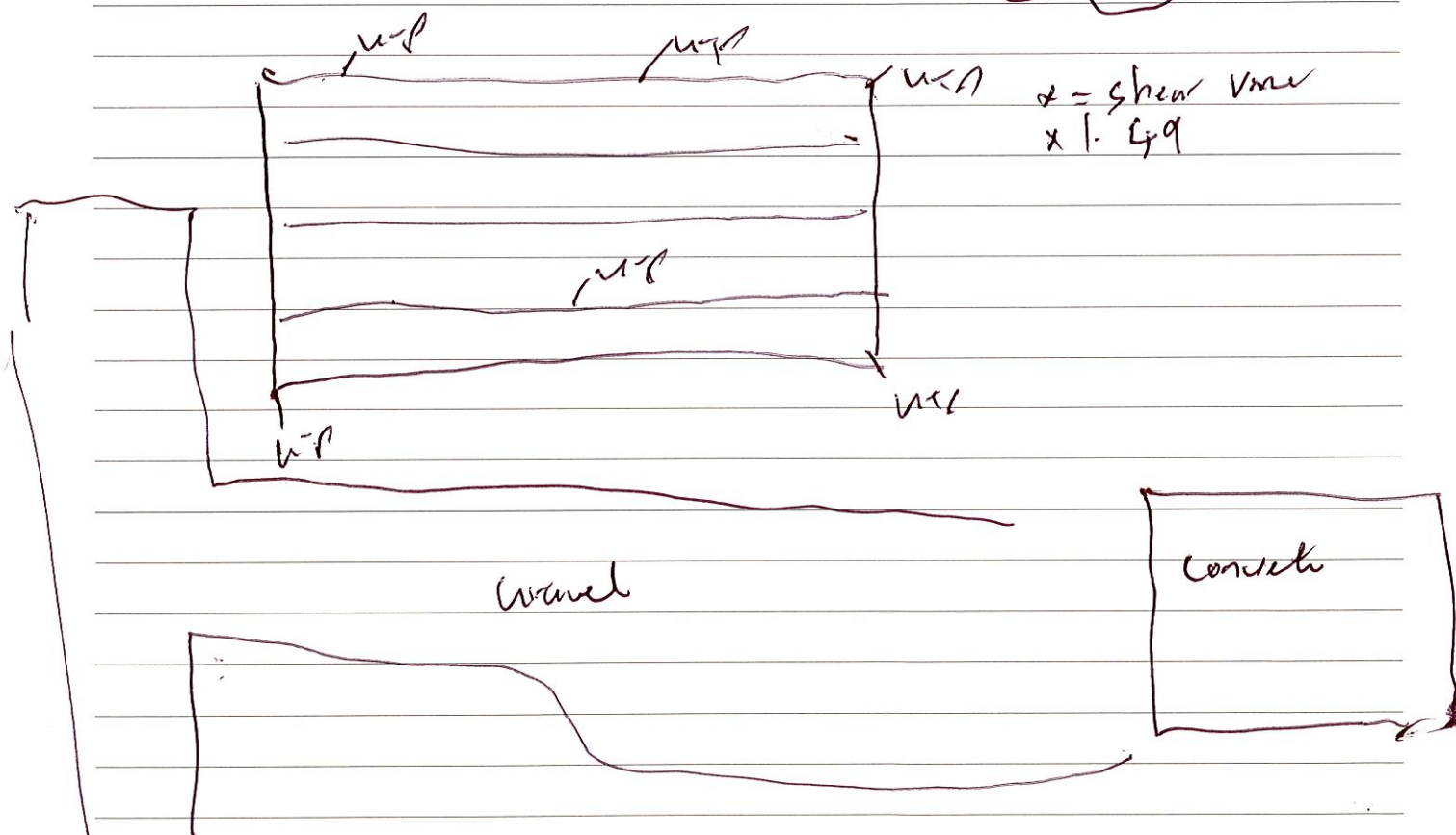
THIS FORM AND ITS CONDITIONS ARE COPYRIGHT TO ACE NEW ZEALAND AND ENGINEERING NEW ZEALAND

Engineer's / Inspector's Report

Gina Uffens

Project Name: 752 Settlement Rd, Hakaru
 Project No.: 21150 Date: 1-2-22
 Time arrived on site: Weather: overcast
 Time left site: hrs Contractor's Working Hours:
 Travel time: hrs
 Total time: BC 210456

Inspection at piles for second hand relocatable dwelling. Piles holes 450 Ø, 900 x 600 mm deep into v. stiff natural soils. 



Pile holes clean & dry with measured undrained shear strength > 200 kPa. OK for 600 kPa ultimate bearing capacity

Distribution	Initials

OK to place piles & pour subject to KDC inspection. Will issue AS4

Engineer / Inspector:

Reviewed by:

M. J. Wilson
 CPEN 210707



Private Utility Service As-Built Record

(Section 216, Building Act 2004)

Part A Consent Details (to be completed in all cases)

Building Consent Number 210608/1210456
Applicants Name G. Luthins
Applicants Mailing Address
Site Address 752 Settlers Road

Part B As Built Services Information (to be completed in relation to service provided, ticking each box as appropriate)

Stormwater

Pipe Diameter	80mm	☒	uPVC	☒	Public Utility Service Connection
	100mm	☒	Vitrified Clay	☒	Soak Hole - 15m
	150mm	☒	Ductile Iron	☒	Stream
	225mm	☒	Concrete	☒	Drain
	Other _____ mm	☒	Other _____	☒	Other <u>soak x2</u>

Water Supply

Pipe Material - Cold	uPVC	☒	High Pressure _____ Litre
	Copper	☒	Low Pressure _____ Litre
	Polybutylene	☒	Meter Type _____
	Other _____	☒	Make _____ Model _____

Pipe Material - Hot

uPVC	☒	Diameter _____
Copper	☒	Serial Number _____
Polybutylene	☒	Reading _____
Other _____	☒	(Quote all black figures inclusive of zeros only)

Note Part B As Built Services Information

Wastewater - Pressure (Pump Make/Model) _____

Connection Diameter	40mm	☒	uPVC	☒	Public Utility Service Connection
	50mm	☒	Vitrified Clay	☒	Septic Tank
	80mm	☒	Concrete	☒	Other _____
	Other _____ mm	☒	Other _____	☒	Other _____

Wastewater - Gravity

Connection Diameter	65mm	☒	uPVC	☒	Public Utility Service Connection
	80mm	☒	Vitrified Clay	☒	Soak Hole
	100mm	☒	Concrete	☒	Stream
	Other _____ mm	☒	Other _____	☒	Other <u>soak</u>

Wastewater - Disposal System Description

Septic Tank
Size: 8200 litres
Type ☒ Trench 450 m
☒ Deep Soakhole
☒ Number of holes _____ m
☒ Ecotank
☒ Biocycle

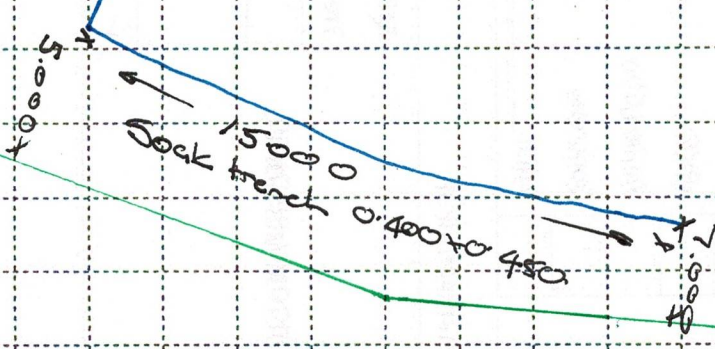
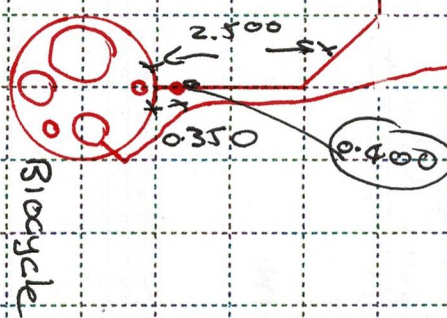
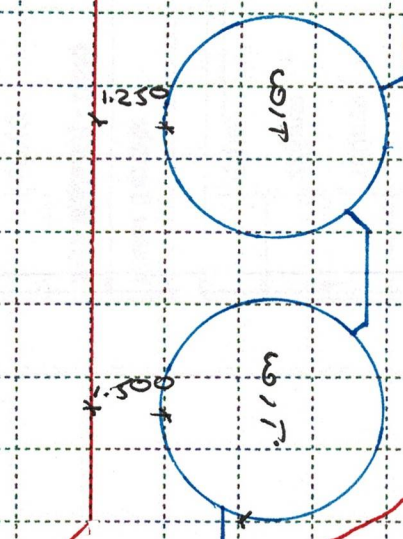
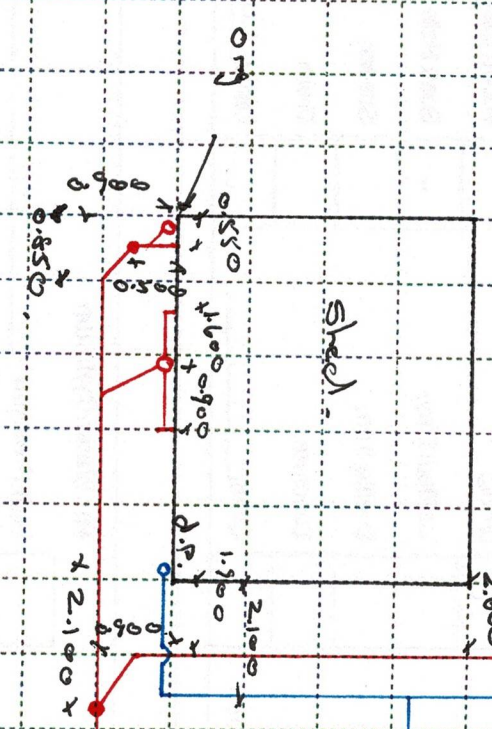
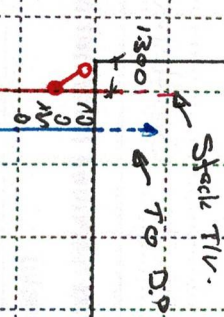
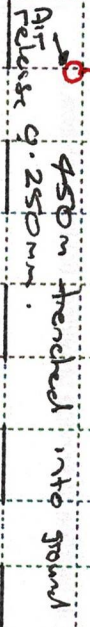
Sanitary Facilities

☒ Toilet	Number _____	☒ Waste Disposal Unit
☒ Bidet	Number _____	☒ No
☒ Urinal	Number _____	☒ Yes Type _____

Certification
I Mark White being _____
Owner _____
Occupier ☒ Registered drainlayer _____
Registration Number 17721
certify that this Private Utility Service As-Built Record is an accurate representation of the work carried out.
Mark White
Signature _____ Date 3/21

(To be completed in all cases. If details are already noted on separate drawings then provide copies in duplicate as appropriate and attach to this sheet. Ensure that drawing numbers are also noted below.)

To SP)vent fire
See drawing



B/c 210608 / 210456. Shed House

Scale: 275

Site Address: 752 Selkirk Road

Please provide at least two measurements for each access point for future location

A Rated Waste Water Services Ltd

52 Fork Road
RD 1
KUMEU 0891
AUCKLAND
09 412 7588 or 027 273 6967
aratedwws@xtra.co.nz

Accredited Service Agent for

*"Turn Your Ones and Twos into Trees"***SERVICING & MAINTENANCE CONTRACT**Customer Register/Tank Number Biocycle Model # 8200THIS AGREEMENT is between**A RATED WASTE WATER SERVICES LTD** (the Company)

Registered office: 52 Fork Road, RD 1, Kumeu 0891, Auckland

and

GINA UTTING

(the Customer)

of

KAIWAKA

(area)

is for the maintenance of your waste water treatment system installed at :

Site address:

752 SETTLEMENT ROAD, KAIWAKA

Postal address:

752 Settlement Rd, ROS, Wellsford

Landline Phone Number:

.....

Mobile Number: **021 267 0724**0975

Email Address:

ginautting@gmail.com

Which shall operate under the following terms and conditions:

1. Once each six (6) months of the term agreed, the Company shall inspect the system and carry out the following work:
 - (a) Check and adjust air intake where necessary.
 - (b) Clean where necessary the inside of the tank from which the Irrigation network runs.
 - (c) Check the blower, irrigation pump and electrical system, including the alarm system.
 - (d) Monitor and maintain the balance of purifiers.
 - (e) Clean the irrigation discharge lines and repair defective drippers at Customer's expense.
 - (f) Report to the Customer and local authority of any problems that which have arisen.
 - (g) Check and if necessary clean the irrigation filter. If filter needs replacing this would be at Customer's expense. Regular cleaning of the irrigation filter is the responsibility of the homeowner and should be done on a monthly basis.
(Cleaning of the irrigation filters on a monthly basis can be carried out by A Rated Waste Water Services Ltd at an extra charge of \$60.00 (incl GST) – this will be additional to the service cost as per paragraph 5 below.)
2. In the event of the alarm system becoming active, the customer will notify the authorised Biocycle agent A Rated Waste Water Services Ltd, telephone Kevin Carr on 09 412 7588 or 027 273 6967 and advise that the system has malfunctioned. A Rated Waste Water Services Ltd will undertake to attend the call within 48 hours of receiving the advice that the alarm system has activated, or that there is a malfunction of the system.

3. If the customer requests the Company to carry out work to the system other than in Clause 1. above, or that covered by the guarantee, then the Customer will have to pay the Company's reasonable additional charges for such work and any necessary materials. Travel kilometres and call out fees will be additional to the above. Also the customer shall pay the Company's reasonable additional charges for work done and materials supplied pursuant to Clause 1. above where the need for such work and materials results from the Customer's failure to ensure compliance with any operating instructions, suggestions or recommendations given by the Company or from negligent or wilfully damaging actions of any person, or from the system being required to bear a workload which is in excess of design loading for the site, or from earthquake, fire, flood, storm, lightening, tempest, landslip, or from persons not authorized by the Company interfacing with the present system in any way, or from the Customer's failure to advise of any alarm warning or failure to comply with this agreement.
4. The Company (A Rated Waste Water Services Ltd) cannot be held responsible for: any defects arising from the installation of the system and it's irrigation fields, either by the manufacturer, installers, drain layers or engineers, etc. Any such defects and subsequent remedies or repairs required, will be the liability of the aforementioned above, or the home owner.
5. The Company will invoice the Customer for any reasonable additional charges for work done and materials supplied and the Customer shall make payment within seven (7 days) of the said invoice. (Late payment will incur penalties of 5%).
6. The maintenance fee is \$212.75 per visit, (including GST) payable within 7 days of the work being performed. This fee is the current maintenance charge and is subject to change if an adjustment is required. An invoice and maintenance form will be provided after each visit.

This contract is effective from **10th March 2022** and expires on the sale of the above mentioned property unless notice is given by the Customer to the Company of termination of this agreement. If this agreement is terminated, A Rated Waste Water Services Ltd will be obliged to inform council that an on-going service agreement no longer stands between the parties.

Dated this 10th day of March 2022

Signed by (Mr / Mrs / Ms / Miss)

Gina Utting (Customer's Name)

[Signature] (Customer's Signature)

For and on behalf of **A RATED WASTE WATER SERVICES LTD**

A Rated Waste Water Services Ltd

Signed [Signature] Kevin Carr (Director)

PLEASE RETURN ONE COPY TO A RATED WASTE WATER SERVICES LTD
AND RETAIN A COPY FOR YOUR OWN RECORDS.

THE THIRD COPY OF THIS AGREEMENT SHALL BE GIVEN TO THE COUNCIL BY THE INSTALLER or HOME OWNER

This document is not for distribution and is invalid unless signed by ARated Director

Producer Statement Construction (PS3) - Plumbing

Issued by: Andrew Whitehead being a Registered Certifying Plumber.

In respect of the testing of water pipework prior to concealment for:

(Owner) Gina Utting

At (Address) 752 Settlement Road Hakaru

752 Settlement Road Hakaru

Legal Description: Lot _____ DP _____ Valuation _____

I have sighted the issued building consent (BC 210456) and have constructed the plumbing pipes and fitting in accordance with the approved building consent, the New Zealand Building Code, and the manufacturers specifications and requirements.

I have tested the water supply system as follows:

- ☒ By pressurising the water supply system by subjecting the hot and cold system to a pressure of 1500kPa for a period of not less than 15 minutes and inspecting the system to ensure that there are no leaks, in accordance with NZBC G12/AS1 Clause 7.5.1
- ☒ By pressurising the UPVC water piping systems to 1.5 times the working pressure for a period not less than 15 minutes and checking that there are no leaks, as given in section 9 of NZS 7643, in accordance with NZBC G12/AS1 clause 7.5.2

I believe on reasonable grounds that the pipework has passed that test.

I also understand that Kaipara District Council in accepting this producer statement construction (PS3), will be relying on it to establish compliance at the completion of the building work.

- ☒ I understand and accept that Council may rely on this document, for the purposes of establishing compliance with the above building consent and that the content including the signature, whether electronic or not, is truly representative and authoritative of the information contained.

Signature of Registered Certifying Plumber: 

Registration Number: 25378 Reg Expiry Date: 31/3/22

Date: 7/3/22

File: 3117.03

Memorandum from licensed building practitioner: Record of building work

Section 88, Building Act 2004

Please fill in the form as fully and correctly as possible.

If there is insufficient room on the form for requested details, please continue on another sheet and attach the additional sheet(s) to this form.

THE BUILDING

Street address: 752 Settlement Rd,

Suburb: Hakaru,

Town/City: Northland.

Postcode: 0975

THE PROJECT

Building consent number: BC210456

THE OWNER(S)

Name(s): Gina Utting & Dawn Owens

Mailing address: 15 Brookview Heights, RD 2.

Suburb: Waipu,

PO Box/Private Bag:

Town/City: Auckland.

Postcode: 0582

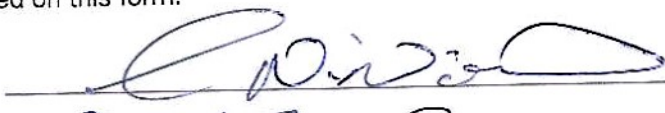
Phone number: 0212670724

Email address: ginautting@gmail.com

RECORD OF WORK THAT IS RESTRICTED BUILDING WORK		
PRIMARY STRUCTURE		
Work that is restricted building work	Description of restricted building work	Carried out or supervised
Tick ☒	If necessary, describe the restricted building work.	Tick ☒ whether you carried out the restricted building work or supervised someone else carrying out the restricted building work.
Foundations and subfloor framing ☒	Excludes foundations. Supplied and installed subfloor framing fixings.	☒ Carried out ☐ Supervised
Walls ☐		☐ Carried out ☐ Supervised
Roof ☐		☐ Carried out ☐ Supervised
Columns and beams ☐		☐ Carried out ☐ Supervised
Bracing ☐		☐ Carried out ☐ Supervised
Other ☐		☐ Carried out ☐ Supervised

EXTERNAL MOISTURE MANAGEMENT SYSTEMS		
Work that is restricted building work	Description of restricted building work	Carried out or supervised
Tick ☒	If necessary, describe the restricted building work.	Tick ☒ whether you carried out the restricted building work or supervised someone else carrying out the restricted building work.
Damp proofing ☐		☐ Carried out ☐ Supervised
Roof cladding or roof cladding system ☐		☐ Carried out ☐ Supervised
Ventilation system (for example, subfloor or cavity) ☐		☐ Carried out ☐ Supervised
Wall cladding or wall cladding system ☐		☐ Carried out ☐ Supervised
Waterproofing ☐		☐ Carried out ☐ Supervised
Other ☐		☐ Carried out ☐ Supervised

ISSUED BY	
Name and contact details of the licensed building practitioner who is licensed to carry out or supervise restricted building work.	
Name: C Nivian	LBP number: 116645
Class(es) licensed in: CARPENTRY	
Plumbers, Gasfitters and Drainlayers registration number (if applicable):	
Mailing address (if different from below):	
Street address/Registered office: 14 KYLA PLACE	
Suburb: HAKARU	Town/City: KAIWAKA
PO Box/Private Bag	Postcode: 0986
Phone number: 021 721 395	Mobile:
After hours:	Fax:
Email address: C.Nivian@gmail.com	Website:

DECLARATION	
I, C Nivian, carried out or supervised the restricted building work recorded on this form.	
Signature:	
Date:	8 FEB 22

Form 6A

Memorandum from licensed building practitioner: Record of building work

Section 88, Building Act 2004

Please fill in the form as fully and correctly as possible.

If there is insufficient room on the form for requested details, please continue on another sheet and attach the additional sheet(s) to this form.

THE BUILDING

Street address: **752 Settlement Rd,**

Suburb: **Hakaru,**

Town/City: **Northland.**

Postcode: **0975**

THE PROJECT

Building consent number: **BC210456**

THE OWNER(S)

Name(s): **Gina Utting & Dawn Owens**

Mailing address: **15 Brookview Heights, RD 2.**

Suburb: **Waipu,**

PO Box/Private Bag:

Town/City: **Auckland.**

Postcode: **0582**

Phone number: **0212670724**

Email address: **ginautting@gmail.com**

RECORD OF WORK THAT IS RESTRICTED BUILDING WORK

PRIMARY STRUCTURE

Work that is restricted building work	Description of restricted building work	Carried out or supervised
Tick ☒	If necessary, describe the restricted building work.	Tick ☒ whether you carried out the restricted building work or supervised someone else carrying out the restricted building work.
Foundations and subfloor framing ☒	Foundations Only	☐ Carried out ☒ Supervised
Walls ☐		☐ Carried out ☐ Supervised
Roof ☐		☐ Carried out ☐ Supervised
Columns and beams ☐		☐ Carried out ☐ Supervised
Bracing ☐		☐ Carried out ☐ Supervised
Other ☐		☐ Carried out ☐ Supervised

EXTERNAL MOISTURE MANAGEMENT SYSTEMS		
Work that is restricted building work	Description of restricted building work	Carried out or supervised
Tick ☒	If necessary, describe the restricted building work.	Tick ☒ whether you carried out the restricted building work or supervised someone else carrying out the restricted building work.
Damp proofing ☐		☐ Carried out ☐ Supervised
Roof cladding or roof cladding system ☐		☐ Carried out ☐ Supervised
Ventilation system (for example, subfloor or cavity) ☐		☐ Carried out ☐ Supervised
Wall cladding or wall cladding system ☐		☐ Carried out ☐ Supervised
Waterproofing ☐		☐ Carried out ☐ Supervised
Other ☐		☐ Carried out ☐ Supervised

ISSUED BY

Name and contact details of the licensed building practitioner who is licensed to carry out or supervise restricted building work.

Name: **Karl Fenton**

LBP number: **BP136808**

Class(es) licensed in:

Foundations.

Plumbers, Gasfitters and Drainlayers registration number (if applicable):

Mailing address (if different from below):

Street address/Registered office: **2 Garfield Rd,**

Suburb: **Helensville,**

Town/City: **Auckland**

PO Box/Private Bag

Postcode: **0800**

Phone number: **094167026**

Mobile: **0275376338**

After hours:

Fax:

Email address: **karl@removalhomes.co.nz**

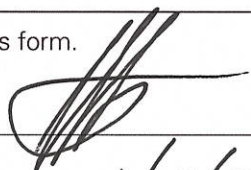
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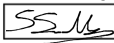
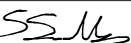
DECLARATION

I **Karl Fenton** carried out or supervised the restricted building work recorded on this form.

Signature: _____

Date: _____


1/2/22

	ELECTRICAL CERTIFICATE OF COMPLIANCE & ELECTRICAL SAFETY CERTIFICATE													
	REFERENCE/CERTIFICATE ID No.: i-4193C1													
This form has been designed to be used by licensed electrical workers to certify that installations or Part installations under Part 1 or Part 2 of AS/NZS 3000 are safe to be connected to the specified system of electrical supply.														
Location Details:	752 Settlement Road, Hakaru													
Contact Details: (Name and address)	Gina Utting ginautting@gmail.com													
Name of Electrical worker:	Steve Solley	Registration/Practising licence number:												
E253151														
Phone & email:	0211846859													
Name and registration number of person(s) supervised:	Aran Clews (E278730), Daniel Archer													
Certificate of Compliance														
Type of work: ☐ Addition ☒ Alteration ☐ New work														
The prescribed electrical work is: ☐ Low risk ☐ General ☒ High-risk (Specify):														
Mains cables, Main Earthing system, MEN Link														
Means of compliance: ☐ Part 1 of AS/NZS 3000 ☒ Part 2 of AS/NZS 3000														
Additional Standards or electrical code of practice were required: ☒ No ☐ Yes (specify):														
Date or range of dates that prescribed electrical work undertaken: 29/9/2021 to 22/2/2022														
Contains fittings that are safe to connect to a power supply? ☒ Yes ☐ No														
Specify type of supply system: 3 Phase 60A														
The installation has an earthing system that is correctly rated (where applicable) ☒ Yes ☐ No														
Parts of the installation to which this certificate relates that are safe to connect to a power supply?														
☒ All ☐ Parts (specify):														
The work relies on manufacturers instructions: ☐ Yes ☒ No														
If yes – identify the instruction manual including name, date and version. Also attach a copy of manufacturer's instructions to this certificate. (Or provide reference to readily accessible electronic format, eg Internet link.)														
Identify: Link:														
The work has been done in accordance with a certified design: ☒ Yes ☐ No														
If yes – identify the certified design including name, date and version. Also attach a copy of the certified design to this certificate. (Or provide reference to readily accessible electronic format, eg Internet link.)														
Identify: 752 Settlement Road, Site Plan V3.png Link: https://www.dropbox.com/s/xuezpjuo5nriis7/752%20Settlement%20Road%2C%20Site%20Plan%20-%20V3.png?dl=0														
The work relies on a Supplier Declaration of Conformity (SDoC): ☒ Yes ☐ No														
If yes - identify the SDoC including name, date and version OR EESS registration. Also attach a copy of the SDoC to this certificate. (Or provide reference to readily accessible electronic format, eg Internet link.)														
Identify: J.A Russell Ltd Link: https://www.jarussell.co.nz/compliance														
The installation has been satisfactorily tested in accordance with the Electricity (Safety) Regulations 2010 ☐ No ☒ Yes														
Description of Work: Run new 3phase 70mm 4C Ali mains cable underground. Upgrade internal Switchboard, Add new phase to internal switchboard. Upgrade MeterBox to allow for 3 phase. New Main Earth Peg + Conductor Wire + connect Water Pump + Septic System Replace 5x Wall lights.	Test Results (provide values)													
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>Polarity (Independent earth):</td> <td>Correct</td> </tr> <tr> <td>Insulation resistance:</td> <td>>25M Ohms</td> </tr> <tr> <td>Earth Continuity:</td> <td>.02 Ohms</td> </tr> <tr> <td>Bonding:</td> <td>.01 Ohms</td> </tr> <tr> <td>Fault Loop impedance</td> <td>Ohms</td> </tr> <tr> <td>Other (specify):</td> <td>Visual OK</td> </tr> </table>		Polarity (Independent earth):	Correct	Insulation resistance:	>25M Ohms	Earth Continuity:	.02 Ohms	Bonding:	.01 Ohms	Fault Loop impedance	Ohms	Other (specify):	Visual OK
Polarity (Independent earth):	Correct													
Insulation resistance:	>25M Ohms													
Earth Continuity:	.02 Ohms													
Bonding:	.01 Ohms													
Fault Loop impedance	Ohms													
Other (specify):	Visual OK													
By signing this document I certify that the completed prescribed electrical work to which this Certificate of Compliance applies has been done lawfully and safely, and the information in the certificate is correct.														
Certifier's signature:		Date:												
18/2/2022														
Electrical Safety Certificate														
By signing this document I certify that the installation, or part of the installation, to which this Electrical Safety Certificate applies is connected to a power supply and is safe to use.														
Certifier's name:	Steve Solley	Registration/Practising licence number:												
E253151														
Certifier's signature:		Certificate Issue Date:												
18/2/2022		Connection Date:												
18/2/2022														
CUSTOMER COPY – THIS IS AN IMPORTANT DOCUMENT AND SHOULD BE RETAINED FOR A MINIMUM OF 7 YEARS														

This Electrical Safety Certificate also confirms that the electrical work complies with the building code for the purposes of Section 19(1)(e) of the Building Act 2004.

Date Submitted: Friday, 11 March 2022



Form 6

Application for code compliance certificate

Section 92, Building Act 2004

The building consent

Building consent number: BC210456
 Issued by: Kaipara District Council

The owner

Name of owner: Gina Utting & Dawn Owens
 Contact person: Gina
 Mailing address: 752 Settlement Road
 Rd 5
 Wellsford
 0975
 Street address/registered office: 752 Settlement Road
 Hakaru
 0975
 Phone number: Landline: 021267024 Mobile: 0212670724
 Daytime: Landline: 021267024 Mobile: 0212670724
 After hours: Landline: 021267024 Mobile: 0212670724
 Facsimile number: No information provided
 Email address: ginautting@gmail.com
 Website: No information provided

The following evidence of ownership is attached to this application:

Provided at time of building consent application (refer form 2).

Application

All building work to be carried out under the building consent specified on this form was completed on:
 10 February 2022

The licensed building practitioner(s) who carried out or supervised the restricted building work is/are as follows:

Name	Bruce Wood
Licensing class	Design
Licensed building practitioner number (or registration number if treated as being licensed under section 291 of Act)	BP113680
Particular work carried out or supervised	Foundation Design

Name	Karl Fenton
Licensing class	Foundations
Licensed building practitioner number (or registration number if treated as being licensed under section 291 of Act)	BP136808
Particular work carried out or supervised	Foundation Installation

Name	Colin Ninian
Licensing class	Carpentry
Licensed building practitioner number (or registration number if treated as being licensed under section 291 of Act)	BP116645
Particular work carried out or supervised	fixing piles to house

The personnel who carried out building work other than restricted building work are as follows:

Name	Virgil
Address	No information provided
Phone number	0210322873
Registration number	N/A
Licensed building practitioner number	N/A

Name	Mark Wharfe
Address	No information provided
Phone number	0274 778 678
Registration number	N/A
Licensed building practitioner number	N/A

Name	Gina Utting
Address	No information provided
Phone number	0212670724
Registration number	N/A
Licensed building practitioner number	N/A

Name	Steve Solley
Address	54 Hawera Road, Kohimarama, Auckland, New Zealand
Phone number	0211846859
Registration number	E253151
Licensed building practitioner number	N/A

Name	Andrew Whitehead
------	------------------

Address	20 Doctors Hill Road, Northland, Maungaturoto, 0520
Phone number	0211489814
Registration number	25378
Licensed building practitioner number	N/A

The following specified systems are contained on the compliance schedule for the building and, in the opinion of the personnel who installed them, are capable of performing to the performance standards set out in the building consent:

There are no specified systems in the building.

I request that you issue a code compliance certificate for this work under section 95 of the Building Act 2004. The code compliance certificate should be sent to:

Owner: 752 Settlement Road, Rd 5, Wellsford 0975

Signature of owner:

GINA MAREE UTTING

Name of person signing: Gina Utting & Dawn Owens

Date: 11 Mar 2022

Attachments

The following documents are attached to this application:

No attachments

Form 7

Code compliance certificate

Section 95, Building Act 2004

The building

Street address of building: 752 Settlement Road, Hakaru

Legal description of land where building is located: Lot 3 DP 560279

Building name: N/A

Location of building within site/block number: 752 Settlement Road
Hakaru

Level/unit number: 0

Current, lawfully established, use: 2.0 Housing: 2.0.2 Detached Dwelling

Year first constructed: 1981

The owner

Name of owner: Gina Utting and Dawn Owens

Contact person: Gina Utting

Mailing address: 15 Brookview Heights, RD 2, Waipu

Street address/registered office: N/A

Phone number: Landline: N/A Mobile: 0212670724

Daytime: Landline: N/A Mobile: 0212670724

After hours: Landline: N/A Mobile: 0212670724

Facsimile number: No information provided

Email address: ginautting@gmail.com

Website: No information provided

First point of contact for communications with the council/building consent authority:
Bruce Wood ; Mailing Address: 54 Halsey Drive
Lynfield
Auckland 1042; Phone: 6496263803; Email: bruce@bcwdesign.co.nz

Building work

Building consent number: BC210456

Description: Second Hand Relocatable 4 Bedroom Dwelling -
Foundations and Drainage Only

Issued by: Kaipara District Council

Code compliance

The building consent authority named below is satisfied, on reasonable grounds, that -
the building work complies with the building consent.

Signature: Aaron Brown

Position: Principal Building Lead

On behalf of: Kaipara District Council

Date: 11 March 2022

Email #50046: BC210456

Project ID: 210456
Date Received: 2021-07-06 10:05:10
Sender: buildingsupport@kaipara.govt.nz
Checked By: Fay Fergus
Accepted By: Fay Fergus
Subject:

Information Received Via Email: FW: 760 Settlement Road Gina Utting _ KDC - Monitoring & Compliance
 67535719KP - Vetting

Message:

Attn: Fay

From: Sharon Martin <smartin@kaipara.govt.nz>

Sent: Monday, 5 July 2021 11:25 AM

To: Building Support <buildingsupport@kaipara.govt.nz>

Subject: 760 Settlement Road Gina Utting _ KDC - Monitoring & Compliance 67535719KP - Vetting

Details need to be changed:

wastewater design is incorrect and Cam will supply a new one

Cell phone number of owner incorrect 021 267 0724 Owners name is wrong - it is Utting

Owner wishes to be connected to this consent in Alpha once it has been bought through .

She will use this email address: Owner has applied for rural number:

Brookview Heights is RD 2 Waipu 0582

Cheers Sharon

[KDC Logo test June 2015]

Sharon Martin | Building Technical Support Officer

Kaipara te Oranganui | Kaipara District Council, Private Bag 1001, Dargaville 0340

Freephone: 0800 727 059 |

smartin@kaipara.govt.nz<mailto:smartin@kaipara.govt.nz> |

council@kaipara.govt.nz<mailto:council@kaipara.govt.nz> | www.kaipara.govt.nz<http://www.kaipara.govt.nz/>

REJECTED ATTACHMENT(S):

Note: The listed file(s) below were rejected because they were not in PDF format.

- image001.jpg

Email #50060: BC210456

Project ID: 210456
Date Received: 2021-07-06 13:35:02
Sender: bruce@bcwdesign.co.nz
Checked By: Fay Fergus
Accepted By: Fay Fergus
Subject:

Information Received Via Email: RE: BC210456.1 Request For Further Information - Vetting - 752 Settlement Road Hakaru

Message:

Hi Fay

Attached revised Waste Water report removing mentioning sleepout

Thanks

Bruce Wood

BCW Design Ltd

54 Halsey Drive

Lynfield

Auckland 1042

P 09 626 3803

M 0274 887 377

From: Kaipara District Council <210456@kdc.abcs.co.nz>

Sent: Tuesday, 6 July 2021 11:13 AM

To: bruce@bcwdesign.co.nz

Cc: ginautting@gmail.com

Subject: BC210456.1 Request For Further Information - Vetting - 752 Settlement Road Hakaru

Hello Bruce

Reference Number: BC210456

Project Location: 752 Settlement Road, Hakaru

Project Description: Second Hand Relocatable 4 Bedroom Dwelling -
Foundations and Drainage Only

Thank you for lodging your building consent application with the Kaipara District Council, the application has been reviewed for completeness in accordance with s45 of the Act. The attached letter details information which is required to be provided to enable your application to be formally receipted.

All information is to be supplied within 28 days (or the application may be refused). Please keep us informed if additional time is required.

So that your information gets to us as promptly as possible, please:

- ensure you reply directly to this email;
- only provide information specifically relating to this project;
- all attachments must be saved in PDF format;

By doing this you will keep your project moving as the information will be delivered directly to the processor. To speed up processing we would request that changes to plans are marked using the "cloud" convention - thank you for helping us to help you!

If you do not receive the automated reply confirmation from Kaipara District Council for the info sent then Kaipara District Council has not received your information.

Kind Regards

Fay Fergus

Building Technical Support

Kaipara District Council

Unit 6 - The Hub, 6 Molesworth Drive, Mangawhai 0505

P: (09) 439 3123 | E: buildingsupport@kaipara.govt.nz

<<mailto:buildingsupport@kaipara.govt.nz>> | W: www.kaipara.govt.nz

<<http://www.kaipara.govt.nz>>

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immediately.

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Designated Recipient(s): bruce@bcwdesign.co.nz
<mailto:bruce@bcwdesign.co.nz>

Sent From: AlphaOne Building Consent System

Sent Date: 6 July 2021 11:13 - Tuesday

REJECTED ATTACHMENT(S):

Note: The listed file(s) below were rejected because they were not in PDF format.

- image001.gif

ATTACHMENTS:

- On-site wastewater 760 Settlement Rd.Utting 2.pdf

Email #50291: BC210456

Project ID: 210456

Date Received: 2021-07-13 20:50:02

Sender: bruce@bcwdesign.co.nz

Checked By: Matthew Bayly

Accepted By: Matthew Bayly

Subject:

Information Received Via Email: RE: BC210456.1 Request For Further Information - RMA - 752 Settlement Road Hakaru

Message:

Hi Mathew

Attached revise Dwgs showing Water tank with 10,000 litre reserve and on site manoeuvring shown.

Thanks

Bruce Wood

BCW Design Ltd

54 Halsey Drive

Lynfield

Auckland 1042

P 09 626 3803

M 0274 887 377

From: Kaipara District Council <210456@kdc.abcs.co.nz>

Sent: Tuesday, 13 July 2021 2:38 PM

To: bruce@bcwdesign.co.nz

Subject: BC210456.1 Request For Further Information - RMA - 752 Settlement Road Hakaru

Hi,

Please see attached a Request for Further Information (RFI) for this project. This RFI is regarding an uncompleted District Plan rule check.

Reference Number: BC210456

Project Location: 752 Settlement Road, Hakaru

Project Description: Second Hand Relocatable 4 Bedroom Dwelling -
Foundations and Drainage Only

Processing of your PIM / Building Consent application is currently in progress. The attached letter details information which is required to be provided to demonstrate that the proposed work will comply with the NZ Building Code / Resource Management / District Scheme provisions.

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By doing this you will keep your project moving as the information will be delivered directly to the processor - thank you for helping us to help you!

Matthew Bayly

Planning Team

Kaipara District Council

Unit 6 - The Hub, 6 Molesworth Drive, Mangawhai 0505

P: (09) 439 3123 | E: buildingsupport@kaipara.govt.nz

<<mailto:buildingsupport@kaipara.govt.nz>> | W: www.kaipara.govt.nz

<<http://www.kaipara.govt.nz>>

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Designated Recipient(s): bruce@bcwdesign.co.nz

<<mailto:bruce@bcwdesign.co.nz>>

Sent From: AlphaOne Building Consent System

Sent Date: 13 July 2021 14:38 - Tuesday

REJECTED ATTACHMENT(S):

Note: The listed file(s) below were rejected because they were not in PDF format.

- image001.gif

ATTACHMENTS:

- Rev Sheet 100.pdf

- Rev sheet 102.pdf

Email #50309: BC210456

Project ID: 210456
Date Received: 2021-07-14 14:20:07
Sender: bruce@bcwdesign.co.nz
Checked By: Kelsey Newman
Accepted By: Matthew Bayly
Subject:

Information Received Via Email: RE: BC210456: 752 Settlement Road Hakaru

Message:

Hi Mathew

Done

Thanks

Bruce Wood

BCW Design Ltd

54 Halsey Drive

Lynfield

Auckland 1042

P 09 626 3803

M 0274 887 377

From: Kaipara District Council <210456@kdc.abcs.co.nz>

Sent: Wednesday, 14 July 2021 11:16 AM

To: bruce@bcwdesign.co.nz

Subject: BC210456: 752 Settlement Road Hakaru

Hi,

Thanks for those, just in terms of rev sheet 100, two parking spaces need to be supplied with turning circles, the current design shows the second car park obstructing the turning area.

Matthew Bayly

Planning Team
Kaipara District Council
Unit 6 - The Hub, 6 Molesworth Drive, Mangawhai 0505
P: (09) 439 3123 | E: buildingsupport@kaipara.govt.nz
<<mailto:buildingsupport@kaipara.govt.nz>> | W: www.kaipara.govt.nz
<<http://www.kaipara.govt.nz>>

=====

Hi Mathew

Attached revise Dwgs showing Water tank with 10,000 litre reserve and on site manoeuvring shown.

Thanks

Bruce Wood

BCW Design Ltd

54 Halsey Drive

Lynfield

Auckland 1042

P 09 626 3803

M 0274 887 377

From: Kaipara District Council
Sent: Tuesday, 13 July 2021 2:38 PM
To: bruce@bcwdesign.co.nz <<mailto:bruce@bcwdesign.co.nz>>
Subject: BC210456.1 Request For Further Information - RMA - 752 Settlement Road Hakaru

Hi,

Please see attached a Request for Further Information (RFI) for this project. This RFI is regarding an uncompleted District Plan rule check.

Reference Number: BC210456
Project Location: 752 Settlement Road, Hakaru
Project Description: Second Hand Relocatable 4 Bedroom Dwelling - Foundations and Drainage Only

Processing of your PIM / Building Consent application is currently in progress. The attached letter details information which is required to be provided to demonstrate that the proposed work will comply with the NZ Building Code / Resource Management / District Scheme provisions.

So that your information gets to us as promptly as possible, please:

- ensure you reply directly to this email;
- only provide information specifically relating to this project;
- all attachments must be saved in PDF format;

By doing this you will keep your project moving as the information will be delivered directly to the processor - thank you for helping us to help you!

Matthew Bayly
Planning Team
Kaipara District Council
Unit 6 - The Hub, 6 Molesworth Drive, Mangawhai 0505
P: (09) 439 3123 | E: buildingsupport@kaipara.govt.nz
<<mailto:buildingsupport@kaipara.govt.nz>>
| W: www.kaipara.govt.nz <<http://www.kaipara.govt.nz>>

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Designated Recipient(s): bruce@bcwdesign.co.nz
<<mailto:bruce@bcwdesign.co.nz>>

Sent From: AlphaOne Building Consent System

Sent Date: 13 July 2021 14:38 - Tuesday

REJECTED ATTACHMENT(S):

Note: The listed file(s) below were rejected because they were not in PDF format.

- image001.gif

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Designated Recipient(s): bruce@bcwdesign.co.nz

<mailto:bruce@bcwdesign.co.nz>

Sent From: AlphaOne Building Consent System

Sent Date: 14 July 2021 11:16:16 am - Wednesday

REJECTED ATTACHMENT(S):

Note: The listed file(s) below were rejected because they were not in PDF format.

- image001.gif

ATTACHMENTS:

- Rev Sheet 100.pdf

Project ID: 210456**Date Received:** 2021-07-19 14:00:09**Sender:** bruce@bcwdesign.co.nz**Checked By:** Daniel Wetherill**Accepted By:** Daniel Wetherill**Subject:**

Information Received Via Email: RE: BC210456.1 Request For Further Information - 752 Settlement Road Hakaru

Message:

Hi Daniel

Attached revised Drawings showing FFL and Sub Board location

Hope BC can now be issued

Thanks

From: Kaipara District Council <210456@kdc.abcs.co.nz>

Sent: Sunday, 18 July 2021 1:43 PM

To: bruce@bcwdesign.co.nz

Cc: ginautting@gmail.com

Subject: BC210456.1 Request For Further Information - 752 Settlement Road Hakaru

Dear Sir/Madam,

Reference Number: BC210456

Project Location: 752 Settlement Road, Hakaru

Project Description: Second Hand Relocatable 4 Bedroom Dwelling -
Foundations and Drainage Only

Processing of your building consent application in accordance with s48 of the Building Act is currently in progress. The attached letter details information which is required to be provided to demonstrate that the proposed work will comply with s 48 of the NZ Building Act and Regulations. Please note that the processing time clock has been suspended pending this information.

So that your information gets to us as promptly as possible, please:

- ensure you reply directly to this email and the format of our email address must be in full as follows: 210456@kdc.abcs.co.nz

<mailto:210456@kdc.abcs.co.nz>

- provide only the information that specifically relates to this project;
- ensure that all attachments are saved in PDF format;

Following the above will keep your project moving and ensure the information is delivered directly to the processor. To speed up processing we would request that changes to plans are marked using the "cloud" convention - thank you for helping us to help you!

Daniel Wetherill

Building Officer

Kaipara District Council

Unit 6 - The Hub, 6 Molesworth Drive, Mangawhai 0505

P: (09) 439 3123 | E: buildingsupport@kaipara.govt.nz

<mailto:buildingsupport@kaipara.govt.nz> | W: www.kaipara.govt.nz

<http://www.kaipara.govt.nz>

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Designated Recipient(s): bruce@bcwdesign.co.nz

<mailto:bruce@bcwdesign.co.nz>

Sent From: AlphaOne Building Consent System

Sent Date: 18 July 2021 13:42 - Sunday

ATTACHMENTS:

- Rev Sheet 100.pdf

- Rev Sheet 104.pdf

- Rev Sheet 106.pdf

Email #50823: BC210456

Project ID: 210456
Date Received: 2021-07-29 21:15:03
Sender: bruce@bcwdesign.co.nz
Checked By: Sharon Martin
Accepted By: Sharon Martin
Subject:

Information Received Via Email: RE: BC210456.1 PIM - 752 Settlement Road Hakaru - 752 Settlement Road Hakaru

Message:

Hi Sharon

This Proper

Bruce Wood

BCW Design Ltd

54 Halsey Drive

Lynfield

Auckland 1042

P 09 626 3803

M 0274 887 377

ty has had a Vehicle crossing installed off the paper road as part of the
 Sub division. Can you nplease confirm this is correct.

Thanks

From: Kaipara District Council <210456@kdc.abcs.co.nz>

Sent: Thursday, 29 July 2021 2:55 PM

To: bruce@bcwdesign.co.nz

Subject: BC210456.1 PIM - 752 Settlement Road Hakaru - 752 Settlement Road
 Hakaru

Dear Sir/Madam,

Reference Number: BC210456.1

PIM

Attached is a copy of the issued Project Information Memorandum (PIM)

This is not approval to build.

If you have any questions regarding the attached documents please contact the Planning Team at rmaconsents@kaipara.govt.nz
<<mailto:rmaconsents@kaipara.govt.nz>>

Consent Notice 12086992.2

Please ensure all / any consent notices pertaining to this site have been complied with before starting any building work.

The Council recommends that you seek your own legal advice in relation to any breach/es of the consent notice, and the potential consequences of this.

Vehicle Crossing

Please note if a vehicle crossing is applicable, please forward completed documents to: council@kaipara.govt.nz <<mailto:council@kaipara.govt.nz>> with confirmation of your payment.

All inspections of Vehicle crossings will be undertaken by Roding.

For booking inspections or any relevant inquiries contact can be made directly to the above email address.

Kind regards
Sharon Martin

Kaipara District Council
Unit 6 - The Hub, 6 Molesworth Drive, Mangawhai 0505
P: (09) 439 3123 | E: buildingsupport@kaipara.govt.nz
<<mailto:buildingsupport@kaipara.govt.nz>> | W: www.kaipara.govt.nz
<<http://www.kaipara.govt.nz>>

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Designated Recipient(s): bruce@bcwdesign.co.nz
<mailto:bruce@bcwdesign.co.nz>

Sent From: AlphaOne Building Consent System

Sent Date: 29 July 2021 14:55 - Thursday

REJECTED ATTACHMENT(S):

Note: The listed file(s) below were rejected because they were not in PDF format.

- image001.gif

Email #55590: BC210456

Project ID: 210456

Date Received: 2022-02-10 10:55:07

Sender: ginautting@kaipara.govt.nz

Checked By: John Dowden

Accepted By: John Dowden

Subject:

Information Received Via Email: 752 settlement road, kaiwaka (bc210456)

Message: Please upload to the building consent file

ATTACHMENTS:

- Image.pdf

Email #55804: BC210456

Project ID: 210456
Date Received: 2022-02-16 10:35:09
Sender: no-reply@abcs.co.nz
Checked By: John Dowden
Accepted By: John Dowden
Subject:

Information Received Via Email: BC210456: New Documents Uploaded

Message:

Attention: BC210456 Assigned Staff

There are new document(s) that have been uploaded on BC210456 and these are:

LBP_ROW_fixing_BC210456.pdf

To view these documents, click the "Documents" button and accept them from there.

Generated by: AlphaOne Building Consent System www.abcs.co.nz | www.alphaonebuildingconsent.com Date & Time: 16 February 2022, 10:30 am - Wednesday | Signature Hash:

f771197a8f041ec7fa4169f83cb41faa96e6e276 ATTENTION: Please do not reply to this email as the mailbox is unattended.

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Designated Recipient(s): 210456@kdc.abcs.co.nz

Sent From: AlphaOne Building Consent System

Sent Date: 16 February 2022 10:30 - Wednesday

Email #56441: BC210456

Project ID: 210456
Date Received: 2022-03-07 12:35:03
Sender: no-reply@abcs.co.nz
Checked By: John Dowden
Accepted By: John Dowden
Subject:

Information Received Via Email: BC210456: New Documents Uploaded

Message:

Attention: BC210456 Assigned Staff

There are new document(s) that have been uploaded on BC210456 and these are:

plumber_utting_Ps3.pdf
electrician_certificate_ps.pdf
Commissioning_statement_and_asbuilt.pdf
G_Utting_Drainage_Asbuilt_-_BC210608_Shed_BC210456_House.pdf

To view these documents, click the "Documents" button and accept them from there.

Generated by: AlphaOne Building Consent System
www.abcs.co.nz | www.alphaonebuildingconsent.com
Date & Time: 7 March 2022, 12:30 pm - Monday | Signature Hash:

5c46a98eb459ef9dab568f473630a96d9c9b8b61
ATTENTION: Please do not reply to this email as the mailbox is unattended.

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Designated Recipient(s): 210456@kdc.abcs.co.nz

Sent From: AlphaOne Building Consent System

Sent Date: 7 March 2022 12:30 - Monday

Project ID: 210456
Date Sent: 2021-07-06 10:29:07
Recipient: ginautting@gmail.com
Sender: Fay Fergus
Subject: BC210456: 752 Settlement Road Hakaru
Message:

Hello Gina and Dawn

Thank you for your Building Consent application. Attached is the invoice for BC210456. Please use BC210456 as reference when making payment.

Your application is being checked for completeness and will not be formally accepted until payment and any requested information has been received.

Please be aware that further charges for specialist input may apply if applicable. For example: Engineering calculations or structural engineering design (SED) requires review by KDC contracting engineers since no processing officer is qualified to assess engineering calculations. This is the situation and practice of many smaller Councils across the country. Simple SED (e.g. "SED beam, raft or waffle slab, etc") are able to be processed in-house.

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

Kind Regards

Fay Fergus
Building Technical Support
Kaipara District Council
Unit 6 - The Hub, 6 Molesworth Drive, Mangawhai 0505
P: (09) 439 3123 | E: buildingsupport@kaipara.govt.nz | W: www.kaipara.govt.nz

Project ID: 210456
Date Sent: 2021-07-06 11:05:58
Recipient: monitoring@kaipara.govt.nz
Sender: Fay Fergus
Subject: BC210456: 752 Settlement Road Hakaru

Message:

Hello

FYI - Second Hand Relocate Dwelling - 0122004103

One piece move as per Building Report on file

Kind Regards

Fay Fergus

Building Technical Support

Kaipara District Council

Unit 6 - The Hub, 6 Molesworth Drive, Mangawhai 0505

P: (09) 439 3123 | E: buildingsupport@kaipara.govt.nz | W: www.kaipara.govt.nz

Project ID: 210456
Date Sent: 2021-07-06 11:13:22
Recipient: bruce@bcwdesign.co.nz
Sender: Fay Fergus

Subject:

BC210456.1 Request For Further Information - Vetting - 752 Settlement Road Hakaru

Message:

Hello Bruce

Reference Number: BC210456

Project Location: 752 Settlement Road, Hakaru

Project Description: Second Hand Relocatable 4 Bedroom Dwelling - Foundations and Drainage Only

Thank you for lodging your building consent application with the Kaipara District Council, the application has been reviewed for completeness in accordance with s45 of the Act. The attached letter details information which is required to be provided to enable your application to be formally receipted.

All information is to be supplied within 28 days (or the application may be refused). Please keep us informed if additional time is required.

So that your information gets to us as promptly as possible, please:

- ensure you reply directly to this email;
- only provide information specifically relating to this project;
- all attachments must be saved in PDF format;

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If you do not receive the automated reply confirmation from Kaipara District Council for the info sent then Kaipara District Council has not received your information.

Kind Regards

Fay Fergus
Building Technical Support

Kaipara District Council

Unit 6 - The Hub, 6 Molesworth Drive, Mangawhai 0505

P: (09) 439 3123 | E: buildingsupport@kaipara.govt.nz | W: www.kaipara.govt.nz

Project ID: 210456
Date Sent: 2021-07-06 13:35:04
Recipient: bruce@bcwdesign.co.nz
Sender: AlphaOne System

Subject:

RE: RE: BC210456.1 Request For Further Information - Vetting - 752 Settlement Road Hakaru

Message:

Hello

Thank you for your message regarding your application with Kaipara District Council. This is an automated response to confirm your message has been received by the assigned officer for review. You can expect a response within 5 working days.

We accept email attachments in PDF, JPG and PNG format.

ACCEPTED ATTACHMENTS:

- On-site wastewater 760 Settlement Rd.Utting 2.pdf (6.01MB)

REJECTED ATTACHMENTS:

- image001.gif (3.49kB)

For further information or enquiries please email 210456@kdc.abcs.co.nz.

Kind regards

Kaipara District Council
Unit 6 - The Hub
6 Molesworth Drive
Mangawhai 0505
www.kaipara.govt.nz

Project ID: 210456
Date Sent: 2021-07-06 15:30:54
Recipient: ffergus@kaipara.govt.nz
Sender: Shalisha Blom
Subject: BC210456: A new email has been allocated to you
Message:

Hello Fay Fergus,

A new email for BC210456 has been allocated to you. Please check and take appropriate action.

<https://kdc.abcs.co.nz/jobs/210456/communication/?optilbox>

— AlphaOne System

**Email #167485: BC210456**

Project ID: 210456
Date Sent: 2021-07-06 16:00:07
Recipient: bruce@bcwdesign.co.nz
Sender: AlphaOne System
Subject: Application Accepted
Message:

Dear Bruce Wood,

Your application for Building Consent only with reference code 67535719KP has passed the Section 45 check and has been lodged with Kaipara District Council.

If you entered an electronic application you can track its progress on the customer portal
<https://consents-kdc.abcs.co.nz/>.

You may receive emails regarding your application from time to time.

Regards,

Kaipara District Council

Phone: (09) 439 3123

Email: buildingsupport@kaipara.govt.nz

Project ID: 210456
Date Sent: 2021-07-06 16:02:12
Recipient: bruce@bcwdesign.co.nz
Sender: Fay Fergus
Subject: BC210456: 752 Settlement Road Hakaru
Message:
Hello Bruce

Thank you for your email and the information provided.

I can confirm that the application is now formally received and forwarded for processing.

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

Kind Regards

Fay Fergus
Building Technical Support
Kaipara District Council
Unit 6 - The Hub, 6 Molesworth Drive, Mangawhai 0505
P: (09) 439 3123 | E: buildingsupport@kaipara.govt.nz | W: www.kaipara.govt.nz

=====

Hi Fay

Attached revised Waste Water report removing mentioning sleepout

Thanks

Bruce Wood

BCW Design Ltd

54 Halsey Drive

Lynfield

Auckland 1042

P 09 626 3803

M 0274 887 377

From: Kaipara District Council

Sent: Tuesday, 6 July 2021 11:13 AM

To: bruce@bcwdesign.co.nz

Cc: ginautting@gmail.com

Subject: BC210456.1 Request For Further Information - Vetting - 752
Settlement Road Hakaru

Hello Bruce

Reference Number: BC210456

Project Location: 752 Settlement Road, Hakaru

Project Description: Second Hand Relocatable 4 Bedroom Dwelling -
Foundations and Drainage Only

Thank you for lodging your building consent application with the Kaipara District Council, the application has been reviewed for completeness in accordance with s45 of the Act. The attached letter details information which is required to be provided to enable your application to be formally receipted.

All information is to be supplied within 28 days (or the application may be refused). Please keep us informed if additional time is required.

So that your information gets to us as promptly as possible, please:

- ensure you reply directly to this email;
- only provide information specifically relating to this project;
- all attachments must be saved in PDF format;

By doing this you will keep your project moving as the information will be delivered directly to the processor. To speed up processing we would request that changes to plans are marked using the "cloud" convention - thank you for helping us to help you!

If you do not receive the automated reply confirmation from Kaipara District Council for the info sent then Kaipara District Council has not received

your information.

Kind Regards

Fay Fergus

Building Technical Support

Kaipara District Council

Unit 6 - The Hub, 6 Molesworth Drive, Mangawhai 0505

P: (09) 439 3123 | E: buildingsupport@kaipara.govt.nz

| W: www.kaipara.govt.nz

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This message is for the designated recipient(s) only, and may contain confidential and/or privileged information.

If you have received it in error, please delete it and advise the sender immediately.

You should not copy or use it for any other purpose, nor disclose its contents to any other person.

Designated Recipient(s): bruce@bcwdesign.co.nz

Sent From: AlphaOne Building Consent System

Sent Date: 6 July 2021 11:13 - Tuesday

REJECTED ATTACHMENT(S):

Note: The listed file(s) below were rejected because they were not in PDF format.

- image001.gif

Project ID: 210456
Date Sent: 2021-07-09 17:15:04
Recipient: simon@magmaenterprises.co.nz
Sender: Simon Johnson
Subject: Specialist Input Requested - 9 Jul 2021
Message:

Hello Simon Johnson!

Specialist input has been requested on the following:

BC Number: BC210327

Building: Main Building

Question(s):

G13: Foul Water: Does the proposal comply with G13.2 and demonstrate that buildings in which sanitary fixtures and sanitary appliances using water-borne waste disposal are installed will be provided with: (a) an adequate plumbing and draining system to carry foul water to appropriate outfalls, and (b) if no sewer is available, an adequate system for the storage, treatment, and disposal of foul water?

Notes: Hi Simon,

The consent (210327) includes proposal for 'secondary' wastewater treatment disposal system. Please have a look.

Regards

Vikrant

BC Number: BC210401

Building: Main Building

Question(s):

G13: Foul Water: Does the proposal comply with G13.2 and demonstrate that buildings in which sanitary fixtures and sanitary appliances using water-borne waste disposal are installed will be provided with: (a) an adequate plumbing and draining system to carry foul water to appropriate outfalls, and (b) if no sewer is available, an adequate system for the storage, treatment, and disposal of foul water?

Notes: Hi Simon

Could you please review this Wastewater System

Cheers

Kerry

BC Number: BC210439

Building: Main Building

Question(s):

G13: Foul Water: Does the proposal comply with G13.2 and demonstrate that buildings in which sanitary fixtures and sanitary appliances using water-borne waste disposal are installed will be provided with: (a) an adequate plumbing and draining system to carry foul water to appropriate outfalls, and (b) if no sewer is available, an adequate system for the storage, treatment, and disposal of foul water?

Notes: Hi Simon

Could you please review this Wastewater System.

Cheers

Kerry

BC Number: BC210440

Building: Main Building

Question(s):

G13: Foul Water: Does the proposal comply with G13.2 and demonstrate that buildings in which sanitary fixtures and sanitary appliances using water-borne waste disposal are installed will be provided with: (a) an adequate

plumbing and draining system to carry foul water to appropriate outfalls, and (b) if no sewer is available, an adequate system for the storage, treatment, and disposal of foul water?

Notes: Hi Simon

Could you please review this Wastewater System

Cheers

Kerry

BC Number: BC210441

Building: Main Building

Question(s):

G13: Foul Water: Does the proposal comply with G13.2 and demonstrate that buildings in which sanitary fixtures and sanitary appliances using water-borne waste disposal are installed will be provided with: (a) an adequate plumbing and draining system to carry foul water to appropriate outfalls, and (b) if no sewer is available, an adequate system for the storage, treatment, and disposal of foul water?

Notes: Hi Simon

Could you please review this Wastewater System

Cheers

Kerry

BC Number: BC210450

Building: Main Building

Question(s):

G13: Foul Water: Does the proposal comply with G13.2 and demonstrate that buildings in which sanitary fixtures and sanitary appliances using water-borne waste disposal are installed will be provided with: (a) an adequate

plumbing and draining system to carry foul water to appropriate outfalls, and (b) if no sewer is available, an adequate system for the storage, treatment, and disposal of foul water?

Notes: Hi Simon

Could you please review this Wastewater System.

Cheers

Kerry

BC Number: BC210453

Building: Main Building

Question(s):

G13: Foul Water: Does the proposal comply with G13.2 and demonstrate that buildings in which sanitary fixtures and sanitary appliances using water-borne waste disposal are installed will be provided with: (a) an adequate plumbing and draining system to carry foul water to appropriate outfalls, and (b) if no sewer is available, an adequate system for the storage, treatment, and disposal of foul water?

Notes: Hi Simon

Could you please review this Wastewater System

Cheers

Kerry

BC Number: BC210456

Building: Main Building

Question(s):

G13: Foul Water: Does the proposal comply with G13.2 and demonstrate that buildings in which sanitary fixtures and sanitary appliances using water-borne waste disposal are installed will be provided with: (a) an adequate

plumbing and draining system to carry foul water to appropriate outfalls, and (b) if no sewer is available, an adequate system for the storage, treatment, and disposal of foul water?

Notes: Hi Simon

Could you please review this Wastewater System

Cheers

Kerry

BC Number: BC210457

Building: Main Building

Question(s):

G13: Foul Water: Does the proposal comply with G13.2 and demonstrate that buildings in which sanitary fixtures and sanitary appliances using water-borne waste disposal are installed will be provided with: (a) an adequate plumbing and draining system to carry foul water to appropriate outfalls, and (b) if no sewer is available, an adequate system for the storage, treatment, and disposal of foul water?

Notes: Hi Simon

Could you please review this Wastewater System

Cheers

Kerry

Click the link to log in to your Dashboard: <http://kdc.abcs.co.nz/dashboard/>

Generated by:

AlphaOne Building Consent System

www.abcs.co.nz | www.alphaonebuildingconsent.com

Date & Time: 9 July 2021, 5:15 pm - Friday | Signature Hash: b22357392015637011234e34e7eb6e647d2fa670

Project ID: 210456
Date Sent: 2021-07-13 14:38:14
Recipient: bruce@bcwdesign.co.nz
Sender: Matthew Bayly
Subject:
 BC210456.1 Request For Further Information - RMA - 752 Settlement Road Hakaru

Message:

Hi,

Please see attached a Request for Further Information (RFI) for this project. This RFI is regarding an uncompleted District Plan rule check.

Reference Number: BC210456

Project Location: 752 Settlement Road, Hakaru

Project Description: Second Hand Relocatable 4 Bedroom Dwelling - Foundations and Drainage Only

Processing of your PIM / Building Consent application is currently in progress. The attached letter details information which is required to be provided to demonstrate that the proposed work will comply with the NZ Building Code / Resource Management / District Scheme provisions.

So that your information gets to us as promptly as possible, please:

- ensure you reply directly to this email;
- only provide information specifically relating to this project;
- all attachments must be saved in PDF format;

By doing this you will keep your project moving as the information will be delivered directly to the processor - thank you for helping us to help you!

Matthew Bayly

Planning Team

Kaipara District Council

Unit 6 - The Hub, 6 Molesworth Drive, Mangawhai 0505

P: (09) 439 3123 | E: buildingsupport@kaipara.govt.nz | W: www.kaipara.govt.nz

Project ID: 210456
Date Sent: 2021-07-13 20:50:03
Recipient: bruce@bcwdesign.co.nz
Sender: AlphaOne System

Subject:

RE: RE: BC210456.1 Request For Further Information - RMA - 752 Settlement Road Hakaru

Message:

Hello

Thank you for your message regarding your application with Kaipara District Council. This is an automated response to confirm your message has been received by the assigned officer for review. You can expect a response within 5 working days.

We accept email attachments in PDF, JPG and PNG format.

ACCEPTED ATTACHMENTS:

- Rev Sheet 100.pdf (322.27kB)
- Rev sheet 102.pdf (118.53kB)

REJECTED ATTACHMENTS:

- image001.gif (3.49kB)

For further information or enquiries please email 210456@kdc.abcs.co.nz.

Kind regards

Kaipara District Council
Unit 6 - The Hub
6 Molesworth Drive
Mangawhai 0505
www.kaipara.govt.nz

Project ID: 210456
Date Sent: 2021-07-14 11:16:19
Recipient: bruce@bcwdesign.co.nz
Sender: Matthew Bayly
Subject: BC210456: 752 Settlement Road Hakaru

Message:

Hi,

Thanks for those, just in terms of rev sheet 100, two parking spaces need to be supplied with turning circles, the current design shows the second car park obstructing the turning area.

Matthew Bayly
Planning Team
Kaipara District Council
Unit 6 - The Hub, 6 Molesworth Drive, Mangawhai 0505
P: (09) 439 3123 | E: buildingsupport@kaipara.govt.nz | W: www.kaipara.govt.nz

=====

Hi Mathew

Attached revise Dwgs showing Water tank with 10,000 litre reserve and on site manoeuvring shown.

Thanks

Bruce Wood

BCW Design Ltd

54 Halsey Drive

Lynfield

Auckland 1042

P 09 626 3803

M 0274 887 377

From: Kaipara District Council

Sent: Tuesday, 13 July 2021 2:38 PM

To: bruce@bcwdesign.co.nz

Subject: BC210456.1 Request For Further Information - RMA - 752 Settlement Road Hakaru

Hi,

Please see attached a Request for Further Information (RFI) for this project. This RFI is regarding an uncompleted District Plan rule check.

Reference Number: BC210456

Project Location: 752 Settlement Road, Hakaru

Project Description: Second Hand Relocatable 4 Bedroom Dwelling - Foundations and Drainage Only

Processing of your PIM / Building Consent application is currently in progress. The attached letter details information which is required to be provided to demonstrate that the proposed work will comply with the NZ Building Code / Resource Management / District Scheme provisions.

So that your information gets to us as promptly as possible, please:

- ensure you reply directly to this email;
- only provide information specifically relating to this project;
- all attachments must be saved in PDF format;

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Matthew Bayly

Planning Team

Kaipara District Council

Unit 6 - The Hub, 6 Molesworth Drive, Mangawhai 0505

P: (09) 439 3123 | E: buildingsupport@kaipara.govt.nz

| W: www.kaipara.govt.nz

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Designated Recipient(s): bruce@bcwdesign.co.nz

Sent From: AlphaOne Building Consent System

Sent Date: 13 July 2021 14:38 - Tuesday

REJECTED ATTACHMENT(S):

Note: The listed file(s) below were rejected because they were not in PDF format.

- image001.gif

Project ID: 210456
Date Sent: 2021-07-14 14:20:08
Recipient: bruce@bcwdesign.co.nz
Sender: AlphaOne System
Subject: RE: RE: BC210456: 752 Settlement Road Hakaru

Message:

Hello

Thank you for your message regarding your application with Kaipara District Council. This is an automated response to confirm your message has been received by the assigned officer for review. You can expect a response within 5 working days.

We accept email attachments in PDF, JPG and PNG format.

ACCEPTED ATTACHMENTS:

- Rev Sheet 100.pdf (324.57kB)

REJECTED ATTACHMENTS:

- image001.gif (3.49kB)

For further information or enquiries please email 210456@kdc.abcs.co.nz.

Kind regards

Kaipara District Council
Unit 6 - The Hub
6 Molesworth Drive
Mangawhai 0505
www.kaipara.govt.nz

Email #168427: BC210456

Project ID: 210456
Date Sent: 2021-07-15 08:59:44
Recipient: daniel@c3bc.co.nz
Sender: Kerry Hewson
Subject: BC210456: A new job for you
Message:

Hello Daniel Wetherill,

BC210456 has been allocated to you. Please check and take appropriate action.

<https://kdc.abcs.co.nz/jobs/210456>

— AlphaOne System

Project ID: 210456
Date Sent: 2021-07-15 10:30:29
Recipient: mbayly@kaipara.govt.nz
Sender: Shalisha Blom
Subject: BC210456: A new email has been allocated to you
Message:

Hello Matthew Bayly,

A new email for BC210456 has been allocated to you. Please check and take appropriate action.

<https://kdc.abcs.co.nz/jobs/210456/communication/?optilbox>

— AlphaOne System

Email #168613: BC210456

Project ID: 210456
Date Sent: 2021-07-16 12:53:11
Recipient: bruce@bcwdesign.co.nz
Sender: Matthew Bayly
Subject: BC210456: 752 Settlement Road Hakaru
Message:

Thanks,

That's all from me.

Matthew Bayly
 Planning Team
 Kaipara District Council
 Unit 6 - The Hub, 6 Molesworth Drive, Mangawhai 0505
 P: (09) 439 3123 | E: buildingsupport@kaipara.govt.nz | W: www.kaipara.govt.nz

=====

Hi Mathew

Done

Thanks

Bruce Wood

BCW Design Ltd

54 Halsey Drive

Lynfield

Auckland 1042

P 09 626 3803

M 0274 887 377

From: Kaipara District Council

Sent: Wednesday, 14 July 2021 11:16 AM

To: bruce@bcwdesign.co.nz

Subject: BC210456: 752 Settlement Road Hakaru

Hi,

Thanks for those, just in terms of rev sheet 100, two parking spaces need to be supplied with turning circles, the current design shows the second car park obstructing the turning area.

Matthew Bayly

Planning Team

Kaipara District Council

Unit 6 - The Hub, 6 Molesworth Drive, Mangawhai 0505

P: (09) 439 3123 | E: buildingsupport@kaipara.govt.nz

| W: www.kaipara.govt.nz

=====

Hi Mathew

Attached revise Dwgs showing Water tank with 10,000 litre reserve and on site manoeuvring shown.

Thanks

Bruce Wood

BCW Design Ltd

54 Halsey Drive

Lynfield

Auckland 1042

P 09 626 3803

M 0274 887 377

From: Kaipara District Council

Sent: Tuesday, 13 July 2021 2:38 PM

To: bruce@bcwdesign.co.nz

Subject: BC210456.1 Request For Further Information - RMA - 752 Settlement Road Hakaru

Hi,

Please see attached a Request for Further Information (RFI) for this project. This RFI is regarding an uncompleted District Plan rule check.

Reference Number: BC210456

Project Location: 752 Settlement Road, Hakaru

Project Description: Second Hand Relocatable 4 Bedroom Dwelling - Foundations and Drainage Only

Processing of your PIM / Building Consent application is currently in progress. The attached letter details information which is required to be provided to demonstrate that the proposed work will comply with the NZ Building Code / Resource Management / District Scheme provisions.

So that your information gets to us as promptly as possible, please:

- ensure you reply directly to this email;
- only provide information specifically relating to this project;
- all attachments must be saved in PDF format;

By doing this you will keep your project moving as the information will be delivered directly to the processor - thank you for helping us to help you!

Matthew Bayly

Planning Team

Kaipara District Council

Unit 6 - The Hub, 6 Molesworth Drive, Mangawhai 0505

P: (09) 439 3123 | E: buildingsupport@kaipara.govt.nz

| W: www.kaipara.govt.nz

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You should not copy or use it for any other purpose, nor disclose its contents to any other person.

Designated Recipient(s): bruce@bcwdesign.co.nz

Sent From: AlphaOne Building Consent System

Sent Date: 13 July 2021 14:38 - Tuesday

REJECTED ATTACHMENT(S):

Note: The listed file(s) below were rejected because they were not in PDF format.

- image001.gif

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Designated Recipient(s): bruce@bcwdesign.co.nz

Sent From: AlphaOne Building Consent System

Sent Date: 14 July 2021 11:16:16 am - Wednesday

REJECTED ATTACHMENT(S):

Note: The listed file(s) below were rejected because they were not in PDF format.

- image001.gif

Project ID: 210456
Date Sent: 2021-07-18 13:42:44
Recipient: bruce@bcwdesign.co.nz
Sender: Daniel Wetherill

Subject:

BC210456.1 Request For Further Information - 752 Settlement Road Hakaru

Message:

Dear Sir/Madam,

Reference Number: BC210456

Project Location: 752 Settlement Road, Hakaru

Project Description: Second Hand Relocatable 4 Bedroom Dwelling - Foundations and Drainage Only

Processing of your building consent application in accordance with s48 of the Building Act is currently in progress. The attached letter details information which is required to be provided to demonstrate that the proposed work will comply with s 48 of the NZ Building Act and Regulations. Please note that the processing time clock has been suspended pending this information.

So that your information gets to us as promptly as possible, please:

- ensure you reply directly to this email and the format of our email address must be in full as follows:

210456@kdc.abcs.co.nz

- provide only the information that specifically relates to this project;
- ensure that all attachments are saved in PDF format;

Following the above will keep your project moving and ensure the information is delivered directly to the processor. To speed up processing we would request that changes to plans are marked using the "cloud" convention - thank you for helping us to help you!

Daniel Wetherill

Building Officer

Kaipara District Council

Unit 6 - The Hub, 6 Molesworth Drive, Mangawhai 0505

P: (09) 439 3123 | E: buildingsupport@kaipara.govt.nz | W: www.kaipara.govt.nz

Project ID: 210456
Date Sent: 2021-07-19 14:00:10
Recipient: bruce@bcwdesign.co.nz
Sender: AlphaOne System
Subject:

RE: RE: BC210456.1 Request For Further Information - 752 Settlement Road Hakaru

Message:

Hello

Thank you for your message regarding your application with Kaipara District Council. This is an automated response to confirm your message has been received by the assigned officer for review. You can expect a response within 5 working days.

We accept email attachments in PDF, JPG and PNG format.

ACCEPTED ATTACHMENTS:

- Rev Sheet 100.pdf (322.90kB)
- Rev Sheet 104.pdf (87.32kB)
- Rev Sheet 106.pdf (101.12kB)

For further information or enquiries please email 210456@kdc.abcs.co.nz.

Kind regards

Kaipara District Council
Unit 6 - The Hub
6 Molesworth Drive
Mangawhai 0505
www.kaipara.govt.nz

Project ID: 210456
Date Sent: 2021-07-19 15:46:53
Recipient: daniel@c3bc.co.nz
Sender: Shalisha Blom
Subject: BC210456: A new email has been allocated to you
Message:

Hello Daniel Wetherill,

A new email for BC210456 has been allocated to you. Please check and take appropriate action.

<https://kdc.abcs.co.nz/jobs/210456/communication/?optilbox>

— AlphaOne System

Project ID: 210456
Date Sent: 2021-07-29 14:55:29
Recipient: bruce@bcwdesign.co.nz
Sender: Sharon Martin

Subject:

BC210456.1 PIM - 752 Settlement Road Hakaru - 752 Settlement Road Hakaru

Message:

Dear Sir/Madam,

Reference Number: BC210456.1

PIM

Attached is a copy of the issued Project Information Memorandum (PIM)

This is not approval to build.

If you have any questions regarding the attached documents please contact the Planning Team at
rmaconsents@kaipara.govt.nz

Consent Notice 12086992.2

Please ensure all / any consent notices pertaining to this site have been complied with before starting any building work.

The Council recommends that you seek your own legal advice in relation to any breach/es of the consent notice, and the potential consequences of this.

Vehicle Crossing

Please note if a vehicle crossing is applicable, please forward completed documents to: council@kaipara.govt.nz with confirmation of your payment.

All inspections of Vehicle crossings will be undertaken by Roding.

For booking inspections or any relevant inquiries contact can be made directly to the above email address.

Kind regards

Sharon Martin

Kaipara District Council

Unit 6 - The Hub, 6 Molesworth Drive, Mangawhai 0505

P: (09) 439 3123 | E: buildingsupport@kaipara.govt.nz | W: www.kaipara.govt.nz

Email #170065: BC210456

Project ID: 210456
Date Sent: 2021-07-29 21:15:05
Recipient: bruce@bcwdesign.co.nz
Sender: AlphaOne System

Subject:

RE: RE: BC210456.1 PIM - 752 Settlement Road Hakaru - 752 Settlement Road Hakaru

Message:

Hello

Thank you for your message regarding your application with Kaipara District Council. This is an automated response to confirm your message has been received by the assigned officer for review. You can expect a response within 5 working days.

We accept email attachments in PDF, JPG and PNG format.

REJECTED ATTACHMENTS:

- image001.gif (3.49kB)

For further information or enquiries please email 210456@kdc.abcs.co.nz.

Kind regards

Kaipara District Council
Unit 6 - The Hub
6 Molesworth Drive
Mangawhai 0505
www.kaipara.govt.nz

Email #170262: BC210456

Project ID: 210456

Date Sent: 2021-08-03 11:30:08

Recipient:

ginautting@gmail.com, bruce@bcwdesign.co.nz, karl@removalhomes.co.nz

Sender: Vikrant Singh

Subject:

BC210456.1 Form 5: Building Consent - 752 Settlement Road Hakaru

Message:

Dear Sir/Madam,

Please see your attached Issued Building Consent.

I have uploaded the documents for you, you can find them via the Alpha Portal at <https://consents-kdc.abcs.co.nz/> - log into your account, go to 'My Applications, click on 'BC', click on 'Documents', click on 'View Documents Issued'.

Please ensure that a copy of all plans, specifications and supporting documents are printed and available on site at all times.

For any further information send your enquiry to 210456@kdc.abcs.co.nz

Kind Regards,

Vikrant Singh

Building Services Officer

Kaipara District Council

Unit 6 - The Hub, 6 Molesworth Drive, Mangawhai 0505

P: (09) 439 3123 | E: buildingsupport@kaipara.govt.nz | W: www.kaipara.govt.nz

Project ID: 210456
Date Sent: 2021-12-08 15:25:12
Recipient: ginautting@gmail.com
Sender: Greg Bellam
Subject: BC210456 Inspection Report
Message:

Our inspection team have carried out a site inspection on the above project today, please find attached the inspectors site notice for your information.

If you have any queries regarding the content of the site notice please contact the inspector on phone 0800 727 059.

Project ID: 210456

Date Sent: 2022-02-01 16:32:22

Recipient:

ginautting@gmail.com, bruce@bcwdesign.co.nz, karl@removalhomes.co.nz

Sender: John Edwards

Subject: BC210456 Inspection Report

Message:

Our inspection team have carried out a site inspection on the above project today, please find attached the inspectors site notice for your information.

If you have any queries regarding the content of the site notice please contact the inspector on phone 0800 727 059.

Project ID: 210456
Date Sent: 2022-02-10 10:55:08
Recipient: ginautting@kaipara.govt.nz
Sender: AlphaOne System
Subject: RE: 752 settlement road, kaiwaka (bc210456)

Message:

Hello

Thank you for your message regarding your application with Kaipara District Council. This is an automated response to confirm your message has been received by the assigned officer for review. You can expect a response within 5 working days.

We accept email attachments in PDF, JPG and PNG format.

ACCEPTED ATTACHMENTS:

- Image.pdf (1.04MB)

For further information or enquiries please email 210456@kdc.abcs.co.nz.

Kind regards

Kaipara District Council
Unit 6 - The Hub
6 Molesworth Drive
Mangawhai 0505
www.kaipara.govt.nz

Email #186655: BC210456

Project ID: 210456
Date Sent: 2022-02-14 10:51:12
Recipient: ginautting@gmail.com
Sender: Shalisha Blom
Subject: BC210456: 752 Settlement Road Hakaru
Message:
Hi Gina

Thanks for your email.

I have spoken to Aaron who advised you need -
Construction Monitoring - Site Inspection from Geo Engineer
LBP Record of Work from Relocate Company plus Foundations and Sub Floor Framing

The company will provide you with these.

Any further queries contact Aaron 0212254005.

Kind regards

Shalisha Blom
Building Technical Support
Kaipara District Council
Unit 6 - The Hub, 6 Molesworth Drive, Mangawhai 0505
P: (09) 439 3123 | E: buildingsupport@kaipara.govt.nz | W: www.kaipara.govt.nz

Project ID: 210456
Date Sent: 2022-02-14 14:09:53
Recipient: ginautting@gmail.com
Sender: Aaron Brown
Subject:
BC210456 Inspection Report #3 - 752 Settlement Road Hakaru

Message:

Hi Gina,

Thanks for submitting the Geotech PS4 and the foundation LBP ROW.

Please also submit the following documents as you obtain them from the other contractors. This will ensure that if all the work is complete at the final inspection an application for CCC can be submitted and CCC issued.

Documents outstanding

- 1-LBP ROW
- 2- Drainlayers asbuilt plans
- 3- Drainlayers PS3 and commissioning statement
- 4- Wastewater service agreement if on septic tank.
- 5- Electrical certificate when electrical works is complete
- 6- Plumbers Pressure test results and PS3

Kind Regards

Aaron Brown
Building Team Leader
Kaipara District Council
Unit 6 - The Hub, 6 Molesworth Drive, Mangawhai 0505
P: (09) 439 3123 | E: buildingsupport@kaipara.govt.nz | W: www.kaipara.govt.nz

Project ID: 210456
Date Sent: 2022-03-07 15:15:31
Recipient: aaron.brown@kaipara.govt.nz
Sender: John Dowden
Subject: BC210456: A new email has been allocated to you
Message:

Hello Aaron Brown,

A new email for BC210456 has been allocated to you. Please check and take appropriate action.

<https://kdc.abcs.co.nz/jobs/210456/communication/?optilbox>

— AlphaOne System



Email #189301: BC210456

Project ID: 210456
Date Sent: 2022-03-08 15:46:37
Recipient: aaron.brown@kaipara.govt.nz
Sender: Greg Bellam
Subject: BC210456: A new Document for you
Message:

Hello Aaron Brown,

Documents on BC210456 have been allocated to you. Please check and take appropriate action.

<https://kdc.abcs.co.nz/jobs/210456>

— AlphaOne System

Email #189661: BC210456

Project ID: 210456
Date Sent: 2022-03-11 10:50:29
Recipient: ginautting@gmail.com
Sender: System
Subject: Online Code Compliance Certificate Application
Message:

Hello Gina Utting,

Please find attached a copy of the information you have submitted to Kaipara District Council. We will process your application electronically and email you if we require additional information.

Should you have any queries regarding your application please reply to this email or call our Building Services Team on 09 439 3123.

— Kaipara District Council

Email #189674: BC210456

Project ID: 210456
Date Sent: 2022-03-11 12:13:05
Recipient: ginautting@gmail.com
Sender: Aaron Brown
Subject: BC210456 Inspection Report
Message:

Our inspection team have carried out a site inspection on the above project today, please find attached the inspectors site notice for your information.

If you have any queries regarding the content of the site notice please contact the inspector on phone 0800 727 059.

Email #189676: BC210456

Project ID: 210456
Date Sent: 2022-03-11 12:16:46
Recipient: ginautting@gmail.com
Sender: Aaron Brown

Subject:

BC210456 Form 7: Code Compliance Certificate - 752 Settlement Road Hakaru

Message:

Dear Sir/Madam,

Reference Number: BC210456

Form 7: Code Compliance Certificate

Aaron Brown

Principal Building Lead

Kaipara District Council

Unit 6 - The Hub, 6 Molesworth Drive, Mangawhai 0505

P: (09) 439 3123 | E: buildingsupport@kaipara.govt.nz | W: www.kaipara.govt.nz

Email #191162: BC210456

Project ID: 210456
Date Sent: 2022-03-28 11:36:34
Recipient: ginautting@gmail.com
Sender: Aaron Brown
Subject:

BC210456 Form 7: Code Compliance Certificate - 752 Settlement Road Hakaru

Message:

Dear Sir/Madam,

Reference Number: BC210456

Form 7: Code Compliance Certificate

Aaron Brown
Principal Building Lead
Kaipara District Council
Unit 6 - The Hub, 6 Molesworth Drive, Mangawhai 0505
P: (09) 439 3123 | E: buildingsupport@kaipara.govt.nz | W: www.kaipara.govt.nz