APPLICATION AS NOTIFIED

R F Monk and Cook Adam Trustees Limited

(RM220893)

APPLICATION FOR RESOURCE CONSENT OR
FAST TRACK RESOURCE CONSENT

FORM 9: GENERAL APPLICATION

QUEENSTOWN LAKES DISTRICT COUNCIL

Under Section 87AAC, 88 & 145 of the Resource Management Act 1991 (Form 9)

PLEASE COMPLETE ALL MANDATORY FIELDS* OF THIS FORM.

This form provides contact information and details of your application. If your form does not provide the required information it will be returned to you to complete. Until we receive a completed form and payment of the initial fee, your application may not be accepted for processing.

APPLICANT //

- Must be a person or legal entity (limited liability company or trust).
- Full names of all trustees required.
- The applicant name(s) will be the consent holder(s) responsible for the consent and any associated costs.

*Applicant's Full Name / Company / Trust: R F Monk and Cook Adam Trustees
(Name Decision is to be issued in)

All trustee names (if applicable):

*Contact name for company or trust: Roger Monk

*Postal Address: 74 Jean Robins Drive, RD1, Lake Hayes, Queenstown

*Post code: 9371

*Contact details supplied must be for the applicant and not for an agent acting on their behalf and must include a valid postal address

*Email Address: rogmonk@gmail.com

*Phone Numbers: Day 03 442 1483 Mobile: 027 226 3111

*The Applicant is:

- [x] Owner
- [ ] Prospective Purchaser (of the site to which the application relates)
- [ ] Occupier
- [ ] Lessee
- Other - Please Specify:

[x] Our preferred methods of corresponding with you are by email and phone.
The decision will be sent to the Correspondence Details by email unless requested otherwise.

CORRESPONDENCE DETAILS // If you are acting on behalf of the applicant e.g. agent, consultant or architect please fill in your details in this section.

*Name & Company: John Edmonds and Associates Limited

*Phone Numbers: Day 03 450 0009 Mobile: 021 409 075

*Email Address: john@jea.co.nz

*Postal Address: PO Box 95, Queenstown

*Postcode: 9300

INVOICING DETAILS //

Invoices will be made out to the applicant but can be sent to another party if paying on the applicant's behalf.
For more information regarding payment please refer to the Fees Information section of this form.

*Please select a preference for who should receive any invoices and how they would like to receive them.

- Applicant: [x]
- Agent: [ ]
- Other - Please specify:
- Email: [ ]
- Post: [ ]

*Attention: Roger Monk

*Postal Address: 74 Jean Robins Drive, RD1, Lake Hayes, Queenstown

*Please provide an email AND full postal address.

*Post code: 9371

*Email: rogmonk@gmail.com

OWNER DETAILS // Please supply owner details for the subject site/property if not already indicated above

Owner Name:

Owner Address:

If the property has recently changed ownership please indicate on what date (approximately) AND the names of the previous owners:

Date:

Names:

DEVELOPMENT CONTRIBUTIONS INVOICING DETAILS //

If it is assessed that your consent requires development contributions any invoices and correspondence relating to these will be sent via email. Invoices will be sent to the email address provided above unless an alternative address is provided below. Invoices will be made out to the applicant/owner but can be sent to another party if paying on the applicant's behalf.

*Please select a preference for who should receive any invoices.

Details are the same as for invoicing ☑

Applicant: ☐ Landowner: ☑ Other, please specify:

*Attention: Roger Monk

*Email: rogmonk@gmail.com

Click here for further information and our estimate request form

DETAILS OF SITE // Legal description field must list legal descriptions for all sites pertaining to the application. Any fields stating 'refer AEE' will result in return of the form to be fully completed.

*Address / Location to which this application relates:

216 and 218 McDonnell Road

*Legal Description: Can be found on the Computer Freehold Register or Rates Notice – e.g Lot x DPxxx (or valuation number)

Lot 1 and Lot 3 DP518669

District Plan Zone(s): ODP - RG/ PDP - WBRAZ

SITE VISIT REQUIREMENTS // Should a Council officer need to undertake a site visit please answer the questions below

Is there a gate or security system restricting access by council?	YES ☐	NO ☑
Is there a dog on the property?	YES ☐	NO ☑
Are there any other hazards or entry restrictions that council staff need to be aware of? If 'yes' please provide information below	YES ☐	NO ☑

PRE-APPLICATION MEETING OR URBAN DESIGN PANEL

Have you had a pre-application meeting with QLDC or attended the urban design panel regarding this proposal?

☐ Yes ☑ No ☐ Copy of minutes attached

If 'yes', provide the reference number and/or name of staff member involved:

CONSENT(S) APPLIED FOR // * Identify all consents sought // ALSO FILL IN OTHER CONSENTS SECTION BELOW

☐ Land use consent

☑ Subdivision consent

☐ Change/cancellation of consent or consent notice conditions

☐ Certificate of compliance

☐ Extension of lapse period of consent (time extension) s125

☐ Existing use certificate

☐ Land use consent includes Earthworks

QUALIFIED FAST-TRACK APPLICATION UNDER SECTION 87AAC

☐ Controlled Activity

☐ Deemed Permitted Boundary Activity

If your consent qualifies as a fast-track application under section 87AAC, tick here to opt out of the fast track process ☐

BRIEF DESCRIPTION OF THE PROPOSAL //

*Please complete this section, any form stating 'refer AEE' will be returned to be completed with a description of the proposal

*Consent is sought to:

Subdivide 216 McDonnell Road into four freehold titles, to amend the building platform at 216 McDonnell Road and to adjust the boundary of 218 McDonnell Road.

APPLICATION NOTIFICATION

Are you requesting public notification for the application?

☑ Yes ☐ No

Please note there is an additional fee payable for notification. Please refer to Fees schedule

OTHER CONSENTS

Is consent required under a National Environmental Standard (NES)?

- NES for Assessing and Managing Contaminants in Soil to Protect Human Health 2012

An applicant is required to address the NES in regard to past use of the land which could contaminate soil to a level that poses a risk to human health. Information regarding the NES is available on the website https://environment.govt.nz/publications/national-environmental-standard-for-assessing-and-managing-contaminants-in-soil-to-protect-human-health-information-for-landowners-and-developers/

You can address the NES in your application AEE OR by selecting ONE of the following:

☐ This application does not involve subdivision (excluding production land), change of use or removal of (part of) a fuel storage system. Any earthworks will meet section 8(3) of the NES (including volume not exceeding 25m^3 per 500m^2). Therefore the NES does not apply.

☑ I have undertaken a comprehensive review of District and Regional Council records and I have found no record suggesting an activity on the HAIL has taken place on the piece of land which is subject to this application.
NOTE: depending on the scale and nature of your proposal you may be required to provide details of the records reviewed and the details found.

OTHER CONSENTS // CONTINUED

☑ I have included a Preliminary Site Investigation undertaken by a suitably qualified person.

☐ An activity listed on the HAIL has more likely than not taken place on the piece of land which is subject to this application. I have addressed the NES requirements in the Assessment of Environmental Effects.

- Any other National Environmental Standard

☐ Yes ☑ N/A

Do you need any consent(s) from Otago Regional Council?

☐ Yes ☑ N/A

If Yes have you applied for it?

☐ Yes ☐ No

If Yes supply ORC Consent Reference(s)

If ORC Earthworks Consent is required would you like a joint site visit ?

☐ Yes ☐ No

INFORMATION REQUIRED TO BE SUBMITTED //

Attach to this form any information required (see below & appendices 1-2).

To be accepted for processing, your application should include the following:

☑ Computer Freehold Register for the property (no more than 3 months old) and copies of any consent notices and covenants
(Can be obtained from Land Information NZ at https://www.linz.govt.nz/).

☑ A plan or map showing the locality of the site, topographical features, buildings etc.

☑ A site plan at a convenient scale.

☐ Written approval of every person who may be adversely affected by the granting of consent (s95E).

☑ An Assessment of Effects (AEE).
An AEE is a written document outlining how the potential effects of the activity have been considered along with any other relevant matters, for example if a consent notice is proposed to be changed. Address the relevant provisions of the District Plan and affected parties including who has or has not provided written approval. See Appendix 1 for more detail.

☑ We prefer to receive applications electronically – please see Appendix 5 – Naming of Documents Guide for how documents should be named. Please ensure documents are scanned at a minimum resolution of 300 dpi. Each document should be no greater than 10mb

PRIVACY INFORMATION

The information you have provided on this form is required so that your application can be processed under the Resource Management Act 1991 and may also be used in statistics collected and provided to the Ministry for the Environment and Queenstown Lakes District Council. The information will be stored on a public register and may be made available to the public on request or on the company's or the Council's websites.

FEES INFORMATION

Section 36 of the Resource Management Act 1991 deals with administrative charges and allows a local authority to levy charges that relate to, but are not limited to, carrying out its functions in relation to receiving, processing and granting of resource consents (including certificates of compliance and existing use certificates).

Invoiced sums are payable by the 20th of the month after the work was undertaken. If unpaid, the processing of an application, provision of a service, or performance of a function will be suspended until the sum is paid. You may also be required to make an additional payment, or bring the account up to date, prior to milestones such as notification, setting a hearing date or releasing the decision. In particular, all charges related to processing of a resource consent application are payable prior to issuing of the decision. Payment is due on the 20th of the month or prior to the issue date – whichever is earlier.

FEES INFORMATION // CONTINUED

If your application is notified or requires a hearing you will be requested to pay a notification deposit and/or a hearing deposit. An applicant may not offset any invoiced processing charges against such payments.

Section 357B of the Resource Management Act provides a right of objection in respect of additional charges. An objection must be in writing and must be lodged within 15 working days of notification of the decision.

LIABILITY FOR PAYMENT – Please note that by signing and lodging this application form you are acknowledging that the details in the invoicing section are responsible for payment of invoices and in addition will be liable to pay all costs and expenses of debt recovery and/or legal costs incurred by QLDC related to the enforcement of any debt.

MONITORING FEES – Please also note that if this application is approved you will be required to meet the costs of monitoring any conditions applying to the consent, pursuant to Section 35 of the Resource Management Act 1991.

DEVELOPMENT CONTRIBUTIONS – Your development, if granted, may also incur development contributions under the Local Government Act 2002. You will be liable for payment of any such contributions.

A list of Consent Charges is available on the on the Resource Consent Application Forms section of the QLDC website. If you are unsure of the amount to pay, please call 03 441 0499 and ask to speak to our duty planner.

Please ensure to reference any banking payments correctly. Incorrectly referenced payments may cause delays to the processing of your application whilst payment is identified.

If the initial fee charged is insufficient to cover the actual and reasonable costs of work undertaken on the application you will be required to pay any additional amounts and will be invoiced monthly as work on the application continues. Please note that if the Applicant has outstanding fees owing to Council in respect of other applications, Council may choose to apply the initial fee to any outstanding balances in which case the initial fee for processing this application may be deemed not to have been paid.

PAYMENT // An initial fee must be paid prior to or at the time of the application and proof of payment submitted.

Please reference your payments as follows:

Applications yet to be submitted: RM followed by first 5 letters of applicant name e.g RMJONES

Applications already submitted: Please use the RM# reference that has been assigned to your application, this will have been emailed to yourself or your agent.

Please note processing will not begin until payment is received (or identified if incorrectly referenced).

I confirm payment by:

- [x] Bank transfer to account 02 0948 0002000 00 (If paying from overseas swiftcode is – BKNZNZ22)
- [ ] Invoice for initial fee requested and payment to follow
- [ ] Manual Payment (can only be accepted once application has been lodged and acknowledgement email received with your unique RM reference number)

*Reference RMRMonk

*Amount Paid: Landuse and Subdivision Resource Consent fees - please select from drop down list below

$3520 - Other subdivision (e.g. Rural Residential, Rural Lifestyle)

(For required initial fees refer to website for Resource Consent Charges or spoke to the Duty Planner by phoning 03 441 0499)

*Date of Payment 10/5/22

Invoices are available on request

APPLICATION & DECLARATION

The Council relies on the information contained in this application being complete and accurate. The Applicant must take all reasonable steps to ensure that it is complete and accurate and accepts responsibility for information in this application being so.

☐ If lodging this application as the Applicant:

I/we hereby represent and warrant that I am/we are aware of all of my/our obligations arising under this application including, in particular but without limitation, my/our obligation to pay all fees and administrative charges (including debt recovery and legal expenses) payable under this application as referred to within the Fees Information section.

OR:

☉ If lodging this application as agent of the Applicant:

I/we hereby represent and warrant that I am/we are authorised to act as agent of the Applicant in respect of the completion and lodging of this application and that the Applicant / Agent whose details are in the invoicing section is aware of all of his/her/its obligations arising under this application including, in particular but without limitation, his/her/its obligation to pay all fees and administrative charges (including debt recovery and legal expenses) payable under this application as referred to within the Fees Information section.

☑ PLEASE TICK

I hereby apply for the resource consent(s) for the Proposal described above and I certify that, to the best of my knowledge and belief, the information given in this application is complete and accurate.

Signed (by or as authorised agent of the Applicant) **

Full name of person lodging this form John Edmonds

Firm/Company JEA Ltd

Dated 12-12-22

**If this form is being completed on-line you will not be able, or required, to sign this form and the on-line lodgement will be treated as confirmation of your acknowledgement and acceptance of the above responsibilities and liabilities and that you have made the above representations, warranties and certification.

Section 2 of the District Plan provides additional information on the information that should be submitted with a land use or subdivision consent.

The RMA (Fourth Schedule to the Act) requires the following:

1 INFORMATION MUST BE SPECIFIED IN SUFFICIENT DETAIL

- Any information required by this schedule, including an assessment under clause 2(1)(f) or (g), must be specified in sufficient detail to satisfy the purpose for which it is required.

2 INFORMATION REQUIRED IN ALL APPLICATIONS

- (1) An application for a resource consent for an activity (the activity) must include the following:
    - (a) a description of the activity:
    - (b) a description of the site at which the activity is to occur:
    - (c) the full name and address of each owner or occupier of the site:
    - (d) a description of any other activities that are part of the proposal to which the application relates:
    - (e) a description of any other resource consents required for the proposal to which the application relates:

Information provided within the Form above

    - (f) an assessment of the activity against the matters set out in Part 2:
    - (g) an assessment of the activity against any relevant provisions of a document referred to in section 104(1)(b).

(2) The assessment under subclause (1)(g) must include an assessment of the activity against—

    - (a) any relevant objectives, policies, or rules in a document; and
    - (b) any relevant requirements, conditions, or permissions in any rules in a document; and
    - (c) any other relevant requirements in a document (for example, in a national environmental standard or other regulations).

(3) An application must also include an assessment of the activity's effects on the environment that—

    - (a) includes the information required by clause 6; and
    - (b) addresses the matters specified in clause 7; and
    - (c) includes such detail as corresponds with the scale and significance of the effects that the activity may have on the environment.

Include in an attached Assessment of Effects (see Clauses 6 & 7 below)

ADDITIONAL INFORMATION REQUIRED IN SOME APPLICATIONS

- An application must also include any of the following that apply:
    - (a) if any permitted activity is part of the proposal to which the application relates, a description of the permitted activity that demonstrates that it complies with the requirements, conditions, and permissions for the permitted activity (so that a resource consent is not required for that activity under section 87A(1)):
    - (b) if the application is affected by section 124 or 165ZH(1)(c) (which relate to existing resource consents), an assessment of the value of the investment of the existing consent holder (for the purposes of section 104(2A)):

ASSESSMENT OF ENVIRONMENTAL EFFECTS

Clause 6: Information required in assessment of environmental effects

- (1) An assessment of the activity's effects on the environment must include the following information:
    - (a) if it is likely that the activity will result in any significant adverse effect on the environment, a description of any possible alternative locations or methods for undertaking the activity:
    - (b) an assessment of the actual or potential effect on the environment of the activity:
    - (c) if the activity includes the use of hazardous substances and installations, an assessment of any risks to the environment that are likely to arise from such use:
    - (d) if the activity includes the discharge of any contaminant, a description of—
        - (i) the nature of the discharge and the sensitivity of the receiving environment to adverse effects; and
        - (ii) any possible alternative methods of discharge, including discharge into any other receiving environment:
    - (e) a description of the mitigation measures (including safeguards and contingency plans where relevant) to be undertaken to help prevent or reduce the actual or potential effect:
    - (f) identification of the persons affected by the activity, any consultation undertaken, and any response to the views of any person consulted:
    - (g) if the scale and significance of the activity's effects are such that monitoring is required, a description of how and by whom the effects will be monitored if the activity is approved:
    - (h) if the activity will, or is likely to, have adverse effects that are more than minor on the exercise of a protected customary right, a description of possible alternative locations or methods for the exercise of the activity (unless written approval for the activity is given by the protected customary rights group).

(2) A requirement to include information in the assessment of environmental effects is subject to the provisions of any policy statement or plan.

(3) To avoid doubt, subclause (1)(f) obliges an applicant to report as to the persons identified as being affected by the proposal, but does not—

- (a) oblige the applicant to consult any person; or
- (b) create any ground for expecting that the applicant will consult any person.

CLAUSE 7: MATTERS THAT MUST BE ADDRESSED BY ASSESSMENT OF ENVIRONMENTAL EFFECTS

- (1) An assessment of the activity's effects on the environment must address the following matters:
    - (a) any effect on those in the neighbourhood and, where relevant, the wider community, including any social, economic, or cultural effects:
    - (b) any physical effect on the locality, including any landscape and visual effects:
    - (c) any effect on ecosystems, including effects on plants or animals and any physical disturbance of habitats in the vicinity:
    - (d) any effect on natural and physical resources having aesthetic, recreational, scientific, historical, spiritual, or cultural value, or other special value, for present or future generations:
    - (e) any discharge of contaminants into the environment, including any unreasonable emission of noise, and options for the treatment and disposal of contaminants:
    - (f) any risk to the neighbourhood, the wider community, or the environment through natural hazards or the use of hazardous substances or hazardous installations.

(2) The requirement to address a matter in the assessment of environmental effects is subject to the provisions of any policy statement or plan.

A2 APPENDIX 2 // Information requirements for subdivision

UNDER THE FOURTH SCHEDULE TO THE ACT:

- An application for a subdivision consent must also include information that adequately defines the following:
    - (a) the position of all new boundaries:
    - (b) the areas of all new allotments, unless the subdivision involves a cross lease, company lease, or unit plan:
    - (c) the locations and areas of new reserves to be created, including any esplanade reserves and esplanade strips:
    - (d) the locations and areas of any existing esplanade reserves, esplanade strips, and access strips:
    - (e) the locations and areas of any part of the bed of a river or lake to be vested in a territorial authority under section 237A:
    - (f) the locations and areas of any land within the coastal marine area (which is to become part of the common marine and coastal area under section 237A):
    - (g) the locations and areas of land to be set aside as new roads.

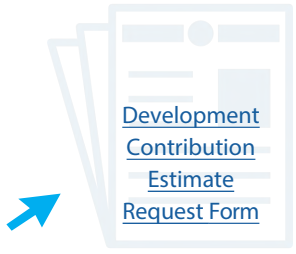
A3 APPENDIX 3 // Development Contributions

Will your resource consent result in a Development Contribution and what is it?

- A Development Contribution can be triggered by the granting of a resource consent and is a financial charge levied on new developments. It is assessed and collected under the Local Government Act 2002. It is intended to ensure that any party, who creates additional demand on Council infrastructure, contributes to the extra cost that they impose on the community. These contributions are related to the provision of the following council services:
    - Water supply
    - Wastewater supply
    - Stormwater supply
    - Reserves, Reserve Improvements and Community Facilities
    - Transportation (also known as Roading)

Click here for more information on development contributions and their charges

OR Submit an Estimate request *please note administration charges will apply



A4 APPENDIX 4 // Fast - Track Application

Please note that some land use consents can be dealt with as fast track land use consent. This term applies to resource consents where they require a controlled activity and no other activity. A 10 day processing time applies to a fast track consent.

If the consent authority determines that the activity is a deemed permitted boundary activity under section 87BA of the Act, written approval cannot be withdrawn if this process is followed instead.

A fast-track application may cease to be a fast-track application under section 87AAC(2) of the Act.

A5 APPENDIX 5 // Naming of documents guide

While it is not essential that your documents are named the following, it would be helpful if you could title your documents for us. You may have documents that do not fit these names; therefore below is a guide of some of the documents we receive for resource consents. Please use a generic name indicating the type of document.

- Application Form 9
- Assessment of Environmental Effects (AEE)
- Computer Register (CFR)
- Covenants & Consent Notice
- Affected Party Approval/s
- Landscape Report
- Ecological Report
- Engineering Report
- Geotechnical Report
- Wastewater Assessment
- Traffic Report
- Waste Event Form
- Urban Design Report

ASSESSMENT OF EFFECTS ON THE ENVIRONMENT

Subdivision

216 McDonnell Road, Arrowtown

For **R F Monk and Cook Adam Trustees**

December 2022

EXECUTIVE SUMMARY OF PROPOSAL

R F Monk and Cook Adam Trustees (the applicant) seek resource consent to subdivide 216 McDonnell Road into four freehold titles, to amend the building platform at 216 McDonnell Road and to adjust the boundary of 218 McDonnell Road.

Location:	216 and 218 McDonnell Road, Arrowtown
Legal Description:	Lots 1 and 3 DP 518669
Territorial Authority:	Queenstown Lakes District Council
Plan:	Operative District Plan and Proposed District Plan
Zoning:	ODP: Rural Zone PDP: Wakatipu Basin Rural Amenity Zone
Natural Hazards	The site is subject to a LIC 1 Liquefaction Risk.
Other	There are no known heritage features, cultural heritage, HAIL activities or archaeological sites. There are no watercourses or ephemeral streams
Activity Status:	Non-Complying

APPENDICES

Appendix 1	Record of Title
Appendix 1A	Covenant 96444-3
Appendix 1B	Covenant 11291300-7
Appendix 1C	Covenant 11291300-8
Appendix 1D	Consent Notice 11291300.3
Appendix 2	Subdivision and Earthworks Plans
Appendix 3	Landscape Report
Appendix 4	Landscape Attachments
Appendix 5	Infrastructure Report
Appendix 6	Preliminary Site Investigation
Appendix 7	Earthworks Management Plan

1.0 INTRODUCTION

This Assessment of Effects on the Environment (AEE), inclusive of appendices, has been prepared in accordance with Schedule 4 of the Resource Management Act (RMA). Together these documents provide:

- A description of the application site and surrounding environment;
- A description of the proposal;
- A description of the consents sought;
- An assessment of environmental effects;
- Identification and assessment of relevant objectives and policies of the Operative and Proposed District Plan; and
- A conclusion.

1.1 Overview

Resource consent is sought to subdivide 216 McDonnell Road into four freehold allotments, to adjust the shape of the existing building platform within 216 McDonnell Road, and to make an adjustment to the alignment of the common boundary between 216 and 218 McDonnell Road. The sites are accessed via a 350m long Right of Way ('RoW'), which extends west from McDonnell Road to the north of the Arrowtown Retirement Village. The site is identified on Planning Map 13D as being located within the Wakatipu Basin Rural Amenity Zone of the Proposed District Plan.

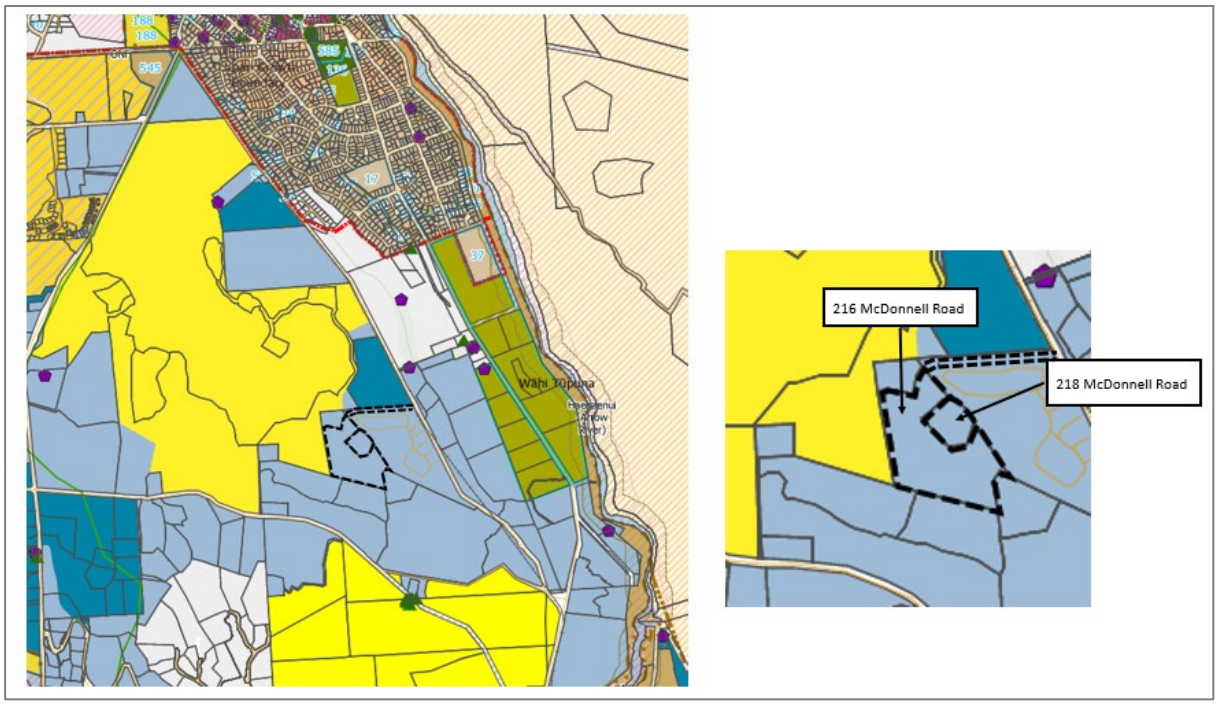


Figure 1: Location Plans

1.2 Site Description

The site is located at 216 and 218 McDonnell Road, Arrowtown and comprises 6 hectares and 1.7 hectares respectively.

The land the subject of this application is located on between the Arrowtown Retirement Village and the south-eastern corner of the Hills Golf Course.

The sites at 214, 216 and 218 Mc Donnell Road were created by way of an earlier subdivision, and as a result all three sites contain a residential building platform. Dwellings have been constructed on 214 and 218 McDonnell Road, whilst the platform of 218 remains vacant.

214 and 218 McDonnell Road are smaller lots (0.85 and 1.7 hectares respectively, and together with the building platform on 216 McDonnell; all are located on a small terrace feature that is slightly elevated above the Arrowtown Retirement Village.

The balance of 216 McDonnell Road climbs reasonably steeply to the south.

The northern corner of 216 McDonnell Road site is located within a LIC 1 Liquefaction Risk Zone under the QLDC GIS system, affecting proposed Lots 1 and 2.

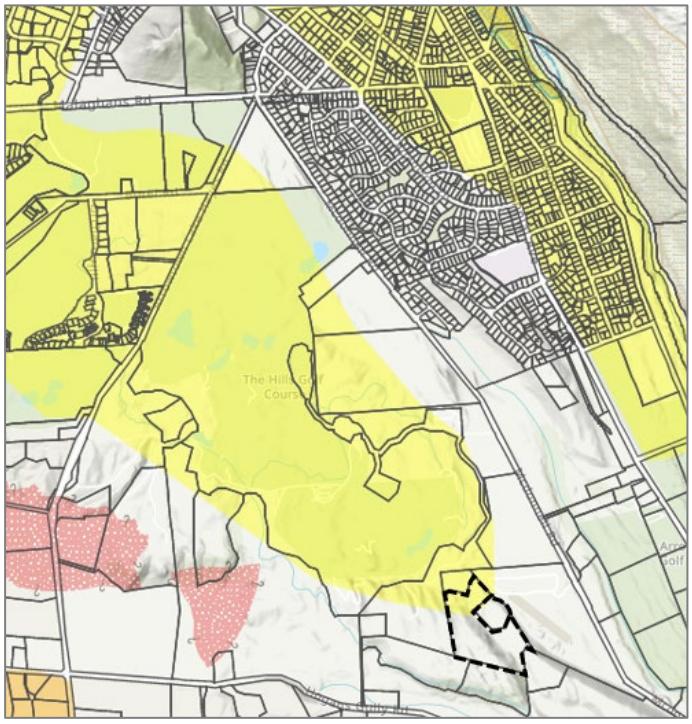


Figure 2 – Natural Hazard Mapping

1.3	Legal Description

The sites are legally described as

Address	Legal Description	Record of Title	Rates Assessment	Area	Owners
216 McDonnell Road	Lot 3 DP518669	813755	2907129610	60,049 m^2	R Monk Cook Adams Trustees Ltd
218 McDonnell Road	Lot 1 DP518669	813753	2907129611	10,,700 m^2	S and T Monk

The following interests have been registered on the title for Lot 3 DP 518669 and held in Record of Title 813755 (attached as Appendix 1).

Covenant 964442-3
Relates to the installation of a water supply and provision of water to adjoining properties.

Covenant 11291300.7
A private covenant that provides for a non-objection agreement with the owners of Lots 1, 2 and 3 of DP518669.

Covenant 1129130068
A private covenant that provides for a non-objection agreement with the owners of Lots 3 and 4 of DP518669.

Consent Notice 11291300.3
The Notice resulted from RM090439 and provides a set of standard design, servicing and landscape controls for Lots 1 – 3 of DP518669. The Notice requires adjustment in respect of the shape and orientation of the existing platform on Lot 3 DP518669.

1.4	Consenting History

The relevant resource consents that apply to this site are set out below:

RM090439 – 12 July 2010
Subdivision consent to allow for the subdivision of the original 20.4 hectare property into three lots, with a residential building platform on each lot; resulting in:

- Lot 1: 9,200 m^2
- Lot 2: 8,000 m^2
- Lot 4: 18,320 m^2

Consent was refused for proposed Lot 3 and an associated building platform. That lot 7,000 m^2 lot was located in the most elevated southern corner of the property.

Dwellings have been constructed on Lots 1 and 2.

RM090439.01 – 26 January 2015
Extension of lapse date of the subdivision until 26 January 2021. The subdivision has been given effect to, with the 224(c) certification being approved by QLDC on

RM160664 – 19 August 2016
Variation decision to amend conditions 1, 16.1, 16.5 and 16.7 and cancel condition 17.

The changes to conditions 16.1, 16.5 and 16.7 relate to the landscape plans to be stamped as approved. The cancellation of condition 17 provides that application may be made for subdivision of the balance lot.

Other applications have been made for development of the Arrowtown Retirement Village on the 12 hectare balance lot that is referred to as Lot 4 DP506191. The primary application for development of that land was made through a Special Housing Area proposal and is referenced SH160141. Other subsequent consents for the Retirement Village are listed on Council's e-doc's website.

2.0 DESCRIPTION OF PROPOSAL

2.1 Subdivision

Resource consent is sought to allow for the following subdivision:

- Subdivide Lot 3 (216 McDonnell Road) into 4 separate lots and create three new residential building platforms.
- Re-shape and re-orient the existing residential building platform within Lot 3 (216 McDonnell Road).
- Straighten the alignment of the common boundary of existing Lot 1 and Lot 3.

The net effect of this application is to create three additonal residential building platforms, and to create a separate Record of Title around each of those platforms.

The boundary adjustment between existing Lot 1 and Lot 3 involves extending the southern boundary of Lot 1 (which will be referenced Lot 5 under the proposed subdivision) further to the south; so as to regularise the alignment of that boundary.

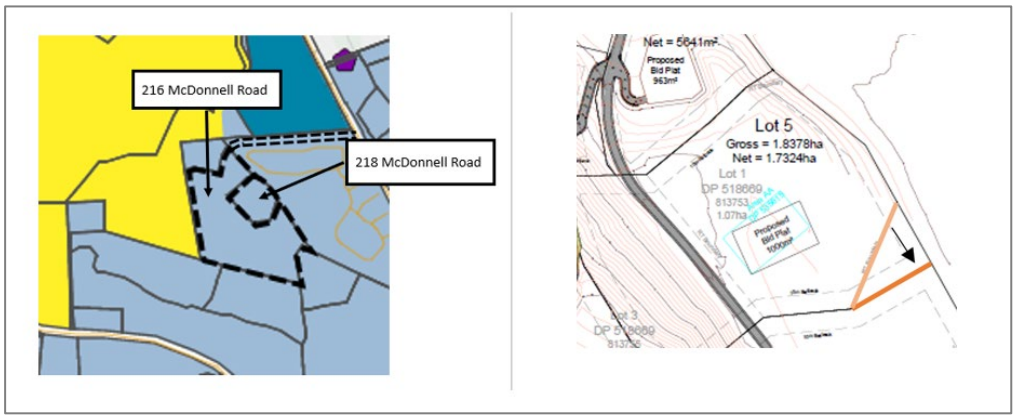


Figure 3 – Realignment of the Southern Boundary of Proposed Lot 5 (218 McDonnell Road)

In addition, the western boundaries of proposed Lots 4 and 5 (currently Lots 3 and 1 respectively) will be extended approximately 55m to the west – so as to incorporate the steep bluff.

Figure 4 – Bluff Area to be Incorporated into Proposed Lots 4 and 5

The existing building platform at 216 McDonnell Road (currently described as Lot 3, proposed by this application as Lot 4) is an irregular shape, and this application proposes to amend that shape to a traditional rectangular shape and align that platform to the north. The platform remains in the same location.

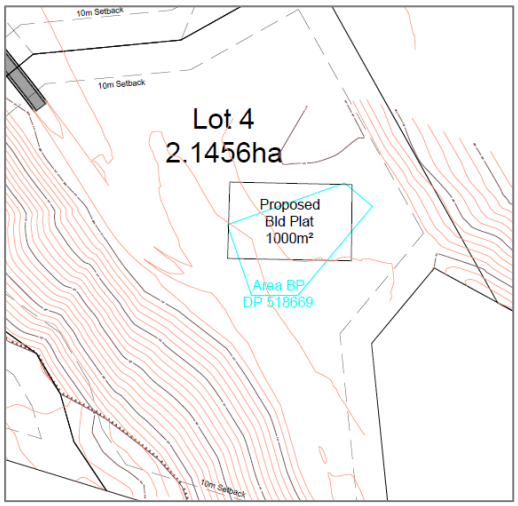


Figure 5 – Realigned Building Platform on Proposed Lot 4 (216 McDonnell Road)

The existing 1,000m^2 residential building platform within Lot 3 is currently a hexagon shape, and it is proposed to retain that same platform area within a rectangular shape and align that platform to the north.

Lot 3 is proposed to be subdivided so as to create the following proposed lots

Proposed Lot Number	Gross Area of Allotment	Building Platform
Lot 1 (Proposed New Lot)	7,038 m^2	963 m^2
Lot 2 (Proposed New Lot)	5,065 m^2	536 m^2
Lot 3 (Proposed New Lot)	18,805 m^2	1,000 m^2
Lot 4 (Existing Building Platform)	21,456 m^2	1,000 m^2 (existing undeveloped)
Lot 5 (Boundary Adjusted)	18,378m^2	1,000m^2 (existing and developed)

The application includes a landscape assessment that describes the proposed building design controls that would apply across the proposed lots and the landscaping that will be implemented prior to the issue of separate titles.

The application proposes design controls over the building platforms on Proposed Lots 1, 2 and 3. This includes height restrictions ranging from 4.0 to 5.5m above the finished ground levels of those lots. In all cases the ground level is proposed to be lowered to create a level building site.

Further controls relate to the finish and colour of exterior materials, and a restriction on the extent of a curtilage area around each platform.

Additional planting (1,720 m^2) is proposed to the north and south of the platform on proposed Lot 3, to mitigate effects resulting from earthworks and to provide an appropriate setting for the future building within that platform.

3.0 RELEVANT STATUTORY MATTERS

3.1 National Policy Statements and Environmental Standards

3.1A Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011.

The National Environmental Standard establishes a sequence for consenting.

Clause 5(1) identifies the circumstances in which the Regulation applies. That includes a list of activities (Clauses 5(2) to 5(6)), where those activities occur on a 'piece of land' that is described in Clauses 5(7) or 5(8).

The subdivision of land is listed at Clause 5(5), whilst a change of land use is listed at Clause 5(6).

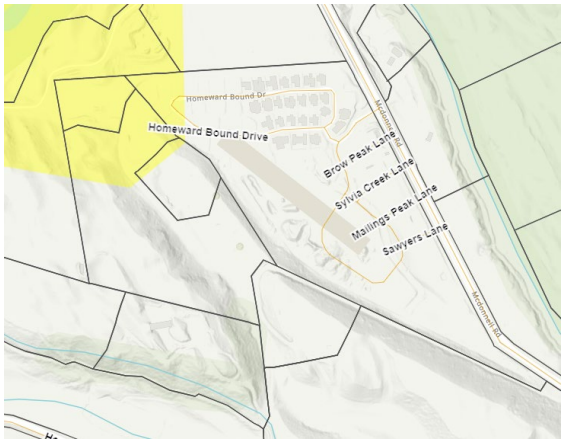
The 'piece of land' descriptions at Clause 5(7) relate to whether a HAIL activity is or is likely to have previously occurred.

Clause 5(8) identifies that the Regulation applies to land, as described in Clause 5(7), that is production land that has is has a HAIL activity occurring – where the activities described in Clauses 5(2) to 5(6) are proposed to occur.

Clause 6 identifies the two 'methods' that may be used to determine whether or not a HAIL activity is or has occurred on 'the piece of land';
Using the most up to date information about the area…; or
Relying upon a report of a preliminary site investigation

The decision on the appropriate method is at the discretion of the 'person' who is undertaking the proposed activity.

The QLDC web-mapping service includes maps described as 'Natural Hazards and Hail Data'. The following screenshot only identifies the natural hazards notation referred to at 1.2 of this application.



A search of the Otago Regional Council database of HAIL sites and activities in the Otago region confirms that a Preliminary Site Investigation was undertaken to assess the impact of potential fertiliser manufacture and storage in relation to the Arrowtown Retirement Village application. That issue related to the use of the lower terrace of the site as an airstrip that was previously used in conjunction with the management of the adjoining farm (prior to purchase and development as the Hills Golf Club), and other high country stations to the north of Arrowtown. That report was reviewed by Stantec, and both reports confirm that the land is suitable for residential usage. A copy of the report is included as Appendix 6.

In respect of the NES Regulation, the assessment under Clause 6(2) confirms that the piece of land is not as described in Clause 5(7), and that no further approval or assessment is necessary under this Regulation.

3.1B National Policy Statement – Highly Productive Soils 2022

The NPS – HPS came into effect on 17 October 2022 and is intended to ensure the availability of New Zealand's most favourable soils for food and fibre production, now and for future generations.

The objective of the NPS is:

> Highly productive land is protected for use in land-based primary production, both now and for future generations.

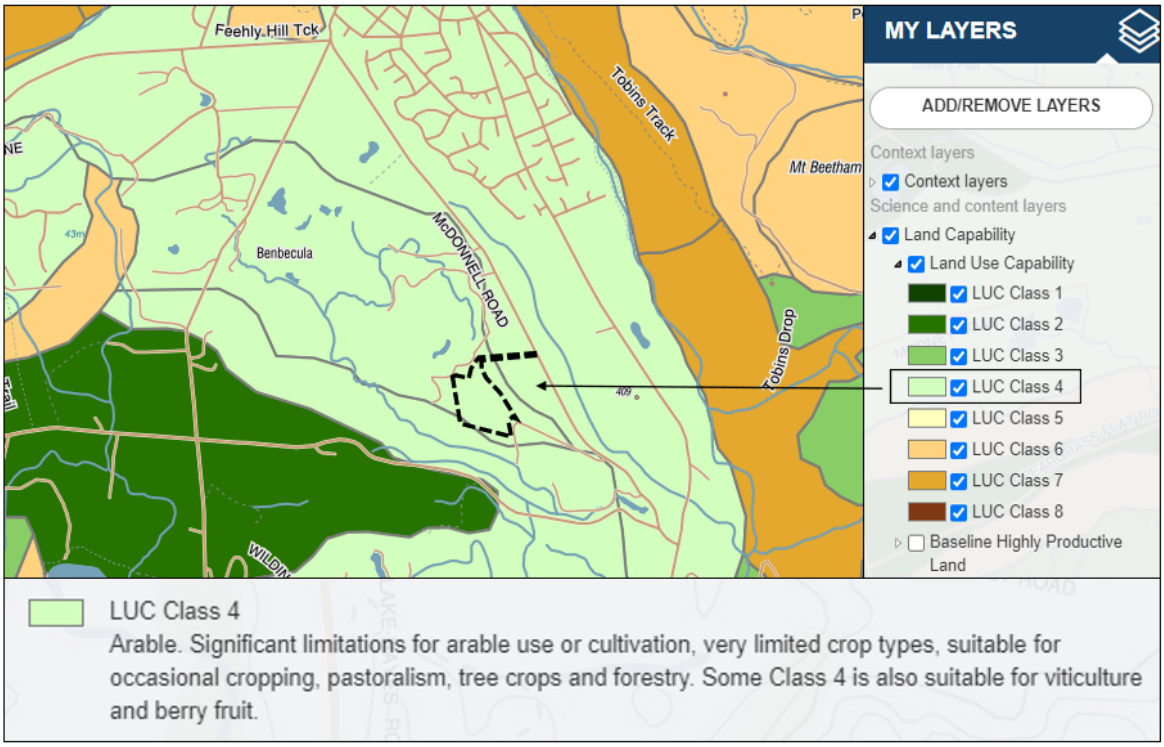
Highly Productive Land is described as land that is:

a) is in a general rural zone or rural production zone; and
b) is predominantly LUC 1, 2, or 3 land; and
c) forms a large and geographically cohesive area.

Until such time as Regional Authorities provide updated mapping by 2025 (Clause 3.5(1)), and subsequently territorial authorities, mapping shall be undertaken in terms of the New Zealand Land Resource Inventory.

The subject sites are identified on New Zealand Land Resource Inventory as having Land Use Capability Class 4.

The following image is sourced from the Landcare Research website (New Zealand Land Resource Inventory) in accordance with Part 3.4(5)(a) of the NPS – HPS 2022.



Clauses 3.4(1) and 3.5(7) confirm that 'highly productive land' is described as land with a LUC of 1 – 3.

Neither Policy 3.8 ('Avoiding Subdivision of highly productive land') nor Policy 3.8 ('Protecting highly productive land for inappropriate use and development') apply – because the land is classified as LUC 4.

No further consent or restriction under the NPS applies to the subject sites.

3.2	Regional Plans

Chapter 12 of the Regional Plan: Water relates to the discharge of human waste to ground and includes the criteria for a permitted activity. Those criteria include:

- A daily discharge limit of 2,000 litres[i] .
- that any such discharges must occur outside of the 'Lake Hayes Catchment' identified on Map B6.
- A minimum separation of 50m between the point of any discharge and a water bore.
- No direct discharge to a drain, water race or groundwater.
- No nuisance effects on neighbouring land.

The engineering report prepared by Civilized Limited and included at Attachment 4 confirms that on-site wastewater systems can be designed for each lot without breaching any of these criteria. For reference, an extract of the map referred to as B6 is included below. The boundaries of the Lake Hayes Catchment are approximately 1,400 metres from the Site.

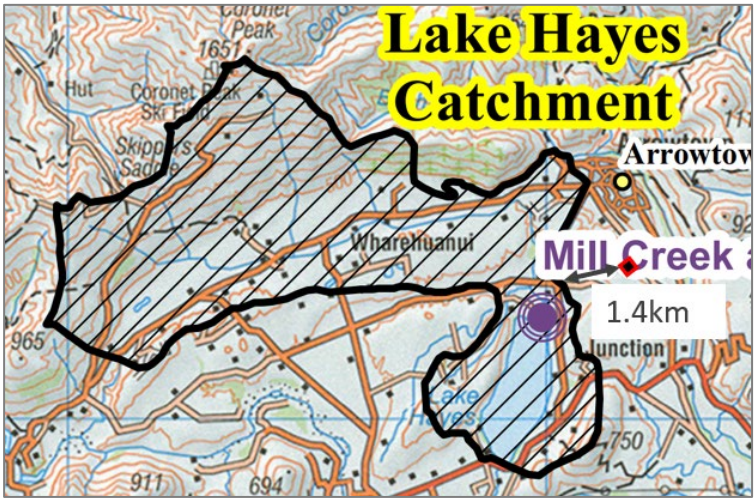


Figure 6 – Lake Hayes Catchment Boundary Relative to Subject Site

No Regional Council resource consents are required in relation to this proposed subdivision nor for the use of the sites for future residential purposes.

3.3	Operative District Plan

The Sites are located within the Rural General Zone on Planning Map 26.

There are no designations, heritage items or any other district plan notations that affect the site, nor any adjoining sites. There are no watercourses passing through the site, nor through adjoining land.

The Rural zoning of this site continues to have effect as there remain unresolved appeals to the zoning that has been applied to the subject sites.

The Earthworks chapter (15) of the Operative District Plan has been superseded by the equivalent chapter (25) in the Proposed District Plan.

[i] a residential system typically generates less than 1,000 litres per day

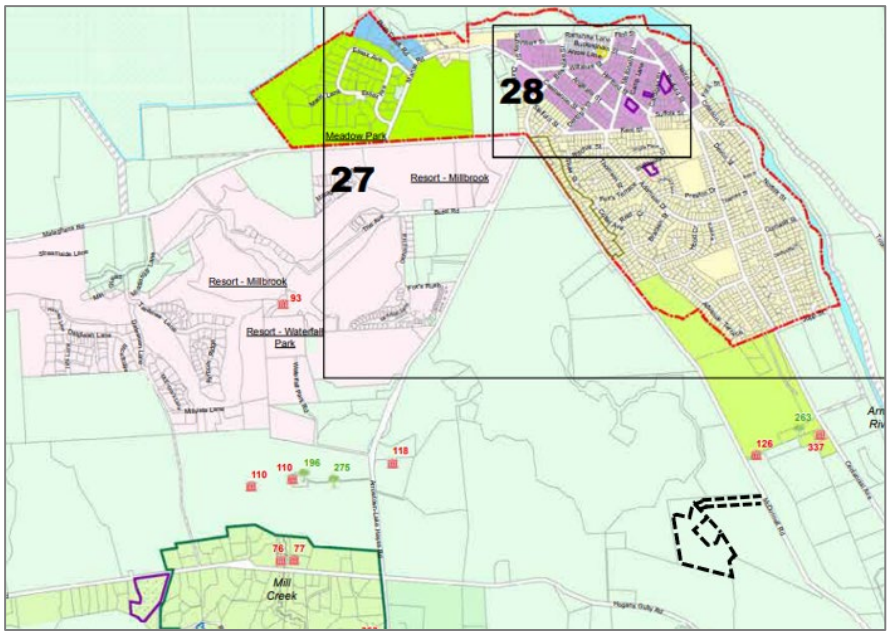


Figure 7 – Operative District Plan - Map 26

Resource consents are required under the subdivision chapter.

Rule	Activity	Activity Status
15.2.3.2 (i)	Boundary Adjustment	Controlled
15.2.3.3 (vi)	Subdivision	Discretionary

3.4	Proposed District Plan

The Sites are located within the Wakatipu Basin Rural Amenity Zone on Planning Map 13D.

There are no designations, heritage items or any other district plan notations that affect the site, nor any adjoining sites.

There are no watercourses passing through the site, nor through adjoining land.

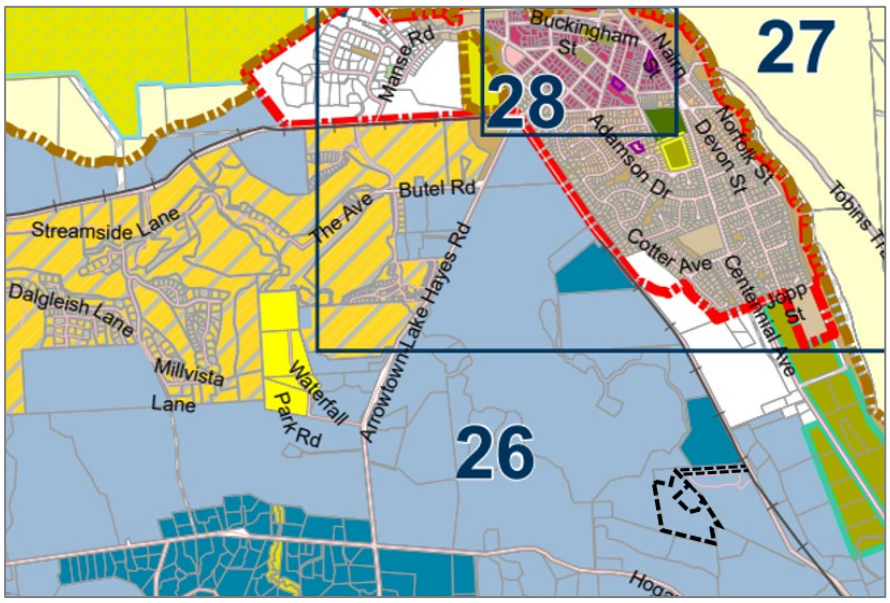


Figure 8 – Proposed District Plan - Map 13D

The earthworks chapter (27) identifies a maximum annual volume of 400m^3 per site within the Wakatipu Basin Rural Amenity Zone (25.5.4), over an area of up to 2.500m^2 (25.5.11), with maximum cut heights of 2.4m (25.5.15) and fill heights up to 2m (25.5.16). The Plan also identifies a consent trigger of 300m^3 of material transported by road (25.5.21).

In this case the proposed access and three building platforms (Lots 1, 2, and 3) will result in a combined (cut and fill) volume of 7,100m^3, over an area of 6,900m^2, with maximum cut heights of up 3.8m and fill height of up to 1.7m.

Resource consents are required under the Subdivision and Earthworks chapters.

Rule	Activity	Activity Status
27.5.3.	Boundary Adjustment	Controlled
27.5.22	Subdivision	Non Complying
25.5.4, 25.5.11, 25.5.15 & 25.5.21	Earthworks	Restricted Discretionary

3.5 Summary of Consent Requirements

Controlled and Discretionary consents are required under the Operative District Plan, whilst Controlled, Restricted Discretionary and Non-Complying consents are required under the Proposed District Plan.

Consent is also necessary under section 221 of the Act in respect of the altered building platform on Lot 3DP518669 (proposed Lot 4)

3.6 Section 104 of the Act

Due to the non-complying status of subdivision under the Proposed District Plan, it is necessary to consider the application as a whole under Section 104D of the Act.

(1) Despite any decision made for the purpose of notification in relation to adverse effects, a consent authority may grant a resource consent for a non-complying activity only if it is satisfied that either—
- (a) the adverse effects of the activity on the environment (other than any effect to which section 104(3)(a)(ii) applies) will be minor; or
- (b) the application is for an activity that will not be contrary to the objectives and policies of—
  - (i) the relevant plan, if there is a plan but no proposed plan in respect of the activity; or
  - (ii) the relevant proposed plan, if there is a proposed plan but no relevant plan in respect of the activity; or
  - (iii) both the relevant plan and the relevant proposed plan, if there is both a plan and a proposed plan in respect of the activity.

4.0 EFFECTS ASSESSMENT

4.1 The Existing Environment

Arrowtown Retirement Village

The Subject Sites are located on the western side of MacDonnell Road, adjoining the western boundary of the Arrowtown Retirement Village. The Village site comprises all of that triangular shaped 12 hectare site, that shares a common boundary with 216 and 218 McDonnell Road.

The Village is located on flat terrace that was previously used for airstrip purposes.

The Subject sites are mostly located on a slightly elevated terrace that is generally 4m above the level of the Village, with the exception of proposed Lot 1, which is at the same level as the Village.

The Village is currently consented for up to 120 villas, 75 apartments, a 100 bed care home, a community centre and associated facilities and amenities.

The Village has been partially completed, and construction works remain on-going.

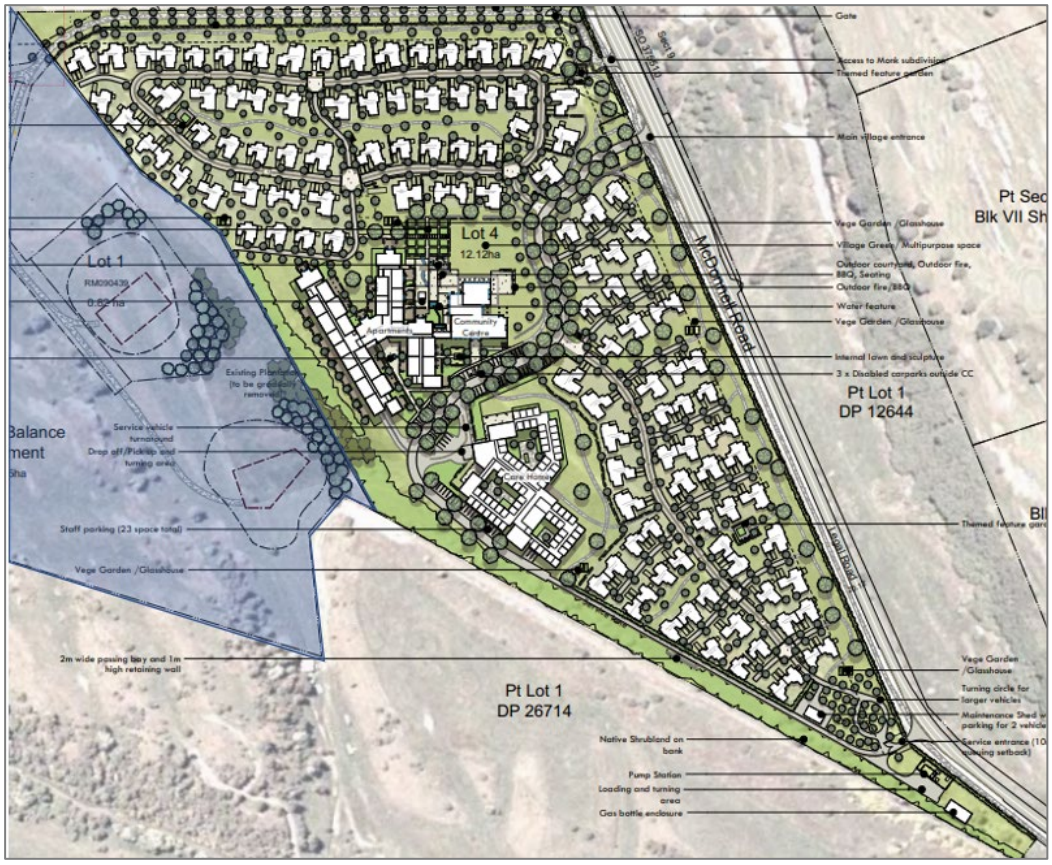


Figure 9 – Arrowtown Retirement Village Relative to the Subject Sites

The Hills Golf Course

The Hills Golf Course is developed as an 18 hole Championship Course that is often used for tournament golf. The Course passes near to the north-west boundary of the Site.

Most of the Hills Golf Course land has been incorporated into a unique zone, referred to as the Hills Resort Zone (Chapter 47). That zoning provides for the continuation of the golf course and associated events and activities, together with up to 150 residential and visitor accommodation units and provision for a further 50 staff accommodation bedrooms. A Structure Plan is used, with the 5,000m^2 Activity Area A7 adjoining the northern boundary of the Sites, whilst House Site 5 is located 90m to the west.

Figure 10 – The Hills Golf resort Zone Relative to the Subject Sites

Other unutilised parts of the Hills Golf Course that are not part of the Hills Resort Zone have been included within the Wakatipu Basin Lifestyle Precinct, which is a subset of the Wakatipu Basin Rural Amenity Zone. That land is located to the north of the Subject sites, and could be developed under the proposed zoning at a density of 7 rural living lots.

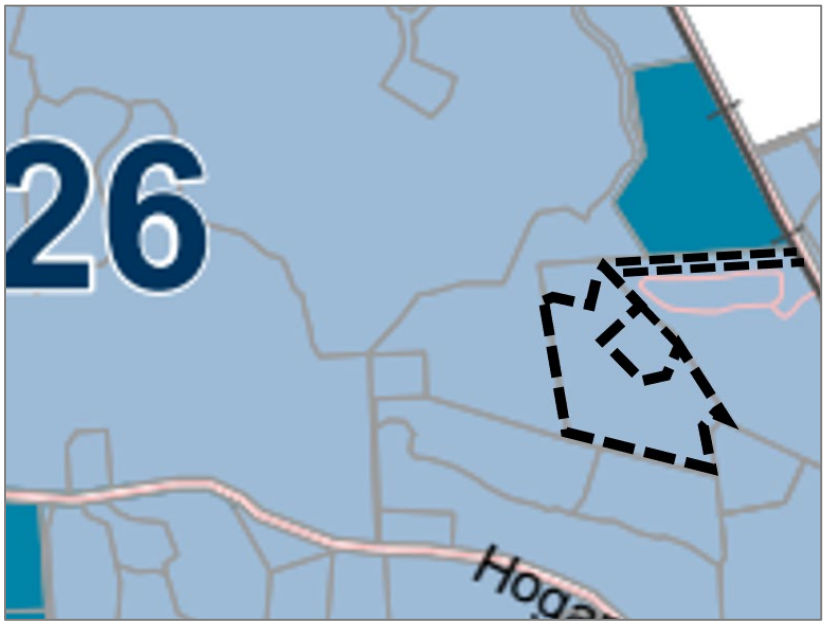


Figure 11 - Proposed Whakatipu Basin Lifestyle Precinct – Relative to Subject Sites

There are established rural living lots to the south of the Sites, within a previously approved subdivision that is accessed from Hogan Gully Road. The Hogan Gully Golf Resort is located further to the south on the southern side of Hogan Gully Road.

The cumulative effect of these approved developments to the north and east of the Subject Sites are indicated in Figure 8, and demonstrate that the sites are surrounded by a range of non-rural development activities and intensities.

Figure 12 – Neighbouring Existing and Potential Building Locations Relative to Subject Sites

4.2	Earthworks

The earthworks are identified at Sheet 3 of Attachment 2, and described earlier at 3.4.

Lot 1 is located immediately to the west of the existing retirement village, at the same ground level. A minor cut into the south-eastern corner of this proposed building platform area is necessary to create a level building site. The maximum cut of up to 3.2m is necessary, and occurs approximately 10m from the southern boundary (proposed Lot 5). Minor filing is proposed on the northern side of the platform.

The Platform for proposed Lot 2 is 536m^2 and requires similar shaping (as proposed Lot 1) to create a level buildable site, with cuts occurring across the middle and south-western parts of the platform, and filling in the north-east corner.

The platform on proposed Lot 3 is 1,000m^2 and set into the north-facing slope, and needs up to 3.8m of cut on the south-western corner of the platform, with batter slopes extending to the south-west.

The proposed Right of Way that serves proposed Lots 2 and 3 has been located to follow an existing farm track that meanders up the site, and as a result requires only minor shaping and widening to achieve a compliant gradient and width.

There are no watercourses within the property nor any ephemeral streams.

An earthworks management plan is a standard requirement as part of any suite of conditions, and is volunteered to be provided.

4.4	Servicing

The report prepared by Civilized provides a detailed assessment of all service related matters. The sites are not served by any Council reticulated services.

The report confirms that water is supplied in accordance with Council quantities from a private supply. That supply has been tested and meets the quality requirements of the Drinking Water Standards for NZ 2018. There is adequate quantity to also provide the static fire-fighting supply requirements.

Wastewater will be treated and disposed to ground through individual systems. The ground conditions have been assessed as suitable for sub-soil soakage.

Stormwater from internal accessways will be directed to roadside swales and disposed to ground, whilst stormwater from houses and hard surface areas will be directed to soak pits located near the buildings.

Power and telephone connections are available to all lots.

All infrastructure will be placed below ground.

The servicing and infrastructure effects are all considered to be less than minor.

4.5	Traffic and Access

The proposed lots will be served by an existing right of way access that currently serves the three existing house sites. That access is served by a 10m wide right-of-way formed carriageway width of 3.5m.

Proposed Lot 1 has direct frontage to that existing Right of Way.

Proposed Lots 2 and 3 will be accessed from a secondary Right of Way that will have a minimum formed width of 3.5m, with passing bays (refer cross sections in Attachment 2).

4.6	Landscape and Visibility

The Landscape Assessment recognises the changing context in the vicinity of the Sites, that results from the resource consents and changes to the zoning patterns.

The PDP divides the Wakatipu Basin into 24 Landscape Character Units, and these sites are located within south-eastern corner of 'The Hills Landscape Character Unit' (LCU #22).

The Landscape Assessment report describes the landscape character of the sites and the surrounds as 'mixed'

The assessment recognises that none of the proposed lots will be visible from the closest public road – McDonnell Road due to the physical separation (350m +), the vertical alignment of the road, and the presence of the Arrowtown Retirement Village in the foreground view.

The closest public views are from Advance Terrace within the Arrowtown urban area, located approximately 1,200m to the north 930m to the north (adjacent to 87 Cotter Ave), whilst Tobins Track is described as being approximately 2.3km to the north-east. The views from Tobins Track are panoramic across the whole Basin and include views of the Arrowtown urban area, the Millbrook, Arrowtown and Hills golf courses and associated semi-urban development, the Arrowtown Retirement Village, and three yet undeveloped Arrowtown South Special Zone (20 dwelling units) and the Housing Trust Development to the south of Jopp Street.

Figure 13 – View from Summit of Tobins Track

Proposed Lot 1 is located at the same level is the Arrowtown Retirement Village and is described as not affecting either the landscape character or the amenity values of the LCU.

Similarly, a dwelling on Lot 2 will be set slightly above the existing dwelling on Lot 2 DP518669 (to the north) and is described as not affecting the landscape character or amenity values of the immediate surrounding landscape. The presence of future development areas on the Hills property is a factor in determining the level of effect.

The Landscape Assessment confirms that a dwelling on proposed Lot 3 will have a low adverse effect on the landscape character and visual amenity c]values, due to the characteristics of the particular landform it is located within and the endemic planting that is proposed to contain effects.

The landscape assessment concludes that the effects of proposed Lots 1 and 2 is 'low', whilst Lot 3 is recorded as being potentially 'Low to Moderate'.

5.0 OBJECTIVES AND POLICIES ASSESSMENT

Policy 6.3.1.4	Provide a separate regulatory regime for the Wakatipu Basin Rural Amenity Zone, within which the Outstanding Natural Feature, Outstanding Natural Landscape and Rural Character Landscape categories and the policies of this Chapter related to those categories do not apply.	The objectives and policies in the Landscape chapter do not apply to the Wakatipu Basin Rural Amenity zone.
Objective 24.2.1	Landscape character and visual amenity values in the Wakatipu Basin are maintained or enhanced.	The landscape assessment confirms that all three proposed lots will maintain the landscape character and amenity values of LCU#22. The building platforms have been contained within the landscape and the more elevated parts of the site are not proposed to be developed. The proposal cannot achieve a minimum lot size of 80 hectares.
Policy 24.2.1.1	Require an 80 hectare minimum net site area be maintained within the Wakatipu Basin Rural Amenity Zone outside of the Precinct.	
Policy 24.2.1.2	Ensure subdivision and development is designed (including accessways, services, utilities and building platforms) to minimise inappropriate modification to the natural landform.	
Policy 24.2.1.3	Ensure that subdivision and development maintains or enhances the landscape character and visual amenity values identified in Schedule 24.8 - Landscape Character Units.	
Policy 24.2.1.4	Maintain or enhance the landscape character and visual amenity values of the Rural Amenity Zone including the Precinct and surrounding landscape context by: a. controlling the colour, scale, form, coverage, location (including setbacks) and height of buildings and associated infrastructure, vegetation and landscape elements.	The Landscape Assessment includes volunteered controls in respect of all of these matters, and therefore achieves the policy.
Policy 24.2.1.14	Ensure subdivision and development maintains a defensible edge between areas of rural living in the Precinct and the balance of the Rural Amenity Zone.	The land to the north of the subject sites is included within the Whakatiupu Basin Lifestyle Precinct, and therefore it is necessary to assess this policy. In this case, the 7 hectares of land that has been zoned Precinct adjoins the existing Arrowtown Retirement Village which is zoned Whakatipu Basin Rural Amenity Zone. The site contains approximately 70 residential units at the northern end of that block (ie. adjoining and closest to the Precinct Zoned land). T The Hills Precinct zone also adjoins the Hills Resort Zone along its western boundary.

		In this case the Policy is distinguishable from the generality of other land included in the Precinct. The Hills Precinct is a relatively small area of land that is contained and surrounded by mixed density zones or consented activities (Hills Resort Zone, Arrowtown Retirement Village, Arrowtown South Special Zone) that make have moved the defensible edge beyond the boundaries of the Precinct.

The Environment Court, in determining appeals on Topic 30 of the Proposed District Plan has issued an interim decision, that amends the objectives and policies in chapter 24. These amended pictures and policies have not been finalised, and therefore have not been assessed

6.0 PART 2 OF THE ACT

The relevant matters of Part 2 have been reproduced and assessed below:

5. Purpose

(1) The purpose of this Act is to promote the sustainable management of natural and physical resources.

(2) In this Act, sustainable management means managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural well-being and for their health and safety while –

a) sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and

b) safeguarding the life-supporting capacity of air, water, soil, and ecosystems; and

c) avoiding, remedying, or mitigating any adverse effects of activities on the environment.

7. Other matters

In achieving the purpose of this Act, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall have particular regard to –

c) the maintenance and enhancement of amenity values:

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

The proposed subdivision pattern and density recognises the changing character of the environment. The three proposed lots are an appropriate sustainable management response to the way in which land within this part of the Whakatipu Basin can be developed, whilst still retaining the values of the wider landscape character.

The proposal will provide for the social and economic wellbeing of the applicant and future owners of the sites by providing a suitable density of subdivision on this particular site.

7.0 CONCLUSION

The application seeks consent to subdivide a block of land on the outskirts of Arrowtown to create three rural living sections, each with a building platform. Associated adjustments to existing boundaries and the shape of n existing platform are also necessary.

As a non-complying activity , the application must pass either of the thresholds set out I section 104D of the Act.

In this case the effects of allowing the activity on the environment are considered to be minor.

The application is assessed as being generally in accordance with the relevant objectives and policies , with the exception of Policy 24.2.1.1. An overall assessment is that the proposal will maintain the amenity values and landscape character of the area, and therefore is considered to be consistent with those objectives and policies.

TITLE:

RESOURCE CONSENT PLANSET

PROJECT:

MONK SUBDIVISION
MCDONNELL ROAD

DESIGNED: K BULK	JOB NO.: 2945	DATE ISSUED: SEPTEMBER 2022
DRAWN: K BULK		
APPROVED: B MCLEOD		

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Wakatipu 9349
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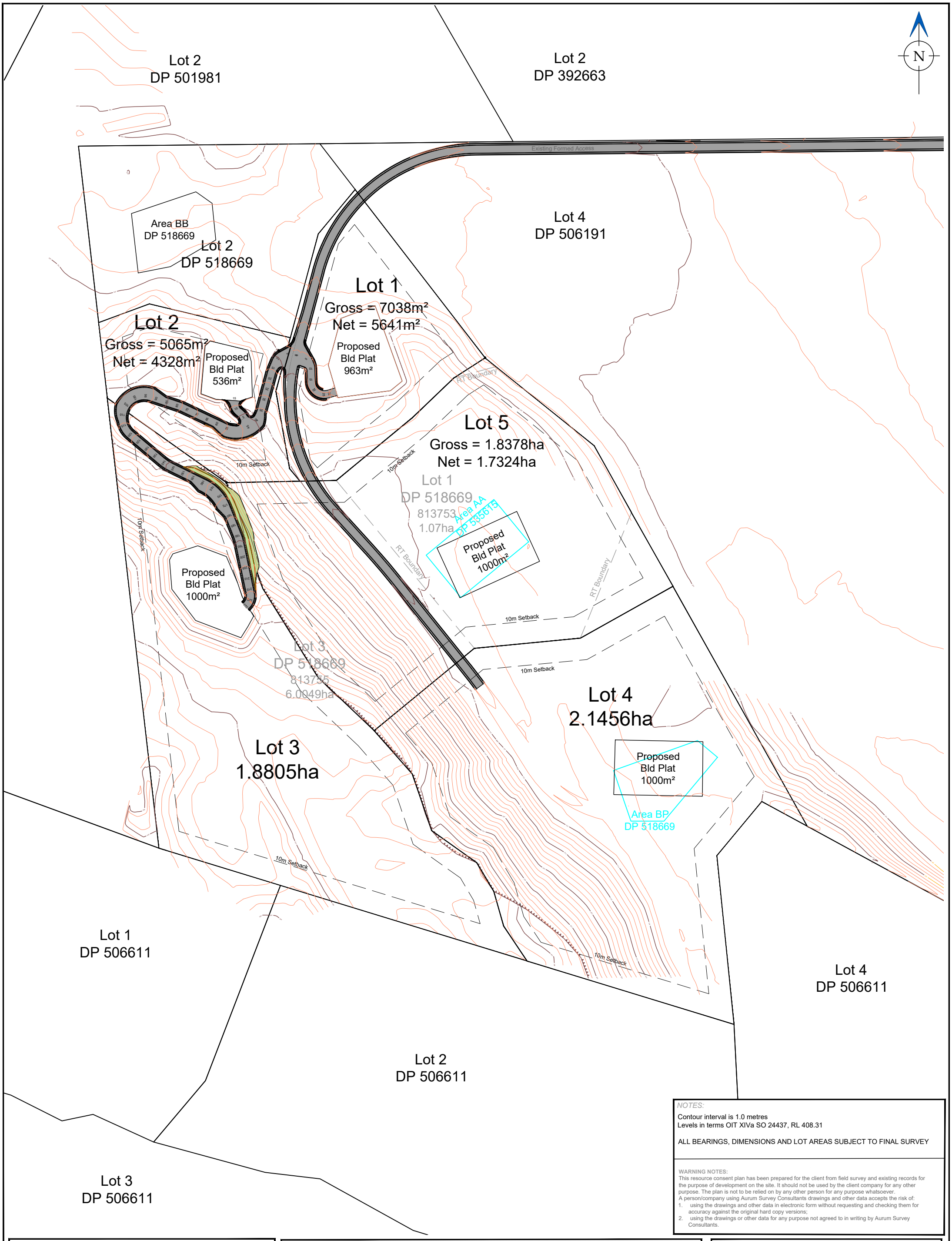
SHEET INDEX

REV.	DATE:	REVISION DETAILS:	BY:
B	2/9/22	Bearings & Dimensions Added	KB
A	22/8/22	Initial release	KB



NOTES:

Contour interval is 1.0 metres
Levels in terms OIT XIVa SO 24437, RL 408.31

ALL BEARINGS, DIMENSIONS AND LOT AREAS SUBJECT TO FINAL SURVEY

WARNING NOTES:

This resource consent plan has been prepared for the client from field survey and existing records for the purpose of development on the site. It should not be used by the client company for any other purpose. The plan is not to be relied on by any other person for any purpose whatsoever.
A person/company using Aurum Survey Consultants drawings and other data accepts the risk of:

1. using the drawings and other data in electronic form without requesting and checking them for accuracy against the original hard copy versions;
2. using the drawings or other data for any purpose not agreed to in writing by Aurum Survey Consultants.

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TITLE: SUBDIVISION OVERVIEW

PROJECT: MONK SUBDIVISION
MCDONNELL ROAD

FOR RESOURCE CONSENT

DESIGNED:	SCALE:	DATE CREATED:
KB	1: 1500	2/9/2022
DRAWN: KB	Original Plan A3	
APPROVED: BM		

JOB No.	DRAWING No.	SHEET No.	REV.
2945	7R	1	B

N

Lot 4
DP 506191

Lot 2
DP 518669

Schedule Of Proposed Easements			
Purpose	Servient Tenement	Shown	Dominant Tenement
Right of Way	Lot 2 Hereon	Ⓐ	Lot 1 Hereon

Lot 1
Gross = 7038m²
Net = 5641m²
Proposed Bld Plat 963m²

Lot 2
Gross = 5065m²
Net = 4328m²
Proposed Bld Plat 536m²
Proposed ROW Easement Ⓐ

Lot 5
Gross = 1.8378ha
Net = 1.7324ha

Lot 1
DP 518669
813753
1.07ha

Proposed Bld Plat 1000m²

Proposed Bld Plat 1000m²

Lot 3
DP 518669
813755
6.0049ha

Lot 3
1.8805ha

Lot 4
2.1456ha

Proposed Bld Plat 1000m²

Lot 1
DP 506611

Lot 2
DP 506611

RT Boundary

RT Boundary

RT Boundary

26.21m bdy
96.99m bdy
49.19m bdy
24.73m bdy
66.04m bdy
34.66m bdy
25.19m bdy
16.83m bdy
26.58m bdy
63.98m bdy
35.88m bdy
66.70m bdy
44.70m bdy
33.50m bdy
16.54m bdy
50.85m bdy
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206.67m bdy
47.75m bdy
48.42m bdy
48.55m bdy
59.15m bdy
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125.35m bdy
26.36m bdy
27.22m bdy
25.37m bdy
23.51m bdy
32.05m bdy
175.62m bdy
15.24m bdy
16.24m bdy
19.27m bdy
77.46m bdy
98.76m bdy

NOTES:

Contour interval is 1.0 metres
Levels in terms OIT XIVa SO 24437, RL 408.31

ALL BEARINGS, DIMENSIONS AND LOT AREAS SUBJECT TO FINAL SURVEY

WARNING NOTES:
This resource consent plan has been prepared for the client from field survey and existing records for the purpose of development on the site. It should not be used by the client company for any other purpose. The plan is not to be relied on by any other person for any purpose whatsoever.
A person/company using Aurum Survey Consultants drawings and other data accepts the risk of:
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TITLE: SUBDIVISION SCHEME

PROJECT: MONK SUBDIVISION
MCDONNELL ROAD

FOR RESOURCE CONSENT

DESIGNED: KB	SCALE: 1: 1250 Original Plan A3	DATE CREATED: 2/9/2022	
DRAWN: KB			
APPROVED: BM			
JOB No. 2945	DRAWING No. 7R	SHEET No. 02	REV. B

Area BB
DP 518669

N

Lot 2
DP 518669

Lot 1
Gross = 7038m²
Net = 5641m²

Lot 2
Gross = 5065m²
Net = 4328m²

Culverts under driveways

1.3m fill

1.6m fill

3.2m cut

Proposed
Bld Plat
536m²

Proposed
Bld Plat
963m²

Batter Slope 1v:2h
to be confirmed
by Geotec
3.2m cut

Proposed ROW Easement

A

10m Setback

10m Setback

10m Setback

1.7m fill

1.0m fill

Proposed
Bld Plat
1000m²

Batter Slope 1v:2h
to be confirmed
by Geotec

3.8m cut

Lot 1
DP 5186
813753
1.07ha

Lot 5
Gross = 1.8378ha
Net = 1.7324ha

Lot 3
1.8805ha

Lot 3
DP 518669
813755
6.0049ha

EARTHWORKS DEPTH

CUT	FILL
Depth over 6.0m	
Depth 5.0m to 6.0m	
Depth 4.0m to 5.0m	
Depth 3.0m to 4.0m	
Depth 2.5m to 3.0m	
Depth 2.0m to 2.5m	
Depth 1.5m to 2.0m	
Depth 1.0m to 1.5m	
Depth 0.5m to 1.0m	
Depth 0.0m to 0.5m	

EARTHWORKS SUMMARY

Areas Earthworks area	Areas 6900m²
Volumes Cut Fill	Volumes 6400m³ 610m³
Max Cut Max Fill	3.8m 1.7m

NOTES:

Contour interval is 1.0 metres
Levels in terms OIT XIVa SO 24437, RL 408.31

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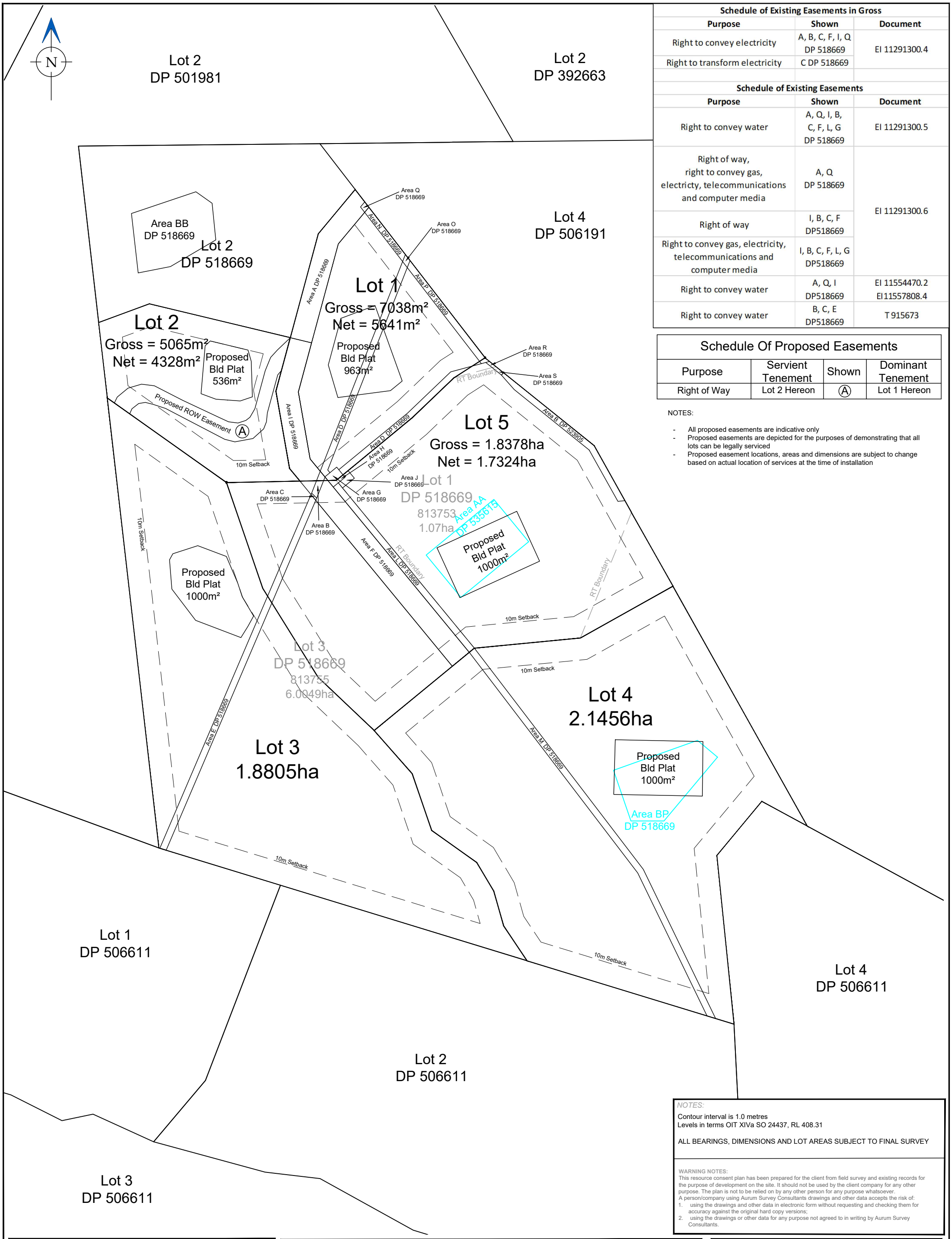
TITLE: EARTHWORKS PLAN

PROJECT: MONK SUBDIVISION
MCDONNELL ROAD

FOR RESOURCE CONSENT

DESIGNED: KB	SCALE: 1: 600 Original Plan A3	DATE CREATED: 2/9/2022	
DRAWN: KB			
APPROVED: BM			
JOB No. 2945	DRAWING No. 7R	SHEET No. 03	REV. B



Schedule of Existing Easements in Gross		
Purpose	**Shown**	**Document**
Right to convey electricity	A, B, C, F, I, Q DP 518669	EI 11291300.4
Right to transform electricity	C DP 518669	

Schedule of Existing Easements		
Purpose	**Shown**	**Document**
Right to convey water	A, Q, I, B, C, F, L, G DP 518669	EI 11291300.5
Right of way, right to convey gas, electricty, telecommunications and computer media	A, Q DP 518669	EI 11291300.6
Right of way	I, B, C, F DP518669	
Right to convey gas, electricity, telecommunications and computer media	I, B, C, F, L, G DP518669	
Right to convey water	A, Q, I DP518669	EI 11554470.2 EI11557808.4
Right to convey water	B, C, E DP518669	T 915673

Schedule Of Proposed Easements			
Purpose	Servient Tenement	Shown	Dominant Tenement
Right of Way	Lot 2 Hereon	Ⓐ	Lot 1 Hereon

NOTES:

- All proposed easements are indicative only
- Proposed easements are depicted for the purposes of demonstrating that all lots can be legally serviced
- Proposed easement locations, areas and dimensions are subject to change based on actual location of services at the time of installation

NOTES:

Contour interval is 1.0 metres
Levels in terms OIT XIVa SO 24437, RL 408.31

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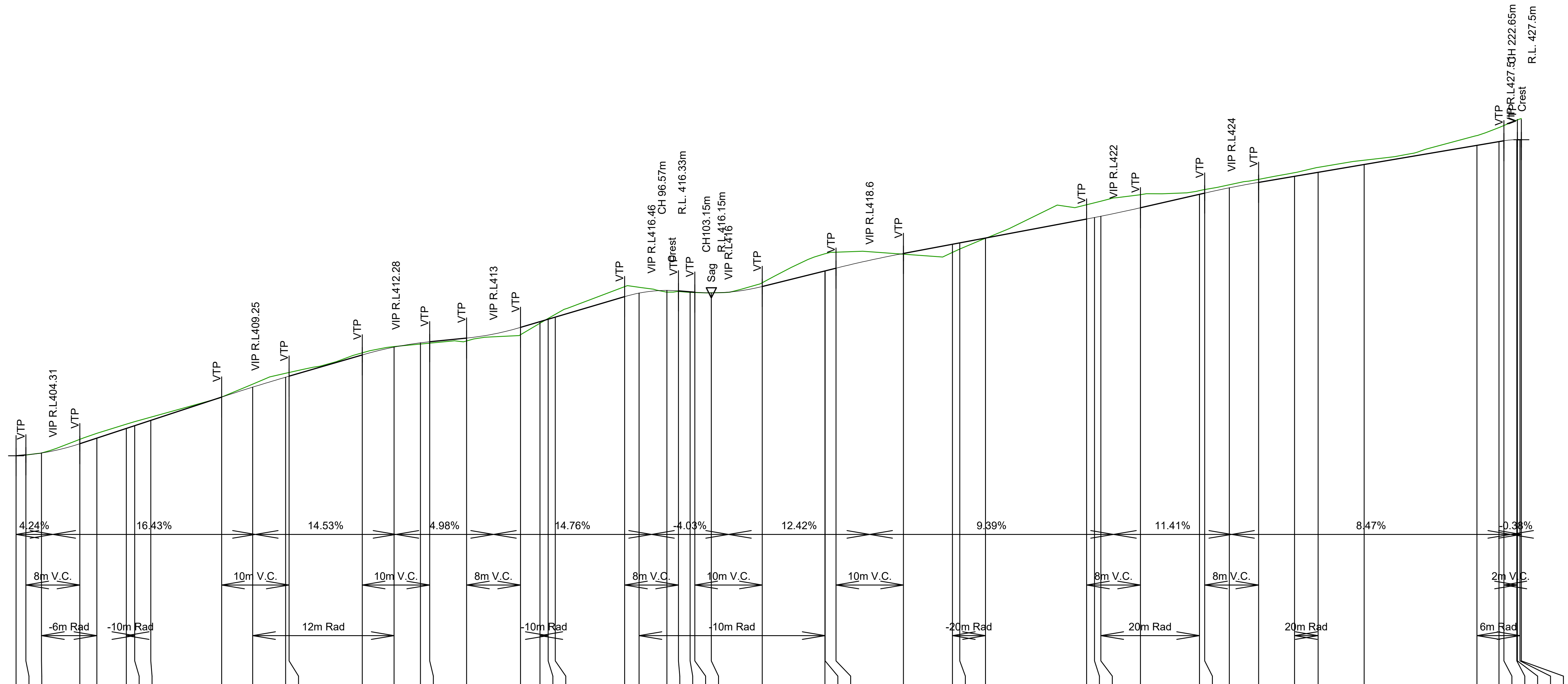
TITLE: EASEMENT PLAN

PROJECT: MONK SUBDIVISION
MCDONNELL ROAD

FOR RESOURCE CONSENT

DESIGNED:	SCALE:	DATE CREATED:
KB	1: 1500	2/9/2022
DRAWN: KB	Original Plan A3	
APPROVED: BM		

JOB No. 2945 DRAWING No. 7R SHEET No. 04 REV. B



DATUM 387.00

CHAINAGE	DESIGN LEVELS ON ROAD CENTRELINE	EXISTING LEVELS ON ROAD CENTRELINE	CUT (Negative) FILL (Positive)
0.00	404.08	404.08	-0.00
1.47	404.14	404.13	0.01
3.78	404.28	404.28	-0.00
9.47	404.97	405.30	-0.33
11.99	405.38	405.74	-0.36
16.36	406.10	406.42	-0.32
17.61	406.31	406.60	-0.30
20.00	406.70	406.94	-0.24
30.51	408.43	408.43	0.00
35.11	409.16	409.38	-0.22
40.00	409.90	410.19	-0.29
40.51	409.98	410.25	-0.27
51.36	411.55	411.72	-0.17
56.08	412.13	412.17	-0.04
60.00	412.45	412.36	0.10
61.36	412.53	412.42	0.11
66.84	412.80	412.59	0.21
74.84	413.59	413.05	0.54
77.73	414.02	413.90	0.12
78.94	414.20	414.25	-0.06
80.00	414.35	414.56	-0.20
90.28	415.87	416.61	-0.74
92.43	416.13	416.56	-0.43
96.57	416.33	416.19	0.14
98.28	416.30	416.24	0.06
100.00	416.23	416.18	0.04
100.70	416.20	416.17	0.03
103.15	416.15	416.15	0.00
110.70	416.62	416.90	-0.28
120.00	417.78	419.05	-1.27
120.03	417.78	419.05	-1.27
121.65	417.98	419.16	-1.18
131.65	419.07	419.02	0.05
138.92	419.75	419.15	0.60
140.00	419.86	419.40	0.46
143.82	420.21	420.19	0.02
158.82	421.62	422.68	-1.06
160.00	421.74	422.82	-1.09
160.94	421.83	422.94	-1.11
166.82	422.46	423.43	-0.97
175.57	423.46	423.73	-0.27
176.34	423.54	423.81	-0.26
180.00	423.94	424.16	-0.22
184.34	424.34	424.56	-0.22
189.67	424.79	425.06	-0.27
193.17	425.09	425.45	-0.36
200.00	425.67	425.98	-0.32
216.74	427.08	427.81	-0.72
220.00	427.36	428.40	-1.04
220.73	427.42	428.55	-1.13
222.65	427.50	428.95	-1.45
222.73	427.50	428.97	-1.47
223.11	427.50	429.04	-1.54
223.32	427.50	429.07	-1.57

LONGITUDINAL SECTION LOT 3 DRIVEWAY

Horizontal scale 1:750

Vertical scale 1:375

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NOTES:
Contour interval is 1.0 metres
Levels in terms OIT XIVa SO 24437, RL 408.31

ALL BEARINGS, DIMENSIONS AND LOT AREAS SUBJECT TO FINAL SURVEY

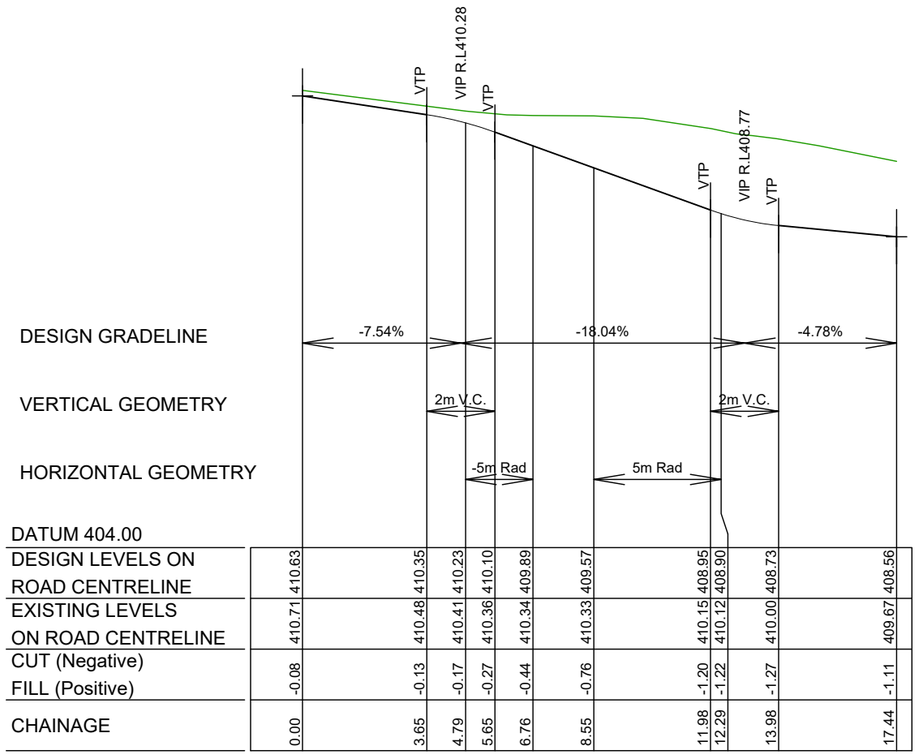
TITLE: LOT 3 DRIVEWAY LONG SECTION

PROJECT: MONK SUBDIVISION MCDONNELL ROAD

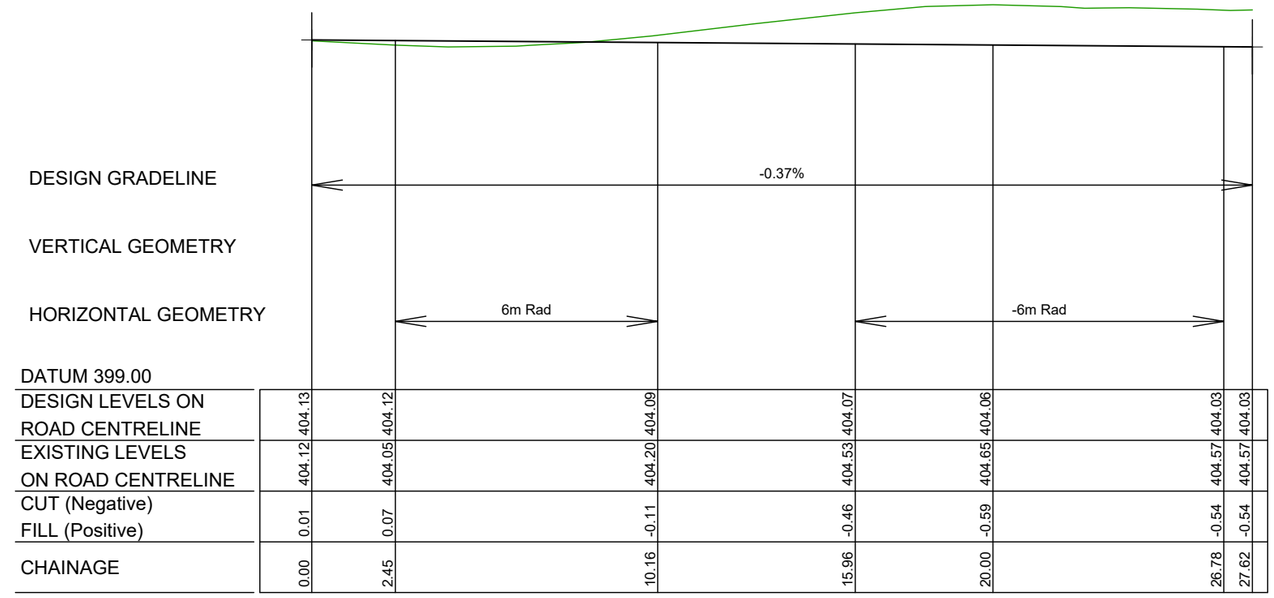
FOR RESOURCE CONSENT

DESIGNED: KB	SCALE: 1: 900 Original Plan A3	DATE CREATED: 2/9/2022
DRAWN: KB		
APPROVED: BM		

JOB No. 2945 DRAWING No. 7R SHEET No. 05 REV. B



LONGITUDINAL SECTION LOT 2 DRIVEWAY
Horizontal scale 1:200
Vertical scale 1:100



LONGITUDINAL SECTION LOT 1 DRIVEWAY
Horizontal scale 1:200
Vertical scale 1:100

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NOTES:
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Levels in terms OIT XIVa SO 24437, RL 408.31

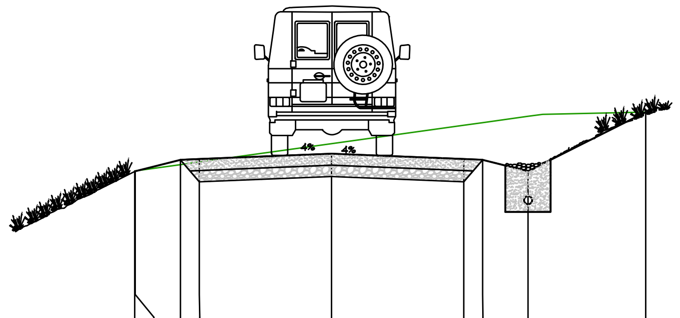
ALL BEARINGS, DIMENSIONS AND LOT AREAS SUBJECT TO FINAL SURVEY

TITLE:
LOT 1 & LOT 2 DRIVEWAY LONG SECTIONS

PROJECT:
MONK SUBDIVISION
MCDONNELL ROAD

FOR RESOURCE CONSENT

DESIGNED: KB	SCALE: 1: 900 Original Plan A3	DATE CREATED: 2/9/2022	
DRAWN: KB			
APPROVED: BM			
JOB No. 2945	DRAWING No. 7R	SHEET No. 06	REV. B

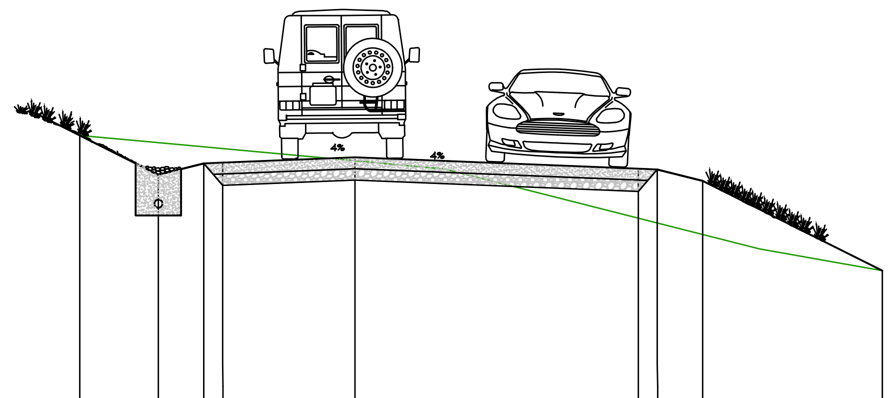


DATUM 405.00

DESIGN LEVELS ON ROAD CENTRELINE	407.13	407.13	407.28	407.29	407.36	407.29	407.28	407.13	407.91
EXISTING LEVELS ON ROAD CENTRELINE	407.13	407.13	407.22	407.25	407.49	407.74	407.77	407.85	407.91
CUT (Negative) FILL (Positive)	0.00	-0.00	0.06	0.04	-0.13	-0.45	-0.49	-0.72	0.00
CHAINAGE	-2.61	-2.60	-2.00	-1.75	0.00	1.75	2.00	2.60	4.16

A

Cross Section A - Lot 3 Driveway - Chainage 24
Typical Detail
Scale 1:100

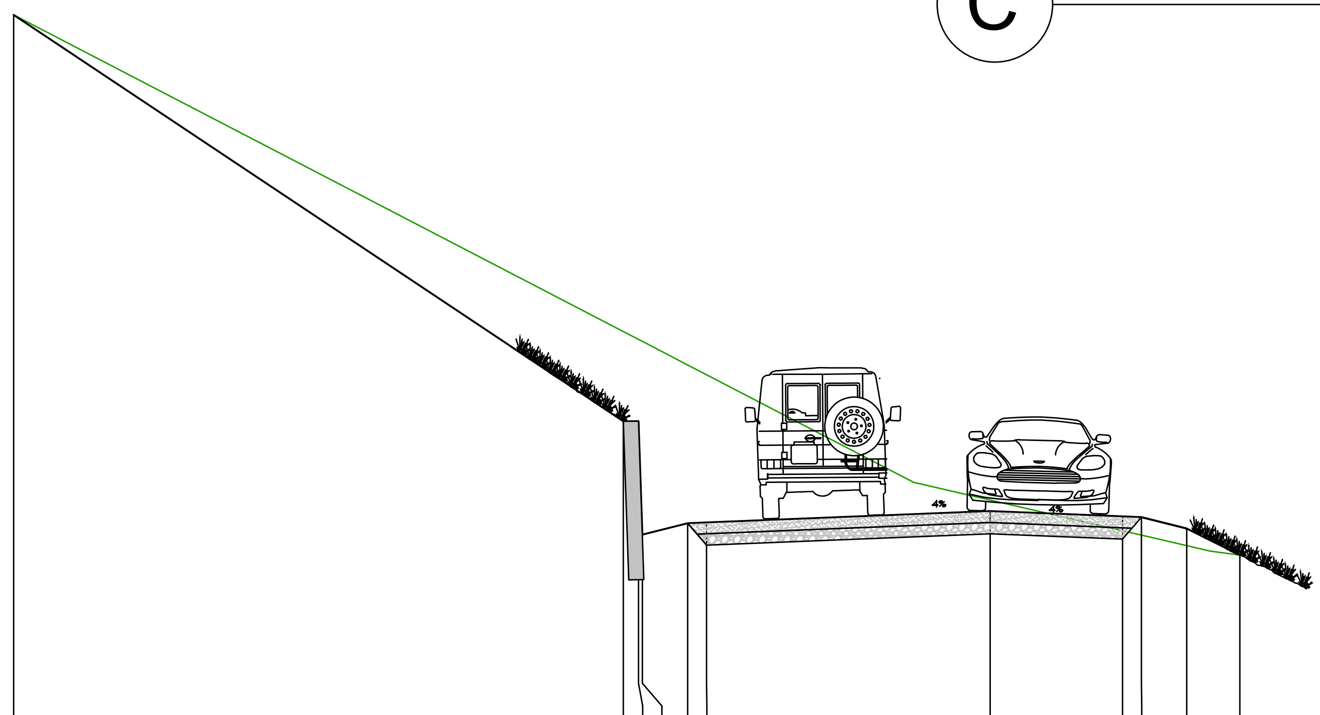


DATUM 413.00

DESIGN LEVELS ON ROAD CENTRELINE	416.52	416.00	416.15	416.16	416.23	416.08	416.07	415.92	414.73
EXISTING LEVELS ON ROAD CENTRELINE	416.52	416.42	416.37	416.35	416.18	415.43	415.36	415.21	414.73
CUT (Negative) FILL (Positive)	0.00	-0.42	-0.22	-0.19	0.04	0.65	0.71	0.71	0.00
CHAINAGE	-3.64	-2.60	-2.00	-1.75	0.00	3.75	4.00	4.60	6.98

C

Cross Section C - Lot 3 Driveway - Chainage 100
Typical Detail - Passing Bay
Scale 1:100



DATUM 409.00

DESIGN LEVELS ON ROAD CENTRELINE	418.34	412.97	412.97	411.47	411.62	411.63	411.78	411.71	411.70	411.55	411.20
EXISTING LEVELS ON ROAD CENTRELINE	418.34	414.15	414.05	414.02	413.71	413.58	411.92	411.52	411.46	411.32	411.20
CUT (Negative) FILL (Positive)	0.00	-1.19	-1.08	-2.55	-2.09	-1.95	-0.15	0.19	0.24	0.23	0.00
CHAINAGE	-12.91	-4.85	-4.65	-4.60	-4.00	-3.75	0.00	1.75	2.00	2.60	3.30

B

Cross Section B - Lot 3 Driveway - Chainage 53
Retaining Wall and Passing Bay Detail
Scale 1:100

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NOTES:
Contour interval is 1.0 metres
Levels in terms OIT XIVa SO 24437, RL 408.31

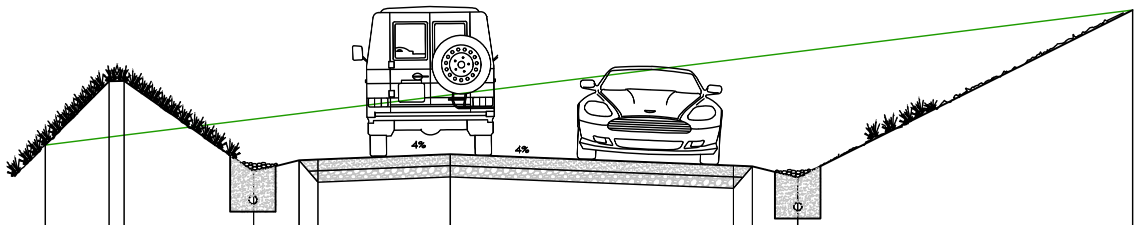
ALL BEARINGS, DIMENSIONS AND LOT AREAS SUBJECT TO FINAL SURVEY

TITLE: ROAD CROSS SECTIONS

PROJECT: MONK SUBDIVISION MCDONNELL ROAD

FOR RESOURCE CONSENT

DESIGNED: KB
DRAWN: KB
APPROVED: BM
SCALE: 1: 100
Original Plan A3
DATE CREATED: 2/9/2022
JOB No. 2945
DRAWING No. 7R
SHEET No. 07
REV. B

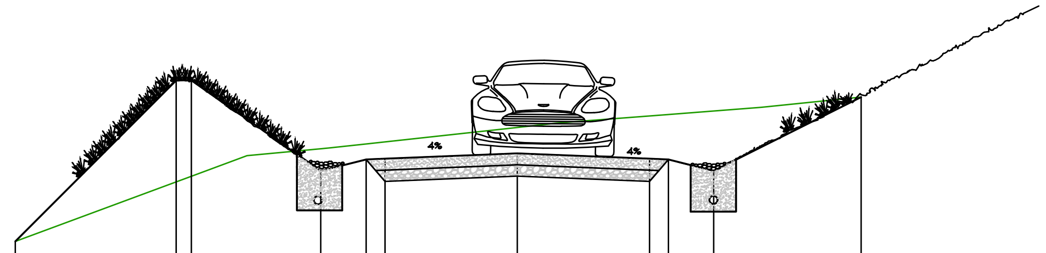


DATUM 420.00

DESIGN LEVELS ON ROAD CENTRELINE	422.83	423.67	423.68	422.48	422.63	422.64	422.71	422.56	422.55	422.40	424.61
EXISTING LEVELS ON ROAD CENTRELINE	422.83	422.93	422.96	423.17	423.24	423.27	423.49	423.96	423.99	424.06	424.61
CUT (Negative) FILL (Positive)	0.00	0.74	0.72	-0.69	-0.62	-0.64	-0.79	-1.40	-1.44	-1.67	0.00
CHAINAGE	-5.36	-4.51	-4.31	-2.60	-2.00	-1.75	0.00	3.75	4.00	4.60	9.03

D

Cross Section D - Lot 3 Driveway - Chainage 169
Passing Bay and Bund Detail
Scale 1:100



DATUM 422.00

DESIGN LEVELS ON ROAD CENTRELINE	424.42	426.55	426.55	425.35	425.50	425.51	425.58	425.51	425.50	425.35	426.33
EXISTING LEVELS ON ROAD CENTRELINE	424.42	425.21	425.28	425.64	425.71	425.73	425.92	426.08	426.10	426.14	426.33
CUT (Negative) FILL (Positive)	0.00	1.34	1.27	-0.29	-0.21	-0.22	-0.34	-0.57	-0.60	-0.79	0.00
CHAINAGE	-6.64	-4.51	-4.31	-2.60	-2.00	-1.75	0.00	1.75	2.00	2.60	4.55

E

Cross Section E - Lot 3 Driveway - Chainage 169
Typical Detail - Bund
Scale 1:100

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NOTES:
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Levels in terms OIT XIVa SO 24437, RL 408.31

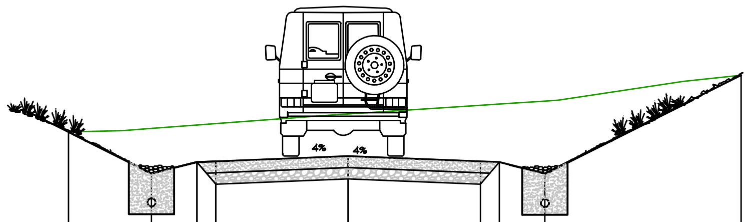
ALL BEARINGS, DIMENSIONS AND LOT AREAS SUBJECT TO FINAL SURVEY

TITLE: ROAD CROSS SECTIONS

PROJECT: MONK SUBDIVISION MCDONNELL ROAD

FOR RESOURCE CONSENT

DESIGNED: KB	SCALE: 1: 100 Original Plan A3	DATE CREATED: 2/9/2022	
DRAWN: KB			
APPROVED: BM			
JOB No. 2945	DRAWING No. 7R	SHEET No. 08	REV. B

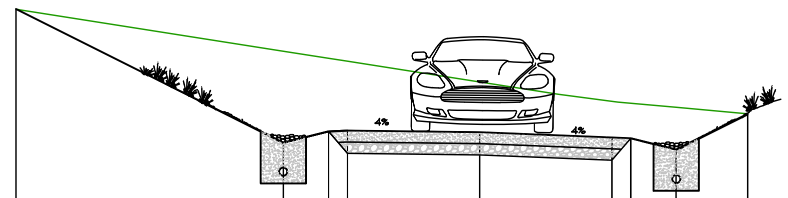


DATUM 402.00

DESIGN LEVELS ON ROAD CENTRELINE	404.38	403.83	403.98	403.99	404.06	403.99	403.98	403.83	405.13
EXISTING LEVELS ON ROAD CENTRELINE	404.38	404.43	404.47	404.49	404.62	404.73	404.75	404.79	405.13
CUT (Negative) FILL (Positive)	0.00	-0.59	-0.49	-0.50	-0.56	-0.74	-0.77	-0.96	0.00
CHAINAGE	-3.70	-2.60	-2.00	-1.75	0.00	1.75	2.00	2.60	5.20

G

Cross Section G - Lot 1 Driveway - Chainage 18
Typical Detail
Scale 1:100



DATUM 407.00

DESIGN LEVELS ON ROAD CENTRELINE	411.30	409.53	409.68	409.69	409.67	409.60	409.59	409.44	409.92
EXISTING LEVELS ON ROAD CENTRELINE	411.30	410.74	410.65	410.61	410.34	410.08	410.05	410.00	409.92
CUT (Negative) FILL (Positive)	0.00	-1.21	-0.97	-0.92	-0.66	-0.48	-0.46	-0.56	0.00
CHAINAGE	-6.14	-2.60	-2.00	-1.75	0.00	1.75	2.00	2.60	3.55

F

Cross Section F - Lot 2 Driveway - Chainage 8
Typical Detail
Scale 1:100

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NOTES:
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Levels in terms OIT XIVa SO 24437, RL 408.31

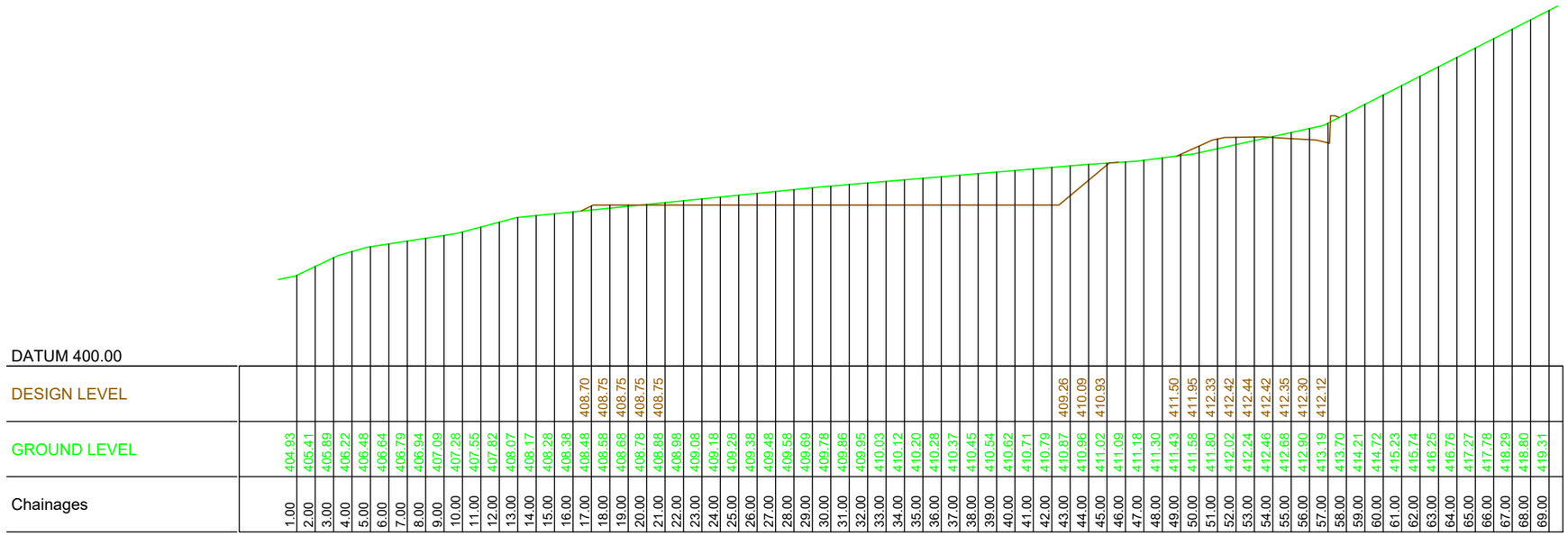
ALL BEARINGS, DIMENSIONS AND LOT AREAS SUBJECT TO FINAL SURVEY

TITLE: ROAD CROSS SECTIONS

PROJECT: MONK SUBDIVISION MCDONNELL ROAD

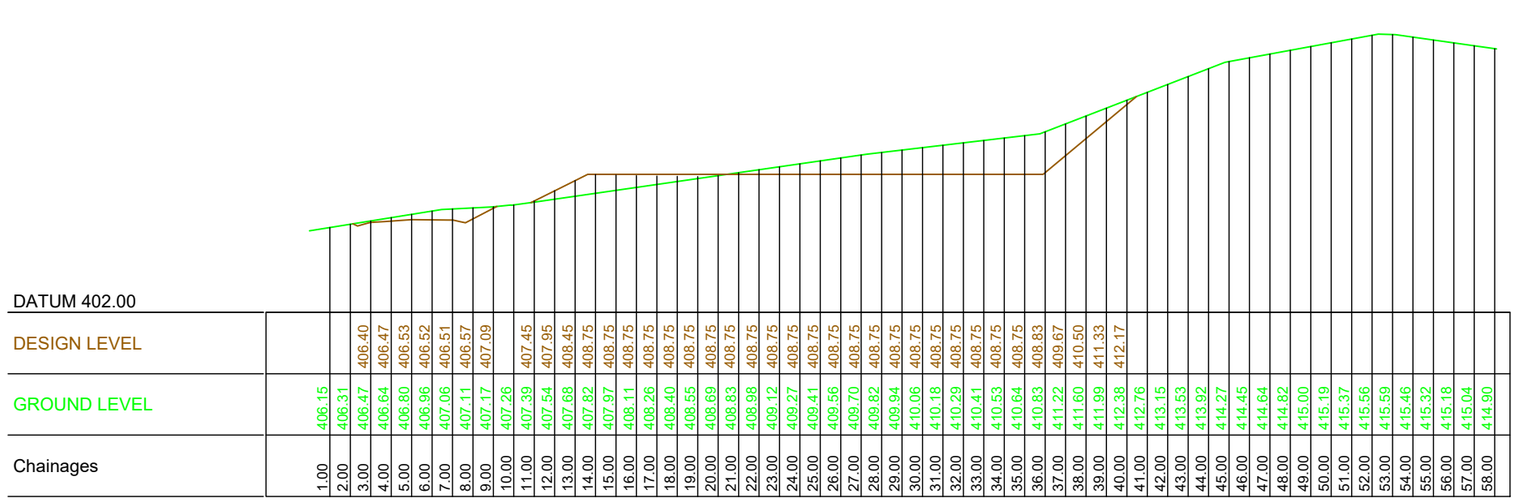
FOR RESOURCE CONSENT

DESIGNED: KB	SCALE: 1: 100		DATE CREATED: 2/9/2022
DRAWN: KB	Original Plan A3		
APPROVED: BM			
JOB No. 2945	DRAWING No. 7R	SHEET No. 09	REV. B



H

Section H - Lot 2 Platform
Scale 1:300



I

Section I - Lot 2 Platform
Scale 1:300

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NOTES:
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Levels in terms OIT XIVa SO 24437, RL 408.31

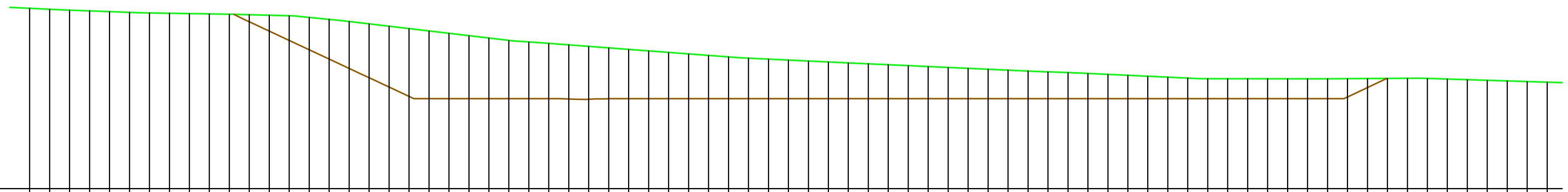
ALL BEARINGS, DIMENSIONS AND LOT AREAS SUBJECT TO FINAL SURVEY

TITLE:
LOT 2 PLATFORM LONGSECTIONS

PROJECT:
MONK SUBDIVISION
MCDONNELL ROAD

FOR RESOURCE CONSENT

DESIGNED: KB	SCALE: 1: 300 Original Plan A3	DATE CREATED: 2/9/2022	
DRAWN: KB			
APPROVED: BM			
JOB No. 2945	DRAWING No. 7R	SHEET No. 10	REV. B

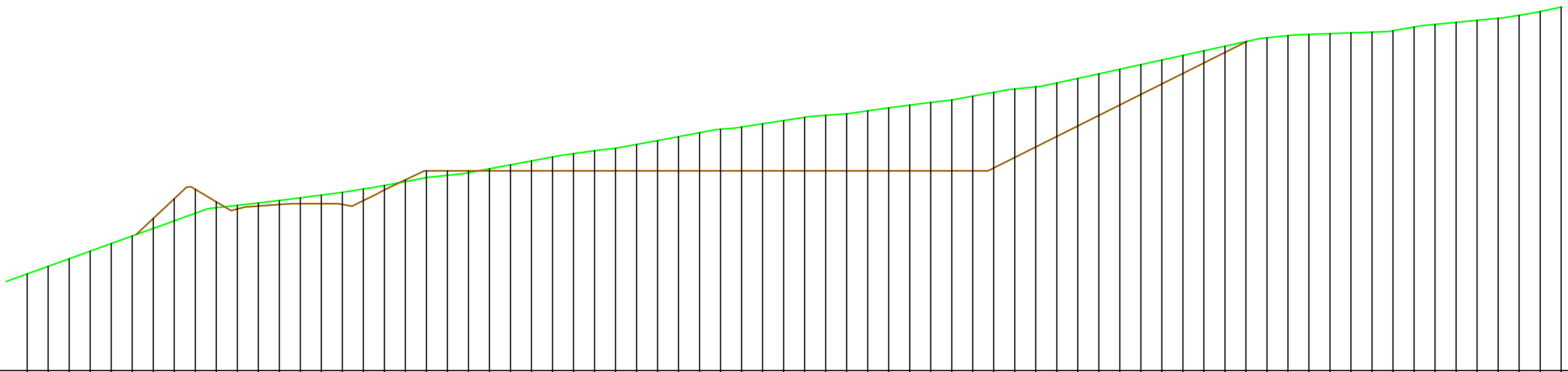


DATUM 423.00

Chainages	Design Level	Ground Level
1.00		432.02
2.00		431.97
3.00		431.93
4.00		431.89
5.00		431.85
6.00		431.82
7.00		431.79
8.00		431.77
9.00		431.76
10.00		431.74
11.00		431.72
12.00	431.35	431.70
13.00	430.88	431.67
14.00	430.41	431.65
15.00	429.95	431.57
16.00	429.48	431.47
17.00	429.01	431.36
18.00	428.55	431.24
19.00	428.08	431.13
20.00	427.61	431.01
21.00	427.50	430.89
22.00	427.50	430.77
23.00	427.50	430.65
24.00	427.50	430.53
25.00	427.50	430.41
26.00	427.50	430.34
27.00	427.50	430.26
28.00	427.48	430.19
29.00	427.47	430.11
30.00	427.50	430.04
31.00	427.50	429.96
32.00	427.50	429.89
33.00	427.50	429.81
34.00	427.50	429.74
35.00	427.50	429.66
36.00	427.50	429.59
37.00	427.50	429.52
38.00	427.50	429.48
39.00	427.50	429.43
40.00	427.50	429.38
41.00	427.50	429.34
42.00	427.50	429.29
43.00	427.50	429.24
44.00	427.50	429.20
45.00	427.50	429.15
46.00	427.50	429.11
47.00	427.50	429.06
48.00	427.50	429.02
49.00	427.50	428.97
50.00	427.50	428.93
51.00	427.50	428.88
52.00	427.50	428.84
53.00	427.50	428.80
54.00	427.50	428.76
55.00	427.50	428.71
56.00	427.50	428.67
57.00	427.50	428.62
58.00	427.50	428.58
59.00	427.50	428.53
60.00	427.50	428.50
61.00	427.50	428.50
62.00	427.50	428.50
63.00	427.50	428.50
64.00	427.50	428.49
65.00	427.50	428.49
66.00	427.50	428.49
67.00	427.58	428.50
68.00	428.05	428.50
69.00		428.51
70.00		428.52
71.00		428.51
72.00		428.48
73.00		428.45
74.00		428.42
75.00		428.39
76.00		428.36
77.00		428.33

J

Section J - Lot 3 Platform
Scale 1:300



DATUM 418.00

Chainages	Design Level	Ground Level
1.00		422.60
2.00		422.96
3.00		423.32
4.00		423.68
5.00		424.04
6.00		424.40
7.00	425.24	424.76
8.00	426.18	425.13
9.00	426.62	425.49
10.00	426.03	425.75
11.00	425.69	425.86
12.00	425.83	425.97
13.00	425.90	426.10
14.00	425.94	426.22
15.00	425.94	426.35
16.00	425.90	426.48
17.00	426.09	426.64
18.00	426.59	426.81
19.00	427.07	426.99
20.00	427.50	427.18
21.00	427.50	427.29
22.00	427.50	427.41
23.00	427.50	427.60
24.00	427.50	427.79
25.00	427.50	427.98
26.00	427.50	428.17
27.00	427.50	428.32
28.00	427.50	428.46
29.00	427.50	428.57
30.00	427.50	428.76
31.00	427.50	428.94
32.00	427.50	429.13
33.00	427.50	429.32
34.00	427.50	429.49
35.00	427.50	429.59
36.00	427.50	429.74
37.00	427.50	429.90
38.00	427.50	430.05
39.00	427.50	430.14
40.00	427.50	430.22
41.00	427.50	430.36
42.00	427.50	430.50
43.00	427.50	430.63
44.00	427.50	430.76
45.00	427.50	430.88
46.00	427.50	431.06
47.00	427.64	431.24
48.00	428.14	431.40
49.00	428.64	431.50
50.00	429.14	431.69
51.00	429.64	431.90
52.00	430.14	432.12
53.00	430.64	432.34
54.00	431.14	432.56
55.00	431.64	432.78
56.00	432.14	433.00
57.00	432.64	433.21
58.00	433.14	433.43
59.00	433.64	433.65
60.00		433.83
61.00		433.94
62.00		434.00
63.00		434.03
64.00		434.07
65.00		434.10
66.00		434.17
67.00		434.35
68.00		434.47
69.00		434.57
70.00		434.67
71.00		434.76
72.00		434.91
73.00		435.08
74.00		435.29

K

Section K - Lot 3 Platform
Scale 1:300

AURUM SURVEY CONSULTANTS

LAND SURVEYING
CIVIL ENGINEERING
LAND DEVELOPMENT

PO Box 2493
Wakatipu 9349
Ph 03 442 3466
Email admin@ascl.co.nz
www.ascl.co.nz

NOTES:
Contour interval is 1.0 metres
Levels in terms OIT XIVa SO 24437, RL 408.31

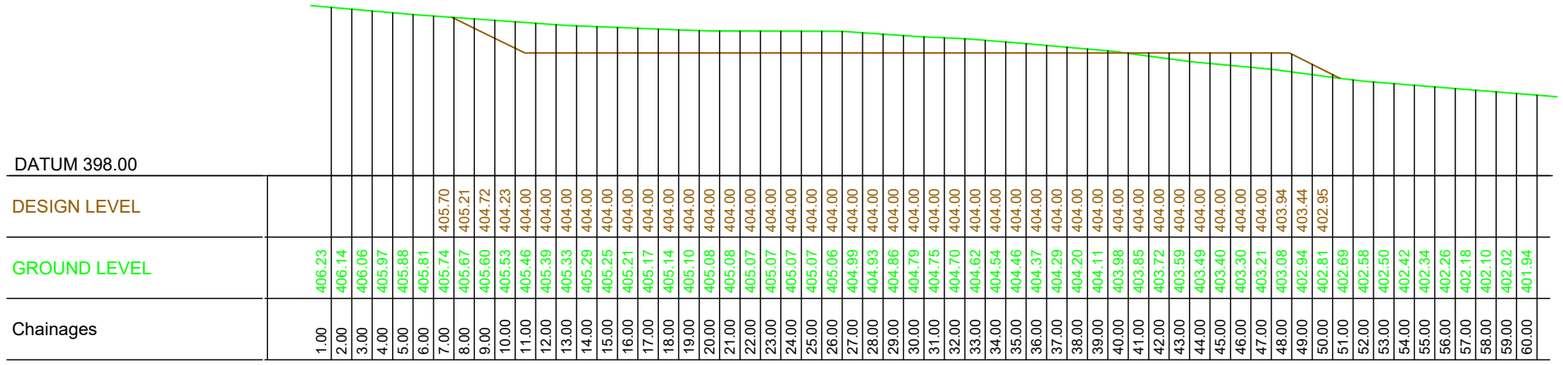
ALL BEARINGS, DIMENSIONS AND LOT AREAS SUBJECT TO FINAL SURVEY

TITLE: LOT 3 PLATFORM LONGSECTIONS

PROJECT: MONK SUBDIVISION MCDONNELL ROAD

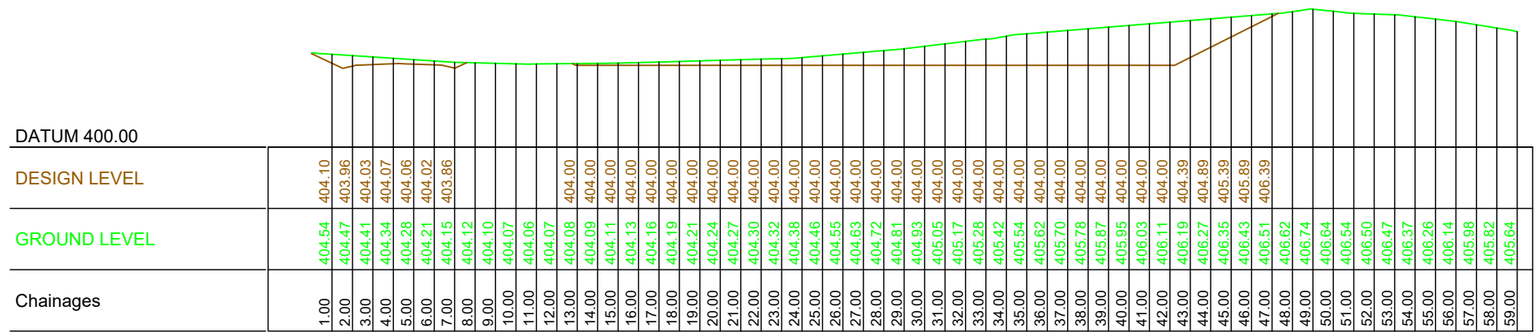
FOR RESOURCE CONSENT

DESIGNED: KB	SCALE: 1: 300	DATE CREATED: 2/9/2022	
DRAWN: KB	Original Plan A3		
APPROVED: BM			
JOB No. 2945	DRAWING No. 7R	SHEET No. 11	REV. B



M

Section M - Lot 1 Platform
Scale 1:300



L

Section L - Lot 1 Platform
Scale 1:300

AURUM SURVEY CONSULTANTS

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CIVIL ENGINEERING
LAND DEVELOPMENT

PO Box 2493
Wakatipu 9349
Ph 03 442 3466
Email admin@ascl.co.nz
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NOTES:
Contour interval is 1.0 metres
Levels in terms OIT XIVa SO 24437, RL 408.31

ALL BEARINGS, DIMENSIONS AND LOT AREAS SUBJECT TO FINAL SURVEY

TITLE:
LOT 1 PLATFORM LONGSECTIONS

PROJECT:
MONK SUBDIVISION
MCDONNELL ROAD

FOR RESOURCE CONSENT

DESIGNED: KB	SCALE: 1: 300 Original Plan A3	DATE CREATED: 2/9/2022	
DRAWN: KB			
APPROVED: BM			
JOB No. 2945	DRAWING No. 7R	SHEET No. 12	REV. B

RECORD OF TITLE
UNDER LAND TRANSFER ACT 2017
FREEHOLD

Search Copy

R.W. Muir
Registrar-General
of Land

Identifier **813755**

Land Registration District **Otago**

Date Issued 28 February 2019

Prior References
766316

Estate Fee Simple

Area 6.0049 hectares more or less

Legal Description Lot 3 Deposited Plan 518669

Registered Owners

Roger Francis Monk and Cook Adam Trustees Limited

Interests

Appurtenant hereto is a right of way created by Transfer 746961.17 - 1.2.1990 at 9:51 am

Appurtenant hereto is a right to convey water specified in Easement Certificate 904455.7 - 27.3.1996 at 9:05 am

The easements specified in Easement Certificate 904455.7 are subject to Section 243 (a) Resource Management Act 1991

Subject to a right to convey water over part marked B, C and E on DP 518669 created by Transfer 915673 - 6.9.1996 at 2:49 pm

The easements created by Transfer 915673 are subject to Section 243 (a) Resource Management Act 1991

Appurtenant hereto is a right to convey water specified in Easement Certificate 953679.8 - 31.8.1998 at 10:56 am

The easements specified in Easement Certificate 953679.8 are subject to Section 243 (a) Resource Management Act 1991

Subject to a right to convey water over part marked B, C and E on DP 5158669 specified in Easement Certificate 953679.8 - 31.8.1998 at 10:56 am

Subject to a right to convey water over part marked B on DP 518669 created by Transfer 964443.1 - 23.3.1999 at 12:55 pm

The easements created by Transfer 964443.1 are subject to Section 243 (a) Resource Management Act 1991

Land Covenant in Deed 964442.3 - 23.3.1999 at 12.55 pm

Appurtenant hereto is a right to take and convey water and a right to convey electricity created by Easement Instrument 6047016.2 - 18.6.2004 at 9:00 am

The easements created by Easement Instrument 6047016.2 are subject to Section 243 (a) Resource Management Act 1991

Subject to a right to convey water over part marked B, G, L and M on DP 518669 created by Easement Instrument 8736314.3 - 24.5.2011 at 2:46 pm

Subject to a right (in gross) to convey electricity over part marked K, G, L, M and R and right to transform electricity over part marked G all on DP 518669 in favour of Aurora Energy Limited created by Easement Instrument 8736314.4 - 24.5.2011 at 2:46 pm

Subject to a right (in gross) to convey telecommunications and computer media over part marked K, L, M and R on DP 518669 in favour of Telecom New Zealand Limited created by Easement Instrument 8736314.5 - 24.5.2011 at 2:46 pm

Subject to a right (in gross) to convey electricity over part marked Q, N, O, P and R on DP 518669 in favour of Aurora Energy Limited created by Easement Instrument 11041480.1 - 20.9.2018 at 10:48 am

Appurtenant hereto is a right of way and a right to convey water and gas created by Easement Instrument 11041480.2 - 20.9.2018 at 10:48 am

11291300.3 Consent Notice pursuant to Section 221 Resource Management Act 1991 - 28.2.2019 at 4:41 pm

Subject to a right (in gross) to convey electricity over part marked A, B, C, F, I and Q and a right (in gross) to transform electricity over part marked C all on DP 518669 in favour of Aurora Energy Limited created by Easement Instrument 11291300.4 - 28.2.2019 at 4:41 pm

Some of the easements created by Easement Instrument 11291300.4 are subject to Section 243 (a) Resource Management Act 1991 (See DP 518669)

Subject to a right to convey water over part marked A, Q, I, B, C, F, L and G on DP 518669 created by Easement Instrument 11291300.5 - 28.2.2019 at 4:41 pm

The easements created by Easement Instrument 11291300.5 are subject to Section 243 (a) Resource Management Act 1991

Subject to a right of way and a right to convey gas, electricity, telecommunications and computer media over part marked A and Q, a right of way over part marked I, B, C and F and a right to convey gas, electricity, telecommunications and computer media over part marked I, B, C, F, L and G all on DP 518669 created by Easement Instrument 11291300.6 - 28.2.2019 at 4:41 pm

The easements created by Easement Instrument 11291300.6 are subject to Section 243 (a) Resource Management Act 1991

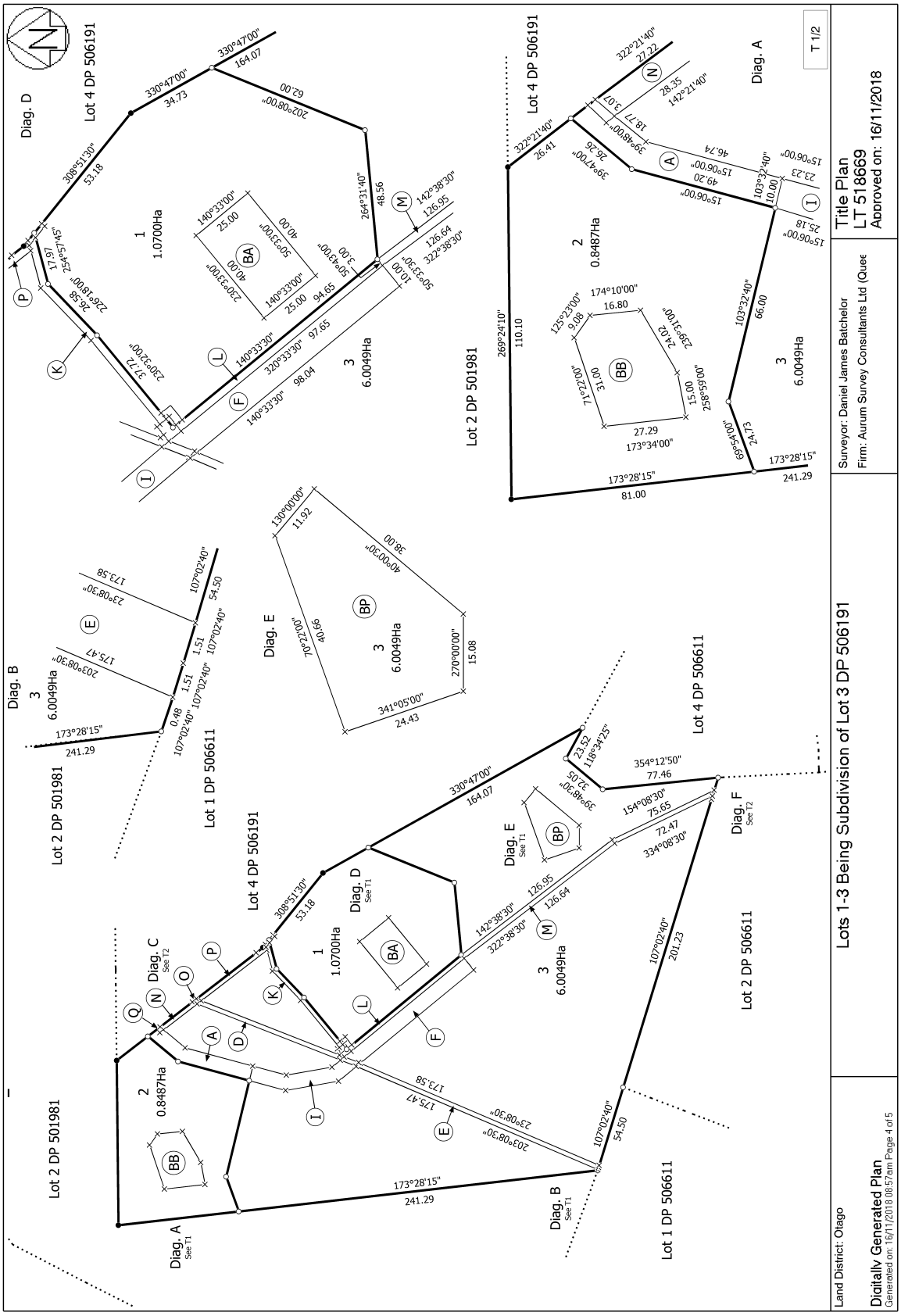
Land Covenant in Covenant Instrument 11291300.7 - 28.2.2019 at 4:41 pm

Land Covenant in Covenant Instrument 11291300.8 - 28.2.2019 at 4:41 pm

Subject to a right to convey water over part marked Q, A and I on DP 518669 created by Easement Instrument 11554470.2 - 20.9.2019 at 9:06 am

Subject to a right to convey water over parts marked Q, A and I on DP 518669 created by Easement Instrument 11557808.4 - 11.10.2019 at 4:08 pm

11648294.1 Removal pursuant to Section 115 Land Transfer Act 2017 of the right to convey water easement created by Easement Instrument 8736314.3 as appurtenant to Lots 1 and 3 - 6 DP 506611 - produced 19.12.2019 at 10:04 am and entered 21.4.2020 at 7:01 am



RECORD OF TITLE
UNDER LAND TRANSFER ACT 2017
FREEHOLD

Search Copy

R.W. Muir
Registrar-General
of Land

Identifier **813753**

Land Registration District **Otago**

Date Issued 28 February 2019

Prior References
766316

Estate Fee Simple

Area 1.0700 hectares more or less

Legal Description Lot 1 Deposited Plan 518669

Registered Owners

Samuel Andrew John Monk and Toni Monk

Interests

Appurtenant hereto is a right of way created by Transfer 746961.17 - 1.2.1990 at 9:51 am

Appurtenant hereto is a right to convey water specified in Easement Certificate 904455.7 - 27.3.1996 at 9:05 am

The easements specified in Easement Certificate 904455.7 are subject to Section 243 (a) Resource Management Act 1991

Appurtenant hereto is a right to convey water specified in Easement Certificate 953679.8 - 31.8.1998 at 10:56 am

The easements specified in Easement Certificate 953679.8 are subject to Section 243 (a) Resource Management Act 1991

Land Covenant in Deed 964442.3 - 23.3.1999 at 12.55 pm

Appurtenant hereto is a right to take and convey water and a right to convey electricity created by Easement Instrument 6047016.2 - 18.6.2004 at 9:00 am

The easements created by Easement Instrument 6047016.2 are subject to Section 243 (a) Resource Management Act 1991

Subject to a right to convey water over part marked H on DP 518669 created by Easement Instrument 8736314.3 - 24.5.2011 at 2:46 pm

Subject to a right (in gross) to convey and transform electricity over part marked H on DP 518669 in favour of Aurora Energy Limited created by Easement Instrument 8736314.4 - 24.5.2011 at 2:46 pm

Subject to a right (in gross) to convey telecommunications and computer media over part marked J on DP 518669 in favour of Telecom New Zealand Limited created by Easement Instrument 8736314.5 - 24.5.2011 at 2:46 pm

Subject to a right (in gross) to convey electricity over part marked S on DP 518669 in favour of Aurora Energy Limited created by Easement Instrument 11041480.1 - 20.9.2018 at 10:48 am

Appurtenant hereto is a right of way and a right to convey water and gas created by Easement Instrument 11041480.2 - 20.9.2018 at 10:48 am

Subject to a right (in gross) to convey electricity over part marked A on DP 534889 in favour of Aurora Energy Limited created by Easement Instrument 11168961.4 - 18.12.2018 at 10:01 am

11291300.3 Consent Notice pursuant to Section 221 Resource Management Act 1991 - 28.2.2019 at 4:41 pm

Appurtenant hereto is a right to convey water created by Easement Instrument 11291300.5 - 28.2.2019 at 4:41 pm

The easements created by Easement Instrument 11291300.5 are subject to Section 243 (a) Resource Management Act 1991

Appurtenant hereto is a right of way, a right to convey gas, electricity, telecommunications and computer media created by

Easement Instrument 11291300.6 - 28.2.2019 at 4:41 pm

The easements created by Easement Instrument 11291300.6 are subject to Section 243 (a) Resource Management Act 1991

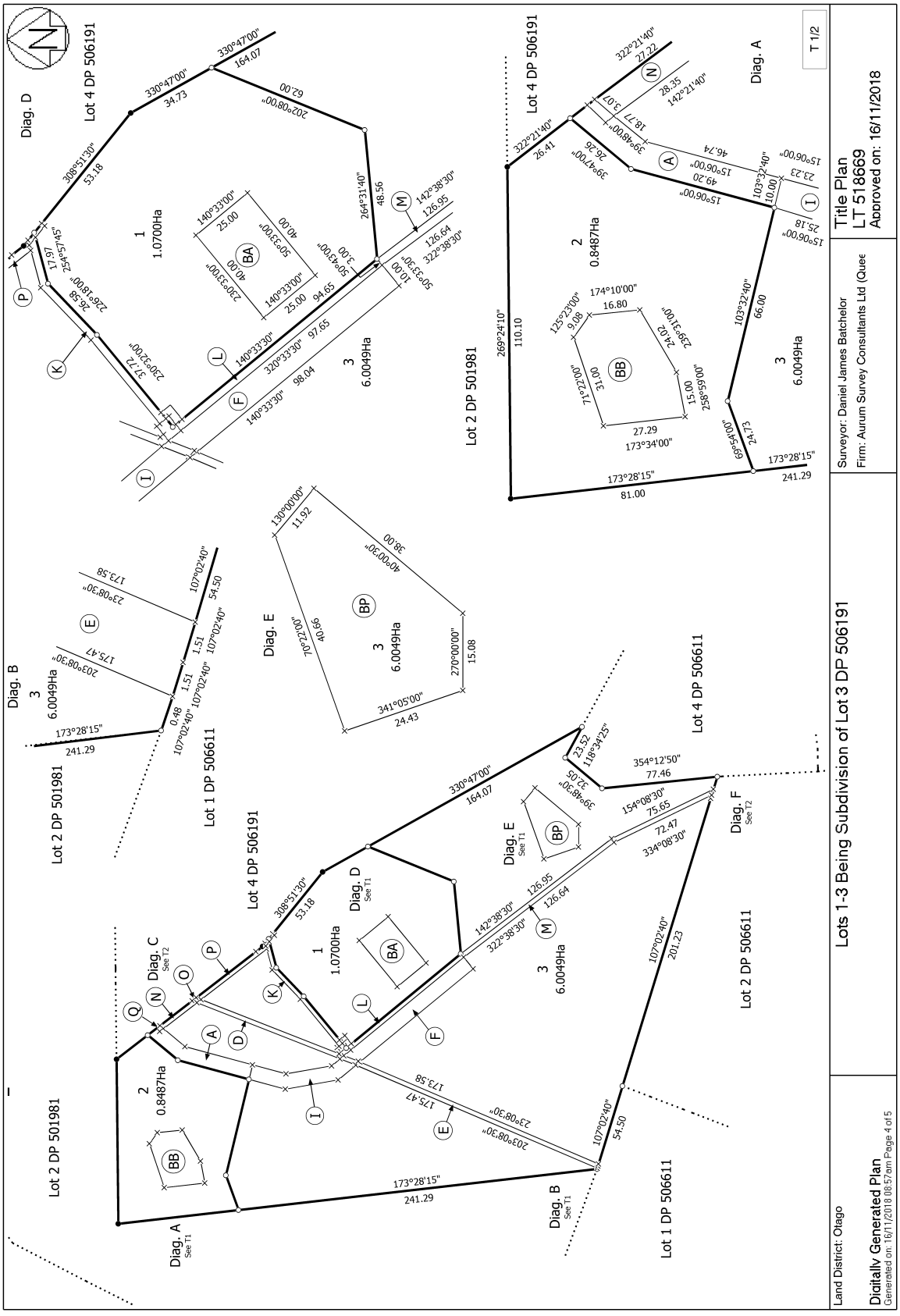
Land Covenant in Covenant Instrument 11291300.7 - 28.2.2019 at 4:41 pm

Land Covenant in Covenant Instrument 11291300.8 - 28.2.2019 at 4:41 pm

11403734.1 Mortgage to ANZ Bank New Zealand Limited - 24.4.2019 at 1:51 pm

11473280.1 Variation of Consent Notice 11291300.3 pursuant to Section 221(5) Resource Management Act 1991 - 17.7.2019 at 2:28 pm

11648294.1 Removal pursuant to Section 115 Land Transfer Act 2017 of the right to convey water easement created by Easement Instrument 8736314.3 as appurtenant to Lots 1 and 3 - 6 DP 506611 - produced 19.12.2019 at 10:04 am and entered 21.4.2020 at 7:01 am



964442/3 N/L

DEED OF COVENANT

DATED the 25th day of September 1998

10TAT1	30/09/1998	42852
NZ Stamp Duty -		Not Liable
Self assessed duty		$0.00

PARTIES:

1. **ROGER FRANCIS MONK** of Arrowtown Farmer (hereinafter called "the Covenantor")

2. **MARY KAYE MONK** of Arrowtown Femme Sole (hereinafter called "the First Covenantee")

3. **RICHARD MICHAEL HILL** and **ANN CHRISTINE HILL** both of Arrowtown Company Directors and **ROKO MARIJAN JUJAJ URLICH** of Whangarei, Solicitor (hereinafter called "the Second Covenantee")

4. **EDWIN MURRAY RICHARD LAMONT** of Auckland, Businessman, **CAROL MARY LAMONT** of Auckland, Married Woman and **GEOFFREY FRANCIS RUCK** of Auckland Solicitor (hereinafter called "the Third Covenantee")

INTERPRETATION:

In this Deed, unless the context otherwise requires, the following meanings are ascribed to the following words and phrases:

(a) "the Covenantees" means and includes all persons executing this Deed as Covenantees (being the First, Second and Third Covenantee, inclusive) and jointly and severally if more than one in respect of any separately titled piece of land and their executors administrators assigns and successors in title and their tenants licensees and invitees.

CL019EAA

(b) "the Covenantor" means and includes all parties to this Deed who are Covenantors and jointly and severally if more than one and their executors administrators assigns and successors in title and their tenants licensees and invitees.

(c) "part" means and includes each of the Covenantees and also the Covenantor.

WHEREAS:

A. The Covenantor is the registered proprietor of all the land described in Schedules A, B, C, D and E hereof.

B. The First Covenantee is the registered proprietor of all the land described in Schedule F hereof.

C. The Second Covenantee is the registered proprietor of all the land described in Schedule G hereof.

D. The Third Covenantee is the registered proprietor of all the land described in Schedule H hereof.

E. The Covenantor has installed a rural water supply (hereinafter called "the Water Supply") for the benefit of all the lands described in Schedules A to H hereof.

F. The Covenantor has obtained a water permit from the Otago Regional Council to take 930,000 litres per month from a bore situated on the Covenantor's land described in Schedule A hereof at a maximum rate of 3,000 litres per hour and issued under Consent No. 95687 by the Otago Regional Council.

G. The water supply comprises a bore, electric pump and supply lines.

H. The Covenantor and the Covenantees have agreed to enter into this Deed of Covenant to record the rights and obligations of the registered proprietors of the lands intended to be serviced by and to obtain the benefit of water supply.

I. It is intended that the water supply be for the benefit of all the lands described in Schedules A to H hereof on the terms and conditions detailed below, and that the covenants contained herein be mutually enforceable inter se by all of the owners from time to time of the lands described in Schedules A to H hereof.

NOW THIS DEED WITNESSETH:

1. **THE** Covenantor **HEREBY COVENANTS** with the Covenantees to henceforth and for all time comply with the obligations of the Covenantor set out in this Deed and to henceforth and for all time permit the exercise of the rights of the Covenantees set out in this Deed **AND HEREBY GRANTS** to the Covenantees the right to require the Covenantor to do any thing necessary to carry out the Covenantor's obligations as set out in this Deed and to refrain from doing any thing which may prevent the Covenantees from exercising the Covenantees' rights set out in this Deed.

2. **THE** Covenantees jointly and severally **HEREBY COVENANT** with the Covenantor and with each other to henceforth and for all time comply with the obligations of the Covenantees set out in this Deed and to henceforth and for all time permit the exercise of the rights of the Covenantor set out in this Deed **AND HEREBY GRANT** to the Covenantor and to each other the right to require the Covenantees jointly and severally to do any thing necessary to carry out the Covenantee's obligations as set out in this Deed and to refrain from doing any thing which may prevent the Covenantor or each other from exercising the Covenantor's and each other's rights as set out in this Deed.

INSTALLATION OF DOMESTIC AND STOCK SUPPLY SCHEME

3. **THE** Covenantor has installed the water supply and to that end has connected the supply to the bore and to the boundaries of the lands described in Schedules A to H hereof and the said water supply comprises the following:

   (a) A bore

   (b) An electric pump and meter

   (c) A water supply line system along the easements shown on Deposited Plans 25341 and 26714 (Otago Land Registry)

4. **THE** water supply shall serve the lands described in Schedules A to H hereof for the purposes of a domestic and stock supply of water.

5. **THE** registered proprietors of each parcel of land described in the Schedules A to H hereof shall only be entitled to draw water from the water supply for domestic and stock supply only and shall be entitled to take a maximum of the following quantities:

   (a) The Covenantor - 22,000 litres per day

   (b) The First Covenantee - 2,000 litres per day

   (c) The Second Covenantee - 3,600 litres per day

   (d) The Third Covenantee - 2,000 litres per day

6. **NO** warranty as to the availability and uninterrupted supply of water is given by or shall be implied on behalf of the Covenantor.

RIGHTS OF THE PARTIES:

7. **THE** registered proprietors of the lands subject to this Deed shall have the following rights:

(a) The right to draw water from the said domestic and stock supply scheme limited to a domestic supply only pursuant to Clauses 4 and 5 and Schedules A to H hereto; and

(b) The right to service and maintain the said domestic and stock supply scheme; and

(c) The full uninterrupted and unrestricted right liberty and privilege for themselves their tenants servants agents and workmen with any tools implements machinery vehicles or equipment of whatsoever nature necessary for the purpose to enter upon the Covenantor's or the Covenantee's land and to remain there for any reasonable time for the purpose of maintaining, servicing and/or renewing the domestic and stock supply scheme or any part thereof and of the opening up the soil of that land to such extent as may be necessary and reasonable in that regard subject to the condition that as little disturbance as possible is caused to the surface of the land of the Covenantor and Covenantees and that the surface is restored as nearly as possible to its original condition and any other damage done by reason of the aforesaid operations is repaired.

8. **THE** parties acknowledge that such easements to convey and store water plus ancillary pipeline installation and maintenance rights as are necessary for the purposes of the domestic and stock supply scheme have and will be created pursuant to an Easement Certificate or Memoranda of Transfer separate and distinct from this deed.

OBLIGATIONS OF THE PARTIES:

9. **THE** registered proprietors of the land subject to this Deed shall:

(a) Use the amount of water drawn from the domestic and stock supply scheme for the benefit of each separate piece of land detailed in Schedules A to H hereof for domestic and stock purposes only.

(b) Service and maintain the domestic and stock supply scheme in accordance with the provisions of Clause 10.

(c) Pay upon demand a proportionate share of the costs of servicing, maintaining and operating the water supply scheme in accordance with the provisions of Clauses 10 and 11.

(d) Where any damage to the domestic and stock supply scheme or any part of the scheme is caused by neglect in default of one of the parties hereto their agents invitees assignees that party or those parties shall bear the costs of remedy thereof.

MAINTENANCE OF WATER SUPPLY:

10. **SUBJECT** to Clause 9(d) the registered proprietor of each piece of land detailed in Schedules A to H shall, from the date of purchase of such land, be equally responsible for maintaining and servicing and paying for the costs of maintaining and servicing the domestic and stock supply scheme.

For the purposes of this clause and Clause 11 of this Deed, joint registered proprietors of one piece of land shall be deemed to be one registered proprietor.

OPERATING COSTS OF DOMESTIC AND STOCK SUPPLY SCHEME:

11. **THE** cost of electricity or any other means used to operate or fuel the operation of the pump or other mechanism serving the domestic and stock supply scheme plus any other operating costs shall be divided equally among the registered proprietors of the pieces of land described in Schedules A to H hereof save that the share of

the Covenantor in respect of the land described in Schedule A shall be three times that of the registered proprietors of the other pieces of land.

COVENANTOR RESPONSIBLE FOR OPERATION:

12.

(a) **IN** order to maintain the efficient and orderly operation and maintenance of the water supply the Covenantor as the registered proprietor of the land described in Schedule A shall of a period of up to two years from the date of this Deed:

(i) Arrange for all necessary maintenance of and repairs to the domestic and stock supply scheme including the electric pump, electricity supply and meter and the domestic and stock supply network and improvements and alterations that may from time to time be made thereto to ensure the continued operation of the domestic and stock supply scheme from the electric pump to the boundaries of the land described in Schedules A to ~~G~~ H hereto.

(ii) Arrange for receipt and payment of all electricity charges and other payments necessary to ensure the pumping of water from the bore to the boundaries of the land described in Schedules A to ~~G~~ H hereto.

(iii) Maintain a separate bank account for all receipts and payments relating to the operation and maintenance of the domestic and stock supply scheme

(iv) Regularly invoice all the registered proprietors liable pursuant to Clauses 10 and 11 to contribute to the operating and maintenance costs of the domestic and stock supply scheme for their proportionate share of such costs incurred.

(b) **FOR** the purposes of this clause the Covenantor may require all those registered proprietors referred to in Clauses 10 and 11 to pay by bank automatic payment or otherwise into the said bank account a regular payment on account of maintenance

and operating costs to be incurred by those the registered proprietors pursuant to Clauses 10 and 11 all such moneys to be applied in payment of such costs. Any such requirement made pursuant to this subclause shall be an obligation of such the registered proprietors for the purposes of this Deed.

(c) **THE** Covenantor may charge a fee for carrying out the Covenantor's duties pursuant to this clause such fee to be based upon time spent at a reasonable hourly rate and to be charged to reimburse the Covenantor for such time spent. Such fee shall be deemed to be an operating cost pursuant to Clause 11.

(d) **AFTER** the said period of up to two (2) years from the date of this Deed has elapsed then if the Covenantees and the Covenantor shall so agree then the parties to this deed shall form a management committee, an incorporated society or a private company to undertake the obligations and role of the Covenantor hereunder on such terms as the Covenantees and the Covenantor may from time to time agree.

DEFAULT:

13. No power is implied in respect of any covenant contained herein for any party to determine the covenant for any breach of any provision in this Deed (whether expressed or implied) or for any other cause it being the intention of the parties that the provisions of this Deed of Covenant shall subsist for all time until surrendered.

14. **IF** any party ("the defaulting party") neglects or refuses to perform or join with any other party in performing any obligation pursuant to this Deed the following provisions shall apply:

(a) Any other party ("the affected party") may serve upon the defaulting party a written notice ("default notices") requiring the defaulting party to perform or to

join in performing such obligations and stating that after the expiry of not less than seven days from service of this default clause shall apply;

(b) If at the expiry of the period stated in the default notice the defaulting party still neglects or refuses to perform or join in performing the obligation the affected party may do any or all of the following:

(i) Perform such obligation.

(ii) Take such reasonable steps as may be necessary to disconnect the land owned by the defaulting party from the domestic and stock supply scheme.

(iii) Enter on to the land owned by the defaulting party or any other land subject to this Deed and carry out all work required to perform such obligation and/or disconnect the land owned by the defaulting party from the domestic and stock supply scheme.

(c) The defaulting party shall be liable to pay to the affected party:

(i) All costs of and incidental to the preparation and service of the default notice.

(ii) All costs of and incidental to any such disconnection.

(iii) The proportion of all costs incurred in performing such obligation as is properly payable by the defaulting party pursuant to this Deed.

(d) The affected party may recover from the defaulting party as a liquidated debt any moneys payable pursuant to this clause.

(e) If the domestic and stock supply to the land owned by the defaulting party is disconnected pursuant to this clause the defaulting party may not reconnect or have reconnected such domestic and stock supply until the defaulting party has

performed all outstanding obligations and has paid in full any moneys payable pursuant to this clause.

NO INTERFERENCE:

15. **NO** party shall do any act which impedes interferes with or restricts the rights of any other party or other authorised persons in relation to this Deed.

THIS DEED SHALL ENDURE FOR ALL TIME:

16. **THE** covenants rights and obligations contained in this deed shall endure for all time for the benefit and burden as appropriate of all the lands owned by the parties to this Deed and every part thereof.

LIABILITY ONLY INCURRED BY REGISTERED PROPRIETOR:

17.

(a) A registered proprietor shall only be liable pursuant to this Deed for liabilities and/or costs arising pursuant to this Deed prior to the date that such registered proprietor ceases to be registered as proprietor of the land in respect of which the liabilities and/or costs arise.

(b) The registration of a transfer of a registered proprietor's interest in any land subject to this Deed shall not operate to relieve the transferor from any liability arising pursuant to this Deed prior to the date of registration of transfer.

TERMINATION:

18. **NOTWITHSTANDING** the provisions of Clause 16 hereof if the Covenantor and Covenantees for the time being or their successors in title so agree that the water supply is no longer required and the parties enter into an agreement for the surrender of the rights and obligations conferred by this Deed then ownership of

the various assets of the water supply shall revert to the registered proprietor for the time being of the land on where those assets are situated.

FURTHER COVENANT:

19. The Covenantees agree that prior to the Covenantor selling any or all of the pieces of land described in Schedules A, B, C, D and E or alternatively (at the Covenantor's option) following any such sale or sales the Covenantees will if required enter into any variation of this Covenant in order to allow any purchaser of those said pieces of land described in the said Schedules A, B, C , D and E to become a separate covenanting party with rights and obligations of a Covenantee under this Deed (and with such entitlement to a portion of the Covenantor's share of water outlined in clause 5 as shall be agreed upon between the Covenantor and the particular purchaser) and to separate the rights and obligations of the Covenantor under this Deed so that the obligations of the Covenantor run with the ownership of the land described in Schedule A.

SCHEDULE A

Area	Description	Certificate of Title
~~17.6713~~ hectares 18.9650ha	Lot 1 Deposited Plan 25880 ~~and part Section 1 SO Plan 22404~~ and part Section 104 Block VII Shotover Survey District	18D/342

SCHEDULE B

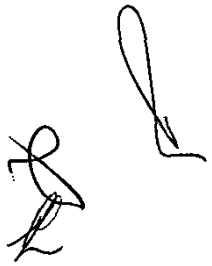
Area	Description	Certificate of Title
8000 m2	Lot 2 Deposited Plan 26714	18D/338

SCHEDULE C

CL019EAA

TRUSTEES LIMITATION OF LIABILITY:

20. The Third Covenantee GEOFFREY FRANCIS RUCK has executed this Deed in his capacity as a trustee of the CEJRL Trust and his liability in terms of this Deed shall at all times be limited to the assets of the CEJRL Trust.



Area	Description	Certificate of Title
7100m2	Lot 3 Deposited Plan 26714	18D/339

SCHEDULE D

Area	Description	Certificate of Title
5870m2	Lot 4 Deposited Plan 26714	18D/340

SCHEDULE E

Area	Description	Certificate of Title
20.0400 hectares	Lot 5 Deposited Plan 26714	18D/341

SCHEDULE F

Area	Description	Certificate of Title
9563m2	Lot 4 Deposited Plan 25341	17B/809

SCHEDULE G

Area	Description	Certificate of Title
47.4538 hectares	Lot 1 Deposited Plan 25341	17B/806

SCHEDULE H

Area	Description	Certificate of Title
42.1150 hectares	Lot 1 Deposited Plan 26714	18D/337

IN WITNESS WHEREOF this Deed was signed the day first above written.

SIGNED by the abovenamed)
ROGER FRANCIS MONK as)
Covenantor in the presence of:)

ERIC THOMSON
Solicitor
Alexandra

SIGNED by the abovenamed)
MARY KAYE MONK as First)
Covenantee in the presence of:)

ERIC THOMSON
Solicitor
Alexandra

SIGNED by the abovenamed)
RICHARD MICHAEL HILL,)
ANN CHRISTINE HILL and)
as Second Covenantee in the presence of:)

BRUCE ALEXANDER ROWIN
SOLICITOR
QUEENSTOWN

CL019EAA

SIGNED by the abovenamed)
ROKO MARIJAN JUJAJ URLICH)
as Second Covenantee in the presence of:)

Christine Harding
Legal Executive
Whangarei

SIGNED by the abovenamed)
EDWIN MURRAY RICHARD)
LAMONT and **CAROL MARY**)
LAMONT as Third Covenantees)
in the presence of:)

Dorothy Joan Foster
Retired.
127A Ladies Mile
Elberslie

SIGNED by the abovenamed)
GEOFFREY FRANCIS RUCK)
as Third Covenantee in the presence of:)

D G Ruck
Solicitor
Wood Ruck & Co
Auckland

CL019EAA

Correct for the purposes of
the Land Transfer Act

Solicitor for the Covenantor

R F MONK
Covenantor

M K MONK
First Covenantee

R M & A C HILL and R M J URLICH
Second Covenantee

E M R & C M LAMONT & G F RUCK
Third Covenantee

DEED OF COVENANT
DOMESTIC AND STOCK
SUPPLY SCHEME

1255 23.MAR99 964423

PARTICULARS ENTERED IN REGISTER BOOK
LAND REGISTRY OTAGO
FOR REGISTRAR - GENERAL OF LAND

FILE COPY

MACALISTER TODD P
SOLICIT
ALEXAN

CL019EAA

View Instrument Details

Instrument No	11291300.7
Status	Registered
Date & Time Lodged	28 February 2019 16:41
Lodged By	Askham, Janine Lee
Instrument Type	Land Covenant under s116(1)(a) or (b) Land Transfer Act 2017

Affected Records of Title	Land District
813753	Otago
813754	Otago
813755	Otago

Annexure Schedule: Contains 7 Pages.

Covenantor Certifications

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

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

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

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

Signature

Signed by Matthew John Edwards as Covenantor Representative on 27/02/2019 09:05 AM

Covenantee Certifications

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

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

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

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

Signature

Signed by Matthew John Edwards as Covenantee Representative on 27/02/2019 09:05 AM

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

Approved for ADLS by Registrar-General of Land under No. 2018/6263

COVENANT INSTRUMENT TO NOTE LAND COVENANT

Sections 116(1)(a) & (b) Land Transfer Act 2017

Covenantor *Surname(s) must be underlined or in CAPITALS.*

Roger Francis Monk and Cook Adam Trustees Limited

Covenantee *Surname(s) must be underlined or in CAPITALS.*

Roger Francis Monk and Cook Adam Trustees Limited

Grant of Covenant

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

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

Purpose of covenant	Shown (plan reference)	Burdened Land (Record of Title)	Benefited Land (Record of Title) or in gross
Land Covenant - non objection		**Lot 1 DP 518669 (RT 813753), Lot 2 DP 518669 (RT 813754) and Lot 3 DP 518669 (RT 813755)**	**Lot 1 DP 518669 (RT 813753), Lot 2 DP 518669 (RT 813754) and Lot 3 DP 518669 (RT 813755)**

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

Delete phrases in [ ] and insert memorandum number as required; continue in additional Annexure Schedule, if required

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

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

[Annexure Schedule 1].

Schedule 1

Background

A. The Covenantor is the registered owner of the Burdened Land.

B. The Covenantee is the registered owner of the Benefited Land.

C. The Covenantor and Covenantee have agreed that the Burdened Land will be subject to the Covenants set out in this Instrument.

D. It is intended that this Instrument shall be and remain registered against the Record of Titles to each of the Burdened Land and Benefited Land so that:

a. owners and occupiers for the time being of the Burdened Land shall be bound by the provisions of this Instrument;

b. owners or occupiers for the time being of any of the Benefited Land can enforce the observance of the provisions of this Instrument by the owners or occupiers for the time being of any of the Burdened Land in equity or otherwise.

1. Interpretation

1.1 In this Instrument unless the context otherwise requires:

"Agreed Activities" means the development and/or use of land, buildings and other improvements for:

i. existing activities that occur or can occur on the Benefited Land as at the date of this Instrument pursuant to an existing resource consent or an existing use right or as permitted activities under the District Plan;

ii. any residential activity (as defined in the District Plan as of the date of this Instrument) on the Benefited Land and any subdivision (as defined by the Resource Management Act 1991) of the Benefited Land;

"Covenants" means the covenants set out in this Instrument.

"District Plan" means the operative Queenstown-Lakes District Council District Plan (or equivalent successor plan).

"Benefited Land " means in relation to any Covenant the land described in Schedule A which has the benefit of that Covenant.

"Covenantee" means the registered owner of the Benefited Land from time to time.

"Covenantor" means the registered owner of the Burdened Land from time to time.

"Instrument" means the front page of this Instrument together with all Schedules attached to it.

"Lodge any Submission" means (without limitation) personally or through any agent or servant (including by being a member of any group or society, whether incorporated or not), to directly or indirectly lodge or support in any way any objection or submission to any Planning Proposal and includes (without limitation) taking any part in a planning hearing, appeal or reference arising in respect of a Planning Proposal whether as a party or otherwise.

"Planning Proposal" means any consent or approval (and any application for such consent or approval) and includes (without limitation) any application for:

a. resource consent;
b. change to the District Plan;
c. variation of any nature under or to the District Plan; and/or
d. variation of any existing resource consent.

"RMA" means the Resource Management Act 1991.

"Burdened Land " means in relation to any Covenant the land described in Schedule A which is subject to that Covenant.

1.2 For the avoidance of doubt:

a) Words importing the singular number include the plural and vice versa.

b) References to the parties are references to the Covenantor and the Covenantee.

c) A covenant to do something is also a covenant to permit or cause that thing to be done and a covenant not to do something is also a covenant not to permit or cause that thing to be done.

d) This Instrument binds and benefits the parties and their heirs, executors, successors and assigns in perpetuity and also any lessee or occupier of the Burdened Land and the Benefited Land.

e) A reference to a statute, regulation or by-law includes all statutes, regulations, or by-laws varying, consolidating or replacing them, and a reference to a statute includes all regulations or by-laws issued under that statute.

2. General Covenants

2.1 The Covenantor covenants and agrees:

a) To observe and perform all the Covenants at all times;

b) That the Covenants shall run with and bind the Burdened Land for the benefit of the Benefited Land.

c) To do all things necessary to ensure that any invitees of the Covenantor on the Burdened Land and any mortgagees, lessees or occupiers of the Burdened Land comply with the provisions of this Instrument.

d) In addition to all obligations under clause 2.1(c), to include the provisions of this Instrument in any occupation agreement, (including, but not limited to any lease, licence or tenancy agreement) in respect of the Burdened Land so that all references to "Covenantor" are replaced with "occupier". The Covenantor will at the request of the Covenantee enforce such provisions;

e) To pay the Covenantee's legal costs (as between solicitor and client) of and incidental to the enforcement or attempted enforcement of the Covenantee's rights, remedies and powers under this Instrument; and

f) To indemnify the Covenantee against all claims and proceedings arising out of a breach by the Covenantor of any of its obligations set out in this Instrument.

3. Covenants in Relation to Agreed Activities

3.1 The Covenantor covenants and agrees with the Covenantee that the Covenantor will:

a) Not make any claim, proceeding, complaint, objection, or similar action in relation to the use, or effects of the use, of the Benefited Land for any lawfully conducted Agreed Activities;

b) Not at any time lodge any Submission against any Planning Proposal by the Covenantee for any Agreed Activities to be carried out on the Benefited Land;

c) Be deemed to have given written approval or any Planning Proposal referred to in (b) above;

d) Within 20 days of written request from the Covenantee served on the Covenantor, sign and give irrevocable written approval to the Covenantee ("**Written Approval**") under the RMA in respect of any Planning Proposal referred to in (b) above.

3.2 In the event the Covenantor does not provide such Written Approval in accordance with clause 3.1(d), then the Covenantor is deemed to have irrevocably appointed the Covenantee to be the attorney of the Covenantor (in the name and at the cost of the Covenantor) to execute any Written Approval on behalf of the Covenantor as contemplated by clause 3.1(d).

3.3 The Covenantor and Covenantee agree that the Covenantor's obligations and covenants contained in this Instrument are for the benefit of the Covenantee.

3.4 The parties acknowledge and agree that the covenants contained within this Instrument will attach to and run with the Burdened Land and as a burden on that land to the extent that they restrict the Covenantor from acting in relation to the Burdened Land by exercising rights under the RMA which arise from ownership of the Burdened Land and which the Covenantor would otherwise have been able to exercise for the benefit of the Burdened Land.

4. Further Consent

4.1 If it is determined that further written consent is required from the Covenantor in respect of the matters provided for in this Instrument (rather than deemed consent), then the Covenantor will immediately, at the request of the Covenantee, give that written consent.

4.2 The Covenantor hereby irrevocably appoints the Covenantee or its successor in title as its attorney to sign any consents necessary under clause 4.1 provided that the Covenantee shall not be entitled to exercise its rights to sign any such consent under this clause unless:

a) The Covenantee has requested written consent from the Covenantor under clause 4.1; and

b) The Covenantor has failed or refused to provide such written consent to the Covenantee within 7 days of the date of such request being served on the Covenantor.

5. General

5.1 Subject to clause 5.2, any notice required to be served on any party shall be served in accordance with the Property Law Act 2007.

5.2 If the Covenantee or Covenantor is required to serve notice under clause 3.1(d) or 4.2(b) on a Covenantor or Covenantee that is a person ("**Person**"), then the address for service of notices for that Person will be the current address to which the Council sends rates demands for that Person's Burdened Land or Benefited Land . If the Council does not disclose that address for a Person's Burdened Land or Benefited Land, then any notice conspicuously placed on that relevant Person's Burdened Land or Benefited Land shall be deemed to have been served on that Person on the day on which it is affixed.

5.3 Any failure by a party to enforce any clause of this Instrument or any forbearance, delay or indulgence granted by that party to any other party will not be construed as a waiver of the first party's rights under this Instrument.

5.4 The Covenantor will not seek to have this Instrument removed from the Record of title to the Burdened Land due to any lack of proximity between the Burdened Land and the Benefited Land.

5.5 No provision of this Instrument shall be construed as imposing liability on any Covenantor where that Covenantor has complied with its obligations under this Instrument in relation to its Burdened Land, so that a Covenantor shall only be liable for acts and omissions in relation to its own Burdened Land under this Instrument.

6. Severability

6.1 If any of the provisions of this Instrument are judged invalid, unlawful or unenforceable for any reason whatsoever by a Court of competent jurisdiction, such invalidity, unenforceability or illegality will not affect the operation, construction or interpretation of any other provision of this Instrument to the intent that the invalid, unenforceable or illegal provisions will be treated for all purposes as severed from this Instrument. In the event of any such severance the parties will use reasonable endeavours to negotiate with the intent that the Instrument

shall achieve the economic, legal and commercial objectives of the unenforceable term, covenant or obligation.

7. Dispute Resolution

7.1 If a party has any dispute with the other party in connection with this Instrument:

a) That party will promptly give full written particulars of the dispute to the others.

b) The parties will promptly meet together and in good faith try and resolve the dispute.

7.2 If the dispute is not resolved within 14 days of written particulars being given (or any longer period agreed to by the parties) the dispute will be referred to mediation.

7.3 A party must use the mediation procedure to resolve a dispute before commencing arbitration or legal proceedings.

7.4 The mediation procedure is:

a) The parties will appoint a mediator and if they fail to agree the mediator will be appointed by the president of the New Zealand Law Society or the president's nominee.

b) The parties must co-operate with the mediator in any effort to resolve the dispute.

c) If the dispute is settled, the parties must sign a copy of the terms of the settlement.

d) If the dispute is not resolved within 28 days after the mediator has been appointed, or within any extended time that the parties agree to in writing the mediation must cease.

e) Each party must pay a half share of the costs of the mediator's fee and costs including travel, room hire, refreshments etc.

7.5 The terms of settlement are binding on the parties and override the terms of this Instrument if there is any conflict.

7.6 The terms of settlement may be tendered in evidence in any mediation or legal proceedings.

7.7 The parties agree that written statements given to the mediator or to one another, and any discussions between the parties or between the parties and the mediator during the mediation period are not admissible in any arbitration or legal proceedings.

7.8 Either party may commence arbitration proceedings when mediation ceases under clause 7.4(d.

7.9 If the dispute is referred to arbitration:

a) The arbitration will be conducted by one arbitrator appointed by the parties.

b) If the parties cannot agree on an arbitrator within 14 days the appointment will be made by the president of the New Zealand Law Society or the president's nominee.

c) The arbitration will be conducted in accordance with the Rules in Schedules 1 and 2 of the Arbitration Act 1996.

7.10 Neither party will unreasonably delay the dispute resolution procedures in this clause 7.

7.11 This clause 7 does not apply to:

a) Any dispute arising in connection with any attempted renegotiation of this Instrument; or

b) An application by either party for urgent interlocutory relief.

7.12 Pending resolution of any dispute the parties will perform this Instrument in all respects including performance of the matter which is the subject of dispute.

View Instrument Details

Instrument No	11291300.8
Status	Registered
Date & Time Lodged	28 February 2019 16:41
Lodged By	Askham, Janine Lee
Instrument Type	Land Covenant under s116(1)(a) or (b) Land Transfer Act 2017

Affected Records of Title	Land District
766317	Otago
813753	Otago
813754	Otago
813755	Otago

Annexure Schedule: Contains 7 Pages.

Covenantor Certifications

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

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

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

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

Signature

Signed by Matthew John Edwards as Covenantor Representative on 27/02/2019 09:07 AM

Covenantee Certifications

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

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

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

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

Signature

Signed by Matthew John Edwards as Covenantee Representative on 27/02/2019 09:07 AM

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

Approved for ADLS by Registrar-General of Land under No. 2018/6263

COVENANT INSTRUMENT TO NOTE LAND COVENANT

Sections 116(1)(a) & (b) Land Transfer Act 2017

Registrar-General of Land Approval 2018/6263 ADLS

Covenantor *Surname(s) must be underlined or in CAPITALS.*

Roger Francis MONK and COOK ADAM TRUSTEES LIMITED

Covenantee *Surname(s) must be underlined or in CAPITALS.*

ARROWTOWN RETIREMENT INVESTMENTS LIMITED and MERRYFIELD INVESTMENTS LIMITED

Grant of Covenant

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

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

Purpose of covenant	Shown (plan reference)	Burdened Land (Record of Title)	Benefited Land (Record of Title) or in gross
Land Covenant - non objection		**Lot 1 DP 518669 (RT 813753) , Lot 2 DP 518669 (RT 813754) and Lot 3 DP 518699 (RT 813755)**	**RT 766317**

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

Delete phrases in [ ] and insert memorandum number as required; continue in additional Annexure Schedule, if required

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

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

[Annexure Schedule 1].

Schedule 1

Background

A. The Covenantor is the registered owner of the Burdened Land.

B. The Covenantee is the registered owner of the Benefited Land.

C. The Covenantor and Covenantee have agreed that the Burdened Land will be subject to the Covenants set out in this Instrument.

D. It is intended that this Instrument shall be and remain registered against the Record of Titles to each of the Burdened Land and Benefited Land so that:

a. owners and occupiers for the time being of the Burdened Land shall be bound by the provisions of this Instrument;

b. owners or occupiers for the time being of any of the Benefited Land can enforce the observance of the provisions of this Instrument by the owners or occupiers for the time being of any of the Burdened Land in equity or otherwise.

1. Interpretation

1.1 In this Instrument unless the context otherwise requires:

"Agreed Activities" means the development and/or use of land, buildings and other improvements for:

i. existing activities that occur or can occur on the Benefited Land as at the date of this Instrument pursuant to an existing resource consent or an existing use right or as permitted activities under the District Plan;

ii. any residential activity or retirement village activity including subdivision (as defined in the District Plan as of the date of this Instrument) on the Benefited Land;

"Covenants" means the covenants set out in this Instrument.

"District Plan" means the operative Queenstown-Lakes District Council District Plan (or equivalent successor plan).

"Benefited Land " means in relation to any Covenant the land described in Schedule A which has the benefit of that Covenant.

"Covenantee" means the registered owner of the Benefited Land from time to time.

"Covenantor" means the registered owner of the Burdened Land from time to time

"Instrument" means the front page of this Instrument together with all Schedules attached to it.

"Lodge any Submission" means (without limitation) personally or through any agent or servant (including by being a member of any group or society, whether incorporated or not), to directly or indirectly lodge or support in any way any objection or submission to any Planning Proposal and includes (without limitation) taking any part in a planning hearing, appeal or reference arising in respect of a Planning Proposal whether as a party or otherwise.

"Planning Proposal" means any consent or approval (and any application for such consent or approval) and includes (without limitation) any application for:

a. resource consent;
b. change to the District Plan;
c. variation of any nature under or to the District Plan; and/or
d. variation of any existing resource consent.

"RMA" means the Resource Management Act 1991.

"Burdened Land " means in relation to any Covenant the land described in Schedule A which is subject to that Covenant.

1.2 For the avoidance of doubt:

a) Words importing the singular number include the plural and vice versa.

b) References to the parties are references to the Covenantor and the Covenantee.

c) A covenant to do something is also a covenant to permit or cause that thing to be done and a covenant not to do something is also a covenant not to permit or cause that thing to be done.

d) This Instrument binds and benefits the parties and their heirs, executors, successors and assigns in perpetuity and also any lessee or occupier of the Burdened Land and the Benefited Land.

e) A reference to a statute, regulation or by-law includes all statutes, regulations, or by-laws varying, consolidating or replacing them, and a reference to a statute includes all regulations or by-laws issued under that statute.

2. General Covenants

2.1 The Covenantor covenants and agrees:

a) To observe and perform all the Covenants at all times;

b) That the Covenants shall run with and bind the Burdened Land for the benefit of the Benefited Land.

c) To do all things necessary to ensure that any invitees of the Covenantor on the Burdened Land and any mortgagees, lessees or occupiers of the Burdened Land comply with the provisions of this Instrument.

d) In addition to all obligations under clause 2.1(c), to include the provisions of this Instrument in any occupation agreement, (including, but not limited to any lease, licence or tenancy agreement) in respect of the Burdened Land so that all references to "Covenantor" are replaced with "occupier". The Covenantor will at the request of the Covenantee enforce such provisions;

e) To pay the Covenantee's legal costs (as between solicitor and client) of and incidental to the enforcement or attempted enforcement of the Covenantee's rights, remedies and powers under this Instrument; and

f) To indemnify the Covenantee against all claims and proceedings arising out of a breach by the Covenantor of any of its obligations set out in this Instrument.

3. Covenants in Relation to Agreed Activities

3.1 The Covenantor covenants and agrees with the Covenantee that the Covenantor will:

a) Not make any claim, proceeding, complaint, objection, or similar action in relation to the use, or effects of the use, of the Benefited Land for any lawfully conducted Agreed Activities;

b) Not at any time lodge any Submission against any Planning Proposal by the Covenantee for any Agreed Activities to be carried out on the Benefited Land;

c) Be deemed to have given written approval or any Planning Proposal referred to in (b) above;

d) Within 20 days of written request from the Covenantee served on the Covenantor, sign and give irrevocable written approval to the Covenantee ("**Written Approval**") under the RMA in respect of any Planning Proposal referred to in (b) above.

3.2 In the event the Covenantor does not provide such Written Approval in accordance with clause 3.1(d), then the Covenantor is deemed to have irrevocably appointed the Covenantee to be the attorney of the Covenantor (in the name and at the cost of the Covenantor) to execute any Written Approval on behalf of the Covenantor as contemplated by clause 3.1(d).

3.3 The Covenantor and Covenantee agree that the Covenantor's obligations and covenants contained in this Instrument are for the benefit of the Covenantee.

3.4 The parties acknowledge and agree that the covenants contained within this Instrument will attach to and run with the Burdened Land and as a burden on that land to the extent that they restrict the Covenantor from acting in relation to the Burdened Land by exercising rights under the RMA which arise from ownership of the Burdened Land and which the Covenantor would otherwise have been able to exercise for the benefit of the Burdened Land.

4. Further Consent

4.1 If it is determined that further written consent is required from the Covenantor in respect of the matters provided for in this Instrument (rather than deemed consent), then the Covenantor will immediately, at the request of the Covenantee, give that written consent.

4.2 The Covenantor hereby irrevocably appoints the Covenantee or its successor in title as its attorney to sign any consents necessary under clause 4.1 provided that the Covenantee shall not be entitled to exercise its rights to sign any such consent under this clause unless:

a) The Covenantee has requested written consent from the Covenantor under clause 4.1; and

b) The Covenantor has failed or refused to provide such written consent to the Covenantee within 7 days of the date of such request being served on the Covenantor.

5. General

5.1 Subject to clause 5.2, any notice required to be served on any party shall be served in accordance with the Property Law Act 2007.

5.2 If the Covenantee or Covenantor is required to serve notice under clause 3.1(d) or 4.2(b) on a Covenantor or Covenantee that is a person ("**Person**"), then the address for service of notices for that Person will be the current address to which the Council sends rates demands for that Person's Burdened Land or Benefited Land . If the Council does not disclose that address for a Person's Burdened Land or Benefited Land, then any notice conspicuously placed on that relevant Person's Burdened Land or Benefited Land shall be deemed to have been served on that Person on the day on which it is affixed.

5.3 Any failure by a party to enforce any clause of this Instrument or any forbearance, delay or indulgence granted by that party to any other party will not be construed as a waiver of the first party's rights under this Instrument.

5.4 The Covenantor will not seek to have this Instrument removed from the Record of title to the Burdened Land due to any lack of proximity between the Burdened Land and the Benefited Land.

5.5 No provision of this Instrument shall be construed as imposing liability on any Covenantor where that Covenantor has complied with its obligations under this Instrument in relation to its Burdened Land, so that a Covenantor shall only be liable for acts and omissions in relation to its own Burdened Land under this Instrument.

6. Severability

6.1 If any of the provisions of this Instrument are judged invalid, unlawful or unenforceable for any reason whatsoever by a Court of competent jurisdiction, such invalidity, unenforceability or illegality will not affect the operation, construction or interpretation of any other provision of this Instrument to the intent that the invalid, unenforceable or illegal provisions will be treated for all purposes as severed from this Instrument. In the event of any such severance the parties will use reasonable endeavours to negotiate with the intent that the Instrument shall achieve the economic, legal and commercial objectives of the unenforceable term, covenant or obligation.

7. Dispute Resolution

7.1 If a party has any dispute with the other party in connection with this Instrument:

a) That party will promptly give full written particulars of the dispute to the others.

b) The parties will promptly meet together and in good faith try and resolve the dispute.

7.2 If the dispute is not resolved within 14 days of written particulars being given (or any longer period agreed to by the parties) the dispute will be referred to mediation.

7.3 A party must use the mediation procedure to resolve a dispute before commencing arbitration or legal proceedings.

7.4 The mediation procedure is:

a) The parties will appoint a mediator and if they fail to agree the mediator will be appointed by the president of the New Zealand Law Society or the president's nominee.

b) The parties must co-operate with the mediator in any effort to resolve the dispute.

c) If the dispute is settled, the parties must sign a copy of the terms of the settlement.

d) If the dispute is not resolved within 28 days after the mediator has been appointed, or within any extended time that the parties agree to in writing the mediation must cease.

e) Each party must pay a half share of the costs of the mediator's fee and costs including travel, room hire, refreshments etc.

7.5 The terms of settlement are binding on the parties and override the terms of this Instrument if there is any conflict.

7.6 The terms of settlement may be tendered in evidence in any mediation or legal proceedings.

7.7 The parties agree that written statements given to the mediator or to one another, and any discussions between the parties or between the parties and the mediator during the mediation period are not admissible in any arbitration or legal proceedings.

7.8 Either party may commence arbitration proceedings when mediation ceases under clause 7.4(d.

7.9 If the dispute is referred to arbitration:

a) The arbitration will be conducted by one arbitrator appointed by the parties.

b) If the parties cannot agree on an arbitrator within 14 days the appointment will be made by the president of the New Zealand Law Society or the president's nominee.

c) The arbitration will be conducted in accordance with the Rules in Schedules 1 and 2 of the Arbitration Act 1996.

7.10 Neither party will unreasonably delay the dispute resolution procedures in this clause 7.

7.11 This clause 7 does not apply to:

a) Any dispute arising in connection with any attempted renegotiation of this Instrument; or

b) An application by either party for urgent interlocutory relief.

7.12 Pending resolution of any dispute the parties will perform this Instrument in all respects including performance of the matter which is the subject of dispute.

View Instrument Details

Instrument No.	11291300.3
Status	Registered
Date & Time Lodged	28 Feb 2019 16:41
Lodged By	Askham, Janine Lee
Instrument Type	Consent Notice under s221(4)(a) Resource Management Act 1991

Affected Records of Title	Land District
813753	Otago
813754	Otago
813755	Otago

Annexure Schedule: Contains 8 Pages.

Signature

Signed by Matthew John Edwards as Territorial Authority Representative on 27/02/2019 08:58 AM

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

IN THE MATTER of Lots 1 – 3 being a subdivision of Lot 3 DP 506191

AND

IN THE MATTER of Resource Consent RM090439 as varied by RM160664, RM180564 and RM181488 Queenstown Lakes District Council

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CONSENT NOTICE PURSUANT TO SECTION 221 OF THE RESOURCE MANAGEMENT ACT 1991

BACKGROUND

A. *Mt Soho Trust* has applied to the Queenstown Lakes District Council (*Council)* pursuant to provisions of the Resource Management Act 1991 for its consent to subdivide land comprised and described in Record of Title 766316 (Otago Registry).

B. Council has granted subdivision consent (*RM090439 as varied by RM160664, RM180564 and RM181488*) to the proposed subdivision subject to certain conditions which are required to be complied with on a continuing basis by the owner of the land from time to time being those conditions set out in this Consent Notice.

OPERATIVE PART

The following conditions pertaining to this Consent Notice are to be registered against the titles of the following allotments:

Lot 1 DP 518669 – Record of Title 813753
Lot 2 DP 518669 – Record of Title 813754
Lot 3 DP 518669 – Record of Title 813755

Conditions

1. ***Building Design Controls - All Residential Lots***

   a) All dwellings and garaging shall be contained within the building platform areas marked as BA, BB and BP on DP 518669 ('Building Platform Areas') on each residential lot, (refer plans Blakely Wallace Associates – Soho Trust-Monk Rural- Concept Plan L01 and Blakely Wallace Associates - Soho Trust-Monk Rural- Planting Plan L02).

   b) Wall materials for all structures shall be: natural timber, painted timber; stained plywood; 'Linea' weatherboard cladding systems; smooth plaster; stone; coloured corrugated iron or coloured concrete blocks. All finished wall materials shall comply with a reflective value of less than 36.

   c) None of the following materials may be incorporated in the exterior of the building: fibre cement weatherboard sidings and roofing (excluding 'Linea' weatherboards); uncoated fibre materials; PVC sidings or planking; unpainted iron or steel; imitation timber, brick or masonry; metal weatherboards; compressed fibre weatherboards; any metal or asphalt based aggregate covered tiles or shingles.

   d) Wall colours shall be chosen from the following list and/or similar from other manufacturers. All colours are from the Resene range:

      - Colins Wicket (mid grey-green)
      - Nullarbor (light brown)
      - Stonewall (mid grey-green)
      - Oilskin (mid grey-brown)
      - Portland (mid cool grey)
      - Tapa (mid cool grey)
      - Castle Rock (mid grey)
      - Triple sandcastle (warm grey)
      - Sepia (deep burnt brown)
      - Domino (mid grey-brown)

- Mondo (mid grey-green)
- Masala (dark grey-brown)
- Gravel (dark cool grey)

e) Any steel roofing shall be painted or otherwise colour treated. Acceptable Colorsteel hues shall be limited to Ironsand, Grey Friars and Lignite or similar colours as available. Colours of colour treated steel roofing not manufactured by 'Colorsteel' shall be chosen from the following list, (Resene 2003 Range) and / or similar from other manufacturers provided that they comply with a reflective value of less than 36:

- Diesel (dark grey)
- Domino (mid grey-brown)
- Mondo (mid grey)
- Oilskin (mid grey-brown)
- Masala (dark grey-green)
- Tapa (mid cool grey)
- Gravel (dark cool grey).

f) The implement shed shall be painted Ironsand.

2. Building Design Controls

a) Structures within each building platform area shall not exceed 65% site coverage of the building platform.

b) Dwellings shall have a maximum height of 4.5 metres above ground level.

c) The ground level for the building platform area marked BA on DP 518669 on Lot 1 shall be existing ground level.

d) The ground level for the building platform area marked BB on DP 518669 on Lot 2 shall be a datum of 403 metres.

e) The ground level for the building platform area marked BP on DP 518669 on Lot 3 shall be a datum of 408 metres.

f) The dwelling on Lot 3 shall not be constructed until the trees shown to the north-west of the building platform area have reached an average height of 5 metres.

g) Roof claddings shall be steel (corrugated or tray), cedar shingles, slate, or a vegetated 'green roof' system.

3. *Landscaping Design Controls*

a) All lot fencing and right of way fencing shall be in post and wire or deer fencing only.

b) The vehicle access from the road carriageway into the site may be gravel or chip seal or asphalt for the first 20 metres within the boundary. The right of way access-way and driveways shall be in gravel only with no kerb and channel. Stormwater shall be contained within grass swales. Concrete channels are prohibited.

c) There shall be no driveway or road lighting. Landscape lighting is permitted within the Building Platform Areas only.

d) Electricity lines beyond the existing poles shall be underground.

e) Small structures that do not require building consent may be located within the curtilage areas as shown on plans stamped as approved dated 18 August 2016 attached at pages 27 – 29 of RM160664 ('Curtilage Areas').

4. *Tree Planting*

The tree planting identified on the Planting Plan (refer *Blakely Wallace Associates - Soho Trust- Monk Rural- Planting Plan L02*) that is within Lots 1, 2 and 3 but outside of the Curtilage Areas shall be planted within one year of the issue of certificates of title for these lots. All trees shown on *Blakely Wallace Associates - Soho Trust- Monk Rural- Planting Plan L02* shall be protected from grazing by temporary fences or tree cages until sufficiently mature that they will not be damaged by stock. Any necessary irrigation shall be installed prior to planting. If any tree should die or become diseased it shall be replaced by the same or similar tree species.

Note: the area of proposed tree planting identified on the Concept Plan (Blakely Wallace Associates – Soho Trust- Monk Rural- Concept Plan L01) as 'additional tree planting 18 Feb '10' and located part way up the western slope of the site, may be deleted from the plan, as that planting was for the purpose of mitigating the visual effect of the driveway that is no longer required.
Note: this condition does not restrict other tree planting from occurring elsewhere on the site

5. *Garden Development*

Garden development is only permitted within the Curtilage Areas. Where trees are planted within the Curtilage Areas the trees shall be chosen from the following list only:

- *Acer sp.* (Maples)
- *Cedrus sp.* (Cedar)
- *Cornus sp.* (Dogwoods)
- *Juglans sp.* (Walnut)
- *Malus sp.* (includes apples and crabapples)
- *Prunus sp.* (includes apricot, cherry, peach, plum)
- *Quercus sp.* (Oak)
- *Nothofagus sp.* (NZ Beech)
- *Pyrus sp.* (fruiting and ornamental pears)

6. Management of Pine Woodlot within Lots 1 and 3

a) The area of trees within the pine woodlot on Lot 1 shall be removed and replanted with specimen trees as shown on Planting Plan *Blakely Wallace Associates - Soho Trust- Monk Rural- Planting Plan L02* within one year of the issue of the Record of Title for Lot 1. Any necessary irrigation shall be installed prior to planting. If any tree should die or become diseased it shall be replaced by the same or similar tree species.

b) Existing trees in the pine woodlot with trunks more than 60 metres from the southern edge/ fence of the pine woodlot shall not be removed until half of the specimen trees planted as per *Blakely Wallace Associates - Soho Trust- Monk Rural- Planting Plan L02* within the pine woodlot area in Lot 1 have reached a minimum height of 5 metres. Any necessary irrigation shall be installed prior to planting. If any tree should die or become diseased it shall be replaced by the same or similar tree species.

c) Trees within 60 metres from the southern edge/ fence of the pine woodlot may be removed and replanted with the trees shown within Lot 3 on *Blakely Wallace Associates - Soho Trust- Monk Rural- Planting Plan L02.* Any necessary irrigation shall be installed prior to planting. If any tree should die or become diseased it shall be replaced by the same or similar tree species.

7. Water Supply

a) In the event that the number of persons to be accommodated in the dwelling on an ongoing basis is to be greater than 3, then the Queenstown Lakes District Council will require commensurate increases in the water supply to that lot at the rate of 700 litres per extra person per day.

b) Water quality of the private potable water supply serving the dwelling shall be monitored in accordance with the underlying subdivision consent and/or relevant Drinking Water Standards.

c) At the time a dwelling is erected on lot 1, 2, or 3 domestic water and firefighting storage is to be provided. A minimum of 20 000 litres shall be maintained at all times as a static firefighting reserve within a 30 000 litre

tank. Alternatively, an 11 000 litre firefighting reserve is to be provided for each dwelling in association with a domestic sprinkler system installed to an approved standard. A firefighting connection in accordance with Appendix B SNZ PAS 4509: 2003 is to be located within 90 metres of any proposed buildings on site. Where pressure at the connection point/coupling is less than 100kPa (a suction source – see Appendix B, SNZ PAS 4509:2003 section B2), a 100mm Suction Coupling (Female) complying with NZS 4505, is to be provided. Where pressure at the connection point/coupling is greater than 100kPa (a flooded source – see Appendix B SNZ PAS 4509:2003 section B3), a 70mm Instantaneous Coupling (Female) complying with NZS 4505, is to be provided. Flooded and suction sources must be capable of providing a flow rate of 25 litres/sec at the connection point/coupling. The reserve capacities and flow rates stipulated above are relevant only for single family dwellings. In the event that the proposed dwellings provide for more than single family occupation than the consent holder should consult with the NZFS as larger capacities and flow rates may be required.

The Fire Service coupling must be located so that it is not compromised in the event of a fire.

The connection point/coupling shall have a hardstand area adjacent to it that is suitable for parking a fire service appliance. The hardstand areas shall be located in the centre of a clear working space with a minimum width of 4.5m. Pavements or roadways providing access to the hardstand areas must have a minimum formed width as required by QLDC's standards for rural roads (as per NZS 4404:2004 with amendments adopted by QLDC in 2005). The roadway shall be trafficable in all weathers and be capable of withstanding a laden weight of up to 25 tonnes with an axle load of 8.2 tonnes or gave a load bearing capacity of no less than the public roadway servicing the property, which is the lower. Access shall be maintained at all times to the hardstand area.

Underground tanks or tanks that are partially buried (provided the top of the bank is no more than 1m above ground) may be accessed by an opening in the top of the tank whereby coupling are not required. A hardstand area adjacent to the tank is required in order to allow a fire service applicant to park on it and access to the hardstand area must be provided as above.

Firefighting water supply may be provided by means other than above if the written approval of the New Zealand Fire Service is obtained for the proposed method.

The firefighting water tank and/or the sprinkler system shall be installed prior to the occupation of the building.

8. Effluent

At the time a dwelling is erected on Lot 1, 2 or 3, the owner at the time shall engage a suitably qualified engineer as defined in Section 1.4 of NZS4404:2004 to design an effluent disposal system in terms of AS/NZS 1547:2000 that will provide sufficient treatment / renovation to effluent from on-site disposal, prior to discharge to land. To maintain high effluent quality such a system would require the following:

a) Specific design by a suitably qualified professional engineer.

b) A requirement that each lot must include systems that achieve the levels of treatment determined by the specific design.

c) Regular maintenance in accordance with the recommendations of the system designer and a commitment by the owner of each system to undertake this maintenance.

d) Intermittent effluent quality checks to ensure compliance with the system designer's specification.

e) Disposal areas shall be located such that maximum separation (in all instances greater than 50 metres) is obtained from any watercourse or water supply bore.

f) The design of the wastewater disposal system shall be subject to the review of Council prior to implementation.

9. Stormwater

At the time a dwelling is erected on Lot 1, 2 or 3, the owner at the time shall engage a suitably qualified engineer to design a stormwater disposal system that is to provide stormwater disposal from all impervious areas within the site. The proposed stormwater system shall be subject to the review of Council prior to implementation.

10. Telecommunications

Lots 1 to 3 have not been provided with reticulated telecommunications services. Telecommunications for each Lot will need to be obtained via alternative methods such as wireless, satellites or mobile phones. It will be the responsibility for each lot owner to provide the alternative telecommunication services to their lot.

11. Building Foundations

Prior to any construction work (other than work associated with geotechnical investigation), the owner for the time being shall submit to Council for certification, plans prepared by a suitably qualified engineer detailing the proposed foundation design, earthworks and/or other required works in accordance with the Schedule 2A certificate contained in Geosolve Completion Report (reference 180672). All such measures shall be implemented prior to occupation of any building. The conditions of Geosolve Completion Report 180672 are summarised as follows:

a) The original ground not affected by filling is suitable for the erection of buildings designed according to NZS3604 provided that:

   i) Foundations extend to bear on the Outwash Alluvium.
   ii) Foundations that bear on the Loess will not meet NZS3604 design requirements with respect to good ground and specific assessment will be required as per Section 5.5.2 or Geosolve report 180672.

SIGNED for and on behalf of
QUEENSTOWN LAKES DISTRICT
COUNCIL under delegated authority
by its Team Leader – Subdivision
and Property

Elizabeth Jane Simpson

Landscape Assessment Report
Monk - 3 Dwellings – McDonnell Road
Queenstown – Lower Shotover

September 2022

INTRODUCTION

1. This landscape assessment is prepared by Baxter Design to assess the potential effects of 3 dwellings and an amended building platform to be located at located at McDonnell Road (**refer Attachment A**) in the Wakatipu Basin Rural Amenity Zone Lifestyle Precinct Zone (WBRAZ - PDP), and on the boundary of LCU Units 22 & 24 (referred to as the 'site' in this report). The following report includes:

    - Description of the wider site and background,
    - Description of the proposal,
    - Landscape assessment,
    - Conclusion.

2. **The following Attachments** are included in this report:

Attachment A – Location Plan	QLDC
Attachment B – Proposed Subdivision	(ref: Baxter Design 2813-SK09)
Attachment C – Photo Locations	(ref: Baxter Design 2813-SK0)
Attachment D – Photos	(ref: Baxter Design 2813-SK11)
Attachment E – Photos	(ref: Baxter Design 2813-SK12)
Attachment F – Photo	(ref: Baxter Design 2813-SK13)
Attachment G – QLDC LCU Units / Site	(ref: Baxter Design 2813-SK0)

DESCRIPTION OF THE WIDER LANDSCAPE CHARACTER

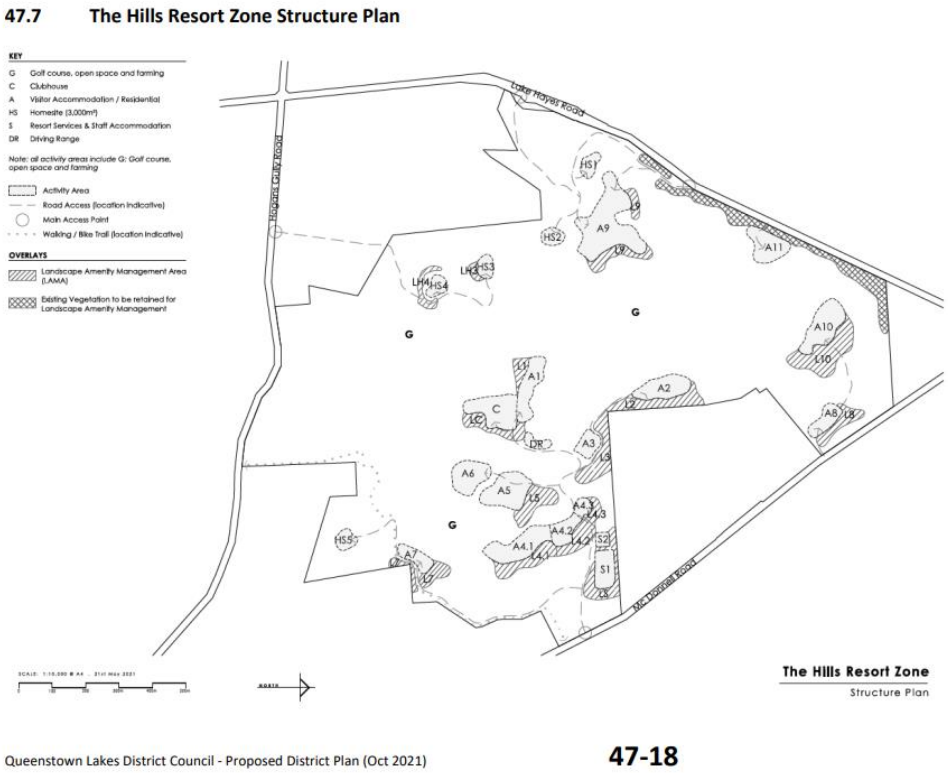
3. The subject site (**Attachment A**) is located approximately 900m south of the Arrowtown – town boundary, and 1km west of the Arrow River. The Crown Terrace escarpment extends beyond this with Tobin's Track ascending (at a distance of approximately 1.5kms), and Mount Beetham (929 masl) perched at the edge of the Terrace. The sites are approximately 2kms north-east of Lake Hayes, and approximately 3.6kms north of Morven Hill summit (750 masl), at an elevation approximately 400 masl.

4. The site is located directly west of the Arrowtown Lifestyle Village, a retirement village that fronts onto McDonnell Road. The retirement village is partially built and, when completed, will occupy the majority of the

land between the eastern boundary of the site and McDonnell Road. The retirement village is elevated above that portion of McDonnell Road that it adjoins. Between the site and the retirement village is an approximately 10m high escarpment, running roughly northwest – southeast.

Arrowtown Lifestyle Village viewed from McDonnell Road

5. The Hills Resort Zone, a comprehensive resort zone, occupies the land to the north of the site and includes clusters of accommodation areas and open space, located around the established 1- hole golf course



Hills Resort Structure Plan

6. To the north the site (directly north of proposed Lot 2) is an established residential lot and dwelling.

7. The site itself is located on the eastern end of an undulating glacial form that extends from McDonnell Road to the west and continuing on the north side of Speargrass Flat Road. This form spreads gently to the north

east from the site over undulating land within which the Hills Resort is located. The land directly to the north of the site, adjoining McDonnell Road, is relatively flat in character, with established shelterbelts, an open driving range and occasional dwellings and farm sheds. To the west of the site, this undulating land is open in character and largely grazed. This landform, whilst currently relatively open, will be modified eventually as the Hills Resort Zone and its permitted activities are developed. (Refer **Attachment E**)

8. DESCRIPTION OF THE LANDSCAPE CHARACTER WITHIN THE SITE

9. The subject site displays a complex topography, typical of remnant glacial moraine with overlaying alluvial deposition over time. The wider glacial landform, described above, terminates in an escarpment form that dissects the site and runs southeast towards the intersection of Hogans Gulley Road and McDonnell Road this escarpment is approximately 25-30 metres in elevation. The escarpment face, that physically divides the site, is covered in grasses and a mix of grey shrubland. East of that existing dwelling is a large group of mature pines running along the top of the escarpment. Directly north of the existing dwelling on proposed Lot 5 the land slopes gently to the north, to and existing right of way that abuts the northeast portion of the Arrowtown Lifestyle Retirement Village (ALRV).

10. Running along the western edge of the top of the escarpment is a series of plateaus and gently sloping grazed land, sloping towards the north. At the southern end of the plateau area is an existing dwelling, facing directly onto the upper elevations of the southwest portion of the site.

View up right of way, south over the site

DESCRIPTION OF THE PROPOSAL

11. The proposed development includes 5 lots, comprising an existing dwelling, an existing residential building platform (RBP) and 3 lots with proposed building platforms and curtilage areas. The principal components of the development can be summarised as such (refer **Attachment B**):

    - All lots to be accessed off an existing ROW traversing along the northern edge of the ALRV and continuing south through the site.
    - All proposed dwellings on proposed Lots 1,2 & 3 to be located on specified datums with bespoke design controls.
    - All proposed dwellings on proposed Lots 1,2 & 3 to be located on RBPO's within shaped landform.
    - Curtilage areas to be defined on lots 1,2 & 3
    - All areas outside of the curtilage areas to be maintained in existing grasses and grey shrubland.
    - Farm fencing to be undertaken at the curtilage area boundaries only.
    - Areas of indigenous vegetation to be undertaken around the RBP's po proposed Lots 2 & 3.

12. **Proposed Lot 1** is located at the north-eastern end of the site on relatively flat land adjacent to the ALRV and north (and at a lower elevation) of the existing dwelling on proposed lot 5. The RBP on proposed Lot 1 is shaped into the landform, 963m^2 in size with a FGL at 404m.

13. **Proposed Lot 2** is located at the north – western end of the site on an existing relatively flat plateau. The RBP on Lot 2 will be shaped into the landform, 536m^2 in size with a FGL at 408.5m. Access to proposed Lot 2 is off the ROW traversing up an existing gully and entering into the south of the proposed RBP.

14. **Proposed Lot 3** is located on a relatively flat land plateau on the escarpment flank. The RBP on proposed Lot 3 is also to be shaped into the landform, 1,000m^2 in size with a FGL at 424m. Access to proposed Lot 3 is on a driveway continuing up an existing gully off, past proposed Lot 2 and entering into the eastern side of the of the proposed RBP.

15. The building heights (above the specified FGL levels) on the proposed RBP's are:

    - Lot 1: 5.5m
    - Lot 2: 4.0m
    - Lot 3: 4.0m

16. A RBP on **proposed Lot 4** has been previously consented. This application seeks to change the consented RBP shape from the irregular consented shape (1000m^2) to a 40 x 25m platform (1000m^2). The location remains in approximately the same position as consented albeit moved approximately 5 metres to the west from the escarpment edge that separates this plateau from the ALRV. The proposed RBP on proposed lot 4 is flat and to be accessed from a driveway off the proposed ROW from the north.

17. **Proposed Lot 5** already has a dwelling on a consented RBP from a previous consent. This application seeks to change the boundaries of proposed Lot 5.

18. **Design controls**: described earlier, the proposed design controls are tailored to the proposed RPB's. Site specific earthworks are proposed for lots 1,2 & 3 to enable a flat FGL for dwellings to be constructed upon.

The modelling of the proposed earthworks (**Attachment B**) removes any doubt as to the shape and form of proposed earthworks. The proposed **Design Controls** can be summarised as follows:

- Heights on proposed Lots 1-3 as set out above (note: a dwelling on proposed Lot 4 already has a consented height of 5.5m. This will remain).
- A gabled dwelling form is permitted on Lot 1. Dwellings on Lots 2 & 3 would be monopitch, with a minimum slope of 10 degrees sloping to the north and up to 45 degrees off north.
- No glazing (windows) on dwellings on proposed lots 2 & 3 would not exceed 2.7m in height.
- All dwellings on proposed Lots 1,2,3 & 4 would be subject to restrictive controls on claddings and cladding colours with contiguous dark recessive colours on all dwellings.
- Curtilage is restricted to the areas shown with no fencing permitted outside curtilage areas.

LANDSCAPE ASSESSMENT

19. The proposed development is located within the Rural General Zone under the Operative District Plan (ODP) and The Wakatipu Basin Rural Amenity Zone (WBRAZ) in the PDP The site is located within Landscape Character Unit (LCU) 22 – The Hills, under the Proposed District Plan (PDP).

20. This landscape assessment will assess review the relevant matters set out in Chapter 24 of the PDP and refer to relevant matters in the LCU22 description during that assessment, describing the alignment of the proposed development against those matters.

PDP - Chapter 24 – Wakatipu Basin

21. **Objective 24.2.1** ***Landscape character and visual amenity values in the Wakatipu Basin are maintained or enhanced***

22. The proposed development is located within the LCU 22 landscape unit, at the south-eastern corner of that LCU (refer **Attachment G**). The landscape character of the site and the wider surrounding landscape character is mixed, with two relatively distinct parts to the site

23. For the purpose of this assessment, dwellings on proposed lots 4 & 5 will not be assessed as (a) a dwelling already exists on proposed Lot 4 and (b) the RBP on proposed Lot 5 sits over (with minor changes) a previously consented RBP. The proposed change of platform shape on Lot 5 would not affect the landscape character or amenity values of the LCU and any adverse effects from the changes to the RBP shape pom proposed Lot 4 would be negligible.

24. The eastern portion of the site, being that land containing proposed lots 1,4 & 5, below the escarpment face, is relatively flat in nature and is visually connected to the character of the ARLV to the east. A dwelling on proposed Lot 1 would read as an extension of the ALRV, at a similar elevation, with existing dwellings to the immediate east and north and potential adverse effects on the landscape character and visual amenity would be negligible.

25. Dwellings on proposed RBP's on proposed Lots 2 and 3 sit on elevated positions, above the RBP on proposed Lot1. A future dwelling on proposed Lot 2 sits 4.5 metres above that of Lot 1 and a similar elevation above the existing dwelling directly to the north of proposed Lot 2. It is considered that the landscape character and amenity values of the immediate surrounding landscape and the wider landscape values would not be

adversely affected by a future dwelling on proposed lot 2 given its relatively minor elevation above the surrounding and proposed dwellings. It is noted that, to the direct north the neighbouring dwelling north of proposed Lot 2, is an Activity Area within the Hills Resort Zone allocated as Visitor / Accommodation and there also exists a consented RBP within the Hills Resort Zone approximately 145 metres west of the proposed RBP on Lot 3, at a slightly higher elevation.

Aerial showing location of proposed Lot 3 dwelling (yellow) and consented RBP on Hills Resort (red)

26. The LCU222 description describes the settlement patterns as '*Scattered dwellings throughout, primarily located around water features. Gated entrances requiring security codes. Typical lot sizes: one large lot of approximately 100ha, several smaller lots'.* Given the proximity of the ALRV to proposed lots 1 & 2 and the location of the proposed development at the southeast corner of LCU 22, the site landscape character is influenced by development on the ALRV located within the adjacent LCU being LCU 24, particularly with regard to a future dwelling on proposed lots 1& 2, less on proposed Lot 3, given its elevated nature.

27. To that end the landscape character surrounding proposed lots 1 & 2 is influenced by the proximity to adjacent existing and consented development to a more developed amenity with a reduced rural character. The description in LCU 24 which acknowledges the settlement patterns described above:

    The Arrowtown South Special Zone anticipates a reasonably spacious patterning of rural residential development together with extensive riparian and escarpment restoration, pastoral areas and a landscape framework throughout the south western edges of Arrowtown to create an attractive edge to the settlement in conjunction with the adjacent golf courses and roads. The Arrowtown Lifestyle Retirement Village SHA anticipates an urban patterning of buildings ranging from one storey units along the McDonnell Road edge to three storey buildings in the central western margins of the area. Typical lot sizes: Predominantly 4-10ha. Some larger lots 10-20ha. The Arrowtown Lifestyle Retirement Village will have implications for future settlement patterns for the land around it south and west of McDonnell Road.

28. LCU 22 The Hills describes the landform patterns in which proposed RBP 3 is located as: '*Elevated moraine landform with hummocky hills, plateaus and remnant kettle lakes, with the latter converted to amenity ponds.'* The FL on a dwelling on proposed Lot 3 will be located approximately 16 metres above the RBP datum on proposed Lot 2 and 20 metres above the RBP on proposed Lot 1. The location of the RBP on proposed Lot 3 is located within a plateau area of landform. The design controls respond to this elevated location by lowering building height and requiring a low dark coloured building.

29. It is acknowledged that the visibility to all 3 proposed lots and RBP's is "*limited to the elevated streets along the western edge of Arrowtown*;' as noted in the LCU 22 description and from the elevated views above Arrowtown being primarily Tobins Track and the Tobins Track lookout. (**refer Attachment D**).

30. Future dwellings on the RBP's on proposed Lots 1, 2 & 3 will not be visible from McDonnell Road due to (a) existing vegetation (b) landform along McDonnell Road and (c) the screening provided by the ALRV with that screening provided by either one of these elements or a combination of all. (**refer Attachment E**)

31. To the west of the RBP on proposed Lot 3 the landform is open in character extending in a rolling grassed plateau approximately. A small ridge exists to the direct west of the proposed Lot 3 RBP defining the eastern edge of that larger plateau. The landform continues to rise 7-8 metres to the south of the proposed RBP on Lot 3 to the southern boundary, approximately 150 metres from the proposed RBP on Lot 3.

32. A dwelling on the RBP on proposed Lot 3 will have a low adverse effect on the landscape character and visual amenity values of the surrounding landform given that it is located within a semi flat portion of that landform and at the western edge of the open landscape that extends to the west. The proposed mix of indigenous plantings that visually 'wrap these sites will provide a visible extension of the existing grey shrubland on the escarpment.

33. From the distant views, being Tobins Track Lookout (approximately 2.3km) and dwellings on Advance Terrace and Cotter Avenue (approximately 850m -1.3km) in Arrowtown, development of dwellings on proposed Lots 2 and 3 occupy a very small part of a wide vista which includes the two Resort Zones, existing rural – residential dwellings, the ALRV and a scattering of trees and semi – mature and mature tree plantings (**refer Attachments D & E).** From the private dwellings on Cotter Avenue and Advance terrace dwellings on proposed Lot 1 will read a part of the ARLV. From those views future dwellings on proposed RBP's 2 &3 sit are located within the lower to middle of that landform, with established dwellings at the upper portion of that landform.

34. Taking the above into account, the potential adverse effects on Landscape Character and visual amenity values arising from the proposed development will be low for proposed Lot 1, Low for proposed Lot 2 and Moderate to low for proposed lot 3. The same applies to views from Tobins track, where the viewer experiences the full panorama and the mitigating effects of distance. This is noted in the LCU 22 description regarding Visibility and Prominence which notes: '*The diminishing influences of distance and relative elevation in conjunction with the relative unimportance (visually) of the unit within the wider prominence reduces the units importance'.*

PDP Chapter 24 Policies

35. **24.2.1.2** ***Ensure subdivision and development is designed (including accessways, services, utilise and building platforms) to minimise inappropriate modification to the natural landform.***

36. The proposed development will require some modification to the land at around proposed lots 1-3 however that modification is relatively minor in the wider context and any adverse visual effects will be temporary, such as the case, by way of example, with the construction of the Hills Golf Course, albeit at considerably larger scale

37. Changes to the landscape by way of curtilage effects on proposed Lots 2 & 3 lo will be minor given the restrictive nature of the proposed curtilage areas on those two lots.

38. **24.2.1.2** ***Ensure that subdivision and development maintains or enhances the landscape character and visual amenity values identified in Schedule 24.8 – Landscape Character Units.***

39. As noted above, proposed Lot 1, from a visual and physical perspective, the proposed development is located on the edge of LCU 24, Arrowtown South which has a high capability to absorb additional development.

40. Development on proposed Lots 2 & 3 are located within the Hills LCU 22, has a moderate capability to absorb additional development. The following matters in the LC22 description text area are relevant:

- *Complexity: generally, a relatively complex landscape as a consequence of the landform and vegetation patterns.*

  Future dwellings on proposed RBP's 2 & 3 are located on the eastern end of the complex hummocky / rolling landform that extends from McDonnell Road to the west, within discrete plateaus. The landform to the west of these sites has less opportunity to visually absorb development given its more open character. To the west and north of the site lies the Hill Zone. The Activity Areas within that zone control future development. The provision of further indigenous vegetation around the RBP's on proposed Lots 2 & 3 will serve to extend and complement the existing pattern of vegetation on the site

- *Potential landscape Issues and constraints associated with additional development: Absence of legible edges to the unit to the southwest, southeast and northwest.*

  The proposed development is located within the southeast corner of the LCU. The lower edges of that moraine landscape, in the south east corner have been modified by the ALRV and surrounding rural – residential development, along McDonnell Road and the upper elevations of that landscape, accessed from Hogan Gully Road. The Hills Resort Zone somewhat protects those upper flanks of that landscape, to the west of the site, from future incremental development, aside from the consented RBP on the Hills Resort Zone west of proposed Lot 3. That zone in effect provides a bookend to development in this area, avoiding the potential adverse effects of residential spread to the west of this site.

29. **24.2.1.4** Maintain or enhance the landscape character and visual amenity values of the Rural Amenity zone including the Precinct and surrounding landscape context by:

   a. *Controlling the colour, scale, form, coverage, location (including setbacks) and height of buildings and associated infrastructure, vegetation and landscape elements.*

      This application includes site specific design controls with curtilage areas that respond to the location of each proposed RBP. Heights are restricted to single level dwellings on lots 2 & 3 with the existing surrounding grey shrubland and open space to be protected.

30. **24.2.1.5** *Require all buildings to be located and design so that they do not compromise the landscape and amenity values and the natural character of Outstanding Natural Features and Outstanding Natural Landscapes that are either adjacent to the building or where the building is in the*

foreground of views from a public road or reserve of the Outstanding Natural Landscape or Outstanding Natural Feature.

As above, the proposed dwellings will not detract from ONL values, neither will it detract from ONF values due to the separation from ONL's and ONF's

24.2.1.11 *Provide for activities that maintain a sense of spaciousness in which buildings are subservient to natural landscape elements.*

The proposed dwelling RBP's are to be located within the landform with adequate separation and restricted curtilage in order to preserve the existing landscape character of the site.

34. **Objective 24.2.4** *Subdivision and development, and use of land, maintains or enhances water quality, ecological quality, and recreation values while ensuring the efficient provision of infrastructure.*

Two areas of ecological plantings are proposed in the landscape plan, providing a positive ecological benefit to an area of land that has been extensively grazed. This will have a positive ecological benefit to the water and ecological qualities of the site, above and beyond what currently exist, as described above.

Policies

35. **24.2.4.1** *Avoid adverse cumulative impacts on ecosystem services and nature conservation values.*

The proposed dwelling is a single-family home and landscaping will be implemented. There will not be adverse cumulative impacts on ecosystem services and nature conservation values.

36. **24.2.4.9** *Encourage the planting, retention and enhancement of indigenous vegetation that is appropriate to the area and planted at a scale, density, pattern and composition that enhances indigenous biodiversity values, particularly in locations such as gullies and riparian areas, or to provide*

Described above.

CONCLUSION

37. Taking into account the unique qualities of this site, the existing landscape character and visual amenity values of the wider area, the matters set out in the LCU22 & 24 descriptions and, importantly, the transitional character of the adjacent landscapes, any potential adverse effects arising from this proposed development will be very moderate – low for Lot 3 and low for lots 1 & 2 and only visible from distance from of the surrounding landscape.

APPENDIX:

Table 1: Scale of Effects Reference

The effects scale used in this assessment is outlined in the table below. This effects scale is based on the **New Zealand Institute of Landscape Architects (NZILA) 'Landscape Assessment and Sustainable Management 10.1' Best Practice Note**[1]. The explanations provided are based on the review of a number of scale of effects tables and the **Auckland Council 'Information requirements for the assessment of Landscape and Visual Effects' (2017)**[2]**.**

NZILA best practice scale[1] (used in this report)	**Dictionary Definition** (Collins)	**Explanation**
Negligible	• 'An amount or effect that is so small that it is not worth considering or worrying about' • 'Insignificant'	• The proposed development is barely discernible or there are no changes to the existing character, features or landscape quality[2].
Very Low effect		• The proposed development is barely discernible with little change to the existing character, features or landscape quality[2]. • Any awareness of the proposal will have a very limited effect/change to the existing landscape character and quality.
Low effect	• 'Small amount' • 'Not considered to be very important because near the bottom of a particular scale'	• A slight loss to the existing character, features or landscape quality[2]. • Any awareness of the proposal will be a minor component of/change to the wider landscape.
Moderate effect	• 'Not extreme' • 'Neither large nor small in amount or degree'	• Partial change to the existing or distinctive features of the landscape and a small reduction in the perceived amenity[2]**.** • The proposal may form a visible or recognisable change/new element within the wider landscape, but will not detract from the existing landscape character and quality.
High effect	• 'Something is great in amount, degree or intensity'	• 'Noticeable change to the existing character or distinctive features of the landscape or reduction

	• 'Advanced or complex'	in the perceived amenity or the addition of new but uncharacteristic features and elements[2]. • The proposal may form a visible or recognisable change/ new element within the wider landscape and maybe readily noticed by the viewer, detracting from the existing landscape character and quality.
Very high effect		• Major change to the existing character, distinctive features or quality of the landscape or a significant reduction in the perceived amenity of the outlook[2]. • The proposal will form a significant or immediately apparent change to the landscape, which significantly impacts the existing landscape character and quality.
Extreme effect	• 'Something is very great in degree or intensity' • 'Severe or unusual' • 'Greatest degree possible'	• Total loss of the existing character, distinctive features or quality of the landscape resulting in a complete change to the landscape or outlook[2].

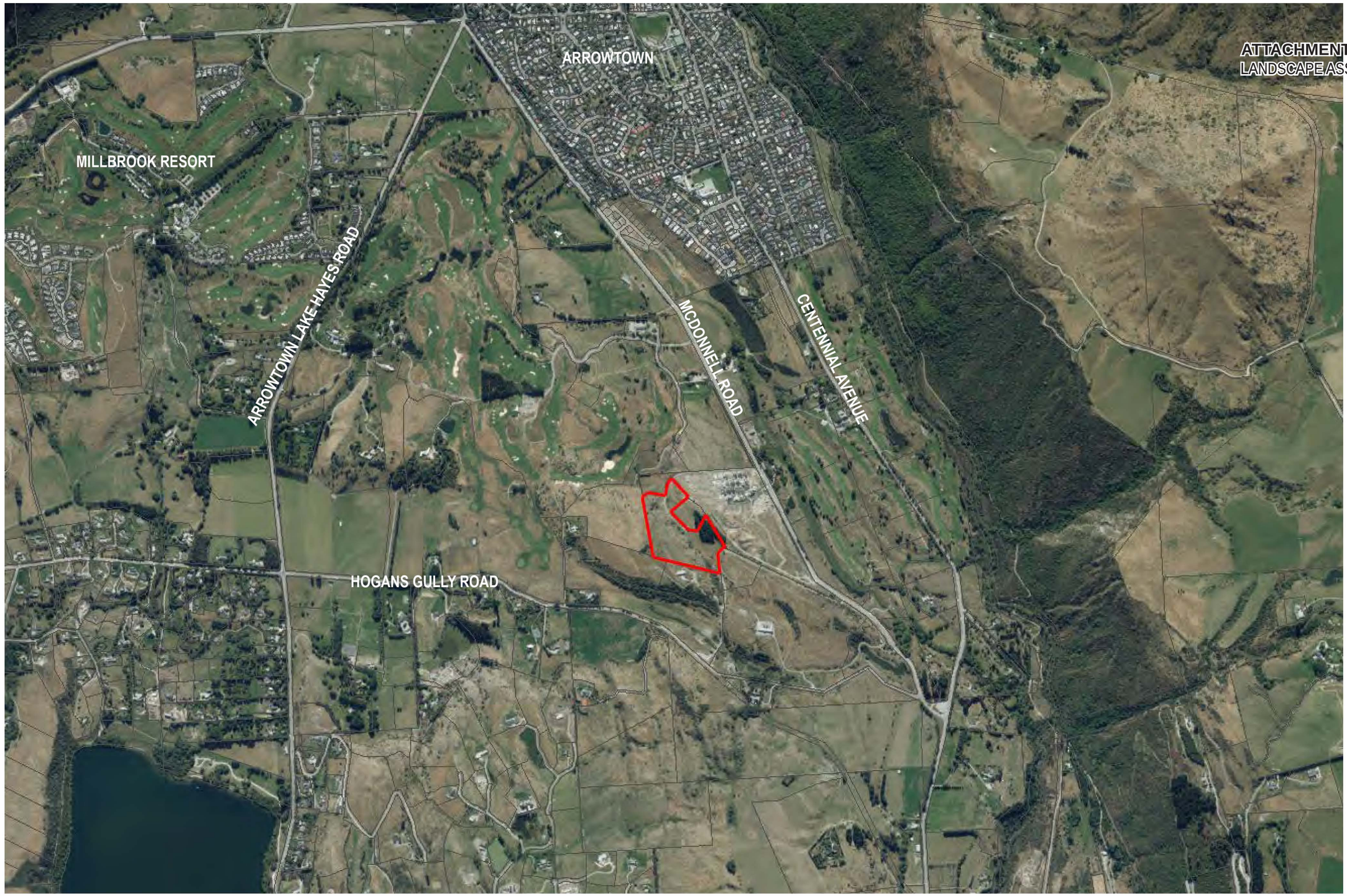
+ROGER MONK - MCDONNELL ROAD - ARROWTOWN

LANDSCAPE ASSESSMENT DRAWING SET - SEPTEMBER 2022

+ATTACHMENT A - 2813-SK15 - CONTEXT PLAN
+ATTACHMENT B - 2813-SK09 - PROPOSED SUBDIVISION LOT LAYOUT
+ATTACHMENT C - 2813-SK10 - PHOTO LOCATIONS
+ATTACHMENT D - 2813-SK11 - SITE ASSESSMENT PANORAMIC PHOTOS
+ATTACHMENT E - 2813-SK12 - SITE ASSESSMENT PANORAMIC PHOTOS
+ATTACHMENT F - 2813-SK13 - SITE ASSESSMENT PANORAMIC PHOTOS
+ATTACHMENT G - 2813-SK14 - QLDC LCU MAP

baxter design

North



ATTACHMENT A
LANDSCAPE ASSESSMENT
JULY 2022

baxter design

REFERENCE : **2813-SK15** - NOT TO SCALE - **08 SEP 2022**
DRAFT - NOT A WORKING DRAWING - NOT FOR CONSTRUCTION

CONTEXT PLAN
ROGER MONK - MCDONNELL ROAD

ATTACHMENT B
LANDSCAPE ASSESSMENT
JULY 2022

North

Proposed curtilage areas

Lot 1
5870m²

Lot 2
3415m²

BP 526m²
FGL 408.5

BP 997m²
FGL 404.0

Areas of indigenous revegetation to be undertaken (1720m² total). Mix of grey shrubland + native shrubs @1.5m ctrs.

Access road

Lot 5
15436m²

Existing Building

BP 963m²
FGL 424.0

Lot 3
22761m²

Previously approved building platform (red dash)

BP 1000m²
FGL 424.0

Lot 4
22157m²

McDonnell Rd

406
410
415
420
425
430
435

0 10 20 50m
SCALE = 1:1000 AT A1

REFERENCE **2813-SK09** - SCALE = 1:1000 AT A1 - 1:2000 AT A3 - **22 Sep 2022**
DRAFT - NOT A WORKING DRAWING - NOT FOR CONSTRUCTION
j:\2813 - monk mcdonnell 2018\cad\xref - 2813 - masterplan 2022.dwg - Proposed Subdivision 2000

baxter design

PROPOSED SUBDIVISION LOT LAYOUT
ROGER MONK - MCDONNELL ROAD

ATTACHMENT C
LANDSCAPE ASSESSMENT
JULY 2022

North

1

2

3

4

baxter design

0 2.5 5.0 12.5m
SCALE = 1:250 AT A1

REFERENCE **2813-SK10** - NOT TO SCALE - **14 Sep 2022**
DRAFT - NOT A WORKING DRAWING - NOT FOR CONSTRUCTION
j:\2813 - monk mcdonnell 2018\cad\2813-sk10 - monk - mcdonnell road - assessment photo locations.dwg - SKetch layout

PHOTO LOCATIONS
ROGER MONK - MCDONNELL ROAD

PHOTO 1 : 50mm composite panoramic image taken from Advance Terrace Walkway - 20 Jul 2022

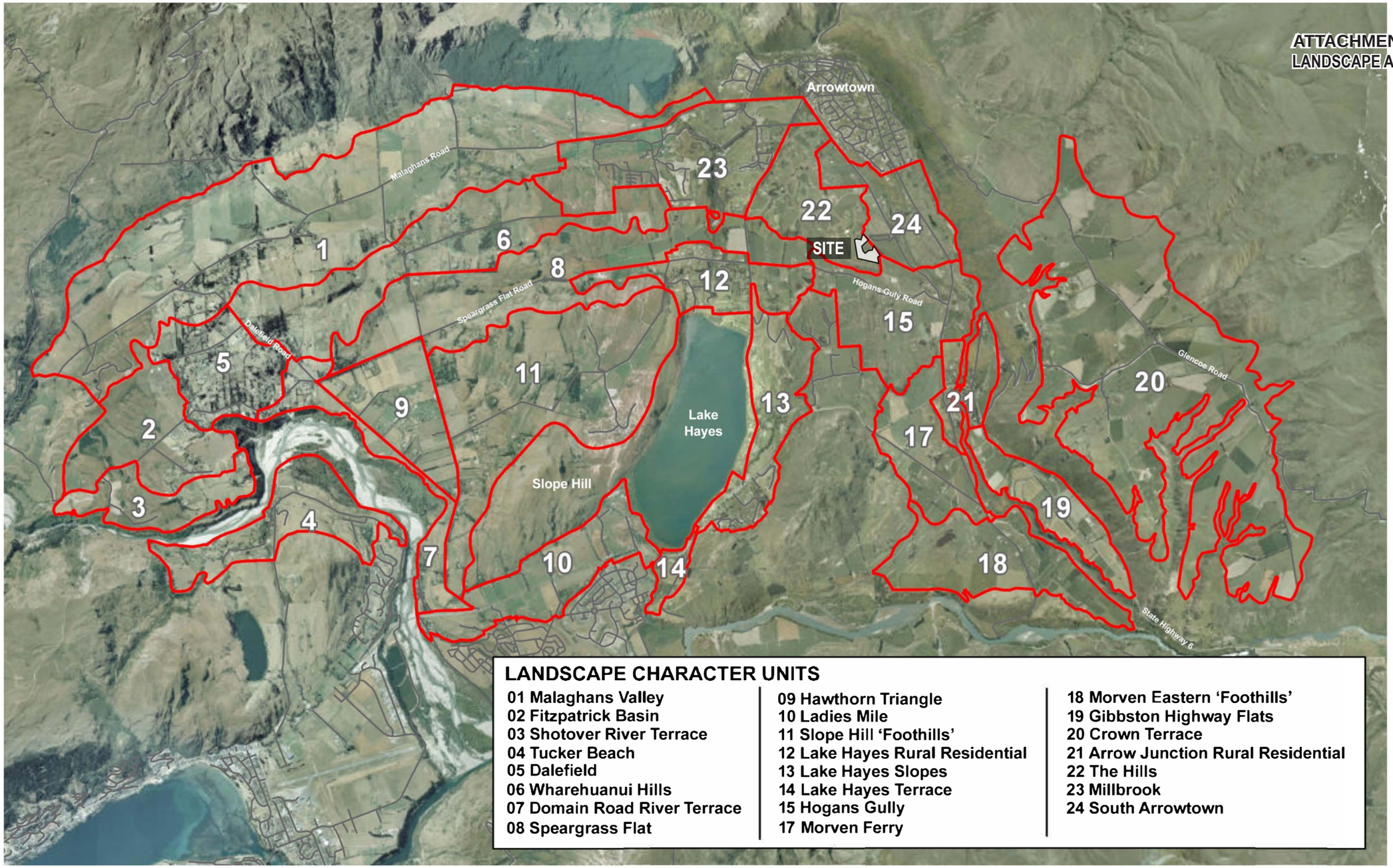
Zoom of building platform locations

PHOTO 3 : 50mm composite panoramic image taken from Tobins Track - 20 Jul 2022

Zoom of building platform locations

PHOTO 3 : 50mm composite panoramic image taken from McDonnell Road - 20 Jul 2022

PHOTO 4 : 50mm composite panoramic image taken from McDonnell Road - 20 Jul 2022



LANDSCAPE CHARACTER UNITS

01 Malaghans Valley
02 Fitzpatrick Basin
03 Shotover River Terrace
04 Tucker Beach
05 Dalefield
06 Wharehuanui Hills
07 Domain Road River Terrace
08 Speargrass Flat
09 Hawthorn Triangle
10 Ladies Mile
11 Slope Hill 'Foothills'
12 Lake Hayes Rural Residential
13 Lake Hayes Slopes
14 Lake Hayes Terrace
15 Hogans Gully
17 Morven Ferry
18 Morven Eastern 'Foothills'
19 Gibbston Highway Flats
20 Crown Terrace
21 Arrow Junction Rural Residential
22 The Hills
23 Millbrook
24 South Arrowtown

Queenstown Lakes District Council - Proposed District Plan Decisions Version (June 19)

24-1

baxter design

REFERENCE : **2813-SK14** - **07 SEP 2022**
DRAFT - NOT A WORKING DRAWING - NOT FOR CONSTRUCTION

QLDC LCU MAP
ROGER MONK MCDONNELL ROAD

Issue 1
September 12, 2022

The Mt Soho Trust – McDonnell Road Subdivision

Prepared by: Civilised Ltd

Civilised Ltd

PO Box 1461
Queenstown
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The Mt Soho Trust – McDonnell Road Subdivision

Infrastructure Feasibility Report

Report prepared For: The Mt Soho Trust

Report Prepared By: John McCartney
john@civilised.nz

Report Reference: QE004
2022-09-12 Infrastructure Report.docx

Date: 12th September 2022

Issue	Details	Date
1	Draft for comment	12th September 2022

Executive Summary

The Mt Soho Trust propose to create a five lot subdivision on their land at McDonnell Road, near Arrowtown. Civilised Ltd have assessed the necessary development infrastructure in relation to:

- Water supply
- Wastewater disposal
- Stormwater runoff
- Power Supply
- Telecommunications

We confirm that it is feasible to provide the necessary development infrastructure to service the proposed subdivision.

It is proposed to connect the allotments to the existing private water supply scheme that already services the existing dwelling on the site. This water is sourced from the underlying groundwater aquifer under a permitted activity rules. The water demand is able to be accommodated within the existing permitted activity rules and is within the capabilities of the bore. Firefighting water will be provided by a suitable firefighting reserve maintained in a tank in close proximity to each building platform.

Wastewater is able to be treated and soaked to ground on site by way of individual on site wastewater disposal systems. The suitability of the ground for receiving the wastewater flows has been confirmed following test pitting carried out on site.

Stormwater runoff from impervious areas constructed on the site will also be soaked to ground by use of roadside swales and specifically constructed soakage galleries.

Aurora Energy has confirmed that they can make a power supply connection available for the additional allotment. The service provider for telecommunications reticulation has been contacted and their confirmation that they are able to provide a suitable connection to the proposed subdivision is awaited.

Table of Contents

1 Introduction

The Mt Soho Trust (MST) has engaged Civilised Limited (CL) to investigate and report on the feasibility of providing utility services and the necessary development infrastructure for their proposed subdivision development on land on McDonnell Road, near Arrowtown.

This report considers the nature of the proposed development, the site conditions affecting the implementation of the necessary development infrastructure and describes the proposed implementation of the following elements;

- Water supply and internal reticulation.
- Wastewater collection and disposal.
- Stormwater control.
- Telecommunications.
- Power supply.

The report is to supplement and support the planning submissions made by John Edmonds and Associates on behalf of MST with regard to the application for consent to subdivide.

2 Description of Proposal

MST proposes to subdivide their existing rural land on McDonnell Road near Arrowtown. The land is zoned Rural General under the Queenstown Lakes District Council (QLDC) Operative District Plan and zoned Wakatipu Basin Rural Amenity Zone under the QLDC Proposed District Plan. A total of five rural allotments are proposed inclusive of dedicated Building Platforms. These five allotments include an existing dwelling and an existing building platform. The subdivision will enable three additional building platforms. The allotments range in size as follows:

- Lot 1 – 7,038 m² includes a new 963 m² building platform
- Lot 2 – 5,065 m² includes a new 536 m² building platform
- Lot 3 – 1.8805 ha includes a new 1,000 m² building platform
- Lot 4 – 2.1456 ha includes a relocated 1,000 m² building platform
- Lot 5 – 1.8378 ha includes a relocated 1,000 m² building platform that covers an existing dwelling

The new building platforms are to be created on flatter ground within each allotment. The proposed lots are intended for rural lifestyle development with incorporation of building restriction and landscape covenant areas to preserve as much of the existing rural landscape as possible. A scheme plan showing the indicative layout of the proposed subdivision is contained in Appendix A.

We note that this assessment of the necessary development infrastructure is limited to consideration of the scale of the subdivision as it is currently proposed.

3 Site Description

The proposed development is located on terrain lying west and above the Arrow River.

The site consists of farm paddocks currently occasionally used for stock grazing.

Grades in the vicinity of proposed building platforms on the proposed Lots can be described as flat to gently sloping.

The subject site of the development is contained within two Certificates of Title:

- 813753 (Lot 1 DP 518669) – 1.0700 ha
- 813755 (Lot 3 DP 518669) – 6.0049 ha

The elevation of the proposed lots is approximately RL 420m above Mean Sea Level (MSL).

Generally, the land within the proposed development area may be described as pasture and includes some trees, brush and ancillary buildings. There is an existing dwelling on proposed Lot 5.

During our site visits no evidence of large scale land instability was identified within the boundaries of the proposed rural development.

The land receives approximately 900mm of rainfall per annum and may be subject to drought conditions during the summer months.

4 Water Supply

4.1 Existing System

The site currently has a connection to an existing water bore that is located on the opposite side of McDonnell Road at 175 McDonnell Road. The pipe reticulating this water to the site currently provides water to Lots 1 and 2 DP 518669. It is intended that this water supply will be utilised for the proposed subdivision.

The existing water source has a number of current users and these are summarised below:

Table 1 – Existing Water Bore Users

User	Details on LINZ Instrument No.	Allocation (litres per day)
C D Read & P R Read	5007552_1	2,000
M K Monk	964442_3	2,000
R M Hill, A C Hill & R M J Urlich	964442_3	3,600

User	Details on LINZ Instrument No.	Allocation (litres per day)
E M R Lamont, C M Lamont & G F Ruck	964442_3	2,000
Lot 1 DP 518669	846547	2,100
Lot 2 DP 518669	846547	2,100
Existing house at 175 McDonnell Road		2,100
	Total	**9,900**

There is no current water take consent for the bore and it operates under the permitted activity rules of the Otago Regional Council that allows up to 25,000 litres per day of water to be extracted from the bore.

Included with this report in Appendix B are the relevant legal instruments that establish the people and properties with rights to take water from the existing water bore.

4.2 Water Demand Assessment

Peak water demand would be expected during the summer holiday period when household irrigation requirements are high and seasonal populations are at their peak. The following design figures have been adopted.

Peak potable water consumption per allotment = 1,000 litres/day/lot

Irrigation demand per allotment = 1,100 litres/day/lot

Total Water demand for the Development = 8,400 litres/day

This water demand is based on four additional lots requiring water as Lot 1 DP 518669 already has an allocation of water from this wate source and currently uses this water source to supply the dwelling on site.

Including the above development demand figures in the existing usage of the bore water, the total demand from the bore is 18,300 litres/day. This is within the permitted activity levels of the bore water extraction rates.

At the time the bore was established, the bore was test pumped, this established that the bore was capable of supplying the permitted activity amount from the bore. A copy of the Bore Log from the time of construction is included in Appendix B of this report.

4.3 Reticulation Concept

As discussed above, the water supply for the proposed subdivision will come from the existing private water supply scheme that serves the site.

The existing pipe is not shown on Councils GIS but is covered by easements through neighbouring land. In 2018, the pipe was uncovered as part of works on the nearby retirement village and was found to consist of a 32mm diameter pipe. This diameter of pipe will be sufficient to supply the existing water users and the proposed new water supply users based on a low flow trickle supply.

Individual allotments will be required to install their own 30,000 litre storage tanks with proprietary pressure boosting as appropriate. At the time of subdivision all allotments will be serviced with a dedicated lot connection to the private supply.

Drawings showing the existing water supply infrastructure is included in Appendix B.

4.4 Water Treatment

The water is sourced from an underground aquifer. Recent chemical and bacteriological water testing confirms a high-quality water supply is available. A copy of the laboratory water quality testing results is included in Appendix B.

The water meets the quality requirements of the Drinking Water Standards for New Zealand 2018.

As the water is sourced from a relatively shallow and unsecure groundwater aquifer, the quality of the water will be influenced by the surface water and as such it is likely to require treatment to ensure that it is of a potable quality at all times. It is recommended that the water undergo filtration and UV disinfection prior to human consumption. This treatment can occur at each dwelling with a suitable system installed at the time a dwelling is erected. This will ensure that the water meets the quality requirements of the Drinking Water Standards for New Zealand 2018.

4.5 Fire Fighting Water

The recent decisions associated with the Proposed District Plan require under Rule 21.7.5 that each new building must make the following provisions for firefighting:

- A water supply of 45,000 litres and any necessary couplings.
- A hardstand area adjacent to the firefighting water supply capable of supporting fire service vehicles.
- Firefighting water connection point within 6m of the hardstand, and 90m of the dwelling.
- Access from the property boundary to the firefighting water connection capable of accommodating and supporting fire service vehicles.

At the time that a dwelling is established on the building platforms on Lots 1 to 5, it is proposed that new tanks near the proposed dwellings will need to be constructed to serve as a firefighting reserve. These tanks should be a minimum of 2 x 30,000 litres of which 45,000 litres is to be maintained at all times as a static firefighting reserve. In addition, vehicular access to the tank is to be maintained at all times and a hardstand area constructed adjacent to the tank to allow a fire appliance to park and pump from the tank. The ongoing requirements for the firefighting water supply should be addressed as conditions of consent.

4.6 Recommendations

The water supply for the development will be provided for by extending the existing underlying subdivision water supply to the new allotment.

The following consent notices should be registered on the title of the new residential allotments:

1. *At the time a dwelling is erected on the lot, domestic water and fire fighting storage is to be provided. A minimum of 45,000 litres shall be maintained at all times as a static fire fighting reserve within a minimum of 2 x 30,000 litre tanks. Alternatively, a 7,000 litre fire fighting reserve is to be provided for each dwelling in association with a domestic sprinkler system installed to an approved standard. A fire fighting connection in accordance with Appendix B - SNZ PAS 4509:2008 (or superseding standard) is to be located no further than 90 metres, but no closer than 6 metres, from any proposed building on the site. Where pressure at the connection point/coupling is less than 100kPa (a suction source - see Appendix B, SNZ PAS 4509:2008 section B2), a 100mm Suction Coupling (Female) complying with NZS 4505, is to be provided. Where pressure at the connection point/coupling is greater than 100kPa (a flooded source - see Appendix B, SNZ PAS 4509:2008 section B3), a 70mm Instantaneous Coupling (Female) complying with NZS 4505, is to be provided. Flooded and suction sources must be capable of providing a flow rate of 25 litres/sec at the connection point/coupling. The reserve capacities and flow rates stipulated above are relevant only for single family dwellings. In the event that the proposed dwellings provide for more than single family occupation then the consent holder should consult with the NZFS as larger capacities and flow rates may be required.*

   The Fire Service connection point/coupling must be located so that it is not compromised in the event of a fire.

   The connection point/coupling shall have a hardstand area adjacent to it (within 5m) that is suitable for parking a fire service appliance. The hardstand area shall be located in the centre of a clear working space with a minimum width of 4.5 metres. Pavements or roadways providing access to the hardstand area must have a minimum formed width as required by QLDC's standards for rural roads (as per QLDC's Land Development and Subdivision Code of Practice). The roadway shall be trafficable in all weathers and be capable of withstanding an axle load of 8.2 tonnes or have a load bearing capacity of no less than the public roadway

serving the property, whichever is the lower. Access shall be maintained at all times to the hardstand area.

Underground tanks or tanks that are partially buried (provided the top of the tank is no more than 1 metre above ground) may be accessed by an opening in the top of the tank whereby couplings are not required. A hardstand area adjacent to the tank is required in order to allow a fire service appliance to park on it and access to the hardstand area must be provided as above.

The Fire Service connection point/coupling/fire hydrant/tank must be located so that it is clearly visible and/or provided with appropriate signage to enable connection of a fire appliance.

Firefighting water supply may be provided by means other than the above if the written approval of the New Zealand Fire Service Central North Otago Area Manager is obtained for the proposed method.

5 Wastewater Disposal

5.1 General

No community or Council scheme is available for connection in close proximity to the subject site. It is not sustainable to remove waste from site therefore individual on-site wastewater disposal (OSWWD) must be examined.

It can be shown that the development may be advanced based on on-site wastewater disposal systems to each proposed lot. The feasibility of such systems is discussed below.

5.2 Site and Soil Assessment

A site and soil assessment has been undertaken and the report for this is included in Appendix C of this report. This assessment has been based on the guidelines of AS/NZS 1547:2012. The site and soil assessment was carried out by undertaking a site visit with a detailed walkover inspection along with excavation of three test pits adjacent to the proposed building platforms on Lots 1 to 3. A copy of the test pit logs are included in Appendix D. The test pit location is shown on the drawing included with the site and soil assessment.

5.3 Conclusions

Based on our investigations to date the soils on the site have sufficient capacity to facilitate the disposal of effluent to land via sub-soil soakage methods, however the presence of sensitive receivers (being groundwater, surface water bodies and water bores) requires that the effluent receive some form of treatment prior to discharge.

We confirm that based on our assessment of the likely loadings, on-site wastewater treatment and disposal systems may be designed to provide the necessary level of treatment such that the risk of causing significant adverse environmental effects is minimised.

For this particular development, given the size of the lots to be created and the large amount of land area available, it is expected that the on-site sewage and disposal systems could be for either individual sewage management or communal management.

We confirm that a tank system, in conjunction with primary and secondary treatment elements, may be designed, implemented and maintained to ensure a "means of treating and disposing of sewage which is consistent with maintaining public health and avoids or mitigates adverse effects on the environment", therefore satisfying council policy.

5.4 Recommendations

Given the size of the proposed rural lots we believe it is appropriate and feasible to consider individual lot systems for this development.

Individual lot systems that would provide sufficient renovation to effluent from on-site wastewater disposal for this development prior to discharge to land are summarised as follows;

5.4.1 Individual Lot Systems

The individual lot system would comprise a multi chamber septic tank or similar filtered type tank to each lot combined with a secondary treatment element. Sewage from the treatment system would be pump or siphon dosed at a controlled daily rate to a disposal field of shallow depth. This system could be designed to provide sufficient treatment/renovation of effluent prior to discharge to land. Provision should be made at site planning stage for a minimum disposal field area of 30 m² and a reserve field area of 30 m².

To maintain high effluent quality such systems would require the following;

- Specific design by a suitably qualified professional engineer.
- A requirement that each lot must include systems that achieve the levels of treatment determined by the specific design.
- Regular maintenance in accordance with the recommendations of the system designer and a commitment by the owner of each system to undertake this maintenance.
- Intermittent effluent quality checks to ensure compliance with the system designers specification.
- Siting of disposal fields greater than 50m from any surface watercourse or water bore.
- Consideration of any potential runoff ponding following prolonged heavy rainfall when siting disposal fields.
- Future disposal fields on Lots 1 to 5 to consider using discharge control trenches to limit accession of nutrients to groundwater.

6 Stormwater Disposal

The intended access arrangements and the development of dwellings and associated buildings on the proposed building platforms on the site will alter the existing stormwater run-off patterns from the site catchment.

The proposed stormwater infrastructure on the site will comprise two primary elements as follows:

1) Roadside drainage swales to receive and dispose of the runoff from the proposed accesses for the building platforms on Lots 1 to 5.

2) Future soak pits to be constructed to drain runoff from buildings developed on the site.

The roadside swales will be used to convey stormwater flows either to the lower parts of the site and to provide soakage to allow runoff to drain to ground. Subject to detailed design, roadside drainage swales may include specifically constructed soak pits.

The future dwellings and any associated buildings will primarily reticulate roof runoff to water supply tanks. However, there will be various impermeable parts of the site that will need to direct runoff to specifically constructed soakage galleries to dispose of runoff. These areas will include paved areas and overflow provisions from water tanks to allow for rainwater runoff from rooves when the water storage tanks are full.

Subject to specific design in conjunction with the dwelling or associated building designs, the drainage of impermeable paved areas and rainwater tank overflow features will be able to be drained to ground by the use of an appropriately design stormwater soak pit. The test pit that was excavated on site as part of the site and soil assessment for wastewater disposal confirm that ground conditions are suitable for stormwater disposal by soakage to ground.

7 Power Supply & Telecommunications

7.1 Power Reticulation

Aurora Energy Limited has been contacted regarding the proposed subdivision development. They have provided a letter confirming their ability to make an electricity supply available for this development. A copy of correspondence to and from Aurora is included in Appendix F.

7.2 Telecommunications Reticulation

Chorus have been contacted regarding the proposed subdivision development. There is an existing telecommunications connection on the site. A response from Chorus is awaited and will be provided when received.

8 Limitations

This report has been written for the particular brief to Civilised Ltd from their client and no responsibility is accepted for the use of the report for any other purpose, or in any other context or by any third party without prior review and agreement.

In addition, this report contains information and recommendations based on information obtained from a variety of methods and sources including inspection, sampling or testing at specific times and locations with limited site coverage and by third parties as outlined in this report. This report does not purport to completely describe all site characteristics and properties and it must be appreciated that the actual conditions encountered throughout the site may vary, particularly where ground conditions and continuity have been inferred between test locations. If conditions at the site are subsequently found to differ significantly from those described and/or anticipated in this report, Civilised Ltd must be notified to advise and provide further interpretation.

Appendix A

Proposed Subdivision Drawing

Appendix B

Water Supply Information

964442/3 N/L

DEED OF COVENANT

DATED the 25th day of September 1998

10TAT1	30/09/1998	42852
NZ Stamp Duty -		Not Liable
Self assessed duty		$0.00

PARTIES:

1. **ROGER FRANCIS MONK** of Arrowtown Farmer (hereinafter called "the Covenantor")

2. **MARY KAYE MONK** of Arrowtown Femme Sole (hereinafter called "the First Covenantee")

3. **RICHARD MICHAEL HILL** and **ANN CHRISTINE HILL** both of Arrowtown Company Directors and **ROKO MARIJAN JUJAJ URLICH** of Whangarei, Solicitor (hereinafter called "the Second Covenantee")

4. **EDWIN MURRAY RICHARD LAMONT** of Auckland, Businessman, **CAROL MARY LAMONT** of Auckland, Married Woman and **GEOFFREY FRANCIS RUCK** of Auckland Solicitor (hereinafter called "the Third Covenantee")

INTERPRETATION:

In this Deed, unless the context otherwise requires, the following meanings are ascribed to the following words and phrases:

(a) "the Covenantees" means and includes all persons executing this Deed as Covenantees (being the First, Second and Third Covenantee, inclusive) and jointly and severally if more than one in respect of any separately titled piece of land and their executors administrators assigns and successors in title and their tenants licensees and invitees.

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(b) "the Covenantor" means and includes all parties to this Deed who are Covenantors and jointly and severally if more than one and their executors administrators assigns and successors in title and their tenants licensees and invitees.

(c) "part" means and includes each of the Covenantees and also the Covenantor.

WHEREAS:

A. The Covenantor is the registered proprietor of all the land described in Schedules A, B, C, D and E hereof.

B. The First Covenantee is the registered proprietor of all the land described in Schedule F hereof.

C. The Second Covenantee is the registered proprietor of all the land described in Schedule G hereof.

D. The Third Covenantee is the registered proprietor of all the land described in Schedule H hereof.

E. The Covenantor has installed a rural water supply (hereinafter called "the Water Supply") for the benefit of all the lands described in Schedules A to H hereof.

F. The Covenantor has obtained a water permit from the Otago Regional Council to take 930,000 litres per month from a bore situated on the Covenantor's land described in Schedule A hereof at a maximum rate of 3,000 litres per hour and issued under Consent No. 95687 by the Otago Regional Council.

G. The water supply comprises a bore, electric pump and supply lines.

H. The Covenantor and the Covenantees have agreed to enter into this Deed of Covenant to record the rights and obligations of the registered proprietors of the lands intended to be serviced by and to obtain the benefit of water supply.

I. It is intended that the water supply be for the benefit of all the lands described in Schedules A to H hereof on the terms and conditions detailed below, and that the covenants contained herein be mutually enforceable inter se by all of the owners from time to time of the lands described in Schedules A to H hereof.

NOW THIS DEED WITNESSETH:

1. **THE** Covenantor **HEREBY COVENANTS** with the Covenantees to henceforth and for all time comply with the obligations of the Covenantor set out in this Deed and to henceforth and for all time permit the exercise of the rights of the Covenantees set out in this Deed **AND HEREBY GRANTS** to the Covenantees the right to require the Covenantor to do any thing necessary to carry out the Covenantor's obligations as set out in this Deed and to refrain from doing any thing which may prevent the Covenantees from exercising the Covenantees' rights set out in this Deed.

2. **THE** Covenantees jointly and severally **HEREBY COVENANT** with the Covenantor and with each other to henceforth and for all time comply with the obligations of the Covenantees set out in this Deed and to henceforth and for all time permit the exercise of the rights of the Covenantor set out in this Deed **AND HEREBY GRANT** to the Covenantor and to each other the right to require the Covenantees jointly and severally to do any thing necessary to carry out the Covenantee's obligations as set out in this Deed and to refrain from doing any thing which may prevent the Covenantor or each other from exercising the Covenantor's and each other's rights as set out in this Deed.

INSTALLATION OF DOMESTIC AND STOCK SUPPLY SCHEME

3. **THE** Covenantor has installed the water supply and to that end has connected the supply to the bore and to the boundaries of the lands described in Schedules A to H hereof and the said water supply comprises the following:

   (a) A bore

   (b) An electric pump and meter

   (c) A water supply line system along the easements shown on Deposited Plans 25341 and 26714 (Otago Land Registry)

4. **THE** water supply shall serve the lands described in Schedules A to H hereof for the purposes of a domestic and stock supply of water.

5. **THE** registered proprietors of each parcel of land described in the Schedules A to H hereof shall only be entitled to draw water from the water supply for domestic and stock supply only and shall be entitled to take a maximum of the following quantities:

   (a) The Covenantor - 22,000 litres per day

   (b) The First Covenantee - 2,000 litres per day

   (c) The Second Covenantee - 3,600 litres per day

   (d) The Third Covenantee - 2,000 litres per day

6. **NO** warranty as to the availability and uninterrupted supply of water is given by or shall be implied on behalf of the Covenantor.

RIGHTS OF THE PARTIES:

7. **THE** registered proprietors of the lands subject to this Deed shall have the following rights:

(a) The right to draw water from the said domestic and stock supply scheme limited to a domestic supply only pursuant to Clauses 4 and 5 and Schedules A to H hereto; and

(b) The right to service and maintain the said domestic and stock supply scheme; and

(c) The full uninterrupted and unrestricted right liberty and privilege for themselves their tenants servants agents and workmen with any tools implements machinery vehicles or equipment of whatsoever nature necessary for the purpose to enter upon the Covenantor's or the Covenantee's land and to remain there for any reasonable time for the purpose of maintaining, servicing and/or renewing the domestic and stock supply scheme or any part thereof and of the opening up the soil of that land to such extent as may be necessary and reasonable in that regard subject to the condition that as little disturbance as possible is caused to the surface of the land of the Covenantor and Covenantees and that the surface is restored as nearly as possible to its original condition and any other damage done by reason of the aforesaid operations is repaired.

8. **THE** parties acknowledge that such easements to convey and store water plus ancillary pipeline installation and maintenance rights as are necessary for the purposes of the domestic and stock supply scheme have and will be created pursuant to an Easement Certificate or Memoranda of Transfer separate and distinct from this deed.

OBLIGATIONS OF THE PARTIES:

9. **THE** registered proprietors of the land subject to this Deed shall:

(a) Use the amount of water drawn from the domestic and stock supply scheme for the benefit of each separate piece of land detailed in Schedules A to H hereof for domestic and stock purposes only.

(b) Service and maintain the domestic and stock supply scheme in accordance with the provisions of Clause 10.

(c) Pay upon demand a proportionate share of the costs of servicing, maintaining and operating the water supply scheme in accordance with the provisions of Clauses 10 and 11.

(d) Where any damage to the domestic and stock supply scheme or any part of the scheme is caused by neglect in default of one of the parties hereto their agents invitees assignees that party or those parties shall bear the costs of remedy thereof.

MAINTENANCE OF WATER SUPPLY:

10. **SUBJECT** to Clause 9(d) the registered proprietor of each piece of land detailed in Schedules A to H shall, from the date of purchase of such land, be equally responsible for maintaining and servicing and paying for the costs of maintaining and servicing the domestic and stock supply scheme.

For the purposes of this clause and Clause 11 of this Deed, joint registered proprietors of one piece of land shall be deemed to be one registered proprietor.

OPERATING COSTS OF DOMESTIC AND STOCK SUPPLY SCHEME:

11. **THE** cost of electricity or any other means used to operate or fuel the operation of the pump or other mechanism serving the domestic and stock supply scheme plus any other operating costs shall be divided equally among the registered proprietors of the pieces of land described in Schedules A to H hereof save that the share of

the Covenantor in respect of the land described in Schedule A shall be three times that of the registered proprietors of the other pieces of land.

COVENANTOR RESPONSIBLE FOR OPERATION:

12.

(a) **IN** order to maintain the efficient and orderly operation and maintenance of the water supply the Covenantor as the registered proprietor of the land described in Schedule A shall of a period of up to two years from the date of this Deed:

(i) Arrange for all necessary maintenance of and repairs to the domestic and stock supply scheme including the electric pump, electricity supply and meter and the domestic and stock supply network and improvements and alterations that may from time to time be made thereto to ensure the continued operation of the domestic and stock supply scheme from the electric pump to the boundaries of the land described in Schedules A to ~~G~~ H hereto.

(ii) Arrange for receipt and payment of all electricity charges and other payments necessary to ensure the pumping of water from the bore to the boundaries of the land described in Schedules A to ~~G~~ H hereto.

(iii) Maintain a separate bank account for all receipts and payments relating to the operation and maintenance of the domestic and stock supply scheme

(iv) Regularly invoice all the registered proprietors liable pursuant to Clauses 10 and 11 to contribute to the operating and maintenance costs of the domestic and stock supply scheme for their proportionate share of such costs incurred.

(b) **FOR** the purposes of this clause the Covenantor may require all those registered proprietors referred to in Clauses 10 and 11 to pay by bank automatic payment or otherwise into the said bank account a regular payment on account of maintenance

and operating costs to be incurred by those the registered proprietors pursuant to Clauses 10 and 11 all such moneys to be applied in payment of such costs. Any such requirement made pursuant to this subclause shall be an obligation of such the registered proprietors for the purposes of this Deed.

(c) **THE** Covenantor may charge a fee for carrying out the Covenantor's duties pursuant to this clause such fee to be based upon time spent at a reasonable hourly rate and to be charged to reimburse the Covenantor for such time spent. Such fee shall be deemed to be an operating cost pursuant to Clause 11.

(d) **AFTER** the said period of up to two (2) years from the date of this Deed has elapsed then if the Covenantees and the Covenantor shall so agree then the parties to this deed shall form a management committee, an incorporated society or a private company to undertake the obligations and role of the Covenantor hereunder on such terms as the Covenantees and the Covenantor may from time to time agree.

DEFAULT:

13. No power is implied in respect of any covenant contained herein for any party to determine the covenant for any breach of any provision in this Deed (whether expressed or implied) or for any other cause it being the intention of the parties that the provisions of this Deed of Covenant shall subsist for all time until surrendered.

14. **IF** any party ("the defaulting party") neglects or refuses to perform or join with any other party in performing any obligation pursuant to this Deed the following provisions shall apply:

(a) Any other party ("the affected party") may serve upon the defaulting party a written notice ("default notices") requiring the defaulting party to perform or to

join in performing such obligations and stating that after the expiry of not less than seven days from service of this default clause shall apply;

(b) If at the expiry of the period stated in the default notice the defaulting party still neglects or refuses to perform or join in performing the obligation the affected party may do any or all of the following:

(i) Perform such obligation.

(ii) Take such reasonable steps as may be necessary to disconnect the land owned by the defaulting party from the domestic and stock supply scheme.

(iii) Enter on to the land owned by the defaulting party or any other land subject to this Deed and carry out all work required to perform such obligation and/or disconnect the land owned by the defaulting party from the domestic and stock supply scheme.

(c) The defaulting party shall be liable to pay to the affected party:

(i) All costs of and incidental to the preparation and service of the default notice.

(ii) All costs of and incidental to any such disconnection.

(iii) The proportion of all costs incurred in performing such obligation as is properly payable by the defaulting party pursuant to this Deed.

(d) The affected party may recover from the defaulting party as a liquidated debt any moneys payable pursuant to this clause.

(e) If the domestic and stock supply to the land owned by the defaulting party is disconnected pursuant to this clause the defaulting party may not reconnect or have reconnected such domestic and stock supply until the defaulting party has

performed all outstanding obligations and has paid in full any moneys payable pursuant to this clause.

NO INTERFERENCE:

15. **NO** party shall do any act which impedes interferes with or restricts the rights of any other party or other authorised persons in relation to this Deed.

THIS DEED SHALL ENDURE FOR ALL TIME:

16. **THE** covenants rights and obligations contained in this deed shall endure for all time for the benefit and burden as appropriate of all the lands owned by the parties to this Deed and every part thereof.

LIABILITY ONLY INCURRED BY REGISTERED PROPRIETOR:

17.

(a) A registered proprietor shall only be liable pursuant to this Deed for liabilities and/or costs arising pursuant to this Deed prior to the date that such registered proprietor ceases to be registered as proprietor of the land in respect of which the liabilities and/or costs arise.

(b) The registration of a transfer of a registered proprietor's interest in any land subject to this Deed shall not operate to relieve the transferor from any liability arising pursuant to this Deed prior to the date of registration of transfer.

TERMINATION:

18. **NOTWITHSTANDING** the provisions of Clause 16 hereof if the Covenantor and Covenantees for the time being or their successors in title so agree that the water supply is no longer required and the parties enter into an agreement for the surrender of the rights and obligations conferred by this Deed then ownership of

the various assets of the water supply shall revert to the registered proprietor for the time being of the land on where those assets are situated.

FURTHER COVENANT:

19. The Covenantees agree that prior to the Covenantor selling any or all of the pieces of land described in Schedules A, B, C, D and E or alternatively (at the Covenantor's option) following any such sale or sales the Covenantees will if required enter into any variation of this Covenant in order to allow any purchaser of those said pieces of land described in the said Schedules A, B, C , D and E to become a separate covenanting party with rights and obligations of a Covenantee under this Deed (and with such entitlement to a portion of the Covenantor's share of water outlined in clause 5 as shall be agreed upon between the Covenantor and the particular purchaser) and to separate the rights and obligations of the Covenantor under this Deed so that the obligations of the Covenantor run with the ownership of the land described in Schedule A.

SCHEDULE A

Area	Description	Certificate of Title
~~17.6713~~ hectares 18.9650ha	Lot 1 Deposited Plan 25880 ~~and part Section 1 SO Plan 22404~~ and part Section 104 Block VII Shotover Survey District	18D/342

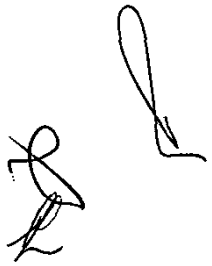
SCHEDULE B

Area	Description	Certificate of Title
8000 m2	Lot 2 Deposited Plan 26714	18D/338

SCHEDULE C

TRUSTEES LIMITATION OF LIABILITY:

20. The Third Covenantee GEOFFREY FRANCIS RUCK has executed this Deed in his capacity as a trustee of the CEJRL Trust and his liability in terms of this Deed shall at all times be limited to the assets of the CEJRL Trust.



Area	Description	Certificate of Title
7100m2	Lot 3 Deposited Plan 26714	18D/339

SCHEDULE D

Area	Description	Certificate of Title
5870m2	Lot 4 Deposited Plan 26714	18D/340

SCHEDULE E

Area	Description	Certificate of Title
20.0400 hectares	Lot 5 Deposited Plan 26714	18D/341

SCHEDULE F

Area	Description	Certificate of Title
9563m2	Lot 4 Deposited Plan 25341	17B/809

SCHEDULE G

Area	Description	Certificate of Title
47.4538 hectares	Lot 1 Deposited Plan 25341	17B/806

SCHEDULE H

Area	Description	Certificate of Title
42.1150 hectares	Lot 1 Deposited Plan 26714	18D/337

IN WITNESS WHEREOF this Deed was signed the day first above written.

SIGNED by the abovenamed)
ROGER FRANCIS MONK as)
Covenantor in the presence of:)

ERIC THOMSON
Solicitor
Alexandra

SIGNED by the abovenamed)
MARY KAYE MONK as First)
Covenantee in the presence of:)

ERIC THOMSON
Solicitor
Alexandra

SIGNED by the abovenamed)
RICHARD MICHAEL HILL,)
ANN CHRISTINE HILL and)
as Second Covenantee in the presence of:)

BRUCE ALEXANDER ROWLIN
SOLICITOR
QUEENSTOWN

CL019EAA

SIGNED by the abovenamed)
ROKO MARIJAN JUJAJ URLICH)
as Second Covenantee in the presence of:)

Christine Harding
Legal Executive
Whangarei

SIGNED by the abovenamed)
EDWIN MURRAY RICHARD)
LAMONT and **CAROL MARY**)
LAMONT as Third Covenantees)
in the presence of:)

Dorothy Joan Foster
Retired.
127A Ladies Mile
Elberslie

SIGNED by the abovenamed)
GEOFFREY FRANCIS RUCK)
as Third Covenantee in the presence of:)

D G Ruck
Solicitor
Wood Ruck & Co
Auckland

CL019EAA

Correct for the purposes of
the Land Transfer Act

Solicitor for the Covenantor

R F MONK
Covenantor

M K MONK
First Covenantee

R M & A C HILL and R M J URLICH
Second Covenantee

E M R & C M LAMONT & G F RUCK
Third Covenantee

DEED OF COVENANT
DOMESTIC AND STOCK
SUPPLY SCHEME

12.55 23.MAR99 964442
PARTICULARS ENTERED IN REGISTER
LAND REGISTRY OTAGO
FOR REGISTRAR - GENERAL OF LAND

FILE COPY

MACALISTER TODD P
SOLICIT
ALEXAN

CL019EAA

THIS DEED made this 1st day of June 2000

BETWEEN **ROGER FRANCIS MONK** of Arrowtown, Farmer (hereinafter called "the Vendor") of the first part

AND **CHRISTOPHER DARCY READ** of Arrowtown and **PAMELA ROSE READ** of Arrowtown (hereinafter called "the Purchasers") of the other part

INTERPRETATION:

In this Deed, unless the context otherwise requires, the following meaning are ascribed to the following words and phrases:

(a) "the Vendor" means and includes the party to this Deed who is Vendor and his executors, administrators, assigns and successors in title.

(b) "the Purchaser" means and includes all parties to this Deed who are Purchasers and jointly and severally if more than one and their executors, administrators assigns and successors in title.

WHEREAS

1. The Vendor is the Covenantor pursuant to a Deed of Covenant dated 25 September 1998 made between the Vendor as Covenantor and **MARY KAYE MONK** of Arrowtown, Femme Sole as First Covenantee, **RICHARD MICHAEL HILL** and **ANN CHRISTINE HILL** both of Arrowtown, Company Directors and **ROKO MARIJAN JUJAJ URLICH** of Whangarei, Solicitor as Second Covenantee and

EDWIN MURRAY RICHARD LAMONT of Auckland, Businessman, **CAROL MARY LAMONT** of Auckland, Married Woman and **GEOFFREY FRANCIS RUCK** of Auckland, Solicitor the Third Covenantee a copy of which is annexed hereto ("the Deed of Covenant").

2. The Purchasers have purchased the land in Schedule B to the Deed of Covenant being 7,100m2 Lot 3 Deposited Plan 26714 being all of the land in Certificate of Title 18D/339, Otago Registry by virtue of an Agreement for Sale and Purchase bearing date 1st day of January 2000 between the Vendor and the Purchasers ("the Agreement").

3. The Vendor has allocated to the Purchasers a supply of water of 2,000 litres a day from his allocation under the Deed of Covenant of 22,000 litres per day subject to the provisions hereinafter contained.

NOW THEREFORE in pursuance of the premises the parties agree as follows:

1. THE Purchasers entitlement under the Deed of Covenant shall be 2,000 litres of water per day.

2. THE Purchasers agree to be bound by and comply with all of the provisions of the Deed of Covenant.

3. THE Vendor hereby covenants with the Purchaser to henceforth and for all time comply with the obligations of the Vendor set out in the Deed of Covenant wherein the Vendor is described as the Covenantor and to henceforth and for all time permit the exercise of the right of the Purchaser as one of the Covenantees set out in the Deed and hereby grants to the Purchaser the right to require the Vendor to do anything necessary to carry out the Vendor's obligations as Covenantor as set out in the Deed of Covenant and to refrain from doing anything which may prevent the Purchaser from exercising their rights as Covenantees in the Deed.

IN WITNESS WHEREOF these presents have been executed the day in the first before written.

SIGNED by ~~the~~ Vendor)
ROGER FRANCIS MONK)
in the presence of:)

ERIC J THOMSON
SOLICITOR
ALEXANDRA.

SIGNED by the Purchasers)
CHRISTOPHER DARCY)
READ and **PAMELA ROSE**)
~~**DARCY**~~ in the presence of:)
READ

Jan Elizabeth Kingsbury
PA
Queenstown

N/L

DEED OF COVENANT

DATED the 25th day of September 1998

PARTIES:

1. **ROGER FRANCIS MONK** of Arrowtown Farmer (hereinafter called "the Covenantor")

2. **MARY KAYE MONK** of Arrowtown Femme Sole (hereinafter called "the First Covenantee")

3. **RICHARD MICHAEL HILL** and **ANN CHRISTINE HILL** both of Arrowtown Company Directors and **ROKO MARIJAN JUJAJ URLICH** of Whangarei, Solicitor (hereinafter called "the Second Covenantee")

4. **EDWIN MURRAY RICHARD LAMONT** of Auckland, Businessman, **CAROL MARY LAMONT** of Auckland, Married Woman and **GEOFFREY FRANCIS RUCK** of Auckland Solicitor (hereinafter called "the Third Covenantee")

INTERPRETATION:

In this Deed, unless the context otherwise requires, the following meanings are ascribed to the following words and phrases:

(a) "the Covenantees" means and includes all persons executing this Deed as Covenantees (being the First, Second and Third Covenantee, inclusive) and jointly and severally if more than one in respect of any separately titled piece of land and their executors administrators assigns and successors in title and their tenants licensees and invitees.

(b) "the Covenantor" means and includes all parties to this Deed who are Covenantors and jointly and severally if more than one and their executors administrators assigns and successors in title and their tenants licensees and invitees.

(c) "part" means and includes each of the Covenantees and also the Covenantor.

WHEREAS:

A. The Covenantor is the registered proprietor of all the land described in Schedules A, B, C, D and E hereof.

B. The First Covenantee is the registered proprietor of all the land described in Schedule F hereof.

C. The Second Covenantee is the registered proprietor of all the land described in Schedule G hereof.

D. The Third Covenantee is the registered proprietor of all the land described in Schedule H hereof.

E. The Covenantor has installed a rural water supply (hereinafter called "the Water Supply") for the benefit of all the lands described in Schedules A to H hereof.

F. The Covenantor has obtained a water permit from the Otago Regional Council to take 930,000 litres per month from a bore situated on the Covenantor's land described in Schedule A hereof at a maximum rate of 3,000 litres per hour and issued under Consent No. 95687 by the Otago Regional Council.

G. The water supply comprises a bore, electric pump and supply lines.

H. The Covenantor and the Covenantees have agreed to enter into this Deed of Covenant to record the rights and obligations of the registered proprietors of the lands intended to be serviced by and to obtain the benefit of water supply.

I. It is intended that the water supply be for the benefit of all the lands described in Schedules A to H hereof on the terms and conditions detailed below, and that the covenants contained herein be mutually enforceable inter se by all of the owners from time to time of the lands described in Schedules A to H hereof.

NOW THIS DEED WITNESSETH:

1. **THE** Covenantor **HEREBY COVENANTS** with the Covenantees to henceforth and for all time comply with the obligations of the Covenantor set out in this Deed and to henceforth and for all time permit the exercise of the rights of the Covenantees set out in this Deed **AND HEREBY GRANTS** to the Covenantees the right to require the Covenantor to do any thing necessary to carry out the Covenantor's obligations as set out in this Deed and to refrain from doing any thing which may prevent the Covenantees from exercising the Covenantees' rights set out in this Deed.

2. **THE** Covenantees jointly and severally **HEREBY COVENANT** with the Covenantor and with each other to henceforth and for all time comply with the obligations of the Covenantees set out in this Deed and to henceforth and for all time permit the exercise of the rights of the Covenantor set out in this Deed **AND HEREBY GRANT** to the Covenantor and to each other the right to require the Covenantees jointly and severally to do any thing necessary to carry out the Covenantee's obligations as set out in this Deed and to refrain from doing any thing which may prevent the Covenantor or each other from exercising the Covenantor's and each other's rights as set out in this Deed.

INSTALLATION OF DOMESTIC AND STOCK SUPPLY SCHEME

3. **THE** Covenantor has installed the water supply and to that end has connected the supply to the bore and to the boundaries of the lands described in Schedules A to H hereof and the said water supply comprises the following:

   (a) A bore

   (b) An electric pump and meter

   (c) A water supply line system along the easements shown on Deposited Plans 25341 and 26714 (Otago Land Registry)

4. **THE** water supply shall serve the lands described in Schedules A to H hereof for the purposes of a domestic and stock supply of water.

5. **THE** registered proprietors of each parcel of land described in the Schedules A to H hereof shall only be entitled to draw water from the water supply for domestic and stock supply only and shall be entitled to take a maximum of the following quantities:

   (a) The Covenantor - 22,000 litres per day

   (b) The First Covenantee - 2,000 litres per day

   (c) The Second Covenantee - 3,600 litres per day

   (d) The Third Covenantee - 2,000 litres per day

6. **NO** warranty as to the availability and uninterrupted supply of water is given by or shall be implied on behalf of the Covenantor.

RIGHTS OF THE PARTIES:

7. **THE** registered proprietors of the lands subject to this Deed shall have the following rights:

(a) The right to draw water from the said domestic and stock supply scheme limited to a domestic supply only pursuant to Clauses 4 and 5 and Schedules A to H hereto; and

(b) The right to service and maintain the said domestic and stock supply scheme; and

(c) The full uninterrupted and unrestricted right liberty and privilege for themselves their tenants servants agents and workmen with any tools implements machinery vehicles or equipment of whatsoever nature necessary for the purpose to enter upon the Covenantor's or the Covenantee's land and to remain there for any reasonable time for the purpose of maintaining, servicing and/or renewing the domestic and stock supply scheme or any part thereof and of the opening up the soil of that land to such extent as may be necessary and reasonable in that regard subject to the condition that as little disturbance as possible is caused to the surface of the land of the Covenantor and Covenantees and that the surface is restored as nearly as possible to its original condition and any other damage done by reason of the aforesaid operations is repaired.

8. **THE** parties acknowledge that such easements to convey and store water plus ancillary pipeline installation and maintenance rights as are necessary for the purposes of the domestic and stock supply scheme have and will be created pursuant to an Easement Certificate or Memoranda of Transfer separate and distinct from this deed.

OBLIGATIONS OF THE PARTIES:

9. **THE** registered proprietors of the land subject to this Deed shall:

(a) Use the amount of water drawn from the domestic and stock supply scheme for the benefit of each separate piece of land detailed in Schedules A to H hereof for domestic and stock purposes only.

(b) Service and maintain the domestic and stock supply scheme in accordance with the provisions of Clause 10.

(c) Pay upon demand a proportionate share of the costs of servicing, maintaining and operating the water supply scheme in accordance with the provisions of Clauses 10 and 11.

(d) Where any damage to the domestic and stock supply scheme or any part of the scheme is caused by neglect in default of one of the parties hereto their agents invitees assignees that party or those parties shall bear the costs of remedy thereof.

MAINTENANCE OF WATER SUPPLY:

10. **SUBJECT** to Clause 9(d) the registered proprietor of each piece of land detailed in Schedules A to H shall, from the date of purchase of such land, be equally responsible for maintaining and servicing and paying for the costs of maintaining and servicing the domestic and stock supply scheme.

For the purposes of this clause and Clause 11 of this Deed, joint registered proprietors of one piece of land shall be deemed to be one registered proprietor.

OPERATING COSTS OF DOMESTIC AND STOCK SUPPLY SCHEME:

11. **THE** cost of electricity or any other means used to operate or fuel the operation of the pump or other mechanism serving the domestic and stock supply scheme plus any other operating costs shall be divided equally among the registered proprietors of the pieces of land described in Schedules A to H hereof save that the share of

the Covenantor in respect of the land described in Schedule A shall be three times that of the registered proprietors of the other pieces of land.

COVENANTOR RESPONSIBLE FOR OPERATION:

12.

(a) **IN** order to maintain the efficient and orderly operation and maintenance of the water supply the Covenantor as the registered proprietor of the land described in Schedule A shall of a period of up to two years from the date of this Deed:

(i) Arrange for all necessary maintenance of and repairs to the domestic and stock supply scheme including the electric pump, electricity supply and meter and the domestic and stock supply network and improvements and alterations that may from time to time be made thereto to ensure the continued operation of the domestic and stock supply scheme from the electric pump to the boundaries of the land described in Schedules A to ~~G~~ H hereto.

(ii) Arrange for receipt and payment of all electricity charges and other payments necessary to ensure the pumping of water from the bore to the boundaries of the land described in Schedules A to ~~G~~ H hereto.

(iii) Maintain a separate bank account for all receipts and payments relating to the operation and maintenance of the domestic and stock supply scheme

(iv) Regularly invoice all the registered proprietors liable pursuant to Clauses 10 and 11 to contribute to the operating and maintenance costs of the domestic and stock supply scheme for their proportionate share of such costs incurred.

(b) **FOR** the purposes of this clause the Covenantor may require all those registered proprietors referred to in Clauses 10 and 11 to pay by bank automatic payment or otherwise into the said bank account a regular payment on account of maintenance

and operating costs to be incurred by those the registered proprietors pursuant to Clauses 10 and 11 all such moneys to be applied in payment of such costs. Any such requirement made pursuant to this subclause shall be an obligation of such the registered proprietors for the purposes of this Deed.

(c) **THE** Covenantor may charge a fee for carrying out the Covenantor's duties pursuant to this clause such fee to be based upon time spent at a reasonable hourly rate and to be charged to reimburse the Covenantor for such time spent. Such fee shall be deemed to be an operating cost pursuant to Clause 11.

(d) **AFTER** the said period of up to two (2) years from the date of this Deed has elapsed then if the Covenantees and the Covenantor shall so agree then the parties to this deed shall form a management committee, an incorporated society or a private company to undertake the obligations and role of the Covenantor hereunder on such terms as the Covenantees and the Covenantor may from time to time agree.

DEFAULT:

13. No power is implied in respect of any covenant contained herein for any party to determine the covenant for any breach of any provision in this Deed (whether expressed or implied) or for any other cause it being the intention of the parties that the provisions of this Deed of Covenant shall subsist for all time until surrendered.

14. **IF** any party ("the defaulting party") neglects or refuses to perform or join with any other party in performing any obligation pursuant to this Deed the following provisions shall apply:

(a) Any other party ("the affected party") may serve upon the defaulting party a written notice ("default notices") requiring the defaulting party to perform or to

join in performing such obligations and stating that after the expiry of not less than seven days from service of this default clause shall apply;

(b) If at the expiry of the period stated in the default notice the defaulting party still neglects or refuses to perform or join in performing the obligation the affected party may do any or all of the following:

(i) Perform such obligation.

(ii) Take such reasonable steps as may be necessary to disconnect the land owned by the defaulting party from the domestic and stock supply scheme.

(iii) Enter on to the land owned by the defaulting party or any other land subject to this Deed and carry out all work required to perform such obligation and/or disconnect the land owned by the defaulting party from the domestic and stock supply scheme.

(c) The defaulting party shall be liable to pay to the affected party:

(i) All costs of and incidental to the preparation and service of the default notice.

(ii) All costs of and incidental to any such disconnection.

(iii) The proportion of all costs incurred in performing such obligation as is properly payable by the defaulting party pursuant to this Deed.

(d) The affected party may recover from the defaulting party as a liquidated debt any moneys payable pursuant to this clause.

(e) If the domestic and stock supply to the land owned by the defaulting party is disconnected pursuant to this clause the defaulting party may not reconnect or have reconnected such domestic and stock supply until the defaulting party has

performed all outstanding obligations and has paid in full any moneys payable pursuant to this clause.

NO INTERFERENCE:

15. **NO** party shall do any act which impedes interferes with or restricts the rights of any other party or other authorised persons in relation to this Deed.

THIS DEED SHALL ENDURE FOR ALL TIME:

16. **THE** covenants rights and obligations contained in this deed shall endure for all time for the benefit and burden as appropriate of all the lands owned by the parties to this Deed and every part thereof.

LIABILITY ONLY INCURRED BY REGISTERED PROPRIETOR:

17.

(a) A registered proprietor shall only be liable pursuant to this Deed for liabilities and/or costs arising pursuant to this Deed prior to the date that such registered proprietor ceases to be registered as proprietor of the land in respect of which the liabilities and/or costs arise.

(b) The registration of a transfer of a registered proprietor's interest in any land subject to this Deed shall not operate to relieve the transferor from any liability arising pursuant to this Deed prior to the date of registration of transfer.

TERMINATION:

18. **NOTWITHSTANDING** the provisions of Clause 16 hereof if the Covenantor and Covenantees for the time being or their successors in title so agree that the water supply is no longer required and the parties enter into an agreement for the surrender of the rights and obligations conferred by this Deed then ownership of

the various assets of the water supply shall revert to the registered proprietor for the time being of the land on where those assets are situated.

FURTHER COVENANT:

19. The Covenantees agree that prior to the Covenantor selling any or all of the pieces of land described in Schedules A, B, C, D and E or alternatively (at the Covenantor's option) following any such sale or sales the Covenantees will if required enter into any variation of this Covenant in order to allow any purchaser of those said pieces of land described in the said Schedules A, B, C , D and E to become a separate covenanting party with rights and obligations of a Covenantee under this Deed (and with such entitlement to a portion of the Covenantor's share of water outlined in clause 5 as shall be agreed upon between the Covenantor and the particular purchaser) and to separate the rights and obligations of the Covenantor under this Deed so that the obligations of the Covenantor run with the ownership of the land described in Schedule A.

SCHEDULE A

Area	Description	Certificate of Title
17.6713 hectares	Lot 1 Deposited Plan 25880 and part Section 1 SO Plan 22404 and part Section 104 Block VII Shotover Survey District	~~18D/342~~ 19C/187

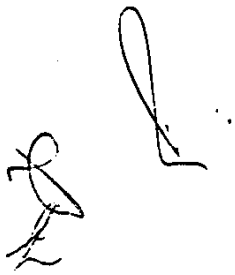
SCHEDULE B

Area	Description	Certificate of Title
8000 m2	Lot 2 Deposited Plan 26714	18D/338

SCHEDULE C

TRUSTEES LIMITATION OF LIABILITY:

20. The Third Covenantee GEOFFREY FRANCIS RUCK has executed this Deed in his capacity as a trustee of the CEJRL Trust and his liability in terms of this Deed shall at all times be limited to the assets of the CEJRL Trust.



Area	Description	Certificate of Title
7100m2	Lot 3 Deposited Plan 26714	~~18D/339~~ ~~19C/167~~ 18D/339

SCHEDULE D

Area	Description	Certificate of Title
5870m2	Lot 4 Deposited Plan 26714	18D/340

SCHEDULE E

Area	Description	Certificate of Title
20.0400 hectares	Lot 5 Deposited Plan 26714	18D/341

SCHEDULE F

Area	Description	Certificate of Title
9563m2	Lot 4 Deposited Plan 25341	17B/809

SCHEDULE G

Area	Description	Certificate of Title
47.4538 hectares	Lot 1 Deposited Plan 25341	17B/806

SCHEDULE H

Area	Description	Certificate of Title
42.1150 hectares	Lot 1 Deposited Plan 26714	18D/337

IN WITNESS WHEREOF this Deed was signed the day first above written.

SIGNED by the abovenamed)
ROGER FRANCIS MONK as)
Covenantor in the presence of:)

ERIC THOMSON
Solicitor
Alexandra

SIGNED by the abovenamed)
MARY KAYE MONK as First)
Covenantee in the presence of:)

ERIC THOMSON
Solicitor
Alexandra

SIGNED by the abovenamed)
RICHARD MICHAEL HILL,)
ANN CHRISTINE HILL and)
as Second Covenantee in the presence of:)

BRUCE ALEXANDER [illegible]
SOLICITOR
CLYDE, OTAGO

CL019EAA

SIGNED by the abovenamed)
ROKO MARIJAN JUJAJ URLICH)
as Second Covenantee in the presence of:)

Christine Harding
Legal Executive
Whangarei

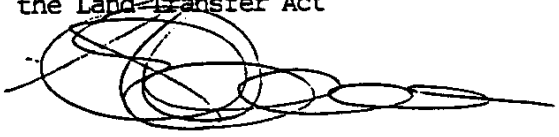
SIGNED by the abovenamed)
EDWIN MURRAY RICHARD)
LAMONT and **CAROL MARY**)
LAMONT as Third Covenantees)
in the presence of:)

Dorothy Joan Foster
Retired.
127^ Ladies Mile
Ellerslie

SIGNED by the abovenamed)
GEOFFREY FRANCIS RUCK)
as Third Covenantee in the presence of:)

D G Ruck
Solicitor
Wood Ruck & Co
Auckland

Correct for the purposes of
the Land Transfer Act



Solicitor for the Covenantor

R F MONK
Covenantor

M K MONK
First Covenantee

R M & A C HILL and R M J URLICH
Second Covenantee

E M R & C M LAMONT & G F RUCK
Third Covenantee

DEED OF COVENANT
DOMESTIC AND STOCK
SUPPLY SCHEME

MACALISTER TODD PHILLIPS BODKINS
SOLICITORS
ALEXANDRA

CL019EAA

DATED 2000

BETWEEN **ROGER FRANCIS MONK** of Arrowtown, Farmer (hereinafter called "the Vendor") of the first part

AND **CHRISTOPHER DARCY READ** of Arrowtown and **PAMELA ROSE READ** of Arrowtown (hereinafter called "the Purchaser") of the other part

WATER SUPPLY AGREEMENT

MACALISTER TODD PHILLIPS
BODKINS
SOLICITORS
ALEXANDRA

Easement instrument to grant easement or *profit à prendre*, or create land covenant

(Sections 90A and 90F Land Transfer Act 1952)

2015/6246
APPROVED
Registrar-General of Land

Grantor

Roger Francis MONK and COOK ADAM TRUSTEES LIMITED

Grantee

Roger Francis MONK and COOK ADAM TRUSTEES LIMITED

Grant of Easement or *Profit à prendre* or Creation of Covenant

The Grantor being the registered proprietor of the servient tenement(s) set out in Schedule A **grants to the Grantee** (and, if so stated, in gross) the easement(s) or *profit(s) à prendre* set out in Schedule A, **or creates** the covenant(s) **set out** in Schedule A, with the rights and powers or provisions set out in the Annexure Schedule(s)

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

Purpose (Nature and extent) of easement; *profit* or covenant	Shown (plan reference)	Servient Tenement (Computer Register)	Dominant Tenement (Computer Register) or in gross
Right to convey water	**"A" and "Q" on DP 518669**	**Lot 3 DP 518669 (CFR 813755**	**Lot 1 DP 518669 (CFR 813753) and Lot 2 DP 518699 (CFR 813754)**
Right to convey water	**"I", "B", "C", "F", "L" and "G" on DP 518669**	**Lot 3 DP 518669 (CFR 813755**	**Lot 1 DP 518669 (CFR 813753) and Lot 2 DP 518699 (CFR 813754)**

Easements or *profits à prendre* rights and powers (including terms, covenants and conditions)

Delete phrases in [ ] and insert memorandum number as required; continue in additional Annexure Schedule, if required

Unless otherwise provided below, the rights and powers implied in specified classes of easement are those prescribed by the Land Transfer Regulations 2002 and/or Schedule Five of the Property Law Act 2007

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

~~[Memorandum number , registered under section 155A of the Land Transfer Act 1952]~~

[the provisions set out in Annexure Schedule **1**]

Covenant provisions

Delete phrases in [ ] and insert Memorandum number as required; continue in additional Annexure Schedule, if required

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

[Memorandum number , registered under section 155A of the Land Transfer Act 1952]

[Annexure Schedule]

Annexure Schedule 1

1. DEFINITIONS

Unless the context specifies or requires otherwise, the following words and phrases when used in this Annexure Schedule 1 shall have the meanings specified below;

"Dominant Land" means the Dominant Tenement noted in Schedule A of this Instrument.

"*Grantee*" means the registered proprietor of the Dominant Land and their executors, assigns and successors in title and their tenants, licencees and invitees.

"*Grantor*" means the registered proprietor of the Servient Land and their executors, assigns and successors in title and their tenants, licencees and invitees.

"Servient Land" means the Servient Tenement noted in Schedule A of this Instrument.

2. BACKGROUND

2.1 A potable Water Supply Scheme has been installed for domestic purposes for the benefit of the Dominant Land and Servient Land ("the Water Supply Scheme").

2.2 Pursuant to the Deed of Covenant 964442.3 ("the Deed of Covenant") registered against the computer freehold registers of the Dominant Land and the Servient Land, the Grantor and Grantee have the right be a party to and utilise the domestic supply scheme for the supply of water as detailed in the Deed of Covenant.

2.3 it is intended that the Water Supply Scheme be for the benefit of all of the Dominant Land and Servient Land and on the terms and conditions contained in this Easement instrument and the covenants contained in this Easement Instrument be mutually enforceable inter se by the Grantor and Grantee.

3. SCOPE

3.1 The Grantor hereby covenants with the Grantee to comply with the obligations as set in this Instrument and for all time to permit the exercise of the rights of the Grantee and hereby grants to the Grantee the right to require the Grantor to do anything necessary to carry out the obligations of the Grantor as set out in this Instrument and to refrain from doing anything which may prevent the Grantee from exercising the Grantee's rights as set out in this Instrument.

3.2 The Grantee hereby covenants with the Grantor to comply with the obligations as set in this Instrument and for all time to permit the exercise of the rights of the Grantor and hereby grants to the Grantor the right to require the Grantee to do anything necessary to carry out the obligations of the Grantee as set out in this Easement Instrument and to refrain from doing anything which may prevent the Grantor from exercising the Grantor's rights as set out in this Instrument

4. WATER SUPPLY SCHEME – INSTALLATION AND WATER ENTITLEMENTS

4.1 The Water Supply Scheme which comprises the following:

a. A Bore ("Bore"), a pump and a water supply line system ("Water Supply Line System") described in the Deed of Covenant; and

b. A water supply pipeline system located in the areas marked "A", "Q", "I", "B", "C", "F", "L" and "G" on Deposited Plan 518669 ("the Water Supply Pipeline").

4.2 The Water Supply Scheme shall serve the Dominant Land and the Servient Land.

4.3 The Grantee or the Grantor, as the case may be, shall be entitled to draw up to the amount of 2100 litres per day from the Water Supply Scheme.

4.4 The water available to the Dominant Land and the Servient Land shall be limited by a restrictor valve. The restrictor valve installed shall be of such size as to limit the amount of water to be supplied to the maximum supply available to the Grantee and Grantor as set out in Clause 4.3 of this Easement Instrument.

5. RIGHTS OF GRANTOR AND GRANTEE

5.1 The Grantor and Grantee shall have the following rights:

a. The right to draw water from the Bore as set out in Clause 4.3 of this Easement Instrument.

b. The right to convey water along the Water Supply Pipeline System and Water Supply Pipeline.

c. The right to enter upon any part of the Servient Land including the land noted in Schedules to the Deed of Covenant ("the Land"), with or without engineers, contractors and workmen and with or without any necessary vehicles, implements, tools, materials and specialist services for the purposes of repairing, maintaining, servicing,

replacing and or renewing any infrastructure forming part of the Water Supply System and to open up the soil of that land to such extent as may be necessary and reasonable in that regard, subject to the condition that as little disturbance as possible is caused to the surface of the Land and that the surface is restored as nearly as possible to its original condition and any other damage done by reason for the aforesaid operations is repaired.

5.2 The Grantor and Grantee acknowledge that all easements to take and convey water plus ancillary installation and maintenance rights as are necessary for the purposes of the Water Supply Scheme are created pursuant to this Instrument and as described in the Deed of Covenant.

6. OBLIGATIONS OF GRANTOR AND GRANTEE

6.1 The Grantor and Grantee shall:

a. Restrict the amount of water drawn from the Water Supply Scheme for the benefit of the Dominant Land and Servient Land as specified in Clause 4.3 and for that purpose shall install and/or maintain the necessary restrictor valves and related equipment necessary to ensure that any restrictions required from time to time are maintained at all times.

b. Service and maintain the Water Supply Scheme in accordance with the provisions of Clause 7 of this Easement Instrument.

c. Pay upon demand an proportionate share of the costs of servicing, maintaining and operating the Water Supply Scheme in accordance with the provisions of Clauses 7 and 8 of this Easement Instrument, however, the Grantor or Grantee must promptly carry out at that party's sole cost any repair or maintenance of the Water Supply Scheme that is attributed solely to an act or omission by that party.

d. be responsible for installing at their cost on their land a filtration and UV or other approved system to ensure that all water used for domestic purposes is potable as per the Drinking Water Standards for New Zealand 2005 or any standard in replacement of these standards.

7. MAINTENANCE OF WATER SUPPLY SCHEME

Subject to clauses 9 and 10 the Grantor and Grantee shall be responsible for maintaining and servicing and for paying the costs of maintaining and servicing that part of the Water Supply Scheme which serves the land owned by the Grantor or Grantee as the case may be.

8. OPERATING COSTS OF WATER SUPPLY SCHEME

Subject to Clauses 9 and 10 the cost of electricity or any other means used to operate or fuel the operation of a pump or other mechanism serving the Water Supply Scheme plus any other operating costs shall be divided proportionately amongst the Grantor and Grantee in accordance with the amount of water drawn from the Bore by each party.

9. NO LIABILITY UNTIL CONNECTED

The Grantor or Grantee shall only be liable pursuant to this Easement Instrument for any liabilities and/or costs arising during such a period as the land owned by the Grantor or Grantee is connected to the Water Supply Scheme. For the purposes of this clause and without in any way limiting the phrase "is connected to", if a residence or other building is erected on any part of the Dominant Land or Servient Land and such residence or other building is connected to the Water Supply Scheme then that piece of land shall be deemed to be connected to the Water Supply Scheme.

10 GRANTOR RESPONSIBLE FOR OPERATION

10.1 In order to ensure the efficient and orderly operation and maintenance of the Water Supply Scheme the Grantor shall:

a. Carry out all necessary maintenance of and repairs to the infrastructure installed as part of Water Supply Scheme and be responsible for ensuring the continual proper operation of the Water Supply Scheme.

b. Arrange for receipt and payment of all electricity charges and other payments necessary to ensure the continual pumping of water from the Bore.

c. Maintain a separate bank account for all receipts and payments relating to the operation and maintenance of the Water Supply Scheme.

d. Regularly invoice the Grantee pursuant to clauses 7 and 8 to contribute to the operating and maintenance costs of the Water Supply Scheme for their proportionate share of such costs incurred.

10.2 For the purposes of this clause the Grantor may require the Grantee to pay by bank automatic payment or otherwise into the said bank account a regular payment on account of maintenance and operating costs to be incurred by

those proprietors pursuant to clauses 6 and 7, all such moneys to be applied in payment of such costs.

10.3 The Grantor may charge a fee for carrying out the Grantor's duties pursuant to this clause, such fee to be based upon time spent at a reasonable hourly rate and to be charged to reimburse the Grantor for such time spent. Such fee shall be deemed to be an operating cost pursuant to clause 8.

11. DEFAULT

11.1 No power is implied in respect of any obligation contained herein for either the Grantor or the Grantee to determine any of these covenants for any breach of any provision in this Easement Instrument (whether express or implied) or for any other cause, it being the intention of the Parties that the provisions of this Easement Instrument shall subsist for all time until surrendered.

11.2 If either the Grantor or the Grantee neglects or refuses to perform or join with any other registered proprietor in performing any obligation pursuant to this Easement Instrument ("the Defaulting Party") the following provisions shall apply:

a. Any non defaulting party ("the Affected Party") may serve upon the Defaulting Party a written notice ("Default Notice") requiring the Defaulting Party to perform or to join in performing such obligation and stating that, after the expiry of not less than 14 days from service of the Default Notice, the provisions of this default clause shall apply.

b. If at the expiry of the period stated in the Default Notice the Defaulting Party still neglects or refuses to perform or join in performing the obligation the Affected Party may do any or all of the following:

i. Perform such obligation;

ii. Take such reasonable steps as may be necessary to disconnect the land owned by the Defaulting Party from the Water Supply Scheme;

iii. Enter onto the land owned by the Defaulting Party or any other land subject to this Easement Instrument and carry out any work required to perform such obligation and/or disconnect the land owned by the Defaulting Party from the Water Supply Scheme.

c. The Defaulting Party shall be liable to pay to the Affected Party:

i. all costs of and incidental to the preparation and service of the Default Notice;

ii. all costs of and incidental to any such disconnection;

iii. the proportion of all costs incurred in performing such obligation as is properly payable by the Defaulting Party pursuant to this Easement Instrument.

d. The Affected Party may recover from the Defaulting Party as a liquidated debt any moneys payable pursuant to this clause.

e. If the water supply to the land owned by the Defaulting Party is disconnected pursuant to this clause the Defaulting Party may not reconnect or have reconnected such water supply until the Defaulting Party has performed all outstanding obligations and has paid in full any moneys payable pursuant to this clause.

12. NO INTERFERENCE

Neither the Grantor nor the Grantee shall do any act which impedes, interferes with or restricts the rights of any other party or other authorized persons arising pursuant to this Easement Instrument.

13 THIS EASEMENT INSTRUMENT SHALL ENURE FOR ALL TIME

The rights and obligations contained in this Instrument shall enure for all time for the benefit and burden as appropriate of all the Dominant Land and Servient Land unless the Grantor and Grantee agree that the Water Supply Scheme is no longer required and the parties may enter into an agreement for the surrender of the rights and obligations conferred by this Instrument, then the ownership of the infrastructure of the Water Supply Scheme shall revert to the registered proprietor for the time being of the land on where that infrastructure is located.

14. LIABILITY ONLY INCURRED BY GRANTOR/GRANTEE WHILE REGISTERED PROPRIETOR

The Grantor/Grantee shall only be liable pursuant to this Easement Instrument for liabilities and/or costs arising pursuant to this Easement Instrument whilst a registered proprietor of the Dominant Land or Servient Land as the case may be PROVIDED THAT the registration of a transfer of a Grantor or Grantees interest in the Dominant Land or Servient Land shall not operate to relieve the Grantor or Grantee as the case may be from any liability arising pursuant to this Easement Instrument prior to the date of registration of such transfer.

15. DISPUTES

If a dispute in relation to the easements created pursuant to this Easement Instrument arises between parties who have a registered interest under the easement the disputes resolution procedure referred to in clause 14 of the 4th Schedule of the Land Transfer Regulations 2002 shall be followed by the parties.

16. INCONSISTENCY OF PROVISIONS

16.1 if there is any inconsistency between the Fourth Schedule to the Land Transfer Regulations 2002 and the Deed of Covenant and the provisions of this Instrument, the provisions of this Instrument will prevail.

F41/0166

OTAGO REGIONAL COUNCIL
Private Bag
DUNEDIN

BORE LOG FORM

Well owner: ROGER MONK
Address: MT SOHO STATION
Locality: ARROWTOWN
Map sheet: F41
Grid reference: 818754
Drilling firm: MCNEIL DRILLING
Driller: D ABURN
Drill method: PERCUSSION
Job start: 16:11:95
Job finish: 16:11:95

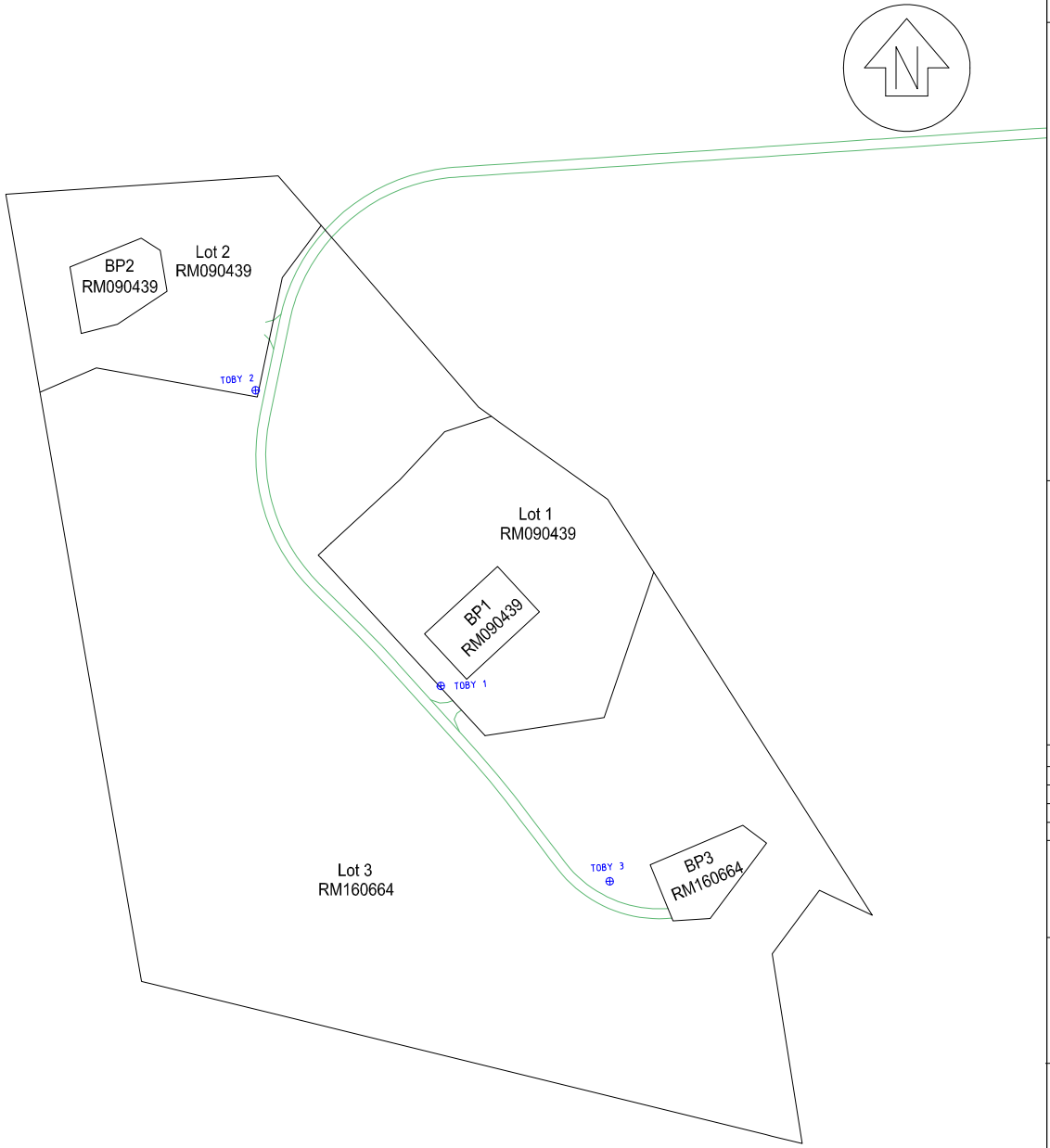
Office use only:
Well No.
Management unit
Formation
Catchment No.
Water Right No.
Bore Permit No. 95694425
Reduced level
Date received:

Strata / Aquifer details

Depth from surface Top	Depth from surface Bottom	Colour	Description of material passed through	Aquifer details: Depth from surface Top	Aquifer details: Depth from surface Bottom	Aquifer details: Static water level	Aquifer details: Yield
0.0	0.5		TOPSOIL				
0.5	10.8		SILTY SANDY GRAVEL				
10.8	11.0		BOULDER				
11.0	11.2		COARSE GRAVEL				
11.2			SCHIST ROCK				
TOTAL DEPTH OF 100mm DIA BORE					11.27m		
SCREEN AND LEADER 840 mm							
STAINLESS STEEL SCREEN 100/1000 SLOT - 0.50m							
TOP OF LEADER: 10.43m							
STATIC WATER LEVEL 6.25							
TEST PUMPED AT 2400 LITRES/HOUR							
DRAWDOWN 3.40METRES							

LEGEND

- Water Hydrant
- Water Valve
- Water Node
- Water End Cap
- Water Toby
- Water Toby with Domestic Meter
- Water Non Return Valve
- Water Air Valve
- Drainage (Stormwater) Manhole
- Drainage Chamber Manhole
- Drainage Lamphole
- Drainage Valve
- Drainage Node
- Drainage End Cap
- Drainage Mudtank
- Drainage Soakpit
- Sewer (Foulsewer) Manhole
- Sewer Pressure Manhole
- Sewer Chamber Manhole
- Sewer Lamphole
- Sewer Valve
- Sewer Node
- Sewer End Cap
- Sewer Air Valve
- Sewer Non Return Valve
- Water Network
- Drainage Network
- Sewer Network
- Kerb or Nib Line
- Boundaries
- Survey Benchmark



I Daniel Batchelor
(Name)
of Aurum Survey Consultants
(Company)

certify that -

1. This asbuilt plan has been produced in accordance with the *QLDC Asbuilt Plan Specification Requirements, April 2010*;
2. The measurements to which this asbuilt plan relates are accurate, and appropriate methods and equipment have been employed to ensure the data meets the horizontal accuracy requirement of ± 300mm for X & Y coordinates and the vertical accuracy requirement of ± 40mm (normal accuracy) and/or ± 20mm (high accuracy for flat grades) for Z coordinates;
3. The attributes assigned to asbuilt features are correct, as determined by me or under my direction or from information supplied to me. Where supplied to me by the Contractor/Installer or others, those records are retained on my file;

Signature: .....

Designation/Qualification: BSurv
Date: 6/09/2018

Note: This asbuilt plan relies on measurements and/or attributes descriptions that have been supplied by:

N/A

NOTES:

- Levels are in terms of MSL (Dunedin Vertical Datum 1958)
- The Origin of Levels is IT XIVa SO 24437 (RL 408.37)
- Coordinates are in terms of NZTM2000

APPROVALS	NAME	DATE
SURVEYED	DB	06/09/2018
DRAWN	DB	06/09/2018
CHECKED	AW	06/09/2018
APPROVED	AW	06/09/2018

AURUM SURVEY
PO Box 2493
Wakatipu 9349
Ph 03 442 3466
Fax 03 442 3469
Email admin@ascl.co.nz

CLIENT

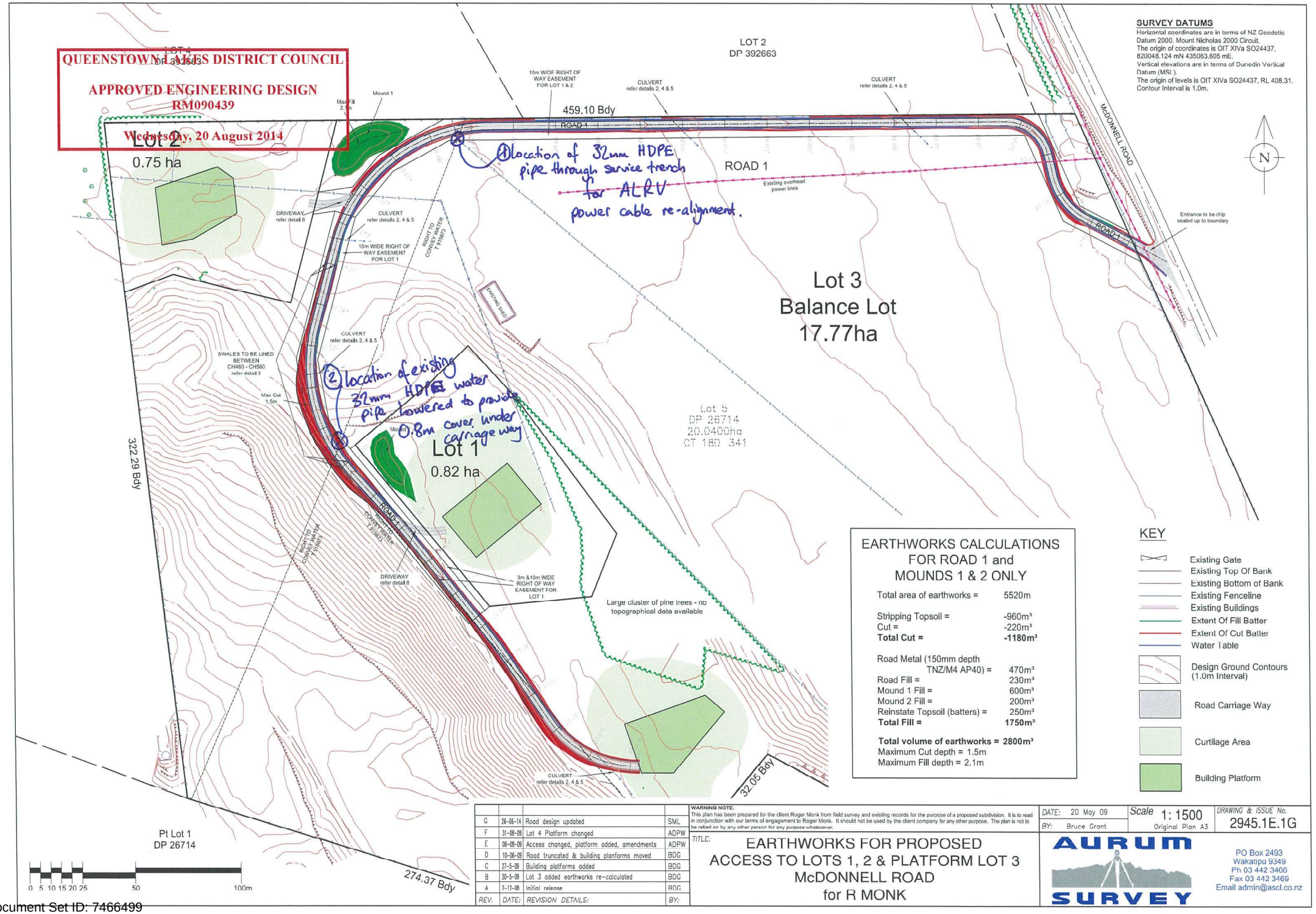
MOUNT SOHO TRUST

DRAWING TITLE

WATER AS-BUILT

McDONNELL ROAD, WAKATIPU BASIN

ORIGINAL SCALE	ORIGINAL SIZE	REVISION NO
1:1000	A1	A
DATE: 06/09/2018		SHEET NO: 1
CAD REFERENCE: RM180564/RM160664/RM90439		JOB NO: 2945



REV.	DATE:	REVISION DETAILS:	BY:
G	26-06-14	Road design updated	SML
F	31-08-09	Lot 4 Platform changed	ADPW
E	08-08-09	Access changed, platform added, amendments	ADPW
D	10-06-09	Road truncated & building planforms moved	BDG
C	27-5-09	Building platforms added	BDG
B	20-5-09	Lot 3 added earthworks re-calculated	BDG
A	?-12-08	Initial release	BDG

DATE: 20 May 09
BY: Bruce Grant
Scale 1: 1500 Original Plan A3
DRAWING & ISSUE No. 2945.1E.1G

TITLE:
EARTHWORKS FOR PROPOSED ACCESS TO LOTS 1, 2 & PLATFORM LOT 3 McDONNELL ROAD for R MONK

AURUM SURVEY
PO Box 2493
Wakatipu 9349
Ph 03 442 3466
Fax 03 442 3469
Email admin@ascl.co.nz

Hill Laboratories
TRIED, TESTED AND TRUSTED

R J Hill Laboratories Limited
28 Duke Street Frankton 3204
Private Bag 3205
Hamilton 3240 New Zealand

T 0508 HILL LAB (44 555 22)
T +64 7 858 2000
E mail@hill-labs.co.nz
W www.hill-laboratories.com

Certificate of Analysis

Client:	Civilised Limited	**Lab No:**	3061434	DWAPv1
Contact:	John McCartney C/- Civilised Limited PO Box 1461 Queenstown 9348	**Date Received:** **Date Reported:** **Quote No:** **Order No:** **Client Reference:** **Submitted By:**	25-Aug-2022 02-Sep-2022 QE004 Mt Soho John McCartney	

Sample Type: Potable Water

		Sample Name:	Mt Soho 24-Aug-2022 2:55 pm	Guideline Value	Maximum Acceptable Values (MAV)
		Lab Number:	3061434.1		
Routine Water + E.coli profile Kit					
Escherichia coli	MPN / 100mL		< 1	-	< 1
Routine Water Profile					
Turbidity	NTU		0.14	< 2.5	-
pH	pH Units		7.5	7.0 - 8.5	-
Total Alkalinity	g/m³ as $CaCO_3$		116	-	-
Free Carbon Dioxide	g/m³ at 25°C		8.1	-	-
Total Hardness	g/m³ as $CaCO_3$		130	< 200	-
Electrical Conductivity (EC)	mS/m		27.2	-	-
Electrical Conductivity (EC)	µS/cm		272	-	-
Approx Total Dissolved Salts	g/m³		183	< 1000	-
Total Arsenic	g/m³		< 0.0011	-	0.01
Total Boron	g/m³		0.0114	-	1.4
Total Calcium	g/m³		45	-	-
Total Copper	g/m³		0.0031	< 1	2
Total Iron	g/m³		< 0.021	< 0.2	-
Total Lead	g/m³		0.00023	-	0.01
Total Magnesium	g/m³		4.3	-	-
Total Manganese	g/m³		< 0.00053	< 0.04 (Staining) < 0.10 (Taste)	0.4
Total Potassium	g/m³		1.24	-	-
Total Sodium	g/m³		3.9	< 200	-
Total Zinc	g/m³		0.0029	< 1.5	-
Chloride	g/m³		3.0	< 250	-
Nitrate-N	g/m³		2.2	-	11.3
Sulphate	g/m³		8.4	< 250	-

Note: The Guideline Values and Maximum Acceptable Values (MAV) are taken from the publication 'Drinking-water Standards for New Zealand 2005 (Revised 2018)', Ministry of Health. Copies of this publication are available from https://www.health.govt.nz/publication/drinking-water-standards-new-zealand-2005-revised-2018

The Maximum Acceptable Values (MAVs) have been defined by the Ministry of Health for parameters of health significance and should not be exceeded. The Guideline Values are the limits for aesthetic determinands that, if exceeded, may render the water unattractive to consumers.

Note that the units g/m³ are the same as mg/L and ppm.

Routine Water Assessment for Sample No 3061434.1 - Mt Soho 24-Aug-2022 2:55 pm

pH/Alkalinity and Corrosiveness Assessment
The pH of a water sample is a measure of its acidity or basicity. Waters with a low pH can be corrosive and those with a high pH can promote scale formation in pipes and hot water cylinders.
The guideline level for pH in drinking water is 7.0-8.5. Below this range the water will be corrosive and may cause problems with disinfection if such treatment is used.

The alkalinity of a water is a measure of its acid neutralising capacity and is usually related to the concentration of carbonate, bicarbonate and hydroxide. Low alkalinities (25 g/m^3) promote corrosion and high alkalinities can cause problems with scale formation in metal pipes and tanks.

The pH of this water is within the NZ Drinking Water Guidelines, the ideal range being 7.0 to 8.0.
With the pH and alkalinity levels found, it is unlikely this water will be corrosive towards metal piping and fixtures.
The high alkalinity of this water may cause an increase in the pH in the root zones of plants which are irrigated using this water.

Hardness/Total Dissolved Salts Assessment
The water contains a low amount of dissolved solids and would be regarded as being hard.
There will be difficulty in forming a lather with soap, and a 'scum' will form in baths, showers, etc.

Nitrate Assessment
Nitrate-nitrogen at elevated levels is considered undesirable in natural waters as this element can cause a health disorder called methaemaglobinaemia. Very young infants (less than six months old) are especially vulnerable. The Drinking-water Standards for New Zealand 2005 (Revised 2018) suggests a maximum permissible level of 11.3 g/m^3 as Nitrate-nitrogen (50 g/m^3 as Nitrate).

Nitrate-nitrogen was detected in this water but at such a low level to not be of concern.

Boron Assessment
Boron may be present in natural waters and if present at high concentrations can be toxic to plants.
Boron was found at a low level in this water but would not give any cause for concern.

Metals Assessment
Iron and manganese are two problem elements that commonly occur in natural waters. These elements may cause unsightly stains and produce a brown/black precipitate. Iron is not toxic but manganese, at concentrations above 0.5 g/m^3, may adversely affect health. At concentrations below this it may cause stains on clothing and sanitary ware.

Neither element was detected in this water, which is a pleasing feature.
Treatment to remove iron and/or manganese should not be necessary.

Bacteriological Tests
The NZ Drinking Water Standards state that there should be no Escherichia coli (E coli) in water used for human consumption. The presence of these organisms would indicate that other pathogens of faecal origin may be present. Results obtained for Total Coliforms are only significant if the sample has not also been tested for E coli.

Escherichia coli was not detected in this sample.

Final Assessment
All parameters tested for meet the guidelines laid down in the publication 'Drinking-water Standards for New Zealand 2005 (Revised 2018)' published by the Ministry of Health for water which is suitable for drinking purposes.

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Laboratories, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Potable Water

Test	Method Description	Default Detection Limit	Sample No
Routine Water Profile		-	1
Filtration, Unpreserved	Sample filtration through 0.45µm membrane filter. Performed at Hill Laboratories - Chemistry; 101c Waterloo Road, Christchurch.	-	1
Total Digestion	Nitric acid digestion. APHA 3030 E (modified) 23rd ed. 2017.	-	1
Turbidity	Analysis by Turbidity meter. APHA 2130 B 23rd ed. 2017 (modified).	0.05 NTU	1
pH	pH meter. Analysed at Hill Laboratories - Chemistry; 101c Waterloo Road, Christchurch. APHA 4500-H^+ B 23rd ed. 2017. Note: It is not possible to achieve the APHA Maximum Storage Recommendation for this test (15 min) when samples are analysed upon receipt at the laboratory, and not in the field. Samples and Standards are analysed at an equivalent laboratory temperature (typically 18 to 22 °C). Temperature compensation is used.	0.1 pH Units	1
Total Alkalinity	Titration to pH 4.5 (M-alkalinity), autotitrator. Analysed at Hill Laboratories - Chemistry; 101c Waterloo Road, Christchurch. APHA 2320 B (modified for Alkalinity <20) 23rd ed. 2017.	1.0 g/m^3 as $CaCO_3$	1
Free Carbon Dioxide	Calculation: from alkalinity and pH, valid where TDS is not >500 mg/L and alkalinity is almost entirely due to hydroxides, carbonates or bicarbonates. APHA 4500-CO_2 D 23rd ed. 2017.	1.0 g/m^3 at 25°C	1
Total Hardness	Calculation from Calcium and Magnesium. APHA 2340 B 23rd ed. 2017.	1.0 g/m^3 as $CaCO_3$	1
Electrical Conductivity (EC)	Conductivity meter, 25°C. Analysed at Hill Laboratories - Chemistry; 101c Waterloo Road, Christchurch. APHA 2510 B 23rd ed. 2017.	0.1 mS/m	1
Electrical Conductivity (EC)	Conductivity meter, 25°C. APHA 2510 B 23rd ed. 2017.	1 µS/cm	1
Approx Total Dissolved Salts	Calculation: from Electrical Conductivity.	2 g/m^3	1
Total Arsenic	Nitric acid digestion, ICP-MS, trace level. APHA 3125 B 23rd ed. 2017 / US EPA 200.8.	0.0011 g/m^3	1
Total Boron	Nitric acid digestion, ICP-MS, trace level. APHA 3125 B 23rd ed. 2017.	0.0053 g/m^3	1
Total Calcium	Nitric acid digestion, ICP-MS, trace level. APHA 3125 B 23rd ed. 2017.	0.053 g/m^3	1
Total Copper	Nitric acid digestion, ICP-MS, trace level. APHA 3125 B 23rd ed. 2017 / US EPA 200.8.	0.00053 g/m^3	1
Total Iron	Nitric acid digestion, ICP-MS, trace level. APHA 3125 B 23rd ed. 2017.	0.021 g/m^3	1
Total Lead	Nitric acid digestion, ICP-MS, trace level. APHA 3125 B 23rd ed. 2017 / US EPA 200.8.	0.00011 g/m^3	1
Total Magnesium	Nitric acid digestion, ICP-MS, trace level. APHA 3125 B 23rd ed. 2017.	0.021 g/m^3	1
Total Manganese	Nitric acid digestion, ICP-MS, trace level. APHA 3125 B 23rd ed. 2017 / US EPA 200.8.	0.00053 g/m^3	1
Total Potassium	Nitric acid digestion, ICP-MS, trace level. APHA 3125 B 23rd ed. 2017.	0.053 g/m^3	1
Total Sodium	Nitric acid digestion, ICP-MS, trace level. APHA 3125 B 23rd ed. 2017.	0.021 g/m^3	1
Total Zinc	Nitric acid digestion, ICP-MS, trace level. APHA 3125 B 23rd ed. 2017 / US EPA 200.8.	0.0011 g/m^3	1
Chloride	Filtered sample from Christchurch. Ion Chromatography. APHA 4110 B (modified) 23rd ed. 2017.	0.5 g/m^3	1
Nitrate-N	Filtered sample from Christchurch. Ion Chromatography. APHA 4110 B (modified) 23rd ed. 2017.	0.05 g/m^3	1
Sulphate	Filtered sample from Christchurch. Ion Chromatography. APHA 4110 B (modified) 23rd ed. 2017.	0.5 g/m^3	1
Escherichia coli	MPN count using Colilert 18 (Incubated at 35°C for 18 hours) and 97 wells. Analysed at Hill Laboratories - Microbiology; 101c Waterloo Road, Hornby, Christchurch. APHA 9223 B 23rd ed. 2017.	1 MPN / 100mL	1

Document Set ID: 7466499
Version: 1, Version Date: 15/12/2022

These samples were collected by yourselves (or your agent) and analysed as received at the laboratory.

Testing was completed between 26-Aug-2022 and 01-Sep-2022. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

This certificate of analysis must not be reproduced, except in full, without the written consent of the signatory.

Martin Cowell - BSc
Client Services Manager - Environmental

Appendix C

Site and Soil Assessment

Onsite Wastewater Disposal Site & Soils Assessment

Use for Subdivision or Land Use Resource Consent

The design standard for waste water treatment and effluent disposal systems is AS/NZS 1547:2012. All references in this form relate to this standard.

Applications should provide sufficient information to demonstrate that all lots will be capable of accommodating an on-site system.

Site Description

Property Owner: The Mt Soho Trust

Location Address: McDonnell Road
Arrowtown

Legal Description (eg Lot3 DP1234) : Lots 1 & 3 DP 518669

List any existing consents related to waste disposal on the site: RM090439

General description of development / source of waste water: Proposed five lot subdivision, creating three additional building platform for domestic dwellings.

The number and size of the lots being created: 5 Lots between 5,066 m² and 2.1456 ha

Site Assessment (refer to Tables R1 & R2 for setback distances to site features)

Land use: Unused, some grazing/farming, on existing dwelling

Topography: Flat terraces with steep risers

Slope angle: In vicinity of the dwellings, slope is less than 1:10

Aspect: Generally north to northeast

Vegetation cover: Grass/pasture

Areas of potential ponding: No

Ephemeral streams: No

Drainage patterns and overland paths: Sheet flow leading to gullys with permanent and ephemeral streams, eventually draining to the Arrow River.

Flood potential (show with return period on site plan): Nil

Distance to nearest water body: ~180 m to pond in nearby golf course

Water bores with 50m (reference ORC Maps): None, neareast is ~320m

Other Site Features: All existing water bores shown on site plan

Slope stability assessment details – summarise any areas unsuitable for waste water irrigation. (Attach report if applicable): No slope stability issues noted on site

(Highest potential) Depth to ground water:

Summer > 3m

Winter > 2m

Information Source Assessed given the test pit information

What is the potential for waste water to short circuit through permeable soils to surface and / or ground water?
With appropriate design and disposal field siting, potential for short circuiting will be minimal.

Soil Investigation (Appendix C)

Field investigation date: 9th - 10th August 2022

Number of test pit bores (C3.5.4): 3 test pits

Soil investigation addendum to be attached that includes a plan showing test pit or bore location, log results and photos of the site profile.

If fill material was encountered during the soil investigation state how this will impact on the waste water system:
No fill encountered in any test pit

Average depth of topsoil: 300mm

Indicative permeability (Appendix G) : > 1 m/day

Percolation test method (refer to B6 for applicability) : Assessed
(attach report if applicable)

Soil Category *(Table 5.1)*	Soil Texture *(Appendix E)*	Drainage	Tick One
1	Gravel and sands	Rapid	
2	Sandy loams	Free	✓
3	Loams	Good	
4	Clay loams	Moderate	
5	Light clays	Moderate to slow	
6	Medium to heavy clays	Slow	

Reasons for placing in stated category:
The site is underlain by well draining silty sandy gravels.

Loading rate, DLR (Table L1): 40 mm/day

Explanation for proposed loading rate: The conservative loading rate for secondary treated effluent for category 2 soils is 40mm/day.

Recommendations from site and soils assessment

Specify any design constraints
Specify any areas unsuitable for location of the disposal field
Specify any unsuitable treatment and/or disposal systems
Propose suitable mitigation to enable successful effluent treatment

1) Secondary treatment is recommended due to the presence of water courses and water bores in the area.

Attachments Checklist

- [X] Copy of existing consents
- [✓] Soil investigation addendum
- [✓] To scale site plan, the following must be included on the plan:
  - Buildings
  - Boundaries
  - Retaining Walls
  - Embankments
  - Water bodies
  - Flood potential
  - Other septic tanks / treatment systems
  - Water bores
  - Existing and proposed trees and shrubs
  - Direction of ground water flow
  - North arrow

Note that an Otago Regional Council (ORC) consent may also be required to discharge domestic waste water to land if any of the following apply:

- Daily discharge volume exceeds 2,000 litres per day
- Discharge will occur in a groundwater protection zone
- Discharge will occur within 50 metres of a surface water body (natural or manmade)
- Discharge will occur within 50 metres of an existing bore/well
- Discharge will result in a direct discharge into a drain/water ace/ground water
- Discharge may runoff onto another persons' property

If any of these apply then we recommend that you correspond with the ORC;

Otago Regional Council
"The Station" (upstairs)
Cnr. Camp and Shotover Streets
P O Box 958
Queenstown 9300

Tel: 03 442 5681

I believe to the best of my knowledge that the information provided in this assessment is true and complete. I have the necessary experience and qualifications as defined in Section 3.3 AS/NZS 1547:2012 to undertake this assessment in accordance with the requirements of AS/NZS 1547:2012:

Company: Civilised Limited

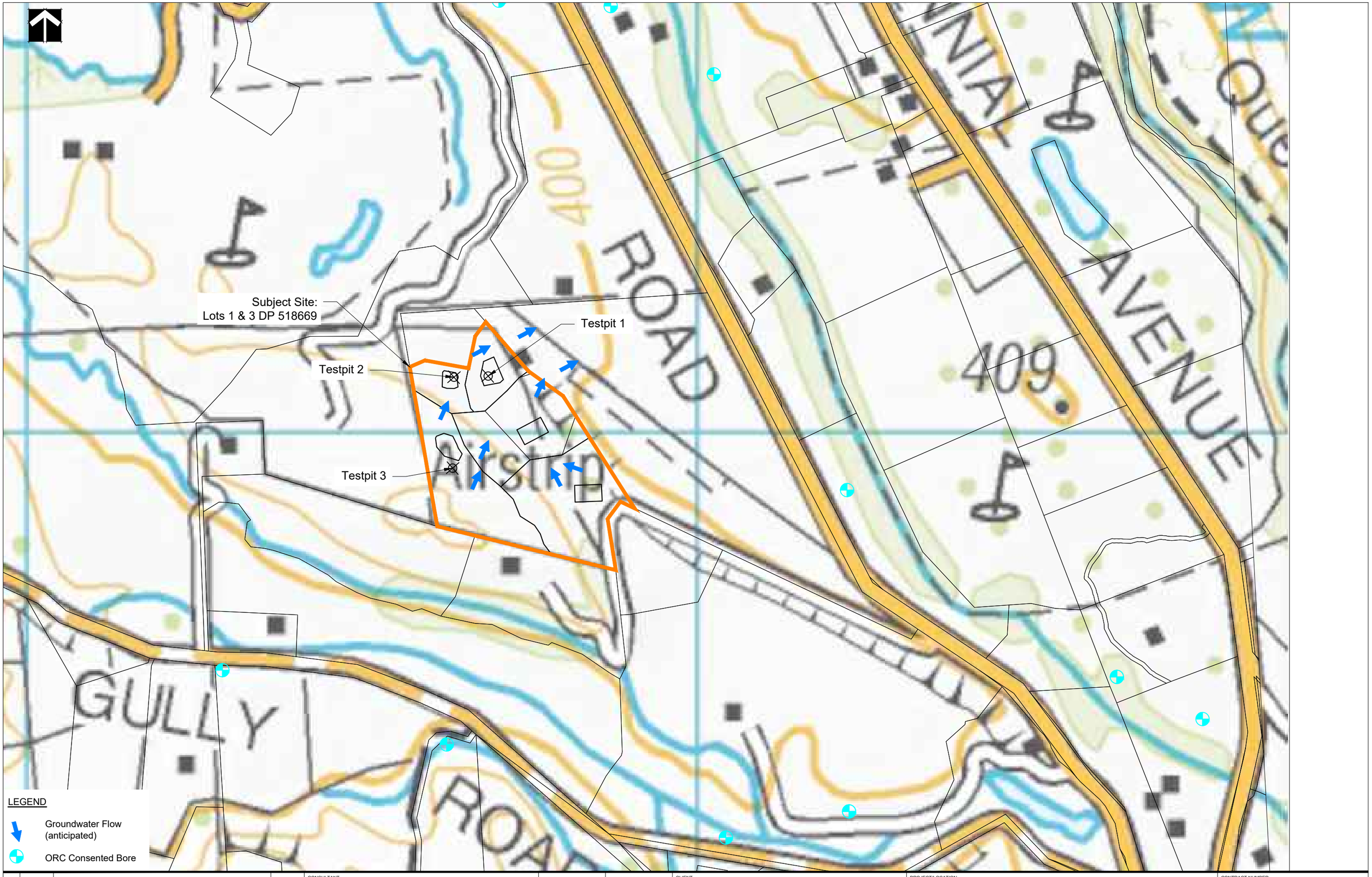
Email: john@mccartneys.nz

Phone number: 027 2233036

Name: John McCartney

Signature: 

Date: 12th September 2022



REV	DATE	DESCRIPTION	APPROVED
A	12/09/2022	Initial Issue	JFM

CONSULTANT

Civilised Ltd

CIVILISED LTD
PO BOX 1461
QUEENSTOWN 9348

T: 027 223 3036
E: john@civilised.nz

JFM	12/09/2022
DESIGN	DATE
JFM	12/09/2022
DRAWN	DATE
JFM	12/09/2022
CHECKED	DATE

CLIENT

MT SOHO TRUST

PROJECT/LOCATION

PROPOSED SUBDIVISION - McDONNELL ROAD, ARROWTOWN - LOTS 1 & 3 DP 518669

CONTRACT NUMBER: -

SCALE (AT A3): 1:5000

TITLE

ON SITE WASTEWATER DISPOSAL
OVERALL TOPGRAPHICAL MAP

DRAWING NUMBER: QE004-D-510

REVISION: A

Appendix D

Test Pit Log

Test Pit Log

Civilised Ltd

Project:	Mt Soho Subdivision	Project Number:	QE004
Site Location:	McDonnell Road, Arowtown	Client:	The Mt Soho Trust
Tets Pit Number:	TP#1 09/08/2022 Cool, fine and sunny, rain on preceding days		Sheet 1 of 3

Depth (m)	Water Level	Graphic Log	Moisture	Soil Rock Description	Geological Unit	Depth
			Moist	Organic turf and topsoil, dark brown, moist, grasscover.	Topsoil	
			Moist	Loess, light brown silty sand, rootlets, moist.	Loess	
0.5						0.5
			Moist	Silty, sandy GRAVEL, AP50, sub-angular, light brown colour trending to grey with depth, less silt with depth, silty only on contact, some cobbles with depth, dense, schist in origin.	Gravel	
1.0						1.0
1.5						1.5
			No water	1.5m, bottom of hole		
2.0						2.0
2.5						2.5
3.0						3.0
3.5						

Date Excavated:	9th Aug 2022	Equipment:	Rubber tyred Hyundai 140W-9 Robex
Logged By:	JFM	Contractor:	Monk Earthworks

Test Pit Log

Civilised Ltd

Project:	Mt Soho Subdivision	Project Number:	QE004
Site Location:	McDonnell Road, Arowtown	Client:	The Mt Soho Trust
Tets Pit Number:	TP#2 09/08/2022 Cool, fine and sunny, rain on preceding days		Sheet 2 of 3

Depth (m)	Water Level	Graphic Log	Moisture	Soil Rock Description	Geological Unit	Depth
			Moist	Organic turf and topsoil, dark brown, moist, grasscover.	Topsoil	
			Moist	Loess, light brown silty sand, rootlets, moist.	Loess	
0.5			Moist	Silty, sandy GRAVEL, AP50, sub-angular, light brown colour trending to grey with depth, less silt with depth, silty only on contact, some cobbles with depth, dense, schist in origin.	Gravel	0.5
1.0			Moist	Silty, SAND, some small stones, fine sand, moist, dense, compact, grey.	Sand	1.0
1.5						1.5
			No water	1.6m, bottom of hole		
2.0						2.0
2.5						2.5
3.0						3.0
3.5						

Date Excavated:	9th Aug 2022	Equipment:	Rubber tyred Hyundai 140W-9 Robex
Logged By:	JFM	Contractor:	Monk Earthworks

Test Pit Log

Civilised Ltd

Project:	Mt Soho Subdivision	Project Number:	QE004
Site Location:	McDonnell Road, Arowtown	Client:	The Mt Soho Trust
Tets Pit Number:	TP#3 10/08/2022 Cool, fine and sunny, rain on preceding days		Sheet 3 of 3

Depth (m)	Water Level	Graphic Log	Moisture	Soil Rock Description	Geological Unit	Depth
			Moist	Organic turf and topsoil, dark brown, moist, grasscover.	Topsoil	
			Moist	Loess, light brown silty sand, rootlets, moist.	Loess	
0.5						0.5
			Moist	Silty, sandy GRAVEL, AP70, sub-angular, light brown colour trending to grey with depth, less silt with depth, silty only on contact, schist in origin.	Gravel	
1.0						1.0
1.5						1.5
			No water	1.5m, bottom of hole		
2.0						2.0
2.5						2.5
3.0						3.0
3.5						

Date Excavated:	10th Aug 2022	Equipment:	Komatsu PC18MR Excavator
Logged By:	JFM	Contractor:	Monk Earthworks

Appendix E

Power Supply Confirmation

AURORA ENERGY LIMITED
PO Box 5140, Dunedin 9058
PH 0800 22 00 05
WEB www.auroraenergy.co.nz

10 August 2022

John McCartney
Civilised Ltd

Sent via email only: john@civilised.nz

Dear John,

ELECTRICITY SUPPLY AVAILABILITY FOR A PROPOSED FOUR LOT SUBDIVISION. McDONNELL ROAD, ARROWTOWN. LOT 3 DP 518669.

Thank you for your inquiry outlining the above proposed development.

Subject to technical, legal and commercial requirements, Aurora Energy can make a Point of Supply[1] (PoS) available for this development.

Disclaimer

This letter confirms that a PoS **can** be made available. This letter **does not** imply that a PoS is available now, or that Aurora Energy will make a PoS available at its cost.

Next Steps

To arrange an electricity connection to the Aurora Energy network, a connection application will be required. General and technical requirements for electricity connections are contained in Aurora Energy's Network Connection Standard. Connection application forms and the Network Connection Standard are available from www.auroraenergy.co.nz.

Yours sincerely

Niel Frear

CUSTOMER INITIATED WORKS MANAGER

[1] Point of Supply is defined in section 2(3) of the Electricity Act 1993.

Arrowtown Retirement Village
Detailed Site Investigation

For the

Arrowtown Lifestyle Retirement Village

June 2016

Davis Consulting Group Limited
Arrow Lane,
Arrowtown 9302
03 409 8664
Document ID: 16051

Arrowtown Lifestyle Retirement Village

Detailed Site Investigation

Document Status

Version	Purpose of Document	Prepared By	Reviewer	Review Date
A	Draft for review	GD	GD	17 June 2015
O	Final Draft	GD	FR	20 June 2015
I	FINAL	FR	CP	21 June 2015

TABLE OF CONTENTS

LIST OF FIGURES

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EXECUTIVE SUMMARY

The Arrowtown Lifestyle Retirement Village (ALRV) is seeking resource consent for the development of a retirement village south of Arrowtown in the Wakatipu Basin, Queenstown. ALRV applied to the council for the development to be considered under the Special Housing Accord. In order to support this application, ALRV commissioned Davis Consulting Group Limited to undertake a Preliminary Site Investigation (PSI) to assess the suitability of the sites soils for the development of the retirement village. The PSI concluded that the site was suitable for the proposed activity but identified the presence of an aircraft hangar and aircraft strip that was used for the storage and handling of fertilisers and potentially pesticides prior to topdressing of farms in the area. The PSI recommended a Detailed Site Investigation (DSI) should be undertaken to characterise the risk to human health associated with the storage of fertilisers and pesticides in the vicinity of the hangar.

The scope of work completed during the Detailed Site Investigation (DSI) included the following:

- Review of the findings within the Preliminary Site Investigation;
- Discussions with the site owner;
- Collection of soil samples from 8 locations adjacent to the hanger and the fertiliser storage bin within the proposed area of development to characterise heavy metal and pesticide concentrations in surface soils that may be associated with storage and handling of fertilisers and pesticides;
- Based on research into the activities on the site and soil quality results, consideration of the risk to human health that may be associated with the proposed landuse change of the site; and,
- Preparation of a DSI report in accordance with the requirements of the Contaminated Land Management Guidelines (CLMG) No. 1.

A summary of the findings of the DSI are set out as follows:

- A Preliminary Site Investigation completed on the site in 2015 identified the handling of fertilisers near the aircraft hangar may have impacted soils in the vicinity of the hangar;
- A total of 8 surface soil samples were collected from in front of the aircraft hangar and fertiliser bin. All samples were analysed for heavy metals and persistent organochlorine pesticides;
- The analytical results identified elevated levels of cadmium to the north of the aircraft hangar and adjacent the fertiliser bin with cadmium concentrations detected up to 4.2 mg/kg;

- One soil sample returned cadmium concentrations above the residential soil contaminant standard of 3 mg/kg;
- All other heavy metal concentrations detected were relatively consistent and are generally representative of background levels;
- DDT was detected in one soil sample at a concentration significantly below the NES soil contaminant standard;
- DDT and all other organochlorine pesticide results from soil samples collected to support the PSI and this DSI are all very low and the site is highly unlikely to contain concentrations at levels that present a risk to residential activity on the site;
- The handling of fertilisers has resulted in elevated levels of cadmium near a concrete fertiliser bin to the north of the aircraft hangar that may be a risk to people if they consume produce grown in these soils;
- The extent of the impacted soil with concentrations above the residential guideline appear to be localised with concentrations in surface soils to the east and south of the concrete bin below the residential guideline;
- The risk to people living near the area of impacted soil is very low providing produce grown in soils where the concentrations exceed 3 mg/kg is not consumed. This risk can be easily mitigated through the exclusion of produce consumption near the impacted area; and,
- If excavation and offsite disposal of cadmium impacted soil is necessary, additional analysis to confirm an appropriate disposal route will be required.

1.0 INTRODUCTION

1.1 Purpose

The Arrowtown Lifestyle Retirement Village (ALRV) is seeking resource consent for the development of a retirement village south of Arrowtown in the Wakatipu Basin, Queenstown. ALRV applied to the council for the development to be considered under the Special Housing Accord. In order to support this application ALRV commissioned Davis Consulting Group Limited to undertake a Preliminary Site Investigation (PSI) to assess the suitability of the sites soils for the development of the retirement village. The PSI concluded that the site was suitable for the proposed activity but identified the presence of an aircraft hangar and aircraft strip that was used for the storage and handling of fertilisers and potentially pesticides prior to topdressing of farms in the area. The PSI recommended a Detailed Site Investigation (DSI) should be undertaken to characterise the risk to human health associated with the storage of fertilisers and pesticides in the vicinity of the hangar.

The following report has been prepared to document the findings of an investigation into the soils in the vicinity of the hangar. Please note, the DSI should be considered alongside the PSI as the PSI provides more information associated with the landuse history of the site and also addresses the risk to human health associated with the remainder of the site.

DCG's experience in the provision of contaminated land services is provided in Appendix A.

1.2 Scope of Work

The scope of work completed during the Detailed Site Investigation (DSI) included the following:

- Review of the findings within the Preliminary Site Investigation;
- Discussions with the site owner;
- Collection of soil samples from 8 locations adjacent to the hanger and the fertiliser storage bin within the proposed area of development to characterise heavy metal and pesticide concentrations in surface soils that may be associated with storage and handling of fertilisers and pesticides;
- Based on research into the activities on the site and soil quality results, consideration of the risk to human health that may be associated with the proposed landuse change of the site; and,
- Preparation of a DSI report in accordance with the requirements of the Contaminated Land Management Guidelines (CLMG) No. 1.

1.3 Limitations

The findings of this report are based on the Scope of Work outlined above. DCG performed the services in a manner consistent with the normal level of care and expertise exercised by members of the environmental science profession. No warranties, express or implied, are made.
Subject to the Scope of Work, DCG's assessment is limited strictly to identifying the risk to human health based on the historical activities on the site. The confidence in the findings is limited by the Scope of Work.

The results of this assessment are based upon site inspections conducted by DCG personnel, information from interviews with people who have knowledge of site conditions and information provided in previous reports. All conclusions and recommendations regarding the properties are the professional opinions of DCG personnel involved with the project, subject to the qualifications made above. While normal assessments of data reliability have been made, DCG assumes no responsibility or liability for errors in any data obtained from regulatory agencies, statements from sources outside DCG, or developments resulting from situations outside the scope of this project.

2.0 SITE LOCATION AND DESCRIPTION

2.1 Site Location

The site is located 1.8 km south of Arrowtown centre, south of Mcdonnell Road in the Wakatipu Basin, Arrowtown and is legally described as Lot 5 DP 26714, certificate of title OT18D/341. The site is situated 2.12 km northeast of Lake Hayes and 800 m west of the Arrow River (see Figure 1). Figure 1 shows the location "Investigation Area" that is the subject of the DSI.

Central coordinates for the site are 2181913.8 E 5574821.9 N (NZMG).

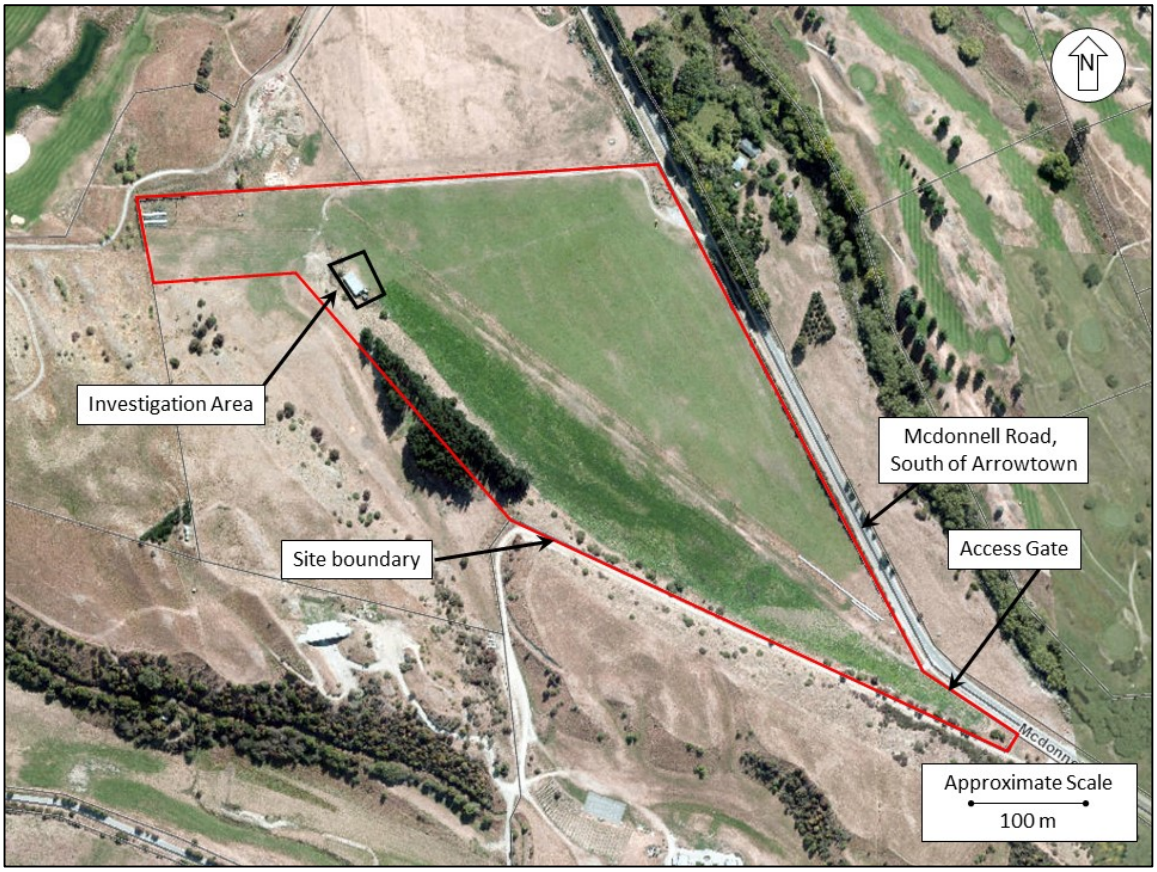

Figure 1: Site Location Plan showing the investigation area *(QLDC webmaps, 2015)*

Plate 1 presents a photographs of the aircraft hangar that is the subject of the DSI.

Plate 1: Behind hangar, looking north.

3.0 SAMPLING AND ANALYSIS PLAN

3.1 Data Quality Objectives

The data quality objectives (DQOs) of the DSI were to:

- Characterise the nature of contamination associated with the historical handling of fertilisers and organochlorine pesticides in the vicinity of the aircraft hangar and fertiliser bin;
- Assess the risk to human health associated with contaminants detected in the soils collected from in the vicinity of the aircraft hangar and fertiliser bin; and,
- Review offsite disposal pathways should offsite disposal of soil be required as part of the development of the retirement village.

3.2 Sampling and Analysis Plan

The sampling and analysis plan was designed to address the specific objectives, namely the characterisation of contaminants in soil associated with the handling of fertilisers and pesticides in the vicinity of the aircraft hangar and fertiliser bin. Soil sample locations are presented in Figure 2. A total of 8 soil samples were collected from in front of the aircraft hangar and a fertiliser storage bin. The sample locations were based on discussions with Mr Roger Monk who is the current owner of the property and was familiar with how fertiliser was handled on the site.

All samples collected were surface soil samples collected from a depth of 0 – 0.1 meters below ground level (mbgl). This approach was in recognition that contaminant concentrations associated with the handling of fertilisers are likely to be highest near the surface and that the people living on the site will most likely be exposed to surface soils. Soil summary log can be found in Appendix B.

3.3 Soil Sampling Methodology

Soil sampling was undertaken with the use of a spade. The following procedures were applied during the soil sampling process to gain representative samples:

- Field personnel wore a fresh pair of nitrile gloves between sampling events;
- Soil samples were transferred to 250 ml glass jars with Teflon lids as supplied by Hill Laboratories;
- All soil samples were unambiguously marked in a clear and durable manner to permit clear identification of all samples in the laboratory; and
- All samples were immediately placed in a cooled chilly bin.

Figure 2: Soil Sample Location Plan

3.4 Analytical Parameters

The laboratory analytical suite determined for the DSI is in recognition of our understanding that fertilisers were handled in the vicinity of the aircraft hangar to support aerial topdressing activities. In addition to fertilisers, it is possible that organochlorine pesticides were stored at the airstrip, therefore organochlorine pesticides were included in the analytical suite.

The analytical suites completed to characterise contaminant levels associated with this activity included:

- heavy metals; and
- organochlorine pesticides (including 4,4-DDE, 2,4-DDT and Dieldrin).

The laboratory methods utilised for the analysis are provided in the laboratory report (see Appendix C).

3.5 Soil Sample Field and Laboratory QA/QC

The field QA/QC procedures performed during the soil sampling are listed as follows:

- Use of standardised field sampling forms and methods;
- Samples were transferred under chain of custody procedures;
- All samples were labelled to show point of collection, project number, and date;
- Headspace in sample jars was avoided; and
- All samples were stored in a cooled chilly bin containing ice while in the field.

All soil samples were kept refrigerated until couriered to Hill Laboratories. Hill Laboratories is IANZ accredited for the analysis of heavy metals and pesticides. Hill Laboratories conduct internal QA/QC in accordance with IANZ requirements.

3.6 Soil Guideline Values

Soil guideline values (SGVs) selected for application on this project are provided in Table 1. The guidelines were adopted with reference to the Contaminated Land Management Guidelines No. 2: Hierarchy and Application in New Zealand of Environmental Guideline Values (MfE, 2003b).

The heavy metal and organochlorine pesticide soil guideline values adopted for the site assessment were based on either the Soil Contaminant Standards (New Zealand 'Users' Guide: NES for Assessing & Managing Contaminants in Soil to Protect Human Health, 2012) or Schedule B (1) Guideline on the Investigation Levels for Soil and Groundwater (National Environment Protection (Assessment of Site Contamination) Measure 1999). Guidelines for residential land use have been adopted for this site investigation based on proposed establishment of residential buildings, a garden hub and an orchard. Where the National Environmental Protection Measures (1999) were adopted, the most conservative values were selected for the purposes of this assessment.

Table 1: Soil guidelines

Analyte	Guideline
Heavy Metals and Organochlorine Pesticides	1. Soil Contaminant Standards *in* New Zealand 'Users' Guide: NES for Assessing & Managing Contaminants in Soil to Protect Human Health 2012 (MfE, 2012). 2. Schedule B (1) Guideline on the Investigation Levels for Soil and Groundwater *in* National Environment Protection (Assessment of Site Contamination) Measure 2013 (NEPC, 2013).

3.7 Soil Analytical Result Review

Following the receipt of laboratory data, a detailed review of the data was performed to determine its accuracy and validity. All laboratory data was checked for analytical and typographical errors.

Once the data quality was established the soil data was checked against the Sampling Program DQOs.

One field duplicate soil sample was collected during the site investigation and analysed to review the reproducibility of the laboratory analysis. Acceptable percentage difference between duplication samples is discussed in section 4.

All organochlorine pesticide results were below the laboratory detection limit.

Results are presented in Appendix C.

4.0 INVESTIGATION RESULTS

The soil sample locations are provided in Figure 2 and summarised in Table 2 below. Laboratory analytical certificate and results can be found in Appendix C.

Table 2: Soil sample summary

Sample Identification	Sample Depth (m)	Analysis
RV01_0-0.1	0-0.1	Heavy Metals OCP
RV02_0-0.1	0-0.1	Heavy Metals OCP
RV03_0-0.1	0-0.1	Heavy Metals OCP
RV04_0-0.1	0-0.1	Heavy Metals OCP
RV05_0-0.1	0-0.1	Heavy Metals OCP
RV06_0-0.1	0-0.1	Heavy Metals OCP
RV07_0-0.1	0-0.1	Heavy Metals OCP
RV08_0-0.1	0-0.1	Heavy Metals OCP

4.1 Heavy Metals

The heavy metal results are presented in Table 2 and summarised as follows:

- Total concentrations of arsenic, chromium, copper, lead, nickel and zinc are all below the adopted soil guideline values. The analytical results are relatively consistent across the 8 soil samples and are expected to represent background soil concentrations;
- Total cadmium concentrations range from 0.16 mg/kg in soil sample RV08_0-0.1 to 4.2 mg/kg in soil sample RV02_0-0.1; and,
- Total cadmium concentration in soil sample RV02_0-0.1 of 4.2 mg/kg exceed the adopted soil guideline value of 3 mg/kg.

The heavy metal results support the evidence provide by Mr Roger Monk that fertiliser had been handled around the hangar vicinity. Soil samples RV01_0-0.1, RV02_0-0.1 and RV03_0-0.1 contain cadmium concentrations that are elevated and indicate that the area to the north of the hangar was used for the storage/handling of fertilisers. The results suggest there is a cadmium contaminant source that is a risk to people living on the site. A review of this risk is documented in Section 5.

Table 2: Heavy metal results (mg/kg)

Sample Name	Arsenic	Cadmium	Chromium	Copper	Lead	Nickel	Zinc
RV01_0-0.1	10	2.5	15	17	19.8	12	96
RV02_0-0.1	7	4.2	19	19	15.0	12	85
RV03_0-0.1	8	1.6	11	13	32	9	69
RV04_0-0.1	9	0.23	8	10	26	7	46
RV05_0-0.1	12	0.27	11	19	36	9	85
RV06_0-0.1	9	0.25	8	13	23	8	85
RV07_0-0.1	7	0.25	7	11	25	9	54
RV08_0-0.1	10	0.16	9	11	17.9	9	53
REP02062016	10	1.55	11	12	29	10	72
Guideline	20[1]	3[1]	>10,000[1]	>10,000[1]	210[1]	400[2]	7400[2]

< denotes concentration below laboratory detection limits
Blue Shading denote exceedance of adopted soil guideline value
[1] Appendix B Soil Contaminant Standards in New Zealand 'Users' Guide: NES for Assessing & Managing Contaminants in Soil to Protect Human Health 2012 (MfE, 2012).
[2] Schedule B (1) Guideline on the Investigation Levels for Soil and Groundwater in National Environment Protection (Assessment of Site Contamination) Measure 2013 Volume 2 (NEPC, 2013).

4.2 Organochlorine Pesticides

The organochlorine pesticide results are provided in Appendix C. Low concentrations of DDT were detected in soil sample RV03_0-0.1. The detection of DDT suggests there may have been some storage or handling of DDT in the vicinity if the hangar. Notwithstanding this point, the levels detected are very low and when considered with all the soil samples analysed for the PSI and DSI the risk is highly unlikely persistent pesticides are a risk to people developing, maintaining or living on the site.

4.3 Laboratory Procedures

Methods used by Hills Laboratories for laboratory analysis are summarised in the analysis report provided included in Appendix C. Hill Laboratories did not complete specific in-house QA/QC analysis

4.4 Field duplicates

One field duplicate soil sample was collected during the site investigation and analysed to review the reproducibility of the soil sampling undertaken and the laboratory analysis. The duplicate and the corresponding sample results are presented in Table 4 below.

Table 4: Percentage differences of duplicates

	RV03_0-0.1	REP02062016	% Difference
Arsenic	8	10	5.55
Cadmium	1.6	1.55	0.79
Chromium	11	11	0
Copper	13	12	2
Lead	32	29	2.45
Nickel	9	10	2.63
Zinc	69	72	1.06

An acceptable percentage difference between duplication samples is less than 30 to 50 % (MfE, 2011). The highest relative percentage difference was 5.55 % (for arsenic), which is considered acceptable for soil analysis. The QA/QC analysis indicates the sampling and analysis undertaken was reproducible.

5.0 REVIEW OF RISK TO HUMAN HEALTH

Based on DCGs review of the current and historical activities that have occurred within the site, the potential hazardous substances that may be present include a range of heavy metals and pesticides associated with the following two agricultural activities:

- broad acre application of persistent pesticides and fertilisers; and
- handling and storage of fertilisers in and around the hangar area of the airstrip.

The soil analytical results from the PSI indicated that the broadacre application of fertilisers is highly unlikely to have resulted in contaminants such as cadmium found in superphosphate to have accumulated in the sites soils at levels that present a risk to the proposed redevelopment of the site. Likewise, persistent pesticides were reported below the laboratory limit of reporting in the soils collected to support the PSI.

As discussed previously, the PSI identified the aircraft hangar as an area that may have been impacted through the storage and handling of fertilisers. This risk was confirmed from discussions with Roger Monk and the analytical results presented herein confirm there has been some impact to the soils to the north of the hangar. The soil analytical results indicate there are soils in the vicinity of the hangar that contain cadmium concentrations that present a risk to people living on the site and consuming vegetables grown in the soils. We note that the area of impacted soils above the residential guideline is adjacent to a concrete bin that may have been used for short term storage of fertilisers. We note that the key risk to people is associated with the consumption of produce grown in areas where the cadmium levels exceed the guideline. Where this exposure pathway is removed from the residential soil contaminant standard the risk based standard increases significantly to 110 mg/kg (MfE, 2011). The combined soil contaminant standard is provided below (from the “Methodology”) and shows the range of cadmium soil contaminant standards based on the amount of produce consumption and landuse scenario.

Scenario		Combined soil contaminant standards		
		No produce	10% produce	25% produce
Rural residential / lifestyle block	pH 5	110	3	0.82
Standard residential	pH 5	110	3	0.82
High-density residential		230		
Recreational		400		
Commercial / industrial indoor worker		NL		
Commercial / industrial outdoor worker		1,300		

Notes: NL = No limit.

Figure 3: Cadmium Soil Contaminant Standard (taken from the "*Methodology for Deriving Standards for Contaminants in Soil to Protect Human Health*" (MfE, 2011)

Given the risk to human health from the levels of cadmium detected in soils near the aircraft hangar DCG recommends that ALRV excludes the area in the vicinity of the aircraft hangar from the growing of produce. Should the growing of produce in the vicinity of the hangar be proposed/required we recommend the area of impacted soils is delineated and remediated if required.

In summary, the DSI has identified that an area of soils in the vicinity of the aircraft hangar has been impacted by the handling of fertilisers. However, this risk is readily managed by delineating the extent of the impacted soils and either excluding this area from the growing of produce or remediating the impacted soil.

5.1 Other NES Matters

At this stage in the project it is unclear what degree of earthworks will be involved in the development of the Arrowtown Lifestyle Retirement Village. We note that should the excavation and offsite disposal of cadmium impacted soils be required some additional analysis will be required to determine an appropriate disposal route for the soils.

6.0 CONCLUSIONS

A summary of the findings of the DSI are set out as follows:

- A Preliminary Site Investigation completed on the site in 2015 identified the handling of fertilisers near the aircraft hangar may have impacted soils in the vicinity of the hangar;
- A total of 8 surface soil samples were collected from in front of the aircraft hangar and fertiliser bin. All samples were analysed for heavy metals and persistent organochlorine pesticides;
- The analytical results identified elevated levels of cadmium to the north of the aircraft hangar and adjacent the fertiliser bin with cadmium concentrations detected up to 4.2 mg/kg;
- One soil sample returned cadmium concentrations above the residential soil contaminant standard of 3 mg/kg;
- All other heavy metal concentrations detected were relatively consistent and are generally representative of background levels;
- DDT was detected in one soil sample at a concentration significantly below the NES soil contaminant standard;
- DDT and all other organochlorine pesticide results from soil samples collected to support the PSI and this DSI are all very low and the site is highly unlikely to contain concentrations at levels that present a risk to residential activity on the site;
- The handling of fertilisers has resulted in elevated levels of cadmium near a concrete fertiliser bin to the north of the aircraft hangar that may be a risk to people if they consume produce grown in these soils;
- The extent of the impacted soil with concentrations above the residential guideline appear to be localised with concentrations in surface soils to the east and south of the concrete bin below the residential guideline;
- The risk to people living near the area of impacted soil is very low providing produce grown in soils where the concentrations exceed 3 mg/kg is not consumed. This risk can be easily mitigated through the exclusion of produce consumption near the impacted area; and,
- If excavation and offsite disposal of cadmium impacted soil is necessary, additional analysis to confirm an appropriate disposal route will be required.

7.0 REFERENCES

Davis Consulting Group (2015) *Mcdonnell Road, Arrowtown Landuse Change Preliminary Site Investigation For the Arrowtown Lifestyle Retirement Village 15066*

Ministry for the Environment (2003a) *Contaminated Land Management Guidelines No. 1: Reporting on Contaminated Sites in New Zealand.*

Ministry for the Environment (2003b) *Contaminated Land Management Guidelines No. 2: Hierarchy and Application in New Zealand of Environmental Guideline Values.*

Ministry for the Environment (2012) *Users' Guide: National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health*. Wellington: Ministry for the Environment.

Ministry for the Environment (2011) *Methodology for Deriving Standards for Contaminants in Soil to Protect Human Health.* Wellington: Ministry for the Environment.

National Environment Protection Council (NEPC) (1999) *National Environment Protection (Assessment of Site Contamination) Measure - Schedule B (1) Guideline on Investigation Levels for Soil and Groundwater.* National Environment Protection Council.

Appendices

Appendix A

Davis Consulting Group Contaminated Land Experience

Appendix A

Glenn Davis is the director of Davis Consulting Group and has over 15 years post graduate experience working as an Environmental Scientist. Glenn has accumulated a significant volume of work experience in the Contaminated Land field undertaking preliminary site investigations (PSIs), detailed site investigations (DSIs) and remediation projects in New Zealand, Australia, Asia, the United Kingdom and Ireland. The following provides a summary of Glenn Davis's experience.

Davis Consulting Group (2007 – present): Principal Environmental Scientist – completed multiple preliminary and detailed site investigations in Otago and Southland predominantly for the land development industry. DCG also provides contaminated land advice to district and regional councils.

RPS Australia (2003 – 2006): Supervising Environmental Scientist managing multiple detailed site investigations in the land development industrial and operated as an environmental specialist for Chevron on Barrow Island monitoring and managing a number of large contaminated groundwater plumes.

URS Ireland (2001 – 2003): - Senior Environmental Scientist undertaking multiple PSIs and DSIs on services stations and train station throughout Ireland. Glenn was also involved in the design and operation of a number of large scale remediation projects, predominantly associated with the removal of hydrocarbon contaminated soil and recovery or hydrocarbons impacting groundwater.

ERM Australia (1998 – 2000) – Working as a project level environmental scientist Glenn completed in excess of 30 detailed site investigations and remedial projects on service stations, concrete batching plants, and transport depots.

Appendix B

Soil Summary Log

SOIL DESCRIPTION

PROJECT NUMBER: 16051 **FIELD STAFF:** Carrie Pritchard **DATE:** 2/06/2016
SITE NAME: ALRV Mcdonnell Rd **METHOD:** Spade **WEATHER:** Fine

Sample Location	Coordinates		Sample Depth	Sample Time	Sample ID	Soil Description
RV01	-44.95937	168.838007	0-0.1	0930	RV01_0-0.1	Brown SILT with clay, sand and 5% gravel. Moist. Grass root organic matter
RV02	-44.959416	168.837931	0-0.1	0940	RV02_0-0.1	Brown SILT with clay and sand. Frozen to 0.05mm. Moist. Grass root organic matter
RV03	-44.959411	168.83809	0-0.1	0949	RV03_0-0.1	Brown SILT with clay and sand. Frozen to 0.05mm. Moist. Grass root organic matter
Rep02062016	-44.959411	168.83809	0-0.1	0920	Rep02062016	Brown SILT with clay and sand. Frozen to 0.05mm. Moist. Grass root organic matter
RV04	-44.95952	168.83816	0-0.1	099	RV04_0-0.1	Brown SILT with clay, sand and 5% gravel. Frozen to 0.05mm. Moist. Grass root organic matter
RV05	-44.959585	168.838067	0-0.1	1010	RV05_0-0.1	Brown SILT with clay and sand. Frozen to 0.05mm. Moist. Grass root organic matter
RV06	-44.959633	168.838104	0-0.1	1020	RV06_0-0.1	Brown SILT with clay, sand and 10% gravel. Frozen to 0.05mm. Moist. Grass root organic matter
RV07	-44.959592	168.838204	0-0.1	1030	RV07_0-0.1	Brown SILT with clay, sand and 10% gravel. Frozen to 0.05mm. Moist. Grass root organic matter
RV08	-44.959688	168.838222	0-0.1	1045	RV08_0-0.1	Brown SILT with clay and sand. Frozen to 0.05mm. Moist. Grass root organic matter

Appendix C

Laboratory analytical certificate and results

Hill Laboratories
BETTER TESTING BETTER RESULTS

Job No: **159 4902** Date Recv: 03-Jun-16 06:34

Received by: Lisa Bailey

3115949020

R J Hill Laboratories Ltd
1 Clyde Street,
Private Bag 3205,
Hamilton 3240, NEW ZEALAND

Office use Job No.

Client
Name Davis Consulting Group Limited 141258
Address PO Box 2450, Wakatipu
Queenstown 9349
Phone 03 409 8664 Fax
Client Reference 16051
Quote No 77595 Order No
Primary Contact C Pritchard 206358
Submitted By C Pritchard 206358
Charge To Davis Consulting Group Limited 141258

Results To ☑ Mail Primary Contact ☐ Mail Submitter
☐ Fax Results
☑ Email Results carrie@davisconsultinggroup.com

Sent to Hill Laboratories
☑ Please tick if you require COC to be emailed back
Date & Time 2/6/2016
Name Carrie Pritchard
Signature

Received at Hill Laboratories
Date & Time 3/6/16 9:35
Name Kahe Tagg
Signature

Condition Temp: 8.1
☐ Room Temp ☐ Chilled ☐ Frozen
☑ Sample & Analysis details checked
Signature

Priority ☐ Low ☑ Normal ☐ High
☐ Urgent (ASAP, extra charge applies, please contact lab first)

NOTE: The estimated turnaround time for the types and number of samples and analyses specified on this quote is by 4:30 pm, 9 working days following the day of receipt of the samples at the laboratory.

Quoted Sample Types

Soil (Soil)

Requested Reporting Date:

No.	Sample Name	Sample Date/Time	Sample Type	Tests Required
1	RV01_0-0.1	2/6/2016 0930	Soil	METALS
2	RV02-0-0.1	2/6/2016 0940		METALS
3	RV03_0-0.1	2/6/2016 0949		METALS
4	Rep V206 2016	2/6/2016 0920		METALS
5	RV04_0-0.1	2/6/2016 0959		METALS
6	RV05_0-0.1	2/6/2016 1010		METALS
7	RV06_0-0.1	2/6/2016 1020		METALS
8	RV07_0-0.1	2/6/2016 1030		METALS
9	RV08_0-0.1	2/6/2016 1045		METALS
10				

Job No: Date Recv: 03-Jun-16 06:34

159 4902

Received by: Lisa Bailey

Hill Laboratories
BETTER TESTING BETTER RESULTS
R J Hill Laboratories Limited
1 Clyde Street
Private Bag 3205
Hamilton 3240, New Zealand | Web www.hill-labs.co.nz

3115949020

Job Information Summary

Client: Davis Consulting Group Limited
Contact: C Pritchard
C/- Davis Consulting Group Limited
PO Box 2450
Wakatipu
Queenstown 9349

Lab No: 1594902
Date Registered: 03-Jun-2016 9:42 am
Priority: Normal
Quote No: 77595
Order No:
Client Reference: 16051
Add. Client Ref:
Submitted By: C Pritchard
Charge To: Davis Consulting Group Limited
Target Date: 17-Jun-2016 4:30 pm

Samples

No	Sample Name	Sample Type	Containers	Tests Requested
1	RV01_0-0.1 02-Jun-2016 9:30 am	Soil	cGSoil	Heavy Metals, Screen Level +OCP
2	RV02_0-0.1 02-Jun-2016 9:40 am	Soil	cGSoil	Heavy Metals, Screen Level +OCP
3	RV03_0-0.1 02-Jun-2016 9:49 am	Soil	cGSoil	Heavy Metals, Screen Level +OCP
4	REP02062016 02-Jun-2016 9:20 am	Soil	cGSoil	Heavy Metals, Screen Level
5	RV04_0-0.1 02-Jun-2016 9:59 am	Soil	cGSoil	Heavy Metals, Screen Level +OCP
6	RV05_0-0.1 02-Jun-2016 10:10 am	Soil	cGSoil	Heavy Metals, Screen Level +OCP
7	RV06_0-0.1 02-Jun-2016 10:20 am	Soil	cGSoil	Heavy Metals, Screen Level +OCP
8	RV07_0-0.1 02-Jun-2016 10:30 am	Soil	cGSoil	Heavy Metals, Screen Level +OCP
9	RV08_0-0.1 02-Jun-2016 10:45 am	Soil	cGSoil	Heavy Metals, Screen Level +OCP

SUMMARY OF METHODS

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively clean matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis.

Sample Type: Soil

Test	Method Description	Default Detection Limit	Sample No
Heavy Metals, Screen Level	Dried sample, < 2mm fraction. Nitric/Hydrochloric acid digestion US EPA 200.2. Complies with NES Regulations. ICP-MS screen level, interference removal by Kinetic Energy Discrimination if required.	0.10 - 4 mg/kg dry wt	1-9

Hill Laboratories
BETTER TESTING BETTER RESULTS

R J Hill Laboratories Limited
1 Clyde Street
Private Bag 3205
Hamilton 3240, New Zealand

Tel +64 7 858 2000
Fax +64 7 858 2001
Email mail@hill-labs.co.nz
Web www.hill-labs.co.nz

Job Information Summary

Client:	Davis Consulting Group Limited	**Lab No:**	1594902
Contact:	C Pritchard	**Date Registered:**	03-Jun-2016 9:42 am
	C/- Davis Consulting Group Limited	**Priority:**	High
	PO Box 2450	**Quote No:**	
	Wakatipu	**Order No:**	
	Queenstown 9349	**Client Reference:**	16051
		Add. Client Ref:	
		Submitted By:	C Pritchard
		Charge To:	Davis Consulting Group Limited
		Target Date:	14-Jun-2016 4:30 pm

Samples

No	Sample Name	Sample Type	Containers	Tests Requested
1	RV01_0-0.1 02-Jun-2016 9:30 am	Soil	cGSoil	Heavy Metals, Screen Level; Organochlorine Pesticides Screening in Soil
2	RV02_0-0.1 02-Jun-2016 9:40 am	Soil	cGSoil	Heavy Metals, Screen Level; Organochlorine Pesticides Screening in Soil
3	RV03_0-0.1 02-Jun-2016 9:49 am	Soil	cGSoil	Heavy Metals, Screen Level; Organochlorine Pesticides Screening in Soil
4	REP02062016 02-Jun-2016 9:20 am	Soil	cGSoil	Heavy Metals, Screen Level
5	RV04_0-0.1 02-Jun-2016 9:59 am	Soil	cGSoil	Heavy Metals, Screen Level; Organochlorine Pesticides Screening in Soil
6	RV05_0-0.1 02-Jun-2016 10:10 am	Soil	cGSoil	Heavy Metals, Screen Level; Organochlorine Pesticides Screening in Soil
7	RV06_0-0.1 02-Jun-2016 10:20 am	Soil	cGSoil	Heavy Metals, Screen Level; Organochlorine Pesticides Screening in Soil
8	RV07_0-0.1 02-Jun-2016 10:30 am	Soil	cGSoil	Heavy Metals, Screen Level; Organochlorine Pesticides Screening in Soil
9	RV08_0-0.1 02-Jun-2016 10:45 am	Soil	cGSoil	Heavy Metals, Screen Level; Organochlorine Pesticides Screening in Soil

SUMMARY OF METHODS

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively clean matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis.

Sample Type: Soil

Test	Method Description	Default Detection Limit	Sample No
Heavy Metals, Screen Level	Dried sample, < 2mm fraction. Nitric/Hydrochloric acid digestion US EPA 200.2. Complies with NES Regulations. ICP-MS screen level, interference removal by Kinetic Energy Discrimination if required.	0.10 - 4 mg/kg dry wt	1-9
Organochlorine Pesticides Screening in Soil	Sonication extraction, SPE cleanup, dual column GC-ECD analysis (modified US EPA 8082).. Tested on dried sample	0.010 - 0.06 mg/kg dry wt	1-3, 5-9

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Web www.hill-labs.co.nz

ANALYSIS REPORT

Client:	Davis Consulting Group Limited	**Lab No:**	1594902	SPv2
Contact:	C Pritchard	**Date Registered:**	03-Jun-2016	
	C/- Davis Consulting Group Limited	**Date Reported:**	14-Jun-2016	
	PO Box 2450	**Quote No:**		
	Wakatipu	**Order No:**		
	Queenstown 9349	**Client Reference:**	16051	
		Submitted By:	C Pritchard	

Sample Type: Soil

Sample Name:		RV01_0-0.1 02-Jun-2016 9:30 am	RV02_0-0.1 02-Jun-2016 9:40 am	RV03_0-0.1 02-Jun-2016 9:49 am	REP02062016 02-Jun-2016 9:20 am	RV04_0-0.1 02-Jun-2016 9:59 am
Lab Number:		1594902.1	1594902.2	1594902.3	1594902.4	1594902.5
Heavy Metals, Screen Level						
Total Recoverable Arsenic	mg/kg dry wt	10	7	9	10	9
Total Recoverable Cadmium	mg/kg dry wt	2.5	4.2	1.60	1.55	0.23
Total Recoverable Chromium	mg/kg dry wt	15	19	11	11	8
Total Recoverable Copper	mg/kg dry wt	17	19	13	12	10
Total Recoverable Lead	mg/kg dry wt	19.8	15.0	32	29	26
Total Recoverable Nickel	mg/kg dry wt	12	12	9	10	7
Total Recoverable Zinc	mg/kg dry wt	96	85	69	72	46
Organochlorine Pesticides Screening in Soil						
Aldrin	mg/kg dry wt	< 0.010	< 0.010	< 0.010	-	< 0.010
alpha-BHC	mg/kg dry wt	< 0.010	< 0.010	< 0.010	-	< 0.010
beta-BHC	mg/kg dry wt	< 0.010	< 0.010	< 0.010	-	< 0.010
delta-BHC	mg/kg dry wt	< 0.010	< 0.010	< 0.010	-	< 0.010
gamma-BHC (Lindane)	mg/kg dry wt	< 0.010	< 0.010	< 0.010	-	< 0.010
cis-Chlordane	mg/kg dry wt	< 0.010	< 0.010	< 0.010	-	< 0.010
trans-Chlordane	mg/kg dry wt	< 0.010	< 0.010	< 0.010	-	< 0.010
Total Chlordane [(cis+trans)* 100/42]	mg/kg dry wt	< 0.04	< 0.04	< 0.04	-	< 0.04
2,4'-DDD	mg/kg dry wt	< 0.010	< 0.010	< 0.010	-	< 0.010
4,4'-DDD	mg/kg dry wt	< 0.010	< 0.010	< 0.010	-	< 0.010
2,4'-DDE	mg/kg dry wt	< 0.010	< 0.010	< 0.010	-	< 0.010
4,4'-DDE	mg/kg dry wt	0.024	< 0.010	0.011	-	< 0.010
2,4'-DDT	mg/kg dry wt	< 0.010	< 0.010	< 0.010	-	< 0.010
4,4'-DDT	mg/kg dry wt	< 0.010	< 0.010	0.081	-	< 0.010
Total DDT Isomers	mg/kg dry wt	< 0.06	< 0.06	0.09	-	< 0.06
Dieldrin	mg/kg dry wt	< 0.010	< 0.010	< 0.010	-	< 0.010
Endosulfan I	mg/kg dry wt	< 0.010	< 0.010	< 0.010	-	< 0.010
Endosulfan II	mg/kg dry wt	< 0.010	< 0.010	< 0.010	-	< 0.010
Endosulfan sulphate	mg/kg dry wt	< 0.010	< 0.010	< 0.010	-	< 0.010
Endrin	mg/kg dry wt	< 0.010	< 0.010	< 0.010	-	< 0.010
Endrin aldehyde	mg/kg dry wt	< 0.010	< 0.010	< 0.010	-	< 0.010
Endrin ketone	mg/kg dry wt	< 0.010	< 0.010	< 0.010	-	< 0.010
Heptachlor	mg/kg dry wt	< 0.010	< 0.010	< 0.010	-	< 0.010
Heptachlor epoxide	mg/kg dry wt	< 0.010	< 0.010	< 0.010	-	< 0.010
Hexachlorobenzene	mg/kg dry wt	< 0.010	< 0.010	< 0.010	-	< 0.010
Methoxychlor	mg/kg dry wt	< 0.010	< 0.010	< 0.010	-	< 0.010

Sample Type: Soil						
Sample Name:		RV05_0-0.1 02-Jun-2016 10:10 am	RV06_0-0.1 02-Jun-2016 10:20 am	RV07_0-0.1 02-Jun-2016 10:30 am	RV08_0-0.1 02-Jun-2016 10:45 am	
Lab Number:		1594902.6	1594902.7	1594902.8	1594902.9	
Heavy Metals, Screen Level						
Total Recoverable Arsenic	mg/kg dry wt	12	9	7	10	-
Total Recoverable Cadmium	mg/kg dry wt	0.27	0.25	0.25	0.16	-
Total Recoverable Chromium	mg/kg dry wt	11	8	7	9	-
Total Recoverable Copper	mg/kg dry wt	19	13	11	11	-
Total Recoverable Lead	mg/kg dry wt	36	23	25	17.9	-
Total Recoverable Nickel	mg/kg dry wt	9	8	9	9	-
Total Recoverable Zinc	mg/kg dry wt	85	85	54	53	-
Organochlorine Pesticides Screening in Soil						
Aldrin	mg/kg dry wt	< 0.010	< 0.010	< 0.010	< 0.010	-
alpha-BHC	mg/kg dry wt	< 0.010	< 0.010	< 0.010	< 0.010	-
beta-BHC	mg/kg dry wt	< 0.010	< 0.010	< 0.010	< 0.010	-
delta-BHC	mg/kg dry wt	< 0.010	< 0.010	< 0.010	< 0.010	-
gamma-BHC (Lindane)	mg/kg dry wt	< 0.010	< 0.010	< 0.010	< 0.010	-
cis-Chlordane	mg/kg dry wt	< 0.010	< 0.010	< 0.010	< 0.010	-
trans-Chlordane	mg/kg dry wt	< 0.010	< 0.010	< 0.010	< 0.010	-
Total Chlordane [(cis+trans)* 100/42]	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	-
2,4'-DDD	mg/kg dry wt	< 0.010	< 0.010	< 0.010	< 0.010	-
4,4'-DDD	mg/kg dry wt	< 0.010	< 0.010	< 0.010	< 0.010	-
2,4'-DDE	mg/kg dry wt	< 0.010	< 0.010	< 0.010	< 0.010	-
4,4'-DDE	mg/kg dry wt	< 0.010	< 0.010	< 0.010	< 0.010	-
2,4'-DDT	mg/kg dry wt	< 0.010	< 0.010	< 0.010	< 0.010	-
4,4'-DDT	mg/kg dry wt	< 0.010	< 0.010	< 0.010	< 0.010	-
Total DDT Isomers	mg/kg dry wt	< 0.06	< 0.06	< 0.06	< 0.06	-
Dieldrin	mg/kg dry wt	< 0.010	< 0.010	< 0.010	< 0.010	-
Endosulfan I	mg/kg dry wt	< 0.010	< 0.010	< 0.010	< 0.010	-
Endosulfan II	mg/kg dry wt	< 0.010	< 0.010	< 0.010	< 0.010	-
Endosulfan sulphate	mg/kg dry wt	< 0.010	< 0.010	< 0.010	< 0.010	-
Endrin	mg/kg dry wt	< 0.010	< 0.010	< 0.010	< 0.010	-
Endrin aldehyde	mg/kg dry wt	< 0.010	< 0.010	< 0.010	< 0.010	-
Endrin ketone	mg/kg dry wt	< 0.010	< 0.010	< 0.010	< 0.010	-
Heptachlor	mg/kg dry wt	< 0.010	< 0.010	< 0.010	< 0.010	-
Heptachlor epoxide	mg/kg dry wt	< 0.010	< 0.010	< 0.010	< 0.010	-
Hexachlorobenzene	mg/kg dry wt	< 0.010	< 0.010	< 0.010	< 0.010	-
Methoxychlor	mg/kg dry wt	< 0.010	< 0.010	< 0.010	< 0.010	-

SUMMARY OF METHODS

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively clean matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis.

Sample Type: Soil			
Test	**Method Description**	**Default Detection Limit**	**Sample No**
Heavy Metals, Screen Level	Dried sample, < 2mm fraction. Nitric/Hydrochloric acid digestion US EPA 200.2. Complies with NES Regulations. ICP-MS screen level, interference removal by Kinetic Energy Discrimination if required.	0.10 - 4 mg/kg dry wt	1-9
Organochlorine Pesticides Screening in Soil	Sonication extraction, SPE cleanup, dual column GC-ECD analysis (modified US EPA 8082).. Tested on dried sample	0.010 - 0.06 mg/kg dry wt	1-3, 5-9

Document Set ID: 7466498
Version: 1, Version Date: 15/12/2022

These samples were collected by yourselves (or your agent) and analysed as received at the laboratory.

Samples are held at the laboratory after reporting for a length of time depending on the preservation used and the stability of the analytes being tested. Once the storage period is completed the samples are discarded unless otherwise advised by the client.

Peter Robinson MSc (Hons), PhD, FNZIC
Client Services Manager - Environmental

ENVIRONMENTAL MANAGEMENT PLAN

MONK SUBDIVISION
RM220893

DECEMBER 2022

HEWLAND PROJECTS LTD
60 AMPHION WAY
GLENORCHY
STEVE@HEWLAND.CO.NZ
021 942 099

Table of Contents

DOCUMENT CONTROL

DATE	REV DESCRIPTION	AUTHOR
13/12/2022	Original Rev A	Steve Hewland

SITE DESCRIPTION

This Environmental Management Plan (EMP) covers works at LOT 3 DP 518669, near McDonnell Road, Arrowtown. With respect to earthworks the proposed subdivision development consists of the preparation of three building platforms (BPs)and road access to each. Two of the BPs (Lots 1 and 2) are at located at a similar elevation as the existing right of way road that bisects them and the third (Lot 3), is located on an elevated terrace to the southwest. From the bottom, the first half of the Lot 3 road is approximately 15% (1:6) and this decreases to approximately 10% (1:10) for the remainder. The site is currently open pasture and there are no well-defined/incised water courses across the site.

Subject site highlighted by blue. Arrowtown Lifestyle Retirement village to northeast.

View to north from the Lot 3 terrace

View to the south from the shared Right of Way

View to the southeast of the Lot 3 terrace

GEOTECHNICAL SUMMARY

A geotechnical completion report has been completed by Geosolve Ltd, reference 180672 and dated October 2017. This is for a subdivision of residential building platforms immediately adjacent/surrounding this development and the ground conditions are directly relevant and is attached as Appendix 7. This report details site investigations and reports on the geotechnical conditions including drainage potential. It notes that "*the site is naturally free draining and no seepages or ponding water were evident within the site boundary…Outwash alluvium was observed to underlie the topsoil*

and loess in all test pits, and was observed to depths of between 0.7 and 3.1 m+. The outwash alluvium comprises loose to medium dense, brown and grey, SAND and GRAVEL deposits with varying cobble and boulder composition."

Also in Appendix 7 is a copy of Geosolves report on soakage testing undertaken at the adjacent Arrowtown Retirement Village where they noted that "*Only minimal head (up to 0.2 m depth) could be established in the base of the pits owing to the high soakage observed. All soakage tests were pre-soaked with approximately 4,000 L by introducing water from a water cart before recording testing results."* A comparison of the test pit bores confirms the same soil profile. Tested soakage rates for the same soil profile description (sandy GRAVEL with minor cobbles and boulders) range from 900mm/hr to 1000mm/hr, 900mm/hr has been selected as the design soakage rate for the sediment basin on Lot 2.

Earthworks summary

A total of approximately 6400m^3 of material will be excavated and the majority of this will be removed from site. 610m^3 of fill will be used within the site. The maximum area exposed at any one time will be 6900m2. Refer to Appendix 2 for a copy of the earthworks plans. In terms of the QLDC guidelines for the Preparation of EMPs this site does not discharge to a sensitive receiver and has more than 2500m^2 exposed at any one time so it meets the criteria for a "medium risk" project.

SQEP

This plan has been prepared by Steve Hewland, a SQEP as defined by QLDS's Guidelines for the Preparation of Environmental Management Plans June 2019.

Environmental Management Best Practice

Erosion and Sediment Controls for this project are designed, installed, maintained and decommissioned in accordance with the following principles:

a) Erosion and sediment controls in accordance with GD05 "Erosion and Sediment Control Guide for Land Disturbing Activities in the Auckland Region 2016" are integrated with construction planning
b) Effective and flexible erosion and sediment control plans are developed based on soil, site slope, weather, construction conditions and the receiving environment
c) The extent and duration of soil exposure is minimised
d) Water movement through the site is controlled – in particular clean water is diverted around the site and 'dirty' and 'clean' water is kept separated as far as practicably possible
e) Soil erosion is minimised as far as reasonable and practical (to the satisfaction of QLDC)
f) Disturbed areas are promptly stabilised
g) Sediment retention on site is maximised (i.e. must meet the discharge criteria for suspended sediment in the Water Quality section below))
h) Controls are maintained in proper working order, at all times
i) The site is monitored and erosion and sediment practices adjusted to maintain the required
j) performance standard, and
k) Avoidance of discharges, especially sediment off site.

EMP Updates

This EMP will be reviewed when;
1.The construction program moves from one Stage to another; or
2. Any significant changes have been made to the construction methodology since the original plan was accepted for that Stage; or
3. There has been an Environmental Incident and investigations have found that the management measures are inadequate; or
4. Directed by QLDC's Monitoring and Enforcement team
Where undertaken, updates to the EMP will be submitted to QLDC for acceptance at RCMonitoring@qldc.govt.nz

Environmental roles and responsibilities

- Environmental Advisor/Manager ('SQEP') Steve Hewland 021 942 099 steve@hewland.co.nz
- Project Manager – TBC
- Site Supervisor & Environmental Representative – TBC.

The environmental reps role is;

Implementation of environmental management
> Ensure installation of environmental controls as per this EMP
> Undertake environmental site inspections of the project
> Oversee the maintenance and improvement of defective environmental controls
> Undertake Environmental Incident reporting

Communication
> Keep project leadership informed of environmental performance of the project
> Inform staff of procedures and constraints applicable to managing specific environmental issues
> Responsible for providing environmental inductions to all staff and sub-contractors

Complaints and Incidents
> Attending to Environmental Incidents and Complaints

Site inspections

The Environmental Representative will undertake and document Weekly site inspections for the purpose of the following:

- This EMP is being followed.
- Review that the Erosion and sediment controls as described in the ESCP **Appendix 1** or subsequent revision are installed and working appropriately and identifying any necessary maintenance.
- Observe the site for actual or potential adverse environmental effects,
- Identifying any environmental incidents.
- Verifying preparedness for adverse weather conditions where rain and/or wind is forecast

The Environmental Representative will also undertake daily pre-start and post rain inspections to ensure that no new environmental issues have arisen, or mitigation measures have been compromised. Observations and all preventative measures taken should be recorded in a daily job diary.

Notification and management of environmental incidents

An environmental incident is anything where the EMP has failed leading to any adverse environmental effects offsite (including nuisance effects associated with dust as well as spills of fuels and chemicals to ground onsite).
If an incident occurs the form in **Appendix 3** will be used and will be notified to QLDC within 12 hours of becoming aware of the incident.

Records and registers

1. Environmental records and registers to be managed onsite shall include the following:
   - Environmental Induction attendance register (**Appendix 2**).
   - Environmental Incident reports and associated corrective actions undertaken (**Appendix 3).**
   - Complaints register and associated corrective actions undertaken (**Appendix 4)**.
   - Daily diary entries (including pre-start and post rain inspection observations).
   - Weekly Inspections **(Appendix 5).**

2. The Site Inspection records shall be made available to QLDC within 48 hours of a request being made.

Site induction

A site induction will be undertaken for all project staff. A copy of this is included in **Appendix 2**.

Design storm event

The design storm event has been selected using the Risk Management Approach to Erosion and Sediment Control. This is published in the Nelson Tasman Erosion and Sediment Control Guidelines July 2019 and is adopted by Councils throughout NZ.

The site discharges to a swale within a gravel road corridor that gently slopes to McDonnell Road. In a large rain event, any flows that didn't soak away in the access road swale would travel north along McDonnell Road before reaching a culvert. From there, overland flow across rough pasture will eventually drain to the valley floor where a low flowing creek eventually reaches the Arrow River. Because of the significant distance to a waterbody and lots of opportunity for ground soakage and settlement, in terms of the receiving environment risk profile there is a low potential for adverse effects, or Category C. The duration of works to construct the roading and the level building pads to the point that surfaces are stabilised is up to 6 months. Therefore, the storm frequency for a 1 hour duration storm to design for is 1 in 5 yr. Based on HIRDs historical rainfall data for this location (Site ID I48983) a 1hr duration 5yr ARI results in 12.9mm of rainfall.

Draft Construction Methodology (as it relates to the EMP)

This section of the EMP will be updated once a contractor is engaged.

In terms of the erosion and sediment control, Lot 1 and Lots 2/3 are independent from each other. This is primarily because the existing road that bisects the site acts as a cut off drain.

Lot 1

1. Install a silt fence below the Lot 1 earthworks.
2. Undertake earthworks for the building platform and driveway.
3. Respread topsoil.
4. Stabilise the exposed areas with grass/plantings and/or straw mulch.
5. Decommission controls once 80% vegetative cover on exposed areas has been achieved.

Lots 2 and 3

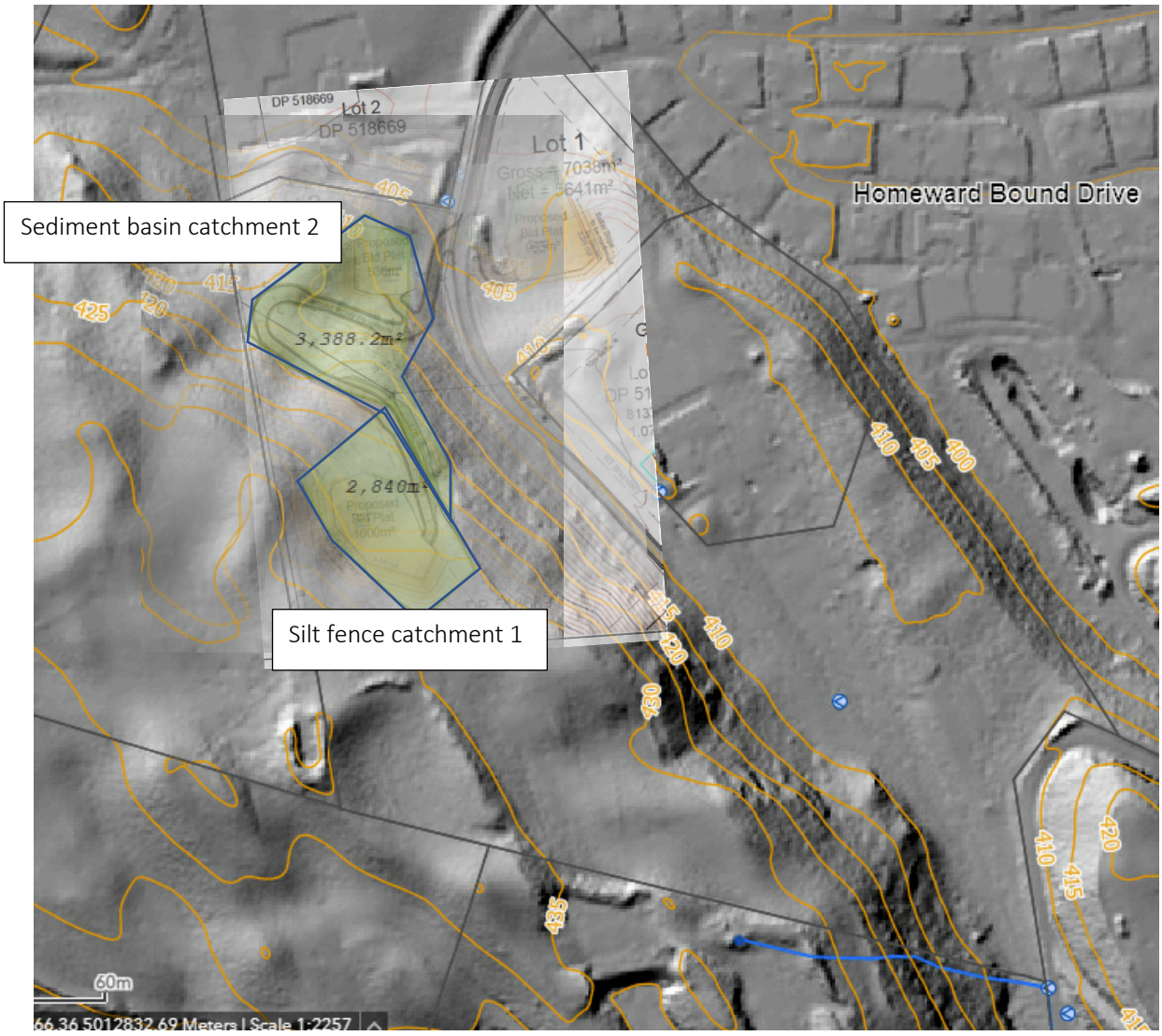
1. Construct a stabilised entrance at the bottom of the new road to Lots 2 and 3.
2. Construct the 2 clean water cut off diversions on the Lot 3 terrace to limit overland flows reaching the new road alignment and the Lot 3 earthworks site. The northern one will need to be carefully surveyed to ensure it is located wholly within the property, it needs to be squeezed between the boundary and the hair pin corner of the new road. It will steepen as it passes the hair pin so channel lining and energy dissipation will need to be installed. The southern diversion will discharge to a gentle graded grassy pasture where it travels approx. 30m and will flow over the terrace as sheet flow. Check for scour over time and if necessary, modify the discharge with a level spreader to promote sheet flow.
3. Construct the sediment basin in the lower corner of Lot 2. Minimum 25m2 base, minimum 1m deep and maximum 1H:3V batters. Construct an emergency spillway that discharges to the existing right of way swale.
4. Construct the new access road to Lots 2 and 3, starting at the bottom and working up. Grade the road to the inside and construct a swale. Until all of the exposed surfaces (in Lots 2 and 3) are 80% stabilised all runoff from the road is to be directed into the sediment basin. Due to the steepness of this road permanent rock lining will be required so install channel lining and rock rip rap to the engineers specifications as the road is being constructed. Also because of the steepness, a stabilised gravel surface will need to be constructed from the beginning and it is expected that a final running course will be applied upon completion of earthworks.
5. Install a silt fence below the Lot 3 platform, either side of the new road.

6. Install a dirty water cut off below the Lot 2 platform that discharges into the sediment basin.
7. Strip topsoil and stockpile in approximate location shown on the ESCP ensuring a silt fence will capture any runoff.
8. Undertake earthworks for the building platforms.
9. Respread topsoil.
10. Stabilise the exposed areas with grass/plantings and/or straw mulch.
11. Decommission controls once 80% vegetative cover on exposed areas has been achieved. Fill compact and shape the sediment basin and clean water cut offs to blend in with the finished landform and stabilise.

Erosion and Sedimentation Controls

Erosion and sediment control will be generally undertaken in accordance with the *Guidance Document 2016/005: Erosion and Sediment Control Guide for Land Disturbing Activities in the Auckland Region (GD05)*. The ESCP will be updated as and when required as the project progresses.

Refer to Appendix 1 for a copy of the ESCP



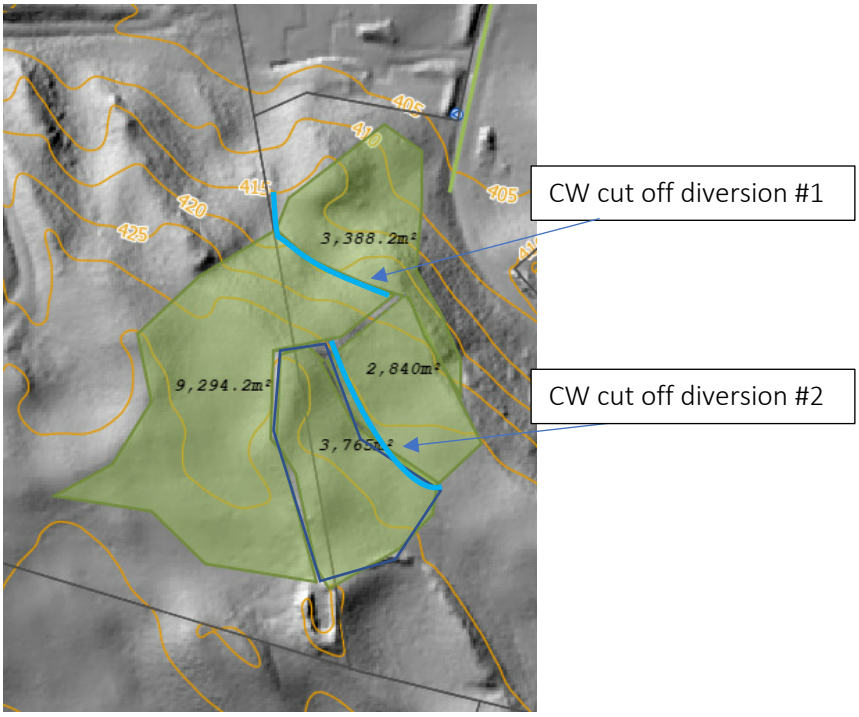
Catchments for Lots 2 and 3 sediment controls overlaid earthworks

Stabilised Entrance

The new access road to Lots 2 and 3 will be formed first including is gravel running surface, this will create a stabilised entrance for the works on the southwest side of the right of way that will not erode or generate sediment. A short driveway will be formed for the building platform on Lot 1, this will be constructed initially with a stabilised entrance to prevent erosion at the site entrance. The existing unsealed right of way is approximately 500m long before reaching McDonnell Road so there is no chance any sediment will reach the public road from vehicle wheels.

Clean Water cutoff

2 clean water (CW) cutoff diversions will be installed at the commencement of the earthworks to reduce the size of the dirty water (DW) catchments, reducing the volume of water to be trapped in the silt fence and sediment pond. One of these is above the Lot 3 building platform excavation and the other above the new Lot 3 access road. The contributing catchments for these are below 5ha and shown below.



CW diversion catchment sizes

CW diversion #1 is to be constructed with a longitudinal gradient < 2% where possible. At the hairpin corner of the new road there is only a small corridor to construct the diversion between it and the property boundary. To remain within the property the diversion drain will have to steepen as it passes the road and channel lining and energy dissipation for erosion will be installed.

CW diversion #2 is to be constructed with a longitudinal gradient < 2% throughout its entire length and it will discharge to the grassy terrace some 30m from the edge. It has a small catchment so discharge volume will be low, at low velocity, so scour protection is not expected to be necessary but this should be monitored and installed if necessary.

The channels and the bunds will be stabilised with grass seed. The design for the channels is the "standard" GD05 design (Figure 16, pg 41) and details are included in the ESCP. Given the significantly

less intense rain events here compared to in Auckland (approx. 50%) this design is considered to be conservative.

Sediment Basin

A single sediment basin is proposed to trap and soak to ground water from Catchment 2. Whilst not detailed in GD05, sediment basins are an appropriate sediment control for use in free draining soils as is the case here.

Catchment 2 area = 0.35ha
Design event Rainfall = 12.9mm/hr
Volume reaching sediment basin assuming no soakage within the catchment (conservative) = 3500x0.0129 =45$m^{3.}$

Soakage rate in the basin is inferred from test pit information from adjacent lot and tested soakage rates in nearby retirement village. The test pit information defines the soil at disposal depth to be sandy GRAVEL with minor cobbles and boulders, these soils have been found to have soakage rates ranging from 900mm/hr to 1250mm/hr, refer to Appendices for the Geosolve reports. 900mm/hr has been selected to remain conservative.

A sediment basin with a 25m^2 base will soak to ground 22.5m3 in one hour. A 25m^2 basin that is 1m deep and has 1:3 batters is 30.17m^3. Therefore, total soakage available is 52.67m^3, greater than the 45m3 volume reaching the basin.

Construct the sediment basin in any shape with a minimum 25m^2 base, a minimum 1m deep, with batters that are no steeper than 1H:3V.

Direct an emergency spillway to the adjacent roadside swale.

Preferentially use any water stored in this basin for dust suppression if it is available at the time however, given the high soakage rates by the time the surrounding area dries out the basin will have emptied.

Maintain the sediment basin by removing trapped sediment to ensure a free draining base is always available, do not exceed 50mm of sediment.

Topsoil Stockpile area

All topsoil will be stripped and stockpiled in the locations identified on the ESCP for later respreading and seeding with grass/natives.

Silt Fence

Three silt fences will be installed. One below the works area for Lot 1 and the other 2 either side of the top of access road for Lot 3 below the Lot 3 earthworks. The catchment areas that feed these fences are less than 0.3ha each as required by GD05 and the fences can easily be constructed along the contour.

Dirty Water Diversions

A dirty water diversion drain will be constructed below the works area on Lot 2 to direct dirty water into the sediment basin. The catchment area for this is small and the drain will provide soakage, so the "standard" cross section design will be larger than necessary. A minimum of 300mm of flow depth

should be provided but the sides of the channel can be steeper and the down slope bund smaller, ensure at all times no flow can escape the channel.

Trafficable bund

A trafficable bund will be constructed across the access and below the works area on Lot 3. Direct flow into the adjacent silt fences. This will constructed to a "standard" GD05 design (Figure 18, pg 44) will and details are included in the ESCP. Given the significantly less intense rain events here compared to in Auckland (approx 50%) this design is considered to be conservative.

Emergency Response Procedure

When a significant rain event is forecast the following emergency responses will be undertaken by the Environmental Representative;

1. Stop works in time to inspect and repair or modify any ESCP controls. In particular ensure the clean water cut off drains are in good order with full design capacity.
2. Ensure the sediment basin base is not clogged and has soakage capacity.
3. Ensure all dirty water is being directed into either a silt fence or the sediment basin.
4. Check the clean water cut offs and dirty water diversions are in good order.
5. Check the silt fences are in good order.
6. Observe weather and check all ESCP controls throughout the event.

Water Quality

The Contractor will at all times undertake reasonable and practicable management measures to avoid adverse environmental effects within the site or adjacent land into which the site discharges. As no discharge from the sediment basin is proposed no water quality testing is proposed however, visual monitoring will occur behind silt fences and at the sediment basin during/following rain events to check no sediment is being generated and/or leaving the site. There should also be no hydrocarbons or little visible. Any evidence should be recorded in the Post Rain Inspection form (Appendix 5).

Cultural Heritage

This site is not a known cultural heritage site. Nevertheless, earthworks will be undertaken in accordance with the obligations of the *Heritage New Zealand Pouhere Tāonga Act*, 2014 (HNZPTA). In the event of accidental discovery, the Accidental Discovery Protocol found in **Appendix 7** of this document will be followed.

Chemical and fuel management

The Contractor will ensure spill response equipment is available on the site for use in an emergency. Spill response equipment will be commensurate with the site location, topographical features, type and quantity of chemicals and fuels being stored on site. Such as;

Refuelling of machinery will conform to the following requirements:
a) Occur at least 30m from a waterway
b) Fuelling activity to be supervised at all times
c) Hoses to be fitted with a stop valve at the nozzle end
Chemicals and fuels exceeding 250 litres on site at any one time are nil. As the project scale increases this may need to be revised, the contractor shall monitor this and if 250 litres is exceeded advise the SQEP Steve Hewland.

Dust Management

During the construction phase there is potential for dust to be generated. The prevailing wind in this location is a northerly. The Arrowtown Lifestyle Retirement Village and 2 residential dwellings are neighbours to the site. Additionally, the soils need to be protected from becoming eroded by the wind and dust suppression controls will be used. The following mitigation measured are proposed:

- Only exposing the minimal areas required to complete the tasks.
- K-Lines and/or water cart will be used on large areas of exposed earthworks.
- When visible amounts of dust are leaving the site, works are to cease and dust mitigation via surface spraying is to take place.
- Weekly inspections shall include observations of the site for visual evidence of dust travelling beyond the boundaries of the site and evidence of dust fallout from the works on adjacent vegetation or buildings.

Waste management

There is not expected to be any significant amount of vegetation waste from clearing and striping. Construction waste will be managed within the works area in a typical fashion with skip bins, covered as necessary.

Noise Management

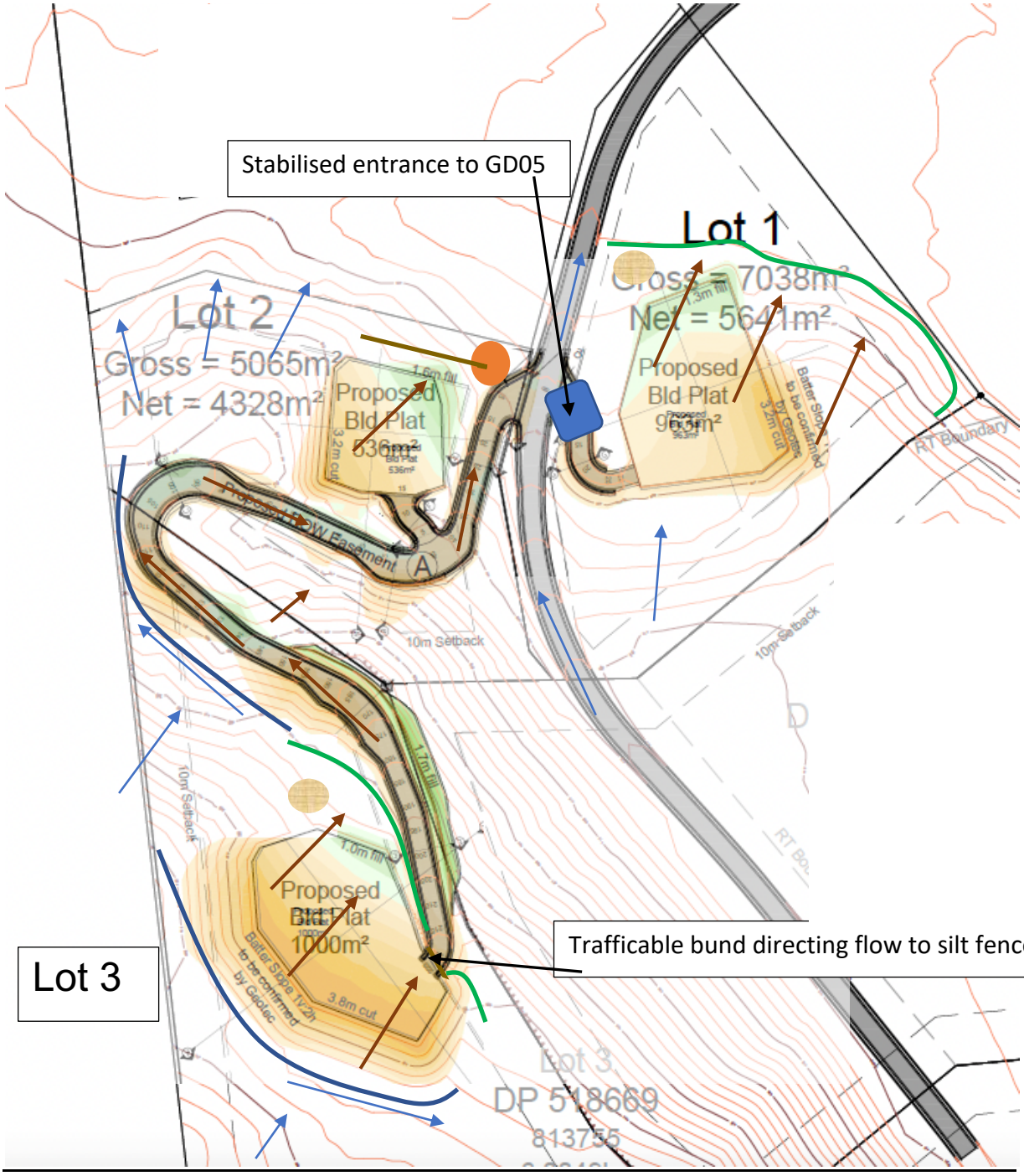
Hours of work will be constrained in accordance with the resource consent conditions to be confirmed.

Communications Plan with Neighbours

The residential neighbours including those in the retirement village are in close enough proximity to be affected by the works. Prior to commencing on site the Project Manager will make contact with all neighbours and share contact details so that there is a direct line of communication throughout the works. The complaints register in Appendix 4 is to be used to record all complaints.

Appendix 1 - ESCP

MONK SUBDIVISION EROSION AND SEDIMENT CONTROL PLAN



Dirty water flow
Clean water flow
Clean water cut off
Dirty water diversion
Stockpile
Silt fence
EW fill area
EW cut area

ESCP CONTROLS - CONSTRUCTION DETAILS

SILT FENCES

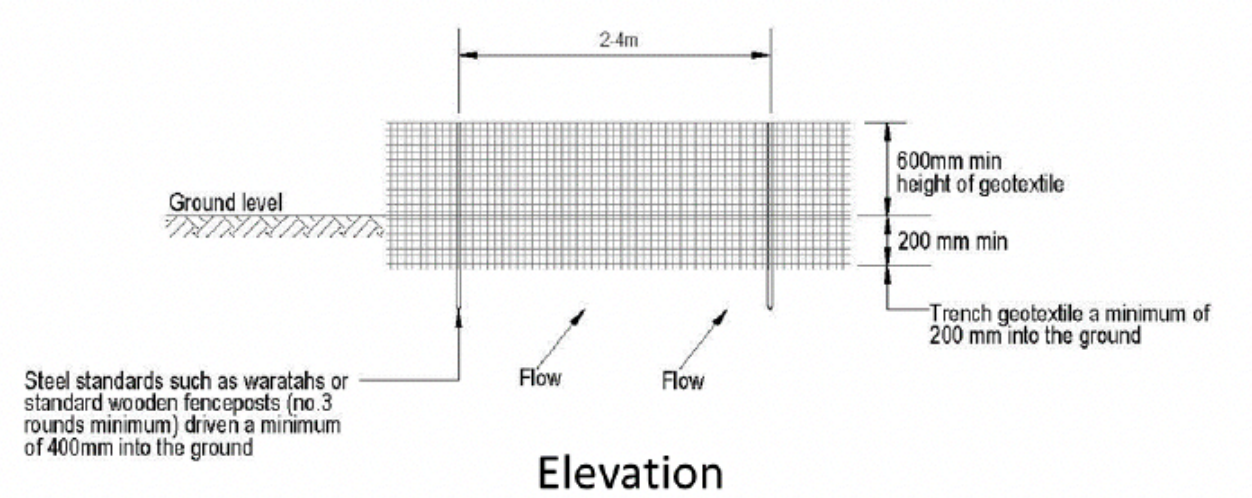
Key design criteria for silt fences:

- Ensure silt fence height is 600 mm above ground level and 200 mm below ground level
- Maximum slope lengths, spacing of returns and angles for silt fences are shown in Table 12
- Locate supporting waratahs for silt fences 2-4 m apart with support provided by a tensioned wire (2.5 mm HT) along the top of the silt fence
- Where a strong woven fabric is used in conjunction with a wire support, the distance between posts can be up to 4 m. Double the silt fence fabric over and fasten to the wire with silt fence clips at 500 mm spacings
- Ensure supporting posts/waratahs are embedded a minimum of 400 mm into the ground
- Always install silt fences along the contour (at a break in slope). Where this is not possible, or where there are long sections of silt fence, install short silt fence returns (refer Figure 81) projecting up-slope from the silt fence to minimise the concentration of flows. Silt fence returns should be a minimum 2 m in length and can incorporate a tie-back. They are generally constructed by continuing the silt fence around the return and doubling back, eliminating joins
- Join lengths of silt fence by doubling over fabric ends around a waratah or by stapling the fabric ends to a batten and butting the two battens together as shown in Figure 82
- Install silt fence returns at either end of the silt fence, projecting up-slope to a sufficient height to prevent outflanking in accordance with this table;

Slope steepness %	Slope length (m) (maximum)	Spacing of returns (m)	Silt fence length (m) (maximum)
Flatter than 2%	Unlimited	N/A	Unlimited
2 – 10%	40	60	300
10 – 20%	30	50	230
20 – 33%	20	40	150
33 – 50%	15	30	75
> 50%	6	20	40

- Where water may pond regularly behind the silt fence, provide extra support for the silt fence with tie-backs from the silt fence to a central stable point on the upward side. Extra support can also be provided by stringing wire between support stakes and connecting the filter fabric to this wire.

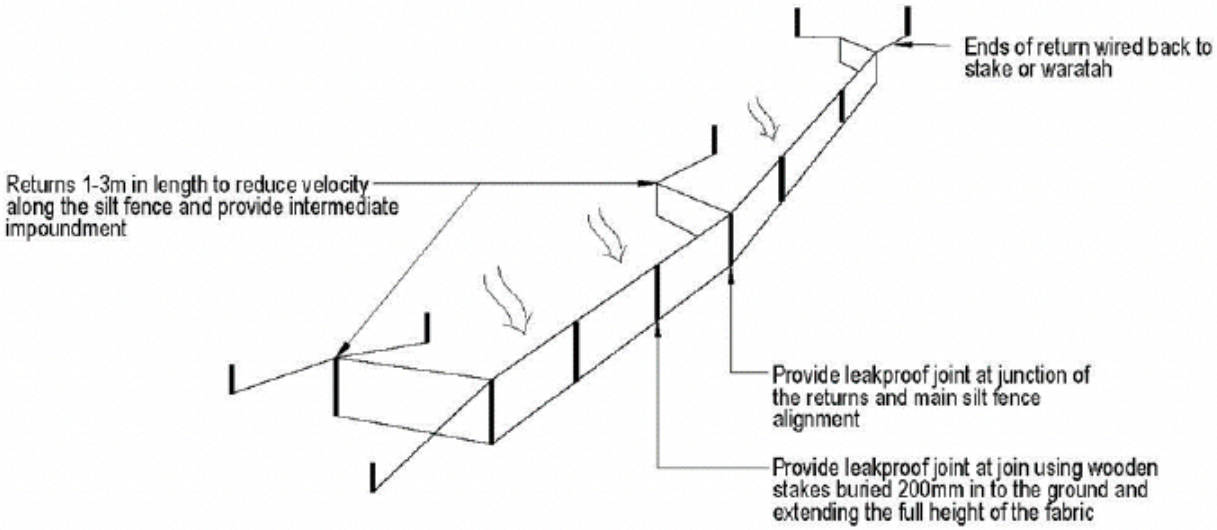
To ensure the ongoing performance of the silt fence collected sediment must be removed once 20% capacity has been reached



Elevation

Silt Fence Standard Details

Also refer to GD05 Section F1.3.2 Page 117 for construction and maintenance details



Silt fence with returns and support wire

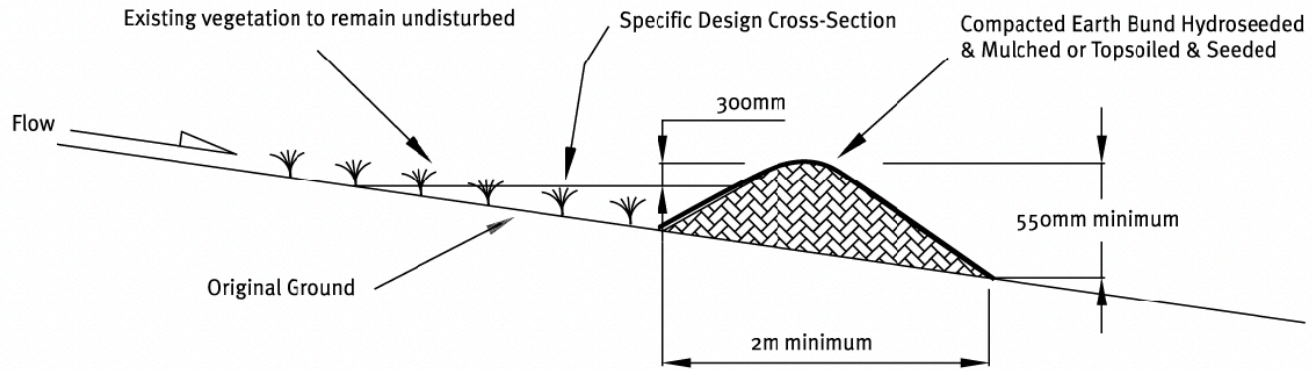
CLEAN WATER CUTOFF DIVERSIONS

Survey the alignment so that the longitudinal gradient does not exceed 2% wherever possible. Where this can not be achived install channel lining and energy dissipation at he discharge.
Discharge to directions shown on the ESCP.
Install energy dissipation at each end as necessary to prevent scour/erosion.

CW Cutoff Standard Details

Also refer to GD05 Section E2.1.2 Page 42 for construction and maintenance details

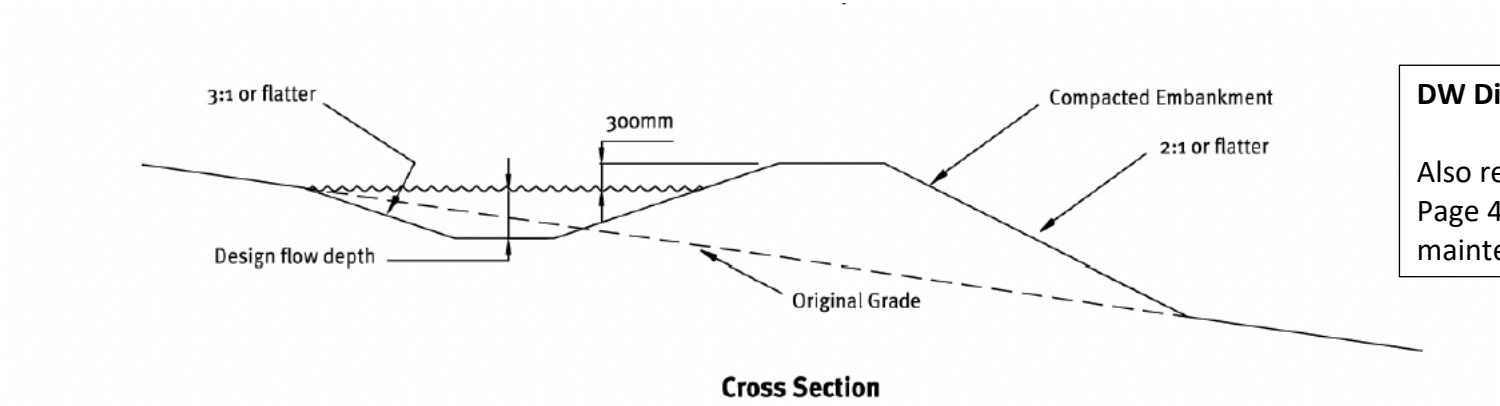
- The diversion channels should be parabolic or trapezoidal in shape
- Ensure the internal sides of the bund associated with the diversions are no steeper than 3:1, and the external sides no steeper than 2:1, as outlined in Figure 16 below.



Cross Section

DIRTY WATER DIVERSION DRAIN

Dirty water diversion drain will be installed below the Lot 2 works area which discharges into the sediment basin. The catchment area for this is small and the drain will provide soakage so the below "standard" cross section design will be larger than required. A minimum of 300mm of flow depth should be provided but the sides of the channel can be steeper and the down slope bund smaller, ensure at all times no flow can escape the channel.

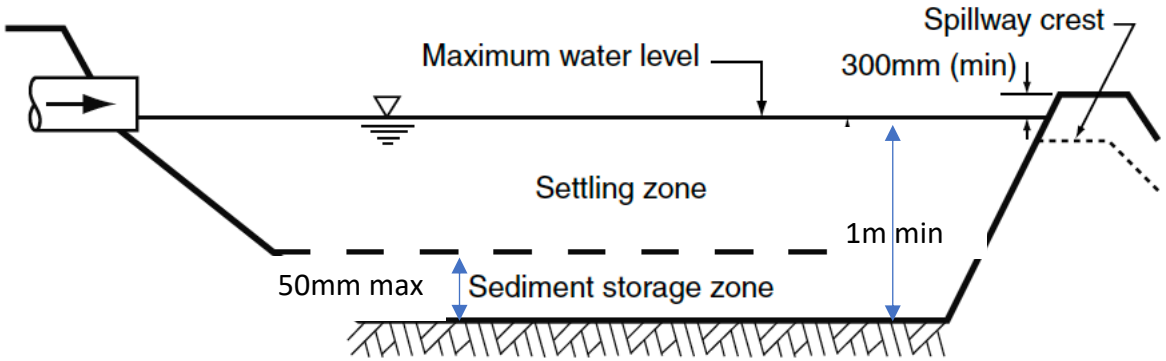


Cross Section

DW Diversion Standard Details

Also refer to GD05 Section E2.2.2 Page 45 for construction and maintenance details

SEDIMENT BASIN



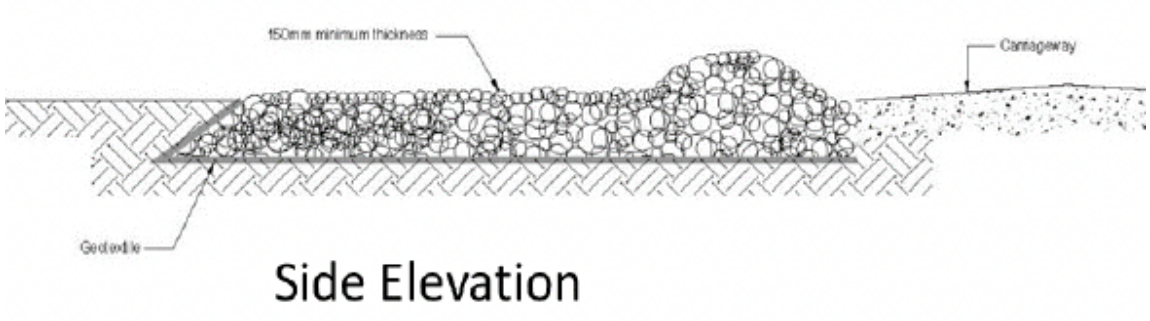
Construct the sediment basin in any shape as long as it has a minimum 25m2 base, is a minimum 1m deep (max 1.10m deep for safety), and has batters that are no steeper than 1H:3V.
Direct an emergency spillway to the adjacent right of way roadside swale.
Children live in the surrounding houses so Install a fence around the basin and post a warning sign.

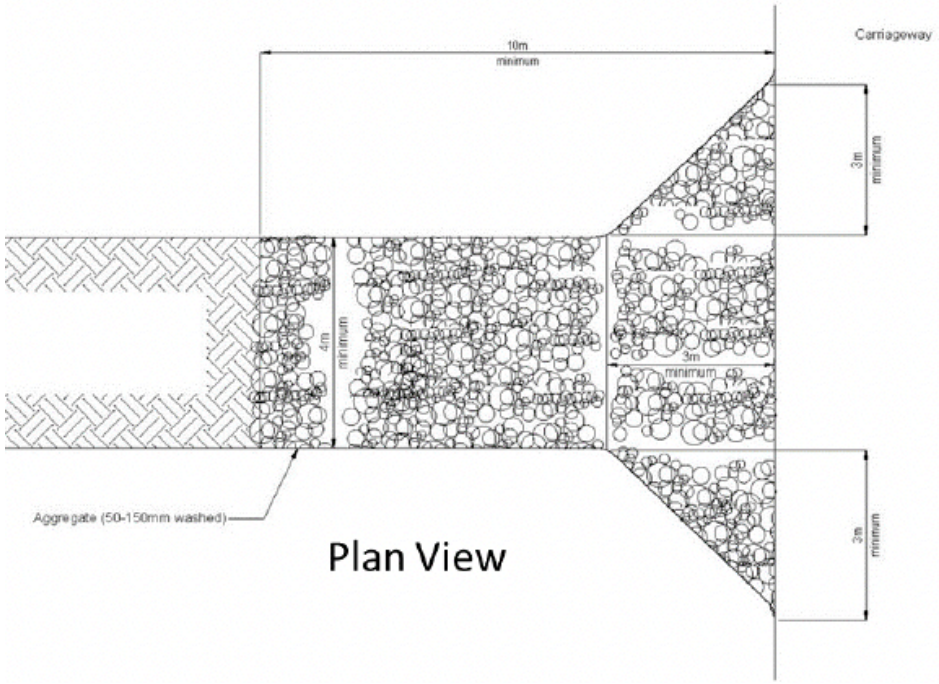
Preferentially use any water stored in this basin for dust suppression if it is available at the time, but given the high soakage rates by the time the surrounding area dries out the basin will have emptied.

Maintain the sediment basin by visual inspection, removing trapped sediment to ensure a free draining base is always available. Sediment should not exceedf500mm depth. Do not dispose of this material in a location that it could generate a sediment issue.

STABILISED ENTRANCE

Design parameter	Specification
Aggregate size	50 - 150 mm washed aggregate
Minimum thickness	150 mm
Minimum length	10 m
Minimum width	4 m





Appendix 2 - SITE ENVIRONMENTAL INDUCTION

The purpose of the site environmental induction is to ensure that all staff and subcontractors onsite are aware of their environmental responsibilities.

Induction Topics

- Basic roles and responsibilities for environmental management. A representative from TBC is the Environmental Representative for this project. The environmental reps role is;

Implementation of environmental management
> Ensure installation of environmental controls as per this EMP
> Undertake environmental site inspections of the project
> Oversee the maintenance and improvement of defective environmental controls
> Undertake Environmental Incident reporting

Communication
> Keep project leadership informed of environmental performance of the project
> Inform staff of procedures and constraints applicable to managing specific environmental issues
> Responsible for providing environmental inductions to all staff and sub-contractors

Complaints and Incidents
> Attending to Environmental Incidents and Complaints

a) Specific locations within the site of environmental significance or risks, including Exclusion Zones and Sensitive Environmental Receptors, Fuelling areas, Stockpile areas.

The site does not have any significant waterbodies or sensitive environmental receptors. To prevent any sediment leaving the site ensure that at all times any water that comes from an earthworks area is directed to either a silt fence or the sediment basin.

There are neighbours in close proximity including the Arrowtown Retirement Lifestyle village and ensuring there are no nuisance effects on these neighbours from noise or dust is very important.

b) Scope and conditions of resource consents applicable to the works.

Resource consent has not yet been issued.

c) The limit of clearing and earthworks for each Stage of works as outlined in the EMP

Do not take machinery or vehicles outside of the works site as that risks creating erosion and generating sediment.

d) Environmental management measures stipulated in the EMP

The key items in managing erosion and sediment on this project are listed below in decreasing environmental risk.

The clean water cut off diversions above the areas of earthworks are there to reduce the amount of water that reaches the earthworks sediment controls. Without them the sediment basin would have to be significantly larger and the silt fences may not have been appropriate for the amount of water. Ensure these have full capacity at all times and check them before and after significant storms.

The sediment basin is collecting the water that comes off the earthworks area for the Lot 2/3 road and for the Lot 2 building platform. This area has very good ground soakage which is being made the most of here. It is important that the basin remains free draining and does not become clogged up with sediment and/or its volume is not reduced. Ensure the road swale and Lot 2 dirty water drain are always discharging into the basin.

The silt fences are there to impound water off the earthworks site so that sediment can settle out. Always construct them with returns up slope so that this can be achieved. Whilst they do filter the stormwater that is impounded, filtering is not their primary purpose and the water that passes a silt fence does not meet the water quality standards.

e) Procedures of notifying of potential Environmental Incidents

An environmental incident is the occurrence of a reportable breach of the relevant legislation, District Plan or other planning documents, the resource consent and the EMP. A reportable breach is one that causes a significant environmental effect or nuisance offsite or to Sensitive Environmental Receptors within the site including waterways, aquifers or groundwater onsite.

If an incident occurs undertake immediate remedial actions to mitigate adverse environmental effects. Immediate response actions should not be delayed. Once the immediate risk from the Environmental Incident is alleviated, the Environmental Representative shall investigate the cause of the breach and/or adverse environmental effects, then identify and implement corrective actions as soon as practicable.

The Environmental Representative shall provide an Environmental Incident Report (see Appendix 3) to QLDC within 10 working days of the incident occurring. This report must detail:
a) The nature of the Environmental Incident
b) What management measures were in place to prevent the incident from occurring
c) Probable causes of the incident
d) What corrective actions have been undertaken to prevent incidents reoccurring

f) Procedures for managing storm events (wind and rain)

All controls should be in good working order and the site should always be suitably stabilised to limit erosion and sedimentation, any potential spills, discharges and deposition of waste from site.

g) Procedures for managing Spills

If a chemical or fuel spill occurs immediately use the spill kit on site to contain the spill. Collect any contaminated soil or water in containers (or on a truck depending on volume) onsite and dispose of to the Vitoria Flats contaminated soils landfill facility. Advise QLDC of the environmental incident within 12 hours using the form in Appendix 3.

Environmental Induction Attendance Register Pro forma

Name	Date	Signature	Name	Date	Signature

Appendix 3 – ENVIRONMENTAL INCIDENT REPORT FORM

Project Address:	**QLDC Consent Number (if applicable):** RM123456 BC123456
Brief Project Description:	

Instructions

Complete this form for all environmental incident that cause contaminants (including sediment) or environmental nuisance to leave the site. Please be succinct, stick to known facts and do not make assumptions.

Once completed submit to the Regulatory team at Queenstown Lakes District Council at RCMonitoring@qldc.govt.nz Call the Regulatory team immediately on 03 441 0499 for any serious or ongoing incidents that cannot be brought under control.

Incident details

Date and Time	Date: XX/XX/XX Time: XX:XX am ☐ pm ☐
Description Provide a brief and factual description of what happened during the incident, include relevant details such as: > The estimated distance to the nearest waterway (include storm water and dry courses) > The estimated distance to the nearest sensitive receiver > The activity being undertaken when the incident occurred Sketches/diagrams/photos may be reference and appended to this report to aid in the description of the incident	
EXACT location of the incident Include address, landmarks, features, nearest cross street, etc Maps and plans can be attached to the incident report if appropriate	
Quantity or volume of material escaped or causing incident (provide and estimate if quantity unknown)	
Who identified the incident?	☐ Contractor ☐ Council ☐ Community ☐ Other

What immediate actions/control measures were taken to rectify or contain the incident?

What initial corrective action will be taken to prevent similar incidents recurring in the near future?

Has the Otago Regional Council been notified? ☐ Yes ☐ No

Approvals:

Environmental Representative/Person making report

Name..... Signature.....

Organisation..... Date.....

Mobile phone number.....

Site Supervisor

Name..... Signature.....

Organisation..... Date.....

Mobile phone number.....

Appendix 4 - Complaints register

Name & Address of Complainant Contact Details	
Nature of the Complaint	
Location, Date and Time of the Alleged Event	
Weather Conditions at the time of Event Include wind direction and speed if noise/dust related	
Recommendations for Rectification	
Actions to be Taken	
Confirmation that the Complainant has been Informed of Rectification	
Confirmation the Matter has been Closed Out	Date: Name: Signature:

Appendix 5 – Weekly inspection

DATE;

ENVIRONEMTNAL REPRESENTATIVE;

WEATHER OBSERVATIONS;

ITEM	OBSERVATIONS	CORRECTIVE ACTIONS NEEDED?	ACTION TAKEN AND WHEN
Shared right of way to/through the site.		Check there is no excessive erosion or sediment deposition from vehicle movements	
Clean water cut off drains		Remove any accumulated sediment deposited in the diversion channel where there is a risk of overtopping due to a lack of freeboard Check invert and outlets to ensure that these remain free from scour and erosion. These points may require geotextile lining to avoid this effect Look for low spots, areas of water ponding, formation of tunnel gullies, sediment deposition and debris blockage Check for stabilisation cover and ensure full stabilisation cover remains where required Take particular care to protect against damage from earthmoving operations and reinstate the diversion if damaged	

Silt Fences		Check for damage including rips, tears, bulges in the fabric, broken support wires, loose waratahs, overtopping, outflanking, undercutting, and leaking joins in the fabric Cleaning of the silt fence geotextile with a light broom or brush may be appropriate Remove sediment when bulges occur or when sediment accumulation reaches 20% of the fabric height	
Dirty water diversion on Lot 2 into sediment basin		Check for scour and any areas where flow could breach the channel Look for low spots, areas of water ponding, formation of tunnel gullies, sediment deposition and debris blockage Check for damage from earthmoving operations and reinstate if damaged	
Sediment basin		Ensure the banks of the basin are stable Check for depth of accumulated sediment and remove if more than 50mm average across the basin base	

Appendix 6 – Accidental Discovery Protocol

HERITAGE NEW ZEALAND POUHERE TAONGA

Heritage New Zealand Pouhere Taonga Archaeological Discovery Protocol

Under the Heritage New Zealand Pouhere Taonga Act (2014) an archaeological site is defined as any place in New Zealand that was associated with human activity that occurred before 1900 and provides or may provide, through investigation by archaeological methods, evidence relating to the history of New Zealand. For pre-contact Maori sites this evidence may be in the form of bones, shells, charcoal, stones etc. In later sites of European/Chinese origin, artefacts such as bottle glass, crockery etc. may be found, or evidence of old foundations, wells, drains or similar structures. Burials/koiwi tangata may be found from any historic period.

In the event that an unidentified archaeological site is located during works, the following applies;

1. Work shall cease immediately at that place and within 20m around the site.
2. The contractor must shut down all machinery, secure the area, and advise the Site Manager.
3. The Site Manager shall secure the site and notify the Heritage New Zealand Regional Archaeologist. Further assessment by an archaeologist may be required.
4 If the site is of Maori origin, the Site Manager shall notify the Heritage New Zealand Regional Archaeologist and the appropriate iwi groups or kaitiaki representative of the discovery and ensure site access to enable appropriate cultural procedures and tikanga to be undertaken, as long as all statutory requirements under legislation are met (*Heritage New Zealand Pouhere Taonga Act*, *Protected Objects Act*).
5. If human remains (koiwi tangata) are uncovered the Site Manager shall advise the Heritage New Zealand Regional Archaeologist, NZ Police and the appropriate iwi groups or kaitiaki representative and the above process under 4 shall apply. Remains are not to be moved until such time as iwi and Heritage New Zealand have responded.
6. Works affecting the archaeological site and any human remains (koiwi tangata) shall not resume until Heritage New Zealand gives written approval for work to continue. Further assessment by an archaeologist may be required.
7. Where iwi so request, any information recorded as the result of the find such as a description of location and content, is to be provided for their records.
8. Heritage New Zealand will determine if an archaeological authority under the *Heritage New Zealand Pouhere Taonga Act* 2014 is required for works to continue.

It is an offence under S87 of the *Heritage New Zealand Pouhere Taonga Act 2014* to modify or destroy an archaeological site without an authority from Heritage New Zealand irrespective of

Appendix 7 – Geotech reports

Geotechnical Completion Report

Lots 1, 2 & 3

McDonnell Road, Queenstown

Report prepared for:

Mt Soho Trust

Report prepared by:

GeoSolve Limited

Distribution:

Mt Soho Trust

GeoSolve Limited (File)

October 2018

GeoSolve Ref: 180672

Revision	Issue Date	Purpose	Author	Reviewed
1	23/10/18	Client issue	MBS	PGF

GEOTECHNICAL WATER RESOURCES PAVEMENTS

Table of Contents

1 Introduction

1.1 General

This geotechnical completion report has been prepared in accordance with the QLDC LDSCoP[1] and presents the results of all geotechnical investigations and construction inspections and testing undertaken for the establishment of 3 residential building lots at Lot 3 DP 506191, Arrowtown. This report covers lots 1, 2 and 3.

Geotechnical requirements for the design and construction of residential dwellings within the development are provided on the attached Schedule 2a, Section 6.

This report has been completed in accordance with the terms and conditions outlined in GeoSolve proposal reference number 180672, dated 22 October 2018.

1.2 Development

The three-lot subdivision is located immediately to the west of the existing Arrowtown Retirement Village site, approximately 300 m west of McDonnell Road.

The subdivision layout and extent of earthworks is shown on the Aurum survey plan provided in Appendix A.

1.3 Scope of Work

GeoSolve has undertaken the following scope of work under our engagement to enable preparation of this report:

- Review previous geotechnical reports that are applicable to the development and immediate surrounding area;
- Site inspections and Scala testing as considered necessary, and;
- Preparation of a “Geotechnical Completion Report” and “Schedule 2A.”

1.4 Previous Geotechnical Reporting

GeoSolve have not previously carried out geotechnical investigations at the site but have completed extensive geotechnical investigations at the adjacent Arrowtown Retirement Village site.

Specific site investigation was competed for the purposes of this report.

[1] Queenstown Lakes District Council. (2018). Land Development and Subdivision Code of Practice.

2 Site Description

2.1 General

The subject property is located at McDonnell Road, approximately 2 km south of Arrowtown, as shown in Figure 2.1 below.

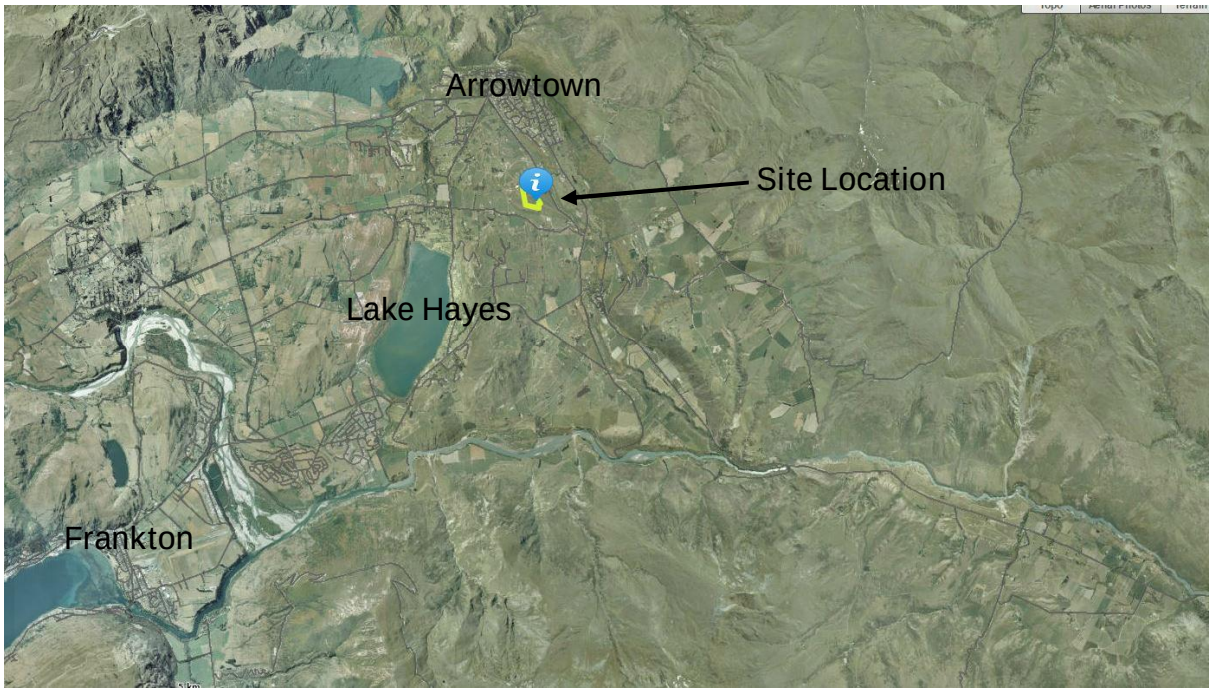


Figure 2.1 – Site location plan

The site is bounded by 368 Arrowtown-Lake Hayes Road to the north and west, 272-276 McDonnell Rd to the south and the Arrowtown Retirement village site to the east.

The site is currently undeveloped and being used as farm land. Vegetation comprises pasture shrubs and trees. The 3 building platforms are accessed by a new road which enters the area from the north. This excess road had been completed prior to this assessment.

2.2 Topography and Surface Drainage

The building site has been surveyed and the site topography is shown in Figure 1a, Appendix A.

The site surface within the building platform areas is sub-horizontal to gently sloping. For lot 1 and the southern platform, the crest of a slope is present between 10 and 20 m to the east. This slope is approximately 10 m in height and falls at 18° (3H:1V). On the upslope side of the lots, the ground climbs up at approximately 26° (2H:1V) to the crest of a low hill, 20-25 m above the platforms.

The site is naturally free draining and no seepages or ponding water were evident within the site boundary.

3 Subsurface Conditions

3.1 Geological Setting

The site is located in the Wakatipu basin, a feature formed predominantly by glacial advances. Published references indicate the last glacial event occurred in the region between 10,000 and 20,000 years ago. Glaciations have left deposits of glacial till, glacial outwash and lake sediment over ice-scoured bedrock. Post-glacial times have been dominated by the erosion of the bedrock and glacial sediments, with deposition of alluvial gravel by local watercourses, and lacustrine sediments, during periods of high lake levels.

Active fault traces were not observed at the site nor in the immediate vicinity, and the closest major active fault is the Nevis-Cardrona Fault system, 15km to the east. However, significant seismic risk exists in this region from potentially strong ground shaking, associated with the rupture of the Alpine Fault, located 80 km northwest from Queenstown along the West Coast of the South Island. There is a high probability that an earthquake with an expected magnitude of over M¬W 8 will occur along the Alpine Fault in the next 50 years.

3.2 Stratigraphy

The geological stratigraphy at the site generally comprises:

- 0.2-0.4 m of topsoil, overlying;
- 0.0-1.0 m of loess; overlying;
- 0.3-3.1 m+ of outwash alluvium, overlying;
- 0.0-3.1 m+ of glacial till.

Topsoil was observed at the surface of all test pits to a depth of between 0.2 and 0.4 m.

Loess was observed to underlie the topsoil in TPs 1-4 and 6-8 to depths of between 0.4 and 1.0 m. The loess comprises loose, silty SAND and rootlets.

Outwash alluvium was observed to underlie the topsoil and loess in all test pits, and was observed to depths of between 0.7 and 3.1 m+. The outwash alluvium comprises loose to medium dense, brown and grey, SAND and GRAVEL deposits with varying cobble and boulder composition.

Glacial till was observed to underlie the outwash alluvium in TP 7 and 8 at depths of between 0.7 and 1.9 m. The glacial till comprises medium dense, gravelly SAND with varying silt, cobble and boulder composition. Glacial till was observed in the location of the southern platform only.

Schist bedrock is exposed on the upslope side of the building platforms and is expected to underlie the glacial till at relatively shallow depths.

3.3 Groundwater

Minor water seepage was observed in TP2 at a depth of 3.6 m. This is interpreted to be perched water sitting on the silty SAND contact at 3.7 m. Groundwater was measured within piezometers installed at the adjacent Arrowtown Retirement village site at depths of between 8.2 and 8.8 m (June 2016), and is expected to be deeper beneath the subject site in the elevated platform locations.

4 Earthworks

Minor earthworks were completed to form the access road and re-grade the immediate adjacent areas. The earthworks did not extend into the residential building platforms.

Fill has been placed for landscaping purposes outside the building platform areas.

The extent and depth of the earthworks is shown on the Aurum survey plan provided in Appendix A.

5 Engineering Considerations and Hazards

5.1 General

The recommendations and opinions contained in this report are based upon ground investigation data obtained at discrete locations and historical information held on the GeoSolve database.

The nature and continuity of subsoil conditions away from the investigation locations is inferred and cannot be guaranteed.

5.2 Seismicity and nearby Faults

The greatest seismic risk is from the Alpine Fault along the West Coast of the South Island, with an estimated 30% probability of rupture in the next 50 years. This could generate an earthquake of up to M8, and would likely subject the site area to strong, prolonged ground shaking.

The design of dwellings should be completed using the site subsoil categories discussed in Section 5.6.

5.3 Hazards

The northern area of the site, Lot 2, is indicated on the QLDC hazard mapping to be within an area designated as Liquefaction Investigation Category (LIC)1(P), probably low risk. No other known/mapped hazards are shown, or were identified during the site inspection.

The subsoils observed during investigations predominantly comprise loose to medium dense gravelly SAND (Outwash alluvium), overlying glacial till. As the groundwater at the site is at depth (+ 8.2-8.8 m) shallow liquefaction is not a risk at the site.

Overall, the risk of liquefaction affecting the site under either SLS or ULS seismic loading is considered to be low, and no further assessment is considered necessary.

5.4 Slopes

No existing slope instability was observed within the property boundary, or in the immediate vicinity. The building platforms are set back sufficiently from all slopes (upslope and downslope) for there to be no specific engineering requirements for slope instability.

5.5 Shallow Foundations

5.5.1 General

The topsoil will not provide adequate support for the proposed development foundations and should be removed from beneath the building footprints. It is recommended that the building foundations are constructed to bear upon the underlying loess and/or outwash alluvium.

To minimise the effects of freeze-thaw cycles, all shallow foundations in soils should be founded a minimum of 0.4 m below the adjacent finished ground surface.

It is recommended the foundation subgrade be inspected by a suitably qualified and experienced person to confirm the conditions are in accordance with the assumptions and recommendations provided in this report.

It is recommended that soil bearing capacity for the buildings is reviewed once final development plans and building platform locations and levels have been set.

5.5.2 Foundations on Soil Materials

Foundations for light weight residential buildings are expected to bear on loess or outwash alluvium.

Loess

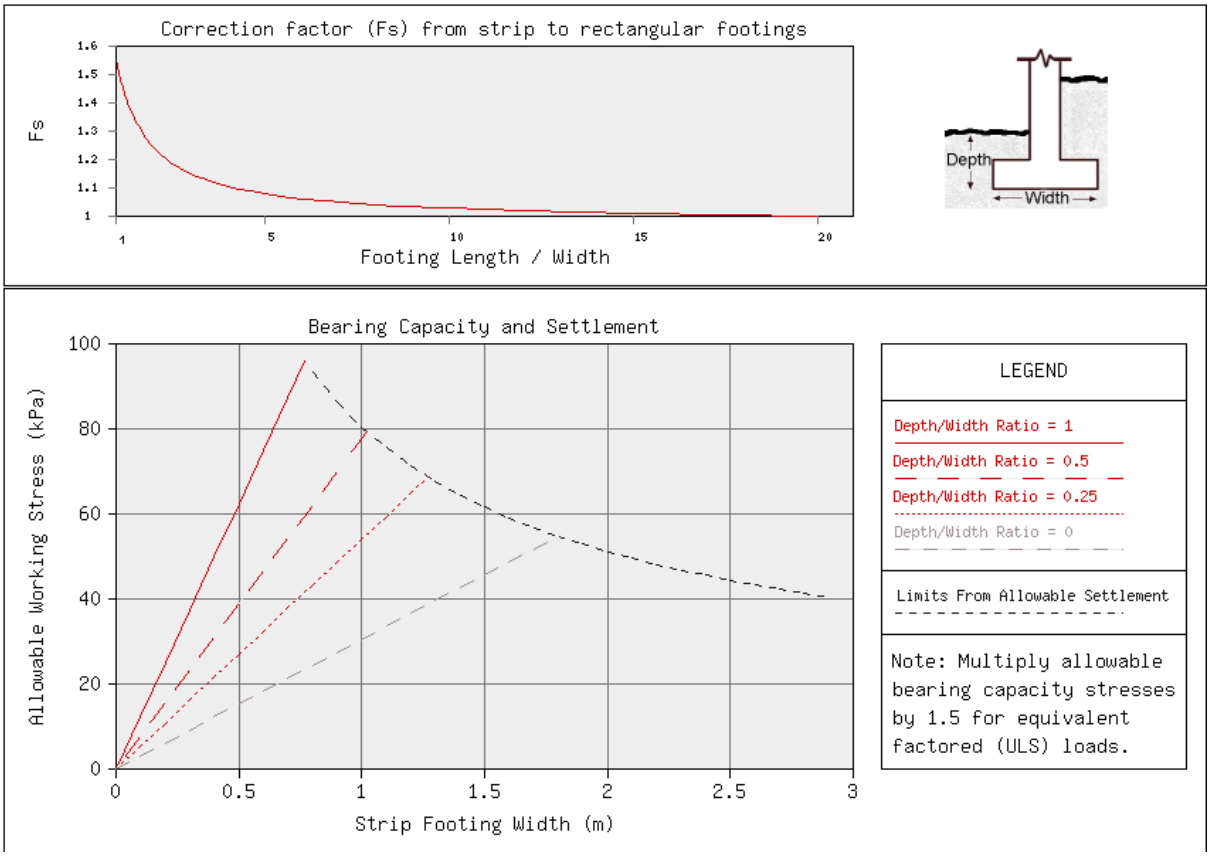
Loess was observed in all test pits, typically being present to depths of between 0.4 and 1.0 m bellow current ground levels. The loess materials are not considered to be "good ground" as outlined in NZS3604. For foundations that bear on loess specific engineering design will be required. Foundation bearing capacities for foundations that bear on Loess are provided in Figure 5.1 below.

From Figure 5.1, it can be seen an allowable working stress of approximately 50 kPa is recommended for 0.4 m wide by 0.4 m deep strip footing founded in loess. This corresponds to a factored (ULS) bearing capacity of approximately 75 kPa and an ultimate geotechnical bearing capacity of 150 kPa.

It should be noted the foundation working stresses presented on Figure 5.1 and 5.2 are governed by bearing capacity in the case of narrow footings and settlement in the case of wide footings.

Note that the strength of the loess materials can reduce significantly if they are exposed to the elements (rainfall/frost) or trafficking/disturbance.

Figure 5.1. Recommended Bearing for Shallow Footings on Loess



Outwash Alluvium

Outwash alluvium underlies the loess in all test pits. These materials are considered to be "good ground" as outlined in NZS3604 and foundations constructed in accordance with the standard will be appropriate.

The upper 100-200 mm of the outwash alluvium is prone to loosening during the excavation process and the foundation subgrade should be compacted with a 300kg or heavier plate compactor proir to foundation construction.

5.5.3 Settlement

Settlement and differential settlement of shallow foundations are expected to be within structurally acceptable limits providing the recommendations of Section 5.5 are followed and all unsuitable materials, particularly those softened by water, are undercut.

5.5.4 Lot Boundary Issues

All earthworks associated with residential foundations bearing at shallow depths (≤1.0m) will be achievable without extending beyond lot boundaries.

5.6 Site Sub-Soil Category

For detailed design purposes it is recommended the magnitude of seismic acceleration be estimated in accordance with the recommendations provided in NZS 1170.5:2004.

The site is considered to be Class C (shallow soil site) in accordance with NZS 1170.5:2004 seismic provisions.

6 Conditions for Future Development

A Schedule 2A is provided below with respect to future residential development at the site.

Schedule 2A

SCHEDULE 2A

STATEMENT OF PROFESSIONAL OPINION ON SUITABILITY OF LAND FOR BUILDING CONSTRUCTION

Development: McDonnel Road Subdivision, Queenstown

Developer: Mount Soho Trust

Location: McDonnell Road, Queenstown

I Paul Faulkner of GeoSolve Ltd (829 Frankton Road, Queenstown) hereby confirm that:

1. I am a geo-professional as defined in clause 1.2.2 of NZS 4404:2010 and was retained by the developer as the geo-professional on the above development.
2. The extent of my preliminary investigations are described in my report number 180672 dated October 2018, and the conclusions and recommendations of those documents have been re-evaluated in the preparation of this report. The extent of my inspections during construction, and the results of all tests and re-evaluations carried out are as described in my geotechnical completion report dated October 2018 (GeoSolve Ref: 180672).
3. In my professional opinion, not to be construed as a guarantee (delete as appropriate), I consider that:
   a. ~~The earth fills shown on the attached Plan No ..... have been placed in compliance with the requirements of the Queenstown Lakes District Council and my specification.~~
   b. The completed works take into account land slope and foundation stability considerations, subject to the appended foundation recommendations and earthworks restrictions, (which should be read in conjunction with the appended final site contour plan).
   c. Subject to 3(a) and 3(b) of this schedule, the original ground not affected by filling is suitable for the erection of buildings designed according to NZS3604 provided that:
      (i) Foundations extend to bear on the Outwash Alluvium.
      (ii) Foundations that bear on the Loess will not meet NZS3604 design requirements with respect to good ground and specific assessment will be required as per Section 5.5.2 or Geosolve report 180672.
   d. ~~Subject to 3(a) and 3(b) of this schedule, the filled ground is suitable for the erection of buildings as outlined in NZS3604, provided that~~:
      (i).....n/a
   e. The original ground beneath the building platforms is not subject to erosion, subsidence, or slippage in accordance with the provisions of section 106 of the Resource Management Act 1991 provided that:
      (i)..... n/a.....
4. This professional opinion is furnished to the TA and the developer for their purposes alone on the express condition that it will not be relied upon by any other person and does not remove the necessity for the normal inspection of foundation conditions at the time of erection of any building.
5. This certificate shall be read in conjunction with my geotechnical report referred to in clause 2 above and shall not be copied or reproduced except in conjunction with the full geotechnical completion report.

Signed:

Paul Faulkner

Senior Engineering Geologist

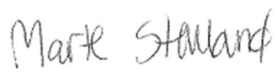
Date: 22/10/2018

7 Applicability

This report has been prepared for the benefit of Mount Soho Trust with respect to the particular brief given to us and it may not be relied upon in other contexts or for any other purpose without our prior review and agreement.

It is important that we be contacted if there is any variation in subsoil conditions from those described in this report.

Report prepared by:



.....

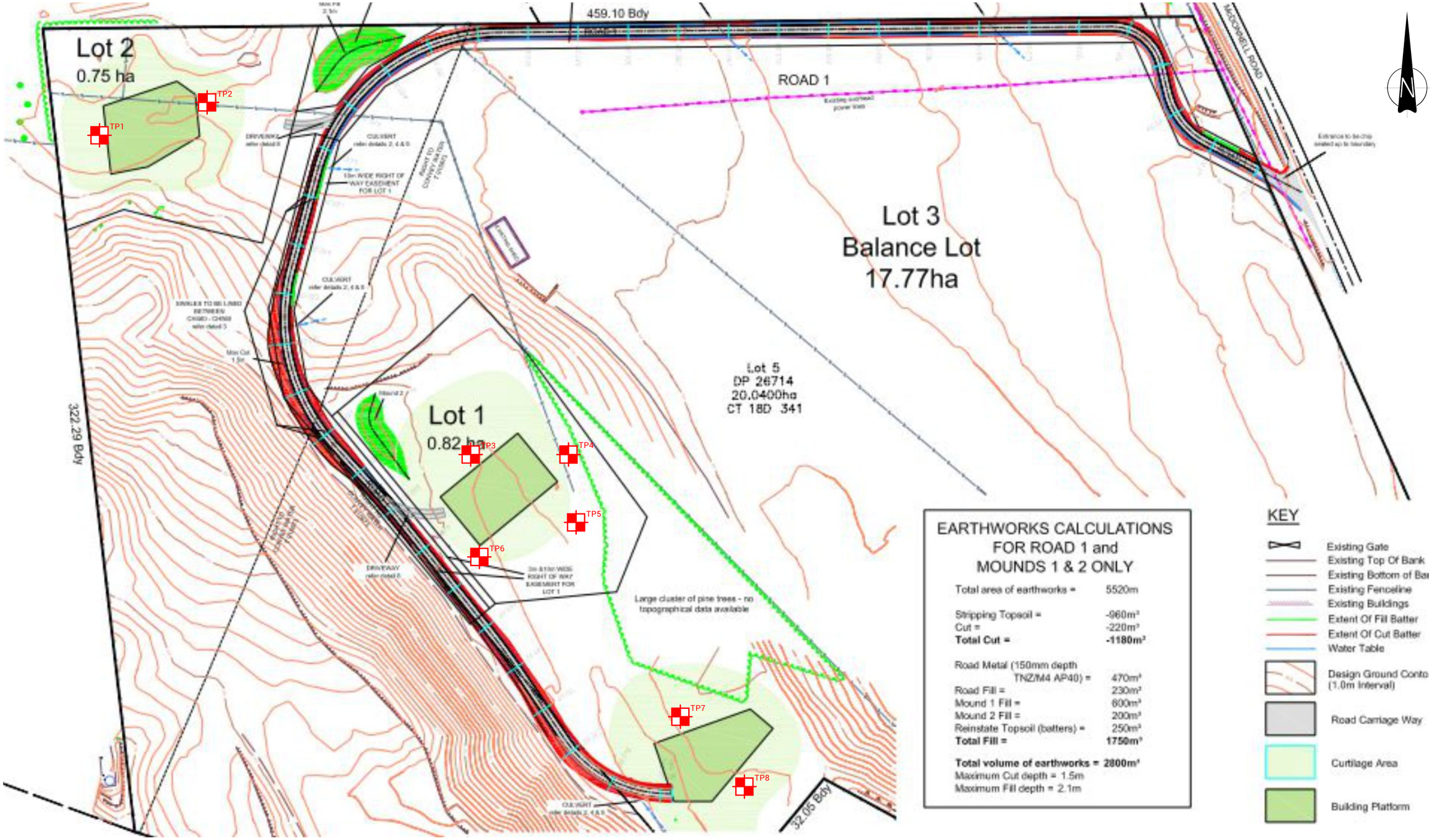
Mate Stemland
Engineering Geologist

Reviewed for GeoSolve Ltd by:

.....

Paul Faulkner
Senior Engineering Geologist

Appendix A: Site Plan



EARTHWORKS CALCULATIONS
FOR ROAD 1 and
MOUNDS 1 & 2 ONLY

Total area of earthworks =	5520m
Stripping Topsoil =	-960m³
Cut =	-220m³
Total Cut =	**-1180m³**
Road Metal (150mm depth TNZ/M4 AP40) =	470m³
Road Fill =	230m³
Mound 1 Fill =	600m³
Mound 2 Fill =	200m³
Reinstate Topsoil (batters) =	250m³
Total Fill =	**1750m³**
Total volume of earthworks =	**2800m³**
Maximum Cut depth = 1.5m	
Maximum Fill depth = 2.1m	

KEY

- Existing Gate
- Existing Top Of Bank
- Existing Bottom of Ba
- Existing Fenceline
- Existing Buildings
- Extent Of Fill Batter
- Extent Of Cut Batter
- Water Table
- Design Ground Conto (1.0m Interval)
- Road Carriage Way
- Curtilage Area
- Building Platform

Scale 1:1500

0 20 40 60 80 100 (m)

Key

TP1 = Test Pit

CADFILE:	Sketch 1.xar	DRAWN	MBS	10/2018
SCALE (AT A3 SIZE):	AS SHOWN	DRAFTING CHECKED	PGF	10/2018
PROJECT No:	180672	APPROVED	PGF	10/2018

GEOSOLVE
ENGINEERING CONSULTANTS
GEOTECHNICAL
WATER RESOURCES
PAVEMENTS

Mount Soho Trust
McDonnell Road Subdivision
McDonnell Road, Queenstown
Site Investigation Plan

FIG No: FIGURE 1A

REV. 1

Appendix B: Investigation Data

GEOSOLVE

EXCAVATION LOG

EXCAVATION NUMBER: **TP 1**

PROJECT:	McDonnell Rd Subdivision	JOB NUMBER:	180672
LOCATION:	See Site Plan — INCLINATION: VERTICAL		

EASTING:		mE	EQUIPMENT:	14T	OPERATOR:	Sam
NORTHING:		mN	INFOMAP NO.		COMPANY:	Monk Earthworks
ELEVATION:		m	DIMENSIONS:		HOLE STARTED:	
METHOD:			EXCAV. DATUM:		HOLE FINISHED:	

DEPTH (m)	SOIL / ROCK TYPE	GRAPHIC LOG	DESCRIPTION	USCS GROUP	GROUNDWATER / SEEPAGE	SCALA PENETROMETER Blows per 100mm (0 5 10 15)
0.3	TOPSOIL		Dark Brown, organic SILT with rootlets. Soft.		NO SEEPAGE	
0.7	LOESS		Brown, silty SAND with worm castings and rootlets. Sand is fine. Loose. Massive. Moist.			
1.0	OUTWASH ALLUVIUM		Brown, silty gravelly SAND. Sand is fine to coarse. Gravel is fine to medium. Loose. Massive. Moist.			
3.7	OUTWASH ALLUVIUM		Grey, gravelly SAND with minor cobles. Sand is fine to coarse. Gravel is fine to coarse, subrounded to subangular. Medium dense. Bedded. Moist.			

Total Depth = 3.7 m

COMMENT: No seepage. Walls remained stable during excavation.

Logged By: MBS
Checked Date:
Sheet: 1 of 1

GEOSOLVE

EXCAVATION LOG

EXCAVATION NUMBER: **TP 2**

PROJECT:	McDonnell Rd Subdivision	JOB NUMBER:	180672
LOCATION:	See Site Plan — INCLINATION: VERTICAL		

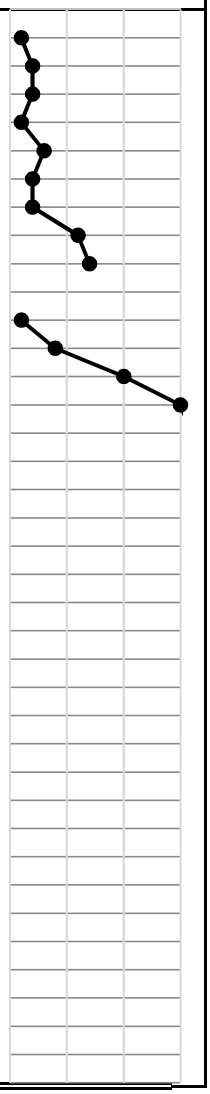
EASTING:		mE	EQUIPMENT:	14T	OPERATOR:	Sam
NORTHING:		mN	INFOMAP NO.		COMPANY:	Monk Earthworks
ELEVATION:		m	DIMENSIONS:		HOLE STARTED:	
METHOD:			EXCAV. DATUM:		HOLE FINISHED:	

DEPTH (m)	SOIL / ROCK TYPE	GRAPHIC LOG	DESCRIPTION	USCS GROUP	GROUNDWATER / SEEPAGE
0.4	TOPSOIL		Dark Brown, organic SILT with rootlets. Soft.		
0.8	LOESS		Brown, silty SAND with worm castings and rootlets. Sand is fine. Loose. Massive. Moist.		
1.3	OUTWASH ALLUVIUM		Brown, silty gravelly SAND. Sand is fine to coarse. Gravel is fine to medium. Loose. Massive. Moist.		
1.8	OUTWASH ALLUVIUM		Grey, SAND with some silt and gravel. Sand is fine to medium. Gravel is fine to medium, subrounded to subangular. Loose to medium dense. Moist.		
3.7	OUTWASH ALLUVIUM		Grey, gravelly SAND with minor cobles and silt lenses. Sand is fine to coarse. Gravel is fine to coarse, subrounded to subangular. Medium dense. Bedded. Moist.		
3.8	OUTWASH ALLUVIUM		Grey, silty SAND with worm castings and rootlets. Sand is fine. Bedded. Moist.		NO SEEPAGE

SCALA PENETROMETER

Blows per 100mm

0 5 10 15



Total Depth = 3.8 m

COMMENT: Minor water seepage from 3.6 m. Walls remained stable during excavation.

Logged By: MBS

Checked Date:

Sheet: 1 of 1

GEOSOLVE

EXCAVATION LOG

EXCAVATION NUMBER: **TP 3**

PROJECT:	McDonnell Rd Subdivision	JOB NUMBER:	180672
LOCATION:	INCLINATION:		

EASTING:		mE	EQUIPMENT:	14T	OPERATOR:	Sam
NORTHING:		mN	INFOMAP NO.		COMPANY:	Monk Earthworks
ELEVATION:		m	DIMENSIONS:		HOLE STARTED:	
METHOD:			EXCAV. DATUM:		HOLE FINISHED:	

DEPTH (m)	SOIL / ROCK TYPE	GRAPHIC LOG	DESCRIPTION	USCS GROUP	GROUNDWATER / SEEPAGE	SCALA PENETROMETER Blows per 100mm (0 5 10 15)
0.2	TOPSOIL		Dark brown, organic SILT with rootlets. VERTICAL.			
1.0	LOESS		Brown, silty SAND with trace gravel, worm castings and rootlets. Sand is fine. Gravel is fine to medium. Soft. Massive. Moist.			
1.2	OUTWASH ALLUVIUM		Dark grey, sandy cobbly GRAVEL with boulders. Sand is coarse. Gravel is fine to coarse. Loose. Massive. Moist.			
2.5	OUTWASH ALLUVIUM		Grey, SAND with trace gravel. Sand is fine to medium. Gravel is fine to medium, subrounded to subangular. Loose to medium dense. Bedded. Moist.			
2.9	OUTWASH ALLUVIUM		Light grey, silty SAND with trace cobbles. Sand is fine. Loose to medium dense. Moist.			
4.1	OUTWASH ALLUVIUM		Grey, silty SAND with some gravel, cobbles and boulders up to 400 mm. Sand is fine to medium. Gravel is fine to coarse, angular to subangular. Medium dense. Moist.		NO SEEPAGE	

Total Depth = 4.1 m

COMMENT: No seepage. Walls remained stable during excavation.

Logged By: MBS

Checked Date:

Sheet: 1 of 1

GEOSOLVE

EXCAVATION LOG

EXCAVATION NUMBER: **TP 4**

PROJECT:	McDonnell Rd Subdivision	JOB NUMBER:	180672
LOCATION:	See Site Plan — INCLINATION: VERTICAL		

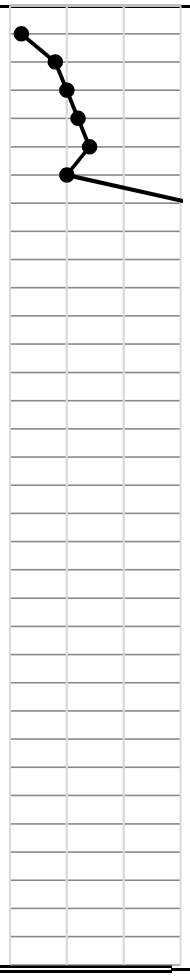
EASTING:		mE	EQUIPMENT:	14T	OPERATOR:	Sam
NORTHING:		mN	INFOMAP NO.		COMPANY:	Monk Earthworks
ELEVATION:		m	DIMENSIONS:		HOLE STARTED:	
METHOD:			EXCAV. DATUM:		HOLE FINISHED:	

DEPTH (m)	SOIL / ROCK TYPE	GRAPHIC LOG	DESCRIPTION	USCS GROUP	GROUNDWATER / SEEPAGE
0.3	TOPSOIL		Dark brown, organic SILT with rootlets and treerots. Soft. Dry.		
1.0	LOESS		Brown, silty SAND with rootlets. Sand is fine. Loose. Massive. Dry.		
3.4	OUTWASH ALLUVIUM		Grey, gravelly SAND with minor cobbles and boulders up to 400 mm. Sand is fine to coarse. Gravel is fine to coarse, subrounded to subangular. Medium dense. Bedded. Dry.		NO SEEPAGE

SCALA PENETROMETER

Blows per 100mm

0 5 10 15



Total Depth = 3.4 m

COMMENT: No seepage. Walls remained stable during excavation.

Logged By: MBS

Checked Date:

Sheet: 1 of 1

GEOSOLVE

EXCAVATION LOG

EXCAVATION NUMBER: **TP 5**

PROJECT:	McDonnell Rd Subdivision	JOB NUMBER:	180672
LOCATION:	See Site Plan — INCLINATION: VERTICAL		

EASTING:		mE	EQUIPMENT:	14T	OPERATOR:	Sam
NORTHING:		mN	INFOMAP NO.		COMPANY:	Monk Earthworks
ELEVATION:		m	DIMENSIONS:		HOLE STARTED:	
METHOD:			EXCAV. DATUM:		HOLE FINISHED:	

DEPTH (m)	SOIL / ROCK TYPE	GRAPHIC LOG	DESCRIPTION	USCS GROUP	GROUNDWATER / SEEPAGE
0.3	TOPSOIL		Dark brown, organic SILT with rootlets. Soft. Moist.		
0.8	OUTWASH ALLUVIUM		Brown, silty gravelly SAND with rootlets. Sand is fine to coarse. Gravel is fine to coarse, subrounded to subangular. Loose to medium dense. Bedded. Dry.		
3.6	OUTWASH ALLUVIUM		Grey, gravelly SAND with minor cobbles and boulders up to 400 mm. Sand is fine to coarse. Gravel is fine to coarse, subrounded to subangular. Medium dense. Bedded. Dry.		NO SEEPAGE

SCALA PENETROMETER

Blows per 100mm

0 5 10 15

Total Depth = 3.6 m

COMMENT: No seepage. Walls remained stable during excavation.

Logged By: MBS

Checked Date:

Sheet: 1 of 1

GEOSOLVE

EXCAVATION LOG

EXCAVATION NUMBER: **TP 6**

PROJECT:	McDonnell Rd Subdivision	JOB NUMBER:	180672
LOCATION:	See Site Plan — INCLINATION: VERTICAL		

EASTING:		mE	EQUIPMENT:	14T	OPERATOR:	Sam
NORTHING:		mN	INFOMAP NO.		COMPANY:	Monk Earthworks
ELEVATION:		m	DIMENSIONS:		HOLE STARTED:	
METHOD:			EXCAV. DATUM:		HOLE FINISHED:	

DEPTH (m)	SOIL / ROCK TYPE	GRAPHIC LOG	DESCRIPTION	USCS GROUP	GROUNDWATER / SEEPAGE	SCALA PENETROMETER Blows per 100mm (0 5 10 15)
0.2	TOPSOIL		Dark brown, organic SILT with rootlets and treerots. Soft. Moist.			
0.5	LOESS		Brown, silty SAND with rootlets. Sand is fine. Loose. Massive. Moist.			
2.0	OUTWASH ALLUVIUM		Grey, gravelly SAND with some silt, cobbles and boulders. Sand is fine to coarse. Gravel is fine to coarse, subrounded to subangular. Boulders up to 1 m. Medium dense. Bedded. Moist.			
3.6	OUTWASH ALLUVIUM		Grey, silty SAND with some gravel. Sand is fine to medium. Gravel is fine to medium. Medium dense. Bedded. Moist.		NO SEEPAGE	

Total Depth = 3.6 m

COMMENT: No seepage. Walls remained stable during excavation.

Logged By: MBS
Checked Date:
Sheet: 1 of 1

GEOSOLVE

EXCAVATION LOG

EXCAVATION NUMBER: **TP 7**

PROJECT:	McDonnell Rd Subdivision	JOB NUMBER:	180672
LOCATION:	See Site Plan — INCLINATION: VERTICAL		

EASTING:		mE	EQUIPMENT:	14T	OPERATOR:	Sam
NORTHING:		mN	INFOMAP NO.		COMPANY:	Monk Earthworks
ELEVATION:		m	DIMENSIONS:		HOLE STARTED:	
METHOD:			EXCAV. DATUM:		HOLE FINISHED:	

DEPTH (m)	SOIL / ROCK TYPE	GRAPHIC LOG	DESCRIPTION	USCS GROUP	GROUNDWATER / SEEPAGE	SCALA PENETROMETER Blows per 100mm (0 5 10 15)
0.3	TOPSOIL		Dark brown, organic SILT with rootlets. Soft. Moist.			
0.4	LOESS		Brown, silty SAND with rootlets. Sand is fine. Loose. Massive.			
0.7	OUTWASH ALLUVIUM		Grey, silty gravelly SAND with cobbles and rootlets. Sand is fine to coarse. Gravel is fine to coarse, subrounded to subangular. Loose to medium dense. Bedded. Moist.			
3.8	GLACIAL TILL		Grey, gravelly SAND with some silt, cobbles and boulders up to 400 mm. Sand is fine to coarse. Gravel is fine to coarse, subrounded to angular. Medium dense. Massive. Moist.		NO SEEPAGE	

Total Depth = 3.8 m

COMMENT: No seepage. Walls remained stable during excavation.

Logged By: MBS
Checked Date:
Sheet: 1 of 1

GEOSOLVE

EXCAVATION LOG

EXCAVATION NUMBER: **TP 8**

PROJECT:	McDonnell Rd Subdivision	JOB NUMBER:	180672
LOCATION:	See Site Plan — INCLINATION: VERTICAL		

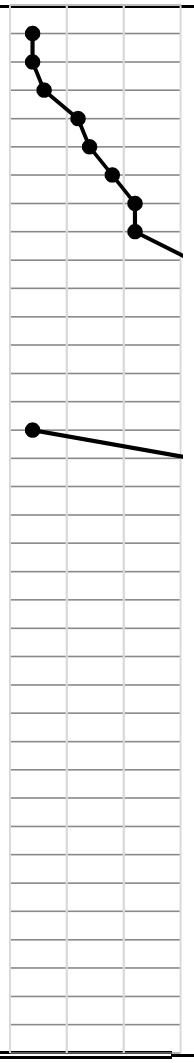
EASTING:		mE	EQUIPMENT:	14T	OPERATOR:	Sam
NORTHING:		mN	INFOMAP NO.		COMPANY:	Monk Earthworks
ELEVATION:		m	DIMENSIONS:		HOLE STARTED:	
METHOD:			EXCAV. DATUM:		HOLE FINISHED:	

DEPTH (m)	SOIL / ROCK TYPE	GRAPHIC LOG	DESCRIPTION	USCS GROUP	GROUNDWATER / SEEPAGE
0.2	TOPSOIL		Dark brown, organic SILT with rootlets and treerots. Soft. Moist.		
0.5	LOESS		Brown, silty SAND with rootlets. Sand is fine. Loose. Massive. Moist.		
1.4	OUTWASH ALLUVIUM		Grey, gravelly SAND with some silt, rootlets, cobbles and boulders up to 900 mm. Sand is fine to coarse. Gravel is fine to coarse, subrounded to subangular. Rootlets to 0.9 m. Medium dense. Bedded. Moist.		
1.9	OUTWASH ALLUVIUM		Grey, SAND. Sand is fine to medium. Loose to medium dense. Bedded. Moist.		
3.7	GLACIAL TILL		Grey, silty gravelly SAND with occasional cobbles. Sand is fine to coarse. Gravel is fine to coarse, subrounded to subangular. Massive. Moist.		NO SEEPAGE

SCALA PENETROMETER

Blows per 100mm

0 5 10 15



Total Depth = 3.7 m

COMMENT: No seepage. Walls remained stable during excavation.

Logged By: MBS

Checked Date:

Sheet: 1 of 1

Appendix 8 – Earthworks Plans

TITLE:

RESOURCE CONSENT PLANSET

PROJECT:

MONK SUBDIVISION
MCDONNELL ROAD

DESIGNED: K BULK	JOB NO.: 2945	DATE ISSUED: SEPTEMBER 2022
DRAWN: K BULK		
APPROVED: B MCLEOD		

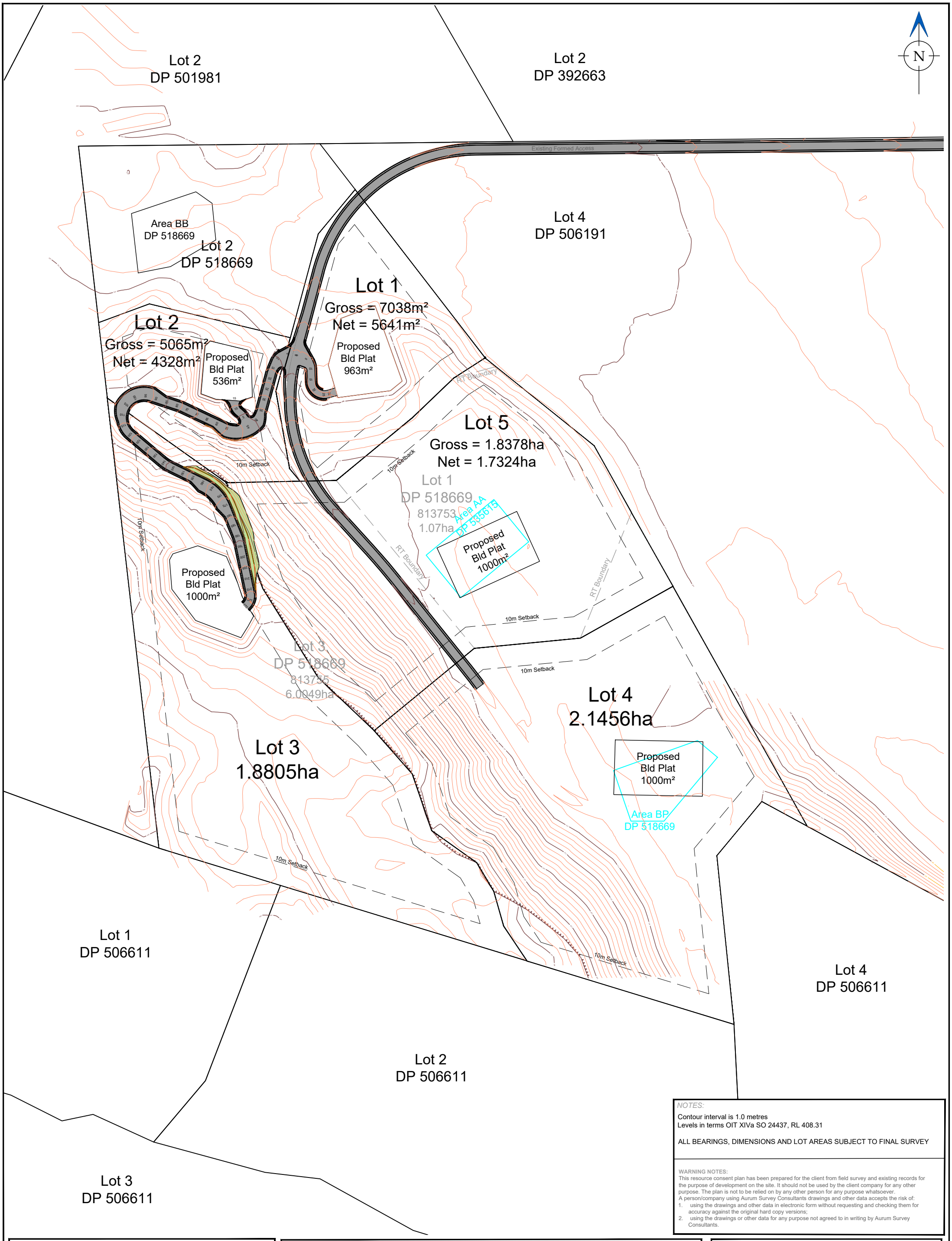
AURUM SURVEY CONSULTANTS

LAND SURVEYING
CIVIL ENGINEERING
LAND DEVELOPMENT

PO Box 2493
Wakatipu 9349
Ph 03 442 3466
Email admin@ascl.co.nz
www.ascl.co.nz

SHEET INDEX		
SHEET NO.	REVISION	SHEET TITLE
0		TITLE
1	B	SUBDIVISION OVERVIEW
2	B	SUBDIVISION SCHEME
3	B	EARTHWORKS PLAN
4	B	EASEMENT PLAN
5	B	LOT 3 DRIVEWAY LONGSECTION
6	B	LOT 1 & LOT 2 DRIVEWAY LONGSECTIONS
7	B	ROAD CROSS SECTIONS
8	B	ROAD CROSS SECTIONS
9	B	ROAD CROSS SECTIONS
10	B	LOT 2 PLATFORM SECTIONS
11	B	LOT 3 PLATFORM SECTIONS
12	B	LOT 1 PLATFORM SECTIONS

REV.	DATE:	REVISION DETAILS:	BY:
B	2/9/22	Bearings & Dimensions Added	KB
A	22/8/22	Initial release	KB



NOTES:

Contour interval is 1.0 metres
Levels in terms OIT XIVa SO 24437, RL 408.31

ALL BEARINGS, DIMENSIONS AND LOT AREAS SUBJECT TO FINAL SURVEY

WARNING NOTES:
This resource consent plan has been prepared for the client from field survey and existing records for the purpose of development on the site. It should not be used by the client company for any other purpose. The plan is not to be relied on by any other person for any purpose whatsoever.
A person/company using Aurum Survey Consultants drawings and other data accepts the risk of:
1. using the drawings and other data in electronic form without requesting and checking them for accuracy against the original hard copy versions;
2. using the drawings or other data for any purpose not agreed to in writing by Aurum Survey Consultants.

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Email admin@ascl.co.nz
www.ascl.co.nz

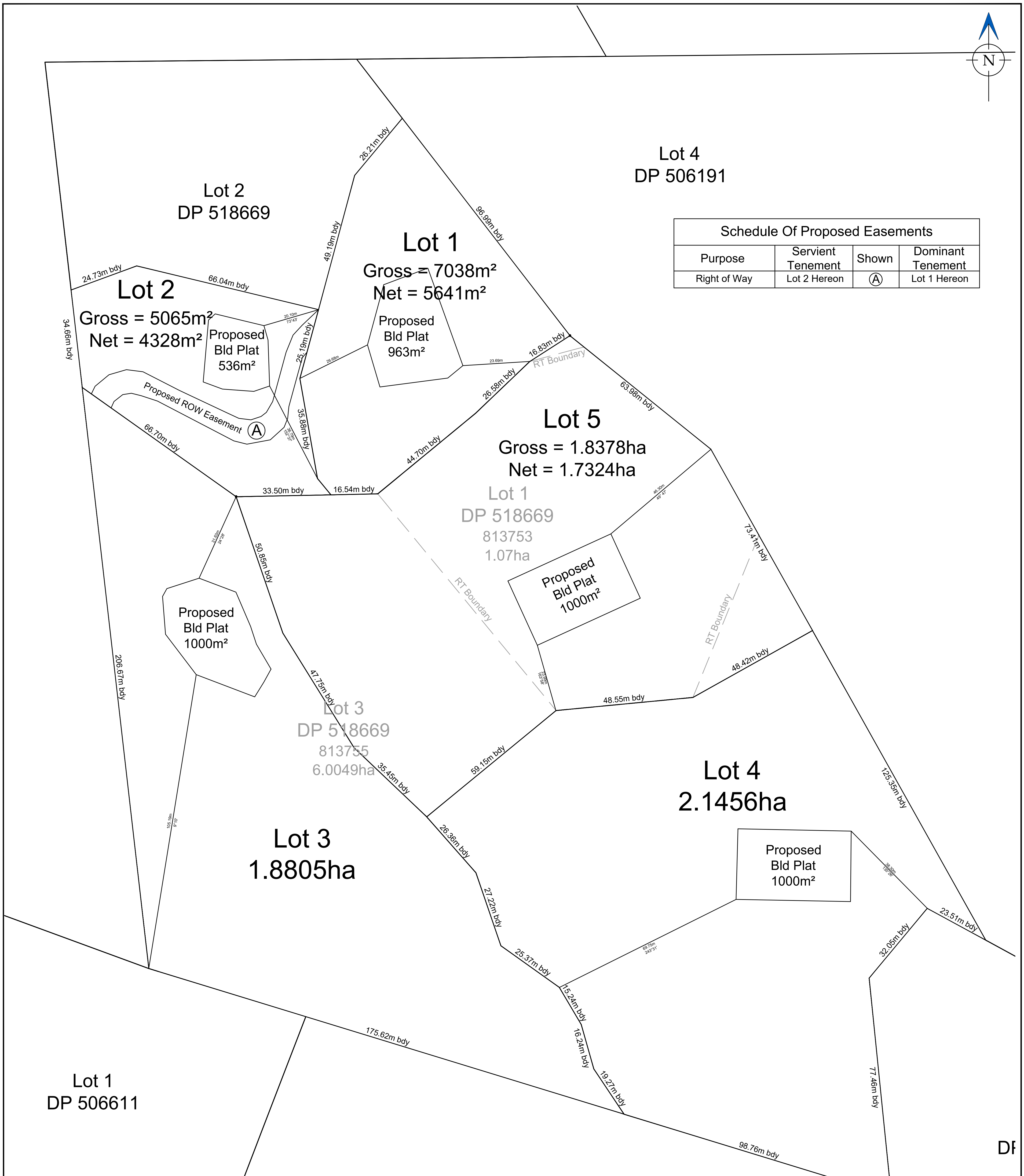
TITLE: SUBDIVISION OVERVIEW

PROJECT: MONK SUBDIVISION
MCDONNELL ROAD

FOR RESOURCE CONSENT

DESIGNED:	SCALE:	DATE CREATED:
KB	1: 1500	2/9/2022
DRAWN: KB	Original Plan A3	
APPROVED: BM		

JOB No.	DRAWING No.	SHEET No.	REV.
2945	7R	1	B



Schedule Of Proposed Easements			
Purpose	Servient Tenement	Shown	Dominant Tenement
Right of Way	Lot 2 Hereon	Ⓐ	Lot 1 Hereon

NOTES:

Contour interval is 1.0 metres
Levels in terms OIT XIVa SO 24437, RL 408.31

ALL BEARINGS, DIMENSIONS AND LOT AREAS SUBJECT TO FINAL SURVEY

WARNING NOTES:
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1. using the drawings and other data in electronic form without requesting and checking them for accuracy against the original hard copy versions;
2. using the drawings or other data for any purpose not agreed to in writing by Aurum Survey Consultants.

AURUM SURVEY CONSULTANTS
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CIVIL ENGINEERING
LAND DEVELOPMENT

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TITLE: SUBDIVISION SCHEME

PROJECT: MONK SUBDIVISION MCDONNELL ROAD

FOR RESOURCE CONSENT

DESIGNED:	KB	SCALE:	1: 1250	DATE CREATED:	2/9/2022
DRAWN:	KB		Original Plan A3		
APPROVED:	BM				
JOB No.	2945	DRAWING No.	7R	SHEET No. 02	REV. B

Area BB
DP 518669

N

Lot 2
DP 518669

Lot 1
Gross = 7038m²
Net = 5641m²

Lot 2
Gross = 5065m²
Net = 4328m²

Culverts under driveways

1.3m fill

1.6m fill

3.2m cut

Proposed
Bld Plat
536m²

Proposed
Bld Plat
963m²

Batter Slope 1v:2h
to be confirmed
by Geotec
3.2m cut

Proposed ROW Easement

A

10m Setback

10m Setback

10m Setback

1.7m fill

1.0m fill

Proposed
Bld Plat
1000m²

Batter Slope 1v:2h
to be confirmed
by Geotec

3.8m cut

Lot 1
DP 5186
813753
1.07ha

Lot 5
Gross = 1.8378ha
Net = 1.7324ha

Lot 3
1.8805ha

Lot 3
DP 518669
813755
6.0049ha

EARTHWORKS DEPTH

CUT	FILL
Depth over 6.0m	
Depth 5.0m to 6.0m	
Depth 4.0m to 5.0m	
Depth 3.0m to 4.0m	
Depth 2.5m to 3.0m	
Depth 2.0m to 2.5m	
Depth 1.5m to 2.0m	
Depth 1.0m to 1.5m	
Depth 0.5m to 1.0m	
Depth 0.0m to 0.5m	

EARTHWORKS SUMMARY

Areas Earthworks area	Areas 6900m²
Volumes Cut Fill	Volumes 6400m³ 610m³
Max Cut Max Fill	3.8m 1.7m

NOTES:

Contour interval is 1.0 metres
Levels in terms OIT XIVa SO 24437, RL 408.31

ALL BEARINGS, DIMENSIONS AND LOT AREAS SUBJECT TO FINAL SURVEY

WARNING NOTES:
This resource consent plan has been prepared for the client from field survey and existing records for the purpose of development on the site. It should not be used by the client company for any other purpose. The plan is not to be relied on by any other person for any purpose whatsoever.
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1. using the drawings and other data in electronic form without requesting and checking them for accuracy against the original hard copy versions;
2. using the drawings or other data for any purpose not agreed to in writing by Aurum Survey Consultants.

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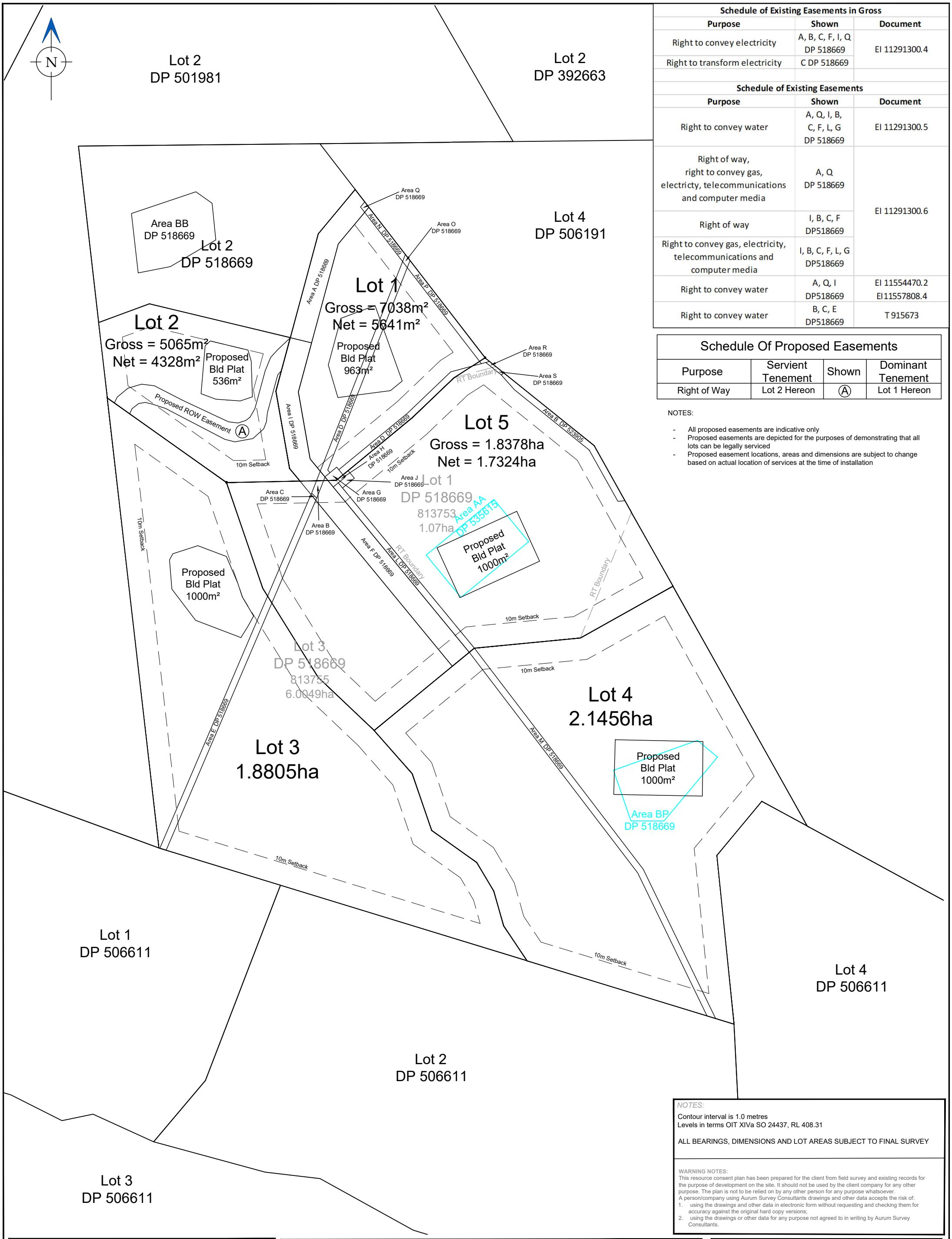
TITLE: EARTHWORKS PLAN

PROJECT: MONK SUBDIVISION
MCDONNELL ROAD

FOR RESOURCE CONSENT

DESIGNED:	SCALE:	DATE CREATED:
KB	1: 600	2/9/2022
DRAWN: KB	Original Plan A3	
APPROVED: BM		

JOB No. 2945 DRAWING No. 7R SHEET No. 03 REV. B



Schedule of Existing Easements in Gross		
Purpose	**Shown**	**Document**
Right to convey electricity	A, B, C, F, I, Q DP 518669	EI 11291300.4
Right to transform electricity	C DP 518669	

Schedule of Existing Easements		
Purpose	**Shown**	**Document**
Right to convey water	A, Q, I, B, C, F, L, G DP 518669	EI 11291300.5
Right of way, right to convey gas, electricty, telecommunications and computer media	A, Q DP 518669	EI 11291300.6
Right of way	I, B, C, F DP518669	
Right to convey gas, electricity, telecommunications and computer media	I, B, C, F, L, G DP518669	
Right to convey water	A, Q, I DP518669	EI 11554470.2 EI11557808.4
Right to convey water	B, C, E DP518669	T 915673

Schedule Of Proposed Easements			
Purpose	Servient Tenement	Shown	Dominant Tenement
Right of Way	Lot 2 Hereon	Ⓐ	Lot 1 Hereon

NOTES:

- All proposed easements are indicative only
- Proposed easements are depicted for the purposes of demonstrating that all lots can be legally serviced
- Proposed easement locations, areas and dimensions are subject to change based on actual location of services at the time of installation

NOTES:

Contour interval is 1.0 metres
Levels in terms OIT XIVa SO 24437, RL 408.31

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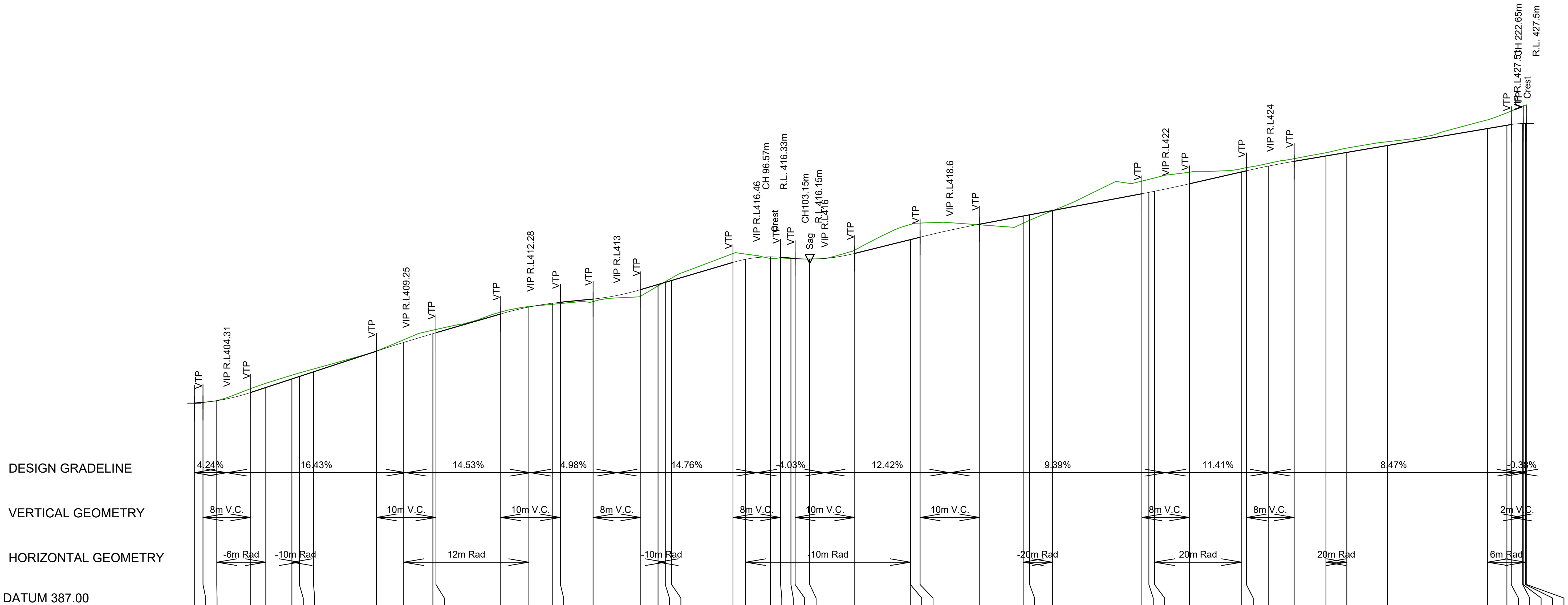
TITLE: EASEMENT PLAN

PROJECT: MONK SUBDIVISION
MCDONNELL ROAD

FOR RESOURCE CONSENT

DESIGNED:	SCALE:	DATE CREATED:
KB	1: 1500	2/9/2022
DRAWN: KB	Original Plan A3	
APPROVED: BM		

JOB No. 2945 DRAWING No. 7R SHEET No. 04 REV. B



DATUM 387.00

CHAINAGE	DESIGN LEVELS ON ROAD CENTRELINE	EXISTING LEVELS ON ROAD CENTRELINE	CUT (Negative) FILL (Positive)
0.00	404.08	404.08	-0.00
1.47	404.14	404.13	0.01
3.78	404.28	404.28	-0.00
9.47	404.97	405.30	-0.33
11.99	405.38	405.74	-0.36
16.36	406.10	406.42	-0.32
17.61	406.31	406.60	-0.30
20.00	406.70	406.94	-0.24
30.51	408.43	408.43	0.00
35.11	409.16	409.38	-0.22
40.00	409.90	410.19	-0.29
40.51	409.98	410.25	-0.27
51.36	411.55	411.72	-0.17
56.08	412.13	412.17	-0.04
60.00	412.45	412.36	0.10
61.36	412.53	412.42	0.11
66.84	412.80	412.59	0.21
74.84	413.59	413.05	0.54
77.73	414.02	413.90	0.12
78.94	414.20	414.25	-0.06
80.00	414.35	414.56	-0.20
90.28	415.87	416.61	-0.74
92.43	416.13	416.56	-0.43
96.57	416.33	416.19	0.14
98.28	416.30	416.24	0.06
100.00	416.23	416.18	0.04
100.70	416.20	416.17	0.03
103.15	416.15	416.15	0.00
110.70	416.62	416.90	-0.28
120.00	417.78	419.05	-1.27
120.03	417.78	419.05	-1.27
121.65	417.98	419.16	-1.18
131.65	419.07	419.02	0.05
138.92	419.75	419.15	0.60
140.00	419.86	419.40	0.46
143.82	420.21	420.19	0.02
158.82	421.62	422.68	-1.06
160.00	421.74	422.82	-1.09
160.94	421.83	422.94	-1.11
166.82	422.46	423.43	-0.97
175.57	423.46	423.73	-0.27
176.34	423.54	423.81	-0.26
180.00	423.94	424.16	-0.22
184.34	424.34	424.56	-0.22
189.67	424.79	425.06	-0.27
193.17	425.09	425.45	-0.36
200.00	425.67	425.98	-0.32
216.74	427.08	427.81	-0.72
220.00	427.36	428.40	-1.04
220.73	427.42	428.55	-1.13
222.65	427.50	428.95	-1.45
222.73	427.50	428.97	-1.47
223.11	427.50	429.04	-1.54
223.32	427.50	429.07	-1.57

LONGITUDINAL SECTION LOT 3 DRIVEWAY

Horizontal scale 1:750
Vertical scale 1:375

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NOTES:
Contour interval is 1.0 metres
Levels in terms OIT XIVa SO 24437, RL 408.31

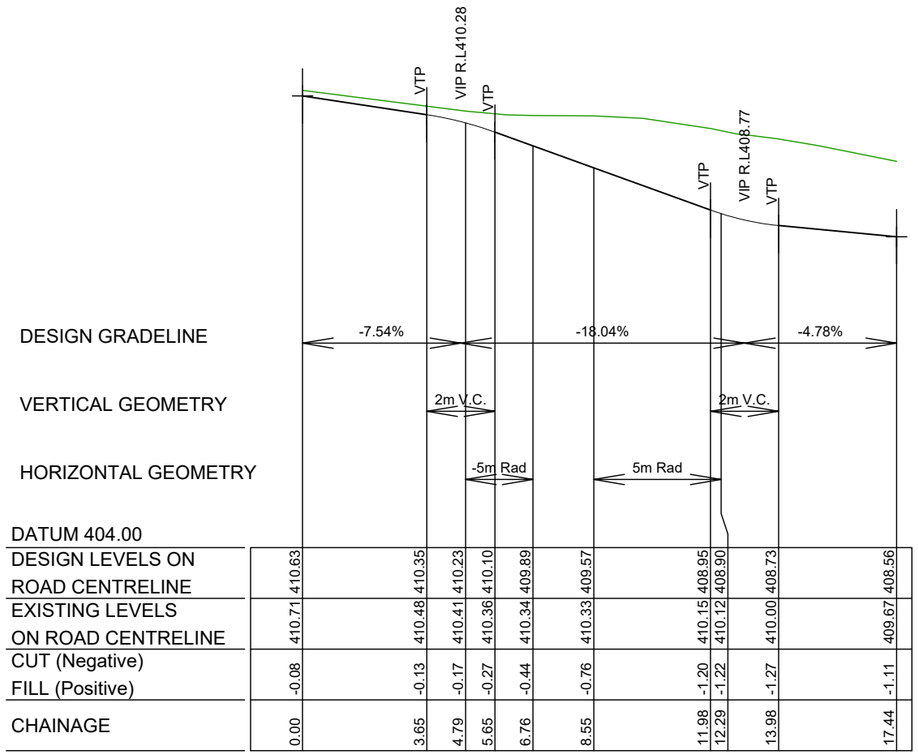
ALL BEARINGS, DIMENSIONS AND LOT AREAS SUBJECT TO FINAL SURVEY

TITLE: LOT 3 DRIVEWAY LONG SECTION

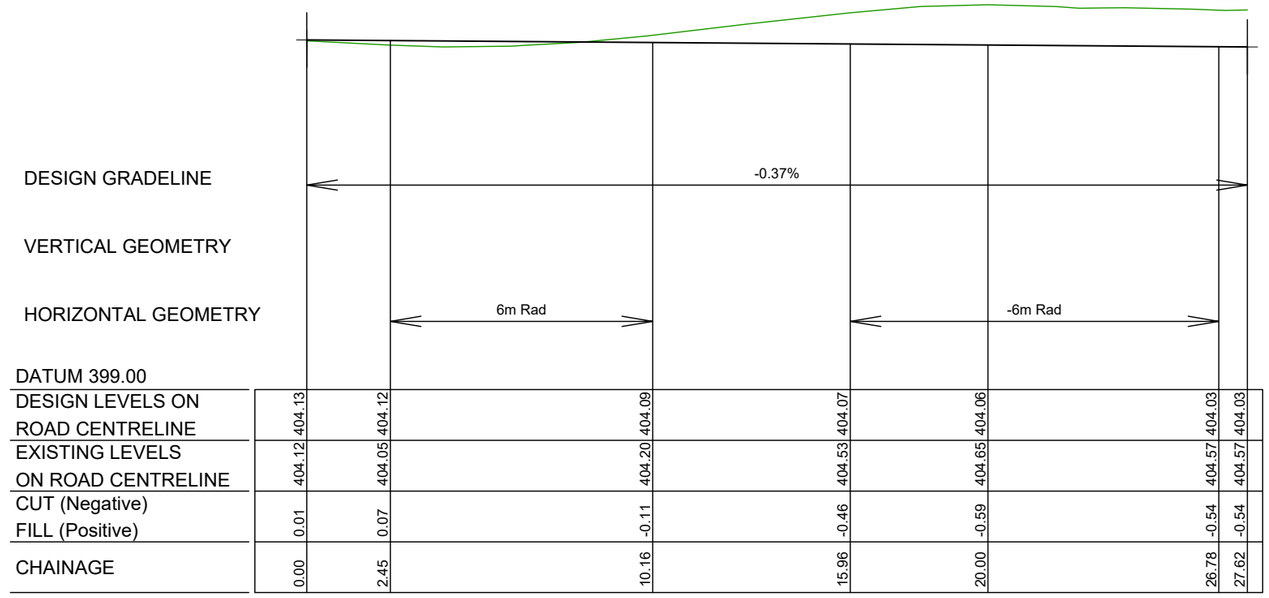
PROJECT: MONK SUBDIVISION MCDONNELL ROAD

FOR RESOURCE CONSENT

DESIGNED: KB	SCALE: 1: 900	DATE CREATED: 2/9/2022	
DRAWN: KB	Original Plan A3		
APPROVED: BM			
JOB No. 2945	DRAWING No. 7R	SHEET No. 05	REV. B



LONGITUDINAL SECTION LOT 2 DRIVEWAY
Horizontal scale 1:200
Vertical scale 1:100



LONGITUDINAL SECTION LOT 1 DRIVEWAY
Horizontal scale 1:200
Vertical scale 1:100

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Levels in terms OIT XIVa SO 24437, RL 408.31

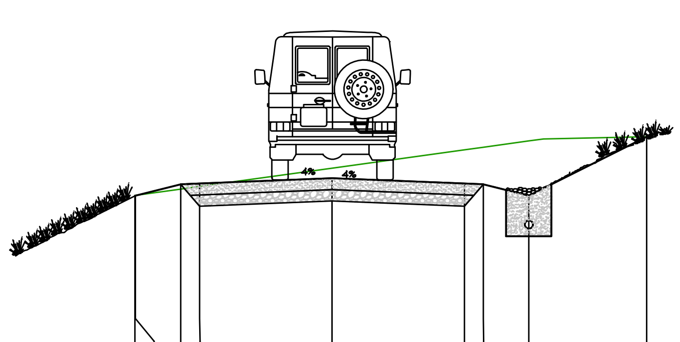
ALL BEARINGS, DIMENSIONS AND LOT AREAS SUBJECT TO FINAL SURVEY

TITLE:
LOT 1 & LOT 2 DRIVEWAY LONG SECTIONS

PROJECT:
MONK SUBDIVISION
MCDONNELL ROAD

FOR RESOURCE CONSENT

DESIGNED: KB	SCALE: 1: 900 Original Plan A3	DATE CREATED: 2/9/2022	
DRAWN: KB			
APPROVED: BM			
JOB No. 2945	DRAWING No. 7R	SHEET No. 06	REV. B

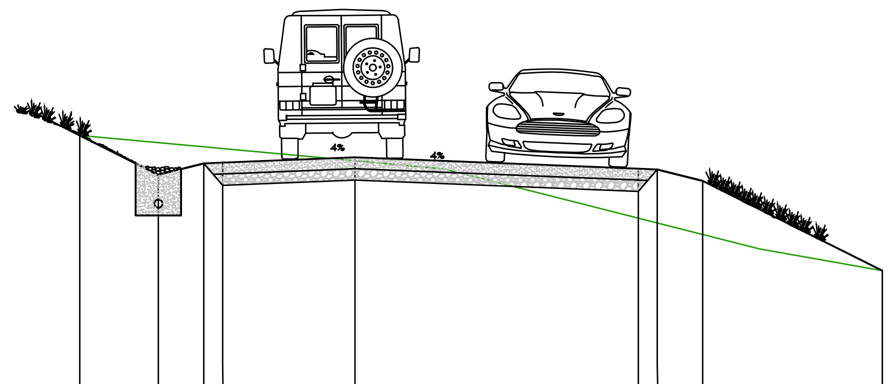


DATUM 405.00

DESIGN LEVELS ON ROAD CENTRELINE	407.13	407.13	407.28	407.29	407.36	407.29	407.28	407.13	407.91
EXISTING LEVELS ON ROAD CENTRELINE	407.13	407.13	407.22	407.25	407.49	407.74	407.77	407.85	407.91
CUT (Negative) FILL (Positive)	0.00	-0.00	0.06	0.04	-0.13	-0.45	-0.49	-0.72	0.00
CHAINAGE	-2.61	-2.60	-2.00	-1.75	0.00	1.75	2.00	2.60	4.16

A

Cross Section A - Lot 3 Driveway - Chainage 24
Typical Detail
Scale 1:100

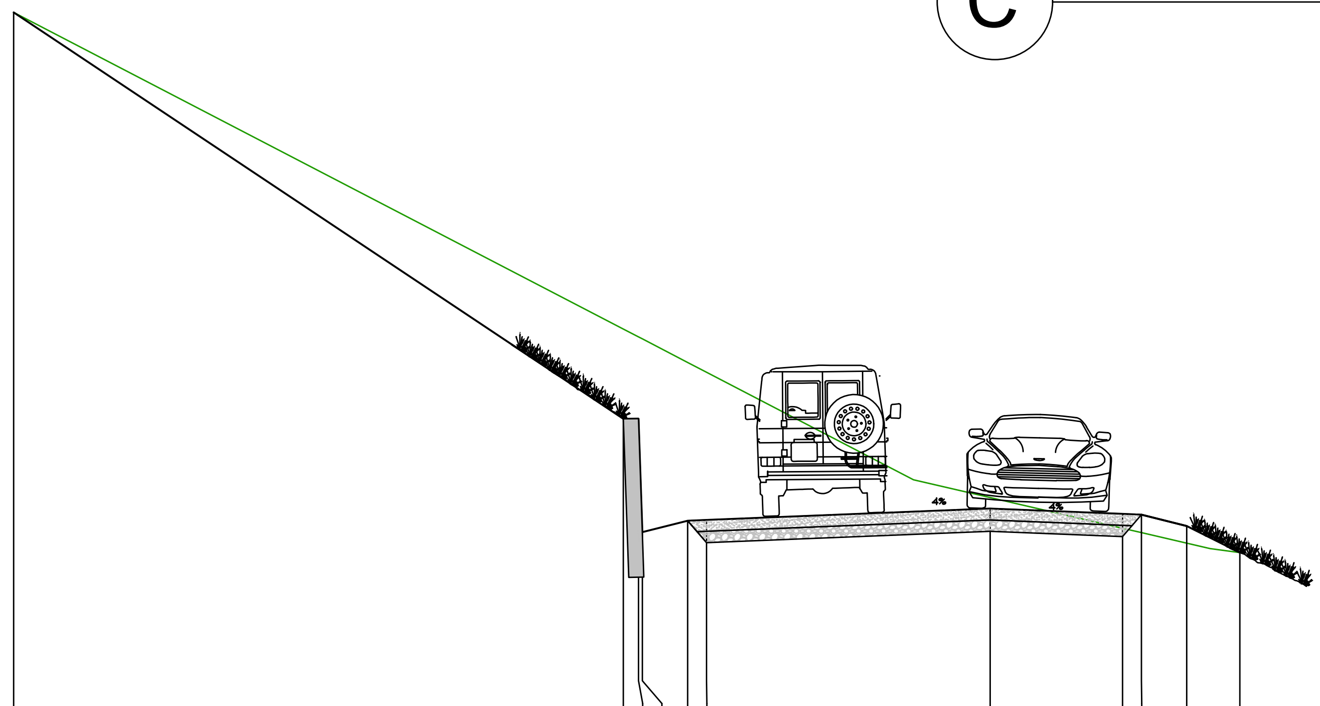


DATUM 413.00

DESIGN LEVELS ON ROAD CENTRELINE	416.52	416.00	416.15	416.16	416.23	416.08	416.07	415.92	414.73
EXISTING LEVELS ON ROAD CENTRELINE	416.52	416.42	416.37	416.35	416.18	415.43	415.36	415.21	414.73
CUT (Negative) FILL (Positive)	0.00	-0.42	-0.22	-0.19	0.04	0.65	0.71	0.71	0.00
CHAINAGE	-3.64	-2.60	-2.00	-1.75	0.00	3.75	4.00	4.60	6.98

C

Cross Section C - Lot 3 Driveway - Chainage 100
Typical Detail - Passing Bay
Scale 1:100



DATUM 409.00

DESIGN LEVELS ON ROAD CENTRELINE	418.34	412.97	412.97	411.47	411.62	411.63	411.78	411.71	411.70	411.55	411.20
EXISTING LEVELS ON ROAD CENTRELINE	418.34	414.15	414.05	414.02	413.71	413.58	411.92	411.52	411.46	411.32	411.20
CUT (Negative) FILL (Positive)	0.00	-1.19	-1.08	-2.55	-2.09	-1.95	-0.15	0.19	0.24	0.23	0.00
CHAINAGE	-12.91	-4.85	-4.65	-4.60	-4.00	-3.75	0.00	1.75	2.00	2.60	3.30

B

Cross Section B - Lot 3 Driveway - Chainage 53
Retaining Wall and Passing Bay Detail
Scale 1:100

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NOTES:
Contour interval is 1.0 metres
Levels in terms OIT XIVa SO 24437, RL 408.31

ALL BEARINGS, DIMENSIONS AND LOT AREAS SUBJECT TO FINAL SURVEY

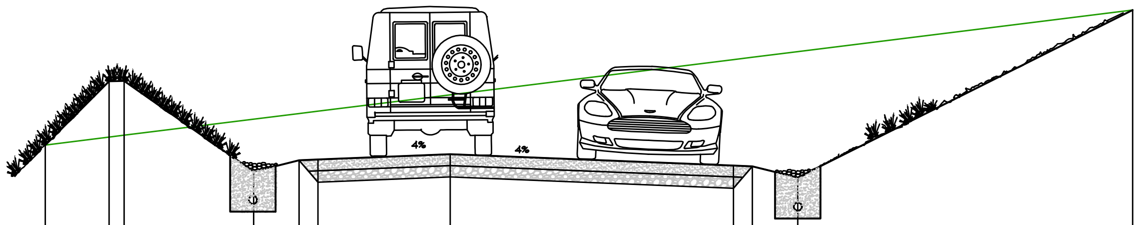
TITLE:
ROAD CROSS SECTIONS

PROJECT:
MONK SUBDIVISION
MCDONNELL ROAD

FOR RESOURCE CONSENT

DESIGNED: KB	SCALE: 1: 100	DATE CREATED: 2/9/2022
DRAWN: KB	Original Plan A3	
APPROVED: BM		

JOB No. 2945 DRAWING No. 7R SHEET No. 07 REV. B

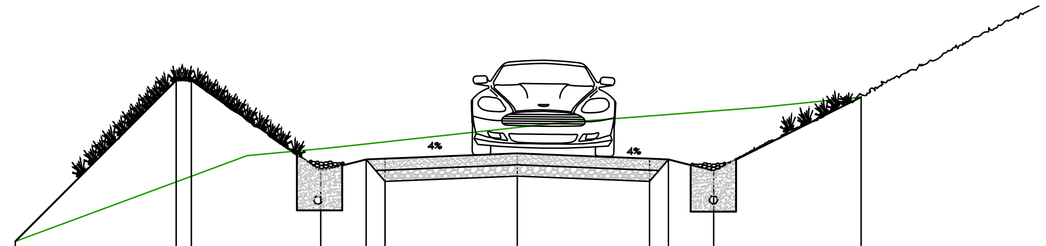


DATUM 420.00

DESIGN LEVELS ON ROAD CENTRELINE	422.83	423.67	423.68	422.48	422.63	422.64	422.71	422.56	422.55	422.40	424.61
EXISTING LEVELS ON ROAD CENTRELINE	422.83	422.93	422.96	423.17	423.24	423.27	423.49	423.96	423.99	424.06	424.61
CUT (Negative) FILL (Positive)	0.00	0.74	0.72	-0.69	-0.62	-0.64	-0.79	-1.40	-1.44	-1.67	0.00
CHAINAGE	-5.36	-4.51	-4.31	-2.60	-2.00	-1.75	0.00	3.75	4.00	4.60	9.03

D

Cross Section D - Lot 3 Driveway - Chainage 169
Passing Bay and Bund Detail
Scale 1:100



DATUM 422.00

DESIGN LEVELS ON ROAD CENTRELINE	424.42	426.55	426.55	425.35	425.50	425.51	425.58	425.51	425.50	425.35	426.33
EXISTING LEVELS ON ROAD CENTRELINE	424.42	425.21	425.28	425.64	425.71	425.73	425.92	426.08	426.10	426.14	426.33
CUT (Negative) FILL (Positive)	0.00	1.34	1.27	-0.29	-0.21	-0.22	-0.34	-0.57	-0.60	-0.79	0.00
CHAINAGE	-6.64	-4.51	-4.31	-2.60	-2.00	-1.75	0.00	1.75	2.00	2.60	4.55

E

Cross Section E - Lot 3 Driveway - Chainage 169
Typical Detail - Bund
Scale 1:100

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NOTES:
Contour interval is 1.0 metres
Levels in terms OIT XIVa SO 24437, RL 408.31

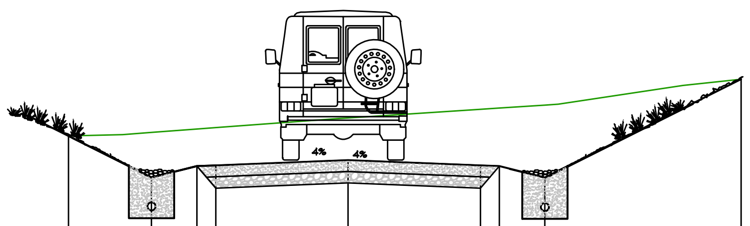
ALL BEARINGS, DIMENSIONS AND LOT AREAS SUBJECT TO FINAL SURVEY

TITLE: ROAD CROSS SECTIONS

PROJECT: MONK SUBDIVISION MCDONNELL ROAD

FOR RESOURCE CONSENT

DESIGNED: KB	SCALE: 1: 100	DATE CREATED: 2/9/2022	
DRAWN: KB	Original Plan A3		
APPROVED: BM			
JOB No. 2945	DRAWING No. 7R	SHEET No. 08	REV. B

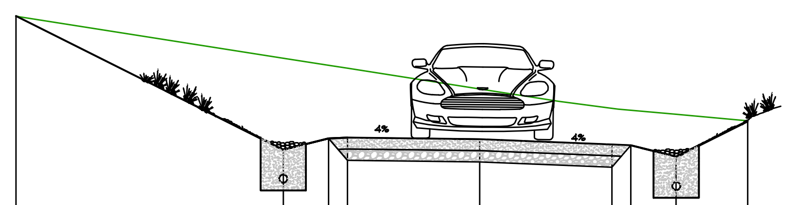


DATUM 402.00

DESIGN LEVELS ON ROAD CENTRELINE	404.38	403.83	403.98	403.99	404.06	403.99	403.98	403.83	405.13
EXISTING LEVELS ON ROAD CENTRELINE	404.38	404.43	404.47	404.49	404.62	404.73	404.75	404.79	405.13
CUT (Negative) FILL (Positive)	0.00	-0.59	-0.49	-0.50	-0.56	-0.74	-0.77	-0.96	0.00
CHAINAGE	-3.70	-2.60	-2.00	-1.75	0.00	1.75	2.00	2.60	5.20

G

Cross Section G - Lot 1 Driveway - Chainage 18
Typical Detail
Scale 1:100



DATUM 407.00

DESIGN LEVELS ON ROAD CENTRELINE	411.30	409.53	409.68	409.69	409.67	409.60	409.59	409.44	409.92
EXISTING LEVELS ON ROAD CENTRELINE	411.30	410.74	410.65	410.61	410.34	410.08	410.05	410.00	409.92
CUT (Negative) FILL (Positive)	0.00	-1.21	-0.97	-0.92	-0.66	-0.48	-0.46	-0.56	0.00
CHAINAGE	-6.14	-2.60	-2.00	-1.75	0.00	1.75	2.00	2.60	3.55

F

Cross Section F - Lot 2 Driveway - Chainage 8
Typical Detail
Scale 1:100

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NOTES:
Contour interval is 1.0 metres
Levels in terms OIT XIVa SO 24437, RL 408.31

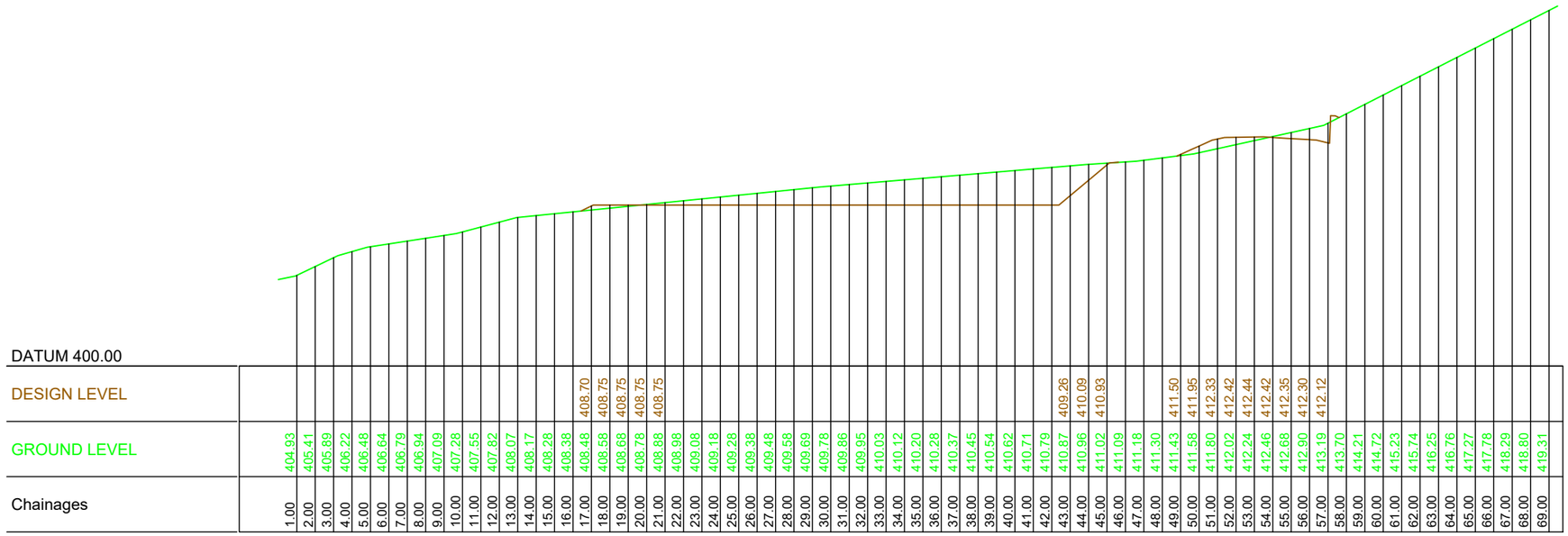
ALL BEARINGS, DIMENSIONS AND LOT AREAS SUBJECT TO FINAL SURVEY

TITLE: ROAD CROSS SECTIONS

PROJECT: MONK SUBDIVISION MCDONNELL ROAD

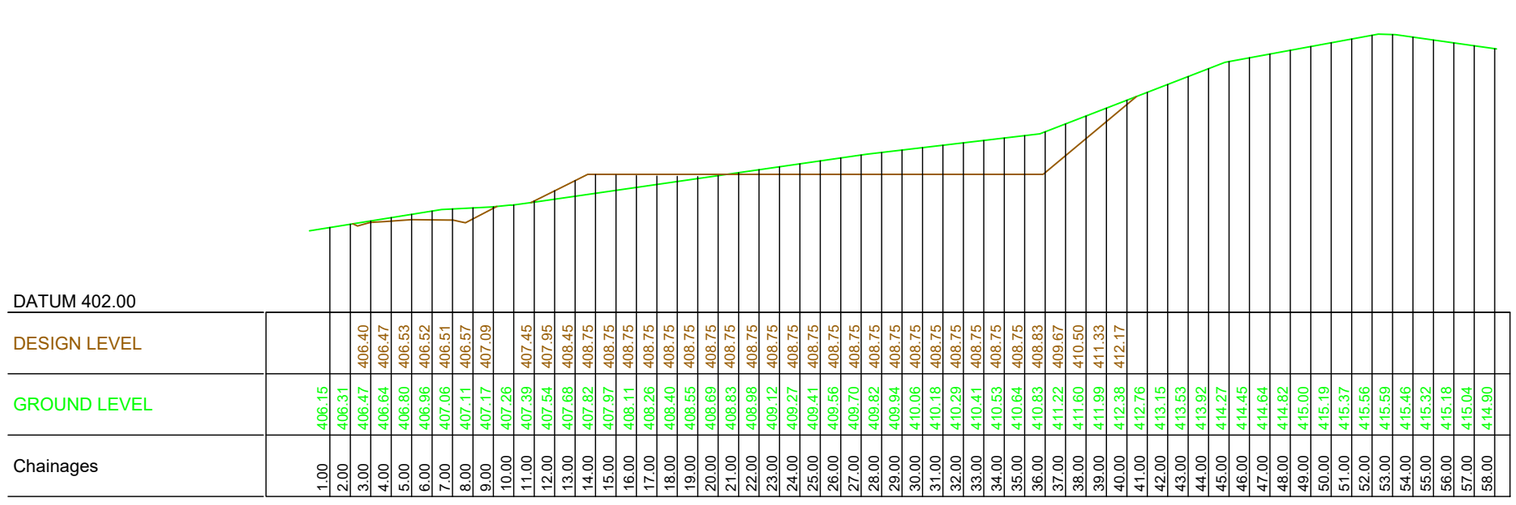
FOR RESOURCE CONSENT

DESIGNED:	KB	SCALE:	1: 100	DATE CREATED:	2/9/2022
DRAWN:	KB		Original Plan A3		
APPROVED:	BM				
JOB No.	2945	DRAWING No.	7R	SHEET No.	09
REV.	B				



H

Section H - Lot 2 Platform
Scale 1:300



I

Section I - Lot 2 Platform
Scale 1:300

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NOTES:
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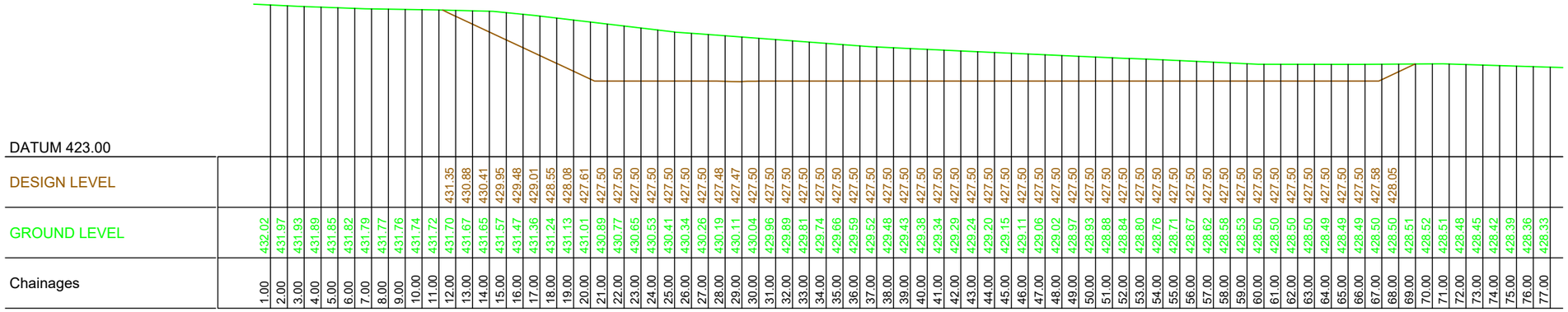
TITLE:
LOT 2 PLATFORM LONGSECTIONS

PROJECT:
MONK SUBDIVISION
MCDONNELL ROAD

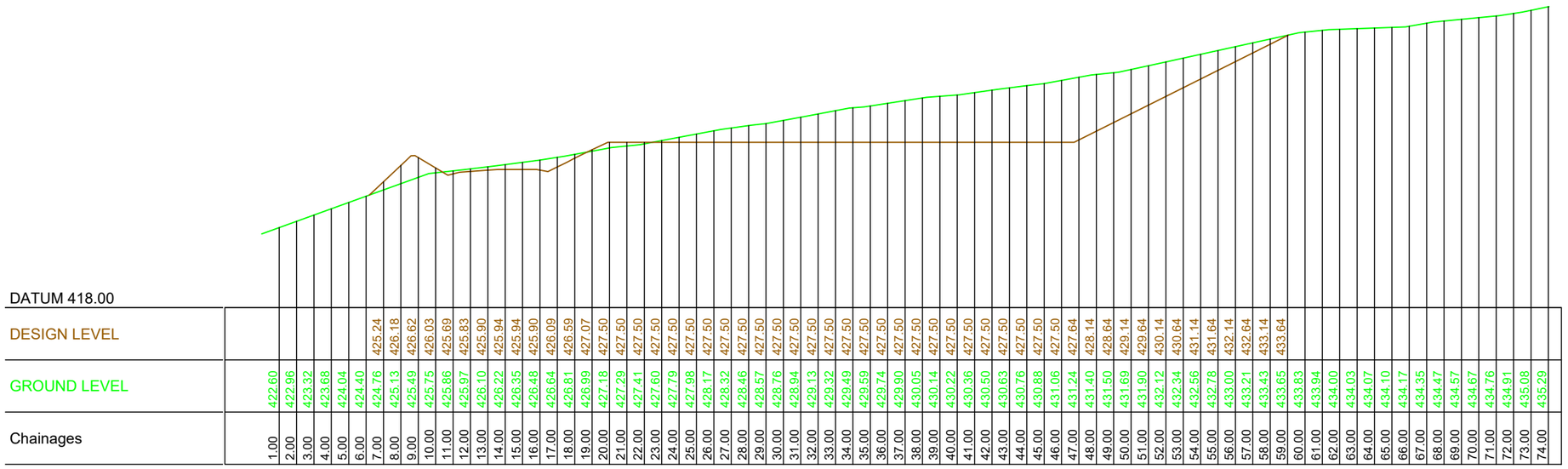
FOR RESOURCE CONSENT

DESIGNED: KB	SCALE: 1: 300 Original Plan A3	DATE CREATED: 2/9/2022	
DRAWN: KB			
APPROVED: BM			
JOB No. 2945	DRAWING No. 7R	SHEET No. 10	REV. B



J

Section J - Lot 3 Platform
Scale 1:300



K

Section K - Lot 3 Platform
Scale 1:300

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NOTES:
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Levels in terms OIT XIVa SO 24437, RL 408.31

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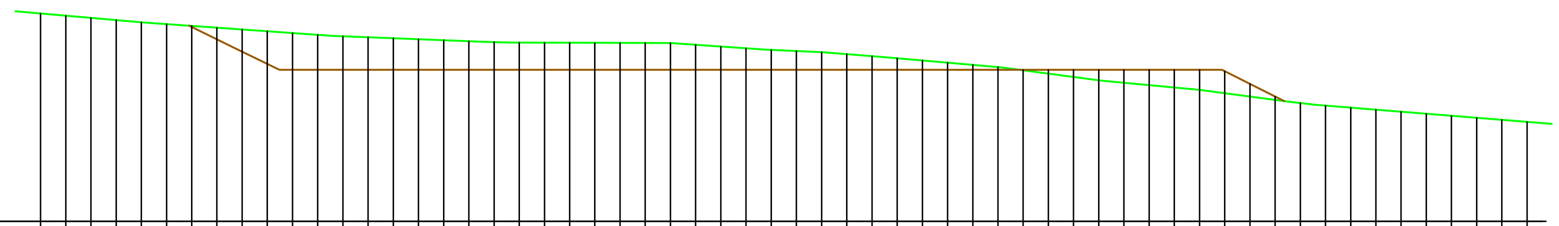
TITLE:
LOT 3 PLATFORM LONGSECTIONS

PROJECT:
MONK SUBDIVISION
MCDONNELL ROAD

FOR RESOURCE CONSENT

DESIGNED: KB	SCALE: 1: 300 Original Plan A3	DATE CREATED: 2/9/2022	
DRAWN: KB			
APPROVED: BM			
JOB No. 2945	DRAWING No. 7R	SHEET No. 11	REV. B

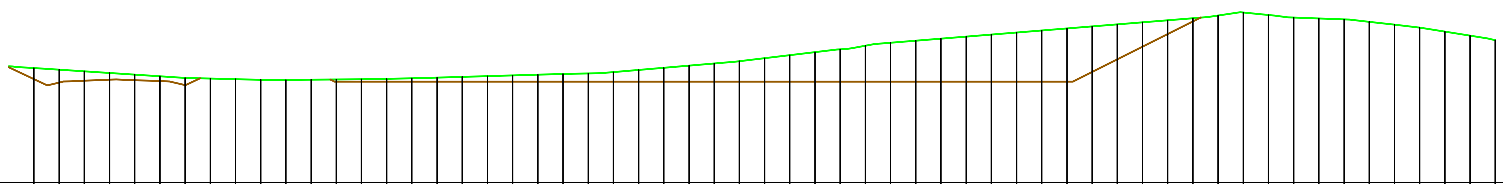


DATUM 398.00

Chainages	DESIGN LEVEL	GROUND LEVEL
1.00		406.23
2.00		406.14
3.00		406.06
4.00		405.97
5.00		405.88
6.00		405.81
7.00	405.70	405.74
8.00	405.21	405.67
9.00	404.72	405.60
10.00	404.23	405.53
11.00	404.00	405.46
12.00	404.00	405.39
13.00	404.00	405.33
14.00	404.00	405.29
15.00	404.00	405.25
16.00	404.00	405.21
17.00	404.00	405.17
18.00	404.00	405.14
19.00	404.00	405.10
20.00	404.00	405.08
21.00	404.00	405.08
22.00	404.00	405.07
23.00	404.00	405.07
24.00	404.00	405.07
25.00	404.00	405.07
26.00	404.00	405.06
27.00	404.00	404.99
28.00	404.00	404.93
29.00	404.00	404.86
30.00	404.00	404.79
31.00	404.00	404.75
32.00	404.00	404.70
33.00	404.00	404.62
34.00	404.00	404.54
35.00	404.00	404.46
36.00	404.00	404.37
37.00	404.00	404.29
38.00	404.00	404.20
39.00	404.00	404.11
40.00	404.00	403.98
41.00	404.00	403.85
42.00	404.00	403.72
43.00	404.00	403.59
44.00	404.00	403.49
45.00	404.00	403.40
46.00	404.00	403.30
47.00	404.00	403.21
48.00	403.94	403.08
49.00	403.44	402.94
50.00	402.95	402.81
51.00		402.69
52.00		402.58
53.00		402.50
54.00		402.42
55.00		402.34
56.00		402.26
57.00		402.18
58.00		402.10
59.00		402.02
60.00		401.94

M

Section M - Lot 1 Platform
Scale 1:300



DATUM 400.00

Chainages	DESIGN LEVEL	GROUND LEVEL
1.00	404.10	404.54
2.00	403.96	404.47
3.00	404.03	404.41
4.00	404.07	404.34
5.00	404.06	404.28
6.00	404.02	404.21
7.00	403.86	404.15
8.00		404.12
9.00		404.10
10.00		404.07
11.00		404.06
12.00		404.07
13.00	404.00	404.08
14.00	404.00	404.09
15.00	404.00	404.11
16.00	404.00	404.13
17.00	404.00	404.16
18.00	404.00	404.19
19.00	404.00	404.21
20.00	404.00	404.24
21.00	404.00	404.27
22.00	404.00	404.30
23.00	404.00	404.32
24.00	404.00	404.38
25.00	404.00	404.46
26.00	404.00	404.55
27.00	404.00	404.63
28.00	404.00	404.72
29.00	404.00	404.81
30.00	404.00	404.93
31.00	404.00	405.05
32.00	404.00	405.17
33.00	404.00	405.28
34.00	404.00	405.42
35.00	404.00	405.54
36.00	404.00	405.62
37.00	404.00	405.70
38.00	404.00	405.78
39.00	404.00	405.87
40.00	404.00	405.95
41.00	404.00	406.03
42.00	404.00	406.11
43.00	404.39	406.19
44.00	404.89	406.27
45.00	405.39	406.35
46.00	405.89	406.43
47.00	406.39	406.51
48.00		406.62
49.00		406.74
50.00		406.64
51.00		406.54
52.00		406.50
53.00		406.47
54.00		406.37
55.00		406.26
56.00		406.14
57.00		405.98
58.00		405.82
59.00		405.64

L

Section L - Lot 1 Platform
Scale 1:300

AURUM SURVEY CONSULTANTS

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LAND DEVELOPMENT

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NOTES:
Contour interval is 1.0 metres
Levels in terms OIT XIVa SO 24437, RL 408.31

ALL BEARINGS, DIMENSIONS AND LOT AREAS SUBJECT TO FINAL SURVEY

TITLE:
LOT 1 PLATFORM LONGSECTIONS

PROJECT:
MONK SUBDIVISION
MCDONNELL ROAD

FOR RESOURCE CONSENT

DESIGNED: KB	SCALE: 1: 300	DATE CREATED: 2/9/2022	
DRAWN: KB	Original Plan A3		
APPROVED: BM			
JOB No. 2945	DRAWING No. 7R	SHEET No. 12	REV. B