

milward finlay lobb



Supporting Information for a Rezone Request (Hearing G)

Client Chris and Sharon McKnight

Address 60 Landsborough Road, Timaru

File Number 157822/11

Date February 2025



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It is noted that as part of a prior subdivision consent approval in 2016 (RC 101/102.2015.220). A Consent Notice was required to be registered on the Record of Title stipulating that no further subdivision for a Rural Living Site under the Operative District Plan Condition 7 of RC 101/102.2015.220 advises that “*should the rules of the District Plan be amended in relation to this zone, then this consent notice may be revisited*”.

Accordingly, that consent notice does not impede the current rezone request from proceeding.

2.2 Landscape Values and Natural Character

The site is not in an identified area of high natural character. The original Plan Change process for the Brookfield Road subdivision considered it appropriate for the development of lifestyle sections to be carried out in the area. The Otipua Creek South Branch transects the site west to east and the Otipua Creek North Branch runs along the eastern boundary of the property. There are well established amenity values associated with these areas. The site is an area where recreation is enjoyed by the local community with a walking track alongside the Otipua Creek North branch connecting southern Timaru to Centennial Park.

2.3 Biodiversity Constraints

It is recognised that there are biodiversity values associated with the Otipua Creek. In order to protect this, the submitter proposes to offer a part of the site to Timaru District Council as a recreation reserve (reflected in the Open Space Rezone requested for this portion of the site). The site is subject to a subdivision application (which is currently on hold). As part of this subdivision process conversations have been held with Council’s Parks and Recreation Department about providing this area as a reserve and this has been welcomed.

2.4 Cultural and/or Heritage Values

There are no identified Heritage Items or associated Heritage overlays that apply to the site.

There is an identified Site and Area of Significance to Māori (**SASM**) overlay on the site. The details of this are as follows:

- SASM12 - Ōtipua (Saltwater) Creek

Discussions have been entered into with Aoraki Environmental Consultancy Limited (AECL) and concerns have been raised in relation to the potential discharges to Otipua Creek from additional development. It is noted that this can be resolved by an Erosion and Sediment Control Plan being utilised during any construction phase to capture contaminants. It is also proposed to connect the sites to reticulated sewer so therefore this will limit any wastewater discharge to ground.



There are a number of matters that do need to be addressed, and it is proposed that a more significant update will be able to be provided closer to the hearing.

2.5 Reverse Sensitivity/Incompatible Land Uses

The site is adjacent to the Brookfield Heights Rural Lifestyle Zone, the Centennial Park Scenic Reserve, Timaru Riding for the Disabled and small lifestyle blocks with some farming operations. As the primary focus is on the 5 sites adjacent to the Rural Lifestyle Zone, and it is proposed to rezone the area to the east of this to Open Space Zone this is considered to mitigate any reverse sensitivity concerns.

3.0 Infrastructure

3.1 Water Supply

As confirmed in the email correspondence with the Infrastructure Department attached to this report it is possible to provide water connections to five allotments in the same manner as the other lifestyle sections in Brookfield Heights.

3.2 Wastewater Management

The site is proposed to be serviced by reticulated sewer network. Confirmation has been sought from the Infrastructure Department as to the viability of the site connecting to reticulated network and approval has been provided on the condition that sufficient capacity is able to be confirmed for the existing tank.

Attached to this report is analysis and explanation from Fluent Solutions regarding the wastewater storage system used for the Brookfield Heights subdivision. The tank has been designed for 30 dwellings, based on the assumption of 3.5 people per dwelling. NZS4404 recommends that 2.5 to 3.5 people per dwelling should be considered and the report from Fluent Solutions does confirm a conservative approach was taken to calculating the capacity of the system. Applying an average to the NZS4404 approach an assumption is able to be made that there will be an average of 3 people per 35 dwellings, which equates to the same as 30 dwellings of 3.5 people, therefore no additional storage is required in the system. Furthermore, each site will be required to have at least two days of wastewater storage on site to give extra redundancy to the system.

3.3 Stormwater

There is a resource consent for the operational phase discharge of stormwater into surface water for the Brookfield Heights that has been taken over by Timaru District Council (ECan reference CRC252777). This is subject to the standard monitoring provided for under the Resource Management Act 1991. Any additional development will be required to be reviewed and accepted by Timaru District Council via their own standards. Timaru District Council are developing an acceptable solution for discharge to ground.



The current proposal will not see any additional roading required, with access to be provided by private way which will create less runoff than a standard road.

3.4 Funding for Council services

It is anticipated that any additional funding required would follow what has been agreed during the construction of the Brookfield Heights subdivision, noting that there are limited upgrades required.

4.0 Transportation

The traffic assessment carried out at the time of the Plan Change that created the Brookfield Road subdivision assessed the impact on the roading network of 35 additional allotments and the submitter was required to carry out upgrades to Landsborough Road and Brookfield Road as a result either by physical works or contributions to Council. It is considered that this has adequately addressed any impacts on the roading network to support the additional five allotments that are requested, noting that currently Brookfield Heights services a total of 30 allotments.

5.0 Hazards

There are no identified hazards where the five allotments are proposed to be developed.

6.0 Growth Management Strategy

The area was not identified in the Growth Management Strategy, however the Growth Management Strategy was released after the Plan Change process was completed that created the Rural Lifestyle Zone. While the 2022 Review of the Growth Management Strategy does note that the Brookfield area had a yield of 30 allotments, this did not take into account the underlying zoning and ability to subdivide further. The right to develop the additional 5 allotments exists within the Operative District Plan, the intention of this submission is to develop outside of the Zone boundary as it is a more functional use of the land.

7.0 Canterbury Regional Policy Statement

5.2.1 Location, Design and Function of Development (Entire Region)

Development is located and designed so that it functions in a way that:

1. achieves consolidated, well designed and sustainable growth in and around existing urban areas as the primary focus for accommodating the region's growth; and
2. enables people and communities, including future generations, to provide for their social, economic and cultural well-being and health and safety; and which:
 - a maintains, and where appropriate, enhances the overall quality of the natural environment of the Canterbury region, including its coastal environment, outstanding natural features and landscapes, and natural values;



- b provides sufficient housing choice to meet the region's housing needs;
- c encourages sustainable economic development by enabling business activities in appropriate locations;
- d minimises energy use and/or improves energy efficiency;
- e enables rural activities that support the rural environment including primary production;
- f is compatible with, and will result in the continued safe, efficient and effective use of regionally significant infrastructure;
- g avoids adverse effects on significant natural and physical resources including regionally significant infrastructure, and where avoidance is impracticable, remedies or mitigates those effects on those resources and infrastructure;
- h facilitates the establishment of papakāinga and marae; and
- i avoids conflicts between incompatible activities.

Comment:

The site is on the edge of the Timaru Urban Boundary, and will bring the boundary of the rural lifestyle zone closer to the Urban boundary, with an Open Space Zone bridging the land to the east through to Saltwater Creek. There is an existing lifestyle environment directly adjacent to the area in question, therefore this will create a continuous area of lifestyle development. It is a more appropriate use of land to have additional lifestyle activities and recreational opportunities rather than rural land as this increases the likelihood of reverse sensitivity effects arising.

5.3.1 Regional growth (Wider Region)

To provide, as the primary focus for meeting the wider region's growth needs, sustainable development patterns that:

- 1. ensure that any:
 - a. urban growth; and
 - b. limited rural residential development

occur in a form that concentrates, or is attached to, existing urban areas and promotes a coordinated pattern of development;

- 2. encourage within urban areas, housing choice, recreation and community facilities, and business opportunities of a character and form that supports urban consolidation;
- 3. promote energy efficiency in urban forms, transport patterns, site location and subdivision layout;



4. maintain and enhance the sense of identity and character of the region's urban areas; and
5. encourage high quality urban design, including the maintenance and enhancement of amenity values.

Comment:

The proposal is considered to achieve a consolidated and coordinated pattern of development due to the nature of the surrounding environment, and the intention to bring the Lifestyle Zone closer to the urban boundary. The site is able to be fully reticulated, and the transport network has already been upgraded to manage the anticipated number of inhabitants in the Brookfield Heights subdivision.

5.3.2 Development conditions (Wider Region)

To enable development including regionally significant infrastructure which:

- 1 ensure that adverse effects are avoided, remedied or mitigated, including where these would compromise or foreclose :
 - a. existing or consented regionally significant infrastructure;
 - b. options for accommodating the consolidated growth and development of existing urban areas;
 - c. the productivity of the region's soil resources, without regard to the need to make appropriate use of soil which is valued for existing or foreseeable future primary production, or through further fragmentation of rural land;
 - d. the protection of sources of water for community supplies;
 - e. significant natural and physical resources;
2. avoid or mitigate:
 - a. natural and other hazards, or land uses that would likely result in increases in the frequency and/or severity of hazards;
 - b. reverse sensitivity effects and conflicts between incompatible activities, including identified mineral extraction areas; and
3. integrate with:
 - a. the efficient and effective provision, maintenance or upgrade of infrastructure; and



- b. transport networks, connections and modes so as to provide for the sustainable and efficient movement of people, goods and services, and a logical, permeable and safe transport system.

Comment:

The infrastructure constructed to service the Brookfield Heights subdivision has provision within it to service the additional allotments sought. The proposed yield is not over and above the approved yield of the Brookfield Heights subdivision, it just proposes to extend the subdivision boundary slightly further and will also provide an area that the community will be able to enjoy through the Open Space Zone also sought. This area is likely to have better outcomes on the physical and natural resources on the surrounding environment than continuing with grazing cattle.

8.0 National Policy Statements

8.1 National Policy Statement for Highly Productive Land (NPS-HPL)

The Preliminary s42A Report, the subsequent Memorandum of Counsel on behalf of Timaru District Council and accompanying memorandum prepared by Matt Bonis of Planz Consultants, request that the Submitter provide an assessment of their rezoning request against relevant parts of the National Policy Statement for Highly Productive Land (NPS-HPL).

The Submitter acknowledges that:

- (a) Section 75(3)(a) of the Resource Management Act 1991 requires that the PDP give effect to the NPS-HPL; and
- (b) The NPS-HPL places restrictions on urban and rural-lifestyle rezonings, and subdivision, of “highly productive land”, which includes land that has been identified as Land Use Capability Class 3 (LUC3).

The Submitter therefore accepts that those restrictions are a relevant consideration in the PDP planning process, and accordingly, the Panel’s consideration of submissions.

However, the New Zealand Government has signalled its intention to refocus the NPS-HPL by excluding land that has been identified as LUC3 from the definition of “highly productive land” in the NPS-HPL. It is understood that consultation on changes to the NPS-HPL is expected to occur in early 2025 as part the Government’s other proposals for new and amended national directions, with a view to the updated NPS-HPL being issued, and consequently taking effect, in mid-2025. It is also understood that work on the new Canterbury Regional Policy Statement has been paused until January 2026 pending the release of updated national directions, which will include mapping highly productive land as directed by clause 3.5(1) of the NPS-HPL.



Assuming the Government's current proposals are reflected in an updated NPS-HPL released in mid-2025, land identified as LUC3 will not be subject to the NPS-HPL and the restrictions therein as regards urban and rural-residential rezoning and subdivision, use or development of such land.

The current PDP hearing schedule includes submissions seeking urban and rural-residential rezonings of land within the scope of matters to be addressed during Hearing G (Growth), between 8 and 10 July 2025. Based on the Government's indicative timeframes, it is expected that the updated NPS-HPL will have been released and taken effect before the commencement of Hearing G. The Submitter therefore considers it would be appropriate for the assessment against the NPS-HPL to be deferred and addressed in the s42A report, the Submitter's evidence and legal submissions, for Hearing G based on the version of the NPS-HPL applicable at that time.

Should there be any delay in the updated NPS-HPL being released (i.e., it takes effect after Hearing G), it will be necessary for the Panel to allow Council's reporting officer and submitters the opportunity to update their report, evidence and legal submissions for Hearing G as relevant, and address the implications of any changes to the NPS-HPL for the PDP and submissions prior to the Panel's decision being released.

8.2 National Policy Statement for Urban Development (NPS-UD)

Location, area, infrastructure and density matters have already been addressed in this response. These matters demonstrate that the proposal is consistent with the following Objectives and Policies listed below:

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

Objective 6: Local authority decisions on urban development that affect urban environments are: integrated with infrastructure planning and funding decisions; and strategic over the medium term and long term; and responsive, particularly in relation to proposals that would supply significant development capacity.

Policy 1: Planning decisions contribute to well-functioning urban environments, which are urban environments that, as a minimum: have or enable a variety of homes that:

- (i) meet the needs, in terms of type, price, and location, of different households; and
- (ii) enable Māori to express their cultural traditions and norms; and

have or enable a variety of sites that are suitable for different business sectors in terms of location and site size; and have good accessibility for all people between housing, jobs, community services, natural spaces, and open spaces, including by way of public or active transport; and support, and limit as much



as possible adverse impacts on, the competitive operation of land and development markets; and support reductions in greenhouse gas emissions; and are resilient to the likely current and future effects of climate change.

As requested by the prelim s42A Report the following comment is made in relation to whether there is demand in the Timaru District for sections:

The information provided by the Timaru District council includes growth projections from a Property Economics 2024 Report commissioned by the Council to consider the need for growth in the Timaru District. The growth projections contained in the report only show limited growth for the Timaru District and partially relied on growth data drawn from a date range when the COVID-19 pandemic was impacting the travel and movement of people throughout New Zealand. In particular the data states that it is unlikely that the population of Timaru would exceed 50,000 people in the short term. Information from Infometrics identifies that as of 2024 the population of the Timaru District sits at 50,100 persons.¹ This more aligns with the output of Venture Timaru which outlines how if an aspirational economic future is sought in the Timaru District that there will be a significant need for housing in the District. By the metrics provided in that report, a copy of which is included with this response, if Timaru District continues with the status quo the population would reach 53,000 by 2050 with significant increases if medium growth is achieved (67,500 persons). Due to the projections in the Property Economics 2024 report already being out of line with the statistics of Infometrics, it is considered that this should not be relied on for the purposes of considering whether there is demand for the rezone request.

Prepared by:

Melissa McMullan
LLB BA MPlan
Planner

Reviewed by:

Andrew Rabbidge
BSurv (credit), RPSurv, Assoc NZPI, MS+SNZ, CSNZ
Licensed Cadastral Surveyor
Director, Milward Finlay Lobb Limited

20 February 2025

¹ <https://rep.infometrics.co.nz/timaru-district/population/growth>



Attachments

- Timaru District Council email from William Ching confirming connection to site reticulated networks, dated 14 January 2025
- Fluent Solutions Report regarding the Wastewater System Capacity, dated June 2019
- 'Scenarios of an Aspirational Economic Future of Timaru District', prepared by Benje Patterson – October 2022
- Consent Notice 10870301.14 and Timaru District Council Subdivision and Land Use Consent Approval 101/102.2015.220 dated 3 May 2016
- Opus Brookfield Road Assessment dated September 2014

From: William Ching <william.ching@timdc.govt.nz>
Sent: Tuesday, 14 January 2025 4:28 pm
To: Melissa McMullan; Kevin Kemp
Cc: Kayne Robinson; Andrew Rabbidge
Subject: RE: 60 Landsborough Road - Rezone Request

Hello Melissa,

Thanks for getting in touch.

To confirm:

Water - There would be the capacity available for 5 extra water connections with the same 1 unit restriction as the existing lots.

Sewer - Connection to the sewer would be granted if evidence of sufficient capacity can be confirmed for the existing tank to accommodate the extra 5 lots.

Stormwater - This would include the same onsite stormwater management as the rest of the lots.

Do you have a scheme plan that can be supplied for this site just to confirm the access for each of these lots?

If you have further questions please let me know.

Thanks,

William



William Ching | Infrastructure Planner

Timaru District Council | PO Box 522 | Timaru 7940
P: +64 3 687 7238 | Cell: +64 27 230 4623 | W: www.timaru.govt.nz



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From: Melissa McMullan <melissa@mflnz.co.nz>
Sent: Tuesday, 7 January 2025 3:34 pm
To: William Ching <william.ching@timdc.govt.nz>; Kevin Kemp <kevin.kemp@timdc.govt.nz>
Cc: Kayne Robinson <kayne@mflnz.co.nz>; Andrew Rabbidge <andrew@mflnz.co.nz>
Subject: 60 Landsborough Road - Rezone Request

Hi William,

I can't find the email chain that Kayne has had with you about McKnight's development, however I was hoping you could confirm that this site is able to connect to reticulated infrastructure. The rezone would see 5 additional allotments added adjacent to the Brookfield Heights subdivision and there might be one 2ha allotment on Landsborough Road.

Let me know if any additional information would help for this one.

Kind Regards,

Melissa McMullan | Planner



www.mflnz.co.nz | m: 027 277 7230 | p: (03) 684 7688 | e: melissa@mflnz.co.nz

*We wish to advise that our office will close at **midday on Friday 20th December 2024** and will reopen on **Monday 13th January 2025**.
Happy Holidays!*

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Wastewater Storage Chamber Design

June 2019

Fluent
SOLUTIONS



Wastewater Storage Chamber Design

Task	Responsibility	Signature
Project Manager:	Rolly Hill	<i>Rolly Hill</i>
Prepared By:	Rolly Hill	<i>Rolly Hill</i>
Reviewed By:	Derrick Railton	<i>Derrick Railton</i>
Approved for Issue By:	Derrick Railton	<i>Derrick Railton</i>

Issue Date	Revision No.	Author	Checked	Approved
11 September 2019	1	Rolly Hill	Rolly Hill	Rolly Hill

Prepared By:

Fluent Infrastructure Solutions Ltd

2nd Floor, Burns House

10 George Street

PO Box 5240

Dunedin 9054

Telephone: + 64 3 929 1263

Email: office@fluentsolutions.co.nz

Web: www.fluentsolutions.co.nz

Job No.: 000537

Date: 1 June 2019

Reference: RP 19-06-01 RNH 000537.docx



Wastewater Storage Chamber Design

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APPENDIX A

Fluent Solutions - Wastewater Storage Chamber Drawings

APPENDIX B

Milward Finlay Lobb - Subdivision Layout Drawings

1.0 Introduction

Fluent Solutions (FS) has been engaged by Milward Finlay Lobb (MFL) to undertake design review and complete the design of a wastewater storage system at the new McKnight subdivision in Timaru.

The McKnight's Subdivision is located at Brookfield Road on the south west side of Timaru and will comprise of 30 separate lots, each with its own private on-site wastewater pressure pump station conveying sewage to the Timaru District Council (TDC) foul sewer reticulation. From the subdivision, it is proposed that wastewater is conveyed to existing TDC foul sewer reticulation approximately 265m from the subdivision via a DN50 PE100 rising main (to be vested to TDC) to a new manhole (FSMH) before gravity drainage to the TDC reticulation via a DN160 PE100 pipe.

Surcharging within the TDC reticulation onto private property from a foul sewer manhole in O'Neill Place downstream of the McKnight's subdivision occurs due to high infiltration during rainfall events in the catchment, therefore TDC have imposed a condition on the developer of the McKnight subdivision that requires the installation of a storage chamber that will contain a minimum of two days wastewater storage on site that is to be vested to TDC after construction and usage that is governed by the critical manhole downstream in O'Neill Road.

It is proposed by the Developer that each lot is fitted with a private pressure sewer pump station and a PE rising main from the lot to a new DN50 PE100 rising main in the new road. For each lot, a working volume of 690l per pump station is assumed for a Mono 900l Inviziq system.

The proposed wastewater storage at the McKnight Subdivision comprises of a circular 56,000l Poly Ethelene (PE) chamber graded a 1% to the discharge outlet. Wastewater flows from the subdivision are conveyed to the storage by shutting an isolation valve in the subdivision rising main during large rain events managed by a level sensor in the critical manhole in O'Neill Place. Wastewater is discharged to the TDC network as wastewater levels drop at the critical manhole in O'Neill Place at a controlled discharge rate of around 2l/s.

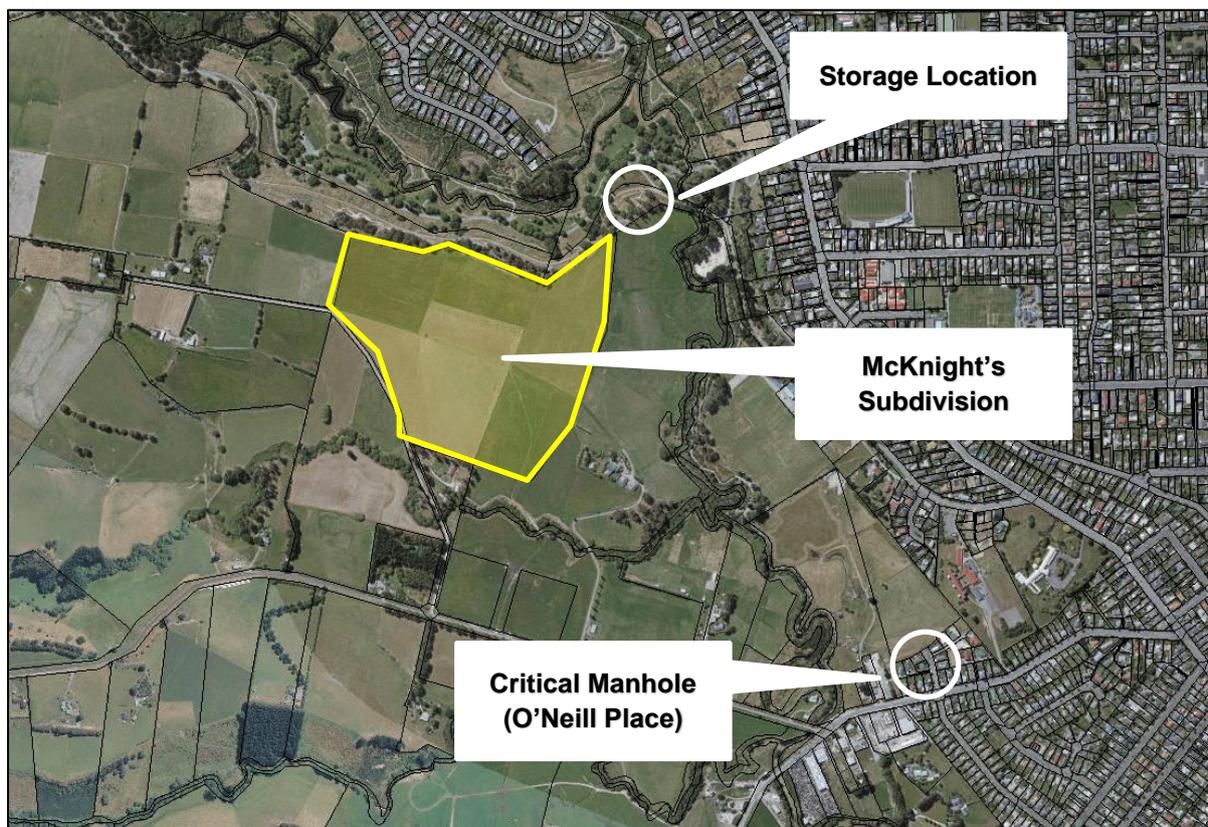


Figure 1.1: Site Location

2.0 Wastewater Flow Calculations

Estimated wastewater flows are based on NZS 4404.2010. A conservative design flow has been established by using the higher of the design parameters as follows:

Table 2.1: Design Parameters

Item	Parameter	Reference/ Formula
Persons per dwelling	3.5	NZS 4404:2010
Number of dwellings	30 houses	Milward Finlay Lobb Plans
Total number of persons	105 persons	NZS 4404:2010 (3.5p x 30 houses)
Design flow	250 litres/person/day	NZS 4404:2010
Design Flow per dwelling	875l/dwelling	3.5p x 250l/p/d
Total design flow	26.3m ³ /d	105p x 250l/p/d
Total Required Storage (2-days)	52.6m ³	26.3m ³ /d x 2days

No infiltration peaking factor have been used as pressure sewer pump stations and a new PE pipe lines should have no infiltration.

3.0 Pressure Sewer Design Review

3.1 Pressure sewer Pump Stations

From Table 2.1 above, a design flow per dwelling of 875l/day has been adopted. The Developer has proposed that Mono 900l Inviziq pressure sewer pump stations will be used for the development. A working volume of 120l is available in each pump station, therefore each dwelling will empty their pump chamber approximately 7 times/day. Each pump station would deliver a pumped flow in the order of 0.7l/s and due to the electronic controlled head limits set within the pump station, only two to three pump stations could pump at the same time. Therefore, a maximum expected flow from the subdivision would be in the order of 1.4 - 2.1l/s.

Once capacity of the pump station is reached, an Inviziq pressure sewer pump station has approximately 570l of emergency storage which when engaged, will trigger an alarm inside the dwelling letting the owner know that they should reduce their water consumption and therefore their wastewater discharge until the storage warning is terminated by either extraction of wastewater from the pump station by vacuum truck or normal operating conditions are returned at the pump station and wastewater is conveyed to the TDC reticulation.

Maintenance and running costs of pressure sewer pump stations is placed on the property owner.

3.2 Pressure Sewer Rising Main

It is proposed that the subdivision will be serviced by a DN50 PE100 rising main that conveys the sewage from the boundary of each lot to the TDC reticulation approximately 265m downstream of the subdivision. The DN50 rising main will have two branches aligned in the loop road corridor before joining together at a wye and conveying sewage down the slope towards the storage and TDC reticulation. Each DN50 branch will be fitted with an isolation valve on the upstream side of the wye after the last dwelling connection.

A combination air/vacuum release valve will be installed on each branch at the highest point as shown on the drawings in a valve chamber marked with AV.

As each pressure sewer pump station macerates the sewage, the required discharge pipe only requires a small passing size. Each lot is to be designed with 40mm outside dia. (OD) PE rising main connection to the sewer rising main in the street which is typical of a pressure sewer pump station.

For each lot that share a boundary with the road corridor, the DN40mm dia. OD rising mains will pass through a TDC approved boundary kit in road reserve land containing an isolation valve and check valve before connection to a 50mm dia. OD PE rising main in the road. For the remaining lots that are located down right of ways, a common lateral connection of DN50 PE100 rising main will be extended to the property boundaries with boundary kits located in the right of way.

As only 2 - 3 pump stations are expected to pump at the same time and a flow of approximately 2.1l/s is assumed, the 50mm OD rising main is of adequate size to maintain suitable flushing velocities.

4.0 Storage Chamber Design

4.1 Storage chamber

The storage chamber is a singular 2.5 metre (m) diameter (dia.) x 11.55m circular chamber (TBC) lying in a horizontal position providing 56,000l of storage constructed on a 1% grade to the outlet. The proposed chamber is made from 150mm thick PE pipe sections welded together with 30mm thick end caps welded to the pipe ends with reinforcing flanges for added strength.

Entrance to the chamber is available via two 800mm dia. manhole risers located at each end of the chamber fitted with a 600mm dia. composite manhole cover. A galvanised rung ladder with working platform at manhole level has been provided for safe access to the manhole covers and PE rung steps welded to the chamber endplates for access to the chamber. A single passive McBern's VF150 carbon activated vent is provided at the top of the chamber for odour prevention. The vent uses a carbon cartridge that is replaced by removing the cover and changing out the old cartridge with a new cartridge when required.

A welded PE Table D flange is fitted at each end of the chamber at the invert to the chamber and a level transducer is installed adjacent to the downstream manhole riser to manage the inlet valves, outlet valve and washdown sprinkler of the storage chamber. There are no mechanical components inside the storage chamber with the exception of the Senninger mini wobbler washdown sprinklers.

4.2 Electrical Control and Valves

The control of the storage chamber will comprise of the following:

- Critical Manhole (O'Neill Place)
 - High-high level - level sensor (Storage On)
 - High level - level sensor (Controlled Discharge from the Storage)
 - Low level - level sensor (Full Discharge from the Storage)
- Rising Main Isolation Valve
 - DN40 Knife gate valve with actuator
- Storage Chamber Inlet Valve
 - DN80 knife gate valve with actuator
- Storage Chamber Outlet Valve
 - DN100 diaphragm valve with actuator
- Storage Chamber Flow Meter
 - DN100 Magflow meter

- Storage Chamber
 - High-high level sensor (2.5m from invert - Storage Full))
 - High level sensor (2.1m from invert - Warning to TDC)
 - Low level sensor (0.00m from invert - Engage Washdown)

5.0 Functional Description

The following section outline the functional control of the storage chamber for the purpose of design of the electrical control system.

5.1 Storage Activated

When flow in the critical manhole in O'Neill Place reaches the high-high level, a signal is sent to the McKnight Subdivision storage to shut the outlet diaphragm control valve, open the storage chamber inlet valve and close the rising main isolation valve. Wastewater flow from McKnight Subdivision will now be conveyed and stored in the 56,000l storage chamber.

5.2 Storage Discharge

When wastewater flow in the critical manhole reduces to the high-level sensor, a signal is sent to the McKnight subdivision storage to begin a controlled release of the stored wastewater within the storage chamber. Discharge will be controlled by an DN100 actuated diaphragm valve on the outlet side of the storage chamber. Macerated sewage in the invert of the storage chamber poses a risk to blocking the control valve, therefore at around 30 minute intervals (setting to be adjustable) the control valve will open fully for 30 second to release the buildup of any rag or macerated sewage from the pipe and valve. Discharge rate will be managed by partially opening the diaphragm valve to manage the flow at around 2l/s (as measured by the inline magflow meter).

When the water level at the critical manhole reaches the low-level sensor, complete opening of the outlet control valve can occur to compete draining of the storage chamber.

5.3 Storage Full

The storage chamber is fitted with both a high level and high-high level sensor. When the high-level sensor is triggered, an alarm signal is sent to TDC to warn that the chamber is about to meet capacity. At this warning, the chamber will be storing 49,000l of wastewater with approximately 5hrs of storage still available within the chamber. This provides TDC with time to assess the flow at the critical manhole in O'Neill Place and determine if 5hr is sufficient for the expected rainfall or if extraction of wastewater from the storage chamber by vacuum truck is required.

When the high-high level sensor is triggered, the storage chamber inlet valve is shut and any additional storage required is now within the private pressure sewer pump stations at each lot. Storage is now approximately 0.8 days/pump station (assuming that they are empty at time of shutdown). When the high-high sensor is triggered at the storage chamber, another

warning to TDC is sent to alert of the requirement to extract wastewater from the storage chamber via the camlock valve on the outlet side of the chamber.

Each private pressure sewer station will be fitted with an internal alarm warning the residents of the dwelling that they are using the storage within their pressure sewer pump stations and that they will need to reduce waste volumes with the dwelling.

5.4 Washdown

The storage chamber is fitted with 3 Senninger mini wobbler washdown sprinklers. The washdown is activated by the low level sensor within the storage chamber set at the invert of the chamber and will run for a 30 minute period after washdown is engaged. Water supply to the wastewater storage chamber is fitted with a high hazard backflow preventor to prevent wastewater contaminating the TDC water supply.

5.5 Test Cycle and Cleaning

Every 3 months, during a period of low flow (2:00am to 3:00am) all actuators are to be fully excised by open and closing the valve to their full extents. Washdown is to be activated to rinse the chamber in the event that some leakage from the inlet valves during the dormant period.

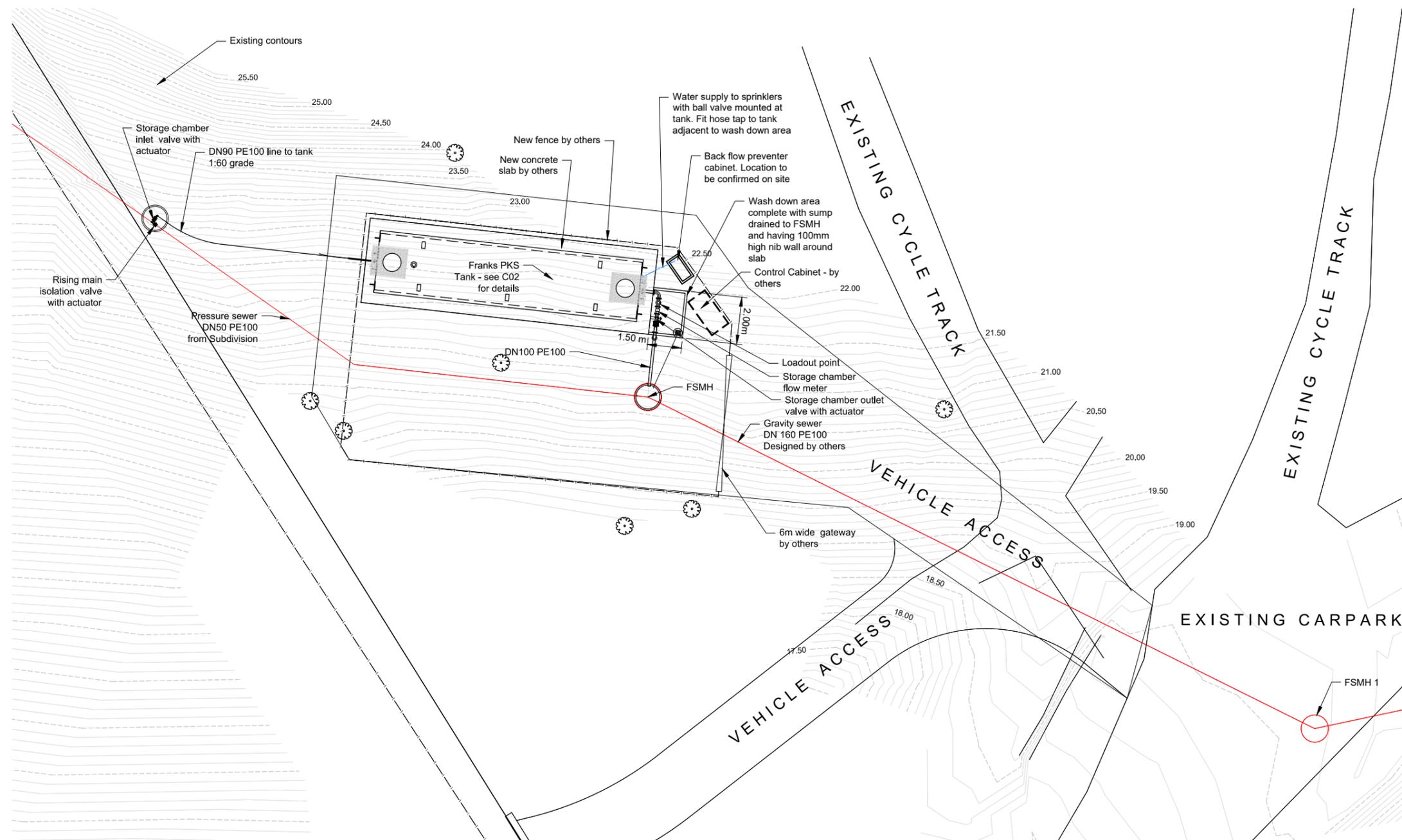
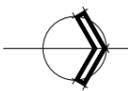
6.0 Conclusion

The proposed design of the onsite pressure sewer pump stations provides an acceptable solution to managing daily flows from each lot and additional storage when the Timaru District Council wastewater reticulation exceeds capacity.

By utilising storage of 56,000l in a simple single chamber provides a robust method of containing wastewater during peak wastewater time of high wastewater flow within the TDC reticulation.

APPENDIX A

Fluent Solutions - Wastewater Storage Chamber Drawings



- Note
1. Site contouring to be done by others. Contours shown are existing.
 2. Pressure sewer and manholes designed by others.
 3. Contractor to confirm Storage Chamber elevation with Engineer.

B	Issued for Approval	R.H.	28/05/19
A	Draft to Client Review	R.H.	May'19
Revision	App	Date	Approved

Surveyed	-	
Designed	R.H.	May'19
Drawn	D.R.	May'19
Reviewed	-	-
Approved	-	-



 Level 2, Burns House, 10 George Street
 PO Box 5240, Dunedin 9058
 T: 03 929 1263
 E: office@fluentsolutions.co.nz

Client

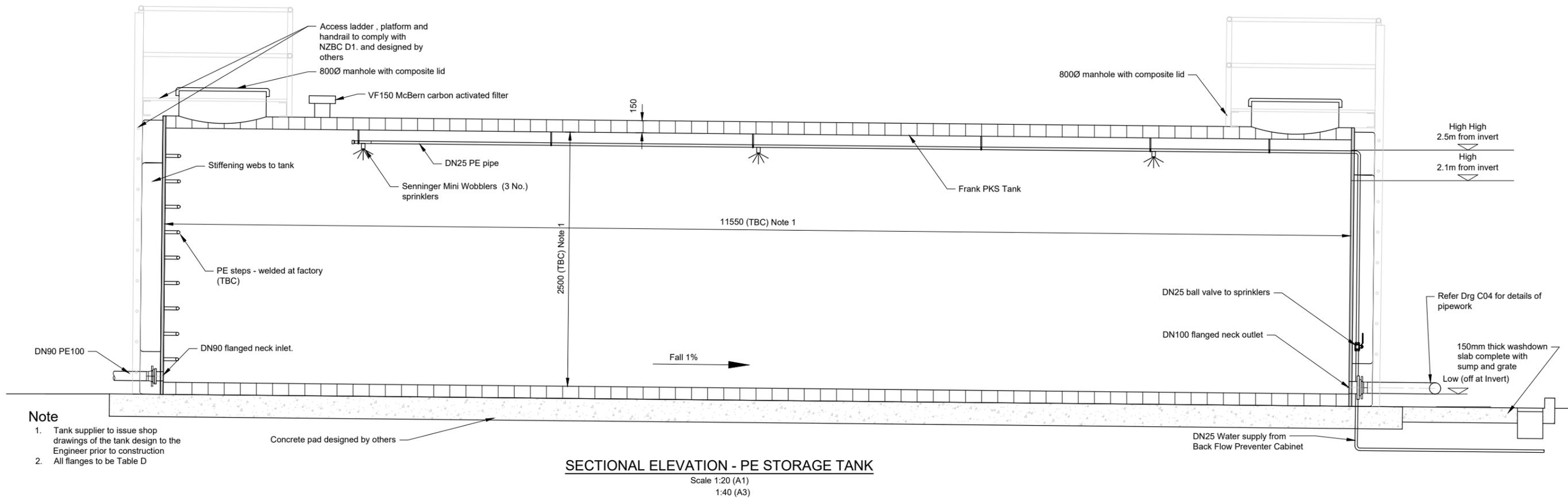

 PLANNERS | SURVEYORS | ENGINEERS

Project Title
 Quarry Hills Development Ltd
 Brookefield Road Subdivision

Sheet Title
 Storage Tank Design
 Site Layout

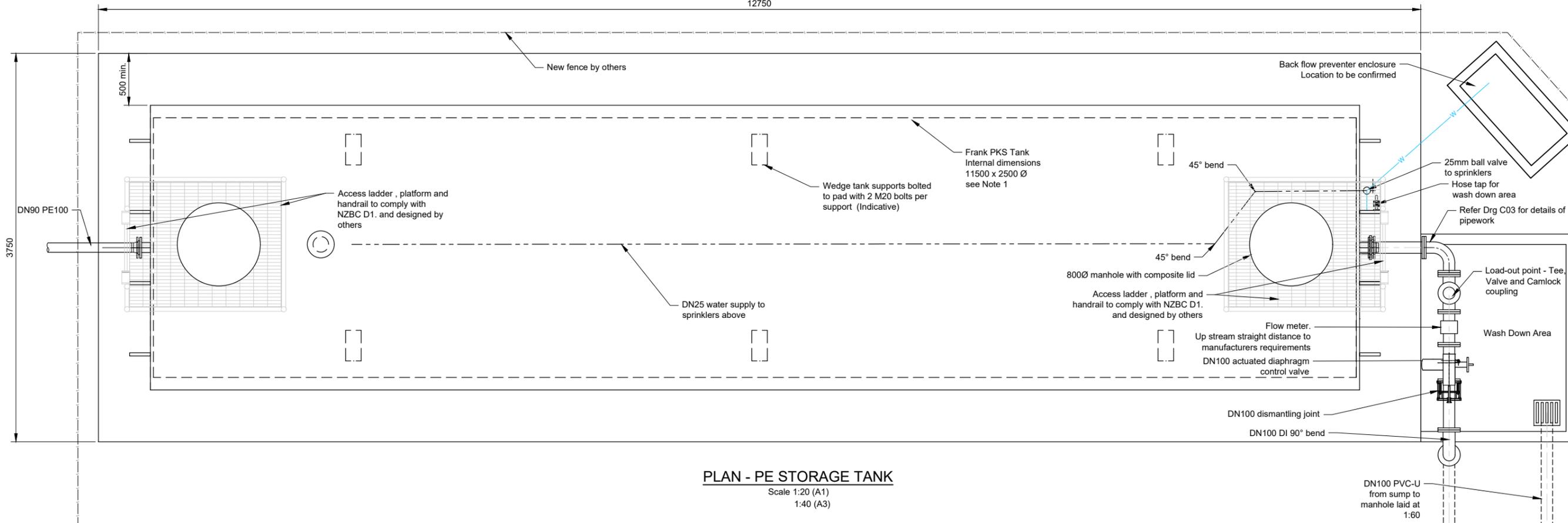
Scale (A1 Original)	1:200 m	
Issue	For Approval	
Project No	Sheet	Revision
000537	C01	B

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SECTIONAL ELEVATION - PE STORAGE TANK

Scale 1:20 (A1)
1:40 (A3)



PLAN - PE STORAGE TANK

Scale 1:20 (A1)
1:40 (A3)

Revision	App	Date	Approved
B	Issued for Approval	R.H. 28/05/19	
A	Draft for Client Review	R.H. May'19	

Surveyed	-
Designed	R.Hill May'19
Drawn	D.Rabbidge May'19
Reviewed	-
Approved	-

Fluent SOLUTIONS

Level 2, Burns House, 10 George Street
PO Box 5240, Dunedin 9058
T: 03 929 1263
E: office@fluentsolutions.co.nz

Client

milward finlay lobb
PLANNERS | SURVEYORS | ENGINEERS

Project Title

Quarry Hills Development Ltd
Brookfield Road Subdivision

Sheet Title

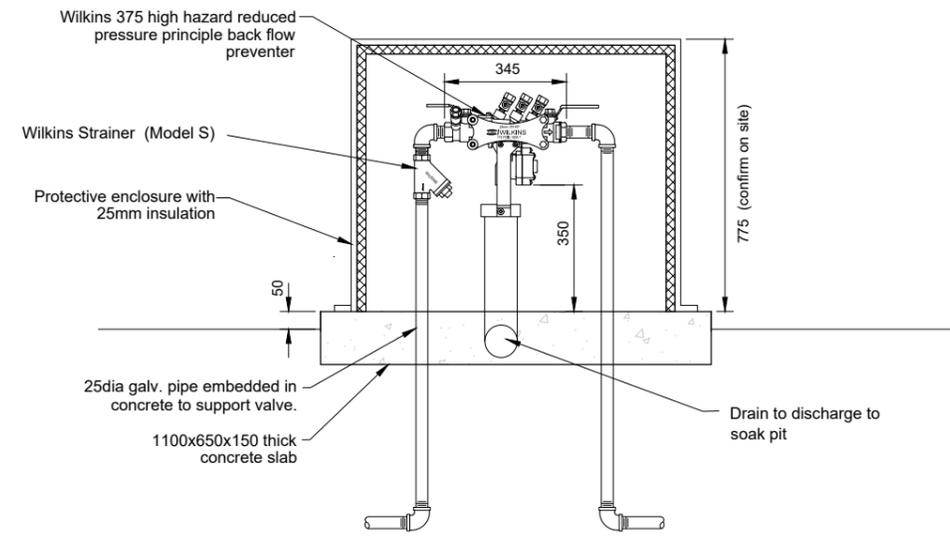
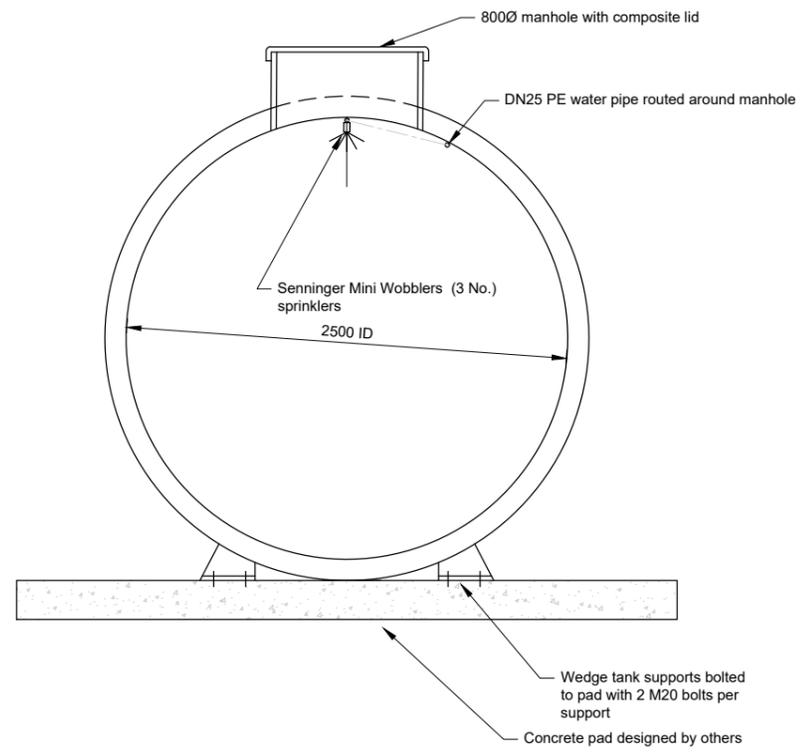
Storage Tank Design
Tank Plan and Section

Scale (A1 Original) 1:20 (A1)

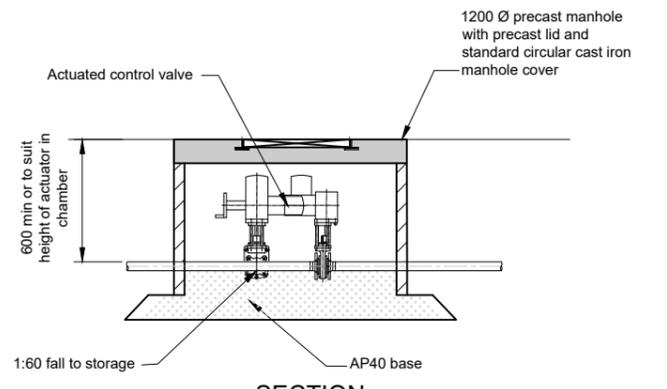
Issue For Approval

Project No 000537 Sheet C02 Revision B

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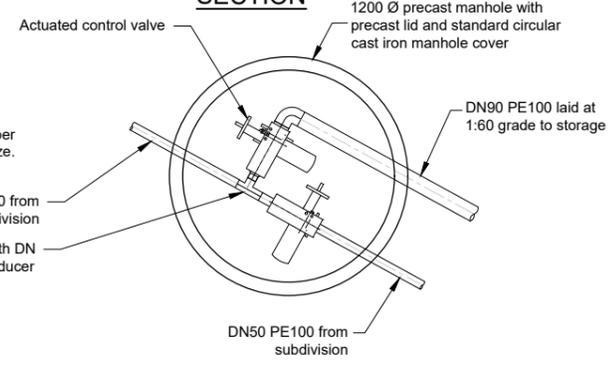


ELEVATION
BACK FLOW PREVENTER CABINET
 1:10 at A1
 1:20 at A3

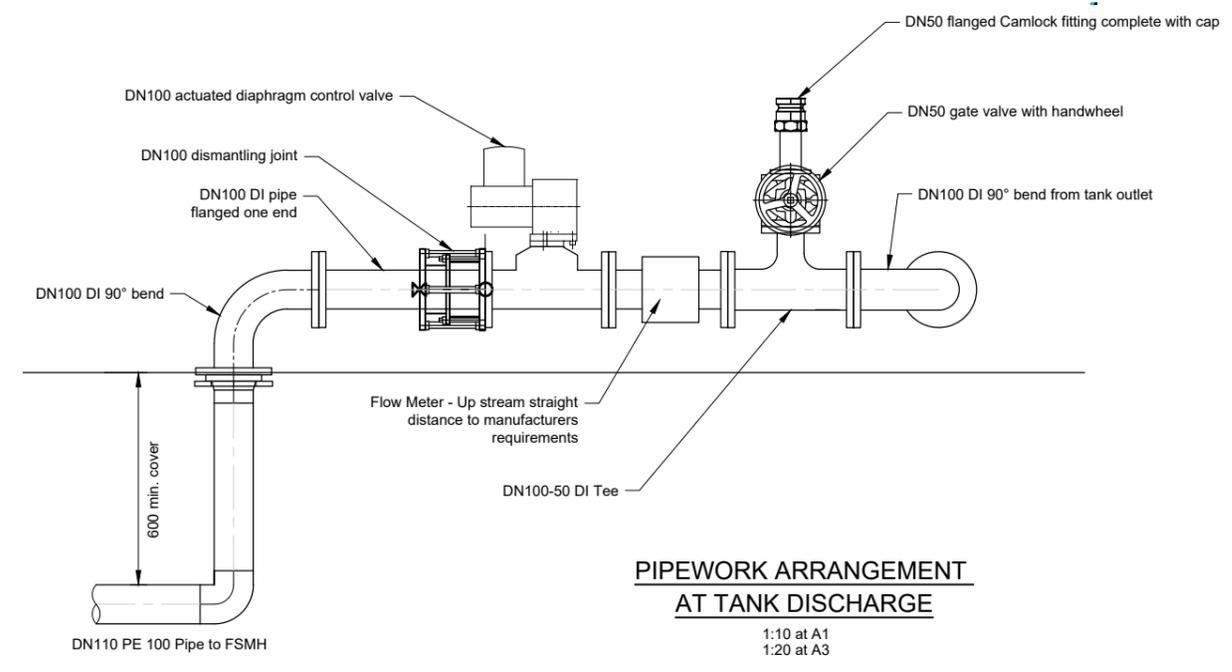


SECTION

NOTE
 Valves and actuators are indicative only and chamber may have to change in size. (Electrical Contractor to confirm.)



PLAN
OFFTAKE TO STORAGE TANK
 1:20 at A1
 1:40 at A3



PIPEWORK ARRANGEMENT
AT TANK DISCHARGE
 1:10 at A1
 1:20 at A3

1:20 at A1
 1:40 at A3
 1:10 at A1
 1:20 at A3

Revision	App	Date	Approved
B	Issued for Approval	R.H. 28/05/19	
A	Draft for Client Review	R.H. May'19	

Surveyed	-	-
Designed	R.Hill	May'19
Drawn	D.Rabbidge	May'19
Reviewed	-	-
Approved	-	-


 Client

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Project Title
Quarry Hills Development Ltd
Brookfield Road Subdivision

Sheet Title
Storage Tank Design
Tank Cross Section
and Details

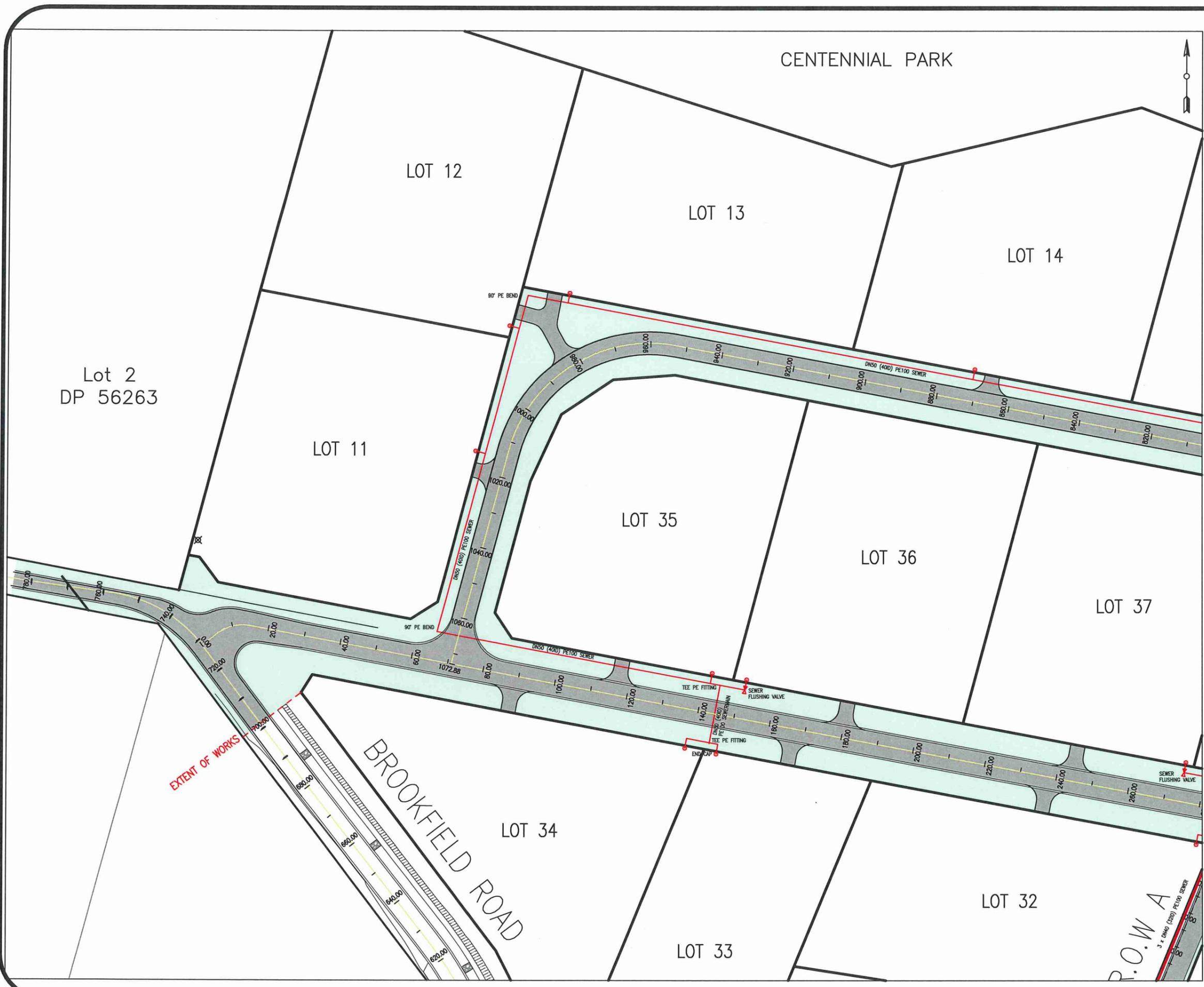
Scale (A1 Original)
As Shown
 Issue
For Approval
 Project No
000537
 Sheet
C03
 Revision
B

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 PO Box 5240, Dunedin 9058
 T: 03 929 1263
 E: office@fluentsolutions.co.nz

APPENDIX B

Milward Finlay Lobb - Subdivision Layout Drawings



CENTENNIAL PARK

Lot 2
DP 56263

LOT 12

LOT 13

LOT 14

LOT 11

LOT 35

LOT 36

LOT 37

EXTENT OF WORKS

BROOKFIELD ROAD

LOT 34

LOT 33

LOT 32

P.O.W.A
3 x DN40 (300) PE100 SEWER

General Notes
1. INDIVIDUAL LOT CONNECTIONS ARE DN40 (32ID) PE100

DRAFT

DO NOT SCALE FROM THIS DRAWING

No.	Revision/Issue	Date
A	First Issue	

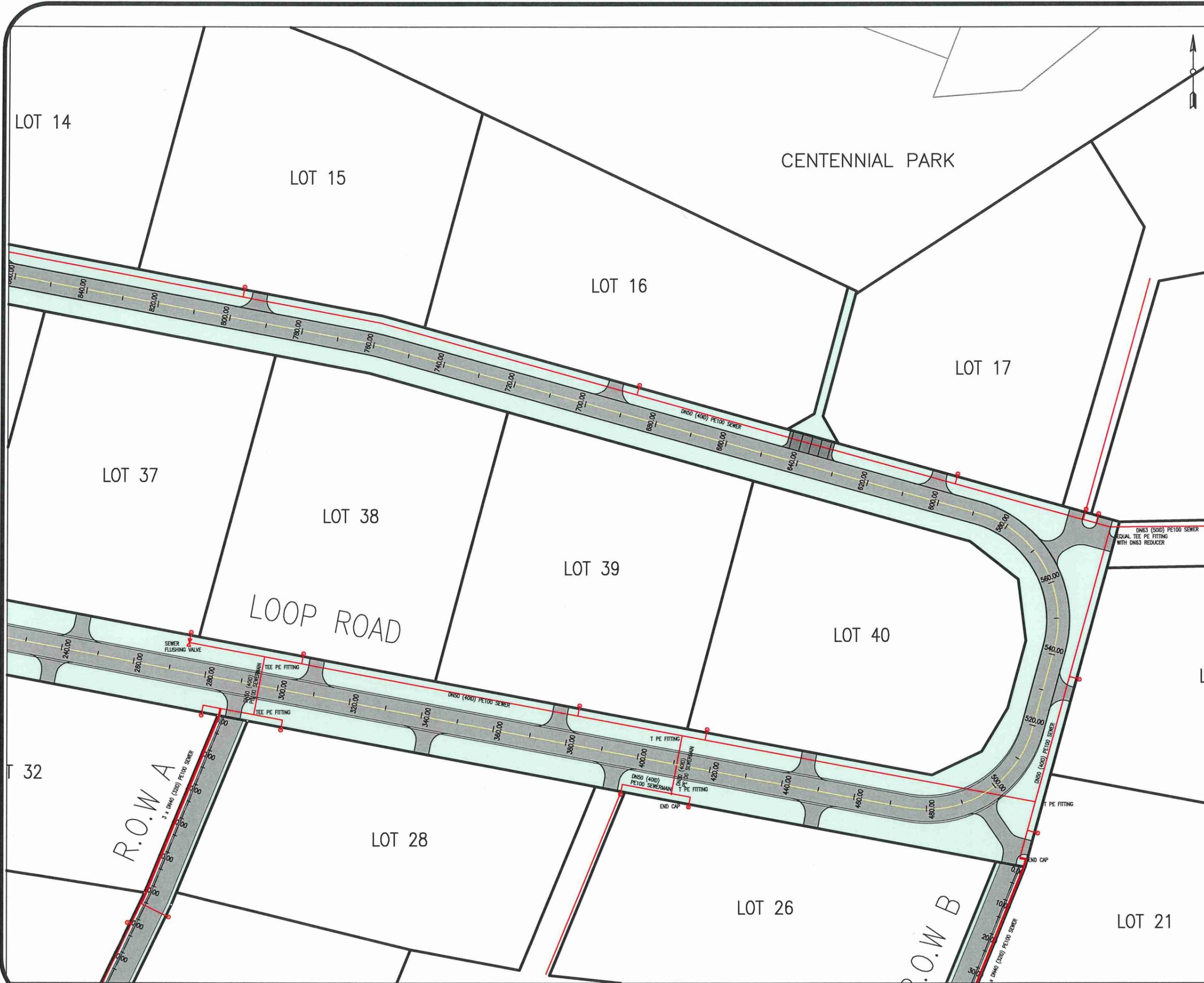
milward finlay lobb
PLANNERS | SURVEYORS | ENGINEERS
6 The Terrace, Timaru 7910 P 03 684 7888
PO BOX 434, Timaru 7940 E admin@mfll.co.nz
www.mfll.co.nz

Project Name and Address
QUARRY HILLS DEVELOPMENT LTD
BROOKFIELD RD SUBDIVISION
SEWER LAYOUT 1

Project 157822/06	Sheet C1
Date 13.02.19	
Scale 1:500	

Original Drawing Size: A1

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General Notes
 1. INDIVIDUAL LOT CONNECTIONS ARE DN40 (32ID) PE100

DRAFT

DO NOT SCALE FROM THIS DRAWING

No.	Revision/Issue	Date
A	First Issue	

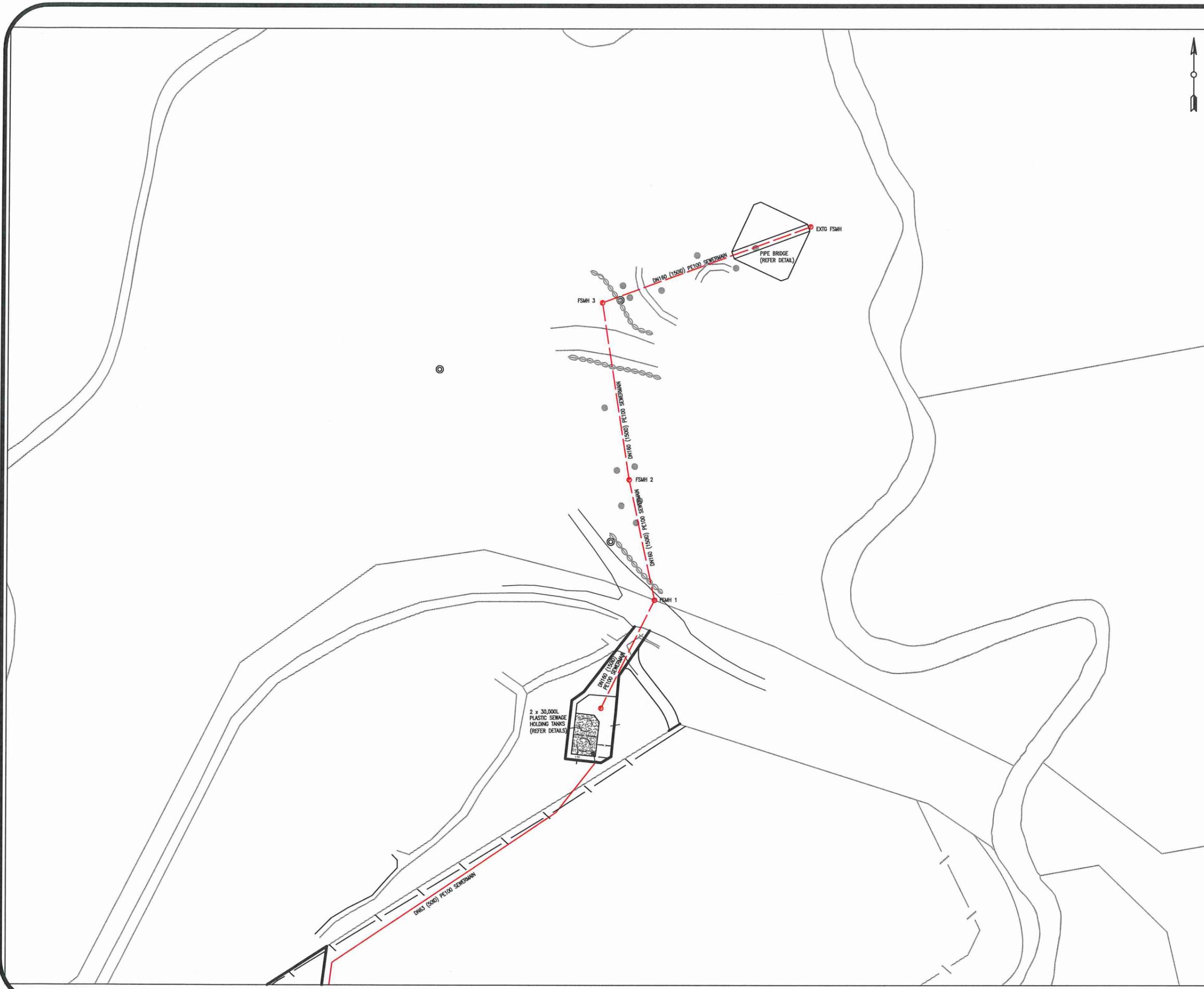
Firm Name and Address
milward finlay lobb
 PLANNERS | SURVEYORS | ENGINEERS
 6 The Terrace, Timaru 7910 P 03 684 7888
 PO BOX 434, Timaru 7940 E admin@milf.co.nz
 www.milf.co.nz

Project Name and Address
 QUARRY HILLS DEVELOPMENT LTD
 BROOKFIELD RD SUBDIVISION
 SEWER LAYOUT 2

Project 157822/06	Sheet C1
Date 13.02.19	
Scale 1:500	

Original Drawing Size: A1

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General Notes

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No.	Revision/Issue	Date
A	First Issue	

Firm Name and Address

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6 The Terrace, Timaru 7910 P 03 684 7688
 PO BOX 434, Timaru 7940 E admin@mflnz.co.nz
 www.mflnz.co.nz

Project Name and Address

QUARRY HILLS DEVELOPMENT LTD
 BROOKFIELD RD SUBDIVISION
 SEWER LAYOUT 4

Project 157822/06	Sheet C1
Date 13.02.19	
Scale 1:500	

Original Drawing Size: A1

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40 MPOD CONNECTION

50 MPOD MAIN

FLUSHING POINT

CENTENNIAL PARK SCENIC RESERVE

103
340m²
Local Purpose Reserve
(Accessway) to Vest in
Timaru District Council
8.0m wide

Pt RS 6296



102
2.100ha
Road to Vest in
Timaru District Council
16.0m & 20m wide

4
DP 4426

101
3540m²
Road to Vest in
Timaru District Council
10.0m wide

1
DP 74951

104
940m²
Access

SCHEDULE OF EXISTING EASEMENTS TO BE RETAINED			
Purpose	Shown	Servient Tenement	Creating Document
Water easement	F	Lot 21	A. 4587

SCHEDULE OF PROPOSED EASEMENTS			
Purpose	Shown	Servient Tenement	Dominant Tenement
Right of Way, Right to convey water, electricity, telecommunications and computer media, Right to drain water and sewage	A	Lot 30	Lots 29 & 31
	B	Lot 24	Lots 22, 23 & 25
	C	Lot 24	Lot 23
	D	Lot 23	Lots 22, 24 & 25
	E	Lot 23	Lot 24

The existing water easement is subject to partial revocation, as shown by 'G', over Lot 102

AMALGAMATION CONDITION
That Lot 104 be amalgamated with Lots 5 & 6 RC 101.2015.220 (Title yet to be issued) and that one computer freehold register issue.

NOTES

Rural Residential Allotments (30)	Lots 11-40
Access	Lot 104
Roads	Lots 101-102
Local Purpose Reserve	Lot 103

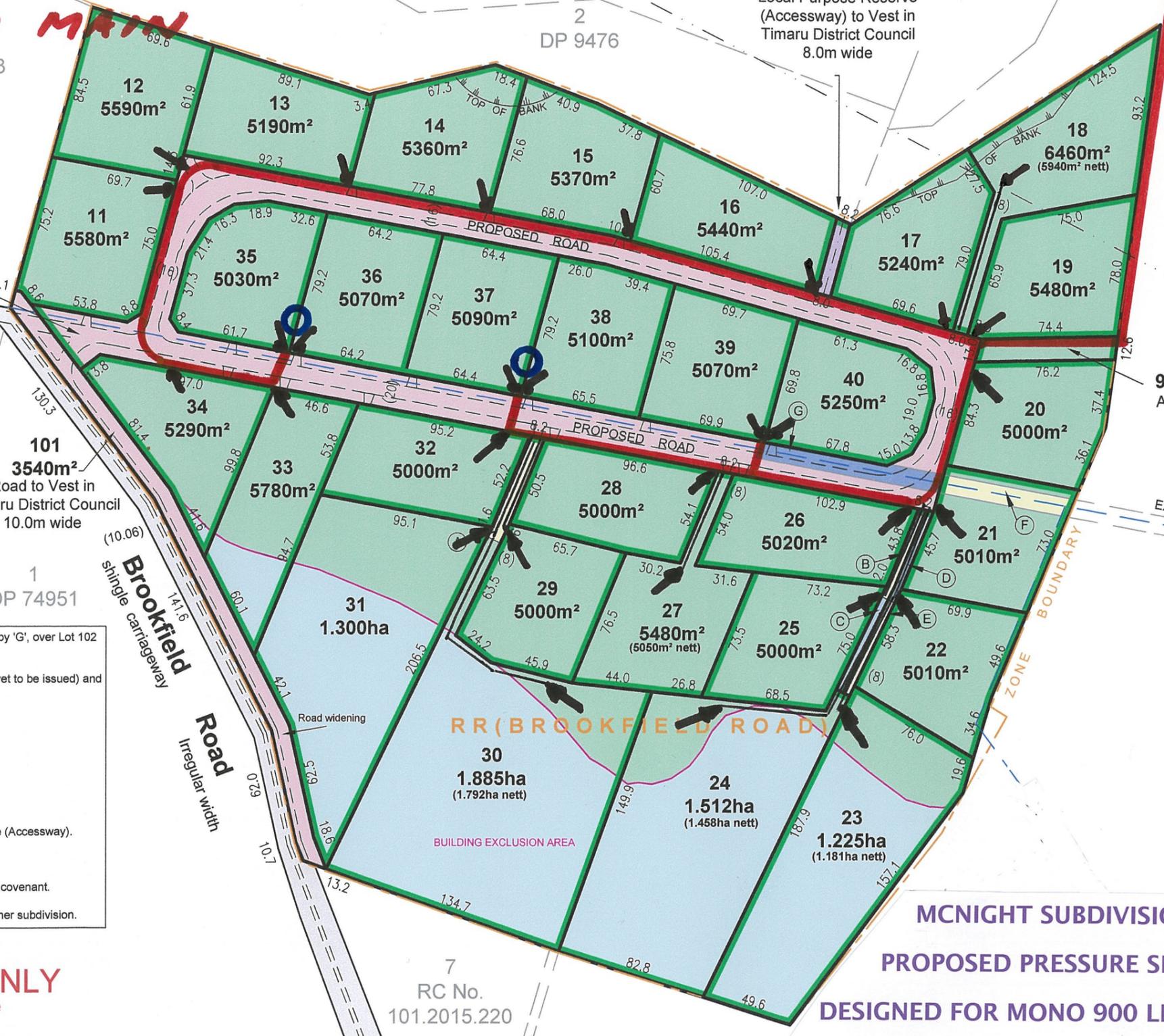
Lots 101-102 to vest to the Timaru District Council as road reserve.

Lot 103 to vest to the Timaru District Council as Local Purpose Reserve (Accessway).

There are no Lots 1-10, 41-100.

Lots 23-24, 30-31 & 33-34 are subject to a proposed building exclusion covenant.

Lots 11-40 are subject to a proposed land covenant preventing any further subdivision.



MCNIGHT SUBDIVISION TIMARU
PROPOSED PRESSURE SEWER LAYOUT
DESIGNED FOR MONO 900 LITRE INVIZIQ UNITS

PRELIMINARY PLAN ONLY
Area and Dimensions Approximate
and subject to final survey

Scale : 1:2500 @ A3	Date : February 2016
Applicant: Quarry Hills Development Ltd 60 Landsborough Road RD 4, Timaru 7974	Surveyed Drawn SAE Amended Amended

Resource Consent Application
Proposed Subdivision of Lot 10 R.C. 101.2015.220



6 THE TERRACE
PO BOX 434
TIMARU 7940
PH 03 684 7688
ADMIN@MFLNZ.CO.NZ
WWW.MFLNZ.CO.NZ

Client/Job No.
157822/06
Sheet 1 of 1



**Benje
Patterson**
People & Places

October
2022

Scenarios of an aspirational economic future for Timaru District



Report commissioned by Venture Timaru

Prepared by: Benje Patterson

Benje Patterson | People & Places

www.benjepatterson.co.nz

October 2022

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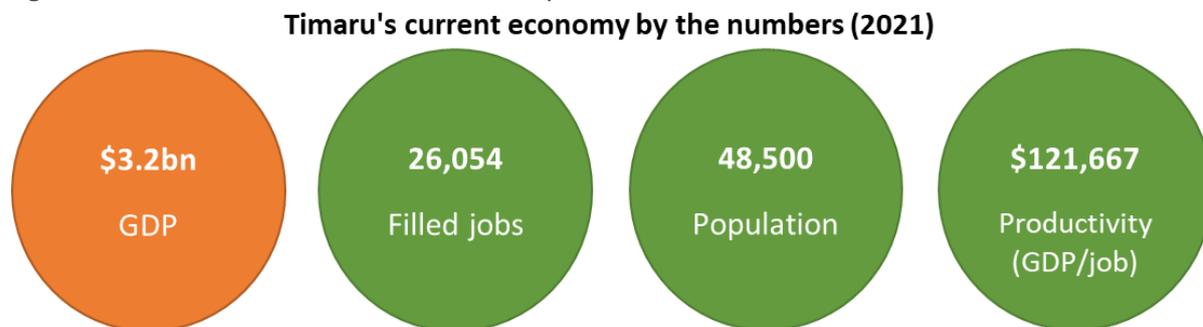
1. Contents

2. Executive summary.....	2
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4. Aspirational future scenarios for 2050	4
4.2. Overview of future scenarios for the Timaru economy	4
4.3. ‘Size of the prize’ for Timaru’s economy in each scenario.....	4
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4.4.2. Assumptions for achieving the ‘more’ future growth scenario	5
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4.5. Stepping towards ambitious industry transformation.....	8
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6. Concluding remarks	11

3. Timaru’s current economic context

There were 48,500 residents in Timaru in 2021 and employment sat at 26,054 jobs. Each job produced \$121,667 of GDP (compared to \$124,980 nationally), meaning Timaru generated total GDP of \$3.2 billion.

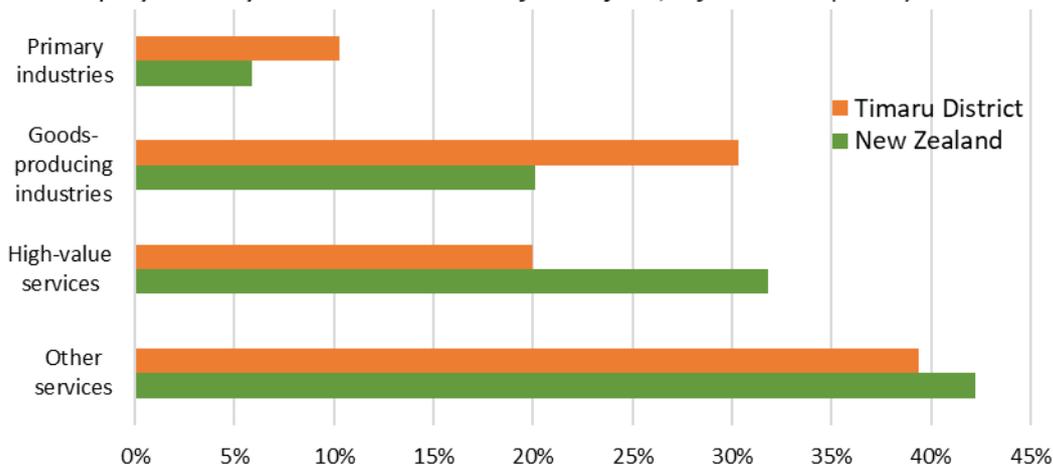
Figure 2 – The current size of Timaru’s economy, source: Infometrics and Statistics NZ



Employment in Timaru is more heavily concentrated on primary and goods-producing industries than nationally. Primary industries centre on dairy farming, sheep and beef farming, arable farming, and fishing. Goods-producing industries tend to be concentrated on processing of food and fibre products, although there is some machinery and equipment manufacturing to support the primary sector. High-value professional services are less represented in Timaru than the rest of New Zealand, but Timaru is a service centre for South Canterbury so has relatively high health, education, and retail employment.

Figure 3

Contribution to employment by broad sector
Employment by broad sector as % of total jobs, Infometrics (2021)



Over the past 10 years, growth in Timaru has lagged the New Zealand average for GDP, jobs, and population. But productivity growth in Timaru was slightly above the national average.

Table 1

Comparing growth in Timaru against New Zealand over the past decade		
<i>Annual average percentage change, 2011-2021, calculations from Infometrics and Statistics NZ data</i>		
	Timaru	NZ
GDP (\$ billion)	2.2%	2.6%
Jobs	1.2%	1.9%
Population	0.8%	1.6%
Productivity (GDP/job)	1.0%	0.8%

4. Aspirational future scenarios for 2050

This section introduces three scenarios for where Timaru's economy could be in 2050. The scenarios range from conservative to aspirational – and are designed to highlight the 'size of the prize' from being ambitious.

4.2. Overview of future scenarios for the Timaru economy

The three hypothetical scenarios modelled in this report for Timaru's economy in 2050 are:

- **The 'status quo' (low) scenario.** This scenario highlights what will happen to Timaru's economy if it can only maintain the status quo level of employment and its industries merely muddle along their current productivity trajectories.
- **The 'more' (medium) scenario.** This scenario highlights what will happen to Timaru's economy if it can gradually expand its underlying level of employment, but only in industries based around the district's current productivity trajectory, rather than in anything transformational.
- **The 'better' (high/transformational) scenario.** This scenario is the most ambitious and is based on doing more of things that are better. It highlights what would happen if Timaru can evolve its economy and grow employment into an industry footprint with transformationally higher productivity.

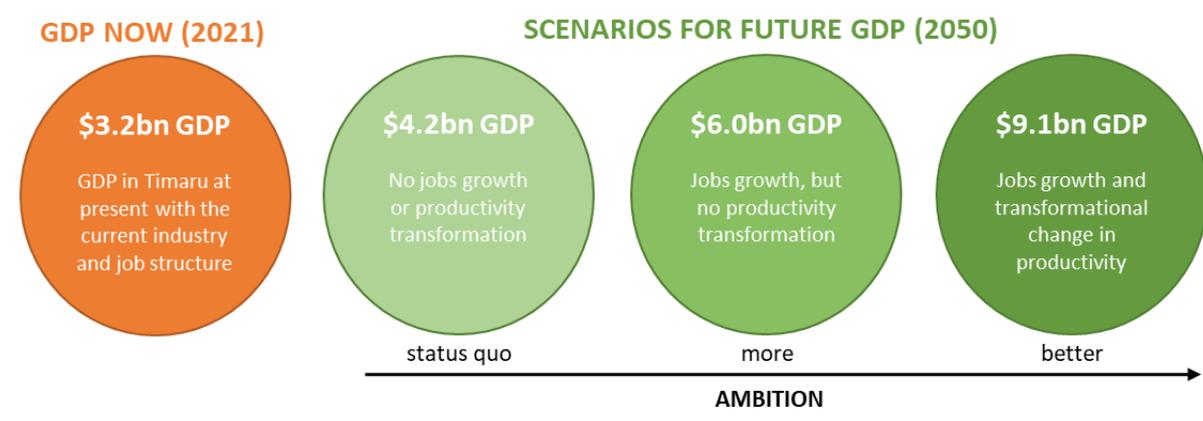
The rest of this section outlines the potential economic impacts for Timaru of each scenario. The detailed assumptions underpinning each scenario and their practicalities are also examined, with a focus on how many people and what productivity levels would be needed to support them.

4.3. 'Size of the prize' for Timaru's economy in each scenario

The potential 'size of the prize' for Timaru's economy from being ambitious is large. Calculations under the three future scenarios show that:

- If Timaru does no better than just muddle along, with its status quo level of employment and current productivity trajectory then the economy would be worth \$4.2 billion in 2050, which is one third larger than its current level (\$3.2 billion in 2021).
- If instead there is transformational growth into high productivity employment, then Timaru's economy could be worth \$9.1 billion by 2050, which is almost three times its current size.

Figure 4 – Timaru's future economic activity (GDP) under conservative through to ambitious scenarios



4.4. Assumptions for achieving future scenarios

Each scenario of future economic activity is driven by assumptions based on jobs and productivity growth. The rest of section 4.4 unpacks the practicalities of each scenario's assumptions.

4.4.1. Assumptions for achieving the 'status quo' future scenario

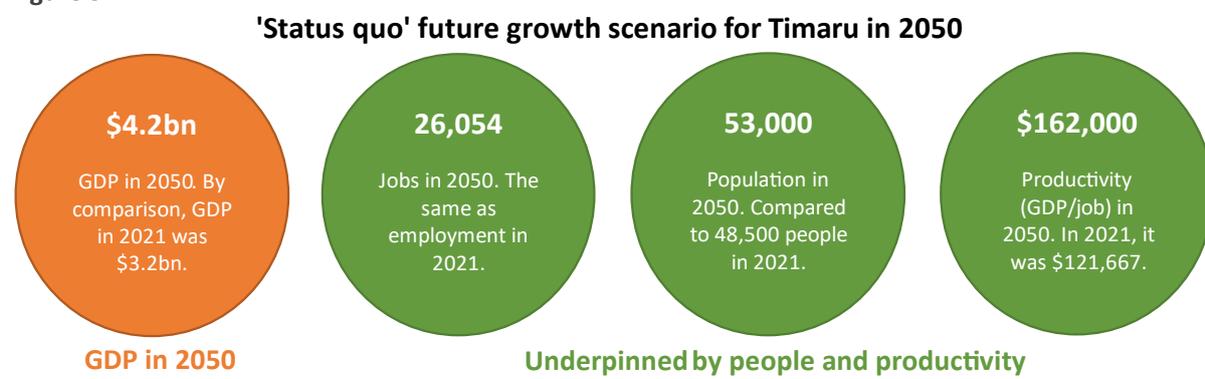
The 'status quo' scenario has the lowest level of ambition for 2050. It simply assumes that:

- Employment in Timaru remains at its current level (26,054 in 2021)
- Productivity growth muddles along at its current trajectory (1.0%pa growth).

In practical terms, achieving the 'status quo' scenario's two assumptions would imply that by 2050:

- Timaru would need a population of 53,000 people, up from its current population of 48,500
- Productivity (GDP per job) would reach \$162,000, compared to \$121,667 at present.

Figure 5



It might seem counterintuitive that Timaru would have to expand its population just to maintain its status quo employment levels. But the reason is simple, Timaru's population is rapidly aging and 30% of residents are expected to be aged over 65 by 2050¹, compared to just over 20% aged 65+ at present.

Timaru would need to grow its population from 48,500 in 2021 to 53,000 by 2050 just to ensure there were sufficient people of working age to maintain Timaru's current level of employment and counteract increasing retirements.

The productivity growth assumption in the 'status quo' scenario is relatively unambitious. It only requires GDP per job in 2050 (\$162,000) to sit approximately one third higher than it does currently (\$121,667). Several places in New Zealand already have productivity at or approaching this level².

4.4.2. Assumptions for achieving the 'more' future growth scenario

The 'more' scenario is based around a slightly more ambitious growth scenario to 2050, where Timaru expands its underlying level of employment. It simply assumes that:

- Employment in Timaru grows at its current trajectory (1.2%pa growth)
- Productivity growth muddles along at its current trajectory (1.0%pa growth).

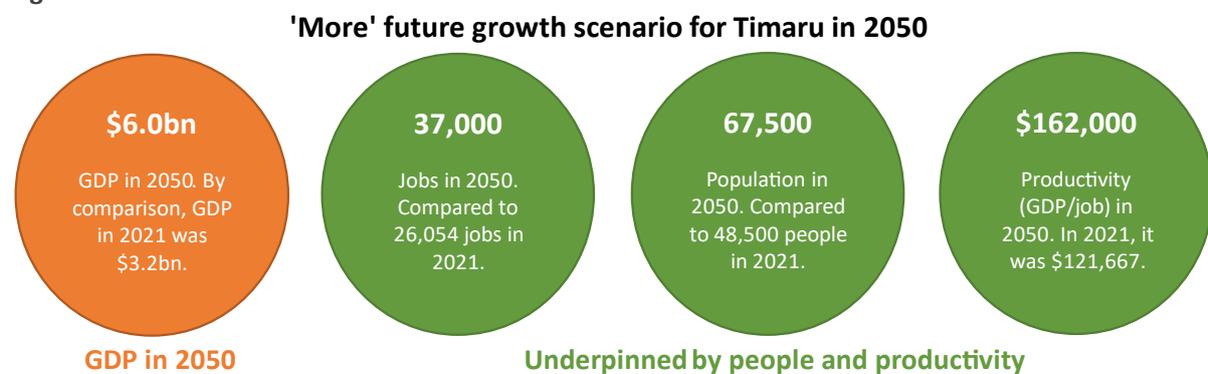
¹ Statistics NZ, subnational population projections (medium scenario), published 31/03/21.

² For example, Infometrics Regional Economic Profile shows that productivity (GDP per job) in Waitomo, Waitaki, South Taranaki, Wellington, New Plymouth, and Buller already exceeded \$150,000 in 2021.

In practical terms, achieving the ‘more’ scenario’s assumptions would imply that by 2050:

- Employment in Timaru would sit 11,000 jobs higher than currently
- To fill these jobs, Timaru’s population would need to rise from 48,500 people to 67,500 people
- Productivity (GDP per job) would reach \$162,000, compared to \$121,667 at present.

Figure 6



Timaru’s aging population³ means that lifting the population from 48,500 to 67,500 would need to increasingly be driven by migration from around New Zealand and overseas rather than natural increase.

Timaru would need to attract a net 800 people each year to lift the population to 67,500 by 2050. This level of migration would be twice as high as Timaru’s average migration gains in recent history⁴.

4.4.3. Assumptions for achieving the ‘better’ future growth scenario

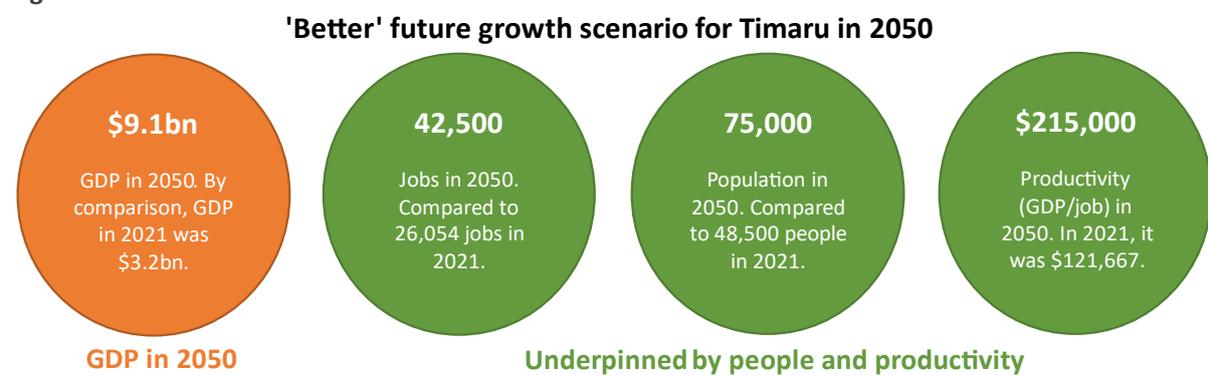
The ‘better’ scenario is the most ambitious and transformational scenario. It assumes that up to 2050:

- Employment will grow by 0.5%pa above its current trajectory (1.7%pa growth instead of 1.2%pa)
- Productivity will grow at 1%pa above its current rate (2.0%pa growth instead of 1.0%pa).

In practical terms, achieving the ‘better’ scenario’s assumptions would imply that by 2050:

- Employment in Timaru would sit 16,500 jobs higher than it does currently
- To fill these jobs, Timaru’s population would need to rise from 48,500 people to 75,000 people
- Productivity (GDP per job) would need to reach \$215,000, compared to \$121,667 at present.

Figure 7



³ A rising death rate, relative to births, is projected to reduce Timaru’s population by an average of 175 people a year from 2023 to 2048. Source: Statistics NZ subnational population projections (published 31/03/21).

⁴ Between 2013 and 2018, net migration to Timaru averaged 400 people per annum. Source: Statistics NZ subnational population projections (published 31/03/21) which drew on censuses for historical perspectives.

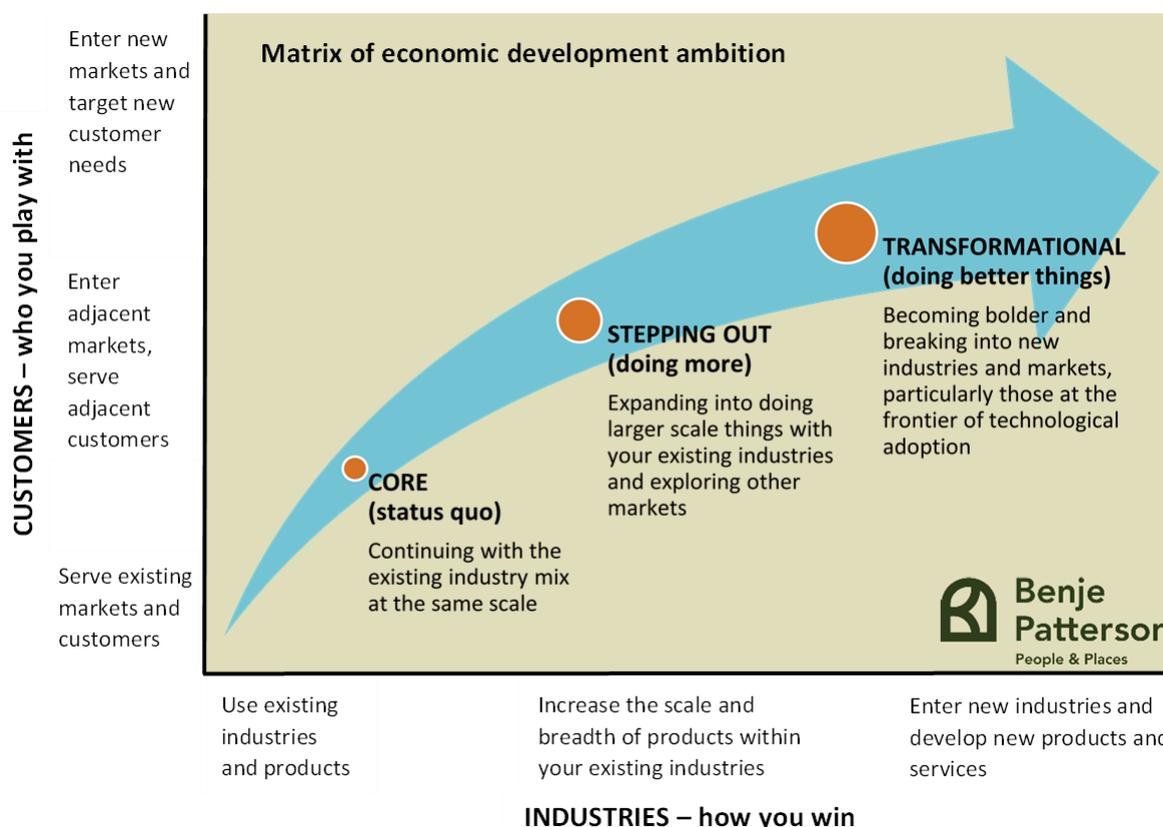
4.5. Stepping towards ambitious industry transformation

The previous sub-section highlighted that under the most aspirational scenario Timaru’s economy could expand three-fold over the thirty years to 2050. This aspiration relies on growing and transforming the economy to at least one third of jobs having twice the productivity opportunities to the status quo.

The precise composition of what these industry transitions will be is uncertain and beyond the scope of this report. Nevertheless, this sub-section makes general comments about the decision-making context.

Transformations that build on existing strengths are easier to conceptualise, but ‘blue sky’ opportunities in new industries are harder to map out and many are reliant on yet-to-be-developed technologies.

Figure 9- Matrix of economic development ambition



What is known is that achieving ambitious industry transformation won’t happen overnight. Initially many of Timaru’s productivity wins will be found working with existing businesses in existing industries to streamline processes, explore adjacent products, and invest in proven technologies.

This approach is consistent with the Productivity Commission’s recent inquiry into New Zealand’s ‘frontier firms’ (businesses in the top 10% of those with the highest productivity)⁶. The inquiry researched how the economic contribution of frontier firms can be maximised to lift productivity across the economy. In its findings, the Commission said that we need to identify our frontier firms, learn about the characteristics of these businesses, implement focused innovation policy to strengthen the ecosystems that support them, and encourage the diffusion of their knowledge into non-frontier firms.

The 2021 Timaru District Economic Development Strategy (EDS) highlighted that the sectors in which Timaru has a competitive advantage are related to:

⁶ Available here: <https://www.productivity.govt.nz/assets/Documents/benchmarking-new-zealands-frontier-firms/2d6a4cd0ea/Benchmarking-New-Zealands-frontier-firms.pdf>.

- Food and fibre (particularly dairy, meat, seafood, and food manufacturing)
- Logistics
- Professional, scientific and technical services.

These three sectors are a logical starting point for shifting Timaru’s productivity dial. Furthermore, these sectors are also well-aligned to central government strategies and funding mechanisms. For example, all three are embedded directly and indirectly across the government’s various Industry Transformation Plans⁷, while optimising logistics is the focus of the New Zealand freight and supply chain strategy⁸.

Through time, Timaru can progressively step out from this base and become more transformational in what it does, including breaking into new industries with at least twice the productivity potential to the status quo. Exactly what new industries will succeed is uncertain, but in exploring high productivity opportunities, Timaru must be cognisant of broader megatrends. These megatrends are long-term forces that can structurally change the industries in which Timaru might be competitive. Some megatrends to take note of when considering potential new high productivity opportunities include:

- **An increased focus on inclusive growth.** Higher GDP isn’t the only goal, instead there must be a balance with the wellbeing of people, communities, and the environment. Investment in productivity can be a vehicle to inclusive growth, as high productivity, technologically driven industries can achieve prosperity and higher wages without unduly pressuring resources.
- **COVID-19’s legacy will endure long after the pandemic is over.** Consumer demand patterns have evolved, and businesses may permanently adjust their practices, logistics, and supply chains to minimise future risks of disruptions. The changes create opportunities for localism and for regional locations with good transport connections to major metropolitan areas.
- **The nature of work is changing.** Younger workers have different expectations of work and are more likely to prioritise lifestyle with shorter working weeks and remote working. With good digital and transport connections there are opportunities for Timaru to capitalise on remote working trends and in other jobs that can deliver services ‘weightlessly’ to customers.
- **Automation will have widespread effects,** particularly in sectors with a lot of routine tasks. Automation brings productivity benefits, but new opportunities will likely focus on workers needing to develop different skills. There may be scope for Timaru to develop and pilot automation on local industries, for example agritech and drone-based agricultural solutions.
- **Adapting to emissions and other environmental factors will have direct and indirect effects.** Government regulations will directly create costs and constraints, particularly within agriculture for those with intensive pastoral farming models. Changing consumer preferences will also create indirect effects, which will likely favour more sustainably managed and lower impact business models. These changes will bring opportunities, for example to research and test how Timaru’s food and fibre sector can pilot world-leading productive and sustainable transitions.

The above list should only be taken as a starting point when considering potential ‘blue sky’ industry opportunities that could help transformationally lift Timaru’s productivity. Megatrends by their very nature are uncertain – it is important to regularly consider other emerging forces. As stated in the Timaru EDS: “Timaru District, its people and businesses, need to embrace and respond to these changes, realising new opportunities and responding to disruptions”.

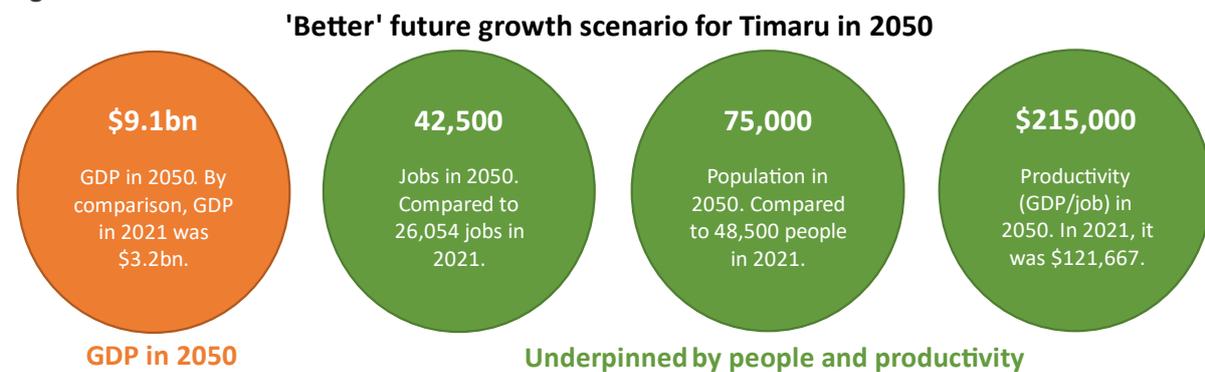
⁷ Industry Transformation Plans (ITPs) are a mechanism for implementing the Government’s industry policy. ITPs have actions focused on long-term transformation. More here: <https://www.mbie.govt.nz/business-and-employment/economic-development/industry-policy/industry-transformation-plans/>

⁸ The New Zealand freight and supply chain strategy takes a 30+ year view and will inform government and private sector investment. Productivity is key to the strategy. More here: <https://www.transport.govt.nz/area-of-interest/freight-and-logistics/new-zealand-freight-and-supply-chain-strategy/>

5. Which enabling factors does ambition rely on?

Regardless of which industries help Timaru achieve an aspirational economic future, there will be many factors which are necessary enablers. Productivity, employment, and population growth are key drivers of economic prosperity (see Figure 10), but these can't happen in isolation and in turn rely on underlying foundations related to skills, natural resources, housing, infrastructure, and social and cultural capital.

Figure 10



Enabling factors needed to support achieving the 'better' future growth scenario for 2050 include:

- **Sufficient business land and the right infrastructure.** For businesses to do better things, they will need suitable premises. Even at the lower end of land needed per worker, 16,500 additional jobs would demand a minimum of 30 extra hectares of adequately serviced business land by 2050⁹.
- **Access to capital.** Transformational changes in productivity are inherently capital intensive. Accessing investment capital for small to medium businesses is especially difficult in the regions.
- **Digital and transport connections.** Digital and transport connectivity are crucial for businesses' productivity. Remaining connected to friends and family is also important for new residents.
- **People with the right skills.** The 16,500 new jobs would be in much higher productivity roles, with different skills demands to the status quo. Ongoing training to build capability of existing workers to use new technologies will be as important as attracting people with the right skills.
- **Housing.** Population growth of 26,500 people could equate to 9,000 more households by 2050. This number of new households is equivalent to 300 extra houses per year for the next 30 years.
- **Schools.** Within the population expansion of 26,500 people, there would be around 6,000 children of early childhood and school age. Depending on average classroom sizes this could mean an additional 200 to 300 classrooms would be needed in Timaru District by 2050.
- **Health.** An increasing population will place higher demand on health services. In order to maintain similar health service levels¹⁰, Timaru would need at least 1,500 more health and social assistance workers by 2050¹¹ to account for population growth from 48,500 to 75,000 people.
- **Social and recreational infrastructure.** Community infrastructure and services play an important role in supporting wellbeing, as well as helping to integrate and retain new residents. Investment should scale as populations increase. The 2019/20 Timaru Resident Opinion Survey showed 87% of residents visited a park or reserve in the past year, while 91% used a community facility.

⁹ A BERL study showed businesses require 17 to 100 sqm per employee depending on if they are service-based or heavy industry (see page 14: <https://www.waikatoregion.govt.nz/assets/WRC/Services/regional-services/BERL-Report-UNISA-Industrial-Land-Demand-Study.pdf>).

¹⁰ There were 2,837 employed in health and social assistance in Timaru in 2021 against a population of 48,500.

¹¹ This estimate is conservative as there would also be additional health demands from an aging population.

6. Concluding remarks

This report has highlighted the power of being ambitious and transformational.

If Timaru can do no better than maintain its current level of employment and muddle along its status quo productivity trajectory then it will only be one third larger by 2050 than it is today.

However, if Timaru can be aspirational in terms of how many jobs it creates, people it attracts, and how productive these jobs are then Timaru's economy could triple in size over the same period. Such a goal would require a transformational shift into at least one third of Timaru's businesses doing things that were at least twice as productive as opportunities under the status quo.

Getting there won't be easy. Transformations that build on existing strengths are easier to conceptualise, but 'blue sky' opportunities in new industries are harder to map out and many are reliant on yet-to-be-developed technologies.

Furthermore, regardless of which industries help Timaru achieve an aspirational economic future, there will be many factors which are necessary enablers. Productivity, employment, and population growth are key drivers of economic prosperity, but these can't happen in isolation and in turn rely on investments in underlying foundations related to skills, natural resources, housing, infrastructure, and social and cultural capital.



TIMARU DISTRICT COUNCIL

CONSENT NOTICE

Subdivision of Lot 1 DP 51210, Part RS 6296, Lot 3 DP 528, Lot 2 DP 74951 and Lot 2 DP 51210

Pursuant to section 221 of the Resource Management Act 1991, I hereby give notice that the District Planning Manager, acting under delegated authority from Timaru District Council, did on 03 May 2016 in approving a subdivision consent application for a Nine allotment subdivision with amalgamation and esplanade reserve that the following be registered as a consent notice against the certificate of title of proposed Lot 6 DP 502319.

"No further subdivision of this allotment to allow for a Rural Living Site shall occur under the provisions of the District Plan as at April 2016."

"The landowner of this lot shall be responsible for providing and maintaining an effluent disposal system (designed to meet the requirements of the Regional Council) to dispose of the effluent that is generated from within the lot."

"The landowner of this lot shall be responsible for providing and maintaining a stormwater disposal system (designed to meet the requirements of the Regional Council) to dispose of the stormwater that is generated from within the lot."

Dated at Timaru on 22 May 2017

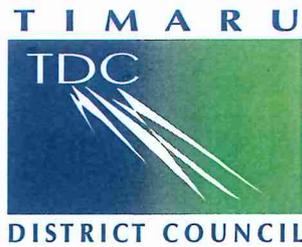
A handwritten signature in black ink, appearing to read 'Mark Crowe', written over a dotted horizontal line.

Mark Crowe
Authorised Officer





MF015744



3 May 2016

Andrew Rabbidge
Milward Finlay Lobb Ltd
PO Box 434
Timaru 7940

Dear Andrew

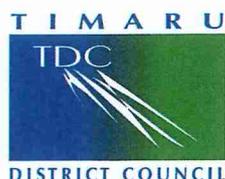
**Resource Consent Subdivision & Land Use 101/102.2015.220
Landsborough Road, RD 4, Timaru 7974**

I advise that your resource consent subdivision and land use application no. 101.2015.220 was granted consent subject to conditions by Timaru District Council on 3 May 2016. Please find attached the decision on the application and the approved plans.

If you have any queries on this matter, please do not hesitate to contact me at the details listed below.

Yours faithfully

Gemma Conlon
SENIOR PLANNER



**DECISION OF TIMARU DISTRICT COUNCIL
RESOURCE CONSENT SUBDIVISION AND LAND USE 101/102.2015.220**

Acting under the delegated authority from Timaru District Council, I have considered the subject application for subdivision consent and have decided, pursuant to sections 104, 104B, 106, 108 and 220 of the Resource Management Act 1991, that consent be GRANTED subject to the following conditions:

General

1. The development shall be carried out in accordance with the plan (*Proposed Subdivision of Pt's RS 6296, Lot 3 DP 528, Lots 1 & 2 DP 51210 & Lot 2 DP 74951, prepared by Milward Finlay Lobb, dated 25.02.2016*) attached and stamped as approved on 27 April 2016 and the application as submitted under reference 101 2015.220 with the exception of the amendments required by the following conditions of consent.

Reason: To ensure that the development is carried out in accordance with the application.

Easements

2. All proposed easements shall be duly granted or reserved.

Reason: To ensure all proposed easements are established and in accordance with section 220(1)(f) of the Resource Management Act 1991.

Amalgamation

3. Lots 5 and 6 shall be amalgamated together and one computer freehold register issued.

The practicability of imposing this amalgamation condition has been approved by the Register General of Lands under reference 1335346.

Reason: To ensure that the proposed amalgamation of allotments is implemented and in accordance with section 220(1)(b)(ii) of the Resource Management Act 1991.

Open Space & Recreation Financial Contribution

4. A financial contribution of \$1,000 shall be paid to Timaru District Council for the additional residential allotments created, being Lot 1 and 2.

Reason: In accordance with Rule 6.5.2.2(1) of the District Plan.

Esplanade Provisions

5. Lot 8 shall be vested in Timaru District Council for the creation of an esplanade reserve.

6. An esplanade strip five metres wide landward from the top of the true right bank of Otipua Creek shall be created (as indicated on the approved plan). An instrument to this effect shall be created in accordance with section 232 and Schedule 10 of the Resource Management Act 1991 and shall contain the following terms and conditions:

- a. With regard to Clause 3 of Schedule 10, the following condition shall apply:

Fencing may be required including gates, stiles, and the repositioning or removal of any fence.

- b. With regard to Clause 5 of Schedule 10, the following condition shall apply:

Any person shall have the right, at any time, to pass and repass over and along the land over which the strip has been created, subject to any other provisions of the easement or instrument.

- c. With regard to Clause 6 of Schedule 10, the following conditions shall apply:

Any person shall have the right, at any time, to enter upon the land over which the esplanade strip has been created and remain on that land for any period of time for the purpose of recreation, subject to any other provisions of the instrument.

Reason: To ensure natural or habitat values are maintained and recreation or public access is created in accordance with section 232 of the Resource Management Act 1991 and Section 6.4, Rule 6.4.2(7) of the District Plan.

Amenity

7. A consent notice shall be issued by the Timaru District Council and registered against the certificate of title to be issued for Lots 6 hereon. The notice shall be registered at the subdivider's expense and shall read as follows:

"No further subdivision of this allotment to allow for a Rural Living Site shall occur under the provisions of the District Plan as at April 2016."

Note: Should the Rules of the District Plan be amended in relation to this zone, then this consent notice may be revisited.

Reason: To ensure that any future landowners are aware of the subdivision limitations as a result of the creation of Lot 2.

8. A consent notice shall be issued by the Timaru District Council and registered against the certificate of title to be issued for Lots 1, 2, and 5 hereon. The notice shall be registered at the subdivider's expense and shall read as follows:

"The landowner of this lot shall be responsible for maintaining the existing mature trees and shrubs along the Landsborough Road boundary. The landscaping shall be maintained to ensure screening of development within these allotments occurs. Provision is allowed for vehicle entrances to be provided along this boundary."

Reason: To ensure that any future landowners are aware that they are responsible maintaining the landscaping along Landsborough Road.

Land Transport

9. Lots 1 and 2 shall be provided with their own vehicle crossings located, designed and constructed to meet the requirements of the Timaru District Council.

Reason: To ensure that each lot is serviced for vehicle access located, designed and built to an appropriate standard.

10. The existing fence lines over the corner splay and road reserve on Brookfield and Landsborough Roads shall be realigned to the legal boundary and the existing splay cleared of all vegetation above a minimum height of 900mm.

Reason: To ensure traffic safety at the corner of Landsborough and Brookfield Road.

Wastewater Disposal

11. A consent notice shall be issued by the Timaru District Council and registered against the certificate of title to be issued for Lots 1, 2, 5-6, 7 and 10 hereon. The notice shall be registered at the subdivider's expense and shall read as follows:

"The landowner of this lot shall be responsible for providing and maintaining an effluent disposal system (designed to meet the requirements of the Regional Council) to dispose of the effluent that is generated from within the lot."

Reason: To ensure that any future landowners are aware that they are responsible for the disposal of liquid waste.

Water Infrastructure

12. A consent notice shall be issued by the Timaru District Council and registered against the certificate of title to be issued for Lots 1 and 2 hereon. The notice shall be registered at the subdivider's expense and shall read as follows:

"The landowner is responsible for ensuring that any household unit on this allotment will obtain access to potable (drinkable) water from either a community water scheme or a private bore, or be able to provide storage of a minimum of 45,000 litres of potable water from another source. If stock are accommodated on the allotment the landowner shall provide an adequate water supply for stock water."

Reason: To ensure that any future landowners are aware that they are responsible for the supply of water, and that should any water be for human consumption, the landowner is responsible for ensuring that it is safe to drink.

13. A consent notice shall be issued by the Timaru District Council and registered against the certificate of title to be issued for Lots 1, 2, 5-6, 7 and 10 hereon. The notice shall be registered at the subdivider's expense and shall read as follows:

"The landowner of this lot shall be responsible for providing and maintaining a stormwater disposal system (designed to meet the requirements of the Regional Council) to dispose of the stormwater that is generated from within the lot."

Reason: To ensure that any future landowners are aware that they are responsible for the disposal of stormwater.

Other Matters

14. The consent holder shall attach to the application for section 224 certification correspondence from a suitably qualified person stating that all services to all lots that pass over or through any other lots have been disconnected or are protected by an appropriate easement.

Reason: To ensure that any underground service rights will be protected.

Cancellation of Esplanade Strip

Acting under the delegated authority from Timaru District Council, I have considered the subject application for subdivision consent and have decided, pursuant to section 234 of the Resource Management Act 1991, that the existing esplanade strip over Lot 7 (A294492.2) be cancelled.

Cancellation of Consent Notices

Acting under delegated authority from Timaru District Council, I have considered the subject application for subdivision consent and have decided, pursuant to section 221 (3) of the Resource Management Act 1991, that the consent notices over Lot 2 DP 74951 in relation to effluent, of subdivision consent no. 2782, issued by Timaru District Council on 9 September 1991, be cancelled.

Cancellation of Easement

Acting under the delegated authority from Timaru District Council, I have considered the subject application for subdivision consent and have decided, pursuant to section 243(e) of the Resource Management Act 1991, that the existing right-of-way over Lot 5 in respect of Lot 6 (created by EC 673038.6 and T.52786), be cancelled.

Acting under the delegated authority from Timaru District Council, I have considered the subject application for subdivision consent and have decided, pursuant to section 243(e) of the Resource Management Act 1991, that the existing right-of-way over Lot 7 (created by T.17445 and 55587), be cancelled.



Mark Geddes
District Planning Manager

Date: 3 May 2016

ADVICE NOTES

Commencement

This resource consent commences on the date the decision was notified, or on such later date as stated in the consent, unless an appeal or an objection has been lodged, at which time the consent commences when this has been decided or withdrawn, or in the case of an appeal to the Environment Court on such later date as the Court may state in its decision.

Right of Objection

If you do not agree with the decision, you may have a right to object to the whole or any part of the decision under section 357A of the Resource Management Act 1991 (the Act), as long as:

- the application was processed on a non-notified basis; or
- the application was processed on a notified basis and no submissions were received in relation to the application, or all submissions were withdrawn; and
- the application was not refused consent under section 104B of the Act (determination of applications for discretionary or non-complying activities) or 104C of the Act (determination of applications for restricted discretionary activities);
- an officer of a consent authority acting under delegated authority did not refuse consent to the application under section 104B or 104C of the Act.

Notice of any objection must be in writing, set out the reasons for the objection, and be lodged with the Timaru District Council within 15 working days of receipt of this decision.

Subsequent Right of Appeal to the Environment Court

Any person who has made an objection under section 357A of the Act may appeal to the Environment Court against the decision on the objection pursuant to section 358 of the Act.

Notice of such an appeal must be in the prescribed form, state the reasons for the appeal and be lodged with the Environment Court (PO Box 2069, Christchurch 8013) within 15 working days after the decision on the objection being notified to that person, or within such further time as the Environment Court may allow.

Appeal Direct to the Environment Court

If you do not agree with the decision, an alternative to a section 357A objection, or if section 357A does not apply, is to appeal the decision under section 120 of the Act to the Environment Court.

The notice of appeal shall be in the prescribed form; state the reason for the appeal and the relief sought; state any matters required by the regulations; and be lodged with the Environment Court (PO Box 2069, Christchurch 8013) within 15 working days notice of the decision being received. Notice of the appeal must also be served on Timaru District Council within 15 working days within the same period. Notice of the

appeal must also be served on any person who made a submission in relation to the application within 5 working days of the notice being lodged with the Environment Court. If you are in any doubt about the correct procedures, you should seek legal advice.

Minor Correction of Resource Consents

Section 133A of the Act provides the consent authority may at its discretion issue an amended consent that corrects minor mistakes or defects in the consent within 20 working days of the grant. If you consider that the consent contains a minor mistake or defect you may advise the Timaru District Council of the same.

Lapsing of Consents

A resource consent lapses on the date specified in the consent or, if no date is specified, 5 years after the date of commencement of the consent unless, before the consent lapses: the consent is given effect to; or, an application is made to the consent authority to extend the period after which the consent lapses, and the consent authority decides to grant an extension.

Change or Cancellation of Conditions

An application to change or cancel a condition of this consent can be made under section 127 of the Act.

Review of Consent

A consent authority may, in accordance with section 129 of the Act, serve notice on a consent holder of its intention to review the conditions of a resource consent.

Monitoring of Consent

Pursuant to section 35 of the Act, the local authority shall monitor the exercise of this resource consent. Additional charges may be payable for this monitoring.

Charges

Charges, set in accordance with section 36 of the Act, shall be paid to the Timaru District Council for the carrying out of its functions in relation to the administration and monitoring of resource consents and for carrying out its functions under section 35 of the Act.

Subdivision Consents

The Register-General of Land cannot issue new certificate of titles for the allotments proposed by the subdivision application until such time as the consent holder:

- submits for approval and obtains an approved survey plan from the territorial authority pursuant to section 223 of the Act; and
- requests and obtains a certificate signed by the chief executive or other authorised officer of the territorial authority pursuant to section 224(c) of the Act stating that it has approved the survey plan under section 223 and any of the conditions of the subdivision consent have been complied with to the

satisfaction of the territorial authority and that in respect of such conditions that have not been complied with –

- a completion certificate has been issued in relation to such of the conditions to which section 222 applies:
- a consent notice has been issued in relation to such of the conditions to which section 221 applies:
- a bond has been entered into by the subdividing owner in compliance with any condition of a subdivision consent imposed under section 108(2)(b):

Other Consents May Be Required

This resource consent authorises the land use or subdivision applied for only. The consent does not give the consent holder the right to:

- Use, subdivide or develop land that contravenes a rule in the District Plan other than that which has been consented to by way of the subject application, or that which has already been legally established.
- Conduct any activity that requires resource consent from Environment Canterbury (ECan). You are advised to contact ECan to ascertain if consent is required for the proposed development.
- Authorise building or utility services construction work that requires separate consent/approval.

Amalgamation

All normal requirements of Land Information New Zealand apply to the issuing of amalgamated titles. These include requirements that the land is in the same ownership and that any existing joint family home settlements are cancelled or extended to include all the land being amalgamated.

Financial Contribution

Please note that Rule 6.5.2.2(2)(d) of the District Plan requires the payment of a \$500.00 financial contribution for residential allotments over two hectares in area at the time a household unit is placed on the site. The financial contribution is required to be paid before building consent is issued in relation to any new dwelling on the site.

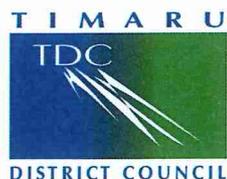
District Services Advice Notes

- Unless otherwise stated, all the conditions of consent described above are to be complied with prior to application for s224(c) certification.
- In accordance with TDC Bylaws, Clause 1003.1, no person shall drive or operate any vehicle over any footpath or berm other than at a specifically designed and constructed vehicle crossing.
- In accordance with TDC Bylaws, Clause 1004.1, any proposed new vehicle access to a private property or any modification to any such existing vehicle access shall require specific approval by Council.

- In accordance with TDC Bylaws, Chapter 15, Clause 1515.4, no person shall carry out excavation work in a road reserve or public place without approval from Council.

Liquefaction

The subject site is known to be susceptible to moderate liquefaction. It is the owner's responsibility to ensure that foundations are designed to a standard that recognises this risk. Design suitability will be checked at the time of a Building Consent Application being lodged.



REPORT ON A SUBDIVISION & LANDUSE CONSENT APPLICATION

CONSENT NO:	101/102.2015.220
CONSENT TYPE:	Subdivision and Land Use
APPLICANT:	S.O. & C.J. McKnight
ACTIVITY:	Nine Allotment Subdivision with Amalgamation, Boundary Adjustment, Esplanade Reserve and Land Use Non-Compliances
LOCATION:	Landsborough Road, RD 4, Timaru 7974
ZONING:	Rural 1 and Rural Residential (Brookfield Road)
LEGAL DESCRIPTION:	Lot 1 DP 51210, Part RS 6296, Lot 3 DP 528, Lot 2 DP 74951 and Lot 2 DP 51210
STATUS:	Discretionary Activity
RECEIVED DATE:	25 November 2015
DUE DATE:	28 April 2016
RMA CRITERIA:	Sections 104, 104B, 106, 108, 220, 221, 234 and 243

1.0 INTRODUCTION

This report has been prepared under section 42A of the Resource Management Act 1991 (the Act) to document the assessment of the subject subdivision and land use consent application. This report also constitutes the decision and reasons for the decision as required under section 113 of the Act.

2.0 PROPOSAL, SITE & HISTORY DESCRIPTION

2.1 PROPOSAL DESCRIPTION

Initially the application proposed to subdivide Lot 1 DP 51210, Part RS 6296, Lot 3 DP 528, Lot 2 DP 74951 and Lot 2 DP 51210 to create ten new allotments. However, subject to a decision to publically notify the application, the application was amended by the removal of two rural living sites and the addition of a lot to vest as road.

Tables 1-3 below detail the nature and extent of the proposed allotments, the proposed services arrangements and the proposed access arrangements.

Table 1 - Nature and extent of the proposed allotments

Lot	Area (Ha)	Proposed Use
1	1.82	Rural living site
2	1.82	Rural living site
3	770sq.m	Road to vest in Council
5	8.47	Rural land
6	18.08	Rural land containing existing dwelling and associated structures
7	1.22	Existing rural living site
8	1.48	Esplanade reserve to vest in Council
9	1,150sq.m	Road to vest in Council
10	22.09	Rural residential land (Brookfield Road)

Table 2 – Proposed Services Arrangements

Lot	Water Supply	Effluent Disposal	Stormwater Disposal
1 & 2	Connection to Council infrastructure	No system proposed. Subject to ECan consent.	Proposed to discharge to ground in accordance with ECan requirements.
5-6	Utilise the existing water connection.	Utilise existing systems at 60 Landsborough Road and 32 Landsborough Road.	
7	To remain unchanged		
3, 8-9	N/A		
10	Council's water main passes through this lot.	Not applicable at this stage due to future subdivision of lot.	

Table 3 – Proposed Access Arrangements

Lot	Physical and Legal Access
1 & 2	Frontage to and access available from Landsborough Road. A common access is proposed for Lots 3 and 4.
5-6	Existing access at 60 Landsborough Road.
7	Utilisation of existing access on Brookfield Road.
3, 8-9	N/A
10	Access onto Brookfield Road for periodic farm use.

Easements:

A number of easements have been proposed and are detailed on the Preliminary plan.

Esplanade Provisions:

Esplanade provisions are proposed, with a 5m wide strip proposal both sides of the Otipua Creek south Branch, which will run along the boundaries of Lots 5, 6 and 7. Lot 8 is a 1.48Ha esplanade reserve.

It is proposed to cancel the existing esplanade strips over Lot 2 DP 74951 created by A294492.2, as the new esplanade strips created within Lot 7 will achieve the anticipated outcomes.

Amalgamation:

The amalgamation of Lot 5 and Lot 6 is proposed. The proposed amalgamation condition has been accepted by Land Information New Zealand.

Cancellation of Consent Notices:

Lot 2 DP 74951 is subject to an existing consent notice in relation to effluent disposal. It is proposed to cancel this consent notice.

Cancellation of Right-Of-Way:

It is proposed to cancel the existing right-of-way over Lot 5 in respect of Lot 6, as physical and legal access will remain; whilst both these lots are proposed to be amalgamated.

It is also proposed to cancel the existing right-of-way over Lot 7 in favour of Part RS 6296, as this will no longer be utilised.

2.2 SITE DESCRIPTION

The subject site is located at 32 Brookfield Road and 60 Landsborough Road, Timaru. The location of the site is illustrated in Figure 1, along with the zones. The layout of the proposed subdivision plan is illustrated in Figure 2.

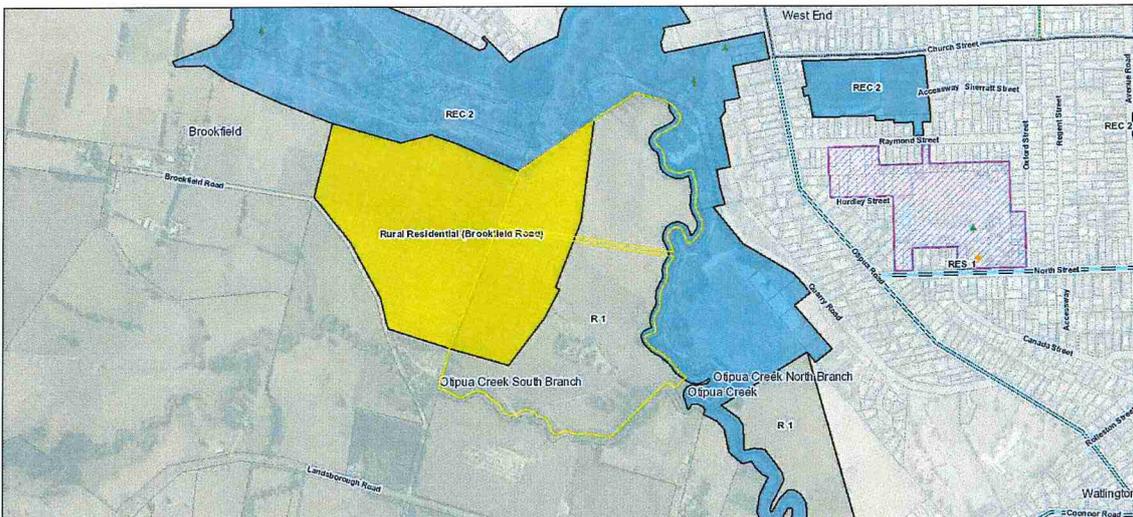


Figure 1 – Site location map, including zoning.

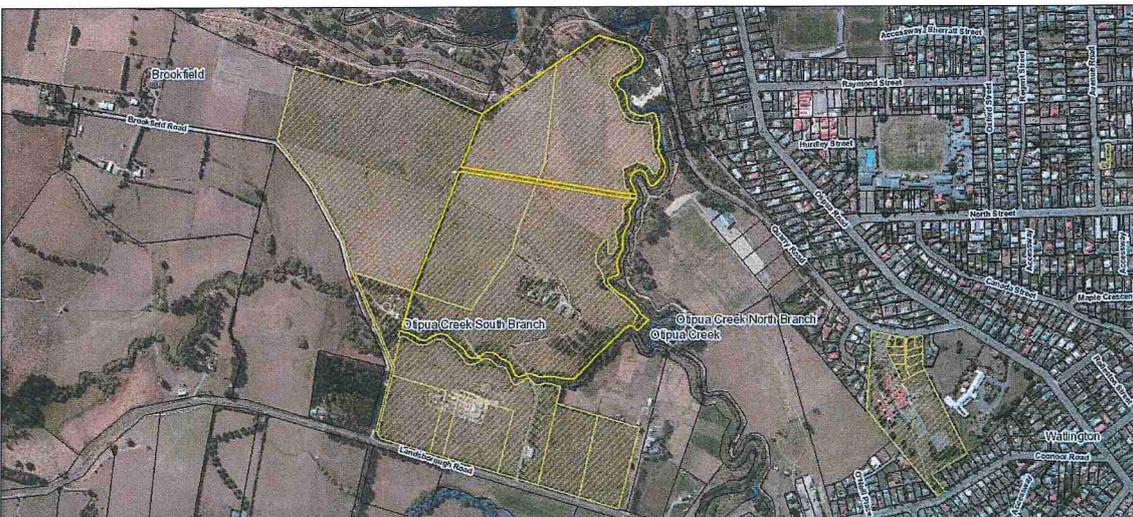


Figure 2 – Aerial photograph with the subdivision plan overlaid.

A site visit was undertaken on 19 February 2016. The applicant or applicant's agent was present during this site visit. Photographs taken during this site visit are held in the file.

2.3 DESCRIPTION OF THE SURROUNDING ENVIRONMENT

The surrounding area is characterised by rural activities.

2.4 SITE HISTORY

Plan Change 20: Rural Residential Brookfield Zone was adopted by resolution of Council on 14 August 2015. This plan change allows for the creation of a maximum of 35 rural residential allotments on this area of land, among other things.

3.0 ACTIVITY STATUS

The subject site is zoned Rural Residential (Brookfield Road) and Rural 1 by the Timaru District Plan. The activity status of the proposed development is commented on below.

Subdivision

- Part D6, Section 6.3, Performance Standard 6.3.12 (2) allows for the creation of Rural Living Sites (RLS) in the Rural 1 Zone subject to certain specifications.
 - In relation to Part RS 6296, it has an area of 18.06Ha in the Rural 1 Zone. This allows for the creation of one new rural living site off this parcel of land, in accordance with Performance Standard 6.3.12 (2)(2).
 - In relation to Lot 2 DP 51210, it has an area of approximately 12.11Ha in the Rural 1 Zone. This again allows for the creation of one new rural living site off this parcel of land.

Both of these two RLS's have been indicated within the area of land currently comprising Lot 2 DP 51210, along Landsborough Road. One of these allotments is anticipated by the District Plan (subject to controls). However, the second is required to be located within the land area of Part RS 6296. As such, it is not in compliance with this Performance Standard, and in accordance with Rule 6.3.5 (i) and is assessed as a Discretionary Activity.

- Part D6, Section 6.3, Rule 6.3.12 (3)(b) specifies that the provision of specifically designed effluent disposal systems will be the subject of a consent notice registered against the title. This has not been addressed in the application and as such is assessed as a Discretionary Activity in accordance with Rule 6.3.5 (i).

Additional Comments

- The Rules and Performance Standards applicable to the Rural Residential (Brookfield Road) Zone have not been implemented as part of this consent. The creation of Lot 10 will consolidate the entire Rural Residential land zone into one Certificate of Title, which will allow for its further subdivision into its intended use.
- Both Landsborough Road and Brookfield Road are classified as Local Roads by the District Plan, meaning that there is no requirement for the access to Lot 1 to be formed from one road over the other.

- Part D6, Section 6.4, Rule 6.4.2 (1)(ii) specifies that an esplanade reserve of a minimum width of 10m shall be required where there are assessed conservation, recreational, or access values present unless varied or waived by a decision on a resource consent application. Where limited values exist, an esplanade strip of a minimum width of 5m shall be provided.

Otipua Creek North Branch (Stream) is attributed with having natural or habitat values and for recreation or public access as per Rule 6.4.2 (7). The application indicates a 5m wide esplanade strip which is considered acceptable to achieve the above stated requirements.

Overall, the application is assessed as a Discretionary Activity.

4.0 STATUTORY CONSIDERATION

This section of the report details the provision of the Act that are relevant to the consideration and determination of the application. The remainder of this report has been set out to address these provisions of the Act.

4.1 DETERMINATION OF APPLICATION

After considering an application for a resource consent for a discretionary activity or non-complying activity, section 104B of the Act states that a consent authority —

- (a) may grant or refuse the application; and
- (b) if it grants the application, may impose conditions under section 108.

Section 104D of the Act provides particular restrictions for non-complying activities, stating that:

- (1) Despite any decision made for the purpose of section 95A(2)(a) 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.
- (2) To avoid doubt, section 104(2) applies to the determination of an application for a non-complying activity.

4.2 CONSIDERATION OF APPLICATIONS

When considering a resource consent application and any submissions, section 104 of the Act provides that the consent authority, must, subject to Part 2, have regard to the following:

- any actual and potential effects on the environment of allowing the activity;
- any relevant provisions of:
 - a national environmental standard:
 - other regulations:
 - a national policy statement:
 - a New Zealand coastal policy statement:
 - a regional policy statement or proposed regional policy statement:
 - a plan or proposed plan;
- any other matter it considers relevant and reasonably necessary to determine the application.

When forming an opinion for the purposes of actual and potential effects on the environment of allowing the activity, subsection 104(2) of the Act states that a consent authority may disregard an adverse effect of the activity on the environment if a national environmental standard or the plan permits an activity with that effect.

Subsection 104(3) of the Act states that a consent authority must not when considering an application have regard to trade competition or the effects of trade competition, or any effect on a person who has given written approval to the application.

Subsection 104(3) of the Act also provides that a consent authority must not grant a resource consent:

- To do something that will or is likely to, have a significant adverse effect on a recognised customary activity, unless written approval is given to conduct the activity from the holder of the customer rights order.
- If the application should have been notified and was not.

Subsection 104(6) of the Act states that a consent authority may decline an application for a resource consent on the grounds that it has inadequate information to determine the application.

4.3 CONSENT AUTHORITY MAY REFUSE SUBDIVISION CONSENT IN CERTAIN CIRCUMSTANCES

Subsection 106(1) of the Act provides certain circumstances when the Consent Authority may refuse subdivision, or impose conditions, if it considers that —

- (a) the land in respect of which a consent is sought, or any structure on the land, is or is likely to be subject to material damage by erosion, falling debris, subsidence, slippage, or inundation from any source; or
- (b) any subsequent use that is likely to be made of the land is likely to accelerate, worsen, or result in material damage to the land, other land, or structure by erosion, falling debris, subsidence, slippage, or inundation from any source; or

- (c) sufficient provision has not been made for legal and physical access to each allotment to be created by the subdivision.

Section 106(2) of the Act that conditions under subsection (1) must be -

- (a) for the purposes of avoiding, remedying, or mitigating the effects referred to in subsection (1); and
- (b) of a type that could be imposed under section 108.

4.4 CONDITIONS

Sections 108 and 220 of the Act provide the consent authority with the ability to impose conditions on resource consent applications.

5.0 ASSESSMENT OF APPLICATION

5.1 ADEQUACY OF INFORMATION

Following a request for further information, it is considered that the information provided by the application is adequate to determine the application in terms of section 104(6) of the Act.

5.2 SECTION 106 MATTERS

Legal and Physical Access

It is considered that proposed legal and physical access to the site is satisfactory.

Natural Hazards

Lots 2, 5 and 6 will be located in a 'Zone of moderate potential of limited liquefaction sufficient to cause some surface expression and damage to structures over part of the area', as identified by Environment Canterbury Regional Council, Liquefaction Potential in Timaru District, Figure 1, June 2013.

Environment Canterbury recommend liquefaction be addressed either prior to resource consent being issued or prior to building consent being issued. It is considered that the liquefaction is best dealt with at the time of building consent to ensure appropriate measures for a specific building are implemented. An advice note has been attached to this decision notifying the applicant of the liquefaction potential of the subject site.

5.3 ACTUAL & POTENTIAL EFFECTS ON THE ENVIRONMENT

The following assessment has been set out to address:

- the permitted baseline;
- written approvals;
- the actual and potential environmental effects of the proposal on:
 - land, flora and fauna;
 - infrastructure;
 - people and built form;
 - culture;
 - traffic generation and vehicle movements;
 - nuisance;
 - natural hazards.

5.3.1 Permitted Baseline

As stated above, a consent authority may disregard an adverse effect of the activity on the environment if a national environmental standard or plan permits an activity with that effect. This is termed the 'permitted baseline'. It is at the consent authority's discretion as to whether the permitted baseline is taken into account when considering an application.

The permitted baseline has not been considered as the District Plan does not provide for subdivision as a permitted activity. It is stated in the application that the permitted baseline can be applied to the Rural Residential Zone. However, I must emphasise that no subdivision can occur as a permitted activity, and requires at least Controlled Activity Consent to be obtained from Council.

5.3.2 Written Approvals

Section 104(3) of the Act provides that a consent authority may not have regard to any effect on a person who has given written approval to the application. No written approvals have been submitted with the application.

5.3.3 Effects on Landscape and Environment

Landscape & Environment:

Originally, the proposal sought the establishment of four new RLS's along the Landsborough Road boundary, which had the potential to significantly alter the existing landscape by establishing residential activities in what is a rural setting. Subsequent to a decision to publically notify the application, the plan was amended with the removal of two RLS's. The current proposal therefore has two RLS's along the Landsborough Road boundary.

The frontage of the site along Landsborough Road is currently planted with vegetation and portrays a rural setting (see photos below). Following consultation with the applicant, they have agreed to the retention of the existing mature trees and shrubs located along this boundary. This can be ensured by way of a consent notice on the title. It is noted that space will need to be created for vehicle access points.

In terms of the effects on the landscape and environment by the future built form permitted as a result of this subdivision, it is noted that one of the RLS's is anticipated in this area under the controls of the District Plan. However the second RLS is not. It is being located here in lieu of being located within the lands comprising Pt RS 6296 to the north. To mitigate the effect of the RLS being located in this area, the applicant has offered that a consent notice be registered on the Certificate of Title for Pt RS 6296 stating that there is no further RLS entitlement left on this title.

The applicant has suggested that the location of the RLS outside of Lot 6 will have less visual impact than if it were located within Lot 6. This is due to the elevation of Lot 6 and its visibility from the scenic reserve. I believe that in tandem with the maintenance of amenity planting this is a relevant factor.

In addition to these measures, an application has been lodged for the creation of 30 rural residential allotments in Lot 10 of this subdivision. This is five less rural residential allotments that the zone provides for. The applicant has proposed a consent notice be lodged on the certificates of title for the 30 rural residential stating that no further subdivision can occur. This has been offered by way of balancing out the RLS (Lots 1 and 2) being created as part of this subdivision.

Overall, it is considered that the measures proposed alleviate the potential impacts of the RLS being located along Landsborough Road.



Figure 3 –Landsborough Road, (a) looking west (with subject site on the right), (b) looking east

Waterbodies

The Otipua Creek South Branch traverses the site in an east / west direction between Lots 5 and 6; while the Otipua Creek North Branch runs along the eastern boundary of Lot 6. This creek is identified as a significant stream by the District Plan with natural or habitat values, and recreation or public access values. The applicant has offered to provide a five metre wide esplanade strip along both sides of the creek as part of their application.

Council's Parks and Recreation Unit have assessed the proposal and advised that they are happy to proceed with the esplanade strips as outlined in the application. A condition in regard to the requirements of the esplanade strip will be imposed should the consent be granted.

Accordingly, it is considered that the adverse effects on the environment in terms of land, flora and fauna will be or are likely to be no more than minor.

5.3.4 Effects on Infrastructure

Water Supply

Council's Development Planning Advisor (DPA) has reviewed the application and provided the following comment:

- *Lots 1 and 2 have no Council water infrastructure available for connection therefore each will be responsible for its own provision of water supply in accordance with the District Plan.*

In accordance with Section 6.3, Performance Standard 6.3.11 (3) a consent notice is required to be registered against the title for Lots 1 and 2 stating that the provision of water is the responsibility of the landowner. This has been ensured by the application of a condition of consent.

- *Lots 5 and 6 are to be amalgamated and will continue to utilise the existing water connection to 60 Landsborough Road. Lot 7 is currently serviced by an existing Downlands Water Supply connection and this shall remain unchanged.*
- *No water supply connection is proposed nor required for Lots 8, 9 or 10.*

Based on these comments, no further actions are required for these lots in relation to water supply.

Wastewater Disposal

Council's DPA has advised that there is no reticulated wastewater disposal system in the vicinity of the site. Wastewater from any future dwelling will be disposed of to ground via an effluent disposal system. The system will need to meet the requirements of the Regional Council.

It has been recommended that a consent notice be registered against the title of Lots 1, 2, 5-6, 7 and 10 stating that the landowner will be responsible for providing and maintaining an effluent disposal system, designed to meet the requirements of the Regional Council.

Stormwater Disposal

Council's DPA has advised that there is no Council stormwater disposal network within the vicinity of the site. Stormwater disposal is currently disposed of to ground. This will not change as result of this development.

It has been recommended that a consent notice be registered against the title of Lots 1, 2, 5-6, 7 and 10 and stating that the landowner will be responsible for providing and maintaining a stormwater disposal system, designed to meet the requirements of the Regional Council.

Subject to these conditions, it is considered that the adverse effects on the environment in terms of infrastructure will be or are likely to be no more than minor.

5.3.5 Effects on People and Built Form

There is no change to the built form on-site as a result of the subdivision. The character and amenity is remaining unchanged.

Any future development on each of the lots is required to comply with the requirements of the District Plan and the effects on people and built form would be considered should resource consent be required at that stage.

The location of Lot 2 as a RLS along the Landsborough Road boundary, as opposed to being located within the area of Lot 6 has been discussed already, and the mitigation measures proposed are deemed adequate to mitigate the effects of the future built form on this lot.

Accordingly, it is considered that the adverse effects on the environment in terms of people and built form will be or are likely to be no more than minor.

5.3.6 Effects on Traffic Generation & Vehicle Movements

Vehicle Crossing

Council's DPA has commented as follows:

- There are currently no vehicle access's servicing Lots 1 and 2. Landsborough Road is relatively flat in this location and sufficient sight visibility exists along the road frontages to achieve safe ingress and egress to these lots.
- New accesses are required to be formed and sealed to Council requirements prior to 224c certification.
- The existing access to the right-of-way servicing Lots 5 and 6 (to be amalgamated) meets Council requirements and does not require upgrading.
- Both vehicle access's to the existing dwelling on Lot 7 meets with Council requirements for its current use. However, they will require upgrade at time of widening of Brookfield Road.
- The existing vehicles access's for Lot 10 meet with council requirements for the current use.

I agree with the DPA's comments and have applied conditions of consent to ensure the effects are mitigated and vehicle crossings are provided to Council standards.

Roads to Vest to Council

Lots 3 and 9 are to be vested as road with Timaru District Council. The DPA has commented that there is an existing corner splay on the corner of Brookfield and Landsborough Roads. The existing fence-lines for this splay do not follow the legal road boundary and will need to be realigned and the splay cleared of vegetation. a condition of consent has been attached to ensure this occurs.

5.3.7 Conclusion

Based on the above assessment, it is concluded that allowing the proposal will not have adverse effects on the environment that will be more than minor. Accordingly, it is considered that the proposal passes the first test provided by section 104D of the Act.

5.4 ASSESSMENT OF APPLICABLE STATUTORY DOCUMENTS & REGULATIONS

The Timaru District Plan is the only statutory planning document or regulation that is pertinent to the consideration of the subject application. Accordingly, and in the interests of conciseness, no other statutory planning document or regulation are considered in this assessment.

5.4.1 Timaru District Plan

As the proposed development is considered as a non-complying activity and as section 104D of the Act requires non-complying activities to be specifically assessed against the Objectives and Policies of the Plan, the Objectives and Policies of the District Plan are considered.

Part B9, Services and Infrastructure, Objective (1) and Policies (1) and (2)

- Avoid, remedy, or mitigate the adverse effects of development, including servicing infrastructure, on the environment.

- To ensure that the means of providing water to a site is established at the time of subdivision.

Council seeks to implement an integrated approach to the management of infrastructure associated with new land uses and subdivision. This is to ensure any adverse effects on the environment are managed in an efficient and equitable manner. Consent notices are attached to the relevant lots that require services, thus ensuring that each of the new lots is developed in accordance with its servicing potential.

Part D1, Rural Zones

- Manage land in the District for the greatest benefit of present and future generations while safeguarding the life-supporting capacity of soil and ecosystems and avoiding, remedying or mitigating any adverse environmental effects. (Objective 1.1.2)

The Performance Standards for the Rural 1 Zone provide some certainty about the type of activities to expect in the rural area. Although Lot 2 is not located within the land area of Lot 6, it is considered that the resultant titles are not significantly different to what is expected in this general area. The natural landform of the site, with a drainage system and vegetation running through the centre of the site provides a logical and physical boundary between Lot 6 and the RLS's. Overall, it is considered that the proposed subdivision achieves the intent of this objective.

- Avoid, remedy or mitigate the adverse effects of intensive development in rural areas. (Part D1, Issue 1.2.1, Objective 1.2.2)

Amongst other things, this objective relates to the provision of infrastructure in a sustainable manner, whilst avoiding the requirement for services in rural areas. It is stated in the application that farming activities will continue on Lot 6, while a dwelling is already established on Lot 7. Lot 1 and 2 will be subject to further development. Lot 10 is intended to be subdivided into 30 rural residential allotments in accordance with resource consent 101.2016.56, which is in the process of being assessed. It is therefore considered that there will be minimal requirement for additional servicing to the allotments, and the intent of this objective can be achieved.

5.4.2 Conclusion

Based on the above assessment, it is concluded that the proposal will not be contrary to the objectives and policies of the District Plan. Accordingly, it is considered that the proposal passes the second test provided by section 104D of the Act.

5.5 ANY OTHER MATTER

5.5.1 Consent Notice

Resource Consent No. 2782 for a two lot subdivision was granted on 9 September 1996. A condition of this resource consent required a consent notice to be applied to the certificate of title for Lot 2, outlining the requirements in relation to effluent disposal.

The application includes a request to cancel the consent notice due to the changes in lot numbers and lot area as a result of this subdivision. A condition of this consent requires a similar consent notice to be attached to Lot 7 (previously Lot 2 DP 74951).

As a result, it is considered that the cancellation of the consent notice is appropriate.

5.5.2 Cancellation of Easements

The exiting services will not be affected by the proposal except that the Right of Way easement over Lot 5 is no longer required for Lot 6. Lot 6 will gain access via Lot 5 following the amalgamation. It is therefore considered that the proposed cancellation of the right of way is acceptable.

It is also proposed to cancel the right-of-way over Lot 7 in favour of Part RS 6296. This right-of-way will be redundant as a result of this subdivision and therefore it is appropriate for it to be cancelled.

5.5.3 Council Bylaws

The applicant should be aware of Council bylaws relating to vehicle crossings, services cross boundary connections and working in the road reserve. These are detailed in the recommended advice notes.

5.5.4 Open Space & Recreation Contribution

Rule 6.5.2.2 stipulates the rules for open space and recreation contributions in all zones. For subdivisions resulting in additional allotments for residential purposes, Rule 6.5.2.2(1) requires a financial contribution of \$500.00 to be payable for each additional allotment, except where any additional allotment has an existing household unit. Additionally, Rule 6.5.2.2(2)(d) postpones the payment of a financial contribution for allotments over two hectares in area, subdivided after 7 October 1995, until a household unit is placed on the site.

In this instance Lots 1 and 2 will be created for residential purposes, and payment of a financial contribution will be required. Lots 5 & 6 (to be amalgamated) and Lot 7 contain an existing household. Lot 10 is over two hectares in area; and the remaining lots are for other purposes.

Accordingly, only a financial contribution of \$1,000 for Lots 1 and 2 is required for the proposed development.

5.6 PART II MATTERS

Part II of the Resource Management Act stipulates the purpose and principles of the Act. The purpose of the Act is to promote the sustainable management of natural and physical resources. The various principals provided under Part II support this purpose.

6.0 CONCLUSION & REASON FOR THE DECISION

With the above matters in mind and subject to conditions being imposed on the consent, it is considered the proposed subdivision is acceptable in terms of the matters listed under sections 104 and 106 of the Act.

7.0 RECOMMENDATION

Pursuant to sections 104, 104B, 106, 108, 220, 221, 234 and 243 of the Resource Management Act 1991, it is recommended that consent be GRANTED subject to the conditions that start on page 1 of this document.

Reported on and Recommended by:


Gemma Conlon, Senior Planner

Date: 3 May 2016



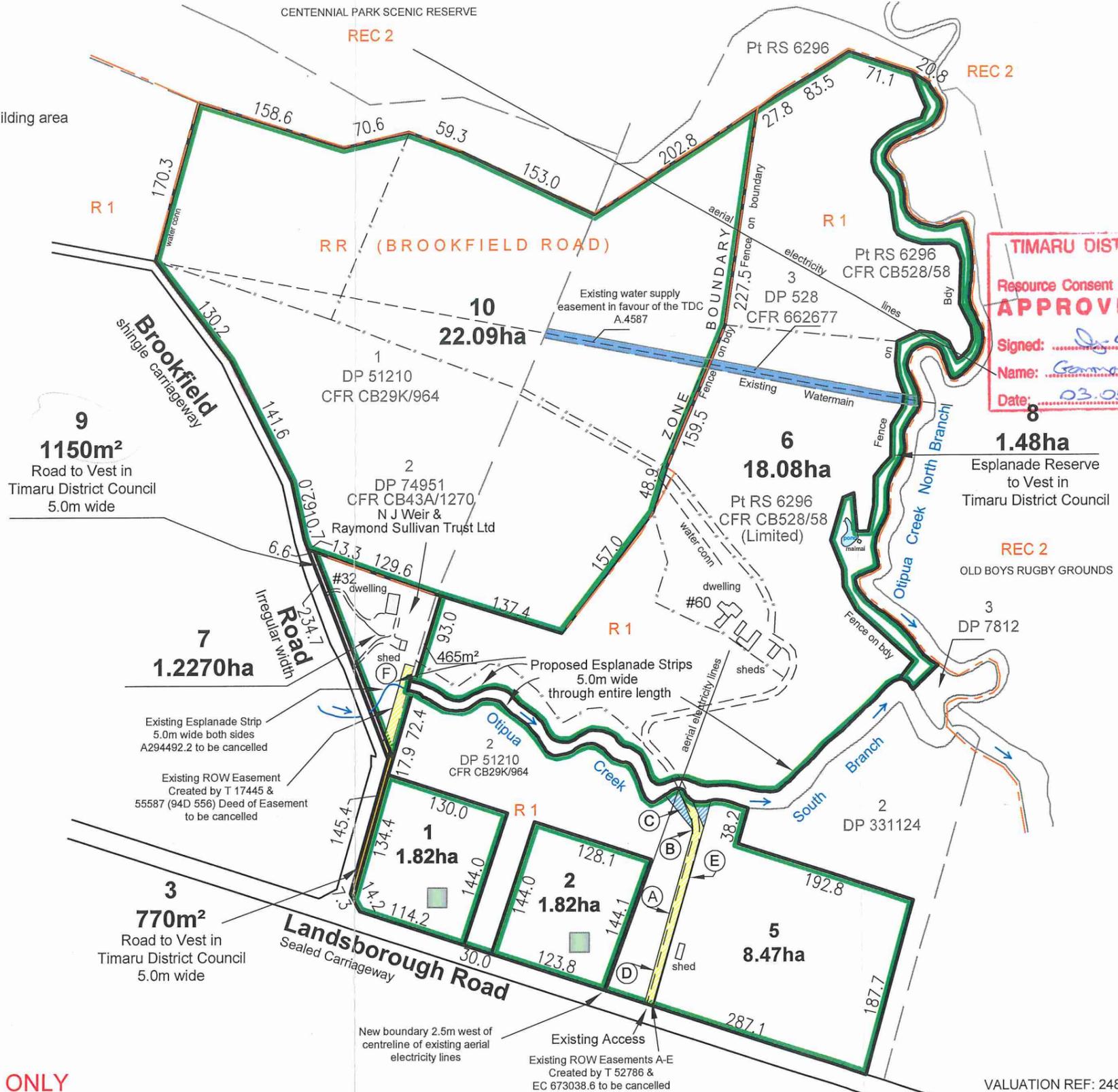
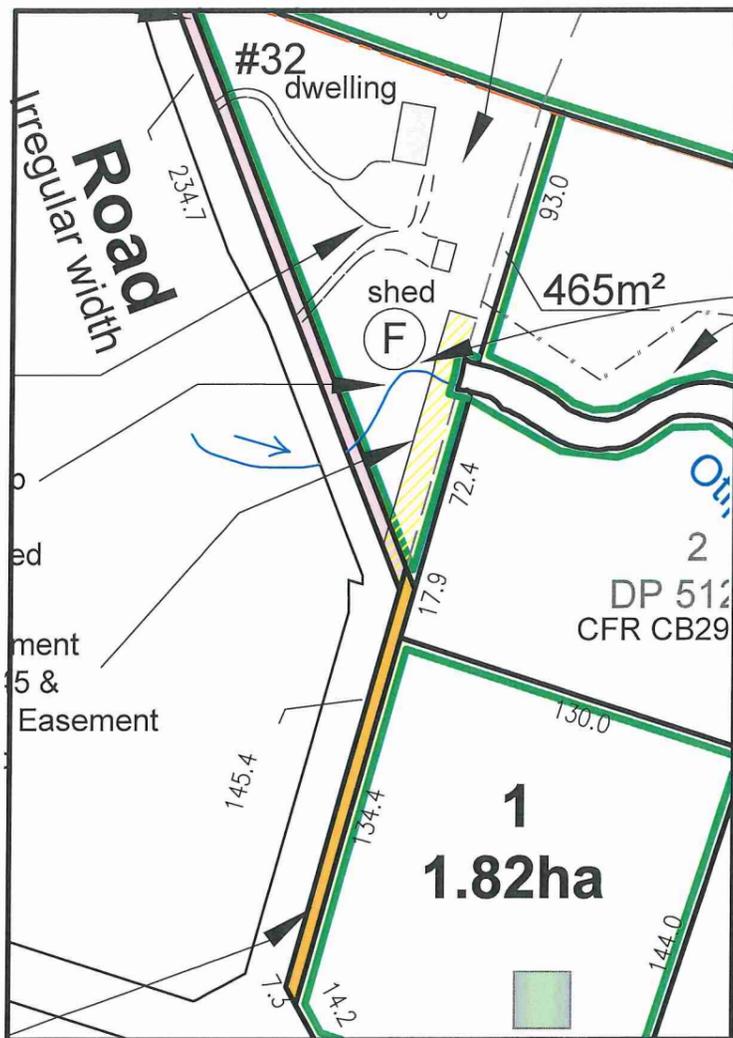
EXISTING EASEMENTS TO BE CANCELLED			
Purpose	Shown	Servient Tenement	Creating Document
Right of Way	A, C, D, E	Lot 5	T.52786
Right of Way	A, B	Lot 5	EC 673038.6
Right of Way	F	Lot 7	T.17445 & 55587

KEY
 possible building area

AMALGAMATION CONDITION
 That Lots 5 & 6 be amalgamated together and one computer freehold register issue.

NOTE:
 There is no Lot 4

DIAGRAM NOT TO SCALE



TIMARU DISTRICT COUNCIL
 Resource Consent No. 2015.220
APPROVED PLANS
 Signed: [Signature]
 Name: Gemma Corbett
 Date: 03.05.16

This plan has been prepared for the sole purposes of obtaining subdivisional consent pursuant to Section 88 of the Resource Management Act 1991. Use of this plan for other purposes or its reproduction in part or in full is not permitted without the prior consent of Milward Finlay Lobb Ltd.

PRELIMINARY PLAN ONLY
 Area and Dimensions Approximate
 and subject to final survey

VALUATION REF: 24850/133.00, 133.01 & 133.03

TIMARU DISTRICT

Z:_2015 Drawings\McKnight\Landsborough Rd\Resource consent\Landsborough Road Subdivision amend.dwg

SCALE : 1 : 5000 @ A3		Date : November 2015	
Applicants & Owners		Owners	
C J & S O McKnight		N J Weir & Others	
60 Landsborough Road		32 Brookfield Road	
R D 4 TIMARU 7974		R D 4 TIMARU 7974	
Surveyed ASR		Drawn VCJ/SAE	
Amended 26.02.2016		Amended	

Resource Consent Application
 Proposed Subdivision of Pt's RS 6296, Lot 3 DP 528,
 Lots 1 & 2 DP 51210 & Lot 2 DP 74951



6 The Terrace, Timaru 7910
 PO BOX 434, Timaru 7940
 P 03 684 7688
 E admin@mflnz.co.nz
 www.mflnz.co.nz

Client/Job No.

157822/05

Sheet 1 of 1

Brookfield Road Assessment

1 Background Information

On 19th December 2013 a Plan Change submission was made to Timaru District Council (TDC) requesting to change 22.4 ha of land from Rural (R1) to Rural Living Character. The location of the proposed land change is on Brookfield Road in Timaru. The proposed subdivision could provide up to 35 sections of 3,000 m² or more.

Brookfield Road is currently a single lane gravel road, which crosses a creek via a short single lane bridge (Brookfield Road Bridge). The boundary data indicates that the majority of the road reserve is 10 m wide with a typical carriageway width of 3.5 to 4 m wide. The road currently services approximately three dwellings and farmland. The traffic volume on the road is estimated to be less than 30 vehicles per day (vpd).

Currently the Brookfield Road Bridge is a single lane bridge, with no side protection, with priority given to the north bound traffic. Figure 1, 2, 3 and 4 show the road alignment in the vicinity of the bridge and images of the current bridge.

A Transportation Assessment was completed as a part of the Plan Change submission. This assessed the traffic demands on the Timaru area including Brookfield Road. The traffic volumes on Brookfield Road are estimated to increase by 300 vpd. This is a significant increase from the existing 30 vpd. In the plan change document the developer suggests that Brookfield Road would be upgraded to provide two-way traffic movement on a sealed road surface. They also identified that TDC will be upgrading the Brookfield Road Bridge, however, this was proposed to remain a one-lane bridge. There was no specific traffic assessment completed around retaining Brookfield Road Bridge as a one-lane bridge with the road being upgraded to a two-lane sealed carriageway.

In terms of road safety the proposed land change document indicates that in its current condition Brookfield Road is not consistent with the requirements typically expected for a road carrying 330 vpd. The developer stated in the proposal that it is desirable to widen the road reserve to accommodate the improvements to the roadway. The road improvements would also need to allow for improved priority control at the bridge site if this were to remain single lane.

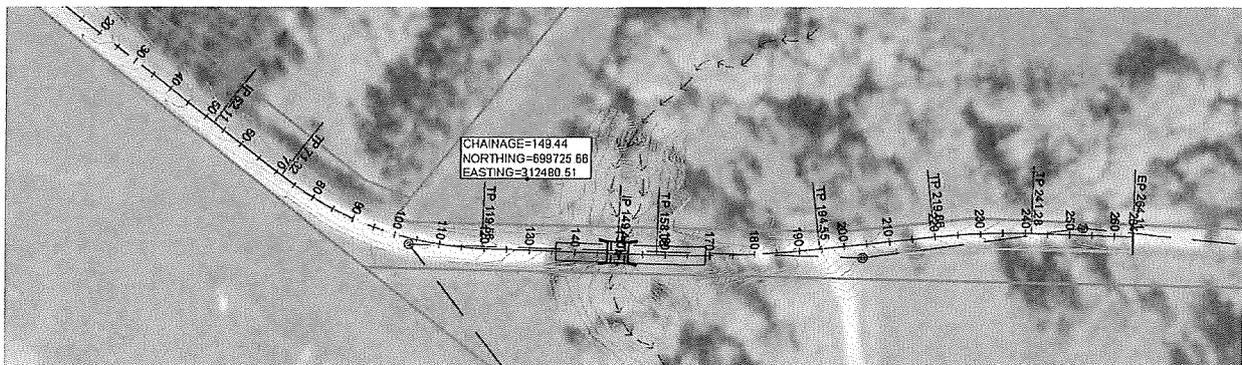


Figure 1. Aerial view of Brookfield Road Bridge and Alignment



Figure 2. View of Brookfield Road Bridge looking North (Left) and South (Right)

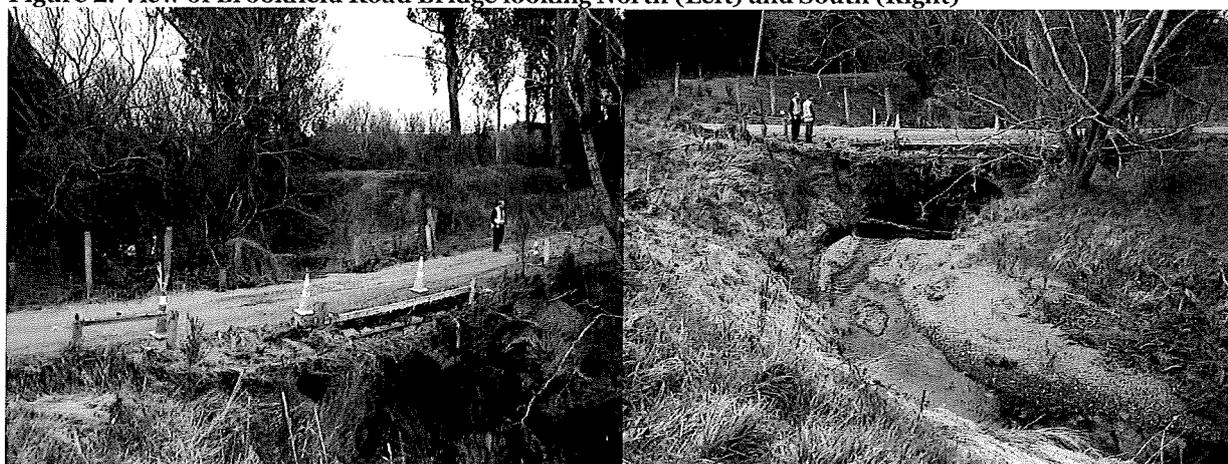


Figure 3. Upstream (left) and downstream (right) views of Brookfield Road Bridge



Figure 4. View over (left) and under (right) Brookfield Road Bridge

2 Bridge Width Considerations

The New Zealand Transport Agency (NZTA) Bridge Manual 3rd Edition is the guidance document for bridge design in New Zealand. Appendix D of the Bridge Manual caters for the design of lightly trafficked rural bridges. This suggests that a one-lane bridge can be provided if speeds are less than 70 km/h and there is 100 vpd or less travelling on the road. The current one-lane replacement bridge design was designed to Appendix D as the current situation fits within these limits.

The proposed traffic demand and upgrading of the road means that the bridge design no longer falls within Appendix D. Therefore, Appendix A bridge widths and clearances under general provisions now applies.

In Appendix A there is no specific criteria which outlines when a two lane bridge is required over a one-lane bridge. However, the design philosophy states that the bridge should take into account the road cross section and amenity provided on either side of the bridge. Thus, the bridge should be designed to cater for the approach road. As the developer plans on changing Brookfield Road to a two lane road, this would indicate that the bridge should be two lanes.

There are several other issues that support upgrading to a two-lane bridge. These are:

- The likely significant increase in the speed environment due to the upgrade of approach roads to a sealed two-lane carriageway.
- The obscured site visibility to the bridge and opposing traffic. This is because the bridge is situated within 50 m of a moderate curve to the South of the bridge where sight lines are affected. Some basic calculations were completed to understand what the required safe stopping distance would be at that this site. For a vehicle travelling at 70 km/h the safe stopping distance would be approximately 110 m and 88 m for a vehicle travelling at 60 km/h. Due to limited visibility of less than 50 m to the bridge site traffic would need to be travelling well below 60 km/h in order to stop safely at the one lane bridge.
- Potential increase in traffic due to future development over the next 30-50 years. If the Plan Change is approved this may encourage applications for further zone changes placing an increase demand on Brookfield Road.

The key consideration for a two-lane bridge at this site is safety. The site distance is limited due to the terrain and narrow road corridor. The increased vehicle speed due to the road upgrade means that the safe stopping distance required for a one-lane bridge cannot be achieved. For these reasons we consider a two-lane bridge is warranted for this site.

3 Two-Lane Bridge

Two options have been considered. Two-lane bridge design in the current road corridor and a two-lane bridge in a widened road corridor.

3.1 Current Road Corridor (10 m)

From the Bridge Manual the desired dimensions for a two-lane bridge at this site can be seen in the cross-section in Figure 5. This gives an overall width of the bridge of 9.2 m, resulting in a 0.4 m clearance between the edge of the bridge and the road reserve boundary (based on a 10 m road reserve).

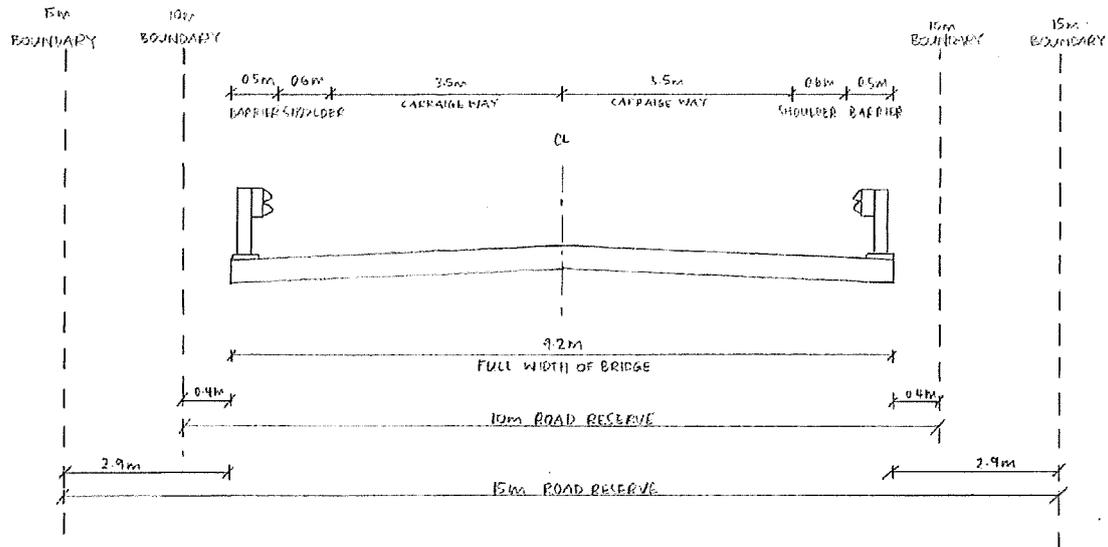


Figure 5. Minimum bridge cross-section for a two-way bridge

Vehicle side protection would be recommended given the higher traffic volumes, increased speeds, and obscured approach visibility. A test level 3 (TL3) W-section barrier is shown on the cross-section and is considered an appropriate level of protection at this site.

There may be some limited scope to reduce the 3.5 m lane widths subject to the carriageway widths provided on the approaches. This would reduce the 9.2 m overall width of the bridge.

At the above width a two-lane road bridge could physically fit within a 10 m road reserve. However, there will likely be issues accommodating the full road formation leading up to the bridge within the road corridor boundaries (including shoulders and drainage facilities). This is seen as a broader issue relating to the widening of the road in the current road reserve rather than specific to the bridge. This was recognised by the developer in their assessment.

3.2 Widened Road Corridor (15 m)

A wider road corridor, of approximately 15 m, would more readily accommodate upgrading of the road widening to two lanes.

Figure 5 also demonstrates the two-lane bridge cross-section in a 15 m road corridor with the clearance between the edge of the bridge and road boundary being larger at 2.9 m. This clearance likely provides adequate space to be able to fit shoulders, drainage facilities etc.

4 Summary

We conclude that if the proposed Plan Change was approved and the development was to proceed, a one-lane bridge at this site would no longer be suitable. This is in consideration of the increased traffic volumes and higher travel speeds resulting from the upgrades to the road to a two-lane sealed carriageway and also the safety concern with the obscured visibility for the bridge approach. The safety implications associated with upgrading the road would warrant a two-lane bridge at this site.

TIMARU DISTRICT COUNCIL

MEMORANDUM

MEMO TO: Karina Morrow, Senior Planner
DATE: 12 / 08 / 2014
SUBJECT: McKnight Plan Change, Land Transport Unit comments

Having reviewed the Plan Change 20 documentation, Land Transport Unit (LTU) comments as follows:

1. Table of Access Requirements

The proposed Table of Access Requirements, Table 6.6.2(6), in the plan change lacks sufficient detail and adds unnecessary site specific rules to the District Plan. The proposed development can be accommodated within the existing Table of Private Access and Secondary Road Widths, Table 6.6.2(5). This would maintain the integrity and simplicity of the District Plan rules.

2. Landsborough/Coonoor/Fairview intersection

The financial contribution of 25% for the upgrade of Landsborough/Coonoor/Fairview intersection does not fully mitigate the effect of the increased traffic generated from the development. The following is taken from previous LTU correspondence on the matter:

It is Councils objective to provide a safe and efficient road network, and to improve the capacity and safety of existing facilities through the use of appropriate traffic management techniques. Previous assessments of this intersection by Council based on safety have recognised the existing deficiencies but have considered them to be proportionate to a low volume rural intersection serving 180 vpd. This is evidenced by the fact that there have been 3 recorded crashes at the intersection in the last 5 years (CAS data extracted Jan 2014), resulting in it being a low priority on the Councils intersection upgrade ranking. Given existing and projected traffic volumes (based on permitted development within the intersections catchment), minor improvements such as vegetation trimming, line marking and signage will mean that Council is able to meet its objectives in the future.

The Transportation Assessment provided by the applicant states that the development will add an additional 300 vpd to the intersection, increasing the vpd from 180 to 480, a 265% increase. To quantify the effects of this, the assessment has used the NZTA Economic Evaluation Manual procedures. As noted in the report, this model is for T intersection of high volumes and that results need to be used with caution. District Services is of the view that the model does not quantify the increase in risk accurately for a low volume, shallow angle Y intersection because the low volumes mean a low sample size and hence a high standard deviation. Therefore this model is not applicable. In our professional opinion, increasing the traffic volumes at this intersection by 265% will result in accidents increasing proportionately. Therefore as a result of this plan change, the expected accidents could increase from 3 every 5 years to 8 every 5 years. Relative to other intersection in the District, this is high and therefore in order for

Council to meet its objectives, physical upgrades will be required as a direct result of this development.

A contribution rate of 50% is considered reasonable and is based on traffic volumes. The current volume is 180 vpd. Over the next 20 years an estimated an additional 150 vpd could be expected given allowable land uses within the intersections catchment. This would result in approximately 320 vpd. The proposed development will add 300 vpd. Therefore a 50% contribution is considered reasonable as this development will be providing approximately half of all anticipated vehicle growth using the intersection.

3. With respect to specific issues raised in the submissions:

- Submissions 4, 8, 10, 16, 18 and 20 called for the sealing of Brookfield Road to be for the full length.

Given the vast majority of traffic using the development will be by those living within the development, sealing is only required upto the entrance of the development, as proposed by the Plan Change. As Brookfield Rd beyond the development only serves 3 dwellings and is not a through road, extending the seal is unwarranted unless further intensification occurs.

- Submissions 4, 8, 10 and 16 identified issues with vehicles having to turn within private property at the end of Brookfield Road.

As above, the effects of the Plan Change are unlikely to extend beyond the road network that serves the development.

- Submissions 4, 5, 8, 16 17, 18 and 20 identified issues with the existing single lane bridge on Brookfield Road.

The supporting documentation to the proposed plan change also identifies this as an issue but does not address it. It has been assumed by the developer that Council will be replacing the bridge (like for like).

The current traffic volumes on Brookfield Road are around 30 vpd. This Plan Change will add 300 vpd to this figure. The NZTA Bridge Manual states that single lane bridges are considered adequate for bridges carrying up to 100 vpd. 

As a result of this Plan Change, and in accordance with the NZTA Bridge Manual, a two lane bridge should be provided. As Council was planning on renewing the existing single lane bridge with a single lane bridge, the additional cost of providing a two lane bridge should be provided by the developer. A two lane bridge would cost an additional \$120,000. This amount should be paid by the developer as a Financial Contribution.

- Submissions 5, 8, 16, 18 and 20 identified issues with the existing culvert, drainage and safety at the Brookfield/Landsborough intersection.

The proposed plan change addresses this by specifying that Council can control, through conditions of consent, the upgrading of this intersection including any necessary widening of the culvert and installation of appropriate signage.

- Submission 6 and 7 expressed concerns about the impacts of increased traffic volumes at the Otipua/Coonoor Rd intersection.

The existing intersection and adjoining network have the capacity to accommodate the increase in traffic.

- Submission 7 questioned the practicality of the new roads not having kerb and channel or sealed footpaths.

Having open grassed swales in such a development is a preferable method for the conveyance and treatment of stormwater. The plan change is proposing a wider carriageway along the spine road to allow for pedestrians to use the carriageway. In an area with no existing links to footpaths, this is preferable.

- Submissions 5, 10, 16, 17, 18 and 20 identified current issues with 'boy racers' and unreported traffic accidents and near misses that have occurred on Brookfield Road.

Crash data from the last 5 years (CAS data extracted Jan 2014), shows one non-injury event at the first bend of Brookfield Road. Overall the sealing and improved geometric design of Brookfield Road to Councils standards as proposed in the Plan Change will improve safety.

- Submissions 10, 14, 16, 17, 18 and 20 expressed concerns about the impacts of increased traffic volumes at the Landsborough/Coonoor/Fairview Rd intersection.

LTU supports these concerns and would like to see the contribution raises to 50%. See comments 2 above.

- Submissions 5, 17 and 18 requested the upgrading of Brookfield Rd to include a verge for pedestrian movement.

The proposed plan change addresses this by specifying that Council can control, through conditions of consent, that a 1.5 berm be provided at the time of upgrading Brookfield Road.

Frazer Munro
Surveyor

Andrew Dixon
Land Transport Manager