Ashburton Second Urban Bridge and Associated New Road

Notice of Requirement

Ashburton District Council

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Ashburton District Council

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Contents

Notice of Requirement for a New Designation

Pursuant to Section 168A of the Resource Management Act 1991 (RMA)

TO: **ASHBURTON DISTRICT COUNCIL in its capacity as a territorial authority (Council)**

FROM: **ASHBURTON DISTRICT COUNCIL in its capacity as requiring authority (ADC)**

(NOTE: address for service given below)

ADC gives notice of a requirement for a designation for a public work, being the construction, operation and maintenance of a new second urban bridge across the Ashburton River and associated road infrastructure, referred to collectively as the Ashburton Second Urban Bridge (ASUB).

The ASUB will directly link the southern end of Chalmers Avenue with a new bridge across the Ashburton River, and onto a new 2-lane road through 'green fields' east of Tinwald to connect with Grahams Road at the south end of Tinwald, as shown on the Designation Plans in Volume B attached to and forming part of this Notice of Requirement.

The physical construction works of the ASUB is not required until approximately 2026. It is expected that by the time the ASUB is required to be constructed, the environment within which the designation is located will have undergone a degree of change from the current low density rural-residential land use to a land use that is more in accordance with the recent (2010) district plan review rezoning to Residential C and D.

The land parcels affected by this Notice of Requirement fall into two categories: land required for road, and land required for stormwater.

Included within the new designation will be a 2-lane bridge, traffic lanes (including cycle lanes and parking), footpaths / pedestrian connections, intersections, stormwater infrastructure, landscaping, ancillary road infrastructure (e.g., services within the road corridor), and road construction.

Further details of the required designation are as follows:

Requiring Authority

Ashburton District Council

Designation Notation

Ashburton Second Urban Bridge, associated new road and ancillary stormwater infrastructure.

The reasons why the designation is needed are

As set out in the Notice of Requirement.

The site(s) to which this Notice of Requirement applies is as follows

The address is generally described as the Ashburton Second Urban Bridge and associated road connections between the southern end of Chalmers Avenue and east of Tinwald to Grahams Road, Ashburton.

The physical site description is as set out in the Notice of Requirement.

The land parcels affected by this Notice of Requirement are as set out in the Land Requirement Schedule below, and as shown on the Designation Plans in Volume B attached to and forming part of this Notice of Requirement.

Certificates of Title for the affected land parcels are attached in Appendix 1 of this Notice of Requirement.

LAND REQUIREMENT SCHEDULE – LAND REQUIRED FOR ROAD AND ANCILLARY STORMWATER INFRASTRUCTURE				
Parcel #	**Owner**	**Legal Description**	**Land Required for road (m²)**	**Land Required for stormwater (m²)**
1a	TJ & MS Houston	*Lot 29 DP 821*	4,005	
1b				1,480
2	TJ & MS Houston	*Lot 1 DP 62260*	3,525	
3	EE & RM Johnston	*Lot 33 DP 821*	4,480	
4	GM Wilson	Lot 2 DP 60937	4,835	
5a	WH Breach	*LOT 3 DP 60937*	4,765	
5b				2,715
6a	A Braas	*LOT 3 DP 33684*	9,150	
6b				2,475
7	PV & DM Bell	*LOT 4 DP 821*	8,660	
8	Ashburton District Council	*Pt LOT 5 DP 821*	6,930	
9	Westpac Bank	Pt RS 4354	12,025	
10	Canterbury Regional Council	*RS 40469*	22,510	
Total area land required			**8.0885ha (80,885m²)**	**0.667ha (6,670m²)**

The nature of the proposed public work is

To construct, use and maintain a new 2-lane bridge and associated principal road directly linking Chalmers Avenue with a new road through green-fields to the east of Tinwald to a connection with Grahams Road, as set out in this Notice of Requirement.

The nature of the proposed conditions that would apply are

Proposed designation conditions are set out in Appendix 3 of the Notice of Requirement.

The term sought to give effect to the new designation is **15 years**, in terms of Section 184A of the RMA.

The effects that the proposed work will have on the environment, and the ways in which any adverse effects will be mitigated, are

As set out in the Notice of Requirement.

Alternative sites, routes and methods have been considered to the following extent

An assessment of the alternatives considered for the proposed work is included in the Notice of Requirement.

The proposed work and designation are reasonably necessary for achieving the objectives of the Requiring Authority because

For the reasons set out in the Notice of Requirement.

The following resource consents are required for the proposed activity, and will be applied for separately at a later date

Environment Canterbury likely resource consents[1]

RMA	Description
Section 9(3) RMA (Land use)	Excavation of land and deposition (Rules WQL36/37, 5.155) Riparian margins (rivers and wetlands) - Earthworks (Rule WQL30, 5.148) - Vegetation clearance (Rule WQL29, 5.147) Drilling and installation of monitoring bores (Rule WQL31, 5.79)
Section 13 RMA (Beds of rivers)	Construction, use and maintenance of structures, and associated disturbance of the bed – Ashburton River bridge, Carters Drain culvert and stormwater outfalls (Rule BLR4, 5.115)
Section 14 RMA (Water permits)	To temporarily divert water during construction (Rule WQN2, 5.89) To take, use, dam and divert water (Rule WQN2, 5.96) Dewatering (Rule WQN12, 5.92-5.93)
Section 15 RMA (Water/Land/Air Discharge)	Discharge to air (namely dust) during construction (Rule AQL69) Discharge to land and water from dewatering (Rule WQL2, 5.76-5.77) Discharge of stormwater during construction to land and water (Rules WQL6/7, 5.71-5.73) Discharge of operational stormwater to land and water (Rules WQL6/7, 5.71-5.73)

[1] Rule numbers that start with WQL, WQN, AQL or BLR relate to the Canterbury Natural Resources Regional Plan. Rule numbers that start with 5.xx are from the Canterbury proposed Land and Water Regional Plan.

ADC Outline Plan

An Outline Plan in terms of Section 176A(3) of the RMA for the works on designated sites for which the new designation is sought will be lodged with the Ashburton District Council prior to commencement of the works.

The following consultation has been undertaken with parties that are likely to be affected

As set out in the Notice of Requirement.

Any information required to be included in the Notice of Requirement by any plan, the RMA, or any regulations made under the RMA, is included in the Notice of Requirement.

Neil McCann
Group Manager Service Delivery

Pursuant to authority delegated by the Ashburton District Council

Date: 9/10/2013

Address for Service:

ADC Second Urban Bridge
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CHRISTCHURCH 8011
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Table of Acronyms

AC:	Asphaltic Concrete
ADC:	Ashburton District Council
ADP:	Accidental Discovery Protocol
AEP:	Annual Exceedance Probability
ASUB:	Ashburton Second Urban Bridge
ATS:	Ashburton Transportation Study 2006-2008
CEMP:	Contractors Environmental Management Plan
CIA:	Cultural Impact Assessment
CNVMP:	Construction Noise and Vibration Management Plan
CPTED:	Crime Prevention Through Environmental Design
CRG:	Community Reference Group
CTLMP:	Construction and Temporary Lighting Management Plan
CTRIP:	Canterbury Transport Regional Implementation Plan
dB:	Decibel
ECan:	Environment Canterbury
ESDCMP:	Erosion, Sediment and Dust Control Management Plan
GPS:	Government Policy Statement 2012
HGV:	Heavy Goods Vehicle
HSSEMP:	Hazardous Substances, Spills and Emergency Management Plan
LLUR:	Listed Land Use Register
LTMA:	Land Transport Management Act 2003
NPS:	National Policy Statement on Freshwater Management
NRRP:	Natural Resources Regional Plan
NZAA:	NZ Archaeological Association
NZTA:	NZ Transport Agency
NZTS:	NZ Transport Strategy 2008
OGPA:	Open Graded Porous Asphalt
pLWRP:	Proposed Land and Water Regional Plan
PPF:	Protected Premises and Facilities
RLTS:	Canterbury Regional Land Transport Strategy 2012-2042
RMA:	Resource Management Act 1991
RPS:	Regional Policy Statement
SIA:	Social Impact Assessment
SIMP:	Social Impact Management Plan
SIMT:	South Island Main Trunk
SMP:	Specific Management Plan
TIA:	Traffic Impact Assessment
TTMCMP:	Temporary Traffic Management during Construction Management Plan
VPD:	Vehicles per Day

1 Introduction

The Ashburton District Council (ADC) proposes to construct, use and maintain a new 2-lane bridge across the Ashburton River and an associated road that directly links Chalmers Avenue through 'green fields' to the east of Tinwald to a connection with Grahams Road, Ashburton. The proposed new bridge and associated new road is collectively referred to herein as the Ashburton Second Urban Bridge project (ASUB) (see Figure 1-1). The ASUB will provide an alternative urban route between east Tinwald and Ashburton township. The distance of the ASUB is approximately 2 kilometres (km).

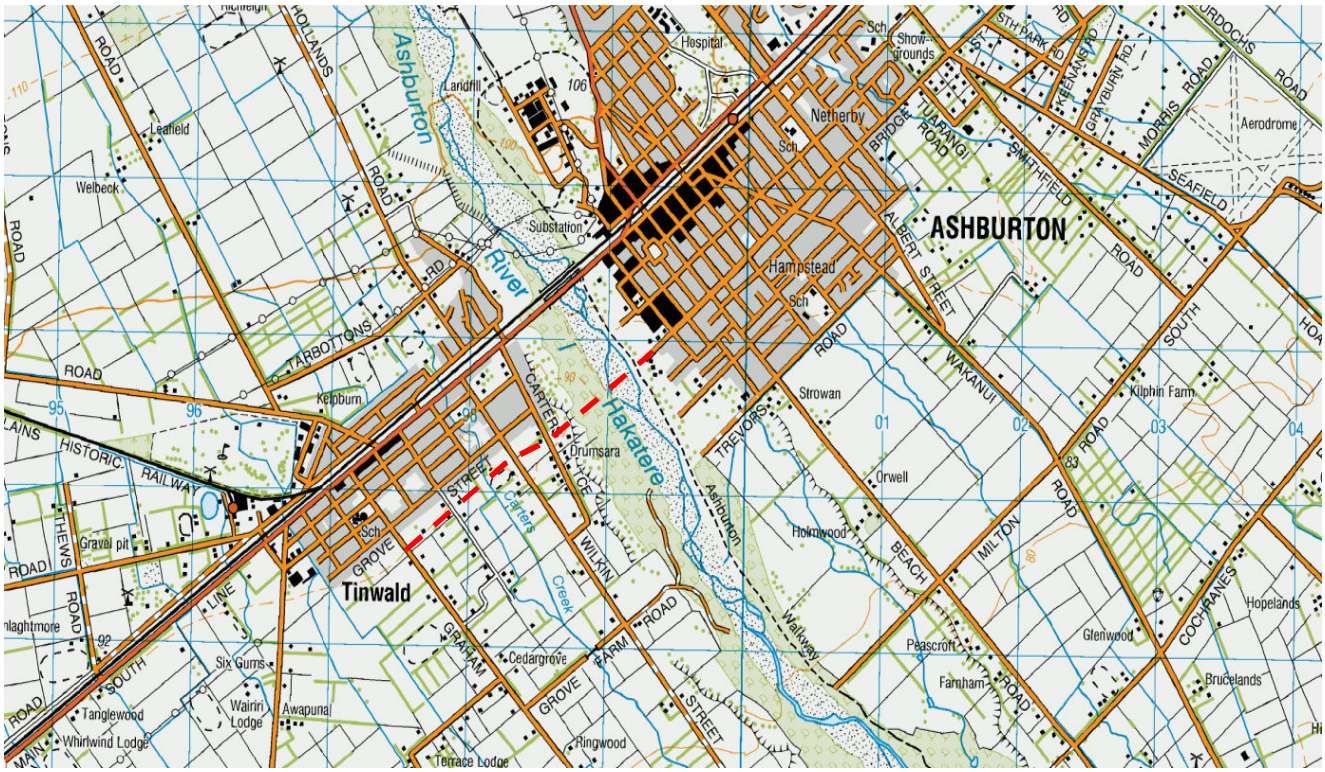


Figure 1-1: Overview Plan (approximate location shown by red dashed line)

The proposed ASUB project is only one of a number of related transport projects for the Ashburton urban area that was identified in the Ashburton Transportation Study (ATS) completed in 2006. The purpose of the ATS was to identify present and future transportation demands within the Ashburton study area for the 20 year period through to 2026, and to recommend measures to optimise the performance of the land transport system within Ashburton township. The proposed ASUB project is not being undertaken in isolation but rather fits within an overall strategy for transport network improvements within the township.

ADC is seeking a new designation to include the entire infrastructure associated with the ASUB including a 2-lane bridge, traffic lanes (including cycle lanes and parking), footpaths / pedestrian connections, intersections, stormwater infrastructure, landscaping, ancillary road infrastructure (e.g.; services within the road corridor), and road construction.

The area through which the proposed designation runs is currently 'green fields', and comprises rural-residential allotments ranging in size from 4,820m² (0.4820ha) to 50,507m² (5.5070ha).

The 2010 Ashburton District Plan review rezoned approximately 71.6ha of land located to the east of the current Tinwald urban boundary. 15.7ha has been rezoned to Residential C, which allows subdivision down to 360m^2 except where public sewage reticulation is not available, in which case 1,000m^2 is the minimum allotment size. 55.9ha has been rezoned to Residential D, which allows subdivision down to 4,000m^2 except where public sewage reticulation is not available, in which case the minimum allotment size is 10,000m^2 (1ha). The current Tinwald urban area is zoned Residential C.

Traffic modelling indicates that traffic volumes on key routes throughout Ashburton are likely to increase significantly by 2026 regardless of a second bridge. This is expected to result in significant congestion and delays at a number of locations, including the existing Ashburton River bridge and the intersection of SH1 with Moore Street (SH77).

Vehicle number plate surveys undertaken in 2006, and repeated again in 2012, confirm that the bulk of the traffic on the existing bridge during peak times is local traffic between Tinwald and Ashburton. Less than 30% of the traffic is "through traffic" on SH1. The existing state highway bridge is nearing capacity at present, but is still functioning adequately most of the time. ADC and the NZ Transport Agency (NZTA) have agreed the traffic issue on the current bridge is a local traffic issue and that the ASUB project will predominantly be to serve the local traffic needs of the Tinwald and Ashburton communities. Once constructed, the ASUB will become an extension of the existing urban road network within east Tinwald and Ashburton township and will be maintained and controlled by ADC. It will not become the state highway.

Physical construction of the ASUB is not required until approximately 2026, at which time traffic congestion on the existing bridge is expected to reach a point which justifies the need for a second bridge. Traffic modelling indicates that up to 14,000 vehicles per day (vpd) are likely to use a second bridge by 2026, with between 5-10% expected to be heavy goods vehicles (HGV's). This traffic is likely to distribute amongst side roads to the north and south of the bridge and is expected to result in an overall reduction in total average travel time for all vehicles in the Ashburton urban area.

It is expected that by the time the ASUB project is required to be constructed, the environment within which the proposed designation is located will have undergone a degree of change from the current low density rural-residential land use to a land use that is in accordance with the new residential zonings within the district plan. ADC wishes to protect the route for a future bridge and associated new road before too much further development occurs. The designation for the ASUB is being sought now in order to secure the required land to ensure the project can proceed at the time that it is needed.

ADC has Requiring Authority status in accordance with Section 166 of the Resource Management Act 1991 (RMA) as indicated below:

> **166** ***Meaning of "designation", "network utility operator", and "requiring authority"***
>
> *In this Act –*
>
> *…*
>
> ***Requiring authority*** *means –*

(a) ...

(b) *A local authority*

(c) ...

The extent of the new designation is illustrated in the Designation Plans in Volume B attached to and forming part of this Notice of Requirement.

The term sought to give effect to the new designation is 15 years, in terms of Section 184A of the Resource Management Act 1991 (RMA).

Actual or potential environmental effects of the ASUB have been assessed in accordance with Section 168 and the Fourth Schedule of the RMA in this Notice of Requirement.

A Land Requirement Schedule listing the properties directly affected by the designation and the area of land on each of these properties required for road is shown in the attached Notice of Requirement form. This is also illustrated in the Designation Plans in Volume B attached to and forming part of this Notice of Requirement.

Based on the designation plans, a total of 10 land parcels are directly affected by the project. The ADC has acquired one parcel of land along the route of the ASUB. One parcel of land is owned by Environment Canterbury as a local purpose reserve (soil conservation and river control), and one parcel is owned by the Westpac Bank. The remaining 7 parcels of land are privately owned. The ADC will be entering into negotiations with affected property owners regarding the extent of property purchase and compensation to secure the land required for the ASUB. The timing of these negotiations will be dependent upon individual circumstances of the landowners, but will need to be completed prior to construction commencing. ADC has indicated to these landowners that it is willing to enter into negotiations at any time.

This Notice of Requirement for the ASUB is not intended to satisfy the requirements for an Outline Plan under Section 176A(3) of the RMA. An Outline Plan for the project will be submitted to the Council at a later date prior to construction to provide the Council an opportunity to request changes.

1.1 ADC's Objectives for the Project

The overall objectives of the ADC for the ASUB project are to:

- Improve road safety for all road users
- Improve connectivity for everybody in the Ashburton urban area
- Meet the current and future needs of the Ashburton district / community
- Provide security for the Ashburton road network and state highway by providing alternative access in the event the current bridge cannot be used
- Ensure that State Highway 1 continues to take its inter-district and heavy traffic

2 Legislative Framework for the Provision of Roading Infrastructure

2.1 Legislative Framework

The provision and operation of transportation systems are governed by a number of acts of parliament and national, regional and local Strategies Plans and Programmes.

Figure 2-1 shows the overarching legislative framework under which the ASUB project has been developed. A summary of the key Strategies, Plans and Programmes and how the project contributes to these are provided in the following sub sections of this Notice of Requirement.

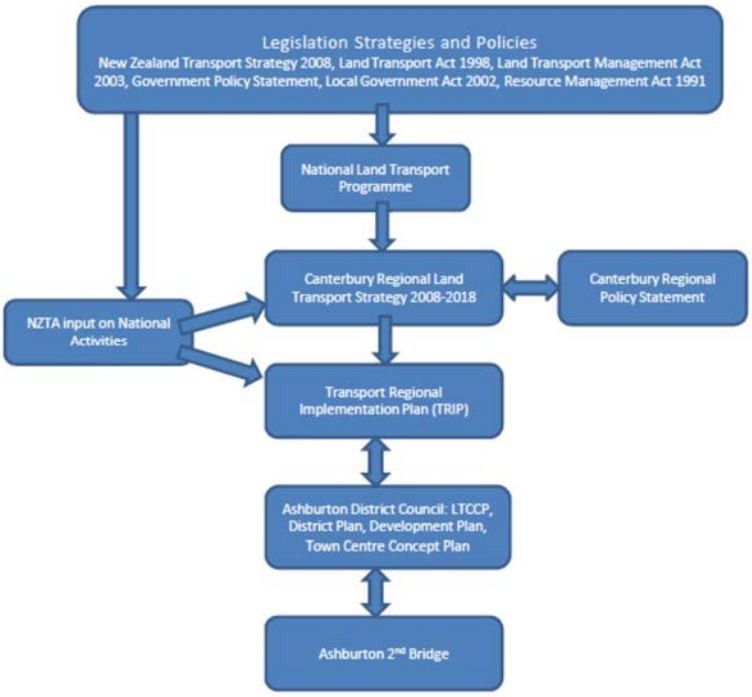


Figure 2-1: Legislative Framework

2.2 Land Transport Management Act 2003

The purpose of the Land Transport Management Act 2003 (LTMA) is "*to contribute to an effective, efficient, and safe land transport system in the public interest.*"

The LTMA identifies five key outcomes for activities and land transport programmes. These outcomes are:

- Assisting economic development
- Assisting safety and personal security
- Improving access and mobility
- Protecting and promoting public health
- Ensuring environmental sustainability.

The ASUB project contributes to these key outcomes as follows:

- Improve the reliability and travel time consistency on SH1 by spreading traffic onto two routes

- Provide a more direct route between the residential areas to the east of Tinwald and the commercial areas of Ashburton, north of the river
- Improve access and mobility within Ashburton
- Improve pedestrian and cyclist access across the Ashburton River
- Increase the resilience and improve route security of the local and regional transportation network in the event of one of the bridges being damaged or closed
- Improve travel time and reliability on the key freight route through Ashburton
- Improve travel time and reduce potential for right-turning accidents from east Tinwald.

2.3 New Zealand Transport Strategy 2008

The New Zealand Transport Strategy 2008 (NZTS) provides a vision for transport in 2040 and gives guidance to local authorities for transport activities. The strategy gives a long term perspective and direction to the transport sector along with aspirational targets for key transport objectives. The NZTS also sets the strategic context for developing the Government Policy Statement (see Section 2.4 below).

The NZTS vision for transport in 2040 is that *"people and freight in New Zealand have access to an affordable, integrated, safe, responsive and sustainable transport system"*.

The NZTS is supported by five key transport objectives:

- Ensuring environmental sustainability (greenhouse gas emissions / resource use and local environmental effects)
- Assisting economic development
- Assisting safety and personal security
- Improving access and mobility
- Protecting and promoting public health

The ASUB will positively contribute to achievement of the NZTS objectives as follows:

- Improve the reliability and travel time consistency on the SH1 by spreading traffic onto two routes
- Provide a more direct route between the residential areas to the east of Tinwald and the commercial areas of Ashburton, north of the river
- Improve access and mobility within Ashburton
- Improve pedestrian and cyclist access across the Ashburton River

- Increase the resilience and improve route security of the local and regional transportation network in the event of one of the bridges being damaged or closed
- Improve travel time and reliability on the key freight route through Ashburton
- Improve travel time and reduce potential for right-turning accidents from east Tinwald.

2.4 Government Policy Statement 2012

The Government Policy Statement 2012 (GPS) on land transport funding outlines the Government's objectives and funding priorities for the land transport sector for the 10–year period from 2012/13 – 2021/22 with detail for the first 3 to 6 years. The GPS outlines how the government expects to achieve short to medium term impacts through:

- Setting funding ranges for activity classes; and
- Providing guidance about the factors the NZTA should take into account when planning and evaluating strategies, programmes and packages and making funding decisions on specific activities.

The GPS influences decisions on how funding from the National Land Transport Fund is invested. It also provides direction to local government and the NZTA on the types of activities that should be included in regional land transport programmes and the National Land Transport Programme.

Regional councils, local councils, the NZTA, the NZ Police and other Approved Organisations under the Land Transport Management Act 2003 can receive funding from the National Land Transport Fund for the land transport activities they deliver, such as the construction and maintenance of State Highways and local roads, road policing and public transport services.

While the GPS provides a national picture of land transport funding, the detail of how funding is allocated to regions and specific activities is the responsibility of the NZTA. However, in carrying out this responsibility the NZTA must give effect to the GPS while also taking regional land transport strategies and programmes into account. In turn, regional land transport strategies must take account of the GPS, and regional land transport programmes must be consistent with the GPS. This means the direction and aims of the GPS have a direct influence on the funding that goes to regions and activities.

The GPS identifies the following three government priorities:

- Economic growth and productivity
- Value for money
- Road safety

In advancing these priorities, the GPS expects a number of impacts to be achieved. The main impacts identified in the GPS which are relevant to this project are:

- Improvements in the provision of infrastructure and services that enhance transport efficiency and lower the cost of transportation through:

  - Improvements in journey time reliability
  - Easing of severe congestion
  - More efficient freight supply chains
  - Better use of existing transport capacity
- More transport choices, particularly for those with limited access to a car
- A secure and resilient transport network
- Reductions in adverse environmental effects from land transport
- Contributions to positive health outcomes

2.5 Canterbury Regional Land Transport Strategy 2012-2042

The Canterbury Regional Land Transport Strategy (RLTS) sets the strategic direction for land transport within the Canterbury region over a 30 year period. The role of the RLTS is to contribute towards the government's overall vision of achieving an integrated, safe, responsive and sustainable land transport system. It also takes into account other government transport objectives and strategies. The RLTS identifies the region's transport needs and the roles of all land transport modes. It identifies how planning, engineering, education, encouragement and enforcement methods are to be utilised to provide for the future land transport system of Canterbury. It balances economic, social and environmental considerations associated with the provision of transport for the sustainable movement of people and freight.

The RLTS vision is "*Canterbury has an accessible, affordable, integrated, safe, resilient and sustainable transport system*". This vision is supported by objectives to:

- Ensure a resilient, environmentally sustainable and integrated transport system
- Increase transport safety for all users
- Protect and promote public health
- Assist economic development
- Improve levels of accessibility for all.

The ASUB project contributes to the targets of the RLTS as follows:

- Improve the reliability and travel time consistency on the SH1 by spreading traffic onto two routes
- Provide a more direct route between the residential areas to the east of Tinwald and the commercial areas of Ashburton, north of the river
- Improve access and mobility within Ashburton
- Improve pedestrian and cyclist access across the Ashburton River

- Increase the resilience and improve route security of the local and regional transportation network in the event of one of the bridges being damaged or closed
- Improve travel time and reliability on the key freight route through Ashburton
- Improve travel time and reduce potential for right-turning accidents from east Tinwald.

2.6 Canterbury Transport Regional Implementation Plan

The aim of the Canterbury Transport Regional Implementation Plan (CTRIP) is to ensure a coordinated approach to the delivery of the NZTS and the RLTS. The CTRIP covers a 30 year period (2012-2042) and focuses on delivering complementary packages of transport activities.

The main objectives of the CTRIP are to:

- Provide an implementation framework for transport in the region
- Ensure a 'regional' picture for transport and land use is obtained
- Develop an advocacy and planning tool in order to progress key projects
- Assist with input into 'regional' funding allocation discussions
- Inform the RLTS.

The CTRIP identifies issues, land use patterns in a general sense and transport outcomes for the Northern Canterbury, Greater Christchurch and Southern Canterbury sub-regions. Southern Canterbury is the area south of the Rakaia River, which includes Ashburton, Mackenzie, Timaru and Waimate.

Transport packages have been developed for each sub-region in order to respond to the issues and outcomes identified for each area. The packages are made up of a variety of responses, including roading, public transport, walking and cycling, travel demand management and rail. Each project included in the CTRIP has been assessed against the effectiveness of the response to the outcomes identified for each package. The packages were also assessed against the objectives of the NZTS as encapsulated in the LTMA 2003. The projects listed are subject to funding availability and approval. The Southern Canterbury package includes the following projects for Ashburton:

Package	Context	Key Components (within 10 years)
Ashburton	A large service town with significant growth in business activity. Conflicts between local traffic and through traffic on SH1 and on the rail line	• Walnut Avenue intersection improvements (West and East Streets) • North East Railway freight operation • Netherby intersection upgrade

		• Cycle track development • SH77 Moore/Park Signals • Ashburton River Bridge pedestrian/cycle improvements • Ashburton River – 2nd bridge • West Street improvements, Moore to Havelock (4 lanes) • Park Street link to Dobson

2.7 Ashburton District Development Plan 2005

ADC commissioned Boffa Miskell Limited to assist with the 'Development Planning for the Future of Ashburton' Project. The purpose of the Ashburton Development Plan is to present an over-arching basis for the future development of the District for the 20 year period to 2021. The Development Plan will form the basis for planning and design of roading, water / sewer services and many policy directions that will feed into the Long Term Council Community Plan and any zone changes in the District Plan, and provide certainty for all in the District and improved efficiency of cost and operation for the Council.

The Ashburton Development Plan recognised there was a need for additional land within Ashburton township to be rezoned for residential development. The 2010 District Plan review has implemented changes to land use through rezoning which is generally in accordance with the Development Plan. This includes the rezoning of 71.6ha of land in east Tinwald to residential.

2.8 Ashburton Transportation Study 2006-2008

Transit New Zealand (now NZTA) and ADC commissioned the Ashburton Transportation Study (ATS) to identify present and future transportation demands within the Ashburton study area for the 20 year period through to 2026, and to recommend measures to optimise the performance of the land transport system within Ashburton township.

In completing the final report for the ATS, the following phases of work were undertaken:

- Issues and Options Report (2006)
- Options Identification Report (2006)
- Options Assessment Report (2007)

- Final Report (2008)

The **Issues and Options Report** found that most of the Ashburton transportation network is likely to function adequately for the next 20 years. That report did, however, highlight a number of issues within the Ashburton transportation system. Generally those issues were related to the ability of SH1 to cope with increasing traffic volumes, through the Ashburton urban area and particularly at the Ashburton River Bridge.

The **Options Identification Report** identified a number of options to address the issues highlighted in the Issues Identification Report. These options fall into two broad categories, namely management options and physical options.

These options were initially screened against broad practicality, resource management and cultural criteria. An evaluation was then carried out against the LTMA and the RLTS.

The physical options were further evaluated for the **Options Assessment Report**. An indicative economic analysis was carried out. The following recommendations were made regarding the options investigated:

Option	Recommendation
Provide signals in Tinwald	Proceed to Scheme Assessment phase
Four lane between Havelock Street and Moore Street	Carry out Scoping Study
Revise Dobson Street / Kermode Street / SH1 intersection	Carry out Scheme Assessment to confirm evaluation and enable route protection
New road bridge across Ashburton River	Carry out Scoping Study to confirm evaluation and enable route protection
Upgrade Walnut Avenue / SH1 / East Street intersections	Proceed to design phase
Provide a safe pedestrian and cycle route to schools	Implement Walnut Avenue intersection upgrades Carry out Scheme Assessments on cycle lanes on Walnut Avenue and a cycle path between Dobson Street / East Street intersection and Walnut Avenue / East Street intersection
Improve pedestrian and cycle access across river	Carry out Scheme Assessment on pedestrian passing bays on existing bridge

The ATS found that most of the Ashburton transportation network is likely to function adequately for the next twenty years. However, analysis of both the current and future (2026) transport network performance suggests two main issues:

1. The current bridge does not have the necessary capacity to allow for the predicted traffic flow in 2026

2. Conflicts between the needs of State Highway 1 through traffic and those of local traffic result in conflicts at intersections and private accesses along the State Highway.

One of the key components of the ATS was to "*Provide a "ring" route encompassing Oak Grove, Walnut Avenue, Chalmers Avenue, and a new Ashburton River Bridge"*. The study assessed a number of options for the location of a second bridge, and concluded that "*Provision of a second bridge connecting Chalmers Avenue with the Eastern part of Tinwald was assessed to best meet the future needs of Ashburton"*.

ADC adopted the (ATS) with the exception of a second bridge on 3rd November 2009. ADC instead opted to further investigate bridge location options prior to committing to a specific location.

2.9 Projects Arising from the Ashburton Transportation Study

2.9.1 Overview

Arising from the recommendations made in the ATS have been a range of roading projects identified which form a complementary set of transportation activities within Ashburton township. Responsibility for these projects varies between ADC and the NZTA, depending upon the location of the project. The following projects are currently being undertaken within Ashburton:

- Ashburton Second Urban Bridge
- West Street (SH1) / Walnut Avenue Traffic Signals
- Tinwald Traffic Signals
- Safe pedestrian and cycle routes to schools

2.9.2 Ashburton Second Urban Bridge

2.9.2.1 Ashburton Second Bridge Investigations – Issues and Options Report 2010

ADC commissioned Opus International Consultants Ltd (Opus) to undertake a technical investigation for a second bridge across the Ashburton River. The objective of this investigation was to "*investigate improving or increasing the existing bridge transport capacity crossing the Ashburton River, and on approval by Council of a suitable option, ensure land access is protected through a Notice of Requirement process and land designation"*. This process will ensure the best solution can be future-proofed for later implementation.

An Issues and Options report was prepared for ADC in January 2010. The Issues and Options Report identified a number of issues regarding the existing Ashburton River Bridge, including:

- The likelihood that projected future traffic volumes will exceed the bridge's capacity
- The majority of traffic on the existing bridge is local traffic travelling between Ashburton and Tinwald

- Crashes at intersections with SH1 through Ashburton
- The lack of viable alternative routes for this nationally strategic route should the bridge be closed due to natural events or accidents or other incidents on the bridge
- The vulnerability of the existing structure to natural events.

These issues were identified as being consistent with the issues identified in the ATS. It was considered that a second bridge across the Ashburton River, connecting the communities of Ashburton and Tinwald, would address these issues.

A total of thirteen bridge location options were considered. These ranged from complete bypasses of Ashburton township, both east and west, through to duplication of the existing bridge immediately adjacent to its present location.

Refer to Volume B for a plan showing the bridge location options.

Each bridge option was considered against an extensive list of agreed criteria (agreed with the Council), with two options being identified as most effectively meeting the criteria. These two options were:

- Chalmers Avenue to east of Tinwald
- Chalmers Avenue to Grove Street

The Issues and Options Report recommended to ADC that further investigations be undertaken to identify the preferred option. In considering the Issues and Options Report, ADC adopted the Chalmers Avenue to Grove Street option as their preferred route on 25th February 2010.

2.9.2.2 Ashburton Second Bridge Investigations – Additional Investigations 2011

Following the receipt of community feedback on ADC's preferred option for the location of a second urban bridge, Council commissioned further investigations to re-look at a number of the options that were originally considered. This expanded range of bridge location options included those that received the most interest and support from the Ashburton community.

The additional investigations that were commissioned include the following:

- A Social Impact Assessment
- The formation, facilitation and support for a Community Reference Group (CRG)
- Investigation of the impacts on Tinwald School of some of the options
- Further detailed investigations, including traffic dispersion, local road / state highway interface, and cost estimates for the following options:
    - Eastern Bypass (two variations of this option were investigated, being an Outer Bypass and an Inner Bypass)

  - Chalmers Avenue to east of Tinwald (two variations of this option were investigated, being an option through the rural area east of Tinwald, and an option through the urban area in the proposed District Plan review)
  - Chalmers Avenue to Grove Street
  - Melcombe Street (two variations of this option were investigated, being an option incorporating a level crossing across the railway south of Tinwald, and on option with an overpass over the railway)
- Liaison with the NZ Transport Agency
- Prioritisation of Transportation Study projects with respect to the second bridge

A further option of four laning SH1 was also subsequently added to the Additional Investigations at the request of the Community Reference Group, and for reasons of completeness, an assessment was also included for the provision of traffic signals in Tinwald.

A multi-criteria assessment was undertaken on each of the options identified above in which each option was assessed against 16 criteria. The preliminary assessment was presented to the Community Reference Group, and reviewed and refined in light of comments from the Reference Group. A total of 24 scores were changed as a result of the Reference Group inputs.

The three Chalmers Avenue bridge options produced positive scores for both their raw and weighted scores. The Tinwald signals option was the only other option to produce a positive score. All the other options produced negative scores or zero. The difference between the Chalmers Avenue options and all other options increased significantly when the weightings (which were derived from the Community Reference Group meeting) were applied.

The scores clearly show that when the options are compared to each other (comparative analysis) against the same criteria, the Chalmers Avenue options make significant positive contributions to accessibility between Ashburton and Tinwald, route security, and the provision of lifeline utilities between Ashburton and Tinwald. They also reflect the high cost of the bypass options, and the severance effects and difficulties of accessing SH1 associated with the Melcombe Street and four laning options.

Of the three Chalmers Avenue options, Grove Street scored consistently lower than the east of Tinwald options. Consequently, Council resolved to focus on the two Chalmers Avenue to east of Tinwald options.

2.9.3 West Street (SH1) / Walnut Avenue Traffic Signals

The NZTA is currently undertaking the detailed design for the upgrade of the West Street (SH1) / Walnut Avenue intersection. The upgrade will replace the roundabout at the intersection with traffic signals.

Directly associated with this project is the upgrade of the East Street / Walnut Avenue intersection. Whilst this intersection is part of the ADC local road network, it is located directly across the railway from the West Street (SH1) / Walnut Avenue intersection and consequently the two intersections need to operate together in order for the transport network to function correctly.

Therefore, the East Street / Walnut Avenue roundabout is likely to also be removed and replaced with traffic signals as part of the overall West Street (SH1) / Walnut Avenue intersection upgrade.

2.9.4 Tinwald Traffic Signals

Following discussions between NZTA and ADC, NZTA is currently preparing a business case for the provision of traffic signals in Tinwald.

3 Reason for the Work and Designation

This section explains why the ASUB project is necessary. It identifies the current and future issues with the current transportation network, and outlines the proposed solution to these issues.

3.1 Need for the Project

3.1.1 Statutory context

Section 168A(3) of the RMA outlines the matters the Council must consider, subject to Part 2, when considering a Notice of Requirement. Section 168A(3)(c) states:

> *"(3) When considering a requirement and any submissions received, a territorial authority must, subject to Part 2, consider the effects on the environment of allowing the requirement, having particular regard to –*
>
> *(c) whether the work and designation are reasonably necessary for achieving the objectives of the requiring authority for which the designation is sought"*

3.1.2 ADC's objectives for the project

ADC's objectives for the ASUB project are stated in section 1.1 of this Notice of Requirement.

3.1.3 Problem

As noted above, there have been a number of investigations into the Ashburton transportation system, the existing bridge, and a possible second bridge, from the 2006 Ashburton Transport Study through to the 2012 Options Investigations. These investigations have identified a number of issues with the existing bridge and the surrounding transport network. These are outlined below:

3.2 Capacity

The Ashburton Transport Study identified that:

"In 2006, Ashburton's road network operates satisfactorily. There are some early signs of pressure points, most notably in the evening peak along SH1 at the Ashburton River Bridge, and to a lesser extent SH1 through Tinwald. All the key intersections operate within practical capacity, although the SH1/Moore St signalised intersection shows signs of approaching capacity.

With the additional traffic generated by the proposed development2 there is, as expected, a resulting deterioration of the operation of Ashburton's road network. By 2026, if the road network remains unchanged, it can be expected that there will be considerable queuing and delay centred about the SH1/Moore Street and SH1/East Street intersections. In addition to these intersections, there are a number of other key intersections expected to be operating above capacity by 2026 in the evening peak. These are:

[2] Further residential development on land then zoned rural had been identified in the 2005 Ashburton Development Plan.

- *SH1/Havelock Street*
- *East Street/Havelock Street*
- *SH1/East Street South*
- *SH1/Walnut Avenue*
- *SH1/Graham Street*

In Tinwald comparatively small numbers of turning vehicles (when compared with the numbers of through vehicles on SH1) are likely to experience increasing delays. The modelling indicated the SH1 intersections with Graham Street and Carters Terrace to be the worst affected, but the installation of signals at SH1/Lagmhor Road would encourage re-routing of local traffic and reduce queuing on the minor roads at their intersections with SH1.

The models indicate the SH1 corridor will show deterioration in operation, especially on the Ashburton River Bridge and through Tinwald. The poor performance of the SH1, Moore Street intersection reduces the volume of traffic able to access the Ashburton River Bridge. Improvements to this intersection will increase the traffic volumes able to access the bridge. This in turn will result in an increase in the traffic volumes using the bridge, and a corresponding decrease in the performance of the bridge, and of the section of SH1 through Tinwald."

3.2.1 Local versus Through Traffic

The need for an alternative route for "passing through" traffic, particularly trucks was identified as a key transportation issue during the consultation phase of the Ashburton Transportation Study. However, the traffic count data indicates that traffic "passing through" Ashburton is only a small portion of the total traffic on the existing bridge. Two specific number plate traffic surveys have been carried out to identify Origins and Destinations of traffic in Ashburton, including traffic using the existing Ashburton River Bridge. These were carried out in 2006, as part of the Ashburton Transportation Study, and in 2012. In addition, data from these counts has been compared with NZTA's regular tube counts at a number of locations on SH1 in Ashburton.

These three traffic count data sources conclusively show that at peak times, less than 20% of the traffic on the existing bridge is inter-district traffic "passing through" Ashburton on SH1. The results of these three sources are summarised below. More detailed results are included in Appendices B to D of the Traffic Impact Assessment contained in Volume C, Appendix 6.

3.2.1.1 2006 Number Plate Count

A manual number plate survey was carried out as part of the Transportation Study. The numbers of vehicles recorded crossing the existing bridge, and the proportion travelling through Ashburton between south of Tinwald and north of Racecourse Road for the morning, lunch time and evening peaks are shown on Table 3-1. Full Origin Destination information from the 2006 counts is included in Appendix B of the Traffic Impact Assessment contained in Volume C, Appendix 6.

	Morning 7:30 – 9:00		Lunch Time 11:30 - 1:30		Evening 4:30 – 6:00	
	Nth	Sth	Nth	Sth	Nth	Sth
North of Racecourse Rd	278	372	348	344	217	326
Existing Bridge	783	553	701	799	768	1071
South of Grahams Rd	308	201	300	195	476	463
Passed through Ashburton	77	41	106	51	115	42
% of Bridge traffic passing through Ashbtn	10%	7%	15%	6%	15%	4%
Passed both bridge and sth of Grahams	219	67	227	55	315	194
% of Bridge traffic passing through Tinwald	28%	12%	32%	7%	41%	18%

Table 3-1 Traffic Volumes through Ashburton 2006

3.2.1.2 NZTA Tube Counts

The 2006 Number Plate Count results are consistent with traffic tube counts[3] carried out by NZTA south of Golf Links Road, north of Wills Street, north of the Ashburton River Bridge and at Winslow on State Highway 1. The 2012 counts indicate that over a 24 hour period, the total volume of traffic at Winslow is 35% of the total volume at the bridge. Over the period 2000 to 2009 this percentage ranged from 30% to 39%. Summaries of the 2012 counts at all four locations, and the 2000 to 2009 counts at the bridge and Winslow are included in Appendix C of the Traffic Impact Assessment contained in Volume C, Appendix 6.

3.2.1.3 2012 Video Count

Due to concerns raised about the currency of the 2006 number plate counts, ADC commissioned a video number plate survey in 2012. The 2012 number plate survey was undertaken in July and August. The survey used infrared video cameras to record number plates of vehicles passing in both directions at eight locations around Ashburton. This required the use of sixteen cameras (one in each direction at each location). Sophisticated number plate recognition and matching software was then used to identify vehicles which passed one or more of the camera locations.

The numbers of vehicles recorded crossing the existing bridge, and the proportion travelling through Ashburton between south of Tinwald and north of Racecourse Road for the morning, lunch time and evening peaks are shown on Table 3-2. Full Origin Destination information from the 2012 counts is included in Appendix D of the Traffic Impact Assessment contained in Volume C, Appendix 6.

[3] A tube count is a method of counting traffic at a specific location over a specific period of time (generally one or two weeks). A rubber tube is placed on the road for the duration of the count, and connected to a counter. The counter records every time a vehicle crosses the rubber tube.

	Morning 7:45-9:15		Lunch Time 11:30–1:30		Afternoon 2:30-3:30		Evening 4:30-6:00	
	Nth	Sth	Nth	Sth	Nth	Sth	Nth	Sth
North of Racecourse Rd	402	506	559	524	317	319	603	441
Existing Bridge	1368	858	1442	1565	721	754	1038	1291
South of Grahams Rd	638	519	820	759	403	370	652	549
Passed through Ashburton	136	150	215	210	101	79	186	136
% of Bridge traffic passing through Ashbtn	10%	18%	15%	13%	14%	11%	18%	11%
Passed both bridge and sth of Grahams	538	420	690	613	316	292	525	436
% of Bridge traffic passing through Tinwald	39%	49%	48%	39%	44%	39%	51%	34%

Table 3-2 2012 Video Number Plate Count Summary

The 2012 counts have recorded significantly higher vehicle numbers than the 2006 counts. There are a number of factors which are considered to explain this increase in recorded numbers:

- Increase in overall traffic volumes. NZTA tube counts have recorded the following growth at locations on SH1 through Ashburton between 2006 and 2012
    - North of Racecourse Road 21%
    - South of Walnut Avenue 6%
    - Ashburton River Bridge 31%
    - Winslow 19%
- Seasonal variations. The 2006 counts were conducted in mid-February, whilst the 2012 ones were in late July / early August. People are more likely to walk to work or school in summer than in winter.
- Day of week. The 2012 NZTA hourly tube counts at the bridge on different days of the same week vary by up to 30%. It is possible that the 2006 counts were taken on a day with comparatively low traffic volumes and/or the 2012 counts were taken on a day with high volumes.

Whilst total traffic volumes may vary annually, seasonally, and weekly, the proportion of bridge traffic which is travelling through Ashburton remains consistent at less than 20%.

It is considered that, whilst traffic volumes vary during the day, the proportions of traffic sources on the bridge during the survey periods are representative of daytime traffic on the bridge. It is likely that through traffic makes up a greater proportion of night time traffic on the bridge. However, the small overall volumes of night time traffic means that through traffic makes up a small proportion of the total traffic on the bridge.

3.2.1.4 NZTA and ADC Tube Counts

Data from NZTA and ADC tube counts was also assessed. The NZTA tube counts give a good background understanding of traffic on SH1 through Ashburton and the conclusions gained from these counts are broadly consistent with the results and conclusions of the number plate survey.

3.2.2 Freight

The National State Highway Strategy (June 2007) indicates the freight flows on this section of SH1 in 2006 to be between 2-10 million tonnes. The Strategy indicates if economic growth continued at the same rate as from 2007, freight movements would be expected to double by the year 2020.

Within Canterbury, it is estimated that 80% of the freight being moved along / within this corridor are transported by road, not rail, due to delivery sensitivity time and lack of access to rail. Annual average daily traffic (AADT) counts for 2008 from the NZTA show there are 2014 heavy goods vehicles (HGV's) passing Archibald Street just south of the Ashburton River. This equates to 10% of the total traffic.

The above figures suggest that freight movements across the Ashburton River Bridge can be expected to increase and that the ability to easily cross the Ashburton River is nationally important.

3.2.3 Population Growth

Using past census data, building consent, subdivision and school records, the Ashburton Development Plan projected there would be 31,500 people living in the district by 2021. Of this number, 20,800 are expected to live in Ashburton town.

Since the Ashburton Development Plan was adopted by ADC in 2005, growth in Ashburton has been greater than anticipated. The population increased 7.6% between 2001 and 2006, whereas it increased 1.1% between 1996 and 2001. These figures suggest the population in both Ashburton town and district may be higher than that predicted by the Ashburton Development Plan by the year 2021.

3.2.3.1 Tinwald Growth

The Ashburton Development Plan (2005) recommended changes to existing land uses to accommodate and promote development in the town.

The 2010 District Plan review rezoned approximately 71.6ha of land east of the current Tinwald urban boundary. This rezoned land comprises approximately 15.7ha for Residential C development (360m^2 minimum lot size with reticulated sewage, 1,000m^2 without) and approximately 55.9ha for Residential D development (4,000m^2 minimum lot size with reticulated sewage, 10,000m^2 without).

The rezoning opens the way for residential development to occur east of Tinwald. On the assumption that this land has been 80% developed by the time the ASUB project proceeds in 2026, it is expected there could be up to 310 new dwellings located within the area. This level of development will place an estimated 3,000 vehicles per day onto the local road network. Given that the existing SH1 Bridge is the only route between Tinwald and North Ashburton, it is expected that this route will bear the brunt of additional traffic as a result of development east of Tinwald.

Regardless of the presence of a second bridge across the Ashburton River, a roading network will be required in east Tinwald to service the proposed urban development.

3.3 Route Security

The existing Ashburton River Bridge is the only road bridge across the Ashburton River within the Ashburton urban area. The nearest alternative road bridge across the River is located on the Mayfield Valetta Road.

Should the existing bridge be closed for any reason, vehicles travelling between Tinwald and Ashburton would need to use this bridge. This involves a 56km detour to get from Ashburton to Tinwald. A map of the detour route is included in Appendix E of the Traffic Impact Assessment contained in Volume C, Appendix 6.

The bridge could be closed due to a major event such as flooding or earthquake, or due to a more local incident such as an accident or breakdown.

An additional bridge may also be vulnerable to damage during some significant natural events (e.g. severe flooding or a significant earthquake). However provision of an alternative can decrease the risk of the route being closed due to a significant natural event.

3.4 Safety

Potential existing safety issues within the Ashburton urban area are discussed below.

3.4.1 District Wide Comparison

The Ashburton District Road Safety Report 2005 to 2009 (NZTA June 2010) analyses the reported crash rate in the Ashburton District on State Highways, and Council urban and rural roads for the period 2005 to 2009. It also compares the Ashburton accident history with that of all New Zealand and with a group of similar local authorities. Figure 3-1 shows the comparison of the urban crash rates of the Ashburton District with the urban crash rates in all of New Zealand and with a range of similar local authorities. This figure indicates that the urban crash rate within Ashburton is slightly lower than the average New Zealand rate, but slightly higher than the average of similar local authorities (Group D).

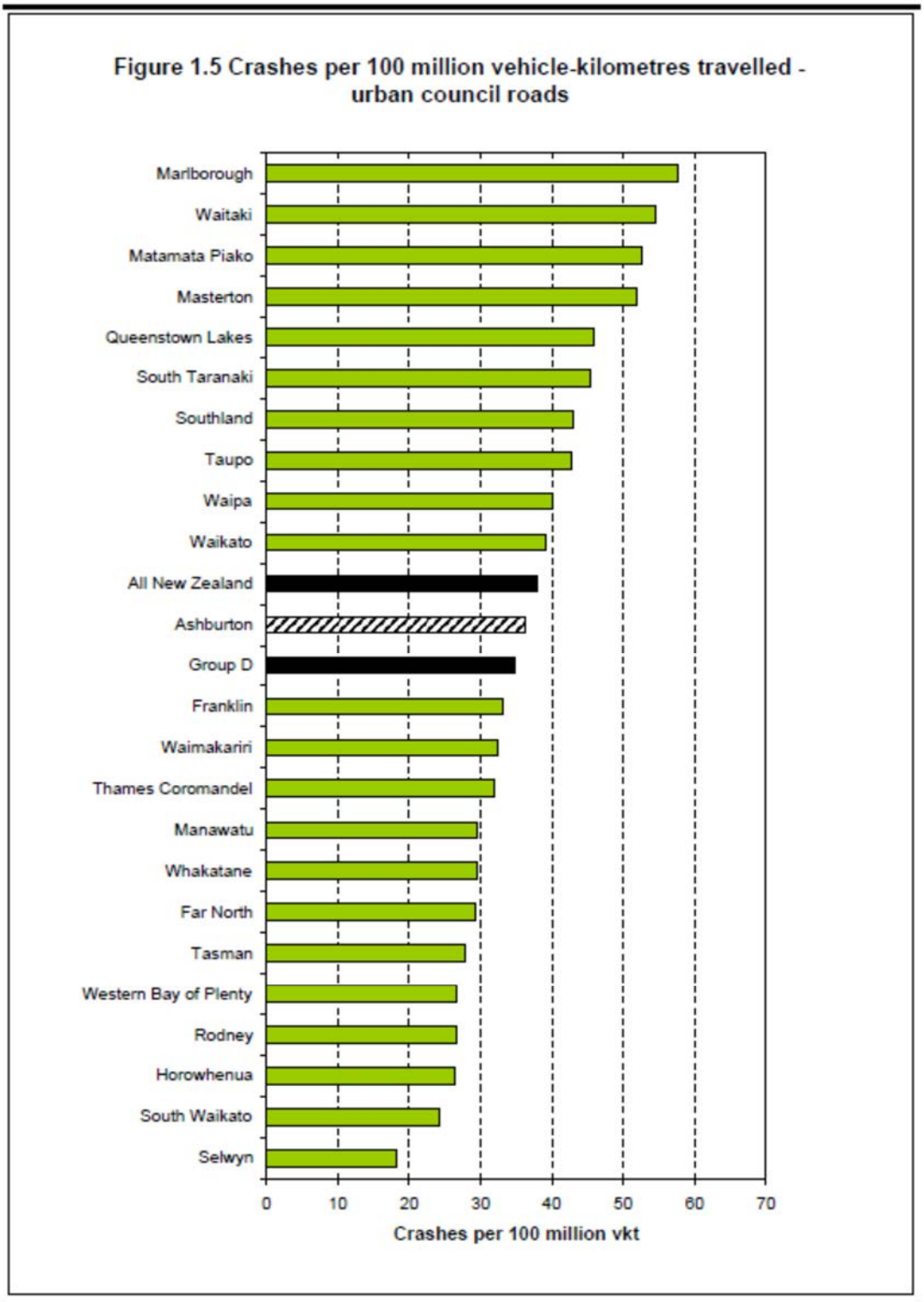


Figure 3-1 Urban Crash Rates (Source: Ashburton Road Safety Report 2005 to 2009 – NZTA)

3.4.2 Crash History 2008 to 2012

The crash history in the Ashburton urban area has been reviewed for the five year period from 1st January 2008 to 31st December 2012. The crash history was assessed using the Land Transport NZ Crash Analysis System (CAS). The overall crash trends in the study area were analysed and then broken down further by location. The study area is indicated below.

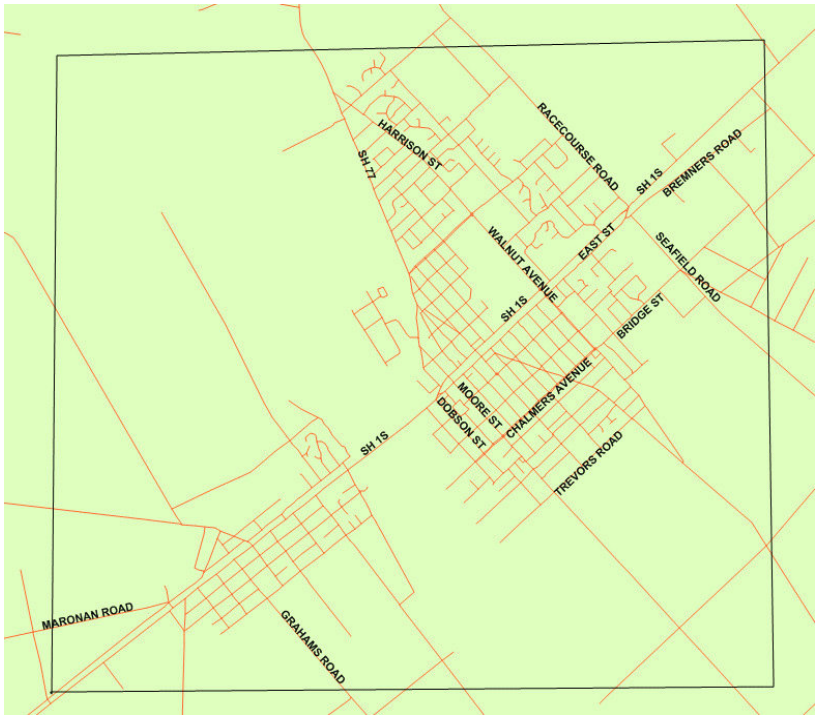


Figure 3-2 Accident Study Area

3.4.2.1 Overall Crash History

A total of 453 crashes were reported in the study area over the five year period. This includes 106 injury crashes and 347 non-injury crashes. Of the injury crashes there was 1 fatal crash, 24 serious and 81 minor crashes. A further breakdown by year of the crashes can be seen in Table 3-3 below.

Year	Fatal	Serious	Minor	Non-injury	Total
2008	1	5	18	80	104
2009	0	7	17	77	101
2010	0	3	15	53	71
2011	0	5	22	69	96
2012	0	4	9	68	81
Total	1	24	81	347	453

Table 3-3 Ashburton District 2008 - 2012 Crashes

There has also been a fatal crash, involving a pedestrian on a mobility scooter and a van, at the pedestrian crossing on SH1 north of Graham Street on June 24th 2013. At the time of writing this crash was still being investigated, and had not been included in the CAS database.

There are a high number of total crashes along the State Highway. This reflects the fact that SH1 is the main roading spine of Ashburton.

Far more accidents occur at intersections than at mid-block locations. This is typical of locations with a grid pattern roading layout, and a high proportion of "cross roads" type intersections.

Chalmers Avenue is parallel to SH1/East Street on the southeast. It joins Walnut Avenue, Bridge Street and Albert Street roundabout in the north and continues to the Ashburton River to the south. Walnut Avenue connects SH1, East Street and Chalmers Avenue, and continues through to Oak Grove to the west. Walnut Avenue, Chalmers Avenue, and Oak Grove form a "ring" of Principal Roads in the Ashburton District Plan. Chalmers and Walnut Avenues (east of SH1) are expected to be the streets most likely to experience the greatest impact as a result of the proposed bridge.

3.4.3 Chalmers Avenue Walnut Avenue Route

The following intersections on the Chalmers Avenue, Walnut Avenue route were identified as having a significant accident rate in the last five years:

- Chalmers Avenue / Havelock Street / Wellington Street / Intersection
- Albert Street / Bridge Street / Chalmers Avenue / Walnut Avenue Roundabout
- Walnut Avenue/ William Street Intersection
- SH1 and East Street / Walnut Avenue intersection pair

There is expected to be an increase in traffic using this route by 2026,[4] when compared to current traffic levels, regardless of the ASUB. The ASUB is expected to result in a further increase in traffic volumes on this route when it is constructed. Both of these increases in traffic are expected to exacerbate any existing safety issues identified below. Mitigation measures to address these issues are outlined in Section 8 of this Notice of Requirement.

3.4.3.1 Chalmers Avenue/Havelock Street and Wellington Street

The intersection is a Give Way controlled intersection. 2 minor injury accidents and 6 non-injury accidents have occurred at this intersection in the last 5 years.

3.4.3.2 Chalmers Avenue / Bridge Street/Walnut Avenue / Albert Street Roundabout

The roundabout is give way sign controlled. 1 minor injury accident and 2 non-injury accidents have occurred at this roundabout in the last five years.

It is considered that the roundabout operates below the typical accident injury rate and therefore the Chalmers Avenue / Bridge Street/Walnut Avenue / Albert Street roundabout is not considered to have an accident problem.

[4] The year when the ASUB is likely to be constructed.

3.4.3.3 Walnut Avenue/William Street

The intersection is a give way sign controlled intersection, immediately adjacent to Ashburton Intermediate School. 3 minor injury accidents have occurred at this intersection.

This intersection is immediately adjacent to the Ashburton Intermediate School. There are therefore high numbers of pedestrians and cyclists at this location.

3.4.3.4 State Highway 1 East Street Walnut Avenue Intersection Pair

There have been 18 crashes at these intersections in the past 5 years, including one serious injury, and three minor injury crashes. NZTA and ADC are currently working on proposals to install traffic signals at these intersections. It is expected that these proposals will address safety issues at these intersections.

3.4.4 Right Turn from East Tinwald

Concern has been expressed about the safety of vehicles making right turns onto SH1 from the side roads at east Tinwald.

Between 2008 and 2012 there have been 29 crashes recorded at intersections on SH1 through Tinwald. Of these, 3 have resulted in serious injury, and 4 in minor injury. Further development in east Tinwald and Lake Hood is expected to result in increased traffic turning right from east Tinwald onto SH1. This, combined with growth in SH1 traffic, will increase delays for vehicles turning onto SH1, and result in drivers taking greater risks, with an accompanying increase in crashes at the intersections through Tinwald.

The ASUB will reduce the volume of traffic turning right at intersections in Tinwald, and is therefore expected to make a significant contribution towards reducing the crash rate at intersections in Tinwald.

ADC and NZTA are currently investigating signals at an intersection in Tinwald. Traffic signals tend to result in a reduction in crashes involving turning vehicles, but an increase in nose to tail crashes.

3.5 Remaining Life of the Existing Bridge

The existing bridge is over 80 years old, having opened in 1931. Ongoing inspections and maintenance indicate that it has the normal defects expected of a bridge of this age. Assuming that an appropriate maintenance regime is continued, it is expected that the bridge will have a remaining life in excess of 25 years.

3.6 Scour at Bridge Foundations

The existing SH1 Bridge across the Ashburton River has been identified as vulnerable to scour. An investigation into bridge scour and sediment management[5] reached the following conclusions:

[5] SH1S Ashburton River (Hakatere) Bridge – Bridge Scour and Sediment Management Report (Opus July 2013)

- *The Ashburton River Bridge is vulnerable to scour damage due to the shallow pier piles and historic bed degradation*
- *Mean river bed levels at the bridge have been relatively constant since the early 1980s due to gravel extraction moving away from the Main Stem to the aggradation zone known as Blands Reach*
- *Over extraction of gravel from the Main Stem and Lower Branches can have a significant effect on the river bed levels at the bridge. Over extraction of Blands Reach can also affect downstream bed levels, but to a lesser degree, and with a considerable lag time.*
- *The bed level at the bridge site may also be affected by the retreat of coastal cliffs at the Ashburton River mouth.*
- *Local scour is continuing to occur, especially around piers in the active river channel. This is aggravated by debris that is regularly caught on the piers.*
- *Rock rip-rap aprons were installed in 1979, and these are considered to provide reasonably effective mitigation against scour of the piers*
- *ECan has prepared a Gravel Management Framework for the river, which aims to provide an agreed level of flood capacity without undue risk of undermining the road and rail bridges*
- *Due to the significant risk of damage to the piers due to further general and local scour, regular bed level surveys are being undertaken.*

In short, there is a risk of the existing bridge being damaged by scour. This risk has been exacerbated in the past by aggressive gravel extraction programmes upstream of the existing bridge. It is currently being managed through gravel management programmes and rock protection measures at the piers. These measures have been in operation for approximately 30 years, and the river bed level has remained reasonably stable during that time.

3.7 Cycling and Walking

The current and future changes in land use in Ashburton and Tinwald are predicted to generate a significant number of trips which will put pressure on the network. Population growth and increasing travel demand will likely result in an increase in the number of vehicle trips. Some additional demand can be met by means other than single occupancy cars such as cycling and walking.

The existing bridge includes a combined pedestrian and cycle path on the eastern side of the bridge, and a cycle path on the western side. Cyclists, pedestrians and mobility scooter users travelling in different directions can be on the cycle/pedestrian path at the same time. The cycle/pedestrian path is not wide enough to allow a cycle and pedestrian to pass comfortably. The potential for conflict between different user groups is high.

The poor walking and cycling facilities on the existing bridge are likely to discourage walking and cycling between Tinwald and Ashburton.

The Canterbury Land Transport Programme contains an NZTA project (investigation, design and construction) for pedestrian / cycling improvements to the Ashburton River Bridge which recognises the lack of adequate non-motorised user facilities across the Ashburton River.

Whilst ADC does not have a travel demand management strategy, there is a Canterbury Regional Travel Demand Management Strategy. The Regional Land Transport Strategy (RLTS) has the following strategic approach to travel demand management:

1. *"Improve the range of transport options available, therefore, giving people greater choice when deciding how to travel*

2. *Establish land use patterns that support a range of transport modes and provide opportunities for people to travel less".*

The above approach is consistent with the ADC's Walking and Cycling Strategy which also aims to:

- *Provide an effective network that ensures accessibility and connectivity; and*

Develop safe walking and cycling facilities and environments"

Refer to the Social Impact Assessment in Volume C, Appendix 5 for further discussion on walking and cycling between Tinwald and Ashburton.

3.8 Proposed Solution

The issues identified above generally all point to there being an issue with the current state highway bridge across the Ashburton River. However, the traffic count studies indicate the make-up of the traffic on the bridge is primarily local traffic in origin and / or destination which is contributing significantly to the traffic congestion issues. On this basis, ADC and NZTA agree that the major issue associated with the current bridge is a local traffic issue, rather than a state highway issue. Therefore, the solution is a project which is primarily aimed at resolving the local traffic issue, whilst recognising that any such project will also have benefits for the state highway.

The proposed solution is for a second bridge to be located east of the Tinwald urban boundary and within the boundaries of Ashburton township that will provide an alternative route for local traffic. The new bridge would be constructed to the applicable design standards and would provide linkages for cyclists and pedestrians. A second bridge within the urban area will also address the route security and significant detour issues associated with the current bridge by providing an alternative route within close proximity to the population source.

Under the NZTA's current funding policies, ADC is eligible for a 57% subsidy on the cost of roading projects such as the ASUB. However, whilst ADC and the NZTA agree the ASUB project is primarily to resolve local traffic issues, the project will also provide a benefit to the NZTA through reducing the demand on the existing bridge and thereby addressing the capacity issues. On this basis, ADC and the NZTA have discussed the extent of any benefit the state highway might derive and therefore the extent of any additional subsidy that the NZTA might pay between the current 57% and 100% of the project cost. The NZTA recognises there will be a benefit but cannot agree to any funding formula at this point in time as that decision will be dependent upon Government policy at the time the construction of the ASUB project is required.

The proposed ASUB project achieves ADC's objectives (as listed in section 1.1 of this Notice of Requirement) and is expected to have an overall positive effect on the transportation network within the Ashburton township as follows:

3.8.1 Improved road safety for all road users

The ASUB will be designed in accordance with the design standards operative at the time it is designed and built. This will ensure the pedestrian and cycle facilities included in the new route will be safe and fit for purpose. Whilst a new bridge will not provide a convenient cycle and pedestrian route for all residents of Tinwald (i.e., those in west Tinwald are unlikely to walk / cycle across to the new bridge), the use of a new bridge by some of the pedestrians and cyclists using the existing bridge will reduce possible conflicts between cyclists and pedestrians on the narrow shared path on the existing bridge.

One of the key issues facing residents of East Tinwald is the right-turn manoeuvre onto SH1 in order travel into Ashburton. A new bridge located east of Tinwald will provide a viable alternative route for east Tinwald residents, thereby reducing their need to make the right-turn manoeuvre.

It will also reduce the overall volume of traffic on SH1, thereby providing more opportunities for the remaining traffic turning right onto SH1 to do so safely.

3.8.2 Improved connectivity for everybody in the Ashburton urban area

The ASUB project is expected to reduce the combined daily travel time for all vehicles in the Ashburton urban area by 22 hours in the morning peak, 13 hours in the lunch time peak, and 203 hours in the evening peak. In other words, this equates to 203 hours that the people of Ashburton will not spend sitting in their cars in traffic to get home every evening.

Traffic modelling indicates the existing bridge is expected to be significantly congested for southbound traffic in the evening peak by 2026. It is estimated that 27% of the traffic crossing the Ashburton River northbound in the morning, and 29% of southbound traffic in the evening will use the proposed ASUB route in 2026. This percentage is expected to increase further as east Tinwald and Lake Hood develop further.

The proposed bridge and associated roading will provide shorter and more convenient vehicle linkages between the area east of Tinwald (including the recently rezoned Residential C and D areas, and Lake Hood) and the remainder of Ashburton. This results in improved connectivity to employment, shopping, education and health facilities for East Tinwald residents, and to recreation, employment, and education facilities for residents north of the river.

The ASUB project will provide significant improvements in pedestrian and cyclist accessibility between Tinwald and Ashburton for utility trips (i.e., trips to and from employment, shopping, school etc). The ASUB project will include separate cycle lanes and footpaths across the new bridge and along the access roads. It will also include appropriate crossing points across the new route and side roads. The pedestrian and cycle facilities provided by the ASUB will link with the existing facilities along Chalmers Avenue. Key destinations on the north side of the river which will have improved access from Tinwald include (but is not limited to):

- The Ashburton CBD
- The Ashburton Business Estate

- The EA Stadium
- Ashburton Intermediate School
- Ashburton College
- Ashburton Hospital

Linkages will also be provided to the existing walk and cycleways along both banks of the Ashburton River. These linkages will provide improved access to facilities for walking and cycling.

3.8.3 Meet the current and future needs of the Ashburton district / community

The ASUB project will provide significantly improved access to the land to the east of Tinwald which has been zoned Residential C and D in the Partly Operative District Plan, and to residential areas currently being developed at Lake Hood. It will therefore help facilitate future urban growth proposed for Ashburton

3.8.4 Provide security for the Ashburton road network and state highway by providing alternative access in the event the current bridge cannot be used

Should the existing state highway bridge be closed, either temporarily by way of an accident or longer term by way of a natural disaster, the nearest available crossing of the Ashburton River is a detour of approximately 60km via SH77 and Thompsons Track on the Ashburton side of the river, and Valetta Westerfield Road / Westerfield Mayfield Road on the Tinwald side of the river. This can have particular implications for emergency services needing to access Tinwald.

A second urban bridge provides route security for both the Ashburton road network and the state highway by providing an alternative route that is within close proximity to the existing crossing and to the population base.

3.8.5 Ensure that State Highway 1 continues to take its inter-district and heavy traffic

The ASUB project is intended to improve the access between Tinwald and Ashburton. It is not intended to provide an alternative route for SH1 through traffic. The traffic modelling shows an increase in traffic on the bridge, particularly in southbound traffic through Tinwald in the evening peak. The ASUB project is expected to result in local traffic accessing Tinwald via the new bridge, thereby reducing the volume of traffic using SH1 and the existing bridge. The existing bridge is expected to become less congested and therefore will remain attractive to SH1 through traffic to remain on the state highway.

SH1 and the existing bridge is the specified route for over-dimension and over-weight heavy vehicles. This is likely to remain the case once the ASUB project has been constructed, but it is a decision for a future Council.

3.9 Need for the Designation

Part VIII of the RMA allows for requiring authorities to request land to be designated in District Plans for projects and works for which the requiring authority has financial responsibility. The ADC is a requiring authority and will have financial responsibility for the new designation and the works proposed to construct the ASUB. The extent of the designation is illustrated in the Designation Plans in Volume B attached to and forming part of this Notice of Requirement.

The designation is necessary to include the entire infrastructure associated with the ASUB project including a 2-lane bridge, traffic lanes (including cycle lanes and parking), footpaths / pedestrian connections, intersections, stormwater infrastructure, landscaping, ancillary road infrastructure (e.g.; services within the road corridor), and road construction.

The ADC therefore requires the new designation for "Ashburton Second Urban Bridge, associated new road and ancillary stormwater infrastructure".

A Land Requirement Schedule listing the properties directly affected by the designation and the area of land on each of these properties required for road is shown in the attached Notice of Requirement form and is illustrated in the Designation Plans in Volume B attached to and forming part of this Notice of Requirement.

The designation is considered both reasonably necessary and to be the preferred planning mechanism for the ASUB project. A designation provides greater certainty for the long-term provision, operation and maintenance of the roading infrastructure than a resource consent. This certainty is important since the ADC is making a long term commitment to the ASUB project to improve the overall safety, efficiency and sustainability of the urban roading network within the Ashburton township.

By contrast, a resource consent would result in less certainty for ADC in terms of process and outcome, and there is less scope for minor changes to design and layout once approved.

The Ashburton urban road network is considered a significant physical resource under the RMA within the context of Auckland Volcanic Cones Soc Inc v Transit NZ EnvC A203/2002, and as such it must be sustainably managed. The designation mechanism is used for projects that have a long lead in period where it is recognised that a project is required in years to come. However, the land may not necessarily be readily available in the future due to development and changes in land use. The designation process is used to signal the Council's intentions and to ensure the land required for the future project is secured now in order for the project to proceed when it is required.

This mechanism is also considered the most appropriate way for ADC to signal its intentions to the public via the District Plan.

The need for the project is discussed in Section 3.1 above. The new designation is considered necessary and will be effective in achieving a safe, efficient and sustainable urban roading network. Alternatives to the project have been considered by ADC, as discussed in Section 6 below. ADC is of the view that the proposed ASUB project better achieves its objectives than any of the alternatives.

Actual or potential effects of the ASUB on the environment are assessed and appropriate mitigation measures are recommended. It is considered that the mitigation measures recommended will ensure that any actual or potential adverse effects are likely to be minor. The new designation is

also assessed as satisfying all the relevant tests of Section 168A of the RMA and will achieve the purpose and principles in Part 2 of the RMA.

4 Existing Environment

4.1 Location

The project is located on the eastern outskirts of Ashburton in the suburb of Tinwald, as shown in Figure 4-1.

The alignment of the proposed ASUB project runs in a generally north east / south west direction as a 'green fields' development for approximately 2km in length. The ASUB project connects to Chalmers Avenue in the north, and to Grahams Road at the southern end in Tinwald.

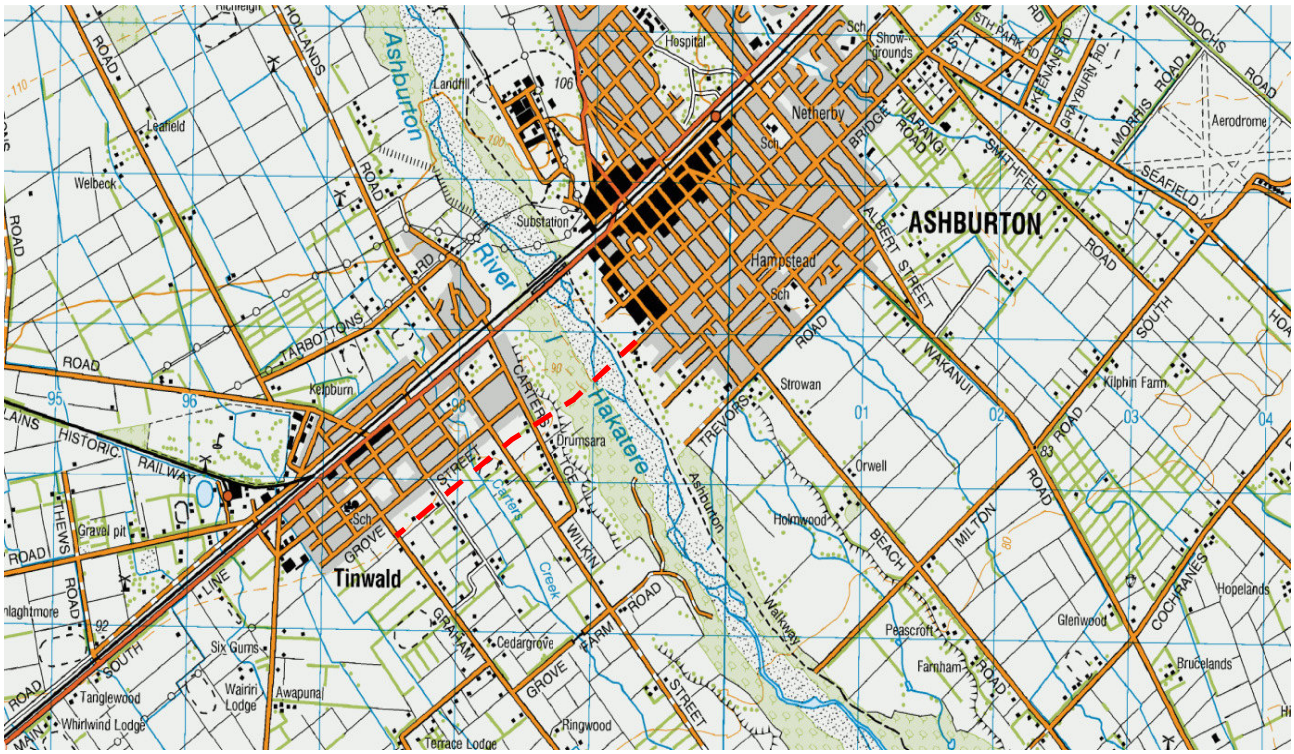


Figure 4-1: Location of the proposed Ashburton Second Urban Bridge (shown as red dashed line)

4.2 Existing Transport Network

4.2.1 State Highway 1

The main transport route through Ashburton township (including Tinwald) is SH1. On the Ashburton side of the river, SH1 is known as West Street. Within Tinwald, SH1 is named Archibald Street.

SH1 is a two lane, undivided road with a posted speed limit of 50km/hr. It is listed in the Ashburton District Plan roading hierarchy as an "Arterial Road".

SH1 crosses the railway at a level crossing on the Ashburton side of the river and just prior to the existing SH1 bridge.

4.2.2 Chalmers Avenue / Bridge Street / Walnut Avenue

Chalmers Avenue is listed in the Ashburton District Plan roading hierarchy as a "Principal Road". It runs in a generally north east / south west direction through the urban area east of the Ashburton business district. It has a 40m wide road reserve with 2 traffic lanes separated by a wide (10m) raised and planted median. The speed limit is 50km/hr.

Chalmers Avenue becomes Bridge Street at the Netherby Roundabout, and which continues in a generally north east / south west direction out towards the north east of Ashburton township. Chalmers Avenue also connects with Walnut Avenue at the Netherby Roundabout. Walnut Avenue runs in a generally west / east direction across Ashburton. Both Walnut Avenue and Bridge Street are also listed as 'Principal Roads' in the Ashburton District Plan roading hierarchy.

Chalmers Avenue, Bridge Street and Walnut Avenue provide the major connections between the suburban, commercial and industrial areas across Ashburton township.

4.2.3 East Tinwald Road Network

Streets within the east Tinwald urban area provide the network of local roads, all of which connect east Tinwald to Ashburton township via SH1 (Archibald Street) and the existing SH1 bridge.

Approximately 6km south east of Tinwald lies Lake Hood and its associated residential area. All Lake Hood traffic connects to east Tinwald and SH1 via Grahams Road within the rural area / Grahams Street within the urban area. With the exception of Grahams Road / Street, all other roads within east Tinwald are 'local roads' as per the Ashburton District Plan roading hierarchy. Grahams Road / Street is listed as a 'Principal Road'.

4.2.4 Public Transport

There are no public transport services within the Ashburton township.

4.2.5 Existing Pedestrian and Cycle Links

The following existing pedestrian and cycle routes are located in the vicinity of the project area:

- Cycle lanes and footpaths along both sides of Chalmers Avenue
- A shared pedestrian / cycle path on the eastern side of the SH1 bridge
- A cycle path on the western side of the SH1 bridge
- Walking / cycling tracks along both banks of the Ashburton River

There are currently no footpaths or cycle facilities on Carters Terrace, Wilkins Road, Johnstone Street or Grahams Road where these roads are located beyond the Tinwald town boundary and where they intersect the proposed Second Urban Bridge road alignment.

4.2.6 Main South Railway

The South Island Main Trunk Railway bisects the Ashburton and Tinwald urban areas.

4.3 Land Use/Surrounding Area

4.3.1 Current Land Use Patterns

North of the Ashburton River, Chalmers Avenue provides a demarcation between residential and business zones as follows:

- East of Chalmers Avenue lies Residential C Zone
- West of Chalmers Avenue lies Residential B Zone, Business C Zone and Business D Zone

Located at the south end of Chalmers Avenue where the street ends prior to the Ashburton River, there are two Scheduled Activities (Ashburton Collegiate Football Club, and Mania-o-roto Park (Scouts)) and Open Space Zones running along the river edge.

South of the Ashburton River, the proposed designation passes east of the current urban boundary of Tinwald. The area through which the designation runs is rural-residential in nature, with allotments ranging in size from 4,820m^2 to 50,507m^2.

The proposed alignment crosses three local roads being Carters Terrace, Wilkins Road and Johnstone Street before connecting into Grahams Road at the south end of Tinwald.

4.3.2 Future Land Use Patterns

As explained in Section 1 above, the 2010 District Plan review rezoned approximately 71.6ha of land east of Tinwald to Residential C and Residential D. Within these areas, subdivision to the smallest allowable allotment size for each zone is dependent upon there being reticulated sewage. In the absence of reticulated sewage, the Residential C and Residential D zones still allow subdivision but with a larger minimum allotment size. Notwithstanding, even in the absence of reticulated sewage both of these Residential zones allow subdivision down to smaller allotments than what is currently located within the area.

It is therefore expected that land use patterns within the green-fields area surrounding the proposed designation will have begun to change by the time the proposed ASUB project is required in approximately 2026. This change will be in the form of smaller allotments and more intensive residential development.

4.3.3 Institutional – Tinwald School

Tinwald School (primary) is located south of Graham Street. The playing fields back onto Graham Street, however the main entrance to the school is located one block to the south on the corner of Thomson / Jane Streets. The School is subject to an existing designation D70 on Ashburton District Plan Planning Map U72.

4.3.4 Existing Designations

The Ashburton District Plan Planning Map U68 shows there is an existing designation across the bed of the Ashburton River. The requiring authority for Designation D22 is Environment Canterbury and the designation is for soil conservation and river control purposes. This designation has been given effect to.

It is noted that ADC will need to obtain written authority from ECan at the time of construction of the ASUB project in order to exercise the proposed designation.

4.3.5 Other District Plan Notations

4.3.5.1 Area of Significant Nature Conservation Value (ASCV)

The Ashburton District Plan Planning Map U68 shows the Ashburton River is listed as an Area of Significant Nature Conservation Value (ASCV). The description of this site is as follows:

> *Together with the South branch above the gorge, the Ashburton provides some of the most important braided river habitat for birds in Canterbury. The two major branches of the river are over 130km long, and include an important river delta and lagoon. 39 wetland and 25 terrestrial species of birds have been recorded in the river, and there are nationally significant populations of black fronted terns, black billed gulls, banded dotterels and black fronted dotterel. A total of 50 bird species, including 26 wetland species have been recorded at the river mouth.*

4.3.5.2 Scheduled Sites

The Partly Operative Ashburton District Plan contains two scheduled activities located at the south end of Chalmers Avenue. These two activities are described as:

Site ID	Site Name	Site Location	Purpose	Activities
S8	Ashburton Collegiate Football Club	1 Chalmers Avenue, Ashburton	Private Recreation Facility	Recreational activities; and commercial activities limited to the sale of food and beverages
S26	Mania-o-roto Park	4-8 Chalmers Avenue, Ashburton	Private Recreation Facility	Recreational activities; and commercial activities limited to the sale of food and beverages

4.4 Cultural and Heritage Values

4.4.1 Cultural Values

The Tangata Whenua for the area is Te Runanga o Ngai Tahu. The ASUB project lies within the rohe of Te Runanga o Arowhenua.

The Deed of Settlement between the Crown and Te Runanga o Ngai Tahu (and the subsequent Ngai Tahu Claims Settlement Act 1998) recognises a number of areas as being of importance to Ngai Tahu. This includes, but is not limited to:

- **Nohoanga Sites**. These are areas to which Ngai Tahu can have seasonal occupancy for the purpose of fishing or gathering natural resources. No Nohoanga Sites are identified within the vicinity of the proposed ASUB project.
- **Statutory Acknowledgements**. These identify places of importance to Ngai Tahu and provide a statutory mechanism under the RMA for Ngai Tahu to become involved in the resource consent process or District Plan process. The Ashburton River is a Statutory Acknowledgement area under the Ngai Tahu Claims Settlement Act 1998.

The New Zealand Archaeological Association Archsite website does not show any recorded archaeological sites within the vicinity, or along the route of, the proposed ASUB.

Te Runanga o Arowhenua are currently preparing a Cultural Impact Assessment which will further describe the cultural values of the area through which the proposed road will pass. This will be forwarded to Council once it has been received.

4.4.2 Heritage Values

The Ashburton District Plan Planning Maps have been used to identify the location of any heritage sites / buildings or protected trees within the area. Within the vicinity, or along the route of, the proposed ASUB, there are no heritage sites / buildings or protected trees.

4.5 Landscape and Visual Context

An Assessment of Landscape and Visual Effects is contained in Volume C, Appendix 1 and should be referred to for full details. The landscape context and site context as described in the Assessment of Landscape and Visual Effects are reproduced below.

4.5.1 Landscape Context

Ashburton is located approximately 90 kilometres south of Christchurch along SH1 and the South Island Main Trunk (SIMT) railway line. The town developed along these main road and rail routes during early European settlement on the flat Canterbury Plains and has functioned as an agricultural service town for mid-Canterbury since.

The settlement was laid out in the traditional grid pattern with the Ashburton River separating the southern part of the town from Tinwald. Ashburton, now supporting a population of around 18,300 people, remains a service town, but also has new and existing areas of rural–residential and light industrial development around its outskirts. The latter includes a recently completed industrial estate to the north of the town.

Ashburton is the major town of the district and SH1 runs through the centre of the town. West Street (part of SH1) directs traffic parallel to the main retail street of Ashburton (East Street). The SIMT railway line separates East Street and West Street (SH1). Tinwald is a suburb of Ashburton though, being completely to the south of the Ashburton River, feels separate.

The broad landscape context surrounding the Ashburton and Tinwald residential area is that of the flat, open Canterbury Plains. Pastoral farming and cropping are major types of landuse with their grid pattern of open, flat paddocks contained in many cases, by conifer hedges and shelterbelts. The plains landscape has been formed by the large braided river systems which characterise much of the Canterbury region. Many smaller tributaries have generally been diverted and the water table lowered by artificial drainage ditches meaning that the landscape is largely a modified agricultural landscape. No original or intact indigenous plant communities are apparent and any indigenous plants are isolated. The Ashburton River Bed represents the most intact and important habitat area.

The Ashburton River and transport corridors of SH1 and the SIMT railway line are the obvious local features; the river is paralleled by almost continuous plantings of shelter and amenity trees. Noticeable built features are the Fairton Meat Works to the north and relatively intense areas of rural-residential development to the south. To the south adjacent to SH1 and west of the railway line is the Ashburton Golf Course.

4.5.2 Site Context and Description

Generally the pattern of land use surrounding the main residential areas of Ashburton and Tinwald to the south is characterised by Residential C, Residential D, Rural A and then Rural B radiating out from the SH1 and Ashburton Town Centre and suburban centres with pockets of Business and Open space. At present the river forms a strong division between Ashburton and Tinwald Residential Areas and land use adjacent to the river is distinctive.

The existing SH1 Road Bridge spans the river and the separate rail bridge sits adjacent and parallel to it. The landscape character of the areas on either side of the river is different.

4.5.2.1 South of the Ashburton River

South of the river, land adjoins Tinwald and is semi-rural in character, containing lifestyle blocks associated with rural-residential housing. The landscape is strongly divided with paddocks surrounded by exotic shelter belt trees and hedges and views range from short to distant depending on shelter belt locations. Larger blocks adjoin the rear of smaller more urban residential properties and streetscapes associated with Tinwald.

4.5.2.2 North of the Ashburton River

Immediately north of the river is the edge of Ashburton and contains light industrial units, storage yards and several recreation grounds. Beyond this further towards the centre of Ashburton, streets become strongly residential in character and use before adjoining East Street, Ashburton's main street which is largely commercial/retail.

4.5.2.3 Ashburton River

The Ashburton River itself flows in braided channels of greywacke gravels, typical of the larger Canterbury rivers and is subject to flooding and with limited direct access at present. The margins

of the river subject to flooding (defined as river channel in the district plan) are wooded with a mixture of poplar and willow bank protection planting. Beyond the bank-protection planting are low river terraces and in some places, flood banks and to the south, pine plantations. The use of these margins is mainly recreational, though they adjoin industrial land to the north and form a strong backdrop and shelter for housing immediately to the south. There are no views through to the river or its banks along this section of the river. Overall, views of the river are restricted to riverside walking/cycling trails and from road and rail bridges.

4.5.2.4 Road Network

Roads immediately beyond the built-up residential areas are typically rural in character with roadside open drains, but no defined edge or kerb. Drainage ditches characteristic of many Canterbury Plains rural areas have been excavated at road frontage boundaries to lower the water table and to carry water away. It is understood that all of the watercourses, aside from the river, are man-made and generally lack natural characteristics.

4.5.2.5 Landuse Zones

The corridor of land occupied by the proposal overlays several landuse zones under the Ashburton District Plan. From Grahams Road through to the Ashburton River the proposed designation crosses Residential C (between Grahams Road and Johnstone Street), Residential D (from Johnstone Street to the river terrace beyond Carters Terrace) and Rural A across the Ashburton River. On the west side of Chalmers Avenue between the north bank of the Ashburton River and South Street, the land zones are Open Space A, Open Space B and Business D respectively. On the opposite side of the Chalmers Avenue up to South Street, the land zones are Open Space B and Residential C respectively.

4.6 Ecology

A full assessment of the terrestrial and avian ecological values and effects from the project has been undertaken by Mike Harding. This assessment is contained in Volume C, Appendix 2.

The site of the ASUB project is described as a level or gently sloping alluvial surface (terrace / plain) bisected by the Ashburton River. The southwest part of the site (between Grahams Road and Carters Terrace) comprises developed farmland with shelter or amenity plantings and occasional buildings. The northwest part of the site, along either side of the Ashburton River, comprises river-berm plantings and open riverbed. The only parts of the site that appear relatively undeveloped are a small part of the lower terrace between Carters Terrace and the river-berm forest, and the open flood channel (riverbed) of the Ashburton River.

4.6.1 Vegetation

Vegetation at the site is predominately exotic. No original or intact indigenous plant communities are present however several indigenous plant species are present. None of these species are considered threatened or at risk.

Between Grahams Road and Carters Terrace, almost all of the area is dominated by paddocks oversown with pasture. Shelterbelts and hedges, mostly comprising exotic species, are present on property boundaries and between paddocks. No original or intact indigenous vegetation was observed at this part of the site.

The only part of this area that may have some ecological value for indigenous biodiversity is Carters Creek. The creek appears to follow an excavated channel and the banks are dominated by exotic grasses. Native species have been planted in the vicinity of Carters Creek.

Between Carters Terrace and the river berm forest, the higher terrace comprises paddocks with sown pasture. The lower terrace, adjacent to the river berm forest, also supports pasture though less developed.

The open terrace from the river berm forest to the Ashburton River has been planted as part of flood protection works.

The riverbed islands within the Ashburton River are dominated by exotic plant species.

The strip between the Ashburton River and the foot track accessed off Chalmers Avenue is dominated by crack willow. Native shrubs have been planted alongside the walkway.

4.6.2 Habitats of Indigenous Fauna

Birds of the Ashburton River have been surveyed regularly since 1981. The most recent survey (2012) of reaches above and below the SH1 bridge recorded 17 indigenous bird species. Of these birds, 8 species are notable (black fronted tern, black-billed gull (nationally endangered), banded dotterel, Caspian tern, red-billed gull (nationally vulnerable), pied stilt, white-fronted tern (at risk, declining), and black shag (at risk, naturally uncommon)).

Most numerous of all bird species recorded in the 2012 survey was black-billed gull (9,600 individuals) almost all of which were observed in three separate (but close) colonies in the vicinity of the SH1 bridge i.e., at or near the ASUB project site.

4.7 Stormwater Features

4.7.1 Existing Catchment

4.7.1.1 North Bank

Currently a large diameter stormwater main discharges into a drain at the intersection of Chalmers Avenue and South Street. This drain runs along the remainder of Chalmers Avenue and outfalls into the Ashburton River through the Ashburton flood defence embankment via a culvert fitted with a flap gate.

4.7.1.2 South Bank

There is currently no formal stormwater network on the south bank. Urban stormwater upstream in Tinwald follows the kerb and channel South East until the roads (Wilkin Street; Carters Terrace; Johnston Street and Graham Street) enter rural land. The stormwater then continues down the roads via swales or drains that run parallel to the road. Where the proposed second bridge alignment crosses Carters Terrace, Wilkins Road, Johnstone Street and Grahams Road, there is potential for urban stormwater arriving at each intersection from upstream urban areas. At the Grahams Road intersection there is also a stockwater race running down the southern side of the road.

Below Carters Terrace, within the Ashburton River flood plain, there is a drain that crosses under the proposed alignment running adjacent to the area of trees. This drain accepts a small amount of urban stormwater upstream, as well as rural run-off and groundwater, if sufficiently high.

The road alignment also crosses Carters Creek, which receives both rural and urban run-off, as well as spring flow from upstream. The creek discharges downstream into Lake Hood.

4.7.2 Ground Conditions

As well as the Ashburton River floodplain and riverbed, the road alignment crosses a variety of silty loam soils, parts of which are underlain by clays. These soils are imperfectly drained to poorly drained with terminal infiltration rates likely ranging from 1mm/hr to 7mm/hr. The depth-to-groundwater ranges between 1-3 metres on average, but during winter months may be significantly elevated.

The Tinwald section of the road alignment is expected to encounter seasonally high groundwater and experience poor infiltration during winter months in some areas, particularly in the vicinity of the Carters Creek. For design purposes it has been assumed that infiltration alone cannot be relied on for sole disposal of stormwater, requiring discharge to the Carters Creek and flood attenuation to mitigate downstream effects during low frequency rainfall events.

4.7.3 Topography

The existing topography along the route of the proposed ASUB alignment can be described as follows:

- On the north bank at Chalmers Avenue, the topography falls gently from South Street towards the Ashburton River (although there is an existing high point in the road being a former flood defence embankment)
- The south bank river terrace (Carters Terrace) generally falls gently south west towards Carters Creek (although there is a high point between Carters Terrace and Wilkins Road)
- The land from Grahams Road north east towards Carters Creek is generally flat with poorly defined topography
- The land below Carters Terrace and Chalmers Avenue forms part of the Ashburton River floodplain or the river channel itself (being a braided gravel channel)

4.7.4 Receiving Environment

Both the immediate north and south sides of the proposed bridge will discharge into the Ashburton River, either directly off the bridge or via the drains located on both the north and south banks (as described in Section 4.7.1 above).

For the remainder of the proposed ASUB route, the receiving environment for stormwater will be Carters Creek, existing road side drains or to ground via soakage.

4.8 Geotechnical Conditions

A desk-top background geotechnical study undertaken in December 2009 looked at a combination of geological maps, ECan bore logs, land information reports (requested from ECan), and historical data on groundwater levels. The overall soil conditions within the area are summarised as follows:

- Geological maps indicate soils are predominantly brownish grey river alluvium
- ECan well bore logs indicate sandy gravels are encountered throughout the area, with layers of sand, silt and clay indicated on some bore logs
- Information on ground water taken from ECan bore logs (where available) indicates the average ground water level is typically between 2.5m to 3.8m
- Land Information Reports requested from ECan for sites adjacent to the Ashburton River on Smallbone Drive and The Terrace indicate that the area has low liquefaction potential
- Historical data of ground water levels shows water level fluctuations of up to 4.7m in the vicinity. If layers of sand or silt are present within 5 metres of ground level in these regions there is potential for liquefaction.

At the site of the proposed bridge, the ECan bore logs indicate encountered soils are predominantly sandy gravels. Silt layers are encountered within 3m of ground level on the north side of the Ashburton River. The average ground water level at this site is 3.3m (this is consistent with normal river levels). There may be potential for liquefaction should a large earthquake occur during times of high ground water. Regional studies which have indicated a low potential for soil liquefaction could not be confirmed. The detailed design process for the bridge will require specific subsurface investigations involving boreholes and standard penetration testing (SPT) to confirm liquefaction potential.

Within the area of the proposed new link road, ECan bore logs indicate encountered soils are predominantly sandy gravels with clay. Generally the presence of clays decreases with depth below ground level. Some layers of sand and clay were encountered on the south side of the river towards Grahams Rd; these were within 1.5m below ground level, with the exception of bore log K37/0952 which indicates a sand layer at 23m depth. The desk-top study states that silts and clays are indicated near the surface along the corridor and no specific subsurface investigation would be required.

A further, more detailed desk-top study was undertaken in July 2010, specifically looking at land on the south side of the Ashburton River. Based on the additional research undertaken, the inferred subsurface conditions are as follows:

- 0-1.0m depth: surface soils and clay, typically saturated
- 1.0-depth: gravels, some tightly bound with clay resulting in an impervious deposit (so the surface does not drain). Interbedded with free gravels (inferred to be free draining), and sand layers at various depths (water levels in bores dropped when these deposits were encountered). In some locations the gravels are shallower, and results in near surface springs.

These findings are not inconsistent with the earlier desk-top assessment, except to highlight that there are poor shallow soils (<1m) and potentially perched groundwater levels on the south side of the Ashburton River. This will have some implications for pavement design, but does not change any of the recommendations from the desk study report with respect to the bridge.

4.9 Major Utilities

4.9.1 Chalmers Avenue

Chalmers Avenue contains all of the utilities expected to be located within the road corridor in an urban environment. This includes wastewater, stormwater, potable water, electricity and telecommunications. There will be no physical change to Chalmers Avenue as a result of the ASUB project, and therefore no changes to the provision of utilities.

4.9.2 East Tinwald

The current urban area of Tinwald is fully serviced by all of the expected utilities. There will be no change to these services within this area as a result of the ASUB project.

East of the current Tinwald urban boundary, within the 'green fields' area through which the proposed designation will run, there is currently limited utilities. Existing households have electricity and telephone / internet services, but they need to rely on their own wastewater, stormwater and potable water systems.

5 Project Description

5.1 Overview

ADC proposes to construct, use and maintain a new 2-lane bridge located at the southern end of Chalmers Avenue and an associated new road through 'green fields' to the east of Tinwald to a connection with Grahams Road in Tinwald. The proposed new bridge and associated new road infrastructure is collectively referred to as the Ashburton Second Urban Bridge project.

Once constructed, the new bridge and associated road will provide an alternative route across the Ashburton River and a continuous link from Tinwald through to the existing local transport network within Ashburton township.

Included within the new designation will be a 2-lane bridge, traffic lanes (including cycle lanes and parking), footpaths / pedestrian connections, intersections, stormwater infrastructure, landscaping, ancillary road infrastructure (e.g., services within the road corridor), and road construction.

When completed, the new road will perform the function of a 'Principal Road' as identified in the Ashburton District Plan roading hierarchy.

The key aspects of the project can be summarised as follows:

- There will be no changes to the current layout of Chalmers Avenue. The planted central median will remain. Chalmers Avenue will retain priority at all intersections. However, in the intervening years prior to construction of the ASUB, the surface of Chalmers Avenue will be gradually upgraded to asphaltic concrete (from the current chip seal surface) to provide a 'low-noise' surface

- The new bridge will be designed to the standards contained within the relevant NZTA Bridge Manual at the time of detailed design. The typical bridge layout (refer to Figure 5.2 below, and Sheet 07 in Appendix B) shows standard width traffic lanes, cycle lanes in each direction and a separated footpath in each direction

- The proposed new road extending from the bridge through to Grahams Road will have a variable width ranging from 60m wide at the bridge, 32m wide from Carters Terrace to Johnstone Street, and 30m wide from Johnstone Street to Grahams Road. The typical cross section will contain a flush (painted) median, traffic lanes, cycle lanes, parking, footpath and swale / landscaping

- The new road will have priority at all intersections through east Tinwald. It will have a 50km/hr speed limit and be paved in asphaltic concrete to provide a low noise surface

- The new road will form a T-intersection with Grahams Road. Grahams Road will retain priority

- Stormwater system comprising roadside swales and infiltration basins

These key details are described further in Sections 5.2 – 5.9 below.

5.2 Design Process

5.2.1 Overview

This investigation stage involves the development of the preferred project solution to a point where the project will be functional and designation and land purchase requirements are confirmed. In essence the 'design' presented here in support of this Notice of Requirement is an 'outline design' that demonstrates the preferred solution and enables an assessment of actual or potential environmental effects to be undertaken and appropriate mitigation measures identified.

At the detailed design phase of the project, the construction details will be confirmed to support an Outline Plan and resource consent applications.

5.3 Alignment and Typical Cross Section

Drawings showing the typical alignment and cross section are shown on drawings 6/619/115/3604 sheets 5-14 contained in Volume B. The key features are described below:

5.3.1 Alignment

The proposed alignment of the ASUB runs from Grahams Road, approximately 200m east of Grove Street. It follows a curvilinear alignment to cross the river opposite the end of Chalmers Avenue. It then follows Chalmers Avenue to the Chalmers Avenue / South Street intersection. The roading layout is shown on drawing sheet numbers 10 - 14 in Volume B.

The identified alignment has been chosen to avoid, as much as is possible, impacts on properties within the area to be designated. Property boundaries have been followed to avoid splitting properties in half, although it is impossible to avoid splitting up two properties. The alignment has also tried to maximise the available residual land of the affected properties, such that property owners will retain land that can still be subdivided into allotments that meet the district plan minimum allotment sizes for the zone they are within (should they wish to do so in the future).

5.3.2 Typical Cross-Section

The proposed cross section of the road varies along the length of the route. There are four different typical cross sections as follows:

- Grahams Road to Carters Terrace
- Carters Terrace to Ashburton River
- Bridge across Ashburton River
- Ashburton River to South Street

These typical cross sections are shown on drawing sheet numbers 05 - 07 in Volume B, and described below:

5.3.2.1 Grahams Road to Carters Terrace

This section has the following typical carriageway cross section

- 1 x 2m wide flush (i.e., painted) central median
- 2 x 3.5m wide traffic lanes
- 2 x 1.8m wide cycle lanes
- 2 x 2.4m wide parking lanes
- 2 x 1.6m wide footpaths

In addition to the typical carriageway as described above, it is proposed to include a further 4.7m – 5.7m width on both sides for stormwater swales and landscaping purposes. From Grahams Road to Johnstone Street, the proposed designation width is 30m which provides for 4.7m wide swales either side of the carriageway. From Johnstone Street to Carters Terrace, the proposed designation width is 32m which provides for 5.7m wide swales either side of the carriageway.

A typical cross section for this length is shown in figure 5-1 below, and on drawing sheet number 05 in Volume B.

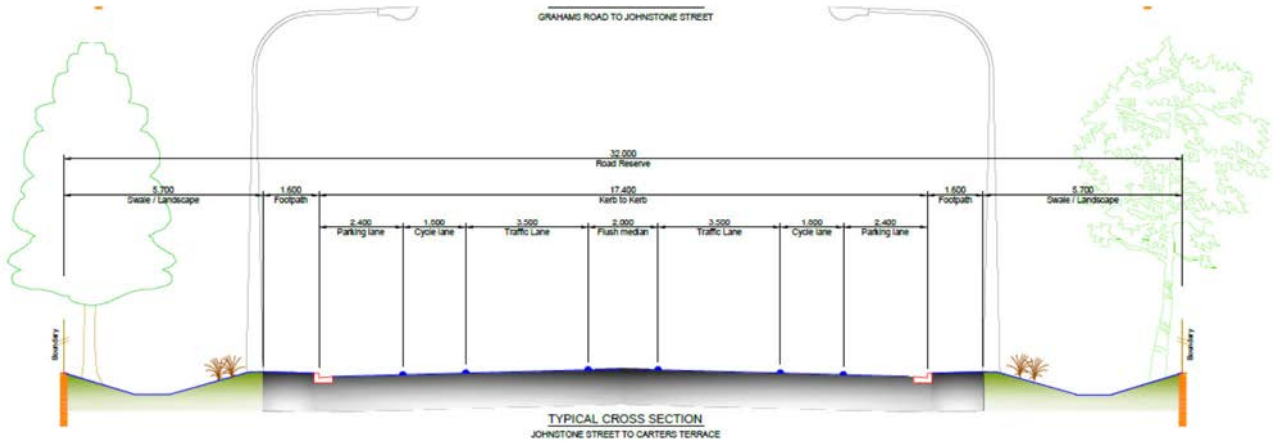


Figure 5-1: Typical Cross Section

5.3.2.2 Carters Terrace to Ashburton River

This section has the following typical carriageway cross section:

- 2 x 3.5m wide traffic lanes
- 2 x 1.8m wide cycle lanes
- 2 x 1.6m wide footpaths

Over this section the road is on an embankment across the floodplain of the Ashburton River. It also includes stormwater swales at the base of the embankment on both sides, and pedestrian and cycle paths on both sides connecting to the existing walking and cycling track on the south side of the Ashburton River.

This cross section is found on drawing sheet number 06 in Volume B.

5.3.2.3 Ashburton River Bridge

The proposed typical bridge cross section includes:

- 2 x 3.5m wide traffic lanes
- 2 x 1.8m wide cycle lanes
- 2 x 1.6m wide footpaths

Typical bridge layouts, including a typical cross section for the bridge, are shown on drawing sheet number 07 in Volume B.

5.3.2.4 Ashburton River to South Street

This section is similar to the remainder of Chalmers Avenue, and has the following typical carriageway cross section:

- 1 x 10m wide solid central median, incorporating a swale
- 2 x 3.5m wide traffic lanes
- 2 x 2.0m wide cycle lanes
- 2 x 2.5m wide parking lanes
- 2 x 2.0m wide footpaths

This section of the project is already a road and therefore does not need to be designated as part of this project. However, this road needs to be upgraded to tie in with the proposed bridge and to provide the link through to Chalmers Avenue.

The existing road reserve is 40m wide. In addition to the typical carriageway as described above, the additional width of the road reserve in this area allows for a 3.5m wide berm both sides of the new carriageway up to South Street for landscaping purposes.

A typical cross section for this length is shown on drawing sheet number 06 in Volume B.

5.3.3 Intersections

5.3.3.1 Chalmers Avenue

There will be no change to the priority of intersections along the existing Chalmers Avenue. That is, Chalmers Avenue is the Principal Road and will retain priority.

However, some minor traffic calming measures are recommended for intersections on Chalmers Avenue in order to improve general safety, and pedestrian and cyclist amenity and safety.

Drawing sheet number 08 in Volume B shows possible changes to the Netherby Roundabout at the intersection of Chalmers Avenue / Walnut Avenue.

Drawing sheet number 09 in Volume B shows possible changes to other intersections, as well as possible pedestrian facilities, along Chalmers Avenue, between South Street and Walnut Avenue.

The need for these changes is described in the Traffic Impact Assessment contained in Volume C, Appendix 6.

5.3.3.2 East Tinwald

Carters Terrace, Wilkins Road and Johnstone Street

The ASUB project will provide a continuation of Chalmers Avenue across the bridge through to Grahams Road. The new road will have priority at all intersections where it crosses Carters Terrace, Wilkins Road, and Johnstone Street. The intersection layout shown on drawings 11-13 in Volume B consists of cross road type intersections with right turn bays on the new road.

Sufficient land is included within the designation at each of these intersections to install roundabouts rather than a cross roads type intersections. The decision on the types of intersections at these locations will be made at the time of detailed design. There are pros and cons for roundabouts as opposed to cross roads type intersections. These are summarised below:

Roundabout Pros:

- Improved accessibility and safety for vehicles turning onto the new road from side roads
- Would be likely to discourage through vehicles (particularly heavy vehicles) using this route between SH1 south of Tinwald and north Ashburton, including the Business Estate

Roundabout Cons

- Causes delays for vehicles on the main road
- Roundabouts work best when traffic volumes on all arms are reasonably even
- Reduction in accessibility and safety for pedestrian and cyclists

Grahams Road

The proposed new road will connect at Grahams Road via a T-intersection, with the new road being controlled via a 'stop' or 'give way'. Grahams Road will retain priority, and will likely have a right-turn bay installed (for right-turning traffic coming from the direction of Lake Hood).

5.4 Structures

The key structure will be the new bridge across the Ashburton River. The bridge will be subject to detailed design at the time that it is required to be built, and will form part of the Outline Plan. Resource consent from ECan will also need to be sought prior to construction.

Notwithstanding, a typical bridge layout is shown at Figure 5-2 below, and is shown on drawing sheet number 07 in Volume B. The typical layout shows an indicative span width of 30m between piers with 13 piers spanning approximately 420m across the Ashburton River. This is compared to the existing SH1 bridge which is shorter (342m long) and has more piers (31).

The indicative carriageway of the bridge is shown at 16.24m wide. This width meets the current bridge design standards and would provide the following:

- 2 x 3.5m wide traffic lanes
- 2 x 1.8m wide cycle lanes
- 2 x 1.6m wide footpaths separated from the cycle and traffic lanes by a solid concrete barrier. Rigid side barriers with a handrail would separate pedestrians from the edge of the bridge
- Light poles along the length of the bridge would provide street lighting

The detailed design process for the proposed bridge will need to consider the relevant bridge design standards (such as for lane widths) at the time the design is undertaken.

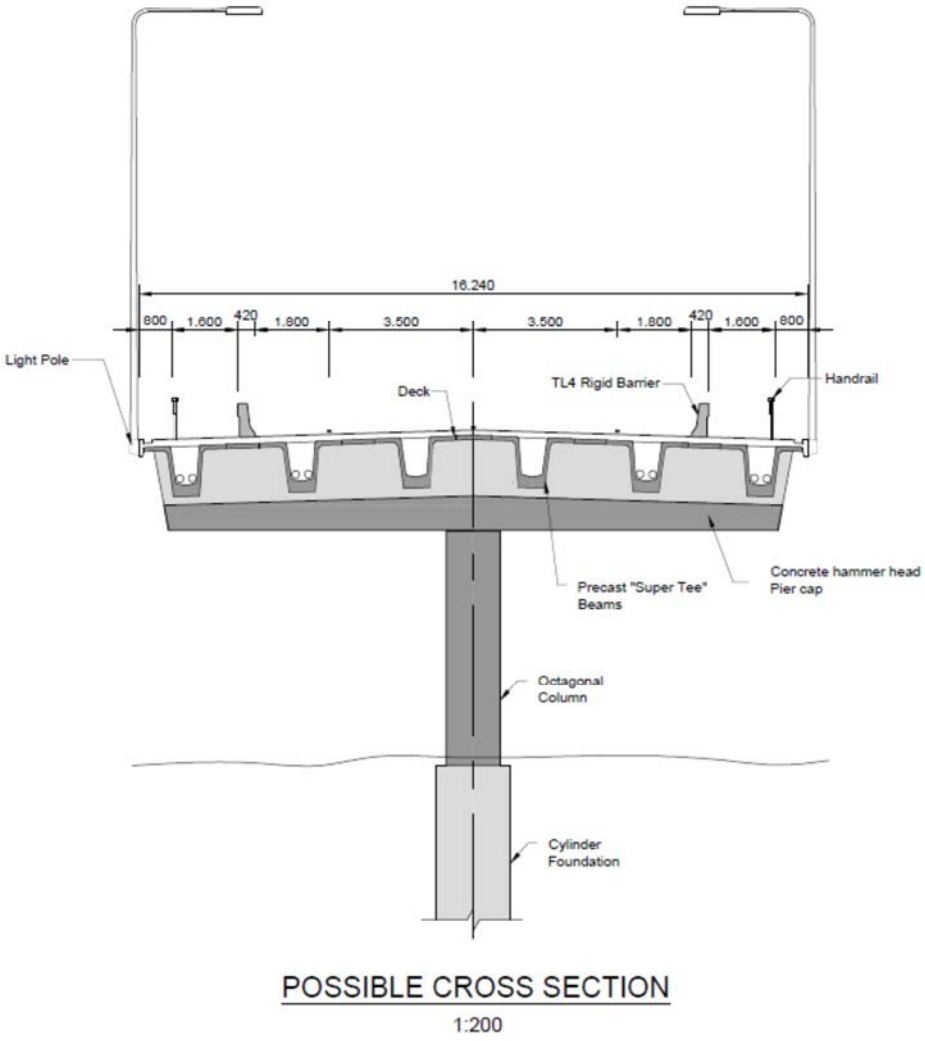


Figure 5-2: Possible Cross Section of Proposed Bridge

5.5 Pedestrian and Cycle Connections

As noted in 5.4 above, the proposed new bridge will contain cycle lanes and footpaths on each side. These cycle lanes and footpaths will connect into the existing cycle and pedestrian facilities on Chalmers Avenue.

As noted in Section 5.3.2 above, the proposed new road from Grahams Road through to the bridge will also contain pedestrian and cycle facilities on both sides of the road.

The proposed ASUB project will provide a direct cycle and pedestrian link from Grahams Road through to the existing cycle and pedestrian facilities on Chalmers Avenue.

The existing side roads (Carters Terrace, Wilkins Road and Johnstone Street) currently do not have footpaths or cycle lanes at the point where they are crossed by the proposed new road. This proposal does not include the provision of footpaths and cycle lanes on these side roads. It is anticipated that these facilities will likely be done as part of any future urban development within the area.

5.6 Lighting

New lighting will be provided for the full length of the ASUB, and will generally be a continuation of the street lighting already found along Chalmers Avenue. All local and residential road lighting design and pedestrian / cycle lanes, together with the type of luminaires proposed, will conform to the requirements of the current Australian / New Zealand Standard AS/NZ 1158 Road Lighting (AS/NZ 1158). All luminaires selected will conform to the photometric and material requirements of AS/NZS 1158.

5.6.1 Luminance and Illuminance Levels

For the ASUB Project, the road lighting on the main carriageway leading to the bridge will be designed to meet full compliance with AS/NZS 1158, subcategory V4, as follows:

- luminance levels of no less than 0.50 candela per square metre
- overall uniformity (minimum-to-average) to be above 0.33
- longitudinal uniformity to be above 0.3
- Threshold Increment (T.I. for glare control) below 20%
- Minimum illuminance to be above 5.0 lux for intersections.

Any Category V road luminaire must have an Upward Waste Light Ratio (UWLR) of below 3%. This gives an indication of the tight containment of lighting within a specifically designed task area like a road. By using a full cut-off (Type 3) luminaire, it is anticipated that the UWLR will be 0.03%, which complies with Category V of AS/NZS 1158.

Glare will be minimised by the use of cut-off (Type 3) LED luminaires and the completed lighting design will be compliant as to be below the maximum Threshold Increment (Glare) of 20% outlined within AS/NZS 1158.

5.6.2 Lighting Column Arrangements

The lighting column arrangement will be designed as "Staggered" to provide the optimum solution for this installation.

The use of a staggered installation allows for maximum pole spacing, better uniformity and reduces the number of poles and luminaires which lowers the initial cost of the installation and the maintenance and running cost in the future.

The recommended pole height for this installation will have a luminaire mounting height of 10.6m.

The lighting columns will all be frangible galvanized sectional steel design with a ground planted base section.

5.6.3 Pedestrian and Cycleway Lighting

All cycle way lighting will be incorporated within the road lighting design as the cycle way is part of the road geometry.

5.7 Earthworks

The earthworks required fall into four broad categories:

- Construction of embankments for the bridge
- Disturbance required to construct the bridge
- Localised ground improvements
- Works associated with road construction (including stormwater swales and basins)

The earthworks will be managed through the proposed Erosion, Sediment & Dust Control Management Plan.

5.8 Stormwater Management

5.8.1 Design Philosophy

A best practicable approach to stormwater attenuation and treatment has been adopted based on the sensitivity of the receiving environment and ADC's requirements. The concept stormwater design philosophy is described as follows:

- To accommodate or resolve existing ADC capacity issues where possible
- To provide effective treatment prior to discharge during high frequency events
- Aims to discharge to the Ashburton River or its flood plain wherever possible (to reduce discharges to Carters Creek)
- To utilise soakage wherever feasible
- To manage overland flow paths during the 2% AEP rainfall event (and lesser events)

- No flooding of the road corridor during a 10% AEP rainfall event (and lesser events)
- Ensure good drainage during routine events to minimise wetting of the road sub-base.

ADC adopted the Ashburton Urban Stormwater Strategy (AUSS) in 2009. This sets out, at a high level, the Council's future approach to managing stormwater in Ashburton. Following on from the AUSS, ADC is currently in the process of developing a Stormwater Management Plan (SMP) for Ashburton, including Fairton, Tinwald and areas identified in the District Plan for future development. The SMP will set out in greater detail how ADC will achieve the objectives of the AUSS and forms the basis of a global stormwater discharge consent from ECan which ADC will administer.

The concept stormwater design for the ASUB project has been developed to ensure it will be in line with the aspirations of the AUSS and the expected requirements of the SMP and global stormwater discharge consent.

5.8.2 Proposed Stormwater Concept

The proposed stormwater concept has considered how the stormwater discharge will fit within the AUSS and SMP. The following design assumptions have been made in order to determine land requirements for stormwater:

- Upstream areas of greenfield land or future development areas do not / will not contribute to the road alignment and its associated stormwater system. This assumption is considered reasonable as ADC's preference is for upstream development areas to manage their own stormwater discharges.
- The road pavement has been assumed to be 21m wide and 100% impervious. This is conservative, as the typical carriageway width (including footpaths) is likely to be 20.6m.
- Terminal infiltration rates for greenfield/pervious areas have been assumed to be 1.5mm/hr. This is based on LandCare Research soil parameters for the relevant soil class and supported by local knowledge of the area.
- Soak pits have been assumed to be ineffective during low frequency events due to elevated groundwater. This is considered a reasonable assumption as groundwater in Tinwald is known to be seasonally high following high depth winter rainfall events.
- Infiltration through swales adjacent to the road has been assumed to be a maximum of 10mm/hr. This is considered to be at the lower end of rates expected based on prior experience testing soil media infiltration rates, and ensures conservative design.
- 16% increase in rainfall has been included due to projected climate change. This is the value recommended by ECan for stormwater design and the ADC stormwater design guide (in development).
- Basin sizes are assumed to be 12% of the contributing catchment area. This is based on prior design experience and the proposed ADC stormwater design guide (in development).

These design assumptions are based on the approach being taken in the ADC SMP.

The proposed stormwater concept outlined below will be confirmed at the time of detailed design.

5.8.2.1 North Side – Chalmers Avenue and South Street Intersection

In order to accommodate the proposed road alignment, the existing Chalmers Avenue drain will need to be filled and replaced with pipework to maintain stormwater conveyance to the Ashburton River. The new pipeline should be sized to allow for future upgrades of the upstream network and with an aim to improve existing flooding issues at the intersection (if not resolved by the time of construction). This may require the upgrade of existing catch-pits serving the intersection.

The design will also need to consider the existing gross pollutant trap and its by-pass arrangement. Where the road narrows, a new drain is proposed to convey stormwater to save cost on pipework. A new outlet through the Ashburton flood defence embankment will be required to replace the existing one located under the proposed road embankment.

Stormwater from the bridge will fall back towards Chalmers Ave and discharge into a central swale (Figure 5-3). This area will be formed within the central median and, rather than be raised as with the existing media on Chalmers Ave, it will be depressed. This will provide stormwater treatment of flows prior to discharge to the proposed pipework (replacing the Chalmers Avenue Drain) via shallow low velocity flow through grass and an element of infiltration through a soil media. The outlets in the swale will be slightly raised so that most routine rainfall events can entirely infiltrate through the soil media. This will ensure a higher standard of treatment prior to discharge for minimal additional cost. The lowest areas of the swale most prone to water logging should be landscaped to aid maintenance and enhance treatment. Trees may also be planted within the swale.

Detailed design of the stormwater system will have to consider the location of driveways on Chalmers Avenue to provide for right-turning manoeuvres and would ideally be undertaken in discussions with neighbouring landowners at the time of design.

Figure 5-3 – An example of an infiltration basin / swale located within a central median

5.8.2.2 South Side – Ashburton River to Grahams Road

Carters Terrace to Ashburton River

Where the road crosses the Ashburton River flood plain, runoff from the road surface (including the bridge) will be discharged below the terrace to an existing drain using roadside swales. A basin is not necessary as the swales and existing drains should adequately treat and discharge stormwater directly to the river. Preference is to discharge stormwater to the Ashburton River flood plain wherever feasible so it can discharge to land or the Ashburton River, which is a less sensitive receiving environment compared to Carters Creek.

Carters Terrace to Carters Creek

Once the road reaches Carters Terrace, run-off will shed towards Carters Creek utilising road-side swales with periodic soak-pits to aid disposal (where ground conditions are found to be suitable through geo-technical testing). A continuous flow path via swales and pipework at intersections will be provided to Carters Creek. A basin will be provided at Carters Creek to attenuate flows from the road corridor during flood events. The basin will not be designed as a treatment system as run-off from routine events is not expected to reach the basin. It will only serve to hold back peak flows during low frequency events.

A catchment area of 27.4 ha is estimated to contribute to this section north of the proposed road (both existing and future growth areas). The swales have been designed to accommodate both the

flow from this catchment area and road and convey it to Carters Creek. This section experiences the highest flow rates.

Johnstone Street to Carters Creek

Stormwater from Johnstone Street will follow swales back to Carters Creek in similar fashion to the Carters Terrace to Carters Creek section, utilising road-side swale and soak-pits (where ground conditions are suitable) with a flow path to Carters Creek.

Ensuring there is an adequate flow path to Carters Creek is essential should the soak-pit performance be compromised occasionally due to high groundwater. The attenuation basins adjacent to Carters Creek will be provided for such occasions when the capacity of the swales and soak-pits are exceeded, for example during a 2% AEP rainfall event.

Johnstone Street to Grahams Road

Through this section it is intended that runoff will be directed towards Grahams Road and then follow an existing roadside drain to the south east. Due to the flat grade of the swale, as much stormwater as is possible would be sent to ground, whilst still providing an overland flow path to the storage area adjacent to Grahams Road for low frequency events. The storage area would then in turn discharge to the existing drain on Grahams Road.

5.9 Landscaping

No specific landscape plans have been developed at this stage of the project. It is noted however that the Chalmers Avenue section of the project includes provision for 3.5m landscaped berms on either side of the new road. In addition, the typical cross sections contained in Volume B give an indication of possible planting within the stormwater swales.

The Assessment of Landscape and Visual Effects (Volume C, Appendix 1) provides a framework for the necessary landscape mitigation that will need to be considered at the time of detailed design. Draft conditions in Appendix 3 of this Notice of Requirement require detailed landscape plans to be prepared.

5.10 Construction Works and Programme

Given the scale of the project, it is likely the ASUB project will require an approximately 18 month construction period. A typical construction programme may broadly entail the following:

- Construction of approach embankments to the bridge
- Construction of bridge
- Excavation of swales and stormwater treatment basins
- Road construction. Top soil would be stripped and stored for later use in any landscaping and reinstatement. The road would be built up from formation level with imported fill material
- Installation of road pavement and street furniture (i.e., signs, street lights etc) and establishment of landscaping.

6 Consideration of Alternatives

An Options Assessment Report is contained at Volume C, Appendix 3 to this Notice of Requirement. This report describes:

- The options which have been considered at each stage of the Ashburton Transportation Study and Ashburton Second Urban Bridge projects
- The process that was used to assess the options
- The results of the options assessments

This report is summarised below.

6.1 Ashburton Second Urban Bridge Issues and Options Report 2010

An Issues and Options report was prepared for Stage 1 of the investigation into a Second Bridge Across the Ashburton River (Opus Jan 2010).

This report considered thirteen options for a bridge location, and associated access roads. These options are described in section 6.1.1 below. The options were assessed against a range of fifty criteria. The criteria were agreed at a workshop of project team members. The criteria were arranged under the following headings:

- Access and Mobility
- Land
- Engineering – Technical
- RMA
- Policies, Plans and Strategies
- Economics
- Risks
- Environmental Impacts
- Wider Outcomes

6.1.1 Options Considered

The following thirteen options were initially considered at the Ashburton Second Bridge Issues and Options stage.

Option A – Eastern Bypass

- A complete bypass to the east of Ashburton, potentially utilising existing local roads between Chertsey and south of Tinwald
- SH1 would relocate to new bypass
- Existing SH1 would become local road

Option B – Trevors Rd to East of Tinwald

- Connecting to Trevors Rd north of the Ashburton River, and partially or completely bypassing Tinwald on the south side, using a new road

Option C – Leeston St to East of Tinwald

- Connecting to Leeston St, north of the Ashburton River, and partially or completely bypassing Tinwald on the south side, using a new road

Option D – Chalmers Ave to East of Tinwald

- Connecting to Chalmers Ave, north of the Ashburton River, and partially or completely bypassing Tinwald on the south side, using a new road

Option D - E – Chalmers Ave to Grove St

- Connecting to Chalmers Ave, north of the Ashburton River, and Grove St on the south side. Utilising existing roads on both sides. Bridge would be on slight skew across the river

Option E – William St to Grove St

- Connecting to William St, north of the Ashburton River, and Grove St on the south side. Utilising existing roads on both sides

Option F – Cass St to Thomson St

- Connecting to Cass St, north of the Ashburton River, and Thomson St on the south side. Utilising existing roads on both sides

Option G – 4 Lane Existing Bridge

- Duplication of existing bridge immediately adjacent to its present location. Would include 4 laning of existing State Highway through Tinwald and Ashburton

Option H – West St to Melcombe St (one way northbound – Existing bridge one way southbound)

- One way southbound from Moore St to a point in Tinwald, using the existing State Highway, including the existing bridge
- One way northbound from a point in Tinwald to Moore St using Melcombe St, a new bridge north of the rail bridge, and a new road to Moore St

Option H1 – West St to Melcombe St (Relocate SH1 to new bridge, existing SH bridge to become local road)

- SH1 to be relocated to new link from Moore St to a point in Tinwald via a new link between Moore St and the river, a new bridge, a new link to the end of Melcombe St, and Melcombe St
- A new State Highway level rail crossing
- Existing SH1 and bridge between Moore St and linkage to new SH to become a local road
- Existing SH1 rail crossing south of Moore St to be closed

Option I – Park St to Tarbottons Rd

- Connecting to Park St, north of the Ashburton River, and Tarbottons Rd on the south side. Utilising existing roads on both sides

Option J – Oak Grove to West of Tinwald

- Connecting to Oak Grove, north of the Ashburton River, and partially or completely bypassing Tinwald on the south side, using a new road

Option K – Western Bypass

- A complete bypass to the west of Ashburton, potentially using new roads.
- SH1 would relocate to new bypass
- Existing SH1 would become local road

6.2 Additional Investigations (2010)

Following receipt of Community feedback on those options, Council then commissioned further investigations in 2010. These additional investigations included the following:

- Social Impact Assessment (carried out by Taylor Baines and Associates)
- Formation, facilitation and support for a Community Reference Group (carried out by Taylor Baines and Associates)
- Further detailed investigations of six options, including bypass options, options at the end of Chalmers Avenue, and options near the existing SH1 / railway corridor. The options considered are described in Section 6.2.1

6.2.1 Options Considered

The following nine Options were evaluated in the Additional Investigations:

1. Outer Bypass (Fairton to Winslow)
2. Inner Bypass (Seafield Road to Laings Road)

3. Chalmers Avenue to East of Tinwald – Rural
4. Chalmers Avenue to East of Tinwald – Urban
5. Chalmers Avenue to Grove Street
6. West Street to Melcombe Street (rail level crossing connection to SH1 south of Tinwald)
7. West Street to Melcombe Street (rail overpass connection to SH1 south of Tinwald)
8. Four laning of SH1
9. Tinwald Traffic Signals

The option of four laning State Highway 1 was added at the suggestion of the Community Reference Group, and for reasons of completeness, an assessment was also included for traffic signals in Tinwald. This is a short term option which may be pursued in parallel with the second bridge project.

6.2.2 Option Assessment

The Option assessment process consisted of five distinct phases, namely:

- Development of Assessment Criteria
- Ranking of criteria by Community Reference Group (CRG) and development and application of weightings based on CRG ranking
- Initial assessment and scoring against Criteria
- Review and comments from the CRG
- Revised assessment and scoring

6.2.2.1 Assessment Criteria

The assessment criteria used in the multi criteria assessment were developed at a full day workshop attended by project team members from ADC, Taylor Baines and Associates and Opus. The criteria used in the assessment are shown below:

Criteria	*Exemplified by*
Safety	Pedestrian, cyclist and motorist safety.
Personal Security	Safety of people in public places by ensuring public places are well lit and able to be observed by nearby residents and or passers-by. In this context, 'public places' refer to the public road reserves and adjacent places where members of the public are entitled to be (as in "Crime Prevention Through Environmental Design" (CPTED)).
Emergency Services	Ability of emergency services to respond quickly to emergencies in all parts of the district, but with a particular emphasis on urban areas where events are more common. Influenced by distance of travel, number of intersections to cross and traffic density.
Lifeline	The bridge carries utilities (water supply, electricity, telecommunications)

	across the river. Ability to maintain essential utilities to communities in the event of a civil defence emergency (flood, earthquake etc). Most effectively achieved through duplication.
Route Security	Ability to provide reasonable access in the event of a local incident (breakdown, accident etc), or major emergency (natural hazard) closing the existing bridge or approach.
Accessibility	Ability to get to key destinations within town, including homes, employment, education, medical, recreation, and shopping. Includes walking, cycling, private motor vehicle, public transport, freight. Often a particular issue at peak times.
Community Severance	The splitting of sectors of a community by a physical & perceived barrier (includes road & traffic). At town level & street level.
Active Transport	Promoting active transport (e.g. walking and cycling as means of travel to school and workplaces) by improving and extending walking and cycling infrastructure, and improving environmental conditions for walking and cycling (i.e. a safer, more pleasant environment with good quality surfaces); often involves increasing the separation between vehicular traffic routes (particularly those involving heavy vehicles) and pedestrian/cyclist routes.
Land	Ease of land acquisition. Number of properties requiring partial or full acquisition. Houses and other buildings requiring demolition. Dislocation of property owners.
Heritage	Impact on heritage sites, buildings etc & archaeology.
Environment – Water	Impact on water quality, and river hydraulics.
Amenity & Public Health	Changes to amenity values, e.g. noise levels, air quality, vibration, visual effects and streetscape. In severe cases has impacts on personal health.
Cost	Total cost - Land & construction. Whole of life cost. Local ratepayer share.
Economic Development	Impact on local businesses operating in Ashburton and Tinwald. Cost to users, including freight operators (including flow on effects).
Planning for the Long Term	Addressing short, medium, and long term transportation issues throughout the next 50 years.
Sewer Replacement Opportunity	Existing sewer siphon under Ashburton River near the oxidation ponds is likely to need replacement in the medium to long term. A new bridge may provide a viable route for the sewer, and thereby reduce some of the costs of sewer replacement.

7 Consultation

A Consultation Summary Report is contained in Volume C, Appendix 4. This report outlines the consultation that has been undertaken and the feedback received during the various phases of the ASUB project.

The consultation undertaken during each phase of the ASUB project is summarised below:

(i) Issues and Options Report Phase:

a. Consultation with key stakeholders (NZ Transport Agency, ONTRACK (now KiwiRail), Environment Canterbury, NZ Road Transport Association, Te Runanga o Arowhenua, and Grow Mid Canterbury (formerly Enterprise Ashburton))

b. Community Consultation following Council's stated preferred route option arising from the draft Issues and Options Report

(ii) Additional Technical Investigations Phase 2010-2012:

a. Interviews with stakeholders, community members and businesses as part of inputs into a Social Impact Assessment

b. Formation of a Community Reference Group

c. Community Consultation on the outcomes from the Additional Technical Investigations Report

(iii) Landowner consultation 2012-2013:

a. To meet individually and work with the directly affected and potentially affected landowners following identification of the preferred route option.

(iv) Te Runanga o Arowhenua

a. To discuss the project in relation to cultural issues that might be specific to any particular route option

b. To ascertain the need for a Cultural Impact Assessment to be undertaken

(v) NZ Transport Agency

a. Key partner in the project

b. Involvement during the community open days

The following general consultation tools and techniques were used throughout the various phases of the ASUB project:

- Project newsletters
- ADC website – updated as necessary

- Media releases
- Community open days
- Community Reference Group
- Public meeting
- Landowners only invited meeting
- Face-to-face meetings – arranged as required and / or as requested

In summary, community consultation on the Ashburton Second Urban Bridge has taken place in two main phases being: the Issues and Options Report Phase; and the Additional Technical Investigations Phase.

During the Issues and Options phase, the large number of route options was narrowed down to a couple of likely preferred options prior to going out to public consultation by way of community open days. As a direct result of the public feedback received on the two route options, ADC recognised they needed to take a step back and undertake further technical investigations on a number of other route options that received considerable support during the public consultation open days. These other route options included a bypass, options around the existing State Highway bridge, and a route option utilising Melcombe Street to the west of the state highway and railway.

These further investigations were undertaken through the Additional Technical Investigations Phase. As part of this phase, ADC established a Community Reference Group consisting of representatives from a variety of stakeholder groups from within the Ashburton Community. As the additional technical investigations and comparative analysis of the options were being progressed, the details and results of this work were shared and discussed with the CRG.

Following completion of the Additional Technical Investigations, the two preferred route options were again identified and were the subject of further community open days. Once ADC had identified and confirmed their preferred route options, and prior to the community open days, ADC commenced discussions with all of the landowners affected by the two preferred route options.

The key issue identified through this community consultation process is that whilst there is some support for the proposed route options, there remains much stronger support for alternative routes being:

- West Street / Melcombe Street
- 4-lane SH1 / extend existing bridge
- Eastern ring road or rural bypass (including the Bridge Action Group (B.A.G) option[6])

The most common, but not the only reasons, for those people who did not support the proposed route options were:

[6] The B.A.G option was also for a 'bypass' which sat in between the two project route options being considered of an 'outer' and an 'inner bypass'.

- The proposed locations would decrease safety
- Traffic lights would solve the issue
- The proposed bridge is in the wrong location
- NZTA should pay / NZTA problem

The main comments / concerns given for not supporting either of the two identified access routes are:

- Too disruptive:
    - concerns with safety
    - property values
    - traffic
    - fragmentation
    - pollution
- Proposed route would act as a state highway bypass
- Don't believe it will work / solve the issues
- Little thought has been given to the routes
- Expense
- NZTA should pay / it is their problem
- Ratepayers are not being listened to
- A second bridge is not needed

In considering the above comments / concerns, the following technical assessments have been commissioned for the Notice of Requirement:

- Traffic Impact Assessment which considers and addresses traffic safety, state highway traffic using the route, the need for a second bridge
- Options Assessment Report which outlines the assessment work that has been undertaken to consider the route
- Air Quality Report which considers and addresses concerns relating to air pollution from the new route, and construction related air discharges
- Vibration and Noise Assessments which consider and address concerns relating to vibration and vehicle noise during both construction and operation.

8 Approach to Identifying and Assessing Effects

8.1 Actual or Potential Effects Identified

Actual or potential effects of the ASUB project are considered to be as follows:

- Positive Effects
- Ecology
- Contaminated Sites
- Social Impacts
- Cultural Values
- Traffic
- Lighting
- Noise (operational and construction)
- Vibration (operational and construction)
- Landscape and Visual
- Air Quality (operational and construction)
- Stormwater

These actual or potential effects have been assessed, and are summarised in Section 9 of this Notice of Requirement. The effects assessments are detailed in the technical appendices in Volume C attached to this Notice of Requirement.

Where the effects assessments have identified and recommended appropriate mitigation measures, the proposed mitigation measures are listed in Section 8.2 below and conditions for the designation alterations are proposed in Appendix 3 to this Notice of Requirement.

8.2 Proposed Mitigation

The proposed mitigation measures are summarised below. A full set of proposed conditions is contained in Appendix 3 of this Notice of Requirement.

8.2.1 Construction Environmental Management Plan

ADC will require the Contractor to prepare a Contractor's Environmental Management Plan (CEMP) outlining the construction activities and all practices and procedures to be adopted in the construction of the project. The CEMP will clearly set out the environmental management responsibilities for the project and will specifically pull together all mitigation measures, as well as any conditions of the designation and resource consents and other statutory approvals that are to

be applied. The CEMP will be the umbrella document for environmental management of the project with effects-specific management plans forming subsets of the CEMP.

A copy of the finalised CEMP will be provided prior to the commencement of construction activities as part of the Outline Plan process.

The following Specific Management Plans (SMPs) shall form subsets of the CEMP and will manage construction related effects:

(a) Erosion, Sediment and Dust Control Management Plan

(b) Construction Noise and Vibration Management Plan

(c) Temporary Traffic Management During Construction Management Plan

(d) Hazardous Substances, Spills and Emergency Management Plan

(e) Construction and Temporary Lighting Management Plan

(f) Social Impact Management Plan

8.2.2 Specific Management Plans

Construction effects will be managed and controlled through the following specific management plans:

8.2.2.1 Erosion, Sediment and Dust Control Management Plan

An Erosion, Sediment and Dust Control Management Plan (ESDCMP) is to be prepared to control and manage the effects of:

- Stormwater discharge from the site
- Fugitive dust emissions from the site

The ESDCMP will manage and control construction stormwater discharges in accordance with the ECan Erosion and Sediment Control Guideline 2007 and shall give effect to:

(a) Best practicable methods for avoiding or mitigating erosion, sediment and dust emissions during construction

(b) Procedures for monitoring the effectiveness of the controls

(c) A complaints procedure

(d) Inspection and auditing procedures, and contingency plans for if controls fail

The ESDCMP will also manage and control fugitive dust emissions by ensuring appropriate measures will be available and implemented when unfavourable weather conditions occur, such as the following:

- Construction site to be designed in a way to minimise areas of disturbed top soil, the number of stockpiles required and travelled distances on unpaved roads

- Stockpiling sites should not be located within a distance of 100 metres from sensitive receiving areas, having regard to the likely direction of strong winds
- Access roads should be constructed using appropriate pavement materials
- Watering truck or some other water spraying facilities should be available on the site to keep wet soil handling areas and unpaved roads in the case of windy and dry weather conditions
- Wind fencing can be considered as a wind control measure at the site
- Trucks used for topsoil stripping and moving soil materials need to be watered specifically under dry and windy weather conditions
- Earthworks should be limited as far as practical or interrupted under dry and windy weather conditions
- Vehicle speed within the construction site and on access roads should be controlled and limited as far as practical
- Vehicles leaving the site should be watered if it would be required
- Liaison with local residents in case of fugitive dust emission complaints
- Monitoring of dust emissions should be organised, if it would be required, monitoring methods and a specific location of monitoring sites should be considered on the case by case basis.

8.2.2.2 Construction Noise and Vibration Management Plan

A Construction Noise & Vibration Management Plan (CNVMP) will be formulated to detail, as far as is practicable, the manner in which construction noise and vibration would be managed to achieve compliance with the relevant limits. In circumstances where compliance cannot be readily achieved, the CNVMP would describe the methods by which alternative strategies would be implemented.

As a guide, the scope of the CNVMP shall, as a minimum, address the following:

- Description of the works, anticipated equipment/processes and their scheduled durations
- Hours of operation, including times and days when construction activities causing noise and/or vibration would occur
- The construction noise and vibration criteria for the project
- Identification of affected houses and other sensitive locations where noise and vibration criteria apply
- Requirement for building condition surveys at locations close to activities generating significant vibration, prior to and after completion of the works

- Mitigation options, including alternative strategies where full compliance with the relevant noise and/or vibration criteria cannot be achieved
- Management schedules containing site specific information
- Methods and frequency for monitoring and reporting on construction noise and vibration
- Procedures for maintaining contact with stakeholders, notifying of proposed construction activities and handling noise and vibration complaints
- Construction equipment operator training procedures and expected construction site behaviours
- Contact numbers for key construction staff, staff responsible for noise assessment and council officers

8.2.2.3 Temporary Traffic Management During Construction Management Plan

A Temporary Traffic Management During Construction Management Plan (TTMCMP) that is to be prepared as part of the CEMP will be in accordance with the NZTA "Code of Practice for Temporary Traffic Management" to mitigate any actual or potential traffic effects associated with construction. Activities which are likely to require Temporary Traffic Management include:

- Construction of the Chalmers Avenue approach to the bridge
- Construction of the new road and intersections at points where it crosses local roads
- Construction of the intersection with Grahams Road

8.2.2.4 Hazardous Substances, Spills and Emergency Management Plan

A Hazardous Substances, Spills and Emergency Management Plan (HSSEMP) shall be prepared as part of the CEMP to mitigate any actual or potential effects associated with accidental spills. Measures in the HSSEMP shall include, but not be limited to, the following:

- Identification of the types of fuels and hazardous substances likely to be used on site
- Fuel storage facilities and security
- Fuel handling procedures
- Management of fuel spills

8.2.2.5 Construction and Temporary Lighting Management Plan

A Construction and Temporary Lighting Management Plan (CTLMP) shall be prepared as part of the CEMP to mitigate any actual or potential lighting effects associated with the construction of the ASUB project. Measures in the CTLMP shall include, but not be limited to, the following:

- Temporary lighting for construction activities or security lighting for construction sites will need glare and spill light control compliant with AS 4282

- Location of site offices and equipment in relation to surrounding properties
- In areas adjacent to residences, all security and construction lighting will be installed so that it can be shielded, or directed to the required work area to minimise light spill beyond the site so far as is reasonably practicable
- Compliance with Rule 4.10.4 of the Partly Operative District Plan

8.2.2.6 Social Impact Management Plan

A Social Impact Management Plan (SIMP) shall be developed and implemented as part of the CEMP to address identified potential adverse effects and to provide assurance of projected and identified beneficial effects. SIMPs usually incorporate requirements for communications between contractor and the residents most likely to be affected, both in terms of expectations regarding consultation and prior notification, and in terms of formal complaint procedures. A SIMP will typically include:

- A summary of the social issues and effects to be addressed (benefits and adverse impacts) by the other Specific Management Plans
- Specific management plans detailing mitigation objectives, outcomes and responsibilities for decision making and for taking action
- An outline of on-going public involvement associated with governance (e.g., a Community Reference Group) and accountability provisions for the SIMP
- A framework for monitoring, including selected indicators, responsibilities for data collection, and reporting requirements
- An outline of funding provisions associated with monitoring activities, mitigation initiatives and plan management.

8.2.3 Mitigation of Other Effects

8.2.3.1 Traffic Effects

Mitigation measures to address negative traffic impacts are outlined below.

Chalmers Avenue / Walnut Avenue Roundabout

The following measures are proposed to address the issues at this roundabout, if they have not been implemented prior to construction of the ASUB project:

1. Move the existing throat island on the Bridge Street approach to the intersection to the south east, and shorten it. This will allow a little more “margin of error” for drivers of heavy vehicles who do not get the line through the intersection right early in the intersection.
2. Remove the front parallel parking place on Bridge Street. This is necessary to allow item 1 to proceed.

3. Construct a low profile island on the Chalmers Avenue exit from the roundabout, and provide a dropped kerb between this island and the existing planted island at the exit. These measures will better delineate the parking area from the through lane.

4. Remove the existing left turn slip lane, and associated island, between Chalmers Avenue and Walnut Avenue, and realign the existing off road left turn cycle path. This will allow right turning and straight through heavy vehicles to better position themselves on the approach to the intersection.

Chalmers Avenue / Havelock Street / Wellington Street Intersection and Chalmers Avenue / Victoria Street / Wakanui Road Intersection

The following mitigation measures are proposed to address the issues at these intersections if they have not been implemented prior to construction of the ASUB project:

1. Construct kerb build outs and/or raised platforms on the both sides of the intersections to provide a throat effect and visual narrowing at the intersection. This is similar to the treatment currently at the Wills / Nelson intersection with Chalmers Avenue.

Walnut Avenue / William Street Intersection

The following mitigation measure is proposed to address issues at this intersection if it has not been implemented prior to construction of the ASUB project:

1. Construct kerb build outs and raised platforms on William Street to provide priority to pedestrians along Walnut Avenue and improve visibility of the intersection.

Pedestrian Facilities on Chalmers Avenue

The following measures are proposed to improve future pedestrian amenity and safety on Chalmers Avenue, if they have not been implemented prior to the construction of the ASUB project:

1. Construct pedestrian facilities on Chalmers Avenue as follows:

    a. Kerb build outs from the kerb line to the edge of the parking lane at the footpath side on both sides of the road at midblock points

    b. Kerb build outs from the kerb line to the edge of the traffic lane on both sides of the grassed median

    c. Pedestrian pathway connecting the kerb build outs across the grassed median

    d. At the following mid-block locations:

        i. South Street to Dobson Street

        ii. Tancred Street to Burnett Street

        iii. Cameron Street to Wills Street

        iv. Cox Street to Aitken Street

2. Construct a pedestrian refuge with kerb build outs on Bridge Street between Princes Street and Orr Street.

8.2.3.2 Cultural and Heritage Effects

All construction works along the proposed ASUB route will be undertaken in accordance with ADC's Accidental Discovery Protocol. In the event of an accidental discovery of archaeological matter, including human remains, the following shall be undertaken:

i. All work within 100m of the discovery will cease immediately;

ii. The works supervisor will shut down all equipment and activity and advise the construction supervisor for the project site;

iii. The construction supervisor will take immediate steps to secure the site to ensure the archaeological matter remains undisturbed and the site is safe in terms of health and safety requirements;

iv. The site construction supervisor will notify the Planning Manager at Ashburton District Council;

v. The requiring authority will ensure the matter is reported to the Regional Archaeologist at the New Zealand Historic Places Trust, and the consent authority;

vi. The requiring authority, with agreement from the consent authority, will ensure that a qualified archaeologist is appointed to ensure that all archaeological material is dealt with appropriately;

vii. In the event that the accidentally discovered material is confirmed as being archaeological, under the terms of the Historic Places Act, the requiring authority shall ensure that an archaeological assessment is carried out by the archaeologist mentioned at (vi) above, and if appropriate, an archaeological authority is obtained from the Trust before works within 100m of the discovery resume;

viii. In the event of material being of Māori origin, the requiring authority will ensure that the local Rūnanga (Te Rūnanga o Arowhenua) is contacted in order that the appropriate cultural practices are implemented to remedy or mitigate any damage to the site;

ix. The requiring authority shall ensure that the relevant representatives and contractors, as appropriate, are available to meet and guide representatives of the New Zealand Historic Places Trust, or Te Rūnanga o Arowhenua as relevant, to the site;

x. Works within 100m of the discovery shall not commence until authorised by the consent authority, after agreement with the New Zealand Historic Places Trust, or Te Rūnanga o Arowhenua as relevant.

8.2.3.3 Property Impacts

ADC will be entering into negotiations with property owners regarding property purchase and compensation to secure the land that is required for the ASUB project. ADC has indicated to the directly affected parties that they are open to commencing property negotiations at any time, should property owners wish to sell at any time prior to commencement of the ASUB project.

8.2.3.4 Stormwater Effects

A best practicable approach to stormwater attenuation and treatment has been adopted based on the sensitivity of the receiving environment and ADC's requirements.

Actual or potential effects of the project on water quality and quantity, particularly from stormwater management, are to be addressed through compliance with the AUSS, SMP and the conditions of the ADC global stormwater discharge consent (yet to be granted). This will be undertaken at the time of detailed design prior to construction commencing.

8.2.3.5 Traffic Noise Effects

To mitigate the effect of operational road traffic noise on adjoining land uses:

- The new link road will be sealed in a low-noise form of road surfacing, such as open graded porous asphalt or asphaltic concrete
- Chalmers Avenue will be resealed with a low-noise form of road surfacing, if it has not occurred prior to the construction of the ASUB project

8.2.3.6 Lighting Effects

Road lighting shall be designed in general accordance with the Concept Lighting Design and shall be designed to meet the requirements of AS/NZS 1158 - Road Lighting Standards and AS 4282:1997 - Control of the Obtrusive Effects of Outdoor Lighting (or the equivalent standards at the time of detail design).

8.2.3.7 Landscape and Visual Effects

The primary visual mitigation measure will be to design and implement the proposal with the least possible landscape and visual effect, by limiting vegetation and (in particular) shelterbelt removal and the extent of physical earthworks.

Bridge approaches and the bridge itself should be carefully designed to sit comfortably within this existing landscape, improve amenity and make provision for future growth and development.

A landscape plan will be prepared during detailed design to ensure that mitigation measures and landscape treatments are properly addressed, having regard to the future state of the environment anticipated at the time of construction. The landscape plan would include landscape treatments such as tree and shelterbelt planting, general roadside swale and embankment planting to improve the amenity of the area, and address landform and planting surrounding the playing fields and the scout facility. It would also address the continuation of street tree planting on Chalmers Avenue.

If the Residential C properties between Grahams Rd to Johnstone St are developed prior to the construction of the ASUB corridor and which back onto the ASUB route, the margins of the proposed stormwater basin and the whole of the stormwater swales adjoining the Residential C land should be planted to provide a screen to these properties.

If Residential C properties are accessed by, or front on to the adjoining ASUB corridor then only the general mitigation provided by the landscape plan prepared as discussed above would be required.

Detailed Landscape Plans are to be prepared as part of the Outline Plan to mitigate any actual or potential landscape and visual effects. The detailed plans shall demonstrate how the proposal fits within the environment and shall include the following matters:

- The extent of vegetation removal and earthworks
- The proposed finished road heights, road embankments, bridge and adjoining land levels
- Access to adjacent recreational, commercial and private properties and residences along the route of the proposed link road and Chalmers Avenue west
- Landscape mitigation treatments

9 Assessment of Effects

9.1 Overview

Actual or potential effects have been assessed. The effects assessments are detailed in the technical appendices in Volume C attached to this Notice of Requirement.

Where the effects assessments have identified and recommended appropriate mitigation measures, the proposed mitigation measures are listed in Section 8 above and conditions for the designation alterations are proposed in Appendix 3 to this Notice of Requirement.

9.1.1 Potential Future Environment

Given that the proposed ASUB project is not required to be constructed until approximately 2026, each of the technical assessments have considered the effects of the proposal on both the existing environment, and the potential future environment.

The potential future environment relates to the likelihood of future residential dwellings having been constructed in the vicinity of the route through east Tinwald in the intervening years prior to the ASUB being constructed.

The District Plan contains rules requiring an internal boundary setback for dwellings from neighbours. Within the Residential C Zone, the minimum internal boundary setback is 1.8 m. Within the Residential D Zone, the minimum internal boundary setback for dwellings is 6 m, or 3 m for non-residential buildings greater than 5m² in gross floor area. Where the proposed designation runs along property boundaries, the internal boundary setback rules will apply to the adjacent property. However, where the proposed designation runs through a property, compared with against a property boundary, the internal setback rules will not apply and a residential dwelling could be constructed against the designation boundary.

Within the Residential C Zone, the designation boundary runs through properties and therefore dwellings could be constructed right up to the proposed designation boundary in the interim period before the ASUB is constructed.

Within the Residential D Zone, the proposed designation runs along property boundaries where possible, but also through properties. Where the designation boundary coincides with a property boundary, the adjacent property will require a minimum building setback of 6m. However, where the designation boundary runs through properties there is no setback requirement and residential dwellings could be constructed right up to the designation boundary.

The potential for future dwellings to be constructed against the designation boundary prior to construction of the ASUB project has therefore been taken into account by the technical assessments. It is noted however that the potential risk of this occurring is greatest within the Residential C Zone given the smaller allotment size that can be achieved. Within the Residential D Zone, the larger allotment sizes (even at 4,000m², assuming reticulated sewage is available) allow greater flexibility for landowners to site a dwelling away from the proposed designation boundary.

9.2 Positive Effects

Overall the proposed ASUB project is expected to generate significant positive effects for the wider Ashburton community.

The Traffic Impact Assessment concludes that the impacts of the project on the Ashburton transport system at the time of construction in 2026 are projected to be extremely positive. The project is expected to reduce congestion on the existing SH1 Bridge and at other locations throughout Ashburton, and thereby improve overall travel times significantly, improve safety and accessibility for pedestrians, cyclists and vehicles between Tinwald and north Ashburton, and provide a suitable alternative route should the existing bridge be closed.

Mitigation measures proposed are considered to not only mitigate the minor traffic effects of the ASUB project, but will also provide benefits to all road users, including pedestrians and cyclists using the route regardless of a second bridge.

The Social Impact Assessment concludes that the advent of a second bridge and access road in the location proposed for designation will be substantially enabling of the communities of Tinwald and Ashburton in providing for their social wellbeing.

9.3 Effects on Ecology

An assessment of effects on the terrestrial ecology within the area of the proposed ASUB has been undertaken. The full assessment is contained in Volume C, Appendix 2.

9.3.1 Indigenous Vegetation and Flora

Most of the site of the proposed ASUB comprises developed land being either farmland, residential sections or flood protection plantings. Vegetation is dominated by exotic species. There are very few indigenous plant species present. No threatened or locally uncommon plant species were recorded during the field survey.

Indigenous vegetation at the site is not significant when assessed against criteria in the Partly Operative District Plan (2012) and the Canterbury Regional Policy Statement (2013).

9.3.2 Habitats of Indigenous Fauna

The river berm forest supports two common indigenous bird species (grey warbler and fantail) and numerous introduced bird species. The forest bird habitat at the site has some ecological value, but is not considered significant when assessed against criteria in the Partly Operative District Plan (2012) and the Canterbury Regional Policy Statement (2013).

The open bed of the Ashburton River upstream and downstream of the site of the proposed ASUB supports populations of 18 indigenous bird species. The riverbed at or near the site has provided a breeding habitat for the nationally endangered black-billed gull in 2010 and 2012. The area supported approximately 9,600 gulls in 2012 and approximately 5,000 in 2010. The total national population of black-billed gulls was estimated to be approximately 90,000 adult individuals in 2008.

The Ashburton River has long been recognised as outstanding habitat for indigenous birds. This is recognised by its listing as an area of 'significant nature conservation value' in the Partly Operative

District Plan (2012). The open riverbed habitat at the site is significant when assessed against criteria in the Partly Operative District Plan (2012) and the Canterbury Regional Policy Statement (2013).

9.3.3 Summary and Conclusion – Effects of bridge construction on terrestrial ecology

The terrestrial ecological values of the area affected by the ASUB project are substantially modified. Indigenous plant species are absent over most of the site, or only present in low numbers within vegetation dominated by exotic species. The only part of the site that is significant is the bird habitat on the bed of the Ashburton River.

The proposed ASUB project will have effects on a significant habitat of indigenous fauna on the open bed of the Ashburton River. The effects will be:

- Disturbance of riverbed bird habitat during construction of the bridge and the bridge approaches
- The presence of a bridge over an area of formerly open riverbed bird habitat
- An increase in the locations where human disturbance (i.e., traffic) may affect the riverbed bird habitat (i.e., two bridges, instead of one).

The Terrestrial Ecology Assessment has identified the following mitigation measures to address these adverse effects:

- Avoid construction activity, in particular any disturbance of the river bed, during the bird breeding season, i.e., August to December
- Avoid disturbance of riverbed birds at other times of the year by ensuring that no birds are resident (i.e., nesting or roosting) at the proposed bridge site immediately prior to construction activity occurring

It is noted that even with the proposed designation in place, the proposed bridge construction will not be able to proceed without the appropriate resource consents from ECan. Land use consent will be required from ECan for the disturbance works to the bed of the Ashburton River and for the construction of the bridge. It is standard practice for ECan to place conditions on land use consents to avoid adverse effects on riverbed birds during the nesting season. The expectation is that such conditions will form part of the future land use consent. At the time that the detailed design is undertaken, a full assessment of the location of the bird colonies on the riverbed can be undertaken and appropriate mitigation measures can be included on the resource consent. It is considered that actual and potential adverse effects of the proposal on the riverbed bird population are more appropriately dealt with through the ECan resource consent process. It is considered unnecessary to duplicate conditions on the designation, or to impose conditions on the designation which might conflict with the future resource consent conditions. On this basis, no mitigation is considered necessary to address adverse effects on the riverbed bird population arising from construction of the proposed ASUB project.

The Terrestrial Ecology assessment notes that whilst the adverse effects of the project on riverbed bird habitat are difficult to predict, it is considered that once constructed, they are likely to be minor.

On this basis, it is considered that any actual or potential adverse effects arising from the operation of the proposed ASUB project will be minor or less than minor and no mitigation measures are considered necessary.

9.4 Contaminated Sites

A full investigation of potentially contaminated sites will be undertaken as part of the geotechnical investigations that will be required at the time of detailed design. Notwithstanding, an initial search of the ECan online Listed Land Use Register (LLUR) has been undertaken.

South of the Ashburton River, this search has shown the following details:

- None of the properties required for the proposed designation have been identified on the LLUR as being a potentially contaminated site
- One potentially contaminated site has been identified within 50m of the proposed route

Information obtained from ECan regarding the potentially contaminated site indicates that it does not warrant inclusion on the LLUR and there are no investigations associated with that site.

North of the Ashburton River, there is no designation requirement as Chalmers Avenue is already an existing road. Notwithstanding, the LLUR search has shown the following details:

- 5 Chalmers Avenue is identified as having two underground storage tanks on the site. The proposed road widening and construction works will be within the existing road reserve at this location. The proposed works will therefore have no effect on the underground tanks, nor will the underground tanks have any effect on the proposed works
- No other sites on the LLUR have been identified within 50m of the existing road reserve

Based on the information held to date, it is considered there will be no adverse effects arising as a result of construction on contaminated land. This will be confirmed during detailed design when full geotechnical investigations will be undertaken.

9.5 Social Impacts

A Social Impact Assessment (SIA) has been undertaken and assesses the project against the following community values:

- Introducing choice
- Accessibility
- Safety
- Personal health
- Amenity values in residential areas and public places
- Community identity.

The SIA is attached in Volume C, Appendix 5 of this Notice of Requirement and should be referred to for full details regarding the social impacts of the proposal against these community values. In summary, the SIA states that the advent of a second bridge and associated access road will definitely influence the choice of route that many Ashburton residents make for trips which involve crossing the Ashburton River. As a result, traffic patterns will alter, and traffic flows along certain roads north and south of the River will alter.

The SIA notes there is a predominance of beneficial social effects which will be experienced by a substantial number/proportion of Ashburton residents to varying degrees. It is also likely that some comparatively adverse social effects will be experienced in some localities of Tinwald and eastern Ashburton, either as a result of road construction activities or as a result of increases in traffic volumes which would not have occurred without the second bridge.

The overall conclusion of the SIA is that the advent of a second bridge and access road in the location proposed for designation will be substantially enabling of the communities of Tinwald and Ashburton in providing for their social wellbeing. For many trips, a second bridge will remove a barrier to accessibility across the Ashburton River for many of the town's households. By removing such a barrier, the proposed second bridge will result in safer trips and a level of accessibility to destinations in the centre of Ashburton for residents living southeast of the existing bridge similar to that enjoyed by residents of suburban and peri-urban areas elsewhere around Ashburton. With reference to the comparative assessment of alternative route options, the proposed option is likely to achieve the highest degree of such enablement.

However, whilst the SIA concludes the scale of social benefits substantially outweigh the adverse social effects, such adverse effects should be the focus of future monitoring effort aimed at establishing whether or not proposed mitigation measures are adequate. The potential for adverse social effects has been assessed as most likely to be associated with construction related effects, or with concerns about pedestrian safety and HGV-induced vibration on Chalmers Avenue. Specific mitigation measures relating to these adverse effects have been addressed in the various technical assessments contained in Volume C, and which are summarised in Section 8 above.

To manage and address the potential adverse social effects, the SIA recommends a Social Impact Management Plan be prepared and implemented as part of the suite of construction management plans that will also need to be prepared.

The mitigation measures in Section 8 above identify that a Social Impact Management Plan shall be prepared. The draft conditions in Appendix 3 include a Social Impact Management Plan.

On the basis of the conclusions made in the SIA, considerable positive social benefits are anticipated from the project. Furthermore, given that the draft conditions in Appendix 3 include the preparation of a Social Impact Management Plan at the time of construction, any adverse social impacts are considered to be less than minor.

9.6 Cultural Values

A Cultural Impact Assessment (CIA) is currently being prepared by Te Runanga o Arowhenua. At the time of lodging this NOR, the CIA is not yet available but will be forwarded to Council once it has been received.

It is not possible to assess the actual or potential effects on cultural values until the CIA has been received. However it is noted that the Ashburton River is a Statutory Acknowledgement under the Ngai Tahu Claims Settlement Act and therefore has significant value for Arowhenua.

Construction of the proposed bridge will disturb the bed of the Ashburton River through piling and bridge construction activities. These activities will be relatively short term in nature and restricted to the duration of the construction period. Any disturbance on the riverbed will disappear relatively quickly following the passage of flood waters through the area.

Stormwater discharge directly into the Ashburton River bed from the bridge also has the potential for an actual or potential adverse effect on water quality, and therefore also on the values placed on the waterway by Arowhenua. However, the concept stormwater design provides for the containment of stormwater from the bridge deck, and to run it back to swales located at either end of the abutments. The swales will allow for infiltration and the settlement / removal of potential contaminants out of the stormwater before it can reach either groundwater or surface water within the riverbed.

The New Zealand Archaeological Association (NZAA) website does not indicate the presence of any archaeological sites in the vicinity of the project. However, this does not mean there is no potential for an accidental discovery during the construction earthworks. This can be mitigated through the implementation of an accidental discovery protocol (ADP) which sets out a process should any archaeological sites be unearthed. An ADP is included in the mitigation measured contained in Section 8, and in the draft conditions in Appendix 3.

The ADP will mitigate any potential effects on cultural values should there be an accidental discovery during the course of the construction of the project.

9.7 Traffic

A Traffic Impact Assessment of the proposed ASUB project has been undertaken. The full assessment is contained in Volume C, Appendix 6 and should be referred to for full details. A summary of the Traffic Impact Assessment is contained below.

The Ashburton Transportation Study (ATS) (2006-8) identified the main future transportation issue in Ashburton to be the ability of SH1 to cope with future increasing traffic volumes through the Ashburton urban area, particularly at the Ashburton River Bridge. It concluded, through traffic counts, that SH1 through traffic made up a small proportion of the total traffic on the existing bridge, particularly at peak times. It also identified route security issues if the existing bridge was closed for any reason, including isolated incidents on the bridge or wider natural disasters. It recommended a second bridge running from the end of Chalmers Avenue to east of Tinwald.

The Ashburton Second Bridge Issues and Options Report (2010) considered twelve options for a second bridge route. These options included bypass options to the west and east of Ashburton, and options within the Ashburton urban area. It concluded that the two options which best met project criteria were the Chalmers Avenue to east of Tinwald and the Chalmers Avenue to Grove Street options. Following public consultation, further investigations into options to cross the river were carried out. These additional investigations included a more detailed investigation into six options, including bypass options, Chalmers Avenue options, and SH1 options. It also included a Social Impact Assessment, and the formation of a Community Reference Group. It concluded that the three Chalmers Avenue options (to east of Tinwald – rural or urban, or Grove street) performed

significantly better than the other options. Further investigation into those three options recommended that the Chalmers Avenue to east of Tinwald – Urban option proceed to designation.

It is likely that the ASUB project will not be constructed until approximately 2026. The impacts of the project on the Ashburton transport system at that time are projected to be extremely positive. It is expected to reduce congestion on the existing SH1 Bridge and at other locations through Ashburton, and thereby improve overall travel times significantly, improve safety and accessibility for pedestrians, cyclists and vehicles between Tinwald and north Ashburton, and provide a suitable alternative route should the existing bridge be closed.

The Traffic Impact Assessment identifies that there will be a small number of likely minor negative effects as a result of the ASUB. Traffic volumes on Chalmers Avenue are expected to increase. Chalmers Avenue is a two way road with a solid central median. It has more than ample capacity to handle the expected increase in traffic due to this project. There are, however, some existing issues on this route which may be exacerbated by the additional traffic. These include the suitability of the Netherby roundabout for heavy vehicles, safety and amenity for pedestrians and cyclists along and crossing Chalmers Avenue, and existing safety issues at some intersections on Chalmers Avenue.

The Traffic Impact Assessment recommends mitigation measures to address these identified negative effects. These measures will not only mitigate the effects of the ASUB project, but will also provide benefits to all road users, including pedestrians and cyclists using the route regardless of a second bridge. The Traffic Impact Assessment concludes that the net effect of the proposed ASUB project on the Ashburton transport system is overwhelmingly positive, and that with the proposed mitigation measures in place, the negative effects are less than minor.

These recommended mitigation measures are outlined in Section 8 above, and can be found as proposed conditions in Appendix 3 of this Notice of Requirement.

9.7.1 Traffic Effects during Construction

Construction of the proposed ASUB project will require construction machinery working on and around existing roads where there is the potential for interaction with local traffic. The management of construction traffic is typically controlled through a Temporary Traffic Management Plan prepared in accordance with the NZTA "Code of Practice for Temporary Traffic Management".

To mitigate any actual or potential adverse traffic effects associated with the construction of the proposed ASUB project, a Temporary Traffic Management during Construction Management Plan (TTMCMP) will be prepared.

9.8 Lighting

An Assessment of Lighting Effects has been undertaken to determine the actual or potential adverse effects arising from the proposed road lighting requirements of the ASUB project.

The Assessment of Lighting Effects details the following matters:

- Relevant lighting standards
- Types of adverse lighting effects

- Concept lighting design
- An assessment of the lighting effects arising from the project

The Assessment of Lighting Effects is contained in Volume C, Appendix 7 of this Notice of Requirement, and should be referred to for full details. A summary of the actual or potential effects is contained below.

9.8.1 Summary of Lighting Effects

The concept lighting design is described in the Assessment of Lighting Effects. The design has been undertaken in accordance with AS/NZS 1158 compliance for spill lighting and glare.

In addition, Rule 4.10.4 of the District Plan requires no greater than 3 lux spill (horizontal and vertical) at any point more than 2m inside the boundary of the adjoining property. Vertical and horizontal illuminance calculations contained in the Assessment of Lighting Effects shows the concept lighting design complies with Rule 4.10.4 as follows:

- The maximum vertical light spill will be approximately 1.1 lux
- The maximum horizontal light spill will be approximately 1.6 lux

The Assessment of Lighting Effects has considered the potential effects of the concept lighting design on both the existing and future residents within the area, with the potential for new residential dwellings to be constructed right up to the proposed designation boundary in places.

Within the areas of the proposed intersections along the route, there are two possible configurations being either cross-roads or roundabouts. The impact for these residents will likely be perceived as being more than minor as they are currently not affected by any road lighting. Although the proposed lighting solution will ensure that it complies with AS/NZS 1158 Road Lighting Standards, the existing residents might perceive the new road lighting as intrusive regardless of the lighting complying with all road lighting standards.

Notwithstanding, throughout the length of the proposed project, the effect of light spill and glare arising from the new main carriageway on both existing and future residents has been assessed as being less than minor, on the basis that the concept lighting design:

- Has been developed in accordance with the relevant standard AS/NZS 1158
- Complies with the horizontal and vertical illuminance requirements as contained in Rule 4.10.4 of the District Plan (as noted above).

Whilst the Assessment of Lighting Effects does not consider that any further mitigation is required, it does recommend a condition is placed on the proposed designation requiring that the road lighting shall be designed in general accordance with the Concept Lighting Design and shall be designed to meet the requirements of AS/NZS 1158 - Road Lighting Standards and AS 4282:1997 - Control of the Obtrusive Effects of Outdoor Lighting (or the equivalent standards at the time of detailed design). This recommended condition is included in the mitigation measures outlined in Section 8 above, and is included in the draft conditions in Appendix 3.

The concept lighting design complies with the permitted activity rules in the Partly Operative District Plan relating to illuminance requirements, and could therefore be installed as a permitted activity. It is therefore considered that any actual or potential adverse effects arising from the concept road lighting design will be less than minor.

9.8.2 Construction Lighting, Security Lighting and Temporary Lighting

The Assessment of Lighting Effects provides an assessment of actual or potential effects arising from construction lighting, security lighting and temporary lighting.

The site construction office and yard will require temporary security lighting. In addition, during the winter months in the early period of the morning and late afternoon the use of temporary lighting might be necessary to start the work or finish the work at the end of the day. There is potential for some light spill and glare to occur during these times.

In construction sites, spill lighting and glare can cause a detrimental effect. However, construction and security lighting is usually of a temporary nature and can be reduced with careful location of site offices and equipment in relation to surrounding properties, and with such measures as full cut-off luminaires, sunshade screening and buffer zones.

For any existing roadway that is to be diverted, modified or re-routed to allow the construction of any new works, existing lighting levels must be maintained or improved on during the works. If existing luminaires must be disconnected or removed before adjacent new lighting has been commissioned, then temporary lighting shall be provided.

The Assessment of Lighting Effects recommends mitigation measures to address the actual or potential adverse effects arising during construction. These mitigation measures are detailed in Section 8 above, and are included in the draft conditions in Appendix 3.

With the implementation of the proposed mitigation measures, it is considered that any actual or potential adverse effects arising from construction and temporary lighting will be less than minor.

9.9 Noise (Operational and Construction)

An Acoustics Assessment has been undertaken to predict and assess future road traffic noise levels, in accordance with New Zealand Standard NZS 6806[7], and to assess the resulting noise effects and any mitigation required. This assessment is contained in Volume, Appendix 8 and should be referred to for full details.

NZS 6806 provides criteria and an assessment method for road-traffic noise. The method provides performance targets and requires assessment of a number of different options for noise mitigation, such as noise barriers and low-noise road surfaces, where performance targets are exceeded.

9.9.1 Operational Noise

NZS 6806 sets reasonable criteria for road-traffic noise levels, taking into account health issues associated with noise and other matters. On this basis, it is considered that road-traffic noise levels in compliance with NZS 6806 Category A should generally result in acceptable noise effects.

[7] NZS 6806:2010, Acoustics – Road-traffic noise – New and altered roads

Where the existing environment is heavily influenced by road-traffic noise, compliance with Category B may also represent acceptable noise levels.

For the proposed new bridge and associated road, the Acoustics Assessment states that moderate noise levels are predicted at the nearest PPFs (protected premises and facilities) to the new urban road, with setbacks of 30- 50 metres from the carriageway typical. All PPFs where road-traffic noise from the urban road will dominate will be within the Category A (new road) criteria. PPFs where traffic noise from the side roads connecting the new urban road to SH1 will dominate will be within Category A (altered road). Compliance with the most stringent Category A will result in acceptable noise effects.

For existing roads, whilst no alignment changes are made north of the proposed bridge over the Ashburton River, there will be re-routed traffic on some local roads because of the project. For this reason, noise from affected roads in the vicinity of the bridge, with over 2,000 vehicles per day (vpd), was also modelled. The modelling shows that 30 PPFs north of the river are in either Category B or C. These PPFs are all on Moore Street. A significant increase in noise is predicted at these PPFs in the design year (2026) even if the project does not proceed, due to other factors increasing the traffic volume.

NZS 6806 includes thresholds for projects to determine whether they should be assessed under the Standard. In this instance the relevant thresholds are in Section 1.5 of NZS 6806 and are triggered if the do-minimum noise levels are greater than:

- 64 dB LAeq(24h) and the increase over the do-nothing noise level is at least 3 dB; or
- 68 dB LAeq(24h) and the increase over the do-nothing noise level is at least 1 dB.

Traffic on Chalmers Avenue will increase from 11,000 to 14,200 vpd as a result of the project. The increase in noise level is limited to 1 dB, which is not significant. The ADC is proposing to resurface the existing chip seal surface with asphaltic concrete, and noise levels will decrease and all PPFs there remain in Category A (64 dB or less). 2 Tuarangi Road has a predicted noise level of 65 dB, however the increase in noise level over the do-nothing scenario is limited to 1 dB. Therefore the altered road trigger has not been achieved.

On Moore Street, a change in traffic from 16,000 vpd in the do-nothing to 18,500 vehicles per day in the do minimum scenario[8] is predicted. This will result in an increase in noise level of 1 dB. The highest predicted noise level is 69 dB. On this basis, the requirement for consideration under NZS 6806 would be marginal. Because there is no realignment of Moore Street proposed, NZS 6806 does not apply.

For Moore Street, as discussed above, the Category B and C noise levels are because of general traffic growth and cannot be directly attributed to this project. Resurfacing this section of Moore Street with asphaltic concrete would result in a noise reduction of approximately 5 dB, making all PPFs either Category A or Category B. However, this is not required as a result of the ASUB project.

For future residential dwellings that might be constructed prior to the ASUB project, the following noise levels have been predicted at different distances from the road:

[8] The Do Minimum scenario described here is where the second bridge is constructed, assuming 2026 traffic, and with no specific noise mitigation.

- At 6 m from the carriageway edge, a noise level of 64 dB LAeq(24h) is predicted. This is the Category B criterion from NZS 6806 for new roads, and is the equivalent to Category A for altered roads.

- At 25 m from the carriageway edge, a noise level of 57 dB LAeq(24h) is predicted. This is the Category A criterion from NZS 6806 for new roads.

The designation boundary is between 6 and 8 metres from the edge of the carriageway. Therefore, if a dwelling was constructed right against the designation boundary, noise levels are still predicted to achieve Category B for new roads. In practice, dwellings are likely to be set back from the parcel / designation boundary and will experience lower noise levels. Noise effects from the project on the Residential C and D land are therefore considered acceptable, and will not unreasonably restrict future land use

In summary, the Acoustics Assessment concludes that predicted noise levels at existing receivers south of the river remain within the preferred 'Category A' defined by NZS 6806 for altered roads. On this basis, noise effects are considered acceptable.

While future dwellings are not considered PPFs by NZS 6806, they have been considered in the Acoustics Assessment. Future dwellings greater than 6 m from the carriageway achieve Category B (new road) / Category A (altered road) and dwellings greater than 25 m comply with the more stringent Category A (new road).

The proposed bridge and new road will be surfaced with asphaltic concrete, which is a low-noise surface. No other specific mitigation for noise effects is required.

Noise levels at receivers on Moore Street are predicted to increase in 2026 both with and without the project. Resurfacing Moore Street with asphaltic concrete could be considered as a separate exercise to reduce this exposure. It is noted that this is not required in order to mitigate any actual or potential adverse effects as a result of the ASUB project as these predicted noise levels are a result of general traffic growth even without the proposed bridge.

On the basis of the conclusions reached in the Acoustics Assessment, it is considered that any actual or potential adverse effects arising from operational noise from the proposed ASUB project will be less than minor.

9.9.2 Construction Noise

The Acoustics Assessment states that potential construction noise effects can arise through the use of construction machinery and ancillary machinery such as stand-by generators. These potential noise effects will be controlled through a detailed management procedure in accordance with nationally recognised good practice. The NZTA has established processes for managing construction noise from roading projects. These management processes are documented in the NZTA State highway construction and maintenance noise and vibration guide[9] (Construction Guide). The Construction Guide adopts the framework for managing construction noise from the New Zealand Standard NZS 6803, including its guideline noise limits. This is consistent with the District Plan requirements.

[9] NZTA State highway construction and maintenance noise and vibration guide, V1.0, August 2013.

The nearest existing receivers are 25 to 50 metres from the edge of the carriageway. In the future, residential dwellings may be constructed adjacent the designation boundary, which is 6-8 metres from the edge of the carriageway. At these distances, construction noise levels are anticipated to be at levels that may at times interfere with daytime domestic activities. Temporary daytime disturbances from construction activities is an issue that is commonly managed using standard processes on roading projects.

The Acoustics Assessment proposes conditions which require a construction noise management plan to be prepared prior to construction. The assessment concludes that, with the management plan being implemented, and with construction activities being limited to daytime hours, construction noise effects arising from the proposed ASUB project are considered acceptable.

Mitigation measures to address construction noise are outlined in Section 8 of this Notice of Requirement. Conditions relating to the management of construction vibration are contained in Appendix 3 of this Notice of Requirement.

On the basis that construction noise can be mitigated and managed through a construction noise management plan at the time of construction, it is considered that any actual or potential effects will be less than minor.

9.10 Vibration (Construction and Operational)

A Vibration Assessment report assesses the actual or potential adverse effects of ground-borne vibrations resulting from the construction of the proposed ASUB project, and from traffic once the route becomes operational. The Vibration Assessment is contained in Volume C, Appendix 9 and should be referred to for full details.

Particular emphasis has been placed on determining critical separation distances between construction and heavy goods vehicle (HGV) traffic vibration sources and receivers to ensure the generated vibrations are not problematic from the perspectives of annoyance and structural damage.

The methodology adopted in making the assessment utilised both measurements of traffic induced vibrations along the proposed route and application of predictor equations.

9.10.1 Operational Vibration

The principal findings arising from the assessment of ground vibrations generated by the operation of the proposed ASUB project are as follows:

1. The existing environment along the proposed route is exposed to low level traffic-induced vibrations. These vibrations are considered to be acceptable as they are within recognised guidelines for human comfort applied internationally. The ASUB project, once operational, will not result in any worsening of existing traffic-induced vibration levels but will increase the number of occurrences of vibration events that occur during the course of a 16 hour daytime.

2. Vibration effects from the operation of the proposed ASUB project are such that no specific mitigation is considered necessary provided the volume of HGV traffic is less than 700 per day.

3. Should HGV traffic exceed 700 per day, more attention to road roughness management will be required to ensure that the average road roughness is about 25% less than at present so adverse comment can be avoided.

4. The new road will be surfaced with a bituminous mix surface, either asphaltic concrete or open graded porous asphalt (OGPA). In addition, Chalmers Avenue, which is presently surfaced with chipseal, will either be progressively sealed with bituminous mix as sections of the chipseal surface come up for resealing, or will be resealed with bituminous mix as part of the ASUB project if it has not been done prior. As bituminous mix surfaces provide a considerably smoother riding surface than chipseal surfaces because of their ability to smooth out corrugations in the underlying surface layer, a reduction in the average 100 m lane roughness of 25% or more over that at present should be easily achieved.

Based on these conclusions regarding operational vibrations not requiring any specific mitigation, it is considered that any actual or potential adverse vibration effects arising from the operation of the ASUB project will be less than minor.

9.10.2 Construction Vibration

The principal findings arising from the assessment of ground vibrations generated by the construction of the proposed ASUB project are as follows:

1. Vibration levels generated by construction are likely to be higher than those from operation but would be temporary and of a limited duration.

2. There is potential for adverse effects from construction but these can be appropriately mitigated through a Construction Vibration Management Plan as the mitigation measures relate to selection of equipment and processes and the location and operation of the equipment.

3. Specifically, pile operations associated with construction of the bridge piers may cause damage to nearby buildings and underground services if separation distances are insufficient for the piling technique employed.

4. For the greenfield road construction between the west bank of the Ashburton River and Grahams Road, the separation distance between the designation and neighbouring residential properties is too short to ensure the structural damage threshold of 3 mm/s PPV is not exceeded at 7 residential properties, with the most at risk being 64 Wilkins Rd and 119 Grove St. Therefore, the Construction Vibration Management Plan must ensure that the selection and operation of mechanised construction equipment to be used on the project complies with draft State Highway Construction and Maintenance Noise and Vibration Guide (NZTA, 2012).

5. Between now and when construction of the proposed ASUB project commences, houses can by right be built right up to the designation boundary in the Residential C and Residential D Zones. The exception is where the designation boundary utilises existing property boundaries through the Residential D Zone, in which case a house could be built up to 6m from the designation boundary. These separation distances are less than the estimated 7 m required to ensure the structural damage threshold of 5 mm/s PPV for new residential buildings is not exceeded.

6. The three recommended options for minimising Ashburton District Council's exposure to claims for damage caused by construction of the ASUB project to houses that may be built in the interim period before the construction commences are:

    a. Extend both sides of the designation boundary by 7 m, wherever it runs through properties; or

    b. Impose a performance condition on the designation to manage vibrations in accordance with the draft State Highway Construction and Maintenance Noise and Vibration Guide (NZTA, 2012). Furthermore, when assessing the potential of construction equipment to cause structural damage to neighbouring dwellings before being brought on to site, the criteria that should be applied to the measured vibrations is as listed in line 2 of table 1 of the German Standard DIN 4150-3:1999. These measurements should be made at a distance from source that corresponds to the minimum distance between where the equipment is expected to operate within the designation and the foundations of the bordering dwellings; or

    c. Construct the Grahams Road to Johnstone Street section of the proposed road before any subdivision development occurs within the Residential C Zone. This is not considered necessary for the Residential D zone due to the larger allotment sizes (even at 4,000m^2, assuming reticulated sewage is available) providing greater flexibility for landowners to site a dwelling away from the proposed designation boundary.

7. The recommended minimum separation distances between source and receiver for operational vibrations of 8 m (for avoiding disturbing building occupants) and for piling operations of 42 m (for avoiding structural damage) can be readily accommodated within the existing designation boundary.

In terms of the existing environment, the assessment notes that there are dwellings in close proximity to the proposed designation boundary and that there is potential for construction relation vibrations, if unmanaged, to have an actual or potential adverse effect on these properties. The management of these vibrations can be dealt with through a Construction Vibration Management Plan which places thresholds on vibration limits at the boundary of the designation. This requires the contractor to select and use appropriate construction machinery that has been tested to ensure it meets those thresholds.

In terms of the future environment, the assessment notes that the separation distance is less than the estimated 7 m required to ensure the structural damage threshold of 5 mm/s PPV for new residential buildings is not exceeded. Three options were identified (see above) to manage the actual or potential effect of construction vibration on future dwellings. As with the existing environment, the future environment can also be managed through the same Construction Vibration Management Plan.

The Vibration Assessment concludes that:

1. By imposing conditions on the proposed designation, construction vibration can be managed to ensure adverse effects on both existing and future dwellings will be minor.

2. Vibration effects resulting from the operation of the second bridge and local feeder roads are likely to be of such a nature that no specific mitigation is considered necessary.

Mitigation measures have been recommended in the Vibration Assessment, and these are outlined in Section 8 of this Notice of Requirement. Conditions relating to the management of construction vibration are contained in Appendix 3 of this Notice of Requirement.

On the basis that construction related vibration can be effectively mitigated and managed by placing conditions on the designation, it is considered that any actual or potential adverse effects arising from construction vibration will be less than minor.

9.11 Landscape and Visual

A Landscape and Visual Effects Assessment has been prepared and is attached at Volume C, Appendix 1. This assessment should be referred to for full details. Below is a summary of this assessment.

The proposed Ashburton Second Urban Bridge project is designed to provide improved amenity and access for local residents between Ashburton and Tinwald. The project is in several parts, each having a differing current and potential future landscape character.

The Landscape and Visual Effects Assessment states that as the district plan provisions have been designed to encourage residential development to the East of Tinwald, the ASUB proposal appears to be in line with and support these district plan provisions for expanded residential development south of Tinwald. The effects of these provisions are likely to mean changes to the landscape character south of the River, adjacent to Tinwald. The assessment notes that this landscape character change will be on-going regardless of the ASUB project.

The Landscape and Visual Effects Assessment has assessed the actual or potential effects of the proposed ASUB in light of current landscape character, future landscape character (as a result of district plan zoning) and the effects of the ASUB project following its completion. These effects have been assessed below:

9.11.1.1 Proposed New Road

For the proposed new road, the Landscape and Visual Effects Assessment notes that this section of the project has the most potential to change as a result of future urban development that is not associated with the ASUB project. Landscape character is likely to change as a result from its present semi-rural landscape to a potentially more suburban environment within the Residential C, and a more semi-residential environment in the Residential D.

Based on the existing landscape character within the Residential C zone, the potential effect of the ASUB project has been assessed as being moderate to low. With mitigation measures, the potential effect is assessed as being low.

Based on both the future potential limited density of development and full density of development in both the Residential C and D zones, the potential effect of the ASUB project has been assessed as being less than the effect on the current landscape character. Therefore, the effect has been assessed as being low.

9.11.1.2 Bridge Approach

The Landscape and Visual Effects Assessment notes that assuming shelterbelts are largely retained, the effects would have limited and localised impact as views towards the approach are short. The main effect would be during construction.

Based on the existing landscape character, the future potential limited density of development and full density of development, the effects of the bridge approach have been assessed as being low.

9.11.1.3 Bridge / River Crossing

The Landscape and Visual Effects Assessment notes that views towards the bridge are restricted and there is little apparent use of the river bed itself from where visual effects would be most evident. The biggest effect would be on recreational users using the riverside trails. The bridge would improve amenity in the area and improve access across and to the river banks and therefore the amenity of the area.

Based on both the existing and future landscape character, the effects of the proposed bridge have been assessed as moderate. However, with bridge design mitigation, the effects have been assessed as moderate-low.

9.11.1.4 Chalmers Avenue West

There is currently no existing road at the southern end of Chalmers Ave. The Landscape and Visual Effects Assessment states that its continuation would provide improved access and amenity to local residents, light industry and recreational users.

It is considered that for this location effects would be considered low and with mitigation measures low or positive.

9.11.2 Summary

The Landscape and Visual Effects Assessment concludes that based on the existing landscape character, and with effective mitigation, the ASUB project would have minor landscape and visual effects. In the future, the landscape and visual effects of the ASUB appear to be likely to reduce further over time and with effective mitigation be less than minor.

Mitigation measures are recommended to address the actual or potential adverse effects arising from the ASUB project. These mitigation measures are outlined in Section 8 above, and are included in the draft conditions in Appendix 3.

With the implementation of the proposed mitigation measures, it is considered that any actual or potential adverse landscape effects arising will be less than minor.

9.12 Air Quality (Operational and Construction)

An Assessment of Air Quality has been undertaken and which assesses the actual or potential adverse effects of the proposed ASUB project on the local air quality. The assessment considers the potential discharges to air arising from the project, including fugitive dust emissions from earthworks during construction and vehicle emissions from traffic flows on the bridge and on link roads.

The Assessment of Air Quality is contained in Volume C, Appendix 10 and should be referred to for full details.

9.12.1 Operational Air Quality

The assessment predicts impacts of discharges to air on the properties located along Chalmers Avenue and the new road connecting the bridge and Grahams Road. The assessment gives priority to those properties with residential dwellings located along Chalmers Avenue and in the immediate vicinity of the new link road.

The Assessment of Air Quality has assessed the effect of the proposed second bridge on the local air quality in Ashburton as being less than minor. This is because the predicted air quality after completion of the proposed ASUB project will remain the same in terms of the descriptive Regional Air Quality Categories.

The assessment shows that the proposed second bridge and traffic on link roads are only small contributors to the Ashburton airshed. The project will slightly reduce emissions of carbon monoxide (CO) and particulates (PM10). However, the change is negligible when compared to the total emissions of these contaminants into the Ashburton airshed from other sources, such as domestic heating and industry.

Beyond the areas adjacent to the project, air quality will approximately remain the same depending on the amount of traffic on local roads and further residential development in these areas. Some reduction in overall concentrations of carbon monoxide and particulates along SH1 should occur because the ASUB will divert traffic and reduce traffic congestion on SH1.

The assessment also indicates that ambient concentrations of air contaminants can increase up to the standard limits or exceed these limits within the project area, when calm meteorological conditions coincide with temperature inversion, calm and cold weather and the congested traffic flow. It is anticipated that maximum concentrations will remain for a short period of time from one to several hours, maybe one day, rather than constant high concentrations.

On the basis of the conclusions reached in the Assessment of Air Quality, it is considered that any actual or potential adverse effects on air quality arising from the operation of the proposed ASUB project will be less than minor.

9.12.2 Dust Emissions from Construction Sites

The Assessment of Air Quality states that fugitive dust emissions could potentially occur in the vicinity of the construction activities and could affect properties and residential dwellings within the distance of approximately 200 m from the source. The actual deposition rates will depend on the amount of dust and nature of the ground disturbed at the source.

A range of appropriate dust mitigation measures are available and which can be implemented to prevent fugitive dust emissions from construction sites. These dust emissions and potential effects can be controlled by a range of mitigation measures included in a Construction Management Plan.

The Assessment of Air Quality states that if appropriate mitigation measures are implemented as necessary during construction, PM10 levels and fugitive dust emissions from construction activities can be kept within the acceptable thresholds and trigger levels. The effect of these emissions on the local environment will be less than minor.

The Air Quality Assessment therefore recommends mitigation measures to address any actual or potential adverse air quality effects arising during construction. These mitigation measures are detailed in Section 8 above, and are included in the draft conditions in Appendix 3.

With the implementation of the proposed mitigation measures, it is considered that any actual or potential adverse effects arising from fugitive dust emissions during construction will be less than minor.

9.13 Stormwater

The Stormwater Concept Report has considered the potential effects of the stormwater discharge. It is noted that the detailed design of the stormwater system will need to be undertaken in accordance with the AUSS, SMP and ADC's global stormwater discharge consent (which is expected to be in place by the time detailed design for the stormwater system commences).

9.13.1 Contamination of Groundwater / Surface Water

The proposed road is intended to provide an alternative route for Ashburton locals to using State Highway 1. The proposed road is therefore not creating a new source of contaminants (when looking at the bigger picture), but simply moving some from an existing location (though there will be future increases in traffic).

The discharge of stormwater from a road has the potential for an adverse effect on groundwater and surface water through the discharge of contaminants commonly found in road runoff.

The proposed stormwater system will provide a high standard of stormwater treatment prior to discharge, and overall, the effect is considered beneficial, as currently stormwater contaminants from the State Highway are receiving very little, if any, stormwater treatment prior to discharge.

Infiltration to ground via swale inverts is the preferred stormwater treatment approach, as filtration through topsoil media ensures excellent removal of contaminants (particularly Total Suspended Solids (TSS), hydrocarbons and metals), achieves a better standard of treatment than sedimentation alone, and better mimics a natural flow regime by reducing frequency of discharge to waterways. Road side swales will also trap a hydrocarbon spill at source in the soil lining. This approach greatly reduces the frequency of stormwater discharge to waterways; this alone significantly mitigates downstream effects regardless of treatment efficiency.

The swale topsoil media will be targeted to treatment of TSS, hydrocarbons and metals. TSS and particulate matter will be removed via sedimentation and filtration. The use of a 200-300mm fine soil media with a target infiltration rate of 150mm/hr or less will ensure excellent TSS removal. Similarly, this will also ensure excellent removal of metals and hydrocarbons. Disposal via infiltration to ground (for routine rainfall events) will also mitigate thermal pollution issues in receiving watercourses.

The treatment of the stormwater discharge via roadside swales is expected to have a less than minor effect on groundwater or surface water quality.

9.13.2 Flooding / Erosion

The uncontrolled discharge of stormwater can have an adverse effect on downstream flood risks, on erosion of riverbeds / banks due to the velocity of the discharge, and the potential for flooding adjacent properties.

9.13.2.1 Carters Creek

Preference has been given to reducing the frequency of discharge to Carters Creek in line with the SMP, as this watercourse is considered more sensitive than the Ashburton River to urban stormwater discharges. Attenuation of flows to Carters Creek has also been proposed to avoid exacerbating existing flood flows and channel erosion.

The use of infiltration through grassed swales and periodic soak-pits will prevent discharges to Carters Creek from all but the most significant rainfall events or during times of exceptionally high groundwater.

The aim would be to capture the full Water Quality (WQ) event (defined as 18mm for Ashburton) within the swales for infiltration to ground. Events exceeding this depth would then flow via the swales to periodic soak-pits for disposal to ground, or to the proposed attenuation basins, if the capacity of the soak-pits is exceeded or groundwater is exceptionally high.

The use of vegetated swales will ensure that any flow conveyed to Carters Creek will do so at a low velocity to enable coarse suspended solids to settle out prior to being attenuated in the basins proposed.

9.13.2.2 Adjacent Properties

The proposed stormwater concept has been designed to ensure that sufficient land is set aside to ensure flood events are contained within the attenuation basins and swales without adversely affecting adjacent properties through overland flows.

9.13.2.3 Ashburton River

The proposed discharge of stormwater to the Ashburton River represents a tiny proportion of the overall storm flows in the Ashburton River catchment. The Ashburton River catchment is a significantly different catchment to the local environment around Carters Creek. There is less potential for peak flows within the Ashburton River to coincide with stormwater discharges from the proposed road. The proposed discharge of stormwater to the Ashburton River is unlikely to affect channel erosion or peak flood flows within the river due to the small proportion of stormwater that will be discharged into the Ashburton River. Discharges to the river floodplain will also be attenuated via the proposed swale, which will encourage disposal to ground prior to reaching the floodplain.

The effect of the proposed discharge on the Ashburton River flood levels and / or on erosion within the riverbed is expected to be less than minor.

9.13.3 Erosion and Sediment Control during Construction

During construction of the proposed ASUB, there will be the potential for stormwater to discharge off site. Construction related stormwater discharges are typically dealt with by way of an Erosion and Sediment Control Plan.

To mitigate any actual or potential adverse stormwater discharge effects associated with the construction of the proposed ASUB project, a Sediment and Erosion Control Plan will be prepared in accordance with the ECan Erosion and Sediment Control Guideline 2007.

10 Statutory Assessment

10.1 Section 168A RMA

10.1.1 Overview

Section 168A of the RMA applies to a territorial authority that decides to issue a notice of requirement for a designation.

> **168A** ***Notice of requirement by territorial authority***
>
> (3) *When considering a requirement and any submissions received, a territorial authority must, subject to Part 2, consider the effects on the environment of allowing the requirement, having particular regard to –*
>
> *(a) any relevant provisions of –*
>
> *(i) a national policy statement:*
>
> *(ii) a New Zealand coastal policy statement:*
>
> *(iii) a regional policy statement or proposed regional policy statement:*
>
> *(iv) a plan or proposed plan; and*
>
> *(b) whether adequate consideration has been given to alternative sites, routes, or methods of undertaking the work if –*
>
> *(i) the requiring authority does not have an interest in the land sufficient for undertaking the work; or*
>
> *(ii) it is likely the work will have a significant adverse effect on the environment; and*
>
> *(c) whether the work and designation are reasonably necessary for achieving the objectives of the requiring authority for which the designation is sought; and*
>
> *(d) any other matter the territorial authority considers reasonably necessary in order to make a recommendation on the requirement.*
>
> (4) *The territorial authority may decide to–*
>
> *(a) confirm the requirement:*
>
> *(b) modify the requirement:*
>
> *(c) impose conditions:*
>
> *(d) withdraw the requirement.*

It is considered the proposed designation is able to satisfy Section 168A and Part 2 of the RMA. The extent to which the proposal satisfies Section 168A is outlined below.

10.1.2 National Policy Statements

There are four National Policy Statements (NPS) in place. These are:

- Electricity transmission
- Renewable electricity generation
- NZ coastal policy statement
- Freshwater management

It is considered that the NPS on freshwater management is of relevance to the proposed ASUB project. The proposed new road and bridge will require stormwater disposal, which has the potential to affect water quality and freshwater ecosystems.

ADC has prepared the Ashburton Urban Stormwater Strategy and is currently preparing a Stormwater Management Plan for the township. The SMP and the resulting global stormwater discharge consent for Ashburton will need to take into account the objectives and policies of the NES on freshwater management.

The detailed design for the stormwater discharge from the ASUB project will be undertaken in conjunction with the requirements of Ashburton's SMP and the global stormwater discharge consent. It is therefore considered the future stormwater discharge will also be consistent with the relevant objectives and policies of the NES on freshwater management.

10.1.3 Regional Policy Statement

The Canterbury Regional Policy Statement (RPS) has been operative since 15 January 2013. The RPS provides an overview of the resource management issues of the region. It sets out how natural and physical resources are to be managed in an integrated way to promote sustainable management. District plans have been prepared in accordance with the RPS.

Section 168A(3)(a) of the RMA directs ADC to have particular regard to this document.

A key issue is whether including the proposed designation would make the District Plan inconsistent with the RPS.

Section 75(3) of the RMA states, in summary, that district plans must give effect to the regional policy statement. For the purposes of this AEE, it is assumed the District Plan gives effect to the RPS.

The proposed designation is assessed as being consistent with relevant objectives and policies of the District Plan. It is therefore considered that adding the proposed designation to the District Plan will not render the Plan incapable of giving effect to the RPS.

Another key issue is consistency with relevant objectives and policies of the RPS itself.

Actual or potential effects of the project on the beds and margins of rivers and water quality and quantity, particularly from stormwater management and the construction of a new bridge, are to be addressed primarily through the regional council resource consent process. On that basis,

objectives and policies from the RPS pertaining to these matters that may be relevant to consideration of the proposal are considered through the resource consent process.

Objectives and policies from the RPS that are relevant to consideration of the proposal and are considered in this AEE relate to:

- Provision for Ngai Tahu and their relationship with resources
- Land use and infrastructure
- Fresh water
- Ecosystems and indigenous biodiversity
- Beds of rivers and lakes and their riparian margins
- Natural hazards
- Landscape
- Historic Heritage
- Air quality
- Contaminated land
- Hazardous substances.

These relevant objectives and policies are listed in Appendix 2 Table 2 and an assessment as to the consistency of the project with these is also summarised in Appendix 2 Table 2. It is considered the proposed ASUB project is at least consistent with, and even promotes, the relevant Objectives and Policies contained within the RPS.

10.1.4 Regional Plans

10.1.4.1 Natural Resources Regional Plan

Section 168A(3)(a) of the RMA directs ADC to have particular regard to the Canterbury Natural Resources Regional Plan (NRRP). A key issue is consistency with relevant objectives and policies of the NRRP.

As outlined above, actual or potential effects of the project on the beds and margins of rivers and water quality and quantity, particularly from stormwater management and the construction of a new bridge, are to be addressed primarily through the regional council resource consent process. On that basis, objectives and policies from the NRRP pertaining to these matters that may be relevant to consideration of the proposal, including Chapter 4 Water Quality, are considered through the resource consent process.

Objectives and policies from the NRRP that are relevant to consideration of the proposal and are considered in this AEE relate to air quality (Chapter 3).

These are listed in Appendix 2 Table 3 and an assessment as to the consistency of the project with these is also summarised in Appendix 2 Table 3.

Actual or potential effects of the proposal on the environment are assessed above as minor, particularly with the mitigation measures proposed above and in Appendix 3 below.

Overall, therefore, it is considered the proposal is consistent with relevant objectives and policies in the NRRP cited in Appendix 2 Table 3. It is considered the proposed ASUB project is at least consistent with, and even promotes, the relevant Objectives and Policies contained within the NRRP.

10.1.4.2 Proposed Land and Water Regional Plan

Section 168A(3)(a) of the RMA directs ADC to have particular regard to the proposed Land and Water Regional Plan (pLWRP). A key issue is consistency with relevant objectives and policies of the pLWRP.

As outlined above, actual or potential effects of the project on the beds and margins of rivers and water quality and quantity, particularly from stormwater management and the construction of a new bridge, are to be addressed primarily through the regional council resource consent process. On that basis, objectives and policies from the pLWRP pertaining to these matters that may be relevant to consideration of the proposal are considered primarily through the resource consent process.

Notwithstanding, objectives and policies from the pLWRP that are relevant to consideration of the proposal relate to water quantity (Chapter 5), water quality (Chapter 6) and river beds and margins (Chapter 7) in terms of access to water bodies, ecology, and amenity, landscape and cultural values.

These relevant objectives and policies are listed in Appendix 2 Table 4 and an assessment as to the consistency of the project with these is also summarised in Appendix 2 Table 4. It is considered the proposed ASUB project is at least consistent with, and even promotes, the relevant Objectives and Policies contained within the pLWRP.

Actual or potential effects of the proposal on the environment are assessed above as minor, particularly with the mitigation measures proposed above and in Appendix 3 below.

Overall, therefore, it is considered the proposal is consistent with relevant objectives and policies in the pLWRP cited in Appendix 2 Table 4.

10.1.5 Ashburton District Plan

Actual or potential effects of the project on the beds and margins of rivers and water quality and quantity, particularly from stormwater management and the construction of a new bridge, are to be addressed primarily through the regional council resource consent process. On that basis, objectives and policies from the District Plan pertaining to these matters that may be relevant to consideration of the proposal are considered through the resource consent process.

Objectives and policies from the Partly Operative District Plan that are relevant to consideration of the proposal are listed in Appendix 2 Table 1 and an assessment as to the consistency of the project with these is also summarised in Appendix 2 Table 1.

The need for the work, the proposal, and the alternatives considered, are discussed above respectively. It is considered this discussion demonstrates that the proposal will have an overall positive effect on the capacity, safety and efficiency of the Ashburton roading network, and form part of a sustainable, integrated transport system for Ashburton.

ADC has undertaken extensive consultation regarding the proposal, both at an early stage of investigation, and following final proposal determination, as discussed above.

Actual or potential effects of the proposal on the environment are assessed above as minor, particularly with the mitigation measures proposed above and in Appendix 3 below.

Overall, it is therefore considered the proposal is consistent with, and even promotes, the relevant objectives and policies in the Partly Operative District Plan cited in Appendix 2 Table 1.

10.1.6 Alternative Sites, Routes or Methods

Section 168A(3)(b) requires the territorial authority to consider whether adequate consideration has been given to alternative sites, routes or methods of undertaking the work if:

- The requiring authority does not have an interest in the land sufficient for undertaking the work; or
- It is likely the work will have a significant adverse effect on the environment.

ADC as the requiring authority does not have an interest in all of the land required for the proposed works. At present, ADC own one of the 10 affected land parcels.

A total of 15 bridge and associated route options have been considered and assessed for a second bridge crossing of the Ashburton River. These have been addressed in the Options Assessment Report. It is considered the proposed route best meets the objectives of the requiring authority in addressing the traffic issues that have been identified through the Ashburton Transportation Study and the consequent Ashburton Second Bridge Issues and Options Report.

The TIA undertaken for the project states the proposed works are projected to have an extremely positive effect on the Ashburton transport system. It is expected to reduce congestion on the existing SH1 Bridge and at other locations through Ashburton, and thereby improve overall travel times significantly, improve safety and accessibility for pedestrians, cyclists and vehicles between Tinwald and north Ashburton, and provide a suitable alternative route should the existing bridge be closed.

The SIA undertaken for the project states the proposed works will also be substantially enabling of the communities of Tinwald and Ashburton in providing for their social well-being.

Potential adverse effects are assessed as occurring during construction of the proposed project, however these can all be addressed through appropriate management plans and other mitigation measures. Draft conditions are proposed to be placed on the designation which will ensure that any actual or potential adverse effects will be minor or less than minor.

10.1.7 Reasonable Necessity

Section 168A(3)(c) requires the territorial authority to consider whether the work and designation are reasonably necessary for achieving the objectives of the requiring authority for which the designation is sought.

The need for the proposed work has been outlined in the Notice of Requirement above and has been demonstrated as being reasonably necessary for ADC as the requiring authority to achieve its objectives.

The designation requires 8.0885ha for the construction of the proposed road, and a further 0.667ha for ancillary stormwater purposes related to the proposed road. The width of the designation allows for a road cross section incorporating a flush central median, traffic lanes, cycle lanes, parking lanes, footpaths and stormwater swales. The width of the designation is also considered sufficient to allow ADC to mitigate any actual or potential adverse effects that might arise during construction. Construction vibration is one potential effect that has been identified. A potential solution is to extend the boundary of the designation by a further 7m either side to provide a construction buffer that would be uplifted once the project has been built. However, this is a considerable imposition on the existing landowners in the intervening years, when construction vibration can also be managed at the current designation boundary through a condition which requires all construction machinery to meet certain vibration thresholds. None of the other technical assessments undertaken (landscape, noise, traffic, social, ecology, air quality, lighting) identified the need to provide a construction buffer as an option to mitigate potential construction effects. On this basis, the proposed designation is considered reasonably necessary to allow ADC to construct the project.

The project is not required for construction until approximately 2026. However, in the intervening years prior to construction there is potential for increased residential development throughout the area. The Partly Operative District Plan has recently rezoned the area through which the proposed route passes to Residential C and Residential D. Allotments in the Residential D area can now be subdivided down to 10,000m^2 (1ha) in the absence of reticulated sewage. Allotments in the Residential C area can now be subdivided down to 1,000m^2 in the absence of reticulated sewage. The introduction of reticulated sewage to the area at any time in the future will allow these allotment sizes to reduce even further (4,000m^2 for Residential D, 360m^2 for Residential C). The potential is for these existing landholdings to intensify, and thereby reduce options for ADC to implement the project in 2026. A designation is therefore necessary for ADC as the requiring authority to undertake its long term planning to protect a transport route that will be required in the future. Designating the route now provides greater certainty to ADC.

10.1.8 Other Matters

Section 168A(3)(d) requires the territorial authority to consider whether there are any other matters which the territorial authority considers is reasonably necessary in order to make a recommendation on the requirement.

As noted in Section 10.1.7 above, the area east of Tinwald has been rezoned for residential development. As the area develops over time it will eventually require additional road infrastructure in order to provide a framework from which further development can occur in a co-ordinated manner. Without committing the Council to anything, the proposed road provides the opportunity for Council to install reticulated sewage within the corridor at or before the time of

construction and which would provide a catalyst for future residential development down to the allowable allotment sizes of 4,000m² or 360m².

The NZTA partnered with ADC in 2006 to undertake the ATS. This study identified that a significant portion of the traffic crossing the existing Ashburton River bridge is local traffic, compared with state highway through traffic. The TIA prepared for this Notice of Requirement discusses in full the implications of this local traffic issue.

A recommendation arising from the ATS was a second bridge crossing of the Ashburton River that would manage the local traffic issue. The NZTA in its capacity as the state highway manager, as well as the partial funder of roading projects at Council level, supports the proposed project. The NZTA and ADC agree that the traffic issues on the existing bridge are primarily a local traffic issue and that the ASUB project will, in the first instance, serve the local traffic needs of the Tinwald and Ashburton communities by providing an alternative route. This will obviously have benefits for the NZTA in terms of managing the state highway for its primary function, being through traffic. Funding for the project through the territorial local authority subsidy provided by the NZTA is critical for the project. Therefore, a second bridge crossing located in the right position which gives the greatest benefits to the overall Ashburton transport system (which includes SH1) will have the greatest likelihood of receiving a subsidy from the NZTA. The proposed ASUB project is considered to be located such that it provides the greatest benefit to the Ashburton transport system and the Ashburton community. As noted above, the proposed ASUB will also have a benefit for the state highway. The ADC has discussed with the NZTA the likelihood of a greater subsidy than the standard financial assistance rate to reflect the benefit that will be derived by NZTA. No agreement has been reached on this matter and it is one that would need to be reached at the time of detailed design. Notwithstanding, this matter has been raised by ADC and will be a topic for discussion when funding agreements are made for the future projects.

10.2 Part 2 RMA

10.2.1 Overview

A territorial authority's consideration of a notice of requirement for a designation for a public work within its district for which it has financial responsibility is subject to Part 2 of the RMA.

In Part 2, the purpose of the RMA in terms of Section 5(1) of the RMA is to promote the sustainable management of natural and physical resources.

10.2.2 Section 6

Section 6 of the RMA sets out those matters of national importance that are to be recognised and provided for in achieving the purpose of the RMA. Matters in Section 6 that may be of relevance to the proposed designation are considered to include the following:

> *"(a) The preservation of the natural character of...rivers and their margins, and the protection of them from inappropriate...use, and development*
>
> *(c) The protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna*
>
> *(d) The maintenance and enhancement of public access to and along...rivers*

(e) The relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu and other taonga

(f) The protection of historic heritage from inappropriate…use, and development"

Based on the assessment of actual or potential effects of the proposal on the environment above and the proposed mitigation measures, it is considered that the proposal recognises and provides for these Section 6 matters.

The proposed mitigation measures in respect landscape recognise and provide for the matters in Sections 6(a) of the RMA.

Section 6(c) of the RMA will be provided for at the time of detailed design when measures can be implemented through the ECan resource consent process for the bridge construction related to working within the bed of the Ashburton River.

The connectivity that forms part of the project recognises and provides for the matter in Section 6(d) of the RMA, in terms of pedestrian /cycle connectivity both to and across the Ashburton River. Connections from the proposed new road down to the existing walking / cycling tracks along the river bank will also provide additional opportunities for enhancing public access.

The proposed mitigation measures in respect of stormwater management, cultural heritage and archaeology recognise and provide for the matters in Sections 6(e) and (f) of the RMA.

10.2.3 Section 7

Section 7 of the RMA sets out those "other matters" that ADC is to have particular regard to in achieving the purpose of the RMA. Matters in Section 7 that may be of relevance to the designation alterations are considered to include the following:

"(a) Kaitiakitanga

(b) The efficient use and development of natural and physical resources

(c) The maintenance and enhancement of amenity values

(d) Intrinsic values of ecosystems

(f) The maintenance and enhancement of the quality of the environment

(g) Any finite characteristics of natural and physical resources"

It is considered that none of these Section 7 matters will be adversely affected by the proposal, based on the assessment of actual or potential effects of the proposal on the environment above and the proposed mitigation measures.

The proposed mitigation measures in respect of cultural heritage and archaeology will help meet Section 7(a) of the RMA.

For the reasons discussed above, the proposal will contribute to the efficient use and development of the Ashburton transport system (which includes SH1) as a significant physical resource, satisfying Section 7(b) of the RMA.

The proposed mitigation measures in respect of construction noise, connectivity, visual and landscape effects, air quality, vibration and lighting will help meet Sections 7 (c) and (f) of the RMA.

The proposed mitigation measures in respect of stormwater management and ecology will avoid, remedy or mitigate adverse effects on the matters in Sections 7(d) and (g) of the RMA.

10.2.4 Section 8

Section 8 of the RMA, in summary, requires all persons exercising functions and powers under the RMA to take into account the principles of the Treaty of Waitangi. The ADC, in this context, must weigh the matter of Treaty obligations with other matters that are being considered.

10.2.5 Section 5

The term "sustainable management" is defined in Section 5(2)(a) to (c) of the RMA. In summary, it means managing resources in a way that enables people and communities to provide for their social, economic, and cultural wellbeing and for their health and safety, while achieving specified bottom line environmental outcomes. The ADC roading network is considered a significant physical resource under the RMA within the context of Auckland Volcanic Cones Soc Inc v Transit NZ EnvC A203/2002. As such, providing for and improving the safety, efficiency and sustainability of the Ashburton townships roading network is a resource management issue of significance.

For the reasons discussed in the Notice of Requirement above, in terms of Section 5(2)(a) of the RMA the proposal will contribute positively to the sustainable management of the Ashburton transport network.

In achieving Section 5(1) of the RMA, Section 5(2)(c) of the RMA states, in summary, that activities must be managed so that adverse effects on the environment are avoided, remedied or mitigated, and Section 5(2)(b) of the RMA requires the life-supporting capacity of air, water, soil and ecosystems to be safeguarded. Based on the assessment of actual or potential effects of the proposal on the environment above and the proposed mitigation measures, it is considered the proposal is consistent with Sections 5(2) (b) and (c).

10.3 Other Statutory Approvals Required

10.3.1 ADC Outline Plan

An Outline Plan in terms of Section 176A(3) of the RMA for the works on designated sites for which the designation is sought is required and will be lodged with ADC prior to commencement of the works.

10.3.2 ECan Resource Consents

Resource consents will be required from ECan. The nature of activities likely to require consent include: stormwater discharges, works in watercourses (e.g., the bridge), dewatering and earthworks where the excavation will reach groundwater. Assessment of the NRRP and the

pLWRP indicates that the resource consents detailed in Table 10-1 are likely to be required[10]. It is noted however that the need for the project is still a number of years away and it is possible that regional council consent requirements might change in that period. A full assessment of the consent requirements will need to be undertaken at the time of detailed design.

Table 10-1: Activities that may require ECan resource consent

RMA	Description
Section 9(3) RMA (Land use)	Excavation of land and deposition (Rules WQL36/37, 5.155) Riparian margins (rivers and wetlands) - Earthworks (Rule WQL30, 5.148) - Vegetation clearance (Rule WQL29, 5.147) Drilling and installation of monitoring bores (Rule WQL31, 5.79)
Section 13 RMA (Beds of rivers)	Construction, use and maintenance of structures, and associated disturbance of the bed – Ashburton River bridge, Carters Drain culvert and stormwater outfalls (Rule BLR4, 5.115)
Section 14 RMA (Water permits)	To temporarily divert water during construction (Rule WQN2, 5.89) To take, use, dam and divert water (Rule WQN2, 5.96) Dewatering (Rule WQN12, 5.92-5.93)
Section 15 RMA (Water/Land/Air Discharge)	Discharge to air (namely dust) during construction (Rule AQL69) Discharge to land and water from dewatering (Rule WQL2, 5.76-5.77) Discharge of stormwater during construction to land and water (Rules WQL6/7, 5.71-5.73) Discharge of operational stormwater to land and water (Rules WQL6/7, 5.71-5.73)

11 Summary

The Ashburton District Council (ADC) proposes to construct, use and maintain a new 2-lane bridge across the Ashburton River and an associated road that directly links Chalmers Avenue through 'green fields' to the east of Tinwald to a connection with Grahams Road, Ashburton.

ADC is seeking a new designation to include the entire infrastructure associated with the ASUB including a 2-lane bridge, traffic lanes (including cycle lanes and parking), footpaths / pedestrian connections, intersections, stormwater infrastructure, landscaping, ancillary road infrastructure (e.g.; services within the road corridor), and road construction.

The need for the project has been identified through a number of investigations into the Ashburton transportation system, the existing bridge, and a possible second bridge, from the 2006 Ashburton Transport Study through to the 2012 Options Investigations. These investigations have identified a number of issues with the existing bridge and the surrounding transport network.

Traffic modelling indicates that traffic volumes on key routes throughout Ashburton are likely to increase significantly by 2026 regardless of a second bridge. This is expected to result in significant congestion and delays at a number of locations, including the existing bridge and the intersection of SH1 with Moore Street (SH77).

[10] Rule numbers that start with WQL, WQN, AQL or BLR relate to the Canterbury Natural Resources Regional Plan. Rule numbers that start with 5.xx are from the Canterbury proposed Land and Water Regional Plan.

Vehicle number plate surveys undertaken in 2006, and repeated again in 2012, confirm the bulk of the traffic on the existing bridge during peak times is local traffic between Tinwald and Ashburton. Less than 30% of the traffic is "through traffic" on SH1. The existing state highway bridge is nearing capacity at present, but is still functioning adequately most of the time. ADC and the NZ Transport Agency (NZTA) have agreed that the traffic issue on the current bridge is a local traffic issue and that the ASUB project will predominantly be to serve the local traffic needs of the Tinwald and Ashburton communities. Once constructed, the ASUB will become an extension of the existing urban road network within east Tinwald and Ashburton township and will be maintained and controlled by ADC. It will not become the state highway.

Physical construction of the proposed ASUB project is not required until approximately 2026, at which time traffic congestion on the existing bridge is expected to reach a point which justifies the need for a second bridge. Traffic modelling indicates that up to 14,000 vehicles per day (vpd) are likely to use a second bridge by 2026, with between 5-10% expected to be heavy goods vehicles (HGVs). This traffic is likely to distribute amongst side roads to the north and south of the bridge and is expected to result in an overall reduction in total average travel time for all vehicles in the Ashburton urban area.

Technical assessments have been undertaken to determine the actual or potential effects of the proposed project on both the existing and the future environment. The majority of these assessments have indicated that there is potential for adverse effects at the time of construction of the project. However, all of these potential effects can be mitigated through appropriate conditions on the designation which require the implementation of specific management plans which deal with specific effects (namely: erosion, sediment and dust control; temporary traffic management; construction noise and vibration; temporary and construction lighting; social impacts).

Conditions are proposed for the designation which will ensure that any actual or potential adverse effects arising from the construction and operation of the proposed ASUB project will be less than minor.

Once constructed, the impacts of the project on the Ashburton transport system at that time are projected to be extremely positive. It is expected to reduce congestion on the existing SH1 Bridge and at other locations through Ashburton, and thereby improve overall travel times significantly, improve safety and accessibility for pedestrians, cyclists and vehicles between Tinwald and north Ashburton, and provide a suitable alternative route should the existing bridge be closed.

Furthermore, from a social impact viewpoint the proposed project will be substantially enabling of the communities of Tinwald and Ashburton in providing for their social wellbeing.

The need for the proposed work has been outlined in the Notice of Requirement above and has been demonstrated as being reasonably necessary for ADC as the requiring authority to achieve its objectives.

The extent of the proposed designation is considered reasonably necessary in order for the ADC as the requiring authority to undertake the work. The designation process is also considered the most appropriate means to safeguard the route so that the project can be constructed in 2026 when it is required.

The proposed designation is assessed as meeting the purpose and principals of the RMA.

Appendix 1 Certificates of Title

COMPUTER FREEHOLD REGISTER
UNDER LAND TRANSFER ACT 1952

Search Copy

R.W. Muir
Registrar-General
of Land

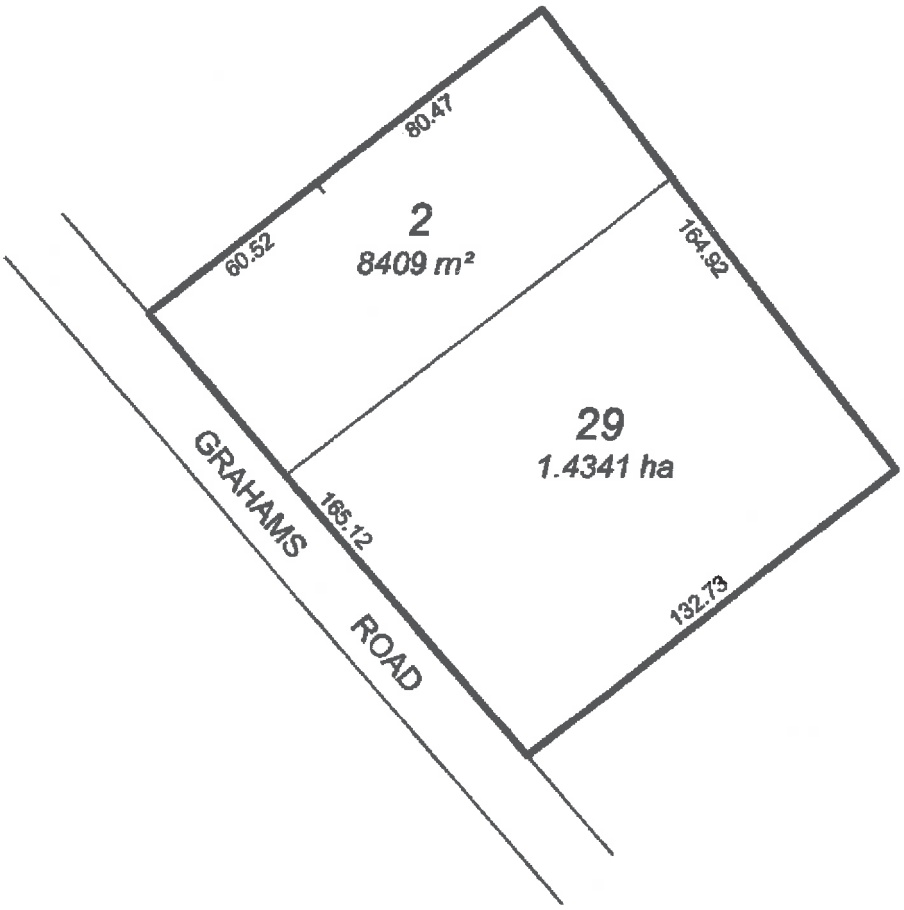
Identifier	**289496**
Land Registration District	**Canterbury**
Date Issued	22 August 2006

Prior References
CB22K/1253 CB9A/7

Estate	Fee Simple
Area	2.2750 hectares more or less
Legal Description	Lot 2 Deposited Plan 371546 and Lot 29 Deposited Plan 821

Proprietors
Tony James Houston as to a 1/2 share
Megan Sandra Houston as to a 1/2 share

Interests
Subject to Section 241(2) Resource Management Act 1991 (affects DP 371546)
7749866.3 Mortgage to Westpac New Zealand Limited - 24.4.2008 at 2:57 pm



Total Area: 2.2750 ha

Title Diagram CT289496

Cpy – 01/01, Pgs – 001, 08/09/06, 09:51

DocID 211859489

COMPUTER FREEHOLD REGISTER
UNDER LAND TRANSFER ACT 1952

Search Copy

R.W. Muir
Registrar-General
of Land

Identifier	**CB36C/900**
Land Registration District	**Canterbury**
Date Issued	07 December 1992

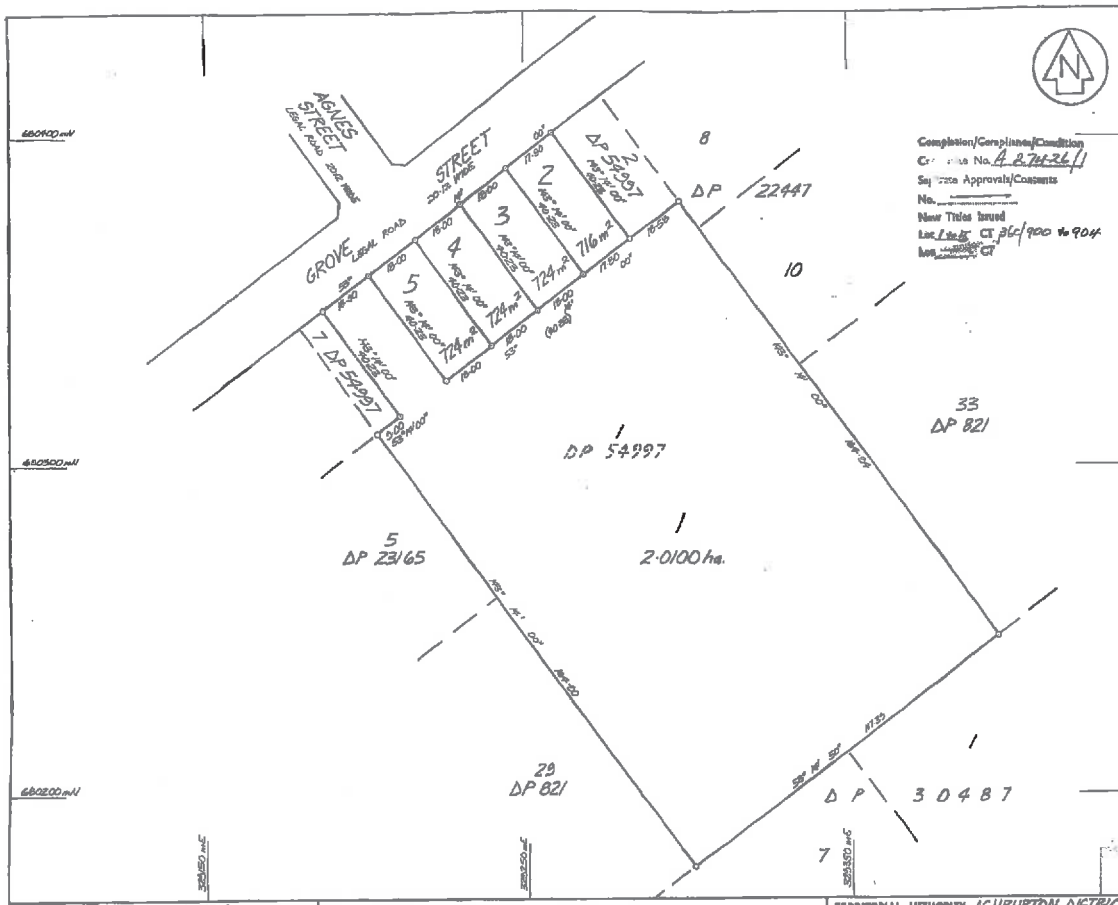
Prior References
CB32F/537

Estate	Fee Simple
Area	2.0100 hectares more or less
Legal Description	Lot 1 Deposited Plan 62260

Proprietors
Tony James Houston and Megan Sandra Houston

Interests

A42561.2 Mortgage to (now) Westpac New Zealand Limited - 18.3.1993 at 10.56 am
A404173.1 Variation of Mortgage A42561.2 - 10.5.1999 at 10.46 am
7805542.1 Variation of Mortgage A42561.2 - 6.5.2008 at 9:00 am
8606514.1 Variation of Mortgage A42561.2 - 6.10.2010 at 4:10 pm



Completion/Compliance/Condition
Cr[illegible] No. A 2.741-26/1
Sa[illegible] Approvals/Consents
No.
New Titles Issued
Lot 1 to 5 CT 36E/900 to 904
Lot [illegible] CT

Approvals

REGISTERED PROPRIETOR

APPROVED PURSUANT TO SECTION 226 OF THE RESOURCE MANAGEMENT ACT AND ON THE 1st DAY OF OCTOBER 1992. THE COMMON SEAL OF THE ASHBURTON DISTRICT COUNCIL WAS AFFIXED HERETO IN THE PRESENCE OF:

DISTRICT CLERK

Total Area 2·2988ha
Comprised In CT 32E/537

I, DAVID WISE SMITH OF ASHBURTON

Registered Surveyor and holder of an unused practising certificate (or who may act as a registered surveyor pursuant to section 26 of the Survey Act 1986) hereby certify that this plan has been made from surveys executed by me or under my directions, that both plan and survey are correct and have been made in accordance with the Survey Regulations 1972 or any regulations made in substitution thereof.

Dated at ASHBURTON this 9th day of Oct 19 92 Signature [signature]

Field Book ... Traverse Book ... Ff ...
Reference Plans ...
Examined ...

Approved as to Survey
28/10/92 R. Moulton Deputy Chief Surveyor

Deposited this 7th day of December 1992
Assistant District Land Registrar

File Received 12·10·92 DP62260
Instructions

LAND DISTRICT CANTERBURY
SURVEY BLK. & DIST. XVI WESTERFIELD
NZMS 261 SHT K37 RECORD MAP No.

LOTS 1-5 BEING SUBDIVISION OF LOT 1 DP 54997.

TERRITORIAL AUTHORITY ASHBURTON DISTRICT
Surveyed by DAVID W SMITH PLS 2117
Scale 1:750 Date AUGUST 1992

Supplied by Landsys ASHB T. 21

W A ROBERTSON DIRECTOR GENERAL/SURVEYOR-GENERAL, DEPARTMENT OF SURVEY AND LAND INFORMATION, NEW ZEALAND

Approved LM81538 FDN82/000 005/FORM 013

COMPUTER FREEHOLD REGISTER
UNDER LAND TRANSFER ACT 1952

Search Copy

R.W. Muir
Registrar-General
of Land

Identifier	**CB445/252**
Land Registration District	**Canterbury**
Date Issued	19 March 1936

Prior References
CB141/15

Estate	Fee Simple
Area	1.4164 hectares more or less
Legal Description	Lot 33 Deposited Plan 821

Proprietors
Eric edward Johnston and Robin Mary Johnston

Interests


D.P.821
PART BOROUGH OF ASHBURTON
From 1.4.55
ASHBURTON COUNTY
4354
XVI. WESTERFIELD.
IV. HINDS.
XIII ASHBURTON
BLOCK XIII ASHBURTON
PLAN OF SUBDIVISIONS OF PURS 4354-4950
D.P.821
D.P.821

COMPUTER FREEHOLD REGISTER
UNDER LAND TRANSFER ACT 1952

Search Copy

R.W. Muir
Registrar-General
of Land

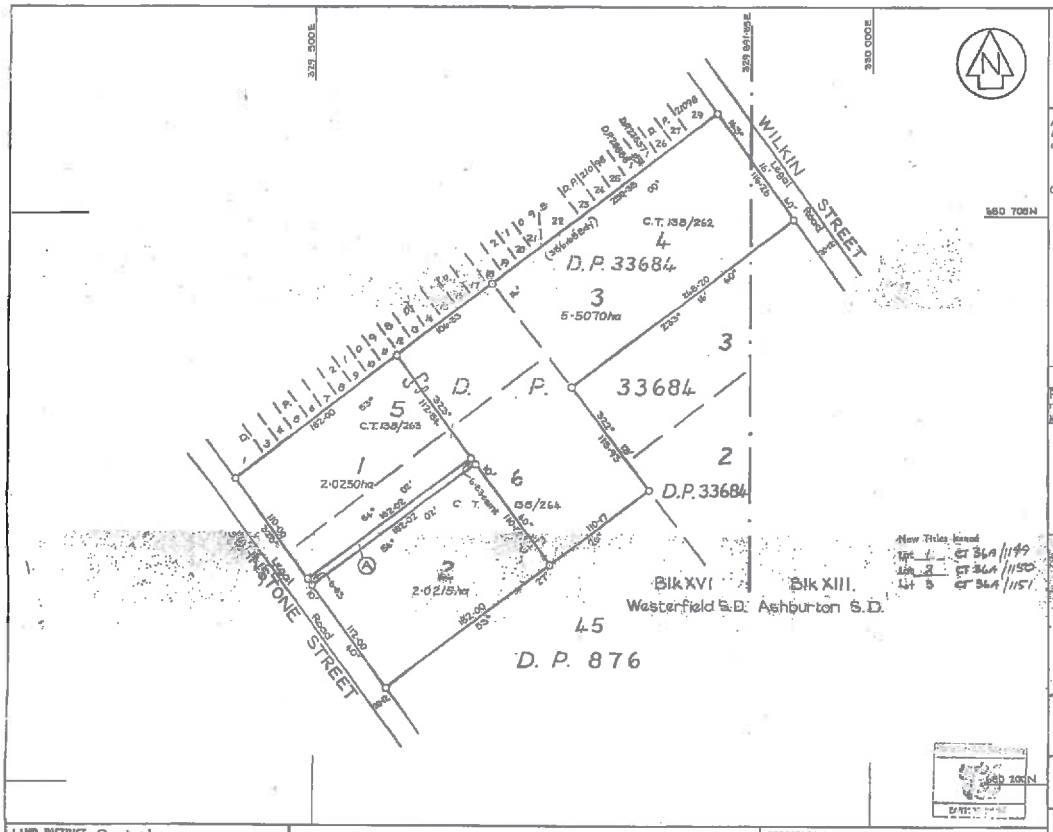
Identifier	**CB36A/1150**
Land Registration District	**Canterbury**
Date Issued	15 July 1992

Prior References
CB13B/264

Estate	Fee Simple
Area	2.0215 hectares more or less
Legal Description	Lot 2 Deposited Plan 60937

Proprietors
Graeme Meredith Wilson as to a 1/2 share
Jocelyn Wilson as to a 1/2 share

Interests



Approvals

Registered Owners

Approved pursuant to Section 226 of the Resource Management Act 1991 on the 3 day of 2 July 1992 (No conditions imposed)

The Common Seal of the Ashburton District Council is affixed hereto in the presence of:

Mayor

District Clerk

Schedule of Easement

Purpose	Servient Tenement	Shown	Dominant Tenement
Right of Way & right to convey water	Lot 3	A	Lot 1

Total Area 9·5535 ha

Comprised in C.T. 138/262, 138/263 & 138/264.

I, Marvyn James Beauvais

Registered Surveyor and holder of an annual practising certificate for who may act as a registered surveyor pursuant to section 25 of the Survey Act 1986 hereby certify that this plan has been made from surveys executed by me or under my direction, that both plan and survey are correct and have been made in accordance with the Survey Regulations 1959 or any regulations made in substitution thereof.

Dated at Ashburton this 30th day of April 1992 Signature

Roll Book p. Township Book p.

Reference Plans D.P.s 876, 21098, 30416, 23537, 29885, 30487, 33634, 40530

Examined Correct —

Approved as to Survey 6/5/92 Deputy Chief Surveyor

Deposited this 15th day of July 1992

Land Registrar

File Received 10·4·92 DP 60937

Amendments

LAND DISTRICT Canterbury
XVI Westerfield &
SURVEY BLK. & DIST. XIII Ashburton
NZMS 261 SHT K37 RECORD MAP No
ASHBT. 17 & 21

Lots 1-3 being Subdivision of Lots 4-6 D.P. 33684.

TERRITORIAL AUTHORITY Ashburton District
Surveyed by M.J. Beauvais
Scale 1:2000 Date February 1992

W.A. POWERTON, DEPUTY DIRECTOR-GENERAL/SURVEYOR-GENERAL, DEPARTMENT OF SURVEY AND LAND INFORMATION, NEW ZEALAND

COMPUTER FREEHOLD REGISTER
UNDER LAND TRANSFER ACT 1952

Search Copy

R.W. Muir
Registrar-General
of Land

Identifier	**CB36A/1151**
Land Registration District	**Canterbury**
Date Issued	15 July 1992

Prior References
CB13B/262 CB13B/263 CB13B/264

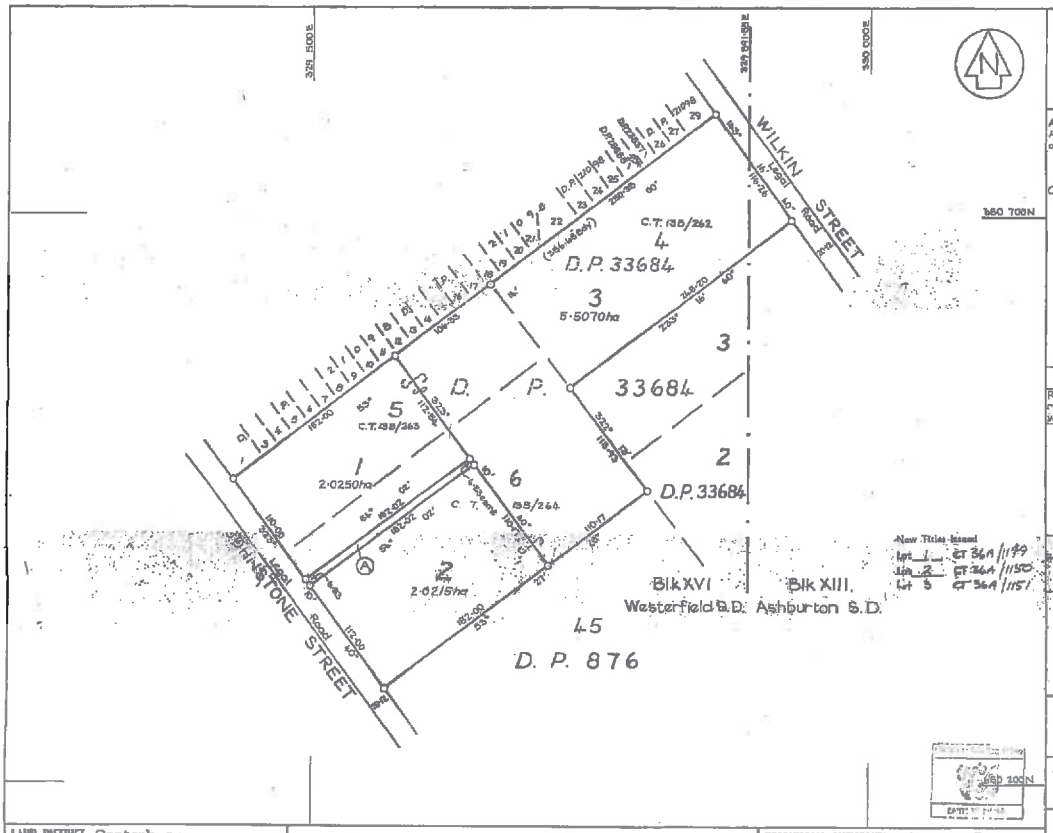
Estate	Fee Simple
Area	5.5070 hectares more or less
Legal Description	Lot 3 Deposited Plan 60937

Proprietors
Wallace Henry Breach

Interests

A4642.5 Easement Certificate specifying the following easements (affects part formerly contained in CT CB13B/262) - 15.7.1992 at 2.35 pm

Type	Servient Tenement	Easement Area	Dominant Tenement	Statutory Restriction
Right of way and right to convey water	Lot 3 Deposited Plan 60937 - herein	A DP 60937	Lot 1 Deposited Plan 60937 - CT CB36A/1149	



Approvals

Registered Owners

Approved pursuant to Section 223 of the Resource Management Act 1991 on the 7 day of APRIL 1992 (No conditions imposed)

The Common Seal of the Ashburton District Council is affixed hereto in the presence of:

Mayor

District Clerk

Schedule of Easement

Purpose	Servient Tenement	Shown	Dominant Tenement
Right of Way & right to convey water	Lot 3	A	Lot 1

Total Area 9·5535 ha

Comprised in C/s.T. 13B/262, 13B/263 & 13B/264

I, Mervyn James Beauvais

Registered Surveyor and holder of an annual practising certificate for the time being as a registered surveyor pursuant to section 15 of the Survey Act 1986 hereby certify that this plan has been made from surveys executed by me or under my directions, that both plan and survey are correct and have been made in accordance with the Survey Regulations 1972 or any regulations made in substitution thereof.

Dated at Ashburton this 9/4 day of April 1992 Signed

Old Book p. Torrens Book p.

Reference Plans D.P.s 876, 21098, 30648, 33537, 29886, 30687, 33684, 40580

Examined Correct

Approved as to Survey 6/5/92

Deposited this 15th day of July 1992

Land Registrar

File Received 10·4·92 Instructions

DP 60937

LAND DISTRICT Canterbury
SURVEY BLK. & DIST. XVI Westerfield & XIII Ashburton
NZMS 261 SHT K37 RECORD MAP No ASHBT. 17 & 21

Lots 1-3 being Subdivision of Lots 4-6 D.P. 33684

TERRITORIAL AUTHORITY Ashburton District
Surveyed by M.J. Beauvais
Scale 1:2000 Date February 1992

W.A. FORBITSCH, BRIDGEN GENERAL/SURVEYOR GENERAL, DEPARTMENT OF SURVEY AND LAND INFORMATION, NEW ZEALAND

DOPU FORM 010

COMPUTER FREEHOLD REGISTER
UNDER LAND TRANSFER ACT 1952

Search Copy

R.W. Muir
Registrar-General
of Land

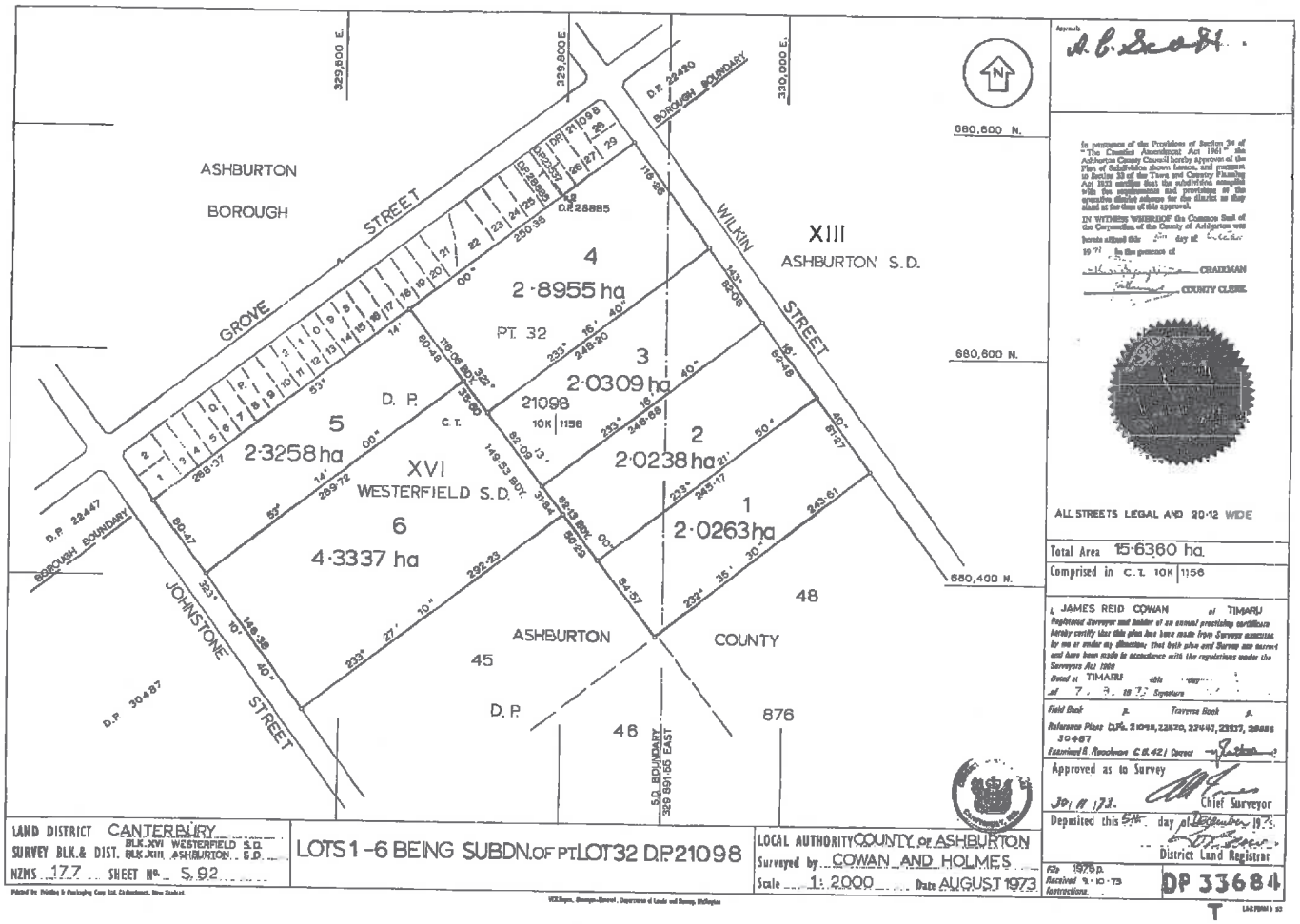
Identifier	**CB13B/261**
Land Registration District	**Canterbury**
Date Issued	13 December 1973

Prior References
CB10K/1156

Estate	Fee Simple
Area	2.0309 hectares more or less
Legal Description	Lot 3 Deposited Plan 33684

Proprietors
Alex Braas

Interests
8963435.3 Mortgage to Westpac New Zealand Limited - 19.1.2012 at 3:37 pm


329,800 E.
329,800 E.
330,000 E.
680,600 N.
680,600 N.
680,400 N.
ASHBURTON BOROUGH
D.P. 22480 BOROUGH BOUNDARY
GROVE STREET
WILKIN STREET
XIII ASHBURTON S.D.
4 2·8955 ha
PT. 32
3 2·0309 ha
21098 10K | 1158
2 2·0238 ha
1 2·0263 ha
5 2·3258 ha
6 4·3337 ha
XVI WESTERFIELD S.D.
D. P.
C. T.
D.P. 22447 BOROUGH BOUNDARY
JOHNSTONE STREET
D.P. 30487
ASHBURTON COUNTY
45
48
46
876
D.P.
S.O. BOUNDARY 329 991·05 EAST
ALL STREETS LEGAL AND 20·12 WIDE
Total Area 15·6360 ha.
Comprised in C.T. 10K | 1156
LAND DISTRICT CANTERBURY
SURVEY BLK.& DIST. BLK.XVI WESTERFIELD S.D. BLK.XIII ASHBURTON S.D.
NZMS 177 SHEET No. S.92
LOTS 1 -6 BEING SUBDN. OF PT LOT 32 D.P. 21098
LOCAL AUTHORITY COUNTY OF ASHBURTON
Surveyed by COWAN AND HOLMES
Scale 1:2000 Date AUGUST 1973
DP 33684

COMPUTER FREEHOLD REGISTER
UNDER LAND TRANSFER ACT 1952

Search Copy

R.W. Muir
Registrar-General
of Land

Identifier	**CB131/29**
Land Registration District	**Canterbury**
Date Issued	15 August 1887

Prior References
CB81/121

Estate	Fee Simple
Area	3.0199 hectares more or less
Legal Description	Lot 4 Deposited Plan 821

Proprietors
Paul Vincent Bell and Deanna Mae Bell

Interests
5166736.2 Mortgage to (now) Heartland Building Society - 7.3.2002 at 9:00 am


D.P. 821
D.P. 821
PART BOROUGH OF ASHBURTON
from 1.4.55
ASHBURTON COUNTY
4354
XVI. WESTERFIELD.
IV. HINDS
XIII ASHBURTON
BLOCK XIII ASHBURTON
R.S. 480
D.P. 14645
D.P. 22147
11537
"A"
821
PLAN OF SUBDIVISIONS OF PTS R.S. 4354 4350
D.P. 821
NOTE
D.P. 821

COMPUTER FREEHOLD REGISTER
UNDER LAND TRANSFER ACT 1952

Search Copy

R.W. Muir
Registrar-General
of Land

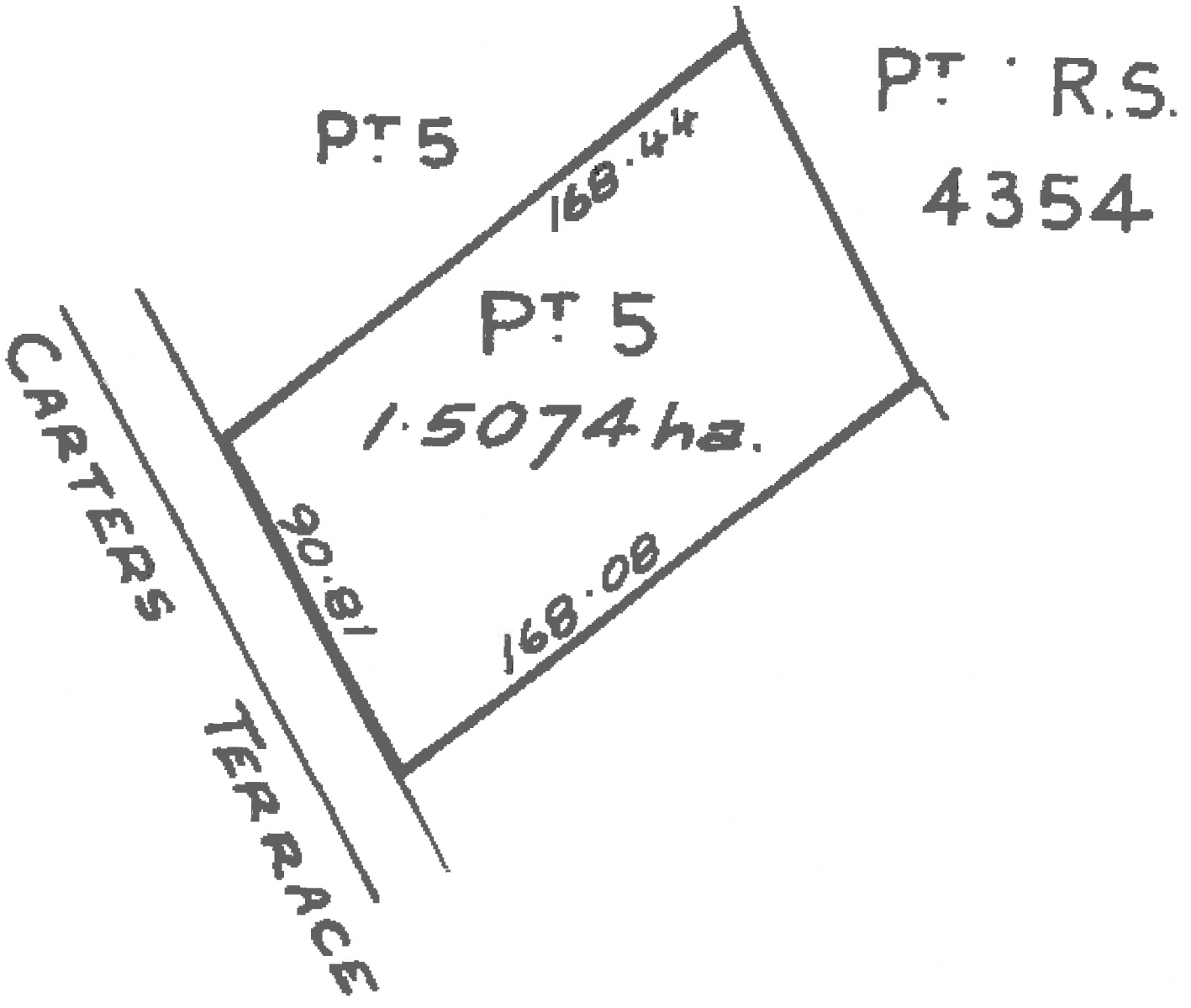
Identifier	**CB22K/460**
Land Registration District	**Canterbury**
Date Issued	21 August 1981

Prior References
CB250/31

Estate	Fee Simple
Area	1.5074 hectares more or less
Legal Description	Part Lot 5 Deposited Plan 821

Proprietors
Ashburton District Council

Interests


Pt 5
168.44
Pt · R.S.
4354
Pt 5
1·5074 ha.
90.81
168.08
CARTERS
TERRACE

COMPUTER FREEHOLD REGISTER
UNDER LAND TRANSFER ACT 1952

Historical Search Copy

R.W. Muir
Registrar-General
of Land

Identifier **CB81/121**
Land Registration District **Canterbury**
Date Issued 12 June 1882

Part-Cancelled

Estate Fee Simple
Area 254.5500 hectares more or less
Legal Description Part Rural Section 4354

Original Proprietors
Bank of New South Wales

Interests

15251 Mortgage to Bank of New South Wales - 5.12.1884 at 11:10 am
16389 Mortgage to Bank of New South Wales - 27.6.1884 at 2:40 am
25231 Transfer of Lot 30 DP 821 to Annie Bickerstaff - 23.9.1885 at 2:55 pm CT CB114/210 issued
20788 Mortgage to Bank of New South Wales - 8.1.1886 at 2:55 pm
26181 Transfer of Lots 29 and 31 DP 821 to John Baker - 30.4.1886 at 11:03 am
26723 Transfer of part Lot 7 DP 821 to Catherine Sim - 20.8.1886 at 2:26 pm CT CB122/101 issued
26724 Transfer of part Lot 7 DP 821 to John Millichamp - 20.8.1886 at 2:52 pm CT CB122/102 issued
26735 Transfer of Lot 2 DP 821 to Thomas Bullock- 23.8.1886 at 11:45 am CT CB122/108 issued
26773 Transfer of Lots 14-17 DP 821 - 1.9.1886 at 2:35 pm
27211 Transfer of Lots 5 and 6 DP 821 - 23.12.1886 at 2:42 pm
27240 Transfer of Lots 27,28 and 44 DP 821 - 1.1.1887 at 2:25 pm CT CB 126/167 issued
27288 Transfer of Lot 12 DP 821 to William Henry Smith - 1.1.1887 at 2:33 pm CT CB126/190 issued
27289 Transfer of Lot 11 DP 821 to Edwin John Smith - 1.1.1887 at 2:35 pm CT CB126/191 issued
28038 Transfer of Lot 4 DP 821 to Michael Charles - 25.7.1887 at 12:30 pm CT CB131/29 issued
27840 Transfer of Lots 24-26 DP 876 to Annie Maria Doherty - 14.6.1887 at 2:45 pm CT CB133/80 issued
28547 Transfer of Lots 9-10 and 13 DP 821 to Georgina Clarke- 26.11.1887 at 2:05 pm CT CB 133/56 issued
28782 Transfer of Lot 52 DP 876 to Peter Chalmers - 23.2.1888 at 2:32 pm CT CB133/203 issued
28827 Transfer of Lot 1 DP 821 to Ann Butler- 14.2.1888 at 12:58 pm CT CB133/232 issued
28863 Transfer of Lot 3 DP 821 to Thomas Hickman - 20.2.1888 at 3:00 pm CT CB133/252 issued
29098 Transfer of Lot 50 DP 876 to George Giddings - 24.4.1888 at 3:00 pm CT CB135/82 issued
29157 Transfer of Lot 53 DP 876 to Peter Chalmers- 8.5.1888 at 2:55 pm CT CB135/114 issued
30105 Transfer of Lot 8 DP 821 to William Thomas Kingston - 21.12.1888 at 2:45 pm CT CB 137/76 issued
31462 Transfer of Lots 32 and 33 DP 821 to William Henry Smith - 10.10.1889 at 3:00 pm CT CB 141/15 issued
32651 Transfer of Lot 23 DP 876 to Annie Maria Doherty - 20.7.1890 at 2:50 pm CT CB144/206 issued
33237 Transfer of Lot 38 DP 821 and Lot 39 DP 876 to Arthur Wilson - 4.11.1890 at 2:15 pm CT CB145/127 issued
33238 Transfer of Lot 21 and 22 DP 876 to George Liddell Twentyman - 4.11.1890 at 2:15 pm CT CB145/128 issued
33303 Transfer of Lot 51 DP 876 to William McLaughlin - 19.11.1890 at 3:00 pm CT CB 145/153 issued
33854 Transfer of Lots 41 and 42 DP 876 to George Liddell Twentyman - 7.4.1891 at 2:50 pm CT CB 147/97 issued
35449 Transfer of Lots 37 and 43 DP 821 to John Alfred Clothier - 8.3.1892 at 2:50 pm CT CB151/136 issued
35741 Transfer of Lots 34-36 DP 821 and Lots 45-49 DP 876 to Edward Gates - 13.5.1892 at 3:00 pm CT CB151/248 and CB151/249 issued
35901 Transfer of Lot 40 DP 876 to David James Hickman - 9.6.1892 at 3:00 pm CT CB152/5 issued

Identifier **CB81/121**

574159 Transfer of part to Alfred Richard Keddie - 2.4.1962 at 11:32 am CT CB1C/185 issued

36723 Transfer of part to Her Majesty The Queen for road - 23.11.1892 at 3:00 pm

574161 Transfer of Part to Wrightson Stephenson & Company Limited - 2.4.1962 at 11:35 am CT CB1C/187 issued

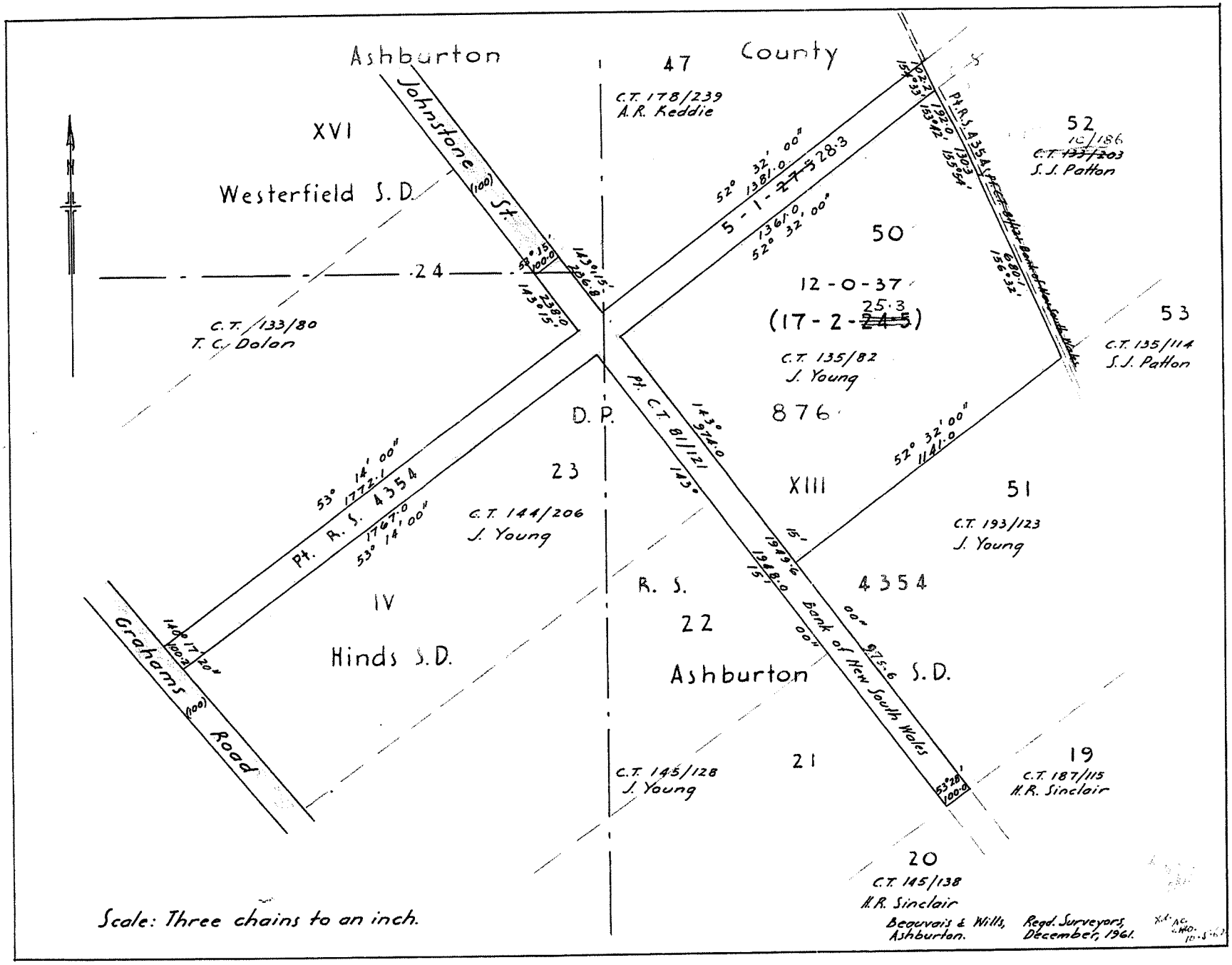
576007 Transfer of part to John Young 4.5.1962 at 11:40 am CT CB1C/466 issued

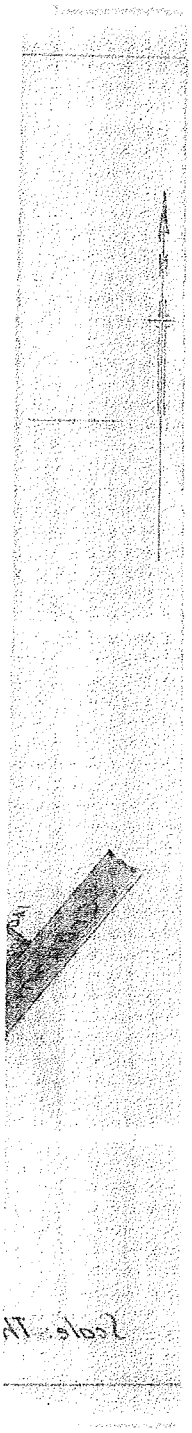
A340150.1 CAVEAT BY GWENYTH BEAUVAIS - 24.2.1998 at 12:39 pm

574160 Transfer of part to Stephen James Patton - 2.4.1962 at 11.33am CT CB1C/186 issued

8411846.2 Departmental Dealing to convert the within title into Landonline- 10.2.2010 at 9:00 am

doc.


Ashburton County
47
C.T. 178/239
A.R. Reddie
XVI
Westerfield S.D.
Johnstone St. (100)
24
C.T. /133/80
T. C. Dolan
52
C.T. 133/203
S.J. Patton
50
12-0-37
(17-2-24.5)
C.T. 135/82
J. Young
53
C.T. 135/114
S.J. Patton
876
D.P.
23
C.T. 144/206
J. Young
XIII
51
C.T. 193/123
J. Young
Pt. C.T. 81/121
Pt. R.S. 4354
IV
Hinds S.D.
R.S.
22
Ashburton S.D.
4354
Grahams Road (100)
C.T. 145/128
J. Young
21
19
C.T. 187/115
H.R. Sinclair
20
C.T. 145/138
H.R. Sinclair
Bank of New South Wales
Scale: Three chains to an inch.
Beauvais & Wills, Ashburton.
Regd. Surveyors, December, 1961.



Scale: 1"

576007

No.

TRANSFER of part of R.S. 4354

Correct for the Purposes of the Land Transfer Act.
Certified that the within land is under the value of £100.

Solicitor for the Purchaser.

situated in Block XIII Ashburton Survey District Block IV Hinds Survey District and Block XVI Westerfield Survey District

1C/466

BANK OF NEW SOUTH WALES Vendor

JOHN YOUNG Purchaser

amalgamated with 6T 135/82

Particulars entered in the Register-Book, Vol. 81 Folio 121

the 4 MAY 1962

at 11.40 am

District Land Registrar
Assistant of the District of Canterbury

576

4354

LAND & DEEDS
Natures T/C & Mtge
Firms J.A. Rutherford
- 4 MAY 1962
Times 11.40 am.
Fees $3.12.-
Abstract No. 2348

ROBINSON, & ROBINSON
Solicitor, S
Ashburton.

Bruce 36713

D.P. 876

NEW ZEALAND.

CANCELLED

81/121

(C)
NCHD 196

CERTIFICATE OF TITLE.

3 Sheets
Register Book.

Vol. 81 Folio. 121

~~PART~~ CANCELLED Land Council
~~Land Land under Section 38 A~~

Robert Wilkin of Christchurch Merchant is now seized of an estate in fee simple subject nevertheless to such encumbrances liens and interests as are notified by Memorial under written or indorsed hereon in those pieces of land situated in the District of Ashburton containing together Six hundred and thirty one acres be the same more or less bounded as appears in the plan hereon and thereon colored green Which said pieces of land comprise parts of the Rural Section marked 4554 delineated in the Public Map of the said District deposited in the office of the Chief Surveyor originally granted the fourth day of March 1871 under the hand of Sir James Fergusson then Governor of New Zealand to The Duke of Manchester.

In Witness whereof I have hereunto signed my name and affixed my seal this twelfth day of June one thousand eight hundred and eighty two.

Signed in the presence of
[illegible]
the 12th day of June 1882

District Land Registrar
of the District of Canterbury

Mortgage No. 8627 produced
7th November 1879 at 11 56 min. Noon
Wilkin to James Smyth Scott.

Mortgage No. 15251 produced 6
December 1884 at 11 16 m. Noon
Wilkin to Bank of New South Wales

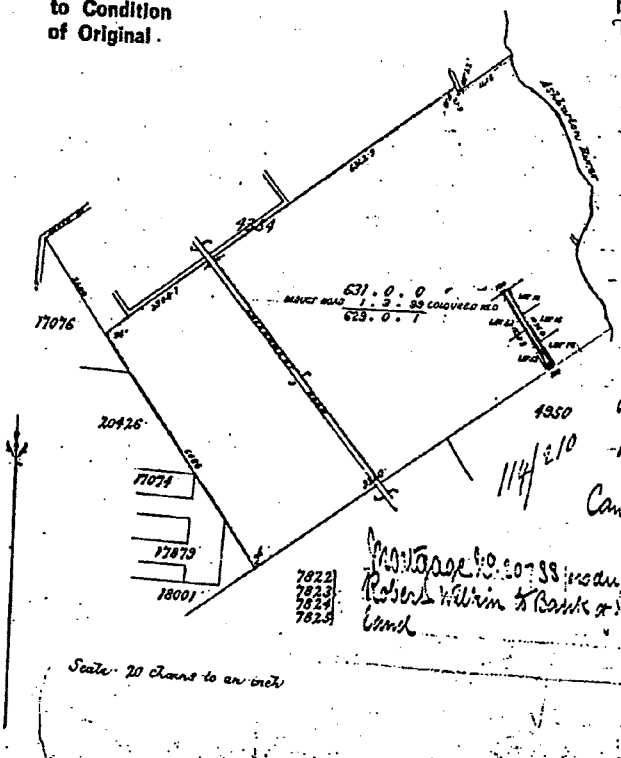
Mortgage No. 16389 produced
June 1887 at 2.40 Robert Wilkin
to Bank of New South Wales

Crown Lease No. 5:1:81 produced 15 September 1887
at 2.55 p.m. Robert Wilkin to Ormiston Robertson

Cancelled as to land in above Transfer.

Mortgage No. 20738 produced 8th January 1890 at 2.05 p.m.
Robert Wilkin to Bank of New South Wales of balance of within land

Image Quality due to Condition of Original.



114/2/0

81/121

81/121

11/1st Transfer No 23181 produced 3rd June 1880 at 10 a.m. Rosen Watkin to John Baker of Lot 5 Sec 8 and 51 Plan 821

Mortleman D.R.

12/2nd Transfer 26723 produced 20 August 1886 at 2.26 p.m. The Bank of New South Wales as mortgagee to Catherine Sim part Lot 7 Plan 821

Mortleman D.R.

12/3rd Transfer 26724 produced 20 August 1886 at 2.32 p.m. The Bank of New South Wales as mortgagee to John Williamson balance Lot 7 Plan 821

Mortleman D.R.

12/4th Transfer 26735 produced 23 August 1886 at 11.45 a.m. The Bank of New South Wales as mortgagee to Thomas Hillock Lot 2 Plan 821

Mortleman D.R.

12/5th Transfer No 25479 Produced 1st September 1886 at 2.35 p.m. The Bank of New South Wales as mortgagee to Edward Gales of Lots 14. 15. 16 and 17 Plan No 821. Cancelled as to land in the above transfer

Mortleman D.R.

12/6th Transfer No 27211 produced 25th December 1886 at 10 a.m. Bank of New South Wales as mortgagee to Henry Segar of Lots 5 and 6 Plan 821

Mortleman D.R.

12/7th Transfer No 27940 produced 1st January 1887 at 10.50 a.m. Bank of New South Wales as mortgagee to Rosen Watkin Hallett of Lots 13 and 14 Plan 821

Mortleman D.R.

12/8th Transfer No 27938 produced 1st January 1887 at 2.25 p.m. Bank of New South Wales as mortgagee to William Henry Smith of Lot 11 Plan 821

Mortleman D.R.

12/9th Transfer No 27939 produced 1st January 1887 at 2.25 p.m. Bank of New South Wales as mortgagee to Robert William Smith of Lot 11 Plan 821

Mortleman D.R.

13/1st Transfer No 28038 produced 25th July 1887 at 2.30 p.m. Bank of New South Wales as mortgagee to Emanuel Charles of Lot 4 Plan 821

Mortleman D.R.

13/2nd Transfer No 28340 produced 4th June 1887 at 2.25 p.m. Bank of New South Wales as mortgagee to Annie Hazel Priestley Lots 24. 25. 26 Plan 826

Mortleman D.R.

Transmission No 1437 produced 20th October 1887 at 9.50 a.m. Probate of the Will of Rosen Watkin and dated 20th June 1886 granted to Mary Ann and Francis William Hallett of Balance.

Mortleman D.R.

Transfer No 28546 produced 12th December 1887 at 2.5 p.m. John Bevis and others to Bank of New South Wales of Colonel

Mortleman D.R.

Transfer No 28782 produced 9th February 1888 at 2.3 p.m. The Bank of New South Wales to Peter Chalmers of Lot 53 Plan 876

Mortleman D.R.

13/3rd Transfer No 28827 produced 14th February 1888 at 10.30 a.m. Bank of New South Wales to Owen Butler of Lot 1 Plan 821

Mortleman D.R.

13/4th Transfer No 28883 produced 20th February 1888 at 3 p.m. Bank of New South Wales to Thomas Hickman of Lot 3 Plan 821

Mortleman D.R.

13/5th Transfer No 29098 produced 2nd April 1888 at 3 p.m. Bank of New South Wales to George Giddings of Lot 59 Plan 876

Mortleman D.R.

13/6th Transfer No 29157 produced 8th May 1888 at 2.55 p.m. Bank of New South Wales to Peter Chalmers of Lot 53 Plan 876

Mortleman D.R.

13/7th Transfer 30193 produced 21 December 1888 at 2.45 p.m. Bank of New South Wales to William Thomas Kingston of Lot 8 Plan 821

Mortleman D.R.

14/1st Transfer 31462 produced 10 October 1890 at 3 p.m. Bank of New South Wales to William Henry Smith of Lots 32 and 33 Plan 821

Mortleman D.R.

14/2nd/3rd Transfer 32265 produced 4 July 1890 at 2.50 p.m. The Bank of New South Wales to Annie Hazel Priestley of Lots 25. 26 Plan 876

Mortleman D.R.

14/5th/12 Transfer 33037 produced 4 November 1890 at 2.15 p.m. The Bank of New South Wales to [redacted] Arthur Wilson of Lot 38 Plan 821 and Lot 39 Plan 821

Mortleman D.R.

14/13th Transfer 33038 produced 4 November 1890 at 2.15 p.m. The Bank of New South Wales to George Giddings Quartermain of Lot 21 and 22 Plan 876

Mortleman D.R.

Continued

CANCELLED

NEW ZEALAND. 81/121

(C)

[CERTIFICATE OF TITLE.]

Register Book,

Vol. 81 Folio. 121

Part Cancelled

81/121

GT FILE

Continuation of

145/153 Transfer 33303 produced 10 November 1890 at 3 p.m. The Bank of New South Wales to William McLauchlin of 28. 57. Plan 876.

147/197 Transfer 33854 produced 7 April 1891 at 2.50 p.m. The Bank of New South Wales to George Liddell Twentyman of lots 41 and 42 plan 876.

151/136 Transfer 35449 produced 9 March 1892 at 2.50 p.m. The Bank of New South Wales to John Aitken Cloutier of lots 37 and 43 Plan 821

151/248 Transfer 35741 produced 13 May 1892 at 3 p.m. The Bank of New South Wales to Edward Gates of lots 34. 35. 36 plan 821. 45. 46. 47. 48. 49. Plan 876

Transfer 35991 produced 2 June 1892 at 3 p.m. The Bank of New South Wales to David James Hickman of lots 8 plan 876

Transfer 36723 produced 23 November 1892 at 3 p.m. The Bank of New South Wales to H.M. The Queen of road one chain wide between lots 14. 15. 16. plan 821. and lots 52. 53. plan 876. Coloured red on the plan hereon.

Transfer 574159 of part The Bank of New South Wales to Alfred Richard Keddie produced 2/4/1962 at 11.32 a.m. 1C/185

Transfer 574160 of part The Bank of New South Wales to Stephen James Patton produced 2/4/1962 at 11.33 a.m. 1C/186

Transfer 574161 of part The Bank of New South Wales to Wright Stephenson & Company Limited produced 2/4/1962 at 11.35 a.m. 1C/187

Transfer 576007 of Part The Bank of New South Wales to John Young produced 4.5.1962 at 11.40 a.m. 1C/466 ALR.

Cancelled (except road) (and land under water) shown on DP. 821

A340150.1 CAVEAT BY GWENYTH BEAUVAIS 24.2.1998 at 12.39

for DLR

CANCELLED

CAVEAT

Forbidding Registration of Dealing with Estate or Interest

...Gwenyth BEAUVAIS..... Caveator

...Westpac Banking Corporation Registered Proprietor

Particulars entered in the Register as shown herein on the date and at the time endorsed below.

.....

Assistant / District Land Registrar of the

District of .....

X A340150.1 Caveat
Cpy-01/01,Pgs-004,19/08/09,14:43
DocID: 212423847

RECALL FILE LABEL
F500000255792 4

12.39 21/8/09 A340150.1

ARGYLE, WELSH & CO
SOLICITORS
ASHBURTON

ARGYLE, WELSH & CO.

Barristers & Solicitors

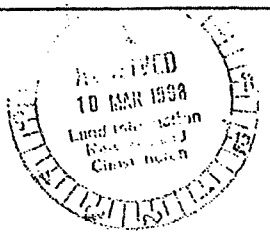
Incorporating Robinson Robinson & Gregg

Legal House,
160 Havelock Street,
Ashburton.
P.O. Box 433,
DX WA 30003

Phone: (03) 308-8228
Fax (03) 308-8656

Original of Fax Transmission

9 March 1998



The District Land Registrar
Land Information New Zealand
Private Bag 4721
CHRISTCHURCH

Attention Rebecca
Fax (03) 379 4007

Dear Sir

re: **ABSTRACT No. A340150 - CAVEAT - G. BEAUVAIS and WESTPAC BANKING CORPORATION**

With reference to our telephone conversation, in which you advised that the Certificates of Title which we seek to Caveat have been cancelled, we are instructed by Mr M.J. Beauvais of 71 Allens Road Ashburton, Registered Surveyor, that the land remaining in the Certificates of Title is not under water and that, in due course, a survey will be carried out and application made for new Certificates of Title. The Caveat is lodged to protect the interest of Mrs Beauvais as purchaser of the land from the registered proprietor, pending the completion of the survey.

We trust that the Caveat will now be able to be noted and registered.

Yours faithfully,
ARGYLE, WELSH & CO.,

Per:

P.J.O. ROBINSON

LE, WELSH & CO.
Barristers & Solicitors
Incorporating Robinson Robinson & Gregg

ox 433,
X WA 30003

Phone: (03) 308-8228
Fax (03) 308-8656

22 February 1998

The District Land Registrar
Land Information New Zealand
Private Bag 4721
CHRISTCHURCH

Attention J. Osborne

Dear Sir

re: **ABSTRACT A333442 - CAVEAT OF CERTIFICATES OF TITLE 81/121 and 48/12**

We represent the Caveat herewith, the attestation clause having been amended as requested. The title references are the correct ones, being, in both cases, balance titles. In due course, after the transfer of the property has taken place, a subdivisional plan will be completed and new titles ordered.

Yours faithfully,
ARGYLE, WELSH & CO.,

Per:
P.J.O. ROBINSON

...eneral of Land, Wellington, No. B209463.1/91

CAVEAT

...BIDDING REGISTRATION OF DEALING WITH ESTATE OR INTEREST

...e notice that I/~~We~~ Gwenyth BEAUVAIS of Ashburton, Married Woman

(hereinafter called "the Caveator") claiming an estate or interest in the land described in the schedule hereto as Purchaser by virtue of an Agreement for Sale and Purchse dated the 31st day of January 1991 and made between the registered proprietor Westpac Banking Corporation as Vendor and the Caveator as Purchaser

forbid the registration of any memorandum of transfer or other instrument affecting the said land until this caveat is withdrawn by me or by order of the High Court, or until the same has lapsed under the provisions in that behalf contained in Section 145 of the Land Transfer Act 1952.

AND I/~~We~~ appoint the offices of Messrs Argyle, Welsh & Co, 160 Havelock Street (PO Box 433) Ashburton

as the place at which notices relating hereto may be served.

THE address for service of the registered proprietor is as follows:

326 Lambton Quay, (PO Box 691) Wellington

SCHEDULE

Certificates of Title Volume 81 Folio 121 and Volume 48 Folio 12 Canterbury Registry (balance)

Dated this 23rd day of December 1997

EXECUTED by the Caveator by her solicitor and authorised agent Alister David ARGYLE

~~(by the affixing of its common seal)~~

in the presence of:

P. J. O. Robinson
Solicitor
ASHBURTON

Correct for the purposes of the Land Transfer Act 1952

Solicitor for the caveator

Approved by D.L.R., Christchurch, No. 914 | New Zealand

Memorandum of Transfer

20 III 62 0073 -10.0

To the District Land Registrar, Christchurch.
Please amalgamate the within Land with all the Land in C/T 135/82
Application for M/Bank
4.5.62.

THE BANK OF NEW SOUTH WALES having its head office for New Zealand at Wellington

being registered as the proprietor of an estate in fee simple

subject however to such encumbrances, liens and interests as are notified by memorandum underwritten or endorsed hereon, in all that piece of land situate in ~~the~~ Block XIII of the Ashburton Survey District and Block IV of the Hinds Survey District and Block XVI of the Westerfield Survey District containing 5 acres 1 rood ~~27.5~~ 28.3 perches

be the same a little more or less being part of Rural Section 4354 and being part of the land comprised and described in Certificate of Title Volume 81 Folio 121 (Canterbury Registry) the same being more particularly delineated on the plan annexed hereto being thereon coloured green

Amalgamate
all. C.T. 135/82
Bal. C.T. 81/121 (Except Roads
M.R.S. 4354, part being Lot 50 DP. 876
Area: 17-2-25.3
Blk XIII Ashburton, IV Hinds, & XVI Westerfield
S.D.S.
HW.
10.5.62
14-5.

See Diagram hereon -
edged red and green.

In consideration of the sum of One shilling (1/-)

paid to it by JOHN YOUNG of Tinwald Farmer

the receipt of which sum is hereby acknowledged

Both hereby transfer to the said John Young

all its estate and interest in the said piece of land

AND IT IS HEREBY DECLARED that no instrument of agreement of sale as defined by Section 78 of the Stamp Duties Act 1954 was entered into by or between the parties hereto in respect of the foregoing transaction.

In Witness whereof these presents have been executed ~~have hereunto subscribed ----- name~~ this 14th ~

day of March One thousand nine hundred and sixty two (1962)

Signed by the said
The Bank of New South Wales
by its Attorney
STANLEY EDWARD WILSON
as transferor

in the presence of

The Bank of New South Wales
by its Attorney
S. Wilson

Witness

NAME B. Brodgrass.

OCCUPATION Bank Officer

ADDRESS Wellington.

I, STANLEY EDWARD WILSON of the City of Wellington Assistant Chief Manager for New Zealand of the Bank of New South Wales solemnly and sincerely declare:—

1. I am the Attorney of the Bank of New South Wales acting under a certain deed poll or Power of Attorney bearing date the 10th day of February one thousand nine hundred and forty-eight which is deposited in the Deeds Register Office at Wellington and there numbered 4616 and under a certain deed poll or supplementary Power of Attorney bearing date the 4th day of September one thousand nine hundred and fifty-nine and under a certain deed poll or further supplementary Power of Attorney bearing date the 26th day of February one thousand nine hundred and sixty, copies of which said Power of Attorney, supplementary Power of Attorney and further supplementary Power of Attorney are deposited in the Land Transfer Offices at

AUCKLAND and there numbered 10739, 13948 and 14074 respectively
BLENHEIM and there numbered 690, 31647 and 32474 respectively
CHRISTCHURCH and there numbered 8278, 512624 and 522384 respectively
GISBORNE and there numbered 1945, 63545 and 64564 respectively
DUNEDIN and there numbered 5171, 5969 and 218346 respectively
HOKITIKA and there numbered 337, 24471 and 24945 respectively
INVERCARGILL and there numbered 2135, 165522 and 168096 respectively
NAPIER and there numbered 3167, 151726 and 154571 respectively
NELSON and there numbered 1007, 71270 and 72897 respectively
NEW PLYMOUTH and there numbered 2137, 105121 and 107248 respectively
WELLINGTON and there numbered 9151, 445761 and 457253 respectively

2. THAT under the powers by the said Deeds conferred on me I have executed the annexed paper writing dated the 6th day of March 19 62 being Memorandum of Transfer to Her Majesty

3. THAT I am an officer of the said Bank being Assistant Chief Manager for New Zealand of the said Bank and reside in the City of Wellington in the Dominion of New Zealand.

4. THAT I have not received any notice of the revocation of the said deeds poll or Powers of Attorney or any of them by the dissolution of the said Bank or otherwise.

AND I make this solemn declaration conscientiously believing the same to be true by virtue of "The Oaths and Declarations Act 1957".

DECLARED at Wellington this 14th day of March 19 62 before me:—

S. Cameron

James McAlister

A Justice of the Peace in and for the Dominion of New Zealand
A Solicitor of the Supreme Court of New Zealand

Approved by D.L.R., Christchurch, No. 914 [New Zealand

Memorandum of Transfer

20 III 62 0075 £10.0.0
S.M. Stamp Duty NIL

THE BANK OF NEW SOUTH WALES having its head office for New Zealand at Wellington

being registered as the proprietor of an estate in fee simple

subject however to such encumbrances, liens and interests as are notified by memorandum underwritten or endorsed hereon, in all that piece of land situate in ~~the~~ Block XIII of the Ashburton Survey District

containing 1 acre 2 roods 10.3 perches

be the same a little more or less being part of Rural Section 4354 and being part of the land comprised and described in Certificate of Title Volume 81 Folio 121 (Canterbury Registry) the same being more particularly delineated on the plan annexed hereto being thereon coloured green.

To the District Land Registrar Christchurch.
Please amalgamate the within land with all the land in C/T 133/203
Gillbrothers per McClelland.

Amalgamate
C.T. 133/203
& Pt C.T. 81/121
Pt R.S. 4354 Pt being
Lot 52 D.P. 876.
Area: 1.0.25.3
Blk XIII Ashburton S.D.
30.4.62. 1:5

In consideration of the sum of One shilling (1/-)

paid to it by STEPHEN JAMES PATTON of Tinwald Farmer

the receipt of which sum is hereby acknowledged

Both hereby transfer to the said Stephen James Patton

all its estate and interest in the said piece of land

AND IT IS HEREBY DECLARED that no instrument of agreement of sale as defined by Section 78 of the Stamp Duties Act 1954 was entered into by or between the parties hereto in respect of the foregoing transaction.

In Witness whereof these presents have been executed ~~have hereunto subscribed~~ ~~name~~ this

sixth day of March One thousand nine hundred and sixty two (1962)

Signed by the said
The Bank of New South Wales
by its Attorney
STANLEY EDWARD WILSON
as transferor

in the presence of

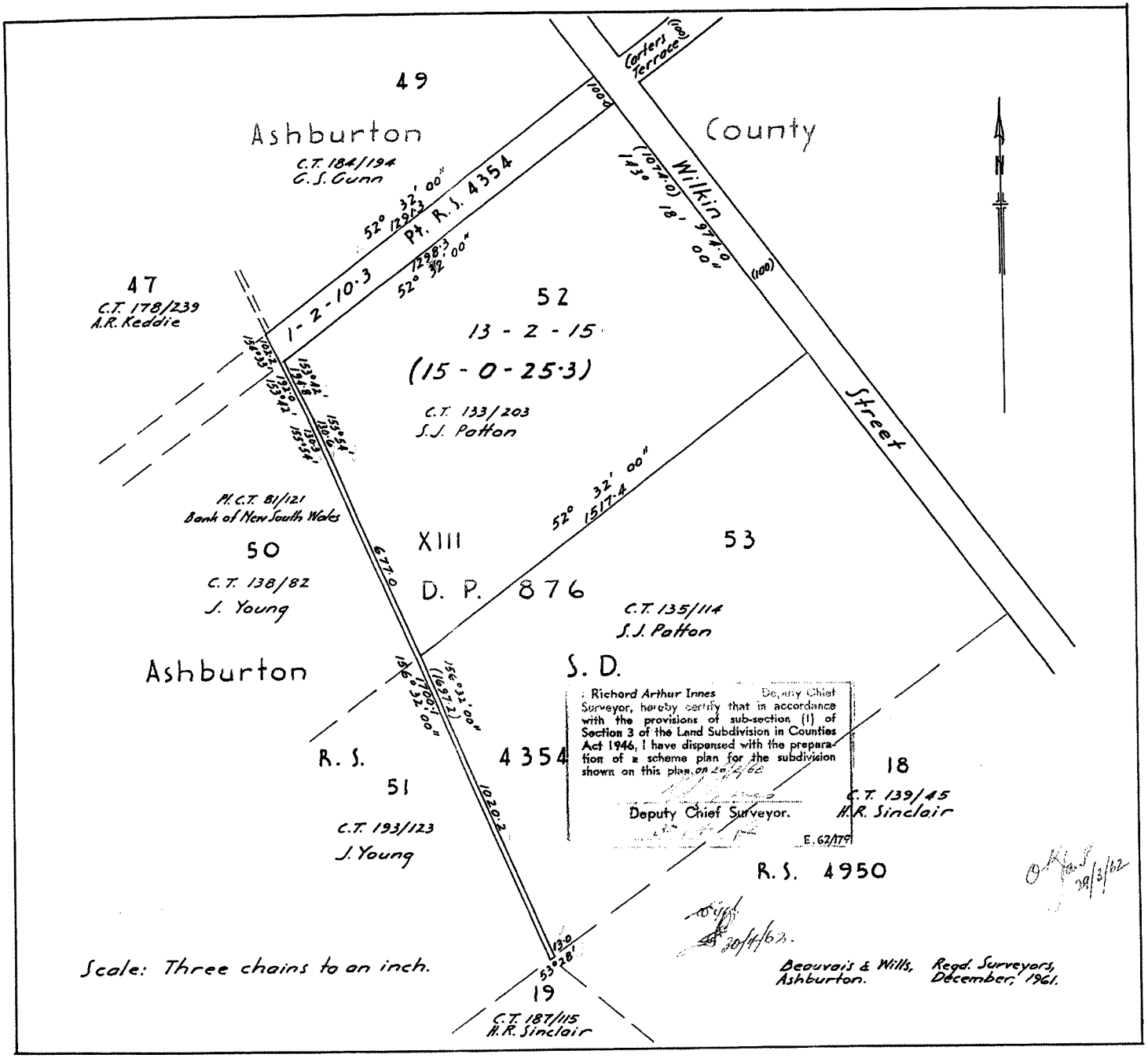
The Bank of New South Wales
by its Attorney

Witness

NAME [illegible]

OCCUPATION Bank Officer

ADDRESS Wellington



I, Richard Arthur Innes Deputy Chief Surveyor, hereby certify that in accordance with the provisions of sub-section (1) of Section 3 of the Land Subdivision in Counties Act 1946, I have dispensed with the preparation of a scheme plan for the subdivision shown on this plan. on 26/3/62

Deputy Chief Surveyor.

E. 62/179

I, STANLEY EDWARD WILSON of the City of Wellington Assistant Chief Manager for New Zealand of the Bank of New South Wales solemnly and sincerely declare:—

1. I am the Attorney of the Bank of New South Wales acting under a certain deed poll or Power of Attorney bearing date the 10th day of February one thousand nine hundred and forty-eight which is deposited in the Deeds Register Office at Wellington and there numbered 4616 and under a certain deed poll or supplementary Power of Attorney bearing date the 4th day of September one thousand nine hundred and fifty-nine and under a certain deed poll or further supplementary Power of Attorney bearing date the 26th day of February one thousand nine hundred and sixty, copies of which said Power of Attorney, supplementary Power of Attorney and further supplementary Power of Attorney are deposited in the Land Transfer Offices at

AUCKLAND and there numbered 10739, 13948 and 14074 respectively
BLENHEIM and there numbered 690, 31647 and 32474 respectively
CHRISTCHURCH and there numbered 8278, 512624 and 522384 respectively
GISBORNE and there numbered 1945, 63545 and 64564 respectively
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NELSON and there numbered 1007, 71270 and 72897 respectively
NEW PLYMOUTH and there numbered 2137, 105121 and 107248 respectively
WELLINGTON and there numbered 9151, 445761 and 457253 respectively

2. THAT under the powers by the said Deeds conferred on me I have executed the annexed paper writing dated the 6th day of May 19[illegible]

being [illegible]

3. THAT I am an officer of the said Bank being Assistant Chief Manager for New Zealand of the said Bank and reside in the City of Wellington in the Dominion of New Zealand.

4. THAT I have not received any notice of the revocation of the said deeds poll or Powers of Attorney or any of them by the dissolution of the said Bank or otherwise.

AND I make this solemn declaration conscientiously believing the same to be true by virtue of "The Oaths and Declarations Act 1957".

DECLARED at Wellington this [illegible]
day of May 19[illegible]
before me:—

S. E. Wilson

James [illegible]

A Justice of the Peace in and for the Dominion of New Zealand
A Solicitor of the Supreme Court of New Zealand

574169

No.

TRANSFER of part R.S. 4354

Correct for the Purposes of the Land Transfer Act.
Certified under the value of £100

Solicitor for the Purchaser.

situated in Block XIII Ashburton Survey District

10/186

BANK OF NEW SOUTH WALES ..... Vendor

STEPHEN JAMES PATTON ..... Purchaser

Amalgamated with land in 47/133/203

Particulars entered in the Register-Book, Vol.

Vol. 81 Folio 121

the 2 APR 1962

at 11.33 a.m.

DISTRICT LAND REGISTRY CANTERBURY, N.Z.

Assistant Land Registrar
of the District of Canterbury

876

LAND & DEEDS (2)
Nature: TC Codd
Firm: Jabbitt
2 APR 1962
Time: 11.33
Fees: £3 2 6
Stamp No. 1760

ROBINSON, & ROBINSON
Solicitor, s
Ashburton.

Bruce 36713

SCHEDULE

TARANAKI LAND DISTRICT—ELTHAM BOROUGH

PART Section 1, Eltham Village Settlement, containing 36 square metres, more or less, S.O. 10759.

Dated at Wellington this 16th day of February 1976.

VENN YOUNG, Minister of Lands.

(L. and S. H.O. 6/7/271; D.O. 8/173/2)

Reservation of Land and Declaration That Land be Part of the Te Porere Pa Historic Reserve

PURSUANT to the Land Act 1948, the Minister of Lands hereby sets apart the land described in the Schedule hereto as a reserve for historic purposes, and further, pursuant to the Reserves and Domains Act 1953, declares the said reserve to form part of the Te Porere Pa historic reserve, to be administered as an historic reserve by the New Zealand Historic Places Trust.

SCHEDULE

WELLINGTON LAND DISTRICT—TAUMARUNUI COUNTY

SECTION 3, Block IV, Tongariro Survey District: area, 8.6267 hectares, more or less (S.O. Plan 30461).

Dated at Wellington this 16th day of February 1976.

VENN YOUNG, Minister of Lands.

(L. and S. H.O. 4/598; D.O. 8/4/12)

Revocation of the Reservation Over a Reserve Specifying the Manner of Disposal and How Proceeds of Sale Shall be Utilised

PURSUANT to the Reserves and Domains Act 1953, the Minister of Lands hereby revokes the reservation as a reserve for recreation purposes over the land described in the Schedule hereto, and further, declares that the said land may be disposed of by the Hutt County Council at current market value, the proceeds from any such sale to be paid into the Council's reserves account, such moneys to be used and applied in or towards the improvement of other recreation reserves under the control of the Council, or in or towards the purchase of other land for recreation purposes.

SCHEDULE

WELLINGTON LAND DISTRICT—HUTT COUNTY

LOT 1, D.P. 42371, situated in Block XVI, Belmont Survey District: area, 4279 square metres, more or less.

Dated at Wellington this 16th day of February 1976.

VENN YOUNG, Minister of Lands.

(L. and S. H.O. 6/1/1055/9; D.O. 8/3/156/2)

Reservation of Land and Vesting in the Hutt County Council

PURSUANT to the Land Act 1948, the Minister of Lands hereby sets apart the land described in the Schedule hereto as a reserve for recreation purposes, and further, pursuant to the Reserves and Domains Act 1953, vests the said reserve in the Chairman, Councillors, and Inhabitants of the County of Hutt, in trust, for that purpose.

SCHEDULE

WELLINGTON LAND DISTRICT—HUTT COUNTY

SECTION 29, Lowry Bay District, situated in Block XVI, Belmont Survey District: area, 3.5410 hectares, more or less (S.O. Plan 24558).

Dated at Wellington this 16th day of February 1976.

VENN YOUNG, Minister of Lands.

(L. and S. H.O. 6/1/1055/9; D.O. 8/3/156/2)

Cancellation of the Vesting in the Waimarino County Council and Revocation of the Reservation Over a Reserve

PURSUANT to the Reserves and Domains Act 1953, the Minister of Lands hereby cancels the vesting in the Chairman, Councillors, and Inhabitants of the County of Waimarino and revokes the reservation for sites for roadmens huts over the land described in the Schedule hereto.

SCHEDULE

WELLINGTON LAND DISTRICT—WAIMARINO COUNTY

SECTION 10A, Block XII, Whirinaki Survey District: area, 1.5934 hectares, more or less (S.O. 16875).

Dated at Wellington this 16th day of February 1976.

VENN YOUNG, Minister of Lands.

(L. and S. H.O. 6/1/17; D.O. M1072)

Appointment of the South Canterbury Catchment Board to Control and Manage a Reserve

PURSUANT to the Reserves and Domains Act 1953, the Minister of Lands hereby appoints the South Canterbury Catchment Board to control and manage the reserve described in the Schedule hereto subject to the provisions of the said Act, as a reserve for local purpose (soil conservation and river control).

SCHEDULE

CANTERBURY LAND DISTRICT—ASHBURTON BOROUGH AND ASHBURTON COUNTY

RURAL Sections 40468 and 40469, situated in Block XIII, Ashburton Survey District: area, 27.4200 hectares, more or less (S.O. Plan 13539).

Dated at Wellington this 16th day of February 1976.

VENN YOUNG, Minister of Lands.

(L. and S. H.O. 15/244/6; D.O. 8/5/269)

Reservation of Land

PURSUANT to the Land Act 1948, the Minister of Lands hereby sets apart the land described in the Schedule hereto as a reserve for local purpose (soil conservation and river control).

SCHEDULE

CANTERBURY LAND DISTRICT—ASHBURTON BOROUGH AND ASHBURTON COUNTY

RURAL Sections 40468 and 40469, situated in Block XIII, Ashburton Survey District: area, 27.4200 hectares, more or less (S.O. Plan 13539).

Dated at Wellington this 16th day of February 1976.

VENN YOUNG, Minister of Lands.

(L. and S. H.O. 15/244/6; D.O. 8/5/269)

Reservation of Land and Declaration That Land be Part of the Ashburton Domain

PURSUANT to the Land Act 1948, the Minister of Lands hereby sets apart the land described in the Schedule hereto as a reserve for recreation purposes, and further, pursuant to the Reserves and Domains Act 1953, declares the said reserve to be a public domain subject to the provisions of Part III of the last-mentioned Act to form part of the Ashburton Domain to be administered as a public domain by the Domain Board.

SCHEDULE

CANTERBURY LAND DISTRICT—ASHBURTON COUNTY

RURAL Section 40467, situated in Block XIII, Ashburton Survey District: area, 5600 square metres, more or less (S.O. Plan 13539).

Dated at Wellington this 16th day of February 1976.

VENN YOUNG, Minister of Lands.

(L. and S. H.O. 15/244/6; 1/72; D.O. 8/5/269; 8/3/62)

Declaration That Part of the Ashburton Domain Shall be a Recreation Reserve and Revocation of the Reservation Over the Said Reserve

PURSUANT to the Reserves and Domains Act 1953, the Minister of Lands hereby declares that that part of the Ashburton Domain described in the Schedule hereto shall cease to be subject to the provisions of Part III of the Reserves and Domains Act 1953, and shall be deemed to be a recreation reserve subject to Part II of the said Act, and further, revokes the reservation for recreation purposes over the said reserve.

A.T. RAILWAY

EAST ST. (No. 1 S.H.)

330 300E

48° 12' 16" 25.15

00"

3905

3.10 24.0 sc.

27.10 bdy's 0 Adpt. from 4411

30"

309.75 54'

52°

A

48° 12' 16" 75.86

See Diagram 'A'

EAST ST. (No. 1 S.H.)

over Legal Street (20.12)

S.I.M.T. RAILWAY

Ashburton County

35' 45' 38" 309.75 bdy 54 30"

441.18

53°

52"

Pt. Res. 3905

A

98.59 55° 22' 50"

Adopted from B.M. 45

28.15 320° 07'

39.20

30° 10' 55"

34.77

19.97

329° 04'

17.10

40.10

304° 55'

39.45

321° 29' 30"

31.62

312° 51' 30"

28.96

323° 14' 30"

20.37

346° 13'

19.60

335° 20'

65.57

321° 17'

22.96

309° 31'

319° 07'

15.86

348° 27' 30"

58.146

334° 16'

38.62

31.10

316° 07'

22.91

314° 00'

56.73

331° 44' 30"

61.84

340° 13'

38.15

330° 40'

59.69

314° 35'

38.14

294° 54' 30"

236° 27' 42.79

B

7.13 sc. 42.00 sc.

(20.12)

R.S.40420

S.O. 13529

148° 22' 20"

100.11

140° 05' 20"

103.15

48° 12' 04" 49.99

See Diagram 'B'

85.38 48° 12' 04"

138° 10' 15" 221.80

48° 12' 30" 96.86

200° 03' 30" 34.93

149° 26' 18.14

128° 50' 33.12

CASS ST. Legal Street (20.12)

SOUTH Legal Street

THE (20.12)

over (20.12)

R.S.40421

S.O. 13529

S.O.4411

R.S.40466

9.5800ha

R.S.40467

5600 m²

Pt. Res. 3905

Gaz 1962 p. 1588

Crown Land

Ashburton County

R.S.40469

25.7550ha

Pt. R. 2668

R.S.40468

1.6650ha

Pt. R.S. 4354

C.T. 17/92 (pt.) Wilkin

Borough of Ashburton

Ashburton

S.O.4411

B.M. 45

C.T. C.T. C.T. C.T.

Borough of Ashburton / Ashburton County

C.T. 81/121 Bank of New South Wales

Adopted from S.O. 4411

River

375.51 Ded. 228° 12' 18" (393.51)

7.00 21.00 sc'd. 228° (203.81) 12'

18.0 sc.

CANTERBURY DIST. XIII ASHBURTON SHEET No. S. 92	Pt. Res. 3905, Pt. R.S. 4354, R.S.'s 40466, 40467, 40468 and 40469

stchurch, New Zealand

W.S. Boyes Surveyor-General Department of Lands and Survey Wellington

Appendix 2 Relevant Objectives and Policies

Table 1: Partly Operative Ashburton District Plan

TABLE 1: ASHBURTON PARTLY OPERATIVE DISTRICT PLAN	
OBJECTIVE / POLICY	**ASSESSMENT SUMMARY**
Takata Whenua Values	
Objective 2.1: The Treaty of Waitangi The recognition, understanding and promotion of the Treaty of Waitangi relationship between the Council and Kati Huirapa in the management of the District's natural and physical resources. **Objective 2.2** The management of the District's natural and physical resources in such a way as to maintain and protect the relationship of Kati Huirapa and their culture and traditions with their ancestral lands, waters, sites, waahi tapu and other taoka. **Objective 2.3** The recognition of the Maori World View (namely the interconnectedness of all aspects of the natural world, including people) in decision making and management of the District's natural and physical resources.	Te Runanga o Arowhenua have undertaken a Cultural Impact Assessment for the project. An Accidental Discovery Protocol forms part of the draft conditions on this Notice of Requirement
Policy 2.1A To develop a system of ongoing consultation with the Takata Whenua regarding all resource management responsibilities of the Council which are of interest to the Takata Whenua.	
Policy 2.1F To identify those areas where there was traditional and customary Maori use of lands and waterways within the District and implement procedures for Takata Whenua involvement regarding any proposal to disturb ground in and around the identified areas and sites.	
Policy 2.1G To implement procedures, in conjunction with the Takata Whenua, where any sites (such as burial sites or sites containing Maori artefacts) are unearthed or disturbed.	
Policy 2.1I To enable Kati Huirapa to meet its kaitiaki responsibilities.	
Policy 2.1J To have regard to Takata Whenua knowledge and tikaka in resource management decision making processes in the District.	
Rural Zones	
Objective 3.2: Biodiversity Protect, sustain maintain and/or enhance indigenous biodiversity and ecosystems by controlling and managing activities that have the potential to affect the life supporting capacity of soils, and water quality in the lakes, rivers and wetlands and significant nature conservation values.	The proposed ASUB passes through the Rural A Zone where it crosses the Ashburton River. The only area of significant biodiversity is the riverbed itself which is recognised as an area of significant nature conservation value. Resource consent from ECan will be required for the construction of the bridge, and the associated disturbance to the riverbed and its consequential disturbance to nesting riverbed birds.
Policy 3.2A To protect, maintain and enhance indigenous biodiversity and ecosystems, in particular areas of	

TABLE 1: ASHBURTON PARTLY OPERATIVE DISTRICT PLAN	
OBJECTIVE / POLICY	**ASSESSMENT SUMMARY**
significant nature conservation values or land above 900 metres in altitude the altitudinal land use line shown on the Planning Maps, by controlling vegetation clearance, the establishment of buildings, planting of trees, earthworks, and subdivision and development.	
Policy 3.2D In considering:- • whether to list in the District Plan those areas identified as having significant nature conservation value under Policy 3.2B; • whether to include rules in the District Plan to avoid, remedy or mitigate adverse effects on the values of those areas identified as having significant nature conservation value under Policy 3.2B, and • resource consent applications where the Council has discretion to consider the effects of activities on nature conservation values, The Council shall have regard to: • the economic effects on the landholder (if these are relevant under section 7(b) of the Act); • the threats or risks to the identified values including the presence and level of animal pests and weeds; • the resources required to implement protection; • the compatibility of the existing land use with the values identified; the extent to which existing land uses would adversely affect the ecological values on the site; • the degree of modification of the site; • the extent to which the vegetation type, habitat or ecological process is already protected elsewhere; • the restoration potential of the site; • the long term ecological viability sustainability of the site; • the presence and level of animal pests and weeds; • the appropriateness and range of alternative protection mechanisms available, the resources required to implement them and their relative costs and benefits; to ensure that ecological values are recognised and protected; • the potential benefits of including an area as an ASCV in the Plan.	
Policy 3.2F Manage and encourage Control land uses on land adjoining lakes, rivers and wetlands to maintain or improve water quality and maintain sustain and/or enhance indigenous biodiversity and ecological values.	
Policy 3.2G Mitigate the adverse effects of motorised watercraft and vehicles by controlling, limiting or avoiding their use in areas of high passive recreation use, significant natural values and known significant wildlife habitats.	

TABLE 1: ASHBURTON PARTLY OPERATIVE DISTRICT PLAN	
OBJECTIVE / POLICY	**ASSESSMENT SUMMARY**
Objective 3.4: Natural Character Preserve the natural character of the District's coastal environment, rivers, lakes, wetlands and their margins, and protect such areas from inappropriate subdivision, landuse and development.	The landscape assessment considers the effect of the proposed bridge to be minor. Landscape plantings of the bridge batters and embankments through the Rural A zone will be required and will form part of the Outline Plan at the time of construction.
Policy 3.4A Recognise that the following natural patterns, qualities, elements, features and processes contribute to natural character: • Areas or water bodies in or close to their natural state; • Water flows, levels and quality; • Coastal or freshwater processes; • Landforms and landscapes • Indigenous biodiversity.	
Policy 3.4C Maintain and, where possible, enhance the naturalness, indigenous biodiversity and nature conservation values of lakes, rivers, wetlands and their margins with the restoration of contours and indigenous planting.	
Policy 3.4I Require the location, design and use of structures and facilities which: • pass across or through the surface of any water body; or • are attached to the bank of a water body; to be assessed in relation to their effects on natural character	
Objective 3.5: Rural Character and Amenity To protect and maintain the character and amenity values of the District's rural areas, considering its productive uses whilst providing for non-rural activities that meet the needs of rural local and regional communities and the nation.	The proposed road and bridge through the Rural A zone will provide for the needs of the local communities through providing an additional link across the river. Landscape planting along the embankments will help the new road and approaches to blend into the existing planted landscape through the Rural A zone.
Policy 3.5E Retain an open and spacious character to the rural areas of the District, with a dominance of open space and plantings over buildings by ensuring that the scale and siting of development is such that: • it will not unreasonably detract from the privacy or outlook of neighbouring properties; • sites remain open and with a rural character as viewed from roads and other publicly accessible places; • the character and scale of buildings is compatible with existing development within the surrounding rural area. • the probability of residential units dwellings being exposed to significant adverse effects from an activity on a neighbouring property is reduced.	
Objective 3.6: Extractive Activities Provide for and manage the effects of extractive activities, including earthworks whilst protecting the	Earthworks will be required during construction, particularly for the road embankments. The extent of earthworks will be fully determined during

TABLE 1: ASHBURTON PARTLY OPERATIVE DISTRICT PLAN	
OBJECTIVE / POLICY	**ASSESSMENT SUMMARY**
amenity values of the rural environment and rural resources.	detailed design. The effects of the earthworks will be mitigated through an appropriate erosion and sediment control plan, which forms a draft condition on this Notice of Requirement. An Accidental Discovery Protocol forms a draft condition on this Notice of Requirement.
Policy 3.6A Control the potential effects of mineral extraction, including mineral prospecting, in order to ensure that the operations avoid, remedy or mitigate any adverse effects on the amenity values and environment of rural areas and on Takata Whenua values.	
Policy 3.6D Control earthworks, including mineral extraction within the District to ensure minimal adverse effects on amenity values and land stability, whilst protecting important geoconservation sites, outstanding natural landscapes, riparian areas and areas of significant nature conservation value.	
Objective 3.7: Natural Hazards in Rural Areas Minimise loss of life or serious injury, damage to assets or infrastructure, or disruption to the community from natural hazards.	The bridge structure will be designed to the appropriate standards to ensure that it meets requirements to pass flood waters and does not exacerbate risks associated with flooding. The design will need to be undertaken in conjunction with hydraulic analysis and in consultation with the ECan river engineers.
Policy 3.7A Ensure that buildings are located and constructed to avoid or mitigate the risks associated with flooding.	
Residential Zones	
Objective 4.1: Residential Amenity Values and Character To protect and enhance the amenity values and character of residential areas, recognising the potential for some growth, whilst considering the particular characteristics of each residential area, the need to provide for a diversity of residential lifestyles, and making provision for non-residential services and activities that meet community needs.	The proposed ASUB project passes through recently rezoned Residential C and Residential D land in the Partly Operative District Plan. Residential development to the specified allotment sizes can occur in the absence of the ASUB project. However, the ASUB project will provide the opportunity to integrate a transport and services network into the area which will assist in the residential development. Actual or potential adverse effects of the development of the ASUB project on the residential amenity of the area are identified as occurring during construction and which can be managed through appropriate and specific management plans. Management plans form part of the draft conditions on this Notice of Requirement.
Policy 4.1A Manage the different residential areas located within the Ashburton District, whilst considering: • Existing character, • Any anticipated change in character, • The need for diversity of residential lifestyles, • A demand for growth over time.	
Policy 4.1B Impose environmental standards on development and land use in the Residential Zones that provide the community with a level of certainty, and protect and enhance residential character and amenity values.	
Policy 4.1C Apply specific management requirements to maintain and enhance the special character and amenity values, including consideration of development design and appearance, of those residential areas with identified special characteristics.	
Objective 4.2: Residential Growth To provide areas of growth and expansion of	

TABLE 1: ASHBURTON PARTLY OPERATIVE DISTRICT PLAN	
OBJECTIVE / POLICY	**ASSESSMENT SUMMARY**
different forms of residential development, in a range of areas around the District that meet the needs of the community and promote the efficient use of energy and services, whilst also protecting the productive potential of the rural area.	
Policy 4.2A Provide for some growth of residential areas, whilst continuing a policy of consolidation to avoid sprawl and unnecessary extension of urban areas.	
Policy 4.2B Provide a compact urban form focussed around commercial activities and employment opportunities to promote accessibility and the efficient use of energy and infrastructural services.	
Policy 4.2C Avoid urban growth in areas where there would be significant adverse effects on infrastructure services, that cannot be avoided, remedied or mitigated.	
Subdivision	
Objective 9.1: Effects of Subdivision and Development To ensure that subdivision and associated development maintains and enhances amenity, character, and natural and visual qualities of the environment, while enabling the effective and efficient use of land.	The proposed ASUB project passes through recently rezoned Residential C and Residential D land in the Partly Operative District Plan. Residential development to the specified allotment sizes can occur in the absence of the ASUB project. However, the ASUB project will provide the opportunity to integrate a transport and services network into the area which will assist in the residential development.
Policy 9.1G Ensure a diversity of residential environments by providing for a range of allotment sizes in urban areas, with the highest densities of residential development being close to the existing town centres of Ashburton (Kapuka), Methven and Rakaia, and associated services and facilities, supporting accessibility, convenience and the efficient functioning of infrastructure including a reduction in the number of trips generated.	
Policy 9.1H Promote a consolidated urban form in managing growth consistent with: • protecting the productive potential and operational requirements of uses of the District's rural areas; • achieving effective and efficient provision and use of infrastructure, including essential services and transport links; • ensuring a scale and intensity of development consistent with other requirements of the Plan; and • maintaining and enhancing neighbourhood qualities, character and amenity values reflecting community expectations.	
Policy 9.1K Require tree planting and landscaping in formed road reserves to be vested in Council as part of the subdivision process, in order to enhance the quality of the District's residential and business zones.	
Policy 9.1L	

TABLE 1: ASHBURTON PARTLY OPERATIVE DISTRICT PLAN	
OBJECTIVE / POLICY	**ASSESSMENT SUMMARY**
Encourage the retention and improvement (i.e. planting) of natural open water bodies waterways to provide for the sustainable disposal, attenuation and treatment of stormwater.	
Objective 9.2: Providing for Servicing of Subdivisions To ensure the provision of the necessary services to subdivided allotments in anticipation of the likely use of land, while managing adverse effects on the environment and beyond the subdivided land.	
Policy 9.2B Provide for pedestrian and amenity linkages within new subdivisions and to the surrounding area that are designed to consider usability, safety and the principles of Crime Prevention Through Environmental Design (CPTED).	
Policy 9.2E Ensure that anticipated development is provided with a connection to a reticulated sanitary sewer system, where such a system is available, or onsite or stand alone communal treatment systems can be installed, subject to any discharge consents required from the Canterbury Regional Council, whilst avoiding or managing adverse effects on the environment, in particular the contamination of ground water.	
Objective 9.3: Sustaining Infrastructure Development To develop and maintain a system of servicing infrastructure where the costs of the additional provision of services or their upgrading necessitated by development and subdivision is met by the subdivider.	
Transport	
Objective 10.1: Transport Sustainability To maintain and enhance the sustainability of the District's transport system.	The proposed ASUB project will form part of a significant transport infrastructure within Ashburton township. In addition to providing an alternative route which will provide for a more efficient transport system, it will take the pressure off the State Highway which will continue to function as the route for all through traffic. The proposal will have an overall positive effect on the capacity, safety and efficiency of the road network, and forms part of a sustainable, integrated transport system for Ashburton township. The proposal is assessed as having an overall net benefit for traffic flows, safety and congestion on the wider road network. Cycling and walking will be provided for through the provision of footpaths and cycle lanes.
Policy 10.1A To mitigate the adverse effects of vehicle and fossil fuel usage by reducing potential travel times to home, work, community and business places, primarily through encouraging infill, intensification within the core area of Ashburton, and consolidated development of the District's towns. Provision for some essential services within residential and commercial areas will also assist to reduce travel times and distances e.g. Business A zones within residential areas.	
Policy 10.1E To give effect to any relevant RMA national and regional policy statements, and take into account any other relevant national, and regional and Ashburton district policy into account in Council policy development and decision making.	

TABLE 1: ASHBURTON PARTLY OPERATIVE DISTRICT PLAN	
OBJECTIVE / POLICY	**ASSESSMENT SUMMARY**
Objective 10.2: Transport Efficiency The efficient use of the District's existing and future transport infrastructure and of fossil fuel usage associated with transportation.	Full landscape design plans form part of the draft conditions for this Notice of Requirement during the Outline Plan stage. The ASUB project will provide route security for Ashburton township through the provision of a second bridge crossing. Actual or potential adverse effects of the development of the ASUB project on the residential amenity of the area are identified as occurring during construction and which can be managed through appropriate and specific management plans. Management plans form part of the draft conditions on this Notice of Requirement.
Policy 10.2A To provide for the efficiency of the transport network by implementing a policy of consolidation to avoid sprawl and unnecessary extension of urban areas.	
Policy 10.2B To promote the efficient use of all roads within the District by adopting and applying a road hierarchy, with associated standards for design, vehicle access and vehicle crossings, based on the intended function of each road.	
Policy 10.2C To protect the efficiency of through traffic on State Highways 1 and 77, and their primary role as a carrier of through traffic, by strictly limiting vehicle access and vehicle crossings for high traffic generating activities.	
Policy 10.2EF To work cooperatively with NZTA to ensure the continued, efficient functioning of State Highways 1 and 77.	
Objective 10.3: Transport Safety and Accessibility The maintenance and improvement of the safety and ease of pedestrian, cyclist and vehicle movement throughout the District.	
Policy 10.3A To maintain and, where necessary, improve safety and accessibility of the transport network within the District by adopting and applying a road hierarchy, with associated standards for design based on the intended function of each road, and including controls on trees.	
Policy 10.3B To preserve road safety and accessibility by ensuring that standards of road design, vehicle access, vehicle crossings, loading and parking are related to intended use of each site and the relationship to the adjoining road classification, and that visual distractions that may affect the safety of road users are avoided or mitigated e.g. lighting and advertising.	
Policy 10.3C To maintain and upgrade the existing roads in the District and provide for new roads and related facilities where these are important.	
Objective 10.4: Environmental Effects of Transport To provide for a transport network that avoids adverse effects on the surrounding environment.	
Policy 10.4A To assist in preserving the amenities of particular areas, particularly residential areas and pedestrian-oriented business areas, by adopting a road	

TABLE 1: ASHBURTON PARTLY OPERATIVE DISTRICT PLAN	
OBJECTIVE / POLICY	**ASSESSMENT SUMMARY**
classification system which recognises the amenities of particular areas and to which appropriate activities will be related.	
Policy 10.4E To adopt techniques to discourage traffic in areas where it would have adverse environmental effects.	
Policy 10.4F To avoid adverse amenity impacts by ensuring that new roads are designed to, at least, minimum standards and visually complement the character of any surrounding area	
Policy 10.4G To incorporate tree and landscape plantings within roading networks wherever practicable, taking into account the primary purpose of the road corridors is the safe and efficient movement of traffic, and the conveyance of utilities.	
Policy 10.4H To encourage roading design that enhances the quality of design and the visual experience. These could include a range of carriageway widths, different surface materials, grass berms and protection of existing mature trees.	
Policy 10.4I To avoid the adverse effects of land transport activities on sensitive areas, natural and physical resources, amenity and landscape values.	
Noise	
Objective 11.1: Effects of Noise Minimise the potential for conflict between noise emissions from land use activities and other more sensitive land uses.	A noise assessment has identified that, once operational, the ASUB project will have a less than minor effect on residential areas arising from traffic noise. The proposed new road will be sealed with Asphaltic Concrete (AC) or similar (a low noise road surface). Chalmers Avenue will progressively be upgraded to AC in the intervening years, or as part of the ASUB project. Moore Street is identified as having an increase in traffic noise level, although this is not attributable to the ASUB project and will occur as a result in traffic growth in general. Construction noise has the potential for an adverse effect. This is managed through a Construction Noise and Vibration Management Plan at the time of construction. A draft condition requiring such a plan forms part of this Notice of Requirement.
Policy 11.1A To provide rules setting noise limits adequate for the protection of community health and welfare while enabling reasonable noise emissions from activities to occur.	
Policy 11.1B To avoid or mitigate effects of noise on residential uses, by ensuring all activities meet standards in respect of noise measured on or near the property boundary, which will not compromise the qualities of the residential environments, and by discouraging residential uses from locating close to land zoned or used for noisy activities.	
Heritage Values	
Objective 12.1: Historic Heritage To protect significant historic heritage in the District, including historic buildings, places and areas, waahi tapu sites and areas and archaeological sites, from adverse effects of subdivision, land-use and	An Accidental Discovery Protocol forms part of the draft conditions on this Notice of Requirement.

TABLE 1: ASHBURTON PARTLY OPERATIVE DISTRICT PLAN	
OBJECTIVE / POLICY	**ASSESSMENT SUMMARY**
development.	
Policy 12.1D To recognise and protect sites of significance to Takata Whenua, in a manner which respects and accommodates tikanga Maori.	
Policy 12.1F To promote public awareness and support for the conservation of historic heritage in the District.	

TABLE 1: ASHBURTON PARTLY OPERATIVE DISTRICT PLAN	
OBJECTIVE / POLICY	**ASSESSMENT SUMMARY**
Policy 12.1I To recognise the NZHPT as a consenting authority for all pre-1900 archaeological sites.	
Utilities and Designations	
Objective 14.1: Effects from Utilities on Amenity and the Environment To provide for the construction, installation, operation, upgrading and maintenance of utilities where adverse effects on amenity and the surrounding environment can be managed appropriately avoided, remedied or and mitigated.	The proposed ASUB project requires a designation in order to protect the route for future construction. The effects of the designation have been assessed on both the existing environment, and the potential future environment. Adverse effects of the proposal are assessed as being less than minor, with significant positive traffic and social effects. Construction related effects have the most potential for adverse effects, but these can all be managed through appropriate conditions on the designation requiring specific management plans. The proposed designation is assessed as being necessary and the most appropriate means for Ashburton District Council as the requiring authority to achieve its objectives for the project.
Policy 14.1A To Manage or avoid, remedy or mitigate adverse environmental effects arising from the construction, installation, operation, upgrading and maintenance of utilities.	
Policy 14.1B Provide additional protection for areas identified as possessing special characteristics or sensitivity, such as areas of outstanding natural landscapes, significant indigenous vegetation and habitats of indigenous fauna, sites of heritage significance, and sites of significance to Takata Whenua, sensitive areas such as the High Country, heritage sites and buildings, protected trees, waterways, lakes, coast and open space from the adverse environmental effects of utilities. Utilities should avoid these areas unless an alternative placement of the utility is subject to a significant functional constraint or where there is no practicable alternative and/or where significant localised adverse effects are outweighed by the overall benefits of the proposal.	
Policy 14.1C Ensure the health and safety of the community is protected when utilities are constructed and utilised.	
Policy 14.1D Consider the locational, economic, operational and technical requirements of utilities in assessing their location, design and appearance of utilities, and their importance to the economic functioning of the District, Region and/or Nation.	
Policy 14.1E To encourage utility operators to adopt their own monitoring systems to ensure that the effects of utilities and their operation are regularly evaluated to avoid, remedy or mitigate the occurrence of adverse effects.	
Policy 14.1F Encourage the co-location or multiple use of utilities where this is efficient and practicable in order to avoid, remedy or mitigate adverse effects on the environment and / or to enable the efficient use of physical resources.	
Objective 14.2: Necessity and Benefits Maintain and protect the economic and social well-	

TABLE 1: ASHBURTON PARTLY OPERATIVE DISTRICT PLAN	
OBJECTIVE / POLICY	**ASSESSMENT SUMMARY**
being of communities through the establishment, use and maintenance of utilities.	
Policy 14.2B Recognise the need for new utilities and account for the strategic needs of a utility and its benefits/costs to the community, when considering alternative locations or sites and the appearance of a utility.	
Policy 14.2C Recognise the need for maintenance or upgrading of existing utilities to ensure their ongoing use and efficiency.	
Policy 14.2D Encourage and provide for utilities to adopt more efficient technology and structures which are compatible with the surrounding environment.	
Objective 14.3: Efficiency Meet the needs of the community through the efficient co-ordination of the provision of utilities with development.	
Policy 14.3A Ensure that development occurs in areas that are serviced or capable of being serviced, and that utilities are provided to new developments prior to buildings being occupied and activities commencing.	
Policy 14.3B Ensure the costs of servicing development are generally met by the developer directly or through contributions made to Council at the time of development or the issuing of titles.	
Hazardous Substances	
Objective 16.1: Management of Hazardous Substances To ensure that adequate measures are taken to avoid, remedy or mitigate any adverse effects during the manufacture, storage, transport and disposal of hazardous substances to: • human health, • the health of livestock and other farm animals or domestic animals, • the health of flora and fauna, • the amenity of residential or other similarly sensitive areas, • the natural environment, and • the life-sustaining capacity and amenity values of waterbodies, land and soil resources.	Hazardous substances will be utilised during construction of the ASUB project (i.e., diesel fuel). The management of refuelling and potential fuel spills will be managed through an appropriate management plan at the time of construction. A draft condition requires the implementation of such a specific management plan as part of this Notice of Requirement.
Policy 16.1A To control classes of hazardous substances which have the potential to cause adverse effects on the environment, recognising that the quantities of hazardous substances requiring control will vary depending on the proximity of sensitive activities, and the susceptibility and sensitivity of the surrounding environment to adverse effects from hazardous substances.	
Policy 16.1B	

TABLE 1: ASHBURTON PARTLY OPERATIVE DISTRICT PLAN	
OBJECTIVE / POLICY	**ASSESSMENT SUMMARY**
To allow appropriate quantities and classes of hazardous substances to be stored to provide for land use activities that are consistent with the District Plan objectives and policies for those areas.	
Policy 16.1C To ensure hazardous substances are stored under conditions which reduce the risk of any leaks or spills contaminating land or water.	

Table 2: Regional Policy Statement

TABLE 2: REGIONAL POLICY STATEMENT	
OBJECTIVE / POLICY	**ASSESSMENT SUMMARY**
Provision for Ngai Tahu and their relationship with resources	
There are no specific Objective or Policies in the RPS relating to the provision for Ngai Tahu and their relationship with resources. The RPS outlines means by which ECan and local authorities will give effect to their functions under the RMA.	Te Runanga o Arowhenua have undertaken a Cultural Impact Assessment for the project and an Accidental Discovery Protocol is included as a draft condition on this Notice of Requirement.
Land use and infrastructure	
Objective 5.2.2 – Integration of land-use and regionally significant infrastructure (Wider Region) In relation to the integration of land use and regionally significant infrastructure: (1) To recognise the benefits of enabling people and communities to provide for their social, economic and cultural well-being and health and safety and to provide for infrastructure that is regionally significant to the extent that it promotes sustainable management in accordance with the RMA. (2) To achieve patterns and sequencing of land-use with regionally significant infrastructure in the wider region so that: (a) development does not result in adverse effects on the operation, use and development of regionally significant infrastructure. (b) adverse effects resulting from the development or operation of regionally significant infrastructure are avoided, remedied or mitigated as fully as practicable. (c) there is increased sustainability, efficiency and liveability. **Objective 5.2.3 – Transport network (Wider Region)** A safe, efficient and effective transport system to meet local regional, inter-regional and national needs for transport, which: (1) supports a consolidated and sustainable urban form; (2) avoids, remedies or mitigates the adverse effects of transport use and its provision; (3) provides an acceptable level of accessibility; and (4) is consistent with the regional roading hierarchy identified in the Regional Land Transport Strategy.	The proposed ASUB project will form part of a significant transport infrastructure within Ashburton township. In addition to providing an alternative route which will provide for a more efficient transport system, it will take the pressure off the State Highway which will continue to function as the route for all through traffic. The proposal will have an overall positive effect on the capacity, safety and efficiency of the road network, and forms part of a sustainable, integrated transport system for Ashburton township. The proposal is assessed as having an overall net benefit for traffic flows, safety and congestion on the wider road network. Cycling and walking will be provided for through the provision of footpaths and cycle lanes. The ASUB project will provide route security for Ashburton township through the provision of a second bridge crossing. The ASUB project supports residential development within the east Tinwald area that has already been signalled through the Partly Operative District Plan. The proposed road corridor will provide the opportunity for services (stormwater, sewer, potable water) to be integrated into the surrounding re-zoned residential area.
Policy 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	

TABLE 2: REGIONAL POLICY STATEMENT	
OBJECTIVE / POLICY	**ASSESSMENT SUMMARY**
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.	
Policy 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.	
Policy 5.3.6 – Sewerage, stormwater and potable water infrastructure (Wider Region) Within the wider region: (1) Avoid development which constrains the on-going ability of the existing sewerage, stormwater and potable water supply infrastructure to be developed and used. (2) Enable sewerage, stormwater and potable water infrastructure to be developed and used, provided that, as a result of its location and design: (a) the adverse effects on significant natural and	

TABLE 2: REGIONAL POLICY STATEMENT	
OBJECTIVE / POLICY	**ASSESSMENT SUMMARY**
physical resources are avoided, or where this is not practicable, mitigated; and (b) other adverse effects on the environment are appropriately controlled. (3) Discourage sewerage, stormwater and potable water supply infrastructure which will promote development in locations which do not meet Policy 5.3.1.	
Policy 5.3.7 – Strategic land transport network and arterial roads (Entire Region) In relation to strategic land transport network and arterial roads, the avoidance of development which: (1) adversely affects the safe efficient and effective functioning of this network and these roads, including the ability of this infrastructure to support freight and passenger transport services; and (2) in relation to the strategic land transport network and arterial roads, to avoid development which forecloses the opportunity for the development of this network and these roads to meet future strategic transport requirements.	
Policy 5.3.8 –Land use and transport integration (Wider Region) Integrate land use and transport planning in a way: (1) that promotes: (a) the use of transport modes which have low adverse effects; (b) the safe, efficient and effective use of transport infrastructure, and reduces where appropriate the demand for transport; (2) that avoids or mitigates conflicts with incompatible activities; and (3) where the adverse effects from the development, operation and expansion of the transport system: (a) on significant natural and physical resources and cultural values are avoided, or where this is not practicable, remedied or mitigated; and (b) are otherwise appropriately controlled.	
Policy 5.3.9 – Regionally significant infrastructure (Wider Region) In relation to regionally significant infrastructure (including transport hubs): (1) avoid development which constrains the ability of this infrastructure to be developed and used without time or other operational constraints that may arise from adverse effects relating to reverse sensitivity or safety; (2) provide for the continuation of existing infrastructure, including its maintenance and operation, without prejudice to any future decision that may be required for the on-going operation or expansion of that infrastructure; and (3) provide for the expansion of existing infrastructure and development of new infrastructure, while: (a) Recognising the logistical, technical or	

TABLE 2: REGIONAL POLICY STATEMENT	
OBJECTIVE / POLICY	**ASSESSMENT SUMMARY**
operational constraints of this infrastructure and any need to locate activities where a natural or physical resource base exists; (b) avoiding any adverse effects on significant natural and physical resources and cultural values (sub 98.13 TRoNT) and where this is not practicable, remedying or mitigating them, and appropriately controlling other adverse effects on the environment; and (c) when determining any proposal within a sensitive environment (including any environment the subject of section 6 of the RMA), requiring that alternative sites, routes, methods and design of all components and associated structures are considered so that the proposal satisfies sections 5(2)(a) – (c) as fully as is practicable.	
Fresh water	
Objective 7.2.1 – Sustainable management of fresh water The region's fresh water resources are sustainably managed to enable people and communities to provide for their economic and social wellbeing through abstracting and/or using water for irrigation, hydro-electricity generation and other economic activities, and for recreational and amenity values, and any economic and social activities associated with those values, providing: (1) the life-supporting capacity ecosystem processes, and indigenous species and their associated freshwater ecosystems and mauri of the fresh water is safe-guarded; (2) the natural character values of wetlands, lakes and rivers and their margins are preserved and these areas are protected from inappropriate subdivision, use and development and where appropriate restored or enhanced; and (3) any actual or reasonably foreseeable requirements for community and stockwater supplies and customary uses, are provided for. **Objective 7.2.3 - Protection of intrinsic value of waterbodies and their riparian zones** The overall quality of freshwater in the region is maintained or improved, and the life supporting capacity, ecosystem processes and indigenous species and their associated fresh water ecosystems are safeguarded.	Freshwater quality within the Ashburton River will be safeguarded through the concept stormwater design. The concept provides for stormwater to be channelled off the bridge and into roadside swales for treatment and some infiltration before being discharged to land or into the Ashburton riverbed. The concept stormwater design has been prepared in accordance with the Ashburton Urban Stormwater Strategy and the pending Stormwater Management Plan. It is expected that the ASUB stormwater discharge will fall within the Ashburton DC global stormwater discharge consent, (once it is granted in the intervening years). Construction of the proposed ASUB project will require erosion and sediment control measures to be implemented to ensure water quality is maintained. This is done through an Erosion and Sediment Control Management Plan at the time of detailed design and construction. Such a plan forms part of the draft conditions on this Notice of Requirement.
Policy 7.3.3 – Enhancing fresh water environments and biodiversity To promote, and where appropriate require the protection, restoration and improvement of lakes, rivers ,wetlands and their riparian zones and associated Ngāi Tahu values, and to: (1) identify and protect areas of significant	

TABLE 2: REGIONAL POLICY STATEMENT	
OBJECTIVE / POLICY	**ASSESSMENT SUMMARY**
indigenous vegetation and significant habitats, sites of significant cultural value, wetlands, lakes and lagoons/hapua, and other outstanding water bodies; and (2) require the maintenance and promote the enhancement of indigenous biodiversity, inland basin ecosystems and riparian zones; and (3) promote, facilitate or undertake pest control.	
Policy 7.3.5 – Water quantity and land uses To avoid, remedy or mitigate adverse effects of land uses on the flow of water in surface water bodies or the recharge of groundwater by: (1) controlling the diversion of rainfall run-off over land, and changes in land uses, site coverage or land drainage patterns that will, either singularly or cumulatively, adversely affect the quantity or rate of water flowing into surface water bodies or the rate of groundwater recharge; and (2) managing the planting or spread of exotic vegetation species in catchments where, either singularly or cumulatively, those species are or are likely to have significant adverse effects on flows in surface water bodies.	
Policy 7.3.6 – Fresh water quality In relation to water quality: (1) to establish and implement minimum water quality standards for surface water and groundwater resources in the region, which are appropriate for each water body considering: (a) the values associated with maintaining life supporting capacity, ecosystem processes and indigenous species including their associated ecosystems, and natural character of the water body; (b) any current and reasonably foreseeable requirement to use the water for individual, marae or community drinking water or stockwater supplies, customary uses or contact recreation; (c) the cultural significance of the fresh water body and any conditions or restrictions on the discharge of contaminants that may be necessary or appropriate to protect those values; and (d) any other current or reasonably foreseeable values or uses; and, to manage activities which may affect water quality (including land uses), singularly or cumulatively, to maintain water quality at or above the minimum standard set for that water body. and (2) Where water quality is below the minimum water quality standard set for that water body, to avoid any additional allocation of water for abstraction from that water body and any additional discharge of contaminants to that water body, where any further abstraction or discharges, either singularly or cumulatively, may further adversely affect the water quality in that water body: (a) until the water quality standards for that water	

TABLE 2: REGIONAL POLICY STATEMENT	
OBJECTIVE / POLICY	**ASSESSMENT SUMMARY**
body are met; or (b) unless the activities are undertaken as part of an integrated solution to water management in the catchment in accordance with Policy 7.3.9, which provides for the redress of water quality within	
Policy 7.3.7 – Water quality and land uses To avoid, remedy or mitigate adverse effects of changes in land uses on the quality of fresh water (surface or ground) by: (1) identifying catchments where water quality may be adversely affected, either singularly or cumulatively, by increases in the application of nutrients to land or other changes in land use; and (2) controlling changes in land uses to ensure water quality standards are maintained or where water quality is already below the minimum standard for the water body, it is improved to the minimum standard within an appropriate timeframe.	
Ecosystems and indigenous biodiversity	
Objective 9.2.1 – Halting the decline of Canterbury's ecosystems and indigenous biodiversity The decline in the quality and quantity of Canterbury's ecosystem s and indigenous biodiversity is halted and their life-supporting capacity and mauri safeguarded. **Objective 9.2.3 – Protection of significant indigenous vegetation and habitats** Areas of significant indigenous vegetation and significant habitats of indigenous fauna are identified and their values and ecosystem functions protected.	The Ashburton River is recognised in the Ashburton District Plan as being a significant habitat for nature conservation due to the presence of riverbed nesting birds. The bridge construction has the potential for an adverse effect on nesting riverbed birds during the breeding season. These effects will need to be assessed and mitigated during the detailed design phase of the project and with appropriate conditions placed on the regional council resource consents that will be required for the bridge and its construction.
Policy 9.3.2 – Priorities for protection To recognise the following national priorities for protection: (1) Indigenous vegetation in land environments where less than 20% of the original indigenous vegetation cover remains. (2) Areas of indigenous vegetation associated with sand dunes and wetlands. (3) Areas of indigenous vegetation located in "originally rare" terrestrial ecosystem types not covered under (1) and (2) above. (4) Habitats of threatened and at risk indigenous species.	
Beds of rivers and lakes and their riparian margins	
Objective 10.2.1 – Provision for activities in beds and riparian zones and protection and enhancement of bed and riparian zone values Enable subdivision, use and development of river and lake beds and their riparian zones while protecting all significant values of those areas, and enhancing those values in appropriate locations.	The bridge construction will require disturbance to the bed and margins of the Ashburton River. These will all be construction related effects and will be managed through appropriate conditions on regional council resource consents at the time of construction. The detailed design of the bridge and associated embankments will need to determine the flood

TABLE 2: REGIONAL POLICY STATEMENT	
OBJECTIVE / POLICY	**ASSESSMENT SUMMARY**
Objective 10.2.2 – Maintenance of flood carrying capacity of rivers To maintain the flood carrying capacity of rivers. **Objective 10.2.4 – Public and Ngāi Tahu access to and along rivers and lakes** Maintenance and enhancement of public and Ngāi Tahu access to and along rivers and lakes.	carrying capacity of the Ashburton River and the height of the bridge will need to reflect this. Public access to and along the Ashburton River will be maintained and enhanced as a result of the ASUB project. Additional access tracks from the proposed new road will join onto the existing riverside tracks.
Policy 10.3.1 – Activities in river and lake beds and their riparian zones To provide for activities in river and lake beds and their riparian zones, including the planting and removal of vegetation and the removal of bed material, while: (1) recognising the implications of the activity on the whole catchment; (2) ensuring that significant bed and riparian zone values are maintained or enhanced; or (3) avoiding significant adverse effects on the values of those beds and their riparian zones, unless they are necessary for the maintenance, operation, upgrade, and repair of essential structures, or for the prevention of losses from floods, in which case significant adverse effects should be mitigated or remedied.	
Policy 10.3.2 – Protection and enhancement of areas of river and lake beds and their riparian zones To preserve the natural character of river and lake beds and their margins and protect them from inappropriate subdivision, use and development, and where appropriate to maintain and/or enhance areas of river and lake beds and their margins and riparian zones where: (1) they exist in a degraded state and enhancement will achieve long-term improvement in those values; (2) they have ecological values for which protection and/ or enhancement will assist in the establishment or re-establishment of indigenous biodiversity or ecosystems, particularly for ecosystems that are threatened or unrepresented in protected areas; (3) they have existing significant trout or salmon habitat; (4) maintenance and/or enhancement will improve or establish connections between habitats and create corridors for indigenous species and trout and salmon and their movement between areas; (5) riparian zones provide a buffer from activities that may adversely affect bed values; (6) opportunities exist to create habitat corridors for plants and animals; or (7) riparian zones provide spawning or other significant habitats for at risk or threatened species, such as inanga or Canterbury mudfish.	
Policy 10.3.3 – Management for flood control and protecting essential structures	

TABLE 2: REGIONAL POLICY STATEMENT	
OBJECTIVE / POLICY	**ASSESSMENT SUMMARY**
To manage activities in river and lake beds and their banks or margins to: (1) avoid or, where this is not practicable, to remedy or mitigate adverse effects on vegetation that controls flood flows or protects river banks or lake margins from erosion; and (2) avoid adverse effects on the stability, performance, operation, maintenance, upgrade and repair of essential structures that are located in, on, under or over a river or lake bed or its bank or margin.	
Policy 10.3.4 – Removal of vegetation and bed material from river beds To manage the use and removal of vegetation and bed material in river beds and their margins to ensure: (1) the maintenance of flood-carrying capacity of rivers (2) the protection of essential structures; and (3) erosion control and prevention. provided its management does not adversely affect: (a) the instream and other values of the beds including habitat and associated ecosystems; or (b) the stability, performance, operation and maintenance, upgrade and repair of essential structures.	
Policy 10.3.5 – Maintenance and enhancement of public and Ngāi Tahu access To promote the maintenance and enhancement of public and Ngāi Tahu access to and along the beds of rivers and lakes, and to ensure that subdivision use and development does not result in inappropriate loss of existing access, subject to: (1) protecting public health and safety, and avoiding conflict between different types of access; (2) avoiding adverse effects on the values of the beds, or stability of banks; (3) protecting Ngāi Tahu cultural values and sites of significance from inappropriate public access; (4) protecting the stability, performance and operation of essential structures in, on, under or over the beds; (5) ensuring the integrity of flood-protection vegetation is maintained; and (6) avoiding conflicts with the legal rights and lawful activities of owners/occupiers of river or lake beds and adjacent land, or of the owners/operators of infrastructure in, on, under or over the bed. (7) engage with the Walking Access Commission to identify and negotiate issues around public access.	
Natural Hazards	
Objective 11.2.1 – Avoid new subdivision, use and development of land that increases risks associated with natural hazards New subdivision, use and development of land which	The proposed ASUB, and in particular the bridge, is considered to be critical infrastructure which will take into account the effects of climate change during detailed design. This will include such matters as the

TABLE 2: REGIONAL POLICY STATEMENT	
OBJECTIVE / POLICY	**ASSESSMENT SUMMARY**
increases the risk of natural hazards to people, property and infrastructure is avoided or, where avoidance is not possible, mitigation measures minimise such risks. **Objective 11.2.3 – Climate change and natural hazards** The effects of climate change, and its influence on sea levels and the frequency and severity of natural hazards, are recognised and provided for.	flood carrying capacity of the river and the relative height of the bridge above the riverbed, as well as the stormwater discharge design. The concept stormwater discharge design has been undertaken in consideration of the Ashburton Urban Stormwater Strategy and the pending Stormwater Management Plan. The stormwater design has taken account of climate change and has made provision in the infiltration basins and swales for this. The bridge location sits within the Ashburton River floodplain. Detailed design will need to consider the effects on the floodplain, as well as designing to maintain the integrity and function of the bridge during flood events
Policy 11.3.4 – Critical infrastructure New critical infrastructure will be located outside high hazard areas unless there is no reasonable alternative. In relation to all areas, critical infrastructure must be designed to maintain, as far as practicable, its integrity and function during natural hazard events.	
Policy 11.3.8 – Climate change When considering natural hazards, and in determining if new subdivision, use or development is appropriate and sustainable in relation to the potential risks from natural hazard events, local authorities shall have particular regard to the effects of climate change.	
Landscape	
Objective 12.2.2 – Identification and management of other landscapes The identification and management of other important landscapes that are not outstanding natural landscapes. Other important landscapes may include: (1) natural character (2) amenity (3) historic and cultural heritage	The detailed design will include detailed landscape plans that need to be submitted as part of the Outline Plan process. These landscape plans will need to consider the interaction of the bridge and embankments within the floodplain and landscape in terms of appropriate plantings and landscape treatments.
Policy 12.3.3 – Identification and management of other important landscapes Identifying and managing other important landscapes that are not outstanding natural landscapes, for natural character, historic cultural, historic heritage and amenity purposes.	
Historic Heritage	
Objective 13.2.1 — Identification and protection of significant historic heritage Identification and protection of significant historic heritage items, places and areas, and their particular values that contribute to Canterbury's distinctive character and sense of identity from inappropriate subdivision, use and development.	Te Runanga o Arowhenua has undertaken a Cultural Impact Assessment for the project. An Accidental Discovery Protocol forms part of the draft conditions of this Notice of Requirement.
Policy 13.3.1 — Recognise and provide for the protection of significant historic and cultural heritage items, places and areas To recognise and provide for the protection of the historic and cultural heritage resource of the region from inappropriate subdivision, use and	

TABLE 2: REGIONAL POLICY STATEMENT	
OBJECTIVE / POLICY	**ASSESSMENT SUMMARY**
development by: (1) identifying and assessing the significance of the historic and cultural heritage resource according to criteria based on the following matters: (a) Historic (b) Cultural (c) Architectural (d) Archaeological (e) Technological (f) Scientific (g) Social (h) Spiritual (i) Traditional (j) Contextual (k) Aesthetic (2) work with Ngāi Tahu to identify items, places or areas of historic heritage significance to them. (3) having regard to any relevant entry in the Historic Places Register in the process of identifying and assessing the historic heritage resource. (4) considering historic heritage items, places or areas of significance or importance to communities in the process of identifying and assessing the historic heritage resource. (5) recognising that knowledge about some historic heritage may be culturally sensitive and support protection of those areas through the maintenance of silent fi les held by local authorities.	
Policy 13.3.2 – Recognise places of cultural heritage significance to Ngāi Tahu To recognise places of historic and cultural heritage significance to Ngāi Tahu and protect their relationship and culture and traditions with these places from the adverse effects of inappropriate subdivision, use and development.	
Air Quality	
Objective 14.2.1 — Maintain or improve ambient air quality Maintain or improve ambient air quality so that it is not a danger to people's health and safety, and reduce the nuisance effects of low ambient air quality. **Objective 14.2.2 — localised adverse effects of discharges on air quality** Enable the discharges of contaminants into air provided there are no significant localised adverse effects on social, cultural and amenity values, flora and fauna, and other natural and physical resources.	An air quality assessment has shown that local air quality as a result of the operation of the proposed ASUB project will have little or no effect on air quality within Ashburton. Air quality in Ashburton is dominated by home heating and industrial discharges. Air quality during construction may be affected by fugitive dust discharges. This is managed through an Erosion, Sediment and Dust Control Management Plan.
Policy 14.3.1 – Maintain and improve ambient air quality In relation to ambient air quality: (1) To set standards to maintain ambient air quality in Canterbury based on concentrations of contaminants that cause adverse health effects and	

TABLE 2: REGIONAL POLICY STATEMENT	
OBJECTIVE / POLICY	**ASSESSMENT SUMMARY**
nuisance effects. (2) Where existing ambient air quality is higher than required by the standards set, to only allow the discharge of contaminants into air where the adverse effects of the discharge on ambient air quality are minor. (3) To give priority to ensuring that PM10 ambient air quality improvements are achieved in Rangiora, Kaiapoi, Christchurch, Ashburton, Timaru, Geraldine and Waimate.	
Policy 14.3.3 — Avoid, remedy or mitigate localised adverse effects on air quality To set standards, conditions and terms for discharges of contaminants into the air to avoid, remedy or mitigate localised adverse effects on air quality.	
Contaminated land	
Objective 17.2.1 — Protection from adverse effects of contaminated land Protection of people and the environment from both on-site and off -site adverse effects of contaminated land.	No contaminated sites have been identified from the ECan LLUR within proximity to the proposed ASUB project. Detailed design will include geotechnical testing and further analysis of potential contaminated sites prior to construction.
Policy 17.3.1 — Identify potentially contaminated land To seek to identify all land in the region that was historically, or is presently, being used for an activity that has, or could have, resulted in the contamination of that land, and where appropriate, verify the existence and nature of contamination.	
Policy 17.3.2 – Development of, or discharge from contaminated land In relation to actually or potentially contaminated land, where new subdivision, use or development is proposed on that land, or where there is a discharge of the contaminant from that land: (1) a site investigation is to be undertaken to determine the nature and extent of any contamination; and (2) if it is found that the land is contaminated, except as provided for in Policy 17.3.3, the actual or potential adverse effects of that contamination, or discharges from the contaminated land shall be avoided, remedied or mitigated in a manner that does not lead to further significant adverse effects.	
Policy 17.3.3 — Contaminants may remain in the land Where land has been identified as being contaminated, contaminants should only be allowed to remain in the ground if discharges of contaminants beyond the site to air, water or land will not result in significant risk to human health or the environment.	
Hazardous Substances	
Objective 18.2.1 – Avoid, remedy or	Hazardous substances used during construction

TABLE 2: REGIONAL POLICY STATEMENT	
OBJECTIVE / POLICY	**ASSESSMENT SUMMARY**
mitigate adverse effects Adverse effects on the environment from the storage, use, disposal and transportation of hazardous substances are avoided, remedied or mitigated.	(diesel fuel) will be managed through the contractor's management plan that identifies and deals with hazardous substances management. A draft condition on the Notice of Requirement identifies the need for such a management plan.
Policy 18.3.1 — Protection of sensitive areas and activities Avoid actual or potential adverse effects, resulting from the use, storage or disposal of hazardous substances, in the following locations: (1) High hazard areas (2) Within a community drinking water protection zone, or within such a distance from a community drinking water supply that there is a risk of contamination of that drinking water source (3) In areas of unconfined or semi-confined aquifer, where the depth to groundwater is such that there is a risk of contamination of that groundwater (4) Within the coastal marine area and in the beds of lakes and rivers (5) Within any area identified by a district or regional plan as being sensitive to the potential effects of hazardous substances, which may include, but are not limited to, areas such as wāhi tapu, urupā, institutions and residential areas.	
Policy 18.3.2 – Avoid, remedy or mitigate adverse effects To avoid, remedy or mitigate adverse effects on the environment, including contamination of land, air and water, associated with the storage, use, transportation or disposal of hazardous substances.	
Policy 18.3.5 — Emergency response To encourage appropriate information to be made available to response agencies, including Local Authority Emergency Operations Centres, in the event of an emergency, so that adverse effects of hazardous substances may be prepared for, responded to, mitigated, and recovered from as effectively as practicably possible.	

Table 3: Natural Resources Regional Plan

TABLE 3: NATURAL RESOURCES REGIONAL PLAN	
OBJECTIVE / POLICY	**ASSESSMENT SUMMARY**
Chapter 3 Air Quality	
Objective AQL1 Objective for localised air quality: Localised contaminant discharges into air do not, either on their own or in combination with other discharges, result in significant adverse effects on the environment, including: (a) adverse effects on Tangata Whenua from the loss of air's as a taonga to Tāngata Whenua; and (b) adverse effects on human health and safety; and (c) offensive or objectionable odours; and (d) diminished visibility, as a consequence of human activities; and (e) corrosion and soiling of structures, not being property owned by those causing the discharge; and (f) adverse effects on health and functioning of ecosystems, plants and animals; and (g) contamination of water. Relevant Policies: AQL3, AQL6	A range of mitigation measures can be employed to avoid, remedy or mitigate any significant adverse effects from potential fugitive dust emissions during construction. The proposal is assessed as having no adverse effect on air quality in terms of vehicle emissions from traffic
Objective AQL6 Objective for PM10 ambient air quality in the Ashburton Clean Air Zones 1 and 2 (a) In the Ashburton Clean Air Zone 1, improve ambient air quality so that, on and after 31 August 2013, the concentration of PM10 is 50 µg/m3 (24-hour average) or less, with no more than one annual exceedence. (b) By 31 August 2013, achieve an overall 43% reduction in concentrations of PM10 in the Ashburton Clean Air Zone 1 by: (i) ensuring outdoor burning practices do not contribute any PM10 during the time when Objective AQL6 may not be met; and (ii) providing for a maximum overall increase in emissions of 20% from 2006, from discharge sources other than specified in Objective AQL6(b)(i) and (iii), unless any emissions of PM10 over and above the 20% will not contribute to breaching Objective AQL6(a); and (iii) reducing the emissions from small scale solid fuel burning devices by the amount that is sufficient to achieve the overall reduction target; and (iv) ensuring that the influence of PM10 emissions from the Ashburton Clean Air Zone 2 on PM10 concentrations in the Ashburton Clean Air Zone 1 does not increase, and is reduced over time. Relevant Policies: AQL3, AQL6	

TABLE 3: NATURAL RESOURCES REGIONAL PLAN	
OBJECTIVE / POLICY	**ASSESSMENT SUMMARY**
Chapter 4 Water Quality	
Objective WQL1.1 Rivers: (2) (a) In rivers where the outcomes in Table WQL5 are being achieved, manage the quality of the water and the bed to at least achieve the outcomes in Table WQL5; and (b) In rivers where one or more of the outcomes in Table WQL5 are not being achieved, progressively improve the existing quality of the water and the bed. Relevant Policies: WQL1, WQL3, WQL4, WQL6	Freshwater quality within the Ashburton River will be safeguarded through the concept stormwater design. The concept provides for stormwater to be channelled off the bridge and into roadside swales for treatment and some infiltration before being discharged to land or into the Ashburton riverbed. The concept stormwater design has been prepared in accordance with the Ashburton Urban Stormwater Strategy and the pending Stormwater Management Plan. It is expected that the ASUB stormwater discharge will fall within the Ashburton DC global stormwater discharge consent, (once it is granted in the intervening years). Construction of the proposed ASUB project will require erosion and sediment control measures to be implemented to ensure water quality is maintained. This is done through an Erosion and Sediment Control Management Plan at the time of detailed design and construction. Such a plan forms part of the draft conditions on this Notice of Requirement.
Objective WQL2.1: Water quality outcomes for groundwater (1) In the Coastal Confined Gravel Aquifer System between the Ashley River/Rakahuri and the Rakaia River, the water quality in each aquifer is maintained at least in the state recorded or reasonably deduced in the three years prior to 1 November 2010. (2) In semi-confined, unconfined, or other confined aquifers manage groundwater quality to meet the following: (a) If, during the life of the NRRP, the overall maximum nitrate-nitrogen concentration exceeds 5.6 milligrams per litre in any aquifer, any increase in nitrate-nitrogen concentration shall not exceed a rate of 1.5 milligrams per litre every ten years. This rate shall be based on the overall maximum concentration measured or reasonably deduced in an aquifer in the three years prior to 1 November 2010; (b) Notwithstanding (a) above, the overall maximum nitrate-nitrogen concentration in any aquifer shall not exceed 11.3 milligrams per litre; (c) The water quality shall remain within the Guideline Value for any aesthetic determinand listed in the Drinking-water Standards for New Zealand 200537, except for natural exceedances of the Guideline Value. If the water quality does not meet the Guideline Value, as a result of human activities, the water quality shall be improved so that the Guideline Value is achieved; (d) The median concentration of *Escherichia coli* shall be less than one colony forming unit per 100 millilitres of water; and (e) Any other inorganic or organic determinand of health significance or pesticide (excluding nitrate-nitrogen or *Escherichia coli*) listed in the Drinking-water Standards for New Zealand 2005 shall not be detected at a concentration greater than one half of the Maximum Acceptable Value for that determinand. (3) Where groundwater enters a river or lake, the concentration of any contaminant in the groundwater shall not result in the surface water quality being reduced below the relevant provisions	

TABLE 3: NATURAL RESOURCES REGIONAL PLAN	
OBJECTIVE / POLICY	**ASSESSMENT SUMMARY**
of Objective WQL1, or the standards set by a water conservation order. Relevant Policies: WQL7, WQL11	
Chapter 5 Water Quantity	
Objective WQN1 Surface water management Enable present and future generations to access the region's surface water and groundwater resources to gain cultural, social, recreational, economic and other benefits, while: (a) safeguarding their value for efficiently providing sources of drinking water for people and stock; (b) safeguarding the life-supporting capacity of the water, including its associated aquatic ecosystems, significant habitats of indigenous fauna, and areas of significant indigenous vegetation; (c) safeguarding their value for providing mahinga kai for Ngai Tahu; (d) protecting wahi tapu and other wahi taonga of value to Ngai Tahu; (e) preserving the natural character of lakes, rivers and wetlands and protecting them from inappropriate use and development; (f) protecting outstanding natural features and landscapes from inappropriate use and development; (g) protecting significant habitat of trout and salmon; and (h) maintaining, and, where appropriate, enhancing amenity values. Relevant Policies:	The concept stormwater design utilises infiltration basins and swales to attenuate stormwater flows and provide infiltration prior to discharge into the Ashburton River. It is expected that any stormwater discharge into the Ashburton River will not have any impact on river flows due to the relative size of the Ashburton River catchment compared to the stormwater discharge.
Chapter 6 Beds of Lakes and Rivers	
Objective BLR1 Activities within the beds of lakes and rivers and land adjacent to the bed Activities within the beds of lakes and rivers and/or land adjacent to the bed are able to be undertaken while: (a) protecting flood carrying capacity to avoid or mitigate increased risk of flooding of surrounding lands; (b) protecting the stability and integrity of lawfully established structures and the banks of lakes and rivers; (c) minimising the spreading or colonising by pest or undesirable plants; (d) preserving natural character; (e) protecting outstanding natural features and landscapes from inappropriate use and development; (f) protecting areas of significant indigenous vegetation and significant habitat of indigenous fauna; (g) promoting the maintenance and enhancement of amenity values;	Actual or potential effects of the proposal on the environment have been assessed and a range of appropriate mitigation measures identified. Ecological values will be recognised through ECan resource consents at the time of detailed design and construction. An Erosion and Sediment Control Plan will be implemented as part of the construction. A draft condition is included as part of this Notice of Requirement. Recreation and public access opportunities recognised and provided for through connectivity proposals. A Cultural Impact Assessment has been undertaken by Te Runanga o Arowhenua.

TABLE 3: NATURAL RESOURCES REGIONAL PLAN	
OBJECTIVE / POLICY	**ASSESSMENT SUMMARY**
(h) providing for the relationship of Ngai Tahu and their culture and traditions with their ancestral lands, water, sites, wahi tapu, and other taonga; (i) avoiding, remedying or mitigating adverse effects of reductions in sediment transport to the coast where there is a crucial link to rates of coastal erosion; (j) protecting significant habitat of trout and salmon; and (k) protecting historic heritage from inappropriate use and development. Relevant Policy: BLR1	

Table 4: Proposed Land and Water Regional Plan

TABLE 4: PROPOSED LAND AND WATER REGIONAL PLAN	
OBJECTIVE / POLICY	**ASSESSMENT SUMMARY**
3.1 Water is recognised as essential to all life and is respected for its intrinsic values. 3.2 Water and land are recognised as an integrated resource embracing the philosophy and practice of ki uta ki tai thus recognising the connections between land, groundwater, surface water and coastal waters. 3.3 The relationship of Ngāi Tahu and their culture and traditions with the water and land of Canterbury is protected. 3.4 In keeping with the philosophy and practice of ki uta ki tai the interconnectivity of land, water and the coast is reflected in its management. 3.7 The mauri of lakes, rivers, hāpua and natural wetlands is maintained or restored and they are suitable for use by Ngāi Tahu and the community. 3.8 The health of ecosystems is maintained or enhanced in lakes, rivers, hāpua and wetlands. 3.10 The significant indigenous biodiversity values, mahinga kai values, and natural processes of rivers are protected. 3.12 Groundwater continues to provide a sustainable source of high quality water for flows and ecosystem health in surface waterbodies and for abstraction. 3.13 Those parts of lakes and rivers that are valued by the community for recreation are suitable for contact recreation. 3.14 High quality fresh water is available to meet actual and reasonably foreseeable needs for community drinking water supplies. 3.16 Infrastructure of national or regional significance is resilient and positively contributes to economic, cultural and social wellbeing through its efficient and effective operation, ongoing maintenance, repair, development and upgrading. 3.19 The risk and effects of natural hazards, including those arising from seismic activity and climate change, are reduced through protecting the effectiveness of natural hazard protection infrastructure, wetlands and hāpua. 3.23 All activities operate at “good practice” or better to protect the region’s fresh water resources from quality and quantity degradation.	The concept stormwater design utilises infiltration basins and swales to attenuate stormwater flows and provide infiltration prior to discharge into the Ashburton River. It is expected that any stormwater discharge into the Ashburton River will not have any impact on river flows due to the relative size of the Ashburton River catchment compared to the stormwater discharge. Actual or potential effects of the proposal on the environment have been assessed and a range of appropriate mitigation measures identified. Ecological values will be recognised through ECan resource consents at the time of detailed design and construction. An Erosion and Sediment Control Plan will be implemented as part of the construction. A draft condition is included as part of this Notice of Requirement. Recreation and public access opportunities recognised and provided for through connectivity proposals. A Cultural Impact Assessment has been undertaken by Te Runanga o Arowhenua. Freshwater quality within the Ashburton River will be safeguarded through the concept stormwater design. The concept provides for stormwater to be channelled off the bridge and into roadside swales for treatment and some infiltration before being discharged to land or into the Ashburton riverbed. The concept stormwater design has been prepared in accordance with the Ashburton Urban Stormwater Strategy and the pending Stormwater Management Plan. It is expected that the ASUB stormwater discharge will fall within the Ashburton DC global stormwater discharge consent, (once it is granted in the intervening years). Construction of the proposed ASUB project will require erosion and sediment control measures to be implemented to ensure water quality is maintained. This is done through an Erosion and Sediment Control Management Plan at the time of detailed design and construction. Such a plan forms part of the draft conditions on this Notice of Requirement.

Relevant Policies: • 4.1-4.3 • 4.12-4.14 • 4.15-4.16 • 4.22 • 4.79, 4.83 • 4.84-4.87, 4.89	

Appendix 3 Proposed Designation Conditions

1. General Conditions

a) This designation will lapse if not given effect to before the expiry of 20 years from the date on which it is included in the District Plan under section 175(2) of the Resource Management Act 1991 ("the Act").

b) The proposed works shall be undertaken in general accordance with the Notice of Requirement Designation Plans referenced as 6/619/115/3604 sheets 1-4 and the plans referenced as 6/619/115/3604 sheets 5-14.

2. Outline Plan

a) Prior to the commencement of works, the requiring authority shall submit to Council the relevant Management Plans required under Conditions 4 and 5.

b) Prior to the commencement of works, the requiring authority shall submit to Council an Outline Plan of Works in accordance with Section 176A of the Resource Management Act and which shall demonstrate compliance with the conditions of this designation.

3. Accidental Discovery Protocol

a) All works shall proceed in accordance with ADC's Accidental Discovery Protocol. This protocol recognises the importance of archaeological sites to both New Zealand, as set out in the Historic Places Act 1993, and to Ngāi Tahu. In the event of an accidental discovery of archaeological matter, "accidental discovery", including human remains, the following shall be undertaken:

i. All work within 100m of the discovery will cease immediately

ii. The works supervisor will shut down all equipment and activity and advise the construction supervisor for the project site

iii. The construction supervisor will take immediate steps to secure the site to ensure the archaeological matter remains undisturbed and the site is safe in terms of health and safety requirements

iv. The site construction supervisor will notify the Planning Manager at Ashburton District Council

v. The requiring authority will ensure the matter is reported to the Regional Archaeologist at the New Zealand Historic Places Trust, and the consent authority

vi. The requiring authority, with agreement from the consent authority, will ensure that a qualified archaeologist is appointed to ensure that all archaeological material is dealt with appropriately

vii. In the event that the accidentally discovered material is confirmed as being archaeological, under the terms of the Historic Places Act, the requiring authority shall ensure that an archaeological assessment is carried out by the archaeologist pursuant to condition 3(a)(vi), and if appropriate, an

archaeological authority is obtained from the Trust before works within 100m of the discovery resume

viii. In the event of material being of Māori origin, the requiring authority will ensure that the local Rūnanga (Te Rūnanga o Arowhenua) is contacted in order that the appropriate cultural practices are implemented to remedy or mitigate any damage to the site

ix. The requiring authority shall ensure that the relevant representatives and contractors, as appropriate, are available to meet and guide representatives of the New Zealand Historic Places Trust, or Te Rūnanga o Arowhenua as relevant, to the site

x. Works within 100m of the discovery shall not commence until authorised by the consent authority, after agreement with the New Zealand Historic Places Trust, or Te Rūnanga o Arowhenua as relevant

4. Contractor's Environmental Management Plan

a) The requiring authority shall require the Contractor to prepare a 'Contractor's Environmental Management Plan' ("CEMP") outlining the construction activities and all practices and procedures to be adopted in the construction and maintenance of the Ashburton Second Urban Bridge and Associated New Road, and the Contractor shall consult with Council in the development of the CEMP. A copy of the finalised CEMP together with any subsequent amendments thereto shall be provided to the Council no later than 1 month prior to the commencement of construction activities on the ASUB project.

b) The matters to be addressed in the CEMP shall include the following:

i. General

1. Plan purpose
2. Plan revision and compliance issue resolution processes
3. Plan certification process
4. Roles and responsibilities
5. Training and education
6. Consultation / stakeholder liaison

ii. Mitigation of Effects

1. Environmental objectives and principles
2. Environmental management approach and methods

3. Implementation of designation conditions where these are not covered by one of the specific management plans below under condition 4(b)(v)

iii. Plan Requirements

1. Contractual requirements

2. Monitoring, maintenance, audit and reporting

3. Mitigation/contingency measures, including emergency spill management procedures

iv. Activity Specific Requirements

1. Operating procedures, processes and controls, together with timing for specific activities supported by supplementary plans as required:

a. Haul routes

b. Stockpiling

c. Refuelling

d. Site facilities

e. Road sealing

f. Utilities

v. The following specific management plans ("SMPs") shall form subsets of the CEMP:

1. Erosion, Sediment and Dust Control Management Plan

2. Construction Noise and Vibration Management Plan

3. Temporary Traffic Management During Construction Management Plan

4. Hazardous Substances, Spills and Emergency Management Plan

5. Construction and Temporary Lighting Management Plan

6. Social Impact Management Plan

vi. The CEMP and any SMPs included as sub-sections shall include but not be limited to demonstrating how the following shall be achieved on an on-going basis:

1. The practices and procedures to be adopted to achieve compliance with the conditions subject to this schedule

2. How environmental nuisance effects of construction activities (noise, vibration, lighting) will be avoided or mitigated

3. How the requiring authority will avoid or mitigate the discharge of sediment and/or dust during earthworks (Erosion, Sediment and Dust Control Management Plan)

vii. Prior to the commencement of any works authorised by the designation, the requiring authority shall submit to the Council the CEMP and a certificate produced by an independent, suitably qualified and experienced person(s) (acknowledged by the Chief Executive Officer of the Council as being competent and suitable to provide such certification), to certify that the CEMP and the works and measures described in it are appropriately designed to:

1. address the matters set out in condition 4(b)(i)-(vi)

2. comply with the relevant conditions of the designation

viii. Works shall not proceed until the CEMP and certification described in condition 4(b)(vii) have been received and acknowledged in writing by the Chief Executive Officer of the Council, who shall provide written acknowledgement within 10 working days, but in any case shall not unreasonably delay such notice. If such acknowledgement is not provided within ten working days the certification shall be deemed to be confirmed.

ix. The requiring authority may authorise amendments to the CEMP provided that any amendments made maintain or enhance the degree and/or extent to which adverse environmental effects attributable to the construction or maintenance of the Project are avoided or mitigated. The requiring authority shall provide a copy of any such amendment to the CEMP to Council for its information prior to its implementation.

x. All works shall be carried out in accordance with the CEMP and the designs certified in accordance with condition 4(b)(viii) or as amended under condition 4(b)(ix).

5. Specific Management Plans

a) Erosion, Sediment and Dust Control Management Plan

i. The construction work shall not cause noxious, offensive or objectionable levels of dust beyond the designation boundary.

ii. The requiring authority shall implement an Erosion, Sediment and Dust Control Management Plan (ESDCMP) for the duration of the construction period of the project to control and manage the effects of:

1. Stormwater discharge from the site during construction

2. Fugitive dust emissions from the site during construction

iii. The erosion and sediment control measures contained within the ESDCMP shall be prepared in accordance with the Environment Canterbury Erosion and Sediment Control Guideline 2007 [or equivalent guideline at the time of detailed design]

iv. The ESDCMP shall give effect to:

1. Best practicable methods for avoiding or mitigating erosion, sediment and dust emissions during construction

2. Procedures for monitoring the effectiveness of the controls

3. A complaints procedure

4. Inspection and auditing procedures, and contingency plans for if controls fail

b) Construction Noise and Vibration Management Plan

i. The requiring authority shall implement a Construction Noise and Vibration Management Plan (CNVMP) for the duration of the construction period of the Project. The CNVMP shall be provided to the [council officer] prior to commencement of construction of the project.

ii. The CNVMP must describe the measures adopted to seek to meet:

1. The noise criteria set out in Condition 5(b)(iv)below, where practicable. Where it is not practicable to achieve those criteria, alternative strategies should be described to address the effects of noise on neighbours, e.g. by arranging alternative temporary accommodation; and

2. The Category A vibration criteria set out in Condition 5(b)(v) below, where practicable. If measured or predicted vibration levels exceed the Category A criteria then a suitably qualified expert shall be engaged to assess and manage construction vibration to comply with the Category A criteria. If the Category A criteria cannot be practicably achieved, the Category B criteria shall be applied. If measured or predicted vibration levels exceed the Category B criteria, then construction activity shall only proceed if there is continuous monitoring of vibration levels and effects on those buildings at risk of exceeding the Category B criteria by suitably qualified experts

iii. The CNVMP shall, as a minimum, address the following:

1. General

a. Description of the works, anticipated equipment/processes and their scheduled durations

b. Hours of operation, including times and days when construction activities causing noise and/or vibration would occur

c. Management schedules containing site specific information

d. Identification of affected houses and other sensitive locations where noise and vibration criteria apply

e. Procedures for maintaining contact with stakeholders, notifying of proposed construction activities and handling noise and vibration complaints

f. Construction equipment operator training procedures, particularly regarding the use of excavators and vibratory compactors, and expected construction site behaviours

g. Roles and responsibilities of personnel on site

h. Contact numbers for key construction staff, staff responsible for noise and vibration assessment and council officers

2. Construction Noise

a. The procedure for assessing construction noise

b. The criteria for assessing construction noise

c. Mitigation options, including alternative strategies where full compliance with the relevant noise and/or vibration criteria cannot be achieved

d. Methods and frequency for monitoring and reporting on construction noise

3. Construction vibration

a. The procedure for measuring vibrations

b. The criteria for assessing vibrations

c. List of machinery to be used

d. Requirements for vibration measurements of relevant machinery prior to construction or during their first operation, to confirm that the vibrations they generate will not be problematic

e. Requirements for building condition surveys of critical dwellings prior to and after completion of construction works and during the works if required

f. Requirements for identifying any existing infrastructure assets (services, roads etc) which may be at risk of vibration induced damage during construction

g. Methods and frequency for monitoring and reporting on construction vibration

h. Mitigation options, including alternative strategies where full compliance with the Project Criteria cannot be achieved

i. Procedures for managing vibration damage to existing services such as roads and underground pipelines

iv. Construction noise must be measured and assessed in accordance with NZS 6803:1999 'Acoustics- Construction Noise'. The construction noise criteria for the purposes of the CNVMP are:

Time of week	Time period	Duration of construction work at any one location			
		less than 20 weeks		more than 20 weeks	
		$L_{Aeq(1h)}$	L_{AFmax}	$L_{Aeq(1h)}$	L_{AFmax}
Residential					
Weekdays	0630-0730	60 dB	75 dB	55 dB	75 dB
	0730-1800	75 dB	90 dB	70 dB	85 dB
	1800-2000	70 dB	85 dB	65 dB	80 dB
	2000-0630	45 dB	75 dB	45 dB	75 dB
Saturdays	0630-0730	45 dB	75 dB	45 dB	75 dB
	0730-1800	75 dB	90 dB	70 dB	85 dB
	1800-2000	45 dB	75 dB	45 dB	75 dB
	2000-0630	45 dB	75 dB	45 dB	75 dB
Sundays and public holidays	0630-0730	45 dB	75 dB	45 dB	75 dB
	0730-1800	55 dB	85 dB	55 dB	85 dB
	1800-2000	45 dB	75 dB	45 dB	75 dB
	2000-0630	45 dB	75 dB	45 dB	75 dB
Industrial and commercial					
All days	0730-1800	75 dB	-	70 dB	-
	1800-0730	80 dB	-	75 dB	-

v. Construction vibration must be measured in accordance with the draft State Highway Construction and Maintenance Noise and Vibration Guide (NZTA, 2012). The construction vibration criteria for the purposes of the CNVMP are:

Receiver	Details	Category A	Category B	Location
Occupied dwellings	Daytime: 6.00am to 8:00pm	1.0 mm/s PPV	5.0 mm/s PPV	Inside the building
	Night time 8:00pm to 6.00am	0.3 mm/s PPV	1.0 mm/s PPV	
Other occupied buildings	Daytime: 6.00am to 8:00pm	2.0 mm/s PPV	10.0 mm/s PPV	
All buildings	Transient vibration	5.0 mm/s PPV	BS 5228.2 - Table B2 values	Building foundation
	Continuous vibration		BS 5228.2 - 50 percent Table B2 values	
Underground Services	Transient vibration	20mm/s PPV	30 mm/s PPV	On pipework
	Continuous vibration	10mm/s PPV	15 mm/s PPV	

vi. When construction equipment is being evaluated for its ability to cause structural damage at a particular residence, the relevant standard that shall be used is as listed in line 2 of table 1 of German Standard DIN 4150 3:1999. The criteria are as listed below:

Type of Structure	Vibration Thresholds for Structural Damage, PPV (mm/s)				
	Short-Term				Long-Term
	At Foundation			Uppermost Floor	Uppermost Floor
	0 to 10 Hz	10 to 50 Hz	50 to 100 Hz	All Frequencies	All Frequencies
Commercial /industrial	20	20 to 40	40 to 50	40	10
Residential	5	5 to 15	15 to 20	15	5
Sensitive/Historic	3	3 to 8	8 to 10	8	2.5

Note: When a range of velocities is given, the limit increases linearly over the frequency range.

c) Temporary Traffic Management During Construction Management Plan

i. The requiring authority shall implement a Temporary Traffic Management During Construction Management Plan (TTMCMP) for the duration of the construction period of the Project.

ii. The TTMCMP shall be prepared in accordance with the NZTA New Zealand "Code of Practice for Temporary Traffic Management, Fourth Edition, November 2012" (or the equivalent Code of Practice at the time of submitting the Outline Plan) to mitigate any actual or potential traffic effects associated with construction of the project.

d) Construction and Temporary Lighting Management Plan

i. The requiring authority shall implement a Construction and Temporary Lighting Management Plan (CTLMP) for the duration of the construction of the Project.

ii. The CTLMP shall identify the measures to be taken to manage and control glare and light spill arising from construction and temporary lighting. Measures shall include, but not be limited to, the following:

a. Temporary lighting for construction activities or security lighting for construction sites will need glare and spill light control compliant with AS 4282

b. Location of site offices and equipment in relation to surrounding properties

c. In areas adjacent to residences, all security and construction lighting will be installed so that it can be shielded, or directed to the required work area to minimise light spill beyond the site so far as is reasonably practicable

d. Compliance with Rule 4.10.4 of the Partly Operative District Plan

e) Hazardous Substances, Spills and Emergency Management Plan

i. The requiring authority shall prepare and implement a Hazardous Substances, Spills and Emergency Management Plan (HSSEMP) for the duration of the construction of the project.

ii. The HSSEMP shall include, but not be limited to, the following:

a. Identification of the types of fuels and hazardous substances likely to be used on site

b. Fuel storage facilities and security

c. Fuel handling procedures

d. Management of fuel spills

f) Social Impact Management Plan

i. The requiring authority shall prepare and implement a Social Impact Management Plan (SIMP) for the duration of the construction of the project.

ii. The SIMP shall include, but not be limited to, the following:

a. A summary of the social issues and effects to be addressed (benefits and adverse impacts) by the other Specific Management Plans

b. Specific management plans detailing mitigation objectives, outcomes and responsibilities for decision making and for taking action

c. An outline of on-going public involvement associated with governance (e.g., a Community Reference Group) and accountability provisions for the SIMP

d. A framework for monitoring, including selected indicators, responsibilities for data collection, and reporting requirements

e. An outline of funding provisions associated with monitoring activities, mitigation initiatives and plan management

6. Road Design

a) If not undertaken prior to the construction of the ASUB project, Chalmers Avenue will be resealed with a low-noise form of road surfacing, such as open graded porous asphalt or asphaltic concrete

b) The new link road will be sealed with a low-noise form of road surfacing, such as open graded porous asphalt or asphaltic concrete

c) If the Chalmers Avenue / Walnut Avenue roundabout has not been upgraded prior to commencement of the Project, the requiring authority shall:

i. Move the existing throat island in the centre of the Bridge Street approach to the intersection to the south east, and shorten the throat island

ii. Remove the front parallel parking place on Bridge Street

iii. Construct a low profile island on the Chalmers Avenue exit from the roundabout, and provide a dropped kerb between this island and the existing planted island at the exit

iv. Remove the existing left turn slip lane, and associated island, between Chalmers Avenue and Walnut Avenue, and realign the existing off road left turn cycle path

d) If the Chalmers Avenue / Havelock Street / Wellington Street Intersection and the Chalmers Avenue / Victoria Street / Wakanui Road Intersection have not been upgraded prior to commencement of the Project, the requiring authority shall:

i. Construct kerb build outs and/or raised platforms on the both sides of the intersections to provide a throat effect and visual narrowing at the intersection.

e) If the Walnut Avenue / William Street Intersection has not been upgraded prior to the commencement of the Project, the requiring authority shall:

i. Construct kerb build outs and raised platforms on William Street to provide priority to pedestrians along Walnut Avenue and improve visibility of the intersection.

f) If pedestrian facilities have not been upgraded prior to commencement of the Project, the requiring authority shall construct pedestrian facilities as follows:

i. On Chalmers Avenue:

a. Kerb build outs from the kerb line to the edge of the parking lane at the footpath side on both sides of the road at midblock points

b. Kerb build outs from the kerb line to the edge of the traffic lane on both sides of the grassed median

c. Pedestrian pathway connecting the kerb build outs across the grassed median

d. At the following mid-block locations:

a. South Street to Dobson Street

b. Tancred Street to Burnett Street

c. Cameron Street to Wills Street

d. Cox Street to Aitken Street

ii. On Bridge Street, construct a pedestrian refuge with kerb build outs between Princes Street and Orr Street

7. Road Lighting Design

a) Road lighting shall be designed in general accordance with the Concept Lighting Design (attached at Appendix D of the Lighting Assessment for the Notice of Requirement and which forms part of the proposal) and shall be designed to meet the requirements of AS/NZS 1158 - Road Lighting Standards and AS 4282:1997 - Control of the Obtrusive Effects of Outdoor Lighting (or the equivalent standards at the time of detail design).

8. Landscape Design

a) The requiring authority shall prepare and implement a detailed Landscape Design Plan for the project which shall form part of the Outline Plan as required by Condition [4]

b) The detailed landscape plans shall be prepared by a suitably qualified landscape architect.

c) The detailed landscape plans shall demonstrate how the proposal fits within the environment and shall, as a minimum, address the following:

i. The extent of vegetation removal and earthworks.

ii. The proposed finished road heights, road embankments, bridge and adjoining land levels.

iii. Access to adjacent recreational, commercial and private properties and residences along the route of the proposed link road and Chalmers Avenue west.

iv. Landscape mitigation treatments, including the following:

a. Detailed planting plans with plant and tree species, sizes and spacings

b. Landscape specifications

c. The re-grassing of construction zones

d. Swale and stormwater basin planting and treatment throughout the length of the proposed link road, including specimen tree planting in areas where shelterbelts have been removed and to give consistency and character to the proposed route

e. The screening of the Residential C zone from the proposed road, if residential development has occurred ahead of the road construction and residential properties will be backing onto the road

f. The proposed planting and treatment of bridge embankments that is sympathetic to its surroundings, as assessed at the time of detailed design

g. Bridge and abutments form / aesthetic treatments

h. The reinstatement of riverside paths, and access to riverside paths, following construction

i. The provision of planted earth bunds adjacent to recreational and private properties adjacent to Chalmers Avenue west

j. The continuation of street tree planting on Chalmers Avenue west.

Advice Note:

Drawing Sheet Numbers 6/619/115/3604 sheets 5-14 as contained in Volume B of the application provide an indicative example of the proposed roading upgrades that will be required as described in Condition 6 above.

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