

Waimakariri District Council

Utilities and Roading Committee

Agenda

Tuesday 29 November 2022

9am

Council Chambers
215 High Street
Rangiora

Members:

Cr Niki Mealings (Chairperson)

Cr Robbie Brine

Cr Philip Redmond

Cr Joan Ward

Cr Paul Williams

Mayor Dan Gordon (ex officio)

AGENDA CONTENTS – UTILITIES AND ROADING COMMITTEE MEETING

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A MEETING OF THE UTILITIES AND ROADING COMMITTEE WILL BE HELD IN THE COUNCIL CHAMBER, RANGIORA SERVICE CENTRE, 215 HIGH STREET, RANGIORA ON TUESDAY 29 NOVEMBER 2022 AT 9AM

Recommendations in reports are not to be construed as Council policy until adopted by the Council

BUSINESS

Page No

1 **APOLOGIES**

2 **CONFLICTS OF INTEREST**

Conflicts of interest (if any) to be reported for minuting.

3 **CONFIRMATION OF MINUTES**

Nil.

4 **DEPUTATION/PRESENTATIONS**

Nil.

5 **REPORTS**

5.1 **Request Approval for Stringers Road Seal Extension – Joanne McBride (Roading and Transport Manager) and Carl Grabowski (Roading Operations Team Leader)**

8-12

RECOMMENDATION

THAT the Utilities and Roading Committee:

- (a) **Receives** Report No. 221104193075.
- (b) **Approves** the sealing of Stringers Road under the Private Funding of Seal Extensions Policy, for a length of 150m from the existing seal on Toppings Road.
- (c) **Notes** that the estimated cost of sealing is \$34,054.08 excluding GST, of which Council share will be 50% or \$17,027.04 excluding GST, and the property owner share will be \$19,581.10 including GST, split equally between two properties.
- (d) **Notes** that funding is available within the Subdivision Contribution budget area for Council share of the funding required, as outlined in section 6.1.
- (e) **Notes** that written agreement will be sought from the property owner prior to any work being undertaken on site.

5.2 July 2022 Flood Response Update – Gerard Cleary (General Manager Utilities and Roading)

13-32

RECOMMENDATION

THAT the Utilities and Roading Committee:

- (a) **Receives** Report No. 221117199645.
- (b) **Note** that 38 of the 143 investigations are yet to commence and staff forecast that the whole programme of investigations will take six to nine months to complete.
- (c) **Circulates** this report to all Community Boards for information.

6 CORRESPONDENCE

6.1 Letter regarding Fluoride in water – R Read

33-34

RECOMMENDATION

THAT the Utilities and Roading Committee:

- (a) **Receives** the correspondence in item 6.1 Trim No. 221122202388.

7 PORTFOLIO UPDATES

7.1 Roading – Councillor Philip Redmond

7.2 Drainage, Stockwater and Three Waters (Drinking Water, Sewer and Stormwater) – Councillor Paul Williams

7.3 Solid Waste– Councillor Robbie Brine

7.4 Transport – Mayor Dan Gordon

8 MATTERS REFERRED FROM OXFORD-OHOKACOMMUNITY BOARD

8.1 Ashley Gorge Bridge – Approval of No-Stopping Restriction – Shane Binder (Transportation Engineer)

35-41

RECOMMENDATION

THAT the Utilities and Roading Committee:

- (a) **Approve** installation of the following no-stopping restriction on Ashley Gorge Road at the Ashley Gorge Bridge:
 - i. For a distance from 15m west of the bridge to 25m east of the bridge railing on the north side.
 - ii. For 25m east of the bridge on the south side.

9 MATTERS FOR INFORMATION

9.1 Evaluation and Award Report for Harding Traffic – Supply & Install Signage – Kieran Straw (Civil Project Team Leader) and Joanne McBride (Roading and Transportation Manager) (report No. 22107193484 to the Management Team meeting of 21 November 2022)

42-46

9.2 Contract 18/27 Traffic Counting – Extension of Contract to 31 December 2023 –Joanne McBride (Roading and Transportation Manager) and Chris Bacon (Network Planning Team Leader) – (report No. 221017180941 to the Management Team meeting of 31 October 2022)

47-51

9.3 Approval to Proceed with Upgrading the Main Street Oxford Pedestrian Crossings – Joanne McBride (Roading and Transportation Manager) and Allie Mace-Cochrane (Project Engineer) – (report No. 220209016538 to the Oxford-Ohoka Community Board meeting of 9 November 2022)

52-60

9.4 Summerhill Water Main Extensions – Request to Engage Water Unit – Rob Rankin (Graduate Engineer) and Colin Roxburgh (Water Asset Manager) – (report No. 221108194449 to the Management Team meeting of 14 November 2022)

61-68

RECOMMENDATION

THAT the Utilities and Roading Committee

(a) **Receives** the information in Item 9.1 and 9.4.

10 QUESTIONS UNDER STANDING ORDERS

11 URGENT GENERAL BUSINESS

12 MATTERS TO BE CONSIDERED WITH THE PUBLIC EXCLUDED

Section 48, Local Government Official Information and Meetings Act 1987

RECOMMENDATION

THAT the public be excluded from the following parts of the proceedings of this meeting.

The general subject of each matter to be considered while the public is excluded, the reason for passing this resolution in relation to each matter and the specific grounds under section 48(1) of the Local Government Official Information and Meetings Act 1987 for the passing of this resolution, are as follows:

Item No	Report of:	General subject of each matter to be considered	Reason for passing this resolution in relation to each matter	Ground(s) under section 48(1) for the passing of this resolution
REPORTS				
12.1	Report from Management Team meeting	Report for Information	Good reason to withhold exists under Section 7	Section 48(1)(a)
12.2	Report from Management Team meeting	Report for Information	Good reason to withhold exists under Section 7	Section 48(1)(a)
12.3	Report from Management Team meeting	Report for Information	Good reason to withhold exists under Section 7	Section 48(1)(a)
12.4	Report from Management Team meeting	Report for Information	Good reason to withhold exists under Section 7	Section 48(1)(a)
12.5	Report from Management Team meeting	Report for Information	Good reason to withhold exists under Section 7	Section 48(1)(a)
12.6	Report from Management Team meeting	Report for Information	Good reason to withhold exists under Section 7	Section 48(1)(a)
12.7	Report from Management Team meeting	Report for Information	Good reason to withhold exists under Section 7	Section 48(1)(a)

This resolution is made in reliance on section 48(1)(a) of the Local Government Official Information and Meetings Act 1987, and the particular interest or interests protected by section 6 or section 7 of that Act which would be prejudiced by the holding of the whole or relevant part of the proceedings of the meeting in public are as follows:

Item N°	Reason for protection of interests	Ref NZS 9202:2003 Appendix A
12.1-12.7	Protection of privacy of natural persons To carry out commercial activities without prejudice	A2(a) A2(b)ii

CLOSED MEETING

See Public Excluded Agenda (separate document)

OPEN MEETING

NEXT MEETING

The next meeting of the Utilities and Roading Committee will be held on Tuesday 28 February 2023 at 9am.

WAIMAKARIRI DISTRICT COUNCIL**REPORT FOR DECISION**

FILE NO and TRIM NO: RDG-32-10 / 221104193075

REPORT TO: UTILITIES & ROADING COMMITTEE

DATE OF MEETING: 29 November 2022

AUTHOR(S): Joanne McBride, Roading & Transport Manager
Carl Grabowski, Roading Operations Team Leader

SUBJECT: Request Approval for Stringers Road Seal Extension

ENDORSED BY:
(for Reports to Council,
Committees or Boards)


General Manager


Acting Chief Executive

1. SUMMARY

- 1.1. This report is seeking approval to undertake a seal extension on Stringers Road under the Private Funding of Seal Extensions Policy.
- 1.2. The length of sealing requested is 150m from the existing seal on Toppings Road to the approximately 35m beyond the vehicle access to #5 Stringers Rd, as per the diagram below.



- 1.3. Sealing has been requested by the property owners of #5 Stringers Road and #209 Toppings Road.
- 1.4. The property owners have agreed to fund 50% of the cost of sealing in line with the Private Funding of Seal Extensions Policy.
- 1.5. The estimated total cost of sealing is \$34,054.08 excluding GST, of which Council share would be \$17,027.04 excluding GST.

2. **RECOMMENDATION**

THAT the Utilities & Roading Committee:

- (a) **Receives** Report No. 221104193075.
- (b) **Approves** the sealing of Stringers Road under the Private Funding of Seal Extensions Policy, for a length of 150m from the existing seal on Toppings Road.
- (c) **Notes** that the estimated cost of sealing is \$34,054.08 excluding GST, of which Council share will be 50% or \$17,027.04 excluding GST, and the property owner share will be \$19,581.10 including GST, split equally between two properties.
- (d) **Notes** that funding is available within the Subdivision Contribution budget area for Council share of the funding required, as outlined in section 6.1.
- (e) **Notes** that written agreement will be sought from the property owner prior to any work being undertaken on site.

3. **BACKGROUND**

- 3.1. Stringers Road is located just south of Sefton Township and runs west from Toppings Road.
- 3.2. The property owners of #5 Stringers Road and #209 Toppings Road have requested sealing be undertaken under the Private Funding of Seal Extensions Policy to help address dusty / dirty road issues and to help maintain a tidy road frontage for their properties.
- 3.3. A traffic count was last carried out on Stringers Road in April 2021 and the road had an ADT of 28 vehicles per day.

4. **ISSUES AND OPTIONS**

- 4.1. The Private Funding of Seal Extensions Policy allows for the approval of seal extensions up to a total length of 1km per year, subject to meeting the policy conditions, which this does.
- 4.2. The seal width for this road has been assessed and determined to require a minimum seal width of 4.0m, which meets the requirements of the Engineering Code of Practice. It is also an improvement, as the existing pavement is only 3.0m wide.
- 4.3. The minimum length of seal required under the policy is 100m and as such this requested length of 150m complies. The new seal will join to the existing seal at Toppings Rd.
- 4.4. The alignment of the proposed seal extension section is straight with no bends or vertical curves and therefore the proposed sealing is considered appropriate. It will also provide a sealed approach to the intersection which has a safety benefit.
- 4.5. The options available to the Utilities & Roading Committee are as follows:
- 4.6. Option One: Approve Sealing of 150m of Stringers Road:
This option involves approving the sealing of 150m of Stringers Rd with the property owners of #5 Stringers Road and #209 Toppings Road agreeing to pay 50% of the cost of sealing.
This is the recommended option.
- 4.7. Option Two: Decline the Sealing of Stringers Road and retain the status quo:
This option would involve declining the request from the two property owners and retaining the unsealed road. This will continue to have impacts on the properties and as such is not the recommended option.

It is noted that staff are currently working through other requests for sealing under the Private Funding of Seal Extensions Policy and these will be brought forward if they progress beyond initial discussions.

Implications for Community Wellbeing

There are not implications on community wellbeing by the issues and options that are the subject matter of this report.

- 4.8. The Management Team has reviewed this report and support the recommendations.

5. COMMUNITY VIEWS

5.1. Mana whenua

Te Ngāi Tūāhuriri hapū are not likely to be affected by, or have an interest in the subject matter of this report.

5.2. Groups and Organisations

There are not groups and organisations likely to be affected by, or to have an interest in the subject matter of this report.

5.3. Wider Community

The wider community is not likely to be affected by, or to have an interest in the subject matter of this report.

6. OTHER IMPLICATIONS AND RISK MANAGEMENT

6.1. Financial Implications

There are financial implications of the decisions sought by this report.

An estimate has been provided by CORDE for the seal extension which would be undertaken under the District Roding & Drainage Maintenance Contract (CON201943). The cost estimate for sealing Stringers Rd is \$34,054.08 excluding GST, of which Council share would be \$17,027.04 excluding GST, and the property owners share will be \$19,581.10 including GST, split equally between two properties.

This budget is included in the Annual Plan/Long Term Plan. It is anticipated that requests such as this will arise from time to time and as such there is budget allocated within the Subdivision Contribution Area to cover Council share of costs associated with both development and these types of requests.

- Council Performed Works – PJ 100361.000.5133 - \$360,469
- Direct Payment to Developers – PJ 100364.000.5133 - \$418,608

TOTAL - \$779,077

These two budgets then get further allocated to smaller projects within this subdivision contribution area, as required through the year.

The following table outlines the likely commitments in the 2022/23 year within this budget area:

DESCRIPTION	TIMELINES (Likely Year)		ESTIMATED COST \$\$
	2022/23	2023/24	
Charles Upham Western Footpath	✓		\$100,000
Topito Road Upgrade	✓		\$175,000
Huntingdon Dr Deeds Strip	✓		\$20,000

Townsend Fields Shared Path	✓		\$50,000
Charles Upham Drive connection to Huntingdon Drive (Not a firm estimate)	✓		\$50,000
Smith Street Footpath extension	✓		\$15,000
Youngs Road Seal Extension (Council 50% cost share)	✓		\$21,500
Tunas St / Smith St footpath extension with development	✓		\$25,000
Stringers Road Seal Extension (Council 50% cost share)	✓		\$17,030
Pentecost Rd Upgrade – At Oakville	✓		\$150,000
Pentecost Rd Upgrade - South of the school		✓	\$150,000
Enverton Drive (near River Road)		✓	\$100,000
Total (estimate) for 2022/23			\$623,530
Available Budget			\$779,077

The predicted expenditure for the financial year if all projects as indicated above proceed and are claimed is \$623,530. This would result an underspending in this budget area.

Funding for Roading growth areas is budgeted to allow under's and over's due to the fluctuating nature of growth within the district and the fact that growth assumptions and actual growth are likely to differ. Therefore it is important to consider this budget as a whole over a longer period of time.

It is noted that over the last five years, despite predicting overspends some years, development often occurs slower than predicted and this budget area has not been overspent in the last 5 years.

As such it is proposed to proceed with the seal extension on Stringers Road.

6.2. Sustainability and Climate Change Impacts

The recommendations in this report do not have sustainability and/or climate change impacts.

6.3 Risk Management

There are risks arising from the adoption/implementation of the recommendations in this report.

There is a risk that development may occur either ahead or behind of the anticipated programme. Staff liaise with developers to better understand timing of proposed developments with an aim to mitigate the risk around this issue.

6.3 Health and Safety

There are health and safety risks arising from the adoption/implementation of the recommendations in this report.

The physical works will be carried out by the District Maintenance Contractor (CORDE Ltd) using contract approved health & safety systems. CORDE have a SiteWise score of 100%.

7. **CONTEXT**

7.1. **Consistency with Policy**

This matter is not a matter of significance in terms of the Council's Significance and Engagement Policy.

7.2. **Authorising Legislation**

Not applicable

7.3. **Consistency with Community Outcomes**

The Council's community outcomes are relevant to the actions arising from recommendations in this report.

There is a safe environment for all

- Harm to people from natural and man-made hazards is minimised.

Transport is accessible, convenient, reliable and sustainable

- The standard of our District's roads is keeping pace with increasing traffic numbers.
- Communities in our District are well linked with each other and Christchurch is readily accessible by a range of transport modes.
- Public transport serves our District effectively

7.4. **Authorising Delegations**

The Utilities & Roading Committee has the authority to approve work programmes for works that the Council has budgeted a general level of expenditure for.

WAIMAKARIRI DISTRICT COUNCIL**REPORT FOR INFORMATION**

FILE NO and TRIM NO: DRA-20-45 / 221117199645


REPORT TO: UTILITIES AND ROADING COMMITTEE

DATE OF MEETING: 29 November 2022

AUTHOR(S): Gerard Cleary – Manager, Utilities and Roading

SUBJECT: July 2022 Flood Response Update

ENDORSED BY:
(for Reports to Council,
Committees or Boards)


General Manager


Acting Chief Executive

1. SUMMARY

- 1.1 The rainfall events which occurred during July 2022 (12 July, 20 July, 26 July, and 30 July) including the wind event on the 18 July, required a substantial response from our maintenance contractors and there has been some damage to Roading and 3 Waters infrastructure in the district. Additionally, there has been a large number of drainage and sewer related service requests that need to be worked through which may result in additional improvement works being required.
- 1.2 Work has been underway since the flood event to identify all issues in the network and restore infrastructure. This has included repairing underground services, roads, bridges, culverts, slips and washouts from overland flow. In some areas, the work required to repair infrastructure is reasonably substantial and as such is ongoing.
- 1.3 The outcome is that a total of 685 drainage service requests and 130 sewer service requests have been distilled to a total of 143 investigations. Note that this number may go up or down as investigations are split into two separate issues, or alternatively combined. the estimate to complete the Emergency and Immediate Works has increased from \$3.15 million to \$3.82 million and this was considered by Council in October.
- 1.4 As at 18th November 2022, 55 investigations have been drafted and are either under review, in implementation or the recommendations actions completed. A further 50 investigations are currently underway with 38 to be started. All investigations for physical works proposed for this year are underway. Based on progress to date, staff expect that the programme of investigations will take six to nine months to complete.
- 1.5 Attachments:
- i. Dashboard report – Flood recovery as at 18 November 2022 (TRIM no. 221117200301)
 - ii. Flood investigation Tracking as at 18 November 2022 (TRIM no. 221117200302)

2. RECOMMENDATION

THAT the Utilities and Roading Committee:

- (a) **Receives** Report No. 221117199645.
- (b) **Note** that 38 of the 143 investigations are yet to commence and staff forecast that the whole programme of investigations will take six to nine months to complete.
- (c) **Circulates** this report to all Community Boards for information.

3. **BACKGROUND**

- 3.1. During the month of July 2022, four rainfall events occurred and the total rainfall for the month was about 4 times higher than the typical average for this time of the year. While individually these were not significant events, the cumulative monthly rainfall for the month reached record levels. Additionally there was a wind event on the 18 July 2022.
- 3.2. The event on the 12 July 2022 was estimated to be approximately a 10 year event in the coastal area and the event on the 26 July 2022 was estimated to be a 20-30 year event in the coastal. The cumulative rainfall for July was the wettest on record – Rangiora saw 238.4mm of rain in July, which is 441% of the average rainfall of 54mm for July based on records from 1991-2020.
- 3.3. While the events in July were less in scale compared to the May 2021 flood event, it still required a substantial response from our maintenance contractors and there has been some damage to Roading and 3 Waters infrastructure in the district (as outlined in the following sections below). Additionally, there has been a large number of flooding related service requests that need to be worked through, which may result in additional improvement works being required.
- 3.4. It is anticipated that some investigations will identify work that is able to be completed in this financial year while others will be included in the draft Annual Plan process. Some investigations are complementary to existing capital works projects and are being incorporated into this work programme where appropriate. The 2023/24 maintenance budgets will be reviewed in light of the additional information and may need to be revised.
- 3.5. Where there are specific decisions which require Council input or for a decision to be made, this will be reported through to Council.

4. **ISSUES AND OPTIONS**

Progress of Investigations

- 4.1. A total of 685 Drainage Service Requests and 130 Sewer Service Requests were received related to the flooding in July and, together with the investigations from earlier events, compiled into 143 investigations and 321 maintenance actions. The current status of these are summarised in the following tables:

Phase	As at 28 Oct	This report	Change
Triaging	0	0	0
Scoping	52	38	-14
Under Investigation	42	50	8
Review and approval	15	14	-1
In Implementation	15	21	6
Completed	19	20	1
Total	143	143	

Maintenance items	As at 30 Sept	This report	Change
To be started	256	262	-6
Work in process	23	55	-32
Completed	42	15	27
Total	321	332	

- 4.2. During the initial triage stage, the 143 investigations were prioritised to enable resources to be first focussed on the issues that are the most urgent. The progress of these are shown in the following table. The Committee will note that there remain 38 investigations that are yet to start (at the scoping stage). All investigations for physical works proposed for this year are underway.

Priority	Scoping	Investigation	Review	Implementation	Completed
1	1	24	7	9	14
2	16	16	5	8	5
3	21	10	2	4	1

- 4.3. Based on the rate of completions and resource availability, staff expect that the programme of investigations will take between six and nine months.

Outcomes from investigations

- 4.4. While progress is being made on the 143 investigations, addressing the issues through physical works or changes to maintenance practice (if it is Council's responsibility) is the outcome that is most sought by the affected residents. The following table provides a summary of the solutions being identified by the investigations to date.

Implementation Solutions	As at 28 Oct	This report	Change
Not yet determined	91	75	-16
Physical Works FY22/23	38	43	5
Future year capex	9	13	4
O&M changes	2	6	4
No action/Customer Advice	3	6	3
Total	143	143	

Resourcing the work programme

- 4.5. All investigations have now been allocated to an investigator with the above-mentioned 38 investigations pending while the current investigations are completed.
- 4.6. The Committee will appreciate that investigating this number of flooding issues in a compressed timeframe requires a large number of engineers to support the programme. Along with internal PDU and Asset staff, there is currently assistance from six engineering consultants to support the programme. However, internal staff are also maintaining their Business as Usual workload and no consultant has been able to provide full time support and hence progress is solid but cannot be made rapidly.
- 4.7. It is also worth noting that the investigations require an experienced engineer to undertake the work as, although many of the issues are localised in nature, they are often complex and require some knowledge and expertise to be able to understand the issues involved and determine appropriate solutions without the benefit of costly and time consuming detailed investigations.

Communications

- 4.8. A programme of regular communications has been implemented to support the recovery programme. In particular, the following key activities are being undertaken:
- A fortnightly dashboard and detailed tracking sheet published
 - A bulk email contact to assure service request submitters that work is ongoing

- The next email will be sent in the first week of December
- Personal phones calls from investigators to submitters to understand the issue with follow up communications to confirm the outcomes
- A street meeting in Stalkers Road, Woodend Beach is planned to be held in the next few weeks. Date to be confirmed

Key focus areas

4.9. The following table provide a summary of a selection of the investigations

Location	Update	Status
Kiln Place / Fairweather	Issue with backflow from the Kāikanui Stream. Removal/modifications of farm culverts is underway. Flap gates and bunds to be installed: design completed and out for pricing	Green
Fuller Street	Issue with a low lying residence being repeatedly close to flooding. Investigation is complete and upgrades will be implemented this financial year from existing budgets.	Green
Broadway Avenue	Detailed design underway for a new pipe from Kiwi Ave Reserve to Broadway Ave. Construction works to be undertaken this summer.	Green
Swindells Road, Waikuku	CCTV and swale / driveway culvert maintenance work complete. Options memo currently being finalised. Design and consent in 22/23 and construct in 23/24. Amber due to tight timeframe to meet these dates	Amber
Pearson Drain	Issue with drain overtopping and causing flooding in central Oxford. Investigation well advanced	Green
Stalkers Road	Issue with regular flooding during periods of high groundwater and causing issue with overloading the sewer. Investigations commenced. Meeting with residents to be organised once investigation progressed enough to have an initial understanding.	Amber
Cust Road	New larger soakpits have been installed. Area now to be monitored during events to assess effectiveness of solution	Green
Ranui Mews	The installation of vents at Ranui Mews is complete. Investigation works on the Ohoka Road sewer main to continue.	Green
Kairaki PS	Issue with inflow & infiltration overloading sewer. Urgent works to address main issues in campground completed with additional works in road commenced	Green
Cones Road / Fawcetts	Issue with a rural catchment causing flooding in neighbouring area. Agreement with affected property owners for land purchase currently being sought for proposed diversion drain upgrade. Procurement of prelim on-property works underway and expected to start early next year	Green
Resurgence Flow, Mandeville	Groundwater levels are high and undercurrents are flowing, causing surface flooding issues and impacting some septic tanks. Investigations are underway for the proposed Mandeville Resurgence Channel Upgrade/Diversion. The work is planned for the coming financial years	Green
Vicenza Drive / Bradleys	Investigation well advanced into culvert capacity along roadside drain and interaction with stockwater race.	Green
Flannigans Drain		Green

Location	Update	Status
	Issue with overloaded drain causing flooding on neighbouring properties. Investigation and site inspection is underway.	

Implications for Community Wellbeing

There are implications on community wellbeing by the issues and options that are the subject matter of this report.

Safe and reliable Roading and 3 Waters infrastructure is critical for wellbeing. 3 Waters infrastructure includes adequate drinking water and drainage for health and Roading infrastructure is require to provide safe egress and enable residents to access goods and services within the community.

- 4.10. The Management Team has reviewed this report and support the recommendations.

5. COMMUNITY VIEWS

5.1. Mana whenua

Te Ngāi Tūāhuriri hapū are likely to be affected by, or have an interest in the subject matter of this report as it relates to impacts on waterways and rivers. Staff will update the Runanga at the executive meetings and where relevant on specific projects or consents engage with MKT.

5.2. Groups and Organisations

A number of the issues in this report cross over with Environment Canterbury in terms of consenting, or in relation to rivers and natural waterways assets and services they maintain. Staff from ECAN and WDC are working to proactively coordinate where necessary.

- 5.3. There are some drainage related issues that also relate to water races and irrigation races. Where this is the case staff are coordinating with Waimakariri Irrigation Limited.

5.4. Wider Community

The wider community is likely to be affected by, or to have an interest in the subject matter of this report, as the wider community has been impacted by the recent flood event.

6. OTHER IMPLICATIONS AND RISK MANAGEMENT

6.1. Financial Implications

The updated cost estimate for the works associated with recovery from the flood is summarised below with the preliminary assessment of the funding source.

Area	Estimate	Preliminary Funding Source
Roading	\$1,940,000	Roading with NTLF FAR
Stormwater	\$615,000	Relevant Urban Drainage scheme
Land Drainage	\$400,000	District Drainage account
Rivers	\$25,000	District Drainage account
Wastewater	\$340,000	Eastern Districts Sewerage Scheme account
Flood Response investigations	\$500,000	Drainage Operations account
TOTAL	\$3,820,000	

- 6.2. Further work is required to confirm the actual rating impact on individual schemes and this will be addressed in the upcoming Draft Annual Plan process in November when staff have better information on the breakdown of the work and outcome of the key investigations.

6.3. **Sustainability and Climate Change Impacts**

The frequency and severity of flood events is likely to increase due to the impacts of climate change.

6.3 **Risk Management**

There are risks arising from the adoption/implementation of the recommendations in this report.

A risk-based approach has needed to be adopted around the management of the Lees Valley slips and this will also be the case when assessing and agreeing repairs for the Okuku Pass Rd slips as well as bridge approach repairs. In these cases, the best whole of life cost needs to be considered when agreeing the extent of repair and there is a residual risk of ongoing repairs being required due to further rainfall events.

6.4. **Health and Safety**

There are health and safety risks arising from the adoption/implementation of the recommendations in this report.

Physical works will be undertaken to repair flood damage and as per standard process for any physical works, the contractor will be required to provide a Site Specific Health & Safety Plan for approval prior to work commencing on site.

7. **CONTEXT**

7.1. **Consistency with Policy**

This matter is not a matter of significance in terms of the Council's Significance and Engagement Policy.

7.2. **Authorising Legislation**

The Land Transport Management Act is the relevant legislation in relation to Roading activities.

7.3. **Consistency with Community Outcomes**

The Council's community outcomes are relevant to the actions arising from recommendations in this report.

This report considers the following outcomes:

There is a safe environment for all

- Harm to people from natural and man-made hazards is minimised.
- Our district has the capacity and resilience to quickly recover from natural disasters and adapt to the effects of climate change.
- Crime, injury and harm from road crashes, gambling, and alcohol abuse are minimised.

Transport is accessible, convenient, reliable and sustainable

- The standard of our District's roads is keeping pace with increasing traffic numbers.
- Communities in our District are well linked with each other and Christchurch is readily accessible by a range of transport modes.

Core utility services are sustainable, resilient, affordable; and provided in a timely manner

- Harm to the environment from sewage and stormwater discharges is minimised

- Council sewerage and water supply schemes, and drainage and waste collection services are provided to a high standard
- Waste recycling and re-use of solid waste is encouraged and residues are managed so that they minimise harm to the environment

7.4. **Authorising Delegations**

Council has the authority to receive this report.

Relevant staff have delegation to authorise unbudgeted emergency works where needed. Future reports will seek approval for unbudgeted expenditure.

FLOOD RECOVERY FORTNIGHTLY STATUS REPORT AS AT Friday, 18 November 2022



Fortnightly Report

Introduction

During the month of July 2022, four rainfall events occurred and the total rainfall for the month was about 4 times higher than the typical average for this time of the year. While individually these were not significant events, the cumulative monthly rainfall for the month reached record levels. Additionally the high annual rainfall we have experienced over the past 12 months means the catchment in the district are saturated catchments and groundwater levels high to the extent the resurgence channels are flowing in the Mandeville area.

The purpose of this report is to update the Utilities and Rooding Committee and Community Boards on the status of the drainage and sewer service requests and further investigations:

Report Format

This report will be prepared fortnightly and will include the following information

- This Dashboard showing:
 - General commentary
 - Dashboard metrics
 - Specific commentary on Key Focus Areas
 - An attached traffic light report on all 143 investigations

General Update

There has now been 55 investigations completed, in implementation or submitted for approval. A further 52 investigations are currently underway with 36 remaining to start. Of the highest priority investigations, only one is yet to start. This is pleasing progress across a team of 29 engineers. Each of these are also doing their business as usual work and so can only devote part of their week to this work. Six different consultants are providing some of these 29 flood team members.

We don't have an update on the number of maintenance actions this report as we have had some technical problems with the large spreadsheet we use to monitor the progress of the 321 individual actions. However the team have made good progress after trialling a new approach where the work is scoped further with contact made with the service request submitters before being scoped and referred to any contractors. About 50% of the maintenance actions have been addressed this way so far.

Following on from our last report, where we described a little about the process we are going through with each investigation, the images to the top right show some of the work being done by the team. The left image is the brief for a CCTV survey of some pipes that we have commissioned to find out if they are blocked or collapsed. The righthand image shows the extent of flooding reported in one investigation. For the one on the right, the newly commissioned Otaki Street Pumping Station in Kaiapoi will make a big difference to what they see in the future.



Key Metrics

Phase	As at 28 Oct	This report	Change
Triaging	0	0	0
Scoping	52	36	-16
Under Investigation	42	52	10
Review and approval	15	12	-3
In Implementation	15	22	7
Completed	19	21	2
Total	143	143	
Implementation Solutions	As at 28 Oct	This report	Change
Not yet determined	91	75	-16
Physical Works FY22/23	38	43	5
Future year capex	9	13	4
O&M changes	2	6	4
No action/Customer Advice	3	6	3
Total	143	143	
Maintenance items	As at 28 Oct	This report	Change
To be started	256		
Work in process	23	Not reported this fortnight	
Completed	42		
Total	321		

Key Focus Areas

Location	Update	Status
Kiln Place / Fairweather	Issue with backflow from the Kāikanui Stream. Removal/modifications of farm culverts is underway. Flap gates and bunds to be installed: design completed and out for pricing	Green
Fuller Street	Issue with a low lying residence being repeatedly close to flooding. Investigation is complete and upgrades will be implemented this financial year from existing budgets.	Green
Broadway Avenue	Detailed design underway for a new pipe from Kiwi Ave Reserve to Broadway Ave. Construction works to be undertaken this summer.	Green
Swindells Road, Waikuku	CCTV and swale / driveway culvert maintenance work complete. Options memo currently being finalised. Design and consent in 22/23 and construct in 23/24. Amber due to tight timeframe to meet these dates	Amber
Pearson Drain	Issue with drain overtopping and causing flooding in central Oxford. Investigation well advanced	Green
Stalkers Road	Issue with regular flooding during periods of high groundwater and causing issue with overloading the sewer. Investigations commenced. Meeting with residents to be organised once investigation progressed enough to have an initial understanding.	Amber
Cust Road	New larger soakpits have been installed. Area now to be monitored during events to assess effectiveness of solution	Green
Ranui Mews	The installation of vents at Ranui Mews is complete. Investigation works on the Ohoka Road sewer main to continue.	Green
Kairaki PS	Issue with inflow & infiltration overloading sewer. Urgent works to address main issues in camground completed with additional works in road commenced	Green
Cones Road / Fawcetts	Agreement with affected property owners for land purchase currently being sought for proposed diversion drain upgrade. Procurement of prelim on-property works underway. Enabling works planned for early next year with design of main works in parallel	Green
Resurgence Flow, Mandeville	Groundwater levels are high and undercurrents are flowing, causing surface flooding issues and impacting some septic tanks. Investigations are underway for the proposed Mandeville Resurgence Channel Upgrade/Diversion. The work is planned for the coming financial years	Green
Vicenza Drive / Bradleys	Investigation well advanced into culvert capacity along roadside drain and interaction with stockwater race.	Green
Flannigans Drain	Issue with overloaded drain causing flooding on neighbouring properties. Investigation is well advanced.	Green

Project

Reporting

As at 18th November 2022

Work package	Location	Date this report last updated	Stage	%age complete of stage	Progress since last reported	Planned actions	Traffic light
FT01	Newnham Street	16/11/2022	Under Investigation	90	Investigations are mostly completed and advice being prepared	Provide advice to customer	Green
FT02	Ivory Street	16/11/2022	In Implementation	0	Solution confirmed. Budget confirmation is the next step	Consider annual plan works programme	Green
FT03	Strachan Place	16/11/2022	Under Investigation	0	work in progress	Decide on trash grill and get fabricated	Green
FT04	Beach Road	16/11/2022	Under Investigation	50	CCTV investigation carried out, rock identified in pipe to be removed.	Organise for rock blockage to be removed.	Green
FT05	Mansfield Drive	16/11/2022	Review and approval	20	Maintenance brief completed and under review	Schedule maintenance works	Green
FT06	Williams Street	27/10/2022	Completed	100%	Bridge block crossings inspected and cleared. Added to critical sump list to be checked prior to all rain events.	Added to critical sump list to be checked prior to all rain events. PDU to include in future K&C renewal programme. Complete. No further action required. Will be addressed under K&C programme.	Green
FT07	Bracebridge Street	16/11/2022	Under Investigation	50	CCTV scoped and to be placed on works schedule	CCTV to be undertaken	Green
FT08	Fuller Street	15/11/2022	In Implementation	0	Site Visit to confirm scope	Implementation as part of the Kaiapoi minor stormwater improvements projects. Commencing in November. Contact landowners re installing the retaining wall fence.	Green
FT09	Feldwick Drive	27/10/2022	In Implementation	80%	CORDE instructed to repair 2m ² patch. Repair completed	Long term solution is the new Beach Road PS - construction scheduled to be completed by the end of this year. Complete. No change to action plans.	Green
FT10	Main North Road	8/11/2022	In Implementation	80	Works to upgrade the pipe in front of properties is to be included in upcoming minor works contract	Tender towards the end of 2022.	Green
FT11	Sovereign Boulevard	16/11/2022	Under Investigation	0	Scheduled to commence in next four months	Decide on grill modification required	Green
FT12	Old North Road	16/11/2022	In Implementation	20	Awarded works to contractor.	Confirm works complete.	Green
FT13	Dale Street	16/11/2022	Under Investigation	50	Advice received and under review	Maintenance actions to be scheduled. CCTV pending	Green
FT14	Wesley Street	16/11/2022	Under Investigation	50	CCTV scoped and to be placed on works schedule	CCTV to be undertaken	Green

FT15	Porter Place		Completed		Completed		Green
FT16	Kalmia Place	16/11/2022	Under Investigation	50	CCTV scoped and to be placed on works schedule	CCTV to be undertaken	Green
FT17	Cridland Street West	16/11/2022	Under Investigation	75	Investigation well advanced and draft memo developed.	CCTV and connectivity checks in catchment	Green
FT18	Williams Street	16/11/2022	Under Investigation	0	Awaiting CCTV	CCTV to be completed	Green
FT19	Hamel Lane		Completed		Completed		Green
FT20	Williams Street		Completed		Completed		Green
FT21	Woodglen Drive	14/11/2022	Review and approval	20	CCTV completed. Waiting for footage	As built to be submitted once CCTV complete (no change since last update).	Green
FT22	Norton Place	14/11/2022	Review and approval	20	Options memo sent to 3 Waters Manager for adoption of proposed concept. Awaiting complete CCTV results.	Commence detailed design following response for 3 Waters Manager. Make any required updates following CCTV results	Green
FT23	Rangiora Woodend Road	15/11/2022	Under Investigation	25	Have met landowner and agreed on a solution (swale, driveway grate, and soak pit)	Get solution drawn up, with work plan. Get price from contractor.	Green
FT24	Broadway Avenue	15/11/2022	In Implementation	10	Detailed Design Complete. Procurement documentation complete. Waiting for easement agreement and concession for park. Going out to tender this week, easement should be complete before awarding tender	Going to tender selected suppliers due to works on private property, have sent emails to suppliers to gauge interest to tender with 3 suppliers responding saying they are keen to tender, will upload to vendor panel this week to close before Christmas/ awarded after Christmas.	Green
FT25	Reserve Road, Kiwi Ave, Cross St	16/11/2022	In Implementation	5	Investigation completed	Soakpit renewal briefs out for quotation	Green
FT27	Swindells Road	14/11/2022	Review and approval	50	Options report being developed for adoption to detailed design and construct in 23/24.	Recommend preferred solution. Commencing design. Amber due to tight timeframe	Amber
FT28	Beach Road	15/11/2022	Completed		Completed works		Green
FT29	Batten Grove	16/11/2022	Scoping	0	Investigation scheduled to commence in late 2022	Investigation scheduled to commence in late 2022	Green
FT30	Featherstone Avenue	16/11/2022	Scoping	0	Scheduled to commence in next two months	Contact owner.	Green
FT31	Pegasus Main Street	16/11/2022	Under Investigation	5	Investigation underway	Investigation scheduled to commence in late 2022	Green
FT32	Kowhai Street	16/11/2022	Scoping	0	Scheduled to commence in next two months	Contact property owners to determine if sump causes flooding.	Green

FT33	Weka Street	14/11/2022	Under Investigation	70	Investigation report being developed to commence design.	Write up investigation report and recommend preferred solution. Commencing design.	Green
FT34	Bay Road	16/11/2022	Under Investigation	50	Investigation well advanced and first draft reviewed. Additional work pending	Complete investigation	Green
FT35	Queen Street		Completed		Completed		Green
FT36	Burnett Street	16/11/2022	Review and approval	0	Workshop with 189 High Street on 16 November to discuss proposal as could have impact on 189 High Street Stormwater Upgrade	Further residents around Dominic's Reserve to be contacted, Pearson Drain capacity to be calculated and Overland flow paths plan to be produced with proposed upgrades. Further meeting to be arranged. Concept option draft report in review stage. Detailed design & construction in 23/24 some works possibly to be brought forward to 22/23 due to 100 Bay Road development.	Green
FT37	High Street	16/11/2022	Review and approval	0	Workshop on 16 November to discuss revised concept options and proposed solution. No design solution as yet.	Arrange further meeting following actions of FT36 project and discuss in conjunction. Detailed design & construction to follow and completed by 31/05/23. Amber as tight timeframe to meet design and construction completion within current financial year.	Amber
FT38	Pearson Drain	16/11/2022	Under Investigation	50	Investigation well advanced and first draft reviewed. Additional work pending	Complete investigation	Green
FT39	Mill Road		Completed		Completed		Green
FT40	Mill Road	30/09/2022	Under Investigation	75%	Onsite meeting with landowner 15 July 2022 to understand the issues. Flood hazard risk for this particular site discussed at the Floor Level Working Group.	Undertake maintenance works on downstream section of the Ohoka Stream. Provide advice to the property owner on potential onsite improvements to protect the house. Consider need to add to the pre-event flood notification list.	Green
FT41	McHughs Road	16/11/2022	In Implementation	95%	Maintenance of downstream drain to assist with groundwater level to subside prior to final restoration.	McHughs Works ongoing – final restoration required including driveway sealing Roscrea Completed – awaiting final walkover Siena Pl/Sillano works ongoing due to groundwater level	Green
FT42	Wilson Drive	16/11/2022	Under Investigation	75	Levels of existing pipe surveyed. Plans of development obtained for review. Identified maintenance of open drains to minimise catchment. CCTV programmed of existing pipe.	Undertake maintenance. Confirm catchment size and designed level of service.	Green
FT43	Victoria Street	16/11/2022	Scoping	0	Investigation scheduled to commence by end of year	Assign to investigator.	Green
FT44	SH1	16/11/2022	Review and approval	95	Investigation and report completed.	Complete review and confirm next steps	Green

FT45	Macdonalds Lane	16/11/2022	In Implementation	5	Investigation completed	Soakpit refresh brief out for quotation	Green
FT46	Stalkers Road	16/11/2022	Under Investigation	20	Survey completed and initial field work	Develop options and arrange meeting with local residents to discuss. Amber as behind original timeframe targeted	Amber
FT47	Main North Road	16/11/2022	Scoping	0	This investigation is scheduled to start by the end of this year	Engage with Waka Kotahi.	Green
FT48	Skewbridge	9/09/2022	Completed	100%	CORDE repaired collapsed culvert at 80/80 repeater, then assessed as inadequate and new 600mm OD culvert installed.	nil	Green
FT49	Cust Road	14/09/2022	Completed	100%	Scoped and CORDE given instruction. Works completed 12/13 Sept	Monitor performance during large events	Green
FT50	Earlys Road & Cust Road	16/11/2022	Scoping	0	This investigation is scheduled to start by the end of this year	Assess performance during July flood events.	Green
FT51	Cust Road	29/09/2022	Completed	100%	2 Soak pits constructed. Need to monitor during next heavy rainfall event.	Work commenced Friday, 9 September 2022. Roding works completed - Drainage Team monitoring future secondary flow path options,	Green
FT52	Taaffes Glen Road		Completed		Completed		Green
FT53	Toppings Road	13/09/2022	Under Investigation	90%	Flood warnings provided to property owner during the July flood events. Property added to the pre-event flood notification list.	Finalise flood management advice to landowner and place on property file. Liaise with Ecan river engineers on designating the Sefton tributary as an Ecan maintained drain.	Green
FT54	Smarts Road	15/11/2022	Under Investigation	90	Design largely completed. All property owners met, and issues finalised. Met CORDE on site. Awaiting quote and timeframe.	Get price from CORDE. Accept price. Notify residents of timeframe	Green
FT55	Steffens Road	14/09/2022	Completed	100%	Works completed	Soak holes installed	Green
FT56	Depot Road	16/11/2022	Under Investigation	50%	Scope of works to be assessed and options to be determined for drainage upgrades. Engagement with affected property owner.	Team to investigate further, incl. site visit and further liaison with affected property owners.	Green
FT57	Upper Sefton	9/09/2022	Completed	100%	Swales and drains cleared / reshaped, high shoulder removed, debris in waterway removed.	One section of open drain still to be maintained later under maintenance works.	Green
FT58	Dixons Road	27/10/2022	Under Investigation	20%	CORDE requested to price culvert renewal. Price received and under evaluation	Works to be instructed / programmed once estimate accepted. Will need to be fast-tracked, as section of road on 2022/23 Reseal Programme. Works awarded to CORDE. Programme to be confirmed.	Green
FT59	Hodgsons Road	9/09/2022	Completed	100%	Completed	To update CSR and advise caller of outcome. Caller advised.	Green
FT60	Mount Thomas Road	30/09/2022	Under Investigation	75%	Onsite meeting with downstream landowner and Ecan compliance officer on 29 August 2022. Update email sent to upstream landowners of the accessway.	Follow up with Ecan to determine what compliance action they may take.	Green

FT61	Ranui Mews	30/09/2022	In Implementation	90%	External vent installation at Ranui Mews is now complete (completed 20 September 2022). Update meeting on Ohoka Road investigations was held.	Undertake CCTV re-inspection of the sewer main from Ranui Mews, along Ohoka Road, down Vickery Street to the Parham Lane PS. Continue Ohoka Road sewer investigations - review logger information and drainage service requests in wider area.	Green
FT62	Kairaki PS	30/09/2022	In Implementation	10%	Loggers installed in sewer main. Meeting with residents held 7 September 2022. Urgent works to address the main issues in the campground are completed.	Investigate remaining sewer and stormwater system in the upper campground. Undertake CCTV inspection of sewer main in Featherstone Ave and manhole surveys.	Green
H01	Station Road, Loburn	9/09/2022	Completed	100%	Met with contractor and landowner to scope requirements, agreed on solution. Works completed 16/08/2022	None	Green
H02	Bruces Road, Sefton	28/10/2022	Scoping	20%	Liaised with caller. No further progress yet.	Culvert renewal and drainage maintenance programmed. Catchment assessment requested to determine adequacy of existing culvert.	Green
H03	View Hill Stream	27/10/2022	In Implementation	20%	Scope of works agreed with contractor, pricing up works. Survey confirmed - Contractor to undertake survey week commencing 19th September. Awaiting survey results.	Team will investigate further and will be liaising with affected property owners. Site visit with property owner downstream of View Hill Stream Bridge on Depot Rd. Site visit with ECan identified further issues downstream, which ECan are investigating options to resolve. No change to planned actions.	Green
H05	Depot Road / South Eyre Road	19/09/2022	Completed	5%	Scope of works to be assessed and options to be determined for drainage upgrades. Conversation had with affected property owner.	Team to investigate further, incl. site visit and further liaison with affected property owners. Closed, as will be addressed under FT56.	Green
H06	Tui Street, Oxford	14/11/2022	Under Investigation	50	Investigation report being developed to commence design.	Write up investigation report and recommend preferred solution. Commencing design.	Green
H07	Williams Street / Kiln Place, Kaiapoi	8/11/2022	Under Investigation	20	Survey confirmed issue cannot be resolved by reshaping swale, will need additional sump and connection	Need confirmation of budget in order to progress design options. Will be more involved than previously thought	Green
H08	Belcher Street, Kaiapoi	14/11/2022	Review and approval	20	Options memo sent to 3 Waters Manager for adoption of proposed concept.	Commence detailed design following response from 3 Waters Manager.	Green
H09	Harrod Place, Rangiora	15/11/2022	Completed	25	Have rung submitter - commented that it is a sump maintenance issue. Rading have added west belt sump to critical Sump list (checked before every event).		Green
H10	Cam Road, Kaiapoi	16/11/2022	Scoping	0	Investigation scheduled to commence in late 2022	Investigation scheduled to commence in late 2022	Green
H11	Percival Street, Rangiora	8/11/2022	Review and approval	20	Price received - looking at alternate option direct into Northbrook	CORDE pricing alternative option now.	Green

H12	Beach Road, The Pines Beach	15/11/2022	Completed		Completed works		Green
H13	Tram Road / Heywards Road	16/11/2022	Under Investigation	50	Some CCTV and jetting complete. Maintenance programmed.	Review CCTV reports. Undertake maintenance.	Green
H14	Woodfields Road	16/11/2022	Scoping	0	This investigation is scheduled to start by the end of this year	Investigate previous reports.	Green
H15	East Belt, Rangiora	15/11/2022	Scoping	10	None	Commencing in November/December - Call CORDE to see what they did post event. Note: commencing design for East Belt Rain Gardens in November which will help with reducing runoff down East Belt	Green
H16	Cones Road / Fawcetts Road	15.11.2022	In Implementation	5	Enabling works looking to be done early next year. Design to be done early next year	Complete enabling works	Green
H17	Chapman Place, Kaiapoi	28/10/2022	Completed	100	Sealing being completed	Confirm with customer that concern has been addressed by the works	Green
H18	Greens Road, Tuahiwi	16/11/2022	Scoping	0	Scheduled to commence in next two months	Contact ECan	Green
H19	Skewbridge	15/11/2022	In Implementation	30%	Currently out to tender, closing 16/11/2022	Award physical works	Green
H04	Two Chain Road	16/11/2022	Scoping	0	This investigation is scheduled to start by the end of this year	Investigate previous reports.	Green
H20	Wolffs Road	16/11/2022	In Implementation	0	Held a meeting with WIL as involves shared infrastructure. Agreed on review actions.	Meeting with downstream neighbours to coniform solution Amber due to tight timeframe	Amber
H21	Belmont Ave, Rangiora	15/11/2022	Under Investigation	30	No progress on investigation since last reported.	Site visit to observe soak pits, assess maintenance/upkeep required, and determine flow directions. Research design/calcs to determine hydraulic capacity. High level hydraulic assessment to determine required capacity. Determine whether capacity is met or exceeded.	Green
H22	Earlys Road	16/11/2022	In Implementation	80	Continued review	Review effectiveness of maintenance undertaken. Consider grill requirement and access.	Green

H24	Wetherfield Lane, Mandeville	16/11/2022	Under Investigation	90%	Service request summary prepared.	Strong correlation with Mandeville Resurgence Channel / Diversion project (H30). The source of flooding is west of No 10 Road. Future year investigation / capex.	Green
H25	Island Road, Kaiapoi	16/11/2022	Scoping	0	Scheduled to commence in next two months		Green
H26	Giles Road, Clarkville	27/10/20022	Review and approval	10%	Repositioning of headwall and rock works to commence by Ecan in early October. Awaiting ECan scope of works and suggested cost share.	WDC to work with Ecan and to track progress. Cost share to be determined. Rock works and culvert repositioning underway.	Green
H23	Palmer Street, Rangiora	16/11/2022	Completed	100	Triage completed	Advised customer of the K&C renewal programmed planned for 23/24.	Green
H27	Island Road / Silverstream	13/09/2022	Under Investigation	90%	Onsite meeting with landowner 27 July 2022. Advice provided to landowner on potential onsite improvements they could make - landowner to seek engineering advice. Arranged for Esan to inspect the Silverstream to undertake maintenance works.	Drainage team to inspect Ohoka Stream to determine if maintenance works are necessary.	Green
H28	Bairds Road, Sefton	28/10/2022	Scoping	10%	No further progress yet.	Scheduled to commence in next two months	Green
H29	Rotten Row, Waikuku Beach	16/11/2022	Under Investigation	50	Preliminary investigations well advanced	Draft investigation memo for consideration	Green
H30	Resurgence Flow, Mandeville	15/11/2022	Under Investigation	5	Reviewed all service requests against current understanding. SR caller to be notified.	Part of the Mandeville Resurgence Channel Upgrade / Diversion Project to be deliver in future years	Green
H31	Tawera Lane, Oxford	15/11/2022	Under Investigation	50	Combined with investigation of Flannigan's Drain. Refer N01 for updates.	Finalise investigation	Green
H32	Washington Place, West Eyreton	16/11/2022	Under Investigation	0	Investigator commissioned	Consultant commencing shortly	Amber
H33	Ashley Gorge Road	30/09/2022	Under Investigation	50%	Onsite meeting with landowner 24 August 2022. Draft report on assessment of the stormwater impacts from a quantity perspective provided to Council for comment.	Determine role / responsibility of Council. Finalise stormwater assessment report and issue to landowner.	Green
H34	Maindonalds Road	16/11/2022	Scoping	0	This investigation is scheduled to start by the end of this year	Review capacity of existing race culverts. Consider new road culvert.	Green

H35	Williams Coup Road, Kaiapoi	16/11/2022	Under Investigation	50	Reviewed previous reports. Identified maintenance requirements.	Undertake maintenance.	Green
H36	Kaikanui Stream	14/11/2022	Under Investigation	10%	Scoping Complete, investigation commencing	Kaikanui Stream will be surveyed on 24th Nov. Location and operation of flap gates will be confirmed as part of survey.	Green
H37	Box Drain, Woodend	16/11/2022	Under Investigation	30	Ground water level monitoring ongoing no other progress.	Need to set up meeting with Te Ngai Tuahuriri reps to discuss design options before proceeding with concept design. ECan discussions around wetland viability ongoing. Ongoing water level monitoring. Detailed Design and Construction planned for 23/24.	Green
H38	Orchard Place, Clarkville	16/11/2022	Under Investigation	20	Identified Silverstream may be contributing to flooding due to uncontrolled culvert on Giles Road. Investigating fitting flap-gate to prevent future flows from river.	Discuss with property owners. CCTV inspect and flush existing sumps, culverts and subsoil drains.	Green
H39	Chiltons Road, Clarkville	15/11/2022	Under Investigation	50	Caller contacted and provided updated photos. Location is by the corner of Chiltons / Baileys Rd. Including flooding at Baileys Road	Photos received and location confirmed.	Green
H40	Allin Drive, Waikuku Beach	16/11/2022	Scoping	0	Scheduled to commence prior to Christmas		Green
H41	Spare		Completed	9-Apr	Transferred to H08	nil	Green
H42	No.10 Road, Mandeville	15/11/2022	Under Investigation	5	Refer H30	Part of the Mandeville Resurgence Channel Upgrade / Diversion Project. Some CCTV to be organised for potentially blocked culverts.	Green
H43	Mairaki Road	13/09/2022	Scoping	0%	Nil - not started	Ring customer to discuss and obtain further information.	Green
H44	Vicenza Drive / Bradleys Road	15/11/2022	Review and approval	95	Investigation and report completed.	Review to be completed	Green
H45	Inglis Road	15/11/2022	Scoping	0	Have made contact with submitter - arranged meeting with 3-4 locals - however meeting was cancelled due to locals not being available	Meeting with residents now programmed for 30th Nov	Green
N01	Flannigans Drain	15/11/2022	Under Investigation	60	Scope increased to include: Tawera Lane, Harewood Road, Weka Street	Continue investigation - Determine key flood mechanisms and present solutions	Green

N02	Carmana Gardens	8/11/2022	In Implementation	10	Report approved and implementation confirmed	Currently out to tender, closing 23rd November	Green
N03	Kingsbury Ave	6/10/2022	In Implementation	0	Maintenance actions approved and added to maintenance actions schedule	Actions to be completed under existing contract arrangements	Green
N04	Main Street, Oxford	6/10/2022	In Implementation	0	Maintenance actions approved and added to maintenance actions schedule	Actions to be completed under existing contract arrangements	Green
N05	Hilton Street, Kaiapoi	15/11/2022	Under Investigation	50	CCTV and jetting requirements confirmed	Awaiting CCTV investigations	Green
N06	Coronation Street, Rangiora	15/11/2022	Review and approval	80	Draft technical memorandum issued for internal review.	Awaiting CCTV and jetting	Green
N07	Littles Lane, Woodend	16/11/2022	Scoping	0	Scheduled to commence in next 2 months		Green
N08	Kiln Place / Fairweather Crescent	16/11/2022	In Implementation	10	Bund design completed and proposed WaStop valves procured.	Awaiting quote from contractor	Green
N09	King Street / Charles Street, Rangiora	15/11/2022	Scoping	0	Scheduled to commence prior Christmas		Green
N10	Old North Road	15/11/2022	In Implementation	0	Drainage channel concept approved	Consult with mana whenua and agree implementation approach	Green
N11	Willock Street	25/10/2022	Scoping	0	Scheduled to commence prior to Christmas		Green
N12	Woodend Road, Woodend	15/11/2022	Scoping	0	Scheduled to commence prior to Christmas		Green

N13	Beach Crescent, Waikuku Beach	16/11/2022	Under Investigation	75%	Preliminary investigations well advanced	Complete preliminary investigation	Green
N14	Rapaki Street	15/11/2022	Scoping	0	Scheduled to commence prior to Christmas	Arrange site walkover with land owner.	Green
N15	Sidey Quay, Kaiapoi	15/11/2022	Under Investigation	40	CCTV Connectivity Survey requested	Awaiting CCTV and connectivity survey	Green
N16	Riverside Road, Okuku	28/10/2022	Scoping	0%	To commence shortly	Site visit is the enxt step	Green
N17	No.10 Road / Pattersons Road	28/10/2022	Scoping	0%	To commence shortly	Site visit is the enxt step	Green
N18	Northside Drive, Waikuku Beach	16/11/2022	Scoping	0	Investigation scheduled to commence by end of year	Contact property owners. Inspect drain through to farm.	Green
N19	Church Bush Road, Tuahiwi	16/11/2022	Scoping	0	Scheduled to commence in the new year		Green
N20	Waikuku Beach Road, Waikuku Beach	16/11/2022	Under Investigation	0%	Consultant resource commissioned	Investigation commenced	Amber
N21	Williams Street, Kaiapoi	15/11/2022	Scoping	0	Scheduled to commence in the new year		Green
N22	Helmore Street, Rangiora	25/10/2022	Under Investigation	25	Subdivision auditor carried out site visit and assessment. Appears that a recently constructed property is obstructing the flow path. Further work required to assess history and RC conditions. (No change from last update)	Background research and a recommendation from Development team for property owner action required (if any). Investigation scheduled to commence in late October. (No change from last update)	Green
N23	Main North Road, Woodend	28/10/2022	Scoping	0%	Not reviewed / investigated yet.	Site visit is the enxt step	Green

N24	German Road, Summerhill	15/11/2022	Under Investigation	30	Investigation underway	Call WIL to confirm water race system, and discuss control gate operations.	Green
N25	Maguires Road, Sefton	13/09/2022	Scoping	0%	Nil - not started	Ring customer to discuss and obtain further information.	Green
N26	Elders Road, Clarkville	16/11/2022	Scoping	10	Discussed flooding with property owners.	Compile information. Contact additional property owners.	Green
N27	Glenvale Drive, Kaiapoi	16/11/2022	Scoping	0	Scheduled to commence prior to Christmas		Green
N28	Sewell Street, Kaiapoi	15/11/2022	In Implementation	5	Design report approved by Greenspace Manager for construction to proceed. Being priced now. Sump in the low spot and a pipe linking to the existing swale is best solution	Contractor to be direct procured, as estimated cost is <\$20k, in order to progress quickly through construction works. Awaiting price from Contractor before proceeding	Green
N29	Kennedys Hill Road, Springbank	28/10/2022	Scoping	0%	Commencing shortly	Site visit planned for week commencing 31/10	Green
N30	Bramleys Road, Tuahiwi	16/11/2022	Scoping	0	Allocated to new investigator	Pending start date of investigator	Amber
N31	Rossiters Road, Loburn	16/11/2022	Scoping	0	Scheduled to commence in the new year	Amber as currently confirming resource for this investigation	Amber
N32	Queens Avenue, Waikuku Beach	16/11/2022	Scoping	0	Scheduled to commence in the new year	Amber as currently confirming resource for this investigation	Amber
NS1	Percival Street	30/09/2022	Under Investigation	10%	Meeting to review CCTV inspection held. Reinspection of main through to Matawai Park to be undertaken to confirm no fat build up issues. Onsite inspection of private sewer laterals to be undertaken.	Once onsite CCTV is complete, consider if localised improvements to hydraulics could be made at manhole, lateral connection or venting within the property. Budget for new pipe along Charles and down Percival to the southern end of Matawai Park to be included in draft AP.	Amber
NS2	Wesley Street	16/11/2022	Under Investigation	70	Completed onsite venting check, to review if further investigation required.	Installing venting at 7A. Getting C&B to assess if venting required for 6.	Green
NS3	Ohoka Road	16/11/2022	Under Investigation	50%	CCTV completed by Hydrotech. Awaiting data transfer for footage.	Consider repair options for sewer in immediate area (WW002361). Investigate scope of planned future capacity upgrade works (Kaiapoi Sewer Capacity Upgrade)	Green

NS4	Mandeville	15/11/2022	Under Investigation	50	Service requests reviewed and appear to be related to multiple complaints from two specific properties. SR's reference the stormwater drain through the properties (covered by easements) and are not related to septic tank issues. Septic tank	To meet with network team to assess modelling and assess. Septic tank locations with issues identified, to be discussed with Utilities team.	Green
NS5	Tuahiwi / Fernside	16/11/2022	Under Investigation	40	Aquatec undertaking review of all stations installed and awaiting their report	Once Aquatec report received, then develop plan to address issues. Material delay in receiving Aquatec report. Consider alternative investigation paths	Green

Councillor Paul Williams,
Wainak Council.

Dear Paul,

Enclosed please find article on
Floride from my Natural Health Magazine.
Would you kindly read this Article on this poison
which I feel we certainly do not need in our water.
I'm now 85 yrs old still with all my own teeth and being
one of a big Family had no rubbish but water or milk.
This directive from Govt. is punishing the Majority,
for the Minority of young Mothers bringing their
children up on soft drinks instead of healthy
water or milk. You cannot legislate for
stupidity.

Thanking you

Yours sincerely
Read.

Fluoride toxicity : Protect yourself with selenium

By Ethan Evers

September 21, 2012

(NaturalNews) Excess fluoride may increase your risk for 23 different cancers, lower your child's IQ and school performance and increase oxidative stress throughout your body. But new research has shown that the mineral selenium plays a key role in detoxifying excess fluoride, restoring the body's antioxidant capacity and even speeding the elimination of fluoride from the body.

The toxicity of excess fluoride Evidence has been accumulating for decades that fluoride is both toxic and carcinogenic to humans. An analysis of WHO cancer statistics from 1978-1992 showed that Americans living in areas with "optimal" water fluoridation had increased risk of cancer at 23 different sites in the body. This was echoed by further research from Japan showing that water fluoridation significantly increased the risk of uterine and liver cancers.

More recently, a study from Harvard showed that childhood exposure to higher levels of fluoride may increase osteosarcoma risks in males by up to 546 percent. Despite this evidence, mainstream medicine has remained in denial of the fluoride-cancer link largely because there was no obvious mechanism of carcinogenicity. But new research out of China has finally provided this missing link. It turns out that excess fluoride strongly disrupts the body's internal antioxidant system and ability to withstand oxidative stress.

Fluoride - A potent pro-oxidant

Worldwide, over 200 million people across 25 countries are living with serious chronic fluorosis due to high levels of fluoride in their ground-water and/or contamination of their food and air due to pollution (i.e. from burning high-fluoride coal). Endemic fluorosis is widespread in China, which is why Chinese doc-

tors are now heavily researching fluoride toxicity. In a recent landmark study, researchers showed that citizens living in high fluoride areas had extremely depressed levels of the body's three most important endogenous antioxidants: superoxide dismutase, catalase and glutathione peroxidase, compared to those living in low fluoride areas. Oxidative damage is a well-established risk factor for cancer. Therefore, since excess fluoride cripples the body's ability to defend against oxidative stress, it may also increase cancer risk as a secondary effect.

Selenium - Nature's antidote for excess fluoride

The good news is that the same Chinese researchers made another equally important discovery. Citizens living with high levels of fluoride and also high levels of selenium were measured to have normal levels (or even higher) of all three key endogenous antioxidants. This seems logical since selenium is actually contained in glutathione peroxidase, one of the three key antioxidants. Importantly, these people also showed normal levels of MDA (malondialdehyde), a key marker of oxidative damage. In contrast, people in the high-fluoride areas had MDA levels 475 percent greater.

The ability of selenium to protect against fluoride toxicity has been further confirmed in lab animals. Selenium has been shown to stop damage to the heart, liver, kidneys, and ward off the severe mental deterioration that accompanies excess fluoride. One study also showed that selenium increased the rate of elimination of fluoride in the urine.

The takeaway from this is if you're concerned about how much fluoride you might be getting, you should be equally concerned about the adequacy of your selenium intake. The RDA for selenium is 55 micrograms daily for adults, but many natural health practitioners recommend 100-200 micrograms. According to the NIH, the upper tolerable intake for selenium is 400 micrograms daily. Natural sources of selenium include nuts, seeds, fish, meat, and whole grain products. A compre-

hensive listing of the selenium content of foods may be found in the last two references below, sorted alphabetically and by selenium content, respectively. For best absorption, avoid taking selenium with zinc or high dose vitamin C.

Sources for this article include:

- <http://www.ncbi.nlm.nih.gov/pubmed/11512573>
- <http://www.ncbi.nlm.nih.gov/pubmed/9002384>
- <http://www.ncbi.nlm.nih.gov/pubmed/16596294>
- <http://www.ncbi.nlm.nih.gov/pubmed/16834990>
- <http://www.ncbi.nlm.nih.gov/pubmed/19652462>
- <http://www.ncbi.nlm.nih.gov/pubmed/21976813>
- <http://www.ncbi.nlm.nih.gov/pubmed/12525083>
- <http://ods.od.nih.gov/factsheets/Selenium-HealthProfessional/>
- www.ars.usda.gov

About the Author:

Ethan Evers is author of the award-winning medical thriller *The Eden Prescription*, in which natural medicine outperforms a billion-dollar chemo drug and threatens the entire \$50 billion cancer drug industry. Ethan based *The Eden Prescription* on the latest science on natural medicine for cancer, and wrote it to show the future reality that natural medicine can bring us - and to warn of the strategies now being used by those who are trying to stop it. Ethan has a PhD in Applied Science. For more information, visit www.edenprescription.com

The Eden Prescription is available on amazon: www.amazon.com/Eden-Prescription-cancer-what-think/dp/1439276552/

For breaking news and research updates on natural medicine for cancer, see Ethan's Facebook Page: www.facebook.com/pages/The-Eden-Prescription/130965870291786

SOURCE: http://www.naturalnews.com/z037267_fluoride_selenium_protection.html

WAIMAKARIRI DISTRICT COUNCIL**REPORT FOR DECISION**

FILE NO and TRIM NO: RDG-30 / 210812132935

REPORT TO: OXFORD-OHOKA COMMUNITY BOARD

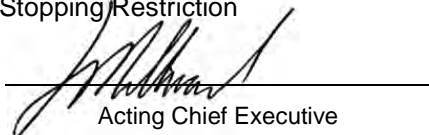
DATE OF MEETING: 9 November 2022

AUTHOR(S): Shane Binder, Transportation Engineer

SUBJECT: Ashley Gorge Bridge – Approval of No-Stopping Restriction

ENDORSED BY:
(for Reports to Council,
Committees or Boards)


General Manager


Acting Chief Executive

1. SUMMARY

- 1.1 This report seeks a recommendation from the Board to impose no-stopping restrictions around the Ashley Gorge Bridge to safely allow for carparking and minimise potential for conflicts.
- 1.2 Ashley Gorge Road is a rural two-lane collector that narrows for a 105m long one-lane bridge over the Ashley River. Traffic counts at the bridge indicate that the average daily traffic volume is 572 vehicles, travelling at a mean speed of 81.7 km/hr. Westbound traffic from Glentui has priority over the one-lane bridge while eastbound traffic from Oxford has to give way.
- 1.3 Service requests and comments from residents and the Ashley Gorge Reserve Advisory Group have raised concerns around sight distance to the bridge, car parking provision along both bridge approaches, the existing give-way priority, and overall crash risk at the bridge.
- 1.4 Staff propose to rationalise parking through formal no-stopping restrictions, update signage to support these restrictions and encourage carparking at the holiday park, and work with Council's road maintenance contractor to remove vegetation on the east approach to improve visibility to the bridge. Staff are not proposing changes to the existing give-way priority for safety reasons.

Attachments:

- i. Ashley Gorge Bridge Improvements (TRIM No. 221026186136)

2. RECOMMENDATION

THAT the Oxford-Ohoka Community Board:

- (a) **Receives** Report No. 210812132935.
- (b) **Notes** that staff will work with the road maintenance contractor to remove vegetation and trees on the south side of the east approach to further improve visibility to the bridge.
- (c) **Notes** that other improvements proposed in the vicinity of the bridge include the following:
- i. New guide signage to direct car parking to the holiday park
 - ii. Removal of informal parking signage
 - iii. Relocation of curve speed chevron sign at holiday park entry on the west approach

And;

Recommends that the Utilities and Roding Committee:

- (d) **Approve** installation of the following no-stopping restriction on Ashley Gorge Road at the Ashley Gorge Bridge:
- iv. For a distance from 15m west of the bridge to 25m east of the bridge railing on the north side.
 - v. For 25m east of the bridge on the south side.

3. **BACKGROUND**

3.1 Ashley Gorge Road is a rural two-lane collector that narrows for a 105m long one-lane bridge over the Ashley River north of Oxford. At present, westbound traffic from Glentui has priority over the one-lane bridge while eastbound traffic from Oxford has to give way. The site is shown below in Figure 1.

3.2 Figure 1: Ashley Gorge Bridge Environs



- 3.3 The latest Council traffic and speed counts at the bridge indicate that the average daily traffic volume is 572 vehicles per day, travelling at a mean speed of 81.7 km/hr. The 85th percentile speed was measured at 93.5 km/hr, indicating that 15% of vehicles are travelling faster than this speed. Ashley Gorge Road presently has a posted speed limit of 100 km/hr but vehicles typically slow down for the one-lane bridge.
- 3.4 It is noted that Waka Kotahi has rated Ashley Gorge Road to have a Safe and Acceptable Speed (SAAS) of 60 km/hr based on its established speed limit rating process. Staff will review the speed limit for the bridge environs as part of developing the District Speed Management Plan, which needs to be in place for the next National Land Transport Programme (NLTP).
- 3.5 In summer months, the bridge, holiday park, and adjacent reserve are popular destinations for hiking and other recreational activities, with a high car parking demand as a result. At present, car parking for these activities is encouraged inside the holiday park and dedicated reserve behind, while a “no parking” zone has been marked on the west approach and informal “no parking” signage has been erected on both approaches by unknown parties.
- 3.6 In winter months, the east approach experiences frosty or icy road conditions on the downgrade when precipitation falls under the right conditions. This occurs with sufficient regularity that the Council’s maintenance contractor has a fixed “Ice/Grit” sign to warn of these conditions.

4. ISSUES AND OPTIONS

4.1. Service requests and comments from residents and the Ashley Gorge Reserve Advisory Group have raised the following concerns around the roadway through the gorge bridge:

4.1.1. Sight distance to the bridge available for westbound traffic is restricted by vegetation and the bulk of the roadside slope on the east bank. It was observed during a 2021 site visit (prior to vegetation removal works) that the sight distance to the bridge available to westbound traffic traveling downhill towards the bridge was in excess of 100m to the near (east bank) side of the bridge. The far (west bank) side of the bridge is fully visible approximately 30m upstream from the east side give-way point, as shown below in Figure 2. Forward sight distance is limited by the existing roadside bank, vegetation, and several trees growing on the south side of Ashley Gorge Road.

4.1.2. Figure 2: Existing Sight Distance



4.1.3. Stopping sight distance, the distance required to perceive a conflict and come to a complete stop, is 100m at the bridge based on prevailing mean operating speeds and the Austroads *Guide to Road Design Part 3* procedure. As noted in 34.1.1, this distance is achieved to the east end of the bridge but the west end of the bridge is visible from 30m upstream from the give-way point. As a result, westbound motorists at present have sufficient distance to avoid a head-on collision but may have to brake suddenly when sighting eastbound traffic on the one-lane bridge.

4.1.4. Car parking demand from the trails around Ashley Gorge is high during summer months. Trail users are encouraged to park within the holiday park but historical parking on the roadside has led to concerns around the potential for conflict. Informal “no parking” signage was installed on the roadside outside the holiday park but this does not appear to have been approved by the Council.

4.1.5. The existing give-way priority (in favour of westbound traffic) was evaluated against the Waka Kotahi *Traffic Control Devices Manual Part 5*, which considers the length of one-lane bridge, approach visibility, approach grades, winter driving conditions, and the potential for “blind priority” where motorists do not give way because they lack visibility for safe stopping distance. As noted in 4.1.3, the forward sight distance to the bridge results in the potential for “blind priority” to occur for westbound traffic.

- 4.1.6. There is a concern around crash risk at the bridge. Typically, past crash history is not a good indicator of crash risk due to the random nature of crash occurrence and underreporting of incidents. In the past ten years, one crash has been recorded in the vicinity of the bridge and it was due to non-infrastructure causes (falling asleep while driving).
- 4.1.7. A more proactive analysis of the relative level of risk present on the bridge includes the narrow structure, driver speed, the car parking, the known icing issue on the east approach, and the stopping sight distance, as discussed above. Based on these conditions relative to other portions of the District roading network and design standards, staff would consider the risks are appropriate for a road of this rural character. While the one-lane bridge and approaches are constrained, widening to a standard two-lane structure is not considered an economically viable solution based on existing traffic volumes.
- 4.2. Council is proposing a number of modifications around the bridge to address the concerns that have been raised:
- 4.2.1. Car parking is proposed to be better defined to limit parking where it is unsafe but encourage it where it is appropriate. Staff recommend prohibiting on-road parking through no-stopping restrictions for the following distances:
- 4.2.1.1. For a distance from 10m west of the bridge to 25m east of the bridge railing on the north side
- 4.2.1.2. For 25m east of the bridge on the south side.
- 4.2.2. Existing road signage will be modified to delineate no-stopping restrictions on both bridge approaches (including removal of parking restriction signs that no longer apply) as well as to encourage carparking at the holiday park in the first instance.
- 4.2.3. Staff recommend no change to the existing give-way priority as it is considered to be the safest option, given the sight distance limitations.
- 4.3. It is noted that the Council is working with the road maintenance contractor to review the south side of the east approach to the bridge. Removal of vegetation and trees between the river side and the point where the existing batter meets the roadside will improve visibility to the bridge. The Council is not intending to undertake more intensive works to regrade the roadside batters.

Implications for Community Wellbeing

There are implications on community wellbeing by the issues and options that are the subject matter of this report.

These proposed improvements provide infrastructure in terms of safety improvements which provide safe access for residents within the district.

- 4.4. The Management Team has reviewed this report and support the recommendations.

5. COMMUNITY VIEWS

5.1. Mana whenua

Te Ngāi Tūāhuriri hapū are not likely to be affected by, or have an interest in the subject matter of this report.

5.2. **Groups and Organisations**

Staff have consulted with the Ashley Gorge Holiday Park and Ashley Gorge Reserve Advisory Group on the proposed changes. Both parties have been consulted on the proposed changes.

There are no other groups and organisations likely to be affected by, or to have an interest in the subject matter of this report.

5.3. **Wider Community**

The wider community is not likely to be affected by, or to have an interest in the subject matter of this report; the impacts of parking restrictions are considered to be localised only.

6. **OTHER IMPLICATIONS AND RISK MANAGEMENT**

6.1. **Financial Implications**

There are financial implications of the decisions sought by this report. Installation of no-stopping marking and signage will be carried out through the Road Maintenance Contract and is estimated to cost approximately \$2,500. This will be covered by existing budgets.

6.2. **Sustainability and Climate Change Impacts**

The recommendations in this report are not likely to affect emissions and do not have sustainability or climate change impacts.

6.3. **Risk Management**

There are no risks arising from the adoption/implementation of the recommendations in this report.

Health and Safety

There are minor health and safety risks arising from the adoption/implementation of the recommendations in this report. Physical works will be undertaken through the Road Maintenance contract. The Road Maintenance contractor has a Health & Safety Plan and a SiteWise score of 100.

7. **CONTEXT**

7.1. **Consistency with Policy**

This matter is not a matter of significance in terms of the Council's Significance and Engagement Policy.

7.2. **Authorising Legislation**

Section 2 of the Land Transport Rule: Traffic Control Devices requires a Road Controlling Authority to "authorise and, as appropriate, install or operate traffic control devices."

7.3. **Consistency with Community Outcomes**

The Council's community outcomes are relevant to the actions arising from recommendations in this report. This report considers the following outcomes:

There is a safe environment for all

- Harm to people from natural and man-made hazards is minimised.
- Crime, injury and harm from road crashes, gambling, and alcohol abuse are minimised.

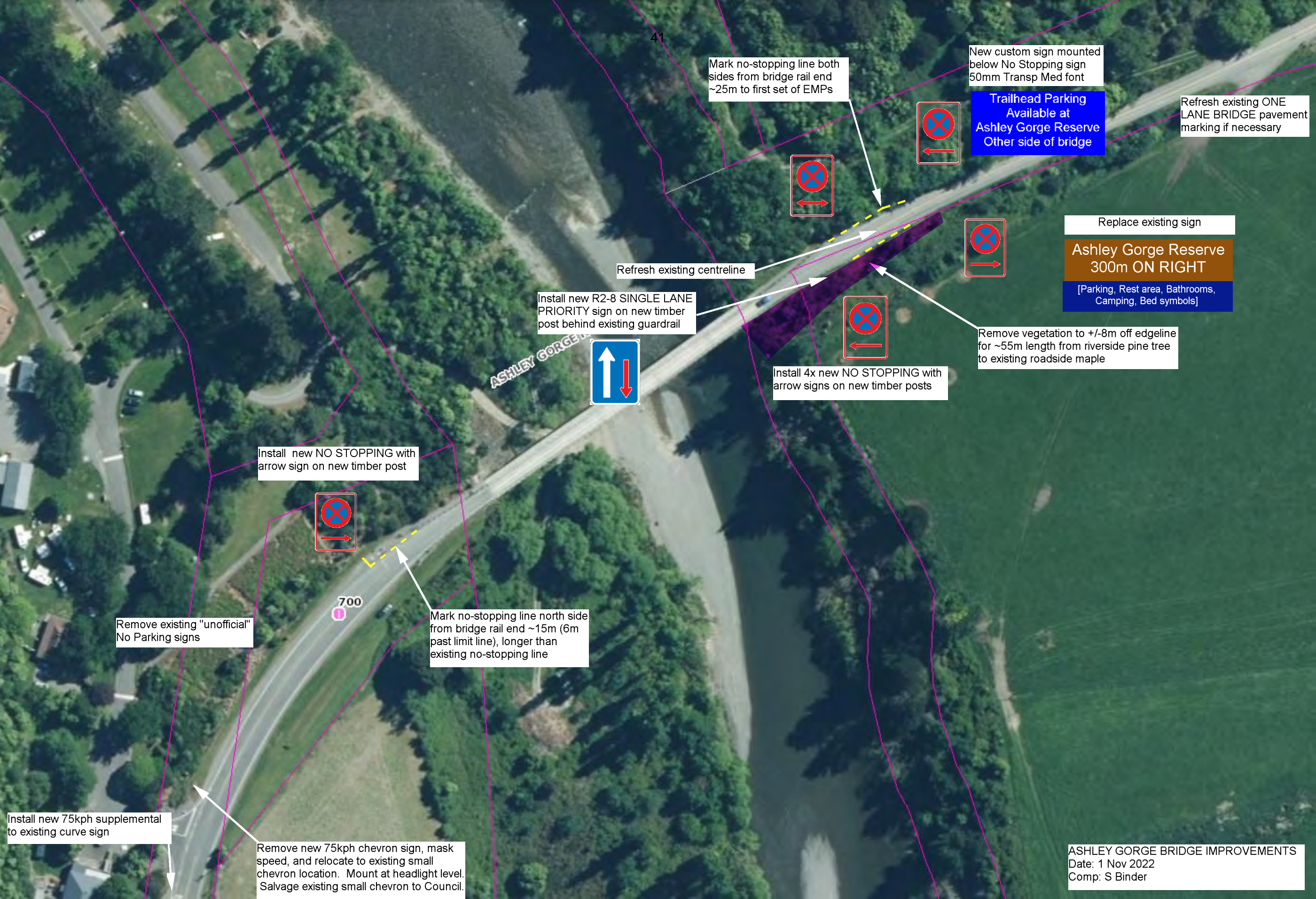
Transport is accessible, convenient, reliable and sustainable

- The standard of our District's roads is keeping pace with increasing traffic numbers.
- Communities in our District are well linked with each other and Christchurch is readily accessible by a range of transport modes.

7.4. **Authorising Delegations**

Per Part 3 of the *WDC Delegations Manual*, the Community Board has the delegated authority to approve traffic control and constraint measures on streets.

Per Part 2, the Utilities and Roding Committee is responsible for roading and transportation activities, including road safety, multimodal transportation, and traffic control.



Mark no-stopping line both sides from bridge rail end ~25m to first set of EMPs

New custom sign mounted below No Stopping sign 50mm Transp Med font

Trailhead Parking Available at Ashley Gorge Reserve Other side of bridge

Refresh existing ONE LANE BRIDGE pavement marking if necessary

Replace existing sign

Ashley Gorge Reserve 300m ON RIGHT

[Parking, Rest area, Bathrooms, Camping, Bed symbols]

Remove vegetation to +/-8m off edgeline for ~55m length from riverside pine tree to existing roadside maple

Install 4x new NO STOPPING with arrow signs on new timber posts

Refresh existing centreline

Install new R2-8 SINGLE LANE PRIORITY sign on new timber post behind existing guardrail

Install new NO STOPPING with arrow sign on new timber post

Remove existing "unofficial" No Parking signs

Mark no-stopping line north side from bridge rail end ~15m (6m past limit line), longer than existing no-stopping line

Install new 75kph supplemental to existing curve sign

Remove new 75kph chevron sign, mask speed, and relocate to existing small chevron location. Mount at headlight level. Salvage existing small chevron to Council.

WAIMAKARIRI DISTRICT COUNCIL**REPORT FOR DECISION**

FILE NO and TRIM NO: RDG-32-16-06 / 221107193484

REPORT TO: MANAGEMENT TEAM

DATE OF MEETING: 21 November 2022

AUTHOR(S): Kieran Straw, Civil Project Team Leader
Joanne McBride, Roding & Transportation Manager

SUBJECT: Evaluation and Award Report for Harding Traffic – Supply & Install Signage

ENDORSED BY:
(for Reports to Council,
Committees or Boards)


General Manager


Acting Chief Executive

1. SUMMARY

- 1.1. The purpose of this report is to approve supply and installation of Variable Speed Signs for Sefton School to Harding Traffic Ltd for a sum of \$25,155.29 (excl. GST).
- 1.2. This project is funded from Minor Safety Improvements (PJ 100185).
- 1.3. The tender price is within the budget of \$45,000.

2. RECOMMENDATION

THAT the Management Team:

- (a) **Receives** Report No. 221107193484.
- (b) **Authorises** Council staff to award the sign supply and installation works to Hardings Traffic Ltd for a sum of \$25,155.29 (excl. GST).
- (c) **Notes** that this project is funded from the Minor Improvement budget (PJ 100185) and that there is budget available of \$ \$45,000.
- (d) **Notes** that efforts were made to identify two alternative suppliers for this signage; however, alternative sign suppliers directed staff back to Hardings Traffic Ltd.
- (e) **Notes** that the signage required is specialist in nature and includes the supply and installation of solar panels and radio equipment to allow signage to be managed by third parties (schools).
- (f) **Notes** that as three prices were not received, and as such, approval to award works of this value must be granted by the Management Team.
- (g) **Circulates** this report to the Utilities and Roding Committee for their information.

3. **BACKGROUND**

3.1 **Background**

- 3.1.1. The approved Minor Improvement Programme for 2022 / 2023 includes a budget allowance of \$45,000 to supply and install Variable Speed Signs on Upper Sefton Road, outside of Sefton School.
- 3.1.2. The works involve replacing the existing electronic active warning signage for the school and is to be co-ordinated with the implementation of a variable speed limit outside the school, which will be included in the Interim Speed Management Plan for the District.
- 3.1.3. The Land Transport Rule: Setting of Speed Limits 2022 requires Road Controlling Authorities (RCA) to reduce speeds outside all schools by December 2027. In achieving this target, the RCA must have set lower speed limits outside 40% of its schools by June 2024.
- 3.1.4. Under the 2022 Rule, Sefton School has been classified as a category one school, which means there must be either a permanent 30 km/h speed limit or a variable 30 km/h speed limit set within the school zone.
- 3.1.5. A school speed zone encompasses all of the roads which can be used to access the school property and generally extends 100m either side of the school's property boundary.
- 3.1.6. The mean operating speed along Upper Sefton Road is 70.9 km/h, which indicates that this stretch of road is not suitable for a 30 km/h permanent speed limit, and therefore the RCA has deemed that a 30 km/h variable speed limit is the most appropriate outside of the school. A permanent 30 km/h speed limit will be set on Cross Street, as the mean operating speed is 45.8 km/h and the carries less traffic volume. It should be noted that both these proposals need to undergo community consultation, as part of the Interim Speed Management Plan before they can be implemented.
- 3.1.7. The 30 km/h variable speed zone will extend from just east of Buller Street to the property boundary of 611 and 613 Upper Sefton Road. The period of operation will be 35 minutes before the start of school, 20 minutes at the end of school, and for up to 10 minutes at any other times of day where there are either vehicles entering/leaving the school grounds or there is pedestrian/cycle activity within the road corridor outside of the school.
- 3.1.8. As the existing warning signage is operated by the school using an onsite controller, these new variable speed signs will operate via the same mechanism.

3.2 **Submission Process**

3.2.1 Process

Historically, all electronic signage throughout the district has been supplied and installed by Hardings Traffic Ltd. Hardings are well known within the industry as a main supplier of electronic road signage in New Zealand.

New Zealand road signage manufacturers were approached via their websites with a view to identify alternative suppliers, however it was confirmed that no suitable alternate suppliers are available at this time.

Therefore, only one supplier, Harding Traffic Ltd, were approached to provide a price for the supply and installation of the required signage.

The price that Harding Traffic Ltd provided was \$28,222.24 (excl. GST), however, this price included an option for a local base electronic sign controller. The existing signage on site already includes this controller, and this may be re-used for the new signage.

The revised price, excluding the sign controller comes to \$25,155.29 (excl. GST).

3.3. Attribute and Price Evaluation

- 3.3.1 Harding Traffic Ltd. are a reputable company who have carried out similar works in the past, to a high standard. Past projects include the recently completed electronic warning signage at Skew Bridge.
- 3.3.2 The Health and safety risk associated with this contract is assessed to be Standard, and therefore the minimum acceptable SiteWise score required is 50%.
- 3.3.3 While Harding Traffic Ltd is not a currently assessed member of the Site Wise system, they utilise SprayMarks as a sub-contractor for the installation of their product. Spraymarks have a SiteWise score of 100%, which expires in June 2023.

4. ISSUES AND OPTIONS

- 4.1. The signage that has been priced is controlled via a local base sign controller. The signs may be upgraded in the future to a cloud-based operating system which would enable the Road Controlling Authority to operate the variable speed signs, then this would be a one-off cost of approximately \$1,300.00 + ongoing operating fees of \$25/month.
- 4.2. The option of a cloud-based control system is not currently being progressed but will be considered in the future as part of the wider signage upgrade for schools across the district, and reported at that stage.
- 4.3. Two options are available to the Management Team:
 - 4.3.1. Option One: Accept the price from Harding Traffic Ltd for \$25,155.29 (ex GST) from the Minor Improvement budget for the supply and installation of the new variable speed signage, utilising the existing local base controller. This is the recommended option.
 - 4.3.2. Option Two: Reject the price from Harding Traffic and re-tender. This is not recommended, as providers of these signs are limited, the price received was competitive and within budget, and this ensures completion of the works in a timely manner.

5. COMMUNITY VIEWS

5.1. Mana whenua

- 5.1.1. Te Ngāi Tūāhuriri hapū are not likely to be affected by or have an interest in the subject matter of this report.

5.2. Groups and Organisations

- 5.2.1. There are groups and organisations likely to be affected by, or to have an interest in the subject matter of this report.
- 5.2.2. Sefton School has been advocating for the variable speed signs and have been advised of the project and have no concerns with the proposed works.

5.3. Wider Community

- 5.3.1. The wider community is likely to be affected by, or to have an interest in the subject matter of this report.

- 5.3.2. The wider community will be consulted on the wider speed management plan later this year. To comply with the new Setting of Speed Limits Rule 2022, this Variable Speed zone will be required.

6. **OTHER IMPLICATIONS AND RISK MANAGEMENT**

6.1. **Financial Implications**

- 6.1.1. The available budget of \$45,000 for the Sefton School Variable Speed Limit Signage sits within the overall minor improvement programme, which has a total approved annual budget of \$837,000.
- 6.1.2. Within the overall minor improvement budget, \$105,000 is allocated to School Safety Projects. The predicted spend of School Safety Improvement Projects is \$95,780.
- 6.1.3. There is adequate budget available to allow the tender to be accepted.

6.2. **Sustainability and Climate Change Impacts**

- 6.2.1. The recommendations in this report do have sustainability and/or climate change impacts.
- 6.2.2. Providing lower speeds around schools improves safety and encourages consideration of alternate modes such as walking & cycling.

6.3. **Risk Management**

- 6.3.1. The normal risks associated with construction apply and these have been mitigated by the inclusion of a 10% construction contingency within the project budget.
- 6.3.2. There is a risk that the new signage will be installed before the completion of the Speed Management Plan implementation. If this occurs, the new signage will remain switched off, and the existing signage will continue to be operational until such time as the Speed Management Plan is implemented and the variable speed limit is formally adopted and included within the National Speed Limit Register (NSLR).
- 6.3.3. The location of the existing electronic warning signage is different to the proposed variable speed signage, therefore there is very little risk associated with this approach.

6.4. **Health and Safety**

- 6.4.1. Health and safety was assessed as part of the tender evaluation and covered in Section 3.3 above.

7. **CONTEXT**

7.1. **Consistency with Policy**

- 7.1.1. This matter is not a matter of significance in terms of the Council's Significance and Engagement Policy.

7.2. **Authorising Legislation**

- 7.2.1. The Land Transport Management Act and Local Government Act are relevant in this matter.

7.3. **Consistency with Community Outcomes**

7.3.1. The Council's community outcomes are relevant to the actions arising from recommendations in this report.

There is a safe environment for all

- Harm to people from natural and man-made hazards is minimised.
- Crime, injury and harm from road crashes, gambling, and alcohol abuse are minimised.

Transport is accessible, convenient, reliable and sustainable

- The standard of our District's roads is keeping pace with increasing traffic numbers.
- Communities in our District are well linked with each other, and Christchurch is readily accessible by a range of transport modes.

7.4. **Authorising Delegations**

7.4.1. The Management Team has the delegated authority to receive this report and accept the successful tender, on behalf of the Council.

WAIMAKARIRI DISTRICT COUNCIL**REPORT FOR DECISION**

FILE NO and TRIM NO: CON201827 / 221017180941


REPORT TO: MANAGEMENT TEAM


DATE OF MEETING: 31 October 2022

AUTHOR(S): Joanne McBride, Roding and Transport Manager
Chris Bacon, Network Planning Team Leader

SUBJECT: Contract 18/27 Traffic Counting – Extension of Contract to 31 December 2023

ENDORSED BY:
(for Reports to Council,
Committees or Boards)


General Manager


Acting Chief Executive

1. SUMMARY

- 1.1. The purpose of this report is to obtain Management Team approval to extend Contract 18/27: Traffic Counting 2019-24, by one year to 31 December 2023 in line with the Roding and Transportation Procurement Strategy and the conditions of the contract.
- 1.2. The Traffic Counting Contract was originally let in 2018 to Agfirst Consultants Ltd on a 3 + 1 + 1 + 1 basis through to 31 December 2024. The current period of the contract expires on 31 December 2022. The contract carries with it rights of renewal for up to three one-year periods after the initial three year period for a maximum of six years, subject to the contractor's satisfactory performance and agreement to the extension.
- 1.3. The provisions in the contract to extend the contract period fully comply with the NZTA Competitive Pricing Procedures and the Council's Roding and Transportation Procurement Strategy.
- 1.4. Agfirst is a specialist traffic counting company and they provide traffic counting services to NZTA and Christchurch City as well as many other road controlling authorities around New Zealand. There are benefits in retaining their services due to their expertise, local knowledge and flexibility.
- 1.5. The Contract requires the Principal to consider all previous performance measurements and carry out a final appraisal with the purpose of determining if the contractor is to be invited to extend the contract for a further year in line with the right of renewal clause. Agfirst's performance throughout the contract period has been to a consistent high standard.
- 1.6. Agfirst Consultants have agreed to the extension of the contract.

Attachments:

- i. Contract Performance Monitoring Grading Record

2. **RECOMMENDATION**

THAT the Management Team:

- (a) **Receives** Report No. 221017180941.
- (b) **Approves** the extension of Contract 18/27 – Traffic Counting for one year until 31 December 2023 for the value of approximately **\$60,000 p.a.**
- (c) **Notes** that there is one further right of renewal for this contract under the conditions of contract and the Council's procurement strategy.
- (d) **Circulates** this report to the Utilities and Roading Committee for its information excluding attachment.

3. **BACKGROUND**

- 3.1. The Traffic Counting Contract was originally let in 2018 to Agfirst Consultants Ltd on a 3 + 1 + 1 + 1 basis through to 31 December 2024. The current period of the contract expires on 31 December 2022. The contract carries with it rights of renewal for up to three one-year periods after the initial three year period for a maximum of six years, subject to the contractor's satisfactory performance and agreement to the extension.
- 3.2. Agfirst is a specialist traffic counting company and they provide traffic counting services to NZTA and Christchurch City as well as many other road controlling authorities around New Zealand. There are benefits in retaining their services due to their expertise, local knowledge and flexibility.
- 3.3. The Contract requires the Principal to consider all previous performance measurements and carry out a final appraisal with the purpose of determining if the contractor is to be invited to extend the contract for a further year in line with the right of renewal clause. Agfirst's performance throughout the contract period has been to a consistent high standard.
- 3.4. A peer review has been carried out of the Council's Traffic Count Programme last year and this showed that the traffic count programme is well designed and fit for purpose, with only very small opportunities for any improvements. These can be made within the existing contract.

4. **ISSUES AND OPTIONS**

- 4.1. Meetings are held with the contractor every six months to discuss issues relating to the contract and to assess the contractor's performance over the preceding six month period.
- 4.2. Agfirst's performance has been monitored over the period of this contract since it was let in 2018. Its performance, throughout this period has been very good, and there is no justification for non-renewal of the contract on the basis of inadequate performance.
- 4.3. There have been no contract performance issues that might give rise to non-renewal of the contract. It has therefore been recommended that the contract be extended by one further year.
- 4.4. Should the Management team consider not continuing the contract there are a number of financial issues that would have to be considered and resolved.
- 4.5. The Roading Procurement Strategy allows for the extension of the contract on the basis of best value to the Council.
- 4.6. Agfirst have agreed in principal to the extension of the contract

Implications for Community Wellbeing

There are not implications on community wellbeing by the issues and options that are the subject matter of this report.

- 4.7. The Manager, Utilities and Roading has reviewed this report and supports the recommendations.

5. COMMUNITY VIEWS

5.1. Mana whenua

Te Ngāi Tūāhuriri hapū are not likely to be affected by, or have an interest in the subject matter of this report.

5.2. Groups and Organisations

There are not groups and organisations likely to be affected by, or to have an interest in the subject matter of this report.

5.3. Wider Community

The wider community is not likely to be affected by, or to have an interest in the subject matter of this report.

6. OTHER IMPLICATIONS AND RISK MANAGEMENT

6.1. Financial Implications

There are not financial implications of the decisions sought by this report.

The renewal of this contract will have no impact on budget, as the cost of the contract has been allowed for in the Council's Annual Budget. The indicative annual value of the tender schedule, adjusted for price fluctuations to December 2022 is \$60,000 which includes approximately \$5,000 of provisional items to undertake special counts outside of the normal counting programme.

6.2. Sustainability and Climate Change Impacts

The recommendations in this report do not have sustainability and/or climate change impacts.

6.3 Risk Management

There are not risks arising from the adoption/implementation of the recommendations in this report.

6.3 Health and Safety

There are health and safety risks arising from the adoption/implementation of the recommendations in this report.

As per standard tendering process of any physical works, the contractor has been assessed for Health & Safety and is required to manage the safety risks associated with putting out traffic counters as part of the contract.

7. CONTEXT

7.1. Consistency with Policy

This matter is not a matter of significance in terms of the Council's Significance and Engagement Policy.

7.2. Authorising Legislation

The relevant legislation in this matter is the Land Transport Management Act, Section 25, which requires procurement procedures to be designed to obtain best value for money spent

7.3. **Consistency with Community Outcomes**

The Council's community outcomes are relevant to the actions arising from recommendations in this report.

There is a safe environment for all:

- Crime, injury and harm from road crashes, gambling, and alcohol abuse are minimised
- Harm to people from natural and man-made hazards is minimised

Transport is accessible, convenient, reliable, affordable and sustainable

- The standard of our District's transportation system is keeping pace with increasing traffic numbers

7.4. **Authorising Delegations**

Management Team has the delegation to extend the period of this Contract.

Contract 18/27 Performance Grading

Category	Item	Agreed Grade							
		Jul-19	Feb-20	Jul-20	Feb-21	Jul-21	Feb-22	Jul-22	
A	Quality Plan (Section 13.1.2)	Maintenance of, and adherence to Project Quality Plan	2	2	2	2	2	2	2
B	Count Programme	Classifier Counts (Section 14.0)	2	3	2	3	2	3	2
		Volume Counts (Section 14.0)	2	2	2	2	2	2	2
		Counts during Holiday Period (Section 15.5)	2	2	2	2	2	2	2
C	Health and Safety (Section 13.13)	Incidents	1	1	1	1	1	1	1
		Training Level	1	1	1	1	1	1	1
D	Data Quality	Missing Data (Section 15.4.3)	2	3	2	2	1	1	1
		Receipt of Data (Section 16.1)	1	1	1	1	1	1	1
		Errors in Data (Section 15.4.3)	2	3	4	2	1	1	1
E	Faults in Field	Response Time (Section 15.6)	2	2	2	2	2	2	2
F	Claims	Claims Received	2	1	1	1	1	1	1
		Errors in Invoicing	3	2	1	3	2	1	1
G	Management	Sum of Performance Scores	22	23	21	22	18	18	17
		Overall Assessment of Contractor Performance	2	2	2	2	1	1	1

Key	
1	Excellent - Performance above and beyond the Contract spec
2	Very Good - Full Compliance with the Contract Spec
3	Good - General Compliance with the Contract Spec
4	Adequate - Some Non-Compliance with the Contract Spec
5	Poor - Significant Non-Compliance with the Contract Spec

WAIMAKARIRI DISTRICT COUNCIL**REPORT FOR DECISION**

FILE NO and TRIM NO: RDG-32-16-05 / 220209016538


REPORT TO: OXFORD-OHOKA COMMUNITY BOARD


DATE OF MEETING: 9 November 2022

AUTHOR(S): Joanne McBride, Roding and Transport Manager
Allie Mace-Cochrane, Project Engineer

SUBJECT: Approval to Proceed with Upgrading the Main Street Oxford Pedestrian Crossings

ENDORSED BY:
(for Reports to Council, Committees or Boards)


 General Manager


 Acting Chief Executive

1. SUMMARY

- 1.1. The purpose of this report is to obtain approval from the Oxford-Ohoka Community Board to proceed with the proposed upgrades to the three Main Street (Oxford) Pedestrian Crossings.
- 1.2. Improvements at the pedestrian crossings were suggested to the Oxford-Ohoka Community Board, following safety concerns being raised by residents.
- 1.3. A workshop was undertaken during the Oxford-Ohoka Community Board meeting on the 3rd August 2022, where the proposed design was discussed. Following this meeting, staff were to contact the Dairy and Oxford Queenette Backpackers to discuss the proposed changes. This consultation has now been completed.
- 1.4. The proposed works include remarking the pedestrian crossing bars in accordance with the new requirements of 600 mm wide bars, installing new tactile pavers where required (directional and warning studs), and installing upsized belisha disc signage. Further to this, it is proposed to shift the pedestrian crossing outside of the Town Hall further east, creating a greater offset between the crossing and the Burnett Street/Main Street intersection to improve safety for those using the crossing.
- 1.5. Staff will continue to monitor the pedestrian crossings after this work is undertaken.
- 1.6. The proposed works will be undertaken by the end of the 2022/23 financial year, with an information notice delivered to directly affected residents, businesses, and the Community Board.
- 1.7. The recommended option is to approve the proposed upgrading of the pedestrian crossings.

Attachments:

- i. 21/22 Minor Improvements Oxford Pedestrian Crossings (TRIM No. 221007174577).

2. **RECOMMENDATION**

THAT the Oxford-Ohoka Community Board:

- (a) **Receives** Report No. 220209016538.
- (b) **Approves** the design shown in Attachment i, which includes relocating the crossing outside of the Community Hall further east, updated markings (600 mm wide white crossing bars), enlarged belisha discs, and tactile pavers.
- (c) **Approves** the removal of one carpark on the northern side of Main Street, outside of the Community Hall, due to the extension of the kerb buildout when the crossing is to be relocated.
- (d) **Notes** that as there are no additional no-stopping lines to be installed and there is no change required to the Parking Schedule.
- (e) **Notes** that the current location of the eastern pedestrian crossing (outside the Community Hall) has health and safety issues due to its close proximity to Burnett Street, which prevents motorists turning left onto Main Street from aligning themselves perpendicular to the crossing, and hence, creates problems with pedestrian visibility in vehicle blind spots.
- (f) **Notes** the southern crossing point of the eastern pedestrian crossing, in its existing location, aligns with a vehicle entrance servicing the Queenette backpackers and a residential property, which also creates health and safety issues around pedestrian visibility when vehicles are reversing out onto Main Street.
- (g) **Notes** that by shifting the eastern pedestrian crossing, approximately 10 m further east, mitigates the health and safety issues noted in Recommendation (f) and (g) by enabling motorists turning left onto Main Street, from Burnett Street, to align themselves perpendicular with the crossing, and by removing the conflict with the double vehicle entrance on the southern side.
- (h) **Notes** that each pedestrian crossing will be monitored, and any further improvements would be brought back to the board for consideration.
- (i) **Notes** that the pedestrian crossing upgrades were included in the 2022/23 Roding Capital Works Programme which was consulted with the Community Boards and approved by Utilities and Roding Committee, and that there is a budget allowance for this project.
- (j) **Circulates** this report to the Utilities and Roding Committee for their information.

3. **BACKGROUND**

- 3.1. Main Street, Oxford, has three pedestrian crossings along its length. These are located outside the Town Hall (near the Burnett Street intersection), outside the FreshChoice supermarket, and outside the Main Street Bakery and Café.
- 3.2. All three pedestrian crossings have 300 mm wide pedestrian crossing bars, belisha discs, and some form of low pedestrian luminary. The pedestrian crossings outside the bakery and FreshChoice have kerb buildouts on both the northern and southern side of Main Street, whereas the crossing outside the Town Hall only has this infrastructure on the northern side.
- 3.3. There have been a number of concerns raised by residents around the safety of the pedestrian crossings, including motor vehicles parked on the yellow no-stopping lines, the close proximity of the pedestrian crossing outside the Town Hall to the Burnett Street/Main Street intersection, and generally the visibility of pedestrians to motorists.
- 3.4. The pedestrian crossing outside of the Town Hall is within 7.0 m of the Bennett Street/Main Street intersection, meaning that motor vehicles currently queue over the Burnett Street exit and turning vehicles are not necessarily aware of pedestrians on the crossing. On the southern side, the pedestrian crossing location encompasses two vehicle entrances, with

one of these servicing the Oxford Queenette Accommodation. This creates a further conflict for pedestrians, as vehicles may have reduced visibility when using the vehicle entrance (dependent on the orientation of the vehicle moving down the driveway).

- 3.5. In January 2021, new specifications were released for pedestrian crossing markings, with the white bars now required to be 600 mm wide rather than 300 mm. The wider markings are intended to increase the visibility of the crossings to motorists.
- 3.6. A workshop was undertaken with the Oxford-Ohoka Community Board during their meeting on the 3rd August 2022 on the proposed designs as shown in Attachment i. The Board were comfortable with the proposals and this enabled staff to undertake discussions with the Oxford Queenette Backpackers and the Dairy.

4. ISSUES AND OPTIONS

- 4.1. Three options have been considered to improve the safety and visibility of the pedestrian crossings along Main Street. These options were:
 - Installing raised pedestrian crossings;
 - Upgrading the crossing markings only; or
 - Upgrading the crossing markings and shifting the eastern pedestrian crossing.

Alongside these options, upsizing the belisha discs, illuminating the belisha discs, and red slurry were also considered. Both illuminating the belisha discs and red slurry were discounted for budget reasons at this stage; however, could be incorporated in future budgets if there are ongoing safety concerns at the crossings.

- 4.2. Installing raised pedestrian crossings was initially considered to help with speed reduction along this section of Main Street; however, these are not recommended by staff at this stage. This could be a future step if required; however, would require future budget allocation.
- 4.3. Solely upgrading the pedestrian crossing markings to 600 mm wide crossing bars is not considered to be enough to make the pedestrian crossings more visible and address the crossing location close to Burnett Street, outside of the Town Hall. As improving the safety and visibility of the pedestrian crossings was the purpose of these upgrades, this option was discounted in favour of updated markings and shifting of the pedestrian crossing, outside of the Town Hall, further east.
- 4.4. The final option that was considered was upgrading the markings to 600 mm wide crossing bars and shifting the pedestrian crossing outside of the Town Hall, further east, away from the Burnett Street/Main Street intersection.
- 4.5. One carpark would be removed on the northern side of Main Street, outside of the Town Hall, to accommodate the new crossing location. This is due to the extension of the kerb buildout, which is required to reduce the crossing distance for pedestrians. There is no spatial availability on the northern side to create another parking space; however, there are parking provisions within the Town Hall carpark and on-street parking on Bennett Street which are rarely fully utilised.
- 4.6. At this stage, the pedestrian crossing outside of the Town Hall generates the greatest safety concern, due to its close proximity to the Main Street/Burnett Street intersection and the two vehicle entrances on the southern side of the crossing. For this reason, relocating the crossing has been recommended.

- 4.7. The Oxford-Ohoka Community Board has the following options available to them:
- 4.8. Option One: Approve the Design for Upgrades to the Main Street Pedestrian Crossings
- 4.8.1. This option involves approving the design for upgrading the Main Street pedestrian crossings, as attached. Works will be programmed and completed by the end of the 2022/23 financial year.
- 4.8.2. This is the recommended option as it is addressing safety concerns raised by the Community Board and residents. The proposed design will increase the visibility of each pedestrian crossing to motorists and staff will continue to monitor the crossings for further upgrades in the future if required.
- 4.9. Option Two: Retain the Status Quo
- 4.9.1. The Oxford-Ohoka Community Board may wish to not approve the upgrades to the Main Street pedestrian crossings, as proposed, and retain the status quo.
- 4.9.2. This is not the recommended option as investigation of options has been undertaken and the proposed upgrades will help improve the visibility of the crossings.
- 4.10. **Implications for Community Wellbeing**
- 4.10.1. There are implications on community wellbeing by the issues and options that are the subject matter of this report. The proposed works will improve the safety of pedestrians by improving the visibility of the crossing to motorists.
- 4.11. The Management Team has reviewed this report and support the recommendations.

5. **COMMUNITY VIEWS**

5.1. **Mana whenua**

- 5.1.1. Te Ngāi Tūāhuriri hapū are not likely to be affected by or have an interest in the subject matter of this report.

5.2. **Groups and Organisations**

- 5.2.1. There are groups and organisations likely to be affected by or to have an interest in the subject matter of this report.
- 5.2.2. The Dairy and Oxford Queenette Backpackers have been spoken with and are comfortable with the proposed design of shifting the east crossing further east.

5.3. **Wider Community**

- 5.3.1. The wider community is likely to be affected by or to have an interest in the subject matter of this report.
- 5.3.2. The community have raised multiple safety concerns with the pedestrian crossings in their current state. The recommendations in this report will improve the visibility of the crossings and ensure pedestrians are visible to motorists.

6. **OTHER IMPLICATIONS AND RISK MANAGEMENT**

6.1. **Financial Implications**

- 6.1.1. There are financial implications of the decisions sought by this report. This budget is included within the Annual Plan/Long Term Plan.

There is \$33,000 allocated within the Minor Safety Budget (PJ 100185.000.5135) for the upgrade of the pedestrian crossings. The estimated cost for these works is \$44,380, which includes a 10% allowance for preliminary and general costs.

There is an additional \$25,000 available within the Minor Safety Budget, which was to be allocated towards speed signage on Main Street; however, following the results of the Council meeting on the 6th September 2022, this budget will not be utilised. Any under's and over's for projects are balanced within the Minor Safety budget area and can be balanced with the underspend in this area.

6.2. Sustainability and Climate Change Impacts

- 6.2.1. The recommendations in this report do not have sustainability and/or climate change impacts.

6.3. Risk Management

- 6.3.1. There are risks arising from the adoption/implementation of the recommendations in this report.
- 6.3.2. There is potential risk that some pedestrians do not feel safe using the pedestrian crossings once the works are completed. For this reason, the crossings will be monitored and if any further works were required these would be programmed and budget allocated.

6.4. Health and Safety

- 6.4.1. There are health and safety risks arising from the adoption/implementation of the recommendations in this report.
- 6.4.2. The works have been provisionally included within the Kerb and Channel Renewals 2022/23 Contract. There are standard health and safety risks associated with these works, which will be mitigated with a Site Specific Safety Plan (SSSP).

7. CONTEXT

7.1. Consistency with Policy

- 7.1.1. This matter is not a matter of significance in terms of the Council's Significance and Engagement Policy.

7.2. Authorising Legislation

- 7.2.1. The Local Government Act (2002) and Land Transport Act (1998) are relevant for this project.

7.3. Consistency with Community Outcomes

- 7.3.1. The Council's community outcomes are relevant to the actions arising from recommendations in this report.

There is a safe environment for all

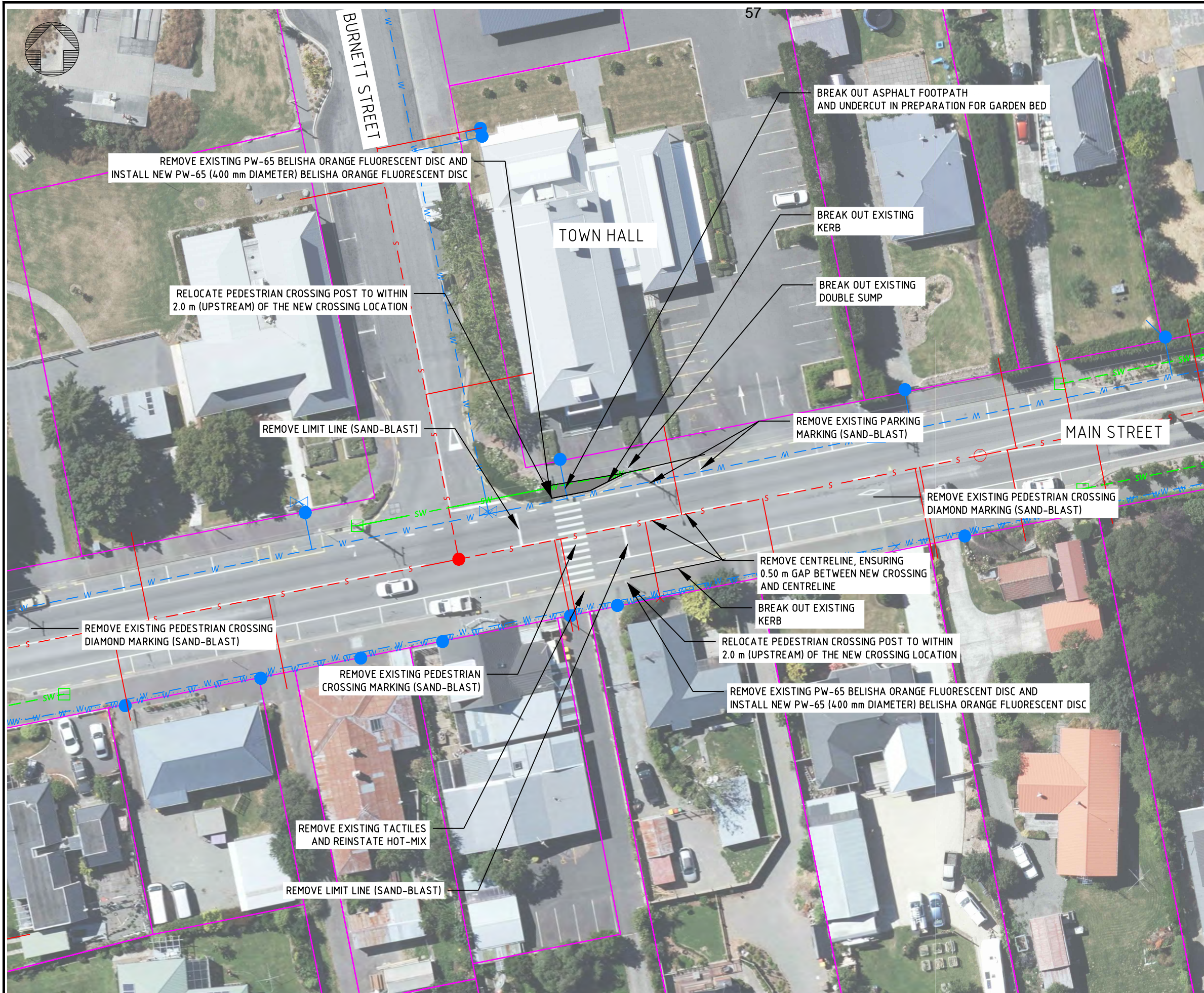
- Harm to people from natural and man-made hazards is minimised.
- Crime, injury and harm from road crashes, gambling, and alcohol abuse are minimised.

7.4. Authorising Delegations

- 7.4.1. The Oxford-Ohoka Community Board have the delegation to approve the recommendations within this report as follows:

Delegated authority on matters in the Community area in accordance with Council policies and guidelines in respect of the following matters –

- Approving design and location of neighbourhood improvements (in conjunction with bullet point 2)



- NOTES**
1. ALL MARKINGS TO BE IN ACCORDANCE WITH MOTSAM.
 2. ALL SIGNAGE TO BE IN ACCORDANCE WITH TRAFFIC CONTROL DEVICES (TCD) MANUAL.
 3. LOCATION AND DEPTH OF EXISTING SERVICES SHOWN IS INDICATIVE ONLY. CONTRACTOR TO CONFIRM THE LOCATION OF ALL SERVICES ON-SITE PRIOR TO COMMENCEMENT OF WORKS (NOTE. SERVICES SHOWN ON PLANS ARE WDC SERVICES ONLY).
 4. ALL CONSTRUCTION WORK IS TO BE CARRIED OUT AS PER THE WDC ENGINEERING CODE OF PRACTICE.
 5. ALL TACTILE PRODUCTS SHALL BE INSTALLED AS PER RTS-14. LOCATION TO BE CONFIRMED BY ENGINEER.
 6. CONTRACTOR TO LIAISE WITH NOMINATED SUB-CONTRACTOR (POWER JOINTING LTD.).

LEGEND

	EXISTING WATER MAIN
	EXISTING SEWER MAIN
	EXISTING STORMWATER MAIN
	WATER VALVE
	FIRE HYDRANT
	WATER TOBY VALVE
	SEWER MANHOLE
	EXISTING SUMP

REV	REVISION DETAILS	DRN	CHK	APP	DATE
A	FOR TENDER	AMC	KS	SB	21/03/2022

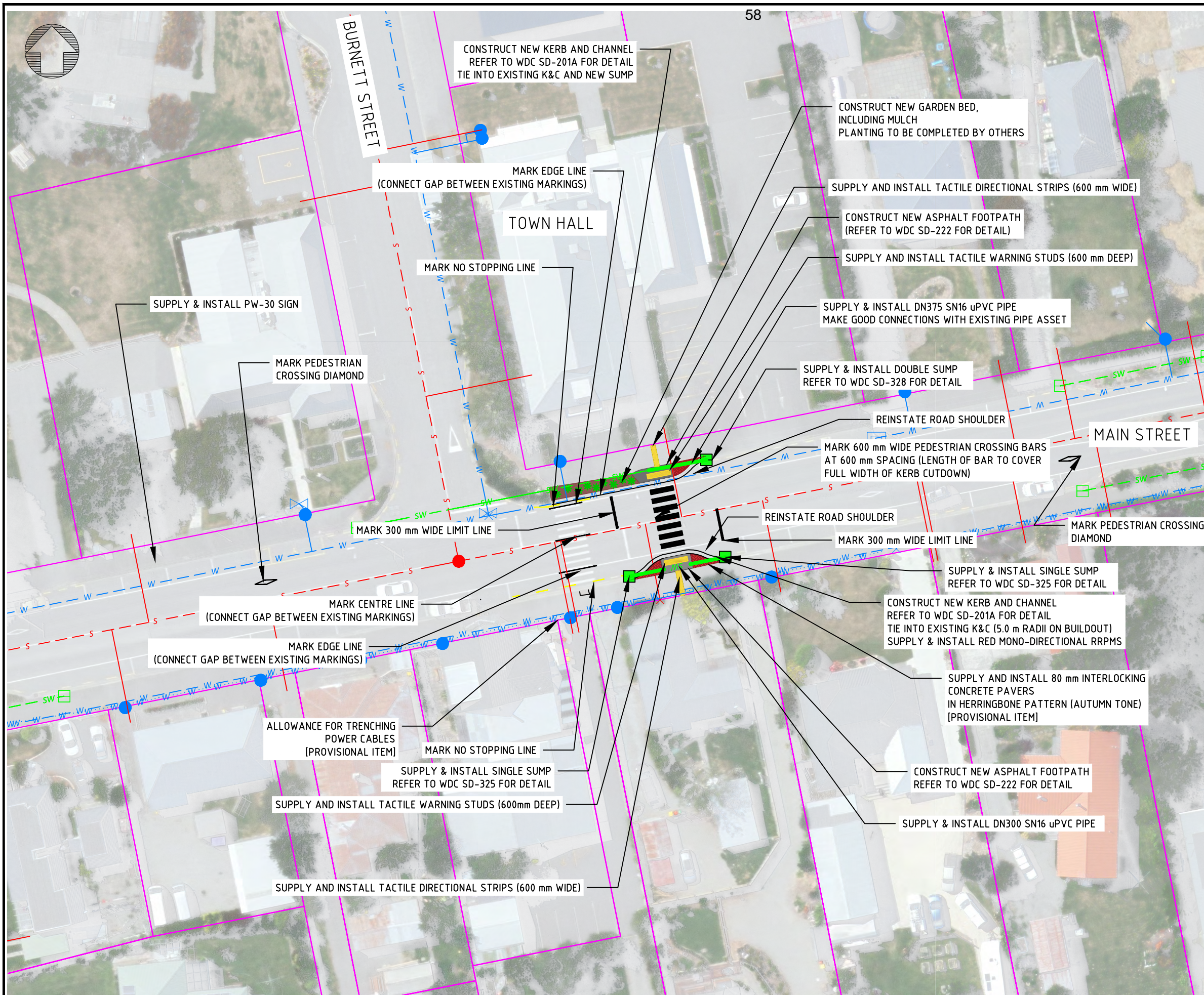
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AMC	AMC	AMC	KS	SB
14/12/2021	14/12/2021	14/02/2022	14/03/2022	21/03/2022

PROJECT No PD001696
 CON No CON202238
 SCALE (A3) 1:500
 DATUM ORIGIN
 HORIZONTAL NZTM GD2000
 VERTICAL

PROJECT
 MINOR IMPROVEMENTS
 2021/2022

SHEET TITLE
 MAIN STREET OXFORD
 RP 0.328 REMOVAL

FOR TENDER
 NOT FOR CONSTRUCTION
 DRAWING 4259
 SHEET 01 REVISION A



- NOTES**
1. RETAIN 10.3 m OF CARRIAGEWAY WIDTH BETWEEN KERB BUILDOUTS.
 2. ALL CONSTRUCTION INTERFACES WITH EXISTING SURFACES SHALL BE TRIMMED TO A NEAT VERTICAL FACE.
 3. KERB CUTDOWNS ARE TO BE IN ACCORDANCE WITH WDC SD-213.
 4. ALL MARKINGS TO BE IN ACCORDANCE WITH MOTSAM.
 5. ALL SIGNAGE TO BE IN ACCORDANCE WITH TRAFFIC CONTROL DEVICES (TCD) MANUAL.
 6. LOCATION AND DEPTH OF EXISTING SERVICES SHOWN IS INDICATIVE ONLY. CONTRACTOR TO CONFIRM THE LOCATION OF ALL SERVICES ON-SITE PRIOR TO COMMENCEMENT OF WORKS (NOTE. SERVICES SHOWN ON PLANS ARE WDC SERVICES ONLY).
 7. ALL CONSTRUCTION WORK IS TO BE CARRIED OUT AS PER THE WDC ENGINEERING CODE OF PRACTICE.
 8. ALL TACTILE PRODUCTS SHALL BE INSTALLED AS PER RTS-14. LOCATION TO BE CONFIRMED BY ENGINEER.
 9. CONTRACTOR TO LIAISE WITH NOMINATED SUB-CONTRACTOR (POWER JOINTING LTD.).

LEGEND

	EXISTING WATER MAIN
	EXISTING SEWER MAIN
	EXISTING STORMWATER MAIN
	WATER VALVE
	FIRE HYDRANT
	WATER TOBY VALVE
	SEWER MANHOLE
	EXISTING SUMP

REV	REVISION DETAILS	DRN	CHK	APP	DATE
A	FOR TENDER	AMC	KS	SB	21/03/2022

SURVEYED		PROJECT No	
DRAWN	AMC	14/12/2021	PD001696
DRAWING CHKD	KS	14/12/2021	CON No CON202238
DESIGNED	AMC	14/02/2022	SCALE (A3) 1:500
DESIGNED CHKD	KS	14/03/2022	DATUM ORIGIN
APPROVED	SB	21/03/2022	HORIZONTAL NZTM GD2000
			VERTICAL



PROJECT
**MINOR IMPROVEMENTS
 2021/2022**

SHEET TITLE
**MAIN STREET OXFORD
 RP 0.328 RELOCATION**

FOR TENDER NOT FOR CONSTRUCTION	
DRAWING	4259
SHEET	REVISION
02	A



NOTES

1. ALL MARKINGS TO BE IN ACCORDANCE WITH MOTSAM.
2. ALL SIGNAGE TO BE IN ACCORDANCE WITH TRAFFIC CONTROL DEVICES (TCD) MANUAL.
3. LOCATION AND DEPTH OF EXISTING SERVICES SHOWN IS INDICATIVE ONLY. CONTRACTOR TO CONFIRM THE LOCATION OF ALL SERVICES ON-SITE PRIOR TO COMMENCEMENT OF WORKS (NOTE. SERVICES SHOWN ON PLANS ARE WDC SERVICES ONLY).
4. ALL CONSTRUCTION WORK IS TO BE CARRIED OUT AS PER THE WDC ENGINEERING CODE OF PRACTICE.
5. ALL TACTILE PRODUCTS SHALL BE INSTALLED AS PER RTS-14. LOCATION TO BE CONFIRMED BY ENGINEER.

LEGEND

- EXISTING WATER MAIN
- EXISTING SEWER MAIN
- EXISTING STORMWATER MAIN
- WATER VALVE
- FIRE HYDRANT
- WATER TOBY VALVE
- SEWER MANHOLE
- EXISTING SUMP

REV	REVISION DETAILS	DRN	CHK	APP	DATE
A	FOR TENDER	AMC	KS	SB	21/03/2022

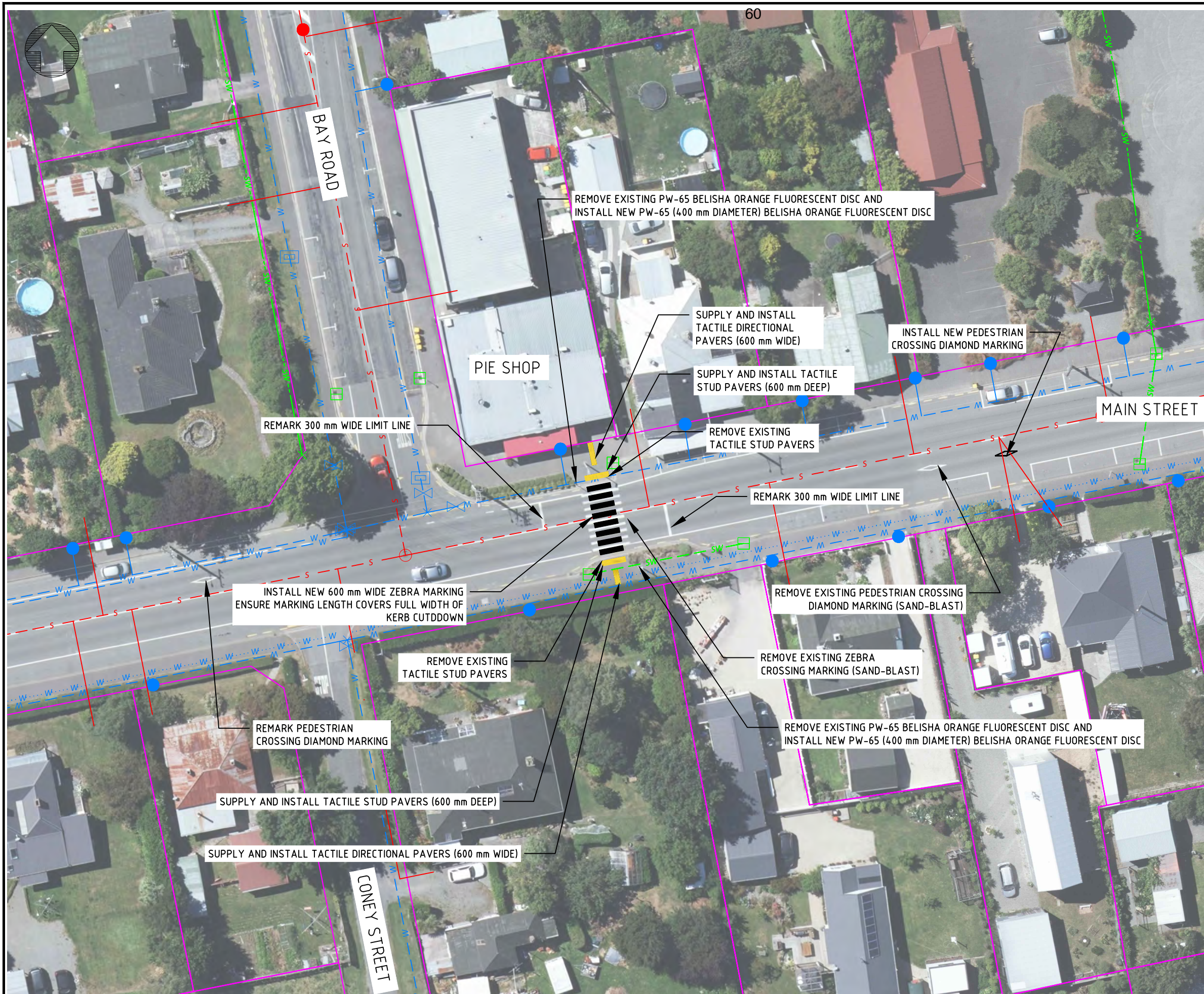
SURVEYED	DRAWN	DESIGNED	DESIGNED CHKD	APPROVED	DATE	PROJECT No	CON No	SCALE (A3)	DATUM ORIGIN	HORIZONTAL	VERTICAL
AMC	AMC	AMC	KS	SB	21/03/2022	PD001696	CON202238	1:500	NZTM GD2000	NZTM GD2000	



PROJECT	MINOR IMPROVEMENTS 2021/2022
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SHEET TITLE	MAIN STREET OXFORD RP 0.554 IMPROVEMENTS
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FOR TENDER NOT FOR CONSTRUCTION	
DRAWING	4259
SHEET	REVISION
03	A



- NOTES**
1. ALL MARKINGS TO BE IN ACCORDANCE WITH MOTSAM.
 2. ALL SIGNAGE TO BE IN ACCORDANCE WITH TRAFFIC CONTROL DEVICES (TCD) MANUAL.
 3. LOCATION AND DEPTH OF EXISTING SERVICES SHOWN IS INDICATIVE ONLY. CONTRACTOR TO CONFIRM THE LOCATION OF ALL SERVICES ON-SITE PRIOR TO COMMENCEMENT OF WORKS (NOTE. SERVICES SHOWN ON PLANS ARE WDC SERVICES ONLY).
 4. ALL CONSTRUCTION WORK IS TO BE CARRIED OUT AS PER THE WDC ENGINEERING CODE OF PRACTICE.
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LEGEND

	EXISTING WATER MAIN
	EXISTING SEWER MAIN
	EXISTING STORMWATER MAIN
	WATER VALVE
	FIRE HYDRANT
	WATER TOBY VALVE
	SEWER MANHOLE
	EXISTING SUMP

REV	REVISION DETAILS	DRN	CHK	APP	DATE
A	FOR TENDER	AMC	KS	SB	21/03/2022

SURVEYED	DRAWN	DESIGNED	DESIGNED CHKD	APPROVED
AMC	KS	AMC	KS	SB

PROJECT No	CON No	SCALE (A3)	DATUM ORIGIN	HORIZONTAL	VERTICAL
PD001696	CON202238	1:500	NZTM GD2000	NZTM GD2000	NZTM GD2000



PROJECT
**MINOR IMPROVEMENTS
 2021/2022**

SHEET TITLE
**MAIN STREET OXFORD
 RP 0.826 IMPROVEMENTS**

FOR TENDER NOT FOR CONSTRUCTION	
DRAWING	4259
SHEET	REVISION
04	A

WAIMAKARIRI DISTRICT COUNCIL**REPORT FOR DECISION**

FILE NO and TRIM NO: CON202229-01 / 221108194449

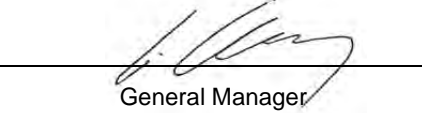
REPORT TO: Management Team

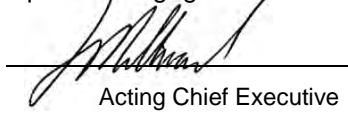
DATE OF MEETING: 14 November 2022

FROM: Rob Rankin, Graduate Engineer
Colin Roxburgh, Water Asset Manager

SUBJECT: Summerhill Water Main Extensions – Request to Engage Water Unit

SIGNED BY:
(for Reports to Council, Committees or Boards)


 General Manager


 Acting Chief Executive

1. SUMMARY

- 1.1 This report is to seek Management Team approval to engage the Water Unit for the civil works for Contract 22/29 Separable Portions A and B Summerhill Water Main Extensions in the 2022/23 financial year.
- 1.2 The prices received for Separable Portions A and B have been assessed to represent good value.

Attachments:

A. Evaluated price assessment post close out of Tender Clarifications (Trim 221104192630 & 220608096725).

2. RECOMMENDATION

THAT the Management Team:

- (a) **Receives** report No. 221108194449.
- (b) **Notes** that a price has been received from the Waimakariri District Council's Water Unit for water main renewal and upgrade works in Summerhill. Separable Portions A and B of Contract 22/29 can be accommodated within the current financial year's budget.
- (c) **Authorises** 3 Waters staff to engage the Waimakariri District Council Water Unit to undertake Separable Portions A and B of Contract 22/29 for the Summerhill Water Main Extensions to the value of \$709,519.51 (excluding GST).
- (d) **Notes** that the prices received for Separable Portions A and B was assessed to represent good value for undertaking this work.
- (e) **Notes** that reason for not externally tendering this work is because of the additional costs anticipated by tendering externally and the expectation that Council are unlikely to gain a better combination of price and quality through an alternative method for Separable Portions A and B.

- (f) **Notes** that the planned 2022/23 work is funded from the Davis/Terrace and Catherwoods Water Main Renewals and Water Growth budgets, and that there is sufficient budget available within the 2022/23 financial year.
- (g) **Circulates** this report to the Utilities and Roading Committee for their information.

3. **BACKGROUND**

- 3.1. The proposed works for the Summerhill Water Main Extensions were designed in the 2021/22 and 2022/23 financial years, with construction planned for the middle of the financial year (November - April).
- 3.2. The Contract has been tendered with two Separable Portions and includes water main renewals in the following streets:
- Davis / Terrace Road (Separable Portion A) – Summerhill
 - Catherwoods Road (Separable Portion B) – Summerhill
- 3.3. The Davis / Terrace Road portion has been designed primarily to facilitate growth on the Summerhill scheme by providing additional capacity. It has the added benefit of renewing some pipework, and removing some pipework and connections from private property as well. With the dual benefits identified, it is proposed to be funded from a combination of growth and renewal budgets.
- 3.4. The Catherwoods Road portion has been designed primarily to facilitate growth on the Summerhill scheme by providing additional capacity. It has the added benefit of providing a connection point for the future Mairaki Downs pipeline replacement, which will remove some pipework and connections from private property. With the dual benefits identified, it is proposed to be funded from a combination of growth and renewal budgets.

4. **ISSUES AND OPTIONS**

- 4.1. Pipework and fitting installation, backfilling and reinstatement will be completed by the Council's Water Unit. This type of work is typical of work undertaken by the Water Unit.
- 4.2. The pipework in this Contract includes installation through open trenching, mole ploughing, and directional drilling.
- 4.3. Water Unit obtained prices for the supply of pipework and fittings from three suppliers. The quotes from the three suppliers were analysed, the lowest priced supplier was identified and incorporated before the tender was submitted by the Water Unit.
- 4.4. The supply of all other materials and subcontractors are under \$20,000 and will be procured in accordance with the Council's Purchasing Policy.
- 4.5. Options:

The Management Team have two options:

- 1) Management Team approve staff to engage the Water Unit to construct Separable Portions A and B of Contract 22/29 in the 2022/23 financial year. This is the recommended option.
- 2) Management Team reject the Water Unit price for Separable Portions A and B, and competitively tender the contract. This is not recommended, as the prices received for Separable Portions A and B represent good value.

Implications for Community Wellbeing

There are not implications on community wellbeing by the issues and options that are the subject matter of this report.

5. COMMUNITY VIEWS

5.1. Mana whenua

Te Ngāi Tūāhuriri hapū are not likely to be affected by, or have an interest in the subject matter of this report.

5.2. Groups and Organisations

No community group views have been sought specifically on this project.

5.3. Wider Community

The Water Unit will prepare and deliver letters to residents surrounding the location of works in advance of construction to advise of short periods of reduced level of service.

Preliminary agreement has been reached with residents to upgrade / renew laterals within private property. These agreements are to be formalised in the coming weeks.

6. IMPLICATIONS AND RISK MANAGEMENT

6.1. Financial Implications

The Water Unit has provided a quotation of \$709,519.51 excluding GST to undertake Separable Portions A and B of the Contract. The Engineer's Estimate (using rates derived from recent tendered contracts) is \$676,081.96 excluding GST.

The breakdown of this quote by separable portion of Contract 22/29 is given below:

Table 1: Summary of Price Submitted and Engineer's Estimate

Separable Portion	Scheme	Engineer's Estimate	Water Unit Price
A – Davis / Terrace Road Trunk Main	Summerhill	\$435,322.68	\$408,260.86
B – Catherwoods Road Ring Main	Summerhill	\$240,759.29	\$301,258.65

A summary of total budget available versus projected expenditure is given in Table 2 below.

Table 2: Comparison of Forecast Costs against Budget

Funding Source	Expenditure to Date	Recommended Tender Price	Predicted Commitments	Total Projected Expenditure	Total Budget
101906.000.5104 (Renewals)	\$0.00	\$144,000.00	\$0.00	\$144,000.00	\$144,000.00
101906.000.5105 (Growth)	\$0.00	\$189,600.00	\$0.00	\$189,600.00	\$189,600.00
101907.000.5104 (Renewals)	\$0.00	\$107,795.49	\$0.00	\$107,795.49	\$165,600.00
101907.000.5105 (Growth)	\$20,828.37 ¹	\$268,124.02	\$14,647.61 ²	\$303,600.00	\$303,600.00
Total	\$20,828.37	\$709,519.51	\$14,647.61	\$744,995.49	\$802,800.00

¹Expenditure to date includes \$14,508.33 charged to 10.260.668.2533 (PD000320 Water General) during 2021/22 FY, which needs to be re-allocated to 101907.000.5105.

²Predicted Commitment 1 is for the expected professional fees for construction observation and project management.

³Recommended tender price of \$709,519.51 is less than the total tender amount of \$752,873.57, as some provisional items were "either/or". Proposed not to award A2.3.2B, A2.3.3B, A2.3.4B, A2.5.3, A2.5.4, with a combined value of \$43,354.06.

The quotation received from the Water Unit has been assessed and Separable Portions A and B are deemed to represent good value, and are similar to the available budget.

6.2. **Community Implications**

The need for this project is to renew old pipes and increase resilience, reliability and level of service for the supply of water to the properties in Summerhill, and to allow for growth on the scheme.

6.3. **Sustainability and Climate Change Impacts**

The recommendations in this report do not have sustainability and/or climate change impacts.

6.4. **Risk Management**

The normal construction risks apply to this contract. There are no extraordinary risks over and above these normal risks.

6.5. **Health and Safety**

Health and Safety will be managed for this contract as per the Council's Health and Safety System.

7. **CONTEXT**

7.1. **Consistency with Policy**

This matter is not a matter of significance in terms of the Council's Significance and Engagement Policy.

7.2. **Authorising Legislation**

The Water Services Act and Local Government Act are relevant in this matter.

7.3. **Consistency with Community Outcomes**

The following community outcomes are relevant in this matter:

- There is a healthy and sustainable environment for all

- Core utility services are provided in a timely and sustainable manner

7.4. **Authorising Delegations**

The Management Team has the delegated authority to award this contract.

ATTACHMENT A

Tender Schedule

Summerhill Water Main Extensions Pricing October 2022				Estimator	TvR
				Date	4-Nov-22
SEPARABLE PORTION A: DAVIS/TERRACE TRUNK MAIN					
Item	Description	Quantity	Unit	Engineer's Estimate	
				Rate	Amount
A1.0	PRELIMINARY & GENERAL				
A1.1	Site Establishment	100%	LS	\$ 4,850.00	\$ 4,850.00
A1.2	Survey & Setting Out	100%	LS	\$ 7,648.40	\$ 7,648.40
A1.3	Erosion & Sediment Control	100%	LS	\$ 4,487.90	\$ 4,487.90
A1.4	Traffic Management	100%	LS	\$ 6,550.00	\$ 6,550.00
A1.5	Locate, Pothole, and Protect Existing Services	100%	LS	\$ 3,788.00	\$ 3,788.00
A1.6	As-Built Information	100%	LS	\$ 850.50	\$ 850.50
	SUBTOTAL				\$ 28,174.80
A2.0	SUPPLY & INSTALL WATER MAIN				
A2.1	125mm OD PE PN16 Water Main				
A2.1.1	Supply and install 125mm OD PE PN16 in the grass berm	1182	m	\$60.29	\$ 71,262.78
A2.1.2	Supply and install 125mm OD PE PN16 in the unsealed road / driveway	56	m	\$169.03	\$ 9,465.68
A2.1.3	Supply and install 125mm OD PE PN16 in the road carriageway	2	m	\$241.20	\$ 482.40
A2.1.4	Supply and install 125mm OD PE PN16 DRILLED	1122	m	\$138.00	\$ 154,836.00
A2.1.5	supply and install 125mm OP PE PN20 SDR9 DRILLED - DETAIL B CULVERT CROSSING - PROVISIONAL	78	m	\$162.16	\$ 12,648.48
A2.3	25mm OD PE PN12.5 Water Laterals				
A2.3.1	Supply and install 25mm OD PE PN12.5 in the grass berm (including private property) OPEN TRENCH	101	m	\$ 86.76	\$ 8,762.76
A2.3.2A	36 Summerhill Rd: Supply and install 25mm OD PE PN12.5 either in the existing DN65 PVC pipe by SLIP-LINING. PROVISIONAL	603	m	\$ 21.00	\$ 12,663.00
A2.3.2B	36 Summerhill Rd: Supply and install 25mm OD PE PN12.5 either in the existing DN65 PVC pipe by MOLE PLOUGHING. PROVISIONAL	603	m	\$ 25.73	\$ 15,515.19
A2.3.3A	604 Terrace Rd: Supply and install 25mm OD PE PN12.5 either in the existing DN65 PVC pipe by SLIP-LINING. PROVISIONAL	838	m	\$ 21.00	\$ 17,598.00
A2.3.3B	604 Terrace Rd: Supply and install 25mm OD PE PN12.5 either in the existing DN65 PVC pipe by MOLE PLOUGHING. PROVISIONAL	838	M	\$ 25.73	\$ 21,561.74
A2.3.4A	184 Mill Rd: Supply and install 25mm OD PE PN12.5 either in the existing DN65 PVC pipe by SLIP-LINING	31	m	\$ 21.00	\$ 651.00
A2.3.4B	184 Mill Rd: Supply and install 25mm OD PE PN12.5 next the existing DN65 PVC pipe by MOLE PLOUGHING	31	M	\$ 25.73	\$ 797.63

A2.4	Details				
A2.4.1	Detail A (connection at Ch.00)	100%	LS	\$ 8,448.93	\$ 8,448.93
A2.4.2	Detail B (typical box culvert crossing) Price is for DRILLING - 100m	100%	LS		\$ -
A2.4.3	Detail C (typical culvert crossings)	900%	LS		\$ -
A2.4.4	Detail D (saddle, valve and hydrant at Ch.590)	100%	LS	\$7,979.76	\$ 7,979.76
A2.4.4	Detail E (saddle, valve and hydrant at Ch.2195)	100%	LS	\$ 7,979.76	\$ 7,979.76
A2.4.5	Detail F (saddle at Ch.2435)	100%	LS	\$3,275	\$ 3,275.21
A2.4.6	Detail G (connection at Ch.2441)	100%	LS	\$ 9,406.22	\$ 9,406.22
A2.4.7	Supply and install 125mm OD PE100 90-degree pipe bend	1	Ea	\$999.34	\$ 999.34
A2.4.8	Supply and install 125mm OD PE100 45-degree pipe bend	2	Ea	\$999.34	\$ 1,998.68
A2.5	Upgrade and transfer service connections				
A2.5.1	Transfer existing service connections to new mains	12	Ea	\$ 485.00	\$ 5,820.00
A2.5.2	Move (if required), upgrade and transfer existing restricted service connections to new mains	12	Ea	\$ 622.40	\$ 7,468.80
A2.5.3	Move (if required), upgrade and transfer existing restricted service connections to new mains (Provisional Item)	5	Ea	\$ 622.40	\$ 3,112.00
A2.5.4	Locate existing service connection and confirm with engineer prior to construction (Provisional Item)	5	Ea	\$ 473.50	\$ 2,367.50
A2.6	Abandon and removal				
A2.6.1	Cap and abandon pipes, remove hydrants and valves	1	Ea	\$ 1,625.08	\$ 1,625.08
	SUBTOTAL				\$ 386,725.94
A3.0	MISCELLANEOUS				
A3.1	Disinfection				
A3.1.1	Sterilise, flush, and E.Coli test all mains	100%	LS	\$ 1,547.14	\$ 1,547.14
A3.2	Pressure Testing				
A3.2.1	Pressure test PE100 PN16 - M7 Test (at test pressure of 1600kPa)	100%	LS	\$ 1,547.14	\$ 1,547.14
A3.3	PE Joint Testing				
A3.3.1	Preconstruction PE joint testing / certification: Electrofusion weld and butt weld joints and quality records	100%	LS	\$ 882.35	\$ 882.35
A3.3.2	Construction PE joint testing / certification: Electrofusion weld and butt weld joints and quality records	100%	LS	\$ 882.35	\$ 882.35
	SUBTOTAL				\$ 4,858.98
4.0	MILL RD SUBMAIN				
A4.1	63mm OD PE PN12.5 Water Main				
A4.1.1	Supply and install 63mm OD PE PN12.5 in the grass berm (Provisional Item)	10	m	\$ 47.50	\$ 475.00
A4.1.2	Supply and install 63mm OD PE PN12.5 in the road carriageway (Provisional Item)	2	m	\$ 185.95	\$ 371.90
A4.1.3	Supply and install 63mm OD PE PN12.5 DRILLED	190	M	\$138.00	\$ 26,220.00
A4.3.2	Detail B (typical box culvert crossing)	0	Ea		\$ -
A4.3.4	Detail H (connection at Ch.192 Mill Rd)	100%	LS	\$ 2,862.44	\$ 2,862.44
A4.3.5	Supply and install 63OD PE PN12.5 45-degree pipe bend	2	Ea	\$ 962.93	\$ 1,925.86
	SUBTOTAL				\$ 31,855.20
	SPA TOTAL				\$ 451,614.92

SEPARABLE PORTION B: CATHERWOODS RING MAIN					
Item	Description	Quantity	Unit	Engineer's Estimate	
				Rate	Amount
B1.0	PRELIMINARY & GENERAL				
B1.1	Site Establishment	100%	LS	\$ 4,850.00	\$ 4,850.00
B1.2	Survey & Setting Out	100%	LS	\$ 7,648.40	\$ 7,648.40
B1.3	Erosion & Sediment Control	100%	LS	\$ 4,487.90	\$ 4,487.90
B1.4	Traffic Management	100%	LS	\$ 2,007.00	\$ 2,007.00
B1.5	Locate, Pothole, and Protect Existing Services	100%	LS	\$ 3,788.00	\$ 3,788.00
B1.6	As-Built Information	100%	LS	\$ 850.50	\$ 850.50
	SUBTOTAL				\$ 23,631.80
B2.0	SUPPLY & INSTALL WATER MAIN				
B2.1	125mm OD PE PN16 Water Main				
B2.1.1	Supply and install 125mm OD PE PN16 in the grass berm	1123	m	\$60.29	\$ 67,705.67
B2.1.2	Supply and install 125mm OD PE PN16 in the unsealed road / driveway	48	m	\$169.03	\$ 8,113.44
B2.1.3	Supply and install 125mm OD PE PN16 in the sealed road	0	m	\$241.20	\$ -
B2.1.4	Supply and install 125mm OD PE100 PN16 DRILLED	250	m	\$138.00	\$ 34,500.00
B2.2	125mm OD PE PN12.5 Water Main				
B2.2.1	Supply and install 125mm OD PE PN12.5 in the grass berm	2025	m	\$ 56.18	\$ 113,764.50
B2.2.2	Supply and install 125mm OD PE PN12.5 in the unsealed road / driveway	24	m	\$ 141.40	\$ 3,393.60
B2.3	Details				
B2.3.1	Detail A (connection at Ch.00)	100%	LS	\$ 8,257.79	\$ 8,257.79
B2.3.2	Detail B (typical open drain crossings) DRILLING	0	m	\$ 138.00	\$ -
B2.3.3	Detail C (tee & PRV at Ch.1350)	100%	LS	\$25,294.27	\$ 25,294.27
B2.3.4	Detail D (connection at Ch.3403)	100%	LS	\$10,429.17	\$ 10,429.17
B2.3.5	Drawing 4283 Detail B (typical box culvert crossing) DRILLING	200%	LS		\$ -
B2.3.6	Supply and install 125OD PE PN12.5 45-degree pipe bend	2	Ea	\$ 534.50	\$ 1,069.00
	SUBTOTAL				\$ 272,527.44
B3.0	MISCELLANEOUS				
B3.1	Disinfection				
B3.1.1	Sterilise, flush, and E.Coli test all mains	100%	LS	\$ 1,667.35	\$ 1,667.35
B3.2	Pressure Testing				
B3.2.1	Pressure test PE100 PN16 - M7 Test (at test pressure of 1600kPa)	100%	LS	\$ 833.68	\$ 833.68
B3.2.1	Pressure test PE100 PN12.5 - M7 Test (at test pressure of 1200kPa)	100%	LS	\$ 833.68	\$ 833.68
B3.3	PE Joint Testing				
B3.3.1	Preconstruction PE joint testing / certification: Electrofusion weld and butt weld joints and quality records	100%	LS	\$ 882.35	\$ 882.35
B3.3.2	Construction PE joint testing / certification: Electrofusion weld and butt weld joints and quality records	100%	LS	\$ 882.35	\$ 882.35
	SUBTOTAL				\$ 5,099.41
	SPB TOTAL				\$ 301,258.65