

His Worship The Mayor and Councillors
Full Council – May 2010
(Through the Chief Executive)

Item A7

File 331/17-427
325/4-14, 15 and 16

12 May 2010

**FUNDING FOR REPLACEMENT OF AKATARAWA ROAD BRIDGES
B1/4, B1/5 AND B1/6**

PURPOSE

To seek Council approval for increased funding to replace the existing Akatarawa Road Bridges B1/4, B1/5 and B1/6. Detailed estimates for B1/4 indicate a price in excess of the current approved \$1,000,000.00 funding per bridge.

BACKGROUND

In previous reports Council was advised of the poor condition of bridges B1/4, 1/5 and 1/6 on Akatarawa Road. These timber bridges are located in near vicinity to Staglands. The report recommended that the bridges be replaced over a 5 year period commencing 2009/10 for Bridge B1/4. This recommendation was adopted by Council and the bridges were included in the 2009 LTCCP.

DISCUSSION

The New Zealand Transport Agency (NZTA) approved subsidy funding for bridge B1/4 and a professional services contract was let for the design. Subsequently NZTA in response to the global and national economic depression released additional funding allowing the construction of all 3 bridges. Council agreed to the proposal and a report to Council detailed how Council's share (\$1,350,000.00) of these bridges could be funded. This funding proposal was accepted. Detailed design for Bridge 1/4 has now been refined to allow for:

- Greater Wellington Regional Council (GWRC) flood level requirements which lifts the bridge 2m above existing road level to accommodate a one in one hundred year flood.
- Site restraints. Steep side banks and closeness of the river require retaining structures to accommodate the bridge. The narrow winding nature of Akatarawa Road limits the lengths of beams that can be transported to the bridge site.
- Retention of the existing bridge as a heritage structure.
- Keeping the road open during construction to service commercial properties such as Staglands.

Various options have been investigated.

OPTIONS AND ESTIMATED COSTS

Seven options have been considered for Bridge B1/4 as follows:

1. Single span, 2 lane concrete bridge clear of the 100 year flood level with one weekend road closure for construction. The option requires the existing bridge to be demolished. Estimated cost: \$3,013,000.00.
2. Three span, 2 lane concrete bridge clear of the 100 year flood level with one weekend road closure for construction. The existing bridge would be demolished. Estimated cost: \$2,337,000.00.
3. Three span, 2 lane concrete bridge clear of the 100 year flood level with a 3 week road closure for construction. Estimated cost: \$1,912,000.00.
4. Single span, 2 lane concrete bridge. The bridge soffit would be at the 100 year flood level but without any freeboard. The bridge deck would be designed for flood and debris loads. The option requires a 5 week road closure for construction and the existing bridge would be demolished. Estimated cost: \$1,551,000.00.
5. Single span, single lane concrete structure. Flood level would be as for option 4. The intention of this option was to provide a single lane bridge to meet current demand with the ability to add a second lane at a later stage when demand requires it. Road closure would be less than for option 4. In the long term the existing bridge would have to be demolished. The estimated cost of this option is \$1,379,000.00. However, the single lane option has not been considered further as NZTA would require a new application with new benefit cost analysis. A single lane bridge would probably result in a lower benefit cost and not meet NZTA criteria for funding.
6. Three span, 2 lane concrete structure designed for the 100 year return period flood. Construction would require one weekend closure of the road and the existing timber bridge could be retained as a walkway and heritage feature. Estimated cost \$2,875,000.00.
7. A steel structure was also considered but rejected because of cost and ongoing maintenance.

These options specifically apply to Bridge B1/4 but are also an indication of likely costs for B1/5 and B1/6. The design of B1/4 had a condition placed on it to investigate options that minimised road closure affecting the commercial properties such as Staglands. B1/5 and B1/6 have no such restriction.

Option 2 has a one weekend road closure but costs \$2,337,000.00. The least cost option, 4, has a 5 week closure and costs \$1,551,000.00, i.e. there is an increased cost of \$786,000.00 to minimise road closure. NZTA are unlikely to fund this and it would reduce the benefit cost jeopardising the whole project. Therefore, if this option was accepted the whole additional \$786,000.00 would have to be funded by the Upper Hutt Community. This is, of course, a Council decision but it is not likely to be affordable.

The other design condition for all bridges was to investigate the retention of one of the existing bridges as a heritage structure. A detailed look at Bridge B1/4 shows that it is not affordable for that bridge and the same result is very likely with Bridges B1/5 and B1/6 given the site similarities. To retain the existing bridge at B1/4 would cost \$2,875,000.00, i.e. an increase of \$1,324,000.00 over the least cost option.

Options to try and meet everybody's expectations have been investigated. Our recommendation to Council will be to go with the least cost option for Bridge B1/4 of \$1,551,000.00. In the financial considerations we will also use this estimate for Bridges B1/5 and B1/6. The least cost option does have the disadvantage of a 5 week road closure which will affect properties such as Staglands. Council will need to work with these properties to try and minimise the impact on them. Alternate access will still be available from the Waikanae side.

NEW ZEALAND TRANSPORT AGENCY (NZTA) APPROACH

A copy of the letter from NZTA referring to the subsidy is attached. They have not discounted approving an increase in cost (based on least cost option) but the last paragraph of the letter is relevant, i.e. to apply as soon as an increase becomes apparent and not leave such an application until tenders are received.

FINANCIAL IMPLICATIONS

The following is based on the least cost option for B1/4 and extended to B1/5 and B1/6. The least cost option totals \$4,653,000.00 for the 3 bridges compared to current funding of \$3,000,000.00. This is an increase of \$1,653,000.00. On the basis that Council will receive a 55% subsidy from NZTA the additional Council share is \$743,850.00. This is all likely to be required in the 2010/11 financial year. The draft Annual Plan for 2010/11 includes the seismic upgrade of Totara Park Bridge at \$329,216.00 and the Akatarawa Road safety upgrade at \$560,192.00, i.e. a total of \$889,398.00. At a subsidy of 55% Council's share of these works is \$400,229.00. Both of these projects could be deferred allowing the \$400,229.00 to be used to off-set some of the additional \$743,850.00 required to fund the Akatarawa Bridges. The balanced required would then be \$343,621.00.

The February Policy Committee recommended that the necessary loan funding for the second and third Akatarawa Bridges be included in the 2010/11 Annual Plan and that the 2010/11 interest expense be covered from Special Funds.

In order to proceed approval is necessary for an additional \$343,621.00 of loan funding to be included in the 2010/11 Annual Plan. As well a further (estimated) \$20,000.00 would need to be "borrowed" from Special Funds in 2010/11 to fund the interest cost. This would be repaid in 2011/12 along with the already approved amount (in the order of \$50,000.00) i.e. a total in the order of \$70,000.00. This along with the interest payable in 2011/12 would mean a one-off blip in interest expense (in 2011/12).

LEGAL IMPLICATIONS

There are no legal implications.

CONSULTATION

The proposal to upgrade bridges B1/4, B1/5 and B1/6 was included in the 2009 LTCCP. The amendment to construct all 3 in the 2009/10 and 2010/11 years is in the current draft 2010/11 Annual Plan.

POLICY ON SIGNIFICANCE

The decision on this issue would be categorised as having significance but would not be significant in terms of Council's policy on significance.

IDENTIFICATION OF INCONSISTENT DECISIONS

Approval of the recommendation would not be inconsistent with any of Council's plans or policies.

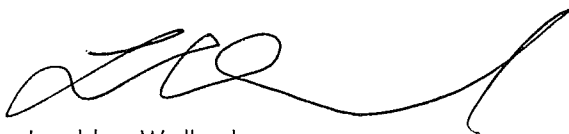
CONCLUSION

Detailed design for B1/4 has shown that the initial estimate of \$1,000,000.00 per bridge is likely to be inadequate. From the several options considered the least cost is \$1,551,000.00 per bridge. Costs for B1/5 and B1/6 are likely to be similar. Costs will be confirmed on receipt of tenders.

Adoption of the lowest cost option will result in a road closure of 5 weeks and Council should work with affected properties to try and minimise the impact on them. Consideration of various options has also shown that retention of an existing bridge as a heritage structure is not affordable.

RECOMMENDATIONS

1. **THAT** Council adopts Option 4 (least cost option) as detailed herein for the construction of Bridge B1/4 and similar construction for Bridges B1/5 and B1/6.
2. **THAT** Council confirms the existing \$3,000,000.00 (including subsidy) shown in the draft 2010/11 Annual Plan and funds the balance of Council's share of the increased cost (\$743,850.00) by:
 - a) Funding \$400,229.00 by deferring from the 2010/11 Annual Plan the seismic upgrade of Totara Park Bridge and the Akatarawa Road safety upgrade.
 - b) Funding the balance of \$343,621.00 by loan funding with the interest borrowed from Special Funds in 2010/11 and repaid in 2011/12.
3. **THAT** Council advise the Upper Hutt Heritage Trust that retention of one of the existing bridges is not affordable.
4. **THAT** Council work with the commercial properties affected by the road closure for construction to try and minimise the impact of that closure on their operations.



Lachlan Wallach
Director Infrastructure Service



NZ TRANSPORT AGENCY
WAKA KOTAHI

10 May 2010

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Dear Horace

Increased cost for Akatarawa Bridges

What follows is the reasoning and process required for NZTA to consider a cost increase from \$3M to \$4.5M for the Bridges.

1. Declare recently approved Totara Park Br SURPLUS. This is done through the review process and puts the activity into the next financial year. Note there is no longer a WITHDRAW option. You may not have to declare it surplus if you can support more local share, as you said you will be taking this decision to your works and services committee.
 - Process -> Apply in LTPOL in monthly review
2. Apply for a group allocation increase to allow for the increase. Ensure you change the cashflow to suit (A, B and C; X, Y, and Z). The summary is:

	2009/10	2010/11	2011/12	TOTAL
Group Alloc	\$1,000,000	\$ 2,920,262	\$128,686	\$4,373,966
New Group Alloc required	A	B	C	\$4,829,216/ or \$4,500,000
Current approval				
Akatarawa Road Bridges	\$1,000,000	\$ 2,000,000		\$ 3,000,000
Totara Park Br		\$ 329,216		\$ 329,216
				\$3,329,216
Increased costs				
Akatarawa Road Bridges	X	Y	Z	\$ 4,500,000
Totara Park Br		\$ 329,216		\$ 329,216
				\$4,829,216
Increased costs (minus Totara Park Br)				
Akatarawa Road Bridges	X	Y	Z	\$ 4,500,000
				\$4,500,000

As above, whether you decide that you want to proceed with Totara Park will not change you having to put in a request to increase group allocation

- Process -> Email me, I apply to NO on your behalf

3. Apply for a cost scope increase in the Akatarawa Bridge approved activity. We require a memo outlining reasons as discussed and in PPFM E4-21.

E4.6 Programme reviews, continued

Information requirements for cost and scope variations

When completing the information requirements in *LTP online*, the 'Reason for change' field must include a factual, concise statement of:

- what happened
- why it happened
- the effect on the assessment profile including BCR if other than a decrease (eg why it stayed the same or increased while the cost has risen, and the reason for any increased benefits)
- any other unusual circumstances.

For physical works increases **greater than 10 percent or \$500,000** and **significant increases in large fees activities**, the programming organisation must provide a **separate, more detailed report**, which must be in a letter or memo format.

The report should not be more than three pages and should include the following.

What the report should include	Information required
Project name	Name of activity
Details of the increase	<ul style="list-style-type: none"> • Current approved total cost • Revised total cost • Increase in total cost • Current and revised assessment profile, including BCR
Reasons for the increase	<ul style="list-style-type: none"> • What happened to cause the increase • Why it happened (consultant or contractor liability?) • Why it was not preventable • (Where the increase occurred during the course of the contract) whether the increase was beyond the control of the programming organisation and reasons for this • What action is being taken to mitigate the effect of the increase • The effect on the assessment profile including BCR if other than a decrease (eg why it stayed the same or increased while the cost has risen, and the reason for any increased benefits) • Any other unusual circumstance
Summary	Summary estimate of the main project items for each of the approved and revised total cost such that the areas of increase are readily identified

Contd

- Process -> Apply in LTPOL in monthly review

The application for 2 and 3 is required now because you are aware of the cost increase now. Page E4-18:

Approved organisations and the NZTA need to apply for an increased allocation as soon as it becomes apparent that the approved allocation will be exceeded. The NZTA expects funding requests for cost increases to be made before the additional cost is incurred. Any approved organisation that commits expenditure over and above the approved allocation does so at its own risk.

Yours sincerely



Sam Wilkie
Senior Programmes Advisor (Engineering)