Waitaki Bridges Replacement Project

Indicative construction timetable

MARCH 2013	APRIL 2013	AUGUST 2013 ONWARDS
Construction site set up work and clearing ground at the bridge abutments Earthworks begin for rock protection work on bridge 2 on the Kurow side of the river.	Piling commences on bridge 2 and is expected to take four months. The construction of a temporary construction only bridge gets underway parallel to bridge 1. Work on this will start from the Hakataramea end of the site.	Piling for bridge 1 starts. As the bridge construction nears completion road realignment work will be carried out in two sections. The first section will be on the island and the Kurow side, as bridge 2 will be finished ahead of bridge 1, the longer of the twin bridges. The existing bridges will be deconstructed after the new bridges open to traffic.

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Waitaki Bridges Replacement Project

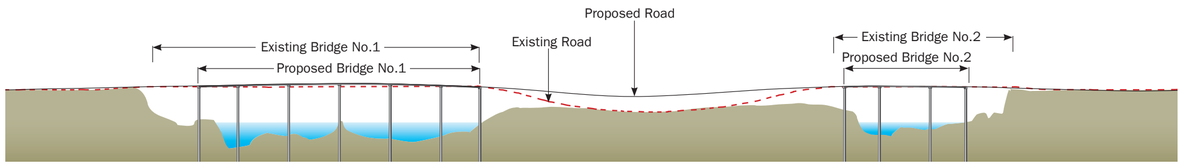
New bridges highlights

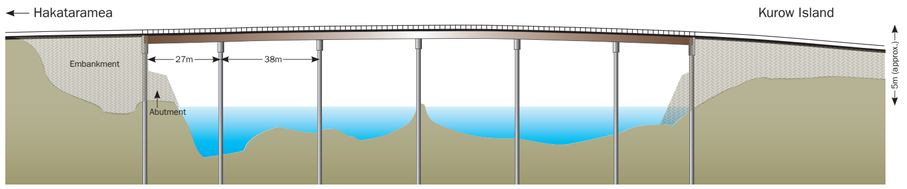
- Two new two-lane steel and concrete composite construction bridges.
- Improved and realigned approaches from both banks.
- A barrier separated walkway for pedestrians and cyclists on the downstream side of the bridges.
- Upgraded river protection works.

Facts and figures

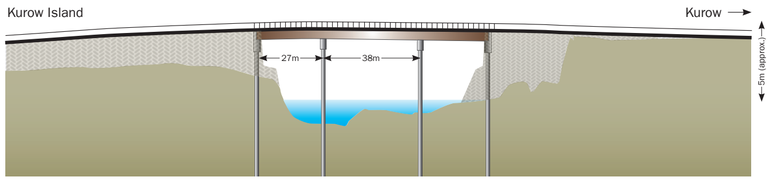
- Bridge No.1 will be 206m long and Bridge No.2. 92m long.
- There will be two 3.5m wide traffic lanes in each direction.
- The road shoulders on either side of both lanes will be 0.75m wide.
- A 1.30m wide pedestrian/cycleway on the southern side of both bridges will be built at the same level as the roadway.
- The bridge piers will consist of single 1.5m diameter reinforced concrete columns on top of 1.8m diameter steel cased excavated piles.
- The bridge piers will be positioned regularly along the length of both bridges and piling will be to a depth of 22m to 25m.

SH82 Waitaki River Bridges Replacement - Side on Views of Proposed Bridges

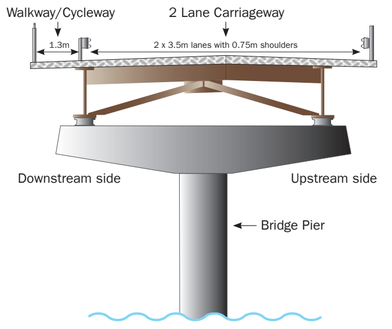




Side view of Proposed Bridge No.1 looking downstream



Side view of Proposed Bridge No.2 looking downstream



The new beams

The beams are being fabricated by Eastbridge in Napier and will be progressively transported to the site where they will be fitted onto the pier headstocks by site cranes.

With the steel beams secured, precast concrete panels will be placed in position and a concrete topping poured to complete the structural deck. This will finally be surfaced with asphalt.

82 Waitaki Bridges Replacement Project

Originally built as railway bridges, the current single-lane bridges were opened in 1881 and with a combined length of 762 metres were one of the largest wooden bridges of its kind in New Zealand.

Over time the bridges have been repaired and shortened but Bridge No. 1 is still the longest remaining wooden Howe Truss Bridge in the South Island.

Photos courtesy of the Kurow Museum

What will happen to the existing bridges?

Because of their archaeological and historical importance to the Waitaki Valley, an agreement between New Zealand Historic Places Trust (NZHPT), Kurow community, the Waitaki and Waimate district councils and the NZ Transport Agency will see two 40ft spans of the bridges preserved for public display on the 'Kurow Island'.

An agreement has also been reached with the Waitaki District Council to dispose of the remaining bridge parts. Several projects where the timber could be used have been suggested with the council to consider each of these on their merits when deciding where the timber goes.

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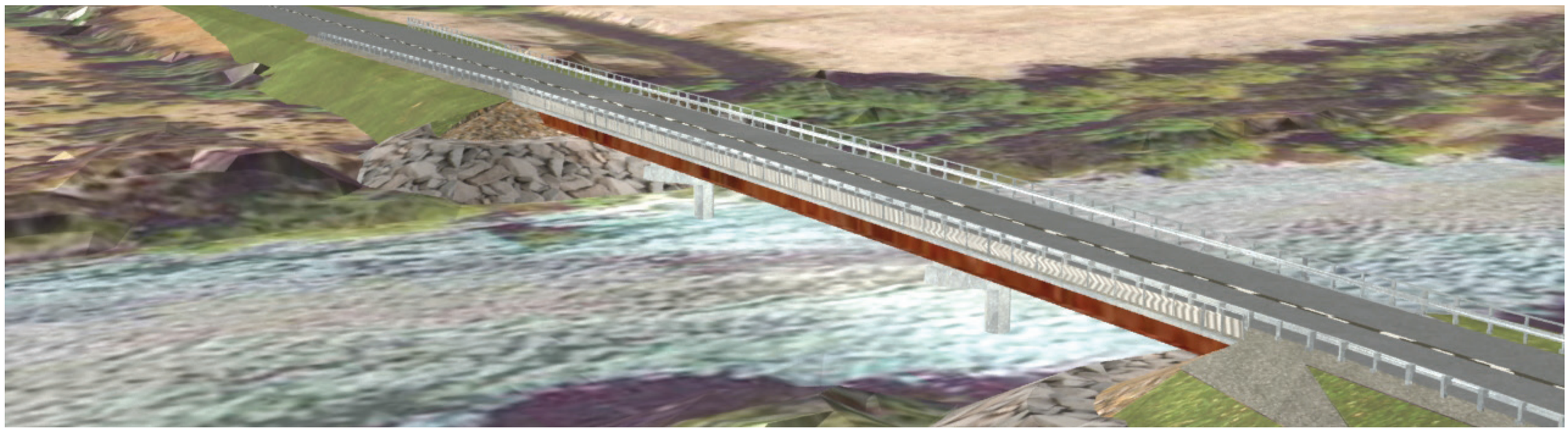
82 Waitaki Bridges Replacement Project

The new two-lane bridges funded by the NZ Transport Agency are being built by McConnell Dowell Constructors Ltd and are scheduled to open late 2014.



They will be built immediately downstream from the existing bridges and ensure that the communities of Kurow and the Hakataramea Valley have a secure transport link on SH82 over the Waitaki River. This project with an estimated final cost $20.1 million, was approved in the 2012–15 National Land Transport Programme. This figure includes the design costs, consultants' fees, consenting and the construction contract.

Key benefits of the new bridges

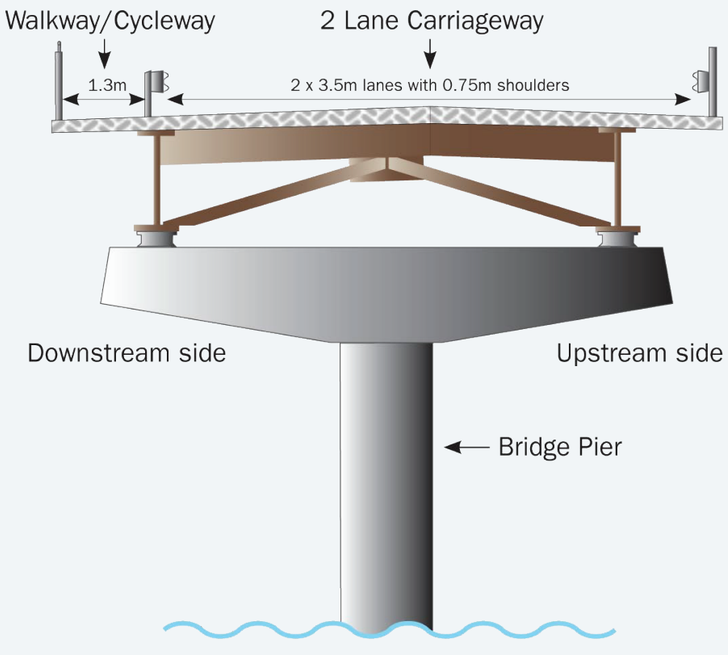
- Provides an alternative route for SH1 traffic.
- Improves safety for cyclists and pedestrians using the bridges with a separate lane for their use.
- Safeguards a critical link between Kurow and the Hakataramea Valley that has existed since the current bridges opened over 130 years ago.
- Ensures residents in the Hakataramea area have access to essential services and employment in Kurow.
- Increases the capacity for oversized vehicles, such as agricultural machinery and freight, to use SH82.

OTHER INTERESTING INFORMATION

Steel beams and precast panels that fit on top of the pier cap above the piles are being made offsite and are made of weathering steel rather than conventional steel.

This high strength low alloy steel forms protective rust 'patina' over time. This protective layer develops in both wet and dry conditions to create a protective barrier that eliminates corrosion.

Weathering steel with its earthy tone will blend in naturally with the surrounding landscape for the life of the structure.



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