



# Kawarau Falls Bridge Replacement Project

PROJECT UPDATE

DECEMBER 2016



## WORK PROGRESS

Progress on the new two-lane Kawarau Falls Bridge has been steady over the last few months as permanent piles take shape to anchor the structure in the river. A 7.8 magnitude earthquake in November gave the town a bit of a shake but both the temporary and permanent bridges weathered the seismic event well. The design of the new bridge is calculated to be able to withstand a once in every 2500-year earthquake.

The \$22 million project is being delivered by the NZ Transport Agency on behalf of the government as part of its Accelerated Regional Road Package announced in 2014.

Cranes are working from platforms on both sides of the river to construct the piles that will eventually support the bridge beams and deck. Temporary trestles set up across the river provide platforms for the cranes and other equipment. This helps reduce the footprint of the new bridge site on land and water, reducing the impact of construction on road and river users.

Several innovative construction methods are being used to ensure the project has minimal impact on the environment. Excavation into the schist rock below the riverbed is carried out inside a steel casing, which keeps waste material contained.

Once this work is completed, steel reinforcing cages for each pile are lowered in and then concreted. In the image below you can see the pile casing on the outside, the steel reinforcing and the team preparing the construction joint at the top of the pile before pouring the concrete column.



Work is also underway to build a new shared use path along the river bank. This path will provide an alternate walking and cycling route for tourists and residents travelling from the Heritage Bridge area through to the Kelvin Heights intersection. A landscaping plan is being developed with the Transport Agency and Queenstown Lakes District Council to complement the area.

## TRAFFIC MANAGEMENT CHANGES

The temporary traffic management will change over the Christmas holidays. The new bridge construction site closes on Friday 23 December and reopens on Monday 9 January. When work restarts 'stop/go' temporary traffic management will resume. The NZ Transport Agency, McConnell Dowell and everyone working on the project would like to remind drivers to stay safe on the roads this festive season. Merry Christmas!



## THREE MONTH PROGRAMME

The graphic below details the project work planned over the next three months. Construction company McConnell Dowell and their subcontractors will construct a total of five single column piers in the river plus abutments on each bank.

Next the steel girders which support the road deck will be moved into place. The majority of bridge deck will be assembled in sections on the southern riverbank. Each of these will be 16 to 22 metres long. Once assembled these deck sections will be launched forward using large hydraulic jacks.

This process will be repeated until the bridge reaches the fourth river pier (P4). The remaining deck sections will be lifted into position by cranes working from the northern temporary construction trestle.

## FROM THE ARCHIVES

Each newsletter, we will publish a picture of the original bridge build.

The 'Heritage Bridge' over Kawarau Falls was designed 92 years ago as a dam to lower water levels so investors could mine gold from the riverbed. Construction on the bridge began in 1925. It was to be 352 feet in length, 30 feet high, 15 feet wide and cost £40,000. The final cost of the bridge was £106,000, \$10 million today but it never delivered the promised riches. However, unemployed fossickers were reported to have won £2300 (or \$260,000) worth of gold from the river in the winter of 1932.



### The new bridge will provide:

- » more predictable journey times
- » better traffic flows especially during peak ski season
- » improved links to Queenstown International Airport, Frankton Flats and Queenstown
- » safer and more efficient movement of freight and people south of Queenstown to key destinations including Milford Sound and Invercargill.



### PROJECT CONTACTS

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