

# MANAWATŪ GORGE ROAD

## A Personal Memory

Bill Darnell worked for the Ministry of Works and Development (MWD) Whanganui District Office as a Design Engineer from 1972 to 1978. (The MWD was a Government Department with responsibility for State Highways – successors were Opus International and WSP.) These are some of his memories relating to the Manawātū Gorge Road.

I had some contact with the structures in the Manawātū Gorge Road in the mid-1970s when we had the task of undertaking bridge strength ratings for all the State Highway bridges in our district (about 610 structures). This was part of a national effort to review and document strength assessments on all State Highway bridges and identify any problem areas.

I was the leader of that design task in our District and, when it came to the Manawātū Gorge, the only information we had was on a single A4 size drawing sheet which showed the “standard bridge plan”. That single sheet of paper gave details of the standardised concrete bridge extensions which had been built over the bank above the river. These “half-bridges” were built along perhaps two thirds of the length of the gorge. Each had an array of vertical columns spaced at 10ft (3.05m) in the highway direction with some horizontal “framing” where the column was high – a bit like a concrete replica of a wooden structure. There was a low wall against the bank away from the river and a standard size kerb beam on the river side.

In two areas where the roadway spanned over a creek, the bridge became a two-lane width structure but with the same array of vertical pillars and cross-beams. Depending on the deck slab width required at each position (to provide a reasonable carriageway width), the structural span was either in the direction of the traffic or across the lane width and an array of different reinforcement requirements was detailed on the small drawing accordingly. These half-bridge structures meant that the road could be made to have two traffic lanes without either extensive cutting back into the high southern hillside or filling out over the bank above the river, both of which methods would have presented a potentially unstable solution due to the broken greywacke in this area.

As part of our work, we did a “walk-through” survey of the Gorge Road as we had no idea how many spans there were and what condition they were in. In those days, there were no safety signs or pilot vehicles or traffic control measures, no orange jackets. When traffic came along, we simply stepped up on the kerb – a far cry from today’s requirements.

Also, I was the design leader when some new bridge spans were designed to cut some sharp corners off the alignment and when some slope rock bolting or the like was done to contain unstable rock face elements.

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Another personal note about travel through the gorge, this time dating from the 1920s. My grandmother was travelling through the gorge by car with my mother, and was stopped by the workmen at one point. They had to wait while the workmen put down some planks across the gap they had made in the carriageway. My grandmother was given the “all clear” and drove across on the planks – and then given a big cheer when they got to the other side.