



We operate anywhere in the South Pacific Basin

0800 NZIA (0800 694 258) +64 27 4939 177 24 HOURS

Client **Brian Perry Civil**

Location **Auckland**

Contract **Grafton Bridge**
Re- Strengthen Project



The Grafton Bridge Central arch spans 98 metres across Grafton Gulley and is 43 metres above the gulley floor at its maximum.

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Project Scope

Water Blasting

NZIA was contracted to BPC (Brian Perry Civil) to undertake the initial water blasting of the bridge at 2200psi to avoid any damage to the substrate. Due to the fact the bridge spanned over motorways, graveyards and waterways various protection and containment solutions were used as well as working at night whilst motorway closures were in place.



Initial Survey

NZIA completed the initial survey of the 18,000square metres to give BPC a clearer picture of the extent of repairs and exactly where they were located. Thus enabling better planning and maximising the use of different access methods for different areas of the bridge.



ActSafe Winches

NZIA also maximised our ability to give access to BPC and Beca Engineers by training them and then using the combination of Industrial Rope Access and the ActSafe Ascenders we were able to put both BPC and Beca





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Engineers up and all over the bridge to complete their own inspections, and also progress inspections at various hold points in repairs.

Crack Injection & Concrete Repairs

NZIA completed over 470metres of crack injection and several concrete spalling repairs were also completed. Large volumes of old shotcrete was also removed via jack hammers from various sections of the bridge.

Anti-Carbonation Coating

Nearing the end of the project the anti-carbonation coating had to be applied to the bridge to keep it within the specifications for a Historical Bridge. NZIA was able to complete most of the large arch and Pier 7 and up into the graveyard quickly and efficiently using rope access whilst still maintaining a high quality finish and the desired build up of 2mm for the coating.

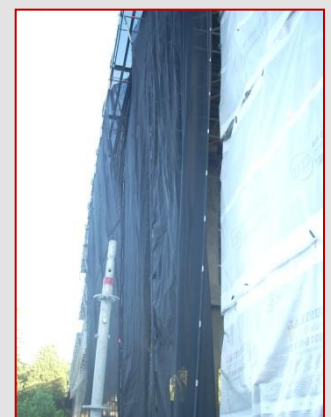
The complete project took almost a year to complete and NZIA was able to help BPC achieve their target of opening the bridge 1month ahead of schedule by our commitment to the overall project.

Containment Solutions

NZIA prides itself in being able to design, fabricate and install and use unique containment solutions for various projects and tasks. Ranging from protecting waterways, roads, pedestrians through to containment solutions that protected historical fixtures.



This photo above shows one of our containment solutions for a vertical stack that NZIA sandblasted and painted during a 3 day shutdown



This photo above shows our containment solutions in use at Grafton Bridge