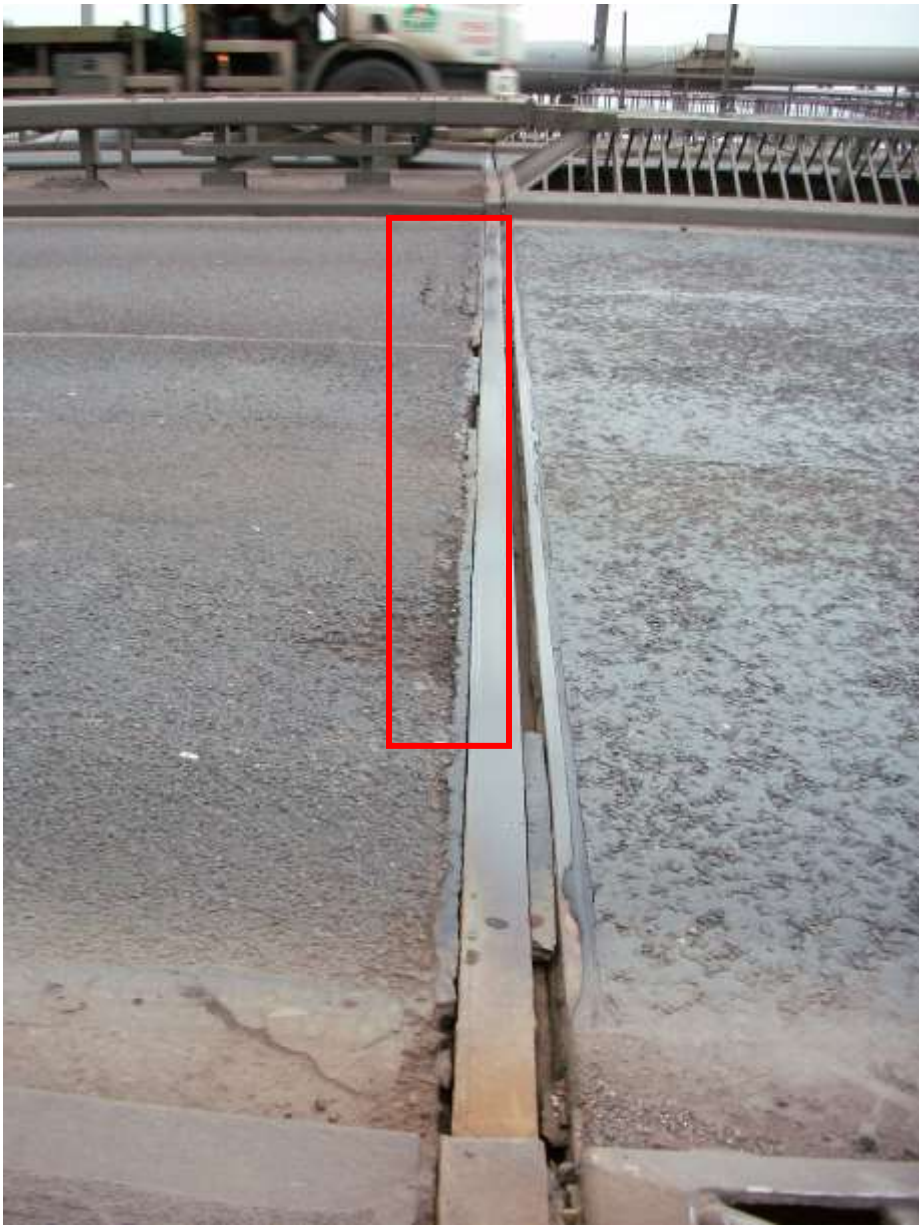
FORTH ROAD BRIDGE

An exploratory exercise was undertaken during a nightshift road repair at panel point 00 N.W. on the side tower side.



In carrying out these repairs, an investigation into discovering what the anchor detail is in situ. This double angle fabrication is suffering from a lot of movement, which indicates that the anchor detail has failed.

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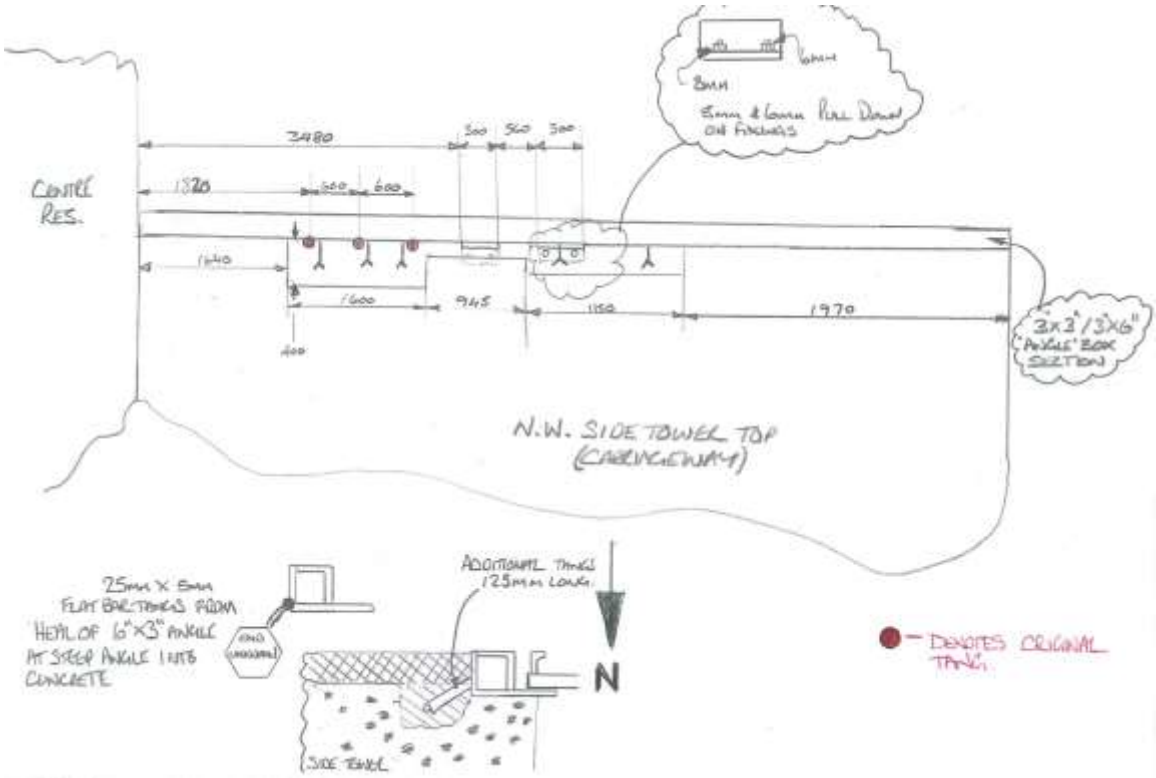

Main sketch on plan view

Three original tangs were exposed (marked with red dot) under the more serious surface depression. These tangs have a spacing of 600mm between them, suggesting there could be tangs at this spacing over the entire length, but this has not been confirmed.
During the surface removal two other sections of angle from a previous repair were discovered, one of which was fully exposed, revealing that the fixings were loose. As indicated the sketch there was 6mm – 8mm pull-down on these nuts.
Five additional tangs were added (see detail above), the three exposed original tangs were re-welded. It must be noted that the angle is suffering from corrosion/lamination which may result in future weld failure for all the tang welds old and new.

Tangs welded, area cleared of dust and debris. Rapid set concrete poured, allowed to cure for 1hrs – 1.5hrs, overlaid with road surface filler and over banded.

Maintenance Supervisor:

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Existing Tangs, re-welded

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