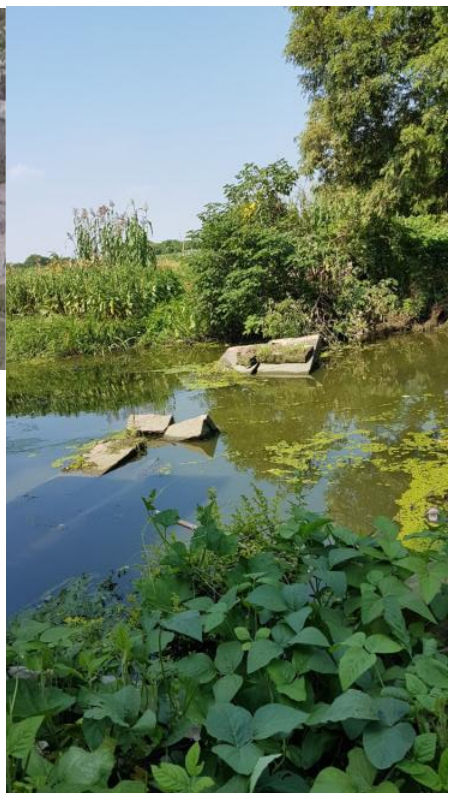
Shanghai Huanqing Bridge , China

This structure belongs to the District-level Cultural Relics, and is a three cross beam bridge spanning a river which suffered a partial and then total collapse in 2009.





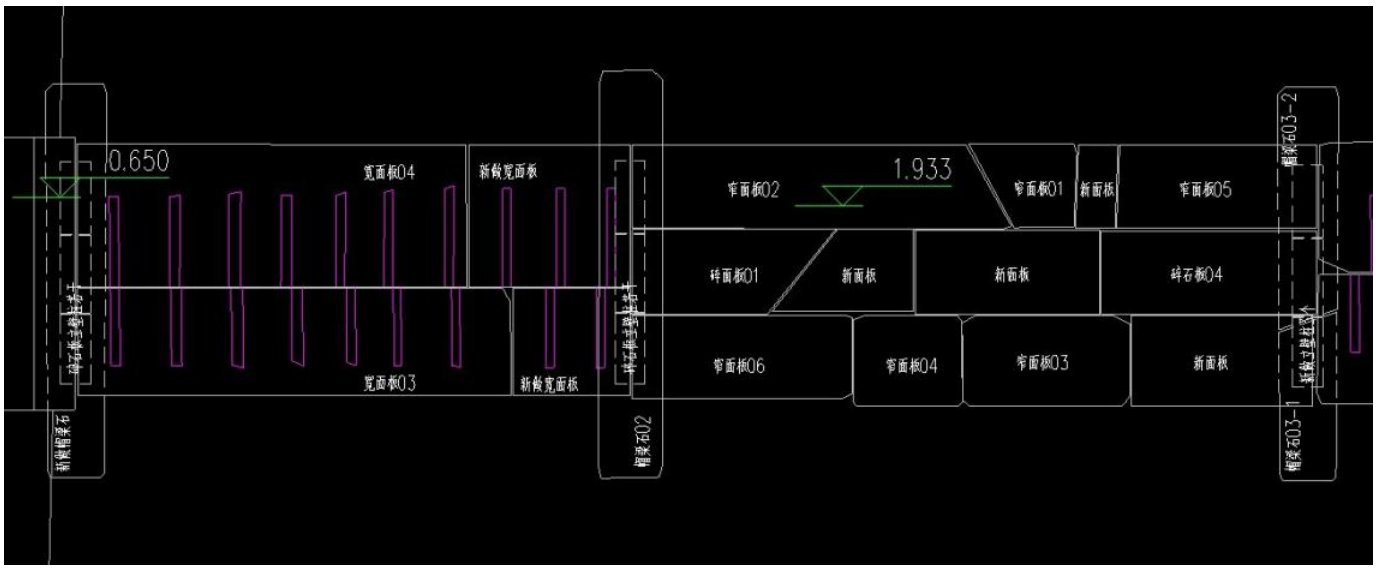


When Cintec visited the site in 2018 all that was visible of the remains of the bridge were random sections of stone beams partially or totally submerged in the river.

The Heritage Research and Conservation Center of Shanghai Jiao Tong University had asked Cintec to advise if the bridge could be reinstated utilising the Cintec system rather than the alternative scheme formerly considered which would have been to support the structure on a steel -framed set beneath the profile of the bridge. This would be unsighted and expensive.

The length of the bridge is 17.1 meters,[56 ' Feet] the width is 2 metres,[6.5 'Feet] the height of the pier is 3.2 metres,[10.5 'Feet] the thickness of the slab is 0.25 metres [10" Inches].

Fortunately the Jiao Tong University had carried out a full survey of the bridge and its ' many components and the fractures of each stone.

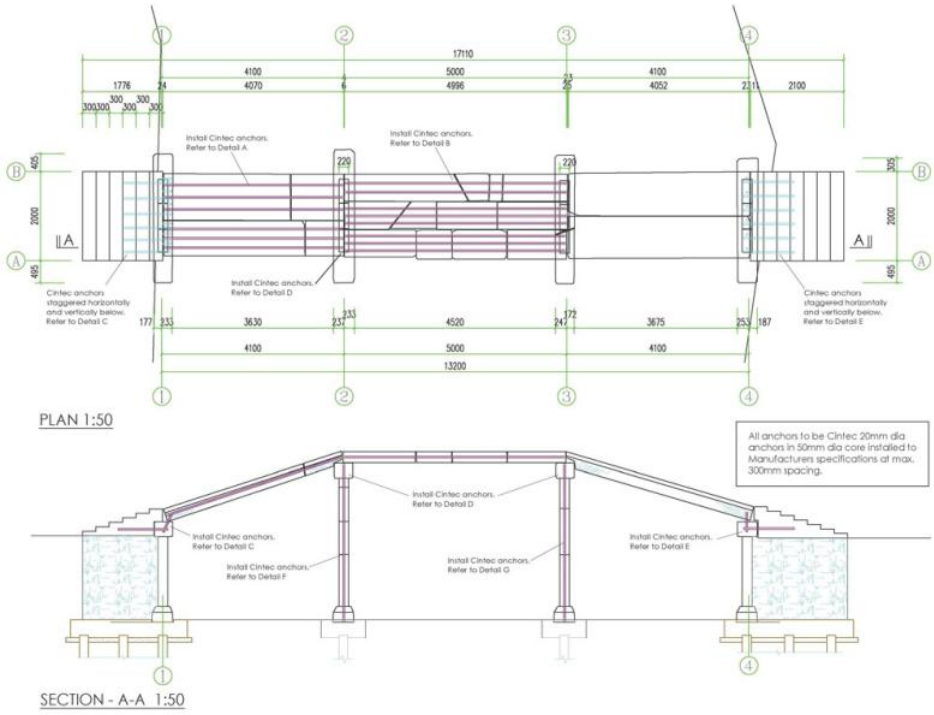


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Case History

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Cintec in conjunction with the Zhujiu Building Conservation Company, who are Cintec s approved installation company in China, based in Nanjing, developed a scheme using UK based structural engineering consultants MDHP who had many years of experience working with the unique Cintec system.



The design used Cintec GB20 [3/4"Dia] anchors in a 50mm [2"] diamond core drilled hole to repair pieced together broken stone components and to link together separate stones in vertical and hori-zontal planes thereby al-lowing the bridge to be re-assembled to the same pro-file as originally built but with no external visible evi-dence of support. Both the client and main contractor were extremely please with both the process and the outcome.







New foundations were formed in the river bed and pockets left to receive the repaired vertical members forming the piers. The horizontal and inclined stone members were then carefully placed and pieced together without the need for any mechanical connection as individual stones had original socket and tenon joints.

The finished project completeled recreated the original appearance of the 500 year old historical bridge



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