



EUCLID CHEMICAL

PROJECT PROFILE

PERRY ARCH BRIDGE REHABILITATION



PROJECT DATA

Location – Perry, OR
Application – Historic Bridge Repair
Contractor – Wildish Standard Paving
Supplier – Masons Supply Company

PRODUCTS FEATURED

TAMMS™ FORM AND POUR
 Flowable Concrete Repair Mortar

SPEED CRETE™ PM
 Polymer Modified Vertical/Overhead Repair Mortar

SPEED CRETE™ RED LINE
 Fast Setting Patching Material

DURAL™ 50 LM
 Epoxy Crack Filler

PROJECT SUMMARY

The Perry Arch Bridge spans the Grande Ronde River and the Union Pacific Railroad in Perry, Oregon. This bridge has special historic significance because it was one of the earliest arch bridges designed by Conde B. McCullough who was Oregon's first state bridge engineer and is famous for his arch bridges along the Oregon Coast. Preceding the rehabilitation of the bridge, there was a considerable amount of discussion of whether to demolish the old bridge, or to preserve it. The Oregon State Historic Preservation Office, as well as other preservationists played a key role in the final decision to restore the arch to its original condition.

The 22'-8" wide single lane bridge consists of four approach spans which each average 50 feet in length, and one main arch that spans 130 feet. OTAK Inc. served as the engineer during the design and construction process, and the contract was administered by the Oregon Department of Transportation. This work included rehabilitating four approach spans and complete replacement of the span supported by the main arches. All bridge rail, crossbeams, deck, spandrel posts, sidewalk brackets and dentils were demolished and replaced. The arches and bents were salvaged; the cracks were injected with epoxy and the unsound, deteriorated concrete was removed and re-poured in place.

Repair work to the bridge included a total of 1130 linear feet of epoxy crack injection, over 2000 ft² of regular cast in place concrete repair and 810 ft² of deep concrete repair which was also cast in place. The regular concrete repair involved repairing areas up to 2" deep, while the deep repair involved repairing areas up to 16" deep. Much of this work took place during the winter when temperatures fell far below freezing and full containment, heated water and electric blankets had to be used so that the repair work could continue.