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Focus Bridge: Healdsburg Memorial Bridge

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The Healdsburg Memorial Bridge crossing the Russian River in Healdsburg, California, is a beautiful and rare pin-connected Pennsylvania through truss bridge that was built in 1921. The bridge has two main ten-panel truss spans of 198 feet each and an overall bridge length of 438 feet. The bridge was designed by local engineer J. C. Lewis and built by the prolific American Bridge Company of New York, New York. The rehabilitation and retrofit of this bridge this year represents a major victory and success story in the preservation of historic bridges.

As far back as 1990, the future of this bridge was uncertain, with proposals for the demolition and replacement of the bridge on the table for a number of those years. Fortunately, thanks to community support including organized support by the Friends of Healdsburg Memorial Bridge <http://healdsburgmemorialbridge.com/>, a project to rehabilitate and retrofit the bridge to provide many years of continued vehicular use was advanced to construction. One of the more unusual challenges with saving this bridge began when the city undertook ownership of the bridge from CalTrans in 1980. At this time, CalTrans provided a structural rating that found the bridge unable to support heavy loads.

Mel Amato, acting only as an interested citizen with an engineering background, was requested by Healdsburg's Mayor in 2007 to review a consultant's bridge option report, a document that was not a structural evaluation. In the review process, he discovered and reported to the City that the basic 1970 Caltrans structural calculations had some noteworthy mistakes. CalTrans had made an error in calculating the truss's rating because they had misjudged the pin connections on the bridge. This discovery made rehabilitation a viable option, which was pursued by the city after much lobbying by Mel Amato and many other members of the Healdsburg Community.

Many roadblocks had to be overcome, but finally, after a decades-long struggle, the \$12 Million rehabilitation of this historic bridge has finally been realized. As of October 28, 2015, the majority of the work had been completed and the bridge was reopened to vehicular traffic after being closed to traffic for over a year. One of the most noteworthy aspects of the project was the replacement of the center

concrete pier with a more substantial and stable pier. A formal ribbon cutting and dedication for the bridge will take place Spring 2016.

The bridge was previously eligible for listing in the National Register of Historic Places (NRHP), but on April 14, 2011, thanks to the efforts of the Friends of Healdsburg Memorial Bridge, the bridge was officially listed on the NRHP, under both Criterion A (Significant Events) and Criterion C (Engineering Significance).

The National Register Nomination Form for this bridge clearly describes why this bridge is noteworthy under Criterion C (Engineering Significance). The first indication of this significance is noted in the Summary Paragraph:

“Healdsburg Memorial Bridge, built in 1921 across the Russian River, is rare among American steel truss bridges. Its intricate Pennsylvania through-truss design, using extra diagonal bracings to relieve stress, is a throwback to an evolutionary era of steel truss bridges when engineers needed stronger structures to accommodate wide crossings and heavy loads at affordable cost. With 20 pin-connected panels spread across two spans, the Healdsburg Memorial Bridge is a striking example of the type, now fast disappearing from the American landscape.”

The Nomination further notes the engineering and design significance stating “In the case of Healdsburg Memorial Bridge, the Pennsylvania truss style represents a design that filled a particular need, beginning in the 19th Century, for bridges that could span broad crossings and stand up under strong loads. Memorial Bridge stands among the last of its kind still in vehicle use. The bridge is thus worthy of listing under Criterion C, as a distinctive example of type, period and method of construction, with a period of significance of 1921.” At the time of the nomination, the bridge was noted as one of only eight Pennsylvania type truss bridges remaining on California highways.

The bridge is also noteworthy under Criterion A (Significant Events) as noted in the Nomination Form: “It is also deserving of listing under Criterion A, as an important element in the growth of the Northern California highway system and its contribution to the development of Healdsburg and the surrounding Russian River area as a tourist destination, with a period of significance from 1921 to 1960.” The bridge was built to carry the Redwood Highway, which was an important travel corridor for tourism at the time this bridge was built. The same travel corridor remains today, albeit realigned on nearby US-101. The Healdsburg Bridge provided for the tourism needs of visitors both destined for Healdsburg itself, and also for those passing through, as it was part of a highway system linking San Francisco to Oregon.



Bridge open to traffic after rehabilitation was mostly completed. Photo courtesy Friends of Healdsburg Memorial Bridge.



Historical photo of bridge. Photo courtesy Friends of Healdsburg Memorial Bridge.



Bridge before rehabilitation.



Bridge before rehabilitation.



Carnegie brand on steel.



Bridge plaque.



Bridge before rehabilitation.



Pin connection.



Pin connection.