Bridgeport Bridge

The Bridgeport Bridge is listed on the National Register of Historic Places.



Photo credit: Oklahoma Department of Transportation



Photo credit: Oklahoma Department of Transportation



Photo credit: Oklahoma Department of Transportation

Overview of Bridgeport Bridge (also known as the William H. Murray Bridge) The two following paragraphs are from a FY2020 BUILD grant application.

The existing bridge was constructed in 1933 as part of the original Route 66 corridor. The approximately 3,945-foot long Warren³ pony truss⁴ structure consists of thirty-eight 100-foot long "camelback" pony truss spans, with two 36-foot long multi-beam approach spans at either end.

The project proposed in this application will reconstruct the bridge on its current alignment with a 28-foot width. The reconstruction of the bridge will include replacing the substructure, deck and entire superstructure. The historic pony trusses will be re-attached to maintain the historic integrity of the original bridge. The bridge will also be repainted and restored to its original look. Maintaining the bridge's original look and feel, as well as the majority of its original truss members, will preserve the historic context for years to come. [Note: Reconstruction has now been completed.]

The two following paragraphs are from the National Register Registration Form

³ Although the two reference sources cited here both refer to Warren trusses, members of the ASCE History and Heritage Committee believe that they would more properly be described as Pratt trusses with counter diagonals in the middle panel and with a polygonal top chord.

⁴ A pony truss is a truss bridge which allows traffic to travel between parallel trusses, but the tops of the trusses are not joined together with cross braces.

The William H. Murray Bridge, also known locally as The Pony Bridge because of the truss system it uses, is one of the most prominent road features on Route 66 in Oklahoma because of the enormous length of the bridge. About three-fourths of a mile long, the bridge is made of thirty-eight spans with Warren pony trusses, each a hundred feet long. In addition to being the longest bridge on Route 66 in Oklahoma, it is also the second longest extant bridge in the state. While the normal road width is twenty feet, the bridge roadway widens slightly to twenty-five feet. The bridge was constructed in 1932-1933 and put into use in 1934 when the road to the west was completed. The approaches to each end of the bridge are protected with four sections of concrete guardrails. Plaques commemorating the construction of the bridge, and the public and private officials responsible, are located on concrete panels adjacent to the guardrails. The plaques also honor the company responsible for its construction; the Kansas City Bridge Company.

Still an awesome bridge when encountered by the modem traveler, it was even more so in the 1930s when the nation's traveling public crossed the continent on Route 66. The reason for its vast length, of course, is the wide flood plain of the South Canadian River. Concrete piers rise from that sandy stretch to support the junction of the separate spans, with each pier consisting of two columns joined by a concrete panel. The trusses themselves are characteristic Warren Pony trusses. Each one has the W pattern of diagonal braces connecting with the upper chord at each of its five angles, further braced by vertical steel members rising from the lower chord and intersecting the upper chord at each of the five angles, and with an X brace in the center. With such attention to the detail of each truss, the strength and endurance of the bridge is immediately apparent. In fact, the standard reference on bridges in Oklahoma⁵ refers to this bridge as "a powerful demonstration of the strength and versatility of the standard-design camelback pony" configuration. That description holds for each span of the bridge. When multiplied times thirty-eight, the power, the strength, and the sheer force of this structure become obvious.

William H. Murray served as a U.S. Congressman from Oklahoma and Governor of Oklahoma.

1. **Historic Significance:** (From a FY2020 BUILD grant application) This bridge was suggested by Oklahoma Department of Transportation to be the most historically significant bridge in the state. Oklahoma does not have the notable old 19th century cast and wrought iron truss bridges of states in the eastern United States. However, it has two unusual truss bridge forms that are unique to the state. The state is also noted for its extremely long [bridges made of] simple-span truss[es]..., most of which are created from state-standard pony truss spans. Of those ultra-long...bridges [with pony truss spans], this bridge is by far the longest [3,945 feet] example and the best example. It has been reported to be the longest bridge of any kind in Oklahoma. The Bridgeport Bridge is widely considered Oklahoma's most significant historic bridge. The bridge is significant as a contributing element to the NRHP listed segment of Route 66 from Bridgeport Hill-Hydro, which is also part of the Route 66 National Scenic Byway.

(from National Register Registration Form) While all the bridges in this section of Route 66 meet the requirements [for historic significance] under Criterion A, one bridge also fulfills the requirements [for historic significance] under Criterion C. The William H. Murray Bridge over the South Canadian River is an exceptional feature by any standard. This is, first of all, an excellent example of a camelback pony truss bridge with its characteristic feature of exactly five angles in the upper chord of each span, which, according to the standard

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⁵ Joseph E. King, Spans of Time: Oklahoma Historic Highway Bridges (Oklahoma City: Oklahoma Department of Transportation, 1993)

reference on Oklahoma's historic bridges⁶, "permitted greater standardization and better predictability on how the structure would behave in service." Indeed, that reference uses this particular bridge as "a powerful demonstration of the strength and versatility of the standard-design camelback pony." Secondly, this was an engineering accomplishment in its own right, aside from the particular design of the bridge. The state highway department proudly called it at the time it was under construction, "the most pretentious bridge engineering project ever undertaken by the Oklahoma Highway Commission"⁷. It noted, further, that "when completed it will be the longest bridge in Oklahoma, and one of the longest in the entire Southwest." This bridge, moreover, proved to be the defining feature of the route taken by the El Reno Cutoff of Route 66 and provided an efficient, reliable way for travelers to cross the South Canadian River.

It should not be forgotten that when the bridge was completed and dedicated, allowing the opening of new, important segment of Route 66, the William H. Murray Bridge was both an engineering accomplishment in its own right and also a symbol of the triumph of the organization of the resources of society to facilitate a transformation in life not just locally but along the full length of Route 66.

- 2. **Contributions:** Supported Route 66's role in contributing to regional and national growth.
- 3. **Uniqueness:** It is significant for its scale and length, as the second longest bridge in Oklahoma and the longest Route 66 bridge west of the Mississippi River. It is also significant for its repeating camelback truss configuration.
- 4. Date of original construction: Constructed in 1933

Circa 2020 - closed to traffic

2022 to 2024 – reconstructed while maintaining its historic appearance

2024 – bridge reopened to traffic

- 5. **Names of key engineers**: Designer unknown. Constructed by Kansas City Bridge Company. **Photographs**: Included above.
- 6. Photographs: Included above.
- 7. **Additional documentation**: National Register of Historic Places Registration Form. Available at: https://catalog.archives.gov/id/86509959
- 8. References:

El Reno Daily Tribune, July 14,21,29, August 2, 3,4,7, 9,29, September 11, October 7,13, November 21,1932. Hinton Quest Club, "History of Bridgeport, Oklahoma," unpublished manuscript in files of Oklahoma Historical Society, Oklahoma City.

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Oklahoma Highway Commission, Report of the State Highway Commission for the Years 1931-1932 Inclusive, (Oklahoma City, 1933).

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⁶ Ibid.

⁷ Oklahoma Highway Commission, Report of the State Highway Commission for the Years 1931-1932 Inclusive, 49

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Location: Northeast end: 35 32 50.1 N 98 18 45.4 W

Southwest end: 35 32 24.5 N 98 19 22.8 W

Local and vicinity maps:

