

MINNESOTA HISTORIC PROPERTY RECORD

PART I. PROPERTY IDENTIFICATION AND GENERAL INFORMATION

Common Name: Fort Snelling-Mendota Bridge
Bridge Number: 4190
Identification Number: DK-MHC-002
Location:
Feature Carried: TH 55
Feature Crossed: Minnesota River, railroad, street, state park
Descriptive Location: 0.5 Miles Southeast of Jct. TH 5
Town, Range, Section: 28N-23W-28
Town or City: Mendota Heights
County: Dakota

UTM:

Zone: 15
Easting: 485500
Northing: 4970640

Quad:

St. Paul West
7.5 Minute Series
1927

Present Owner:

State

Present Use:

Mainline

Significance Statement:

The Mendota Bridge is nationally significant for its superb design and for the fact that at the time of construction it was the longest continuous concrete arch bridge in the world. It is one of the most prominent of the Twin Cities' nationally renowned concrete arch bridges of the 1920s.

Two prominent American bridge authorities, Carl Condit and David Plowden, have recognized the significance of the Twin Cities' concrete bridges and the Mendota Bridge in particular. As Plowden points out, "the first really sophisticated American program of concrete highway bridge construction evolved around Minnesota's Twin Cities." This happened, says Condit, because here "the Mississippi and Minnesota Rivers offered the engineers numerous opportunities to try their ingenuity."

The bridge was built in 1925-26 to replace an antiqued ferry which since the mid-nineteenth century had provided the only Minnesota River crossing between Fort Snelling in Hennepin County and Mendota in Dakota County. It was constructed according to the plans of Minneapolis

engineer Walter H. Wheeler and nationally prominent engineer C.A.P. Turner Company Associates, and officially opened on November 8, 1926, amidst great fanfare. A parade and two huge caravans of an estimated 15,000 automobiles met at the middle of the bridge where the governor untied formal golden ropes. The occasion was marked by a telegram from President Calvin Coolidge acknowledging the bridge's dedication to the "Gopher Gunners" of the 151st Field Artillery who died in World War I.

The \$1,870,000 structure, Plowden stated, "is usually considered to be the most sophisticated design for a concrete arch built in the 1920's," apart from some of the West Coast bridges. Condit wrote that "the whole complex of ribs, spandrel posts, and long deck has a finely articulated quality that has seldom been matched in American bridge design."

PART II. HISTORICAL INFORMATION

Date of Construction:

1926

Contractor and/or Designer (if known):

Contractor:

Designer: Walter Hall Wheeler
C.A.P. Turner Company Associates

Historic Context:

Reinforced-Concrete Highway Bridges in Minnesota

National Register Criterion:

C

PART III. DESCRIPTIVE INFORMATION

Descriptive Information:

Bridge 4190 is located at the Minnesota River crossing of State Trunk Highway 55, 0.5 miles southeast of the junction of State Trunk Highway 5 and 1.7 miles above the river's mouth. The bridge joins Dakota County with Hennepin County at the municipality of Mendota Heights (Dakota County) supplying direct access to the Twin Cities for the residents of Scott, Dakota, and Rice counties, although this function has since been partially negated by the construction of the Mississippi River Bridge at Interstate 35E.

It was built in 1926 and reconditioned in 1968. The spandrels, deck, and railings were reconstructed during a 1992 deck widening. The arch ribs and piers were not altered.

According to the Minnesota Department of Transportation Structure Inventory Report, Bridge 4190 is a steel reinforced continuous-arch concrete bridge consisting of 13 spans in the main unit and 6 spans in the approach units for a total length of 4,113.4 feet and a maximum span length of 304 feet. The 13 main-unit spans rest on 12 piers placed 304 feet apart, anchored 70 feet beneath the bed of the river. The navigable vertical clearance is 120 feet. The deck width (out-out) is 92 feet with a center median and two 35.5-foot roadways, each carrying two lanes of one-way traffic, and an 8-foot-wide north sidewalk and 4-foot-wide south sidewalk. The sidewalks are separated from the traffic lanes by vehicular railings. In *American Building*, Carl Condit described the Mendota Bridge as being "divided into twelve (sic) spans of paired parabolic ribs" (p. 255).

Some piers of this bridge, along with the west approach, are within the boundary of the Fort Snelling Historic District (state and National Historic Landmark). The east end is adjacent to the Mendota Historic District (National Register).

PART IV. SOURCES OF INFORMATION

References:

Historical information provided by Mn/DOT; Robert M. Frame, "Fort Snelling-Mendota Bridge," National Register of Historic Places form, in State Historic Preservation Office, Minnesota Historical Society, St. Paul; Condit, Carl W. American Building. Chicago: University of Chicago Press, 1968; David Plowden, Bridges: The Spans of North America (New York: WW Norton & Co., 1974); William H. DeButts, "Novel Methods Used in Building Long Concrete Arch Bridge," Engineering News-Record 97 (October 14, 1927), 621-623; Walter H. Wheeler, "Long Concrete-Arch Road Bridge Over Minnesota River," Engineering News-Record 98 (March 31, 1927), 514-519.

PART V. PROJECT INFORMATION

Historians:

Robert M. Frame

Form Preparer:

Mead & Hunt, 2006

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