

HE-MR-4286

STATEWIDE BRIDGE SURVEY FORM

MNDOT No.: 5756
Historic Name: Minnesota Soldiers Home Bridge
Common Name: Minnesota Soldiers Home Bridge
Owner: Minnesota Department of Veterans Affairs
Year Built: 1908
Engineer: Bayne & Hewett (W.S. Hewett, A.Y. Bayne, A.L. Hewett, Minneapolis)
Fabricator: Minneapolis Steel and Machinery (Minneapolis)
Contractor: Bayne & Hewett

Location

County: Hennepin
City/Town: Minneapolis C.
Legal Description: Section 08, Township 28N, Range 23W
Crossing: carries entrance road (closed) to Soldiers Home over Minnehaha Cr.

Sketch Diagram

see attached field survey form

Technical Data

Category: steel arch
Span No./Type: one three-hinged steel deck arch main span, seven steel stringer approach spans
Overall Width x Overall Length: 30.5' x 622.5'

Significance

Local x State ___ National ___
Historic Context: Metal Truss Bridges in Minnesota, 1870s-1942
Integrity: Excellent x Good ___ Fair ___ Poor ___
No. of Resources with Property: 1 contributing structure(s)
___ non-contributing structure(s)

Summary Description

This bridge carries a paved entrance road (closed to vehicular traffic, but open for pedestrian use) over Minnehaha Creek to the Minnesota Soldiers Home. The board of the Minnesota Soldiers Home was established by the Minnesota Legislature in 1887 to house disabled and destitute veterans. The next year, construction of the campus began following the designs of landscape architect H.W.S. Cleveland and architect Warren B. Dunnell.(A) The beautifully designed campus is located on a high, narrow peninsula between the Mississippi River and Minnehaha Creek. Although access to the Soldiers Home is possible along the spine of the peninsula, efforts were made as early as 1889 to bridge Minnehaha Creek and provide more direct access to the campus (apparently, the first idea was to move the suspension bridge at Hennepin Ave., which had just been replaced by the present steel arch bridge, to the Minnehaha Creek site).(B) In 1908, the Minnesota Soldiers Home Board

Summary Description Continued

contracted with the Minneapolis firm of Bayne and Hewett to design and build this bridge. Minneapolis Steel and Machinery Company fabricated the structural steel for the project.(C) The 622-foot bridge consists of a 288-foot three-hinged steel arch main span and seven approach spans, two at the west end and five at the east. The outer-most spans are simple steel I-beam stringer spans. The other approach spans are steel girder spans with built-up girder floor beams and steel I-beam stringers. The steel arch main span is supported by concrete piers and the approach spans are supported by concrete abutments and steel piers sitting on concrete footings. The steel arch consists of two built-up channel sections riveted with lacing comprised of steel angle sections. The built-up channels consist of two steel angle sections riveted with a continuous steel plate. The reinforced concrete deck is supported by steel I-beam stringers bolted atop steel I-beam floor beams. The floor beams rest on top of upper chords, each consisting of two steel channel sections riveted with lattice bars. The upper chord rests on vertical members which rise from the arch. The taller of the vertical members (three at each end) consist of two steel channel sections riveted with lattice bars. The other verticals consist of four steel angle sections riveted with lacing bars. The arches and spandrels are stiffened with diagonal members comprised the same as the vertical members to which they are riveted. Sway bracing consists of laced struts and angle section cross-bracing. The reinforced concrete cantilevered sidewalks rest on angle section supports riveted to ends of the floor beams. The latticed guardrail consists of two segments: the lower band, which is the taller of the two, consists of a dense lattice-work; the upper band consists of a more open lattice. Cast iron lamp pedestals are spaced at intervals along the guardrail. The latticed guardrails abut concrete guardrails, which flair outward in a broad curve, at each end of the bridge. The sidewalks and the roadway are separated by a concrete curb with an additional raised ripe curb.

Sources of Information

- A. Charles W. Nelson, "Minnesota Soldiers' Home," National Register Nomination, 1978, on file at Minnesota SHPO.
- B. Minneapolis City Council Minutes, November 15; 29, December 6, 1889, pp. 663, 670, 690.
- C. A bridge plaque at each end of the bridge identifies the designer, fabricator, and builder. A plaque at the east end of the bridge identifies the members and officers of the Minnesota Soldiers Home Board.

Date of Survey: November, 1987

Surveyor: Fredric L. Quivik
Architectural Historian
Renewable Technologies, Inc.
Butte, MT