

HE-MPC-3009

STATEWIDE BRIDGE SURVEY FORM

MNDOT No.: 27664  
Historic Name: Broadway Ave. Bridge  
Common Name: Merriam Street Bridge  
Owner: City of Minneapolis  
Year Built: 1887/198\_  
Engineer: Andrew Rinker, City Engineer  
Fabricator: King Bridge Company, Cleveland, OH  
Contractor: King Bridge Company, Cleveland, OH

Location

County: Hennepin  
City/Town: Minneapolis C.  
Legal Description: Section 23, Township 118N, Range 24W  
Crossing: carries Merriam Street over a channel of the Mississippi River

Sketch Diagram

see attached field survey form

Technical Data

Category: steel beam bridge  
Span No./Type: one steel beam span (which appears to be a Pratt through truss)  
Overall Width x Overall Length:

Significance

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

Summary Description

This bridge carries Merriam Street from Nicollet Island across a channel of the Mississippi to the east bank of the river where the Main Street district of old St. Anthony is being revitalized and many of the old buildings have been rehabilitated. Although it appears to be a truss bridge, the deck is actually supported by deep, welded steel I-beams. The truss, which was one of the spans of the old Broadway Bridge, serves as an ornamental element on the bridge and in the St. Anthony Main district. During the late 1880s, the City of Minneapolis built several new bridges across the Mississippi including the Franklin Avenue Bridge, a new Steel Arch Bridge at Hennepin Avenue, the Lake Street/Marshall Avenue Bridge, and the Broadway Bridge. The King Iron Bridge Company of Cleveland, Ohio, built the Franklin Avenue and Broadway bridges. Although the Hennepin and the Lake/Marshall bridges are steel and wrought iron arch bridges, respectively, the through truss was the more typical means of spanning the river in Minneapolis in the late 19th century. Nevertheless, the two arch bridges survive while the through truss bridges have been replaced (with the exception of the Lowry Bridge, which was so thoroughly reconstructed

Summary Description Continued

in 1958 that it does not represent 19th century, or even early 20th century technology). (A)

The superstructure of the truss, which was moved from the Broadway Bridge location, is comprised as follows: the upper chords consist of two built-up wrought iron channel sections riveted with a continuous top cover plate and lacing bars along the lower flanges; the lower chords are punched wrought iron eye-bars; the verticals consist of two built-up wrought iron channel sections riveted with lacing bars; the diagonals are punched wrought iron eye-bars. Portal bracing consists of a latticed strut with additional vertical and horizontal straps. Ornamental wrought iron work surmounts the portal bracing and cast iron finials adorn the tops of the inclined end posts. Sway bracing consists of simple latticed struts. Both the portal and the intermediate sway bracing are additionally stiffened with knee braces. There is also a longitudinal latticed strut along the center-line of the overhead bracing system. Steel I-beam bridging, spaced to correspond to the panel points of the truss, stiffens the I-beams which actually support the span over the river channel. This bridging is also riveted to the vertical members of the truss above the lower pin-connections. Cantilevered brackets support sidewalks along each side of the bridge and the original wrought iron guardrail has been re-installed. The supports for the sidewalks help to disguise the fact that the truss no longer supports the floor system. Two concrete piers support the main span, including the relocated truss. Simple steel I-beam stringers span between the piers and the concrete abutments.

Even though the relocated truss no longer supports the floor system or deck of the Merriam Street bridge, the truss itself retains excellent integrity of design, materials, and workmanship. Although the original Broadway Bridge had four main spans, each span had ornate portals at each end, rather than having ornamentation only at the ends of the bridge. Therefore, a single span does not suffer from lack of physical context by being separated from the other spans. Although the span is in a new location, it remains in a river crossing setting. Finally, the span retains the feelings and associations of the 1880s when Minneapolis greatly expanded its inventory of Mississippi River bridges. In fact, this span will soon be the only surviving remnant of that period as soon as the Hennepin and Lake/Marshall bridges are demolished.

Sources of Information

- A. For a detailed description of the Broadway Bridge, see Bill Jensen, "Broadway Bridge, HAER No. MN-2," 1984, Historic American Engineering Record documentation completed to partially mitigate the demolition of the bridge.

**Date of Survey:** January, 1988

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

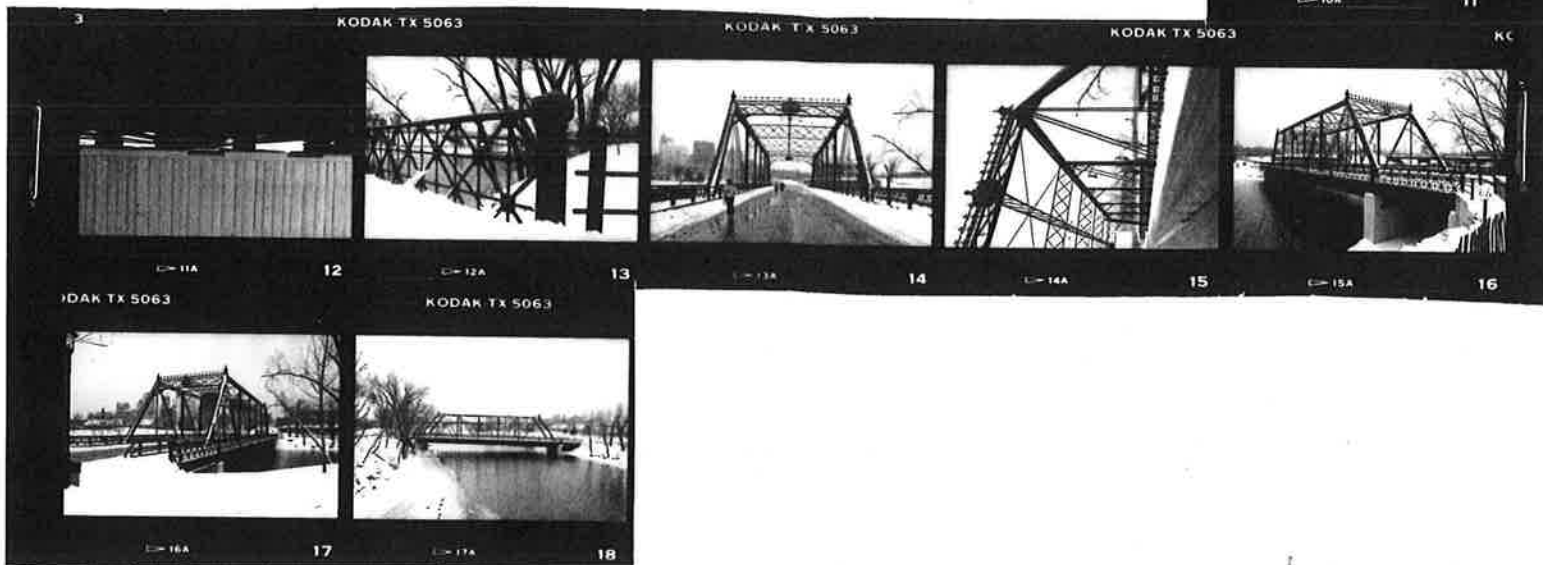
STATEWIDE BRIDGE SURVEY: PHOTO CONTACT SHEET RECORD, Br. No. 27664

Contact Sheet # 09729

November, 1987

Photographer: Fredric L. Quivik

Frame No.	Bridge No.	County	City/ Township	Subject	Camera Facing
11.	27664	Hennepin	Minneapolis	3/4 view of underside showing steel I-beams which now actually support the deck	SW
12.	"	"	"	detail showing ends of beams resting on pier	SW
13.	"	"	"	detail showing newell at end of sidewalk rail	W
14.	"	"	"	portal view	SW
15.	"	"	"	detail of maker's plate & portal cresting	W
16.	"	"	"	3/4 view	W
17.	"	"	"	3/4 view	S
18.	"	"	"	northwest elevation	SE



TOWNSHIP/ COUNTY: \_\_\_\_\_ CITY: \_\_\_\_\_

PLAQUE 1887

BRIDGE NAME: BR. No. 27664

BLT BY KING IRON

LOCATION: \_\_\_\_\_

BR. CO. CLEVELAND O.

(APPROX) YR BLT: \_\_\_\_\_

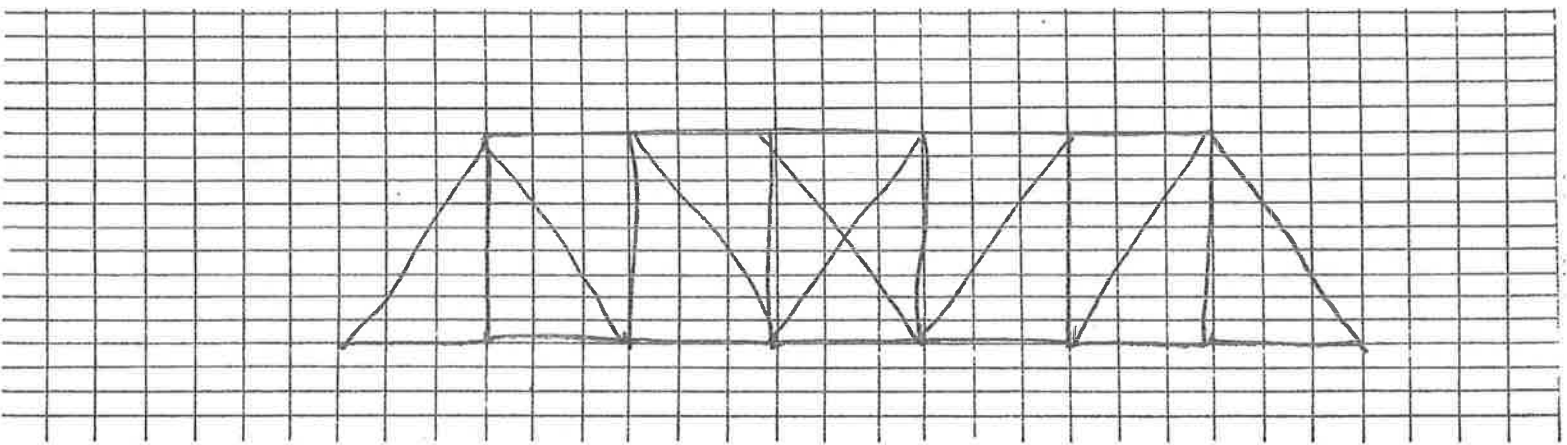
ANDREW PINKER, CITY ENR.

CARRIES \_\_\_\_\_ OVER \_\_\_\_\_ WITH BRIDGING

1 MAIN SPAN(S) PIN JOINT THROUGH (REAR STEEL I-BM, DEEP, WELDED)

2 APPROACH SPAN(S) STEEL STRINGERS I-BM ROLLED

APPROACH SPAN(S) \_\_\_\_\_



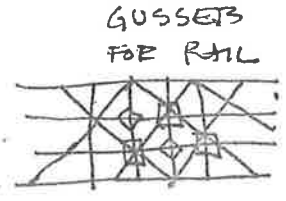
MEMBER DESCRIPTION:

LOWER CHORD: PUNCHED EYEBARS

SUPERSTRUCTURE: VERTICALS: L I V A F T

RAILING: LATTICE WITH STRAPS DIAGONALS: PUNCHED EYEBARS

SUBSTRUCTURE: CONCRETE PIERS & ABUTS UPPER CHORD: I L



TYPE of MOVABLE END \_\_\_\_\_

CONNECTIONS: FLOOR BM. TO SUPERSTR. N/A

PANEL INTERSECTIONS PIN

STRINGERS TO FLR. BM. N/A

FLOOR SYSTEM: FLOOR BMS. GONE

STRINGERS GONE

DECK CONCRETE

LATERAL BRACING: PORTAL SWAY FLOOR

PORTAL PAIRED L WITH L LATTICE & STRAP VERT

SWAY PAIRED L WITH L LATTICE

JOINTS X BR. LUGS RUNNER FLOOR

ALSO, SAME LONGITUDINAL STRUT

