

**United States Department of the Interior
National Park Service**

**National Register of Historic Places
Continuation Sheet**

Section number _____ Page _____

SUPPLEMENTARY LISTING RECORD

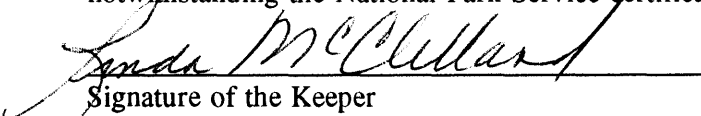
NRIS Reference Number: 99001035

Property Name: Fort Madison Bridge

County: Lee State: Iowa
Hancock Illinois

Highway Bridges of Iowa MPS
Multiple Name

This property is listed in the National Register of Historic Places in accordance with the attached nomination documentation subject to the following exceptions, exclusions, or amendments, notwithstanding the National Park Service certification included in the nomination documentation.

 _____ August 27, 1999
Signature of the Keeper Date of Action

=====
Amended Items in Nomination:

Section 3 Certification

A check is, hereby, entered in the boxes for "nomination," "meets," and "statewide" to indicate the SHPO's certification.

Section 7 Description

The section for Materials is, hereby, amended to include "steel" and "concrete" under the item for "other."

Beth Foster of the Iowa State Historic Preservation Office was notified of this amendment.

DISTRIBUTION:

- National Register property file
- Nominating Authority (without nomination attachment)

JUL - 6 1999

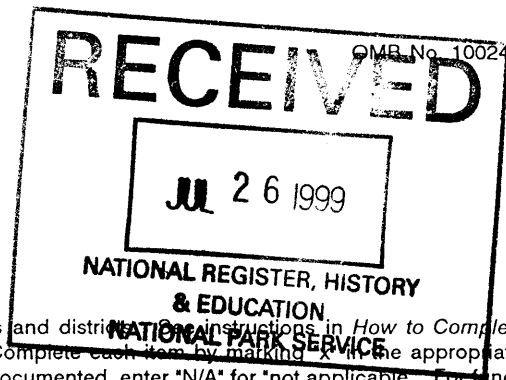
NPS Form 10-900
(Oct. 1996)

GMB No. 10024-0018

**United States Department of the Interior
National Park Service**

**National Register of Historic Places
Registration Form**

1085



This form is for use in nominating or requesting determinations for individual properties and districts. Complete each item by marking "X" in the appropriate box or by entering the information requested. If an item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions. Place additional entries and narrative items on continuation sheets (NPS Form 10-900a). Use a typewriter, word processor, or computer, to complete all items.

1. Name of Property

historic name Fort Madison Bridge
other names/site number _____

2. Location

street & number Highway 9 over Mississippi River not for publication
city or town Fort Madison vicinity
state Iowa / Illinois code IA / IL county Lee / Hancock code 111/067 zip code 52627

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended, I hereby certify that this nomination request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property meets does not meet the National Register criteria. I recommend that this property be considered significant nationally statewide locally. (See continuation sheet for additional comments.)
Patticia Overkins DGHPD 7-20-99
Signature of certifying official/Title Date

State or Federal agency and bureau

In my opinion, the property meets does not meet the National Register criteria. (See continuation sheet for additional comments.)
William L. Wheeler / SHPO, IL 6-30-99
Signature of certifying official/Title Date
Illinois Historic Preservation Agency
State or Federal agency and bureau

4. National Park Service Certification

- I hereby certify that the property is:
- entered in the National Register
 - See continuation sheet
 - determined eligible for the National Register
 - See continuation sheet
 - determined not eligible for the National Register
 - removed from the National Register
 - other, (explain):

Jonda McClelland 8/27/99

5. Classification

Ownership of Property

(Check as many boxes as apply)

- private
- public-local
- public-State
- public-Federal

Category of Property

(Check only one box)

- building(s)
- district
- site
- structure
- object

Number of Resources within Property

(Do not include previously listed resources in the count)

Contributing	Noncontributing	
0	0	buildings
0	0	sites
1	0	structures
0	0	objects
1	0	Total

Name of related multiple property listing

(Enter "N/A" if property is not part of a multiple property listing)

Highway Bridges of Iowa

Number of contributing resources previously listed in the National Register

0

6. Function or Use

Historic Functions

(Enter categories from instructions)

TRANSPORTATION/road-related

TRANSPORTATION/rail-related

Current Functions

(Enter categories from instructions)

TRANSPORTATION/road-related

TRANSPORTATION/rail-related

7. Description

Architectural Classification

(Enter categories from instructions)

other: swing-span through truss

Materials

(Enter categories from instructions)

foundation N/A

walls N/A

roof N/A

other N/A

Narrative Description

(Describe the historic and current condition of the property on one or more continuation sheets)

Located in Fort Madison, the Fort Madison Bridge spans the Mississippi River in an urban setting that has changed little since the structure's period of significance. A description of the structure follows:

span number: 1	construction date: 1925-27
span length: 525.0'	construction cost: \$5.5 million
total length: 1675.0'	current condition: fair
roadway wdt.: 23.5'	alterations: structural damage to the draw protection caused by barge/tug boat accident, March 1979

superstructure: steel, rigid-connected, double-track, double-deck, through truss swing span; 9-span deck girder on east approach; 10-span deck girder on west approach; four 270-foot Baltimore through trusses

substructure: concrete abutments, wingwalls and piers

floor/decking: concrete deck over steel stringers

other features: upper chord and inclined end post: 2 built-up channels with cover plate and double lacing; lower chord: 2 built-up channels with lacing; vertical: 2 channels with lacing, built-up I-beam; diagonal: 2 channels, laced; upper lateral bracing: 2 angles, laced; strut: 4 angles, laced and braced

Other than maintenance-related repairs and alterations noted above, the bridge remains essentially unaltered as it continues to carry vehicular traffic. The Fort Madison Bridge today retains a high degree of integrity of location, design, setting, materials, workmanship, feeling and association.

8. Statement of Significance

Applicable National Register Criteria

(Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing)

- A Property is associated with events that have made a significant contribution to the broad patterns of our history.
B Property is associated with the lives of persons significant in our past.
C Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.
D Property has yielded, or is likely to yield, information important in prehistory or history.

Criteria Considerations

(Mark "x" in all the boxes that apply)

Property is:

- A owned by a religious institution or used for religious purposes.
B removed from its original location.
C a birthplace or grave.
D a cemetery.
E a reconstructed building, object, or structure.
F a commemorative property.
G less than 50 years of age or achieved significance within the past 50 years.

Narrative Statement of Significance

(Explain the significance of the property on continuation sheets.)

Areas of Significance

(Enter categories from instructions)

ENGINEERING

Period of Significance

1925-27

(The period of significance is derived from the original construction date.)

Significant Dates

1925-27 (construction date)

Significant Person

(Complete if Criterion B is marked above)

N/A

Cultural Affiliation

N/A

Architect/Builder

designer:

Santa Fe Railroad, A.F. Robinson

fabricator:

American Bridge Company, NY

builder:

American Bridge Co.; Union Bridge Co.

9. Major Bibliographical References

Bibliography

(Cite the books, articles, and other sources used in preparing this form on one or more continuation sheets.)

Previous documentation on file (NPS):

- preliminary determination of individual listing (36 CFR 67) has been requested
previously listed in the National Register
previously determined eligible by the National Register
designated a National Historic Landmark
recorded by Historic American Buildings Survey
recorded by Historic American Engineering Record

Primary location of additional data:

- State Historic Preservation Office
other State agency
Federal agency
Local government
University
other
name of repository:

10. Geographical DataAcreage of Property less than one acre**UTM References**

(Place additional UTM references on a continuation sheet)

1 15 644040 4498680
zone easting northing2 15 644770 4497760
zone easting northing**Verbal Boundary Description**

(Describe the boundaries of the property)

The nominated property is a rectangular-shaped parcel measuring 26 feet by 1,675 feet, which is centered on the UTM point(s) listed above. Included within this rectangular parcel are the bridge's superstructure, substructure, approach spans and floor system.

Boundary Justification

(Explain why the boundaries were selected)

The nominated structure includes the bridge's superstructure, substructure, floor system, any approach spans and the property on which they rest. These boundaries encompass, but do not exceed, all of the property that has been historically associated with the bridge.

11. Form Prepared By

name/title Michelle Crow-Dolby
 organization Fraserdesign date 31 August 1994
 street & number 1269 Cleveland Avenue telephone 303-669-7969
 city or town Loveland state Colorado zip code 80537

Additional Documentation

Submit the following items with the completed form:

Continuation Sheets**Maps**A **USGS map** (7½ or 15 minute series) indicating the property's locationA **Sketch map** for historic districts and properties having large acreage or numerous resources**Photographs**Representative **black and white photographs** of the property**Additional Items**

(Check with the SHPO or FPO for any additional items)

Property Owner

(Complete this item at the request of SHPO or FPO)

name/title Atchison, Topeka and Santa Fe Railroad
 street & number _____ telephone _____
 city or town _____ state Iowa zip code _____

Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C. 470 *et seq.*).

Estimated Burden Statement: Public reporting burden for this form is estimated to average 18.1 hours per response including time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Chief, Administrative Services Division, National Park Service, P.O. Box 37127, Washington, DC 20013-7127; and the Office of Management and Budget, Paperwork Reductions Projects (1024-0018), Washington, DC 20503.

**United States Department of the Interior
National Park Service**

**National Register of Historic Places
Continuation Sheet**

Section Number 8 Page 1 Fort Madison Bridge Lee/Hancock Counties; Iowa/Illinois

The first Santa Fe railway and roadway bridge to span the Mississippi River at Fort Madison was both a financial and transportational boon to the city. Wisely offering the Santa Fe Railroad incentives in the form of a bridge charter, tax reductions, and land for the railroads' switchyards and shops, Fort Madison secured the newest Mississippi River crossing in 1887. The editor of the Topeka, Kansas, **Capital** described Fort Madison's promising future by writing: "It is expected that Fort Madison will be the largest city in Iowa at no very distant day as the (bridge) location is all that can be desired." An influx of nearly 4,000 Santa Fe employees into Fort Madison was expected owing to the bridge's construction, and the town was aptly nicknamed "Boom Town." Not everyone was pleased at the town's sudden growth, however, as was noted in the town's newspaper, **The Weekly Democrat**. Evidently, local citizens were slow to control wandering cattle in town who "pirouette about the city parks and rush pell mell through the streets."

The Chicago, Santa Fe, and California Railway contracted with SooySmith & Son of New York to construct the bridge's substructure and with the New York-based Union Bridge Company to fabricate and erect the superstructure. Work on the structure's timber pile bents and masonry piers began in April 1887, and eight months later the 1925-foot bridge was complete. Designed by Octave Chanute, the iron and steel bridge consisted of an eight-span single track through truss bridge, with wagon lanes cantilevered on brackets outside the trusses. The Fort Madison-to-Chicago bridge was subsequently replaced forty years later "having long been a (traffic) bottleneck" and also because it could no longer sustain the increasingly heavy traffic loads.

The first bridge's successor, the massive Mississippi River Bridge, a rigid-connected swing through truss, dates to 1925. Structural work on the bridge began in April 1925 by the Union Bridge and Construction Company of New York. The American Bridge Company, also of New York, was contracted to fabricate and erect the superstructure, based on plans delineated by A.F. Robinson of the Santa Fe Railroad. The structure consists of a riveted double-track, double-deck swing through truss, a nine-span deck girder on the east approach, and a ten-span deck girder on the west approach, in addition to four 270-foot Baltimore through trusses, and a 530-foot swing span. "The bridge was built with 29 million pounds of metal and 46,000 cubic yards of concrete at a total cost of \$5.5 million." Simply painting the behemoth cost over \$100,000.00. Formally opened to traffic on 28 July 1927, more than four hundred men were employed throughout the bridge's construction.

The Mississippi River Bridge is notable not only for its overall length of 1675 feet and for the major river it crosses, but because its 525-foot electrified swing span was the longest and heaviest in the country at the time it was built. The swing span is used to allow river traffic, which has the right of way, to pass through the bridge, the process of which fascinates on-lookers from the river bank. Excluding damage incurred by river traffic and regular maintenance-related repairs, the Mississippi River Bridge has functioned as a toll bridge in essentially unaltered condition. As of the spring of 1979, the rate for a one-way crossing remained unchanged since 1927, 25 cents.

**United States Department of the Interior
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**National Register of Historic Places
Continuation Sheet**

Section Number 9 Page 2 Fort Madison Bridge Lee/Hancock Counties, Iowa/Illinois

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure No. 033280.

Joseph Weidel, comp., *Kansas City to Chicago*, sections 1,2,3,4,5,6 and 7, Nos. 1 and 2, Vols. 11 and 12 (1940).

Joe McMillan, *Route of the Warbonnets*, pages 19-24.

Ted Sloat, *Fort Madison A Pictorial History* (C. Bradley Publishing, Inc., 1987).

Jos. Weidel, *The Atchison, Topeka and Santa Fe Railway System*, Vol.1 (1940).

"Santa Fe Scrap Bin," pages 1-7 (n.d.).

"Record-Holding Bridge Spans the Mississippi," *Evening Democrat*, by Don Hrabal, pages 4-5 (21 April 1979).

"Interstate Bridges to Iowa," unpublished report prepared for Iowa Department of Transportation by Dennett, Muessig & Associates, Ltd., (August 1982).

F.B. Maltby, "The Mississippi River Bridges," *Journal of the Western Society of Engineers* (1903), pages 419-93.

"The Fort Madison Bridge across the Mississippi River," *Engineering News* (2 June 1888, 9 June 1888).

"Santa Fe Builds New Bridge over the Mississippi River," *Railway Age*, volume 83 (July 1927), pages 47-53.

Field inspection by Clayton Fraser, 18 August 1991.