# Crooked River Bridge

## **RAY015**

### GENERAL DATA

structure no.: 257001.6

8.5 miles east of Richmond city/town:

county:

Ray

feature inters.: Crooked River

cadastral grid: S24/25, T52N, R27W highway route: County Road 257

highway distr.: 4

current owner: Ray County

# STRUCTURAL DATA

superstructure: Wrought iron or steel, 6-panel, pin-connected Pratt through truss;

steel stringer approaches on north end; 1 steel stringer approach on

south end

timber pile bent abutments; concrete-filled iron cylinder piers; stone substructure:

pier

span number: 1

condition:

fair

102.0' span length:

162.0'

alterations:

approach spans altered floor/decking: timber deck over steel stringers

total length: roadway width: 10.8'

other features: upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 looped square or rectangular eyebars; vertical: 2 channels with lacing (looped square eyebar at hip); diagonal: 2 looped rectangular eyebars; counter: round eyerod with turnbuckle; lateral bracing: round rod with threaded ends; strut: 4 angles with lacing; floor beam: riveted plate girder, U-bolted to lower chord pins; guardrail: steel pipe; lattice portal strut; portal builder's plate: Wrought Iron Bridge Co / Builders / Canton

Ohio

#### HISTORICAL DATA

erection date: 1889

erection cost: \$795.00 (contract amount)

Wrought Iron Bridge Company, Canton OH designer: Wrought Iron Bridge Company, Canton OH fabricator: contractor:

Wrought Iron Bridge Company, Canton OH

Missouri Highway and Transportation Department, Structure Inventory references:

and Appraisal: Structure Number 257001.6; Ray County Court Record, Book M: page 418 (7 January and 7 May 1889) - located at the Ray County Courthouse, Richmond MO; field inspection by Lon Johnson, 11

September 1990.

sign. rating:

NRHP possibly eligible (well-preserved, early example of mainstay strucevaluation:

tural type)

inventoried by: Michelle Crow-Dolby 3 August 1992



NAME(S) OF STRUCTURE

Crooked River Bridge MHTD: 257001.6

LOCATION

County Road 257 over Crooked River; S24/25, T52N, R27W

8.5 miles east of Richmond; Ray County, Missouri

**RAY015** 

DATE(S) OF CONSTRUCTION

1889

**USE (ORIGINAL / CURRENT)** 

roadway bridge / roadway bridge

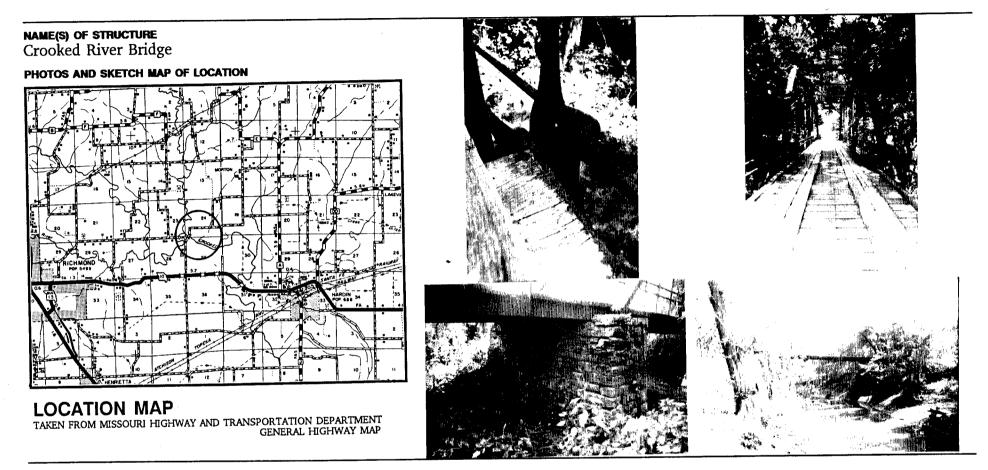
RATING NRHP possibly eligible (score: 51)

			Than possibly engine (score, 51)	
<b>condition</b> fair		<b>owner</b> Ray County		
span number: span length: total length: roadway wdt.:	102.0' 162.0'	superstructure: substructure: floor/decking: other features:	wrought iron or steel, 6-panel, pin-connected Pratt through truss; 2 steel stringer approaches on north end; 1 steel stringer approach on south end timber pile bent abutments; concrete-filled iron cylinder piers; stone pier timber deck over steel stringers upper chord and inclined end post: 2 channels with cover plate and lacing; lower chor 2 looped square or rectangular eyebars; vertical: 2 channels with lacing (looped square eyebar at hip); diagonal: 2 looped rectangular eyebars; counter: round eyerod with lacing the probability lateral based on the pro	

upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 looped square or rectangular eyebars; vertical: 2 channels with lacing (looped square eyebar at hip); diagonal: 2 looped rectangular eyebars; counter: round eyerod with turnbuckle; lateral bracing: round rod with threaded ends; strut: 4 angles with lacing; floor beam: riveted plate girder, U-bolted to lower chord pins; guardrail: steel pipe; lattice portal strut; portal builder's plate: Wrought Iron Bridge Co / Builders / Canton Ohio

Spanning the Crooked River east of Richmond in southeastern Ray County, this 102-foot Pratt through truss dates to 1889. In May of that year, the Ray County Court awarded the Wrought Iron Bridge Company a contract to remove an old bridge at this location and erect a new truss. Courthouse records list the contract amount as \$795.00, with the Canton, Ohio-based contractor providing a \$1590.00 bond to secure its work. Additionally, Wrought Iron was required to raise the previous bridge's stone piers and abutments by three feet to provide the new truss with a higher water clearance. Completed the same year, the structure continues to carry intermittent traffic in its original location while retaining a high degree of both structural and historical integrity.

In Missouri the pinned Pratt through truss was the bridge of choice for short- and medium-span applications in the late 19th and early 20th centuries. Most of the structures erected during this period were based on standard plans developed either by the state highway department (after 1917) or by the individual bridge companies, such as the prolific Wrought Iron Bridge Company in Canton, Ohio. As a result, thousands of Pratts were built across the state, all very much alike in detailing, and today the Pratt truss constitutes the most populous group of through trusses. The Crooked River Bridge is thus distinguished as an early example of this bridge construction trend.



#### SOURCES

Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 257001.6; Ray County Court Record, Book M: page 418 (7 January and 7 May 1889) - located at the Ray County Courthouse, Richmond MO; field inspection by Lon Johnson, 11 September 1990.