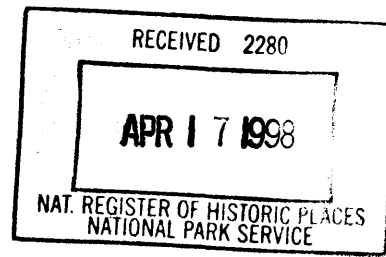


**United States Department of the Interior
National Park Service**

**National Register of Historic Places
Registration Form**



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This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in *How to Complete the National Register of Historic Places Registration Form* (National Register Bulletin 16A). 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 Skunk River Bridge

other names/site number _____

2. Location

street & number 255th Street over Skunk River not for publication

city or town 4.0 miles southeast of Ames vicinity

state Iowa code IA county Story code 169 zip code 50010

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.)

Patricia Overking DSHPD 4-7-98
Signature of certifying official/Title Date

STATE HISTORICAL SOCIETY OF IOWA
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.)

Signature of certifying official/Title Date

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):

Edson H. Beall 5-15-98

5. Classification

Ownership of Property
(Check as many boxes as apply)

Category of Property
(Check only one box)

Number of Resources within Property
(Do not include previously listed resources in the count)

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

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

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)

Number of contributing resources previously listed in the National Register

Highway Bridges of Iowa

0

6. Function or Use

Historic Functions

Current Functions

(Enter categories from instructions)

(Enter categories from instructions)

TRANSPORTATION/road-related

TRANSPORTATION/road-related

7. Description

Architectural Classification

Materials

(Enter categories from instructions)

(Enter categories from instructions)

other: pinned Warren through truss

foundation Concrete

walls

roof

other Wrought iron

Narrative Description

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

Located 4.0 miles southeast of Ames, the Skunk River Bridge spans the Skunk River in a rural Story County setting that has changed little since the structure's period of significance. A description of the structure follows:

span number: 1	construction date: 1876; moved 1916
span length: 80.0'	construction cost: \$6600.00
total length: 163.0'	current condition: poor
roadway wdt.: 15.8'	alterations: through truss moved and pony truss added, 1916

superstructure: wrought iron, 5-panel, pin-connected Warren through truss, with steel rigid-connected Warren pony truss approach span added on west end
 substructure: concrete abutments, wingwalls and piers
 floor/decking: concrete and timber deck
 other features: through truss - upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 looped rectangular eyebars; diagonal: 2 punched rectangular eyebars; lateral bracing: round eyerods with turnbuckles; strut: 2 angles with spacer plates; floor beam: tapered "fishtail" plate girder

Other than the 1916 move and subsequent maintenance-related repairs, the bridge remains essentially unaltered. The Skunk River 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

1876; moved 1916

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

Significant Dates

1876; moved 1916 (construction date)

Significant Person

(Complete if Criterion B is marked above)

N/A

Cultural Affiliation

N/A

Architect/Builder

designer:

King Iron Bridge and Manufacturing Co.

fabricator:

King Iron Bridge and Manufacturing Co.

builder:

King Iron Bridge and Manufacturing 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 451380 4648240
zone easting northing2 _____
zone easting northing**Verbal Boundary Description**

(Describe the boundaries of the property)

The nominated property is a rectangular-shaped parcel measuring 18 feet by 163 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 Byname/title Clayton B. Fraserorganization Fraserdesign date 31 August 1994street & number 1269 Cleveland Avenue telephone 303-669-7969city 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 Story Countystreet & number 900 Sixth Street telephone 515-382-6581city or town Nevada state Iowa zip code 50201

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 Skunk River Bridge Story County; Iowa

In April 1876 the Story County Board of Supervisors directed County Clerk S.J. Shearer to advertise for three iron bridges over the Skunk River. One would span the river at Soper's Mill north of Ames, the second would be located in Grant Township, and the third would span the Skunk River just east of the small town of Cambridge, in Union Township. By far the longest of the three, this last bridge consisted of an 80-foot wrought iron truss supported by cylinder piers over the river's channel, with a 200-foot timber pile approach. The contract to fabricate and erect the three spans was awarded in June to the King Iron Bridge and Manufacturing Company of Cleveland, Ohio. The Soper's Mill Bridge (and perhaps the Grant Township bridge) was a bowstring; the iron part of the Cambridge Bridge was a Warren through truss with pinned connections.

King apparently completed the three bridges later that year, but in September 1877 the Cambridge Bridge already required repairs. The truss's deck and stone substructure needed periodical repairs in subsequent years, the most serious of which was a partial reconstruction of the crumbling stone abutments in 1899. By the mid-1910s the Cambridge Bridge was no longer sufficient to carry traffic at this crossing. In 1916 the county hired the Cole Brothers Construction Company of Ames to replace the bridge and to move the old truss to a new crossing of the Skunk River southeast of Ames. Here it was combined with an ISHC-standard pony truss on a new concrete substructure. This reconstruction cost \$6600.00 - coincidentally the same amount as the original bridge had cost to build in 1876. The bridge carried extremely light traffic at this remote location until about 1990, when the road was vacated and the bridge abandoned in place.

The Skunk River Bridge employs a classic Warren truss configuration, with a web that relies on simple triangulation for its rigidity. "The term Warren truss or Warren girder was originally applied only to the particular case of the Triangular truss in which the web triangles are all equilateral; but later writers generally use the name for any triangular truss, noted bridge engineer J.A.L. Waddell wrote in his 1916 treatise **Bridge Engineering**. "As there is no special advantage in making the web triangles equilateral, there does not appear to be any good *raison d'être* for the use of the true Warren type." In a state dominated by bowstrings and Pratt trusses in the 1870s and early 1880s, relatively few Warren trusses were built. Only a handful survives to the present, of which the Skunk River Bridge is the oldest. Built during the county's formative years by the nation's most prolific bridge fabricator, it is an important early transportation-related resource.

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

**National Register of Historic Places
Continuation Sheet**

Section Number 9 Page 2 Skunk River Bridge Story County; Iowa

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure No. 314920.

Story County Supervisors' Minutes, Book B: page 545 (4 April 1876), page 571 (9 June 1876); Book C: page 84 (8 September 1877), located at Story County Courthouse, Nevada IA.

Story County Bridge Book Number 1, located at Story County Engineer's Office, Nevada IA.

Story County Supervisors' Minutes, Book F: pages 618-19 (2 March 1916), located at Story County Courthouse, Nevada IA.

Report of the State Highway Commission, 1916, pages 79, 230.

Iowa State Highway Commission, **Service Bulletin 4:8** (August 1916), page 12.

Field inspection by Clayton Fraser, 7 December 1990.