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United States Department of the Interior
National Park Service

National Register of Historic Places
Registration Form

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 Bridge, Garritson Outlet

other names/site number _____

2. Location

street & number County Road K 64 over Garretson Outlet Ditch not for publication

city or town 4.6 miles north of Whiting vicinity

state Iowa code IA county Monona code 133 zip code 51063

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 Chinkm DSHD 2-3-99
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. Beal 3/12/99

Ken Keeper

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

Current Functions
(Enter categories from instructions)

TRANSPORTATION/road-related

7. Description

Architectural Classification
(Enter categories from instructions)

other: steel riveted Warren pony truss

Materials
(Enter categories from instructions)

foundation _____
 walls _____
 roof N/A
 other N/A

Narrative Description

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

Located 4.6 miles north of Whiting, the bridge spans the Garretson Outlet Ditch in a rural Monona County setting that has changed little since the structure's period of significance. A description of the structure follows:

span number: 1 construction date: 1913
 span length: 100.0' construction cost: unknown
 total length: 168.0' current condition: fair
 roadway wdt.: 16.0' alterations: unknown

superstructure: steel, 6-panel, rigid-connected Warren pony truss with polygonal upper chords; steel stringer approach span at each end
 substructure: timber pile bent abutments and piers
 floor/decking: timber deck over steel stringers
 other features: upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 angles with batten plates; vertical: 4 angles with batten plates and outriders; diagonal: 2 angles with batten plates; lateral bracing: round rod with threaded ends; floor beam: I-beam; guardrail: 3 angles

Other than maintenance-related repairs and alterations noted above, the bridge remains essentially unaltered as it continues to carry vehicular traffic. The 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
[Blank lines for additional categories]

Period of Significance

1913
(The period of significance is derived from the original construction date.)

Significant Dates

1913 (construction date)

Significant Person

(Complete if Criterion B is marked above)

N/A

Cultural Affiliation

N/A

Architect/Builder

designer: Iowa Bridge Company, Des Moines IA
fabricator: Iowa Bridge Co.; Lackawanna Steel Co.
builder: Iowa Bridge Company, Des Moines IA

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 14 738860 4676320
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 168 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 Monona Countystreet & number P.O. Box 236 telephone 712-423-2284city or town Onawa state Iowa zip code 51040

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 Bridge Monona County; Iowa

This long-span pony truss carries an unpaved county road across the Garretson Outlet Ditch north of Whiting. Comprised of a riveted Warren truss with polygonal upper chords, the structure was fabricated and erected for the county by the Iowa Bridge Company of Des Moines in 1913. IBCo held the county's annual bridge contract that year, as it had for 1912, building several small- and medium-scale bridges over the newly dredged system of channelized streams and drainage ditches that criss-crossed the county. Supported by a timber pile bent substructure, the bridge still functions in place in unaltered condition.

After about 1910, rigid-connected Warren pony trusses began to supersede earlier pinned Pratt configurations for use on short- to intermediate-span highway bridges. Although these bridges displayed variations in their web configurations, virtually all of these early Warren trusses featured straight upper chords. A few rigid-connected Warren ponies were fabricated with polygonal upper chords, however. These were comparable to the basic Warren in their load-carrying capacity, but required somewhat less steel in the vertical and diagonal members of the outer panels. As a more materially efficient design, the polygonal-chorded Warren represented a technological refinement over its straight-chorded counterpart. Unlike long-span through trusses, in which the savings of material in a polygonal top chord could be substantial, the relatively modest savings in material in these medium-span pony trusses was more than offset by greater inventory, fabrication and erection costs. As a result, the polygonal-chorded Warren truss never became a mainstay structural type. Those few polygonal-chorded Warrens identified in Iowa have been traced to the Iowa Bridge Company of Des Moines. Soon after the company began fabricating this bridge type, however, the Iowa State Highway Commission issued standardized bridge designs for use on the state's roads. The Commission's Warren truss designs, widely adopted by the counties under the directive of the state legislature in 1913, featured straight upper chords. The polygonal Warren configuration was thus rendered obsolete in Iowa soon after it was introduced. This bridge in Monona County is a well-preserved example of the polygonal Warren pony truss. One of only a handful of such structures, it represents riveted truss construction in the years immediately before codification of bridge design by the state highway commission.

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

**National Register of Historic Places
Continuation Sheet**

Section Number 9 Page 2 Bridge Monona County; Iowa

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure No. 251500.

Monona County Supervisors' Record, Book 9: page 219 (12 November 1912), located at Monona County Courthouse, Onawa IA.

Field inspection by Richard Collier, 31 January 1991.