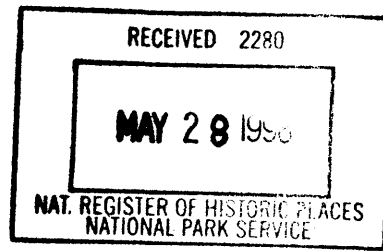


**United States Department of the Interior
National Park Service**

**National Register of Historic Places
Registration Form**



754

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 Brooke Creek Bridge

other names/site number _____

2. Location

street & number 470th Street over Brooke Creek not for publication

city or town 8.0 miles southwest of Sioux Rapids vicinity

state Iowa code IA county Buena Vista code 021 zip code 50585

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 Chuntzky DSITPO 5-6-98
 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.)

 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. Ball 6-25-98

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.

Areas of Significance

(Enter categories from instructions)

ENGINEERING

Period of Significance

1909

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

Significant Dates

1909 (construction date)

Significant Person

(Complete if Criterion B is marked above)

N/A

Cultural Affiliation

N/A

Architect/Bullder

designer:

George K. McCollough

fabricator:

none

builder:

W.A. Barns

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.)

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:

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: concrete filled spandrel arch

Materials

(Enter categories from instructions)

foundation Concrete
 walls
 roof
 other Concrete

Narrative Description

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

Located 8.0 miles southwest of Sioux Rapids, the Brooke Creek Bridge spans a branch of the Little Sioux River in a rural Buena Vista County setting that has changed little since the structure's period of significance. A description of the structure follows:

span number: 1 construction date: 1909
 span length: 60.0' construction cost: \$1400.00 (contract amount)
 total length: 60.0' current condition: good
 roadway wdt.: 17.8' alterations: none

superstructure: concrete filled spandrel arch
 substructure: concrete abutments and wingwalls
 floor/decking: earth fill over concrete
 other features: concrete guardrails with incised panels

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

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

(Place additional UTM references on a continuation sheet)

1 15 313200 4744960
zone easting northing2 _____
zone easting northing**Verbal Boundary Description**

(Describe the boundaries of the property)

The nominated property is a rectangular-shaped parcel measuring 20 feet by 60 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 Buena Vista Countystreet & number P.O. Box 368 telephone 712-749-2540city or town Storm Lake state Iowa zip code 50588

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 Brooke Creek Bridge Buena Vista County; Iowa

Located some eight miles southwest of Sioux Rapids in Brooke Township, this medium-span concrete bridge carries a gravel-surfaced county road over Brooke Creek, a branch of the Little Sioux River. The bridge dates to 1908. That summer the Buena Vista County Board of Supervisors contacted civil engineer George K. McCollough to design a concrete dam at the outlet of Storm Lake and reinforced concrete arch structures for this crossing and for an approach to the existing Sioux Rapids Bridge. McCollough delivered the drawings in August for the dam and the two bridges. Two weeks later the county contracted with John E. Quackenbush, a long-time bridge builder from Webster City, Iowa, to build the Brooke Creek structure for \$1448.00. But after Quackenbush had not started construction by October, the supervisors cancelled his contract and instead hired local builder W.A. Barnes to construct the Brooke Creek Bridge for \$1400.00. Barnes proved little faster than Quackenbush, however, and it took him until the following September to complete the bridge. McCollough's design for this span and two others had featured a filled spandrel arch with an elliptical profile, similar to the arch patented by Indianapolis engineer Daniel Luten. Two years after the Brooke Creek Bridge was completed, Luten sued McCollough for patent infringement. The matter was referred to the state highway commission, and the agency used this case to bolster its campaign to break Luten's hold on the concrete bridge industry in the mid-1910s.

The Luten lawsuit was a relatively common occurrence in Iowa in the early 1910s, indicative of a major trend in concrete bridge construction in the state at this time. Many of the early concrete arches were built by Des Moines bridge builders N.M. Stark and J.B. Marsh. These two men extensively marketed the arches for which they held proprietary rights - Stark the filled spandrel arch patented by Luten, and Marsh his own open spandrel rainbow arch design. After the Iowa State Highway Commission was re-formed by the state legislature in 1913, the new agency developed a standard filled spandrel arch design of its own. The Marsh/Luten designs and the ISHC standard designs accounted for the overwhelming majority of concrete arches in the state. A few arches were built from other sources, however, in the case of this structure in Buena Vista County, Storm Lake civil engineer George McCollough. This bridge is thus significant for its atypical origins. A well-preserved, relatively early example of its type, it is an important transportation-related resource.

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

**National Register of Historic Places
Continuation Sheet**

Section Number 9 Page 2 **Brooke Creek Bridge** Buena Vista County; Iowa

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure No. 086550.

Buena Vista Supervisors' Book No. 6: page 504 (5 August 1908), page 505 (18 August 1908), page 528 (8 December 1908), page 543 (8 December 1908), page 596 (15 September 1909), Book 7: page 143 (15 August 1911).

Field inspection by Clayton Fraser and Sheila Bricher-Wade, 13 February 1992.