

NPS Form 10-900
(Rev. 8-86)

OMB No. 1024-0018

United States Department of the Interior
National Park Service

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NATIONAL REGISTER OF HISTORIC PLACES
REGISTRATION FORM

OCT 25 1993

NATIONAL
REGISTER

1. Name of Property

historic name: Stamford Bridge

other name/site number: South Dakota Dept. of Trans. Br. No. 48-102-010

2. Location

street & number: Local road over the White River

not for publication:

city/town: Cedar Butte

vicinity: X

state: SD county: Mellette

code: 095 zip code: 57527

3. Classification

Ownership of Property: public-local

Category of Property: structure

Number of Resources within Property:

Contributing	Noncontributing	
_____	_____	buildings
_____	_____	sites
<u>1</u>	_____	structures
_____	_____	objects
<u>1</u>	_____	Total

Number of contributing resources previously listed in the National Register: 0

Name of related multiple property listing: Historic Bridges in South Dakota

4. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act of 1986, 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. See continuation sheet.

Signature of certifying official

Date

10/12/93

State or Federal agency and bureau

SD SHPO

In my opinion, the property meets does not meet the National Register criteria. See continuation sheet.

Signature of commenting or other official

Date

State or Federal agency and bureau

5. National Park Service Certification

I, hereby certify that this property is:

- entered in the National Register See continuation sheet.
determined eligible for the National Register
determined not eligible for the National Register
removed from the National Register
other (explain):

Signature of Keeper: SM Clelland 12/9/93

Signature of Keeper

Date of Action

=====
6. Function or Use
=====

Historic: Transportation Sub: road-related (vehicular)

Current : Transportation Sub: road-related (vehicular)

=====
7. Description
=====

Architectural Classification:

Other

Other Description: Bedstead pony truss

Materials: foundation concrete roof _____
walls _____ other metal: steel

Describe present and historic physical appearance. _X_ See continuation sheet.

=====
8. Statement of Significance
=====

Certifying official has considered the significance of this property in relation to other properties: _____.

Applicable National Register Criteria: A & C

Criteria Considerations (Exceptions) : _____

Areas of Significance: Politics/Government
Engineering

Period(s) of Significance: 1930 - 1943

Significant Dates : 1930 _____

Significant Person(s): N/A

Cultural Affiliation: N/A

Architect/Builder: _____

State significance of property, and justify criteria, criteria considerations, and areas and periods of significance noted above.
X See continuation sheet.

=====
9. Major Bibliographical References
=====

X See continuation sheet.

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 # _____

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Bridge no. 48-102-010 is located 18.9 miles north and 0.8 mile west of Cedar Butte, and it carries a local road over the White River. The bridge has three 80-foot Bedstead pony truss spans that rest on two concrete piers and two concrete abutments with wing walls. Each span is comprised as follows: the upper chords consist of paired steel angle sections riveted with a continuous steel channel section cover plate on top; the lower chords consist of paired steel angle sections; the verticals consist of paired steel angle sections, with the exception of the end verticals which consist of paired steel angel sections with a continuous cover plate riveted on the outside; the diagonals consist of paired steel angle sections. All connections are riveted with gusset plates. The deck, which consists of wood planks with a steel plate wearing surface, is supported by wood stringers (with wood block bracing between) which sit on steel I-beam floor beams. The floor beams are riveted with gusset plates to the verticals at the lower chords. Bottom lateral bracing consists of steel angle sections cross-bracing between every three floor beams. The sway bracing consists of steel angle sections riveted to every other vertical below the top chord, angled down and out to a horizontal angle section extending from the vertical at the deck level. The angle then returns to the vertical above the lower chord. Steel channel sections riveted with angle irons to the verticals comprise the railings.

The bridge retains excellent integrity.

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Stamford Bridge

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Bridge no. 48-102-010 is being nominated to the National Register of Historic Places as part of the "Historic Bridges in South Dakota" Multiple Property Nomination. It is related to the historic context of "Historic Bridges in South Dakota, 1893-1943" and is classified with the associated property type for iron and steel frame bridges. This bridge is individually eligible for the National Register under Criterion A for its association with the early designs of the South Dakota State Highway Commission (SHC). Bridges designed by the SHC, such as this one, represent the efforts of state government to improve the quality of bridge construction in South Dakota and break the hold the bridge building companies had on local governments. The bridge is also eligible under Criterion C as a representative example of standardized truss design developed by the South Dakota State Highway Commission (SHC). Riveted bedsteads, such as this bridge, were the only pony trusses built in South Dakota after 1919 until about 1930. Bridges of this truss type have added significance because they represent the development of a standardized design unique to South Dakota. This bridge retains excellent integrity.

Prior to about 1920, South Dakota lacked a coordinated statewide system to control the quality and costs of bridge work in the state. Most of its counties and townships independently carried out their bridge building projects, with little coordination except for sharing costs for an occasional county-line road or bridge. Within each county, the commissioners determined the location, need, and plans and specifications for new bridges with little, or as in most cases, no technical expertise themselves or outside technical assistance. Each county seemed to be dominated by a bridge company different from neighboring counties, with the same company receiving bridge contracts in the same county year after year. This was mostly likely due to illegal "pooling" arrangements under which various bridge-building firms agreed to divide states among themselves, assigning particular counties to specific firms.

In 1919, however, the state government actively intervened to improve the quality of bridge construction in South Dakota. At this time, the South Dakota State Highway Commission (SHC) established a bridge department, hired a bridge engineer, and gave him responsibility for designing all state and county bridges and supervising the bidding process for bridge construction contracts. The first bridge engineer for the State of South Dakota was John E. Kirkham, a professor of engineering at Iowa State at Ames and consulting engineer to the Iowa State Highway

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8. Significance (continued)

Commission, among the most innovative state highway departments in the country at the time. In South Dakota, Kirkham sought to reduce the cost of bridge construction and maintenance. He accomplished this in part by developing a series of standardized bridge plans which were especially suited to South Dakota's conditions of climate, terrain, and rural traffic needs.

One bridge plan devised by Kirkham for the South Dakota SHC was for a bedstead-type pony truss. Unique to Kirkham's design was its single-web upper chord in place of the conventional boxed upper chord. To critics, Kirkham argued that his design resulted in cost reductions because it required less materials to fabricate both the bridge superstructure and deck. Kirkham's pony truss design also called for concrete abutments with concrete approach guards to protect the ends of the truss. Kirkham believed that vertical end-posts, distinctive of the bedstead truss, with concrete approach guards provided a superior aesthetic design in comparison with other pony truss types. Although SHC pony trusses of Kirkham's design replaced construction of riveted Pratt and Warren pony truss in South Dakota, it was not adopted by other states.

Although several of these standardized SHC pony trusses with vertical end posts and concrete approaches survive on the South Dakota landscape, the Stamford Bridge has added significance because it has the greatest total length (245 feet) composed of three spans, each eighty feet in length. According to state records, it was constructed in 1930.

9. Bibliography

South Dakota Structure Inventory and Appraisal Sheet, 8/2/88, page 494.

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SUPPLEMENTARY LISTING RECORD

NRIS Reference Number: see below Date Listed: 12/09/93

Property Name: see below

County: see below State: South Dakota

Historic Bridges in South Dakota MPS
Multiple Name

The following properties are 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.


Signature of the Keeper

December 9, 1993
Date of Action

Amended Items in Nomination:

Section 3/8. State Certification/Statement of Significance. Certifying official has considered the significance of the following properties to be of state significance.

Reference No.	Property	County
93001295	Capa Bridge	Jones County
93001287	Chilson Bridge	Fall River County
93001308	Eighth Street Bridge	Minnehaha County
93001298	Esmond Bridge	Kingsbury County
93001317	Hall Bridge	Spink County
93001274	Hay Creek Bridge	Butte County
93001264	Kemp Avenue Bridge	Codington County
93001266	Larson Bridge	Codington County
93001277	Minnesela Bridge	Butte County
93001268	Old Cochrane Bridge	Deuel County
93001281	Red Shirt Bridge	Custer County
93001300	Redwater Bridge, Old	Lawrence County

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93001269	South Dakota Dept. of Transportation Bridge No. 03-338-100	Beadle County
93001260	South Dakota Dept. of Transportation Bridge No. 03-020-008	Beadle County
93001261	South Dakota Dept. of Transportation Bridge No. 03-327-230	Beadle County
93001270	South Dakota Dept. of Transportation Bridge No. 05-028-200	Bon Homme county
93001271	South Dakota Dept. of Transportation Bridge No. 05-032-170	Bon Homme County
93001272	South Dakota Dept. of Transportation Bridge No. 05-138-080	Bon Homme County
93001273	South Dakota Dept. of Transportation Bridge No. 05-255-130	Bon Homme County
93001276	South Dakota Dept. of Transportation Bridge No. 10-112-355	Butte County
93001275	South Dakota Dept. of Transportation Bridge No. 10-109-360	Butte County
93001278	South Dakota Dept. of Transportation Bridge No. 12-503-230	Charles Mix County
93001265	South Dakota Dept. of Transportation Bridge No. 15-210-136	Codington County
93001279	South Dakota Dept. of Transportation Bridge No. 16-570-054	Carson County
93001280	South Dakota Dept. of Transportation Bridge No. 17-289-107	Custer County
93001282	South Dakota Dept. of Transportation Bridge No. 18-040-137	Davison County
93001283	South Dakota Dept. of Transportation Bridge No. 18-060-202	Davison County
93001284	South Dakota Dept. of Transportation Bridge No. 18-100-052	Davison County
93001285	South Dakota Dept. of Transportation Bridge No. 18-142-150	Davison County
93001286	South Dakota Dept. of Transportation Bridge No. 20-153-210	Deuel County
93001288	South Dakota Dept. of Transportation Bridge No. 25-218-141	Faulk County
93001262	South Dakota Dept. of Transportation Bridge No. 25-380-142	Faulk County
93001289	South Dakota Dept. of Transportation Bridge No. 27-000-201	Gregory County
93001290	South Dakota Dept. of Transportation Bridge No. 27-060-298	Gregory County

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93001291	South Dakota Dept. of Transportation Bridge No. 29-221-060	Hamlin County
93001292	South Dakota Dept. of Transportation Bridge No. 29-279-010	Hamlin County
93001293	South Dakota Dept. of Transportation Bridge No. 30-257-400	Hand County
93001294	South Dakota Dept. of Transportation Bridge No. 31-115-110	Hanson County
93001297	South Dakota Dept. of Transportation Bridge No. 39-006-070	Kingsbury County
93001299	South Dakota Dept. of Transportation Bridge No. 39-176-100	Kingsbury County
93001301	South Dakota Dept. of Transportation Bridge No. 44-028-220	McCook County
93001302	South Dakota Dept. of Transportation Bridge No. 44-212-090	McCook County
93001303	South Dakota Dept. of Transportation Bridge No. 47-215-363	Meade County
93001263	South Dakota Dept. of Transportation Bridge No. 47-151-389	Meade County
93001305	South Dakota Dept. of Transportation Bridge No. 48-244-204	Melette County
93001306	South Dakota Dept. of Transportation Bridge No. 49-095-190	Miner County
93001267	South Dakota Dept. of Transportation Bridge No. 50-200-035	Minnehaha County
93001310	South Dakota Dept. of Transportation Bridge No. 56-090-096	Sanborn County
93001312	South Dakota Dept. of Transportation Bridge No. 56-174-090	Sanborn County
93001311	South Dakota Dept. of Transportation Bridge No. 56-117-123	Sanborn County
93001313	South Dakota Dept. of Transportation Bridge No. 58-010-376	Spink County
93001314	South Dakota Dept. of Transportation Bridge No. 58-021-400	Spink County
93001315	South Dakota Dept. of Transportation Bridge No. 58-025-370	Spink County
93001316	South Dakota Dept. of Transportation Bridge No. 58-062-270	Spink County
93001318	South Dakota Dept. of Transportation Bridge No. 58-120-231	Spink County
63001319	South Dakota Dept. of Transportation Bridge No. 58-140-224	Spink County

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63001320	South Dakota Dept. of Transportation Bridge No. 58-218-360	Spink County
63001321	South Dakota Dept. of Transportation Bridge No. 62-220-512	Tripp County
63001322	South Dakota Dept. of Transportation Bridge No. 64-061-199	Union County
93001309	Split Rock Park Bridge	Minnehaha County
93001304	Stamford Bridge	Miner County
93001307	Summit Avenue Viaduct	Minnehaha County
93001296	Van Metre Bridge	Jones County

Section 8: Applicable Criteria

93001266 Larson Bridge Codington County

Criterion C should be checked and not A to be consistent with bridge's significance in engineering for its method of construction.

Section 8: Period of Significance

93001266 Larson Bridge Codington County

Period of significance is amended to read "1917" to indicate date of construction and to be consistent with significance in engineering.

93001281 Red Shirt Bridge Custer County

Period of significance is amended to read "1943-1944" to cover the period of construction.

93001278 South Dakota Dept. of Transportation Bridge No. 12-503-230
Faulk County

Due to typographical error, period of significance is corrected to read " 1920-1943."

93001265 South Dakota Dept. of Transportation Bridge No. 15-210-136
Codington County

Period of significance is amended to read "1917" since significance is under criterion C in engineering and the date of construction should be entered.

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93001262 South Dakota Dept. of Transportation Bridge No. 25-380-
142 Faulk County

Period of significance is amended to read "1902" because the area of significance is engineering and the period of significance should be based on the date of construction. The bridge was moved from its original site in 1955.

Section 8: Date of Significance

93001308 Eighth Street Bridge Minnehaha County

"1977" is deleted because the date lies outside the period of significance.

93001317 Hall Bridge Spink County

"1904" is deleted because bridge is significant under criterion C for engineering and the move in 1904 falls outside the period of significance which is based on the date of construction and does not appear to have particular importance.

93001286 South Dakota Dept. of Transportation Bridge No. 20-153-
210 Deuel County

"1960" is deleted because the date lies outside the period of significance.

93001262 South Dakota Dept. of Transportation Bridge No. 25-380-
142 Faulk County

"1955" is deleted because the date lies outside the period of significance.

93001302 South Dakota Dept. of Transportation Bridge No. 44-212-
090 McCook County

"1960" is deleted because the date lies outside the period of significance.

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93001267 South Dakota Dept. of Transportation Bridge No. 50-200-
035 Minnehaha County

"1935" is deleted because the date lies outside the period of significance which is based on the date of construction.

93001311 South Dakota Dept. of Transportation Bridge No. 56-117-
123 Sanborn County

"1905" is deleted because the date lies outside the period of significance and does not appear to have particular importance.

Melissa Dirr, architectural historian, of the South Dakota State Historic Preservation Office was notified of the above-mentioned amendments by telephone on December 09, 1993.

DISTRIBUTION:

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