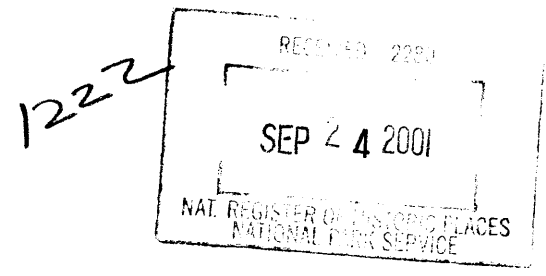


United States Department of the Interior
National Park Service



**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 any 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 South Dakota Department of Trans. Br. No. 14-133-170
other names/site number _____

2. Location

street & number Local Road over Vermillion River not for publication
city or town Vermillion vicinity
state South Dakota code SD county Clay code 027 zip code 57069

3. 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. I recommend that this property be considered significant nationally statewide locally. (See continuation sheet for additional comments.)

Jay D. Vogt 09-13-2001
Signature of certifying official Date

SD SHPO
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 commenting or other official Date

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:) _____

Signature of the Keeper	Date of Action
<u>Entered in the National Register</u>	<u>11-8-01</u>
_____	_____
_____	_____
_____	_____

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

Contributing	Noncontributing	
<u>0</u>	<u>0</u>	buildings
<u>0</u>	<u>0</u>	sites
<u>1</u>	<u>0</u>	structures
<u>0</u>	<u>0</u>	objects
<u>1</u>	<u>0</u>	Total

Number of contributing resources previously listed in the National Register 0

Name of related multiple property listing (Enter "N/A" if property is not part of a multiple property listing.) Historic Bridges in South Dakota

6. Function or Use

Historic Functions (Enter categories from instructions)

Cat: Transportation Sub: Road-Related

Current Functions (Enter categories from instructions)

Cat: Transportation Sub: Road-Related

7. Description

Architectural Classification (Enter categories from instructions)

Other: Warren Through Truss

Materials (Enter categories from instructions)

foundation Steel
roof _____
walls _____
other Steel

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

See Continuation Sheets

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.)

- A owned by a religious institution or used for religious purposes.
- B removed from its original location.
- C a birthplace or a 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.

Areas of Significance (Enter categories from instructions)

Engineering _____

Period of Significance

c. 1910-1920 _____

Significant Dates c. 1910

Significant Person (Complete if Criterion B is marked above) N/A

Cultural Affiliation N/A

Architect/Builder Unknown

Narrative Statement of Significance (Explain the significance of the property on one or more continuation sheets.)

See Continuation Sheets

9. Major Bibliographical References

(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
[X] Other State agency
Federal agency
Local government
University
Other

Name of repository: South Dakota Department of Transportation

Name of Property

10. Geographical DataAcreage of Property Less than one**UTM References**

(place additional UTM references on a continuation sheet.)

1	<u>14</u>	<u>671990</u>	<u>4744697</u>	3	<u> </u>	<u> </u>	<u> </u>
	Zone	Easting	Northing		Zone	Easting	Northing
2	<u> </u>	<u> </u>	<u> </u>	4	<u> </u>	<u> </u>	<u> </u>

 See continuation sheet**Verbal Boundary Description** (Describe the boundaries of the property on a continuation sheet.) See Continuation Sheet**Boundary Justification** (Explain why the boundaries were selected on a continuation sheet.) See Continuation Sheet**11. Form Prepared By**

name/title Lynda B. Schwan
 organization SD SHPO date June 18, 2001
 street & number 900 Governors Dr telephone 605-773-6056
 city or town Pierre state SD zip code 57501

Additional Documentation

Submit the following items with the completed form:

Continuation Sheets**Maps**A **USGS map** (7.5 or 15 minute series) indicating the property's location.A **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)

Name of Property _____

County and State _____

Property Owner

(Complete this item at the request of the SHPO or FPO.)

name _____
street & number _____ telephone _____
city or town _____ state SD zip code _____

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 the 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 Project (1024-0018), Washington, DC 20503.

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Architectural Description

Built on a pronounced skew, Bridge No. 14-133-170 carries an unpaved road across the Vermillion River approximately 2 miles north of Vermillion. The structure consists of 3 spans: 2 timber-stringer approach spans (one on the east; the other on the west) and one riveted, 3-panel, Warren through truss measuring 105 feet in length. The substructure consists of steel-cylinder piers and timber abutments with plank wing walls and back walls. The truss web is comprised as follows: The upper chords consist of back-to-back channel sections riveted to V-lacing to approximate back-to-back channel sections in cross section; the other verticals consist of back-to-back channel sections riveted, on both sides, to V-lacing; the diagonals consist of face-to-face angle sections riveted to V-lacing; the lower chords consists of face-to-face angle sections riveted to batten plates. Carrying timber stringers and wood decking, the truss's I-beam floor beams are bolted, by means of angle sections, to the bottoms of the verticals. Portal bracing is a framework of back-to-back angle sections strengthened at midpoint by a brace attached to the adjacent upper panel connection – the north web anchoring the bracing for the east portal; the south web for the west portal. Sway bracing consists of back-to-back angle sections riveted to V-lacing. Top-lateral and bottom-lateral bracing consist of cross-braced cylindrical eyerods. The east end of the truss is equipped with roller cylinder bearings. All spans have angle-section railings.

Statement of Significance

Bridge Number 14-133-170 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. The bridge is individually eligible for the National Register under Criterion C as one of five remaining Warren Through Truss bridges in the State of South Dakota.

The Warren bridge type was designed by James Warren in 1848 in England. The type was called "Warren Truss" because of its diagonal members. These members are designed to be in compression and therefore are relatively thick. Furthermore, the diagonal members are arranged in a "W" pattern, coincidentally corresponding to the first initial of James Warren's last name.

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Of the 546 historic bridges surveyed in South Dakota in 1990 and 1999, only 5 were Warren Through Trusses. According to reports filed by RTI of Montana, Warren Through Trusses are the fastest bridges to be demolished in the State of South Dakota by the Department of Transportation as the structures are too narrow to allow for farming equipment to pass. Also, as they are through trusses, taller equipment can not pass through the structure.

While the Warren Through Truss bridge design was popular in South Dakota, only 5 of this bridge type remain. SD DOT Bridge Number 14-133-170 is eligible for listing on the National Register of Historic Places under Criteria C for its engineering design and as it is one of five remaining Warren Through Truss bridges in the State of South Dakota.

Bibliography

RTI. *Historic Bridges of South Dakota*. June 1990.

RTI. *Historic Bridges of South Dakota*. July 2000.

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Verbal Boundary Description

The nominated property consists of a rectangle, 16 feet by 153 feet, whose vertices coincide with the outside corners of the bridge abutments at each end of the bridge, and includes only the bridge superstructure and the substructure.

Boundary Justification

Because the bridge is located on a public road, there are no legal boundary lines for the ends of the bridge. Therefore, these boundaries are drawn to encompass only the superstructure and substructure of the bridge itself.