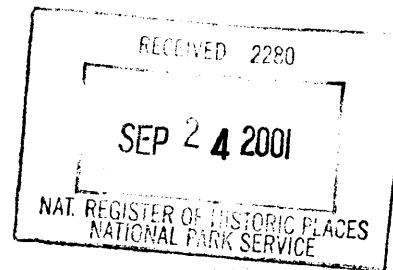


United States Department of the Interior  
National Park Service

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. 14-130-176

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street & number Local Road over Vermillion River not for publication ☐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  
Signature of certifying official

09-13-2001  
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

Entered in the  
National Register

11-8-01

**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

0

0

buildings

0

0

sites

1

0

structures

0

0

objects

1

0

Total

Number of contributing resources previously listed in the National Register 0Name of related multiple property listing (Enter "N/A" if property is not part of a multiple property listing.) Historic Bridges in South Dakota

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**6. Function or Use**

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**Historic Functions** (Enter categories from instructions)

Cat: Transportation Sub: Road-Related  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Current Functions** (Enter categories from instructions)

Cat: Transportation Sub: Road-Related  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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**7. Description**

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**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

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**8. Statement of Significance**

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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

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## 9. Major Bibliographical References

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(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: South Dakota Department of Transportation

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**10. Geographical Data**

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**Acreage of Property** Less than one**UTM References**

(place additional UTM references on a continuation sheet.)

1	<u>14</u>	<u>671298</u>	<u>4743810</u>
	Zone	Easting	Northing
2	<u></u>	<u></u>	<u></u>

3	<u></u>	<u></u>	<u></u>
	Zone	Easting	Northing
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

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**11. Form Prepared By**

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

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**Additional Documentation**

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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)

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**Property Owner**

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

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

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**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 Reduction Project (1024-0018), Washington, DC 20503.

United States Department of the Interior  
National Park Service

## National Register of Historic Places Continuation Sheet

Section number 7 Page 1

### Architectural Description

Built on a pronounced skew, Bridge No. 14-130-176 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 north; the other on the south) and one riveted, 4-panel, Warren through truss measuring 148 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 a continuous cover plate and V-lacing; the verticals consist of 2 sets of back-to-back angle sections riveted to V-lacing to approximate back-to-back channel sections in cross section; the diagonals in the end panels are similar to the verticals in detailing; the other diagonals consist of back-to-back channel sections riveted, on both sides, to V-lacing; the lower chords consist 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 gusset plates at the lower panel connections. 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 east web anchoring the bracing for the north portal; the west web for the south 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 south end of the truss is equipped with roller cylinder bearings. The approach spans have wood railings; the truss span, angle-section railings.

### Statement of Significance

Bridge Number 14-130-176 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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## National Register of Historic Places Continuation Sheet

Section number 8 & 9 Page 2

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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 14-130-176 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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## National Register of Historic Places Continuation Sheet

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### **Verbal Boundary Description**

The nominated property consists of a rectangle, 16 feet by 210 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.