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United States Department of the Interior
National Park Service

MAY 24 1988

National Register of Historic Places Registration Form

NATIONAL
REGISTER

This form is for use in nominating or requesting determinations of eligibility for individual properties or districts. See instructions in *Guidelines for Completing National Register Forms* (National Register Bulletin 16). Complete each item by marking "x" in the appropriate box or by entering the requested information. If an item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, styles, materials, and areas of significance, enter only the categories and subcategories listed in the instructions. For additional space use continuation sheets (Form 10-900a). Type all entries.

5010

1. Name of Property

historic name Bryan Bridge
other names/site number NeHBS #CE00-28

2. Location

street & number U.S. Highway 20 not for publication
city, town Valentine vicinity
state Nebraska code NE county Cherry code 031 zip code 69201

3. Classification

Ownership of Property	Category of Property	Number of Resources within Property	
<input type="checkbox"/> private	<input type="checkbox"/> building(s)	Contributing	Noncontributing
<input type="checkbox"/> public-local	<input type="checkbox"/> district	_____	_____ buildings
<input checked="" type="checkbox"/> public-State	<input type="checkbox"/> site	_____	_____ sites
<input type="checkbox"/> public-Federal	<input checked="" type="checkbox"/> structure	<u>1</u>	_____ structures
	<input type="checkbox"/> object	_____	_____ objects
		<u>1</u>	<u>0</u> Total

Name of related multiple property listing:
NA

Number of contributing resources previously listed in the National Register 0

4. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act of 1966, 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.

James A. Hanson May 16, 1988
Signature of certifying official Date
Director, Nebraska State Historical Society
State or Federal agency and bureau

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. See continuation sheet.

determined not eligible for the National Register.

removed from the National Register.

other, (explain): _____

Alton Byers Entered in the National Register 6-23-88
Signature of the Keeper Date of Action
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6. Function or Use

Historic Functions (enter categories from instructions)

Transportation/Road-related
(Vehicular)

Current Functions (enter categories from instructions)

Transportation/Road-related
(Vehicular)

7. Description

Architectural Classification
(enter categories from instructions)

Other: pin-connected
cantilever arch bridge

Materials (enter categories from instructions)

foundation _____
walls _____
roof _____
other steel arch, concrete deck and
piers

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Describe present and historic physical appearance.

The Bryan Bridge was constructed on U.S. Highway 20 in 1932 and crosses the Niobrara River 2.55 miles south-southeast of the City of Valentine in Cherry County, Nebraska. It is the only one of its kind in Nebraska. This 289-foot bridge consists of a 145-foot central steel pin-connected cantilever arch with 72-foot half-arch anchor arms at each end. The two piers are of massive concrete dumbbells connected by thick diaphragms. Sharp-nosed icebreakers form the upstream ends of the piers. Each pier is founded upon 41 "H" steel piles each weighing 65 pounds per lineal foot. Nine of these piles are 60 feet long and extend up through the pier to the bottoms of the caps. The other 32 piles are 45 feet long and extend only two feet, six inches into the footing. These piles penetrate thick beds of hard-packed sand and soft sand-rock and each has an average bearing capacity of 57 tons. The bridge deck has a 24-foot concrete roadway 36 feet above the normal water mark. The total cost of construction was \$55,564. The structural and historical integrity of the bridge has been preserved and it currently carries about 1,495 vehicles per day of which 270 are heavy trucks.

8. Statement of Significance

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

nationally statewide locally

Applicable National Register Criteria A B C D

Criteria Considerations (Exceptions) A B C D E F G

Areas of Significance (enter categories from instructions)
Engineering

Period of Significance
1932

Significant Dates
1932

Cultural Affiliation
N/A

Significant Person
N/A

Architect/Builder
Sorkin, Josef

State significance of property, and justify criteria, criteria considerations, and areas and periods of significance noted above.

Under Criterion C, the Bryan Bridge is significant in the area of structural engineering on a state level as an excellent and well-preserved example of a pin-connected cantilever arch bridge. It is the only one of its kind in Nebraska. The period of significance is derived from the original construction date of the bridge. The Bryan Bridge was formally dedicated on September 30, 1932 and named after Charles W. Bryan, who served as Governor of Nebraska from 1923-25 and 1931-1935. An original steel historical plaque is attached to the bridge and reads: "Bryan Bridge - Named in Honor of Governor Charles W. Bryan - September 30, 1932 - By the Valentine Chamber of Commerce, the Cherry County Board of County Commissioners, and the Sioux Indians." Of special note is that this bridge was awarded the first prize by the American Institute of Steel Construction as the most beautiful steel bridge constructed in 1932 and costing less than \$250,000. Another original steel historical plaque attached to the bridge reads: "American Institute of Steel Construction - Annual Award of Merit - Most Beautiful Steel Bridge - Class C - 1932." The bridge was designed by Josef Sorkin, an engineer assigned to the Division of Bridge Design in the Nebraska Department of Public Works. Mr. Sorkin was born on April 14, 1906 in Russia, immigrated to the United States in 1923 from his home located about 100 miles north of Kiev, and graduated from the University of Nebraska in 1929 with a degree in Civil Engineering. In 1932, he married the former Helen O'Connell of Fairbury, Nebraska. Mr. and Mrs. Sorkin are retired and reside at Corpus Christi, Texas (September-March), Olathe, Kansas (March-May), and Lake Shore, Minnesota (May-September). In 1987, Mr. Sorkin was awarded a prestigious "Honorary Membership" by the American Society of Civil Engineers. In a 1988 interview, Mr. Sorkin was asked why he picked this unique design for the Bryan Bridge. He replied, "aesthetics, it blended into the surroundings and it was also an economical design for the site." Cantilever arch structures, which have been infrequently used nationwide, were constructed in the mid 1920's to mid 1930's. The cantilever type of truss bridge permitted longer spans and was typically used for spanning major rivers. The cantilever arch type appears to have been used in settings where rolling terrain is one of the features. This bridge style blends well with the landscape and also permits a crossing high above the water. The significant feature of the Bryan Bridge is the pin connection at the center, which allows a freely moving or hinged connection. Most other cantilever types have a solid connection at the center.

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9. Major Bibliographical References

Dept. of Public Works, Nineteenth Biennial Report (1931-32), Lincoln, NE, 1932.

Dept. of Roads & Irrigation, Twentieth Biennial Report (1933-34), Lincoln, NE, 1934.

A 1-14-88 telephone interview with Josef Sorkin, the designer of the Bryan Bridge. Said interview was conducted by William G. Hurst and George E. Koster, both employed at the Nebraska Dept. of Roads.

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 # _____

See continuation sheet

Primary location of additional data:

- State historic preservation office
- Other State agency
- Federal agency
- Local government
- University
- Other

Specify repository:

Nebraska Dept. of Roads

10. Geographical Data

Acreage of property Less than one acre.

UTM References

A

1	4	3	7	5	1	1	9	4	7	4	3	1	0	1
Zone			Easting					Northing						

B

Zone			Easting					Northing						

C

Zone			Easting					Northing						

D

Zone			Easting					Northing						

See continuation sheet

Verbal Boundary Description

See continuation sheet

Boundary Justification

The boundary includes that parcel of land that has historically been associated with the bridge property

See continuation sheet

11. Form Prepared By

name/title William G. Hurst, Environmental Studies Engineer

organization Dept. of Roads date March 28, 1988

street & number P.O. Box 94759 telephone (402) 479-4410

city or town Lincoln state NE zip code 68509

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section number 10 Page 1 Bryan Bridge

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THE NIOBRARA RIVER BRIDGE LOCATED IN THE NORTHWEST QUARTER OF SECTION 17, TOWNSHIP 33 NORTH, RANGE 27 WEST OF THE SIXTH PRINCIPAL MERIDIAN, CHERRY COUNTY, NEBRASKA, DESCRIBED AS FOLLOWS:

REFERRING TO THE NORTHWEST CORNER OF SAID QUARTER SECTION; THENCE EASTERLY A DISTANCE OF 577.46 FEET ALONG THE NORTH LINE OF SAID QUARTER SECTION; THENCE SOUTHERLY DEFLECTING 096 DEGREES, 43 MINUTES, 00 SECONDS RIGHT, A DISTANCE OF 910.74 FEET ALONG THE EASTERLY HIGHWAY 20 RIGHT OF WAY LINE; THENCE SOUTHERLY DEFLECTING 009 DEGREES, 30 MINUTES, 23 SECONDS LEFT, A DISTANCE OF 331.35 FEET ALONG SAID RIGHT OF WAY LINE; THENCE SOUTHERLY ON A 1035.92 FOOT RADIUS CURVE TO THE LEFT, DEFLECTION TO THE INITIAL TANGENT BEING 000 DEGREES, 09 MINUTES, 57 SECONDS LEFT, A DISTANCE OF 139.04 FEET, SUBTENDING A CENTRAL ANGLE OF 007 DEGREES, 41 MINUTES 24 SECONDS ALONG SAID RIGHT OF WAY LINE; THENCE SOUTHEASTERLY DEFLECTING 017 DEGREES, 30 MINUTES, 00 SECONDS LEFT, A DISTANCE OF 623.01 FEET ALONG SAID RIGHT OF WAY LINE; THENCE SOUTHEASTERLY DEFLECTING 030 DEGREES, 40 MINUTES, 16 SECONDS LEFT, A DISTANCE OF 357.28 FEET ALONG SAID RIGHT OF WAY LINE; THENCE SOUTHEASTERLY DEFLECTING 007 DEGREES, 03 MINUTES, 29 SECONDS RIGHT, A DISTANCE OF 169.20 FEET ALONG SAID RIGHT OF WAY LINE; THENCE SOUTHWESTERLY DEFLECTING 076 DEGREES, 19 MINUTES, 30 SECONDS RIGHT, A DISTANCE OF 77.00 FEET ALONG THE WESTERLY BANK OF THE NIOBRARA RIVER TO THE POINT OF BEGINNING; THENCE SOUTHWESTERLY DEFLECTING 000 DEGREES, 00 MINUTES, 00 SECONDS A DISTANCE OF 26.00 FEET ALONG SAID LINE; THENCE SOUTHEASTERLY DEFLECTING 090 DEGREES, 00 MINUTES, 00 SECONDS LEFT, A DISTANCE OF 293.20 FEET TO A POINT ON THE EASTERLY NIOBRARA RIVER BRIDGE;; THENCE NORTHEASTERLY DEFLECTING 090 DEGREES, 00 MINUTES, 00 SECONDS LEFT, A DISTANCE OF 26.00 FEET ALONG SAID LINE; THENCE NORTHWESTERLY DEFLECTING 090 DEGREES, 00 MINUTES, 00 SECONDS LEFT, A DISTANCE OF 293.20 FEET TO THE POINT OF BEGINNING.

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