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

# National Register of Historic Places Continuation Sheet

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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

<u>Historic Bridges in South Dakota MPS</u>

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.

Jinda M. Culland Signature of the Keeper

<u>December 9, 1993</u> 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 <u>state</u> 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 100	Dakota Dept. of Transportation Bridge No. 03-338- Beadle County
93001260		Dakota Dept. of Transportation Bridge No. 03-020- Beadle County
93001261		Dakota Dept. of Transportation Bridge No. 03-327-
93001270		Dakota Dept. of Transportation Bridge No. 05-028-
93001271		Dakota Dept. of Transportation Bridge No. 05-032-
93001272		Dakota Dept. of Transportation Bridge No. 05-138- Bon Homme County
93001273	South	Dakota Dept. of Transportation Bridge No. 05-255- Bon Homme County
93001276		Dakota Dept. of Transportation Bridge No. 10-112- Butte County
93001275		Dakota Dept. of Transportation Bridge No. 10-109- Butte County
93001278		Dakota Dept. of Transportation Bridge No. 12-503- Charles Mix County
93001265		Dakota Dept. of Transportation Bridge No. 15-210- Codington County
93001279		Dakota Dept. of Transportation Bridge No. 16-570- Carson County
93001280	South 107	Dakota Dept. of Transportation Bridge No. 17-289- Custer County
93001282		Dakota Dept. of Transportation Bridge No. 18-040- Davison County
93001283		Dakota Dept. of Transportation Bridge No. 18-060- Davison County
93001284	South 052	Dakota Dept. of Transportation Bridge No. 18-100- Davison County
93001285	South 150	Dakota Dept. of Transportation Bridge No. 18-142- Davison County
93001286	South 210	Dakota Dept. of Transportation Bridge No. 20-153- Deuel County
93001288	South 141	Dakota Dept. of Transportation Bridge No. 25-218- Faulk County
93001262	South 142	Dakota Dept. of Transportation Bridge No. 25-380-
93001289		Dakota Dept. of Transportation Bridge No. 27-000- Gregory County
93001290	South 298	Dakota Dept. of Transportation Bridge No. 27-060- Gregory County

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

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63001320 South Dakota Dept. of Transportation Bridge No. 58-218360 Spink County
63001321 South Dakota Dept. of Transportation Bridge No. 62-220512 Tripp County
63001322 South Dakota Dept. of Transportation Bridge No. 64-061199 Union County
93001309 Split Rock Park Bridge Minnehaha County
93001304 Stamford Bridge Minnehaha 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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111035	
	5" is deleted because the date lies outside the perion ignificance which is based on the date of construction
93001311	South Dakota Dept. of Transportation Bridge No. 56-123 Sanborn County
of si	5" is deleted because the date lies outside the perior ignificance and does not appear to have particular ctance.

#### DISTRIBUTION:

National Register property file Nominating Authority (without nomination attachment)

amendments by telephone on December 09, 1993.

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OMB No. 1024-0018 NPS Form 10-900 (Rev. 8-86) RECEIVED United States Department of the Interior National Park Service OCT 25 1993 NATIONAL REGISTER OF HISTORIC PLACES REGISTRATION FORM NATIUNAL REGISTER \* 1. Name of Property \_\_\_\_\_\_ historic name: N/A other name/site number: South Dakota Dept. of Trans. Br. No. 58-120-231 2. Location street & number: Local road over the James River not for publication: city/town: Redfield vicinity: X state: SD county: Spink code: 115 zip code: 57469 3. Classification Ownership of Property: public-local Category of Property: structure Number of Resources within Property: Contributing Noncontributing buildings \_ sites \_ structures \_\_\_objects 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 Na of 1986, as amended, I hereby certify th request for determination of eligibility standards for registering properties in Historic Places and meets the procedural set forth in 36 CFR Part 60. In my opin does not meet the National Register sheet.	tional Historic Preser at this nominatio meets the documentati the National Register and professional requion, the property	vation Act n on of irements meets
m 11	16/12/53	
Signature of certifying official  Ont 51170		
State or Federal agency and bureau		
In my opinion, the property meets _ Register criteria See continuation	does not meet the	National
Signature of commenting or other officia	l Date	<del></del>
State or Federal agency and bureau		
5. National Park Service Certification		
I, hereby certify that this property is:		
removed from the National Register		
other (explain):		
	Signature of Keeper	Date of Action

USDI/NPS I	NRHP Registration	on Form	Brid	ge No.	58~120-	-231	Page	3
6. Function	on or Use							==
Historic:	Transportation		Sub:	road-1	celated	(vehicul	ar)	
Current :	Transportation		Sub:	road-1	celated	(vehicul	ar)	
-								
7. Descri	ption		25552555		*****			==
Architect	ral Classificat	tion:						==
Other								
Other Des	cription: Pratt	through tr	uss					
Materials	foundation con walls		oof ther <u>meta</u>	al: ste	<u>eel</u>			
Describe   sheet.	present and his	toric physi	cal appea	arance.	_x_ s	See conti	.nuati	on

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: Commerce Engineering
Period(s) of Significance: 1904 - 1943
Significant Dates : 1904
Significant Person(s): N/A
Cultural Affiliation: N/A
Architect/Builder: _ <u>Iowa Bridge Company</u>
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):
<pre>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 #</pre>

Primary Location of Additional Data:

State	historic	preservation	office

- $\overline{\underline{x}}$  Other state agency
- Federal agency
  Local government
  University
- Other -- Specify Repository: South Dakota Department of Transportation

10. Geographical Data

Acreage of Property: <u>less than 1 acre</u>

UTM References: Zone Easting Northing Zone Easting Northing

Latitude: 450 54' 38" Longitude: 980 28' 22"

See continuation sheet.

Verbal Boundary Description: See continuation sheet.

The nominated property consists of a rectangle, 23 feet wide by 216 feet long, whose vertices coincide with the outside corners of the bridge abutments at each end of the bridge, and includes only the bridge superstructure and substructure.

Boundary Justification: See continuation sheet.

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.

#### 11. Form Prepared By

Name/Title: Jennifer Traeger/Historian and Fred Quivik/Architectural Historian

Date: August 1990/9-93 Organization: Renewable Technologies, Inc.

Street & Number: 510 Metals Bank Bldg. Telephone: (406)782-0494

State: MT ZIP: 59701 City or Town: Butte

OMB Approval No. 1024-0018

NPS Form 10-900-a (8-86)

United States Department of the Interior National Park Service

NATIONAL REGISTER OF HISTORIC PLACES CONTINUATION SHEET

Section number 7 Bridge No. 58-120-231 Page 6

Bridge no. 58-120-231 is located 1.9 miles north and 2 miles east of Redfield and carries a local bridge over the James River. The bridge is composed of three spans: one pin-connected Pratt through truss, one riveted Warren Pony truss, and one steel stringer approach span. The 119foot, steel, pin-connected, Pratt through truss rests on concrete piers. The steel, riveted, Warren pony truss rests on an I-beam abutment and the steel stringer approach span rests on a standard State Highway Commission concrete abutment. The superstructure of the Pratt through truss is composed as follows: the upper chords are two channel sections riveted with a continuous cover plate along the upper flanges and with lacing bars along the lower flanges; the lower chords are punched steel eyebars; the hip verticals are two channel sections riveted with lacing bars; the other verticals are two channel sections riveted with lacing bars; the diagonals are punched steel eyebars and the counters are forged square rods with turnbuckles. The corrugated steel deck with gravel overlay rests on Ibeam stringers which in turn sit atop I-beam floor beams. The floor beams are riveted to the vertical members below the lower chord. The portal bracing consists of paired angle sections, while the sway bracing consists of lacing bars riveted between two pair of angle sections. Top and bottom lateral bracing is provided by round rod cross-braces. Railings are angle and channel sections.

The superstructure of the Warren pony truss is composed as follows: the upper chords are two channel sections riveted with a continuous cover plate along the upper flanges and with batten bars along the lower flanges; the lower chords are two angle sections riveted with batten plates; the vertical members and diagonals are two angle sections riveted with batten plates. The corrugated steel deck with gravel overlay rests on I-beam stringers which in turn sit atop I-beam floor beams. The floor beams are riveted to gusset plates below the lower chord.

The addition of the Warren pony truss is evidence of the evolution of bridge construction at this site. The bridge retains excellent integrity.

NPS Form 10-900-a (8-86)

United States Department of the Interior National Park Service

NATIONAL REGISTER OF HISTORIC PLACES CONTINUATION SHEET

Section number 8 Bridge No. 58-120-231 Page 7

Bridge no. 58-120-231 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, 1893-1942" 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 as a representative example of important patterns of bridge construction in South Dakota during the 1890s and through the first two decades of the 20th century, in which a different out-of-state bridge builder tended to dominate bridge construction in each county. It is also eligible for the National Register under Criterion C as the oldest pin-connected Pratt through in Spink County built by the Iowa Bridge Company, a long-term bridge building firm in the county. The bridge retains excellent integrity.

Around the turn of the 20th century, the homesteading boom west of the Missouri River coupled with the expanded agri-business east of the river led to an increased demand for reliable bridges in South Dakota. Accompanying the increase in bridge construction was the emergence of a pattern of business wherein almost every county in the state seemed to be dominated by a different bridge builder. This pattern began to be evident in the late-19th century. It grew even stronger after the turn of the century when the counties began turning to the system of awarding annual contracts for bridge work. Most typically, the counties awarded annual contracts to the same firm year after year. This relationship between the counties and the bridge firms was probably due to "pooling," an illegal but common practice across the country at this time. Under pooling arrangements, various bridge-building firms agreed to divide states among themselves, assigning particular counties to specific firms. Most such firms operating in South Dakota at this time were based out-of-state. This pattern of business remained strong in South Dakota until about 1920 when the State Highway Commission strengthened its control over bridge construction practices in the county.

The activities of the Iowa Bridge Company of Des Moines are typical of the bridge building business in South Dakota during this era. The President of the company was James S. Carpenter, who had been a travelling agent for the N.M. Stark Company of Des Moines in the 1890s. Carpenter started the Iowa Bridge Company in Des Moines in about 1902 and was immediately successful in obtaining annual bridge contracts in South Dakota counties such as Bon Homme, Brookings, and Sanborn where his former employer had been active. During the first two decades of the 20th century, the company became the most active bridge-builder to operate in

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NATIONAL REGISTER OF HISTORIC PLACES CONTINUATION SHEET

Section number 8 & 9 Bridge No. 58-120-231 Page 8

#### 8. Significance (continued)

South Dakota and dominated bridge contracts in at least 11 counties. It held the annual contract in Spink County from 1903 through 1921.

The main span of Bridge No. 58-120-231, a pin-connected Pratt through truss, was built by the Iowa Bridge Company in 1904. This project recorded 19 bridges built by the Iowa Bridge Company in Spink County, of which 3 were pin-connected Pratt through trusses. Because it is the oldest of these three, this bridge has been selected as a significant representative example of this type. The Warren truss was added at a later date.

#### 9. Bibliography

Bridge Plaque