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

OMB No. $1024^{\frac{3}{2}}0018$

United States Department of the Interior

RECEIVED

National Park Service	
NATIONAL REGISTER OF HISTORIC PLACES REGISTRATION FORM	OCT 25 1993
	NATIONAL
1. Name of Property	3
historic name: N/A	
other name/site number: South Dakota De	ept. of Trans. Br. No. 10-109-360
2. Location	
street & number: Local road over the Fourche Irrigation D	Diversion Dam Inlet Canal, Belle
	not for publication:
city/town: Belle Fourche	vicinity: X
state: <u>SD</u> county: <u>Butte</u>	code: <u>019</u> zip code: <u>57717</u>
3. Classification	
Ownership of Property: public-federal	
Category of Property: structure	
Number of Resources within Property:	
Contributing Noncontributing	
	js ces
Number of contributing resources previous Register:0	ously listed in the National
Name of related multiple property list: Dakota	ing: <u>Historic Bridges in South</u>

4. State/Federal Agency Certification		
As the designated authority under the Na of 1986, as amended, I hereby certify the 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 oping does not meet the National Register sheet. Signature of certifying official	tional Historic Preser nat this nomination meets the documentati the National Register and professional regulation, the property	vation Act n on of irements meets
State or Federal agency and bureau		
In my opinion, the propertymeets_Register criteriaSee continuation Signature of commenting or other offician State or Federal agency and bureau		National
5. National Park Service Certification		
I, hereby certify that this property is:	Greclelland	
	Signature of Keeper	Date of Action

·	NRHP Registr	ation Form	Brid	ge No.	10-109	-360 	Page
6. Function							
Historic:	Transportat	ion	Sub:	road-	related	(vehic	ular)
Current :	Transportat	ion	Sub:	road-	related	(vehic	ular)
•							
7. Descri	 ption			=====			
========	ural Classif	========= ication:	*********	=====	======	=====	=====
Other							
Other Des	cription: <u>Pr</u>	att through	truss				
	cription: Pr : foundation walls		roof other me	tal: s	teel		

8. Statement of Significance
Certifying official has considered the significance of this property in relation to other properties:
Applicable National Register Criteria: <u>A & C</u>
Criteria Considerations (Exceptions) :
Areas of Significance: Engineering Regional Development Commerce
Period(s) of Significance: 1906 - 1943
Significant Dates : 1906 1907
Significant Person(s): N/A
Cultural Affiliation: N/A
Architect/Builder: _ Canton Bridge Company
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 #

USDI/NPS NRHP Registration Form Bridge No. 10-109-360 Page 5 Primary Location of Additional Data: State historic preservation office \overline{x} Other state agency Federal agency
Local government University Other -- Specify Repository: South Dakota Department of Transportation 10. Geographical Data Acreage of Property: less than 1 acre UTM References: Zone Easting Northing Zone Easting Northing A 13 592630 4949070 B C ___ D See continuation sheet. Verbal Boundary Description: ____ See continuation sheet. The nominated property consists of a rectangle, 21 feet wide by 76 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: Mary McCormick/Historian and Lon Johnson/Hist. Architect

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

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

City or Town: Butte State: MT ZIP: 59701

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.

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

142

298

93001289

93001290

Faulk County

Gregory County

201 Gregory County

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Section number3	Pa	ge2		
93001269	South 100	Dakota Dept. of Transportation Brid Beadle County	ige No.	03-338-
93001260		Dakota Dept. of Transportation Brid Beadle County	ige No.	03-020-
93001261		Dakota Dept. of Transportation Brid Beadle County	ige No.	03-327-
93001270		Dakota Dept. of Transportation Brid Bon Homme county	lge No.	05-028-
93001271		Dakota Dept. of Transportation Brid Bon Homme County	lge No.	05-032-
93001272		Dakota Dept. of Transportation Brid Bon Homme County	ige No.	05-138-
93001273		Dakota Dept. of Transportation Brid Bon Homme County	ige No.	05-255-
93001276		Dakota Dept. of Transportation Brid Butte County	ige No.	10-112-
93001275		Dakota Dept. of Transportation Brid Butte County	ige No.	10-109-
93001278		Dakota Dept. of Transportation Brid Charles Mix County	ige No.	12-503-
93001265		Dakota Dept. of Transportation Brid Codington County	lge No.	15-210-
93001279		Dakota Dept. of Transportation Brid Carson County	lge No.	16-570-
93001280		Dakota Dept. of Transportation Brid Custer County	ige No.	17-289-
93001282		Dakota Dept. of Transportation Brid Davison County	ige No.	18-040-
93001283		Dakota Dept. of Transportation Brid Davison County	ige No.	18-060-
93001284		Dakota Dept. of Transportation Brid Davison County	lge No.	18-100-
93001285		Dakota Dept. of Transportation Brid Davison County	dge No.	18-142-
93001286		Dakota Dept. of Transportation Brid Deuel County	dge No.	20-153-
93001288		Dakota Dept. of Transportation Brid Faulk County	lge No.	25-218-
93001262		Dakota Dept. of Transportation Brid	lge No.	25-380-

South Dakota Dept. of Transportation Bridge No. 27-000-

South Dakota Dept. of Transportation Bridge No. 27-060-

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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)
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	; –
93001267	South Dakota Dept. of Transportation Bridge No. 50-200)—
93001310	South Dakota Dept. of Transportation Bridge No. 56-090 096 Sanborn County)—
93001312	South Dakota Dept. of Transportation Bridge No. 56-174	, -
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. 58-218360 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 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.

National Register of Historic Places Continuation Sheet

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

OMB Approval No. 1024-0018

United States Department of the Interior National Park Service

NATIONAL REGISTER OF HISTORIC PLACES CONTINUATION SHEET

Section number <u>7 & 8</u>

Bridge No. 10-109-360

7. Description

Bridge No. 10-109-360 is located about 1 mile north and 0.9 miles east of Belle Fourche and carries a local road over the Diversion Dam Inlet Canal. The 71-foot steel, pin-connected, Pratt through truss rests on timber pile abutments with plank backwalls. An original concrete abutment is collapsing on the west end. The superstructure of the span is comprised as follows: the upper chords are two steel channel sections with a continuous steel cover plate riveted along the upper flanges and lacing bars riveted to the lower flanges; the lower chords are forged steel eye bars; the hip verticals are forged square steel rods; the other verticals are two steel channel sections riveted with lacing bars; the diagonals are forged steel eye-bars; the counters are square steel rods with turnbuckles. The deck is plank and supported on timber stringers atop steel I-beam floor beams. The floor beams are riveted to the vertical members below the lower chord. Portal bracing is a combination of single and double channel sections, decorative lattice bars project above and below the upper chord Sway bracing consists of T-section struts built up of a steel plate with two angle sections. Bottom and top lateral bracing are round steel rod cross braces. The railings are plank.

This bridge has excellent integrity.

8. Significance

Bridge no. 10-109-360 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 bridges. This bridge is individually eligible for the National Register under Criterion A for its ability to depict the direct association in South Dakota between agricultural development and the need for bridges through its important association with the Belle Fourche Irrigation Project; and for its association with an important pattern of bridge construction in South Dakota around the turn of the 20th century, in which a different out-of-state bridge builder tended to dominate bridge construction in each county. It is also individually eligible for the (continued)

NATIONAL REGISTER OF HISTORIC PLACES CONTINUATION SHEET

Section number 8 (continued) Bridge No. 10-109-360 Page 7

National Register under Criterion C as an usually short example of a through truss bridge; and as a representative example in Butte County of bridge built by the Canton Bridge Company, a long-term bridge building firm in the county. The bridge retains excellent integrity in all aspects.

Through the turn of the 20th century, Butte County was only sparsely settled because its semi-arid land was suitable only for livestock grazing. In 1903, however, the United States Department of the Interior began surveying the area for a possible irrigation project to be undertaken by the newly created Reclamation Service. The U.S. Secretary of the Interior approved plans in 1904 for what would be known as the Belle Fourche Irrigation Project. Project construction began in 1905, and by the summer of 1910, the entire system was complete. By this time, over 23,000 acres of land were in irrigation and nearly 400 farm units had been claimed.

The Belle Fourche Irrigation Project involved a diversion dam on the Belle Fourche River, a storage dam and reservoir, a diversion canal to channel water to the storage reservoir, and an extensive network of canals to convey water to the lands to be irrigated. The system of canals created new barriers to roads, necessitating bridges. The Reclamation Service therefore contracted with the Canton Bridge Company of Canton, Ohio, to build five 72-foot pin-connected Pratt through truss bridges over the diversion canal. Canton started construction of the bridges in 1906, and completed all five in 1907. Because through trusses were typically 100-feet or longer, the 72-foot length of the Belle Fourche Irrigation Project bridges is considered usually short. Four of five of these bridges including this one (Bridge no. 10-109-360) are extant.

About the time of its work on the Belle Fourche project bridges, the Canton Bridge Company in 1905 received a contract from Butte County to construct five county bridges. From at least this time on until about 1915, the Canton Bridge Company dominated bridge work in Butte County. This relationship between the Canton company and Butte County was typical of a pattern of business that emerged in South Dakota around the turn of the century, wherein almost every county in the state seemed to be dominated by a different bridge builder. This pattern of business was likely resultant from "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 (continued)

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NATIONAL REGISTER OF HISTORIC PLACES CONTINUATION SHEET

Section number 8 & 9 Bridge No. 10-109-360 Page 8

8. Significance (continued)

particular counties to specific firms. Most of the 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 counties.

9. Bibliography

Arthur Powell Davis, <u>Irrigation Works Constructed by the United States</u>
<u>Government</u> (New York: John Wiley & Sons, Inc., 1917), pp. 279-288.

Butte County, "Commissioners Record," 1905-1915, Auditor's Office, Butte County Courthouse, Belle Fourche.

Cowboys and Sodbusters, No date or publisher, ca. 1968, pp. 249-250.