NPS Form 10-900a
(8-86)

OMB No. 1024-0018

United States Department of the Interior
National Park Service

NATIONAL REGISTER OF HISTORIC PLACES CONTINUATION SHEET

Section _____ Page ___

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SUPPLEMENTARY LISTING RECORD

NRIS Reference Number: 09001186 **Date Listed: 1/4/2010**

Powder River Bridge	Prairie	MT
Property Name	County	State

Montana's Historic Steel Truss Bridges MPS
Multiple Name

This property is 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	1/4/2010
	Date of Action

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Amended Items in Nomination:

Classification:
The *Number of Contributing Properties Previously Listed* should read: 0
[This refers only to resources within the nominated boundaries of this property not to other bridge locations associated with the MPS context.]

These clarifications were confirmed with the MT SHPO office.

DISTRIBUTION:
National Register property file
Nominating Authority (without nomination attachment)

United States Department of the Interior
National Park Service

National Register of Historic Places Registration Form

1186

NOV 20 2009

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in National Register Bulletin, *How to Complete the National Register of Historic Places Registration Form.* 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 certification comments, entries, and narrative items on continuation sheets (NPS Form 10-900a).**

1. Name of Property

Historic name Powder River Bridge

Other names/site number 24PE1810, MDT No. L40004006+02001

2. Location

street & number Milepost 6 on I-94 Frontage Road (Old US Highway 10) ☐ not for publication

city of town Seven miles southwest of Terry ☒ vicinity

State Montana code MT county Prairie code 079 zip code 59349

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended,

I hereby certify that this __x__ 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 __x__ meets ___ does not meet the National Register Criteria. I recommend that this property be considered significant at the following level(s) of significance:

___national ___statewide __x__local

Signature of certifying official — Date 11/12/2009

SHPO — MONTANA STATE HISTORIC PRES. OFFICE

Title — State or Federal agency and bureau

In my opinion, the property ___ meets ___ does not meet the National Register criteria.

Signature of commenting official — Date

Title — State or Federal agency and bureau

4. National Park Service Certification

I, hereby, certify that this property is: Signature of the Keeper — Date of Action

✓ entered in the National Register — 1/4/2010

___ determined eligible for the National Register

___ determined not eligible for the National Register

___ removed from the National Register

___ other (explain:)

5. Classification

Ownership of Property
(Check as many boxes as apply)

- [ ] private
- [ ] public - Local
- [X] public - State
- [ ] public - Federal
- [ ] private

Category of Property
(Check only **one** box)

- [ ] building(s)
- [ ] district
- [ ] site
- [X] structure
- [ ] building(s)
- [ ] object

Number of Resources within Property
(Do not include previously listed resources in the count.)

Contributing	Noncontributing	
		buildings
		sites
1		structures
		Objects
		buildings
1	0	**Total**

Name of related multiple property listing
(Enter "N/A" if property is not part of a multiple property listing)

Montana's Historic Steel Truss Bridges

Number of contributing resources previously listed in the National Register

9

6. Function or Use

Historic Functions
(Enter categories from instructions)

TRANSPORTATION/Road-related (vehicular) =

Bridge

Current Functions
(Enter categories from instructions)

TRANSPORTATION/Road-related (vehicular) =

Bridge

7. Description

Architectural Classification
(Enter categories from instructions)

OTHER: Continuous Warren through truss

Materials
(Enter categories from instructions)

foundation: Concrete

walls:

roof:

other: Steel, Concrete

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)

- [X] 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.
- [X] 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)

Property is:

- [ ] A owed by a religious institution or used for religious purposes.
- [ ] B removed from its original location.
- [ ] C a birthplace or grave.
- [ ] D a cemetery.
- [ ] E a reconstructed building, object, or structure.
- [ ] F a commemorative property.
- [ ] G less than 50 years old or achieving significance within the past 50 years.

Areas of Significance
(Enter categories from instructions)

Engineering
Transportation

Period of Significance

1946-1959

Significant Dates

1946

Significant Person
(Complete only if Criterion B is marked above)

Cultural Affiliation

Architect/Builder

Montana Department of Highways
William P. Roscoe Company

Period of Significance (justification)

The Period of Significance for this structure is 1946 to 1959. That encompasses its construction date and the time it spent as a primary component on US Highway 10 in eastern Montana.

Criteria Consideratons (explanation, if necessary)

Narrative Description
(Describe the historic and current physical appearance of the property. Explain contributing and noncontributing resources if necessary. Begin with **a summary paragraph** that briefly describes the general characteristics of the property, such as its location, setting, size, and significant features.)

Summary Paragraph
Built in 1946, the Powder River River is a 3-span continuous Warren through truss. It is 633-feet in length and 28-feet wide. It rests on two concrete piers. The bridge is located on the Interstate 94 frontage road about seven miles southwest of the community of Terry, the county seat of Prairie County. The bridge has not been significantly altered since its construction and the setting surrounding the structure has not substantially changed since the 1940s. The bridge retains its distinctive trusses, concrete deck, and associated guardrails.

Narrative Description
The Powder River Bridge is located in the lower Yellowstone Valley of southeastern Montana. The bridge crosses the Powder River about one mile southeast of where it empties into the Yellowstone River. It is also located on the Lewis and Clark Trail about seven miles southwest of Terry, the county seat of Prairie County. The bridge is located on Tertiary sandstones and mudstones that are known as the Fort Union Formation. The formation consists of terrestrial sediments that were deposited adjacent to the inland seaway from 65 to 55 million years ago. The terrain encompassing the Powder River Bridge is rolling plains broken by drainages, gullies, small ravines, and buttes. Vegetation consists of grasslands that originally fed bison, but is now used primarily for cattle grazing and some small irrigated agricultural operations. The bridge carries the Interstate 94 frontage road, which is now known as the Lewis and Clark Trail (historically US Highway 10 – 24PE719) across the Powder River. The highway and bridge were bypassed by Interstate 94 in 1977. The Northern Pacific Railway (now Burlington Northern- Santa Fe Railroad) main line parallels the highway on the north.[1]

The Powder River Bridge is a continuous span Warren through truss comprised of three main spans and two steel stringer approach spans. A continuous span structure functions and appears as a single span delineated by the piers. The bridge is 633 feet in length consisting of a 203-foot main truss span and two 163-foot truss spans. The approach spans are each 50 feet in length. The bridge is 28 feet wide with a roadway width of 26 feet. The bridge rests on four solid reinforced concrete piers with extended caps. The abutments are also reinforced concrete.

The superstructure of the Powder River Bridge is comprised as follows: The upper and lower chords are laced channel sections with batten plates. The verticals are I-beams, while the diagonals are laced channel sections with batten plates and channel sections with batten plates. The top lateral braces and struts are laced angle sections while the top sway braces are angle sections. The portal braces are laced angle sections with gusset plates. The concrete slab deck is supported by six lines of steel I-beam stringers resting atop steel I-beam floor beams. The bottom lateral braces are angle sections and the bottom sway braces are laced angle sections. The deck is flanked by raised concrete curbs. Guardrails are channel sections mounted on I-beam posts bolted to concrete posts projecting laterally to the deck.

The approach spans are steel stringer structures, each 50 feet in length. Their ends rest on the abutments and piers. The concrete slab decks are supported by six lines of steel I-beam stringers. The decks are flanked by raised concrete curbs with channel section railings mounted on I-beam posts. The endposts are reinforced concrete with decorative vertical grooves on two sides and recessed panels adjacent to the roadway.

Integrity
Other than routine maintenance, there have been no substantial changes to the Powder River Bridge since its construction in 1946. The bridge is the standard riveted steel continuous Warren through truss design developed by Montana State Highway Department in 1933. This particular design was adapted and utilized for Warren through truss bridges from from 1933 to 1946. The Powder River Bridge is the last continuous span truss built by the highway department and the last truss bridge it constructed. All of the structural components and features common to the design are present on the bridge and are unchanged. The bridge retains its distinctive truss configuration, simple guardrails, and the original concrete deck. Other than the construction of nearby Interstate 94 in the 1970s, the setting of the bridge site has not significantly changed. The surrounding area is still used for agricultural purposes. The Powder River Bridge retains all its essential elements of design, workmanship, and materials. It appears and functions as it did beginning in 1946 as an important crossing of the Powder River on US Highway 10 in eastern Montana.

[1] David Alt and Donald W. Hyndman, *Roadside Geology of Montana*, (Missoula: Mountain Press Publishing, 1991), 363-364.

9. Major Bibliographical References

Bibliography (Cite the books, articles, and other sources used in preparing this form on one or more continuation sheets)

(see Continuation Page)

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: **Montana Department of Transportation**

Historic Resources Survey Number (if assigned): _____

10. Geographical Data

Acreage of Property 2
(do not include previously listed resource acreage)

UTM References
(Place additional UTM references on a continuation sheet)

	Zone	Easting	Northing		Zone	Easting	Northing
1	13	467290 (NAD 27)	5175807 (NAD 27)	3			
2				4			

Verbal Boundary Description (describe the boundaries of the property)

The boundary for the Powder River Bridge measures 633 x 25 feet. The boundary encompasses the bridge and its approaches on both sides of the Powder River. The boundary is centered on the bridge.

Boundary Justification (explain why the boundaries were selected)

Boundaries for the Powder River Bridge are drawn to encompass the bridge spans, its immediate approaches and that portion of the Powder River spanned by the bridge. The width is increased beyond the measurements of the structure to include the piers and abutments.

11. Form Prepared By

name/title Jon Axline/Historian
organization Montana Department of Transportation date September 13, 2009
street & number 2701 Prospect Avenue telephone (406) 444-6258
city or town Helena state MT zip code 59620-1001
e-mail jaxline@mt.gov

During his thirty-year career, the Roscoe company built bridges throughout Montana and was one of the only contractors from which the highway department bridge engineers sought advice on construction problems. Bill Roscoe died in 1956.

Soon after his death, Roscoe's family reorganized the company and formed Roscoe Steel and Culvert Company. Although the company no longer builds bridges, it still provides components for steel bridges in Montana and the United States.[7]

[7] Interview with Jim Roscoe, grandson of William P. Roscoe, by author, April 2004; Quivik, *Historic Bridges*, 43.

Statement of Significance Summary Paragraph (provide a summary paragraph that includes level of signficance and applicable criteria)

The Powder River Bridge is eligible for listing on the National Register of Historic Places under Criteria A and C. The bridge is eligible under Criterion A because of its association with the national war effort during World War II to keep a strategic crossing open on a route important to the national defense. During the war, the Montana Highway Department's road and bridge construction programs were nascent because of shortages in oil, gasoline, steel and manpower. Because it was important to the national defense to keep the route (US Highway 10) between Minneapolis and Seattle open, the War Department approved the Montana Highway Department's plan in 1944 to construct a bridge across the Powder River in southeastern Montana. The story behind the construction of the Powder River Bridge is representative of the problems and triumphs of many state agencies and contractors hampered by wartime restrictions. The bridge also was culmination of the highway department's Great Depression-era programs to provide efficient and modern roads and bridges for both private use and commerce. The bridge is eligible for the National Register under Criterion C as the last and one of the most representative continuous through truss spans built in Montana by the highway department between 1933 and 1946. The bridge retains all of its original structural components, its historic appearance and essentially its historic function as an important river crossing in southeastern Montana. The bridge is intact and unchanged and conveys its historic appearance. Other than age and routine maintenance by highway forces, there are no substantial modifications or alterations to it.

Narrative Statement of Significance (provide at least **one** paragraph for each area of significance)

The Powder River Bridge is significant on a number of levels. It is the last of only eight continuous span steel through truss bridges constructed in Montana between 1933 and 1946 and is an excellent representative of the type. Indeed, it was the last through truss bridge built by the Montana Highway Department. The bridge was built from standardized designs developed by the Montana Highway Department in 1933 and adapted specifically for this site. Continuous through trusses became the standard highway department structure for wide river crossings in the 1930s and were utilized for that purpose until 1946. The bridge, moreover, was constructed during World War II when virtually all of the Montana State Highway Commission's road and bridge programs had been cancelled because of wartime restrictions. The bridge replaced an earlier structure that had been damaged; its location on a highway of strategic significance (U.S. Highway 10) was the catalyst that led to its construction during a time of wartime shortages in materials such as steel. The bridge is not only important for its location on a strategic highway during World War II, but was also significant to the development of agriculture in southeastern Montana and as an important component of Montana's primary east-west highway, US Highway 10.

The Powder River Bridge is also eligible for the National Register of Historic Places under Criterion C because it is a stunning and intact example of the type of standardized continuous Warren through truss spans that the Montana Highway Department built from 1933 to 1946. Continuous spans were used for wide river crossings. The design was particularly adaptable to different crossing conditions and was easy to build and affordable to the state. There have been no structural modifications to the bridge and vehicular collisions have not significantly damaged any important structural components. The bridge retains its historic appearance and configuration with all of its original structural components and features intact along with its association with US Highway 10. The bridge, moreover, still functions as an important crossing on what is now a recreational access route and farm-to-market road.

Engineering Significance

In 1933, the Montana Highway Department began designing and constructing continuous span through truss span bridges during the Great Depression. The Powder River Bridge was the last bridge of this type and the last steel through truss structure built by the department. By the mid-1940s, steel girder bridges had become the standard river crossing because of the lack of height restrictions, heavier live load capacity, and more efficient use of funds to build. The Powder River bridge is exemplary of the continuous through truss type which was built primarily at wide river crossings. All but one of the continuous through truss bridges, including this one, were built by prolific Billings, Montana contractor William P. Roscoe. The continuous span bridge was well-suited to better accommodating traffic demands than the old multi-span riveted Warren through trusses. Indeed, the style still accommodates modern traffic demands with three of the eight continuous spans still extant and functioning in their original capacity.

Developmental history/additional historic context information (if appropriate)

Ten days after Pearl Harbor, on December 17, 1941, the Montana State Highway Commission authorized a survey for a new bridge across the Yellowstone River on US Highway 10 west of Terry. The new bridge was to replace an older structure that, the highway department felt, was close to failure. Earlier in 1941, the highway commission and the Bureau of Public Roads had designated US 10 as a highway critical to the national defense, thus making it eligible for funds during wartime. Within weeks, Joseph Maierle and three men were core drilling the river to find a suitable site for the bridge. Because of the paranoia associated with the Japanese attack on Pearl Harbor, the highway department was forced to provide a description of the drill crews to National Guardsmen patrolling the nearby Northern Pacific Railway bridge.[2]

The highway department proposed to construct a 653-foot steel and concrete bridge across the Powder River at an estimated cost of $211,612.28. Because the war caused a shortage of the steel critical to the construction of the bridge, the department postponed plans to build the structure until the material was available again. By 1944, it had become clear that the Allies would win the war against the Axis powers and limited supplies of steel became available for domestic highway projects. On September 29, 1944, the highway commission awarded a contract to the Billings-based William P. Roscoe Company to construct the bridge across the Powder River southwest of Terry. The firm began work on the bridge on October 4, 1944. It obtained reinforcing steel for the abutments, deck, and piers from the Paper Calmenson Company of St. Paul, Minnesota and 461 tons of structural steel from the Pittsburgh-Des Moines Steel Company. The highway department's project engineer was J. M. Belle.[3]

Roscoe worked through the winter of 1944-1945 through "generally adverse war-time conditions" to complete the bridge by the September 30, 1945 deadline imposed by the contract. To facilitate the work, he sub-contracted the construction of the approaches to the Omaha-based Inland Construction Company. The firm also hired the General Riggers & Erections Company of Salt Lake City to construct the rivet the cast and structural steel. The trusses were erected by May 7, 1945 and Roscoe's employees began painting the structure within paint supplied by the Consumers Paint Manufacturing Company. Despite the rush to complete the bridge on time, Roscoe finished work on it 113 days late on January 21, 1946. He attributed the delay in completion of the project to a shortage of treated timber for the bridge's falsework and a delay in the removal of the old bridge at the site. The total cost of the bridge was $224,789. It was one of eight continuous span bridges built in Montana – seven of which the Roscoe company constructed between 1931 and 1946. The Powder River Bridge was also the last through truss bridge in Montana by the Montana Highway Department.[4]

William P. Roscoe Company

Few men have had as big an impact on Montana's construction industry as William P. Roscoe. For thirty years, from 1926 to 1956, Roscoe built more bridges in Montana than any other contractor employed by the Montana Highway Department. Although he specialized in the construction of large steel bridges, Roscoe also built reinforced concrete and timber bridges all over the state. Bridges built by his company include the Missouri River Bridge near Wolf Creek, and Yellowstone River bridges at Reed Point, Forsyth, and Glendive.[5]

Born in Wadena, Minnesota in February, 1886, William P. Roscoe dropped out of school in 1902 and worked in South Dakota as a cowboy for several years. In 1905, he returned to Minnesota and went to work for William and Arthur Hewett's Security Bridge Company. Unlike Montana's bridge engineers, who learned their trade in colleges and universities, the state's most successful bridge contractors learned their craft in the field from other bridge-builders. Roscoe went to work for the Hewetts as a laborer. Within a few years, he worked his way up to foreman and, by October 1915, was the company's vice president when the Hewetts moved Security's headquarters to Billings. Roscoe continued his association with the Security Bridge Company until 1925, when he formed the W. P. Roscoe Company in Billings. William and Arthur Hewett dissolved the Security Bridge Company in 1926.[6]

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[2] SN-FAP No. 158-C, Unit 2, hereafter referred to as SN-FAP no. 158-C, U2), Montana Highway Department Bridge Bureau Records, 1920-1985, Unprocessed Collection, Montana Historical Society Research Center, Helena; Jon Axline, *Conveniences Sorely Needed: Montana's Historic Highway Bridges, 1860-1956*, (Helena: Montana Historical Society, 2005), 107-108.

[3] SN-FAP No. 158-C, U2; Montana State Highway Commission Meeting Minutes, Book 9, 122-123 (September 29, 1944); Road Inventory: Bridge Condition Survey, SN-FAP 158-C (2), No Date.

[4] SN-FAP No. 158-C, U2; Axline, *Conveniences Sorely Needed,* 115.

[5] Axline, *Conveniences Sorely Needed*, 113-114.

[6] Tom Stout, *Montana: Its Story and Biography*, Volume 2 (Chicago: American Historical Society, 1921), 221-222; Fredric Quivik, *Historic Bridges of Montana*, (Washington DC: National Park Service, 1982), 43.

Additional Documentation

Submit the following items with the completed form:

- **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. Key all photographs to this map.

- **Continuation Sheets**

- **Additional items:** (Check with the SHPO or FPO for any additional items)

Photographs:

Submit clear and descriptive black and white photographs. The size of each image must be 1600x1200 pixels at 300 ppi (pixels per inch) or larger. Key all photographs to the sketch map.

(See continuation pages)

Bibliography

Alt, David and Donald W. Hyndman, *Roadside Geology of Montana*. (Missoula: Mountain Press Publishing, 1991).

Axline, Jon. *Conveniences Sorely Needed: Montana's Historic Highway Bridges, 1860 - 1956*. (Helena: Montana Historical Society, 2005).

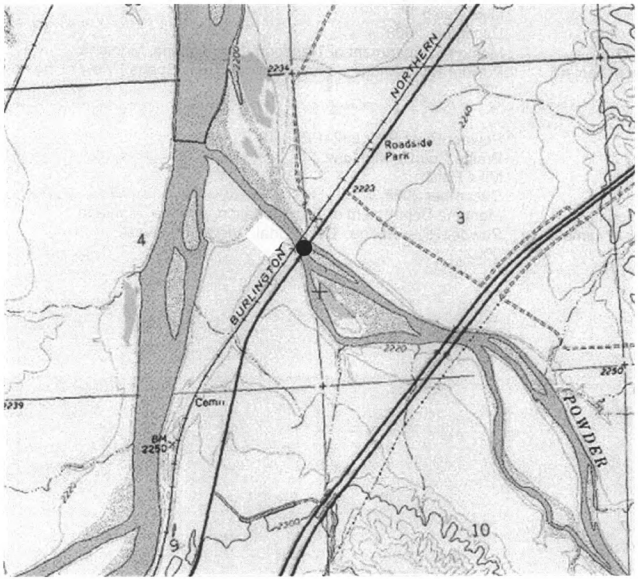
Bridge Inspection File No. L40004006+02001. Montana Department of Transportation, Helena.

Quivik, Fredric. *Historic Bridges of Montana*. (Washington DC: National Park Service, 1982).

Roscoe, Jim. Interview by Jon Axline, Montana Department of Transportation, April 2004.

State Highway Commission Meeting Minutes. Book 9. Montana Department of Transportation, Helena.

Stout, Tom. *Montana: Its Story and Biography*. Three volumes (Chicago: American Historical Society, 1921).



Location of Powder River Bridge (T11N R50E, S4, Zero 7.5' quadrangle map, 1969)

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Name of Property: Powder River Bridge

County and State: Prairie County, Montana

Name of multiple property listing (if applicable)
Montana's Historic Steel Truss Bridges

Photographs Page 1

Name:	Powder River Bridge (24PE1810)
County and State:	Prairie County, Montana
Photographer:	Mike Patch
Date of Photograph:	December 2008
Location of original negative:	Montana Department of Transportation. Helena, Montana.
Description and view of camera:	Powder River Bridge. South profile of Truss Spans. View to the northwest.
Photograph:	0001

Name:	Powder River Bridge (24PE1810)
County and State:	Prairie County, Montana
Photographer:	Mike Patch
Date of Photograph:	December 2008
Location of original negative:	Montana Department of Transportation. Helena, Montana.
Description and view of camera:	Powder River Bridge. East Portal. View to the west.
Photograph:	0002

Photograph 0001. Powder River Bridge. South profile of Truss Spans. View to the northwest.

Photograph 0002. Powder River Bridge. East Portal. View to the west.