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 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 if needed (NPS Form 10-900a).**

1. Name of Property

historic name Powell Bridge

other names/site number Missouri Historic Bridge Survey Number MACD05; MoDOT (Missouri Department of Transportation) Bridge No. 249000.5

2. Location

street & number .04 mile southwest of Powell on Cowan Ridge Rd. off of Hwy E N/A not for publication

city or town Powell X vicinity

state Missouri code MO county McDonald code 119 zip code 65730

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

Mark A. Miles MARCH 7, 2011

Signature of certifying official/Title Mark A. Miles, Deputy SHPO Date

Missouri Department of Natural Resources
State or Federal agency/bureau or Tribal Government

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

Signature of commenting official Date

Title State or Federal agency/bureau or Tribal Government

4. National Park Service Certification

I hereby certify that this property is:

___ entered in the National Register ___ determined eligible for the National Register

___ determined not eligible for the National Register ___ removed from the National Register

___ other (explain:) _____

Signature of the Keeper Date of Action

Powell Bridge
Name of Property

McDonald County, MO
County and State

5. Classification

Ownership of Property
(Check as many boxes as apply.)

	private
x	public - Local
	public - State
	public - Federal

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

	building(s)
	district
	site
x	structure
	object

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

Contributing	Noncontributing	
0	0	buildings
0	0	district
0	0	site
1	0	structure
0	0	object
1	0	**Total**

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

N/A

Number of contributing resources previously listed in the National Register

0

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: pinned Pratt through truss

Materials
(Enter categories from instructions.)

foundation: Concrete
walls: N/A
roof: N/A
other: Iron
wood

Powell Bridge
Name of Property

McDonald County, MO
County and State

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.)

- [ ] 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 Owned 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
Engineering

Period of Significance
1915

Significant Dates
1915

Significant Person
(Complete only if Criterion B is marked above.)
N/A

Cultural Affiliation
N/A

Architect/Builder
Lett, Walter Mose
East St. Louis Bridge Co.
Appleby, Fred

9. Major Bibliographical References

Bibliography (Cite the books, articles, and other sources used in preparing this form.)

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 # _____
- ____ recorded by Historic American Landscape Survey # _____

Primary location of additional data:
- __x__ State Historic Preservation Office
- ____ Other State agency
- ____ Federal agency
- ____ Local government
- ____ University
- ____ Other

Name of repository: _____

Historic Resources Survey Number (if assigned): _____

10. Geographical Data

Powell Bridge
Name of Property

McDonald County, MO
County and State

Acreage of Property Less than one acre

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

	Zone	Easting	Northing		Zone	Easting	Northing
1	15	394294	4052913	3			
2				4			

11. Form Prepared By

name/title Beverly Prentice/Powell Historical Preservation Society Officer

date

street & number 3569 Sugar Creek Rd. telephone 417-435-2214

city or town Powell state MO zip code 65730

e-mail eprent@leru.net

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

Property Owner:

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

name

street & number telephone

city or town state zip code

Summary

The Powell Bridge is located over Big Sugar Creek 0.4 miles southwest of Powell in Section 21, Township 22 North, Range 30 West in McDonald County, Missouri. McDonald County is the southwestern most county of Missouri. It is in the four-state area where Missouri touches three (3) neighboring states: Kansas, Oklahoma and Arkansas. The bridge was built in 1914-1915 and was opened to the public in August of 1915. It consists of a 140' 8-panel pin-connected Pratt through truss main span of wrought iron and iron and a 70' 4-panel pin-connected Pratt pony truss approach span. It was constructed to have a 12' wide roadway. The substructure includes concrete abutments, wing walls and a pier cap reinforced with steel plate. The floor/decking is timber deck over steel stringers.

Setting

The Powell Bridge is set over Big Sugar Creek in Bentonville Hollow. Big Sugar Creek is a beautiful clear flowing stream filled with fish and is popular with canoeists. Big Sugar Creek is made up of three tributaries. One flows northward from Garfield, Arkansas, one west from near Seligman, Missouri, and another southward from Washburn, Missouri.[1] The banks of the stream are lined with oak, maple and giant sycamore trees and gravel bars. The area that surrounds Powell consists of timbered slopes, pasture lands and timber mixed flood plains and terraces. There are several small cabin houses lining the banks of the stream at the site of the bridge.[2]

Narrative

The four main factors used in describing structural possibilities of most common fixed (non-movable) bridge types are:

- span (simple, continuous, cantilever)
- material (stone, concrete, metal, etc.)
- placement of the travel surface in relation to the structure (deck, pony, through)
- form (beam, arch, truss, etc.)[3]

The Powell Bridge has a 140' iron pin-connected Pratt through truss multiple simple main span of iron and wrought iron with a square arch and a 70' iron pin-connected Pratt pony truss approach span. It was constructed to have a 12' wide roadway. The

[1] Joe C. Schell, *Big Sugar Creek County* (Goodman, MO: Joe C. Schell Publishing, 1969.) p.17.
[2] Environmental Research Center of Missouri, Inc, "A Photographic and Historic Documentation: Powell Bridge No. 249000.5" (Jefferson City, MO: December, 2007). p. 2.
[3] Bridge Basics – A Spotter's Guide to Bridge Design. *Bridges and Tunnels of Allegheny County and Pittsburgh, PA* (www.pghbridges.com/basics.htm), p.1.

multiple simple main span is actually 140' 4 ¾" and the second span is 10' 2' with 6' + between the two spans. The bridge is actually 211' in length while its actual width is 1' under design at 11'11". The south abutment is 8' tall concrete with wing walls set into the bluff. The center pier is 30' tall, excavated to 10' below the stream bed and solid concrete across the width of the span. The north abutment is 12' high concrete with iron bents set down to bedrock and wing walls.[4]

The bridge has both a through and a pony configuration. Traffic travels through the Pratt truss of the superstructure which is cross-braced above and below the traffic and also through the pony truss, which are parallel superstructures which are not cross-braced at the top.

The multiple simple main span is an 8-panel pin-connected wrought iron Pratt through truss 140' 4 ¾" long with a 13' 11" outside width and a 22' tall top with pins set 20' over the Big Sugar Creek bed. The top chord and inclined end post are 8 ¼ by 12" I-beam and plate. The hip verticals are paired and bracketed 2" by 3" angle iron 6" wide. The bottom chords of the 1st, 2nd, 7th, and 8th panels are paired ½" by 2 ½" I-bar. The verticals are 5" by 10 5/8" double laced flat iron. The diagonals of the 2nd and 7th panels are 5/8" by 3" paired eye bars. The bottom chords of the 3rd and 6th panels are 5/8" by 4" paired eye bars. The bottom chords of the 4th and 5th panels are ¾" by 4" paired eye bars. Tension bars are 1" round bar with turnbuckles and diagonals are ½" by 1 ¾" flat eye bar paired. The top chord struts are double laced angle iron 4' 6" wide. The top sway bracing is ¾" round bar. The bottom sway bracing is 1" round bar for the 1st, 2nd, 3rd, 6th, and 7th chords and ¾" round bar in the 4th and 5th panels. The portal bracing is a simple lattice of 3' by 4' angle iron.[5]

The deck of the bridge is 3" by 12" CCA planking. The stringers are unusually set in 2 sets of 3 six inch I beams apparently under the vehicle wheel course of the planks. The edge stringers are 6" I beams rather than the usual "C" beams giving a total of 8 stringers. The floor beams are 12" I-beams. The rail is a 14 ½" wide lattice double laced between 2" by 2" angle iron subtracted 6" from the roadway width leaving 11' 5" with a vertical clearance of 16'.[6]

The second span, the approach span on the north side, is a 4-panel wrought iron pin-connected Pratt pony truss 70' long and 13' 7" wide outside. The height of the bridge is 8'4" to the top pins. The inclined end posts and top chords are composed of 7" I-beams and ¼" plate bracket forming 7 ¼" by 10" truss members. The verticals are 4 ½" by 10" double laced. The diagonals are 5/8" by 2 ½" paired flat eye bars. The tension eye bars are ¾" round eye bars with turnbuckles. The lattice continues through both spans as does the floor.[7]

[4] Environmental Research Center of Missouri, Inc. p. 3
[5] Ibid, p.4.
[6] Ibid, p.4.
[7] Ibid, p. 4.

The Powell Bridge has carried traffic without alteration for 95 years. Recently the tops of the concrete abutments and pier have been repaired with concrete, but the trusses themselves remain intact. While considered in good condition, structural limitations of the one lane bridge preclude modern agricultural equipment use and the heavier trucks built today, including emergency vehicles. A 3 ton load limit has been posted for the Powell Bridge. From the 1880's until the 1920's the pin-connected Pratt through truss was the overwhelming bridge of choice for medium-span roadway crossings in Missouri. The Powell Bridge is distinguished among the thousands of other examples of truss bridges built during that time period throughout the state for its relatively long span length, well-preserved condition and excellent documentation. It is also unique because it is one of the few roadway bridges in Missouri that combined through and pony truss spans. This structure remains a significant transportation-related resource and has excellent documentation.[8]

[8]U.S. Department of the Interior, "Historic American Building – Missouri Historic Bridge Survey".

Summary:

The Powell Bridge, located on Conway Ridge Road (off Hwy E) over Big Sugar Creek 0.4 miles west of Powell, McDonald County, Missouri, is significant under Criterion C in the area of engineering. The Powell Bridge was constructed in 1914-1915 and officially accepted on Monday, August 16, 1915. It is an iron 8-panel, pin-connected Pratt through truss with a 4-panel, pin-connected Pratt pony truss approach span. It is the only remaining nineteenth-century pinned-connected Pratt through truss bridge in McDonald County. The bridge is especially noteworthy because it is still intact today and being used for vehicular traffic 95 years after it was opened. Today it does have a load limit specification. The significance of this bridge is based on a well-preserved long-span example of a mainstay structural type.[9] It is also one of the few roadway bridges in Missouri that combine a Pratt through truss and a pony truss span. The period of significance is 1915, the date of completion.

Narrative

The Powell Bridge was contracted as a 210' two span iron single lane bridge over Big Sugar Creek at the Bentonville Ford 0.4 mile south of Powell, Missouri. It was initiated by a petition carried by R.H. Buck to the McDonald County Court on Wednesday June 25, 1913.[10] The Court accepted the petition and ordered W. Mose Lett, the County Surveyor, to seek out a site for the bridge near the Bentonville Hollow Ford, and, as ex-official County Highway Engineer, to prepare plans and specifications and advertise for bids for the bridge.[11] On Monday, November 10th, 1913 the Court proceeded to make road change orders preparatory to the bridge construction.[12] On Wednesday, July 15, 1914 the McDonald County Court opened bids. The two lowest bids were by the Kansas City Bridge Co. and a joint bid by East St. Louis Bridge Co. for the iron spans and contractor Fred L. Appleby for the substructure. The Kansas City Bridge Co. bid was $3,670.00 for the entire structure. The East St. Louis Bridge Co. and Fred L. Appleby bid was $2,240.00 and $1,290.00 respectively for a total of $3,530.00. The county did not want to use over $4,000.00 out of available funds for the bridge. Ancillary expenses such as wood fills and grading put the Kansas City Bridge Co. total over that amount while the East St. Louis Bridge Co. and Fred L. Appleby came in at $4000.00 total. The East St. Louis Bridge Co. and Fred L. Appleby bids were accepted.[13] The county's newspaper, the *Pineville Herald*, reported the results of the Court's deliberation and bid selection in their July 17, 1914 edition.

[9]Environmental Research Center of Missouri, Inc, "A Photographic and Historic Documentation: Powell Bridge No. 249000.5" (Jefferson City, MO: December, 2007). p. 2.
[10]McDonald County Court Record (Pineville, MO: McDonald County Courthouse, Book M, 1913). p.15.
[11]Ibid.
[12]McDonald County Court Record (Pineville, MO: McDonald County Courthouse, Book M, 1914). pp. 80-81.
[13]Ibid. p. 236.

Construction of the bridge continued over approximately one year, from 1914-1915. Fred Appleby built the massive concrete pier of concrete and concrete abutments with wing walls. W. Mose Lett, the engineer, was on site to supervise the construction. Local labor was readily available, as were materials. Sycamore logs were cut and hauled to the bridge site by wagon and a team of horses to use for scaffolding. The local in charge of sawing the logs, Mr. Cowan, donated every other load of logs. On Monday, August 16th, 1915, the McDonald County Highway Engineer (Lett) made his report on the County's viewing and the completed bridge was accepted.[14]

The present Powell Bridge has served this important northern McDonald County road at this stream crossing since 1915. The bridge continues to serve the local rural agricultural community in much the same manner as it has within its design limitations. Given modern traffic requirement, the Powell Bridge is no longer suitable to meet the needs of all of today's vehicular traffic and has a load specification posted of 3 tons.

Extensive waterways, a diverse climate and contrasting geographic regions are natural challenges to bridge design in Missouri. Bridge design depends on the integrity of the banks upon which substructures rest and the predictability of the waterways they cross and the fluctuations of outdoor temperatures.[15] Big Sugar Creek, the stream over which the Powell Bridge is built, floods frequently, and the entire valley of Powell is in the 100 year floodplain of McDonald County. Therefore, the bridge was built on high banks on the north and south sides of the creek, creating challenges to the engineer and the workers alike.

In the 1850's and 1860's, the development of Missouri's bridges was influenced by construction of sturdy wooden bridges and of railroad bridges. Bridge building in the United States was significantly altered by the advancement of new designs. Two brothers, Thomas and Caleb Pratt patented the Pratt truss in 1844. This design further helped signal a shift in the 1840's from the use of wood to the use of iron and steel. The Pratt truss was not popular with timber bridge construction but was often used in combination bridges. It was a common configuration for railway bridges as truss bridges moved from wood to metal.[16]

A Pratt truss includes vertical members and diagonals that slope down towards the center. The interior diagonals are under tension under loading and vertical elements under compression. If pure tension elements are used in the diagonals such as eyebars, then crossing elements may be needed near the center to accept concentrated live loads as they traverse the span. The parallel chords and equal panel lengths

[14]McDonald County Court Record (Pineville, MO: McDonald County Courthouse, Book M, 1915). pp. 554-555.
[15]U.S. Department of the Interior, "Historic American Survey-Missouri Historic Bridge Survey," p. 6.
[16]Ibid. p.10.

resulted in standard sizes for the verticals, diagonals and chord members. This made the fabrication and assembly fairly easy. This truss is practical for use with spans up to 250 feet. Therefore, many of the regional fabricators manufactured Pratt trusses and marketed them extensively to Missouri's counties in the late 19th and the early 20th centuries. In Missouri, Pratt trusses employed pinned connections until around 1915, when rigid connections began to take the place of the older technology. The state highway adopted the riveted Pratt configuration for its through truss bridges around 1920 which ended the use of the pinned connections.[17]

Although other bridge designs followed the Pratt pin-connected and the Pratt rigid truss, the pinned Pratt was the most common bridge type erected in Missouri from the 1870's through 1910. The pin-connected Pratt became the bridge of choice for short- and medium-span bridges in Missouri in the late 19th and 20th centuries. They constituted the single most technologically significant structural type among the state's vehicular bridges. McDonald County constructed only two pin-connected Pratt truss bridges. The Anderson Bridge was built in 1908 and had a pin-connected Pratt through truss span of 112'. Efforts to save it were unsuccessful and it was demolished several years ago. The Powell Bridge was built in 1915 and includes a 140' iron pin-connected Pratt through truss and a 70' iron pin-connected Pony truss approach span. It is still in use today with a limited traffic load, carrying vehicles over Big Sugar Creek.

The America Iron Age lasted from 1850 to 1890. However, Mose Lett, the engineer of the Powell Bridge, specified wrought iron and iron instead of steel for the materials of the bridge. The advent of steel bridges in Missouri also marked the introduction of steel to the nation. Until that time the cost had been prohibitive until the "Siemens-Martin Process" became the basis for modern steel production. Missouri produced the nation's first steel bridges. Built between 1867 and 1874, the Eads Bridge (originally referred to as the St. Louis Bridge) spans the Mississippi River, connecting St. Louis, Missouri, with East St. Louis in Illinois. Although it was not entirely steel, the Eads was one of the first bridges to use that material extensively in its structure. The earliest all-steel bridge in Missouri and the United States was the Glasgow Bridge, built in 1879 by the Chicago and Alton Railroad. Missouri's extensive bridge building also gave rise to many regional and local bridge building companies who specialized in building on site and also produced prefabricated superstructures and substructures on demand according to specifications.[18]

Through trusses, in both pin-connected and rigid form, constitute the single technologically significant structural type among Missouri's vehicular bridges. Through trusses, as a group, comprise the longest span bridges in the state of Missouri, and, for most counties, they are the most substantial bridges erected. The pin-connected Pratt through truss predates the rigid-connected Pratt through truss and, therefore, they are

[17]Ibid. p.83.
[18]Ibid. pp.11-12.

the most endangered, such as in McDonald County, Missouri.

In the early 1990's Clayton Fraser inventoried 195 Pratt pin-connected through truss bridges in the state of Missouri that were built before 1951 for the original Missouri Historic Bridge Inventory Survey. In January of 2010 MoDOT (Missouri Department of Transportation) reported only 48 pin-connected Pratt through truss bridges left in the state. It is estimated that, through attrition, there are fewer now. Eleven (11) counties make up District 7, the Southwestern District that includes McDonald County where the Powell Bridge is located. Only eight (8) pin-connected Pratt through truss bridges were left in District 7 in January 2010. Seven (7) of the eight (8) pin-connected Pratt through truss bridges are still being used for vehicular traffic, although a load limit is posted for each one. Three (3) of the bridges have been reconstructed and one (1) of the bridges have been slated to be replaced, which means it will be torn down. Only two (2) pin-connected Pratt through truss bridges were built in McDonald County: the 8-panel Powell Bridge in built in 1914 and 1915 over Big Sugar Creek and the 6-panel Anderson Bridge over Indian Creek built in 1908. The Anderson bridge was demolished several years ago which leaves the Powell Bridge as the only remaining Pratt pin-connected through truss bridge in the county.

The present Powell Bridge has served an important northern McDonald County road at the Big Sugar Creek stream crossing since 1915. The bridge continues to serve the local rural agricultural community in much the same manner as it has within its design limitations. Given modern traffic requirements, the one lane Powell Bridge is no longer suitable to meet the needs of all of today's vehicular traffic and currently has a load specification posted of 3 tons. The Powell Bridge was slated for demolition in order to build a new bridge; however, a group of citizens formed a non for profit organization and petitioned the County Commissioners to save the bridge. A new bridge will be built further downstream in 2011 and the old bridge will be taken over by the Powell Historical Preservation Group and adapted as a pedestrian bridge.

Powell: Historic Background

Before the construction of the bridge, Powell was a small, but thriving community which consisted of a Post Office, a general store, another smaller mercantile store, the telephone exchange office, a mill and a tomato canning factory powered by Big Sugar Creek, a doctor, saw mills, a one-room schoolhouse and many rural households that depended on getting their eggs and produce to the store to sell.[19] There were also several blacksmiths and a drugstore with a pharmacy.[20] The area was dependent upon many low water crossings that made travel difficult during times of moderate rain or flooding. These crossings made it not only difficult, but many times impossible to reach

[19] James Reed, *Powell Items, 1886-1942, Compiled from the Pineville Herald* (Powell, MO: Reed, 2004), pp. 8,22,26,31,35,38,42.
[20] Schell, p. 14.

one's destination without going many miles out of the way. Missing school was a common occurrence. The following is a quote from the Powell School Report from the Pineville Herald dated September 26, 1890: "…and on account of high water, there were a number of our larger students who were not in attendance during the last days of the month, so the examination was put off until the first of the month, hence the report comes in late."[21] A little further up Big Sugar Creek stood the Big Sugar Creek Baptist Church, which originated from the location of an early campground where travelers and haulers waited for high waters to subside before they could cross the creek to continue their journey.[22]

Although not in use today, at the time of the construction of the bridge the Butterfield Stage Route crossed Big Sugar at a low point downstream when possible and wound through the valley and up the hills. The state highway used by vehicles today runs south to Rogers, Arkansas and has a newer bridge that crosses Big Sugar Creek that was not built until the 1950's. The same is true for the road and bridge that crosses Mike's Creek and King's Creek that runs north out of the Powell Valley and goes to Neosho and Joplin, Missouri. The Powell Bridge opened up travel over Big Sugar into the Bentonville Hollow Valley and alleviated the need for the use of many of the low water crossings, especially in times of high water. Numerous other low water crossings criss-cross the valley and certain roads always flood when it rains. Today Powell has more houses along the highway and side roads and is the home of the Albert E. Brumley & Sons' Publishing Co. The Post Office is still open but the general store is closed, along with the gas station that was open for many years, along with all of the previously stated other businesses.

[21] Reed, p. 3.
[22] Schell, p. 14.

Bibliography

"Bridge Basics – A Spotter's Guide to Bridge Design." *Bridges and Tunnels of Allegheny County and Pittsburgh, PA.* www.pghbridges.com/basics.htm

Cowan, J.E. *Life in the Powell-Cyclone Community of McDonald County, Missouri.* Noel, Missouri: McDonald County Press, 1973.

Environmental Research Center of Missouri, Inc. *Missouri Historic Engineering Record: A Photographic and Historic Documentation prepared for McDonald County Commission and Great River Engineering – Powell Bridge – No. 249000.5.* Jefferson City, Missouri, December, 2007.

Fraser Design. *Missouri Historic Bridge Inventory*, April 1996. On file at the Missouri State Historic Preservation Office.

McDonald County Court Record. Book M. McDonald County Courthouse – Old Jail Annex. Pineville, Missouri, 1913, 1914, 1915.

Reed, James. *Powell Items, 1886-1942, Complied from the Pineville Herald.* Powell, Missouri, 2004.

Schell, Joe. C. *Big Sugar Creek Country.* Sponsored by the McDonald County Missouri Historical Society. Goodman, Missouri: Joe. C. Schell Publishing, n.d.

U.S. Department of the Interior. National Park Service. National Park Service. "Historic American Building Survey-Missouri Historic Bridge Survey." Washington, D.C., 1990.

Verbal Boundary Description:

Old Powell Bridge Right-of-Way Description
A tract of land lying in the northwest quarter (NW ¼) of Section 21, Township 22 North, Range 30 West, McDonald County, Missouri, which lies within the following described right of way of McDonald County Bridge No. 24900051:

Commencing at a found stone at the Southwest corner of Section 21, Township 22 North, Range 30 West: Thence along the South line of said Section 21, S88 degrees 23' 50" E, 2227.63 feet; Thence leaving said South line, NO 1 degree 36' 10 " E, 3288.66 feet to a point on the existing easterly right of way line of county road SE E-58 for the **Point of Beginning**; Thence N57 degrees 19' 06" W, 40.00 feet to a point on the existing westerly right of way line of county road SE E-58; Thence along said westerly right of way line, N33 degrees 00' 50" E, 223.64 feet; Thence N34 degrees 53' 59" E, 80.33 feet; Thence N35 degrees 51' 00" E, 90.07 feet; Thence leaving said westerly right of way line, S54 degrees 09' 00" E, 40.00 feet to a point on the easterly right of way line of said county road SE E-58; Thence S35 degrees 51' 00" W, 89.74 feet; Thence S34 degrees 53' 59" W, 79.34 feet; Thence S33 degrees 00' 50" W, 222.75 feet to the **Point of Beginning.** All containing 15,717 square feet (0.36 acres).

The boundary is also as shown on the attached scaled drawing.

Boundary Justification

The boundary encompasses the entire bridge along with its abutments and road right-of-way for the approach; this area contains all of the property that is historically associated with the Powell Bridge.

Photo Log

The following is true for all photographs unless otherwise noted:

Powell Bridge
Powell vic., McDonald County, Missouri
Photographers: Ed and Beverly Prentice
Date of Photographs: January 2011
Total number of Photographs: 8
Location of Negatives/digital images: Missouri State Historic Preservation Office

Photo 1: 210' 8-panel pin-connected Pratt through truss and pony truss iron bridge completed in 1915, continuous lattice railing throughout

Photo 2: 140' 4-panel pin-connected Pratt pony truss continuous main span with square arch

Photo 3: 70' 4-panel pin-connected Pratt pony truss

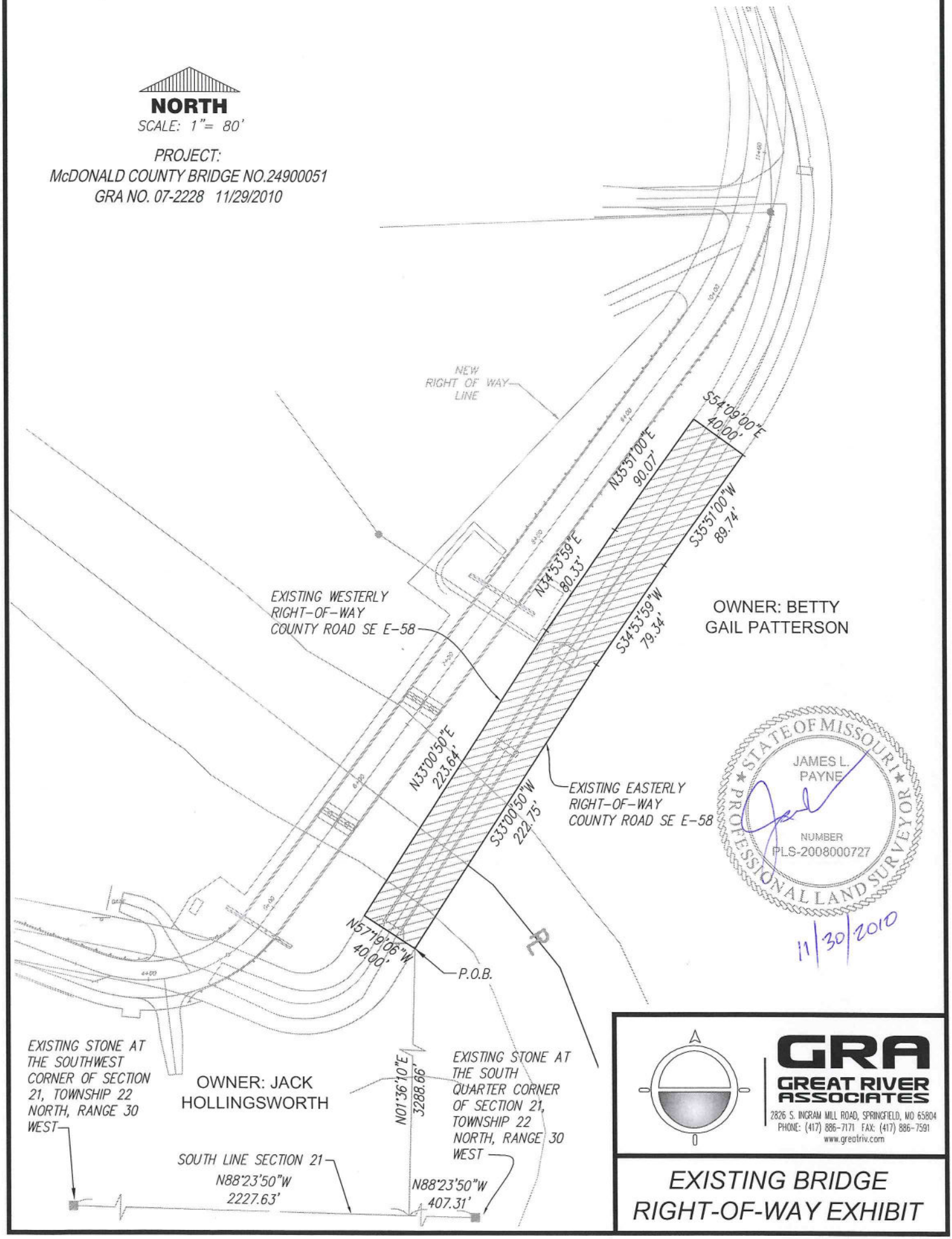
Photo 4: Substructure: north abutment is 12' high concrete with iron bents set down to bedrock and wing walls at the beginning of the approach of the Pony truss

Photo 5: Substructure: center pier – 30' tall, excavated to 10' below streambed and is solid concrete across the width of the span

Photo 6: South portal, 12' roadway, top chords, inclined end posts, hip verticals, portal strut, top sway bracing of pin-connected Pratt through truss and lattice railing throughout both trusses

Photo 7: Bottom chords, panels, stringers and decking of pin-connected Pratt pony truss

Photo 8: Inclined end post, hip vertical post, part of top chord and pinned connection of bottom of pin-connected Pratt pony truss


NORTH
SCALE: 1"= 80'
PROJECT:
McDONALD COUNTY BRIDGE NO.24900051
GRA NO. 07-2228 11/29/2010
NEW RIGHT OF WAY LINE
EXISTING WESTERLY RIGHT-OF-WAY COUNTY ROAD SE E-58
EXISTING EASTERLY RIGHT-OF-WAY COUNTY ROAD SE E-58
OWNER: BETTY GAIL PATTERSON
OWNER: JACK HOLLINGSWORTH
S54°09'00"E 40.00'
N35°51'00"E 90.07'
S35°51'00"W 89.74'
N34°53'59"E 80.33'
S34°53'59"W 79.34'
N33°00'50"E 223.64'
S33°00'50"W 222.75'
N57°19'06"W 40.00'
P.O.B.
N01°36'10"E 3288.66'
EXISTING STONE AT THE SOUTHWEST CORNER OF SECTION 21, TOWNSHIP 22 NORTH, RANGE 30 WEST
EXISTING STONE AT THE SOUTH QUARTER CORNER OF SECTION 21, TOWNSHIP 22 NORTH, RANGE 30 WEST
SOUTH LINE SECTION 21
N88°23'50"W 2227.63'
N88°23'50"W 407.31'
STATE OF MISSOURI
JAMES L. PAYNE
NUMBER PLS-2008000727
PROFESSIONAL LAND SURVEYOR
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