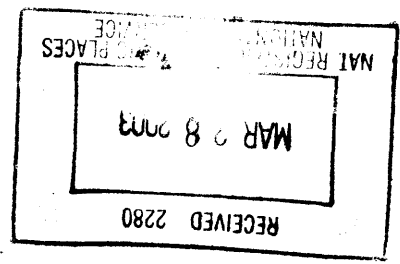


372



United States Department of the Interior  
National Park Service

### National Register of Historic Places Registration Form

**1. Name of Property**

Historic name: N/A

Other name/site number: Delaware River Parker Truss Bridge (preferred); 44-HT-07

**2. Location** On Bridge Street (old Hwy 24), 0.3 miles west of the intersection with Main Street.

city or town Perry not for publication  
state code KS county Jefferson county code 087 zip code 66073  
N/A vicinity

**3. State/Federal Agency Certification**

As the designated authority under the National Historic Preservation Act of 1986, as amended, I hereby certify that this nomination request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property meets does not meet the National Register criteria. I recommend that this property be considered significant locally statewide locally. (See continuation sheet for additional comments.)

Richard D. Bankert 3/26/03  
Signature of certifying official Date

State or Federal agency and bureau

In my opinion, the property meets does not meet the National Register criteria. (See continuation sheet for additional comments.)

Signature of commenting or other official Date

State or Federal agency and bureau

**4. National Park Service Certification**

I, hereby, certify that this property is:

- entered in the National Register. Edson H. Beall
- See continuation sheet determined eligible for the National Register.
- See continuation sheet determined not eligible for the National Register.
- removed from the National Register.
- other, (explain:)

for Signature of Keeper Date of Action

United States Department of the Interior  
National Park Service

# National Register of Historic Places Registration Form

**1. Name of Property**

Historic name: N/A

Other name/site number: Delaware River Parker Truss Bridge (preferred); 44-HT-07

**2. Location** On Bridge Street (old Hwy 24), 0.3 miles west of the intersection with Main Street.

city or town Perry not for publication

N/A vicinity

state code KS county Jefferson county code 087 zip code 66073

**3. State/Federal Agency Certification**

As the designated authority under the National Historic Preservation Act of 1986, as amended, I hereby certify that this XX 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 XX meets does not meet the National Register criteria. I recommend that this property be considered significant    nationally XX statewide    locally. (   See continuation sheet for additional comments.)

Richard D. Parkwitz  
Signature of certifying official

4/09/03  
Date

**KANSAS STATE HISTORICAL SOCIETY**

State or Federal agency and bureau

In my opinion, the property    meets    does not meet the National Register criteria.  
(   See continuation sheet for additional comments.)

Signature of commenting or other official

Date

State or Federal agency and bureau

**4. National Park Service Certification**

I, hereby, certify that this property is:

- entered in the National Register.  
   See continuation sheet
- determined eligible for the National Register.  
   See continuation sheet
- determined not eligible for the National Register.
- removed from the National Register.
- other, (explain:)

Signature of Keeper

Date of Action

Property Name Delaware River Parker Truss Bridge

County and State Jefferson, Kansas

**5. Classification**

Ownership of Property	Category of Property	No. of Resources within Property	
		contributing	noncontributing
<input type="checkbox"/> private	<input type="checkbox"/> building(s)	<input type="checkbox"/>	<input type="checkbox"/> buildings
<input checked="" type="checkbox"/> public-local	<input type="checkbox"/> district	<input type="checkbox"/>	<input type="checkbox"/> sites
<input type="checkbox"/> public-State	<input type="checkbox"/> site	<input type="checkbox"/>	<input type="checkbox"/> structures
<input type="checkbox"/> public-Federal	<input checked="" type="checkbox"/> structure	<u>1</u>	<input type="checkbox"/> objects
	<input type="checkbox"/> object	<input type="checkbox"/>	<input type="checkbox"/> Total
		<u>1</u>	<u>0</u>

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

No. of contributing resources previously listed in the National Register

Metal Truss Bridges in Kansas

0

**6. Functions or Use**

Historic Functions  
(Enter categories from instructions.)

Current Functions  
(Enter categories from instructions.)

TRANSPORTATION: Road-related (vehicular)

TRANSPORTATION: Road-related (vehicular)

**7. Description**

Architectural Classification  
(Enter categories from instructions.)

Materials  
(Enter categories from instructions.)

OTHER: Parker Truss

Foundation Concrete

Walls \_\_\_\_\_

Roof \_\_\_\_\_

Other Metal: Steel

Narrative Description (Describe the historic and current condition of the property on one or more continuation sheets.)

Property Name Delaware River Parker Truss Bridge

County and State Jefferson, Kansas

**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.
- 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.)

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

Areas of Significance

Enter categories from instructions.)

ENGINEERING

TRANSPORTATION

Period of Significance

1926

Significant Dates

1926

Cultural Affiliation

N/A

Significant Person

N/A

Architect/Builder

Midland Bridge Co. (Kansas City, Missouri), Kansas City

Structural Steel Co. (Kansas City, Missouri), Yancy Bros.

Construction Co.

Narrative Description (Describe the historic and current condition of the property on one or more continuation sheets.)

Property Name Delaware River Parker Truss Bridge

County and State Jefferson, Kansas

**9. Major Bibliographical References**

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

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

Primary location of additional data:

- State Historic Preservation Office
- Other State agency
- Federal agency
- Local government
- University
- Other

Specify repository:

Record # \_\_\_\_\_

**10. Geographical Data**

Acreage of property 1 acre

UTM References

1	<u>1/5</u>	<u>2/9/2/1/4/0</u>	<u>4/3/2/7/6/5/0/</u>	3	<u>/</u>	<u>/ / / / /</u>	<u>/ / / / /</u>
	Zone	Easting	Northing		Zone	Easting	Northing
2	<u>/</u>	<u>/ / / / /</u>	<u>/ / / / /</u>	4	<u>/</u>	<u>/ / / / /</u>	<u>/ / / / /</u>

\_\_\_\_ See continuation sheet

Verbal Boundary Description (Describe the boundaries of the property on a continuation sheet.)

Boundary Justification (Explain why the boundaries were selected on a continuation sheet.)

**11. Form Prepared By**

name/title Kerry Davis, Architectural Historian & Elizabeth Rosin, Partner

organization Historic Preservation Services date August 5, 2002

street & number 323 West Eighth Street, Suite 112 telephone (816) 221-5133

city or town Kansas City state Missouri zip code 64105

**Additional Documentation**

Submit the following items with the completed form:

Continuation Sheets

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.

Photographs

Representative black-and-white photographs of the property.

Additional items (Check with the SHPO or FPO for any additional items.)

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

Name County of Jefferson

street & number 300 Jefferson, P.O. Box 321 telephone 785-863-2211

city or town Oskaloosa state KS zip code 66066

United States Department of the Interior  
National Park Service

**NATIONAL REGISTER OF HISTORIC PLACES  
CONTINUATION SHEET**

Section Number 7 Page 1

Delaware River Parker Truss Bridge  
Jefferson County, Kansas

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**DESCRIPTION**

**LOCATION AND SETTING**

The Delaware River Parker Truss Bridge is located at the western city limits of Perry in northeast Kansas; SW ¼ of Section 22, Township 11S, Range 18E. The region is defined by rounded hills and broad, wooded valleys. The Delaware River Parker Truss Bridge carries Bridge Street across the Delaware River, a wide, deep course that flows into the Kansas River less than 2 miles southeast. The paved roadway, flanked by residential neighborhoods to the east and Kansas River bottomland to the west, aligns directly with the Delaware River Parker Truss Bridge. A double-span Baltimore truss bridge carries the Union Pacific Railroad tracks over the Delaware River approximately 100 yards to the south of the Delaware River Parker Truss Bridge.

**TRUSS TYPE**

The Delaware River Parker Truss Bridge is a single span riveted through truss<sup>1</sup> that measures 222 feet in length and 20 feet in width.<sup>2</sup> Standard box-form poured concrete abutments with beveled edges support the bearings of the truss, which rest directly on the abutment seats. The abutment side walls extend approximately 15 feet along the approach grades.

Eleven slopes form the polygonal top chords of the truss, creating the arched shape distinctive to a Parker truss.<sup>3</sup> The top chords and inclined end posts consist of two channels, a cover plate, lacing bars, and stay plates; the bottom chords consist of angle stock with stay plates.

The web members include vertical posts that form eleven equivalent panels and diagonal ties that intersect within the three central panels. The vertical posts are composed of channel stock with lacing bars; the diagonal ties are composed of angle stock with stay plates.

A system of intersecting, riveted angle stock forms the portal and sway bracing that connects the top chords at each vertical post, leaving a vertical clearance of 14 feet. Upper lateral angle stock bracing bars intersect diagonally between the top chords.

The concrete and asphalt deck is 20 feet wide with steep, beveled curbs and downspouts. It rises approximately 32 feet above the riverbed on steel I-beam stringers. Floor beams located at the base of each vertical post are structurally integrated among the stringers.

The historic, paired, parallel angle bar guardrails are intact along the length of the bridge. Letters in relief read "ILLINOIS S USA" on several structural components.

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<sup>1</sup> A through truss is also referred to as a high truss.

<sup>2</sup> The length equals the distance between the abutments; the width equals the deck width.

<sup>3</sup> The Parker truss is a Pratt truss with a polygonal top chord of more than five slopes.

United States Department of the Interior  
National Park Service

**NATIONAL REGISTER OF HISTORIC PLACES  
CONTINUATION SHEET**

Section Number 7 Page 2

Delaware River Parker Truss Bridge  
Jefferson County, Kansas

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**INTEGRITY**

The Delaware River Parker Truss Bridge is an excellent example of this bridge type, increasingly rare in Kansas.<sup>4</sup> The Delaware River Parker Truss Bridge retains a high degree of integrity with no apparent alterations to the original design or materials. The original workmanship, materials, design, setting, and feeling of the property are readily apparent. Furthermore, the potential for preservation of the bridge is good. Located on a comparatively lightly traveled road, it is not likely that traffic requirements will necessitate alteration or replacement.

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<sup>4</sup> Dale Nimz, *Activity III Review Initial Assessment Metal Truss Bridges*. (Topeka: Kansas State Historical Society, 1998), 6. Nimz stated there were only four Parker trusses possibly eligible for National Register nomination in Kansas.

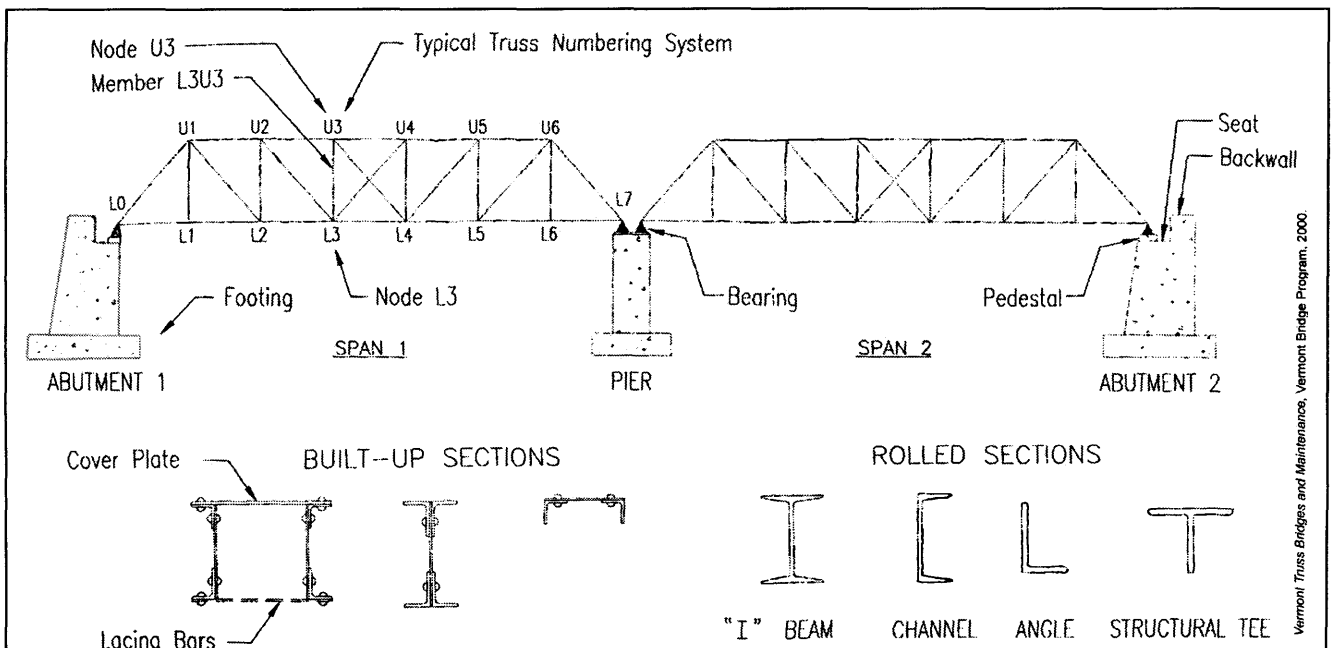
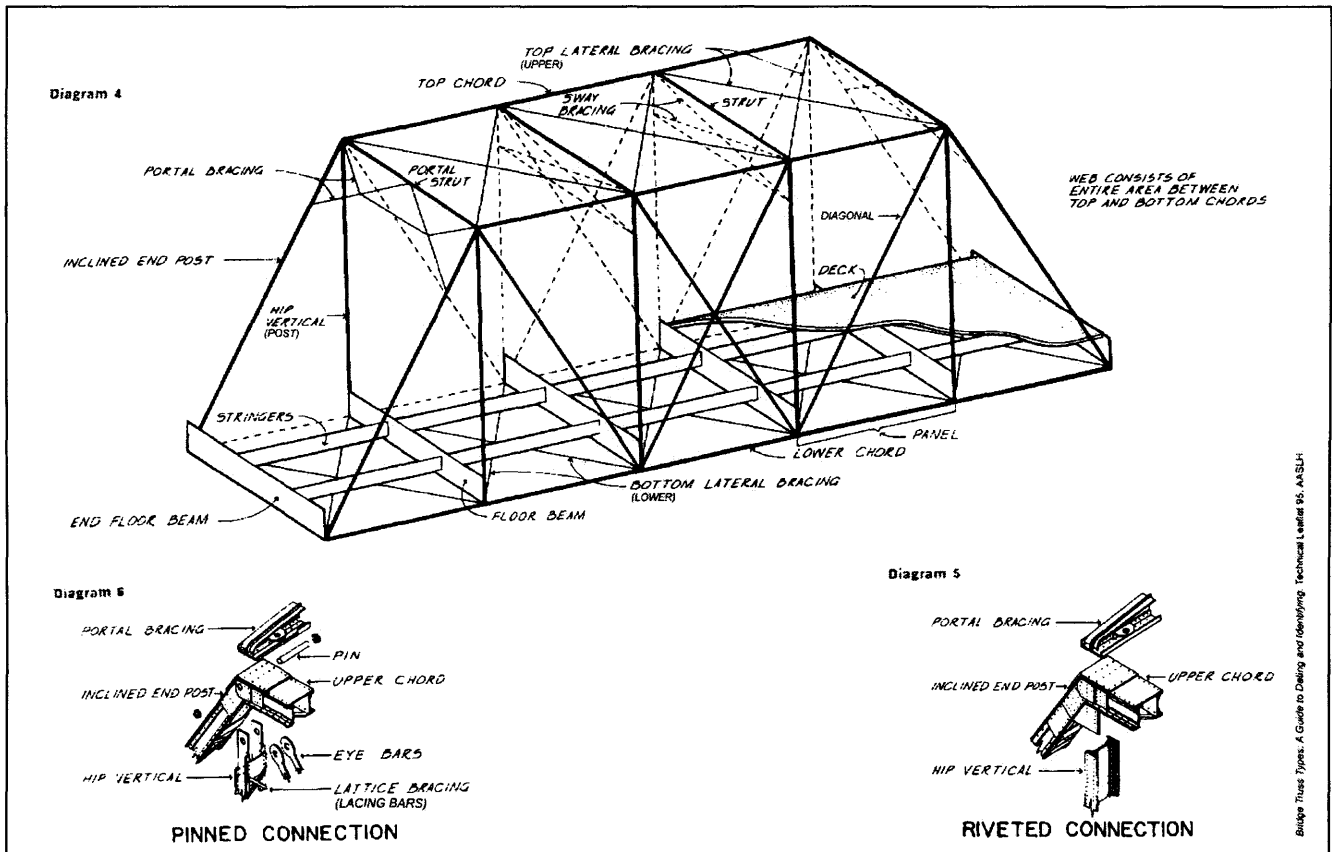
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National Park Service

**NATIONAL REGISTER OF HISTORIC PLACES  
CONTINUATION SHEET**

Section Number 7 Page 3

Delaware River Parker Truss Bridge  
Jefferson County, Kansas

**TRUSS TERMINOLOGY**





United States Department of the Interior  
National Park Service

**NATIONAL REGISTER OF HISTORIC PLACES  
CONTINUATION SHEET**

Section Number 8 Page 4

Delaware River Parker Truss Bridge  
Jefferson County, Kansas

**STATEMENT OF SIGNIFICANCE**

The Delaware River Parker Truss Bridge is significant under National Register Criterion C in the areas of Engineering and Transportation. As defined in the *Multiple Property Documentation Form for Metal Truss Bridges in Kansas*, it is an excellent example of the Parker truss bridge type. Built in 1926, the Delaware River Parker Truss Bridge represents a relatively uncommon bridge solution applied to a long span. Its riveted structure and concrete deck and abutments illustrate the standardization of these construction techniques and materials during the period of significance. As no historic name identifies this bridge, the preferred name "Delaware River Parker Truss Bridge" has been assigned. This describes the location, design, and function of the structure.

**ELABORATION**

The need for all-weather crossings of rivers and streams corresponded to the growth of the market economy across Kansas during the late nineteenth and early twentieth centuries. Bridges provided farmers easy access to markets and could make the difference between growth and stagnation for the many small, young communities across the state.<sup>1</sup> Proximity to a bridge often secured a town's economic stability, and it contributed to a local sense of modernity.

Prior to the 1930s, the railroad was the primary means of long-distance travel and there was little need for roads to extend more than a few dozen miles. With little stimulus for improving roads that would cross multiple jurisdictions, road construction and maintenance remained local concerns. County commissioners often carried the burden of selecting bridge locations, over which much contention was common.

The range of choices for bridge designs and companies was vast. Many of the larger bridge companies sold metal truss bridges through mail order catalogues. County commissioners could simply specify the span, clearance needs, and truss type (if there was a preference), then choose the lowest bidder from the numerous competing companies that had salesmen in the field.

By the late nineteenth century, fabrication of iron and steel was widespread. The speed of construction and the relatively low cost of metal truss bridge parts ensured their popularity over labor-intensive masonry bridges and short-lived timber bridges. Toward the end of the nineteenth century the quality, quantity, and cost of steel improved to such a degree that it virtually replaced wrought iron for bridge construction by 1910.<sup>2</sup>

Most metal trusses were constructed of built-up members composed of mass-produced, standard-shaped channel, plate, and angle stock purchased from one or more of the numerous steel companies nationwide. The bridge companies preassembled trusses in their factories then simply shipped them to the bridge site for installation. Installation involved grading approaches, constructing abutments and piers, erecting preassembled floor and truss members, and placing deck material.

<sup>1</sup> Larry Jochims, *Metal Truss Bridges in Kansas 1861-1939, National Register of Historic Places Multiple Property Documentation Form*, (Topeka: Kansas State Historical Society, 1989), E.

<sup>2</sup> Ibid, F.

United States Department of the Interior  
National Park Service

**NATIONAL REGISTER OF HISTORIC PLACES  
CONTINUATION SHEET**

Section Number 8 Page 5

Delaware River Parker Truss Bridge  
Jefferson County, Kansas

Before 1900, generally all panel point connections – the locations at which structural bridge elements intersect – were made with the use of a pin. This technique was so widespread that it became one of the distinctive features of American bridge construction in the nineteenth century.<sup>3</sup> However, subsequent advancements in pneumatic riveting techniques greatly improved rivet installation quality, enabling more reliable panel point connections. With the increased portability of this construction technology, the more rigid riveting technique rapidly surpassed pin-connected bridge construction during the first years of the twentieth century. The riveted construction of the Delaware River Parker Truss Bridge illustrates the standardization of this technique.

In addition, the contemporary development of economic cement production promoted the widespread combination of steel and concrete in bridge construction. It was not uncommon for older metal truss bridges to receive new reinforced concrete decks or poured concrete reinforcements for older stone abutments. By the 1920s, reinforced concrete was the standard material for abutments, piers, and decks of steel truss bridges. The poured concrete deck and abutments of the Delaware River Parker Truss Bridge are typical of bridges built during this period.

The Delaware River Parker Truss Bridge is a classic example of this truss design. The Parker truss is a variation of the Pratt truss. Patented in 1844, the Pratt truss incorporates vertical members in compression and diagonal members in tension, a design that reduces the required length of compression members, helping to prevent bending or buckling.<sup>4</sup> The Pratt truss became the most common bridge type of the late nineteenth and early twentieth centuries and spawned numerous variations including Parker, Camelback, Baltimore, Truss Leg Bedstead, Lenticular, and Pennsylvania trusses.<sup>5</sup>

The Parker truss is a Pratt truss with a polygonal top chord. This variation increased truss strength while using the same amount of material; however the lack of uniformity among members often led to increased construction costs.<sup>6</sup> In Kansas, Parker truss bridges were constructed in the early twentieth century, although they were never widespread. In 1998, approximately 4 Parker truss bridges, including the Delaware River Parker Truss Bridge, existed throughout the state of Kansas.<sup>7</sup>

**STRUCTURE HISTORY**

Surveyed and platted by the Kansas Pacific Railroad Company in 1865, the city of Perry was originally named Perryville for John D. Perry, president of the Eastern Division of the Union Pacific Railroad Company.<sup>8</sup> Perry grew rapidly to become the principal town of Kentucky Township. In 1883, William G. Cutler referred to Perry

<sup>3</sup> Ibid, F.

<sup>4</sup> T. Allan Comp and Donald Jackson, *Bridge Truss Types: A guide to dating and identifying*. (Nashville, Tennessee: American Association for State and Local History, Technical Leaflet 95), 8.

<sup>5</sup> Ibid.

<sup>6</sup> Ibid.

<sup>7</sup> Nimz, 6. Nimz stated there were only 4 Parker truss bridges possibly eligible for nomination in Kansas.

<sup>8</sup> "Perry Town History," *LASR – Perry, Kansas*. [article on-line]; available from <http://www.lasr.net/leisure/Kansas/Jefferson/perry/body.html>; Internet; accessed 16 June 2002.

United States Department of the Interior  
National Park Service

**NATIONAL REGISTER OF HISTORIC PLACES  
CONTINUATION SHEET**

Section Number 8 Page 6

Delaware River Parker Truss Bridge  
Jefferson County, Kansas

as “a thriving business point.” The city boasted 600 residents, and its commercial establishments included two general merchandise stores, two blacksmiths, two wagon shops, two hotels, a livery stable, a hardware store, a grocery, a drug store, a furniture store, a millinery, a harness shop, a boot and shoe shop, a newspaper printing office, a meat market, a barber shop, a grist mill, a grain elevator, a lumber yard, and a railroad depot. By the 1930s, in spite of a population decline of one-third, Perry continued to serve as a trading and shipping center for area farmers. Typical of small cities throughout Kansas supported by the surrounding agricultural community, fords and bridges that allowed access to local markets were critical to the survival of the regional economy.

In May 1923, the State Highway Commission awarded the Board of County Commissioners of Jefferson County \$19,700 in Federal Aid toward the construction of the Delaware River Parker Truss Bridge.<sup>9</sup> The total estimated cost of the bridge was \$39,400 and the county anticipated completion by the end of 1924. Payment disputes and subsequent lawsuits led to great delays and the forfeiture of Jefferson County contracts with both Ernest Euler, the fill contractor, and the Midland Bridge & Construction Company of Kansas City, Missouri. In September 1925, the *Perry Mirror* reported that Yancy Brothers Construction Company had contracted to build the concrete deck and abutments and the Kansas City Structural Steel Company of Kansas City, Missouri had contracted for the steelwork.<sup>10</sup> Markings on the structural members indicate that Kansas City Structural Steel Company purchased the stock metal from the Illinois Steel Company of Gary, Indiana.<sup>11</sup> In spite of a few minor weather delays, construction of the Delaware River Parker Truss Bridge was complete in May 1926.

<sup>9</sup> “Federal Aid Secured,” *The Farmers Vindicator, Valley Falls, Kansas*. 1 June 1923, 7. They received a total of \$53,700 to include several other improvements throughout the county that year.

<sup>10</sup> “And the Bridge Will Be Finished.” *Perry Mirror*, 17 September 1925, 5.

<sup>11</sup> Illinois Steel Company was a subsidiary of U.S. Steel at the time.

United States Department of the Interior  
National Park Service

**NATIONAL REGISTER OF HISTORIC PLACES  
CONTINUATION SHEET**

Section Number 9 Page 7

Delaware River Parker Truss Bridge  
Jefferson County, Kansas

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United States Department of the Interior  
National Park Service

**NATIONAL REGISTER OF HISTORIC PLACES  
CONTINUATION SHEET**

Section Number 10 Page 8

Delaware River Parker Truss Bridge  
Jefferson County, Kansas

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**GEOGRAPHICAL DATA**

**Verbal Boundary Description:**

Located on the SW  $\frac{1}{4}$  of Section 22, Township 11S, Range 18E, the Delaware River Parker Truss Bridge encompasses an area measuring approximately 222 feet by 20 feet. The northwest corner of this area corresponds to the northwest corner of the bridge.

**Boundary Justification:**

The boundary includes the truss, deck, abutments, and associated approaches that represent the significant features associated with the bridge structure.

United States Department of the Interior  
National Park Service

**NATIONAL REGISTER OF HISTORIC PLACES  
CONTINUATION SHEET**

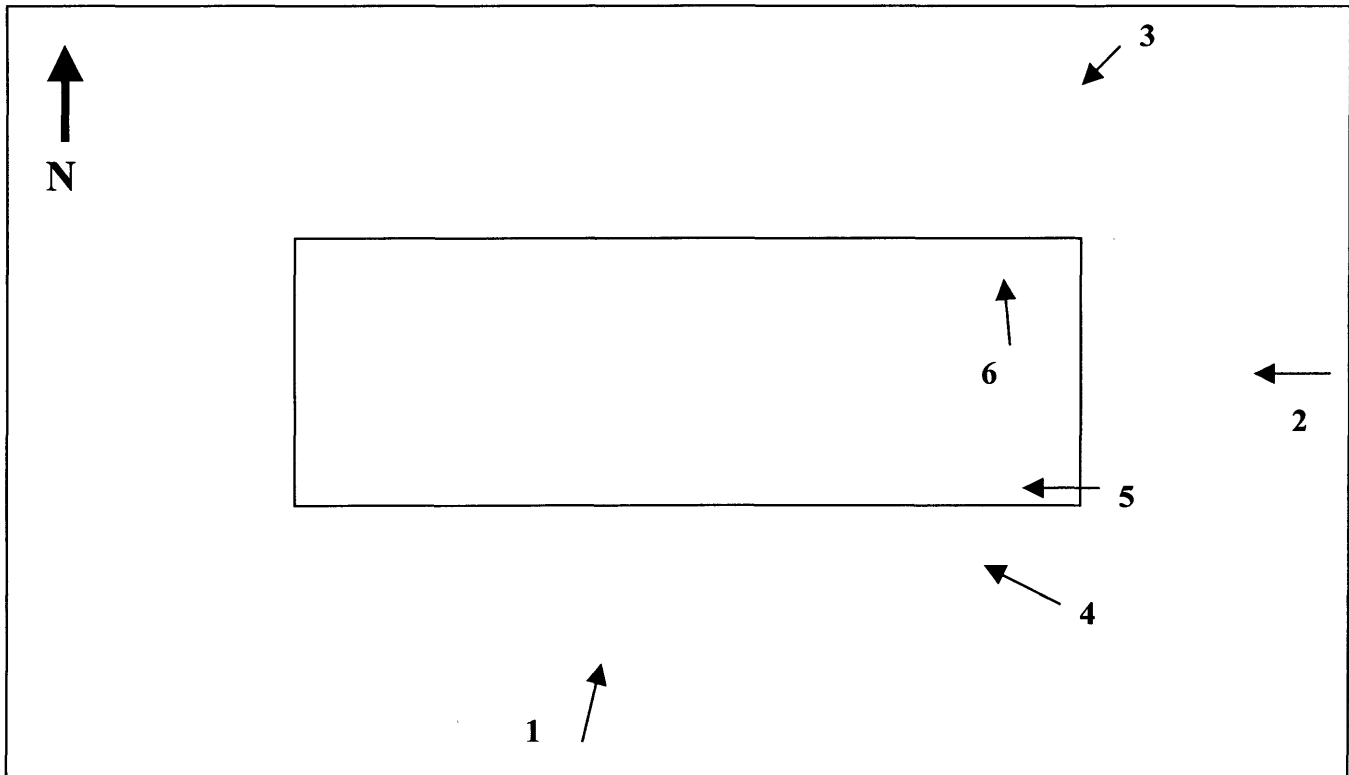
Section - Photographic Documentation Page 9

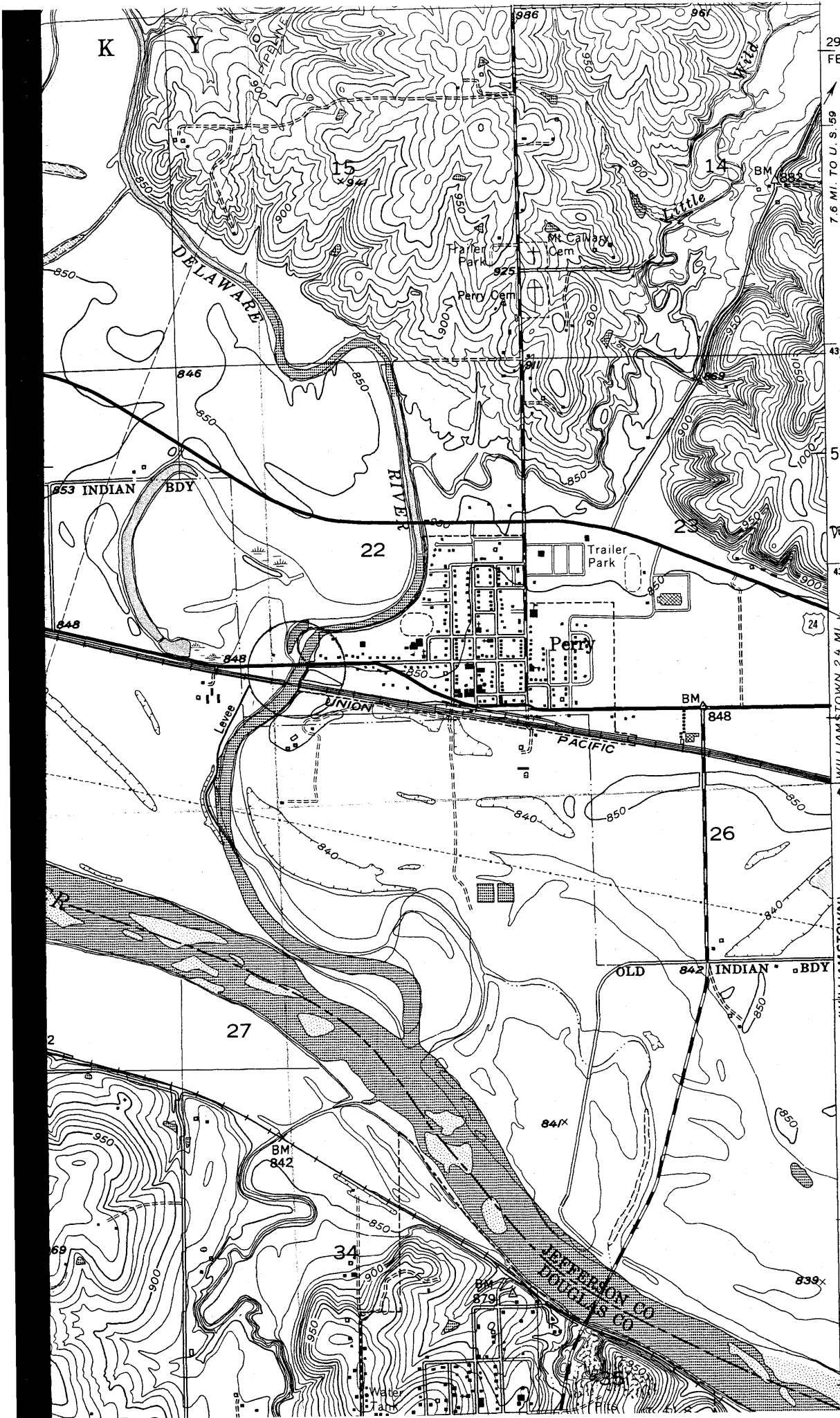
Delaware River Parker Truss Bridge  
Jefferson County, Kansas

**PHOTO LOG**

Photographer: Kerry Davis  
Date of Photographs: February 2002  
Location of Original Negative: Kansas State Historical Society, Topeka, Kansas

Photograph Number	Camera View
1.	View NE, bridge truss and abutments
2.	View W, along roadway
3.	View SW, bridge truss and abutments
4.	View NW, truss understructure and west abutment
5.	View W, along roadway
6.	View N, upper chord, posts, tie, sway bracing detail





290000  
FEET

7.6 MI. TO U. S. 59

4329

5'

DELAWARE RIVER PARKER  
TRUSS BRIDGE

4328

JEFFERSON CO., KANSAS  
UTM REFERENCE:

15/292140/4327650

WILLIAMSTOWN 2.4 MI. N  
LAWRENCE 13 MI. W

4327

(WILLIAMSTOWN)  
6962 III SE

4325