

Riverside-Independence Bridge  
Spanning the Wabash River on Fountain County Road 500 East  
(Warren County Road 800 East)

Riverside vicinity  
Fountain County  
(Warren County)  
Indiana

HAER No. IN-67

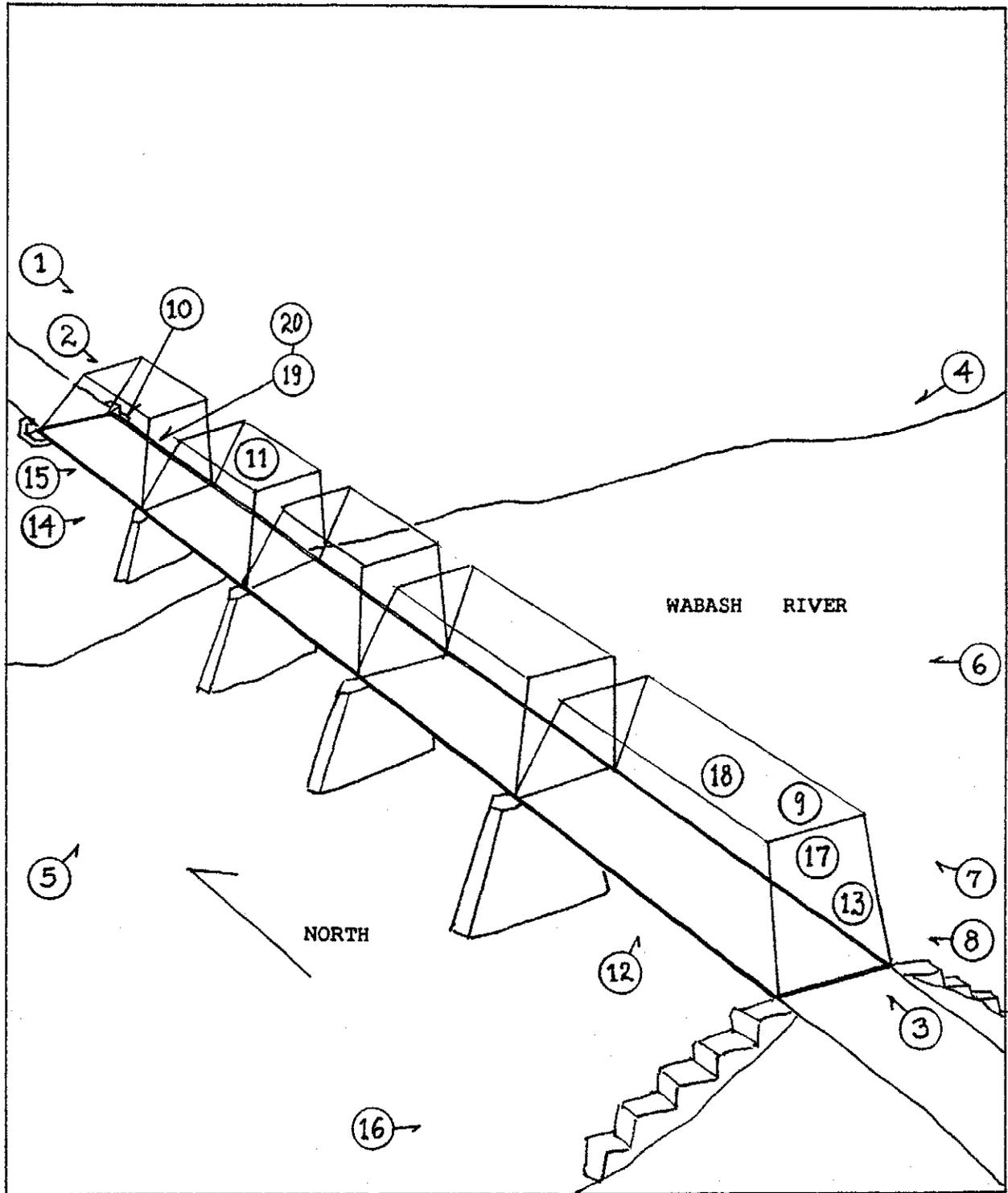
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PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Engineering Record  
Mid-Atlantic Regional Office  
National Park Service  
U.S. Department of the Interior  
Philadelphia, Pennsylvania 19106

Photographic Site Plan



HISTORIC AMERICAN ENGINEERING RECORD

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Riverside-Independence Bridge

HAER No. IN-67

Location: Spanning the Wabash River on Fountain County Road 500 East and Warren County 800 East, connecting Riverside in Fountain County and Independence in Warren County

UTM: 16.485700.4464840 - Center of north abutment

16.485710.4464760 - Center of bridge

16.485720.4464640 - Center of south abutment

Quad: Attica Quadrangle - USGS map: scale of 1:24,000

Date of Construction: 1904-05, rehabilitated circa 1920, 1960-69

Engineer: W. H. Gemmer

Builder: Attica Bridge Company

Fabricator: Unknown (see history section, p. 5)

Present Owner: Warren County Highway Department  
408 West Washington Street  
Williamsport, IN 47993

Present Use: Vehicular bridge

Significance: The Riverside-Independence Bridge was one of the largest double-intersection Warren through truss iron bridges built in Indiana, and is of local significance. The structure, which is largely intact, was designed and constructed by the Attica Bridge Company in 1905-05 and remains as an important example of this short-lived company's work.

Project Information: This documentation was undertaken in March 1990, in accordance with the Memorandum of Agreement between the Indiana Department of Transportation, Fountain County, Indiana; Warren County, Indiana; the Advisory Council on Historic Preservation; the Federal Highway Administration; and the Indiana State Historic Preservation Officer, as a mitigative measure prior to the demolition of the bridge.

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Clyde E. Williams & Associates, Inc.  
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The Riverside-Independence Bridge spans the Wabash River, connecting the towns of Riverside in Fountain County and Independence in Warren County. It is owned and managed by the Warren County Highway Department. The bridge is reached from the south by a long access road which crosses bottom land, and from the north by a shorter access road.

The Riverside-Independence Bridge is a double-intersection, Warren, lattice through truss design of five spans which rest on their original stone piers and south stone abutment; the north abutment is concrete, built to the original specifications. The south abutment consists of rock-faced rectangular block forming two wing walls, angled away from the river. The bridge rests on three stone piers lying in the river and upon one stone pier lying on the broad north bank. The joints between the stone blocks have beaded tooling.

The piers are built of rock-faced rectangular stone block, and are tapered at both the upriver and downriver ends. The piers are also tapered slightly up to the layer of stone which carries the spans; the original drawings called for a batter of 3/4" to one foot. The top layer projects slightly on all sides. The piers and south abutment rest on concrete bases with an underpinning of 11' pilings.

The five spans of 140' are carried by inclined endposts and top chords of fabricated heavy channels and are subdivided into eight panels by diagonal channels with paired diagonal counter bracing of light right-angled metal ties. The lower chords are braced with riveted angle iron. The inclined endposts of lattice-work and fabricated channel are supported by hip lattice-work verticals and diagonals, and by diagonal angle iron portal bracing. Verticals appear only at the first panel points, supporting the inclined endposts. All the struts, except for the portal and end struts are built of lattice-work construction. The channels and ties are all riveted to reinforcing pin plates at panel points above and below. Each span is carried on sets of four rollers located at each corner of a span which, according to the original plans, rested on lead sheets.

Seven rows of built-up channel stringers are supported by heavy channel floor beams at the ends of each panel. The bottom lateral bracing consists of light angle iron in a diagonal cross pattern. The stringers carry a flooring of treated 2" x 6" lumber, laid on edge, which has been seal-coated. According to the Warren County Highway Engineer, Jim Kane, this flooring which was installed in 1969 replaced an earlier creosoted flooring of circa 1920 which had been laid over the original flooring of 3" oak spiked to the stringers, this being the only renovation work completed circa 1920. The original flooring had a centerline and side rails of 4" x 6" oak bolted through the flooring and the floor stringers. The stringers were replaced in 1969, and nothing remains of the original flooring. Painting and spot welding repairs were performed in the early 1960s, according to Mr. Kane.

The bridge roadway has a width of 17' and the total deck width is 18'. Vertical clearance is 15' 8" over the deck, and the total length of the bridge structure is 708'.

Along each side of the bridge there is a lattice-work railing running the length of the bridge, with no provision for pedestrians. The railing consists of a lattice-work of flat metal straps, with angle iron at the top and bottom, and is attached to the diagonal channels with right-angle brackets. The only decoration on the bridge appears to be over the portal struts at the north and south ends of the bridge. Centered over the portal there is a name plate which is flanked by a grillwork of vertical and four-way fleur-de-lis, and end finials. This decoration served as advertisement for the Attica Bridge Co., and is duplicated

on the Shawnee Bridge (Warren County Bridge #76) also built by the Attica Bridge Co., 1905-06.

The name plate, duplicated at both ends of the bridge, carries in raised letters the inscription:

1905  
BUILT BY  
THE ATTICA BRIDGE COMPANY  
ATTICA, INDIANA

Brackets remain in place, on both ends of the bridge, that had carried the plaques bearing the names of county officials in office at the time of construction of the bridge:

R.L. WINKS, E.C. LIVENGOOD,  
CO. AUDITOR. JAMES C. HALL,  
W.H. GEMMER, BEN F. GEPHART,  
CO. ENGINEER CO. COMMRS.

(1905 photograph, Warren County Highway Department, Williamsport, Indiana)

Although the bridge has some minor damage which includes bent railings close to the portals, and collections of debris, it is largely intact, with the exception of the rectangular iron signs naming the county officials missing from both ends of the bridge. The most significant problem with the bridge structure are exfoliating riveted joints, a problem that appears to be confined to the lower chords.

The Riverside-Independence Bridge is of local significance. Perhaps most importantly, in Indiana iron bridge history, it is one of a few Warren, double-intersection, through truss bridges built by the Attica Bridge Company remaining in Indiana. Along with the Shawnee (Warren County Bridge #76), it is the longest Warren through truss bridge remaining in Indiana. In the first quarter of the 20th century the demand for metal bridges was declining which contributes to the scarcity of Warren truss bridges of this magnitude in Indiana. In addition, the bridge utilizes concrete in the north abutment and pier foundations, marking the transformation from iron to concrete bridge technology in Indiana. Finally, the bridge remains as an important example of the work of a local bridge company based in Attica, the seat of Fountain County.

Warren County Bridge #76, on Warren County Road #100 over the Wabash River, below Attica, is a companion to the Riverside-Independence Bridge in design and length. It is also important as another example of work in Indiana by the local Attica Bridge Company which remained in Attica for less than fifteen years.

The site of Independence, lying in Warren Township, has very early important associations with Wabash River transportation and trade. Zachariah Cicotte was the first settler in Warren County and the founder of Independence, which he laid out in 1832. He was born in 1776, in Detroit. Following family tradition, he traded with the Indians at a post next to Independence, and traveled on the rivers to trade in New Orleans.

Riverside lies in Davis Township of Fountain County and was first settled in the 1820s. The area had been populated with the Miami and Shawnee Indian tribes. The first highway through the township was the State Road through the south side of the Wabash River. Other transportation routes included the Wabash and Erie Canal, followed by the Wabash Railroad. Glacial deposit gravel, obtained locally, provided road surfaces.

Previous to the construction of the railroads, the river was the predominant means of transportation. Through the 1850s, between 2,000 and 5,000 hogs were packed and shipped each season on the river from Independence. Other products shipped included corn, wheat, oats, wool, and beef with return trips bringing merchandise and store goods. From 1835 to 1845, Independence was one of the busiest trading points on the river. The population apparently peaked around 1845, at 400. Other settlements grew in the County as railroads took away the river traffic. Without railroads, Independence lost a great deal of trade. Until the bridge construction in 1905, ferry boats provided transportation across the the Wabash to Independence Station, today known as Riverside. Independence Station was a stop on the Wabash Railroad which was completed through the area in 1854. Other early railroads running through the area in the 1860s included the Toledo & Wabash R.R.

As the agricultural communities of Fountain and Warren Counties matured, the need for an adequate bridge between Riverside and Independence grew. Ferry service, which had been continuous through the 19th century, was inadequate for the demand.

Early efforts were made, in 1850, to connect Independence to the Wabash & Erie Canal which had been completed in 1844. These attempts failed, hence efforts were made to provide adequate ferry service. In the late nineteenth century, Warren County considered the estimated expense of \$50,000 to be too much for construction of a bridge. They proceeded to purchase, in 1902, the landings and ferry boat from the current ferryman, John Wicker, and provided free transport across the river.

Although there were early efforts at road construction by private companies, such as the Independence and Oxford Plank Road Company in 1850, it proved more successful to launch public instead of private projects due to the difficulties of raising private capital. This bridge represents an important example of a large, publicly funded county project.

Immediately previous to the Independence Bridge construction, the ferry across the Wabash had been operated with limited success. Dissatisfied with the level of ferry service, John Hirschman and 435 other residents presented a petition to the County Commissioners in October, 1902 asking for a bridge to be built, and offered to build the approach roads themselves. Under further pressure from the county residents, and despite reservations about cost and future impact on taxes, the County Commissioners eventually approved construction of two bridges in March of 1903: one at Independence and one south of Williamsport (Shawnee Bridge, Warren County Road #100). In February, 1904 an extension was granted to complete survey work to get plans ready. In March 1904, the county Trustees authorized the use of township land for the bridge. A contract was finally let in May of 1904; the Attica Bridge Co. earned both bridge contracts for the sum of \$89,900, and began construction in 1904 with completion in 1905. In December 1904, the Auditor was ordered to sell 10 bonds of \$9,000 each, and at the end of 1905 the remaining bonds were sold. The Lafayette Bridge Company, responding to an earlier request from the petitioners had produced a bid of \$30,000 in 1902, after completing a survey. However, the new bridge, the first on this site, would be completed by the Attica Bridge Company. Tague and Lank Co. were awarded the contract for the north, Warren County approach road in July, 1906. Mr. Ratcliff was the contractor for the Fountain County grade to the bridge, and completed grading by the end of 1905.

Two sources, Iron Monuments to Distant Posterity and Indiana Bridge: A Hoosier Tradition, mention that the Central States Bridge Co. of Indianapolis and the Indiana Bridge Co. of Muncie were fabricating bridge parts for the Attica Bridge Co. A search of the architectural archives at the Indiana Historical Society and

at the Department of Architecture at Ball State University reveal no references to Fountain or Warren Counties, or the Attica Bridge Co. for the period 1903-05.

The Attica Bridge and Machine Works was founded in 1897, by the Curtis family, who subsequently built a small plant in Attica between 1900 and 1903. The firm's name was changed to the Attica Bridge Company in 1902, and by 1907, had issued a stock of \$60,000. The company would sublet some fabrication work to companies such as the Indiana Bridge Company of Muncie or the Central States Bridge Company of Indianapolis, but would do all the erection work. By 1913, the company had moved to East St. Louis, Illinois and was renamed the East St. Louis Bridge Company.

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408 West Washington Street, Williamsport, Indiana 47993.

Mr. James L. Cooper  
Asbury Hall  
De Pauw University  
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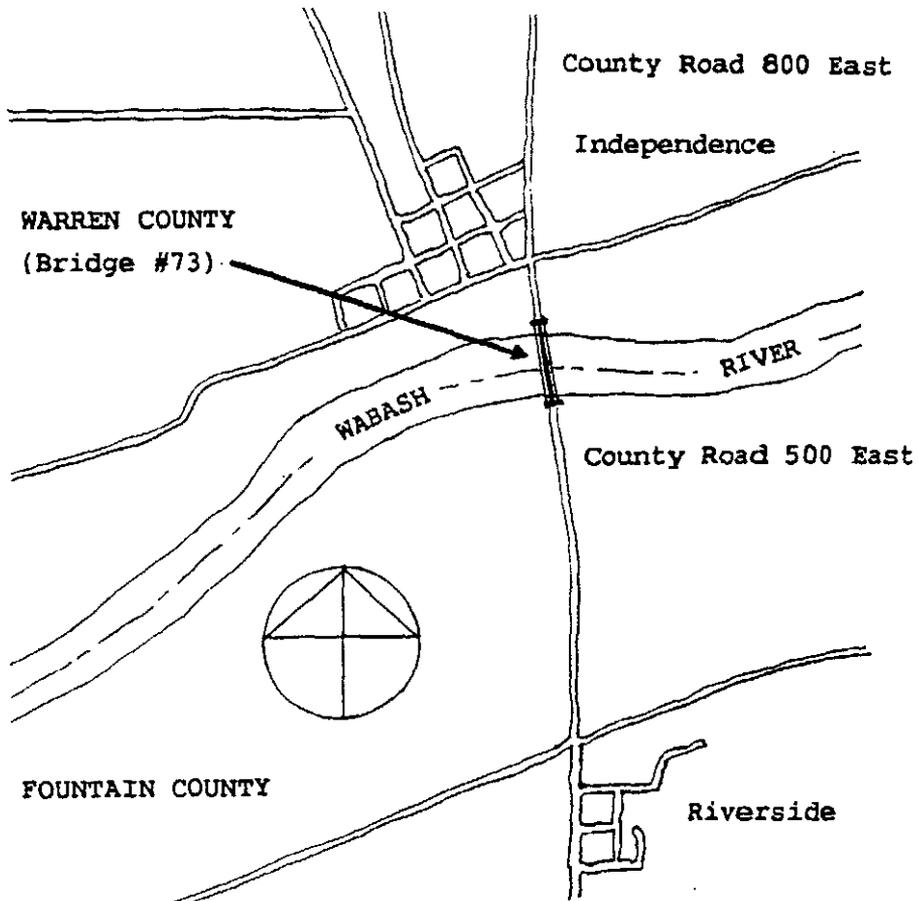
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Mr. & Mrs. Pat Martin  
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Picture, Drawing Collections

Warren County Highway Department, 408 West Washington Street,  
Williamsport, Indiana 47993.

1. Post-construction photograph: view of south portal. 21 1/2" x 28", black and white.
2. Three ink drawings on linen:
  - a. Plan and Details for the Masonry, Piers and Abutments for the Independence Highway Bridge, across Wabash River, at Independence, Indiana.
  - b. Strain Sheet No. 1, Independence Highway Bridge, 5 spans, 140 ft. each.
  - c. Details for 5-140 ft. Spans for superstructure for the Independence Highway Bridge, across the Wabash River, at Independence, Indiana.



SITE PLAN

Map adapted from U.S.G.S. Survey Map

1000 0 1000 2000 FEET

1 .5 0 KILOMETER

RIVERSIDE-INDEPENDENCE BRIDGE