

United States Department of the Interior
National Park Service

FILE
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National Register of Historic Places Registration Form

This form is for use in nominating or requesting determinations of eligibility for individual properties or districts. See instructions in *Guidelines for Completing National Register Forms* (National Register Bulletin 16). Complete each item by marking "x" in the appropriate box or by entering the requested information. If an item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, styles, materials, and areas of significance, enter only the categories and subcategories listed in the instructions. For additional space use continuation sheets (Form 10-900a). Type all entries.

1. Name of Property

historic name Wells Street Bridge
other names/site number Allen County #541, 003-215-27020

2. Location

street & number Wells Street at the St. Mary's River not for publication
city, town Fort Wayne vicinity
state IN code IN county Allen code 003 zip code

3. Classification

Ownership of Property	Category of Property	Number of Resources within Property	
<input type="checkbox"/> private	<input type="checkbox"/> building(s)	Contributing	Noncontributing
<input checked="" type="checkbox"/> public-local	<input type="checkbox"/> district	<u>0</u>	<u>0</u> buildings
<input type="checkbox"/> public-State	<input type="checkbox"/> site	<u>0</u>	<u>0</u> sites
<input type="checkbox"/> public-Federal	<input checked="" type="checkbox"/> structure	<u>1</u>	<u>0</u> structures
	<input type="checkbox"/> object	<u>0</u>	<u>0</u> objects
		<u>1</u>	<u>0</u> Total

Name of related multiple property listing: _____
Number of contributing resources previously listed in the National Register 0

4. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act of 1966, 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. See continuation sheet.

Signature of certifying official _____ Date _____
Indiana Department of Natural Resources
State or Federal agency and bureau

In my opinion, the property meets does not meet the National Register criteria. See continuation sheet.

Signature of commenting or other official _____ Date _____
State or Federal agency and bureau

5. 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 the Keeper

Date of Action

6. Function or Use

Historic Functions (enter categories from instructions)
Transportation - road related

Current Functions (enter categories from instructions)
Transportation - pedestrian related

7. Description

Architectural Classification
(enter categories from instructions)

Other - Whipple truss

Materials (enter categories from instructions)

foundation Stone - Sandstone

walls Metals - iron

roof

other Wood

Asphalt

Describe present and historic physical appearance.

The Wells Street Bridge spans the St. Mary's River at a site on the north edge of downtown Fort Wayne. Though the area immediately surrounding the bridge on either bank of the river was once a neighborhood of houses and light industrial uses (Photo 1), subsequent demolitions on the south bank for parking lots and on the north bank for a river bank park have left the bridge an isolated structure (Photo 2).

The Wells Street Bridge is a Whipple or double-intersection Pratt through truss (Photo 4). The bridge stands upon its original abutments, and wing walls which are walls of rock-faced sandstone ashlar capped with slabs of rough-hewn limestone (Photo 5).

The single span of 180' is carried by end posts and top chords of fabricated heavy channels and cover plate and is subdivided into fifteen panels by intermediate verticals constructed from four sizes of laced heavy channels which decrease in size toward the center span. The channels are riveted to reinforcing pin plates above and below. Double cylindrical eyebars with turnbuckles stretch diagonally outward from the five central pins. Die-forged double rectangular eyebars form the other diagonals. Double U-bolted to pins, the girder floor beams stretch beyond the lower chord on each side to provide external sidewalks with wood plank decks (Photo 8). This unusual extension for sidewalks acknowledges the structure's urban setting. The main roadway is 23' wide with a 15'7" clearance and consists of wood blocks covered with asphalt.

While the use of plate box beams for the top chord and the inclined endposts and the use of lattice bracing for the uprights and struts represent common local practice, the design is enriched in several ways. Cast iron openwork brackets with a quatrefoil motif are used at the intersections of the uprights and the struts in thirteen of the bridge's bays (Photo 6). At the portals, larger brackets of similar design are used to support lattice beams that combine with panels of lattice portal bracing to define the areas in which a single large round medallion is mounted above each portal (Photo 7). The medallions have the names of the county officials circumscribed by a band of diamond-shaped openings. Each medallion is flanked by openwork trim and a pair of large diagonal braces. Directly above the medallions, mounted on top of the portal struts, is a flat-topped frame inscribed with the name of the bridge fabricator. A band of cresting with fleurs-de-lys set in interlocked roundels extends across the remainder of the top of each of the portal struts. Above the ends of the floor beams, stop-chamfered newels extend upward to support a round pipe handrail; panels of diagonal lattice fill the panels thus formed by the rail and newels (Photo 6).

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Though the bridge has suffered damage to some of its decorative elements above the portals, particularly the cresting bands, the structure is largely intact. Other than the need for a coat of paint to preserve its ironwork, the greatest present threat to the bridge's preservation appears to be the erosion of its sandstone abutments, which are inundated several times each year when a city dam downstream is used to raise the level of the river for recreational purposes.

8. Statement of Significance

Certifying official has considered the significance of this property in relation to other properties:

nationally statewide locally

Applicable National Register Criteria A B C D

Criteria Considerations (Exceptions) A B C D E F G

Areas of Significance (enter categories from instructions)
Engineering

Period of Significance
1884 - 1938

Significant Dates
1884

Cultural Affiliation
N/A

Significant Person
N/A

Architect/Builder
Stewart, Alvin John/Wrought Iron
Bridge Company, Canton, OH

State significance of property, and justify criteria, criteria considerations, and areas and periods of significance noted above.

The Wells Street Bridge is significant as one of two surviving iron bridges in Fort Wayne, Indiana. Specifically, Allen County #541, a Whipple truss bridge, is an unusual example of a significant truss type. The structure is significant for its heavy construction, flanking sidewalks and high level of detail, all of which reflect the urban function of the bridge. Allen County #541 is also important locally as the work of a well-known Fort Wayne engineer, Alvin John Stewart.

Though Fort Wayne began as a military outpost at the strategic point where the St. Mary's and St. Joseph join to form the Maumee River, its growth as a city was not long constrained by the number of waterways to be crossed in order that development could occur to the north, east, and west of the former fort site, which became the center of the new town by the 1840's. One of the earliest spans, reputedly the city's first iron bridge, was built on the future site of the Wells Street Bridge in 1859, to provide access to the Bloomingdale neighborhood. By the time that early structure was replaced by the present one in 1884, a neighborhood commercial area had grown up along Wells Street to the north of the bridge. The availability of this crossing from the downtown probably also influenced the decision of the Lake Shore and Western Railroad to build its depot near the bridge, on Cass Street (where it still stands) in 1888. The Wells Street Bridge proved to be the first of a series of new iron bridges built in the city during that era: bridges of similar design and decoration were built on Spy Run (1888), Main Street (c. 1890), and Columbia Avenue (1891). Though the later growth of the city came to include what had been country bridges on Anthony Boulevard (1896), Hale Street (1882), and Bluffton Road (1895), today only the Wells Street and Hale Street bridges survive.

The Wells Street Bridge is significant as an unusual example of an important historic metal bridge type, the Whipple truss. The Whipple truss was designed as an improvement over the older Pratt truss. Squire Whipple, who was internationally recognized for his bridge designs, created the Whipple truss in 1846 by merely extending diagonal web members across two panels instead of one panel. According to Carl Condit, this single variation more evenly distributed stress and greatly improved the strength of the truss, allowing iron bridges to carry heavier loads across longer spans. (Carl Condit, American Building, pp. 98-99.) From 1865 to 1885, the Whipple was the favorite of engineers for long spans.

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The Pratt truss is more commonly used on Indiana's iron bridges. Over 350 Pratt truss bridges remain in Indiana, while only 30 Whipple truss spans exist in the state. The Wells Street Bridge received the sixth highest rating of all Whipple trusses in the state by the Indiana bridge survey. The Wells Street Bridge is significant within these surviving Whipple truss bridges, as James Cooper explains in Iron Monuments to Distant Posterity, Indiana's Metal Bridges, 1810-1930:

Two of the Wrought Iron Company's nine standard Whipple trusses merit specific note. Built for city traffic in 1883-1884, Allen County #541 is the oldest, heaviest, and most decorated. Its intermediate verticals are made from four of the largest sizes of channels. Pairs of the heaviest die-forged rectangular eyebars supply the diagonals, and the struts, portals, and bracing are all reinforced and artistically designed. (p.64.)

Clearly, the Wells Street Bridge is significant as an unusually heavy-duty and profusely decorated urban iron bridge.

The Wells Street Bridge was erected by Alvin John Stewart, a native of Harpersfield, New York, who came to nearby Bluffton, in Wells County, in 1871. Stewart was then employed as roadmaster by three railroads, including one then being built through Bluffton and Fort Wayne, the Lake Erie and Western. In his capacity as roadmaster, Stewart was responsible for all buildings and structures located along the rail lines he served. Though an 1887 biography noted that he was responsible for the design of railroad buildings in Missouri, Illinois, Texas, and Michigan, as well as Indiana, starting in 1859, the only other extant structures with which he can be clearly associated are two houses in Bluffton: his own 1882 residence (the Stewart-Studebaker House, listed in the National Register May 14, 1979) and the home of his son-in-law, Amos G. King (included in the Villa North Historic District, listed in the National Register June 4, 1985), built in 1894. The Wells Street Bridge provides tangible evidence that in addition to his railroad duties, Stewart was also active as an independent contractor. The possibility that Stewart may also have been responsible for at least one more Fort Wayne structure, the 1888 Spy Run Bridge, is raised by the similarities of detail shared by the two designs, even though the latter was made by a different fabricator, the Massillon Bridge company of Massillon, Ohio. Whether the similarities actually point to Stewart's involvement, or represent a connection between that manufacturer and the Wrought Iron Bridge Company of Canton, Ohio, maker of the Wells Street Bridge, only further primary research and the identification of additional works may reveal.

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Unlike many of Indiana's metal spans, the future of the Wells Street Bridge is quite favorable. The bridge was closed to vehicular traffic in 1982, when it was replaced by a new span located one-half mile to the west. Current plans call for the incorporation of the bridge into a river-front park as a pedestrian walkway.

9. Major Bibliographical References

Books

Condit, Carl W. American Building. Chicago - University of Chicago, 1968.

Cooper, James L. Iron Monuments to Distant Posterity, Indiana's Metal Bridges. Indianapolis - Technical Publishing Services, 1987, p. 64 and 114.

Pamphlets

"Fort Wayne Favorite Historic Buildings," Fort Wayne, ARCH, Inc., 1986.

Newspaper Articles (in chronological order)

"Bridge Letting," Fort Wayne Daily News, May 28, 1884, p.1.

'Wells Street to be closed for bridge work,' Fort Wayne Daily News, June 30, 1884, p.1, (untitled article).

'A.J. Stewart meets with county officials, Fort Wayne Daily News, July 15, 1884, p. 1, (untitled article).

See continuation sheet

Previous documentation on file (NPS):

- preliminary determination of individual listing (36 CFR 67) has been requested
- previously listed in the National Register
- previously determined eligible by the National Register
- designated a National Historic Landmark
- recorded by Historic American Buildings Survey # _____
- recorded by Historic American Engineering Record # _____

Primary location of additional data:

- State historic preservation office
- Other State agency
- Federal agency
- Local government
- University
- Other

Specify repository:

Indiana Historic Sites and Structures Inventory

10. Geographical Data

Acreeage of property Less than one acre.

UTM References

A 16 656160 4549850
Zone Easting Northing

B
Zone Easting Northing

C

D

See continuation sheet

Verbal Boundary Description An area in Section 2 of Wayne Township, Allen County, Indiana, including the right-of-way of Allen County #541 and its superstructure, footings and wingwalls. Extending from the furthest points of the wingwalls of #541, include 20' of the approaches on the north and south banks of the St. Mary's River.

See continuation sheet

Boundary Justification The boundary includes the iron truss structure and its historic stone footings and wingwalls.

See continuation sheet

11. Form Prepared By

name/title Craig Leonard, Historic Preservation consultant for ARCH, Inc.
 organization Fort Wayne Parks and Recreation Department date 6/1/88
 street & number 521 West Market Street telephone 219-824-4010
 city or town Bluffton state IN zip code 46714

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"The Wells Street Bridge," Fort Wayne Daily News, July 15, 1884, p. 1.

"That Bridge," Fort Wayne Daily News, July 17, 1884, p. 1.

'Wells Street Bridge to Open Wednesday,' Fort Wayne Daily News, November 1, 1884, p. 1, (untitled article).

'Wells Street Bridge Opened Today,' Fort Wayne Daily News, November 4, 1884, p. 1, (untitled article).

'County Commissioners Accept Wells Street Bridge,' Fort Wayne Daily News, November 11, 1884, p. 1, (untitled article)

Susan Burns, "Cityscapes: Wells Street Bridge," Fort Wayne News-Sentinel, August 19, 1978, p. 3R.

"New Life for Old Bridge," Fort Wayne Journal-Gazette, August 1, 1986, p. 1.

"City Accepts County's Historic Bridge," Fort Wayne News-Sentinel, August 7, 1986, p. 2B.

Picture Collections

Fort Wayne Illustrated, Chicago: W. H. Parrish Company, 1889, published in nine parts., copy in collection of Fort Wayne-Allen County Historical Society.