NPS Form 10-900 (Oct. 1990)

United States Department of the Interior National Park Service

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DEC

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 *How to Complete the National Register of Historic Places Registration Form* (National Register Bulletin 16A). Complete each item by marking "x" in the appropriate box or by entering the information requested. If an 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 entries and narrative items on continuation sheets (NPS Form 10-900a). Use a typewriter, word processor, or computer, to complete all items.

historic name Walnut Street Bridge	· · · · · · · · · · · · · · · · · · ·
other names/site number <u>Walnut Street Walking Bridge</u> , Bridge No	o. R0412
2. Location	
street & number West end of Walnut Street	not for publication
city or town Mazeppa	vicinity
state <u>Minnesota</u> code <u>MN</u> county <u>Wabasha</u>	code zip code6
3. State/Federal Agency Certification	
As the designated authority under the National Historic Preservation Act, as amended, I here request for determination of eligibility meets the documentation standards for registering Historic Places and meets the procedural and professional requirements set forth in 36 CFF meets does not meet the National Register criteria. I recommend that this property the nationally state and the National Register criteria. I recommend that this property the Signature of certifying official/Title I an R. Stewart Date Deputy State Historic Preservation Officer State of Federal agency and bureau Minnesota Historical Society In my opinion, the property meets does not meet the National Register criteria. (Signeture of certifying official/Title	g properties in the National Register of R Part 60. In my opinion, the property be considered significant)
Signature of certifying official/Title Date	
State or Federal agency and bureau	
4. National Park Service Certification	
4. National Park Service Certification I hereby certify that the property is: I determined eligible for the National Register. I determined not eligible for the National Register. I removed from the National Register. I other, (explain:)	Date of Action Date of Action 1/15/03

<u>Walnut Street Bridge</u> Name of Property		Wabasha County, MN County and State			
5. Classification					
Ownership of Property (Check as many boxes as apply)	Category of Property (Check only one box)	Number of Resources within Property (Do not include previously listed resources in the count.)			
 private public-local public-State public-Federal 	 building(s) district site structure object 	Contributing Noncontributing	sites		
		1	objects		
Name of related multiple p (Enter "N/A" if property is not part	oroperty listing of a multiple property listing.)	Number of contributing resources previously listed in the National Register			
N/A		0			
6. Function or Use		· · · · · · · · · · · · · · · · · · ·			
Historic Functions (Enter categories from instructions)		Current Functions (Enter categories from instructions)			
Transportation: Road-	Related	Transportation: Pedestrian-Related			
	••••••••••••••••••••••••••••••••••••••		· _ · · · · · · · · · · · · · · · · · ·		
			· · · · · · · · · · · · · · · · · · ·		
7. Description					
Architectural Classification (Enter categories from instructions)		Materials (Enter categories from instructions)			
Other: Pratt Through	Truss	foundation (substructure) Steel			
		walls			
·					
	• · · · · · · · ·	roof			
		other (superstructure) St	eel		

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

8. Statement of Significance

Applicable National Register Ci (Mark "x" in one or more boxes for the for National Register listing.)

- A Property is associated with a significant contribution to our history.
- **B** Property is associated with significant in our past.
- C Property embodies the dist of a type, period, or metho represents the work of a m high artistic values, or repr distinguishable entity whose individual distinction.

D Property has yielded, or is information important in pre

Criteria Considerations

(Mark "x" in all the boxes that apply.)

Property is:

- □ A owned by a religious institu religious purposes.
- **B** removed from its original lo
- **C** a birthplace or grave.
- D a cemetery.
- E a reconstructed building, o
- **F** a commemorative property.
- \square G less than 50 years of age within the past 50 years.

Narrative Statement of Significa

(Explain the significance of the property

9. Major Bibliographical Refere

Bibliography

(Cite the books, articles, and other source

Previous documentation on file

- preliminary determination o CFR 67) has been reques
- previously listed in the Nati
- previously determined eligit Register
- designated a National Histo
- recorded by Historic Americ
- #_ recorded by Historic American Engineering Record #_

Wabasha County, MN County and State

riteria criteria qualifying the property	Areas of Significance (Enter categories from instructions)
	Engineering
events that have made the broad patterns of	
the lives of persons	
tinctive characteristics od of construction or naster, or possesses	
resents a significant and e components lack	Period of Significance
	1904
likely to yield, ehistory or history.	
	Significant Dates
	1904
ution or used for	
ocation.	Significant Person (Complete if Criterion B is marked above) N/A
	Cultural Affiliation
bject, or structure.	
or achieved significance	Architect/Builder
	W. S. Hewett Co.
ance on one or more continuation sheets.)	
nces	
ces used in preparing this form on one	
e (NPS): If individual listing (36	Primary location of additional data:
sted	☐ Other State agency
ional Register	Federal agency
ble by the National	Local government
oric Landmark	□ Other
can Buildings Survey	Name of repository:

Walnut	Street	Bridge	
Name of Pro	perty		

10. Geographical Data

Acreage of Property less than one acre

<u>Wabasha County, MN</u> County and State

Mazeppa, Minn. 1968

	Photoinspected 1980
UTM References (Place additional UTM references on a continuation sheet.)	
$1 \begin{array}{ c c c c c c c c c c c c c c c c c c c$	3 Zone Easting Northing 4 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 David C. Anderson (Section 7 revisions:	Denis Gardner)
organization	dateMay 30, 2002 - Revised Sept. 2002
street & number 169 Lundy Bridge Drive	telephone (563) 382-3079
city or town <u>Waukon</u> st	ate <u>lowa</u> zip code <u>52172</u>
Additional Documentation	
Submit the following items with the completed form:	
Continuation Sheets	
Maps	
A USGS map (7.5 or 15 minute series) indicating the proper	ty's location.
A Sketch map for historic districts and properties having large	ge acreage or numerous resources.
Photographs	
Representative black and white photographs of the propert	y.
Additional items (Check with the SHPO or FPO for any additional items)	
Property Owner	
(Complete this item at the request of SHPO or FPO.)	
name <u>City of Mazeppa</u>	
street & number P. O. Box 316	telephone (507) 843-3685
city or town <u>Mazeppa</u> sta	ate zip code55956

Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C. 470 et seq.).

Estimated Burden Statement: Public reporting burden for this form is estimated to average 18.1 hours per response including time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Chief, Administrative Services Division, National Park Service, P.O. Box 37127, Washington, DC 20013-7127; and the Office of Management and Budget, Paperwork Reductions Projects (1024-0018), Washington, DC 20503.

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DESCRIPTION

The Walnut Street Bridge is a pin-connected, seven-panel, steel, Pratt through truss on concrete piers. The truss is 126 feet long and 16.2 feet wide. Measuring 12.8 feet in height, it is linked to concrete abutments by twelve-foot-long stringer spans.

Built in 1904 by the W.S. Hewitt Company of Minneapolis, the bridge carries Walnut Street across the north branch of the Zumbro River in the city of Mazeppa, which is located in the northwest corner of Mazeppa Township bordering Goodhue County.

The bridge approach on the east connects to Walnut Street that dead-ends at the bridge and the west approach ties into an asphalt trail leading to the Walking Bridge Park. The park provides a scenic view of the Zumbro River and the bridge and includes a shelter, picnic tables and bathrooms. In the immediate vicinity of the bridge the riverbanks are very steep and the terrain is rolling. The Maple Street Bridge and dam is located 200 feet upstream from the Walnut Street Bridge.

The pin-connected Walnut Street Bridge is supported upon two solid shaft, concrete, hammerhead piers. The top chords and end posts are composed of back-to-back channels with a cover plate and batten plates. The bottom cords are side-by-side flat eye bars. Diagonals are counters, and the hip-verticals are side-by-side, 7/8-inch square loop bars. The intermediate verticals consist of back-to-back channels with V-lacing, and sway bracing is composed of two lines of back-to-back angles linked by V-lacing. Floor-beams are connected to verticals, bottom cords, and counters at pinned joints by square U-bolts. The top and bottom lateral bracing is steel rods with threaded ends to adjust tension. The portal bracing is back-to-back angles fastened in an A configuration. The timber deck rests on steel stringers, which are supported by the floor beams. Bearings at the east end of the truss are fixed, while bearings at the west end are movable. At each end of the bridge a metal crest crowns the portal. An original builder's plate is situated near the bottom of each portal. The plates read:

W. S. Hewitt & Co. Builder 1904 Minneapolis, Minn.

The bridge was originally intended for vehicular use, however, in ca 1980, the structure was converted to pedestrian use by removing the longitudinal stringers and deck. The original steel hand/guard rail was removed and short I-beams were welded to the ends of some of the floor beams to form cantilevers that supported a serpentine wood walk and railing that extended laterally on both sides of the bridge. In 1995 the bridge was closed to the walking public.

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In 2001-2002, Minnowa Construction Company from Harmony, Minnesota rehabilitated the bridge. The serpentine pedestrian wooden walkway and rail were removed, longitudinal stringers and deteriorated steel truss members replaced, and truss bearings rehabilitated. The limestone masonry abutments were replaced with concrete abutments. Each end of the truss was originally supported by two support columns measuring three feet in diameter and made of riveted steel plates filled with concrete and capped with a forty-two inch diameter steel plate upon which the truss was attached. These have been replaced with solid shaft concrete hammerhead piers which utilize form liners and which are stained to provide a masonry appearance. The iron cresting was replaced with sheet steel cresting patterned on the original. A fifty-four inch metal rail and a timber deck with a clear deck width limited to ten feet were installed and the bridge was painted a reddish-brown. The bridge is lit with three new "acorn" light standards.

On September 8, 2002 the City of Mazeppa formally, at a dedication ceremony, opened the bridge to pedestrian traffic.

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SIGNIFICANCE

The Walnut Street Bridge is significant under NRHP Criterion C (Engineering) as an example of the work of William S. Hewett and the W. S. Hewett Co., an important Minnesota engineer and bridge building firm, and for its exceptional ornamentation. One of a family of bridge designers and builders based in Minneapolis during the late 19th and early 20th centuries, William S. Hewett formed the W. S. Hewett Co. in 1897. It was reorganized in 1906 as the Security Bridge Co., and by 1920 Hewett had turned most of his attention to working with pre-stressed, reinforced concrete. The Walnut Street Bridge is being nominated under the Multiple Property Documentation Form "Iron and Steel Bridges in Minnesota" and relates to the statewide context Railroads and Agricultural Development 1870-1940.

On March 3, 1904 the Mazeppa Village Council decided that a new bridge over the Zumbro River at Walnut St. was needed and authorized a special election to get voter approval to sell bonds for that purpose. The existing bridge had been condemned in July of 1901 but had continued in use. In May 1904 the council decided to purchase a bridge from the W. S. Hewett Co. for \$3,775 and to sell \$2,500 in bonds. On August 23, 1904 the Village Council and two County Commissioners "inspected bridge and accepted same." Council meeting notes indicate that there were additional records relating to bridge specifications and, presumably, they solicited bids from other bridge contractors, but none of this documentation has survived.¹

An atlas map of the village from 1896 indicates that a bridge carrying Walnut St. across the Zumbro was the only one in town and a vital link in the "main road" from Lake City on the Mississippi to Rochester in neighboring Olmstead County. This remained the case until 1922 when a highway bridge over the dam at Maple St. was built that henceforth carried the main road (Hwy. 60) over the river. Between 1922 and its closure to vehicles in 1980, the Walnut Street Bridge carried mostly local traffic. It was restricted to pedestrians until 1995 when it was closed to all traffic. It has been owned and maintained by the City since its initial construction.²

The Village of Mazeppa was platted in 1856 and incorporated in 1877. With saw- and gristmills on the river in operation in 1856, Mazeppa was to become an important local commercial and industrial center in an area devoted to agriculture, specifically wheat farming in the early years. By the time the Chicago, Milwaukee and St. Paul Railway came through in 1878, a flour mill was in operation, and in 1920 this was still the main local business.³ In 1880 the population was 460, rising to 556 in 1900 and remaining between 400 and 500 until 1980 when it reached 680. This stability is no doubt in large part the result of its rail and highway transportation links to larger trading and shipping centers and the surrounding countryside.

The Walnut Street Bridge was built just after the period when steel had replaced wrought iron in truss bridges (1894-1900) and before the advent of the Minnesota State Highway Commission programs. This body was created in 1905, and by 1911 it had put a system of bridge standards into effect that

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eliminated variability in bridge designs at all levels: state, county, and municipality. As bridge historians Quivik and Martin put it:

After 1911 bridges in Minnesota assumed much greater similarity, lacking the subtle differences in portal bracing or means of connecting floor beams to superstructure which characterized the bridges of the various builders in the previous era, especially the 19th century.⁴

Wood and combination wood-iron bridges in various truss configurations were the earliest bridge types used in Minnesota highway construction, along with masonry arches for short spans. By the 1880s, "the wrought iron, pin-connected Pratt through truss had become the standard structural type for long span bridges in Minnesota."⁵ By 1904 steel had replaced wrought iron as the material of choice for medium and long spans in bridge design, and it was also widely used for short spans in the pony version; but after standardization set in, reinforced concrete rose in importance and steel trusses became less common in such applications.

Until the 1890s, most large-scale bridges in the state were built by out-of-state contractors, but the Hewett family, beginning with the arrival in Minneapolis of Seth M. Hewett in 1882, was among the earliest important Minnesota-based bridge builders. The elder Hewett created the S. M. Hewett Co. in 1887 and was joined in his firm by two nephews, William S. and Arthur. In 1897 William created his own business, W. S. Hewett & Co., with Arthur as his agent. S. M. then changed the name of his operation to the Hewett Bridge Co. that operated through the 1910s. In 1906 William reorganized his operation and changed its name to the Security Bridge Co., which continued operations well into the 20th century. In 1911 Security established its headquarters in Billings, Montana and Arthur became its President. William continued his involvement with Security but created another company in 1912, Hewett Systems, which built pre-stressed concrete structures, mostly large municipal water tanks. He had been working with reinforced concrete since the 1890s and built several bridges in Minnesota with that technology. He was a pioneer in the development of pre-stressed reinforced concrete.⁶

Along with the three aforementioned bridge companies, William S. Hewett was involved in another firm, the short-lived Bayne and Hewett partnership that in 1908 designed and built the steel arch Minnesota Soldiers Home Bridge over Minnehaha Creek in Minneapolis (NRHP, 1989). A. T. Bayne had also been active building bridges in Minnesota since the 1880s and according to Maurice Hewett they also collaborated on a bridge over the Mississippi from Fort Snelling to St. Paul.⁷ The Soldiers Home Bridge, with its 288-foot main span, and the Mazeppa bridge are the only large-scale bridges associated with W. S. Hewett still extant. The total number of steel bridges built in Minnesota by W. S. Hewett is unknown.⁸ The Minnesota SHPO History/Architecture Inventory, including surveys undertaken from the late 1970s to the present, lists three Pratt high truss bridges by the W. S. Hewett Co. and one by the Security Bridge Co. Both firms built a number of Pratt pony truss bridges (at least six), but these are also mostly no longer extant.

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In Wabasha County alone, where W. S. Hewett and Security built several Pratt pony truss structures, none survive. A review of the *Wabasha Standard* and *Wabasha Herald* newspapers from 1902 to 1905 indicates that the county was much preoccupied with highway bridge matters at this time – mostly the repair of existing wood structures, including a covered bridge in Mazeppa Township. In addition to the three pony trusses and the Walnut Street Bridge, the City of Wabasha purchased a small steel bridge from Hewett in 1905 for \$99.50, and a major bridge project spanning the Zumbro River in Kellogg was awarded to W. S. Hewett in 1905 for \$6,890.⁹

Summary

The Walnut Street Bridge meets all pertinent general registration requirements and requirements nos. 5, 6, and 11 for NRHP listing under Criterion C as established by Quivik and Martin in their Multiple Property Documentation Form "Iron and Steel Bridges in Minnesota." The Mazeppa bridge was designed and built by an important engineer/builder and includes portal cresting that represents exceptional ornamentation for a bridge of its vintage.¹⁰

¹The Mazeppa Village Council Minute Books are located at the City Hall.

²The early road information and quotation is from Curtiss-Wedge (p. 104). Additional information on the bridge was provided by City Administrator Duane Hofschulte.

³Curtiss-Wedge, p. 104.

⁴Quivik and Martin, Section E, p. 19.

⁵ibid., Section E, p. 7.

⁶The material in this paragraph is drawn from Quivik and Martin, Section E, pp. 8-9 and Quivik, p. 45. See note 41 on p. 45 for references to W. S. Hewett's pioneering work in pre-stressed concrete.

⁷Maurice Hewett, p. 2. According to Quivik and Martin, "Hewett was probably the design engineer for the project, because in other phases of their careers, he engaged in a variety of design efforts, while Bayne was known strictly for his construction superintendence" (Section E, p. 11).

⁸Bridge contractors were commissioned by state, township, county and municipal governments, and only a detailed survey of their records and local newspapers could yield an accurate count.

⁹Wabasha Standard, 3/23/05 and 5/4/05. The A. Y. Bayne Co. and Minneapolis Steel and Machinery Co. also submitted bids for this bridge.

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¹⁰The ornamentation on this bridge is more typical for 19th century metal truss bridges than structures of this kind from the 20th century

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- Hewett, Maurice W. William Sherman Hewett. A Biography. Six-page typescript in the Minnesota Historical Society Collection (1956).
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Wabasha Herald. 1902-1905.

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VERBAL BOUNDARY DESCRIPTION

The nominated property consists of a rectangle, 162 feet long and 19 feet wide, whose vertices coincide with the outside corners of the bridge supports at each end of the bridge, and includes only bridge superstructure and substructure.

BOUNDARY JUSTIFICATION

Because the bridge is located on a public street, there are no legal boundary lines for the ends of the bridge. Therefore these boundaries are drawn to encompass only the bridge.