

UNITED STATES DEPARTMENT OF THE INTERIOR  
NATIONAL PARK SERVICE

**NATIONAL REGISTER OF HISTORIC PLACES  
INVENTORY -- NOMINATION FORM**

FOR NPS USE ONLY

RECEIVED

DATE ENTERED

SEE INSTRUCTIONS IN *HOW TO COMPLETE NATIONAL REGISTER FORMS*  
TYPE ALL ENTRIES -- COMPLETE APPLICABLE SECTIONS

**1 NAME**

HISTORIC Ponakin Bridge

AND/OR COMMON

Ponakin Bridge

**2 LOCATION**

STREET &amp; NUMBER Ponakin Road

CITY, TOWN

Lancaster

VICINITY OF

NOT FOR PUBLICATION

CONGRESSIONAL DISTRICT  
2nd

STATE

Massachusetts

CODE

025

COUNTY

Worcester

CODE

027

**3 CLASSIFICATION**

CATEGORY	OWNERSHIP	STATUS	PRESENT USE
<input type="checkbox"/> DISTRICT	<input checked="" type="checkbox"/> PUBLIC	<input type="checkbox"/> OCCUPIED	<input type="checkbox"/> AGRICULTURE <input type="checkbox"/> MUSEUM
<input type="checkbox"/> BUILDING(S)	<input type="checkbox"/> PRIVATE	<input type="checkbox"/> UNOCCUPIED	<input type="checkbox"/> COMMERCIAL <input type="checkbox"/> PARK
<input checked="" type="checkbox"/> STRUCTURE	<input type="checkbox"/> BOTH	<input type="checkbox"/> WORK IN PROGRESS	<input type="checkbox"/> EDUCATIONAL <input type="checkbox"/> PRIVATE RESIDENCE
<input type="checkbox"/> SITE	<b>PUBLIC ACQUISITION</b>	<b>ACCESSIBLE</b>	<input type="checkbox"/> ENTERTAINMENT <input type="checkbox"/> RELIGIOUS
<input type="checkbox"/> OBJECT	<input type="checkbox"/> IN PROCESS	<input type="checkbox"/> YES: RESTRICTED	<input type="checkbox"/> GOVERNMENT <input type="checkbox"/> SCIENTIFIC
	<input type="checkbox"/> BEING CONSIDERED	<input checked="" type="checkbox"/> YES: UNRESTRICTED	<input type="checkbox"/> INDUSTRIAL <input checked="" type="checkbox"/> TRANSPORTATION
		<input type="checkbox"/> NO	<input type="checkbox"/> MILITARY <input type="checkbox"/> OTHER:

**4 OWNER OF PROPERTY**

NAME

Town of Lancaster

STREET &amp; NUMBER

Town Hall

CITY, TOWN

Lancaster

VICINITY OF

STATE

Massachusetts

**5 LOCATION OF LEGAL DESCRIPTION**

COURTHOUSE,

REGISTRY OF DEEDS, ETC.

Worcester County Registry of Deeds

STREET &amp; NUMBER

2 Main Street

CITY, TOWN

Worcester

STATE

Massachusetts

**6 REPRESENTATION IN EXISTING SURVEYS**

TITLE

Inventory of Historic Assets of the Commonwealth

DATE

1975

☐ FEDERAL ☒ STATE ☐ COUNTY ☐ LOCALDEPOSITORY FOR  
SURVEY RECORDS

Massachusetts Historical Commission

CITY, TOWN

294 Washington Street, Boston

STATE

Massachusetts 02108

## 7 DESCRIPTION

### CONDITION

☐ EXCELLENT  
☒ GOOD  
☐ FAIR

☐ DETERIORATED  
☐ RUINS  
☐ UNEXPOSED

### CHECK ONE

☒ UNALTERED  
☐ ALTERED

### CHECK ONE

☒ ORIGINAL SITE  
☐ MOVED      DATE \_\_\_\_\_

### DESCRIBE THE PRESENT AND ORIGINAL (IF KNOWN) PHYSICAL APPEARANCE

The Ponakin Bridge is a single span Post through truss constructed in 1871. The bridge serves automobile traffic crossing the north branch of the Nashua River in Lancaster. Originally on the main route from Lancaster to Lunenburg, the bridge is now on a winding country road. It is now approximately 400 feet from a by-pass highway constructed in 1965.

The eight truss paneled structure has a span of 100 feet and width of 20 feet. The vertical end posts are riveted in sections. The bridge is typical of Post trusses with pinned end diagonals in compression and diagonal dual eye bars extending two panels in tension. Secondary tension rods running between the dual eye bolts extend across one panel. Struts connecting each side hip are riveted; top lateral diagonal cross bars provide additional bracing. Floor construction consists of three inch deck planking supported by tranverse cross timbers atop wood stringers which in turn rest on riveted cross floor beams. Floor beams are attached at the panel points. Abutments are 20' granite blocks.

# 8 SIGNIFICANCE

PERIOD	AREAS OF SIGNIFICANCE -- CHECK AND JUSTIFY BELOW			
<input type="checkbox"/> PREHISTORIC	<input type="checkbox"/> ARCHEOLOGY-PREHISTORIC	<input type="checkbox"/> COMMUNITY PLANNING	<input type="checkbox"/> LANDSCAPE ARCHITECTURE	<input type="checkbox"/> RELIGION
<input type="checkbox"/> 1400-1499	<input type="checkbox"/> ARCHEOLOGY-HISTORIC	<input type="checkbox"/> CONSERVATION	<input type="checkbox"/> LAW	<input type="checkbox"/> SCIENCE
<input type="checkbox"/> 1500-1599	<input type="checkbox"/> AGRICULTURE	<input type="checkbox"/> ECONOMICS	<input type="checkbox"/> LITERATURE	<input type="checkbox"/> SCULPTURE
<input type="checkbox"/> 1600-1699	<input type="checkbox"/> ARCHITECTURE	<input type="checkbox"/> EDUCATION	<input type="checkbox"/> MILITARY	<input type="checkbox"/> SOCIAL/HUMANITARIAN
<input type="checkbox"/> 1700-1799	<input type="checkbox"/> ART	<input type="checkbox"/> ENGINEERING	<input type="checkbox"/> MUSIC	<input type="checkbox"/> THEATER
<input checked="" type="checkbox"/> 1800-1899	<input type="checkbox"/> COMMERCE	<input type="checkbox"/> EXPLORATION/SETTLEMENT	<input type="checkbox"/> PHILOSOPHY	<input checked="" type="checkbox"/> TRANSPORTATION
<input type="checkbox"/> 1900-	<input type="checkbox"/> COMMUNICATIONS	<input type="checkbox"/> INDUSTRY	<input type="checkbox"/> POLITICS/GOVERNMENT	<input type="checkbox"/> OTHER (SPECIFY)
		<input type="checkbox"/> INVENTION		

SPECIFIC DATES      1871      BUILDER/ARCHITECT      Watson Manufacturing Company

## STATEMENT OF SIGNIFICANCE

The Ponakin Bridge possesses integrity of location, design, setting, materials, and workmanship and is associated with major transportation routes and the development of Lancaster. The bridge also possesses significance in being the only remaining pure version of a Post truss known to the Historic American Engineering Record.

In 1871 the town of Lancaster contracted with Watson Manufacturing Company, Builders of Patterson, New Jersey to construct a new bridge replacing the last in a series of wooden bridges that had been there since the seventeenth century. That year the Ponakin Bridge was built for the sum of \$5981 following the design of Simeon S. Post which was patented c. 1866. S.S. Post was a well known New Hampshire born civil engineer "whose work in addition to bridge design and building included surveys and construction of railroads, particularly the New York and Erie. He was the originator of the system of railroad baggage checking universally adopted and drew the first design for making railroad time tables. He was also a founding member of the original (1852) American Society of Civil Engineers."<sup>1</sup> The Post truss is distinguished by compression members that incline toward the center of the bridge. The Post truss bridge was a major bridge form in the second half of the nineteenth century and was the most frequently used bridge form for the transcontinental railroad. Other important Post truss bridges include the Union Pacific Railroad's crossing of the Missouri River at Omaha. Two and one-half miles in length, this bridge was the largest on the line. The Missouri River crossing of the Missouri-Kansas-Texas Railroad was also a Post patented bridge with a span of 256'. Despite the truss' popularity, The Ponakin and the nearby Atherton Bridges (NR-eligible) are the only known surviving examples in the country. Taken together, the bridges comprise a unique pair of structures representing an important era in American engineering.

The town of Lancaster has demonstrated its commitment to upkeep of the bridge through town-funded repairs over the years. The load limit today is four tons, and trucks and heavy loads are excluded from crossing the bridge.

## 9 MAJOR BIBLIOGRAPHICAL REFERENCES

Allen, Richard S., Iron Bridges on S.S. Post's Patent

Condit, Carl, American Building Art, 19th c., vol, I, pp. 145-6, N.Y.: Oxford Univ. Press, 1960

Marvin, Abijah P., History of Lancaster 1652-1879, Lancaster, 1879

Town clerk and selectmen's records

Correspondence with Donald Jackson, HAER

## 10 GEOGRAPHICAL DATA

ACREAGE OF NOMINATED PROPERTY approx. 1/2 acre

QUADRANGLE NAME Clinton, MA

QUADRANGLE SCALE 1:24000

UTM REFERENCES

A 1 9 2 7 9 2 4 5 4 7 0 6 4 8 0

ZONE

EASTING

NORTHING

C

E

G

B

ZONE

EASTING

NORTHING

D

F

H

VERBAL BOUNDARY DESCRIPTION

Ponakin Bridge is located on Ponakin Road where the road crosses the Nashua River.

LIST ALL STATES AND COUNTIES FOR PROPERTIES OVERLAPPING STATE OR COUNTY BOUNDARIES

STATE

CODE

COUNTY

CODE

STATE

CODE

COUNTY

CODE

## 11 FORM PREPARED BY

NAME/TITLE Elizabeth T. Durfee

with Phyllis and Lee Farnsworth

Inventory Coordinator

Lancaster Historical Commission

ORGANIZATION

Massachusetts Historical Commission

DATE

June 29, 1979

STREET & NUMBER

294 Washington Street

TELEPHONE

617-727-8470

CITY OR TOWN

Boston,

STATE

MA 02108

## 12 STATE HISTORIC PRESERVATION OFFICER CERTIFICATION

THE EVALUATED SIGNIFICANCE OF THIS PROPERTY WITHIN THE STATE IS:

NATIONAL ☒

STATE ☐

LOCAL ☐

As the designated State Historic Preservation Officer for the National Historic Preservation Act of 1966 (Public Law 89-665), I hereby nominate this property for inclusion in the National Register and certify that it has been evaluated according to the criteria and procedures set forth by the National Park Service.

STATE HISTORIC PRESERVATION OFFICER SIGNATURE

Robert R. Weslowski 7/18/79

TITLE

Executive Director, Mass. Historical Commission

DATE

FOR NPS USE ONLY

I HEREBY CERTIFY THAT THIS PROPERTY IS INCLUDED IN THE NATIONAL REGISTER

DATE

KEEPER OF THE NATIONAL REGISTER

ATTEST:

DATE

CHIEF OF REGISTRATION



COMMONWEALTH OF MASSACHUSETTS  
DEPARTMENT OF PUBLIC WORKS

277 42'30" 278 6669 11 SW (SHIRLEY) 280 40' 281







Ponakin Bridge (Photograph: Wendell Bartlett, May 1975)