

**United States Department of the Interior
Heritage Conservation and Recreation Service**

For HCRS use only

**National Register of Historic Places
Inventory—Nomination Form**

received **OCT 29 1980**

date entered **DEC 1 1980**

See instructions in *How to Complete National Register Forms*
Type all entries—complete applicable sections

1. Name

historic STARK COVERED BRIDGE

and/or common STARK COVERED BRIDGE

2. Location

E of Manchester at NH 110 and Northside Rd.

street & number Intersection of NH Route 110 and Northside Road — not for publication

city, town Groveton, Stark vicinity of Stark congressional district Second

state New Hampshire code 33 county Coos code 007

3. Classification

Category	Ownership	Status	Present Use
<input type="checkbox"/> district	<input checked="" type="checkbox"/> public	<input checked="" type="checkbox"/> occupied	<input type="checkbox"/> agriculture
<input type="checkbox"/> building(s)	<input type="checkbox"/> private	<input type="checkbox"/> unoccupied	<input type="checkbox"/> commercial
<input checked="" type="checkbox"/> structure	<input type="checkbox"/> both	<input type="checkbox"/> work in progress	<input type="checkbox"/> educational
<input type="checkbox"/> site	Public Acquisition	Accessible	<input type="checkbox"/> entertainment
<input type="checkbox"/> object	<input type="checkbox"/> in process	<input type="checkbox"/> yes: restricted	<input type="checkbox"/> government
	<input type="checkbox"/> being considered	<input checked="" type="checkbox"/> yes: unrestricted	<input type="checkbox"/> industrial
		<input type="checkbox"/> no	<input type="checkbox"/> military
			<input type="checkbox"/> museum
			<input type="checkbox"/> park
			<input type="checkbox"/> private residence
			<input type="checkbox"/> religious
			<input type="checkbox"/> scientific
			<input checked="" type="checkbox"/> transportation
			<input checked="" type="checkbox"/> other: Scenic Landmark

4. Owner of Property

name Town of Stark

street & number Town Offices

city, town RFD, Stark vicinity of Stark state New Hampshire 03582

5. Location of Legal Description

courthouse, registry of deeds, etc. Coos County Registry of Deeds, Coos County Courthouse

street & number PO Box 286 (148 Main Street)

city, town Lancaster, state New Hampshire 03584

6. Representation in Existing Surveys

title -see continuation sheet- has this property been determined eligible? yes no

date federal state county local

depository for survey records

city, town _____ state _____

7. Description

Condition		Check one	Check one	
<input type="checkbox"/> excellent	<input type="checkbox"/> deteriorated	<input type="checkbox"/> unaltered	<input checked="" type="checkbox"/> original site	
<input type="checkbox"/> good	<input type="checkbox"/> ruins	<input checked="" type="checkbox"/> altered	<input type="checkbox"/> moved	date <u>Washed downstream and reset</u>
<input checked="" type="checkbox"/> fair	<input type="checkbox"/> unexposed			<u>in place, 1890.</u>

Describe the present and original (if known) physical appearance

The Stark Covered Bridge was built in the mid-nineteenth century (some sources specify a date of 1857, while others cite 1862) across the upper Ammonoosuc River in Stark, New Hampshire, linking what is today New Hampshire Route #110 with the local "Northside Road". It replaced a floating bridge positioned a short distance eastward (upriver).

The approximate dimensions of the bridge are 138 feet shore-to-shore, with a portal extension of 6.5 feet at each end, for an overall length of 151 feet; the bridge carries an 18 foot roadway and two external sidewalks, making a total width of 29 feet.

The bridge was originally built as a 2-span Paddleford truss; but in 1890 (1895, according to one reference) a spring freshet tore away the center pier and carried the bridge downstream, where it is said to have been saved by being snagged in debris. The stone abutments were re-constructed and the bridge was hauled back and set in place again. At that time laminated arches were introduced to eliminate the need of the center pier, which was considered a source of danger during floods. The bridge remained intact until 1938, when the arches were repaired; but they subsequently began to sag, and in 1946 a temporary center pier of wood was introduced.

In 1954 the bridge was reconstructed: the wooden center pier was replaced with one of concrete, the arches were removed, the roof was repaired, and four concealed steel beam stringers were introduced to bring the live load capacity up to 15 tons. (This attests to the importance of the Stark bridge as a transportation link: most covered bridges in New Hampshire are maintained at a 6 to 8 ton live load capacity.)

At present, the Stark Covered Bridge is a single lane, two span wooden Paddleford-type wooden covered truss bridge. It rests on flared abutments of rectangular split granite blocks set in mortar; the central pier is constructed of reinforced concrete with smoothly finished downward-sloping sides and integral rounded ends; the eastern (upstream) side of the pier has a greater flare, to deflect flood-borne debris. The open (unenclosed) upper portion of the truss consists of 18 panels of single-component crossed diagonals secured to crossed-diagonal lateral ceiling bracing by angled keenbraces. Vertical panel posts are single units, except over the center pier where they are doubled. Top chords are laminated; bottom chords, floor construction, and lower lateral bracing are concealed by the floor and sidewalk decking of wood plank laid crosswise between the trusses. A heavy timber curb protects the lower edge of the truss from traffic and supports the sidewalk flooring. The two sidewalks are attached to the exterior sides of the trusses, beneath the flared eaves of the gabled portals, and are supported by vertical wooden posts lighter than the truss uprights. The lower portion of the sidewalks is enclosed by an exterior "wainscot" of flush-boarded planking. A handrail of two horizontal planks, attached to round wooden posts along the top of the abutment wingwalls, links each sidewalk to the roadway shoulders.

The projected, flared gable portals of the Stark Covered Bridge, though typical of the configuration favored by mid-19th century New Hampshire bridge builders, are particularly graceful examples of their type. The medium-pitch roof encompasses three semi-elliptical openings: two smaller sidewalk entrances flanking a large central archway over the roadway. Each is delineated by a plain wooden casing centered with a wooden keystone; the adjoining ellipses spring from shared plain wooden impost blocks from which acorn-shaped turned wooden drops are pendant. A segmental ellipse links the outer imposts and the projected eaves, which have plain enclosed "box" soffits, a plain wooden fascia band, and a plain unmoulded wooden frieze. The roof is covered with wooden shingles laid on purlins without sheathing. The entire portal unit is extended approximately a 2/3 bay distance beyond the truss ends, through use of a diagonal wooden strut projected from the first panel upright on each side of the truss. The overall effect--particularly when the bridge is viewed obliquely from either end--is almost ethereal, belying the massive proportions of the trusswork and the length of the span.

-see continuation sheet-

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 checked="" 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 checked="" 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 type="checkbox"/> transportation
<input type="checkbox"/> 1900-	<input type="checkbox"/> communications	<input type="checkbox"/> industry	<input type="checkbox"/> politics/government	<input checked="" type="checkbox"/> other (specify)
	<input type="checkbox"/> invention			

Specific dates ca. 1857-1862 **Builder/Architect** possibly Capt. Richardson of Groveton

Statement of Significance (in one paragraph)

The graceful design and picturesque setting of the mid-19th century Stark Covered Bridge make it one of New Hampshire's best-known covered bridges--the subject of innumerable calendars, Christmas cards, paintings, and illustrations; a favored stop on the Canadian National Railroad annual North Country foliage tours; the scene of "Covered Bridge Dances" for local fundraising projects; and, illuminated at Christmas, a traditional focal point for holiday celebrations. Indeed, the Stark bridge owes its existence to artists and covered bridge buffs, who convinced the state legislature to appropriate funds to preserve the structure as a bridge "of historic value and an asset to the state" (Senate Joint Resolution #9, 1947) although the town had voted to replace it with a steel span. Following standard state practice, the Stark Covered Bridge has been modified structurally over the years (see 7, Description) in response to flood damage and increasing traffic loadings, but it retains its architectural character and historical significance while illustrating the evolution of wooden covered bridge engineering and preservation technology.

The Stark Covered Bridge is also important as an example of the Paddleford truss type --an unpatented regional variant of the Long truss--originated by Peter Paddleford of Littleton, New Hampshire; other examples are located in nearby Groveton and Lancaster, New Hampshire, as well as in Carroll County, New Hampshire and Oxford County, Maine. It is noteworthy that almost all of the Paddleford truss bridges were later--like the Stark Bridge--strengthened with added Burr-type arches, suggesting an inherent (but not irremedial) flaw in the truss design. At Stark, the ultimate substitution of steel stringers and a new center pier--replacing a poorly-built successor to a flood-damaged support--made it possible to recapture the original Paddleford truss configuration, by removing the arches. However, even the use of concrete and carefully-concealed steel stringers has not entirely alleviated the dangers of overloading. The Stark Covered Bridge is the only crossing of the Upper Ammonoosuc for approximately four miles downstream and two miles upstream, and has historically been an important transportation link between communities on the north and south sides of the river. With the increasing importance of wood harvesting in the area, the bridge has been subjected to substantial truck and heavy equipment traffic; during 1979 the portals were damaged by large trucks loaded with logs. This prompted two different responses in the town: one, that the bridge was an extraordinary local and state resource which should be preserved intact; the other, that the bridge was an impediment to local economic activity and should be replaced, or the roof and superstructure removed, to eliminate the need for large trucks to detour around it. At present, the bridge has been repaired; but National Register designation is considered essential to insure its continued existence.

9. Major Bibliographical References

-see continuation sheet-

ACREAGE NOT VERIFIED

10. Geographical Data

UTM NOT VERIFIED

Acreage of nominated property less than 1 acre

Quadrangle name Percy, NH

Quadrangle scale 1:62500

UMT References

A	<u>119</u>	<u>301861510</u>	<u>41841121510</u>	B			
	Zone	Easting	Northing		Zone	Easting	Northing
C				D			
E				F			
G				H			

Verbal boundary description and justification : The boundary of the nominated property is contiguous with the boundary of land owned by the Town of Stark and associated with the Stark Covered Bridge, and recorded as "Covered Bridge #37, coordinate 115/091" at the NH Dept. of Public Works & Highways District 1 Office, Box 379, Lancaster, NH 03584.

List all states and counties for properties overlapping state or county boundaries

state	N/A	code	county	code
state	N/A	code	county	code

11. Form Prepared By

name/title Deborah Joyce, Selectwoman, Town of Stark

organization _____ date August 1979

street & number Box 36 telephone 636-2542

city or town Stark state New Hampshire

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 Heritage Conservation and Recreation Service.

State Historic Preservation Officer signature 

Commissioner, Dept. of Resources & Economic Development

title NH State Historic Preservation Officer

date October 14, 1980

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I hereby certify that this property is included in the National Register



date 12/1/80

Keeper of the National Register

Attest:

date

Chief of Registration

FHR-8-300A
(11/78)

UNITED STATES DEPARTMENT OF THE INTERIOR
HERITAGE CONSERVATION AND RECREATION SERVICE

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

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CONTINUATION SHEET REPRESENTATION
IN EXISTING
SURVEYS ITEM NUMBER 6 PAGE 1

Title: State of New Hampshire, Dept. of Public Works and Highways:
Covered Highway Bridges in New Hampshire and State of New
Hampshire Bridge Coordinate Book and Bridge Inventory Listing

Date: N/A (continually updated)

Type: State

Depository: NH Department of Public Works and Highways
Division 1 Office
Box 379
Lancaster, New Hampshire 03584

Title: New Hampshire Historic Preservation Plan

Date: 1970

Type: State

Depository: NH State Historic Preservation Office
NH Department of Resources and Economic Development
Box 856
Concord, New Hampshire 03301

Title: World Guide to Covered Bridges

Date: 1972 (rev. ed.)

Type: International

Depository: The National Society for the Preservation of Covered Bridges, Inc.
% Oscar F. Lane
63 Fairview Avenue
South Peabody, Massachusetts 01960

Title: New Hampshire's Covered Bridges

Date: N/A (continually updated)

Type: State

Depository: NH Department of Resources and Economic Development
Division of Economic Development
Office of Vacation Travel
Box 856
Concord, New Hampshire 03301

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CONTINUATION SHEET DESCRIPTION ITEM NUMBER 7 PAGE 2

The portals (including trim and diagonal struts), the sidewalks (including vertical supports and exterior sheathing), and the approach handrails are painted white; the remainder of the timber components of the bridge are natural weathered wood.

The bridge is classified by the New Hampshire Department of Public Works & Highways as Bridge #115/091 and by the New Hampshire Department of Resources & Economic Development as Covered Bridge #37; it is listed in the World Guide to Covered Bridges as Bridge #29-04-05.

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MAJOR
BIBLIOGRAPHICAL
CONTINUATION SHEET REFERENCES ITEM NUMBER 9 PAGE 1

Allen, Richard Sanders. Covered Bridges of the Northeast. Brattleboro, VT: The Stephen Greene Press, 2nd rev. ed., 1974

Committee on History and Heritage of American Civil Engineering. American Wooden Bridges. ASCE Historical Publication No. 4. New York: American Society of Civil Engineers, 1976.

Deeks, Noel. "These Bridges Went to Church," Covered Bridge Topics, 30:2 (July, 1972).

Kenyon, Thedia Cox. New Hampshire's Covered Bridges. Sanbornville, NH: Wake-Brook House, 1957.

Keyworth, William G. The Covered Bridges of New Hampshire. Wentworth, NH: Scenes of New England 1973.

Stark Bicentennial Committee. History of Stark, New Hampshire. Littleton, NH: Courier Printing Co., 1974.

Tolles, Bryant F., Jr., with Tolles, Carolyn K. New Hampshire Architecture: An Illustrated Guide. Published for the New Hampshire Historical Society. Hanover, NH: University Press of New England, 1979.

White, W. Edward. Covered Bridges in New Hampshire. Littleton, NH: Courier Printing Co., 1942.

Wilson, Ray E. "Designs in Covered Bridge Trusses Through the Years," Covered Bridge Topics, 29:2 (Fall, 1971).

NATIONAL REGISTER OF HISTORIC PLACES INVENTORY -- NOMINATION FORM

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DATE ENTERED

DEC 1 1980

CONTINUATION SHEET GEOGRAPHICAL DATA ITEM NUMBER 10 PAGE 2

VERBAL BOUNDARY DISCRIPTION:

SKETCH MAP

