

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

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

received OCT 25 1979

date entered JAN 11 1980

See instructions in *How to Complete National Register Forms*

Type all entries—complete applicable sections

1. Name

historic HOPKINTON RAILROAD COVERED BRIDGE (CONTOOCCOOK RAILROAD BRIDGE)

and/or common HOPKINTON RAILROAD BRIDGE

2. Location

street & number East of NH 103 and NH 127 at Contoocook Village not for publicationcity, town Hopkinton vicinity of congressional district Second

state New Hampshire code 33 county Merrimack code 013

3. Classification

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

4. Owner of Property

name Richard Jackson

street & number PO Box 517

city, town Contoocook vicinity of state New Hampshire 03229

5. Location of Legal Description

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

street & number PO Box 248

city, town Concord state New Hampshire 03301

6. Representation in Existing Surveys

title NH Historic Preservation Plan has this property been determined eligible? yes nodate 1970 federal state county local

depository for survey records State of New Hampshire, Dept. Resources & Economic Development

city, town Concord state New Hampshire 03301

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 _____
<input checked="" type="checkbox"/> fair	<input type="checkbox"/> unexposed		

Describe the present and original (if known) physical appearance

Present Physical Appearance: The Hopkinton Railroad Bridge (Contoocook Railroad Bridge) crosses the Contoocook River at a sharp angle immediately east of NH 103 and NH 127 at Contoocook Village, Hopkinton, New Hampshire.

The bridge consists of two spans supported by two double Town-Pratt timber lattice trusses. The bridge contains 96,000 board feet of lumber, mostly white pine, with some hard pine and hemlock. It is held together with 2600 treenails, 1800 pounds of steel stayrods, and three tons of miscellaneous hardware.¹

Each truss is formed by two sets of 3" x 12" timbers bolted together to form a 60° diagonal lattice, with offset exterior and interior lattice joints. Connected to the lattice members are continuous segmented top and bottom chords, bolted together at butted splices. Each truss also has three secondary chords: one at the first intersection below the top chord, and one each at the first two intersections above the bottom chords. The diagonal web members extend slightly beyond the upper and lower main chords, probably to minimize end-splitting. Lattice-to-lattice connections are three treenails arranged in a triangle around a central iron bolt. The lattice is reinforced with vertical members at each end, and at the two interior lattice intersections nearest each end; there are two similar verticals at the lattice intersections over the pier. There is no additional iron-rod reinforcing visible.

Ceiling and floor joist spacing is offset from the lattice intersections to clear the web connections. Floor joists are through-bolted to the lower truss chords; ceiling joists appear to be similarly connected to the upper chords. The floor joists are overlaid with longitudinal timbers carrying the railroad crossties, which still remain. The existing floor is laid on top of the crossties; beyond the tie ends, it rests directly on the joists.

One set of crossed-diagonal lateral bracing extends above, and is mortised into, the ceiling joists; one set extends between, and is mortised into, the floor joists. Each set of bracing is mortised together at the middle, where its diagonals cross; this intersection is connected by vertical blocking to the ridge beam above. Each set of bracing extends over three joist bays, but the ceiling and floor bracing is offset: ends above align with centers below to provide additional stability for the structure.

Diagonal braces extend from each upper secondary chord to each ceiling joist, forming a pattern echoing the portal openings.

The abutments and extensive wing walls are of coursed split granite blocks set in mortar, into which are recessed secondary abutments of large split granite blocks set in sand without mortar. The truss ends rest on short heavy-timber blocking parallel and below the truss chords; these in turn rest on crosswise blocking with air spaces between, which bear on the secondary abutments. The extreme ends of the blocking and lower chords are beginning to deteriorate, particularly at the northeast and northwest corners, because a former owner allowed sand and gravel to block the air spaces at the bearing points.

The central pier extends upstream (southward) to divert ice and flood debris; its pointed leading edge has been reinforced with a steel angle. The pier is parallel to the river, rather than perpendicular to the bridge, in order to present less area to the force of ice or flood. Curious rectangular recesses in the upper middle of the abutments

(See Continuation Sheet #1)

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INVENTORY -- NOMINATION FORM**

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DESCRIPTION (Continued)

and pier may reflect provisions for bolster frames never installed or long since removed; they may be a means of introducing additional air circulation at the bearing points; or they may have been necessitated by construction methods used when replacing the bridge on its foundations after flood damage.

The bridge is 157' long² and 21' wide, with portal openings 15' wide by 19' high. It stands approximately ten feet above normal water level. When in railroad use, it contained a single track, with switchpoints (where the Claremont and Hillsboro railroad branches separated) partly on the bridge itself.³ Now its floor is of flat planks, parallel to the trusses; at the east end, an asphalt gradient with concrete side curbs extending about six feet into the bridge provides a smooth approach.

The exterior sides of the trusses are sheathed with narrow vertical flush boards laid on horizontal strapping applied to the lattice. The siding is in two tiers: the first begins at the upper secondary chord and extends just below the lower secondary chord, exposing the top of the lattice and forming a continuous horizontal smoke vent. The second tier of siding begins where the first ends and extends downward and slightly outward to cover the bottom edge of the stringers. The portals are sheathed with the same narrow vertical flush boards used on the walls, but without the tiers; the west portal is blocked by a temporary plywood partition, recessed within the opening. Added protection against weather is provided by vertical random-width flush boards extending about ten feet into the bridge from the portals, although this sheathing is now in poor condition. The siding at the west portal is partly red, partly weathered grey; that on the north side is a faded red; that on the south side, a weathered brown; the north half of the east portal bears traces of red paint, while the south half is a weathered grey, and is beginning to deteriorate. The siding is in fair condition, although several pieces are broken and should be replaced.

A raised platform, painted white, extends from the back porch and detached shed of an adjoining business building to the end of the bridge's south wall; it appears to be used for access to a river height gauge attached to the bridge.

The portal opening is the typical railroad bridge flat arch with 45° corners, separated from verticals of subtle entasis by a single trimboard, laid flat to give the effect of a capital. Cable ends are flared outward to meet the roof edge, whose projection protects the continuous eave-opening.

The roof, of minimal double-pitch, overhangs the gable ends only enough to provide a drip edge; the side overhang is more generous, as noted above. This projection

(See Continuation Sheet #2)

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DESCRIPTION (Continued)

is formed by light rafters extending beyond the joist ends, which in turn extend beyond the top chords of the trusses. The roof is covered with roll roofing, laid on boards.

Careful examination of the ceiling joists will disclose a continuous shallow groove worn into the bottom edge of each joist, evidence of the heat and sparks generated by the smokestacks passing below.

The structural members of the bridge--with the significant exception of the stringer ends--appear to be in excellent condition. An inspection of the various component timbers might reveal which, if any, remain from the original bridge built in 1849-1850.

The nearby railroad station associated with this bridge has been preserved under private ownership and should be recorded as an accompanying structure as soon as possible.

The National Society for the Preservation of Covered Bridges World Guide to Covered Bridges number for the Hopkinton Railroad Bridge is 29-07-07; the New Hampshire Department of Resources and Economic Development number is 10; the New Hampshire Department of Public Works and Highways number is none.

Original Physical Appearance:

The original (1849-1850 to 1889) appearance of the Hopkinton Railroad Bridge was considerably different from its present form. An old photograph⁴ shows it to have had columnar portals supporting a semicircular arched opening under a roof of medium double-pitch, which seems not to have projected far, if at all, beyond the sides of the bridge. The whole was sheathed in narrow horizontal clapboards, or possibly flush boards, painted a light color, perhaps white.

¹Edgar T. Mead, Jr., Through Covered Bridges to Concord, a Recollection of the Concord and Claremont Railroad (NH) (Brattleboro, VT: Stephen Greene Press, 1970), 32.

²NH Division of Economic Development, The Covered Bridges of NH (Concord, NH) 1973.

³Mead, op.cit., following page 51.

⁴Hopkinton, New Hampshire, Today and Yesterday, an Illustrated Historical Account of the Town of Hopkinton, NH, 1765-1965 (Hopkinton, NH: 1965), 17.

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/
<input type="checkbox"/> 1700-1799	<input type="checkbox"/> art	<input checked="" type="checkbox"/> engineering	<input type="checkbox"/> music	<input type="checkbox"/> humanitarian
<input checked="" type="checkbox"/> 1800-1899	<input type="checkbox"/> commerce	<input type="checkbox"/> exploration/settlement	<input type="checkbox"/> philosophy	<input type="checkbox"/> theater
<input checked="" type="checkbox"/> 1900-	<input type="checkbox"/> communications	<input type="checkbox"/> industry	<input type="checkbox"/> politics/government	<input checked="" type="checkbox"/> transportation
		<input type="checkbox"/> invention		<input type="checkbox"/> other (specify)

Specific dates 1849-50; 1889; 1936; 1938. **Builder/Architect**

Statement of Significance (in one paragraph)

Engineering: The Hopkinton Railroad Bridge is the oldest remaining covered railroad bridge in the United States.¹ Originally built in 1849-1850, it was rebuilt in 1889 to accommodate heavier trains and restored after flood damage in 1936 and 1938.² It is typical--in appearance and in construction--of New Hampshire's four other remaining covered railroad bridges,³ although it lacks the arches of the Goffstown and Wright's bridges.⁴

Transportation: In 1844 the town of Hopkinton was agitated by "the great railroad controversy," and asserted its vehement opposition to railroads in the town, although there was neither a railroad, nor the prospect of one, in Hopkinton.⁵ By 1849, opposition had given way to interest; on March 13, 1849, the town passed the motion; "Voted...that they (the selectmen) be instructed to avail themselves of all the advantages the law gives them, with a view to have a bridge built across the public highway, near the dwelling house of Moses Tyler, for the use of the Concord and Claremont railroad company."⁶ As it happened, the bridge was built by the railroad, not the town; it was not built "over the public highway" near Moses Tyler's, but immediately adjoining and at a sharp angle to it, in the middle of Contoocook. In 1853 the town voted to build a covered highway bridge at Contoocook,⁷ which was subsequently taken down in 1935 and replaced by a stone bridge, still standing.⁸ An old photograph⁹ shows the western (adjoining) ends of the two original bridges to have been about twenty feet apart; but the western ends of the existing bridges are much closer, and indeed appear to share a single extended abutment.

On the crest of popular enthusiasm and stock subscription, the Concord and Claremont Railroad constructed its first section of road, from Concord to Bradford, in 1849-1850.¹⁰ Joseph Barnard of Contoocook, a farmer, forester, former soldier and future public official, was the contractor for the roadbed from Contoocook to Hillsboro;¹¹ it is assumed that he built the railroad bridge as well. (According to Mead, Joseph Barnard built both the Concord to Bradford and the Contoocook to Hillsboro sections,¹² a point not mentioned in other sources.) However, C. Ernest Walker states that Dutton Woods of Henniker built covered wooden trussed bridges for several railroad lines between 1837 and 1850; among his clients were the Concord and Claremont and Contoocook Valley railroads.¹³ It is known that Dutton Woods built Contoocook's covered highway bridge adjoining the railroad bridge in 1853, as well as the covered highway bridge at Tyler, in Contoocook, in 1857;¹⁴ is it possible that Woods also built the Contoocook railroad bridge? The question is worthy of additional research.

A public celebration was held at the Contoocook railroad station when the trains began to run regularly between Concord and Contoocook. About a thousand people enjoyed a program of speeches, band music, artillery--the gun was posted just downstream of the new railroad bridge--and a free dinner for all; the railroad gave the celebrants a free ride to and from Concord.¹⁵

In 1889 the Concord and Claremont, Sugar River, and Contoocook River Railroads became the Claremont Branch of the Boston and Maine Concord Division¹⁶--the end result of a series of mergers which had begun in 1853.¹⁷ Shortly thereafter, the B&M rebuilt the

(See Continuation Sheet #3)

9. Major Bibliographical References

(See Continuation Sheet #6)

10. Geographical Data

Acreeage of nominated property Less than one

UNITS NOT VERIFIED

Quadrangle name Hopkinton, NH

Quadrangle scale 7.5'

UMT References

A

1	9	2	7	9	5	7	0	4	7	8	8	9	4	0
Zone		Easting				Northing								

B

Zone		Easting				Northing								

C

Zone		Easting				Northing								

D

Zone		Easting				Northing								

E

Zone		Easting				Northing								

F

Zone		Easting				Northing								

G

Zone		Easting				Northing								

H

Zone		Easting				Northing								

Verbal boundary description and justification

There is no local map and parcel number for this bridge. The nominated area consists of a rectangular parcel approximately 200' x 60' running northwest to southeast, centered on the bridge, with sides parallel to the bridge.

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 Linda Ray Wilson

organization _____ date June 19, 1974

street & number P0 Box 405 telephone _____

city or town Peterborough state New Hampshire 03458

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.

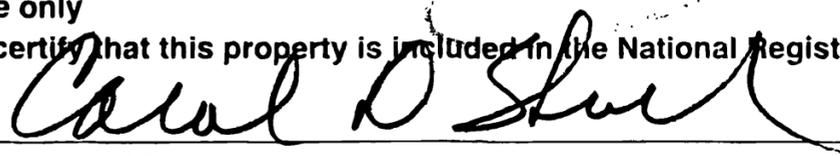
State Historic Preservation Officer signature 

Commissioner, Dept. Resources & Economic Development

title NH State Historic Preservation Officer date 10-5-78

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

 date 1-11-80
Keeper of the National Register

Attest:  date 1/12/80

Chief of Registration

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SIGNIFICANCE (Continued):

Hopkinton railroad bridge to withstand newer, heavier trains;¹⁸ in the process the bridge exchanged its "Roman" facade for the typical "Egyptian" appearance of the B&M covered railroad bridges in New Hampshire.

The 1936 flood tipped the bridge off its foundations; there was talk of discontinuing the Claremont and Hillsboro railway lines, but Claremont, having just paid franchise fees, insisted on restoration of service;¹⁹ the bridge was towed back into position and into use.²⁰

The railroad bridge was again dislocated by the 1938 hurricane, and again restored; but train service to West Henniker and Hillsboro was ended. According to the Hopkinton bicentennial brochure,²¹ in 1952 S.M. Pinsky bought the railroad from Boston and Maine, maintaining a reduced schedule from Concord to Claremont and Contoocook to West Hopkinton. An insurance agency purchased the railroad station and shared it with the railroad until 1956, when passenger and mail service was curtailed; in 1962 freight service was discontinued; both the Claremont and Hillsboro lines are now abandoned. With the demise of the railroad line, the bridge was sold to a merchant in Contoocook; it is now used as a warehouse and sometime flea market.

(See Continuation Sheet #4)

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SIGNIFICANCE (Continued)

¹Dick Roy, in Floyd L. Avery, "Comments on Dick Roy's 'New Hampshire Covered Bridges Priority List'" (Concord, New Hampshire: Letter to Mary M. Jeglum, Consultant in Historic Preservation Planning, New Hampshire Department of Resources and Economic Development, June 18, 1973).

²Edgar T. Mead, Jr., Through Covered Bridges to Concord, a Recollection of the Concord and Claremont Railroad (NH) (Brattleboro, Vermont: The Stephen Greene Press, 1970), 31.

³Thedia Cox Kenyon, The Covered Bridges of New Hampshire (Sanbornville, New Hampshire: Wake-Brook House, 1957), 43.

⁴Roy, op. cit.

⁵C.C. Lord, Life and Times in Hopkinton, New Hampshire (Concord, NH: Republican Press Association, 1890), 140.

⁶Ibid., 146.

⁷Ibid., 149.

⁸Hopkinton, New Hampshire, Today and Yesterday, an Illustrated Historical Account of the Town of Hopkinton, New Hampshire, 1765-1965 (Hopkinton, New Hampshire: 1965), 20.

⁹Ibid., 17.

¹⁰New Hampshire Division of Economic Development, The Covered Bridges of New Hampshire (Concord, New Hampshire: 1973).

¹¹Hopkinton, New Hampshire, op.cit., 20.

¹²Mead, op.cit., 8.

¹³C. Ernest Walker, Covered Bridge Ramblings in New England (Contoocook, NH: C. Ernest Walker, 1959), 45. Also see Dutton Wood's biography in Leander W. Cogswell, History of the Town of Henniker, Merrimack County, NH (Somersworth, NH: The NH Publishing Company, 1973) (Facsimile edition), 798-799.

¹⁴Hopkinton, NH, op.cit., 20.

¹⁵Lord, op.cit., 147.

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SIGNIFICANCE (Continued)

¹⁶ Mead, op.cit., 21.

¹⁷ ibid., 9.

¹⁸ ibid., 31.

¹⁹ Hopkinton, NH, op.cit., 34.

²⁰ Mead, op.cit., 31.

²¹ Hopkinton, NH, op.cit., 35.

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CONTINUATION SHEET 6 ITEM NUMBER 9 PAGE 2

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Avery, Floyd L. and Roy, Dick. "Comments on Dick Roy's 'New Hampshire Covered Bridges Priority List'." (Concord, New Hampshire: Letter to Mary M. Jeglum, Consultant in Historic Preservation Planning, New Hampshire Department of Resources and Economic Development, June 18, 1973.)

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Roy, Dick List of NH Covered Bridges Past and Present, Revised November, 1966. (Typescript and scrapbook, including C. Ernest Walker, The Covered Bridges of Merrimack County, New Hampshire, et al., Concord, New Hampshire: collection of New Hampshire Historical Society, 1966.)

Walker, C. Ernest. Covered Bridge Ramblings in New England. (Contoocook, NH: C. Ernest Walker, 1959).