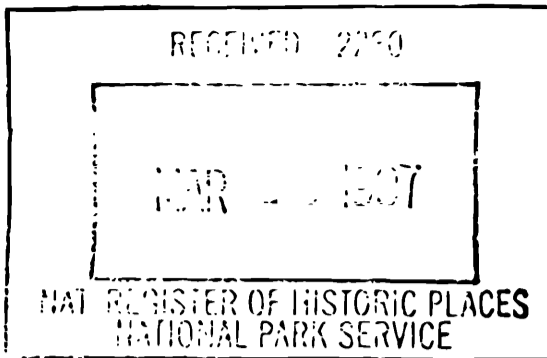


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United States Department of the Interior  
National Park Service

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.

1. Name of Property

historic name Great Hollow Road Stone Arch Bridge

other names/site number Etna Stone Bridge

2. Location

street & number Great Hollow Road NA  not for publication

city or town Hanover NA  vicinity

state New Hampshire code NH county Grafton code 009 zip code 03755

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, 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. I recommend that this property be considered significant  nationally  statewide  locally. ( See continuation sheet for additional comments.)

Nancy C. Muller DIRECTOR 3/20/97  
Signature of certifying official/Title Date

NEW HAMPSHIRE  
State of Federal agency and bureau

In my opinion, the property  meets  does not meet the National Register criteria. ( See continuation sheet for additional comments.)

\_\_\_\_\_  
Signature of certifying official/Title Date

\_\_\_\_\_  
State or Federal agency and bureau

4. National Park Service Certification

I hereby certify that the 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:)

Beth L. Savage Signature of the Keeper 5/12/97 Date of Action

Great Hollow Road  
Stone Arch Bridge  
Name of Property

Grafton County,  
New Hampshire  
County and State

**5. Classification**

**Ownership of Property**  
(Check as many boxes as apply)

- private
- public-local
- public-State
- public-Federal

**Category of Property**  
(Check only one box)

- building(s)
- district
- site
- structure
- object

**Number of Resources within Property**  
(Do not include previously listed resources in the count.)

Contributing	Noncontributing	
0	0	buildings
0	0	sites
1	0	structures
0	0	objects
1	0	Total

**Name of related multiple property listing**  
(Enter "N/A" if property is not part of a multiple property listing.)

N/A

**Number of contributing resources previously listed in the National Register**

N/A

**6. Function or Use**

**Historic Functions**  
(Enter categories from instructions)

TRANSPORTATION: road-related (vehicular)

**Current Functions**  
(Enter categories from instructions)

TRANSPORTATION: road-related (vehicular)

**7. Description**

**Architectural Classification**  
(Enter categories from instructions)

No style

**Materials**  
(Enter categories from instructions)

foundation STONE: Granite

walls STONE: Granite

roof N/A

other STONE ARCH: Granite

**Narrative Description**

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

The stone bridge that carries Great Hollow Road over Mink Brook is situated in a semi-open, rural part of the Town of Hanover commonly referred to as the Etna area. Great Hollow Road connects the Etna/Hanover Center/Mink Brook valley with the urban Lebanon and N.H. Rte. 120 vicinity. Mink Brook is Hanover's largest tributary of the Connecticut River, draining an area approximately 4 1/2 square miles westerly of Moose Mountain. Still in very good condition, the bridge was built in 1914 by the Town of Hanover, and is constructed entirely of rough faced local granite masonry. Overall, the structure measures approximately 33 feet long by 24 1/2 feet wide. The travelled way width is approximately 21 1/2 feet high by 18 inches thick of solid masonry capped with 6 inches of concrete.

The architectural focal point of the bridge is the finely proportioned structural arch and related barrel vault. The segmental arch measures twenty-eight feet across as

United States Department of the Interior  
National Park Service

**National Register of Historic Places  
Continuation Sheet**

Section number 7 Page 1

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Great Hollow Road  
Stone Arch Bridge  
Grafton County, NH

Description (continued)

it spans the brook with a radius of 17 1/2 feet. The vault, 24 1/2 feet wide, is constructed of random granite rubble laid with a relatively tight and consistent mortar joint. The arch voussoirs are rock-faced ashlar measuring approximately 12 inches by 18 inches high with varying thickness or depths of the individual stone pieces.

It is not known conclusively if the 6 inches thick concrete caps that top the span's stone side walls are original to the structure or not. Presently the assumption is that they are not, and that they are instead more recent alterations made in an attempt to protect the masonry from weather and its destructive side effects. This assumption is based in part upon the knowledge, gleaned by old photographs, that the "sister" bridge to this one that spanned Mink Brook on the West Lebanon Road had masonry side walls capped only with flat surfaced granite blocks about 6" thick. Older area residents do not recall the concrete being original to the walls, rather recalling only flat stone pieces. Also, because there was no concrete used in this bridge's structural construction, unlike the sister bridge's reinforced concrete arch, it seems highly unlikely that concrete would have been introduced strictly for making caps to top these two side walls. Other than the apparent addition of these concrete caps, and the obvious paving of the road many years ago, the bridge presents itself as originally designed and constructed.

Great Hollow Road  
Stone Arch Bridge

Grafton County,  
New Hampshire

Name of Property

County and State

## 10. Geographical Data

Acreage of Property less than one

### UTM References

(Place additional UTM references on a continuation sheet.)

1 

1	8	7	2	2	9	9	0	4	8	4	0	6	0	0
Zone	Easting				Northing									

3 

Zone	Easting				Northing									

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.) (see attached)

## 11. Form Prepared By

name/title Frank J. Barrett, Jr., Town of Hanover Code Administrator  
Town of Hanover  
organization Municipal Building date March 11, 1996  
street & number 41 S. Main St., P.O. Box 483 telephone (603) 643-0711  
city or town Hanover state NH zip code 03755

### Additional Documentation

Submit the following items with the completed form:

#### Continuation Sheets

#### Maps

A USGS map (7.5 or 15 minute series) indicating the property's location.

A Sketch map for historic districts and properties having large acreage or numerous resources.

#### Photographs

Representative black and white photographs of the property.

#### 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 Town of Hanover  
street & number 41 S. Main St., P.O. Box 483 telephone (603) 643-0700  
city or town Hanover state NH zip code 03755

**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.

Great Hollow Road  
Stone Arch Bridge  
Name of Property

Grafton County  
New Hampshire  
County and State

### 8. Statement of Significance

#### Applicable National Register Criteria

(Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing.)

- A** Property is associated with events that have made a significant contribution to the broad patterns of our history.
- B** Property is associated with the lives of persons significant in our past.
- C** Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.
- D** Property has yielded, or is likely to yield, information important in prehistory or history.

#### Criteria Considerations

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

Property is:

- A** owned by a religious institution or used for religious purposes.
- B** removed from its original location.
- C** a birthplace or grave.
- D** a cemetery.
- E** a reconstructed building, object, or structure.
- F** a commemorative property.
- G** less than 50 years of age or achieved significance within the past 50 years.

#### Narrative Statement of Significance

(Explain the significance of the property on one or more continuation sheets.)

### 9. Major Bibliographical References

#### Bibliography

(Cite the books, articles, and other sources used in preparing this form on one or more continuation sheets.)

#### 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 # \_\_\_\_\_

#### Areas of Significance

(Enter categories from instructions)

TRANSPORTATION

#### Period of Significance

1914 - 1946

#### Significant Dates

1914

#### Significant Person

(Complete if Criterion B is marked above)

N/A

#### Cultural Affiliation

N/A

#### Architect/Builder

Town of Hanover

#### Primary location of additional data:

- State Historic Preservation Office
- Other State agency
- Federal agency
- Local government
- University
- Other

Name of repository:

United States Department of the Interior  
National Park Service

# National Register of Historic Places Continuation Sheet

Section number 8 Page 2

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Great Hollow Road  
Stone Arch Bridge  
Grafton County, NH

## Statement of Significance

The Great Hollow Road Stone Arch Bridge is eligible for the National Register under criteria A for transportation. It possesses integrity of location, setting, design, workmanship, materials, feeling, and association for the period 1914-1946, the date of construction to the 50-year cut-off. This durable and cost-effective bridge was constructed at a time when the Selectmen were coping with the need to replace the Town's aging wooden bridges with structures of greater permanence able to carry the increased loads of the automobile age. In addition, this crossing is an important one linking the Etna/Hanover Center/Mink Brook Valley with urban Lebanon. It is one of only two stone bridges in Town, the other being a 19th century bridge of pier and lintel construction.

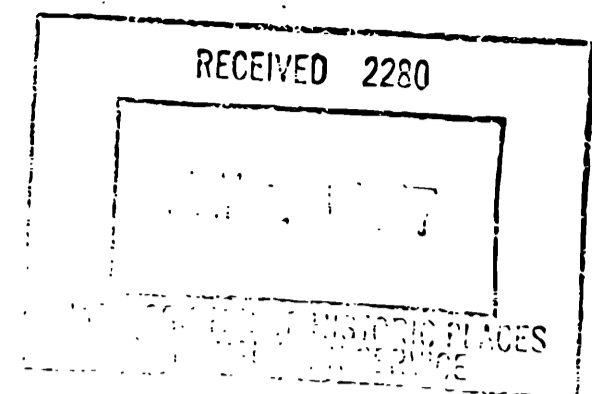
By the second decade of this century, the effects of the newly dawning automobile age were already starting to be felt on the nation's highways and bridges. Hanover, like most rural communities, was no exception and Town records from this period indicate that the Town's Selectmen were grappling with the problems of the community's aging wooden bridges and the increasingly heavier loads that were being placed on them. The 1915 Hanover Town Report, written after several of the major bridges on principle roads into Town had been replaced during the summer of 1914, summed up the situation well:

"The two bridges over Mink Brook on main highways, had long been in a poor condition. The requirements of modern automobile travel, road rollers, Standard Oil Co.'s wagons, and the unknown requirements for traction engines in the future called for unusually wide and strong bridges. The foundation and abutments of the old bridges were only of dry masonry, had been heaved by frost and were in such bad shape that entire rebuilding was necessary from the bottom up. The problem was to get permanent bridges, good for all the future, if possible."

Until comparatively recently, the principle highway access into the Dartmouth College and Hanover village area, coming from the south, was not present day NH Route 120, but rather Great Hollow Road coming from Lebanon, and then the Greensboro Road west to Lebanon Street. This route required crossing over Mink Brook immediately south of the Great Hollow Road's intersection with the Greensboro and Etna Roads.

**United States Department of the Interior  
National Park Service**

# **National Register of Historic Places Continuation Sheet**



Section number 8 Page 3

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Great Hollow Road  
Stone Arch Bridge  
Grafton County, New Hampshire

### Statement of Significance (continued)

With all this in mind, the Town Selectmen chose to simultaneously replace both the above referenced bridge, and the comparably aging structure crossing Mink Brook on the so-called West Lebanon Road (now NH Route 10), during the summer of 1914.

Wooden replacement bridges were ruled out of the question by the selectmen because of their lack of durability and maintenance costs. Therefore, the Town decided to receive cost estimates for spans constructed of heavy plate steel girders with concrete floors and abutments, a truly state-of-the-art bridge design for that time. However, this type of construction was determined to be out of the realm of possibility due to the high costs and a tight local budget.

Because Dartmouth College was offering the Town, free for the taking, the massive pieces of cut stone from the foundations of an old bank building that they were demolishing on North Main Street, the Selectmen then chose to consider constructing two stone arched bridges, one on the West Lebanon Road and the other on Great Hollow Road, both crossing Mink Brook. Once again, the Town took prices for the proposed work from outside contractors, and the price was still determined to be too high.

Therefore, the decision was made to employ local labor and talent, with the Town acting as its own contractor. As mentioned previously, the two spans were replaced during the summer months of 1914. The West Lebanon Road bridge ended up costing a total of \$3,171.50 and was constructed of dressed stone facing a 28 foot reinforced concrete arch. The Great Hollow Road bridge cost less at \$2,193.08, and was constructed totally of stone. The 1915 Town of Hanover Annual Report provides a detailed record of the cost of both bridges, as well as a brief report of the discussion by the Board of Selectmen that brought the new bridges into being titled "The Stone Bridges."

Of the two bridges, the West Lebanon Road span was short lived. In 1940, the State of New Hampshire relocated to the east and straightened that section of the road that runs across the lower area of Mink Brook and its meadows. The construction drawings dated March 2, 1940 called for its removal and a new stone bridge constructed approximately 100 feet easterly of the old road. Today, not a trace of the old span remains.

On the other hand, the Great Hollow Road bridge was far more fortunate. In the years following its construction, what is now referred to as NH Route 120, or locally know by the name Mount Support Road, became the primary road between Hanover and Lebanon. As a result, the overwhelming increase in traffic volumes that have occurred in recent years has not dictated this bridge's destruction and replacement. Hence, the structure remains not only as a remnant from early years of the automobile age, but also as an example of a type of bridge construction not very common even when originally constructed more than 80 years ago.

**United States Department of the Interior**  
**National Park Service**

# **National Register of Historic Places**

## **Continuation Sheet**

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Great Hollow Road Stone Arch Bridge  
Grafton County, NH

### **Bibliography:**

- \* Town of Hanover Annual Report, 1915
- \* A History of the Town of Hanover, N.H.; by John King Lord; The Dartmouth Press; 1928
- \* Hanover, New Hampshire, A Bicentennial Book; Essays in Celebration of the Town's 200th Anniversary; Edited by Francis Lane Childs; Hanover, 1961



**United States Department of the Interior  
National Park Service**

# **National Register of Historic Places Continuation Sheet**

Section number 10 Page 6

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Great Hollor Road  
Stone Arch Bridge  
Grafton County, NH

## Geographical Data

### Verbal Boundary Description:

Boundaries of the nominated property are limited to the bridge and its abutments.

### Boundary Justification:

The nominated property is limited to the bridge itself and the abutments upon which it was constructed.

United States Department of the Interior  
National Park Service

# National Register of Historic Places Continuation Sheet

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