

VLR 6/18/09

United States Department of the Interior
National Park Service

LISTED ON:
VLR 06/18/2009
NRHP 08/12/2009

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 any 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 Valley Railroad Bridge (over Gish Branch)
other names/site number 129-5023

2. Location

street & number 1002 Newman Drive not for publication n/a
city or town Salem vicinity N/A
state Virginia county Independent City code 775 zip code 24153

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended, I hereby certify that this x 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 x meets does not meet the National Register Criteria. I recommend that this property be considered significant nationally statewide x locally. (See continuation sheet for additional comments.)

[Signature] June 25, 2009
Signature of certifying official Date
Virginia Department of Historic Resources
State or Federal Agency or Tribal government

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

Signature of commenting official/Title Date

State or Federal agency and bureau

4. National Park Service Certification

I, hereby certify that this 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): _____

Signature of the Keeper

Date of Action

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5. Classification

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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

Contributing	Noncontributing
<u> 0 </u>	<u> 0 </u> buildings
<u> 0 </u>	<u> 0 </u> sites
<u> 1 </u>	<u> 0 </u> structures
<u> 0 </u>	<u> 0 </u> objects
<u> 1 </u>	<u> 0 </u> Total

Number of contributing resources previously listed in the National Register 0

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

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6. Function or Use

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Historic Functions (Enter categories from instructions)

Cat: Transportation Sub: bridge

Current Functions (Enter categories from instructions)

Cat: not in use Sub: _____

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7. Description

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Architectural Classification (Enter categories from instructions)

 no style

Materials (Enter categories from instructions)

foundation stone

roof _____

walls stone

other _____

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

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8. Statement of Significance

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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.)

- A owned by a religious institution or used for religious purposes.
- B removed from its original location.
- C a birthplace or a 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.

Areas of Significance (Enter categories from instructions)

Architecture

Period of Significance 1873

Significant Dates 1873

Significant Person (Complete if Criterion B is marked above) n/a

Cultural Affiliation n/a

Architect/Builder Menifee, Thomas K., engineer, The Mason Syndicate, builders

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

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9. Major Bibliographical References

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(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 # _____

Primary Location of Additional Data

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

Name of repository: Virginia Department of Historic Resources

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10. Geographical Data
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Acreage of Property less than one acre

UTM References (Place additional UTM references on a continuation sheet)

Zone Easting Northing	Zone Easting Northing	Zone Easting Northing	Zone Easting Northing
<u>17 584623 4128818</u>	2 <u> </u> <u> </u> <u> </u>	3 <u> </u> <u> </u> <u> </u>	4 <u> </u> <u> </u> <u> </u>

___ 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.)

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11. Form Prepared By
=====

name/title John R. Hildebrand, Salem Historical Society, and Michael J. Pulice, VDHR architectural historian
organization _____ date February, 2009
street & number [Hildebrand] 630 Dogwood Drive telephone (540) 389-3680
city or town Salem state VA zip code 24153

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Additional Documentation
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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)

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Property Owner
=====

(Complete this item at the request of the SHPO or FPO.)

name Mel Wheeler, Inc.
street & number 3934 Electric Road telephone (540) 774-9200
city or town Roanoke state VA zip code 24018

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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.). A federal agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number.

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**NATIONAL REGISTER OF HISTORIC PLACES
CONTINUATION SHEET**

**Valley Railroad Bridge
Salem, Virginia**

Section 7 Page 1

7. Summary Description

The Valley Railroad Bridge is a single-span, barrel-vaulted stone structure, constructed in 1873 over a small drainage called Gish Branch. Located north of the city center in Salem, Virginia, the bridge occupies a small wooded area on the south side of North Mill Road, surrounded by largely residential development, but also some undeveloped open spaces to the east. Currently, there are no roads or public access to the site, but it is hoped that creation of means of public access and on-site interpretation in the form of signage will be an outcome of National Register designation.

Detailed Description

Rather than being supported by arches under each side of a deck, the bridge structure is a semi-circular vaulted tunnel through a man-made earthen embankment, on top of which the railroad tracks were to be laid. The structure was built to carry trains over Gish Branch, allowing the branch to flow uninterrupted. The length of the vaulted structure is 69 feet, not counting the flared, stepped, wing walls at both ends. The span of the arch is 12 feet, and the keystones at each end of the barrel are 15 feet above the creek. The blocks of limestone, thought to have been quarried nearby, are squared, with roughly-dressed faces, and laid in distinct courses. The stones in the side walls are quite large, measuring up to 4½ feet long, 26 inches tall, and perhaps 2 or more feet wide. The voussoirs— stones within the vaulted ceiling— are smaller and more narrow in dimensions, appearing outwardly as uniform, almost square wedges. Outside the vault, the spandrel walls rise up to the rail bed, where a top course of limestone blocks, projecting slightly beyond the spandrel's vertical plane, creates a parapet rising above the rail bed. The roughly-dressed faces of the stones are a form of rustication, intended to give the structure an ancient appearance. The rusticated look was standard among the Valley Railroad's stone structures, many of which survive further north in the counties of Roanoke, Botetourt and Rockbridge, and are found today in various states of preservation/deterioration.

The Romans used similar arch bridges throughout Europe, many of which are still standing today due to their strong masonry materials and designs based on gravity and compression. In these compression arch bridges, the keystones bear the weight of everything above them. The greater the weight put onto the bridge, the stronger the overall structure becomes. The Gish Branch bridge, and indeed most masonry arch bridges, are built with a quantity of fill material, typically compacted rubble, above the arch in order to increase the dead weight and prevent tension from occurring as loads make their way across the bridge. Masonry arches tend to be quite durable and resistant to settlement or undermining. Because they are very heavy, they require extensive foundations, and were expensive to build.

Very few materials have greater compressive strength than cut stone. The surfaces of the stones used in the semicircular arches were dressed to make very tight joints with little to no mortar. The resistance to slipping between stones was provided by the compression force and the friction between the stone. Stone bridges were desirable in locations such as this, where there was danger of being washed out by flood waters. Because they were so strong and durable, stone arches were favored by railroads. In the nineteenth century, stone bridges could be built with locally available skills. Most Virginia communities had both carpenters, who were needed for the arched-shaped wooden forms called centerings, upon which the stones were laid, and masons who laid the stone.

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**Valley Railroad Bridge
Salem, Virginia**

Section 8 Page 2

8. Statement of Significance

Summary

The Valley Railroad Bridge in Salem, Virginia, is an architecturally significant remnant of an unrealized transportation scheme dating to the period of reconstruction following the Civil War. The Valley Railroad was never completed to Salem, therefore the bridge, constructed in 1873, never fulfilled its intended purpose. Nevertheless, it survives well intact as an artifact of a bygone era. Built at considerable expense, the bridge comprises a work of solid engineering and some of the very best stonework, of any period, found in the area. The bridge is essentially a barrel-vaulted tunnel through which flows a drainage known as Gish Branch, with the railroad grade crossing over the top. The stone was locally quarried and the structure erected by indigenous craftsmen. Though there are many other surviving stone structures from the Valley Railroad construction campaign, the bridge over Gish Branch is by far the most impressive example in the area, built on a larger scale than the others. It also remains in better condition than the other structures in the region south of Lexington, Virginia, about 60 miles north of the City of Salem. As such, it is eligible for listing in the National Register of Historic Places under Criterion C in the area of Architecture.

Historical Narrative

For the imposing dray gray limestone masonry arch bridge spanning Gish Branch City of Salem, its builders and purpose are obscured by the passage of time. It stands today as a reminder of the post-Civil War effort by the people of Roanoke County to partner with their fellow citizens in Staunton, Lexington and Rockbridge and Botetourt counties to build a railroad connecting the Baltimore and Ohio Railroad at Harrisonburg to the Virginia and Tennessee Railroad at Salem. The Gish Branch Bridge was part of that project, the 113 – mile Valley Railroad, chartered by the General Assembly in 1866 and organized on April 4 of that year in Staunton, Virginia.

The estimated cost of the project was \$5,700,000, funded through the sale of stock and a mortgage on its assets. Each of the local governments issued bonds to purchase the company's stock and was joined by the City of Baltimore, whose port would be one of the project's beneficiaries. The majority stockholder was the Baltimore and Ohio Railroad Company, allowing it to realize one of its long term objectives, expansion of its system into the South.

Funding of the project proceeded slowly, but in 1872 work was started on the 26 – mile Harrisonburg to Staunton segment and, by March 1874, trains were running between the two cities. During this period, a contract was awarded to the Mason Syndicate to build the Staunton to Salem segment in three years.

The Mason Syndicate was a railroad construction firm formed in the early 1850s by Claibourne Rice Mason, one of the extraordinary men of that period. Born about 1810, Mason had no formal education. His first significant project was the construction of a railroad to the Midlothian coal mines in 1831. In 1852, he built a 19 – mile crossing of the Blue Ridge at Rockfish Gap for the Virginia Central Railroad. That project featured the 1300-foot Blue Ridge Tunnel and, with Claudius Crozet, they tunneled the gap from each end, at that time a daring and unusual engineering feat.

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Mason served as Stonewall Jackson's "bridge builder" during the early stages of the Civil War and was later assigned the difficult task of maintaining the railroads in western Virginia, which were severely damaged on numerous occasions by Federal troops. Following the war, he reorganized his company, rebuilt the war-torn Virginia Central Railroad, and in 1872 built two of the most challenging projects on the extension of the Chesapeake and Ohio Railroad from Huntington, West Virginia, to Covington, Virginia: the Jerry Run embankment containing over 1.5 million yards of material and the 4000-foot Lewis Tunnel. These two projects, together with the Blue Ridge Tunnel, established Mason as one of the nation's outstanding civil engineers and railroad contractors. His firm continues today as Mason and Hanger, headquartered in Frankfort, Kentucky.

Mason divided the Staunton – Salem project into six sections, personally directing the first section south from Staunton. The remaining five sections were assigned to men who had worked together on projects far more difficult than the Staunton-Salem section. The Gish Branch Bridge was part of the 14-mile section assigned to Thomas K. Menifee. It began at the Botetourt County line and proceeded south through north Roanoke County to Salem, and the connection to the Atlantic, Mississippi and Ohio Railroad, successor to the Virginia and Tennessee Railroad. Like Mason, Menifee was a self-made man without a formal education. Born in 1833 or 1834, his father died when he was 11 and he went to work for a railroad contractor as a cart driver. By the age of 16, he had become a superintendent for that company and, in 1858, was sent to Brazil as superintendent of the company's railroad construction project for the Brazilian government. In 1861 the Confederate government appointed him superintendent of the iron mines in Botetourt County. Following the war, he returned to railroad construction, working with Mason on the Cumberland and Tennessee Railroad and the Chesapeake and Ohio extension.

Menifee and the other members of the Mason Syndicate began work on their assigned sections immediately on award of the contract by the Valley Railroad's Chief Engineer, James L. Randolph, on May 20, 1873. By late November, 1874, Menifee had made excellent progress. The roadbed had been brought to grade from the Botetourt county line to where it crossed present day Thompson Memorial Drive, just south of Gish Branch in Salem. Masonry drainage structures and bridges for the completed portions of the roadbed had been completed at all but the major stream crossings, Carvins, Peters and Mason Creeks.

It was at this time that the Valley Railroad's officers were forced to suspend work. Bond issues had not been fully subscribed, private investors had not stepped forward and there was no interest by financial institution in the proposed mortgage. The Valley Railroad was insolvent, a victim of the September 1873 national financial panic and the resulting nation-wide depression which lasted until 1877. The work between Salem and Lexington was abandoned.

Today, the Gish Branch Bridge is an important part of the Roanoke Valley's railroad heritage. It is the largest of the three remaining arch structures built by Menifee, the other structures and much of the completed roadbed destroyed by the widening of Route 117 between Interstate 581 and Williamson Road, U. S. Route 11 and by residential development.

The Gish Branch Bridge represents a tribute to the people of Staunton, Lexington, Rockbridge, Botetourt and Roanoke counties, who organized and committed their financial resources to the success of the Valley Railroad, and to the

engineers, contractors and workmen committed to its construction. Theirs was not a failed enterprise, but a worthy example for this and future generations of a willingness to undertake a daunting task during the most difficult of times, the period

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following the Civil War. The Gish Branch Bridge is also a mirror, proving a unique insight into railroad planning, design and construction practices of the late 19th century. As shown on the accompanying illustrations, the work was labor intensive and required the effort of many skilled and unskilled workers using horses and mules. They used construction techniques tested over geographic and chronological distances. The number of workmen required could not be filled by local labor and the Mason Syndicate used immigrant Irishmen and freed African American slaves, affording them their first opportunity for a better way of life.

9. Bibliographical References

Hildebrand, John R., *Iron Horses in the Valley, The Valley and Shenandoah Valley Railroads, 1866 – 1882*, Shippensburg, Pennsylvania, Burd Street Press; Roanoke, Virginia, History Museum and Historical Society of Western Virginia; Salem, Virginia, Salem Historical Society, 2001, 53 – 55, 68, 69 73, 74, 78, 86.

Virginia Department of Historic Resources files on Valley Railroad resources in Roanoke, Botetourt and Rockbridge counties.

10. Geographical Data

Verbal Boundary Description

The nominated parcel is a small, roughly square area of less than one acre, with boundary measuring 110 feet at the north and south extents and 100 feet on the east and west extents. The nominated parcel lies entirely within Salem tax parcel 58-1-1 (Deed Book reference 45-28).

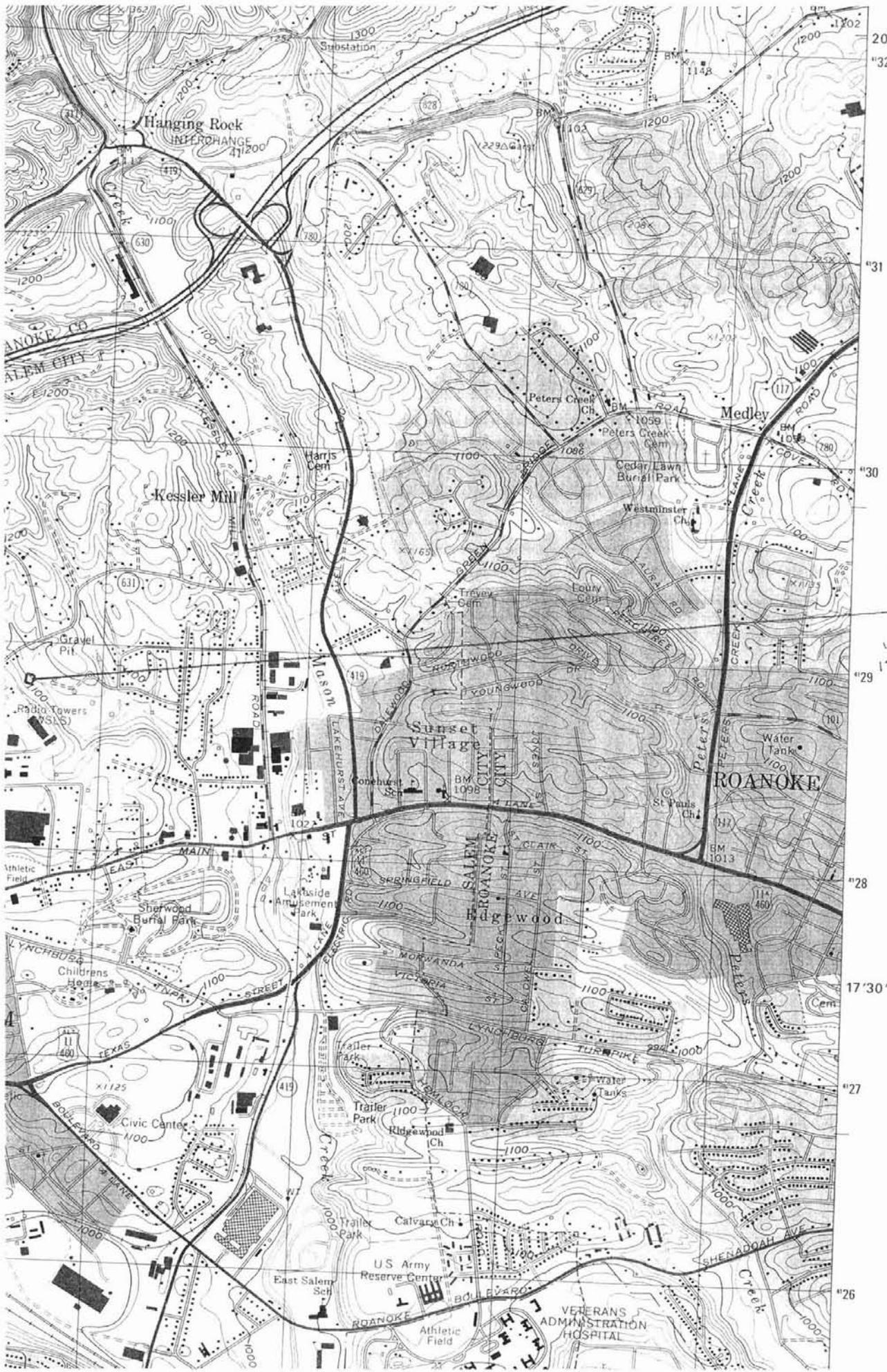
Boundary Justification

The nominated boundary corresponds to the historical parcel associated with the bridge.

Photo List

Photos of: Valley Railroad Bridge
Location: Salem, Virginia
Photo date: January 21, 2009
Photographer: Michael J. Pulice

1. Bridge, facing north.
2. Bridge, facing south.
3. Barrel vault within bridge structure.



VALLEY RAILROAD
BRIDGE
SALEM, VA

UTM:
17/584623/4128818