

Maryland Historical Trust

Maryland Inventory of Historic Properties number: F-II-34 F-2-34

Name: US SOFOL B&O RR & POTOMAC BRIDGE

The bridge referenced herein was inventoried by the Maryland State Highway Administration as part of the Historic Bridge Inventory, and SHA provided the Trust with eligibility determinations in February 2001. The Trust accepted the Historic Bridge Inventory on April 3, 2001. The bridge received the following determination of eligibility.

<b>MARYLAND HISTORICAL TRUST</b>	
Eligibility Recommended <input checked="" type="checkbox"/>	Eligibility Not Recommended <input type="checkbox"/>
Criteria: <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D	Considerations: <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E <input type="checkbox"/> F <input type="checkbox"/> G <input type="checkbox"/> None
Comments: _____	
Reviewer, OPS: <u>Anne E. Bruder</u>	Date: <u>3 April 2001</u>
Reviewer, NR Program: <u>Peter E. Kurtze</u>	Date: <u>3 April 2001</u>

*Handwritten mark*

MARYLAND INVENTORY OF HISTORIC BRIDGES  
HISTORIC BRIDGE INVENTORY  
MARYLAND STATE HIGHWAY ADMINISTRATION/  
MARYLAND HISTORICAL TRUST

MHT No. ~~F-H-34~~ F-2-34

SHA Bridge No. 10017 Bridge name US 15 over B&O RR and Potomac River

**LOCATION:**

Street/Road name and number [facility carried] US 15

City/town Point of Rocks Vicinity X

County Frederick

This bridge projects over: Road  Railway  Water  Land

Ownership: State  County  Municipal  Other

**HISTORIC STATUS:**

Is bridge located within a designated historic district? Yes  No   
National Register-listed district  National Register-determined-eligible district   
Locally-designated district  Other

Name of district \_\_\_\_\_

**BRIDGE TYPE:**

Timber Bridge \_\_\_\_\_:  
Beam Bridge \_\_\_\_\_ Truss -Covered \_\_\_\_\_ Trestle \_\_\_\_\_ Timber-And-Concrete \_\_\_\_\_

Stone Arch Bridge \_\_\_\_\_

Metal Truss Bridge

Movable Bridge \_\_\_\_\_:

Swing \_\_\_\_\_ Bascule Single Leaf \_\_\_\_\_ Bascule Multiple Leaf \_\_\_\_\_  
Vertical Lift \_\_\_\_\_ Retractable \_\_\_\_\_ Pontoon \_\_\_\_\_

Metal Girder \_\_\_\_\_:

Rolled Girder \_\_\_\_\_ Rolled Girder Concrete Encased \_\_\_\_\_  
Plate Girder \_\_\_\_\_ Plate Girder Concrete Encased \_\_\_\_\_

Metal Suspension \_\_\_\_\_

Metal Arch \_\_\_\_\_

Metal Cantilever \_\_\_\_\_

Concrete \_\_\_\_\_:

Concrete Arch \_\_\_\_\_ Concrete Slab \_\_\_\_\_ Concrete Beam \_\_\_\_\_ Rigid Frame \_\_\_\_\_

Other \_\_\_\_\_ Type Name \_\_\_\_\_

**DESCRIPTION:****Describe Setting:**

Bridge 10017, built in 1939, carries U.S. Route 15 over the Potomac River and the B&O Railroad near Point of Rocks in Frederick County, Maryland. The Potomac River flows in a northwest to southeast direction at this location. The bridge is set in a heavily wooded area. The deck supports two lanes of traffic oriented northeast to southwest.

**Describe Superstructure and Substructure:**

The main superstructure consists of eight steel camelback through trusses. Each truss has eight panels measuring 20'-72" each for a span length of 165'. All vertical and diagonal members are I-shaped. The top chords and both end posts are back to back channels with cover plates. The bottom chords are back to back channels without cover plates. All stringers and floorbeams in the floor system are I-shaped. All connections are riveted. In addition, this bridge has five approach spans at the northeast end of the bridge which span 34'-0", 54'-0", 54'-0", 83'-0", and 63'-6", and one approach span at the southwest end of the bridge which spans 90'-0". The approach structure consists of a concrete slab and steel girder system. The original deck was 7" deep reinforced concrete slab with a 24'-0" clear roadway and two 3'-0" clear sidewalks. The substructure is comprised of five three-column reinforced concrete piers within the approach spans, nine pier wall type reinforced concrete piers within the main eight spans, and a reinforced concrete abutment at each end of the bridge.

**Discuss Major Alterations:**

In 1978 the deck of the bridge and parapets were replaced with an 8" reinforced concrete deck with Jersey type parapet walls and a 3' sidewalk on the east side of the bridge. The new deck provides 29' of clear roadway width for two lanes of traffic.

**HISTORY:**

**WHEN was bridge built (actual date or date range)** 1939

**This date is:** Actual  Estimated \_\_\_\_\_

**Source of date:** Plaque \_\_\_\_\_ Design plans \_\_\_\_\_ County bridge files/inspection form

**Other (specify)** \_\_\_\_\_

**WHY was bridge built?** To provide a reliable crossing of US 15 over the Potomac River, to meet local and regional transportation needs.

**WHO was the designer** \_\_\_\_\_

**WHO was the builder** \_\_\_\_\_

**WHY was bridge altered?** [check N/A \_\_\_\_\_ if not applicable] Structural needs/safety \_\_\_\_\_

**Was bridge built as part of organized bridge-building campaign?** Yes  No \_\_\_\_\_

This bridge was built under the aegis of the State Roads Commission as part of the Good Roads Movement.

**SURVEYOR/HISTORIAN ANALYSIS:**

**This bridge may have National Register significance for its association with:**

A - Events  B- Person \_\_\_\_\_

C- Engineering/architectural character

**Was bridge constructed in response to significant events in Maryland or local history?** No\_\_ Yes

If yes, what event?

This bridge was one of a small but significant number of metal truss bridges erected in Maryland from the 1920s through the 1940s. Its heavy, solid construction reflects continuing advances in metal truss technology and fabrication early in the century, and the almost unyielding reliability of substantial trusses for major crossings. Such bridges were built throughout the state during the period, particularly in the early 1930s, as part of the Good Roads Movement promoted by the State Roads Commission. Many of them retain plaques indicating that they were built under the aegis of the Commission, even though they were designed by private bridge building firms. Two other bridges of similar size and scale are located in Frederick County, bridges 10018 (1934) and 10055 (1932).

**When the bridge was built and/or given a major alteration, did it have a significant impact on the growth & development of the area?** No  Yes  **If yes, what impact?**

Because of their solidity and reliability, metal truss bridges with heavy members such as the US 15 bridge were often utilized in Maryland from the 1920s through the 1940s at long crossings. Multi-lane facilities carrying major thoroughfares, they had not only a significant impact on local growth, but facilitated regional residential, commercial, agricultural, and industrial development.

**Is the bridge located in an area which may be eligible for historic designation?** No  Yes   
**Would the bridge add to \_\_\_\_\_ or detract from \_\_\_\_\_ historic & visual character of the possible district?**

**Is the bridge a significant example of its type?** No  Yes  **If yes, why?**

Between 1840 and the Civil War, under the impetus of a rapidly expanding railroad system, the majority of early American metal truss bridge forms were patented and introduced. In Maryland, the earliest metal truss bridges carried rail lines, which required their great strength and reliability. From the War through the end of the century, metal truss technology was improved, steel began to replace iron, and the use of trusses was expanded to carry roads as well as rail lines.

Numerous metal truss bridges were erected in Baltimore, the original hub of the metal truss in the state, from the 1850s through the 1880s. From Baltimore, the use of the metal truss spread out to other parts of the state, particularly the Piedmont and Appalachian Plateau. Many bridge and iron works were established in the eastern United States to design and fabricate truss members, which were then shipped to sites in Maryland and elsewhere to be erected. More than 15 different bridge companies located in Maryland, Ohio, Pennsylvania, New York, Virginia, and Indiana are known to have shipped metal truss bridges to sites throughout Maryland. Bridges were first fabricated in Maryland, and shipped to sites within the state and beyond, by the companies of seminal bridge designer Wendel Bollman.

Early in the twentieth century, concrete bridges began to compete with metal truss bridges throughout the state at small to moderate crossings. With the development of uniform standards for concrete bridges by the State Roads Commission in the 1910s, the construction of smaller metal truss bridges significantly declined throughout the state. The metal truss still remained the bridge of choice for large crossings, however. In the 1920s, heavier members began to be used at these bridges. Reflecting even heavier load requirements and increased lengths, metal truss bridges erected in the state in the 1930s and 1940s were heavy and solid, rather than light and delicate like their late-nineteenth- and early-twentieth-century predecessors.

The Pratt truss bridge, Maryland's most common surviving early truss type, was patented in 1844 by Thomas and Caleb Pratt. The Pratt has diagonals extended across one panel in tension and verticals in compression, except for hip verticals immediately adjacent to the inclined end posts of the bridge. Between 1868 and 1871 a subtype, the Parker truss, was developed in a series of patents filed by C.H. Parker. The Parker truss is a Pratt truss with an inclined rather than horizontal top chord. A variant of the Parker, the Camelback truss has a polygonal top chord consisting of exactly five slopes. It was popular for through truss spans from its late-nineteenth-century inception through the mid-twentieth century. Examples in Maryland include bridges 1048 (1932) in Allegany County, 7055 (1932) in Cecil County, and 10017 (1939) in Frederick County.

This bridge was erected during one of the three key periods (1840-1860, 1860-1900, and 1900-1960) of bridge construction in Maryland. Built in 1939, it falls within the period 1900-1960. During this era, metal truss highway bridges became increasingly standardized. Also during this period, smaller and

moderate length trusses were gradually replaced by reinforced concrete structures, and the modern metal girder bridge, which could easily be widened, replaced the metal truss bridge at all but the largest approaches and crossings. Built after 1930, it characterized by heavy solid members, rather than the relatively delicate members that characterized its late-nineteenth- and early-twentieth-century predecessors.

**Does bridge retain integrity [in terms of National Register] of important elements described in Context Addendum? No  Yes  If no, why?**

**Is bridge a significant example of work of manufacturer, designer and/or engineer? No  Yes  If yes, why?**

In the early twentieth century, metal truss bridges were largely supplanted in the state by concrete and, later, metal girder structures. The old metal fabricators disappeared during this period. They were replaced, in the 1920s and 1930s, by a new if less numerous generation of metal truss fabricators. Among the new bridge companies active in Maryland was the Roanoke Iron and Bridge Company, the McClintic-Marshall Company, and the American Bridge Company. It was likely built by one of these three companies or one of their competitors.

**Should bridge be given further study before significance analysis is made? No  Yes**

It is believed that no further evaluation is necessary to determine the eligibility of this imposing eight-span bridge for listing in the National Register. However, additional research, which could be conducted as part of any future National Register nomination prepared for the bridge, might provide further information about its history and environs.

#### **BIBLIOGRAPHY:**

Bridge inspection reports and files of the Maryland State Highway Administration.

County survey files of the Maryland Historical Trust.

Jackson, Donald H. *Great American Bridges and Dams*. Washington, D.C: The Preservation Press, 1968

P.A.C. Spero & Company and Louis Berger & Associates, Inc. *Historic Bridges in Maryland: Historic Context Report*. Prepared for the Maryland State Highway Administration, September, 1994.

Pennsylvania Historical and Museum Commission and Pennsylvania Department of Transportation. *Historic Highway Bridges in Pennsylvania*. Commonwealth of Pennsylvania, 1986.

State inventory form F-II-37

#### **SURVEYOR/SURVEY INFORMATION:**

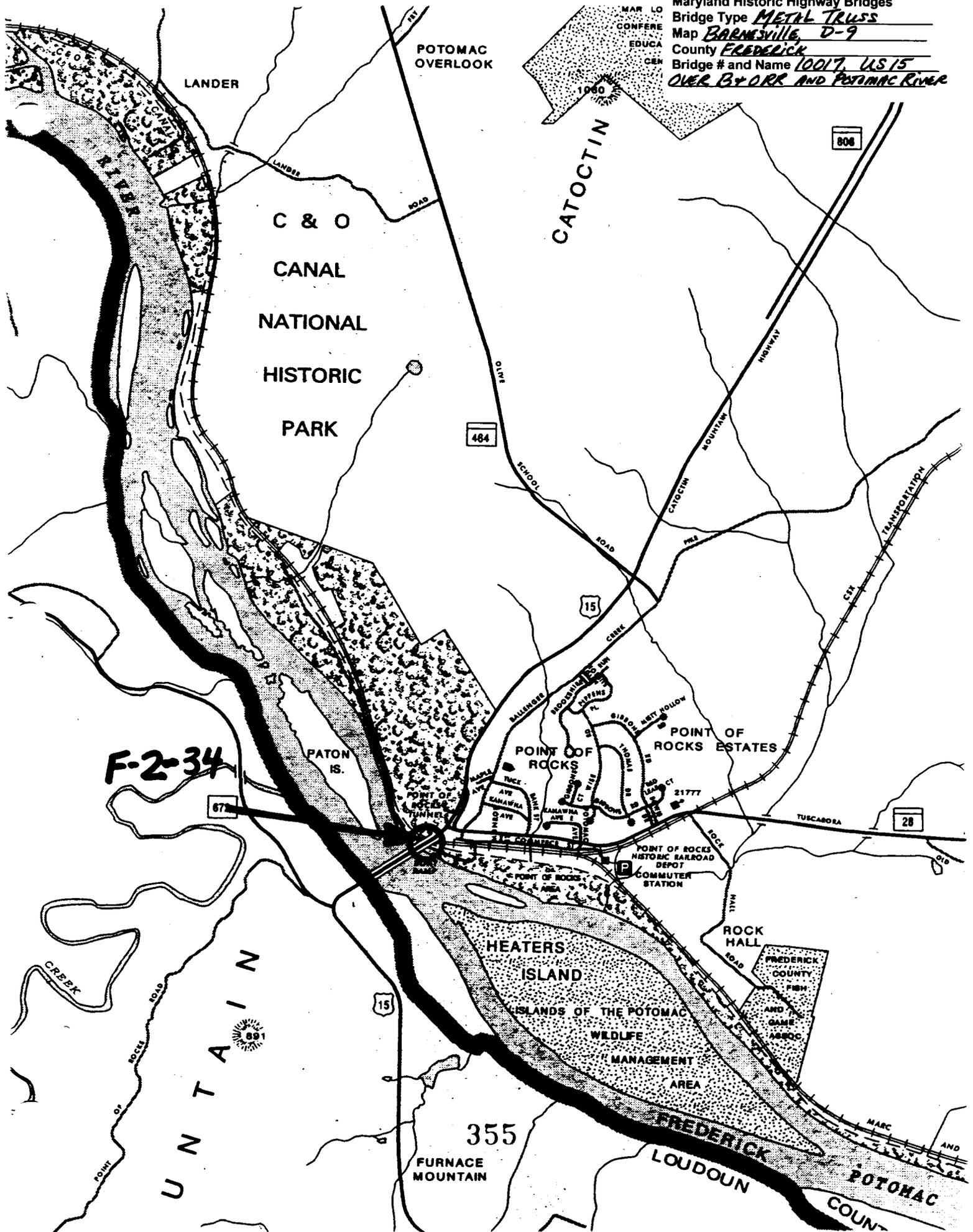
**Date bridge recorded** 1/31/95

**Name of surveyor** Frank Juliano/Marvin Brown

**Organization/Address** GREINER, INC., 2219 York Road, Suite 200, Timonium, Maryland 21093-3111

**Phone number** 410-561-0100 **FAX number** 410-561-1150

Maryland Historic Highway Bridges  
Bridge Type METAL TRUSS  
Map BARNESVILLE, D-9  
County FREDERICK  
Bridge # and Name 10017, US 15  
OVER BY ORR AND POTOMAC RIVER





Inventory # F-2-34

Name 10017-US 15 OVER B&O RR, POTOMAC RIVER

County/State FREDERICK COUNTY/MO

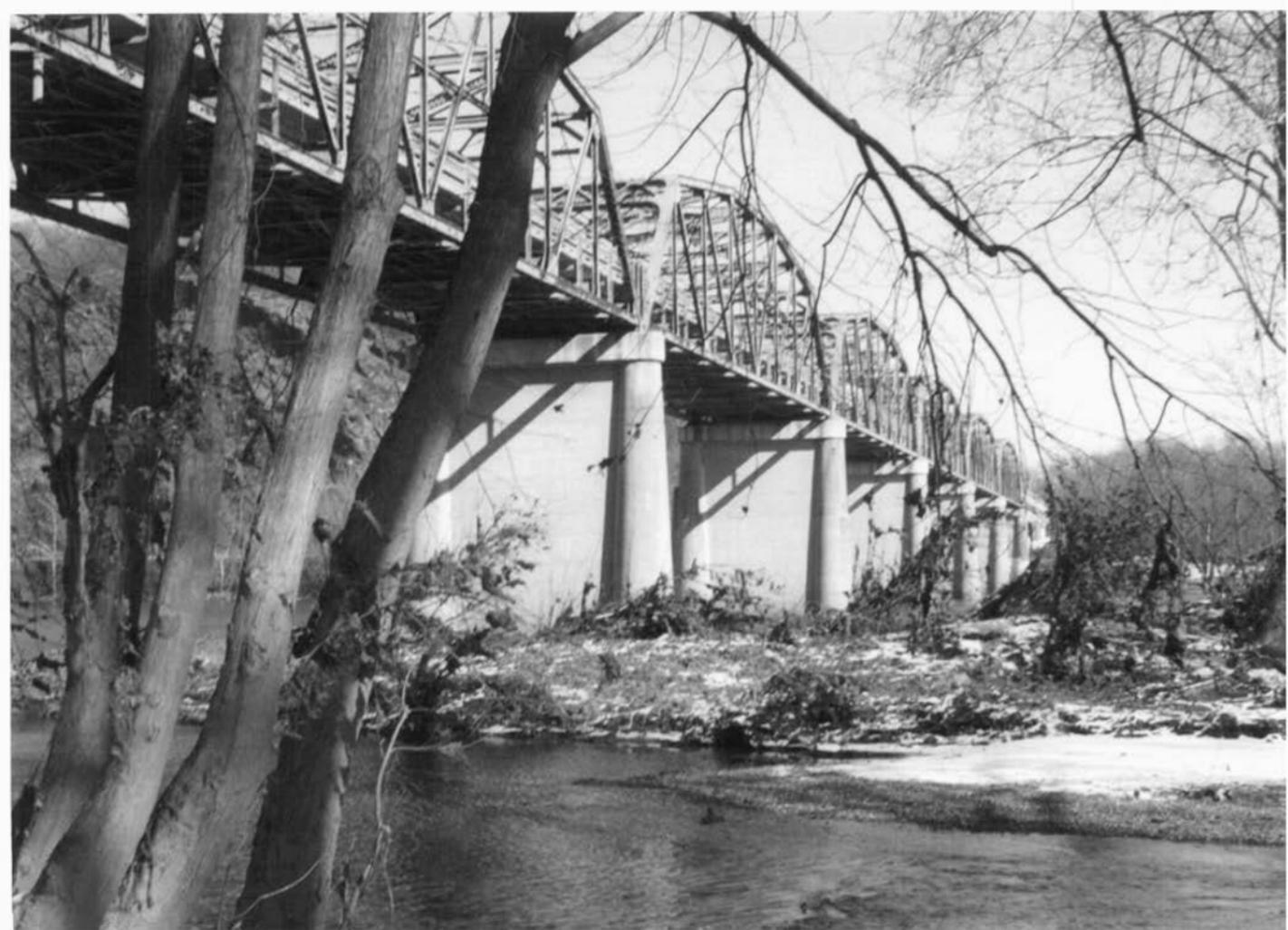
Name of Photographer FRANK JULIANO

Date 1/95

Location of Negative SHA

Description ELEVATION LOOKING EAST

Number 1 of 36<sup>4</sup>



Inventory # F-2-34

Name WOODT-US IS OVER B&O RR, POTOMAC RIVER

County/State FREDERICK COUNTY/MD

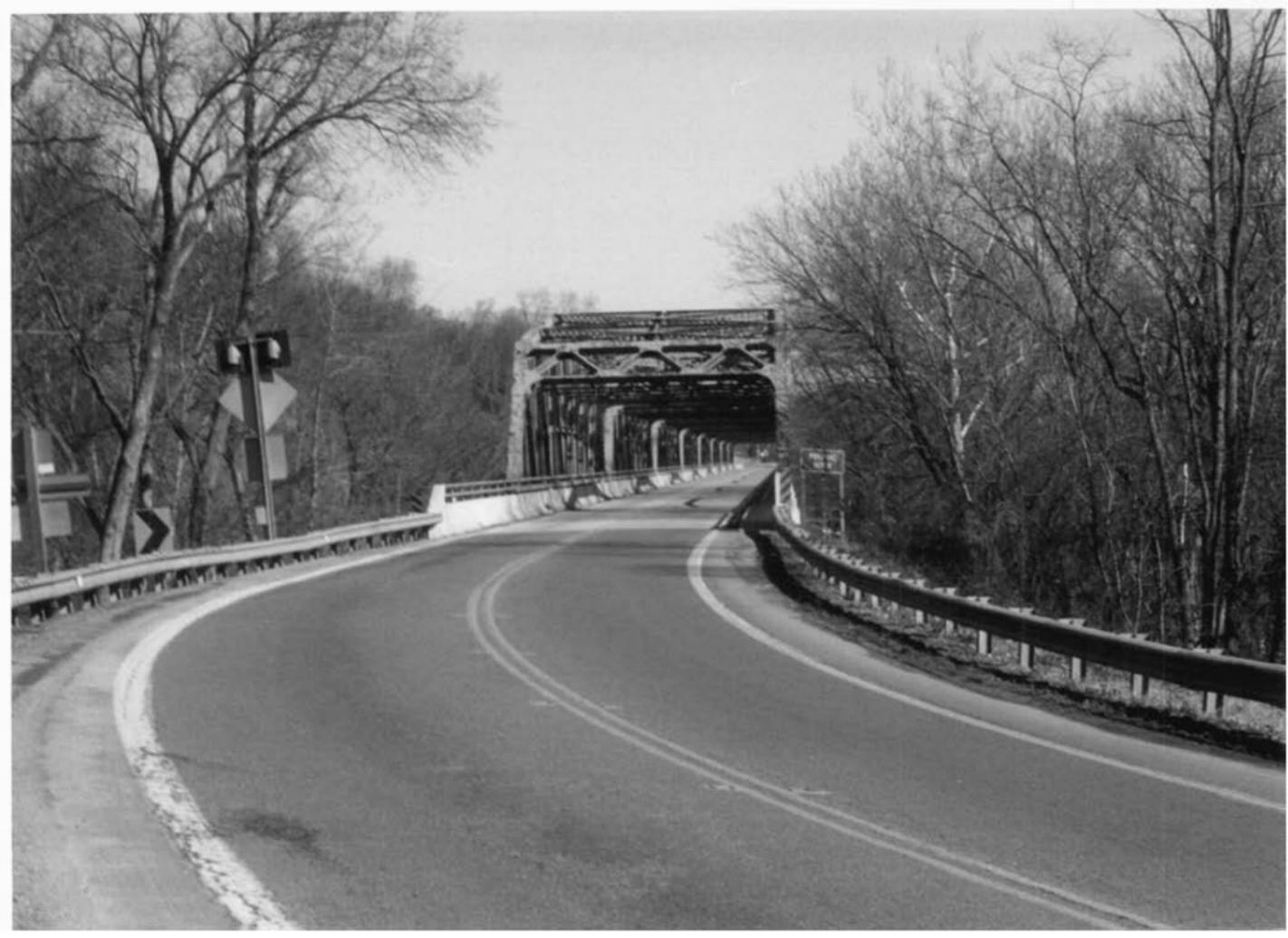
Name of Photographer FRANK JULIANO

Date 1/95

Location of Negative SNA

Description ELEVATION LOOKING WEST

Number 2 of 36



Inventory # F-2-34

Name 10017-US 15 OVER BERRY POTOMAC RIVER

County/State FREDERICK COUNTY/MD

Name of Photographer FRANK JULIANO

Date 1/95

Location of Negative SHA

Description SOUTH APPROACH

Number 3 of 364



Inventory # F-2-34

Name 10017-US IS OVER BELORR, POTOMAC RIVER

County/State FREDERICK COUNTY/MD

Name of Photographer FRANK JULIANO

Date 1/95

Location of Negative SHA

Description NORTH APPROACH

Number 4 of 36 4

F-2-34

1930's

US 15/Potomac River Bridge  
Point of Rocks vicinity  
public (unrestricted)

This bridge, which carries US Route 15 over the Potomac River near Point of Rocks, Maryland, consists of eight steel camelback through trusses, each 165 feet in length. The trusses are set end-to-end, and their junctures rest on a series of concrete piers.

Many of the bridges spanning the Potomac River are among the most impressive in the state, and this bridge is one of them. The US 15/Potomac River Bridge is one of six historic truss bridges -- part of Maryland's state road system in Frederick County, and one of 26 bridges of the same structural type throughout the state road network -- identified by the Maryland Historical Trust for the Maryland Department of Transportation in a jointly conducted survey which took place during 1980-81.



**7 DESCRIPTION**

<b>CONDITION</b>		<b>CHECK ONE</b>	<b>CHECK ONE</b>
<input type="checkbox"/> EXCELLENT	<input type="checkbox"/> DETERIORATED	<input checked="" type="checkbox"/> UNALTERED	<input checked="" type="checkbox"/> ORIGINAL SITE
<input checked="" type="checkbox"/> GOOD	<input type="checkbox"/> RUINS	<input type="checkbox"/> ALTERED	<input type="checkbox"/> MOVED    DATE _____
<input type="checkbox"/> FAIR	<input type="checkbox"/> UNEXPOSED		

DESCRIBE THE PRESENT AND ORIGINAL (IF KNOWN) PHYSICAL APPEARANCE

This bridge, which carries U.S. 15 across the Potomac River near Point of Rocks, Maryland, consists of eight steel camelback through trusses, 165' each in length, set end to end, their junctures resting on concrete piers. The route of the 24' roadway is generally NE and SW over the bridge.

The deck of the bridge has been recently upgraded into a concrete roadbed with concrete parapet walls and tubular steel guard rails, with a pedestrian walk along the downriver flank. The portal bracing of the individual trusses is of triangular trusses, a modified warren truss, of heavier members than the rest of the sway bracing. All connections are riveted.

CONTINUE ON SEPARATE SHEET IF NECESSARY

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 checked="" type="checkbox"/> ENGINEERING	<input type="checkbox"/> MUSIC	<input type="checkbox"/> THEATER
<input type="checkbox"/> 1800-1899	<input type="checkbox"/> COMMERCE	<input type="checkbox"/> EXPLORATION/SETTLEMENT	<input type="checkbox"/> PHILOSOPHY	<input checked="" type="checkbox"/> TRANSPORTATION
<input checked="" 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

 BUILDER/ARCHITECT
 

---

STATEMENT OF SIGNIFICANCE

The Potomac River Bridges are among the most impressive in the state, and this one is typical of them. See M/DOT survey general bridge significance, attached.

 CONTINUE ON SEPARATE SHEET IF NECESSARY
 

---

**9 MAJOR BIBLIOGRAPHICAL REFERENCES**

Files of the Bureau of Bridge Design, State Highway Administration,  
301 West Preston Street, Baltimore, Md, drawer 92.  
  
Condit, Carl, American Building Art, 20th Century; New York  
Oxford University Press, 1961.

CONTINUE ON SEPARATE SHEET IF NECESSARY

**10 GEOGRAPHICAL DATA**

ACREAGE OF NOMINATED PROPERTY \_\_\_\_\_  
Quadrangle Name: Point of Rocks, MD  
Quadrangle Scale: 1:24 000  
UTM References: 18.280420.4349960

VERBAL BOUNDARY DESCRIPTION

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

STATE	COUNTY
STATE	COUNTY

**11 FORM PREPARED BY**

NAME / TITLE	
John Hnedak/M/DOT Survey Manager	
ORGANIZATION	DATE
Maryland Historical Trust	1980
STREET & NUMBER	TELEPHONE
21 State Circle	(301) 269-2438
CITY OR TOWN	STATE
Annapolis	Maryland 21401

The Maryland Historic Sites Inventory was officially created by an Act of the Maryland Legislature, to be found in the Annotated Code of Maryland, Article 41, Section 181 KA, 1974 Supplement.

The Survey and Inventory are being prepared for information and record purposes only and do not constitute any infringement of individual property rights.

RETURN TO: Maryland Historical Trust  
The Shaw House, 21 State Circle  
Annapolis, Maryland 21401  
(301) 267-1438

## GENERAL BRIDGE SIGNIFICANCE

The significance of bridges in Maryland is a difficult and subtle thing to gauge. The Modified significance criteria of the National Register, which are the standard for these judgements in Maryland, as in most states, must be broadly applied to allow for most of these structures. In particular the 50 year rule which specifies a minimum age for structures can be waived, and is more commonly done so for engineering structures than for others. Questions of uniqueness and typicality, exemplary types, etc., must set aside for now, because they presuppose a wider knowledge of the entire resources than is presently available. Indeed, this survey is an initial step toward understanding the extent to which Maryland's bridges are part of her cultural resources. Aesthetic considerations may have to be side-stepped entirely, for such structures as these are generally considered mundane and ordinary at best, and sometimes a negative landscape feature, by the layman. It does take a specialized aesthetic sense to appreciate such structures on visual grounds, but a case for visual significance can be made. The remaining criteria are those of historical associations. The relative youth of most of these structures precludes a strong likelihood of participation to events and lives of import. The best generalization can be made for most bridges is that they are built on site of early crossings, developing from fords and ferries through covered bridges and wooden trusses to their present state. This significance inheres in the site, however, and in most cases would not be diminished by the absence of the present structure.

These criteria may also be addressed positively. The primary significance of these bridges, those which were built between the two World Wars, consists in their association with rapidly changing modes and trends in transportation in America during the period. The earliest of them saw the appearance of the automobile and its rise as the preeminent means of getting Americans from place to place. Roads were being improved for increased speeds and capacity, and bridges, as potential weak links on the system, became particularly important. The technology for producing them was not new, and would not change significantly during the period. Accordingly, great numbers of easily, quickly and relatively cheaply built concrete slab, beam and arch bridges were built to span the small crossings, or were multiplied to cover longer crossings where height was no problem.

Truss bridges with major structural members of compound beams, of either the Warren or Pratt types, while more expensive and considered more intrusive on the landscape, were built to span the larger gaps.

With an aesthetic which allowed concrete slab bridges to have classical balustrades, or the application of a jazz-age concrete relief; with the considerable variety possible in the construction of medium sized metal trusses; and with the lack of nationwide standards for highway bridge design, the resulting body of structures displays considerable variety. The sameness of appearance of currently produced highway bridges leads one to believe this variety will not reappear. For that reason alone it is wise to keep watch over our existing bridges. Regardless of ones taste and aesthetic preference, one must be admitted that these older bridges add their variety and visual interest to the environment as a whole, and that it is often the case that their replacement by a standard highway bridge results in a visual hole in the landscape.

In situations requiring decisions of potential effect on these structures, they should receive some consideration. As the recording and subsequent understanding of Maryland's Cultural resources grows, they will be recognized as a significant part of that heritage.

It should be noted that two non-negligible classes of structure have been omitted from this set. The first is the huge number of concrete slab or beam bridges of an average of twenty feet or less in length. These are so nearly ubiquitous and of such minor visual impact (they are often easy to drive across without noticing) that they were not inventoried. They are considered in the general recommendations section of the final report of this survey, however.

The second category is that of the "great" bridges, the huge steel crossings of the major waterways. While they are awesome and aesthetically appealing, they are not included in this inventory because they do not share the problems of their more modest counterparts. They do not lack for recognition, they have not been technologically outmoded, and are in no danger of disappearing through replacement. In a sense, they are not as rare; hundreds of

these great bridges are known nationally, and there is little doubt as to the position of any one bridge within national spectrum. There seems little point in including them with the larger inventory of bridges. From an arbitrary point of view, their dates are outside the 1935 limit which we set for the consideration of bridges. We have departed from that limit on occasion, but will not in this case. These bridges, too, will be considered in the final report.

Moveable bridges deserve a special note regarding their significance. They are rare, and all but the most recent of them have been listed by this survey by virtue of that fact alone. They are, by their nature as intermittent impediments to the smooth flow of traffic, threatened. We rarely tolerate disruptions to what we perceive as our progress. This has been demonstrated recently by the replacement of the drawbridge at Denton, on one of the major routes to the Atlantic Coast from the rest of Maryland.

However much we are inconvenienced by them, we must admit that moveable bridges contribute a share of interest to the landscape. As with significance judgements in general, we here enter a realm which is governed by taste and opinion. Some of us might not enjoy being forced to sit back for a while to look at the surroundings which we would otherwise totally ignore, especially if the engine is in danger of boiling over. But there are those who are fascinated by the slow rise of a great chunk of roadway, moved by quiet, often invisible machinery; who are amused by the tip of the mast which skims the top of the temporary wall; or who reflect on the nobility inherent in a river and the fact that we have not subdued every waterway with our autos, while knowing that we can if we want to.









F-II-34

US 15/Potomac

M/DOT

Hnedak/Meyer

Summer 1980