

Maryland Historical Trust

Maryland Inventory of Historic Properties Number: AL-IV-A-153

Name: MD 942 OVER N. BRANCH POTOMAC RIVER (1066)

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 bridged received the following determination of eligibly.

<b>MARYLAND HISTORICAL TRUST</b>	
Eligibility Recommended <u>  X  </u>	Eligibility Not Recommended <u>      </u>
Criteria: <u>  A  </u> <u>  B  </u> <u>  C  </u> <u>  D  </u>	Considerations: <u>  A  </u> <u>  B  </u> <u>  C  </u> <u>  D  </u> <u>  E  </u> <u>  F  </u> <u>  G  </u> <u>None</u>
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 scribble]*

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

MHT No. AL-IV-A-153

Name and SHA No. Blue Bridge - No. 1066 (MD) & 1897 (WVA)

**Location:**

Street/Road name and number [facility carried] Maryland Route 942 (Johnston Street) over North Branch

City/town Cumberland Vicinity \_\_\_\_\_

County Allegany

This bridge projects over: Road \_\_\_\_\_ Railway \_\_\_\_\_ Water X Land \_\_\_\_\_

Ownership: State X County \_\_\_\_\_ Municipal \_\_\_\_\_ Other \_\_\_\_\_

Is bridge located within a designated historic district? Yes \_\_\_\_\_ No X  
National Register-listed district \_\_\_\_\_ National Register eligible district \_\_\_\_\_  
Locally-designated district \_\_\_\_\_ Other \_\_\_\_\_  
Name of District \_\_\_\_\_

**Bridge Type:**

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

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

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 X

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

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

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

**Description:****Describe Setting:**

*The Blue Bridge carries Maryland Route 942 (Johnson Street) over the North Branch of the Potomac River in a general North-South direction. The bridge carries two opposing lanes of traffic with a roadway width of 28'-0" (+/-). The structure is centered on a 500' (+/-) vertical curve. It is located in an urban commercial and industrial district in Cumberland, Maryland which it connects to West Virginia 28 at Ridgeley, West Virginia.*

**Describe Superstructure and Substructure:****(Discuss points identified in Context Addendum, Section C)**

*The Blue Bridge is a two span, double steel, tied arch structure. The flanking arches are solid ribbed and are connected by three rows of overhead double 'x' bracing. The deck is supported by steel suspenders. The bridge is 315' (+/-) in length, out to out backwalls, with a clear roadway width of 28' (+/-). There are flanking exterior sidewalks, each 5'-1" (+/-) in width, and supported by two rolled floorbeams. The reinforced concrete deck is supported by five rolled floor beams and is topped with a bituminous wearing surface. There is a 3' (+/-) open grate floor which fronts each sidewalk at the gutter level.*

*The riveted arches consisting of a A-7 steel are identical and symmetrical being 156' (+/-) in length, center to center pins, and have a 28' (+/-) rise at midspan from center of arch to center of bottom chord. The bottom chord consists of a six pinned tie bar connections and these members are fracture critical. The arches are divided into seven segments of approximate equal length by the suspenders. The arch members consist of rolled beam section and built plate and angle sections.*

*The arches are supported by pinned bearings consisting of raised rockers and shoes. The bridge has a sliding plate roadway joint configuration at the abutments and a finger joint at the pier, both consisting of structural steel.*

*The substructure units are all reinforced concrete and are unique in that they are centered on a short dam or weir which is 23' (+/-) below the top of pier. The abutments are full cantilevered gravity type abutments with wingwalls and a front tapered face. The central pier is a solid shaft with matching tapered faces.*

*There is a 10" (+/-) diameter water main and a 6" (+/-) gas main under the upstream sidewalk and three 4" (+/-) telephone conduits under the downstream sidewalk. There are four overhead lights on the bridge. Adjacent to each sidewalk is a three pipe member railing system fronting the center of the arch. The original design was modified to include a top, thin bar as well.*

*There is a historic plaque on the bridge entitled "George Washington's Crossing."*

*The last inspection report of November 2, 1995 rated the bridge in poor condition. All concrete surfaces and fine cracking with the sidewalks being very deteriorated with spalling. Floorbeams in the vicinity of the open grating area were severely rusted with holes evident in the web areas. The concrete at the grating was failing as well.*

**Discuss major alterations:**

*The bridge underwent major renovations in 1996 which included the removal of the open grate deck portions with a reinforced concrete deck with scuppers, replacement of both sidewalks, replacement of the sidewalk floorbeams, replacement of two exterior roadway floorbeams, addition of new floorbeams under the new slab at curb edge, installation of a trough under the finger joint and repainting of entire structural steel. The bridge was to be repainted in 1993, but the contractor was removed from the job for substandard work. At this time the fracture critical eyebars were inspected for defects.*

**History:**

**When Built:** 1954, 1995

**Why Built:** Unknown

**Who Built:** Unknown, rehabilitated by Orfanos Contracting

**Who Designed:** Ned Wroe, longtime engineer for the Bureau of Bridge Design, State Highway Administration. Rehabilitated by Rod Thornton, BIRE.

**Why Altered:** To repair deteriorated bridge members

**Was this bridge built as part of an organized bridge building campaign:** No. This bridge does not appear to have been built as part of an organized bridge building campaign.

**Surveyor Analysis:**

**This bridge may have NR significance for association with:**

A Events       B Person  
 C Engineering/Architectural Character

**Was bridge constructed in response to significant events in Maryland or local history?**

*No. The Blue Bridge was not constructed in response to significant events.*

**When the bridge was built and/or given a major alteration, did it have a significant impact on the growth and development of the area?**

*Yes. When the Blue Bridge was built, it had a significant impact on the growth and development of Cumberland in that it provided a link with West Virginia as well as spurring the development of this area as well.*

**Is the bridge located in an area which may be eligible for historic designation and would the bridge add to or detract from the historic and visual character of the possible district?**

*No. The bridge is not located in an area which may be eligible for historic designation. The bridge would not detract from an area of possible nomination, but since the bridge is much newer than the existing structures in the area it would not be a contributing element either.*

**Is the bridge a significant example of its type?**

*The Blue Bridge is the only tied arch in the State of Maryland and reportedly the only bridge in Maryland for years that was painted blue. However the bridge is not a unique design and may have been copied from a 190's AISC design publication as was done with other bridges of this genre.*

*The Blue Bridge is significant under criterion C, as one of only a few metal arch bridges remaining in Maryland. Although the bridge is less than 50 years old, it may meet criterion of consideration G, as an example of an award winning AISC bridge design*

**Does the bridge retain integrity of important elements described in Context Addendum?**

*Yes. Although rehabilitated in 1996, the bridge retains its integrity since its character defining elements were not altered. Members were replaced with ones similar to the originals. The only difference in the old and the newly rehabilitated bridge is the addition of a new floorbeam at each curb edge and the removal of the open grate in the same area.*

**Is the bridge a significant example of the work of the manufacturer, designer, and/or engineer and why?**

*No. Although this type of bridge is rare in the State of Maryland, its design is not significant. During this period several award winning AISC bridges whose designs were available in short books by that agency were duplicated by the Bureau of Bridge Design to fit appropriate locations. Although this was not verified at the time this form was prepared, this could be substantiated in the future.*

**Should this bridge be given further study before significance analysis is made and why?**

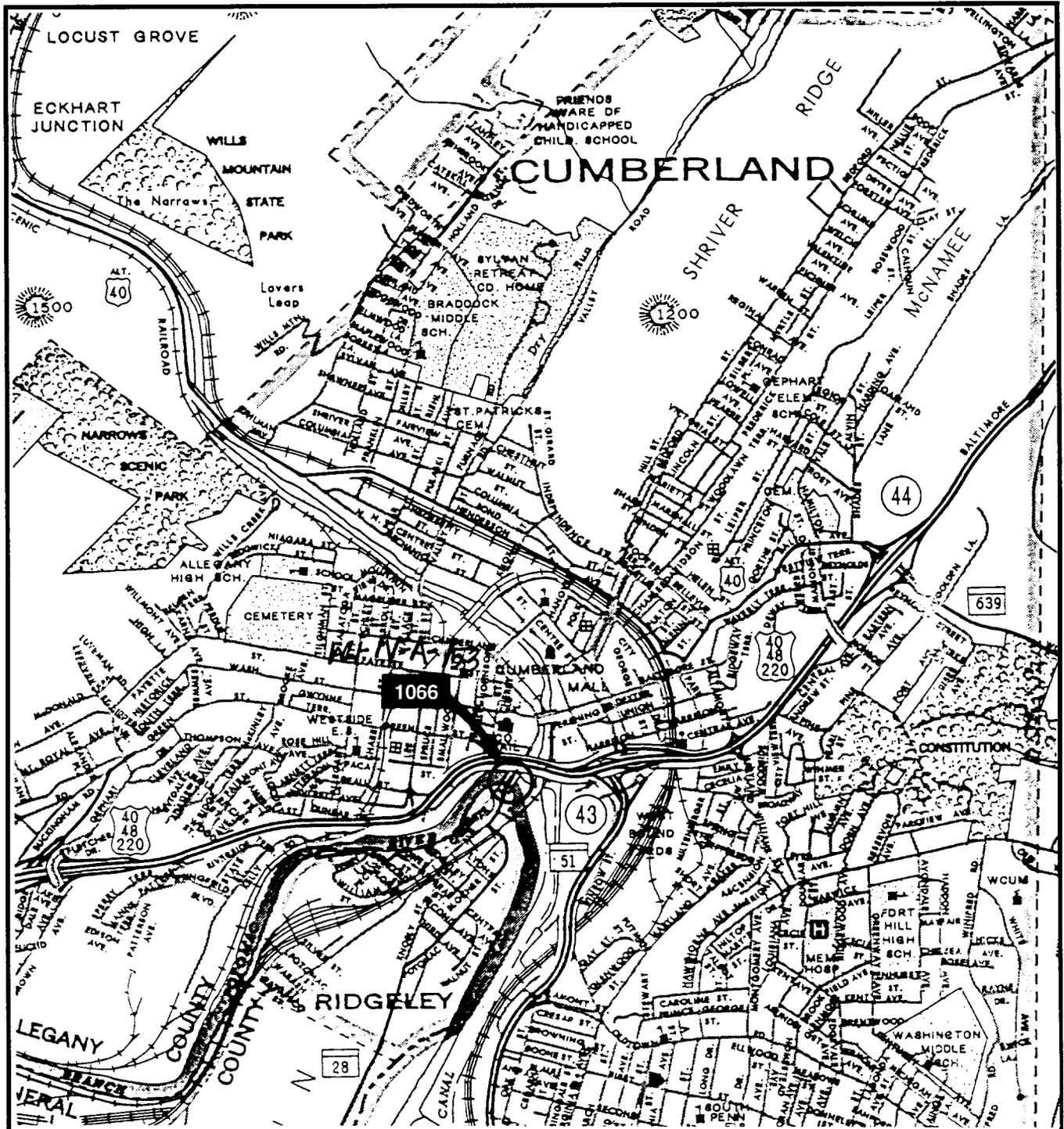
*Yes. Further study of this bridge may provide an answer to the question of whether this bridge was duplicated from an award winning AISC design from 1954.*

**Provide black and white prints and negatives and color slides of bridge, details, and setting labeled according to NR Bulletin 16A and Maryland Supplement to Bulletin 16A.**

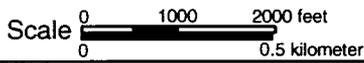
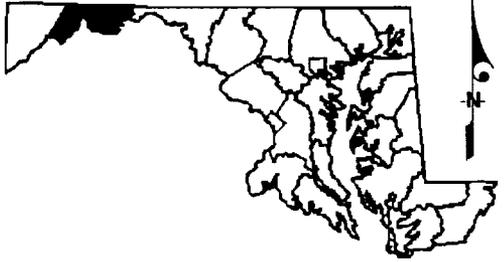
**Provide a photocopy of USGS map illustrating the location of the bridge.**

**Surveyor:**

<b>Name:</b>	<u>James T. Aguirre</u>	<b>Date:</b>	<u>08/06/96</u>
<b>Organization:</b>	<u>State Highway Administration Environmental Section, Project Planning</u>		
<b>Address:</b>	<u>707 North Calvert Street</u>	<b>Telephone:</b>	<u>(410) 545-8559</u>
	<u>Baltimore, Maryland 21201</u>		



**Allegheny County - Bridge Number 1066**  
 MD 942 over North Branch Potomac River  
 (Ridgeley Avenue Bridge)  
*(Determined National Register eligible by Interagency Review Committee)*





AL-IV-A-153  
Blue Bridge (200)

Allegheny County, Maryland

David Berg

8/97

Maryland State Highway Administration

North Elevation

1 of 6



AZ-IV-A-153

Blue Bridge (1066)

Allegheny County, Maryland

David Berg

8/97

Maryland State Highway Administration

South Elevation

2 of 6



AK-IV-A-153

Blue Bridge (1066)

Allegheny County, Maryland

David Berg

8/97

Maryland State Highway Administration

West Elevation

3 of 6



AL-IV-A-153

Blue Bridge (1066)

Allegheny County, Maryland

David Berg

8/97

Maryland State Highway Administration

East Elevation

4 of 6

COMMISSIONERS OF THE DISTRICT OF COLUMBIA

BUILT 1900



STATE OF WEST VIRGINIA  
WILLIAM S. MARLAND  
GOVERNOR

STATE BOAT COMMISSIONER  
W. S. BRITTON, COMMISSIONER

GEORGE W. WALTON  
STATE ENGINEER

L. J. JOHNSON  
BOAT ENGINEER

H. M. BURN  
DISTRICT ENGINEER



STATE OF MARYLAND  
THEODORE S. WHEELER  
GOVERNOR

STATE BOAT COMMISSIONER  
EMMEL S. WELSH, CHAIRMAN

EDGAR T. BARNETT  
COMMISSIONER

DAVID W. KELLY  
COMMISSIONER

WILLIAM W. BRITTON  
BOAT ENGINEER

WALTER A. GARY JR.  
DISTRICT BOAT ENGINEER

WALTER A. GARY JR.  
DISTRICT BOAT ENGINEER



CORPS OF ENGINEERS  
U.S. ARMY  
WASHINGTON DISTRICT

CITY OF WASHINGTON

ROY H. KERR, MASTER

H. S. BRIDGES  
COMMISSIONER OF STREETS

H. S. BRIDGES  
CITY ENGINEER

AL-IV-A-153

Blue Bridge (1066)

Allegheny County, Maryland

David Berg

8/97

Maryland State Highway Administration

Plaque on West Wall

5 of 6



AK-IV-A-153

Blue Bridge (1066)

Allegheny County, Maryland

David Berg

8/97

Maryland State Highway Administration

Detail, East Elevation

6 of 6