Maryland Historical Trust

Maryland Inventory of Historic Properties number: AA-2183

Name: MD 178 over Severn Run

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.

MARYLAND HISTORICAL TRUST

Eligibility Recommended _____ Eligibility Not Recommended __X____

Criteria: ____A ____B ____C ____D Considerations: ___A ___B ___C ___D ___E ___F ___G __None

Comments:_____

Reviewer, OPS: Anne E. Bruder Date: 3 April 2001

Reviewer, NR Program: Peter E. Kurtze Date: 3 April 2001

MARYLAND INVENTORY OF HISTORIC BRIDGES **MHT No.** AA-2183
HISTORIC BRIDGE INVENTORY
MARYLAND STATE HIGHWAY ADMINISTRATION/
MARYLAND HISTORICAL TRUST

SHA Bridge No. 2066 **Bridge name** MD 178 over Severn Run

LOCATION:
Street/Road name and number MD 178 (General's Highway)

City/town Severn (Crownsville) **Vicinity** X

County Anne Arundel

This bridge projects over: Road __ **Railway** __ **Water** X **Land** ___

Ownership: State X **County** __ **Municipal** ___ **Other** __

HISTORIC STATUS:
Is bridge located within a designated historic district? Yes ____ No X
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 __ **Retractile** ___ **Pontoon** ____

Metal Girder ___ :
Rolled Girder ____ **Rolled Girder Concrete Encased** ____
Plate Girder ____ **Plate Girder Concrete Encased** ____

Metal Suspension ____

Metal Arch ____

Metal Cantilever _____

Concrete X :
Concrete Arch X **Concrete Slab**___ **Concrete Beam** ____ **Rigid Frame** ___

Other _____ **Type Name** _____

DESCRIPTION:
Describe Setting:

Bridge 2066 carries MD 178 over Severn Run in Anne Arundel County. MD 178 runs in a northeast-southwest direction and crosses Severn Run, which flows east-west. MD 178 is a main corridor between Baltimore City and Annapolis, with moderate commercial and residential development. However, at this junction there is limited development. The area surrounding the bridge is wooded with no homes in view of the bridge. I-97 runs parallel to MD 178 and diverts most of the traffic from this area.

Describe Superstructure and Substructure:

Bridge 2066 is a single span filled spandrel concrete arch bridge built in 1933. The bridge is 43 feet long with a clear span measuring 41 feet at the springline. The bridge has a rise of 18 feet from springline to crown. The northern wingwalls are 37 feet wide and the southern are 27 feet wide. The spandrel walls are 20 feet wide with a 2-inch cove molding on the intrados and a 1-inch angle strip along the extrados. There is a clear roadway width of 50 feet, with an overall width of 53 feet 10 inches.

According to a 1995 inspection report, the concrete arch has 4 fine vertical cracks on each side with light efflorescence. The southern side of the arch also has one slight vertical crack that is 12 feet form the eastern terminus of the arch. The crack is approximately 12 feet long. There are also small honeycombs scattered about the entire arch, and several spots exhibit rust stains. Overall, the bridge is in good condition and has a sufficiency rating of 96.8.

Bridge 2066 has modern parapets. The original parapets were removed and replaced with Jersey barriers in 1989. The parapets extend for 107 feet along either side of the existing reinforced concrete arch bridge and wingwalls. The parapets are 2 feet 10 inches high with a ¾ inch preformed expansion joint. The new joints are located at the location of the former joints. The new parapets are 2 feet 2inches wide with a 1 foot 4 ¾ inch molded cap. The parapets are of varying lengths between the joints. Over the arch itself, the sections are 21 feet. The lengths over the northern and southern wingwalls are 37 feet and 31 feet, respectively. The parapets are recent and in excellent condition with only scattered fine vertical cracks.

Discuss Major Alterations:

In 1988, the original parapets were replaced on Bridge 2066 as part of the extension of I-97 from MD 178 to south of Brightview Drive. The original parapets were designed using 1928 standards for parapets. On the original plans, detailed solid parapets were placed over the wingwalls and 13 to 1 open parapets on the span itself.

HISTORY:

WHEN was bridge built (actual date or date range) 1933
This date is: Actual X **Estimated** ____
Source of date: Plaque ____ **Design plans** ___X__ **County bridge files/inspection form** _____
Other (specify)

WHY was bridge built? Reconstruction and widening of the General's Highway from 15 feet to 20 feet to eliminate several dangerous curves around the Severn Run.

WHO was the designer? State Roads Commission

WHO was the builder? State Roads Commission

WHY was bridge altered? In 1988, the improvements were needed to access roads to accommodate the completion of I-97.

Was bridge built as part of an organized bridge-building campaign?

No, this bridge was not built as part of an organized bridge-building campaign.

SURVEYOR/HISTORIAN ANALYSIS:

This bridge may have National Register significance for its association with:
A - Events ___ B- Person ___
C- Engineering/architectural character ____

This bridge was determined not eligible by the Interagency Review Committee in February 1996.

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

This bridge was built on a well-established road when the State Roads Commission widened the route to eliminate dangerous curves. MD 178 is also known as the General's Highway. The road received its nickname because of its historic travelers. In December of 1783 General George Washington resigned his commission as Commander and Chief of the Continental Armies before a Congressional Assembly in Annapolis. Tradition has it that General William Smallwood and Horatio Gates met Washington en route to attempt to dissuade him from resigning. When that attempt failed, they settled on escorting him to the State House. This route was the terminus of the north-south route to Annapolis from northern Virginia and present-day Washington, D.C. In addition, travelers from Baltimore to Annapolis also traveled this route to the state's capital. Therefore, this route dates to the state's pre-Revolution infrastructure. The current bridge replaced a pre-existing timber structure.

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

In 1932 when the General's Highways was widened and upgraded, the road was a very important route between Baltimore and Annapolis. These were the two most important cities in the state. The route dates to the state's pre-Revolutionary infrastructure. The 1932 upgrading of this highway only facilitated the natural growth along any corridor connection 2 major destination points. This included residential and commercial development during the 1940s and 1950s. Today, I-97 bypasses this corridor and serves as the major connection between the two cities. However, suburban sprawl continues along General's Highway.

Is the bridge located in an area that may be eligible for historic designation?

No, the bridge is not located in an area that is eligible for historic designation.

Is the bridge a significant example of its type?

No, this bridge is not a significant example of a single span concrete arch bridge built during the 1910 to 1940 key period of significance. During this era, reinforced concrete structures were characterized by the increasing standardization of small slab, beam frame, and culvert spans. Special subtypes of reinforced concrete bridges, such as the Luten arch, open spandrel ribbed arch, the rigid frame bridge, and concrete beams were introduced and built as grade crossing elimination structures.

The as-built plans for bridge 2066 state that the bridge should be built to State roads Commission Specifications, dated June 1931. It is important to note that the State Roads Commission during this time did no have specific plans for every standard arch. However, the engineers did have design specifications for the concrete, the reinforcement bar, the parapets, and the expansion joints. It was only a matter of course for the engineer to determine the load and traffic conditions along with the environmental confines, and then to design a standard arch bridge.

The primary character defining elements of a concrete arch are the arch ring, the barrel, the spandrel walls, the railing, the abutments, the wingwalls, and any identifying plaques. In 1988, the bridge lost one of the most visual of these elements, the parapets. The loss of the parapets placed the integrity of the bridge in jeopardy.

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

The bridge does not retain integrity of the character defining features of a concrete arch.

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

No, this bridge has lost integrity and no longer represents the State Roads Commission's effort from 1910 until 1945 to eliminate dangerous one-way timber bridges.

Should bridge be given further study before significance analysis is made?

No, this bridge should not be given further study.

BIBLIOGRAPHY:

County inspection/bridge files ____ **SHA inspection/bridge files** X **Other (list):**

SURVEYOR/SURVEY INFORMATION:

Date bridge recorded 12/18/95
Name of surveyor Stacie Webb
Organization/Address State Highway Administration, 707 North Calvert Street, Baltimore, MD
Phone number 410-333-3439 **Fax Number** 410-333-1105
Edited by P.A.C. Spero & Company, December 1997

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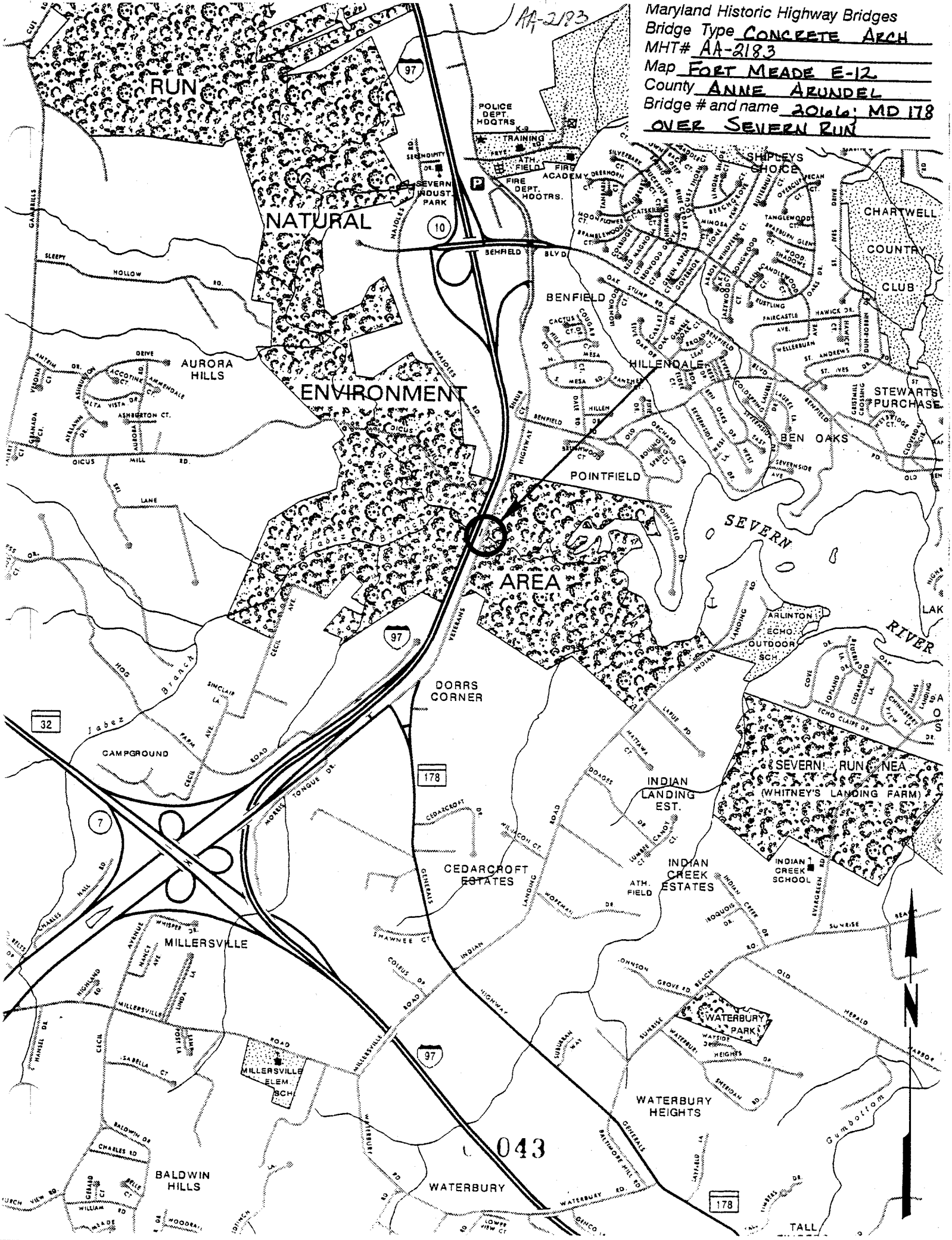
Maryland Historic Highway Bridges
Bridge Type CONCRETE ARCH
MHT# AA-2183
Map FORT MEADE E-12
County ANNE ARUNDEL
Bridge # and name 20166; MD 178 OVER SEVERN RUN



Inventory # AA-2183

Name 20066- MD 178 OVER SEVERN RUN

County/State ANNE ARUNDEL COUNTY /MD

Name of Photographer WALLY KING

Date 1/95

Location of Negative SHA

Description NORTH ELEVATION

Number 1 OF 2

Inventory # AA-2183

Name 2066- MD 178 OVER SEVERN RUN

County/State ANNE ARUNDEL COUNTY/MD

Name of Photographer WALLY KING

Date 11/95

Location of Negative SHA

Description SOUTH ELEVATION

Number 2 OF 2