Maryland Historical Trust

Maryland Inventory of Historic Properties Number: AA-2118

Name: MD 2 over Marley Creek (2007)

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.

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 PROPERTIES **MHT NO. AA-2118**
HISTORIC BRIDGE INVENTORY
MARYLAND STATE HIGHWAY ADMINISTRATION
MARYLAND HISTORICAL TRUST

NAME AND SHA NO.: 2007

LOCATION

Road Name and Number: MD 2 over Marley Creek
City/Town: Glen Burnie _ vicinity
County: Anne Arundel

Ownership: X State _ County _ Municipal _ Other

Bridge projects over: _ Road _ Railway X Water _ Land

Is bridge located within designated district?: _ yes X no
___ NR listed district _ NR determined eligible district
___ locally designated _ other
Name of District _

BRIDGE TYPE

__ Timber Bridge
__ Beam Bridge __ Truss-Covered __ Trestle __ Timber-and-Concrete

__ Stone Arch Bridge

__ Metal Truss Bridge

__ Moveable 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

X Concrete
_ Concrete Arch _ Concrete Slab X Concrete Beam _ Rigid Frame
_ Other Type Name ___

DESCRIPTION

Describe the Setting:

Bridge #2007 carries MD 2 over Marley Creek in Glen Burnie, Anne Arundel County, in Maryland's Tidewater or Coastal Plain physiographic region. Route 2 runs in a generally northeast to southeast direction at this location; Marley Creek flows roughly northeast to southwest. The immediate area is relatively undeveloped.

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

Bridge #2007 is a single-span, reinforced concrete T-beam bridge which carries two lanes of traffic running in each direction over Marley Creek. Route 2 in that location consists of a divided highway with a wide grass median strip. Built in 1936, the bridge measures 32 feet in total length with a clear roadway width of 24'-0" in each direction. The structure is comprised of a single span measuring 32 feet long; the superstructure is made up of 22 concrete girders spaced at 6'-3" +/- with a 7" +/- concrete deck. There is approximately 3'-7" of earth fill over the concrete deck. The substructure components are plain concrete gravity-type abutments on spread footings. The overall width of the structure is 123'-10" +/1.

A survey of historic concrete beam bridges undertaken by the Maryland State Highway Administration in the Fall of 1995 identified 113 bridges of that type located throughout the state. Slightly more than two-thirds (76) of that total were single-span bridges.

Discuss major alterations:

A vertical crack in the south abutment, which probably formed due to settlement as well as loads exceeding the maximum bearing capacity, was detected in 1985 and was subsequently repaired with an injection of epoxy in 1987 and 1992. The repairs in 1992 were completed by Structa-Bond of Maryland, Inc. Modern guardrails were also added at an undetermined date.

HISTORY

When Built: 1936
Why Built: Statewide road improvement programs and local transportation needs
Who Built: State Roads Commission, contract #AA 210-311
Who Designed: Unknown; design based on 1935 SRC and AASHO specifications
Why Altered: The bridge was altered to repair settlement cracks and to restore the bearing capacity of the two concrete girders at the upstream end.
Was this bridge built as part of an organized bridge building campaign?: No

SURVEYOR ANALYSIS

This bridge may have NR significance for association with:

_ A (Events) _ B (Person) _ C (Engineering/Architectural Character)

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

Road improvements in Anne Arundel County were fueled by several events occurring during the early twentieth century. First, the Good Roads Movement, which began in the last decade of the nineteenth century, aimed to improve primary roads throughout the state as well as multiple connecting roads between counties. As the movement progressed, numerous existing roads were widened, straightened, or graded, and many new bridges were built to carry the rebuilt roads. Second, rapidly increasing automobile, truck, and bus traffic also fueled the replacement of existing narrow and weak bridges with wider and stronger concrete structures, many of which were built according to standardized specifications and plans developed by the State Roads Commission (SRC). Third, the State Roads Commission established district engineering offices during the 1910s to aid in intrastate road development, and established a separate bridge department in 1920. This fostered construction of many concrete bridges throughout the state. In the 1920s, the SRC emphasized improving the safety and comfort of primary routes while developing secondary networks and feeder roads. By the 1930s, bridges that were originally deemed adequate had become unacceptable for carrying modern traffic loads and many new structures were built as a result.

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?

Bridge #2007 participated in the general trend toward upgrading state roads and bridges and improving intrastate access.

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

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

Is the bridge a significant example of its type?

No, this structure is not a significant example of its type. The character defining elements are either somewhat deteriorated or have been compromised by modern additions.

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

No, the bridge does not retain integrity of the primary character defining elements of a concrete beam bridge. The character-defining elements for the superstructures of concrete beam bridges are the slab, the longitudinal beams, and the parapet or railing when integral. For the substructure, the character-defining elements are the abutments, piers, and wing walls.

The south abutment was badly cracked due to settlement and was repaired in 1992 with an injection of epoxy. Modern metal guard rails were added on the east and west elevations.

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

No, this structure is not a significant example of the work of the State Roads Commission. According to the original drawings for this bridge dating to 1935, this bridge was built to 1935 standard specifications for concrete beam bridges.

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

No, this structure should not be given further study. Previous alterations place its integrity in doubt.

BIBLIOGRAPHY

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

State Highway Administration
Bridge Inspection Reports. On file 707 North Calvert Street, Baltimore.

As-Built Drawings. On file 707 North Calvert Street, Baltimore.

State Roads Commission of Maryland
1958 *A History of Road Building in Maryland.* Baltimore.

SURVEYOR INFORMATION

Name: Gabrielle M. Lanier
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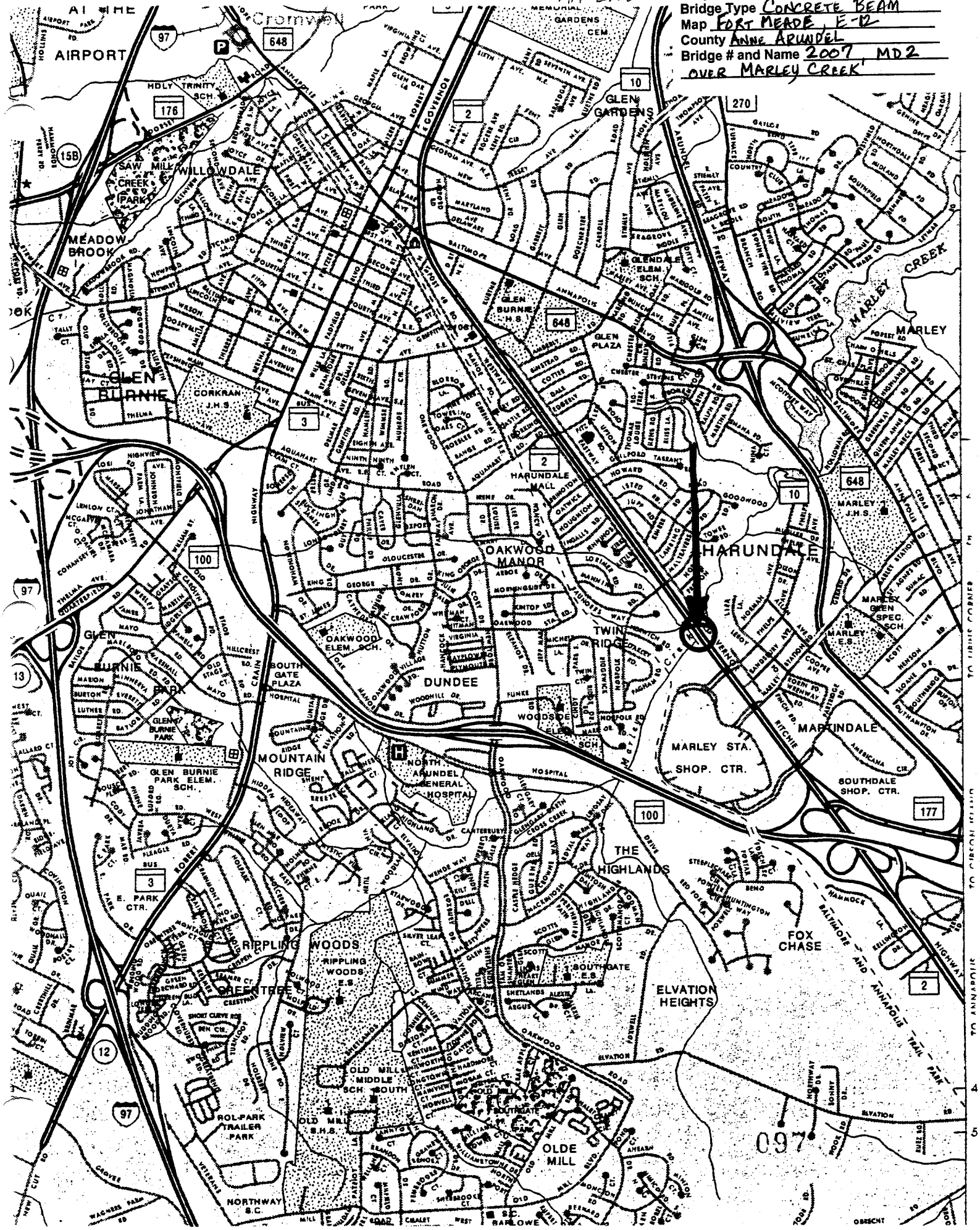
AA-2118

Maryland Historic Highway Bridges
Bridge Type CONCRETE BEAM
Map FORT MEADE, E-12
County ANNE ARUNDEL
Bridge # and Name 2007, MD 2
OVER MARLEY CREEK



Inventory # AA-2118

Name 2057-MD2 OVER MARLEY CREEK

County/State ANNE ARUNDEL COUNTY / MD

Name of Photographer WALLY KING

Date 1/95

Location of Negative SHA

Description EAST ELEVATION

Number ~~4 of 24~~ 1 of 4

Inventory # AA-2118

Name 2007-MD20VER MARLEY CREEK
County/State ANNE ARUNDEL COUNTY/MD
Name of Photographer WALLY KING
Date 1/95

Location of Negative SHA

Description NORTH APPROACH LOOKING SOUTH

Number ~~5 of 24~~ 2 of 4

Inventory # AA-211B

Name 2007-MD2 OVER MARLEY CREEK

County/State ANNE ARUNDEL COUNTY/MD

Name of Photographer WALLY KING

Date 1/95

Location of Negative SHA

Description SOUTH APPROACH LOOKING NORTH

Number ~~6 of 24~~ 3 of 4

Inventory # AA-211B

Name 2007-MD 2 OVER MARLEY CREEK
County/State ANNE ARUNDEL COUNTY/MD
Name of Photographer WALLY KING
Date 1/95

Location of Negative SHA

Description WEST ELEVATION

Number ~~1 of 24~~ 4 of 4