

Maryland Historical Trust

Maryland Inventory of Historic Properties Number: CE-1461

Name: #7012/VMD Tower Forge Elk Creek

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 <u>X</u>
Criteria: <u> </u> A <u> </u> B <u> </u> C <u> </u> D	Considerations: <u> </u> A <u> </u> B <u> </u> C <u> </u> D <u> </u> E <u> </u> F <u> </u> G <u> </u> 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>

2001

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

MHT NO. CE-1461

NAME AND SHA NO.: 7012

LOCATION

Road Name and Number: MD 7 over Big Elk Creek

City/Town: Elkton vicinity

County: Cecil

Ownership: State County Municipal Other

Bridge projects over: Road Railway Water Land

Is bridge located within designated district?: yes 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 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 the Setting:

Located on the northern border of Maryland's Tidewater or Coastal Plain physiographic region, Bridge #7012 carries MD 7 over Big Elk Creek in the Cecil County town of Elkton. MD 7 runs northwest and southeast in this area, while Big Elk Creek is oriented in an east-west direction. Big Elk Creek has a history of flooding in this area. East Meadow Park and West Meadow Park are adjacent to the bridge.

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

Bridge #7012, which carries two lanes of traffic over Big Elk Creek, is a triple-span concrete girder bridge. Each span measures 34'-0" in length for a total length of 111'; the clear roadway width is 24'-0". The bridge deck, abutments, piers, and wingwalls are built of concrete, and the roadway is flanked by plain, unadorned solid concrete parapets. Modern metal guardrails border both approaches and are attached to the ends of the parapets. The bridge number is stenciled on one parapet. Because the approaches are lower than the bridge, flooding is a common problem on Bridge #7012: in 1989, the bridge was flooded 14 times creating significant scour problems.

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. Nine percent (10) of that total were triple-span bridges; 37 bridges (33%) were multiple span.

Discuss major alterations:

Drawings dating to 1924 in the SHA files show a bridge with three piers. Since the present bridge only has two piers, these drawings may relate to an earlier bridge in this same location. The earliest inspection report, which dates to 1931, notes that the bridge was in good condition at the time of inspection. In January of 1990, the bridge was closed for emergency repairs after an 8" by 3" section of the deck collapsed in a deteriorated area. Repairs involved removal and replacement of deteriorated concrete on the deck, piers, and exterior girders, replacement of the parapets, and replacement of the bituminous road surface with a concrete wearing surface. At the same time, the area around the piers and abutments was excavated, riprap was placed, and grout bags were placed around the piers to protect against scour. In 1992 and 1994, debris and sediment were removed from the structure's east span.

HISTORY

When Built: 1932

Why Built: Statewide road improvement programs and local transportation needs

Who Built: State Roads Commission

Who Designed: Unknown

Why Altered: The bridge was altered to repair deteriorated portions of the deck, girders, and piers.

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 Cecil 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 #7012 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 that is eligible for historic designation.

Is the bridge a significant example of its type?

No, the bridge is not a significant example of its type. Extensive repairs have placed its integrity in doubt.

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

No, this bridge does not retain integrity of its character-defining elements. 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 girders, parapets, and deck have all been repaired.

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. It is one of several similar concrete beam bridges built to standard specifications on Maryland's state and county highways.

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

No, this structure should not receive further study.

BIBLIOGRAPHY

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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

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CE-1461

CECIL COUNTY, MD

MATT HURLEY

FEB 17 1995

~~MARYLAND~~ SHPO SHA

BRIDGE NO 7012

LOOKING UPSTREAM

1 OF 4



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CECIL COUNTY, MD

MATT HURLEY

FEB 17 1995

~~MARYLAND SHPO~~ S #1A

BRIDGE NO 7012

LOOKING DOWNSTREAM

2 OF 4



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CECIL COUNTY MD

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~~MARYLAND SHPO~~ SHA

BRIDGE NO 7012

LOOKING EAST

3 OF 4



CE 1461
CECIL COUNTY, MD

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~~MARYLAND SHPO~~ STA

BRIDGE NO 7012

LOOKING WEST

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