

Maryland Historical Trust

Maryland Inventory of Historic Properties Number: CAR-303

Name: MDZD 4 over Long Marsh Ditch

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 <input checked="" type="checkbox"/> X	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>

Maryland Inventory of Historic Properties
Historic Bridge Inventory
Maryland State Highway Administration
Maryland Historical Trust

MHT Number CAR-303

SHA Bridge No. 5018 Name: MD 304 over Long Marsh Ditch

Location:

Street/Road Name and Number: MD 304 (Ruthsburg Road)

City/Town: Bridgetown Vicinity X

County: Caroline

Ownership: X State County Municipal Other

This bridge projects over: Road Railway X Water Land

Is the bridge located within a 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

 Metal Truss

 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

X Concrete

X Concrete Arch Concrete Slab Concrete Beam

 Rigid Frame

 Other Type Name _____

Describe Setting:

Bridge 5018 carries MD 304 over Long Marsh Ditch in Caroline County. MD 304 runs east and west over the southern flowing Long Marsh Ditch. The area surrounding the bridge is lightly developed. The area around the bridge is mostly made up of forest and marshland.

Describe Superstructure and Substructure:

Bridge 5018 is a double span filled spandrel concrete arch bridge. All footings are on steel sheet piling. The length of the bridge is 87 feet, with both arches having clear spans of 39 feet. The bridge has a rise of approximately 10 feet from springline to the crown. The spandrel walls are approximately 10 feet high and 6 feet wide. The concrete pier is 5 feet wide and 27 feet 4 inches long. There is a clear roadway width of 21 feet 7 inches, with an overall bridge width of 24 feet 1 inch. Span 1 of the arch has a full width transverse crack at mid-span with light efflorescence. There is also a full-length longitudinal crack near the centerline. Span 2 of the arch has a spalled beam on the south side at the pier. There is a section of spalling that measures 4 feet long by 8 inches wide. There are longitudinal and transverse cracks throughout the arch. According to a 1996 inspection report, the bridge is in satisfactory condition with a sufficiency rating of 76.8.

The parapets are original. The reinforced-concrete railing consists of vertical posts securely fastened by dowels to the structure, horizontal rails and solid panels that fill the space between the posts and the railing. The panels may be precast, and the posts and rails built in place. Maryland began using this design between 1908 and 1928.

The parapets are 87 feet across on both the eastern and western sides of the bridge. The parapets are separated into 2 sections. The closed panels have 6 incised panels. The incised panels are 1 inch deep, 5 feet long and 1 foot high. One foot separates each incised panel. The parapet caps have transverse and longitudinal cracks. The bases have moderate spalling.

Discuss Major Alterations:

There has been moderate patching across the entire bridge. In 1962 the areas around the piers and the abutments were shored up using steel sheet piling and cofferdams at the abutments..

When Built: circa 1920

Why Built: To replace an earlier structure

Who Built: Unknown

Who Designed: State Roads Commission

Why Altered: To insure the structural integrity of the bridge.

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

No, this bridge was not built during an organized bridge building campaign.

Surveyor Analysis:

This bridge may have NR significance for association with:

- A Events
- Person
- C Engineering/Architectural

The bridge is eligible for the National Register of Historic Places under Criterion C, as a significant example of concrete arch construction. The structure has a high degree of integrity and retains such character defining elements of the type as paneled concrete parapets, closed spandrel walls, abutment, and wingwalls.

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

It is unknown why the first bridge at this location was built. However, during the early days of improved road construction in Maryland, a policy of building narrow roads and bridges was adopted so that a complete system of highways might be obtained within a reasonable timeframe and within the limits of available funds. As traffic increased, it became necessary to reconstruct existing roads, making them wider and stronger. In 1918, the State Roads Commission developed the use of concrete shoulders. This bridge was probably built as part of the State Roads Commission's "Lateral and Post Roads Loan of 1920." In 1920 the state received an appropriation of \$3,000,000. The money allowed construction of rural post roads, lateral roads and the extension of the State Roads System with the assistance of funds from the US Government and several counties in the State. The state and counties received funding for lateral road improvements.

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?

The preexisting structure was probably built during the first decade of the twentieth century. The realignment of the road eliminated a dangerous alignment along this route. Caroline County remained relatively rural and agrarian in nature until the late-twentieth century. The building of this bridge assisted the local communities but did not have a great impact on the surrounding economy.

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

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

Is the bridge a significant example of its type?

Yes, this bridge is a good example of a concrete arch bridge designed by the State Roads Commission in the 1920s.

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

This bridge is not a significant example of the work of a manufacturer, designer, or engineer.

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

Yes, the addition of sheet steel pilings has not altered the integrity of the paneled parapets, the closed spandrel walls, the abutments and the wingwalls.

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

No, the bridge should not be given further study.

Bibliography:

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

Johnson, Arthur Newhall

1899 The Present Condition of Maryland Highways. In *Report on the Highways of Maryland*. Maryland Geological Survey, The Johns Hopkins University Press, Baltimore.

P.A.C. Spero & Company and Louis Berger & Associates

1995 Historic Highway Bridges in Maryland: 1631-1960: Historic Context Report. Maryland State Highway Administration, Maryland State Department of Transportation, Baltimore, Maryland.

State Roads Commission

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

Tyrrell, H. Grattan

1909 *Concrete Bridges and Culverts for Both Railroads and Highways*. The Myron C. Clark Publishing Company, Chicago and New York.

SURVEYOR:

Date bridge recorded December 1997

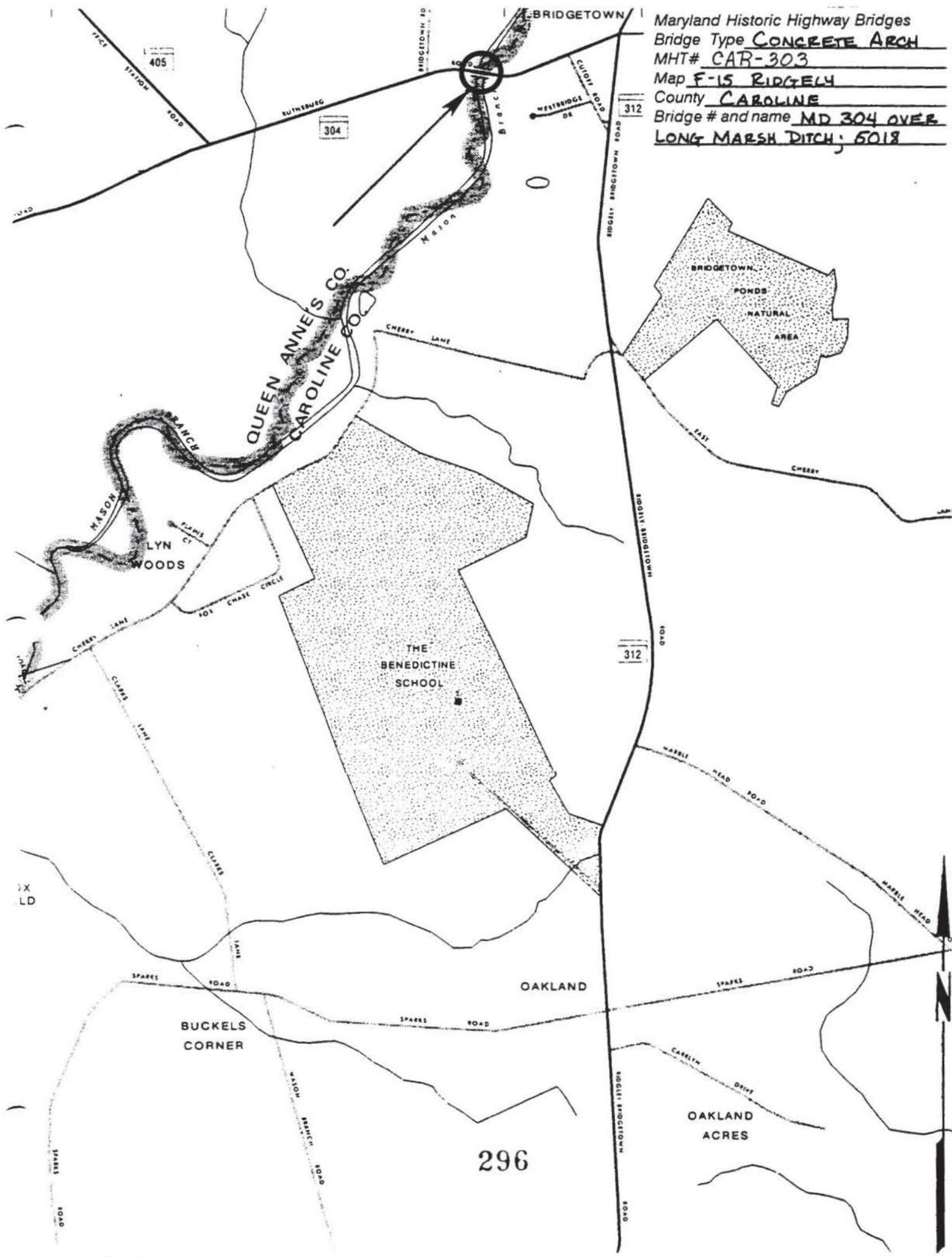
Name of surveyor Wallace, Montgomery & Associates / P.A.C. Spero & Company

Organization/Address P.A.C. Spero & Co., 40 W. Chesapeake Avenue, Baltimore, MD 21204

Phone number (410) 296-1635

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Maryland Historic Highway Bridges
 Bridge Type CONCRETE ARCH
 MHT# CAR-303
 Map F-15 RIDGELY
 County CAROLINE
 Bridge # and name MD 304 OVER
LONG MARSH DITCH; 5018



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CAR-303

CARLINE COUNTY

MATT HICKSON

3-16-95

~~ARMAND SHPO~~ - SHA

BRIDGE 5018, LOOKING WEST

1 OF 4



CAR-303

CARLINE COUNTY

MATT HICKSON

3-16-95

~~MARYLAND SHPO~~ SHA

BRIDGE 5018, LOOKING EAST

ZOF 4



CAR-303

Caroline County

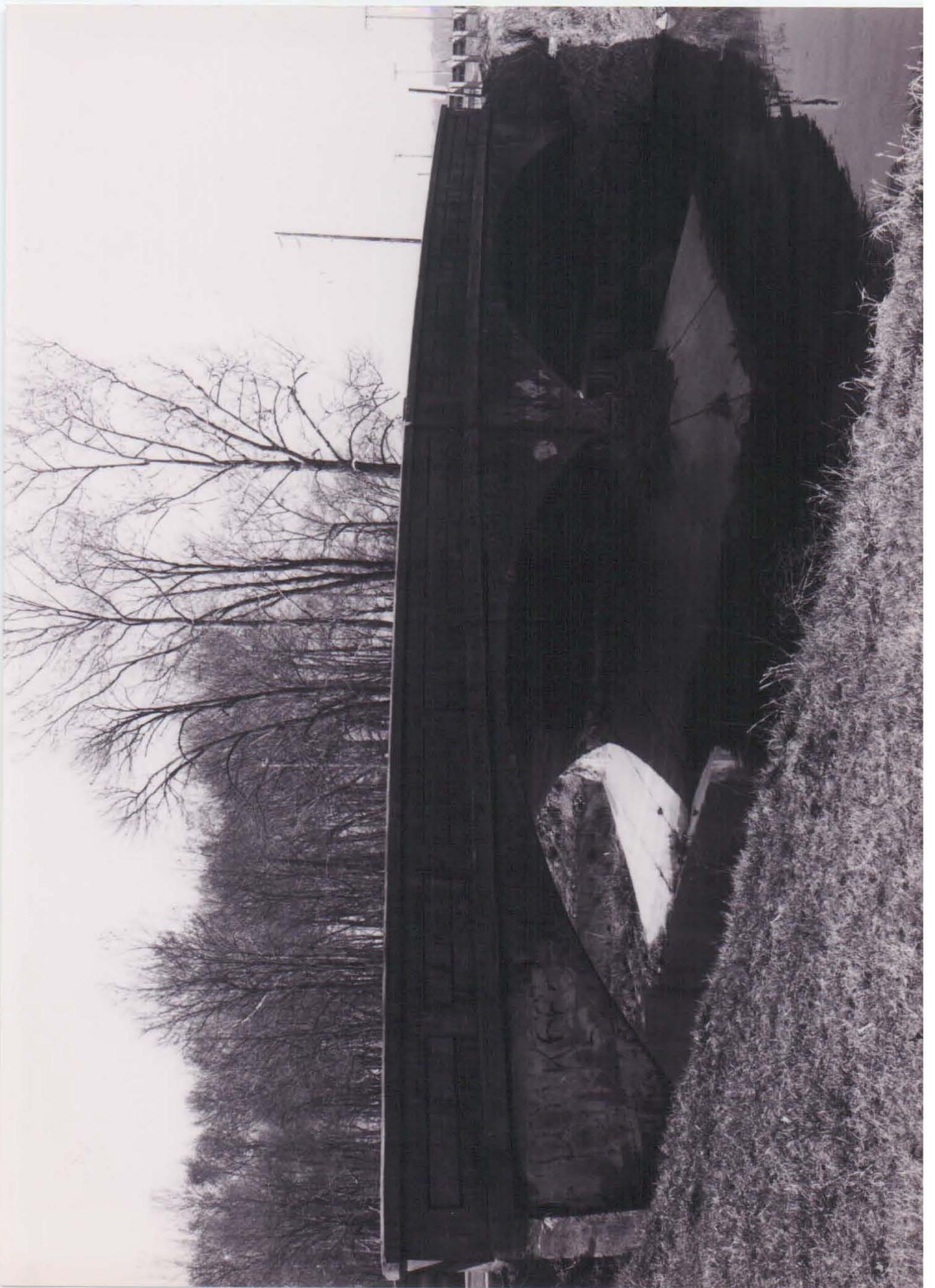
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~~MARYLAND~~ SHPO SHA

BRIDGE 5018, LOOKING UPSTREAM (NE)

3 OF 4



CAR-303

CAROLINE COUNTY

MATT HICKSON

3-16-95

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BRIDGE 501B, LOOKING DOWNSTREAM (SW)

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