

Maryland Historical Trust

Maryland Inventory of Historic Properties Number: HO-727

Name: Frederick Rd over Little Patuxent River

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 <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>

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

MHT Number HO-727

SHA Bridge No. HO 49 **Name:** Frederick Road over Little Patuxent River

Location:

Street/Road Name and Number: Frederick Road

City/Town: Font Hill Manor **Vicinity** X

County: Howard

Ownership: State County Municipal Other

This bridge projects over: Road Railway Water Land

Is the bridge located within a 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

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

Concrete Concrete Arch Concrete Slab Concrete Beam Rigid Frame Other Type Name _____**Description:****Describe Setting:**

Bridge HO-49 carries Frederick Road over the Little Patuxent River. Frederick Road runs east-west over the southern flowing Little Patuxent. The bridge is in a rural section of Howard County. There is no commercial development around the bridge and moderate residential settlement.

Describe Superstructure and Substructure:

Bridge HO-49 is a single span filled concrete arch bridge. The length of the bridge is 30 feet with a clear span measuring 26 feet at the spring line. The bridge has a rise of approximately 6 feet 7 inches from springline to the crown. The spandrel arch has a 1-angle strip and a 2-inch cove molding around the intrados. The rise to run ratio is 26 percent. The spandrel walls are approximately 12 feet by 12 feet. The wingwalls are approximately 10 feet by 8 feet. There is a clear roadway width of 27 feet 2 inches with an overall width of 29 feet 10 inches. The spandrel walls have moderate deterioration on the upstream and downstream walls. There are areas of moderate patching with pneumatically applied mortar on both spandrel walls. The arch ring has fine vertical cracking and some signs of efflorescence. According to a 1994 inspection report, the bridge is in good condition with a sufficiency rating of 74.

Bridge HO-49 has its original parapets. The builders used a combination of open and closed parapet design that 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 railings. The panels may be precast, and the posts and rails were built in place. The precast panels are separated by solid paneled expansion joints. A 4-inch by 6-inch ledge extends the length of the parapets on the exterior of the bridge. The parapets are in 3 single sections totaling 58 feet 3 inches. The first and third sections of the parapets are 16 feet in length and 3 feet high. The middle section of open parapets is divided into 3 sections totaling 26 feet 3 inches. Each of these 3 sections has 9 spaces separated by a 1-foot square expansion joint. The parapets are in good condition with moderate spalling at the construction joint between the ledge and the base of the parapet.

Discuss Major Alterations:

There have been no major alterations to this structure.

History:

When Built? 1930

Why Built? Unknown

Who Built? State Roads Commission

Who Designed? State Roads Commission

Why Altered? N/A

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

No, this bridge was not built as part of any state bridge building campaign.

Surveyor Analysis:

This bridge may have NR significance for association with:

A Events **Person**

C Engineering/Architectural

This bridge was determined eligible by the Interagency Review Committee in March 1996.

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

This bridge was built using state aid funds. Annually, the State of Maryland issued bonds for the purpose of constructing new bridges and reconstructing and rebuilding old bridges in the state. The bond revenues were credited to the Commission and 80% of the proceeds were spent for the erection of new bridges and the reconstruction or rebuilding of old ones. The remainder was set aside for use by Baltimore City. Bridge HO-49 was originally built by the State Roads Commission in 1930 for \$8,248.93.

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 significant example of a filled concrete arch bridge, having a high degree of integrity

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

Yes this bridge retains integrity of its character defining elements. The abutments, wingwalls, arch ribs, spandrel walls, and parapets are original.

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

Yes, this bridge is a significant example of the work of the State Roads Commission from the 1930s.

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

No, further research should not be done on this bridge.

Bibliography:

County inspection/bridge files X SHA inspection/bridge files _____
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.

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, Suite 412,
 Baltimore, MD 21204

Phone number (410) 296-1635 FAX number (410) 296-1670

Revised by P.A.C. Spero & Company, July 1998.

Maryland Historic Highway Bridges

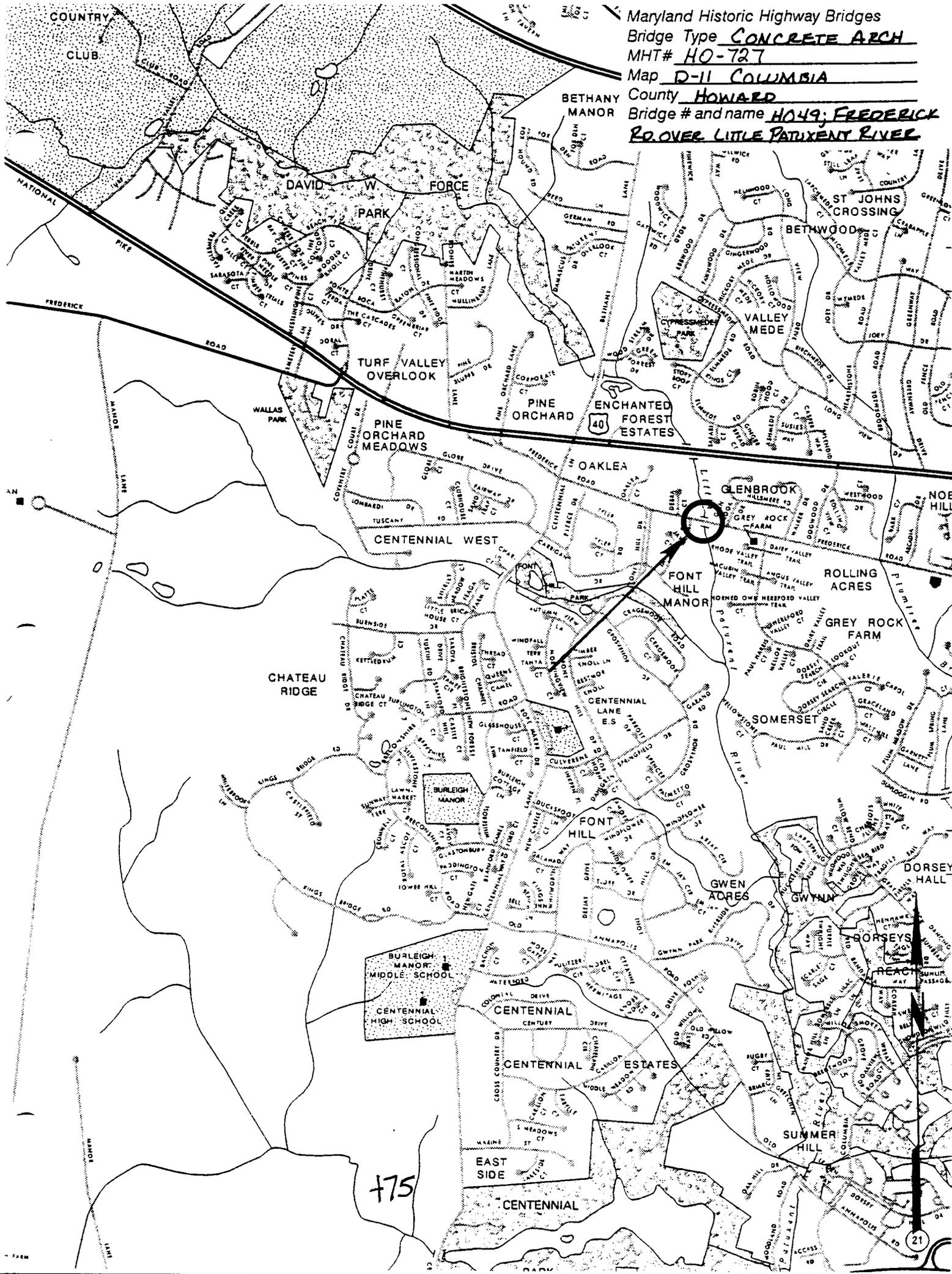
Bridge Type CONCRETE ARCH

MHT# HO-727

Map D-11 COLUMBIA

County HOWARD

Bridge # and name HO49; FREDERICK
RD. OVER LITTLE PATUXENT RIVER



+75



Inventory # H0-727

Name H049-FREDERICK RD OVER ^{LITTLE} PATUXENT RIVER

County/State HOWARD / MD

Name of Photographer DAVID DIEHL

Date 2/95

Location of Negative SHA

Description EAST APPROACH LOOKING
NORTHWEST

Number ¹18 of ⁴33

REPRODUCTION OF



Inventory # HO-727

Name HO49-FREDERICK RD OVER ^{LITTLE} PATUXENT RIVER

County/State HOWARD MD

Name of Photographer DAVID DIEHL

Date 2/95

Location of Negative SHA

Description WEST APPROACH LOOKING
SOUTHEAST

Number 2 of 34
1 of 33

U.S. GOVERNMENT PRINTING OFFICE: 1975



Inventory # HO-727

Name H049-FREDERICK RD OVER ^{LITTLE} PATUXENT RIVER

County/State HOWARD MD

Name of Photographer DAVID DIEHL

Date 2/95

Location of Negative SHA

Description SOUTH ELEVATION LOOKING

NORTHEAST

Number 3 of 4
~~70~~ ~~33~~

PHOTOGRAPHIC SERVICES



