

Maryland Historical Trust

Maryland Inventory of Historic Properties number: HA-1973

Name: US40 over Cranberry 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 <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>

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MARYLAND INVENTORY OF HISTORIC BRIDGES
HISTORIC BRIDGE INVENTORY
MARYLAND STATE HIGHWAY ADMINISTRATION/
MARYLAND HISTORICAL TRUST

MHT No. HA-1973

SHA Bridge No. 12024 Bridge name US 40 over Cranberry Run

LOCATION:

Street/Road name and number [facility carried] US 40 (Pulaski Highway)

City/town Aberdeen Vicinity X

County Harford

This bridge projects over: Road Railway Water X Land

Ownership: State X County Municipal Other

HISTORIC STATUS:

Is the 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 Retractable Pontoon

Metal Girder X:

Rolled Girder X 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:

Setting: Urban _____ Small town _____ Rural _____

Describe Setting:

Bridge No. 12024 carries US 40 (Pulaski Highway) over Cranberry Run in Harford County. US 40 runs east-west and Cranberry Run flows north-south. The bridge is located in the vicinity of Aberdeen and is surrounded by commercial development.

Describe Superstructure and Substructure:

Bridge No. 12024 is a single-span, 4-lane, metal girder bridge. The bridge was originally built in 1935 and concrete jersey-barrier parapets were added in 1992. The structure is 27 feet, 3 inches long and has a clear roadway width of 85 feet, 6 inches. The out-to-out width is approximately 88 feet, 8 inches. The superstructure consists of rolled girders which support a concrete deck and concrete parapets. The roadway is carried on the girders. The concrete deck has a bituminous wearing surface and the structure has concrete, jersey-barrier parapets. The roadway approaches have steel guard rails. A date impression on the parapet indicates that the bridge was constructed in 1935 and rehabilitated in 1992. The substructure consists of two (2), concrete abutments and flared, concrete wing walls. An inspection report for the structure was not available at the time of the survey. The sufficiency rating is 83.5.

Discuss Major Alterations:

The concrete jersey barrier parapets were constructed in 1992, according to State Highway Administration design plans.

HISTORY:

WHEN was the bridge built: 1935

This date is: Actual _____ Estimated _____

Source of date: Plaque _____ Design plans _____ County bridge files/inspection form _____

Other (specify) : State Highway Administration bridge files

WHY was the bridge built?

The route of present US 40 was traveled as early as 1733, when *Poor Richard's Almanac* noted the route of the Old Philadelphia Road (State Route 7) on the general course of the present highway. Under pressure from the federal Bureau of Public Roads in the early 1930s, the State Roads Commission planned the construction of a new road from Baltimore to Havre de Grace, in lieu of widening the old Philadelphia Road. In 1935, the "new" Philadelphia Road opened as Maryland's first dual highway, and was christened the Pulaski Highway. This bridge was built as a component of the construction of the Pulaski Highway.

WHO was the designer?

State Roads Commission

WHO was the builder?

Unknown

WHY was the bridge altered?

Unknown

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

There is no evidence that the bridge was 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 _____

The bridge does not have National Register significance.

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

Metal girder bridges were most likely introduced and first popularized in Maryland by the state's major railroads of the nineteenth century including the Baltimore and Susquehanna, its successor the Northern Central, and the Baltimore and Ohio Railroad. Bridge engineering historians have documented the fact that James Milholland (or Mulholland) erected the earliest plate girder span in the United States on the Baltimore and Susquehanna Railroad in 1846 at Bolton Station, near present-day Mount Royal Station. The sides (web) and bottom flange of Milholland's 54-foot-long span were wholly of wrought iron and included a top flange reinforced with a 12x12-inch timber. Plates employed in the bridge were 6 feet deep and 38 inches wide, giving the entire bridge a total weight of some 14 tons. Milholland's pioneering plate girder cost \$2,200 (Tyrrell 1911:195). By December 31, 1861, the Northern Central Railroad, which succeeded the Baltimore and Susquehanna, maintained an operating inventory in Maryland of 50 or more bridges described simply as "girder" spans, in addition to a number of Howe trusses. Most of these were probably iron girder bridges; the longest were the 117-foot double-span bridge over Jones Falls and the 106-foot double-span girder bridge at Pierce's Mill (Gunnarson 1990:179-180).

As in the nation, girder bridge technology in Maryland was quickly adapted to cope with the increasingly heavy traffic demands of the twentieth century caused by automobile and truck traffic. The 1899 Maryland Geological Survey report on highways noted that "there are comparatively few I-beam bridges, one of the cheapest and best forms for spans less than 25 or 30 feet" (Johnson 1899:206). Interestingly, the report also urged construction of a composite metal, brick, and concrete bridge, noting that "no method of construction is more durable than the combination of masonry and I-beams, between which are transverse arches of brick, the whole covered with concrete, over which is laid the roadway" (Johnson 1899:206). Whether any such bridges (transitional structures between I-beams and reinforced concrete spans) were built is unknown.

Official state and county highway reports—issued between 1900 and the early 1920s through the Highway Division of the Maryland Geological Survey and its successor, the State Roads Commission—generally do not reference or describe girder construction. An analysis of the current statewide listing of county and municipal bridges (a listing maintained by the State Highway Administration) reveals that 48 county bridges, out of the total of 141 approximately dated to "1900" by county engineers, were listed as steel girder, steel stringer, or variants of such terms. (It should be noted that the "1900" date is often given when no exact date is pinpointed for a bridge that is clearly old). A grand total of 200 bridges (including "steel culverts"), out of 550 bridges dated on

the county list between 1901 and 1930, were described as steel beam, steel girder, or steel stringer and girder varieties. The total suggests that among the various highway bridge types built in the early twentieth century metal girder bridges in Maryland between 1900 and 1930 were second in popularity only to reinforced concrete bridges. However, these numbers must be interpreted with caution, as they do not necessarily include all county and municipal bridges.

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?

There is no evidence that the construction of this bridge had a significant impact on the growth and development of this area.

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

The bridge is located in an area which does not appear to be eligible for historic designation.

Is the bridge a significant example of its type?

A significant example of a metal girder bridge should possess character-defining elements of its type, and be readily recognizable as an historic structure from the perspective of the traveler. The integrity of distinctive features visible from the roadway approach, including parapet walls or railings, is important in structures which are common examples of their type. In addition, the structure must be in excellent condition. This bridge, which is lacking such features as the original parapet walls, is an undistinguished example of a metal girder bridge and conveys a modern appearance from the roadway approach.

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

The bridge retains some character-defining elements of its type, as defined by the Statewide Historic Bridge Context, including rolled girders and concrete abutments, piers and wing walls, however alterations to the structure in 1992 resulted in the loss of such distinctive features as the parapets.

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

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

Should the bridge be given further study before an evaluation of its significance is made?

No further study of this bridge is required to evaluate its significance.

BIBLIOGRAPHY:

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

Gunnarson, Robert

1990 *The Story of the Northern Central Railway, From Baltimore to Lake Ontario*. Greenberg Publishing Co., Sykesville, Maryland.

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.

State Roads Commission

1958 *A History of Road Building in Maryland*. Published by author, Baltimore.

Tyrrell, Henry G.

1911 *History of Bridge Engineering*. Published by author, Chicago.

SURVEYOR:

Date bridge recorded 2/25/97

Name of surveyor Caroline Hall

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

Phone number (410) 296-1685

FAX number (410) 296-1670

7150405

INDIVIDUAL PROPERTY/DISTRICT
MARYLAND HISTORICAL TRUST
INTERNAL NR-ELIGIBILITY REVIEW FORM

Property/District Name: Bridge#12024 Survey Number: na HA-1973
Project: US 40 over Cranberry Run, Harford County Agency: SHA
Site visit by MHT Staff: no yes Name _____ Date _____
Eligibility recommended _____ Eligibility **not** recommended
Criteria: A B C D Considerations: A B C D E F G None
Justification for decision: (Use continuation sheet if necessary and attach map)

Bridge #12024, a 27' steel beam bridge constructed in 1935 does not meet the criteria for listing on the National Register. Many examples of this simple and common bridge type remain throughout the state.

Documentation on the property/district is presented in: project file

Prepared by: Rita Suffness

Elizabeth Hannold 12/30/91
Reviewer, Office of Preservation Services Date

NR program concurrence: yes no not applicable
A. Anderson 6 Jan 92
Reviewer, NR program Date

DT

MARYLAND COMPREHENSIVE HISTORIC PRESERVATION PLAN DATA - HISTORIC CONTEXT

I. Geographic Region:

- Eastern Shore (all Eastern Shore counties, and Cecil)
- Western Shore (Anne Arundel, Calvert, Charles, Prince George's and St. Mary's)
- Piedmont (Baltimore City, Baltimore, Carroll, Frederick, Harford, Howard, Montgomery)
- Western Maryland (Allegany, Garrett and Washington)

II. Chronological/Developmental Periods:

- Paleo-Indian 10000-7500 B.C.
- Early Archaic 7500-6000 B.C.
- Middle Archaic 6000-4000 B.C.
- Late Archaic 4000-2000 B.C.
- Early Woodland 2000-500 B.C.
- Middle Woodland 500 B.C. - A.D. 900
- Late Woodland/Archaic A.D. 900-1600
- Contact and Settlement A.D. 1570-1750
- Rural Agrarian Intensification A.D. 1680-1815
- Agricultural-Industrial Transition A.D. 1815-1870
- Industrial/Urban Dominance A.D. 1870-1930
- Modern Period A.D. 1930-Present
- Unknown Period (prehistoric historic)

III. Prehistoric Period Themes:

- Subsistence
- Settlement
- Political
- Demographic
- Religion
- Technology
- Environmental Adaption

IV. Historic Period Themes:

- Agriculture
- Architecture, Landscape Architecture, and Community Planning
- Economic (Commercial and Industrial)
- Government/Law
- Military
- Religion
- Social/Educational/Cultural
- Transportation

V. Resource Type:

Category: structure

Historic Environment: urban

Historic Function(s) and Use(s): transportation

Known Design Source: unknown

Maryland Historic Highway Bridges

Bridge Type Metal Girder

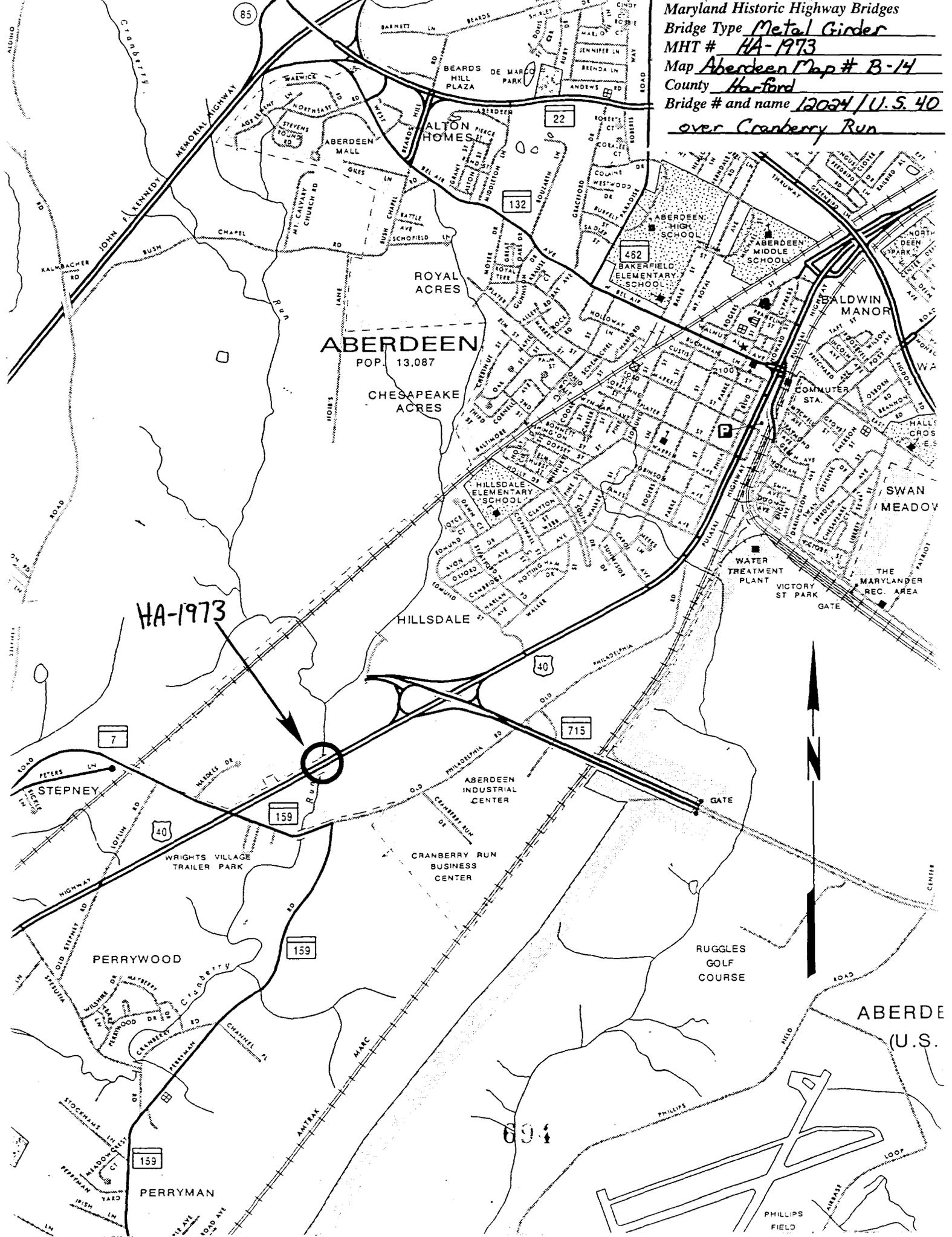
MHT # HA-1973

Map Aberdeen Map # B-14

County Hanford

Bridge # and name 12024 / U.S. 40

over Cranberry Run



HA-1973

ABERDEEN

POP. 13,087

CHESAPEAKE ACRES

HILLSDALE

ABERDEEN INDUSTRIAL CENTER

CRANBERRY RUN BUSINESS CENTER

PERRYWOOD

PERRYMAN

RUGGLES GOLF COURSE

ABERDEEN (U.S.)

694



1. HA-1973
2. US 40 over Cranberry Run
3. Harford Co, MD
4. Caroline Hall
5. 3/97
6. MDSHPO
7. north side ~~ures~~
8. 1 of 6



1. HA-1973
2. US 40 over Cranberry Run
3. Hartford Co, MD
4. Caroline Hall
5. 3/97
6. MDSHPO
7. South side
8. 2 of 6

159 7
Old Philadelphia
Road
NEXT SIGNAL

TOWING

1963-64
19674

1. HA-1973
2. US 40 over Cranberry Ran
3. Harford Co, MD
4. Caroline Hall
5. 3/97
6. MDSHPO
7. roadway approach
8. **3** of 6



1. HA-1973
2. US 40 over Cranberry Run
3. Harford Co, MD
4. Caroline Hall
5. 3/97
6. MDSHPD
7. south side ^{detail of sub.}
8. 4 of 6



1. HA-1973
2. US 40 over Cranberry Run
3. Harford Co, MD
4. Caroline Hall
5. 3/97
6. MDSHPO
7. south side $1/2$ $1/2$
8. **5** of 6



1. HA-1973
2. US 40 over Cranberry Run
3. Harford Co, MD
4. Caroline Hall
5. 3/97
6. MDSHPO
7. ~~South side~~ roadway approach
8. 6 of 6