

Maryland Historical Trust

Maryland Inventory of Historic Properties number: BA-2669

Name: #3074 / MD 130 over North Branch

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

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

MHT NO. BA-2669

NAME AND SHA NO.: 3074

LOCATION

Road Name and Number: MD 130 over North Branch

City/Town: Stevenson _ vicinity

County: Baltimore

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 Green Spring Valley Historic 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:

Bridge 3074 carries MD 130 (Greenspring Valley Road) over the North Branch of Jones Falls, northwest of Baltimore City. MD 130 runs in a generally east-west direction, and North Branch flows north-south. This bridge is situated west of the campus of Villa Julie College. Two houses are visible from the bridge; much of the property adjacent to the bridge consists of open fields and residential areas. Bridge 3074 is located within the Piedmont physiographic province which is characterized by variegated topography and hilly terrain created by waterways cutting through the valleys.

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

Bridge 3074 is a single-span concrete beam bridge supporting two lanes of traffic. The span measures 30' and the 32' clear roadway includes a 28' asphalt roadway with 2' shoulders. The bridge has an overall length of 38'-5". Guardrails are attached to the concrete parapets which exhibit an open balustrade design; the parapets measure 3'-7" high. The grooved abutments apparently consist of unreinforced concrete gravity walls founded on spread footings, and the deck is reinforced concrete. The wing walls flare at oblique angles to the line of the bridge. The southwest and southeast wing walls are topped with segmental sloping capstones.

The bridge shows signs of spalling and cracking in the abutments, wing walls, and parapets. Several of the girders also have exposed rusted rebar and the abutments have excessive honeycombing.

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:

MSHA Bridge Inventory files indicate that Bridge 3074 was built circa 1900 and consisted of a single span with an 18'-8" clear roadway and a 14'-6" wide macadam surface. According to as-built drawings dated October 1933 and a bridge inspection report from 1958, the bridge was widened to provide a 32' clear roadway in 1933-1934. This expansion occurred on the south side of the bridge. Circa 1970, 2' shoulders were created, as indicated in bridge inspection reports from this decade. Drawings from November 1988 illustrate the installation of steel support beams in 1989.

HISTORY

When Built: 1900/widened 1930

Why Built: Statewide road improvement programs and local transportation needs

Who Built: State Roads Commission of Maryland

Who Designed: Unknown

Why Altered: Statewide movement to improve (straighten, widen, etc.) existing roads

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

In the early 1930s, the State Roads Commission embarked on a campaign to improve existing secondary roads. During this era many roads were widened, straightened, and resurfaced with sturdier materials. Other improvements included the elimination of at-grade railroad intersections and rebuilding or realigning grades of greater than eight percent. As a consequence of road realignment or removal of at-grade crossings, many bridges were replaced altogether. Slight shifts in alignment or widening of the existing route often resulted in alteration rather than displacement of the older bridges. The increasing popularity and use of the automobile during the early decades of the twentieth century also prompted widening and rebuilding or strengthening of bridges to accommodate the volume and weight of motor vehicle traffic.

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?

In many ways, Baltimore County was a leader in modern bridge construction, affecting the materials and design of concrete structures throughout the state. Baltimore was the first of the state's counties to hire a professional engineer to oversee construction and maintenance of its roads. Early Maryland Geological Survey and State Road Commission Reports relate that the county began to build concrete bridges and culverts in 1901, and that by 1903 had constructed many good roads and replaced old wooden bridges with permanent structures. The "progressive work" by the Baltimore county engineer in 1903 was evidenced by the first reinforced concrete highway bridge built in the state. The method of reinforcing concrete using steel rods embedded in concrete beams allowed the girders to withstand heavy loads with no steel surface exposed to air, thereby significantly reducing maintenance costs.

A 1906 state highway report stated that improvement projects begun in 14 counties included the widening, straightening, and/or grading of many existing roads, as well as the construction of many new bridges to carry these rebuilt roads. The rapid increase of automobile, truck, and bus traffic

during the early decades of the twentieth century prompted the replacement of old bridges with new, modern concrete structures. During the 1920s, the State Road Commission embarked upon a plan to both improve the safety and comfort of the primary roads while also building up the secondary and farm-to-market road system. The establishment of district engineering offices during the 1910s, the creation of a separate bridge department within the State Road Commission in 1920, and the development of standard statewide specifications for bridges undoubtedly aided the construction of nearly 750 concrete bridges and culverts between 1902 and 1929 in Baltimore County. Finally, the elimination of toll roads, many of which ran through the county and terminated in Baltimore city, may have induced the improvement of additional county roads in an effort to provide unlimited access through the county.

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?

No, Bridge 3074 did not have a significant impact on the growth and development of the surrounding area. Neither its construction nor subsequent widening affected regional settlement.

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?

Bridge 3074 may be an eligible component of the Green Spring Valley Historic District, a rural creekbed district which encompasses all eighteenth-, nineteenth-, and early-twentieth-century resources within the limits of this valley.

Is the bridge a significant example of its type?

Yes. Due to its integrity of materials and design and its relatively good condition, this bridge stands as a significant example of its type.

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

Yes, Bridge 3074 retains integrity of the primary character defining elements of a concrete girder bridge. Although the girders, parapet, deck, abutments, and wing walls all show signs of cracking, spalling, and erosion, according to available documentary evidence, none of these primary elements have been replaced or received major alterations since the bridge's construction. Because the bridge was widened over fifty years ago, this alteration should be considered historic and contributes to the historic character of the structure. The installation of additional support beams in 1988 have not drastically changed the character defining elements of the superstructure.

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

No, this bridge is not a significant example of the work of the State Roads Commission.

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

Yes, further study should be focused on how the bridge may fit into the Green Spring Valley Historic District.

BIBLIOGRAPHY

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Johnson, A.N.

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

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1899 *Report on the Highways of Maryland*. The Johns Hopkins Press, Baltimore.

Maryland State Highway Administration

1988 As-built drawings. Located in the files of the Office of Bridge Development, Maryland State Highway Administration, Baltimore.

1990-94 Bridge inspection reports. Located in the files of the Office of Bridge Development, Maryland State Highway Administration, Baltimore.

P.A.C. Spero and Company and Louis Berger and Associates, Inc.

1994 *Historic Bridges in Maryland: Historic Context Report*. Prepared for Maryland State Highway Administration, Maryland State Department of Transportation, Baltimore.

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HISTORIC BRIDGE INVENTORY
MARYLAND STATE HIGHWAY ADMINISTRATION
MARYLAND HISTORICAL TRUST**

MHT NO. BA-2669

State Roads Commission of Maryland

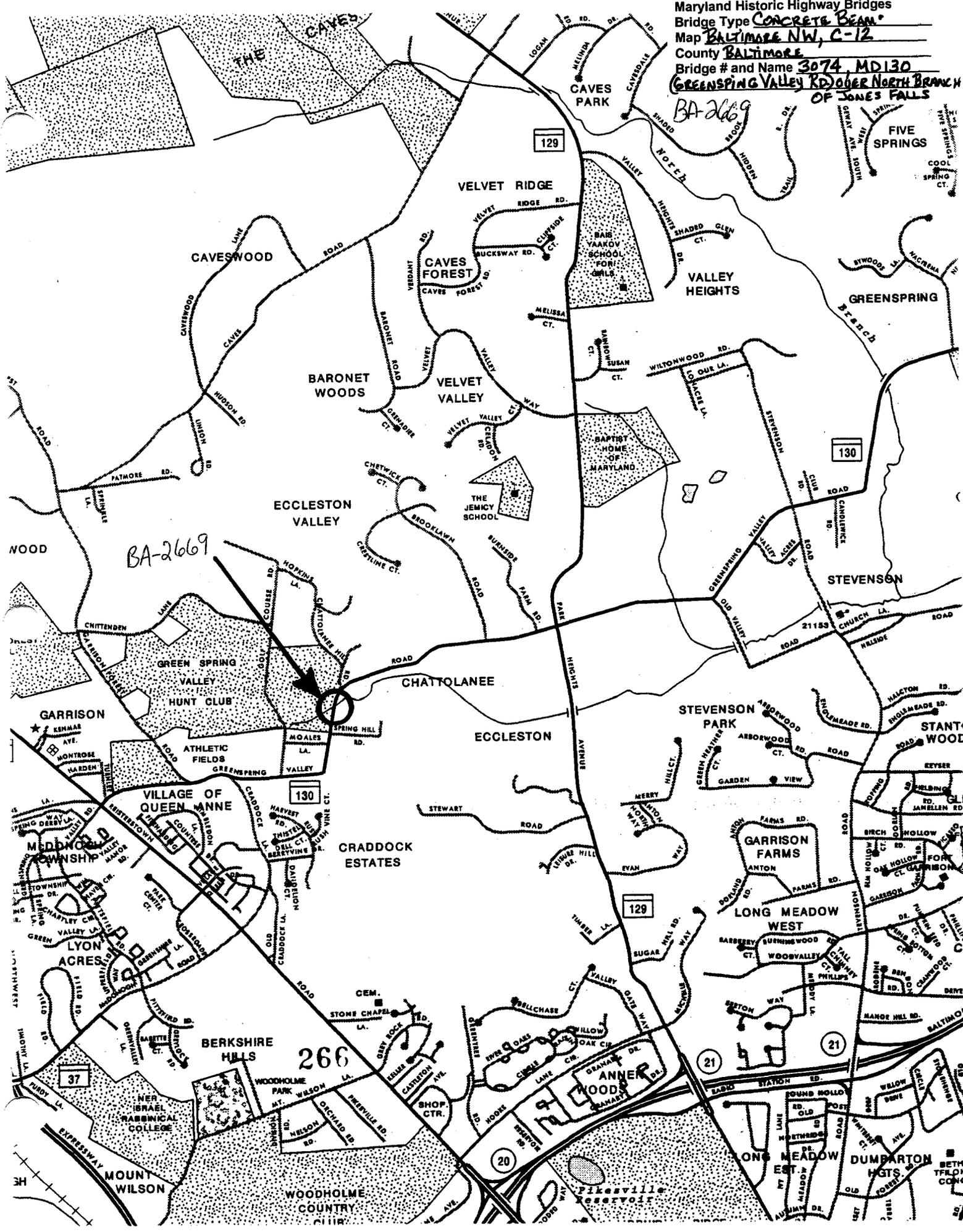
1933 As-built drawings. Located in the files of the Office of Bridge Development,
Maryland State Highway Administration, Baltimore.

1931-80 Bridge inspection reports. Located in the files of the Office of Bridge Development,
Maryland State Highway Administration, Baltimore.

SURVEYOR INFORMATION

Name: Margaret A. Bishop and Michelle M. Lupien **Date:** 13 May 1996
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Maryland Historic Highway Bridges
Bridge Type Concrete Beam
Map Baltimore NW, C-12
County Baltimore
Bridge # and Name 3074 MD130
Greenspring Valley Rd over North Branch
of Jones Falls



BA-2669

BA-2669

266

37

20

21

21



Inventory # BA-2669

Name 3074-MO 130 OVER NORTH BRANCH

County/State BALTIMORE COUNTY / MD

Name of Photographer DAVE DIEHL

Date 1/95

Location of Negative SHA

Description EAST APPROACH LOOKING

WEST

Number 18 of 34



Inventory # BA-2669

Name 30714 - MD 130 OVER NORTH BRANCH

County/State BALTIMORE COUNTY/MD

Name of Photographer DAVE DIEHL

Date 1/95

Location of Negative SHA

Description WEST APPROACH LOOKING EAST

Number 2 of 349



Inventory # BA-2669

Name 3074-MD130 OVER NORTH BRANCH

County/State BALTIMORE COUNTY/MD

Name of Photographer DAVE DIEHL

Date 1/95

Location of Negative SHA

Description SOUTH ELEVATION LOOKING
NORTH

3 **4**
Number ~~10~~ of 34



Inventory # BA-2669

Name 3074-MD,30 OVER NORTH BRANCH

County/State BALTIMORE COUNTY/MD

Name of Photographer DAVE DIEHL

Date 1/95

Location of Negative SHA

Description NORTH ELEVATION LOOKING
EAST

Number 4 of 34