

Maryland Historical Trust

Maryland Inventory of Historic Properties number: AI-II-A-147  
Name: Town Creek Rd No. 3 over Town 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 bridge received the following determination of eligibility.

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 checked="" 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 BRIDGES  
HISTORIC BRIDGE INVENTORY  
MARYLAND STATE HIGHWAY ADMINISTRATION/  
MARYLAND HISTORICAL TRUST

MHT No. AL-II-A-147

SHA Bridge No. A-113 Bridge name Town Creek Road No. 3 over Town Creek

**LOCATION:**

Street/Road name and number [facility carried] Town Creek Road

City/town Flintstone Vicinity X

County Allegany

This bridge projects over: Road  Railway  Water  Land

Ownership: State  County  Municipal  Other

**HISTORIC STATUS:**

Is the bridge located within a designated historic district? Yes  No

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 \_\_\_\_\_

Vertical Lift \_\_\_\_\_

Bascule Single Leaf

Retractable \_\_\_\_\_

Bascule Multiple Leaf \_\_\_\_\_

Pontoon \_\_\_\_\_

Metal Girder \_\_\_\_\_:

Rolled Girder \_\_\_\_\_

Plate Girder \_\_\_\_\_

Rolled Girder Concrete Encased \_\_\_\_\_

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 X

**Describe Setting:**

Bridge A113 carries Town Creek Road over Town Creek in Allegany County. Town Creek Road runs north-south and Town Creek flows northwest to southeast. The bridge is located in the vicinity of Flintstone.

**Describe Superstructure and Substructure:**

Bridge A113 is a 2-span, 1-lane, filled concrete arch bridge. The bridge was built in 1919, and has not been altered. The structure has an overall length of 28.7 meters (94 feet) and has a clear roadway width of 3.4 meters (11 feet) between the curbs; there are no sidewalks. The bridge is built on a skew of 45 degrees. The out-to-out width is 4.3 meters (14 feet). The superstructure consists of two barrel arches which support a concrete deck and solid concrete parapets. Each arch spans 13.7 meters (44.8 feet) with a clear height of 3.7 meters (12 feet). The concrete cast-in-place deck is .36 meters (1.17 feet) thick and it has a bituminous wearing surface. The structure has solid parapets with exterior incised panels and the roadway approaches have vertical curves on the north and south approaches. The only approach guardrail begins in front of the southeast wingwall and ends before the bridge. The substructure consists of two concrete abutments and a concrete pier at mid-span. There are four, flared reinforced concrete wingwalls. The bridge is not posted for weight restrictions, and has a sufficiency rating of 49.5.

According to the 1997 inspection report, this structure was in fair condition with cracking and spalling. The bituminous concrete wearing surface is heavily worn and the asphalt along the roadway edge is raveling. The arches are cracked and spalled with exposed reinforcement bars. The abutments are severely scaling and cracked, while the pier is spalling and scaling on all sides. Also, the concrete parapets are cracked and spalled with random areas of dead sounding concrete.

**Discuss Major Alterations:**

The bridge was originally constructed in 1919, and no major rehabilitation work has occurred since the time of construction.

**HISTORY:**

WHEN was the bridge built: 1919

This date is: Actual X Estimated \_\_\_\_\_

Source of date: Plaque \_\_\_\_\_ Design plans \_\_\_\_\_ County bridge files/inspection form X

Other (specify): \_\_\_\_\_

**WHY was the bridge built?**

The bridge was constructed in response to the need for more efficient transportation network and increased load capacity.

**WHO was the designer?**

D.P. Lefevre

**WHO was the builder?**

Enterprise Construction Company

**WHY was the bridge altered?**

N/A

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

Unknown

**SURVEYOR/HISTORIAN ANALYSIS:****This bridge may have National Register significance for its association with:**

A - Events \_\_\_\_\_ B- Person \_\_\_\_\_  
 C- Engineering/architectural character \_\_\_\_\_ X \_\_\_\_\_

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 the arch ring, barrel, spandrel wall, parapets, abutments, pier and wingwalls.

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

The advent of modern concrete technology fostered a renaissance of arch bridge construction in the United States. Reinforced concrete allowed the arch bridge to be constructed with much more ease than ever before and maintained the load-bearing capabilities of the form. As the structural advantages of reinforced concrete became apparent, the heavy, filled barrel of the arch was lightened into ribs. Spandrel walls were opened, to give a lighter appearance and to decrease dead load. This enabled the concrete arch to become flatter and multi-centered, with longer spans possible. Designers were no longer limited to the semicircular or segmental arch form of the stone arch bridge. The versatility of reinforced concrete permitted development of a variety of economical bridges for use on roads crossing small streams and rivers.

Maryland's roads and bridge improvement programs mirrored economic cycles. The first road improvement of the State Roads Commission was a 7 year program, starting with the Commission's establishment in 1908 and ending in 1915. Due to World War I, the period from 1916-1920 was one of relative inactivity; only roads of first priority were built. Truck traffic resulting from war related factories and military installations generated new, heavy traffic unanticipated by the builders of the early road system. From 1920-1929, numerous highway improvements occurred in response to the increase in Maryland motor vehicles from 103,000 in 1920 to 320,000 in 1929, with emphasis on the secondary system of feeder roads which moved traffic from the primary roads built before World War I. After World War I, Maryland's bridge system also was appraised as too narrow and structurally inadequate for the increasing traffic, with plans for an expanded bridge program to be handled by the Bridge Division, set up in 1920. In 1920 under Chapter 508 of the Acts of 1920 the

State issued a bond of \$3,000,000.00 for road construction; the primary purpose of these monies was to meet the state obligations involving the construction of rural post roads. The secondary purpose of these monies was to fund (with an equal sum from the counties) the building of lateral roads. The number of hard surfaced roads on the state system grew from 2000 in 1920 to 3200 in 1930. By 1930, Maryland's primary system had been inadequate to the huge freight trucks and volume of passenger cars in use, with major improvements occurring in the late 1930's.

As the nation's automotive traffic increased in the early twentieth century, local road networks were consolidated, and state highway departments were formed to supervise the construction and improvement of state roads. With a diverse topographical domain encompassing numerous small and large crossings, Maryland engineers quickly recognized the need for expedient design and construction through the standardization of bridge designs.

The concept and practice of standardization was one of the most important developments in engineering of the twentieth century. In Maryland, as in the rest of the nation, the standardized concrete types became the predominant bridge types built. In the period 1911 to 1920 (the decade in which standardized plans were introduced), beams and slabs constituted 65 percent and arches 35 percent of the extant 29 bridges built in Maryland during this period. In the following decade, 1921-1930, the beam (now the T-beam) and slab increased to 73 percent and the arch had declined to 27 percent of the 129 extant bridges; in the next decade (1931-1940), the beam and slab achieved 82 percent and arches had further declined, constituting only 18 percent of the total of extant bridges built on state-owned roads between 1931 and 1946.

Although beam and slab bridges became the utilitarian choice, it appears that the arch was selected when aesthetic as well as other site conditions were considered. The architectural treatment of extant arch bridges supports this assessment. Many of these bridges were multiple span structures with open spandrels or masonry facing. Another decorative feature of the concrete arch bridge was an open, balustrade-style parapet. Despite the popularity of ornamental arches and the increase in use of beam and slab bridges, examples of simpler, single and multiple span closed concrete arch bridges with solid parapets continued to be constructed throughout the early twentieth century.

**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?**

The bridge is a potentially significant example of a concrete arch bridge, possessing a high degree of integrity.

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

The bridge retains the character-defining elements of its type, as defined by the Statewide Historic Bridge Context, including arch ring, barrel, spandrel walls, parapets, abutments, pier and wingwalls, however some deterioration is evident.

**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 \_\_\_\_\_ 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.

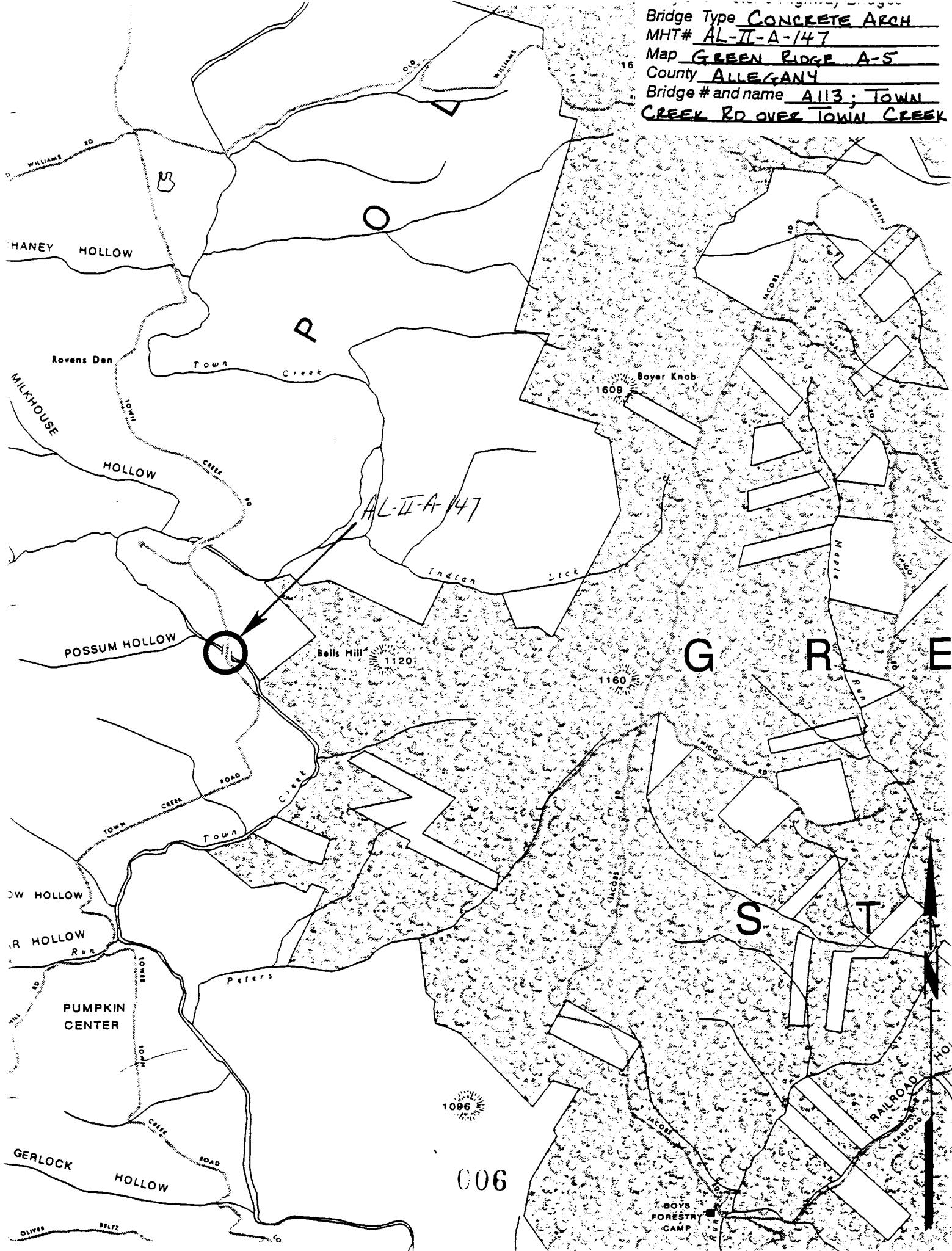
P.A.C. Spero & Company and Louis Berger & Associates  
1995 Historic Highway Bridges in Maryland: 1631-1960: Historic Context Report. Maryland State Highway Administration, Maryland State Department of Transportation, Baltimore, Maryland.

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, Baltimore, MD 21204 \_\_\_\_\_  
Phone number (410) 296-1635 \_\_\_\_\_ FAX number (410) 296-1670 \_\_\_\_\_

Bridge Type CONCRETE ARCH  
MHT# AL-II-A-147  
Map GREEN RIDGE A-5  
County ALLEGANY  
Bridge # and name A113; TOWN  
CREEK RD OVER TOWN CREEK



AL-II-A-147



G R E

S I T

006







1. AL-11-A-147
2. Town Creek Road No. 3 over Town Creek
3. Allegany Co., MD
4. Wallace, Montgomery & Assoc.
5. 12/97
6. MD SHPO
7. Elevation looking upstream
8. 1 of 6

ROAD DIRECTORS

J. J. LYDINGER CHM

LEE HAINES

JAS. E. CRUMP

A. C. BAWLINGS

1. AL-11-A-147
2. Town Creek Road No. 3 over Town Creek
3. Allegany Co., MD
4. Wallace, Montgomery & Assoc.
5. 12/97
6. MD SHPO
7. Bronze plaque, upstream wall
8. 2 of 6



1. AL-11-A-147
2. Town Creek Road No. 3 over Town Creek
3. Allegany Co., MD
4. Wallace, Montgomery & Assoc.
5. 12/97
6. MD SHPO
7. Elevation looking downstream
8. 3 of 6



1. AL-11-A-147
2. Town Creek Road No. 3 over Town Creek
3. Allegany Co., MD
4. Wallace, Montgomery & Assoc.
5. 12/97
6. MD SHPO
7. Looking West
8. 4 of 6





1. AL-11-A-147
2. Town Creek Road No. 3 over Town Creek
3. Allegany Co., MD
4. Wallace, Montgomery & Assoc.
5. 12/97
6. MD SHPO
7. Looking East
8. 5 of 6

DESIGNED BY

D.P. LE FEVRE.

ROAD ENGR.

BUILT BY

ENTERPRISE CONST.  
Co.

1919

1. AL-II-A-147
2. A113, TOWN CREEK ROAD OVER TOWN CREEK
3. ALLEGANY COUNTY, MD
4. WALLACE - MONTGOMERY
5. 12197
6. MD SHPO
7. PLAQUE - DOWNSTREAM WALL
8. 6 OF 6

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

Property/District Name: Town Creek Road Bridge NO. 3 Survey Number: AL-II-147<sup>A</sup>

Project: CENAB-OP-RP (AL DPW) 98-61484-16 Agency: FHWA/COE

Site visit by MHT Staff: XX no \_\_\_ yes Name \_\_\_\_\_ Date \_\_\_\_\_

Eligibility recommended X Eligibility not recommended \_\_\_\_\_

Criteria: \_\_\_A \_\_\_B XXC \_\_\_D Considerations: \_\_\_A \_\_\_B \_\_\_C \_\_\_D \_\_\_E \_\_\_F \_\_\_G \_\_\_None

Justification for decision: (Use continuation sheet if necessary and attach map)

Bridge NO. A113, over Town Creek, Allegany County, MD is a two-span concrete arch structure built in 1919, which has not been altered since its initial construction. Furthermore, it has been determined eligible for the National Register of Historic Places by the Interagency Historic Bridge Committee. The bridge is a reinforced concrete structure has a filled spandrel, a solid parapet with incised panels on the exterior of the parapet, a pier, wingwalls and abutments, and appears to be in fair condition based on the photographs submitted with the Historic Bridge Survey Inventory Form and the Allegany County Dept. of Public Works. Based on the information provided, the Office of Preservation Services concurs with the eligibility determination based on Criterion C for the National Register. The bridge does not appear to qualify for inclusion in the National Register under criteria A, B or D.

Documentation on the property/district is presented in: Project Review & Compliance Files

Prepared by: SHA

Anne E. Bruder February 13, 1998  
Reviewer, Office of Preservation Services Date

NR program concurrence: X yes \_\_\_ no \_\_\_ not applicable  
Peter A. Kuntz 2/18/98  
Reviewer, NR program Date

*gmg*

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 Adaptation

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: Rural

Historic Function(s) and Use(s): Transportation -- stream crossing

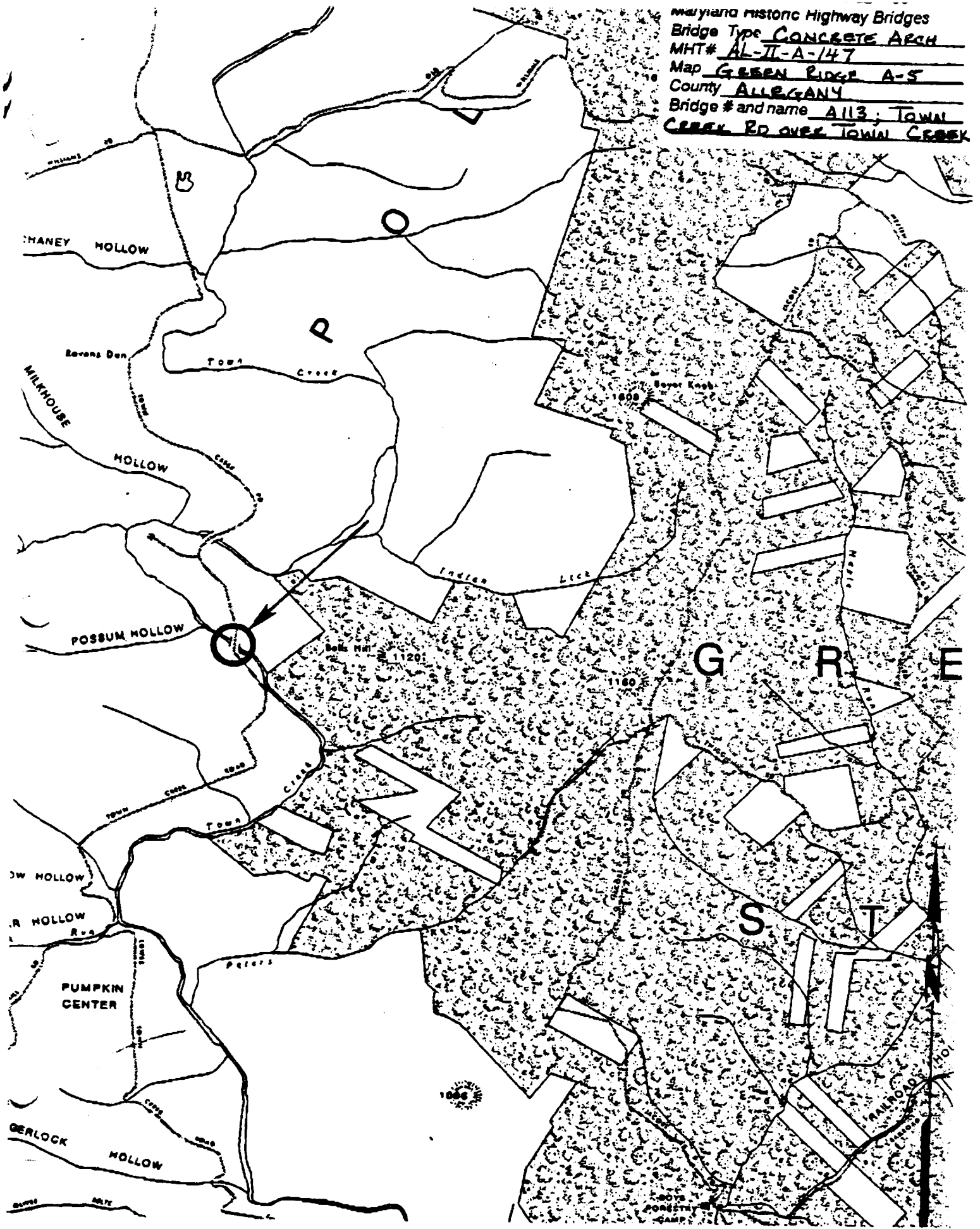
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Known Design Source: \_\_\_\_\_

Maryland Historic Highway Bridges  
 Bridge Type CONCRETE ARCH  
 MHT# AL-JI-A-147  
 Map GREEN RIDGE A-5  
 County ALLEGANY  
 Bridge # and name A113; TOWN  
CREEK RD OVER TOWN CREEK



CN FLINTSTONE GAD



1. EAST ELEVATION (LOOKING WEST)



2. WEST ELEVATION (LOOKING EAST)