Maryland Historical Trust

Maryland Inventory of Historic Properties number: AL-I-A-083

Name: US 40 over Fifteen Mile 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 _____ Eligibility Not Recommended __X____

Criteria: ____A ____B ____C ____D Considerations: ___A ___B ___C ___D ___E ___F ___G __None

Comments:_____

_____

_____

Reviewer, OPS:_Anne E. Bruder_____ Date:__3 April 2001____

Reviewer, NR Program:__Peter E. Kurtze_____ Date:__3 April 2001____

Maryland Inventory of Historic Properties MHT Number AL-I-A-083
Historic Bridge Inventory
Maryland State Highway Administration
Maryland Historical Trust

SHA Bridge No. 1036 **Name:** US 40 over Fifteen Mile Creek

Location:
Street/Road Name and Number: US 40 (National Pike)

City/Town: Piney Grove **Vicinity** _ X

County: Allegany

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_Retractile_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 1036 carries US 40 over Fifteen Mile Creek in Allegany County. US 40 runs east-west over the southern flowing Fifteen Mile Creek. The bridge is surrounded by forest and limited development. Most of the residential dwellings in the area are located up to one-quarter mile away.

Describe Superstructure and Substructure:

Bridge 1036 is an open spandrel concrete arch built in 1917 with an arch span of 65 feet and a total length of 116 feet. The bridge has a rise of 7 feet from the springline. The bridge is 27 feet wide and has a clear roadway width of 24 feet. The deck slab was poured as a monolith with the T-beam floorbeams. The main slab reinforcement is parallel to traffic and is placed in the top and bottom of the slab. According to a 1996 inspection report, the bridge is in fair condition with a sufficiency rating of 70.4.

The bridge still has its original parapets. There are 4 sections running the length of the bridge including the wingwalls. The first section includes the endblock over the wing wall and measures 3 feet 8 inches high by 4 feet 11 inches wide at the base. The end block includes an incised panel that is 11 inches high and 3 feet 4 inches long. The rest of the first section is a closed paneled parapet with 5 incised sections. The first section from the endblock to the beginning of the second section is approximately 17 feet. The incised sections are standardized throughout the bridge. The pattern is long panel (lp) - short panel (sp). The long panel has the same dimensions as the incision in the end block. The short panel is excised. The panel is 11 inches high and 1 foot 2 inches long and is separated from the long panel by 9 inches. The first section is endblock lp, sp, lp, and sp. The second begins with an expansion joint of the same width and length of a short panel but separated from the first section by a ¼-inch felt joint. Therefore, the second section is an expansion joint ,lp, sp, lp, sp, lp, sp, lp, sp, lp, sp, and lp. This second section measures approximately 65 feet. The third mirrors the second section and the fourth is symmetrical with the first.

According to the 1996 inspection report the bridge has large spalls with rusted reinforcement bars exposed. The sections on both sides of the bridge have heavy scaling with medium spalling at the curb lines. In addition there are fine vertical cracks through the bridge's parapets.

The open spandrel ribs are constructed of shapes of inverted U's. Five separate designs were used for the 19 rib sections and 38 columns. The U shapes are generally 20 feet across at deck level and approximately 3 feet wide in the column section. The columns are embedded in concrete footers that are generally 6 feet wide and 8 feet high. The rib sections are spaced generally 6 feet apart from center to center.

During the last 10 years the ribs have had extensive repairs which included encasement with timber bracing, pneumatically applied mortar, and scour protections. A 1994 inspection report details the deterioration of the arch rib. The arch rib is scoured up to a foot below the springline elevation. According to a 1995 inspection report the arch has medium and large irregular cracks with medium spalls and rusted reinforcement bars exposed at the struts. There are large spalls and deterioration at all arch skewback interfaces. The spandrel walls have large open cracks in the columns and spandrel bents.

Discuss Major Alterations:

Large scale patching has occurred throughout the bridge. However, the greatest problem has been the large scale cracking and scaling within the columns. As early as 1985, inspectors began noting large scaled sections within the columns. By 1990 consultants did a detailed inspection for an Emergency Rehabilitation for the bridge. At that time the results indicated the concrete superstructure was in poor condition and in need of immediate repair. The most severe crack occurred in column 15. That crack which appeared to be a shear crack, was 1/8" wide and extended along the entire width of the column at a 45 degree angle. A large spall developed at the same location exposing reinforcement bars. The exposed reinforcement bar is rusted with significant section loss. There were similar cracks in columns 24, 26, 29, and 33. In March of 1990 the SHA braced columns 12, 14, 15, 16, 17, 18, 29, 31, 26, and 28 with timber bracing.

History:
When Built? 1917
Why Built? Eliminated a single lane, dangerous bridge along the National Pike. Eliminated a wooden bridge.
Who Built? State Roads Commission
Why Altered? Maintenance of arch.
Was this bridge built as part of an organized bridge building campaign? Yes, the State Roads Commission made an effort to modernize and eliminate narrow one-lane roads and dangerous curves on the National Pike. Scenic US 40 was originally chartered in 1792 by Maryland as a turnpike from Frederick to Cumberland; it was a segment of the Baltimore-Cumberland Turnpike. The road, eventually know as the National Pike (as distinct from the National Road), was financed by various Maryland banks, and construction began in 1816. The road was completed to Cumberland by 1823. The turnpike ceased operations in 1889, when a storm wrecked bridges on the road, and the bridges were not rebuilt. The road had fallen into disrepair by the early-twentieth century, when the "Good Roads" Act of 1916 provided federal funding for road improvements. The National Pike was designated US 40 in the mid-1920s.

Surveyor Analysis:
This bridge may have NR significance for association with:
__A Events __Person
__C Engineering/Architecture

This bridge was determined not eligible by the Interagency Review Committee in February 1996.

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

Yes, the State Roads Commission made an effort to modernize and eliminate narrow one-lane roads and dangerous curves on the National Pike. Efforts included widening, road relocation, regrading, and bridge replacement. This effort started early in the State Roads Commission's first 7-year plan and continued through the 1930s with the widening of MD 40.

The *Ninth, Tenth, Eleventh, and Twelfth Annual Reports of the State Roads Commission for the Years 1916, 1917, 1918, and 1919* details the construction of this arch:

> During the summer of 1917, there was constructed a modern concrete bridge over Fifteen Mile Creek. The new bridge did away with an old wooden structure which had dangerous approaches and narrow width, and was becoming unsafe for heavy traffic The new bridge has a clear span of 70 feet, with a superstructure carried on arch rings which are models of their kind. Total length of bridge is 110 feet, and there is a clear width .

The bridge was built using federal funds legislated by the State Aid Acts authorized by Congress between 1916 and 1919. The State Roads Commission used much of the allotted funding for the upgrading and moderation of the National Pike. Although it was narrow and had fallen on disrepair it was still the major corridor between Baltimore and Western Maryland. Additional roads had been constructed parallel and perpendicular to the road since its original construction in 1811. The National Pike was the most important road from Frederick to Wheeling, WV up until 1940.

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, the resources surrounding the bridge do not warrant a possible district. However if the National Pike were ever nominated as a linear district then the bridge would contribute to that district.

Is the bridge a significant example of its type?

A significant example of a concrete arch 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 that are common examples of their type. In addition, the structure must be in excellent condition. This bridge, which has considerable deterioration, is an undistinguished example of a concrete arch bridge.

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

Yes this bridge retains integrity of its character defining elements. Although some repairs were made to the wingwalls, the barrel, the spandrel walls, the parapets, and the abutments, all are original but have heavy deterioration.

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

Yes, eventually the concrete arches, which were built by the State Roads Commission along the National Pike, should be studied as a whole as examples of the state using a single bridge type to widen and modernize an old route.

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.

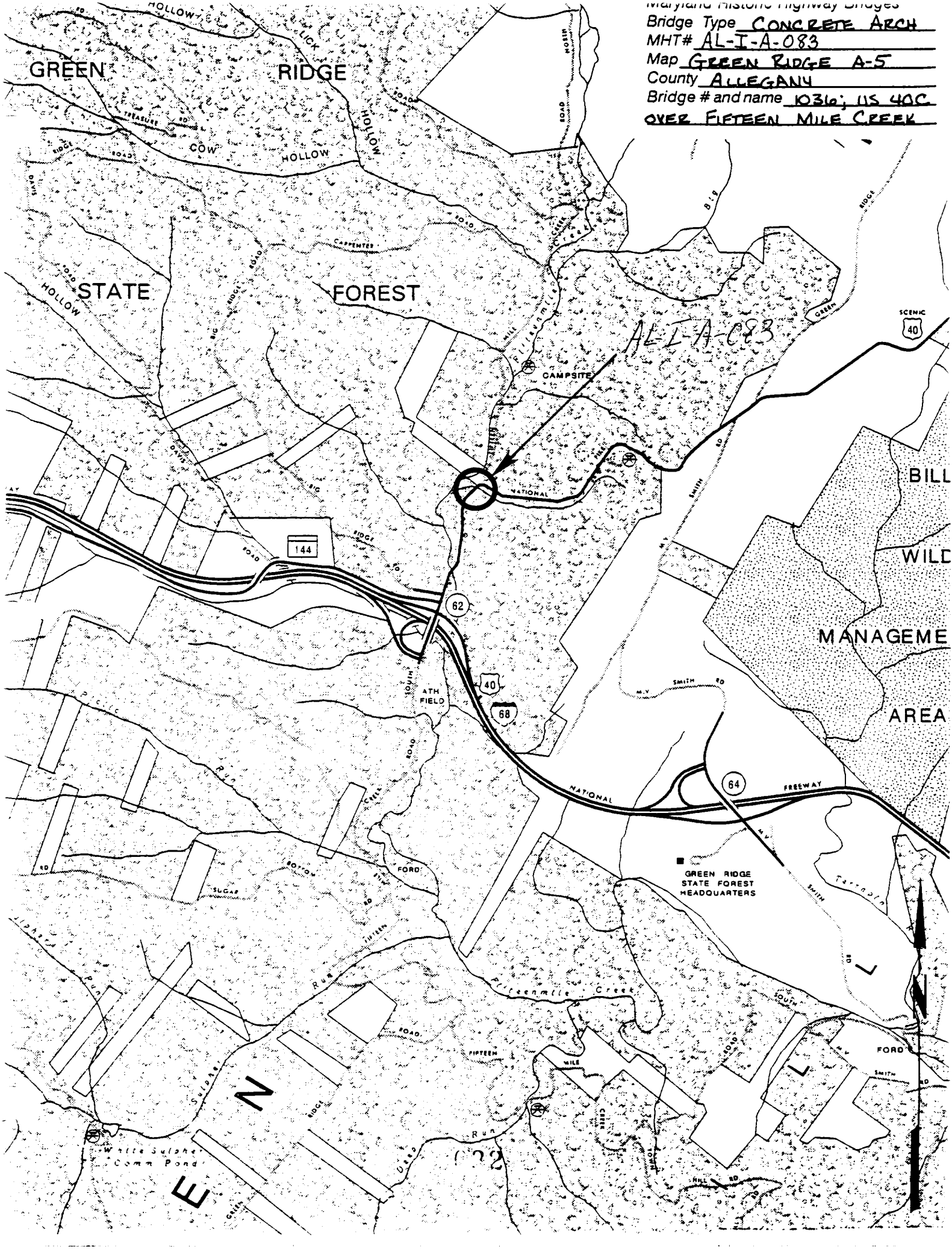
P.A.C. Spero & Company and Louis Berger & Associates
1995 Historic Highway Bridges in Maryland: 1631-1960: Historic Context Report. Maryland State Highway Administration, Maryland State Department of Transportation, Baltimore, Maryland.

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

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


Maryland Historic Highway Bridges
Bridge Type CONCRETE ARCH
MHT# AL-I-A-083
Map GREEN RIDGE A-5
County ALLEGANY
Bridge # and name 10316; US 40C
OVER FIFTEEN MILE CREEK
AL-I-A-083
GREEN RIDGE STATE FOREST
CAMPSITE
GREEN RIDGE STATE FOREST HEADQUARTERS
NATIONAL FREEWAY
SCENIC 40
144
62
40
68
64
FIFTEEN MILE CREEK

1. AL-1-A-083
2. US 40 over Fifteen Mill Creek
3. Allegany Co., MD
4. Wallace, Montgomery & Assoc
5. 12/97
6. MD SHPO
7. Elevation looking downstream
8. 1 of 4

1. AL-1-A-083
2. US 40 over Fifteen Mile Creek
3. Allegany Co., MD
4. Wallace, Montgomery & Assoc.
5. 12/97
6. MD SHPO
7. Elevation looking upstream
8. 2 of 4


FIFTEEN MILE
CREEK

1. AL-1-A-083
2. US 40 over Fifteen Mill Creek
3. Allegany Co., MD
4. Wallace, Montgomery & Assoc.
5. 12/97
6. MD SHPO
7. Looking East
8. 3 of 4

1. AL-I-A-083
2. US 40 over Fifteen Mill Creek
3. Allegany Co., MD
4. Wallace, Montgomery & Assoc,
5. 12/97
6. MD SHPO
7. Looking West
8. 4 of 4

AL-I-A-083 SHA Bridge #1036
U.S. Rt. 40 over 15 Mile Creek
Pratt Hollow, Allegany Co. MD
Eligible, Criterion C

This open spandrel concrete arch bridge was built in 1917. A 1998 SHA review recommended this bridge as eligible for the National Register of Historic Places. This review concurs with that recommendation. The bridge retains a high level of architectural integrity and is an excellent example of early 20th century bridges constructed to serve automobiles on the National Pike.

Prepared by Merry Stinson
Paula S. Reed and Associates, Inc.
105 N. Potomac St.
Hagerstown, MD 21740
301-739-2070

3/00

MARYLAND HISTORICAL TRUST

Eligibility Recommended X Eligibility Not Recommended _____

Criteria: ___A ___B X C ___D Considerations: ___A ___B ___C ___D ___E ___F ___G ___None

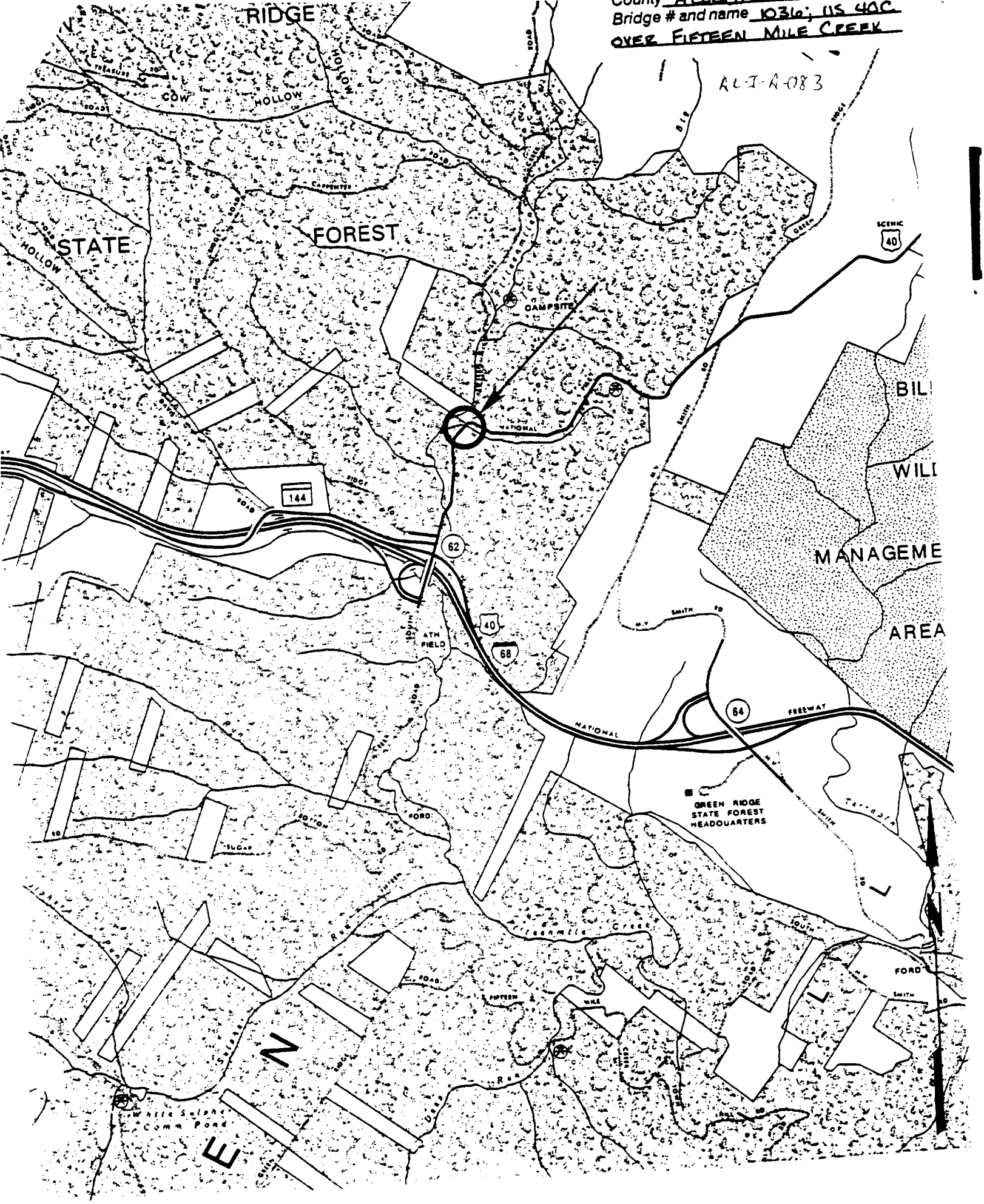
Comments: Interagency Committee already determined eligible.

Reviewer, OPS: [signature] Date: 6/7/2000

Reviewer, NR Program: [signature] Date: 6/6/00

Agreed

View of SHA Bridge # 1036 (Al-I-83).


County ALLEGANY
Bridge # and name 10316; US 40C
OVER FIFTEEN MILE CREEK
ALI-A-083
RIDGE
COW HOLLOW
STATE
FOREST
CAMPSITE
SCENIC 40
144
62
40
68
64
FREEWAY
NATIONAL
GREEN RIDGE STATE FOREST HEADQUARTERS
FIFTEEN MILE Creek
FORD
N
E

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

Property/District Name: SHA BRIDGE #1036 Survey Number: AL-I-A-083
Project: Proj. NO. 2380201-B-030600 Agency: SHA

Site visit by MHT Staff: _X_ no ___ yes Name _____ Date _____

Eligibility recommended _X_ Eligibility **not** recommended _____

Criteria: ___A ___B _X_C ___D Considerations: ___A ___B ___C ___D ___E ___F ___G
___None

Justification for decision: (Use continuation sheet if necessary and attach map)
Based on the available information, Bridge 1036 (U.S. 40 over Scenic 15 Mile Creek), Allegany County, is an open spandrel concrete arch bridge built in 1917 with an arch span of 65 feet and a total length of 116. The concrete deck slab has T-beam floorbeams. It retains its original parapets with incised panels set in a 1-2 rhythm (see picture). Within the open spandrel, the bridge is supported by inverted U-shaped ribs. The bridge is eligible for the National Register of Historic Places under Criterion C, as a contributing resource and as an example of concrete arch bridges used on the National Road (U.S. 40). It is also eligible under Criterion A as an example of first National Road constructed in the United States beginning in the early 19th century. However, this portion of U.S. 40 is part of the discontinuous historic district which has not yet been researched sufficiently to determine boundaries.

Documentation on the property/district is presented in: Project Review and Compliance
Prepared by: Jill Dowling/ SHA and Paula Spero & Company

Anne E. Bruder — 2/20/98
Reviewer, Office of Preservation Services — Date

NR program concurrence: X yes ___ no ___ not applicable

Peter A Cunty — 2/23/98
Reviewer, NR program — Date

JMG

Survey No. ___AL-I-A-083___

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)
__X__ 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
__X__ Rural Agrarian Intensification	A.D. 1680-1815
__X__ Agricultural-Industrial Transition	A.D. 1815-1870
__X__ 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
__XX__ Architecture, Landscape Architecture, and Community Planning
_____ Economic (Commercial and Industrial)
_____ Government/Law
_____ Military
_____ Religion
_____ Social/Educational/Cultural
__XX__ Transportation

V. Resource Type:

Category: Structure
Historic Environment: Rural
Historic Function(s) and Use(s): Bridge/Transportation
Known Design Source:

AL-I-A-083