

**MARYLAND HISTORICAL TRUST
DETERMINATION OF ELIGIBILITY FORM**

NR Eligible: yes no

Property Name: Small Structure 13065X0 Inventory Number: HO-1123
 Address: Frederick Road (MD 144) over Middle Patuxent River Historic district: yes no
 City: Cooksville Zip Code: 21723 County: Howard
 USGS Quadrangle(s): Woodbine
 Property Owner: MD SHA Tax Account ID Number: _____
 Tax Map Parcel Number(s): _____ Tax Map Number: _____
 Project: Small Structure 13065X0 Remedial Repairs Agency: _____
 Agency Prepared By: MD SHA Consultant
 Preparer's Name: Jon Schmidt Date Prepared: 03/26/2013

Documentation is presented in: DOE Form
 Preparer's Eligibility Recommendation: Eligibility recommended Eligibility not recommended
 Criteria: A B C D Considerations: A B C D E F G

Complete if the property is a contributing or non-contributing resource to a NR district/property:
 Name of the District/Property: _____
 Inventory Number: _____ Eligible: yes no Listed: yes no

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

Description of Property and Justification: *(Please attach map and photo)*
 SHA Small Structure 13065X0 carries MD 144 over the Middle Patuxent River east of the intersection with MD 97 in Cooksville, Howard County. The structure is a stone arch small structure with a span of 6 feet, length of 14 feet and width of 22 feet. A bridge with a span of less than 20 feet is referred to as a small structure. Records of the Baltimore and Frederick Turnpike Company indicate that this section of the road was constructed between 1805 and 1806. The small structure could have been constructed at that time. A flood in September 1868 washed out all the culverts between miles nine and eighteen on the turnpike. Although Small Structure 13065X0 is situated along mile 22, it is feasible that it was repaired or rebuilt at that time.
 The wingwalls of the stone arch structure are slightly above grade and arc outwards in a concave manner before turning outwards and terminating oriented parallel to the road. The spandrel walls of the small structure are primarily composed of rubble stone, although a section of the northeast wingwall features dressed stones. Beneath the concrete cap, a large portion of the northwest wingwall has collapsed onto the adjacent steep slope. The voussoirs ringing the archway are slightly visible on the north elevation. The exterior of the superstructure is covered with gunite or shotcrete – a slurry of thin concrete applied with a pneumatic hose – at the base and a smooth coat of concrete parging on the upper portion. According to the Small Structures on Maryland's Roadways historic context, gunite was commonly applied to masonry bridges during the middle of the twentieth century.(1) The interior of the arch is also covered with a smooth coat of concrete. In areas where the concrete has deteriorated

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 Reviewer, Office of Preservation Services Date: 4/24/13

 Reviewer, National Register Program Date: 5/2/13

and the mortar is exposed, it is clear that the small structure has been repointed several times. The parging on the north spandrel wall has worn away and revealed a dramatic loss of mortar. The small structure has a bituminous wearing surface.

The small structure has been altered several times. The above-grade portion of the original stone parapet walls has been removed. A small section of the original parapet wall rests in the woods southwest of the small structure. The superstructure has been capped with a smooth coat of concrete finished with beveled corners – indicating it is a 20th century alteration. In place of parapets, W-beam traffic barrier supported by mid-twentieth century metal sigma posts are fixed to the superstructure. None of the alterations to the bridge have been documented on plans. Small Structures 13055X0, 13001X0, and 130064X0 are also stone arch bridges on the National Pike that have been altered in a similar fashion.

Context

Small Structure 13065X0 fits into two historic contexts. It is a stone arch bridge dating from the early nineteenth century and is situated on a segment of MD 144 that is part of the historical alignment of the Baltimore and Frederick Turnpike part of the National Road.

Small Structure 13065X0 is a stone arch bridge with a 6-foot semi-circular arch built to carry the Baltimore and Frederick Turnpike (present day MD 144) across Cattail Creek. The bridge was likely constructed circa 1806 of rubble and dressed stone. It is of similar appearance to several stone arch bridges on the National Road. As a building material, stone possesses compressive strength and since arch design relies on compression, stone is a suitable material for small structures.(2) In Maryland, the distribution of stone small structures was dictated by the local availability of materials particularly in the nineteenth century.(3) Stone arches were more commonly built in Maryland than brick culverts and as would be expected have survived in greater numbers. Owing to the age of these structures and vast changes in transportation infrastructure during the past 150 years, stone arch small structures have been subject to a variety of alterations. The most common of these alterations are the removal of the original parapet walls, alteration of wingwalls, application of gunite or shotcrete, and encasing the stone arch structure within a larger span to accommodate a wider roadway.(4)

The small structure is also related to the privately operated Baltimore and Frederick Turnpike. The history of the road is extensive. In 1805 the Maryland General Assembly incorporated the Baltimore and Frederick Turnpike Company to improve the existing road between Baltimore City and Boonsboro in Washington County.(5) Under the direction of the privately held company, the road was straightened and resurfaced with crushed stone.(6) The first twenty miles west from Baltimore were completed at a cost \$9000 per mile and opened to tolled traffic on April 23, 1807.(7) This first section included a stone culvert over Cattail Creek where Small Structure 13065X0 is now situated. Turnpike records indicate that a flood in September 1868 washed out all the culverts between the miles nine and eighteen on the turnpike.(8) Although this culvert is situated on the 22nd mile, it is possible this structure was also altered at this time.

A common complaint of all nineteenth century roads was maintenance. Poor techniques, inadequate materials, outdated equipment, infrequent attempts, and a simple lack of funds all explain poor road conditions.(9) Although citizens petitioned for improved roads on a regular basis, it took the sudden popularity of bicycles that moved the state to act. Bicycling became popular in the 1890s and riders were required to pay tolls as any other traveler.(10) The bicyclists formed organizations and raised concerns about problems caused by the deep ruts created by larger wheeled traffic.(11) Around this time the state's Geological Survey Commission was tasked with reporting on the condition of the Maryland's roads. A result was the creation of a Highway Division in 1899 and early attempts to purchase the Maryland's privately operated turnpikes. A heated battle ensued between the turnpike companies on one side and the government and citizen advocates on the other. Similar conflicts were taking place nationwide and these efforts have been broadly labeled as the Good Roads Movement. In the end, the state government enacted a

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law in April 1900 enabling cyclists to travel on some turnpikes toll free.(12) The operations of the privately held Baltimore and Frederick Turnpike Company continued through December 1910, when the tolled facility road was sold to the State Roads Commission (SRC) for \$100,000.(13)

The Baltimore and Frederick Turnpike entered a new era when the SRC straightened, widened, and converted the tolled facility into a free road for the first time in a century.(14) River and stream crossings were also upgraded. Perhaps owing to the relatively low stream flow of Cattail Creek, Small Structure 13055X0 remained in place. The road was designated US 40 in 1926 and continued to operate as the primary route between Baltimore and Frederick until 1940. In that year US 40 was relocated off alignment in eastern Howard County as part of SRC Contract HO-176-000-329. The modern four-lane, divided highway bypassed Ellicott City to the north of the historic route, which was designated US 40 Alternate at that time. In 1950, Contract HO-234-002-315 continued the new US 40 westward from West Friendship to Morgan Road, bypassing the segment where Small Structure 13055X0 is located. (15) During the early 1970s, I-70 was extended eastward toward Baltimore under SRC Contract HO-305-082-772. The new Interstate further diminished traffic on the historic alignment, which received its current moniker MD-144 during the construction of I-70.

Evaluation

SHA Small Structure 13065X0 is being evaluated for the National Register of Historic Places (NRHP) as a stone arch small structure. According to the historic context Small Structures on Maryland's Roadways, a stone culvert small structure may be eligible under Criterion A for association with the National Road if its integrity remains intact.

The route of the Baltimore and Frederick Turnpike is part of a series of private turnpikes constructed during the nineteenth century between Baltimore and Cumberland, Maryland where the federally financed National Road began. Over time the route between Baltimore and Cumberland was collectively referred to as the National Pike. This route along with the National Road – from Cumberland to the Pennsylvania state line – has been identified as the Historic National Road Scenic Byway. In 2001, the Corridor Partnership Plan for the Maryland Historic National Road Scenic Byway established the period of significance for the National Road as 1810 to 1960. The period of significance is broken down into three distinct eras: the Heyday of the National Road (1810-1850), Agriculture and Trade (1850-1910), and Revival of the National Road (1910-1960).

Small Structure 13065X0 was likely built during the Heyday of the National Road (1850-1910). This is when the construction of the road enjoyed popular and political support for providing a new transportation route to the west and access to new markets.(16) The corridor Partnership Plan identifies several property types that are associated with the era: inns, dwelling, mills, toll houses, farmsteads, stone bridges, places of worship, and monuments and mile markers.(17) Stone arch bridges are specifically identified as a significant property type during this era. As such Small Structure 13065X0 is a significant resource associated with the National Road.

Small Structure 13065X0 is significant, but extensive alterations overtime have affected its integrity, making it difficult to communicate its association with the National Road. Four other stone arches on the National Pike in Howard County have been documented with alterations similar to Small Structure 13065X0. Small Structures 13001X0 on MD 144 over Haymeadow Creek (HO-778), 13055X0 over Cattail Creek (HO-1123), 13064X0 on MD 144 over a Branch of the Middle Patuxent River (HO-779) have had their parapet walls removed and gunite, concrete and modern guardrail applied. The alterations to HO-778, HO-779, and HO-1123 are more impactful and deleterious the integrity of the structures. As such, MHT concurred with SHA recommendations that HO-778 and HO-779 were not eligible for the NRHP in 1996. SHA has recently determined HO-1123 not eligible for the NRHP, but at present MHT concurrence is pending.

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In 2000 SHA recommended Small Structure 13063X0 over a Branch of Cattail Creek (HO-757) not eligible for the NRHP. MHT did not concur with this recommendation and determined the small structure eligible for listing under Criterion A and C. According to the historic context Small Structures on Maryland's Roadways, the character defining elements (CDEs) of a stone arch small structure are identified as an arch ring, barrel, spandrel wall, parapet, abutments and wingwalls.(18) The eligible Small Structure 13063X0 retains a more complete set of these CDEs than 13064X0 and as a result has a more handsome appearance and is eligible under Criterion C. Although Small Structure 13064X0 has been altered, these changes are closer to those of the NRHP eligible 13064X0 than to not eligible Small Structures 13001X0 and 13064X0. Despite these alterations, the small structure is located on a section of MD 144 which has changed relatively little from its historic setting. The proximity to the NRHP listed Joshua Roberts Inn (HO-005) and the R. Hook Log House (HO-181) further contribute to the structure's integrity of feeling and association. The removal of the parapet walls and paring large sections of the structure have negatively impacted the integrity of workmanship, design and, to some extent, materials. However, as Small Structure 13065X0 retains a significant degree of integrity of location, setting, feeling and association, it maintains its association with the Baltimore and Frederick Turnpike. Small Structure 13065X0 is eligible for the NRHP under Criterion A.

Research has not been able to associate the small structure with individuals significant to local, Howard County, State of Maryland, regional or national history. As such, the bridge is recommended not eligible for the NRHP under Criterion B.

According to Small Structures on Maryland's Roadways, stone arch small structures may be eligible for the NRHP under Criterion C for two reasons: if all the CDEs – identified in the assessment of Criterion A – remain intact or if the structure embodies a craftsman tradition derived from Colonial and European Sources.(19) The removal of the parapet walls, installation of w-beam traffic barrier, and application of gunite and concrete are detrimental to the small structure's integrity of workmanship, design, and materials. These alterations, however misguided, have preserved the stone arch bridge's continued service on MD 144. However, the removal of the parapet walls renders the small structure with an incomplete set of CDEs. Additionally, the small structure is neither a high-style or representative example of craftsmanship employed in the construction of stone arches. Situated west of Small Structure 13065X0 is Small Structure 13063X0 (HO-757) which is eligible for the NRHP under Criterion A and C. This example possesses a complete set of CDEs and is a better example of a stone arch small structure. For these reasons, Small Structure 13065X0 is not eligible for the NRHP under Criterion C.

The historic context Small Structures on Maryland's Roadways indicates that an early nineteenth century stone-arch small structure may be eligible for the NRHP if it is encased within a larger structure. (20) Small Structure 13065X0 is not encased within a larger bridge and no further efforts to evaluate the property under Criterion D were pursued.

FOOTNOTES

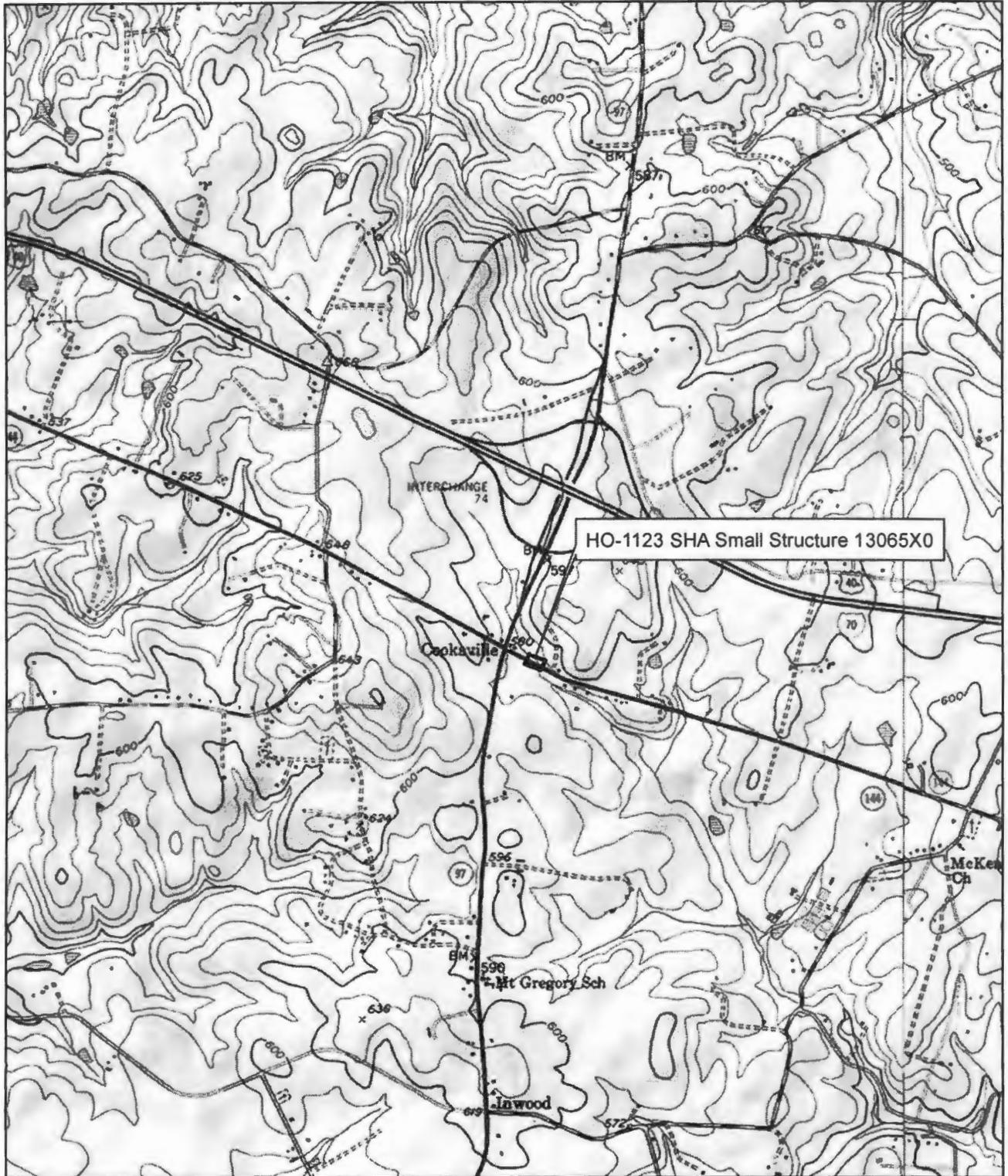
- (1) Parsons Brinckerhoff, Quade and Douglass. Small Structures on Maryland's Roadways: Historic Context Report. Baltimore: (June 1997), 3-5.
- (2)Parsons. Small Structures, 3-5.
- (3)Parsons. Small Structures, 3-5.
- (4)Parsons. Small Structures, 3-5.
- (5)Hollifield, William. Difficulties Made Easy: History of the Turnpikes in Baltimore City and County. Baltimore: Baltimore Historical Society. (1978), 16.
- (6)Hollifield. Difficulties Made Easy, 16.
- (7)Hollifield. Difficulties Made Easy, 16.
- (8)Hollifield. Difficulties Made Easy, 21.
- (9)Hollifield. Difficulties Made Easy, 22.
- (10)Hollifield. Difficulties Made Easy, 7.

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- (11) Lichtenstein Consulting Engineers. Delaware's Historic Bridges: Survey and Evaluation of Historic Bridges with Historic Contexts for Highways. 2nd Edition. Baltimore. (2000), 6
- (12) Hollifield. Difficulties Made Easy, 7.
- (13) Hollifield. Difficulties Made Easy, 22.
- (14) Hollifield. Difficulties Made Easy, 22.
- (15) McGin, Russell H., Edgar T. Bennett, Bramwell Kelly. State Roads Commission Report 1953-1954. Baltimore (1954), 215, 218-219
- (16) Lardner/Klein Landscape Architects, John Milner Associates, Shelley Mastran, Bay Area Economics, Compass, Daniel Consultants Inc., Sally Oldham. Corridor Partnership Plan for the Maryland Historic National Road Scenic Byway. (May 2001), 4-8,9. <http://planning.maryland.gov/PDF/OurProducts/Publications/OtherPublications/nationalroad/Schedule.html> . Accessed 22 February 2013.
- (17) Lardner/Klein Architects. Corridor Partnership Plan, 4-10.
- (18) Parsons. Small Structures, 4-8.
- (19) Parsons. Small Structures, 4-8.
- (20) Parsons. Small Structures, 4-8.

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Cultural Resources Map

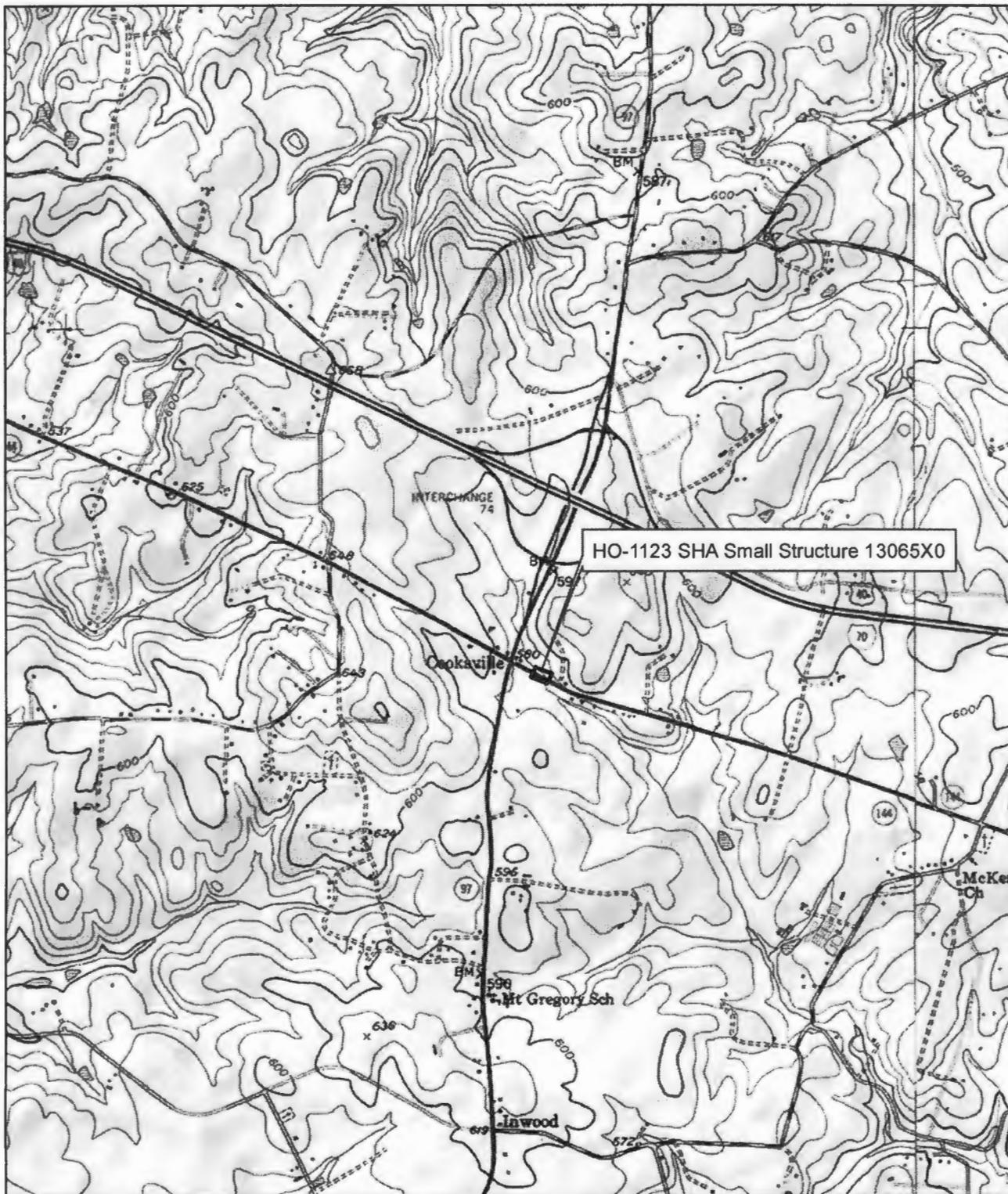


SHA Small Structure 13065X0
Howard County
USGS Woodbine Topo Quad

February 28, 2013
1:24,000

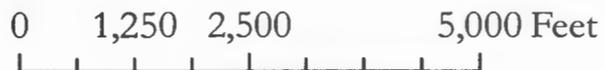
0 1,250 2,500 5,000 Feet

Cultural Resources Map



SHA Small Structure 13065X0
Howard County
USGS Woodbine Topo Quad

February 28, 2013
1:24,000





HO-1123

SHA SMALL STRUCTURE 13005X0

HOWARD COUNTY, MD

PHOTOGRAPHER: JON SCHMIDT

DATE 3/4/2013

DIGITAL IMAGE: MD SHA

SOUTH ELEVATION LOOKING NORTHEAST

HO-1123-2013-03-04_01.TIF

1 of 6

Epson
Professional Paper



HO-1123

SAA SMALL STRUCTURE 13065*0

HOWARD COUNTY, MD

PHOTOGRAPHER: JON SCHMIDT

DATE: 3/6/2013

DIGITAL IMAGE: MD SAA

NORTH ELEVATION LOOKING SOUTH

HO-1123_JOB-0305_02.TIF

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HO-1123

SNA SMALL STRUCTURE 13065 X 0

HOWARD COUNTY, MD

PHOTOGRAPHER: JON SCHMIDT

DATE: 3/5/2013

DIGITAL IMAGE: MD SAA

DETAIL OF SOUTH ARCH: SPANDREL WALL, LOOKING NORTH

HO-1123_2013-03-05_03.TIF

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HO-1123

SHA SMALL STRUCTURE 13065 X 0
HOWARD COUNTY, MD

PHOTOGRAPHER: JON SCHMIDT

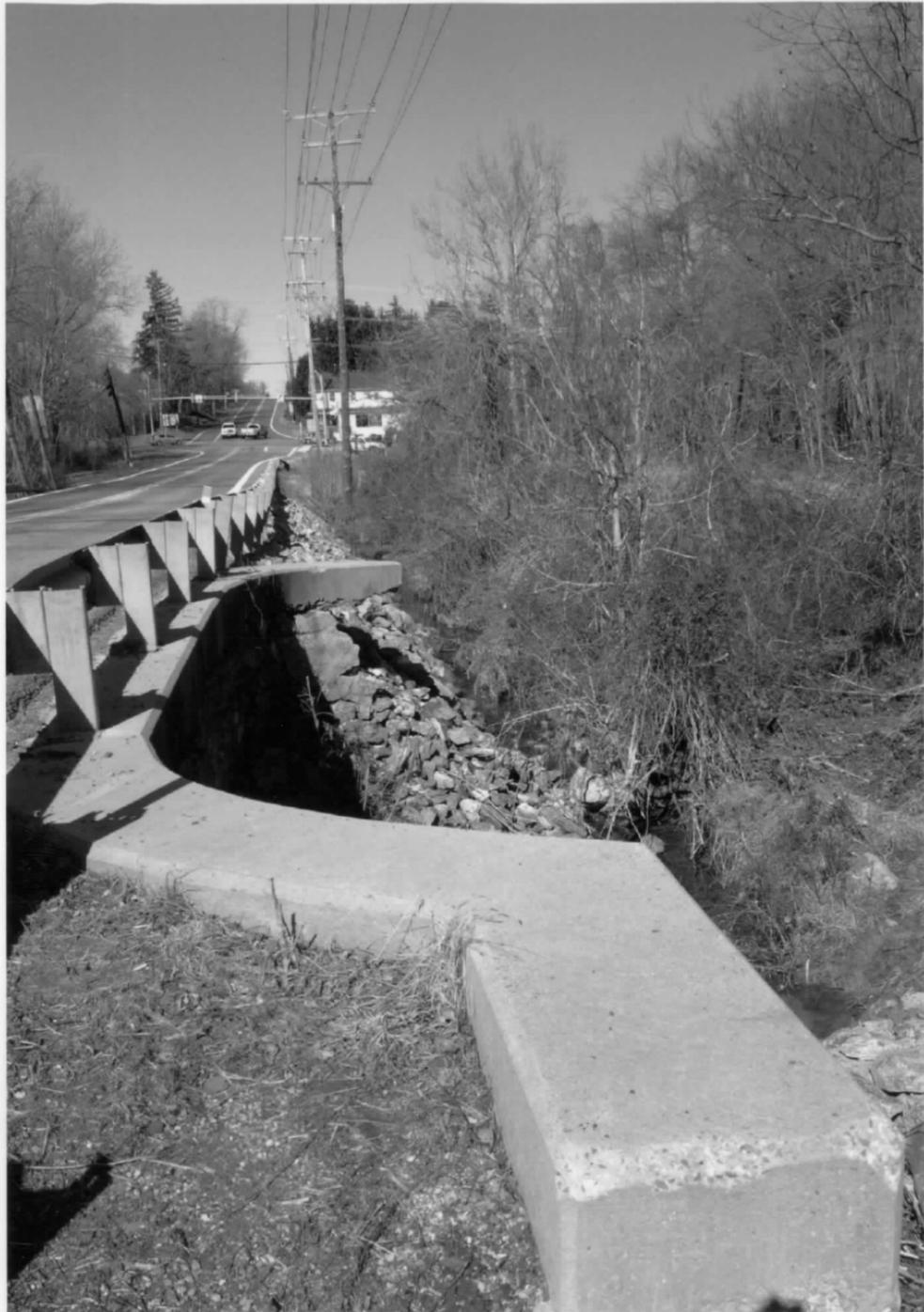
DATE: 3/5/2013

DIGITAL IMAGE: MD SHA

DETAIL OF COLLAPSED SECTION OF N^E WING WALL,
LOOKING SW

HO-1123-2013-03-05_04.TIF

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HO-1123

SHA SMALL STRUCTURE 13065XD

HOWARD COUNTY, MD

PHOTOGRAPHER: JON SCHMIDT

DATE: 3/5/2013

DIGITAL IMAGE: MD SHA

View of concrete cap at the location of the original parapet wall, looking west

HO-1123_2013-03-05_05.TIF

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140-1123

SHA SMALL STRUCTURE 13005X0

HOWARD COUNTY, MD

PHOTOGRAPHER: JON SCHMIAT

DATE: 3/5/2013

DIGITAL IMAGE: MD SHA

VIEW OF WEARING SURFACE OF THE SMALL STRUCTURE,
LOOKING EAST

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