Maryland Historical Trust

Maryland Inventory of Historic Properties number: WO-484.

Name: 23013/MD 367 over Buntings Br. of St. Martin's River.

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 BRIDGES **MHT No.** WO-484
HISTORIC BRIDGE INVENTORY
MARYLAND STATE HIGHWAY ADMINISTRATION/
MARYLAND HISTORICAL TRUST

SHA Bridge No. 23013 **Bridge name:** Buntings Branch of St. Martin's River

LOCATION:
Street/Road name and number [facility carried] MD 367

City/town Bishopville **Vicinity**

County Worcester

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 __X____ **No** _____
National Register-listed district ____ **National Register-determined-eligible district** __
Locally-designated district __X____ **Other** _____

Name of District: Bishopville Survey 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 __ **Retractile** _____ **Pontoon** _____

Metal Girder _____:
Rolled Girder _____ **Rolled Girder Concrete Encased** _____
Plate Girder _____ **Plate Girder Concrete Encased** _____

Metal Suspension ___

Metal Arch __

Metal Cantilever ____

Concrete X__:
Concrete Arch_____ **Concrete Slab**X____ **Concrete Beam** X__ **Rigid Frame** _____

Other _____ **Type Name** _____

WO-484

DESCRIPTION:

Setting: Urban__ Small town__ Rural_

Describe Setting: Bridge 23013 carries MD 367 over Buntings Branch at the western edge of the village of Bishopville in northeastern Worcester County. To the west of the bridge lies a modern house on the south side of MD 367 and some undeveloped land on the north side. A complex of late nineteenth century residential and commercial buildings lies on the east side of the bridge. The stream flows towards the southeast. At this location, Bunting Branch is tidal.

Describe Superstructure and Substructure:

Bridge No. 23013 is a two span concrete beam and slab bridge with an approximate overall length of 56'-6" and a clear roadway width of 24'-0". The substructure consists of concrete abutments and a steel H pile supported concrete pier. This structure was extensively rehabilitated in early spring 1990. The structure is a 1935 modification of an earlier concrete slab bridge. Construction date of the original bridge is unknown. The solid concrete parapets are ornamented with molded rectangular panels. The wingwalls are flared approximately 20 degrees from the center of the road. The structure is designed for H-20 loading.

The pier is a wall type pier supported by a single row of five steel H piles spaced at 6'-0" centers. Both noses of the concrete pier were repaired in the Spring of 1990 and at the same time the five piles were encased with steel protective jackets from the bottom of the pier wall to six feet below the bottom of the pier.

The face of the pier and the east abutment has heavy scaling from the water line, to 1'-6" above the water line while the wingwalls have only moderate scaling in the vicinity of the water line with maximum aggregate loss 3/4". There is some minor vertical cracking on the face of the north wingwall. The stream bottom of Bunting Branch in the vicinity of Bridge No. 23013 was backfilled with riprap to a design elevation of 3' in the Spring of 1990. The latest inspection has verified that this backfill was done satisfactorily and there are no scour problems.

Discuss Major Alterations:

A 1985 underwater inspection revealed that the original structure was not constructed in 1935 as was once thought. Rather, the original structure was a single span concrete slab bridge built on concrete abutments and supported by timber piles. In 1935, an additional steel beam span was added. To accommodate this change, the west abutment was removed. In 1989, a severe storm extensively damaged the bridge. The repaired bridge has new parapets. Both noses of the concrete pier were repaired in the Spring of 1990 and at the same time the five piles were encased with steel protective jackets from the bottom of the pier wall to six feet below the bottom of the pier.

HISTORY:

WHEN was the bridge built: 1900

The State Highway Administration file for this bridge does not indicate when the original structure was built. The addition of the second span occurred in 1935.

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

Other (specify): SHA files X

WHY was the bridge built?

The need for a more efficient transportation network and load capacity in the decades following World War I.

WHO was the designer?
The bridge was modified in 1935 according to plans designed by the State of Maryland.

WHO was the builder?
The builder of the original bridge is unknown.

WHY was the bridge altered?
A second span was added to this bridge to make it less susceptible to flooding. The west abutment was replaced at that time and a pier was added. In 1989 a storm cause severe damage to the bridge. The parapets were subsequently replaced and the pier was repaired.

Was the bridge built as part of an organized bridge-building campaign?
This cannot be determined because the State Highway Administration does not know when the original bridge was built. The modified 1935 structure coincides with an intensive campaign of standardized bridge building.

SURVEYOR/HISTORIAN ANALYSIS:

This bridge may have National Register significance for its association with:
A-Events **B-Person**
C-Engineering/architectural character

This bridge does not have National Register significance.

Was the bridge constructed in response to significant events in Maryland or local history?
Reinforced concrete slab bridges are a twentieth century structure type, easily adapted to the need for expedient engineering solutions. Reinforced concrete technology developed rapidly in the early twentieth century with early recognition of the potential for standardized design. The first U.S. attempt to standardize concrete design specifications came in 1903-04 with the formation of the Joint Committee on Concrete and Reinforced Concrete of the American Society of Civil Engineers.

Maryland's road and bridge improvement programs mirrored economic cycles. The first road improvement program 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 to 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 become inadequate to the huge freight trucks and volume of passenger cars in use, with major improvements occurring in the late 1930s. Most improvements to local roads waited until the years after World War II.

With a diverse topographical domain encompassing numerous small and large crossings, Maryland engineers quickly recognized the need for expedient design and construction.

In the early years, there was a need to replace the numerous single lane timber bridges. Walter Wilson Crosby, Chief Engineer stated in 1906, "The general plan has been to replace these wood bridges] with pipe culverts or concrete bridges and thus forever do way with the further expense of the maintenance of expensive and dangerous wooden structures". Within a few years, readily constructed standardized bridges of concrete were being built throughout the state.

The creation of standard plans and a description of their use was first announced in the 1912-15 Reports of the State Roads Commission whereby bridges spanning up to 36 feet were to use standardized designs.

Published on a single sheet, the 1912 Standard Plans included those structures that were amenable to such an approach: slab spans, (deck) girder spans, box culverts, box bridges, abutments, and piers (State Roads Commission 1912). Slab spans, with lengths of 6 to 16 feet in two foot increments, featured a solid parapet that was integrated into the slab, with a roadway of 22 feet.

In the Report for the years 1916-1919, a revision of the standard plans was noted:

> During the four years covered by this report, it has been found necessary to revise our standard plans for culverts and bridges, to take care of the increased tonnage which they have been forced to carry. Army cantonments...increased their operations several hundred per cent, and the brunt of the enormous truck traffic resulting therefrom, was borne by the State Roads of Maryland. In addition to these war activities, freight motor lines from Baltimore to Washington, Philadelphia, New York, and various points throughout Maryland, and the weight of many of these trucks when loaded, was in excess of the loads for which our early bridges were designed (State Roads Commission 1920:56).

Published on separate sheets, the new standard plans (State Roads Commission 1919) for slab bridges reveal that the major changes was an increase in roadway width from 22 feet to 24 feet and a redesign of the reinforcement. The slab spans continued to feature solid parapets integrated into the span. The range of span lengths remained 6 to 16 feet, but the next year (1920) witnessed the issue of a supplemental plan for a 20 foot long slab span (State Roads Commission 1920).

The 1924 standard plans remained in effect until 1930, when the roadway width for all standard plan bridges was increased to 27 feet in order to accommodate the increasing demands of automobile and truck traffic (State Roads Commission 1930). The range of span lengths remained the same, but there were some changes designed to increase load bearing capacities. The reinforcing bars were increased in thickness. Visually, the 1930 design can be distinguished from its predecessors by the pierced concrete railing that was introduced at this time.

Three years later, in 1933, a new set of standard plans was introduced (State Roads Commission 1933). This time, their preparation was not announced in the Report; new standard plans were by this time nothing special - they had indeed become standard. Once again accommodating the ever-increasing demands of traffic, the roadway width was increased, this time to 30 feet. The slab span's reinforcing bars remained the same diameter but were placed closer together to achieve still more load bearing capacity.

A system of standard nomenclature for plans was introduced at this time: span type was indicated by a two-letter designator followed by span length and the year of the plan. Thus, CS-

18-33 indicates an 18 foot concrete slab of the 1933 standard plan design; CG-36-33 was a 36 foot concrete girder (T-beam) of the same year. The inclusion of the year designator gave ready access to design details for each bridge and indicates that the State Roads Commission anticipated revisions to standard plans.

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 to suggest that the construction of the original concrete slab bridge had a significant impact on the development of the west end of the village of Bishopville. An 1877 map of Bishopville shows a similar pattern of development to what is there today. The only significant difference was the existence of a saw mill. The saw mill went out of business in 1926 according to a local resident because the supply of local timber was exhausted. Other manufacturing soon replaced this mill. Only in recent decades have manufacturing jobs disappeared from the village.
Is the bridge located in an area which may be eligible for historic designation and would the bridge add to or detract from the historical/visual character of the potential district?
The bridge is located in a locally designated historic district.

Is the bridge a significant example of its type?
No, the bridge has been too modified to be a significant example of a bridge type.

Does bridge retain integrity of important elements described in Context Addendum?
No, only the east abutment and part of the deck survive from the original pre-1935 structure. The parapets were replaced in 1990.

Is the bridge a significant example of work of manufacturer, designer and/or engineer?
This original bridge has been so modified that it no longer can be considered a significant example of bridge building.

Should bridge be given further study before significance analysis is made?
No further study is needed to determine the significance of the bridge.

BIBLIOGRAPHY:

State Highway Administration files for bridge #23013

Lake, Griffin, and Stevenson, 1877 Atlases and other early maps of the Eastern Shore of Maryland, Philadelphia, 1877.

Conversation with Tom Carven, owner of the Bishopville Store, which stands adjacent to the bridge.

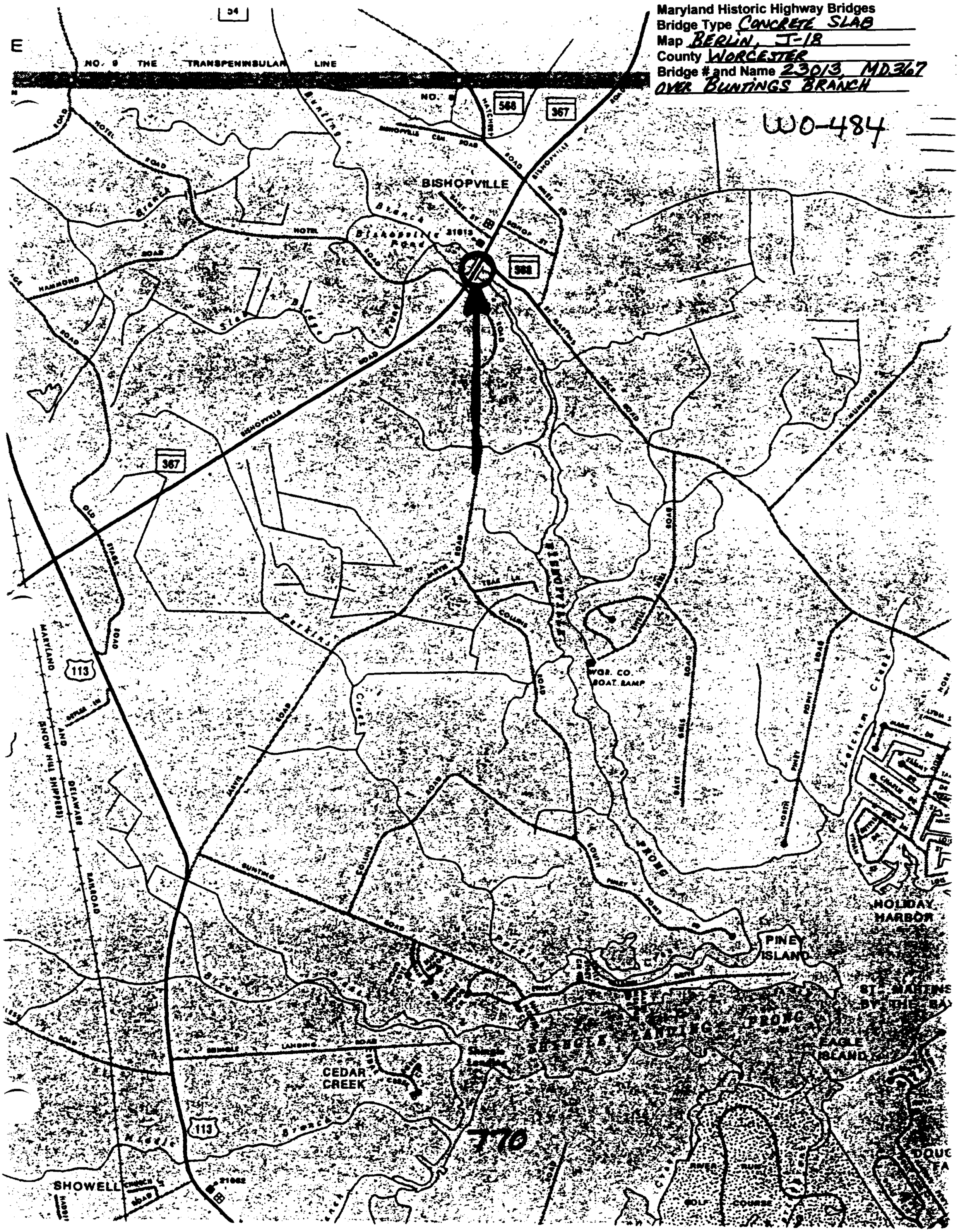
SURVEYOR/SURVEY INFORMATION:

Date bridge recorded 8/11/95

Name of surveyor Daniel Moriarty
Organization/Address P.A.C. Spero & Co., 40 W. Chesapeake Avenue, Suite 412, Baltimore, Maryland 21204
Phone number 410-296-1635 **FAX number** 410-296-1670

Maryland Historic Highway Bridges
Bridge Type CONCRETE SLAB
Map BERLIN, J-18
County WORCESTER
Bridge # and Name 23013, MD367
OVER BUNTINGS BRANCH

WO-484




LINE HOTE

WO-484

WORCESTER COUNTY

MATT HICKSON

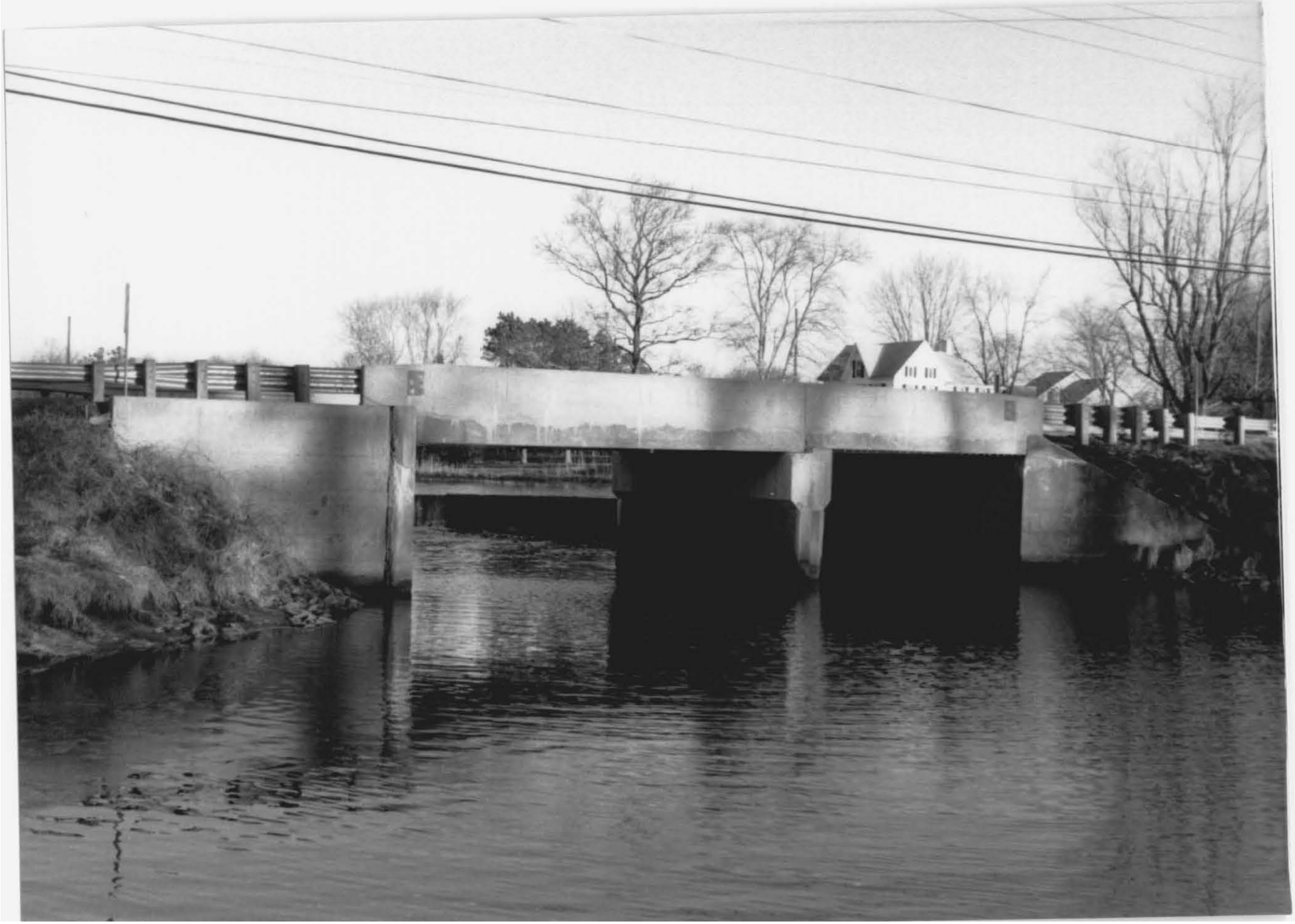
2-3-95

~~MARYLAND SHPO~~ SHA

BRIDGE 23013, LOOKING SW ON MD 367

1 OF 4

WO-484
WORCESTER COUNTY
MATT HICKSON
2-3-95
~~MARYLAND SHPO~~ SHA
BRIDGE 23013, LOOKING NE ON MD 367
2 OF 4



WO-484
WORCESTER COUNTY
MATT HICKSON
2-3-95
~~MARYLAND SHPO~~ SHA
BRIDGE 23013, LOOKING UPSTREAM (NORTH)
3 OF 4

WO-484
WORCESTER COUNTY
MATT HICKSON
2-3-95
~~MARYLAND SHPO~~ SHA
BRIDGE 23013, LOOKING DOWNSTREAM (SOUTH)
4 OF 4

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

Property/District Name: Bridge #23013, MD 367 over Bunting Creek
Survey Number: WO-484

Project: Bridge remedial work Agency: SHA

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

Eligibility recommended _____ Eligibility **not** recommended X

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

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

Bridge #23013, MD 367 over Bunting Creek, west of Bishopville, Worcester County, MD is a 1900 concrete slab/steel beam bridge which was modified in 1935 when an additional steel beam span was added. It has 2 spans, a center pier and from the pictures looks to be an example of a State Roads Commission Standard Plan bridge. The Interagency Historic Bridge Committee determined it to be ineligible for the National Register because of its hybrid nature (steel beam and concrete slab) and because of a major rehabilitation in 1989 according to SHA's December 10, 1999 letter. Based on the photographs provided, it is OPS' opinion that the bridge is not eligible for the National Register since it appears that jersey barriers were added to the exterior of the original bridge parapets.

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

Prepared by: Rita Suffness/P.A.C. Spero & Co.

A.E. Bruder 1/11/99
Reviewer, Office of Preservation Services Date

NR program concurrence: X yes ___ no ___ not applicable

P Kintz 1/20/99
Reviewer, NR program Date

Survey No. WO-484

MARYLAND COMPREHENSIVE HISTORIC PRESERVATION PLAN DATA - HISTORIC CONTEXT

I. Geographic Region:

__X__ 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
__X__ Industrial/Urban Dominance	A.D. 1870-1930
__X__ 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:

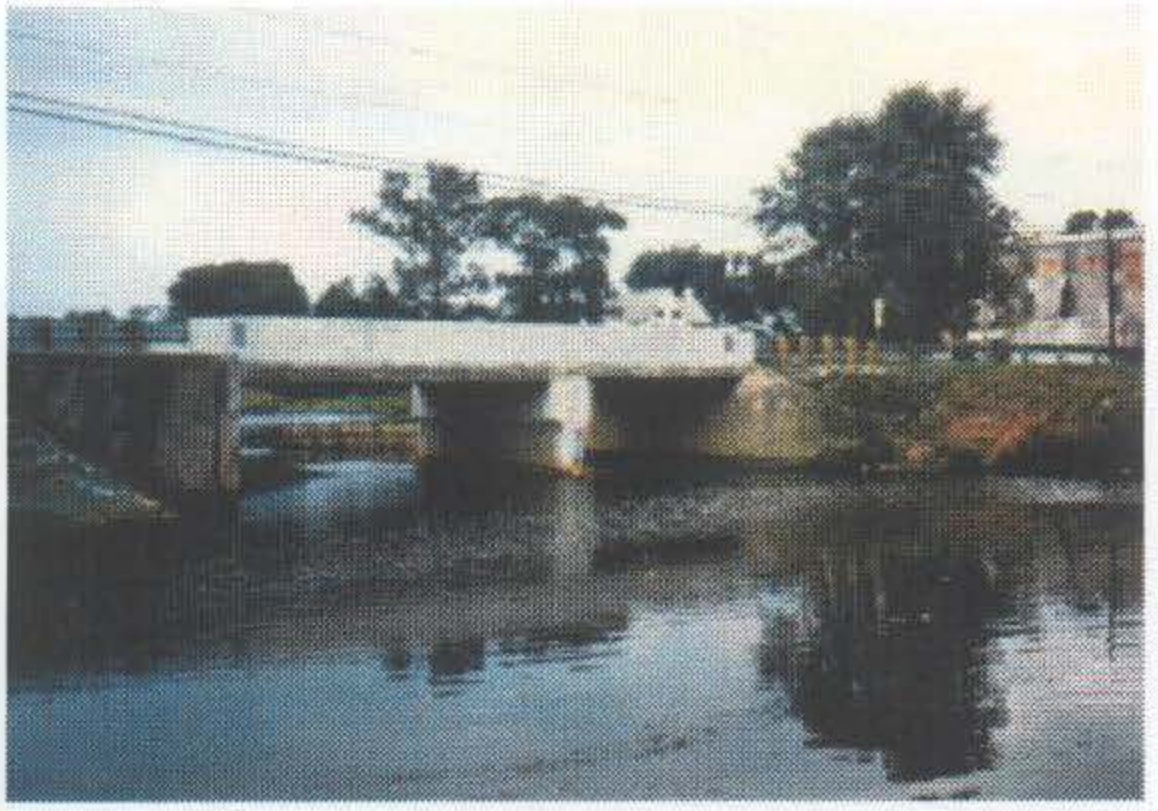
_____ Agriculture
__X__ Architecture, Landscape Architecture, and Community Planning
_____ Economic (Commercial and Industrial)
_____ Government/Law
_____ Military
_____ Religion
_____ Social/Educational/Cultural
__X__ Transportation

V. Resource Type:

Category: Structure
Historic Environment: Rural Village
Historic Function(s) and Use(s): Transportation
Known Design Source: State Roads Commission Standard Plan

WO-484

BRIDGE NO 23013
MD 367 OVER BUNTINGS BRANCH



- SOUTH ELEVATION

- NORTH ELEVATION

WO-484

MD 367 at Buntings
Attachment 2

SELBYVILLE QUAD