Maryland Historical Trust

Maryland Inventory of Historic Properties number: CAR-289

Name: 5013/ADJACENT TO MD 331 OVER HUNTING 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 ___X____ Eligibility Not Recommended _____

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.** CAR-289
HISTORIC BRIDGE INVENTORY
MARYLAND STATE HIGHWAY ADMINISTRATION/
MARYLAND HISTORICAL TRUST

SHA Bridge No. 5013 **Bridge name** Adjacent to MD Route 331 over Hunting Creek

LOCATION:
Street/Road name and number [facility carried] Adjacent to MD Route 331

City/town Preston **Vicinity** X

County Caroline

This bridge projects over: Road ____ **Railway** ___ **Water** X ___ **Land** ____

Ownership: State X ___ **County** ___ **Municipal** ____ **Other** ____

HISTORIC STATUS:
Is bridge located within a designated historic district? Yes ____ **No** X ____
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 ____ **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** ____ **Concrete Beam** ____ **Rigid Frame** X ____

Other ____ **Type Name** ____

DESCRIPTION:

Describe Setting:

Bridge 5013 is located at the edge of the town of Preston in Caroline County. It originally carried two lanes of traffic on MD Route 331 in a southeast-to-northwest direction over Hunting Creek, which runs northeast-to-southeast beneath it.. It is now out of service due to roadway relocation. It is set in a semi-wooded area with only a few houses nearby.

Describe Superstructure and Substructure:

This structure is a single arch span, reinforced concrete, rigid frame bridge. It carries a 40-foot clear roadway with concrete wearing surface across a 30-foot clear span. Reinforced, pierced, state specification, concrete balustrades resting on 9" high curbs run along each side of the bridge. Its reinforced concrete abutments and wingwalls are supported by concrete spread footings.

Discuss Major Alterations:

No major alterations have been made to this bridge.

HISTORY:

WHEN was bridge built (actual date or date range) 1936
This date is: Actual X **Estimated** ____
Source of date: Plaque ____ **Design plans** ____ **County bridge files/inspection form** X
Other (specify) ____

WHY was bridge built? To provide a reliable crossing of Route 331over Hunting Creek, to meet local transportation needs.

WHO was the designer State Roads Commission

WHO was the builder ____

WHY was bridge altered? [check N/A X **if not applicable]**

Was bridge built as part of organized bridge-building campaign? Yes ____ **No** X

This bridge was built by the State Roads Commission as part of the Good Roads Movement.

SURVEYOR/HISTORIAN ANALYSIS:

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

Was bridge constructed in response to significant events in Maryland or local history? No__ **Yes** X
If yes, what event?

This bridge was built during the 1930s as part of the Good Roads Movement during the period.

When the bridge was built and/or given a major alteration, did it have a significant impact on the growth & development of the area? No ____ Yes_X____

By providing a reliable crossing, as all concrete bridges did, this bridge promoted small-scale residential, commercial, agricultural, and industrial development along Route 331 and other thoroughfares that fed into it.

Is the bridge located in an area which may be eligible for historic designation? No_X_ Yes _____
Would the bridge add to _____or detract from _____historic & visual character of the possible district?

Is the bridge a significant example of its type? No __ Yes _X____

Concrete bridges are the largest component of Maryland's historic bridges. Their numbers reflect how quickly they became popular after their introduction to the state and the country at the opening of the twentieth century. Many in Maryland are purely functional structures, but their plastic nature made them amenable to graceful curves and ornamental parapets that reflected the influence of the City Beautiful movement during the first part of the twentieth century. The versatility and strength of reinforced concrete bridges, along with their plasticity, made them the preferred choice for bridges by state and county highway departments in Maryland and throughout the country in the 1910s. The standard plans of the State Roads Commission of the teens, twenties, and thirties made their use almost universal during that period.

While concrete bridges as a whole are very common in Maryland, reinforced concrete rigid frame bridges make up one of the smallest groups of historic bridge types in the state. There are probably only about a dozen such structures standing in the state under county or state control that were erected prior to 1945. The rigid frame bridge, unlike other reinforced concrete spans, is monolithic. It is characterized by a superstructure and substructure, including abutments, designed as a continuous unit. (Concrete balustrades, cast afterwards, are not part of the monolithic design.) The rigid frame was an important engineering advance for reinforced concrete bridges. It was developed by German engineers and Brazilian Emilio Baumgart around 1920, and introduced to the United States primarily through the efforts of New York engineer Arthur G. Hayden in 1922-1923.

Concrete rigid frame bridges became increasingly popular in the 1930s and 1940s. It was during this period that Maryland's few examples of the type were erected. These include bridges 1030 (1937, 1992) in Allegany County; BC-1406 (1938) and BC-3402 (1940) in Baltimore City; 5013 (1936) in Caroline County (1936); 6031 (1934) in Carroll County ; 10058 (1941) in Frederick County; 11018 (1937) in Garrett County; 13032 (1939) in Howard County; 21013 (1941), 21015 (1936), and 21016 (1936) in Washington County; and WO-801 (c.1930) in Worcester County. These bridges generally have one or two spans of between 30 and 60 feet; the longest, BC-1406, measures 68 feet. With the exception of WO-801, the history of which remains clouded, they were built by the state or the city of Baltimore.

This bridge falls within the 1910-1940 period of significance for concrete bridges, during which reinforced concrete bridge construction was increasingly standardized in the state and particular subtypes, including the rigid frame, were introduced to the state road network.

Does bridge retain integrity [in terms of National Register] of important elements described in Context Addendum? No ____ Yes _X_

Is bridge a significant example of work of manufacturer, designer and/or engineer? No_X_ Yes __

CAR-289

Should bridge be given further study before significance analysis is made? No X Yes _____

It is believed that no further study is necessary to determine the eligibility of this bridge for listing in the National Register. It should be compared with the other concrete rigid frame bridges listed above and a determination should be made whether all of them (excluding 1030 in Allegany County, 13032 in Howard County, and WO-081 in Worcester County, which have lost their integrity) are eligible to the Register because of their rarity and/or good representation of the type, or just the best examples. Additional research, however, which could be conducted as part of any future National Register nomination prepared for the bridge, might provide further information about its history and environs.

BIBLIOGRAPHY:

Bridge inspection reports and files of the Maryland State Highway Administration.

Condit, Carl. *American Building*. Chicago: University of Chicago Press, 1968.

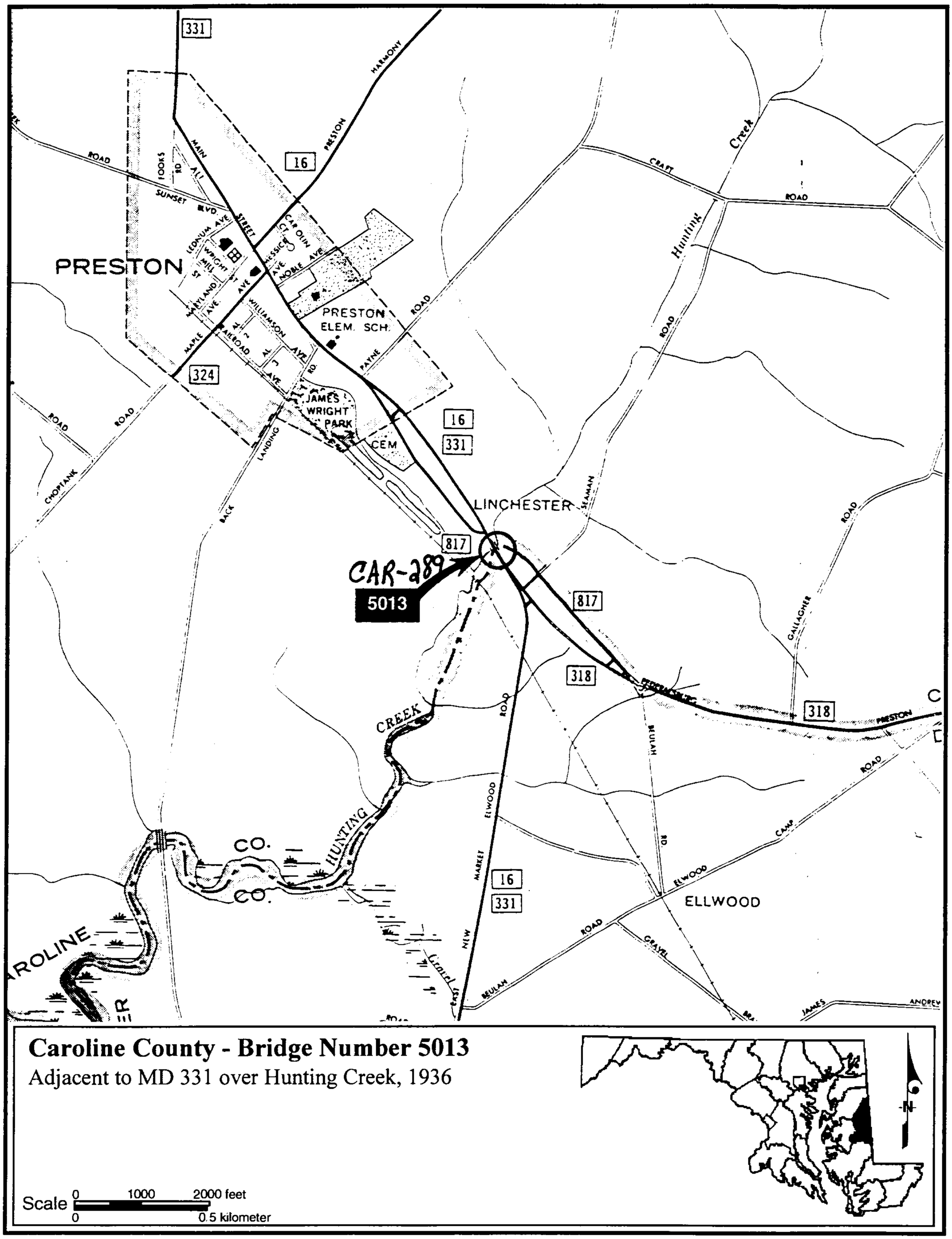
County survey files of the Maryland Historical Trust.

P.A.C. Spero & Company and Louis Berger & Associates, Inc. *Historic Bridges in Maryland: Historic Context Report*. Prepared for the Maryland State Highway Administration, September, 1994.

SURVEYOR/SURVEY INFORMATION:

Date bridge recorded 2/2/95

Name of surveyor Matt Hickson/Marvin Brown
Organization/Address GREINER, INC., 2219 York Road, Suite 200, Timonium, Maryland 21093-3111
Phone number 410-561-0100 **FAX number** 410-561-1150



Caroline County - Bridge Number 5013

Adjacent to MD 331 over Hunting Creek, 1936

CAR-289

CAROLINE COUNTY, MD

MATT HICKSON

2-2-95

~~MARYLAND SHPO~~ SHA

BRIDGE No. 5013, LOOKING SE ADJACENT TO MD 331

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CAROLINE COUNTY, MD
MATT HICKSON
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~~MARYLAND SHPO~~ SHA
BRIDGE NO. 5013, LOOKING NW ADJACENT TO MD 331
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~~MARYLAND SHPO~~ SHA
BRIDGE NO. 5013, LOOKING UPSTREAM (N)
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CAROLINE COUNTY, MD
MATT HICKSON
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~~MARYLAND SHPO~~ SHA
BRIDGE NO. 5013, LOOKING DOWNSTREAM (S)
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CAROLINE COUNTY, MD
MATT HICKSON
2-2-95
~~MARYLAND SHPO~~ SHA
OLD TIMBER/METAL BRIDGE UPSTREAM FROM BRIDGE NO. 5013
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