Maryland Historical Trust

Maryland Inventory of Historic Properties number: AL-V-B-313

Name: #1068/MD 35 over Wills Crk.

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
HISTORIC BRIDGE INVENTORY
MARYLAND STATE HIGHWAY ADMINISTRATION/
MARYLAND HISTORICAL TRUST

MHT No. AL-V-B-313

SHA Bridge No. 1068 **Bridge name** MD 35 over Wills Creek

LOCATION:
Street/Road name and number [facility carried] MD 35 (Ellerslie Road)

City/town Ellerslie **Vicinity** _____

County Allegany

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 _____ **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** X **Concrete Beam** ____ **Rigid Frame** _____
Other _____ **Type Name** _____

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DESCRIPTION:

Setting: Urban _____ **Small town** ___X___ **Rural** _____

Describe Setting:

Bridge No. 1068 carries MD 35 (Ellerslie Road) over Wills Creek in Allegany County. MD 35 runs north-south and Wills Creek flows east-west. The bridge is located in the town of Ellerslie, and is surrounded by single family dwellings.

Describe Superstructure and Substructure:

Bridge No. 1068 is a 1-span, 2-lane, concrete slab bridge. The bridge was originally built in 1917 and the original concrete parapets were removed at an unknown date. The east curb of the superstructure was removed and replaced between 1987 and 1989. Wills Creek has an adjacent stone retaining wall, west of the bridge on the north bank, and east of the bridge on the south bank. The bridge is 24 feet, 11 inches long and has a clear roadway width of 29 feet; there are no sidewalks. The out-to-out width is 31 feet, 6 inches. The bridge was built on a 55° skew. The concrete slab is 2 feet, 6 inches thick, and it has a bituminous wearing surface. The structure has steel guard rails and the roadway approaches have narrow shoulders and steel guard rails on the east side. The substructure consists of two (2) concrete abutments and three (3) flared concrete wing walls; the northwest wing wall is a u-shaped concrete wing wall. The bridge is not posted, and has a sufficiency rating of 4.

According to the 1996 inspection report, this structure was in fair condition with numerous cracks, heavy scaling, and efflorescence. The asphalt wearing surface has some cracks and is in good condition. The concrete is scaling badly at the waterline of the north abutment, has large deposits of efflorescence, and has areas of exposed aggregate. The west concrete curb is damaged and has spalled areas and exposed aggregate.

Discuss Major Alterations:

The original concrete parapets have been removed, however, the date of the removal is unknown. The east curb of the superstructure was removed and replaced between 1987 and 1989. The inspection report from 1996 indicates that the northeast wing wall was repaired with mortar.

HISTORY:

WHEN was the bridge built: 1917

This date is: Actual ___X___ **Estimated** _____

Source of date: Plaque ____ **Design plans** ___ **County bridge files/inspection form** __

Other (specify): State Highway Administration bridge files/inspection form

WHY was the bridge built?

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

WHO was the designer?

Unknown

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WHO was the builder?

Unknown

WHY was the bridge altered?

The bridge was altered to correct functional or structural deficiencies.

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

There is no evidence that the bridge was built as part of an organized bridge building campaign.

SURVEYOR/HISTORIAN ANALYSIS:

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

The 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 1903-1904 with the formation of the Joint Committee on Concrete and Reinforced Concrete of the American Society of Civil Engineers.

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. Most improvements to local roads waited until the years after World War I.

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 away 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.

In 1930, 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 the load bearing capacities. The reinforcing bars increased in thickness. Visually, the 1930 design can be distinguished from its predecessors by the pierced concrete railing that was introduced at this time.

In 1933, a new set of standard plans were introduced by the State Roads Commission. 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 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 capacity.

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?

A significant example of a concrete slab 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 which are common examples of their type. In addition, the structure must be in excellent condition. This bridge, which is lacking such features as the original concrete parapet and the east end of the concrete slab, is also in a state of deterioration, and is an undistinguished example of a concrete slab bridge.

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

This bridge retains some original character-defining elements such as the abutments and wing walls. The bridge was altered in several stages, resulting in the loss of such character-defining elements as the parapets and part of the east end of the concrete slab.

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.

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Other (list):

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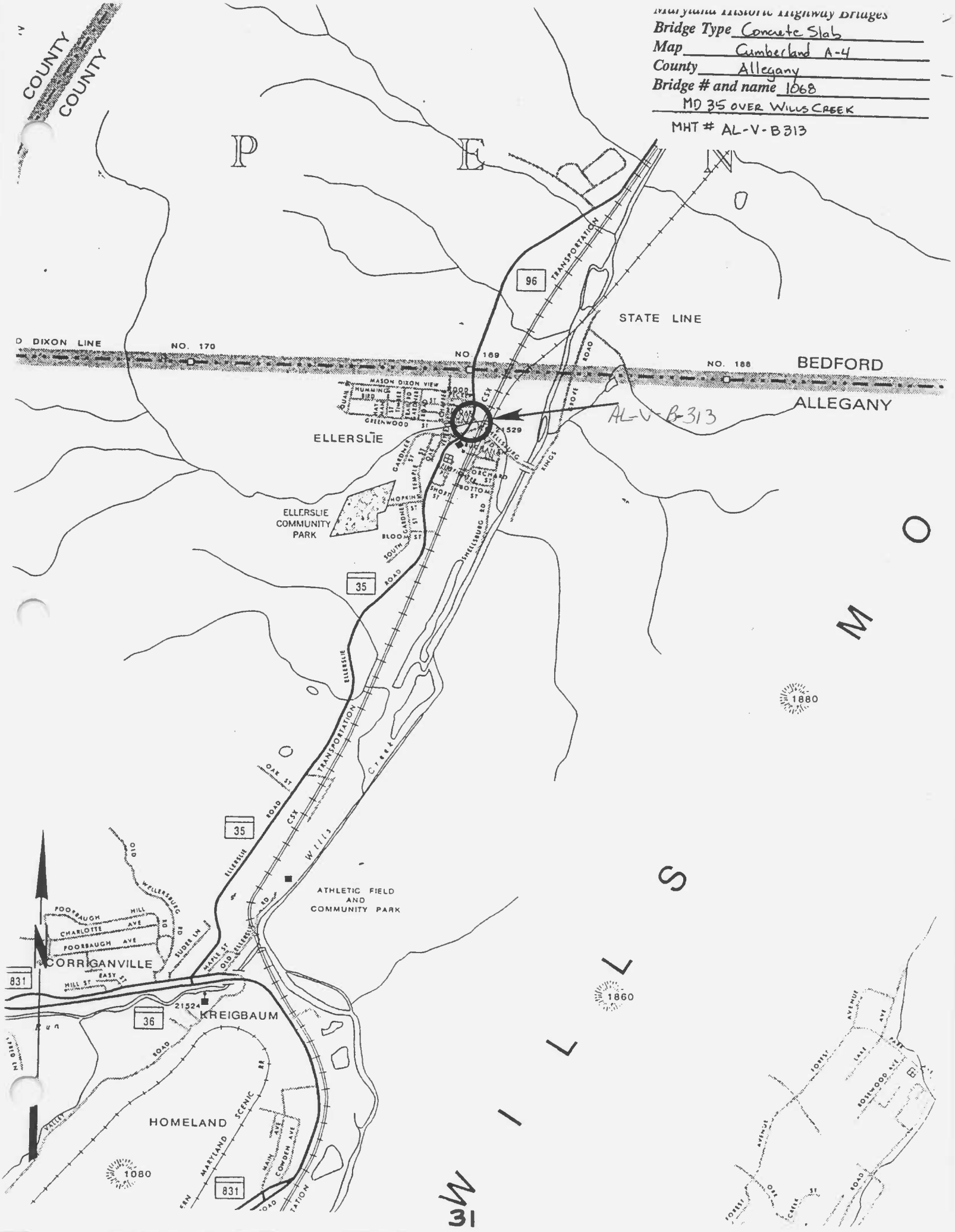
SURVEYOR:

Date bridge recorded 3/5/97
Name of surveyor Caroline Hall/Ryan McKay
Organization/Address P.A.C. Spero & Co., 40 W. Chesapeake Avenue, Baltimore, MD 21204
Phone number (410) 296-1685 **FAX number** (410) 296-1670

Maryland Historic Highway Bridges
Bridge Type Concrete Slab
Map Cumberland A-4
County Allegany
Bridge # and name 1068
MD 35 over Wills Creek
MHT # AL-V-B313



1. AL-V-B-313

2. MD 35 over Wills Creek/10x8

3. Allegany Co, MD

4. Ryan McKay

5. 3/97

6. MD SHPO

7. upstream elevation

8. 1 of 4

1 AL V-B-313

2 MD 35 over Wills Creek/1068

3 Allegany Co, MD

4 Ryan McKay

5 3/97

6 MD SHPO

7 Downstream elevation

8 2 of 4

1. A: V- B- 313
2. MD 35 over Wills Creek/1068
3. Allegany Co, MD
4. Ryan McKay
5. 3/97
6. MD SHPO
7. South approach
8. 3 of 4

BP

1. AL-V-B-313
2. MD 35 over Wills Creek/1068
3. Allegany Co, MD
4. Ryan McKay
5. 3/97
6. MD SHPO
7. Retail of NW wingwall
8. 4 of 4