Maryland Historical Trust

Maryland Inventory of Historic Properties number: G-IV-B-271

Name: MD 135 over CSX Railroad

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
HISTORIC BRIDGE INVENTORY
MARYLAND STATE HIGHWAY ADMINISTRATION/
MARYLAND HISTORICAL TRUST

MHT No. G-IV-B-271

SHA Bridge No. 11016 **Bridge name** MD 135 over CSX Railroad

LOCATION:
Street/Road name and number [facility carried] MD 135 (Oakland-Westernport Road)

City/town Altamont **Vicinity** X

County Garrett

This bridge projects over: Road ____ **Railway** X **Water** ____ **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 X:
Rolled Girder ____ **Rolled Girder Concrete Encased** ____
Plate Girder X **Plate Girder Concrete Encased** ____

Metal Suspension ____

Metal Arch ____

Metal Cantilever ____

Concrete ____:
Concrete Arch ____ **Concrete Slab** ____ **Concrete Beam** ____ **Rigid Frame** ____
Other ____ **Type Name** ____

DESCRIPTION:

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

Describe Setting:

Bridge No. 11016 carries MD 135 (Oakland-Westernport Road) over the CSX Railroad in Garrett County. MD 135 runs north-south and the CSX Railroad runs east-west. The bridge is located in the vicinity of Altamont, and is surrounded by woods.

Describe Superstructure and Substructure:

Bridge No. 11016 is a 3-span, 2-lane, metal girder bridge. The bridge was originally built in 1930, and a new concrete deck and concrete infill of the plate girders, which function also as parapets, were added in 1980. The structure is 160 feet, 10 inches long and has a clear roadway width of 30 feet, 2 inches; there are no sidewalks. The out-to-out width is 33 feet, 10 inches. The bridge is built on a 60° skew. The superstructure consists of two (2) 22"x96" riveted plate girders which support twenty-one (21) 12"x36" cross girders and a concrete deck. The cross girders are spaced 7 feet, 8 inches apart. The roadway is carried through the girders. The concrete deck is 8 inches thick and it has a concrete wearing surface. The plate girders form the bridge parapets; the traffic side has been infilled with concrete, forming a traffic-safety barrier. The roadway approaches have narrow shoulders and steel guardrails. A date plaque on the east parapet indicates the bridge was built in 1930 by the American Bridge Company. The substructure consists of two (2) concrete abutments with straight concrete wing walls and two (2) riveted plate girder bents with concrete footings. The bents are located 42 feet, 6 inches and 113 feet from the south abutment, respectively. The bridge is not posted, and has a sufficiency rating of 76.6.

According to the 1995 inspection report, this structure was in good condition with some rusting of girders. The bearings have moderate to heavy rust. The concrete wearing surface is in good condition. The concrete abutments and wing walls have some scaling, with large areas of deterioration at the top of the abutments. Also, the concrete infill in the parapet is in good condition.

Discuss Major Alterations:

The concrete infill in the plate girder parapets and a new concrete deck were constructed in 1980. Inspection reports from 1995 do not record any additional repairs or replacements. A contract from 1977 details the requirements for the deck replacement, although no mention is made of infilling the parapets with concrete.

HISTORY:

WHEN was the bridge built: 1930
This date is: Actual ____X____ **Estimated** _____
Source of date: Plaque __X__ **Design plans** ___ **County bridge files/inspection form**
Other (specify): State bridge files/inspection from

WHY was the bridge built?

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

WHO was the designer?

State Roads Commission

WHO was the builder?

The American Bridge Company

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 ___X___

The bridge is eligible for the National Register of Historic Places under Criterion C, as a significant example of metal girder construction. The structure has a high degree of integrity and retains such character-defining elements of the type as the original riveted, metal plate girders and bents, and abutments. The plate girders continue to function visibly as the bridge parapets. The concrete infill in the parapets does not significantly detract from the historical character of the parapets; the original top flange and rivets of the parapets are visible.

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

Metal girder bridges were most likely introduced and first popularized in Maryland by the state's major railroads of the nineteenth century including the Baltimore and Susquehanna, its successor the Northern Central, and the Baltimore and Ohio Railroad. Bridge engineering historians have documented the fact that James Milholland (or Mulholland) erected the earliest plate girder span in the United States on the Baltimore and Susquehanna Railroad in 1846 at Bolton Station, near present-day Mount Royal Station. The sides (web) and bottom flange of Milholland's 54-foot-long span were wholly of wrought iron and included a top flange reinforced with a 12x12-inch timber. Plates employed in the bridge were 6 feet deep and 38 inches wide, giving the entire bridge a total weight of some 14 tons. Milholland's pioneering plate girder cost $2,200 (Tyrrell 1911:195). By December 31, 1861, the Northern Central Railroad, which succeeded the Baltimore and Susquehanna, maintained an operating inventory in Maryland of 50 or more bridges described simply as "girder" spans, in addition to a number of Howe trusses. Most of these were probably iron girder bridges; the longest were the 117-foot double-span bridge over Jones Falls and the 106-foot double-span girder bridge at Pierce's Mill (Gunnarson 1990:179-180).

As in the nation, girder bridge technology in Maryland was quickly adapted to cope with the increasingly heavy traffic demands of the twentieth century caused by automobile and truck traffic. The 1899 Maryland Geological Survey report on highways noted that "there are comparatively few I-beam bridges, one of the cheapest and best forms for spans less than 25 or 30 feet" (Johnson 1899:206). Interestingly, the report also urged construction of a composite metal, brick, and concrete bridge, noting that "no method of construction is more durable than the combination of masonry and

I-beams, between which are transverse arches of brick, the whole covered with concrete, over which is laid the roadway" (Johnson 1899:206). Whether any such bridges (transitional structures between I-beams and reinforced concrete spans) were built is unknown.

Official state and county highway reports—issued between 1900 and the early 1920s through the Highway Division of the Maryland Geological Survey and its successor, the State Roads Commission—generally do not reference or describe girder construction. An analysis of the current statewide listing of county and municipal bridges (a listing maintained by the State Highway Administration) reveals that 48 county bridges, out of the total of 141 approximately dated to "1900" by county engineers, were listed as steel girder, steel stringer, or variants of such terms. (It should be noted that the "1900" date is often given when no exact date is pinpointed for a bridge that is clearly old). A grand total of 200 bridges (including "steel culverts"), out of 550 bridges dated on the county list between 1901 and 1930, were described as steel beam, steel girder, or steel stringer and girder varieties. The total suggests that among the various highway bridge types built in the early twentieth century metal girder bridges in Maryland between 1900 and 1930 were second in popularity only to reinforced concrete bridges. However, these numbers must be interpreted with caution, as they do not necessarily include all county and municipal bridges.

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?

The bridge is a potentially significant example of a metal girder bridge, possessing a high degree of integrity.

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

The bridge retains the character-defining elements of its type, as defined by the Statewide Historic Bridge Context, including the original riveted metal plate girders and bents, and concrete abutments. The plate girders continue to function visibly as the bridge parapets. The concrete infill in the parapets does not significantly detract from the historical character of the parapets; the original top flange and rivets of the parapets are visible.

Is the bridge a significant example of the work of a manufacturer, designer, and/or engineer?

This bridge is a significant example of the work of the State Roads Commission in the 1920s and 1930s.

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.

G-IV-B-271

BIBLIOGRAPHY:

County inspection/bridge files _____ **SHA inspection/bridge files** X
Other (list):

Gunnarson, Robert
1990 *The Story of the Northern Central Railway, From Baltimore to Lake Ontario.* Greenberg Publishing Co., Sykesville, Maryland.

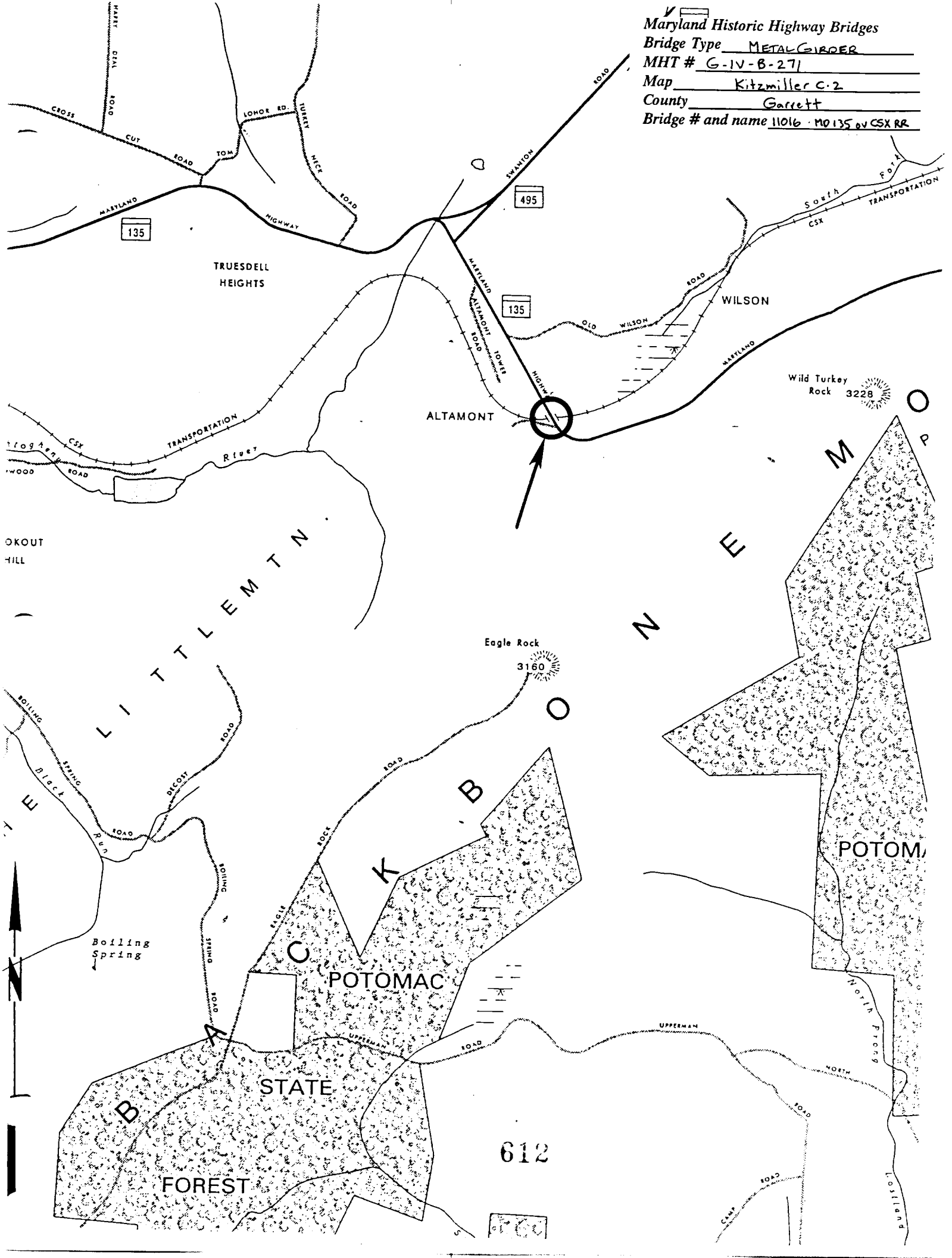
Johnson, Arthur Newhall
1899 The Present Condition of Maryland Highways. In *Report on the Highways of Maryland.* Maryland Geological Survey, The Johns Hopkins University Press, Baltimore.

Tyrrell, Henry G.
1911 *History of Bridge Engineering.* Published by author, Chicago.

SURVEYOR:

Date bridge recorded 3/3/97
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 METAL GIRDER
MHT # G-IV-B-271
Map Kitzmiller C.2
County Garrett
Bridge # and name 11016 · MD 135 ov CSX RR



1. [illegible]

2. MD 135 over B & ORR

3. Sarrett Lo, MD

4. Ryan Mc[illegible]

5. [illegible]

6. MD [illegible]

7. [illegible]

8. [illegible]

1 [illegible] B [illegible]

2 MD over B & ORR

3 Garrett [illegible] MD

4 [illegible]

5 [illegible]

6 MD [illegible]

7 [illegible]

8 [illegible]

1 [illegible] B [illegible]

2 MD [illegible] over [illegible] & [illegible]

3 [illegible] Co MD

4 Ryan McBride

5 [illegible]

6 MD - HPC

7 [illegible] EVASION

8 3 of 5

1 [illegible] B 29

2 MD 135 over B & ORR

3 Garrett [illegible] MD

4 Ryan McKay

5 3/4/7

6 MD SHP

7 [illegible] TE [illegible]

8 [illegible]

1. [illegible]
2. [illegible]
3. [illegible]
4. [illegible]
5. [illegible]
6. [illegible]
7. [illegible]
8. [illegible]