Maryland Historical Trust

Maryland Inventory of Historic Properties number: BA-761

Name: BOTTOM ROAD / OLD MILL GUNPOWDER FALLS

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. BA 961**
HISTORIC BRIDGE INVENTORY
MARYLAND STATE HIGHWAY ADMINISTRATION/
MARYLAND HISTORICAL TRUST

SHA Bridge No. H-58/B-6 **Bridge name** Bottom Road over Little Gunpowder Falls

LOCATION:

Street/Road name and number [facility carried] _____
City/town Fallston **Vicinity** x

County Harford

This bridge projects over: Road _____ **Railway** ____ **Water** x **Land** _____

Ownership: State **County** X **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 x

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 ___
Concrete Arch _____ **Concrete Slab** _ **Concrete Beam** _____ **Rigid Frame** _____
Other _____ **Type Name** _____

Other _____ **Type Name** _____

DESCRIPTION:

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

Describe Setting:

Bridge H-58/B-6 carries Bottom Road over Little Gunpowder Falls approximately 1-1/2 mile west of the town of Fallston, at the boundary of Baltimore and Harford counties. Bottom Road runs generally in a northeast/southwest direction in the area while Little Gunpowder Falls flows to the south. The bridge is situated inside Gunpowder Falls State Park. The area is relatively undeveloped with no residential buildings around the bridge.

Describe Superstructure and Substructure:

Bridge H-58/B-6 is a single span, wrought iron Pratt through truss measuring 97 feet in total length. It has 7 panels, and features inclined endposts. The top chord is a built-up section of two channels with a cover plate and spacing bars. The bottom chord is a built-up section of paired rectilinear eyebars. The floor system has wooden stringers and steel wire flange I-beam floorbeams. The verticals consist of two channels with lacing bars;, diagonals are paired rectilinear eyebars and counters are cylindrical eyebars. All connections are pinned. The width of the roadway is 16'-0" between centerline of trusses. There is no sidewalk on the bridge and the truss members are protected by a two channel steel guardrail and 8" x 10" timber wheel guards. The bridge has a 90 degree alignment. The abutments are masonry with flared masonry wingwalls. There are no plaques on the bridge.

Discuss Major Alterations:

According to inspection reports, Bridge H-58/B-6 was rehabilitated in 1980. County records are not available with the specifics of this rehabilitation work. By 1989, it is known that isolated diagonals, and verticals had been replaced with A36 steel members. Records are with Baltimore County.

HISTORY:

WHEN was the bridge built 1886
This date is: Actual x **Estimated** _____
Source of date: Plaque _____ **Design plans** _____ **County bridge files/inspection form** X
Other (specify): Proceedings of the County Commissioners

WHY was the bridge built?

To facilitate local traffic through Baltimore and Harford Counties.

WHO was the designer?

The bridge was designed by the Wrought Iron Bridge Company.

WHO was the builder?

The bridge superstructure was built by the Wrought Iron Bridge Company of Canton, Ohio; the bridge substructure was built by William A. Wilson. The Journal of the Proceedings of the County Commissioners (Baltimore County) reported in July 1886 that Wrought Iron Bridge Company was to be paid $855.05 for the Baltimore County portion of the bridge construction. It was reported that William Wilson was paid $559.50 for the masonry substructure.

WHY was the bridge altered?

To maintain load capacity.

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

Bridge H-58 was not 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 ___X___ **B- Person** _____
C- Engineering/architectural character _____X_____

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

Bridge H-58/B-6 was one of a large number of metal truss bridges built in Maryland in the late nineteenth and early twentieth centuries. Metal trusses built in the late nineteenth century were frequently of wrought iron construction and featured pinned connections. During the late nineteenth century Baltimore County and Harford County advertised and built a number of metal truss bridges.

General Truss Bridge Trends

The first metal truss bridges in the United States were built to carry rail and canal traffic. A rapidly expanding railroad network, with needs for long spans, heavy load capacity and rapid construction, served as the impetus for advances in metal truss technology from the mid-nineteenth century to its close. The earliest metal truss forms of the United States were patented and introduced between 1830 and the Civil War, including the popular Pratt (1844) and Warren (1848) types.

From the Civil War through the end of the century metal truss technology improved in response to increasing loads and speeds, and new transportation needs; steel began to replace iron; numerous "bridge works" and "iron works" were established in the eastern U.S. for fabricating and shipping the truss components to the bridge site; and expanding road networks required a low cost, expedient bridge type.

General Trends in Maryland

In Maryland, the earliest metal truss bridges carried rail lines, including the Baltimore & Ohio (B&O) and the Baltimore and Susquehanna Railroads. As early as 1849, B&O Chief Engineer Benjamin H. Latrobe recommended the construction of metal truss bridges for "large crossings"; in 1850 he reported "much satisfaction" with the future of iron bridges after constructing the metal truss bridge at Savage.

Numerous metal truss bridges were manufactured in Baltimore, the early industrial hub of bridge building activity in the state, from the 1850s through the 1880s. Among the early bridge builders in the 1850s and 1860s were former B&O employees, B.H. Latrobe and Wendell Bollman, founders of competing Baltimore bridge building companies. Historical research identified more than twenty-five bridge companies that built truss bridges in the state between 1850 and 1920. Among these were the Wrought Iron Bridge Company, King Iron Bridge Company, Patapsco Bridge and Iron Works, Baltimore Bridge Company, Pittsburg Bridge Company, Penn Bridge Company, Smith Bridge Company, Groton Bridge and Manufacturing Company, Roanoke Iron and Bridge Company, York Bridge Company, Vincennes Bridge Company, Bethlehem Steel Company, American Bridge Company.

The location of the Baltimore & Ohio Railroad, Baltimore bridge fabricators, and the urban needs of the

city and its environs resulted in the erection of numerous early truss bridges in Baltimore and the surrounding area. Initially constructed for the railroads, their use quickly came to replace the earlier timber bridges on Baltimore roads.

From Baltimore, the use of the metal truss spread to other parts of the state, with County Commissioners in the Piedmont and Appalachian Plateau counties erecting numerous metal trusses from the 1870s to the early twentieth century.

Harford County Trends

Eight extant metal truss bridges were identified in Harford County as a result of SHA's 1994-1995 historic bridge survey:

H-1, single span Pratt through truss built in 1884
H-54, single span Pratt truss built c. 1889-1897
H-63, single span Pratt pony truss built c. 1885-1900
H-58, single span Pratt through truss built in 1886
H-94, single span Pratt through truss built c. 1885-1900
H-160, single span Pratt through truss built in 1883
12016, single span Pratt truss built in 1934
12033, single span Warren pony truss built c. 1930

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?

This metal truss bridge would have facilitated travel in this area of Baltimore and Harford counties.

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 not located in an area which may be eligible for historic designation.

Is the bridge a significant example of its type?

This bridge is a significant example of a wrought iron Pratt truss.

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

The bridge has lost integrity of a number of its character defining elements, including isolated diagonals and verticals. The replaced members have been replaced with steel of compatible section and do not visibly detract from the historic appearance of the truss. Although a number of character-defining elements have been replaced on this truss, the replacement has been sensitive, the bridge retains enough of its integrity to represent its type, which is a rapidly diminishing resource type.

This bridge retains integrity of location, design, setting, feeling and association.

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

The bridge is a significant example built by the Wrought Iron Bridge Company of Canton, Ohio.

Organized in 1864 by David Hammond and incorporated in 1871, the company was an early and prolific wrought iron bridge builder.

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The company published a 'Book of Designs' in 1874, which featured a history of wrought iron bridge building in the U.S. and Europe and a detailed record of the firm's experience. Numerous plans illustrated the variations available.

Like so many of the early bridge builders, the Wrought Iron Bridge Company was eventually bought out by the American Bridge Company. In 1901 the American Bridge Company was purchased by and became a subsidiary of United States Steel, presently known as USX. Purchased by Mr. Brock Rowley, the American Bridge Company was reorganized in early 1987 and presently operates independently with headquarters in Pittsburgh, Pennsylvania.

Should the bridge be given further study before an evaluation of its significance is made?

Bridge H-58 is listed in the Maryland Historical Trust's Inventory of historic sites. No further study is recommended.

BIBLIOGRAPHY:

County inspection/bridge files X **SHA inspection/bridge files**

Other (list): County survey files of the Maryland Historical Trust

Baltimore County Historical Society files

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

SURVEYOR:

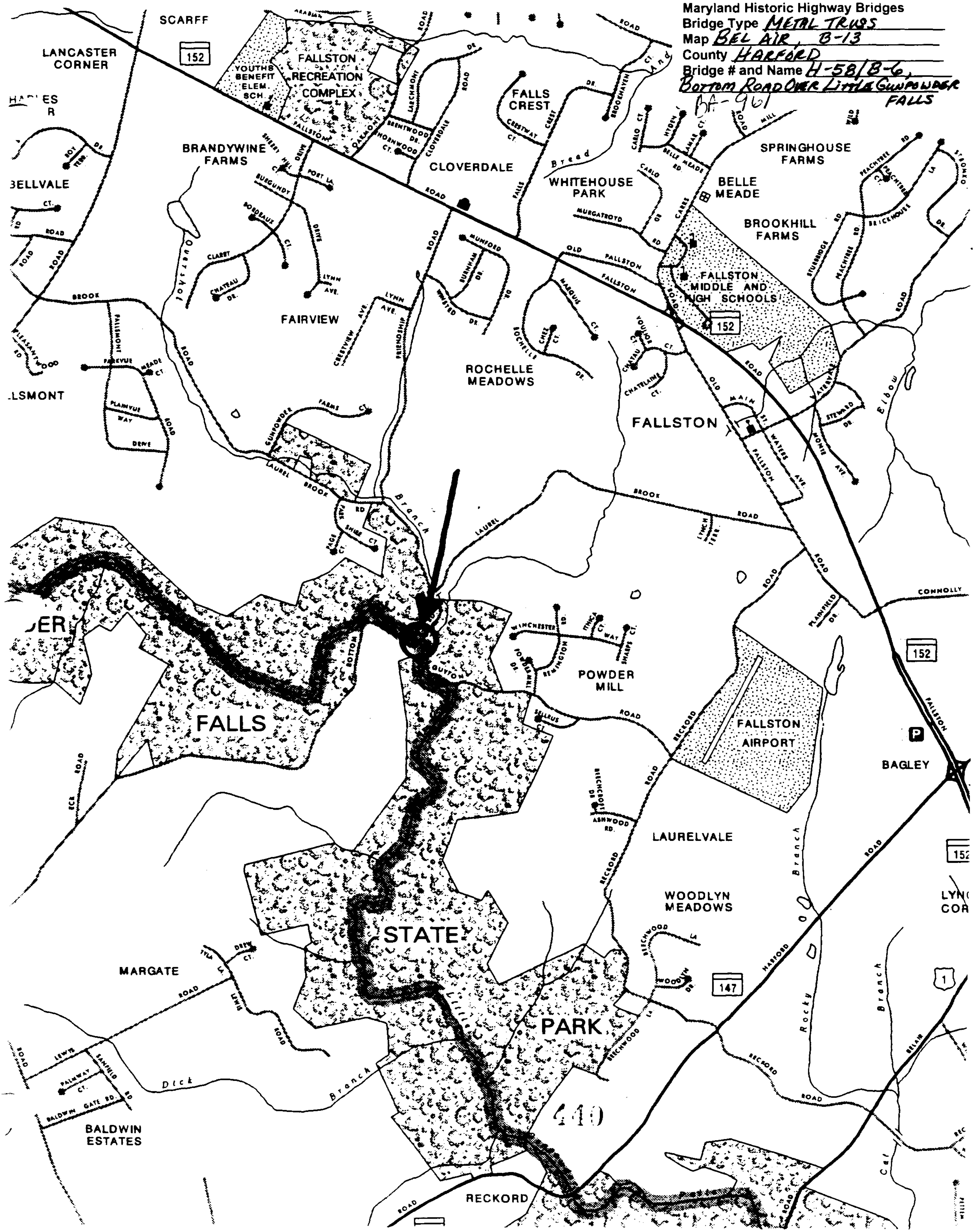
Date bridge recorded February 1996

Name of surveyor Paula Spero/Colin Farr

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 METAL TRUSS
Map BEL AIR, B-13
County HARFORD
Bridge # and Name H-58/B-6, BOTTOM ROAD OVER LITTLE GUNPOWDER FALLS
BA-961



HSR EAST ELEVATION 75

1) BA 961
2) Bottom Rd. over Little Gunpowder Falls
3) Harford
4) Colin Farr
5) Feb. 1996
6) P.A.C. Spero + Company, Towson MD 21204
7) Bottom Rd over Little Gunpowder Falls, east elevation
8) 1 of 12

1158 North Approach 18

1) BA 961
2) Bottom Rd. over Little Gunpowder Falls
3) Harford
4) Colin Faw
5) Feb. 1992
6) P.A.C. Spero & Co. 40 W. Chesapeake Ave #412, Towson 21204
7) Bottom Rd over Lt. Gunpowder Falls, North approach
8) 2 of 12

1) BA-961

2) Bottom Rd over Little Gunpowder Falls

3) Harford

4) Fair

5) [illegible]

6) PA: Spero [illegible] 40 W. Chesapeake Ave #47
Towson, MD 21204

7) Bottom Rd. over Li[illegible]powder Falls, Sa[illegible] approach

8) 3 of 12

HSB SOUTH PARIAL 12

DBH-961

(3)4 of 12

1458 NORTH FORTAC 23

1) BA-96

8J 5 of 12

11 << vertical 11

1) BA-961

2) Bottom Rd. over Little Gunpowder Falls

3) Harford

4) Colin Farr

5) Feb 1996

6) P.A.C. Spero & Co, 40 W Chesapeake Ave #412, Towson 21204

7) Bottom Rd. over Lt. Gunpowder Falls
TRUSS members

8) 6 of 12

1-158 [illegible] TRUSS members 20

1) BA 961
2) Bottom Rd. Over Little Gunpowder Falls
3) Harford
4) Colin Farr
5) Feb 1996
6) PAC Spero & Company, Towson, MD 21204
7) Bottom Rd. over Lt. Gunpowder Falls, truss members
8) 7 of 12

H38 VERTICAL: upper chord on pin 17

1) BA 961
2) Bottom Rd. over Little Gunpowder Falls
3) Harford
4) Colin Farr
5) Feb. 1996
6) P.A.C. Spero-Co, Towson, MD 21204

7) Bottom Rd over Little Gunpowder Falls, Vertical upper chord + pin
8) 8 of 12

HS8 UPPER CONNECTION 71

1) BA 962
2) Bottom Rd over Little Gunpowder Falls
3) Harford
4) Corn Farm
5) Feb 1996
6) P.A.C. Spero & Co, Towson, MD 21204
7) Bottom Rd over Little Gunpowder Falls, Upper Connection
8) 9 of 12

HSB UNDER DECK 28

1) BA 901

2)

3) Harford

4) Colin Farr

5) Feb 1996

6) PAC Spec. Company, Towson, MD 21204

7) Bottom road over Little Gunpowder Falls, under deck

8) 10 of 12

H58 UNDERDECK F-1

1 BA 961

2

3 Harford County

4 Colin Fail

5 February 1996

6 PAC Spec and Company, Towson MD 21204

7 Bottom Road over Little Gunpowder Falls, underdeck

8) 11 of 12

H58 LOWER CONNECTION 22

1 BA 961

2

3 Harford County

4 Colin Farr

5 February 1996

6 PAC Spivo and Company, Towson MD 21204

7 Bottom road over Little Gunpowder Falls, lower connection

8) 12 of 12

BA-961

Bottom Road Bridge
Wrought Iron Bridge Company

Bridge # 6

BOTTOM ROAD BRIDGE BA 961

G.M. Hopkins' Atlas of Baltimore County, Maryland, Philadelphia, 1877, shows on the map for District 11 that the present Bottom Road led to Gayton's or Guyton's Mill on Little Gunpowder Falls. The name Guyton's Mill is the only clue to the location of the bridge in the original county records:

Journal of Proceedings, County Commissioners
Volume 7, f. 32 June 29, 1886:

> Ordered that the Treasurer pay to Wm. A. Wilson the sum of Five Hundred and Fifty Nine and 50/100 for Balto. Co.'s half for masonry of bridge at Guyton Mill, dividing line between Baltimore & Harford Co.'s.

Journal of Proceedings, County Commissioners
Volume 7, f. 43 July 14, 1886:

> Ordered that the Treasurer pay to Henry A. Nagle the sum of Five Dollars for Harford County's share for examining bridge at Guyton's Mill.

Journal of Proceedings, County Commissioners
Volume 7, f. 44 July 20, 1886:

> Ordered that the Treasurer pay to Wrought Iron Bridge Co., of Canton, O., the sum of Eight Hundred and Fifty five and 05/100 Dolls. for Balto. Co. portion of bridge construction over Little Gunpowder at Guyton's Mill, line of Harford Co., Levy 1885.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