Maryland Historical Trust

Maryland Inventory of Historic Properties number: ~~F-II-37~~ ~~F-2-37~~ F-4-143

Name: MD17 over CATOCTIN 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

F-4-143

MARYLAND INVENTORY OF HISTORIC BRIDGES
HISTORIC BRIDGE INVENTORY
MARYLAND STATE HIGHWAY ADMINISTRATION/
MARYLAND HISTORICAL TRUST

MHT No. ~~F-H-37~~ ~~F-2-37~~

SHA Bridge No. 10018 **Bridge name** MD 17 over Catoctin Creek or Green Bridge

LOCATION:
Street/Road name and number [facility carried] MD 17

City/town Middletown **Vicinity** X

County Frederick

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 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** ____

~~F-2-37~~
F-4-143

DESCRIPTION:

Describe Setting:

Bridge No. 10018 is located one mile south of Middletown, Maryland. This structure carries two lanes of traffic on MD Route 17 over Catoctin Creek. MD Route 17 runs in a north-south direction at this location and Catoctin Creek flows west to east. The bridge is surrounded by woods and fields.

Describe Superstructure and Substructure:

This bridge is a single-span, six-panel, Pratt through truss. Each of the six panels of the truss measure 21'-8" for a total span length of 130'-0". The overall length of the bridge is 140'-0". The portal bracing is comprised of channels and angle members combined. Top chords are back to back channels with cover plates on top and lattice bars on bottom. All vertical and diagonal members are I-shaped. The top transverse struts are I-shaped and the lateral sway bracing members are angles. All connections are riveted with gusset plates. The truss width is 33'-1" center to center of trusses providing a clear roadway width of 30'-0" between 9" high reinforced concrete curbs. The deck is reinforced concrete with an integral wearing surface. The floor system consists of I-shaped transverse floorbeams and longitudinal stringers. The bridge railing is a continuous channel member at bumper lever and a pipe handrail. The substructure consists of two reinforced concrete abutments and wingwalls on concrete spread footings.

Discuss Major Alterations:

No notable alterations have been made to this bridge.

HISTORY:

WHEN was bridge built (actual date or date range) 1934
This date is: Actual X **Estimated** _____
Source of date: Plaque X **Design plans** _____ **County bridge files/inspection form** X
Other (specify) _____

WHY was bridge built? To provide a reliable crossing of MD 17 over Catoctin Creek, to meet local and regional transportation needs.

WHO was the designer _____

WHO was the builder Roanoke Iron and Bridge Works - builder and/or designer

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

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

This bridge was built under the aegis of 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 X **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 one of a small but significant number of metal truss bridges erected in Maryland from the 1920s through the 1940s. Its heavy, solid construction reflects continuing advances in metal truss technology and fabrication early in the century, and the almost unyielding reliability of substantial trusses for major crossings. Such bridges were built throughout the state during the period, particularly in the early 1930s, as part of the Good Roads Movement promoted by the State Roads Commission. Many of them retain plaques indicating that they were built under the aegis of the Commission, even though they were designed by private bridge building firms. Two other bridges of similar size and scale are located in Frederick County, bridges 10017 (1939) and 10055 (1932).

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_____ If yes, what impact?

Because of their solidity and reliability, metal truss bridges with heavy members such as this bridge were often utilized in Maryland from the 1920s through the 1940s at long crossings. Multi-lane facilities carrying major thoroughfares, they had not only a significant impact on local growth, but facilitated regional residential, commercial, agricultural, and industrial development.

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_____ If yes, why?

Between 1840 and the Civil War, under the impetus of a rapidly expanding railroad system, the majority of early American metal truss bridge forms were patented and introduced. In Maryland, the earliest metal truss bridges carried rail lines, which required their great strength and reliability. From the War through the end of the century, metal truss technology was improved, steel began to replace iron, and the use of trusses was expanded to carry roads as well as rail lines.

Numerous metal truss bridges were erected in Baltimore, the original hub of the metal truss in the state, from the 1850s through the 1880s. From Baltimore, the use of the metal truss spread out to other parts of the state, particularly the Piedmont and Appalachian Plateau. Many bridge and iron works were established in the eastern United States to design and fabricate truss members, which were then shipped to sites in Maryland and elsewhere to be erected. More than 15 different bridge companies located in Maryland, Ohio, Pennsylvania, New York, Virginia, and Indiana are known to have shipped metal truss bridges to sites throughout Maryland. Bridges were first fabricated in Maryland, and shipped to sites within the state and beyond, by the companies of seminal bridge designer Wendel Bollman.

Early in the twentieth century, concrete bridges began to compete with metal truss bridges throughout the state at small to moderate crossings. With the development of uniform standards for concrete bridges by the State Roads Commission in the 1910s, the construction of smaller metal truss bridges significantly declined throughout the state. The metal truss still remained the bridge of choice for large crossings, however. In the 1920s, heavier members began to be used at these bridges. Reflecting even heavier load requirements and increased lengths, metal truss bridges erected in the state in the 1930s and 1940s were heavy and solid, rather than light and delicate like their late-nineteenth- and early-twentieth-century predecessors.

Numerous Pratt truss bridges were erected throughout the country between 1844, when the type was patented by Thomas and Caleb Pratt, and the early twentieth century. The Pratt has diagonals extended across one panel in tension and verticals in compression, except for hip verticals immediately adjacent to the inclined end posts of the bridge. The large majority of Maryland's surviving metal truss bridges are Pratts, built as through or pony trusses either riveted or pin-connected.

This bridge was erected during one of the three key periods (1840-1860, 1860-1900, and 1900-1960) of bridge construction in Maryland. Built in 1934, it falls within the period 1900-1960. During this era, metal truss highway bridges became increasingly standardized. Also during this period, smaller and moderate length trusses were gradually replaced by reinforced concrete structures, and the modern metal girder bridge, which could easily be widened, replaced the metal truss bridge at all but the largest approaches and crossings. Built after 1930, it characterized by heavy solid members, rather than the

relatively delicate members that characterized its late-nineteenth- and early-twentieth-century predecessors.

Does bridge retain integrity [in terms of National Register] of important elements described in Context Addendum? No ___ Yes X_____ If no, why?

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

In the early twentieth century, metal truss bridges were largely supplanted in the state by concrete and, later, metal girder structures. The old metal fabricators disappeared during this period. They were replaced, in the 1920s and 1930s, by a new if less numerous generation of metal truss fabricators. Among the new bridge companies active in Maryland was the Roanoke Iron and Bridge Company of Roanoke, Virginia, which erected long Pratt, Parker, and camelback bridges throughout the state in the 1920s and 1930s. These include bridges 2054 (1935) in Anne Arundel County, 7055 (1932) in Cecil County, and 10018 (1934) in Frederick County. This bridge is typical of their work in the state.

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

It is believed that no further evaluation is necessary to determine the eligibility of this bridge for listing in the National Register. However, additional research, 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.

County survey files of the Maryland Historical Trust.

Jackson, Donald H. *Great American Bridges and Dams*. Washington, D.C: The Preservation Press, 1968

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.

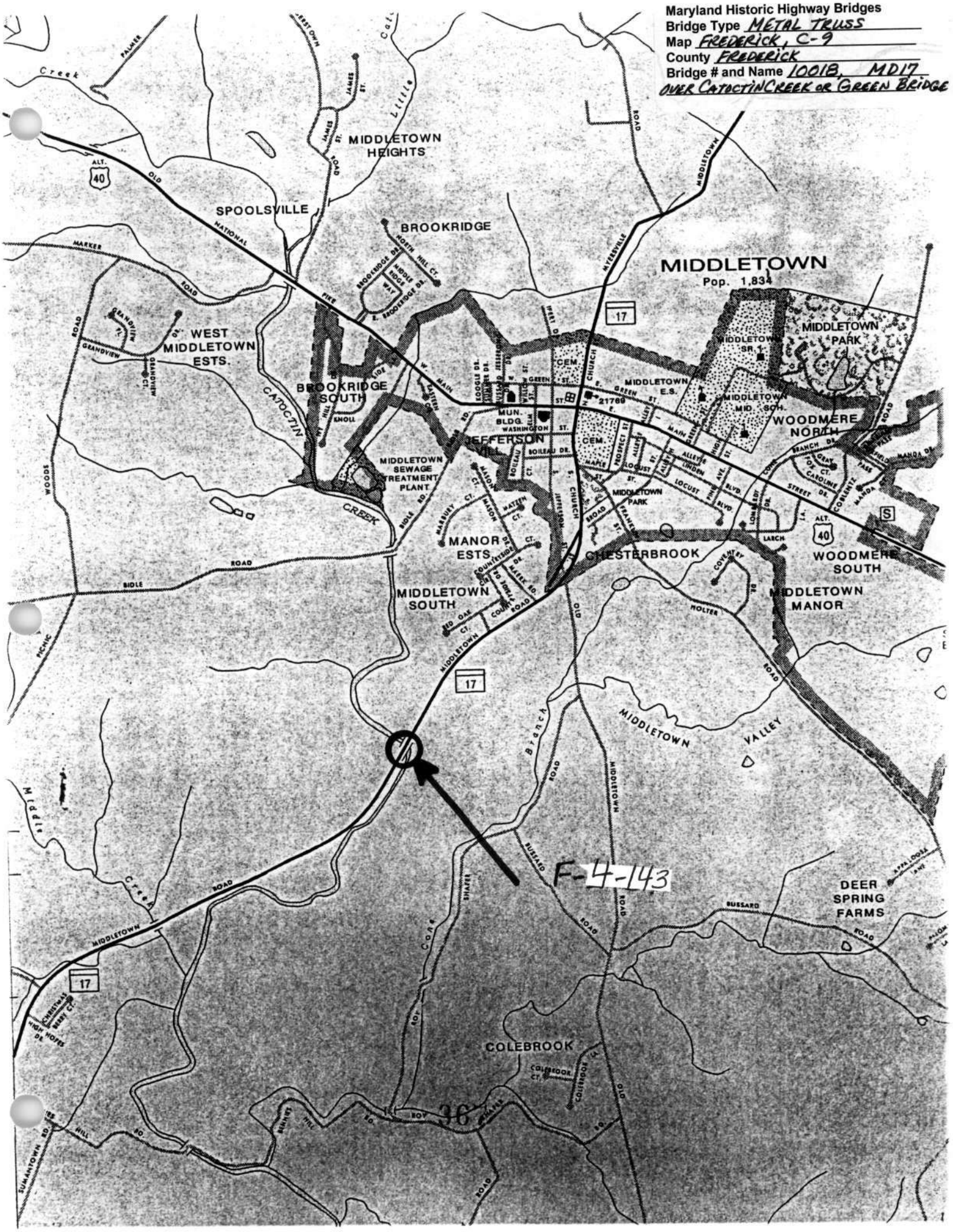
Pennsylvania Historical and Museum Commission and Pennsylvania Department of Transportation. *Historic Highway Bridges in Pennsylvania*. Commonwealth of Pennsylvania, 1986.
State inventory form F-II-37

SURVEYOR/SURVEY INFORMATION:

Date bridge recorded 2/1/95

Name of surveyor Frank Juliano/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

Maryland Historic Highway Bridges
Bridge Type METAL TRUSS
Map FREDERICK, C-9
County FREDERICK
Bridge # and Name 10018, MD17
OVER CATOCTIN CREEK OR GREEN BRIDGE



CATOCTIN
CREEK

Inventory # ~~F-2-37~~ F-4-143

Name 10018 MD17 OVER CATOCTIN CREEK
County/State FREDERICK COUNTY / MD
Name of Photographer FRANK JULIANO
Date 2/95

Location of Negative SHA

Description APPROACH LOOKING NORTH

Number ~~29~~ 1 of ~~36~~ 4

Inventory # ~~F-2-37~~ F-4-143

Name 10018 MD17 OVER CATOCTIN CREEK
County/State FREDERICK COUNTY / MD
Name of Photographer FRANK JULIANO
Date 2/95

Location of Negative SHA

Description ELEVATION LOOKING WEST

Number ~~30~~ 2 of ~~36~~ 4

CATOCTIN
CREEK

Inventory # ~~F-2-37~~ F-4-143

Name 10018-MD 17 OVER CATOCTIN CREEK
County/State FREDERICK COUNTY / MD
Name of Photographer FRANK JULIANO
Date 2/95

Location of Negative SHA

Description APPROACH SOUTH

Number ~~31~~ 3 of ~~34~~ 4

CATOCTIN
CREEK

Inventory # ~~F-2-37~~ F-4-143

Name 10018 - MD 17 OVER CATOCTIN CREEK

County/State FREDERICK COUNTY / MD

Name of Photographer FRANK JULIANO

Date 2/95

Location of Negative SHA

Description ELEVATION LOOKING EAST

Number 4 ~~32~~ of ~~36~~ 4

~~F-2-37~~ F-4-143 1934

Maryland Route 17 Bridge Over Catoctin Creek
Middletown vicinity
public (unrestricted)

This bridge, which carries Maryland Route 17 across Catoctin Creek outside of Middletown, Maryland, consists of a single skew Pratt through truss of steel, measuring 140 feet in length. The portal bracing consists of a series of triangular trusses connected horizontally at the top of the bridge.

Erected in 1934, this bridge was built according to in-house specifications of the Maryland State Roads Commission, under the chairmanship of G. Clinto Uhl, H.D. Williar, Chief Engineer, and W.C. Hopkins, Bridge Engineer. Other Commissioners were William D. Byron and Robert Lacy.

The Maryland Route 17 Bridge Over Catoctin Creek is one of six historic truss bridges -- part of Maryland's state road system in Frederick County, and one of 26 bridges of the same structural type throughout the state road network -- identified by the Maryland Historical Trust for the Maryland Department of Transportation in a jointly conducted survey produced during 1980-81.

F 10018

MARYLAND HISTORICAL TRUST

~~F II 37~~ F-4-143

MAGI # 11[redacted]3817
2343

INVENTORY FORM FOR STATE HISTORIC SITES SURVEY

1 NAME

HISTORIC

AND/OR COMMON

Maryland 17 over Catoctin Creek (Green Bridge)

2 LOCATION

STREET & NUMBER

1 mile South of Middletown

CITY, TOWN

Middletown

X VICINITY OF

CONGRESSIONAL DISTRICT

6th

STATE

Maryland

COUNTY

Frederick

3 CLASSIFICATION

CATEGORY	OWNERSHIP	STATUS	PRESENT USE	
__DISTRICT	X PUBLIC	X OCCUPIED	__AGRICULTURE	__MUSEUM
__BUILDING(S)	__PRIVATE	__UNOCCUPIED	__COMMERCIAL	__PARK
X STRUCTURE	__BOTH	__WORK IN PROGRESS	__EDUCATIONAL	__PRIVATE RESIDENCE
__SITE	**PUBLIC ACQUISITION**	**ACCESSIBLE**	__ENTERTAINMENT	__RELIGIOUS
__OBJECT	__IN PROCESS	__YES: RESTRICTED	__GOVERNMENT	__SCIENTIFIC
	__BEING CONSIDERED	X YES: UNRESTRICTED	__INDUSTRIAL	X TRANSPORTATION
		__NO	__MILITARY	__OTHER:

4 OWNER OF PROPERTY

NAME

State Highway Administration DOT

Telephone #:

STREET & NUMBER

301 West Preston Street

CITY, TOWN

Baltimore

__ VICINITY OF

STATE, zip code

Maryland 21201

5 LOCATION OF LEGAL DESCRIPTION

COURTHOUSE, REGISTRY OF DEEDS, ETC.

Frederick County Courthouse

Liber #:

Folio #:

STREET & NUMBER

CITY, TOWN

Frederick

STATE

Maryland

6 REPRESENTATION IN EXISTING SURVEYS

TITLE

DATE

__FEDERAL __STATE __COUNTY __LOCAL

DEPOSITORY FOR SURVEY RECORDS

CITY, TOWN

STATE

7 DESCRIPTION

~~F-2-37~~ F-4-143

CONDITION		CHECK ONE	CHECK ONE
__EXCELLENT	__DETERIORATED	X UNALTERED	X ORIGINAL SITE
X GOOD	__RUINS	__ALTERED	__MOVED DATE_____
__FAIR	__UNEXPOSED		

DESCRIBE THE PRESENT AND ORIGINAL (IF KNOWN) PHYSICAL APPEARANCE

This bridge, which carries Maryland Route 17 across the Catoctin Creek in a generally N-S direction near Middletown, consists of a single skew Pratt through steel truss of 140' length. The portal bracing is a triangular truss. All connections are riveted. The width of the roadway is 30'.

CONTINUE ON SEPARATE SHEET IF NECESSARY

8 SIGNIFICANCE

~~F-2-37~~
F-4-143

PERIOD	AREAS OF SIGNIFICANCE -- CHECK AND JUSTIFY BELOW			
__PREHISTORIC	__ARCHEOLOGY-PREHISTORIC	__COMMUNITY PLANNING	__LANDSCAPE ARCHITECTURE	__RELIGION
__1400-1499	__ARCHEOLOGY-HISTORIC	__CONSERVATION	__LAW	__SCIENCE
__1500-1599	__AGRICULTURE	__ECONOMICS	__LITERATURE	__SCULPTURE
__1600-1699	__ARCHITECTURE	__EDUCATION	__MILITARY	__SOCIAL/HUMANITARIAN
__1700-1799	__ART	X ENGINEERING	__MUSIC	__THEATER
__1800-1899	__COMMERCE	__EXPLORATION/SETTLEMENT	__PHILOSOPHY	X TRANSPORTATION
X 1900-	__COMMUNICATIONS	__INDUSTRY	__POLITICS/GOVERNMENT	__OTHER (SPECIFY)
		__INVENTION		

SPECIFIC DATES 1934 BUILDER/ARCHITECT

STATEMENT OF SIGNIFICANCE

Built according to in-house specifications of the State Roads Comm., H.D. Williar, Chief Engineer; W.C. Hopkins, Bridge Engineer.

The bridge plaque identifies G. Clinton Uhl as the State Roads Commission chairman, with a commission of William D. Byron and Robert Lacy. (see Uhl notes and M/DOT Survey general bridge significance, attached).

CONTINUE ON SEPARATE SHEET IF NECESSARY

~~F-2-37~~ F-4-143

9 MAJOR BIBLIOGRAPHICAL REFERENCES

Condit, Carl, American Building Art, 20th Century; New York Oxford University Press, 1961.

Files of the Bureau of Bridge Design, State Highway Administration, 301 West Preston Street, Baltimore, Maryland, Drawer 92

CONTINUE ON SEPARATE SHEET IF NECESSARY

10 GEOGRAPHICAL DATA

ACREAGE OF NOMINATED PROPERTY _____

Quadrangle Name: Middletown, MD
Quadrangle Scale: 1:24 000
UTM References:

18.279950.4365200

VERBAL BOUNDARY DESCRIPTION

N/A

LIST ALL STATES AND COUNTIES FOR PROPERTIES OVERLAPPING STATE OR COUNTY BOUNDARIES

STATE	COUNTY
N/A	
STATE	COUNTY

11 FORM PREPARED BY

NAME / TITLE
John Hnedak/M/DOT Survey Manager

ORGANIZATION
Maryland Historical Trust

DATE
1980

STREET & NUMBER
21 State Circle

TELEPHONE
(301) 269-2438

CITY OR TOWN
Annapolis

STATE
Maryland 21401

The Maryland Historic Sites Inventory was officially created by an Act of the Maryland Legislature, to be found in the Annotated Code of Maryland, Article 41, Section 181 KA, 1974 Supplement.

The Survey and Inventory are being prepared for information and record purposes only and do not constitute any infringement of individual property rights.

RETURN TO: Maryland Historical Trust
The Shaw House, 21 State Circle
Annapolis, Maryland 21401
(301) 267-1438

~~F-2-37~~
F-4-143

GENERAL BRIDGE SIGNIFICANCE

The significance of bridges in Maryland is a difficult and subtle thing to gauge. The Modified significance criteria of the National Register, which are the standard for these judgements in Maryland, as in most states, must be broadly applied to allow for most of these structures, In particular the 50 year rule which specifies a minimum age for structures can be waived, and is more commonly done so for engineering structures than for others. Questions of uniqueness and typicality, exemplary types, etc., must set aside for now, because they presuppose a wider knowledge of the entire resources than is presently available. Indeed, this survey is an initial step toward understanding the extent to which Maryland's bridges are part of her cultural resources. Aesthetic considerations may have to be sidestepped entirely, for such structures as these are generally considered mundane and ordinary at best, and sometimes a negative landscape feature, by the layman. It does take a specialized aesthetic sense to appreciate such structures on visual grounds, but a case for visual significance can be made. The remaining criteria are those of historical associations. The relative youth of most of these structures precludes a strong likelihood of participation to events and lives of import. The best generalization can be made for most bridges is that they are built on site of early crossings, developing from fords and ferries through covered bridges and wooden trusses to their present state. This significance inheres in the site, however, and in most cases would not be diminished by the adsense of the present structure.

These criteria may also be addressed positively. The primary significance of these bridges, those which were built between the two World Wars, consists in their association with rapidly changing modes and trends in transportation in America during the period. The earliest of them saw the appearance of the automobile and its rise as the preëminent means of getting Americans from place to place. Roads were being improved for increased speeds and capacity, and bridges, as potential weak links on the system, became particularly important. The technology for producing them was not new, and would not change significantly during the period. Accordingly, great numbers of easily, quickly and relatively cheaply built concrete slab, beam and arch bridges were built to span the samll crossings, or were multiplied to cover longer crossings where height was no problem.

Truss bridges with major structural members of compound beams, of either the Warren or Pratt types, while more expensive and considered more intrusive on the landscape, were built to span the larger gaps.

With an aesthetic which allowed concrete slab bridges to have classical balustrades, or the application of a jazz-age concrete relief; with the considerable variety possible in the construction of medium sized metal trusses; and with the lack of nationwide standards for highway bridge design, the resulting body of structures displays considerable variety. The sameness of appearance of currently produced highway bridges leads one to believe this variety will not reappear. For that reason alone it is wise to keep watch over our existing bridges. Regardless of ones taste and aesthetic preference, one must be admitted that these older bridges add their variety and visual interest to the environment as a whole, and that it is often the case that their replacement by a standard highway bridge results in a visual hole in the landscape.

In situations requiring decisions of potential effect on these structures, they should receive some consideration. As the recording and subsequent understanding of Maryland's Cultural resources grows, they will be recognized as a significant part of that heritage.

It should be noted that two non-negligible classes of structure have been omitted from this set. The first is the huge number of concrete slab or beam bridges of an average of twenty feet or less in length. These are so nearly ubiquitous and of such minor visual impact (they are often easy to drive across without noticing) that they were not inventoried. They are considered in the general recommendations section of the final report of this survey, however.

The second category is that of the "great" bridges, the huge steel crossings of the major waterways. While they are awesome and aesthetically appealing, they are not included in this inventory because they do not share the problems of their more modest counterparts. They do not lack for recognition, they have not been technologically outmoded, and are in no danger of disappearing through replacement. In a sense, they are not as rare; hundreds of

these great bridges are known nationally, and there is little doubt as to the position of any one bridge within national spectrum. There seems little point in including them with the larger inventory of bridges. From an arbitrary point of view, their dates are outside the 1935 limit which we set for the consideration of bridges. We have departed from that limit on occasion, but will not in this case. These bridges, too, will be considered in the final report.

Moveable bridges deserve a special note regarding their significance. They are rare, and all but the most recent of them have been listed by this survey by virtue of that fact alone. They are, by their nature as intermittent impediments to the smooth flow of traffic, threatened. We rarely tolerate disruptions to what we perceive as our progress. This has been demonstrated recently by the replacement of the drawbridge at Denton, on one of the major routes to the Atlantic Coast from the rest of Maryland.

However much we are inconvenienced by them, we must admit that moveable bridges contribute a share of interest to the landscape. As with significance judgements in general, we here enter a realm which is governed by taste and opinion. Some of us might not enjoy being forced to site back for a while to look at the surroundings which we would otherwise totally ignore, especially if the engine is in danger of boiling over. But there are those who are fascinated by the slow rise of a great chunk of roadway, moved by quit, often invisible machinery; who are amused by the tip of the mast which skims the top of the temporary wall; or who reflect on the nobility inherent in a river and the fact that we have not subdued every waterway with our autos, while knowing that we can if we want to.

Middletown
High Sch
(BM 547)
Cem
BM 574
Valley
Middletown
BM 541
BUZZARD
BM 546
Branch
Bushong
Cabin
ROAD
F-4-143
~~F-II-37~~
MIDDLETOWN
QUADRANGLE
CREEK
Middle
Creek
ROAD
Hoopes
PIGNUT
ROAD
17
33
40

F-4-143
MD171 Catoctin Creek
M/DOT
HNedak/Meyer
Summer 1980