Maryland Historical Trust

Maryland Inventory of Historic Properties number: F-3-110.

Name: SIMPSON'S MILL

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.** F-8-110
HISTORIC BRIDGE INVENTORY
MARYLAND STATE HIGHWAY ADMINISTRATION/
MARYLAND HISTORICAL TRUST

SHA Bridge No. F-1701 **Bridge name** Simpson's Mill Road over Little Pipe Creek

LOCATION:
Street/Road name and number [facility carried] Simpson's Mill Road

City/town Johnsville **Vicinity** X

County Frederick

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

Ownership: State _____ **County** X__ **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-8-110

DESCRIPTION:

Describe Setting:

Bridge F1701 carries one lane of traffic on Simpson's Mill Road over Little Pipe Creek, the boundary between Frederick and Carroll Counties. The bridge is about one mile north of Good Intent Road near Johnsville in Frederick County. Simpson's Mill Road runs in a generally north-south direction at this location and Little Pipe Creek flows east to west. The bridge is surrounded by farmland.

Describe Superstructure and Substructure:

This bridge is a single-span, steel, Pratt through-truss with a span of 90'-0" between centerlines of bearings. The clear roadway width is 13'-0". The top chord consists of back to back channels with a top cover plate and bottom batten plates. The bottom chord is made up of dual rectangular bars. The verticals are back to back channels connected with lattice bars and rivets. The diagonals are dual rectangular bars except at the center panel where there are single crossed bars. The bridge has a recently replaced timber deck which is supported by I-shaped and channel-shaped stringers. The stringers rest on I-shaped floorbeams. The floorbeams hang by the vertical members which are pinned at their ends. The truss on each side has steel lattice as safety railing. The substructure is comprised of two stone abutments with flared wingwalls.

Discuss Major Alterations:

The original stone abutments have been replaced with reinforced concrete. Currently, design for major rehabilitation in 1996 is being done.

HISTORY:

WHEN was bridge built (actual date or date range) c.1890-1900
This date is: Actual _____ **Estimated** X
Source of date: Plaque _____ **Design plans** _____ **County bridge files/inspection form** _____
Other (specify) The county survey form suggests a construction date of c.1890, the county bridge files suggest one of 1915; the appearance of the bridge seems to support a construction date of c.1890-1900, rather than the later date.

WHY was bridge built? To provide a reliable crossing of Simpson's Mill Road over Little Pipe Creek, to meet local transportation needs.

WHO was the designer _____

WHO was the builder _____

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

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

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 large number of metal truss bridges erected in Maryland in the late nineteenth and early twentieth centuries. These bridges, which were stronger and more reliable than the majority of

their predecessors, were part of a major advance in bridge technology in Maryland and throughout the nation in the third quarter of the nineteenth century.

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_____

Because of their solidity, metal truss bridges such as the Simpsons Mill Road bridge provided reliable crossings, largely free from the dangers of floods and other disasters that regularly destroyed many of their predecessors. By assuring travelers that Simpson's Mill Road could be safely and reliably passed throughout the year, this bridge promoted small-scale residential, commercial, agricultural, and industrial development along the road and other thoroughfares that fed into it. Though their impacts were quite localized, bridges such as this, taken *en masse*, were an important factor in the development of rural areas throughout the state.

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_____

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 around 189-1900, it falls within the period 1860-1900. During this era, steel began to completely replace iron, and the metal truss became popular at highways as well as railroads. Bridges erected during this period were characterized by relatively delicate members.

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

F-8-110

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

Neither manufacturer, designer, nor engineer could be identified.

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 Frederick County engineer's office.

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.

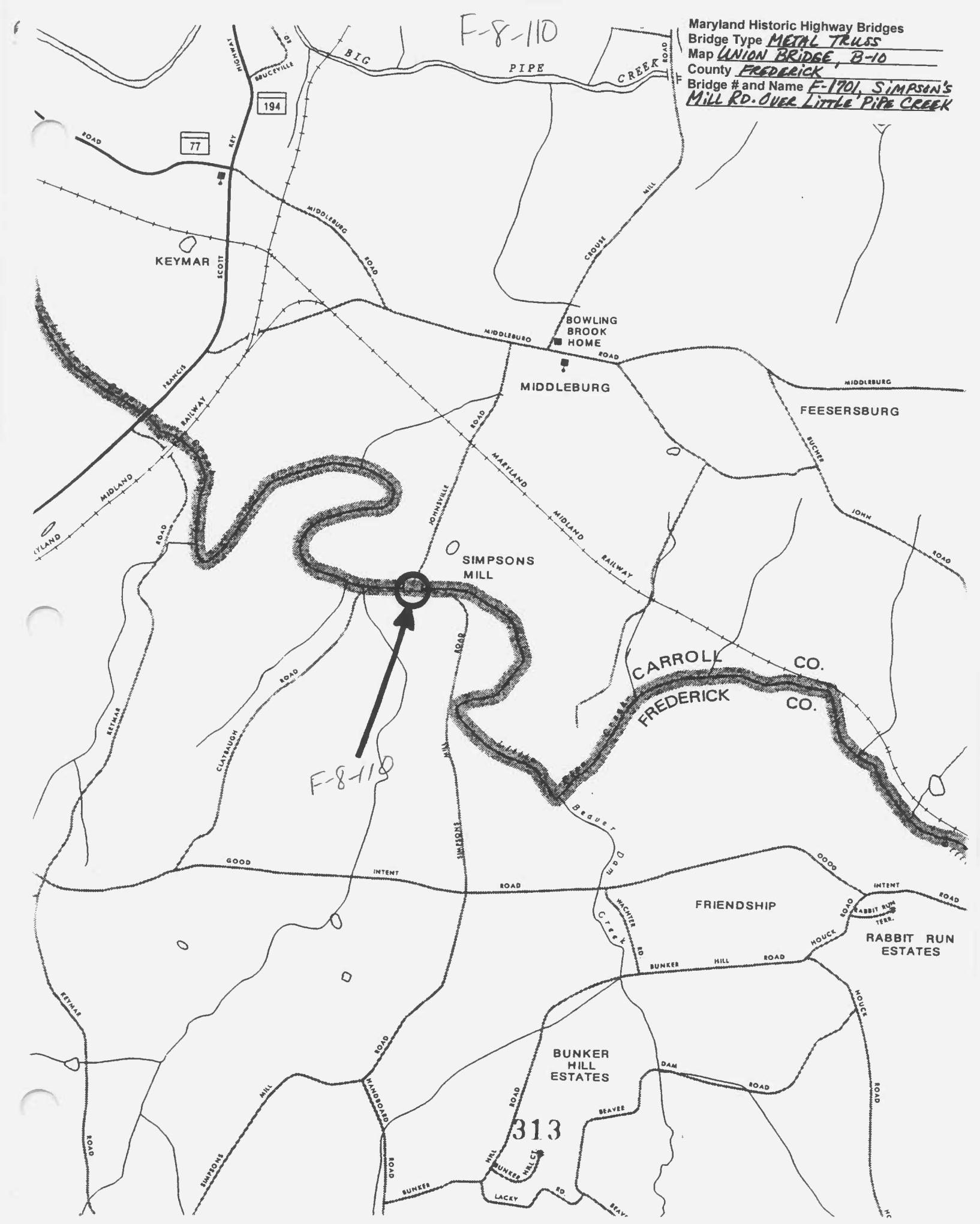
Pennsylvania Historical and Museum Commission and Pennsylvania Department of Transportation. *Historic Highway Bridges in Pennsylvania*. Commonwealth of Pennsylvania, 1986.

State inventory form F-8-110

SURVEYOR/SURVEY INFORMATION:

Date bridge recorded 2/9/95

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


F-8-110
Maryland Historic Highway Bridges
Bridge Type METAL TRUSS
Map UNION BRIDGE, B-10
County FREDERICK
Bridge # and Name F-170, SIMPSON'S MILL RD. OVER LITTLE PIPE CREEK
BIG PIPE CREEK
194
77
KEYMAR
MIDDLEBURG ROAD
BOWLING BROOK HOME
MIDDLEBURG
FEESERSBURG
MARYLAND MIDLAND RAILWAY
SIMPSONS MILL
F-8-110
CARROLL CO.
FREDERICK CO.
GOOD INTENT ROAD
FRIENDSHIP
RABBIT RUN ESTATES
BUNKER HILL ROAD
BUNKER HILL ESTATES
DAM ROAD
313

Inventory # F-8-110

Name F1701-SIMPSONS MILL RD OVER LITTLE PIPE CREEK
County/State FREDERICK COUNTY, MD
Name of Photographer FRANK JULIANO
Date 2/95

Location of Negative SHA

Description ELEVATION LOOKING WEST

Number ~~11~~ 1 of ~~354~~

Inventory # F-8-110

Name F1701-SIMPSONS MILL RD OVER LITTLE PIPE CREEK
County/State FREDERICK COUNTY/ MD
Name of Photographer FRANK JULIANO
Date 2195

Location of Negative SHA

Description NORTH APPROACH

Number 2 ~~13~~ of 354

Inventory # F-8-110

Name F1701-SIMPSONS MILL RD OVER LITTLE APE CREEK
County/State FREDERICK COUNTY/MD
Name of Photographer FRANK JULIANO
Date 2/95

Location of Negative SHA

Description SOUTH APPROACH

Number 3 14 of 35 4

WARNING
6000 POUNDS

Inventory # F-8-110

Name F1701-SIMPSONS MILL RD OVER LITTLE PIPE CREEK
County/State FREDERICK COUNTY | MD
Name of Photographer FRANK JULIANO
Date 2/95

Location of Negative SHA

Description ELEVATION LOOKING EAST

Number 4 ~~15~~ of ~~35~~ 4

INDIVIDUAL PROPERTY/DISTRICT
MARYLAND HISTORICAL TRUST
INTERNAL NR-ELIGIBILITY REVIEW FORM

Property/District Name: Simpson's Mill Rd. Bridge Survey Number: F-8-110

Project: Proposed Rehabilitation Agency: F/COE

Site visit by MHT Staff: X no ___ yes Name _____ Date _____

Eligibility recommended X Eligibility **not** recommended ____

Criteria: X A ___B X C ___D Considerations: ___A ___B ___C ___D ___E ___F ___G ___None

Justification for decision: (Use continuation sheet if necessary and attach map)

Set in a rural landscape over Little Pipe Creek, the Simpson's Mill Road Bridge carries one lane of traffic between Frederick and Carroll Counties. Spanning 90 feet in a single span, the steel Pratt through truss was constructed c. 1890-1900. In 1995, the Interagency Bridge Review committee (SHA & MHT) determined that the bridge was eligible under criteria A and C. The bridge is significant example of its type. Due to their reliability, metal truss bridges were a popular engineering choice for rural crossings in late 19th century Maryland. The sturdy structures represented a major advance in bridge technology due to their materials, method of construction and utility. The Pratt truss answered local transportation needs and fostered economic growth. The Simpson's Mill Road Bridge retains a high level of integrity in its setting, design, location, materials, feeling and association. In 1996, the original bridge is intact except for replacement abutments (concrete) and a new wooden deck. The roposed rehabilitation will repair where possible and replace in-kind due to heavy corrosion.

Documentation on the property/district is presented in: SHA Bridge Inventory, Metal Truss Volume, Maryland Inventory of Historic Properties

Prepared by: Greiner Engineering &Janet Davis

Lauren Bowlin — April, 16, 1996
Reviewer, Office of Preservation Services — Date

NR program concurrence: ✓ yes ___ no ___ not applicable

Reviewer, NR program — April 17, 1996. Date

Survey No. F-8-110

MARYLAND COMPREHENSIVE HISTORIC PRESERVATION PLAN DATA - HISTORIC CONTEXT

I. Geographic Region:

____	Eastern Shore	(all Eastern Shore counties, and Cecil)
____	Western Shore	(Anne Arundel, Calvert, Charles, Prince George's and St. Mary's)
_X_	Piedmont	(Baltimore City, Baltimore, Carroll, Frederick, Harford, Howard, Montgomery)
____	Western Maryland	(Allegany, Garrett and Washington)

II. Chronological/Developmental Periods:

____	Paleo-Indian	10000-7500 B.C.
____	Early Archaic	7500-6000 B.C.
____	Middle Archaic	6000-4000 B.C.
____	Late Archaic	4000-2000 B.C.
____	Early Woodland	2000-500 B.C.
____	Middle Woodland	500 B.C. - A.D. 900
____	Late Woodland/Archaic	A.D. 900-1600
____	Contact and Settlement	A.D. 1570-1750
____	Rural Agrarian Intensification	A.D. 1680-1815
____	Agricultural-Industrial Transition	A.D. 1815-1870
_X_	Industrial/Urban Dominance	A.D. 1870-1930
____	Modern Period	A.D. 1930-Present
____	Unknown Period (___ prehistoric	___ historic)

III. Prehistoric Period Themes:

____	Subsistence
____	Settlement
____	Political
____	Demographic
____	Religion
____	Technology
____	Environmental Adaptation

IV. Historic Period Themes:

_X_	Agriculture
____	Architecture, Landscape Architecture, and Community Planning
____	Economic (Commercial and Industrial)
____	Government/Law
____	Military
____	Religion
____	Social/Educational/Cultural
_X_	Transportation

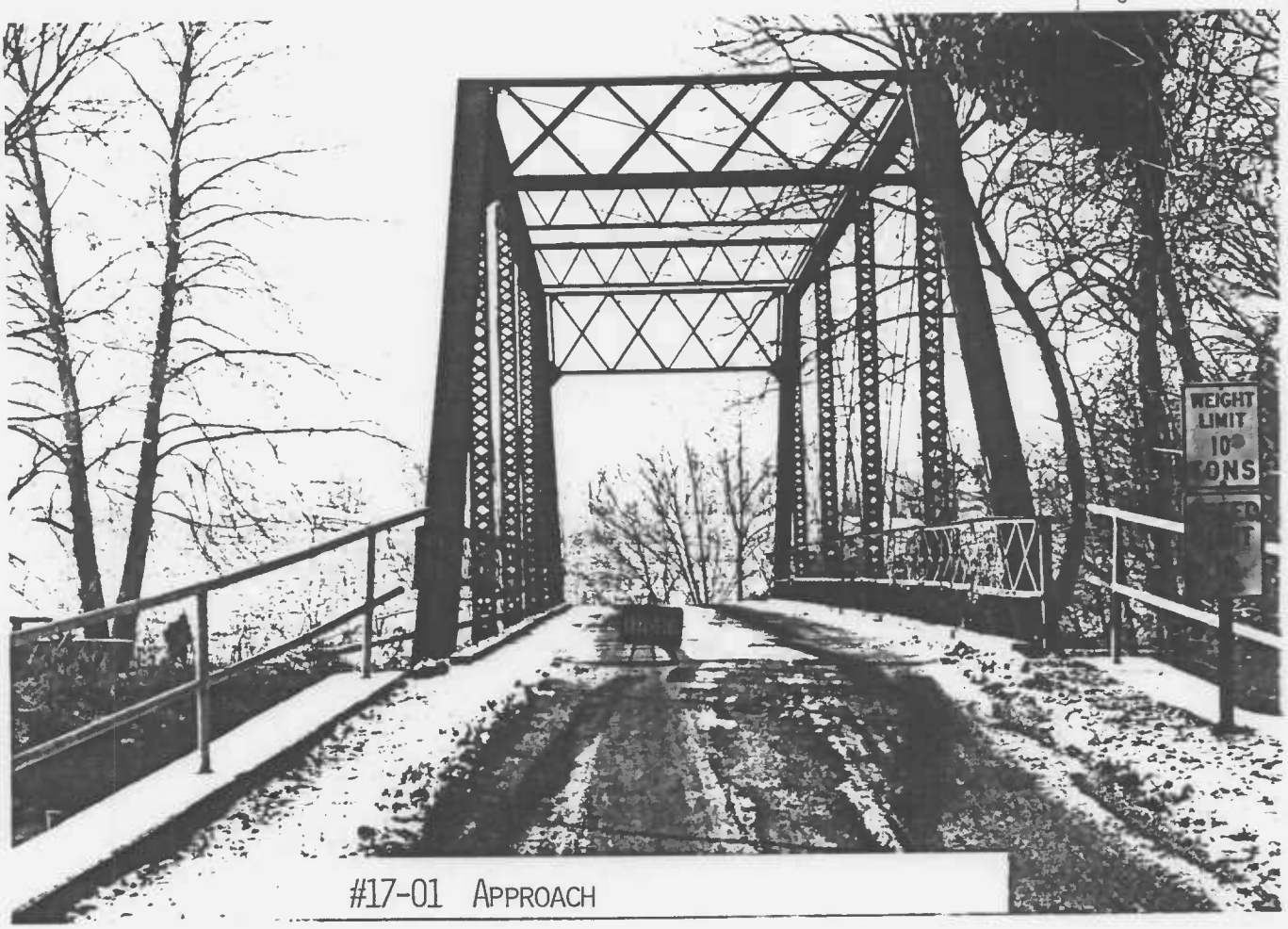
V. Resource Type:

Category: _structure_

Historic Environment: _rural_

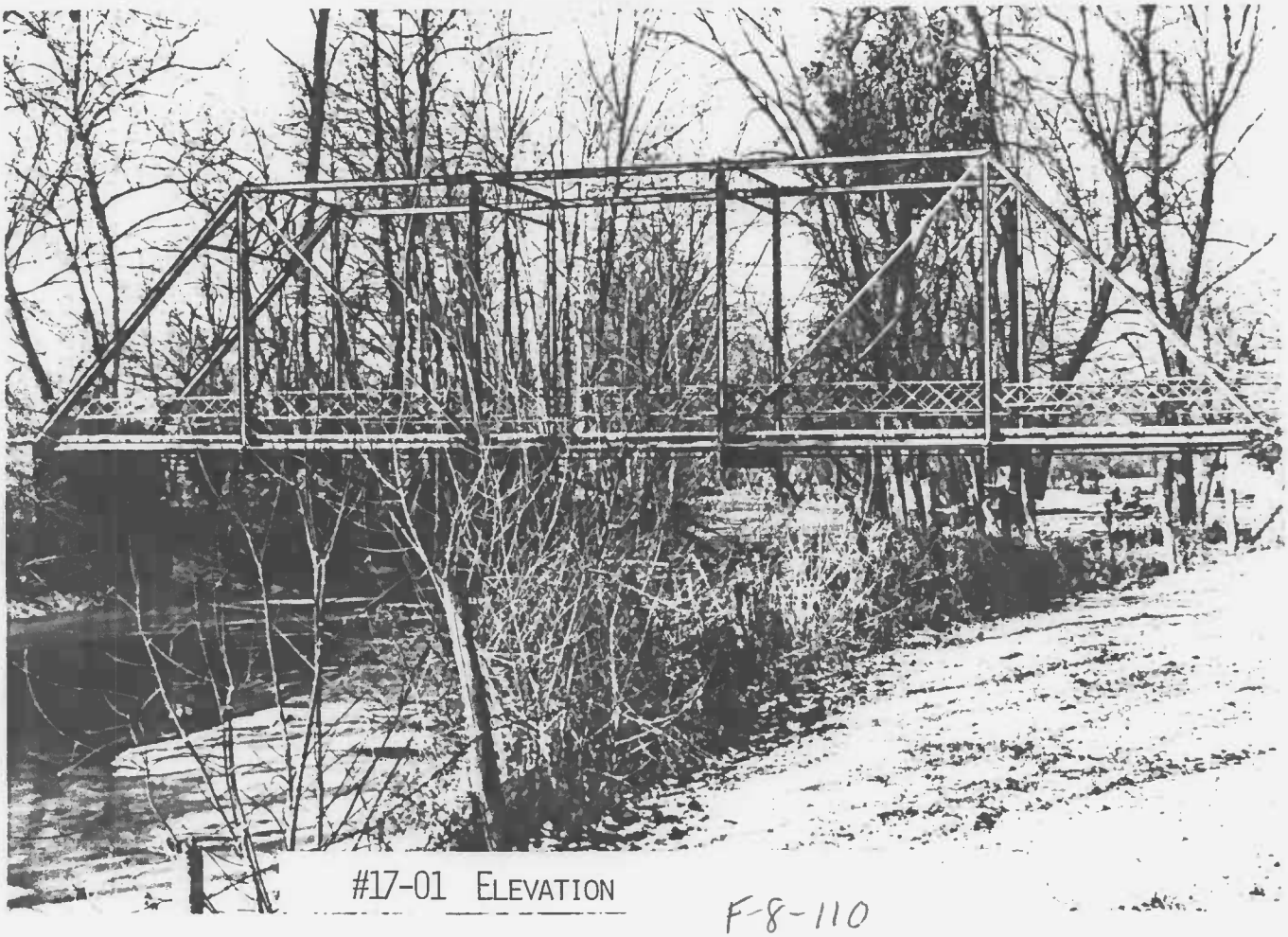
Historic Function(s) and Use(s): _bridge_

Known Design Source: _na_



#17-01 APPROACH

#17-01 APPROACH



#17-01 ELEVATION

F-8-110

#17-01 ELEVATION

Survey No. F-8-110 Ca. 1890

Simpson's Mill Road Bridge

Johnsville, Maryland

Private

The Simpson's Mill Road Bridge is one of approximately 12 19th century bridges in Frederick County. At least three of that number are in the process of replacement. Small truss bridges of the Simpson's Mill Road type are thus steadily becoming more rare. The remote location and low traffic volume on Simpson's Mill Road have preserved the bridge. The Howe truss was commonly used from the 1840's into the 20th century.

Survey No. F-8-110
Simpson's Mill Road Bridge
Johnsville, Maryland
Frederick County

HISTORIC CONTEXT:

MARYLAND COMPREHENSIVE HISTORIC PRESERVATION PLAN DATA

Geographic Organization: Piedmont
(Harford, Baltimore, Carroll, Frederick, Howard, Montgomery Counties, and Baltimore City)

Chronological/Development Period:
Industrial/Urban Dominance 1870-1930 A.D.

Prehistoric/Historic Period Themes:
Transportation

Resource Type:
Category: Structure

Environment: Rural

Function & Use: Transportation/road-related/bridge

Known Design Source: None

Survey No. F-8-110

MARYLAND INVENTORY OF HISTORIC PROPERTIES

Magi No.

DOE __yes X no

Maryland Historical Trust State Historic Sites Inventory Form

1. Name (indicate preferred name)

historic

and/or common Simpson's Mill Road Bridge

2. Location

street & number Simpson's Mill Road at Little Pipe Creek ___ not for publication

city, town Johnsville 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	X yes: restricted	___ government	___ scientific
	___ being considered	___ yes: unrestricted	___ industrial	X transportation
	X not applicable	___ no	___ military	___ other:

4. Owner of Property (give names and mailing addresses of all owners)

name Frederick County Dept. of Public Works; Bureau of Highways & Transportation

street & number 12 E. Church St. telephone no.:

city, town Frederick state and zip code MD 21701

5. Location of Legal Description

courthouse, registry of deeds, etc. Frederick County Courthouse liber

street & number 100 W. Patrick St. folio

city, town Frederick, state MD 21701

6. Representation in Existing Historical Surveys

title

date ___ federal ___ state ___ county ___ local

pository for survey records

city, town state

7. Description

Survey No. F-8-110

Condition		Check one	Check one
___ excellent	___ deteriorated	___ unaltered	_X_ original site
_X_ good	___ ruins	_X_ altered	___ moved date of move _____
___ fair	___ unexposed		

Prepare both a summary paragraph and a general description of the resource and its various elements as it exists today.

Contributing Resource Count: 1

(Typed on separate sheet)

8. Significance

Survey No. F-8-110

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	___ engineering	___ music	___ theater	
X 1800–1899	___ commerce	___ exploration/settlement	___ philosophy	X transportation	
___ 1900–	___ communications	___ industry	___ politics/government	___ other (specify)	
		___ invention			

Specific dates Ca. 1890 **Builder/Architect**

check: Applicable Criteria: X A __B __C __D
and/or
Applicable Exception: __A __B __C __D __E __F __G

Level of Significance: __national __state X local

Prepare both a summary paragraph of significance and a general statement of history and support.

(Typed on separate sheet)

9. Major Bibliographical References

Survey No. F-8-110

American Association for State and Local History Technical Leaflet 95, History News, Vol. 32, No. 5, May, 1977
"Bridge Truss Types: a guide to dating & identifying"
Frederick County Dept. of Public Works, Bureau of Highways & Transportation
List of historic bridges, March, 1991

10. Geographical Data

Acreage of nominated property _____

Quadrangle name Union Bridge, Maryland **Quadrangle scale** 1:24000

UTM **References** do NOT complete UTM references

	Zone	Easting	Northing
A			
B			
C			
D			
E			
F			
G			
H			

Verbal boundary description and justification

List all states and counties for properties overlapping state or county boundaries

state	Maryland	**code**	**county**	Carroll	**code**
state		**code**	**county**		**code**

11. Form Prepared By

name/title Janet L. Davis, Historic Sites Surveyor

organization Frederick County Planning & Zoning Dept. **date** June, 1991

street & number 12 E. Church St. **telephone** 301-696-2958

city or town Frederick, **state** MD 21701

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
Shaw House
21 State Circle
Annapolis, Maryland 21401
(301) 269-2438

MARYLAND HISTORICAL TRUST
DHCP/DHCD
100 COMMUNITY PLACE
CROWNSVILLE, MD 21032-2023
301-514-7600

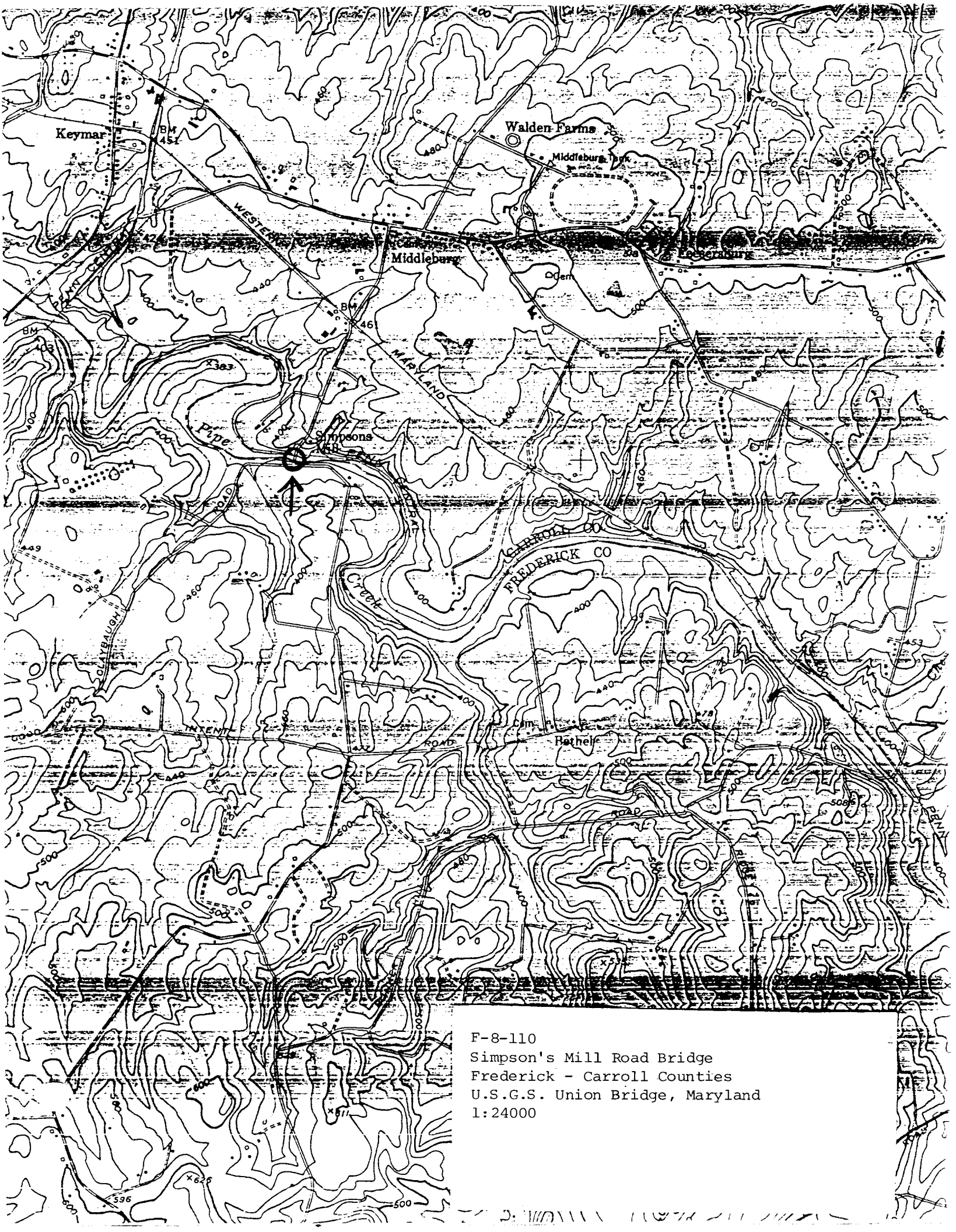
7.1 Description

The Simpson's Mill Road Bridge is a steel Howe through truss bridge built about 1890 at the crossing of Simpson's Mill Road over Little Pipe Creek the boundary between Frederick and Carroll Counties. The bridge is about 1.12 miles north of Good Intent Road near Johnsville, Frederick County. The bridge has a recently replaced wood deck. It has three panels with pinned connections. No identifying builder's plate exists on the bridge, but the raised letters of the name "Carnegie" are visible on the northwest inclined end post, probably indicating the girder manufactory.

8.1 Significance

The Simpson's Mill Road Bridge is one of approximately 12 19th century bridges in Frederick County. At least three of that number are in the process of replacement. Small truss bridges of the Simpson's Mill Road type are thus steadily becoming more rare. The remote location and low traffic volume on Simpson's Mill Road have preserved the bridge. The Howe truss was commonly used from the 1840's into the 20th century.

The context for evaluating iron and steel truss bridges is incomplete. Six bridges were placed on the National Register in the early 1980's. Few others have been documented, although basic data is available from the Frederick County Bureau of Highways and Transportation.



F-8-110
Simpson's Mill Road Bridge
Frederick - Carroll Counties
U.S.G.S. Union Bridge, Maryland
1:24000

POUNDS

F-8-110
Simpsons Mill Road Bridge
Frederick County
Photo: Janet Davis
June 1991
Neg. loc.: Md. SHPO
View from South
1/2

WARNING
WEIGHT NOT TO EXCEED
6000 POUNDS
SPEED NOT TO EXCEED

F-8-110
Simpsons Mill Road Bridge
Frederick County
Photo: Janet Davis
June 1991
Neg. loc.: Md. SHPO
Crownsville, MD
View through truss from southwest
2/2