

Maryland Historical Trust

Maryland Inventory of Historic Properties number: F-2-59

Name: St. Marks Rd Bridge

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 <input checked="" type="checkbox"/>	Eligibility Not Recommended <input type="checkbox"/>
Criteria: <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D	Considerations: <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E <input type="checkbox"/> F <input type="checkbox"/> G <input type="checkbox"/> None
Comments: _____	

Reviewer, OPS: <u>Anne E. Bruder</u>	Date: <u>3 April 2001</u>
Reviewer, NR Program: <u>Peter E. Kurtze</u>	Date: <u>3 April 2001</u>

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

MHT No. F-2-59

SHA Bridge No. F-1202 Bridge name St. Marks Road Bridge over Broad Run

LOCATION:

Street/Road name and number [facility carried] St. Marks Road

City/town Burkittsville Vicinity X

County Frederick

This bridge projects over: Road Railway Water Land

Ownership: State County Municipal Other

HISTORIC STATUS:

Is bridge located within a designated historic district? Yes No

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 _____ Retractable _____ 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 _____

DESCRIPTION:**Describe Setting:**

Bridge F-1202, which carries one lane of traffic on St. Mark's Road over Broad Run, is located 0.7 miles south of Broad Run Road (MD Route 383) near Burkittsville, Frederick County. St. Mark's Road runs in a generally east-west direction at this location and Broad Run flows north to south. The bridge area is relatively undeveloped and surrounded by farmland.

Describe Superstructure and Substructure:

This bridge is a single-span, steel, Pratt pony truss. Five panels combine to form a span length of 71.75' between bearings. The verticals are back to back channels connected with lattice bars and rivets. The diagonal members in the second and fourth panels are angle shapes. The cross diagonals in the third panel consist of circular rods. The bridge has a timber deck supported on three longitudinal girders which rest on floorbeams. The floorbeams are I-shaped made of plates and angles and hang by the vertical members which are pinned at their ends. The truss on each side has a steel lattice about 18 inches in depth as safety railing. The bottom chord consists of dual metal rectangular bars. The substructure is comprised of a stone northeast abutment and a stone and concrete southwest abutment.

Discuss Major Alterations:

In 1982 the bridge deck was replaced in kind. Some vertical members were replaced and a guardrail was installed in 1990. In 1993 four bays of stringers and some diagonal rods were replaced. The tops of the wingwalls have recently been parged with concrete as part of bridge maintenance.

HISTORY:

WHEN was bridge built (actual date or date range) 1900-1910

This date is: Actual _____ Estimated X

Source of date: Plaque _____ Design plans _____ County bridge files/inspection form X

Other (specify) State inventory form, which suggests a construction date of c.1900

WHY was bridge built? To provide a reliable crossing of St. Mark's Road over Broad Run, to meet local transportation needs.

WHO was the designer _____

WHO was the builder State inventory form suggests York Bridge Company as builder and/or designer

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

Because of their solidity, metal truss bridges such as the St. Marks 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 St. Marks 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 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

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. The bridge's use of a pony truss--a truss which has no lateral bracing connecting the top chords of its superstructure--is unusual in the state. Pony trusses probably comprise no more than about 20 percent of Maryland's metal truss bridges.

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 1900-1910, 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 early in the century, it is characterized by relatively delicate members, rather the heavy solid members that characterize its successors.

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

Is bridge a significant example of work of manufacturer, designer and/or engineer? No ___ Yes ___

Possibly. In the late nineteenth and early twentieth centuries, numerous metal truss bridge fabricating companies sprang up around the country that shipped bridge components to crossings for assembly on site. Among them was the York Bridge Company of York, Pennsylvania, which fabricated Pratt, Warren, and Parker trusses erected in Maryland in the early twentieth century. These included bridges CL-227 (1911) and CL-241 (1908) in Carroll County and F-407 (1914) and F-506 (1908) in Frederick County. This bridge may have been fabricated by York.

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-2-59

SURVEYOR/SURVEY INFORMATION:

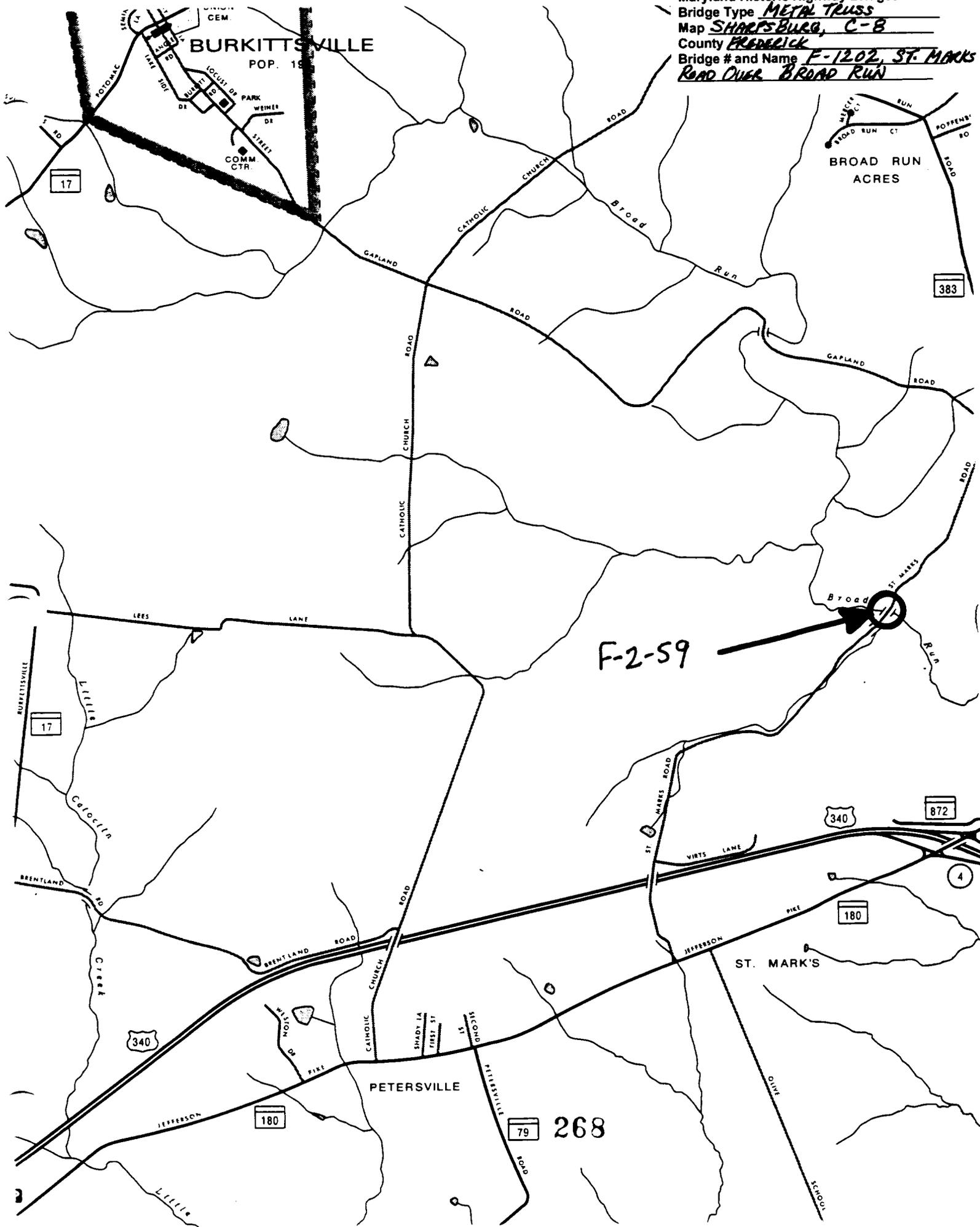
Date bridge recorded 2/1/95

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 SHARPSBURG, C-B
County FREDERICK
Bridge # and Name F-1202, ST. MARK'S ROAD OVER BROAD RUN





Inventory # F-2-59

Name F1202- SAINT MARKS RD OVER BROAD RUN

County/State FREDERICK COUNTY/MD

Name of Photographer FRANK JULIANO

Date 2/95

Location of Negative SHA

Description APPROACH SOUTH

Number 1 22 of 34 6



Inventory # F-2-59

Name F1202 - SAINT MARKS RD OVER BROAD RUN

County/State FREDERICK COUNTY MD

Name of Photographer FRANK JULIANO

Date 2/95

Location of Negative SHA

Description ELEVATION LOOKING EAST

Number 2 of 346

A black and white photograph of a wooden bridge. A rectangular sign is mounted on the right side of the bridge railing. The sign contains the text: "WEIGHT NOT TO EXCEED 8000 LBS AND SPEED NOT TO EXCEED 15 MPH". The bridge is made of wooden planks and has a metal railing. The background shows a wooded area with bare trees, suggesting a winter or late autumn setting. The ground on either side of the bridge appears to be covered in snow or frost.

WEIGHT NOT
TO EXCEED
8000 LBS
AND
SPEED NOT
TO EXCEED
15 MPH

Inventory # F-2-59

Name F1202-SAINTE MARKS ROVER BRAD RUN

County/State FREDERICK COUNTY / MD

Name of Photographer FRANK JULIANO

Date 2/95

Location of Negative SHA

Description WEIGHT LIMIT SIGN

Number 3 of 34 6



Inventory # F-2-59

Name E1202-SAINI MARIS RD OVER BROAD RUN

County/State FREDERICK COUNTY/MD

Name of Photographer FRANK JULIANO

Date 2/95

Location of Negative SHA

Description APPROACH NDRTH

Number 4 of 34 6



Inventory # F-2-59

Name F1202-SAINT MARKS RD OVER BROAD RUN

County/State FREPERICK COUNTY / MD

Name of Photographer FRANK JULIANO

Date 2/95

Location of Negative SHA

Description ELEVATION LOOKING WEST

Number 5 of 34 6



F-2-59

F1202

6 of 6

F-2-59

St. Mark's Road Bridge at Broad Run
Burkittsville vicinity
Public

Ca. 1900

The St. Mark's Road Bridge over Broad Run is a circa 1900 steel Pratt pony truss bridge with three panels and a wood deck. The end portals are braced on the outside with inclined members. The bridge is one of a dwindling number of steel truss bridges built in the first decade of the 20th century. Although not identified by a plate, the design is similar to several other bridges built by the York Bridge Company in Frederick County during the period 1900-1915.

F-2-59

St. Mark's Road Bridge at Broad Run
Brunswick
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, A.D. 1870-1930

Prehistoric/Historic Period Themes
Transportation

Resource Types:

Category: Structure

Historic Environment: Rural

Historic Function and Use:
Transportation/road-related (vehicular)/bridge

Known Design Source: None

Maryland Historical Trust MARYLAND INVENTORY OF
State Historic Sites Inventory Form HISTORIC PROPERTIES

Survey No. F-2-59

Magi No.

DOE yes no

1. Name (indicate preferred name)

historic

and/or common St. Mark's Road Bridge at Broad Run

2. Location

street & number 5000 blk. St. Mark's Road at Broad Run not for publication

city, town Brunswick vicinity of congressional district 6th

state Maryland county Frederick

3. Classification

Category	Ownership	Status	Present Use
<input type="checkbox"/> district	<input checked="" type="checkbox"/> public	<input checked="" type="checkbox"/> occupied	<input type="checkbox"/> agriculture
<input type="checkbox"/> building(s)	<input type="checkbox"/> private	<input type="checkbox"/> unoccupied	<input type="checkbox"/> commercial
<input checked="" type="checkbox"/> structure	<input type="checkbox"/> both	<input type="checkbox"/> work in progress	<input type="checkbox"/> educational
<input type="checkbox"/> site	Public Acquisition	Accessible	<input type="checkbox"/> entertainment
<input type="checkbox"/> object	<input type="checkbox"/> in process	<input type="checkbox"/> yes: restricted	<input type="checkbox"/> government
	<input type="checkbox"/> being considered	<input checked="" type="checkbox"/> yes: unrestricted	<input type="checkbox"/> industrial
	<input checked="" type="checkbox"/> not applicable	<input type="checkbox"/> no	<input type="checkbox"/> military
			<input type="checkbox"/> museum
			<input type="checkbox"/> park
			<input type="checkbox"/> private residence
			<input type="checkbox"/> religious
			<input type="checkbox"/> scientific
			<input checked="" type="checkbox"/> transportation
			<input type="checkbox"/> other:

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

name Frederick County Commissioners

street & number 12 E. Church Street 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 Street 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-2-59

Condition

excellent
 good
 fair

deteriorated
 ruins
 unexposed

Check one

unaltered
 altered

Check one

original site
 moved date of move _____

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

CONTRIBUTING RESOURCE COUNT: 1

The St. Mark's Road Bridge over Broad Run is a circa 1900 steel Pratt pony truss vehicular bridge located about 0.7 mile south of Broad Run Road (Maryland Route 383) near Burkittsville, Frederick County, Maryland. The bridge has pin connections and three panels with inclined outside braces at the portals at each end. The bridge approaches are stone which has been recently covered with concrete as an attempt to prevent weather damage of the pointed stone.

The bridge has a wood deck supported on three girders or floor beams. The web on each side has a steel lattice about 18 inches in depth as an added safety railing. The panels also have additional lengths of pinned stabilizers on the outer edges. The bridge is in good condition and is on a lightly traveled road. No identifying panels are on the bridge and there is no evidence of plates having been removed.

8. Significance

Survey No. F-2-59

Period	Areas of Significance—Check and justify below			
<input type="checkbox"/> prehistoric	<input type="checkbox"/> archeology-prehistoric	<input type="checkbox"/> community planning	<input type="checkbox"/> landscape architecture	<input type="checkbox"/> religion
<input type="checkbox"/> 1400-1499	<input type="checkbox"/> archeology-historic	<input type="checkbox"/> conservation	<input type="checkbox"/> law	<input type="checkbox"/> science
<input type="checkbox"/> 1500-1599	<input type="checkbox"/> agriculture	<input type="checkbox"/> economics	<input type="checkbox"/> literature	<input type="checkbox"/> sculpture
<input type="checkbox"/> 1600-1699	<input type="checkbox"/> architecture	<input type="checkbox"/> education	<input type="checkbox"/> military	<input type="checkbox"/> social/
<input type="checkbox"/> 1700-1799	<input type="checkbox"/> art	<input type="checkbox"/> engineering	<input type="checkbox"/> music	<input type="checkbox"/> humanitarian
<input type="checkbox"/> 1800-1899	<input type="checkbox"/> commerce	<input type="checkbox"/> exploration/settlement	<input type="checkbox"/> philosophy	<input type="checkbox"/> theater
<input checked="" type="checkbox"/> 1900-	<input type="checkbox"/> communications	<input type="checkbox"/> industry	<input type="checkbox"/> politics/government	<input checked="" type="checkbox"/> transportation
		<input type="checkbox"/> invention		<input type="checkbox"/> other (specify)

Specific dates 1900 **Builder/Architect**

check: Applicable Criteria: A B C D
 and/or
 Applicable Exception: A B C D E F G
 Level of Significance: national state local

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

The St. Mark's Road Bridge is one of approximately 15 truss bridges built between 1900-1910 which existed at the beginning of the 1980's, of which 8 are still extant. Several of the 8 are under study for possible replacement. The St. Mark's Road Bridge is not currently scheduled for replacement, undoubtedly due to the low traffic volume on St. Mark's Road. Although the builder is unknown, the York Bridge Company is known to have built the majority of the bridges erected between 1900 and 1910. The number of steel truss bridges is declining as development spreads in the agricultural areas of Frederick County, requiring higher load-bearing bridges.

The St. Mark's Road Bridge is comparable to the 1908 McKinstry's Mill Road Bridge (F-8-111), currently owned by Carroll County. The McKinstry bridge has four panels and a dated plate with the York Bridge Co. name and the names of the county commissioners in 1908. The design of the two bridges is essentially the same, with one less center panel in the St. Mark's Road bridge, illustrating the adaptability of the steel truss bridges to varied locations. Although the context of steel truss bridges in Frederick County is incomplete, the dwindling number of these structures clearly indicates the need for further documentation prior to their replacement.



F-2-59
 St. Mark's Road Bridge at Broad Run
 Frederick County
 USGS Point of Rocks, Md. - Va.
 1:24000

