

Maryland Historical Trust

Maryland Inventory of Historic Properties number: M-36-33 M: 36-30

Name: Fallop Ave. over CSXT Rk

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 <u>X</u>	Eligibility Not Recommended _____
Criteria: <u>A</u> <u>B</u> <u>X</u> <u>C</u> <u>D</u>	Considerations: <u>A</u> <u>B</u> <u>C</u> <u>D</u> <u>E</u> <u>F</u> <u>G</u> <u>None</u>
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. M:36-33

SHA Bridge No. M-85 Bridge name Talbot Avenue over CSXT Railroad

LOCATION:

Street/Road name and number [facility carried] Talbot Avenue

City/town Silver Spring Vicinity X

County Montgomery

This bridge projects over: Road Railway X Water Land

Ownership: State County Municipal Other CSXT Railroad

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 Retractable Pontoon

Metal Girder X :

Rolled Girder X 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

Describe Setting:

Bridge No. M-85 carries Talbot Avenue over CSXT Railroad in Montgomery County. The bridge spans from north to south, while the rail line runs east-west. The bridge is located in the vicinity of Silver Spring, and is surrounded by single family dwellings and a school property.

Describe Superstructure and Substructure:

Bridge No. M-85 is a 3-span, single-lane, combination metal plate and rolled girder bridge. The bridge was originally built in 1918, with a new deck added in 1986. The structure is 106 feet long with a clear roadway width of 14.5 feet from timber curb to curb and an out-to-out width of 18 feet. The superstructure consists of a through-plate girder in the center span, rolled girders in the end spans, timber floor beams, a wood plank deck and a timber railing. The rolled girders are 1.5 feet x 7 inches, while the through plate girder is 3 feet in height. The roadway is carried on the rolled girders of the end spans and through the plate girder of the center span. The structure has a wood railing supported by wood posts. A metal w-section guardrail has been added to the bridge. The substructure consists of two (2) concrete abutments and two (2) metal column bents. There are flared, concrete wing walls. The bridge is posted for 10 tons, and has a Montgomery County sufficiency rating of 20.7.

According to the 1993 inspection report, this structure was in fair to poor condition with cracking, corrosion and section loss. The top cover plates of the plate girders are heavily rusted and delaminated. The top flanges of the steel beams at the end spans are also rusted and delaminated with minor section loss and the bottom of the timber deck is moderately to heavily rotted. The substructure is in poor condition. The west batten plates of the top steel struts at the north and south bents are damaged and heavily corroded with 80 percent section loss. The north and south abutment slopes are severely eroded undermining the center section of both abutments.

Discuss Major Alterations:

The last major rehabilitation of the bridge was in 1986. At that time, the timber deck was replaced and some of the steel members in the column bents were replaced or reinforced.

HISTORY:

WHEN was the bridge built: 1918

This date is: Actual Estimated

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

Other (specify) _____

WHY was the bridge built?

The bridge was a replacement of an earlier bridge which was functionally obsolete by 1918. The new bridge allowed for the construction of a third railroad track and increased the clear height above the railroad line by 2.5 feet.

WHO was the designer?

Unknown

WHO was the builder?

Although the bridge is associated with the CSXT Railroad and is currently owned by the railroad, there is no documentation to suggest who was the original builder.

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?

Unknown

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. Even though the structure has a low sufficiency rating, it has a high degree of integrity and retains such character-defining elements of the type as plate and rolled girders, abutments and column bents.

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 plate and rolled girders, abutments and column bents.

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

This bridge is a significant example of a plate and rolled girder bridge.

BIBLIOGRAPHY:

County inspection/bridge files X SHA inspection/bridge files
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 2/25/97

Name of surveyor Caroline Hall/Tim Tamburrino

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 Historical Trust
State Historic Sites Inventory Form**

Magi No.

DOE yes no

1. Name (indicate preferred name)

historic

and/or common Talbot Avenue Bridge

2. Location

street & number Talbot Avenue Intersection With 4th Avenue not for publication

city, town Silver Spring vicinity of congressional district 13

state Maryland county Montgomery

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

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

name Montgomery County Government

street & number 101 Monroe Street telephone no.:

city, town Rockville state and zip code Maryland 20850

5. Location of Legal Description

courthouse, registry of deeds, etc. Department of Assessments & Taxation Right of liber Way

street & number 101 Monroe Street folio

city, town Rockville state MD 20850

6. Representation in Existing Historical Surveys

title None

date federal state county local

pository for survey records

city, town state

7. Description

Survey No. M:36-30

Condition		Check one	Check one	
<input type="checkbox"/> excellent	<input type="checkbox"/> deteriorated	<input checked="" type="checkbox"/> unaltered	<input checked="" type="checkbox"/> original site	
<input checked="" type="checkbox"/> good	<input type="checkbox"/> ruins	<input type="checkbox"/> altered	<input type="checkbox"/> moved	date of move _____
<input type="checkbox"/> fair	<input type="checkbox"/> unexposed			

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

The Talbot Avenue Bridge is a single span through girder roadway bridge constructed in 1916. Its primary support system consists of steel I-beam plate girders that serve as stringers. The steel plate girders support the wooden deck of the Talbot Avenue crossing of the CSX Railroad tracks near the community of Woodside in Montgomery County. The length of the bridge is 135 feet.

The bridge's plate girders are supported by bents constructed of steel I-beams constructed of steel I-beams supported on concrete footings.

This bridge is along the alignment of the CSX Railroad in eastern Montgomery County, Maryland. The CSX alignment includes three set of railroad tracks at this location.

The Talbot Avenue Bridge was constructed during the second decade of the 20th century. It is representative of steel plate girder roadway bridges associated with the early 20th century transportation infrastructure of Maryland during the period between World War I and World War II. It reflects civil engineering design and building technologies associated with expansion of the transportation infrastructure during the post-World War I period of economic expansion.

This structure has two main components. The substructure consists of the steel bents that support the two ends of the bridge. The superstructure component includes two large steel plate girders, smaller supporting girders, and the wooden roadway deck. The steel plate girders span the opening between the vertical trestle supports.

This bridge appears to retain its original integrity. Except for normal maintenance, it does not appear to have been rebuilt or otherwise altered from its 1916 condition.

CONTRIBUTING RESOURCE COUNT: One.

8. Significance

Survey No. M:36-30

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 checked="" 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 1916 **Builder/Architect** Unknown

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 Talbot Avenue Bridge appears to merit further study to evaluate its eligibility for nomination to the National Register of Historic Places or Maryland Register of Historic Properties.

It is associated with the economic significance of land vehicle and railroad transportation in Montgomery County during the first half of the 20th century. This bridge exceeds the normal minimum age standard of fifty years or older for consideration of historical significance.

This bridge appears to largely retain its original integrity. It does not appear to have undergone remodeling that may have affected it's potential historic character. It is representative of civil engineering design and technology during the first part of the 20th century.

Survey No. M:36-30
Talbot Avenue Bridge
Montgomery County, MD

FRAMEWORK FOR IDENTIFYING COMPREHENSIVE PLAN DATA

HISTORIC CONTEXT:

MARYLAND COMPREHENSIVE HISTORIC PRESERVATION PLAN DATA

Geographic Organization: Piedmont.

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

Historic Period Theme: Transportation.

Resource Type:

Category: Structure.

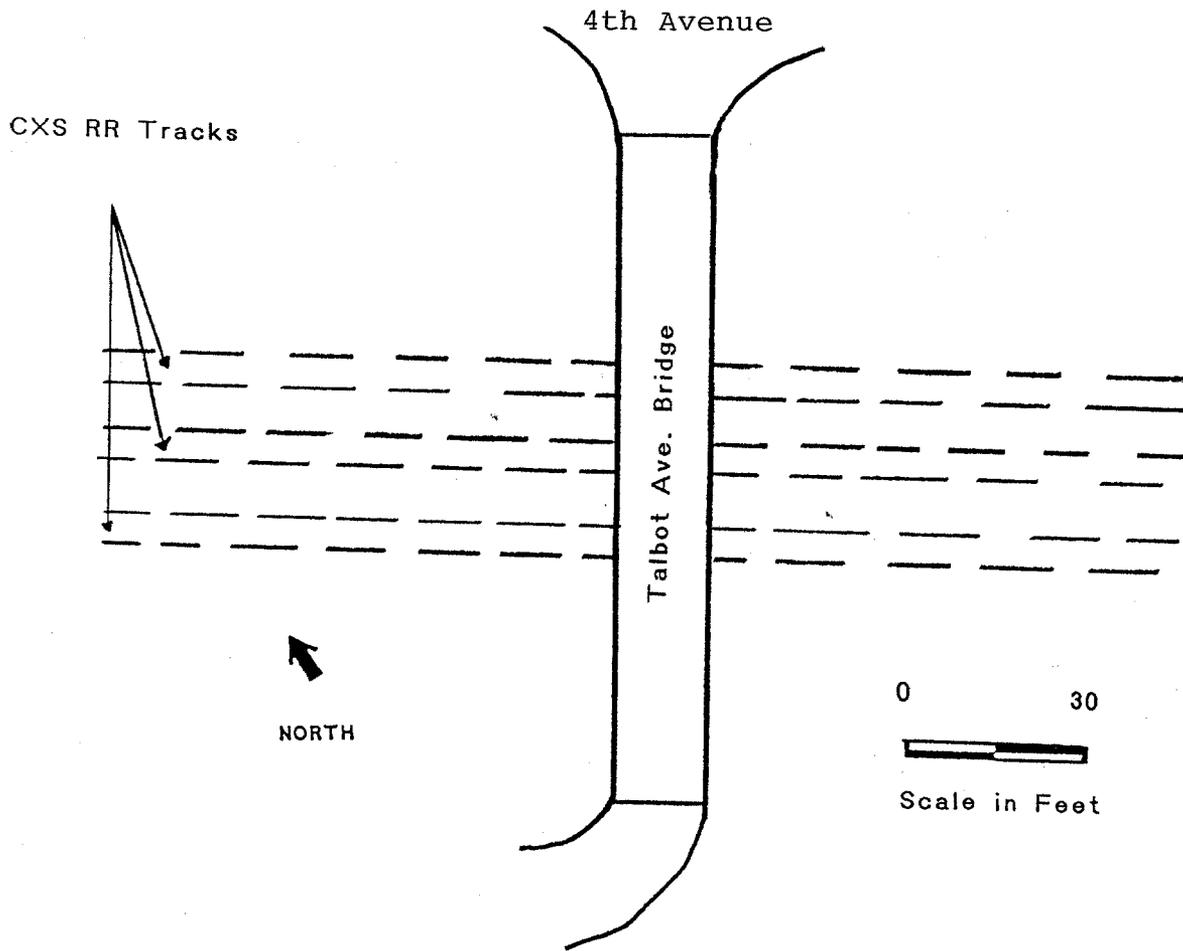
Historic Environment: Suburban.

Historic Functions and Uses: Bridge for roadway crossing of
a major railroad alignment.

Known Design Source: None.

RESOURCE SKETCH MAP

Survey No. M:36-30.
Talbot Avenue Bridge.
Vicinity of Silver Spring,
Montgomery County, MD.



RESOURCE LOCATIONAL MAP

Survey No. M:36-30.
 Talbot Avenue Bridge.
 Vicinity of Silver Spring,
 Montgomery County, MD.
 "Kensington" Quadrangle.





1. m: 36-30
2. Talbot Avenue over CSXT Railroad
3. Montgomery Co.
4. Tim Tamborrino
5. 3-97
6. MD SHPO
7. West approach
8. LOF 5



1. M: 36-30
2. Talbot Avenue over CSXT Railroad
3. Montgomery Co.
4. Tim Tamburino
5. 3-97
6. MD SHPO
7. west elevation
8. 2 of 5



1. M: 36-30
2. Talbot Avenue over CS&T Railroad
3. Montgomery Co, MD.
4. Tim Tamburino
5. 3-77
6. MD SHPO
7. West approach
8. 3 of 5



1. M: 36-30
2. Talbot Avenue over CSXT Railroad
3. Montgomery Co. MD
4. Tim Tamburino
- 5 3-97
6. MD SHPO
7. Decks
8. 4 of 5



1. M: 36-30
2. Talbot Avenue over CSAT Railroad
3. Montgomery Co. MD
4. Tim Tamborino
5. 3-97
6. MD SHPO
7. East elevation, detail of
8. 5 of 5



M: 36-30

TALBOT AVENUE BRIDGE

MONTGOMERY COUNTY, M.D.

LUIS ORTIZ

AUGUST 1995

MARYLAND SHPO

VIEW LOOKING SOUTHEAST; NORTH WEST
ELEVATION OF BRIDGE.

1 OF 1