

9400306

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

Property/District Name: Bridge #15058, Bethesda, MD Survey Number: M-35-60

Project: Replace Br. #15058, MD 410 over aband. Br. CSX Agency: SHA

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

Eligibility recommended Eligibility not recommended

Criteria: A B C D Considerations: A B C D E F G None

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

Based on the information provided by SHA, Bridge #15058 does not meet the National Register Criteria for individual listing. The steel beam bridge was constructed according to SHA plans dated June 1928. The steel beams are encased in concrete and the balustrades are also concrete. The bridge is a common type which was frequently used to cross railroad tracks, and does not have any known design significance. It has been altered numerous times through the years. In addition, the bridge is not known to be associated with any significant events or persons. Although near the Chevy Chase historic district and other possible districts, it is not located in any recognized historic district.

Documentation on the property/district is presented in: Project file, inventory form

Prepared by: Rita Suffness, SHA

Elizabeth Hannold
Reviewer, Office of Preservation Services

March 8, 1994
Date

NR program concurrence: yes no not applicable

R. Anderson
Reviewer, NR program

3.8.94
Date

JMS

Survey No. M:35-60

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)
- 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
- 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 Adaption

IV. Historic Period Themes:

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

V. Resource Type:

Category: Structure

Historic Environment: Suburban

Historic Function(s) and Use(s): transportation, vehicular

Known Design Source: State Roads Commission plans, dated June 1928

Bridge No. 15058
Bethesda
Montgomery County, Maryland

HISTORIC CONTEXT:

MARYLAND COMPREHENSIVE HISTORIC PRESERVATION PLAN DATA

Geographic Organization: Piedmont (Montgomery County)

Chronological/Developmental Period: *Industrial Urban/Dominance*
~~Modern (1930-Present)~~ 1870-1930

Prehistoric/Historic Period Theme: Transportation

Resource Type:

Category (see Section 3 over survey form): Structure

Historic Environment: Suburban

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

Known Design Source: Bridge Division, Maryland
State Highway Administration

Maryland Historical Trust State Historic Sites Inventory Form

MARYLAND INVENTORY OF
HISTORIC PROPERTIES

Survey No. M:35-60

Magi No.

DOE yes no

1. Name (indicate preferred name)

historic

and/or common Bridge No. 15058, MD 410 over Abandoned Branch of CSX Railroad

2. Location

street & number MD 410 near MD 355 not for publication

city, town Bethesda vicinity of congressional district

state Maryland county Montgomery

3. Classification

Category	Ownership	Status	N/A	Present Use	
<input type="checkbox"/> district	<input checked="" type="checkbox"/> public	<input type="checkbox"/> occupied		<input type="checkbox"/> agriculture	<input type="checkbox"/> museum
<input checked="" type="checkbox"/> building(s)	<input type="checkbox"/> private	<input type="checkbox"/> unoccupied		<input type="checkbox"/> commercial	<input type="checkbox"/> park
<input 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 type="checkbox"/> scientific
	<input type="checkbox"/> being considered	<input checked="" type="checkbox"/> yes: unrestricted		<input type="checkbox"/> industrial	<input checked="" 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 Maryland State Highway Administration

street & number 707 N. Calvert Street telephone no.: 333 1183

city, town Baltimore state and zip code Maryland 21202

5. Location of Legal Description

courthouse, registry of deeds, etc. County Courthouse liber

street & number folio

city, town Rockville state Maryland

6. Representation in Existing Historical Surveys

title N/A

date federal state county local

pository for survey records

city, town state

7. Description

Survey No. M:35-60

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

SEE CONTINUATION SHEET 7.2

8. Significance

Survey No. M:35-60

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/ humanitarian
<input type="checkbox"/> 1700-1799	<input type="checkbox"/> art	<input type="checkbox"/> engineering	<input type="checkbox"/> music	<input type="checkbox"/> theater
<input type="checkbox"/> 1800-1899	<input type="checkbox"/> commerce	<input type="checkbox"/> exploration/settlement	<input type="checkbox"/> philosophy	<input type="checkbox"/> transportation
<input checked="" type="checkbox"/> 1900-	<input type="checkbox"/> communications	<input type="checkbox"/> industry	<input type="checkbox"/> politics/government	<input checked="" type="checkbox"/> other (specify)
		<input type="checkbox"/> invention		

Specific dates 1928 **Builder/Architect Designer MD State Hwy. Admin.**

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.

SEE CONTINUATION SHEET 8.2

9. Major Bibliographical References

Survey No. M:35-60

Files at Bridge Division, MD State Highway Administration
Nov. 1993, Draft Historic Bridges in Maryland: Historic Context Report.
Unpublished

10. Geographical Data

Acreege of ~~non-water~~ ^{inventoried} ~~property~~ ^{Less than 1 acre}

Quadrangle name Washington West

Quadrangle scale 1:24,000

UTM References do NOT complete UTM references

A	<input type="text"/>	<input type="text"/>	<input type="text"/>
	Zone	Easting	Northing

B	<input type="text"/>	<input type="text"/>	<input type="text"/>
	Zone	Easting	Northing

C	<input type="text"/>	<input type="text"/>	<input type="text"/>
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D	<input type="text"/>	<input type="text"/>	<input type="text"/>
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E	<input type="text"/>	<input type="text"/>	<input type="text"/>
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F	<input type="text"/>	<input type="text"/>	<input type="text"/>
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G	<input type="text"/>	<input type="text"/>	<input type="text"/>
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H	<input type="text"/>	<input type="text"/>	<input type="text"/>
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Verbal boundary description and justification

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

state	N/A	code	county	code
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state	N/A	code	county	code
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11. Form Prepared By

name/title Rita Suffness, Leader, Cultural Resources Group

organization MD State Highway Administration date Jan. 4, 1994

street & number 707 N. Calvert St. telephone 410 333 1183

city or town Baltimore state Maryland

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
514-7600

Bridge No. 15058
Montgomery County, Maryland
Continuation Sheet 7.2
Description

Bridge No. 15058 currently carries East-West Highway (MD 410) over the abandoned Georgetown Branch of the CSX Railroad, originally the B & O Railroad. Constructed by the State Highway Administration according to plans of June, 1928, it consists of three spans. The end spans are 35'-6" long and the center span is 39'-11 1/4" long. The deck is a 10" thick concrete slab with a bituminous concrete overlay varying from 2" to 6" with reinforced concrete balustrade type railings typical of the State Road Commission Standards for Open Handrails from the 1928 standards book.

The remainder of the superstructure consists of the steel beams. As was common for steel bridges over railroads of this era, the steel beams were encased in concrete to protect them from the exhaust of steam powered locomotives.

The substructure of the bridge consists of reinforced concrete abutments, wingwalls and piers. Although, the piers have a vaulted appearance, they are basic cap and column piers, unremarkable in terms of design or construction technology for the time.

The structure has been frequently repaired since its construction. Extensive concrete repairs (gunnite) were made to deteriorated areas in the abutments at the bearing areas as well as to the concrete encased beams. Work was also done to replace areas of deteriorated concrete in several areas of the pier caps and columns. These repairs have not held up. Several areas in the wingwalls have also been replaced. A gas main of unknown vintage has been installed under the deck below the south sidewalk. In 1974 the bituminous concrete wearing surface was replaced. In 1952 there were extensive repairs made to the bridge railing and the concrete encasement of the beams was cut away to repair the bearings. The encasement was then replaced.

Although the appearance of the structure has not been changed drastically since 1928, bearings, balustrade railings and the deck have undergone major repairs and the bridge has reached the end of its operational life.

Bridge No. 15058
Montgomery County, Maryland
Continuation Sheet 8.2
Statement of Significance

Steel beam bridges are a common bridge type in Maryland. Currently there are over 100 structures of that general type extant on Maryland's roadways which were built in or by 1928. In addition, bridges over railroads are very common, and over fifty-five bridges currently exist which were constructed over railways.

CONTEXT: STEEL BEAM BRIDGES

Metal beam, or girder bridges exemplify the modern application of traditional bridge technology. The metal girder bridge is essentially a structure in which a floor system and roadway (made of timber or concrete) are supported by girders which are plain or encased in concrete.

Metal girder bridges constructed of iron began to be constructed during the middle of the nineteenth century in response to industrial and manufacturing advances. Under the impetus of the railroads, metal girder bridge design and construction reached full development during the last quarter of the nineteenth century. With the automotive revolution bringing heavy traffic loads to ordinary highway bridges, the early twentieth century witnessed further standardization of design for girders erected on roads as well as railroads.

By 1905, standard design plans and specifications for all types of girder bridges were available through such organizations as the American Railway Engineering Association and the American Society of Civil Engineers, and such prominent private bridge building firms as the American Bridge Company. Further development in girder bridge technology between 1900 and 1930 was marked primarily by the spread of concrete-encased rolled I-beamed structures, and the introduction of the familiar mid-to-late twentieth century highway bridge in which deep steel beams support a deck of reinforced concrete.

METAL GIRDER BRIDGES IN MARYLAND

Metal girder bridges were most likely 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. 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 bridge over Jones Falls and the 106-foot double-span girder bridge at Pierce's Mill.

Perhaps because girder bridge construction technology was not difficult and became readily standardized, few descriptions of

Statement of Significance
Continuation 8.3

nineteenth century deck girder or plate girder construction in Maryland have been located. 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.

Official state and county highway reports-issued between 1900 and the early 1920's 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. A grand total of 200 bridges (including "steel culverts"), out of 500 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 metal girder bridges in Maryland between 1900 and 1930 were only less popular than reinforced concrete bridges among the various highway bridge types built in the early twentieth century. However, these numbers must be interpreted with caution, as they do not necessarily include all county and municipal bridges.

Analysis of the more detailed 1993 Maryland State Highway Administration Bridge Inventory offers a portrait of historical patterns for the state's extant metal girder bridges built between 1900 and 1940. The earliest steel girder bridge listed on the state bridge inventory is the U.S. 11 bridge, a 308-foot-long, three-span structure built in 1909 to carry the road over the Potomac River and the Western Maryland Railway. Only one steel girder or beam structure, Bridge 3092 on State Route 147 over Long Green Creek, is dated between 1910 and 1920 (it is a single span of 37-feet built in 1915 and reconstructed or altered in unspecified fashion in 1969). Between 1921 and 1930, however, 13 bridges now extant were built as steel girders or beams, or incorporating such spans. Included in this latter category are two significant movable bridges constructed under state contracts (the 1924 Severn River Bridge on State Route 450, featuring a double-leaf bascule along with steel beam spans, and the 1929 Bridge 2081 carrying State Route 436 over Weems Creek, a swing bridge with thirteen 20-foot steel beam spans). By 1921, most girder bridges erected by the State Roads Commission included reinforced concrete decks; as the inventory also clearly indicates, many girder bridges were structures built to eliminate dangerous railroad grade crossings.

The 1930's saw the continuation of these trends in girder construction. More than 40 steel girder or steel beam structures are listed on the state inventory as dating from the 1931-1940 period. Railroad grade crossing elimination continued to prompt the use of deck girder and half-through plate girder spans (the elimination program itself was given a welcome boost by New Deal

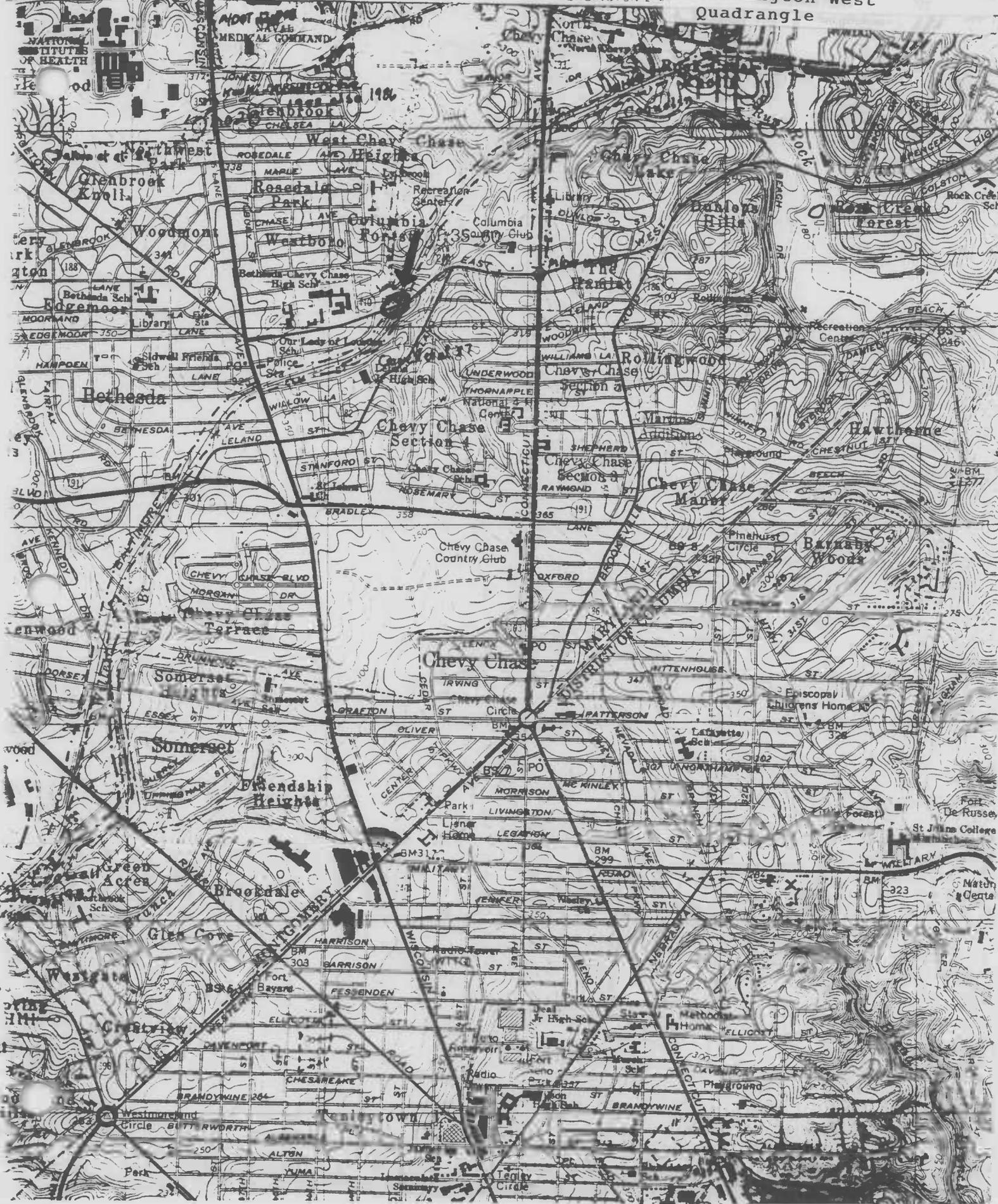
Statment of Significance
Continuation 8.4

planning surveys sponsored in 1935-1940 by the U.S. Bureau of Public Roads). Improvement of such older roads as U.S. 1 (the Baltimore-Washington Boulevard) and construction of the new Pulaski Highway (U.S. 40) from Baltimore to Perryville spurred construction of many steel girder highway spans. Until the World War II interruption of major bridge building, steel girder spans continued to be built in Maryland, under county, municipal, and state auspices.

FREDERICK 36 MI.
13 MI TO INTERSTATE 495
2 400 000 FEET (VA.) 5'

UNIVERSITY OF KENSINGTON 2 MI

Bridge No. 15058
Bethesda, Maryland
Washington West
Quadrangle



M:35-60



M:35-60



Bridge 15058
Montgomery County, Md.
Suffness. 6/1993
Negative at Maryland State
Highway Administration
MD 400 Looking East
1/6



M:35-60

Bridge 15058
Mont County road
Suffern 6193
Neg at Maryland State
Highway Administration
Detail of parapet no. 1. 1. 1. 1.

2/8



M:35-60

Bridge 15058
Mont County Md
Suppers 6/93

Negatives at MO.

State Highway Admin

Detail of north side

3/6





M:35-60

Bridge 15058
Mont. County Md
Sup. for 6/93
negative at MD State
Hes, Huer, Administrator
Person south side
looking N.E
4/6



M:35-60



Bridge 15058
Mont Chy mD
Suffness 6/73
Negatives at mD
State Hwy Adm
Piers Looking East
516



M:35-60

Bridle 1558
Mont County Md



Supplies 6193
Negatives at MD
State Hwy Admin
Concrete Encased
Steel Beams

6/6