Maryland Historical Trust

Maryland Inventory of Historic Properties number: BA-2785

Name: 3045/ MD 88 over Indian Run

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 _____ Eligibility Not Recommended __X____

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
HISTORIC BRIDGE INVENTORY
MARYLAND STATE HIGHWAY ADMINISTRATION/
MARYLAND HISTORICAL TRUST

MHT No. BA-2785

SHA Bridge No. 3045 Bridge name MD 88 over Indian Run

LOCATION:

Street/Road name and number [facility carried] MD 88 (Black Rock Road)

City/town Butler Vicinity X

County Baltimore

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

Ownership: State X County ____ Municipal ____ Other ____

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 ____ Retractile ____ Pontoon ____

Metal Girder ____:

Rolled Girder ____ Rolled Girder Concrete Encased ____

Plate Girder ____ Plate Girder Concrete Encased ____

Metal Suspension ____

Metal Arch ____

Metal Cantilever ____

Concrete X:

Concrete Arch ____ Concrete Slab X Concrete Beam ____ Rigid Frame ____

Other ____ Type Name ____

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DESCRIPTION:

Setting: Urban _____ **Small town** _____ **Rural** ____X_____

Describe Setting:

Bridge No. 3045 carries MD 88 (Black Rock Road) over Indian Run in Baltimore County. MD 88 runs east-west and Indian Run flows north-south. The bridge is located in the vicinity of Butler and is surrounded by single family dwellings.

Describe Superstructure and Substructure:

Bridge No. 3045 is a 2-span, 2-lane, concrete slab bridge. According to SHA files, the bridge was built in 1930. The structure is 26 feet long and has a clear roadway width of 24 feet. The out-to-out width is 43 feet. There is fill between the roadway and the slab, and according to the inspection reports, the fill is 7 feet deep. The concrete slab measures 3 feet, 4 inches thick, and it has a bituminous wearing surface. The structure has w-section guard rails. The roadway approaches have w-section guard rails, and MD 88 intersects with MD 25 just east of the bridge. The substructure consists of two (2) concrete abutments and a concrete intermediate pier at mid-length. There are two (2) flared and two (2) straight, concrete wing walls. The bridge has a sufficiency rating of 56.1.

According to the 1996 inspection report, this structure is in fair condition with minor section loss, cracking, and spalling. The concrete slab has light scale and fine irregular cracks. The asphalt wearing surface has some minor cracking. The concrete in the abutments has vertical and irregular cracks and heavy spalling with large aggregate exposed. The wing walls have some fine irregular cracks and light scale.

Discuss Major Alterations:

Inspection reports from 1996 detail no major alterations to the bridge.

HISTORY:

WHEN was the bridge built: 1930_____

This date is: Actual _____X_____ **Estimated** _____

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

Other (specify): State Highway Administration bridge files/inspection form

WHY was the bridge built?

The bridge was constructed in response to the need for a more efficient transportation network and increased load capacity.

WHO was the designer?

Unknown

WHO was the builder?

Unknown

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WHY was the bridge altered?

N/A

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 _____

The bridge does not have National Register significance.

Was the bridge constructed in response to significant events in Maryland or local history?

Reinforced concrete slab bridges are a twentieth century structure type, easily adapted to the need for expedient engineering solutions. Reinforced concrete technology developed rapidly in the early twentieth century with early recognition of the potential for standardized design. The first U.S. attempt to standardize concrete design specifications came in 1903-1904 with the formation of the Joint Committee on Concrete and Reinforced Concrete of the American Society of Civil Engineers.

Maryland's roads and bridge improvement programs mirrored economic cycles. The first road improvement of the State Roads Commission was a 7 year program, starting with the Commission's establishment in 1908 and ending in 1915. Due to World War I, the period from 1916-1920 was one of relative inactivity; only roads of first priority were built. Truck traffic resulting from war related factories and military installations generated new, heavy traffic unanticipated by the builders of the early road system. From 1920-1929, numerous highway improvements occurred in response to the increase in Maryland motor vehicles from 103,000 in 1920 to 320,000 in 1929, with emphasis on the secondary system of feeder roads which moved traffic from the primary roads built before World War I. After World War I, Maryland's bridge system also was appraised as too narrow and structurally inadequate for the increasing traffic , with plans for an expanded bridge program to be handled by the Bridge Division, set up in 1920. In 1920 under Chapter 508 of the Acts of 1920 the State issued a bond of $3,000,000.00 for road construction; the primary purpose of these monies was to meet the state obligations involving the construction of rural post roads. The secondary purpose of these monies was to fund (with an equal sum from the counties) the building of lateral roads. The number of hard surfaced roads on the state system grew from 2000 in 1920 to 3200 in 1930. By 1930, Maryland's primary system had been inadequate to the huge freight trucks and volume of passenger cars in use, with major improvements occurring in the late 1930's. Most improvements to local roads waited until the years after World War I.

In the early years, there was a need to replace the numerous single lane timber bridges. Walter Wilson Crosby, Chief Engineer, stated in 1906, "the general plan has been to replace these [wood bridges] with pipe culverts or concrete bridges and thus forever do away with the further expense of the maintenance of expensive and dangerous wooden structures." Within a few years, readily constructed standardized bridges of concrete were being built throughout the state.

In 1930, the roadway width for all standard plan bridges was increased to 27 feet in order to accommodate the increasing demands of automobile and truck traffic (State Roads Commission

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1930). The range of span lengths remained the same, but there were some changes designed to increase the load bearing capacities. The reinforcing bars increased in thickness. Visually, the 1930 design can be distinguished from its predecessors by the pierced concrete railing that was introduced at this time.

In 1933, a new set of standard plans were introduced by the State Roads Commission. This time their preparation was not announced in the Report; new standard plans were by this time nothing special - they had indeed become standard. Once again accommodating the ever-increasing demands of traffic, the roadway was increased, this time to 30 feet. The slab span's reinforcing bars remained the same diameter but were placed closer together to achieve still more load capacity.

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?

A significant example of a concrete slab bridge should possess character-defining elements of its type, and be readily recognizable as an historic structure from the perspective of the traveler. The integrity of distinctive features visible from the roadway approach, including parapet walls or railings, is important in structures which are common examples of their type. In addition, the structure must be in excellent condition. This bridge is lacking distinctive features visible from the roadway approach, including the original parapets. Furthermore, its abutments have considerable deterioration, compromising the integrity of this character-defining element. Because the structure is lacking distinctive features and its integrity has been affected, it is an undistinguished example of a concrete slab bridge.

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 the slab, abutments, wing walls, and pier. However, severe deterioration of the abutments has compromised the integrity of this element.

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

This bridge is not a significant example of the work of a manufacturer, designer, and/or engineer.

Should the bridge be given further study before an evaluation of its significance is made?

No further study of this bridge is required to evaluate its significance.

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BIBLIOGRAPHY:

County inspection/bridge files _____ **SHA inspection/bridge files** X
Other (list):

Ketchum, Milo S.
1908 *The Design of Highway Bridges and the Calculation of Stresses in Bridge Trusses.* The Engineering News Publishing Co., New York.

1920 *The Design of Highway Bridges of Steel, Timber and Concrete.* Second edition. McGraw-Hill Book Company, New York.

Lay, Maxwell Gordon
1992 *Ways of the World: A History of the World's Roads and of the Vehicles That Used Them.* Rutgers University Press, New Brunswick, New Jersey.

Maryland State Roads Commission
1930a *Report of the State Roads Commission for the Years 1927, 1928, 1929 and 1930.* State of Maryland, State Roads Commission, Baltimore.

1930b *Standard Plans.* State of Maryland, State Roads Commission, Baltimore.

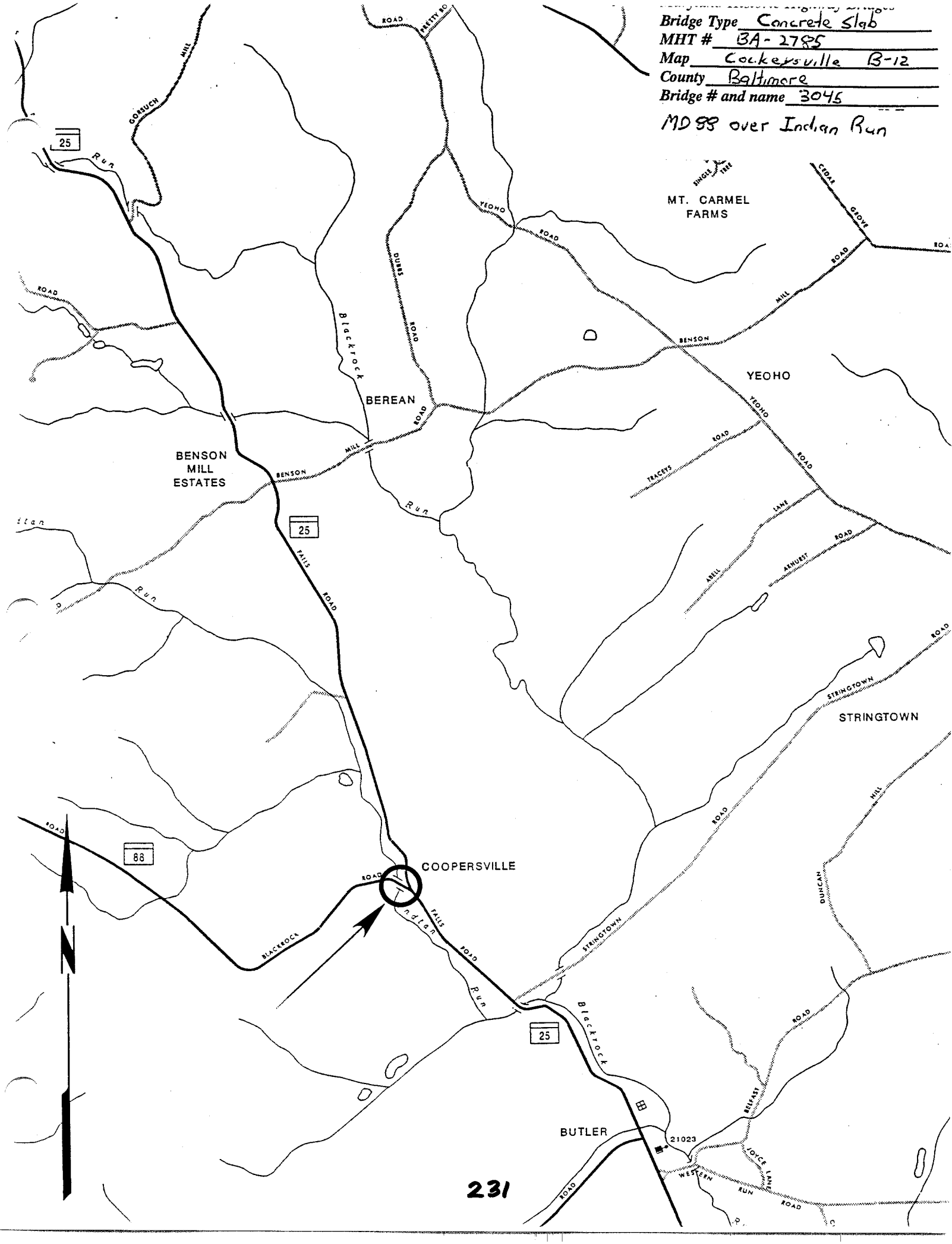
Taylor, Frederick W., Sanford E. Thompson, and Edward Smulski
1939 *Reinforced-Concrete Bridges with Formulas Applicable to Structural Steel and Concrete.* John Wiley & Sons, Inc., New York.

Tyrrell, H. Grattan
1909 *Concrete Bridges and Culverts for Both Railroads and Highways.* The Myron C. Clark Publishing Company, Chicago and New York.

SURVEYOR:

Date bridge recorded 3/1/97
Name of surveyor Caroline Hall/Eric F. Griffitts
Organization/Address P.A.C. Spero & Co., 40 W. Chesapeake Avenue, Baltimore, MD 21204
Phone number (410) 296-1685 **FAX number** (410) 296-1670

Bridge Type Concrete Slab
MHT # BA-2785
Map Cockeysville B-12
County Baltimore
Bridge # and name 3045
MD 88 over Indian Run



1. BA-2785

2. MD 88 over Indian Run (3045)

3. Baltimore County

4. Eric Huffutts

5. 3/97

6. MD SHPO

7. south elevation

8. 1 of 5

1. BA - 2785
2. MD 88 over Indian Run (3045)
3. Baltimore County
4. Eric Griffitts
5. 3/97
6. MD SHPO
7. east approach
8. 2 of 5

1. BA-2785
2. MD 88 over Indian Run (3045)
3. Baltimore County
4. Eric Griffitts
5. 3/97
6. MD SHPO
7. west approach
8. 3 of 5

1. BA-2785
2. MD 88 over Indian Run (3045)
3. Baltimore County
4. Eric Griffitts
5. 3/97
6. MD SHPO
7. north elevation
8. 4 of 5

1. BA-2785
2. MD 88 over Indian Run
3. Baltimore County (3045)
4. Eric Griffitts
5. 3/97
6. MD SHPO
7. detail of slab & east abutment
8. 5 of 5

9200157

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

Property/District Name: Bridge #3045 Survey Number: BA-2785

Project: MD 88 over Indian Run, Baltimore County Agency: SHA

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

Eligibility recommended _____ Eligibility not recommended X

Criteria: ___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)

According to information prepared by SHA, Bridge #3045, a concrete slab structure composed of two, 12-foot spans and constructed in 1930, does not meet the National Register Criteria for individual listing. Simple concrete slab structures such as Bridge #3045 were extremely common by the 1930s and were built according to standard designs. Bridge #3045 has no particular historical or engineering significance. Numerous examples of similar bridges remain in the state. Bridge #3087 is not located in any known district.

Documentation on the property/district is presented in: Project File

Preparedby: RitaSuffness

Elizabeth Hannold — February 25, 1992
Reviewer, Office of Preservation Services — Date

program concurrence: ✓ yes ___ no ___ not applicable

R Andrews — 25 Feb 92
Reviewer, NR program — Date

Survey No. BA-2785

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 Adaption

IV. Historic Period Themes:

____ Agriculture
X 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: rural

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

Known Design Source: unknown

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#3045
Bridge Location

HEREFORD

APPROVED: CHIEF, BRIDGE INSPECTION AND REMEDIAL ENGINEERING DIVISION