960043

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

Property/District Name: Bridges 20016 and 20017 Survey Number: T-945

Project: MD 33 over Peachblossom and Trippe Creeks Agency: FHWA/SHA

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

Eligibility recommended _____ Eligibility **not** recommended X

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 available information, the Bridges 20016 and 20017, MD 333 over Peachblossom and Trippe Creeks in the Easton vicinity, do not meet the National Register Criteria for individual listing. The c. 1920 concrete girder bridges represent a bridge type used in Maryland from the first decade of the 20th century for both long and short spans. From 1912 on, the concrete girder bridges constructed on state roads were designed according to standards. The ongoing bridge survey inventoried almost 90 concrete girder bridges dating from c. 1910 tc 1942. Bridges 20016 and 20017 would probably be eligible if unaltered, for they are unusually long: Bridge 20016 @ 20 spans and Bridge 20017 @ 14 spans. However, they were substantially altered in 1950 when steel beams were used to double the roadway width. In 1976, the concrete balustrades were removed and replaced with steel railings. Lastly, the bridges may lack structural integrity. Despite repairs in 1990, the bridges are in deteriorated condition and are slated for removal. Therefore, it does not appear that these bridges meet Criterion C for engineering. In addition, they are not known to have any association with significant events or people, and thus are unlikely to be eligible under Criteria A or B. They are not located in any known historic district.

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

Inventory Form T-945

Prepared by: Rita Suffness, SHA

Elizabeth Hannold — February 15, 1996
Reviewer, Office of Preservation Services — Date

NR program concurrence: ✓ yes ___ no ___ not applicable

Orlando Ridout V — Feb. 20, 1996.
Reviewer, NR program — Date

Survey No. T-945

MARYLAND COMPREHENSIVE HISTORIC PRESERVATION PLAN DATA - HISTORIC CONTEXT

I. Geographic Region:

X	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
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/road related/bridge

Known Design Source: State Roads Commission

T-945
Bridges 20016 and 20017
Vicinity of Easton, Talbot County

HISTORIC CONTEXT:

MARYLAND COMPREHENSIVE HISTORIC PRESERVATION PLAN DATA

Geographic Organization: Eastern Shore (Talbot County)

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

Prehistoric/Historic Period Theme: Transportation

Resource Type:

Category: Structure

Historic Environment: Rural

Historic Function (s) and Use (s):
Transportation/Structures/Bridges

Known Design Source: State Roads Commission

Survey No. T-945

Magi No.

DOE __yes __no

Maryland Historical Trust State Historic Sites Inventory Form

1. Name (indicate preferred name)

historic

and/or common MD 333 over Peachblossom and Trippe Creeks

2. Location

street & number MD 333 over Peachblossom and Trippe Creeks N/A not for publication

city, town Easton X vicinity of congressional district

state MARYLAND county TALBOT

3. Classification

Category	Ownership	Status N/A	Present Use	
___ district	X public	___ 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	~~N/A~~ in process	___ yes: restricted	___ government	___ scientific
	___ being considered	___ yes: unrestricted	___ industrial	X transportation
	___ not applicable	___ no	___ military	___ 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.:

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 Easton state Maryland

6. Representation in Existing Historical Surveys

title N/A

date ___ federal ___ state ___ county ___ local

depository for survey records

city, town state

7. Description

Survey No. T-945

Condition		Check one	Check one
___ excellent	_x_ deteriorated	___ unaltered	_x_ original site
___ good	___ ruins	___ 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.

SEE ATTACHED

8. Significance

Survey No. T-945

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

Specific dates ca. 1920 **Builder/Architect** MD SHA

check: Applicable Criteria: __A __B x 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 ATTACHED

9. Major Bibliographical References

Survey No. T-945

Spero, P.A.C. & Company and Louis Berger and Associates
"Historic Bridges in Maryland: Historic Bridge Context", Sept., 1994

10. Geographical Data

Acreage of nominated property 1 acre

Quadrangle name Trappe **Quadrangle scale** ~~1:24,000~~

UTM **References** do NOT complete UTM references

	Zone	Easting	Northing		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	code	county	code
state	code	county	code

11. Form Prepared By

name/title	Rita M. Suffness, Leader, Cultural Resources Group		
organization	Maryland State Hwy. Administration	**date**	February 2, 1996
street & number	707 N. Calvert Street	**telephone**	410-545-8561
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

PS-2746

T-945
Bridges 20016 and 20017
Vicinity of Easton, Talbot County

7.1 Continuation Sheet
Description

Bridges 20016 and 20017 are probable ca. 1920 concrete girder (T-beam) structures located in the vicinity of Easton in Talbot County. Bridge 20016 on MD 333 over Peachblossom is 500'0" long with 20 spans @ 25'0" and Bridge 20017 on MD 333 over Trippe Creek is 350'0" long with 14 spans @ 25'0". All evidence examined by the bridge engineers points to an original construction date in the 1920's.

Bridges 20016 and 20017 were originally built using concrete T-beams and had a roadway clearance of 15'-6". Both bridges were widened in 1950 using steel beams, resulting in a 28'-0" clear roadway with 2'0" safety curbs on each side of the road. Portions of the existing wingwall footings were removed to accommodate the widening of the abutment footings. Gunite repairs were performed on deteriorated areas of the existing structure and a bituminous wearing surface was placed on the old and new slabs.

In 1976 the 2'0" safety curbs and the concrete balustrades were removed and 3-strand steel railings were installed. The result was a 24'0" clear roadway with a 5'-2" bikeway on each side of the bridges. The work under the 1976 contract was basically bikeway oriented and did not replace any of the supporting bents, the beams or the concrete deck.

In 1990 a contract calling for structural repairs to both bridges was issued. Work done under this contract included:

- Repairs to the pile bents
- Removal and replacement of the longitudinal deck joints
- Cleaning and painting of selected steel beams
- Repairs to the concrete beams
- Removal and replacement of the abutment backwalls
- Cleaning and painting of the steel bearing plates
- Application of epoxy coating to the bottom and exterior sides of the concrete beams

Both bridges are in deteriorated condition, especially the original concrete piers, beams and deck of the 1920's structures, as well as the analgous components of the 1950's additions. The current state of the bridges include: deteriorating bearing plates, spalling bents, deterioration of the exterior face of girders and bents, bearing pier cap deterioration, heavy section loss at the head ends of the piers and in the abutment joints, heavy spalling on the underside of the girders and bents, plus outside girder spalling.

T-945
Bridges 20016 and 20017
Vicinity of Easton, Talbot County

8.1 Continuation Sheet
Statement of Significance

Bridges 20016 and 20017 were originally built using concrete T-beams and had a roadway clearance of 15'-6". Both bridges were widened in 1950 using steel beams, resulting in a 28'-0" clear roadway with 2'0" safety curbs on each side of the road. Portions of the existing wingwall footings were removed to accommodate the widening of the abutment footings. Gunite repairs were performed on deteriorated areas of the existing structure and a bituminous wearing surface was placed on the old and new slabs.

Context - Concrete Girder Bridges

In Maryland the first mention of the use of concrete occurs in the Maryland Geological Survey's Report on the Highways of Maryland, published in 1899. In his chapter, "The Present Condition of Maryland Highways", Arthur Newhall Johnson noted that "iron bridges...are fast replacing the longer wooden spans". Observing that comparatively few I-beam bridges, "one of the cheapest and best forms for spans less than 25 or 30 feet", had been constructed in Maryland, Johnson recommended a transitional form of reinforced concrete construction, a type never used in Maryland.

A composite design was utilized for the Lancaster Street Bridge over the Central Avenue Sewer in 1902. The city engineers converted the bridge into "the most important and novel" of structures by the use of "Ferro-Concrete, or Armored Concrete" construction techniques. This design, in which metal mesh was used to reinforce the concrete, was the first step in Maryland toward the development of true reinforced concrete construction.

Possibly the first Maryland concrete bridge to feature reinforcing bars was the bridge at Sherwood Station, built in 1903 by Baltimore County. The announcement of the bridge's completion in the Third Report on the Highways of Maryland, stated that it "shows the progressive character of the work...steel concrete form of construction was adopted, which uses reinforced concrete beams instead of simple steel or wooden beams". In addition, the methodology is described as "steel rods are imbedded in the concrete beams to enable them to withstand heavy loads."

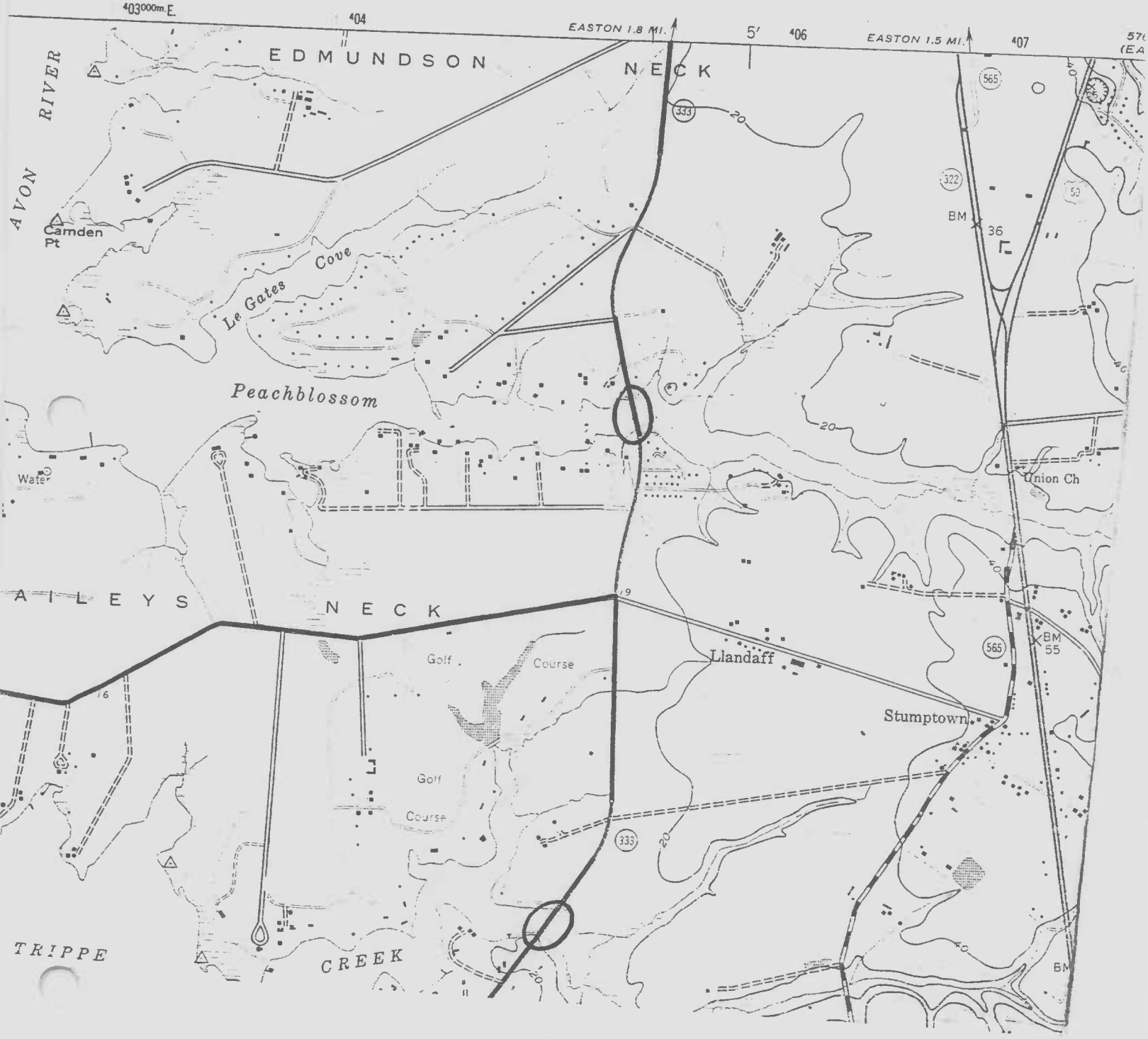
The success of reinforced bridge designs led to the adoption by the Maryland Geological Survey of a plan for reinforced concrete bridge construction, as described by Walter Crosby, Chief Engineer. "The general plan has been to replace these (wood bridges) with...concrete bridges" (Second Report on the State Highway Construction from the Period from January 1, 1906 to January 1, 1908, Maryland Geological Survey, on page 379). A step in this plan appears to have been the replacement of the wooden

bridge over the Choptank in Greensboro by a 200-foot long, multiple span, reinforced concrete deck girder bridge, completed in 1908.

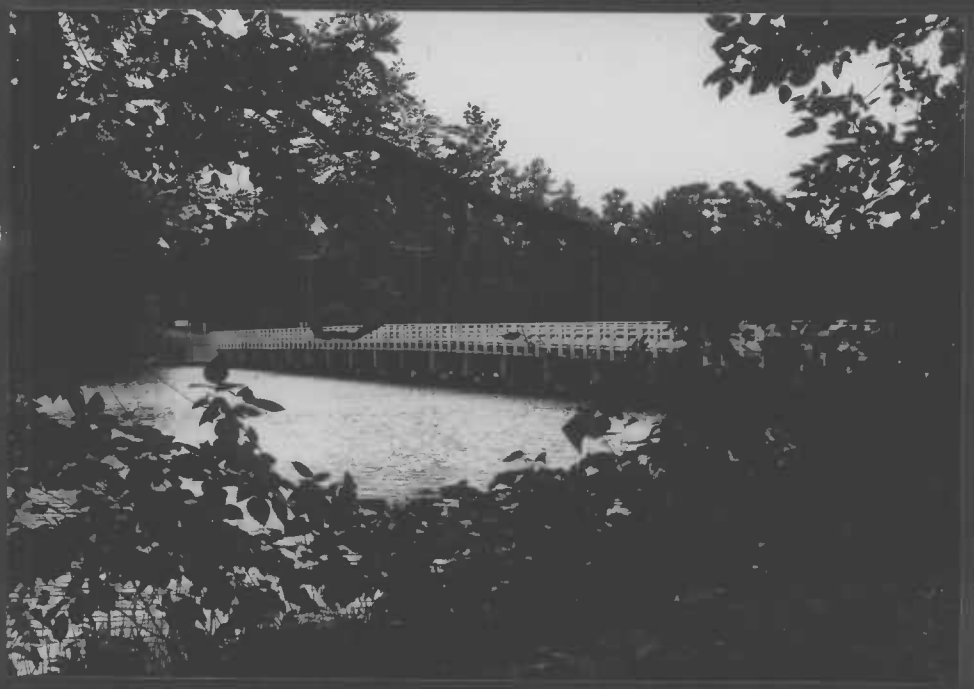
Reinforced concrete bridges were favored by the State Roads Commission. Road improvement entailed the replacement of large numbers of bridges that were inadequate to the vehicular needs of the State. Reinforced concrete construction had been successfully used to build safe bridges with reduced labor costs but the labor involved in individually designing all bridges would have been prohibitive. A method of reducing design time was critically needed.

The introduction of standards, started in 1909, with the first product appearing in 1912, heralded a much needed design system for the State Roads Commission. Standards were a pre-set formulation governing the amount of concrete, reinforcing metal, etc., for spans up to 36-feet. In the period from 1911 to 1920 beam and slab concrete structures probably built to these standards, continuously revised, constituted a large percentage of the structures which are currently extant from the period.

T 945
MD 333 Bridges
Easton, Maryland
Trappe Quadrangle



ATTACHMENT 1, PAGE 1
CURRENT PHOTOGRAPHS
T-945 OF BRIDGES



BRIDGE 20016, PEACH BLOSSOM
EAST ELEVATION

BRIDGE 20016
SOUTH APPROACH

T-945

ATTACHMENT 1, PAGE 2
CURRENT PHOTOGRAPHS OF BRIDGES

BRIDGE 20016
NORTH APPROACH

BRIDGE 20017 (TRIPPE)
SOUTH APPROACH

BRIDGE 20017
WEST ELEVATION

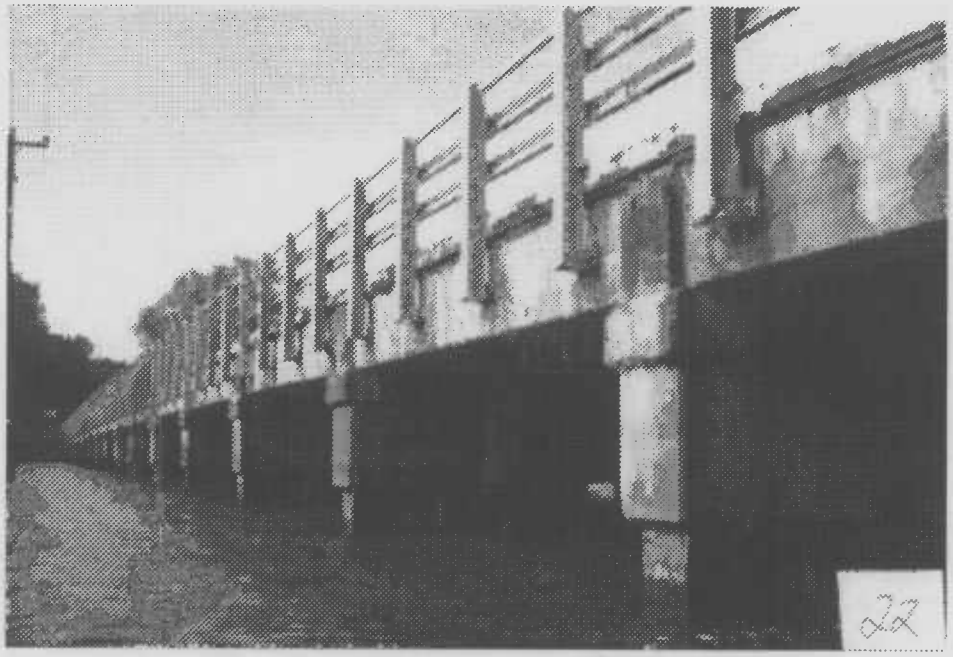
T-945
ATTACHMENT 1, PAGE 3
CURRENT PHOTOGRAPHS
OF BRIDGES

BR. 20017
EAST ELEVATION

BR. 20017
NORTH APPROACH

T-945 ATTACHMENT 2

Trippe Creek - Railing Before 1975 Improvements



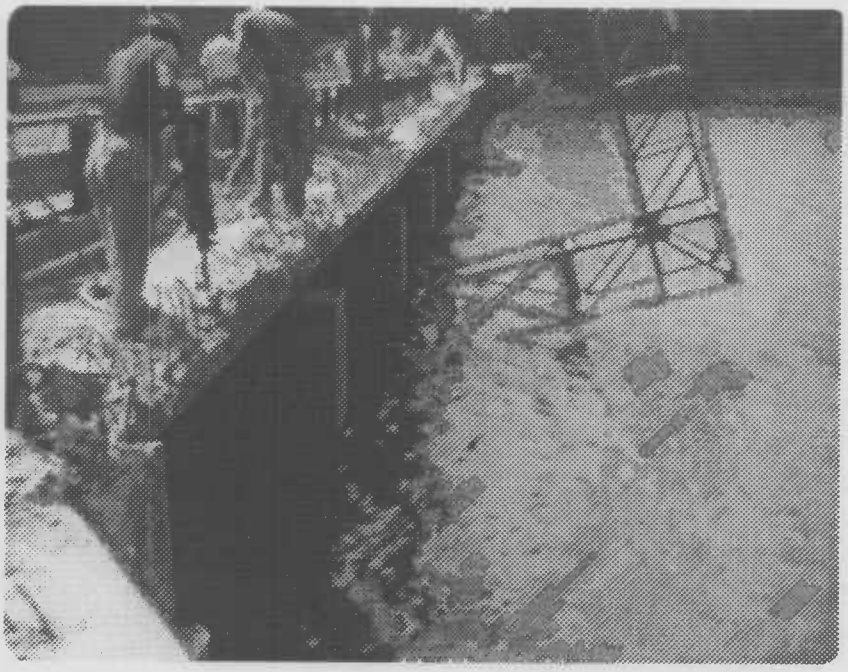
Peachblossom - East Side of Bridge, April 1987

T-945

Peachblossom Creek - Bridge Railing Before 1975 Improvements

Peachblossom Creek - November 1994

T-945

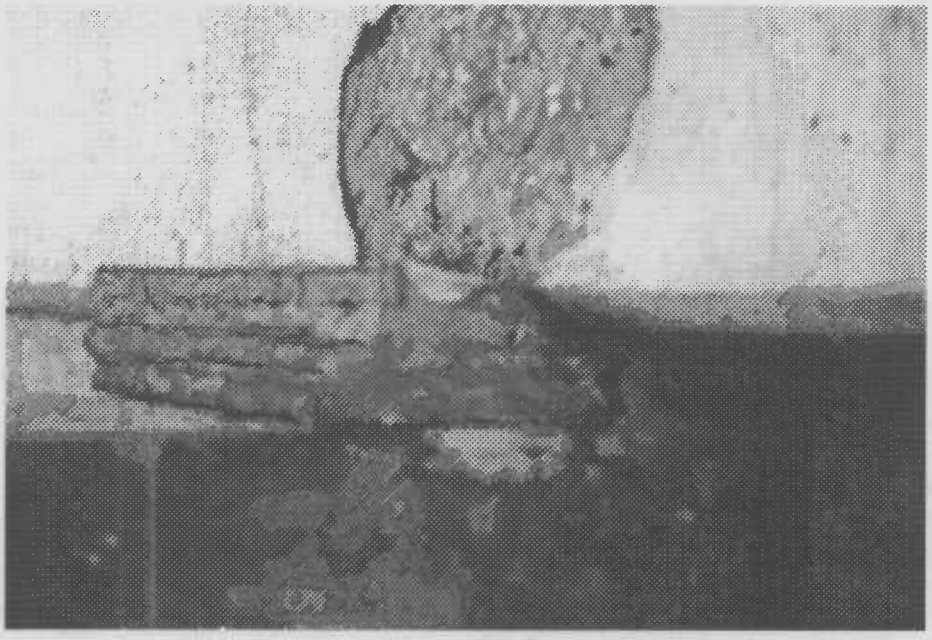


Railing Removal, During Demolition 1975
Peach Blossom Creek

Railing Removal, After Demolition 1975
Peach Blossom Creek

ATTACHMENT 3

T-945



This Picture
is
upside down

Peachblossom Creek - Deteriorating Bearing Plates and Spalling Bent, December 1992

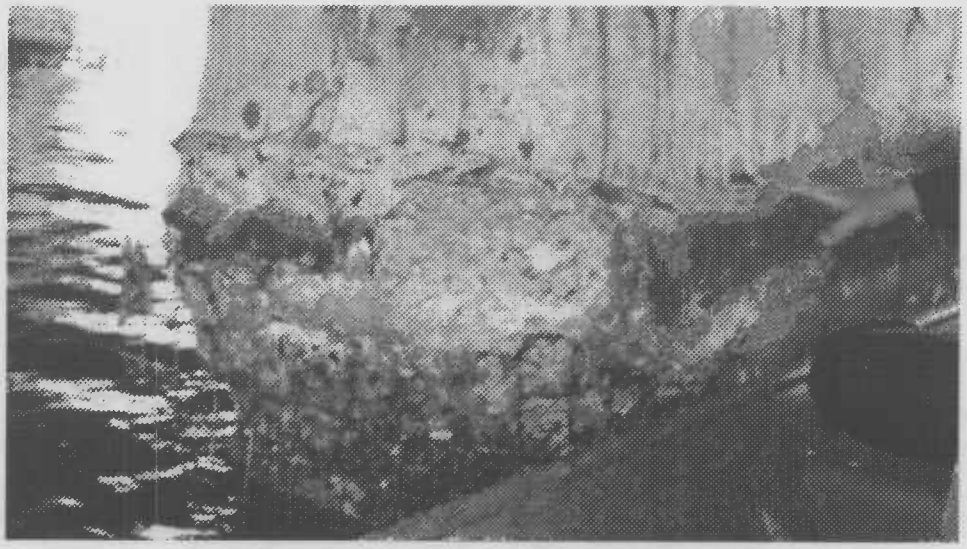
T-945

Trippe Creek - Deterioration at Exterior Face of Girder and Bent, August 1984

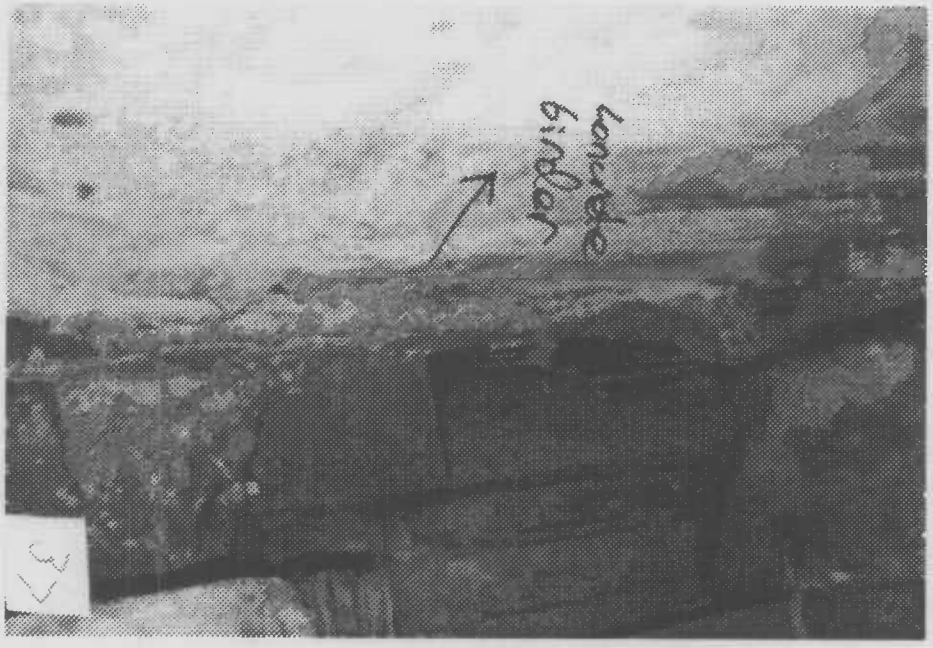
T-945

Trippe Creek - Bearing and Pier Cap Deterioration, April 1987

T-945

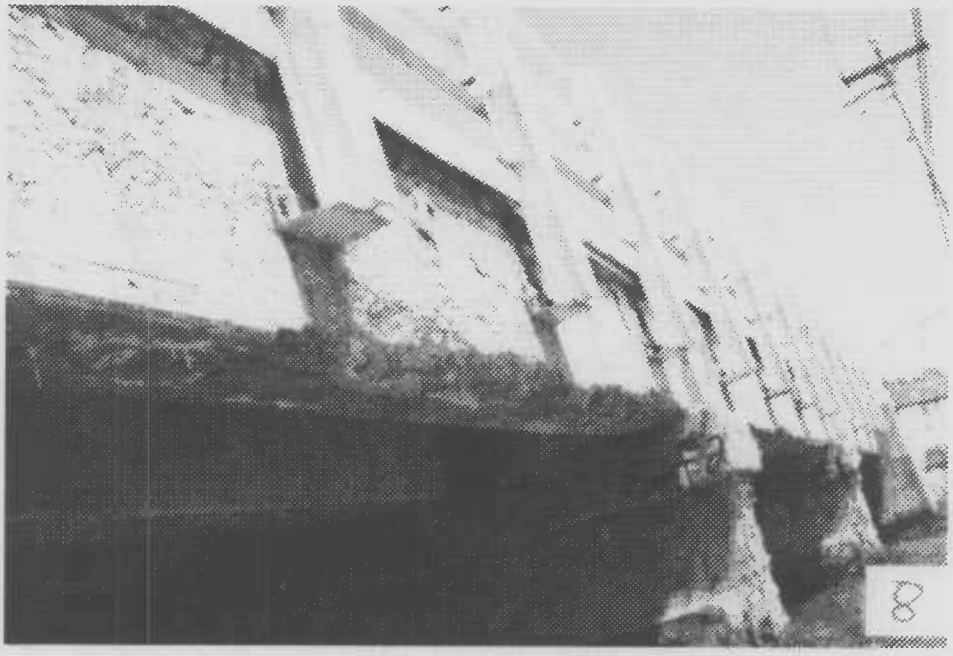


Trippe Creek, Heavy Section Loss - Head end of Pier, March 1987



Peachblossom, Abutment Joint Between Old and New Section, March 1987

T-945



Trippe Creek - Heavy Girder & Bent Spalling, April 1987

Trippe Creek - Heavy Spalling on Underside of Exterior Girder, March 1987

T-945

Peachblossom Creek - Outside Girder Spalling, July 1986

?

1945

Bridges 2006 and 2007 over
Peachblossom / Turnpike Creeks
(The 2006 over Peachblossom)
Victoria Easton, Tulsa County

R Sullivan 12/95
ND State Historic Preservation Office

East Elevation

1/5


PEACH BOTTOM
CREEK

T-945

Bridges 20016 and 20017 over
Peachblossom & Trappe Creeks
(This one 20016 over
Peachblossom).

Vicinity Easton, Talbot County

R Suffern 12/55
MD State Hwy
Admin.?

[illegible]

2/5


TRIPPE
CREEK

T-945

Bridges 2001 and 2002 ...

Peachblossom = Trippe Creek

(These are in the 2002 ...

Trippe Creek).

Vicinity Easton, Talbot County

R. Suffness 12/95

Md State Hwy Admin.

Survey approach

3/9

T-945

Bridges 20026 and 20027 over
p. Lebanon: Trippe Creek

Travers over [illegible] 20027 over Trippe
Creek)

Easton vicinity, Talbot County

R. Huffman 12/95 MD State
Hwy Administration

West Elevation
4/5

Trappe

Bridge 20016 and 20013 [illegible]

Pendleton & Trappe

creeks

(These are [illegible] over Trappe

Creek)

Easton vicinity, Talbot County

R [illegible] 11/95 — and State

Highway Administration

West Elevation

5/5