



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY  
GOVERNOR

LYNDO TIPPETT  
SECRETARY

October 5, 2006

N. C. Dept. of Environment and Natural Resources  
Division of Coastal Management  
1367 U. S. Highway 17  
Elizabeth City, NC 27909

Attention: Ms. Wanda Gooden

Dear Madam:

Subject: **CAMA Major Development Permit Modification Request** for the proposed replacement of Bridge No. 16 over Merchants Millpond on SR 1400, in Gates County. Federal Aid Project No. BRZ-1400(4), State Project No. 8.2060201, WBS 33188.1.1, TIP No. B-3640.

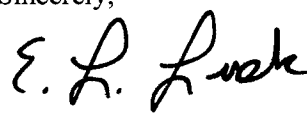
Reference: **CAMA Permit # 102-06** dated June 8, 2006

As stated in the original application, the North Carolina Department of Transportation (NCDOT) proposes to replace existing Bridge No. 16 on SR 1400 over Merchants Millpond in Gates County. Since the CAMA Permit was issued, NCDOT has modified its plan to include temporary sheet pile to enhance construction of the dam/spillway and fish ladder. Therefore, in addition to the permitted permanent impacts, there will be temporary stream and surface water impacts.

To facilitate and expedite the construction of the proposed spillway/dam and fish ladder, the NCDOT proposes to use sheet-pile downstream to prevent back-flow into the project area so that it may remain dry during construction. This will result in 63 ft of temporary stream impacts and 0.14-acre of temporary surface water impacts (see permit drawings). Consequently, installation of sheet piles will dispense the need for an Anadromous Fish Moratorium based on personal communication with the North Carolina Wildlife Resources Commission.

NCDOT requests that the referenced CAMA Major Development Permit be modified to reflect the revisions outlined in this letter. If you have any questions or need additional information please contact Tyler Stanton at (919) 715-1439 or [tstanton@dot.state.nc.us](mailto:tstanton@dot.state.nc.us).

Sincerely,

*for*   
Gregory J. Thorpe, Ph.D.

Environmental Management Director, PDEA

**MAILING ADDRESS:**  
NC DEPARTMENT OF TRANSPORTATION  
PROJECT DEVELOPMENT AND ENVIRONMENTAL ANALYSIS  
1598 MAIL SERVICE CENTER  
RALEIGH NC 27699-1598

TELEPHONE: 919-715-1500  
FAX: 919-715-1501  
WEBSITE: [WWW.NCDOT.ORG](http://WWW.NCDOT.ORG)

**LOCATION:**  
2728 CAPITAL BLVD.  
PARKER LINCOLN BUILDING, SUITE 168  
RALEIGH NC 27604

Cc W/attachment:

Ms. Cathy Brittingham, NCDCM

Cc W/o attachment:

Mr. John Hennessy, NCDWQ

Mr. Travis Wilson, NCWRC

Mr. Gary Jordan, USFWS

Mr. Ron Sechler, NMFS

Mr. Michael Street, NCDMF

Dr. David Chang, PE, Hydraulics

Mr. Greg Perfetti, PE, Structure Design

Mr. Mark Staley, Roadside Environmental

Mr. Anthony Roper, PE, Division 1 Engineer

Mr. Clay Willis, Division 1 Environmental Officer

Mr. Scott McLendon, USACE, Wilmington

Mr. Jay Bennett, PE, Roadway Design

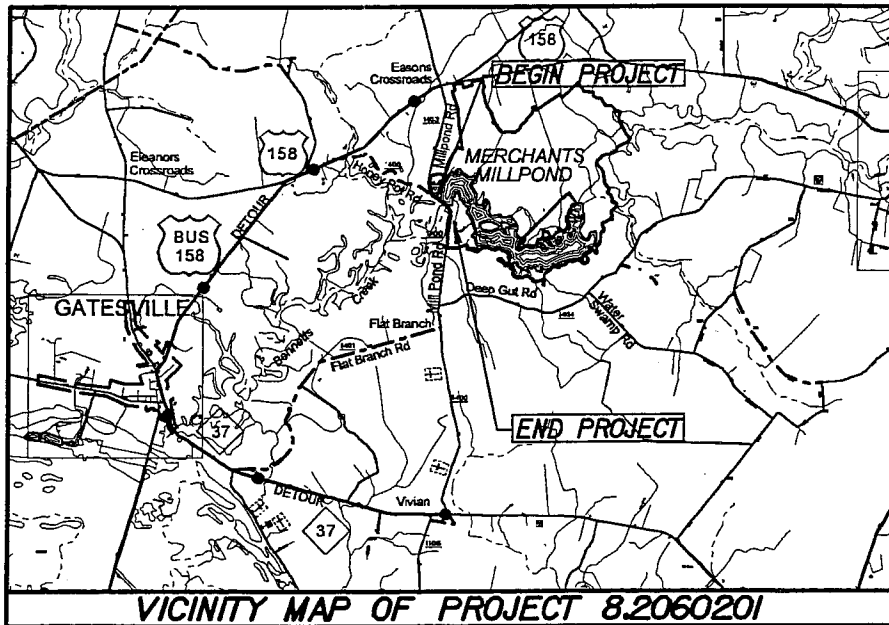
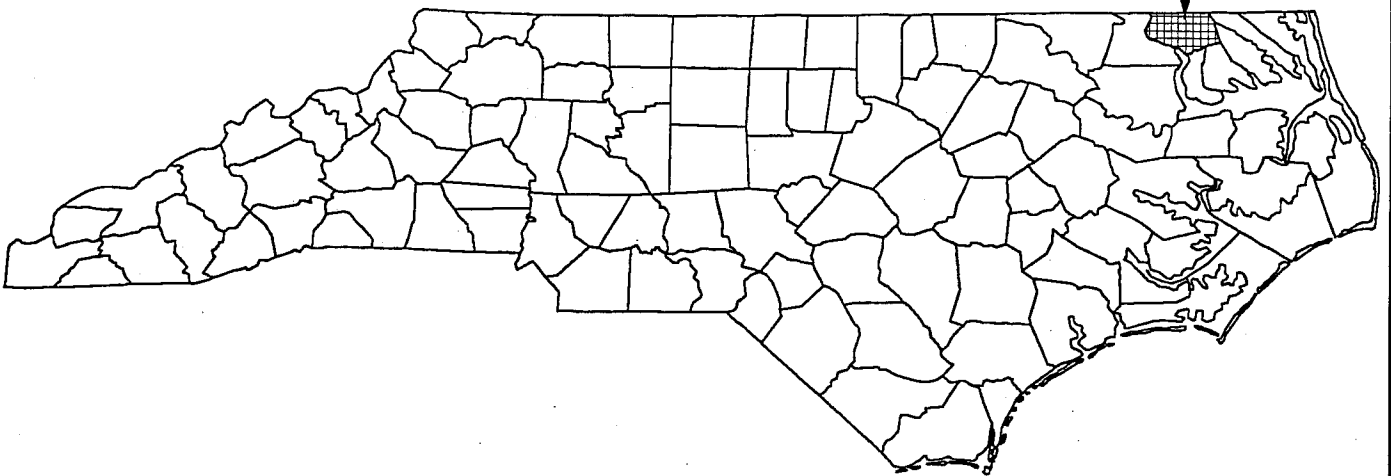
Mr. Majed Alghandour, PE, Programming and TIP

Mr. Art McMillan, PE, Highway Design

Ms. Stacy Baldwin, PE, PDEA

# NORTH CAROLINA

GATES COUNTY



VICINITY MAP OF PROJECT 8.2060201

## VICINITY MAPS

**NCDOT**  
DIVISION OF HIGHWAYS  
GATES COUNTY  
PROJECT: 33188.1.1 (B-3640)  
SR 1400 MILL POND ROAD  
FROM EAST OF EASTMAINS  
CROSSROADS TO FLAT BRANCH  
SHEET 1 OF 8

PERMIT DRAWINGS

09/28/99

See Sheet 1-A For Index of Sheets  
See Sheet 1-B For Conventional Symbols

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

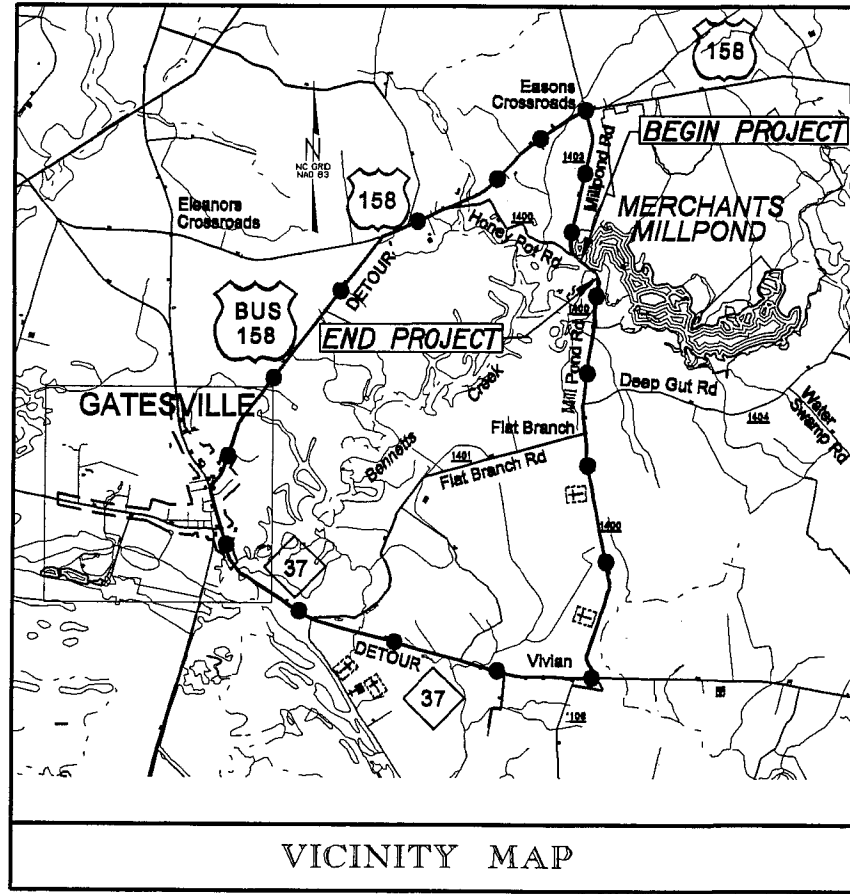
**GATES COUNTY**

LOCATION: BRIDGE NO. 16 OVER MERCHANTS MILLPOND ON SR 1400  
TYPE OF WORK: GRADING, PAVING, DRAINAGE, AND STRUCTURE

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-3640	1	2 of 8
WBS NO.	P.A. PROJ. NO.	DESCRIPTION	
33188.1.1	BRZ-1400(4)	P.E.	



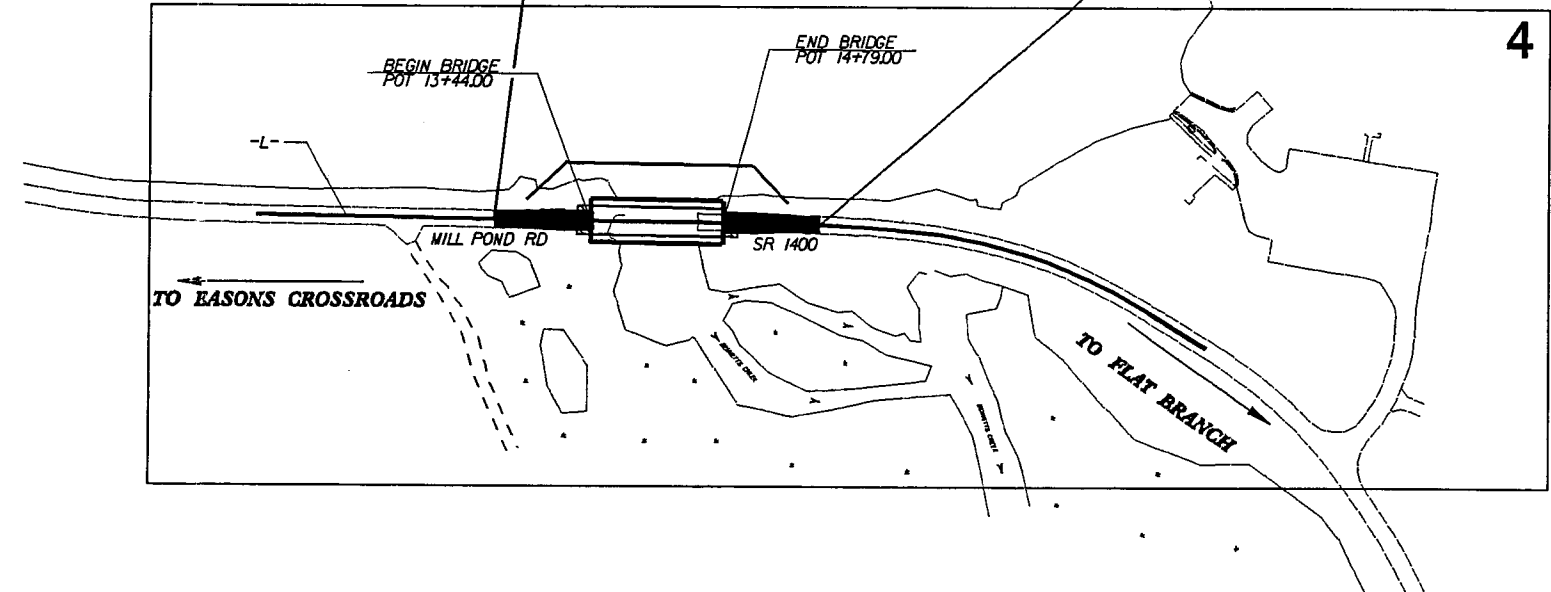
CONTRACT: TIP: B-3640



LEGEND: DETOUR ●—●—●—●

STA. 12+45.00 -L- BEGIN TIP PROJECT B-3640

STA. 15+80.00 -L- END TIP PROJECT B-3640



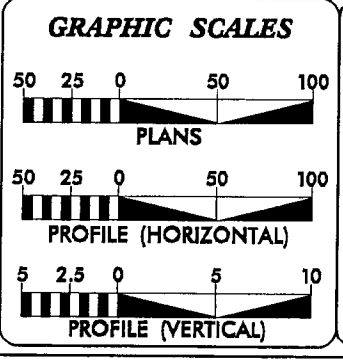
4

NOTES:  
CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD II.

THIS PROJECT IS NOT LOCATED WITHIN THE BOUNDARIES OF ANY MUNICIPALITY.

PRELIMINARY PLANS  
DO NOT USE FOR CONSTRUCTION

NCDOT CONTACT: CATHY HOUSER, P.E. - PROJECT ENGINEER - ROADWAY DESIGN - ENGINEERING COORDINATION



**DESIGN DATA**

ADT 2005 =	1000
ADT 2025 =	1600
DHV =	10 %
D =	55 %
T =	4 % *
V =	50 MPH
* TTST 1%	DUAL 3%

**PROJECT LENGTH**

LENGTH ROADWAY	TIP PROJECT B-3640 =	0.037 MILES
LENGTH STRUCTURE	TIP PROJECT B-3640 =	0.026 MILES
TOTAL LENGTH OF TIP PROJECT B-3640 =		0.063 MILES

Prepared in the Office of:  
**WILBUR SMITH ASSOCIATES**  
P.O. BOX 2478 RALEIGH, NC 27602-2478 PHONE (919) 755-0533

2003 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:  
MARCH 18, 2005

LETTING DATE:  
MARCH 21, 2006

THOMAS E. TALLMAN, P.E.  
PROJECT ENGINEER

R.D. ODELL, P.E.  
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

SIGNATURE: \_\_\_\_\_ P.E.

ROADWAY DESIGN ENGINEER

SIGNATURE: \_\_\_\_\_ P.E.

DIVISION OF HIGHWAYS  
STATE OF NORTH CAROLINA

STATE DESIGN ENGINEER

DEPARTMENT OF TRANSPORTATION  
FEDERAL HIGHWAY ADMINISTRATION

APPROVED

DIVISION ADMINISTRATOR

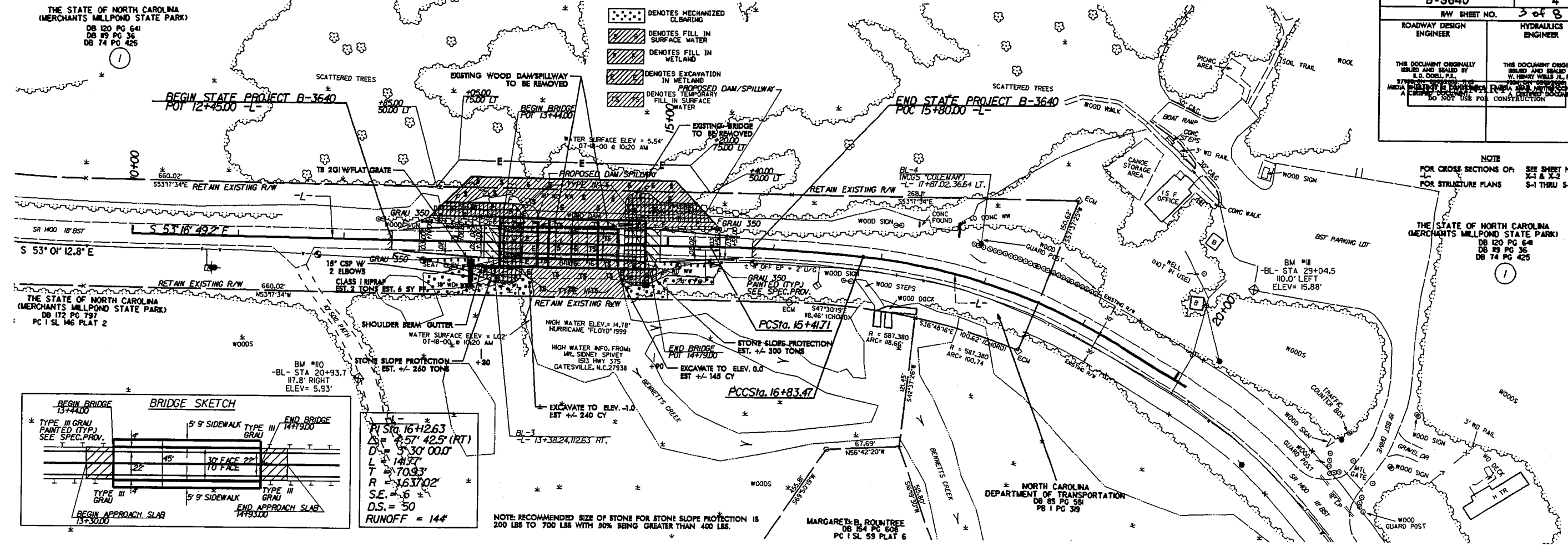
DATE

STATES  
SIZES

8/17/99

THE STATE OF NORTH CAROLINA  
(MERCHANTS MILLPOND STATE PARK)  
DB 120 PG 641  
DB 89 PG 36  
DB 74 PG 425

PROJECT REFERENCE NO. <b>B-3640</b>	SHEET NO. <b>4</b>
R/W SHEET NO. <b>3 of 8</b>	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
THIS DOCUMENT ORIGINALLY ISSUED AND SEALED BY E.O. ODELL, P.E. REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF NORTH CAROLINA A CERTIFIED PROFESSIONAL DOCUMENT DO NOT USE FOR CONSTRUCTION	THIS DOCUMENT ORIGINALLY ISSUED AND SEALED BY W. HENRY WILLS, JR., P.E. REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF NORTH CAROLINA A CERTIFIED PROFESSIONAL DOCUMENT DO NOT USE FOR CONSTRUCTION



NOTE  
FOR CROSS SECTIONS OF: SEE SHEET NO: X-1 & X-2  
FOR STRUCTURE PLANS S-1 THRU S-33

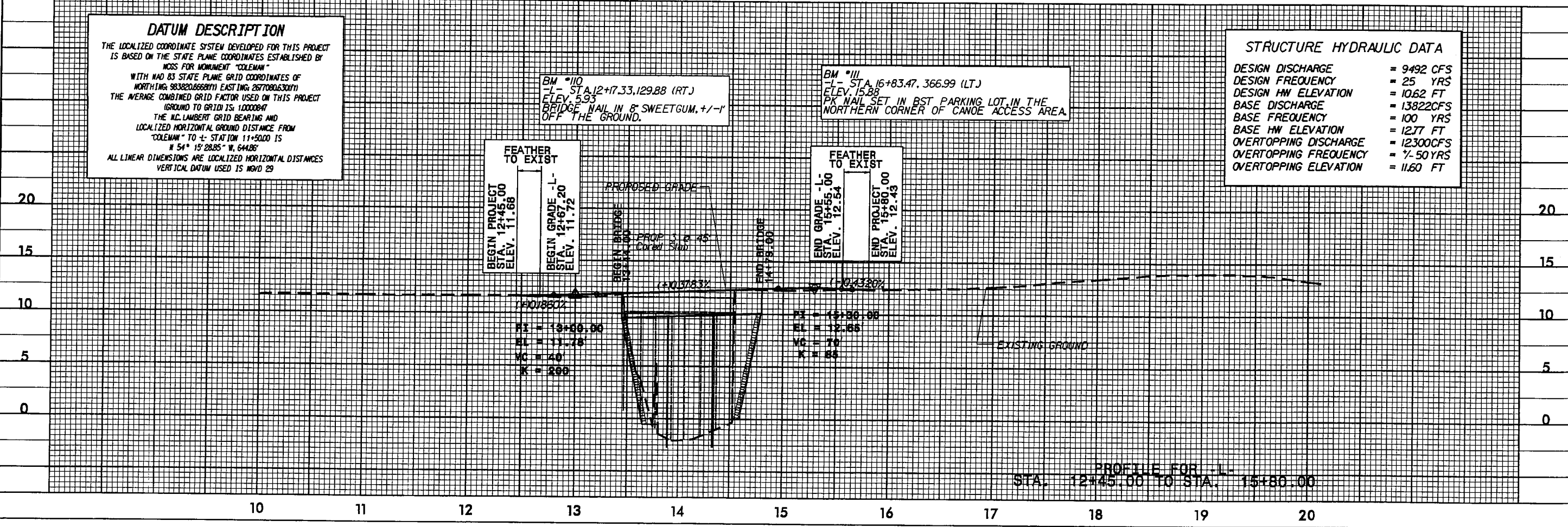
THE STATE OF NORTH CAROLINA  
(MERCHANTS MILLPOND STATE PARK)  
DB 120 PG 641  
DB 89 PG 36  
DB 74 PG 425

**DATUM DESCRIPTION**

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NGS FOR MONUMENT "COLEMAN" WITH NAD 83 STATE PLANE GRID COORDINATES OF NORTHING: 983820.6668(11) EASTING: 2677080.6301(11) THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 1.0000847 THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "COLEMAN" TO + STATION 11+50.00 IS N 54° 15' 28.85" W, 644.06' ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES VERTICAL DATUM USED IS MVD 29

**STRUCTURE HYDRAULIC DATA**

DESIGN DISCHARGE	= 9492 CFS
DESIGN FREQUENCY	= 25 YRS
DESIGN HW ELEVATION	= 10.62 FT
BASE DISCHARGE	= 13822 CFS
BASE FREQUENCY	= 100 YRS
BASE HW ELEVATION	= 12.77 FT
OVERTOPPING DISCHARGE	= 12300 CFS
OVERTOPPING FREQUENCY	= 7.50 YRS
OVERTOPPING ELEVATION	= 11.60 FT



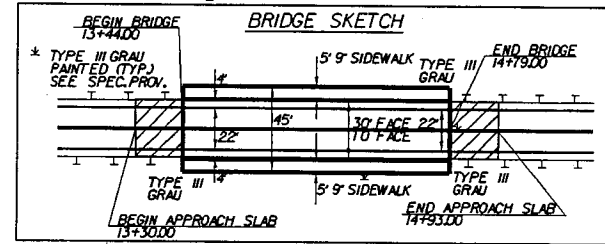
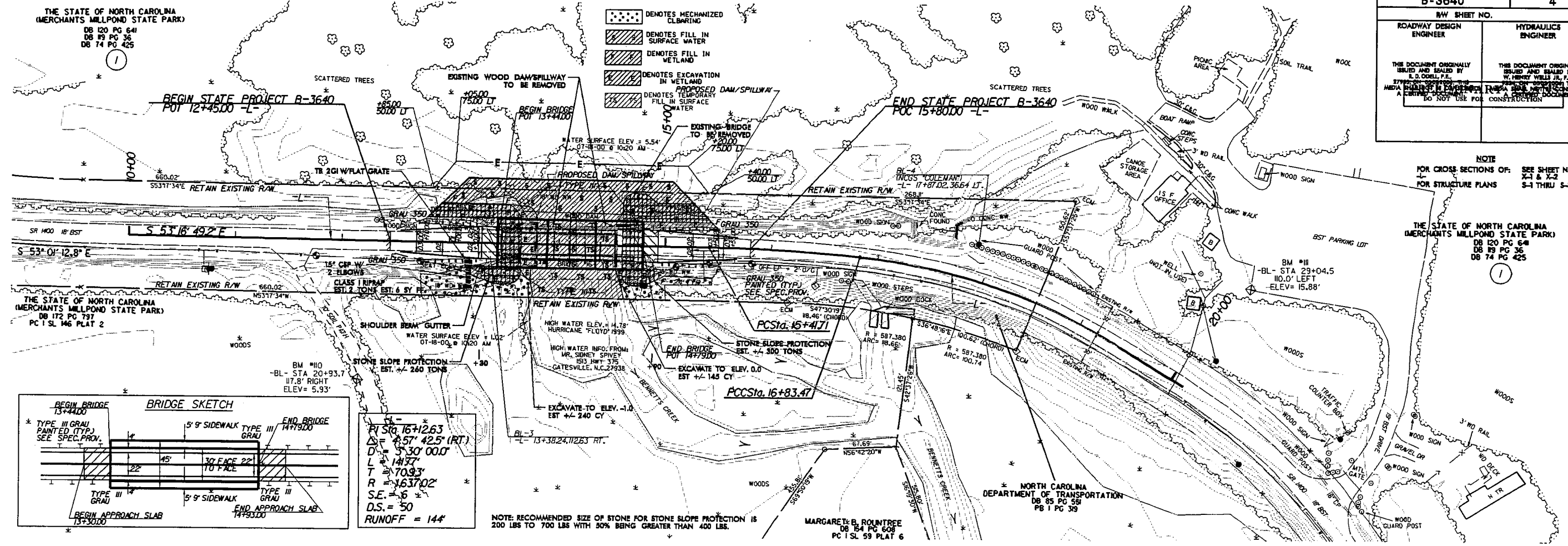
REVISIONS

STATES FILES

8/17/99

THE STATE OF NORTH CAROLINA  
MERCHANTS MILLPOND STATE PARK  
DB 120 PG 64  
DB 89 PG 36  
DB 74 PG 425

PROJECT REFERENCE NO. <b>B-3640</b>		SHEET NO. <b>4</b>	
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
THIS DOCUMENT ORIGINALLY ISSUED AND SEALED BY I. J. COLEMAN, P.E. CIVIL ENGINEER A CERTIFIED DOCUMENT DO NOT USE FOR CONSTRUCTION		THIS DOCUMENT ORIGINALLY ISSUED AND SEALED BY W. HENRY WELLS, P.E. CIVIL ENGINEER A CERTIFIED DOCUMENT DO NOT USE FOR CONSTRUCTION	



$PCSI Sta. 16+26.3$ $\Delta F = 4.57' 42.5\"$ $D = 530' 00.0'$ $L = 141.57'$ $T = 70.93'$ $R = 1637.02'$ $S.E. = .6 \%$ $D.S. = 50$ $RUNOFF = 144'$
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NOTE: RECOMMENDED SIZE OF STONE FOR STONE SLOPE PROTECTION IS 200 LBS TO 700 LBS WITH 50% BEING GREATER THAN 400 LBS.

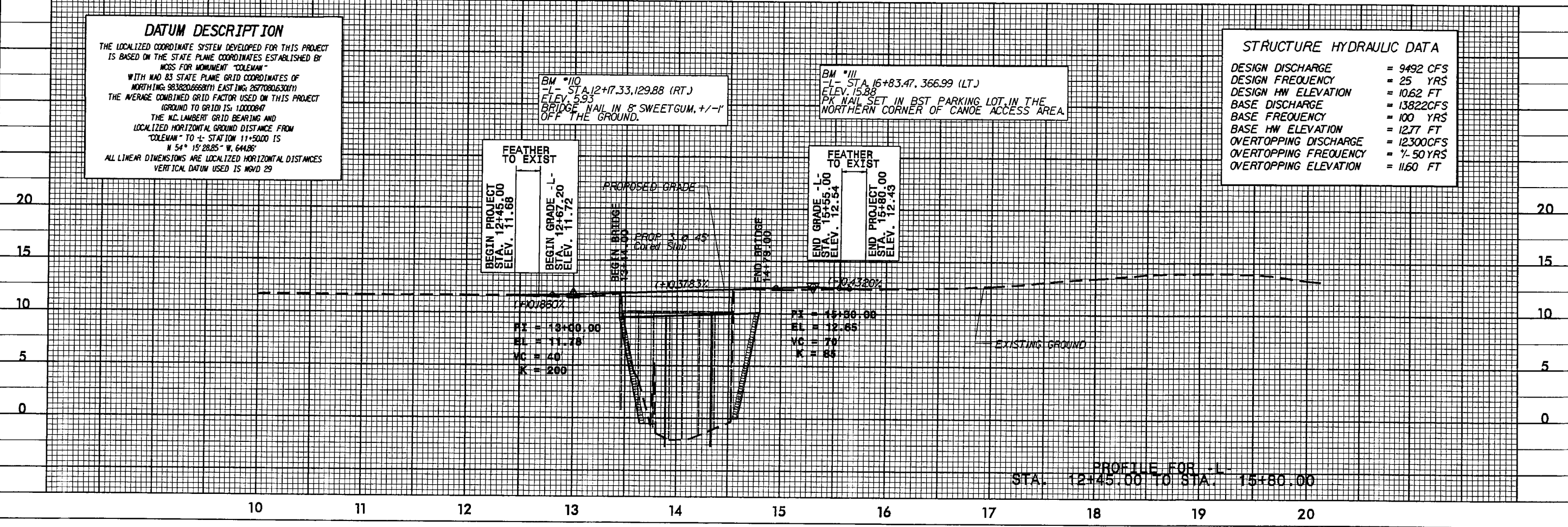
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BM #10  
 L- STA. 12+17.33, 129.88 (RT.)  
 ELEV. 5.93'  
 BRIDGE NAIL IN 8" SWEETGUM, +/- 1' OFF THE GROUND.

BM #11  
 L- STA. 16+83.47, 366.99 (LT.)  
 ELEV. 15.88'  
 PK NAIL SET IN BST PARKING LOT IN THE NORTHERN CORNER OF CANOE ACCESS AREA.

**STRUCTURE HYDRAULIC DATA**

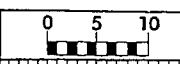
DESIGN DISCHARGE	= 9492 CFS
DESIGN FREQUENCY	= 25 YRS
DESIGN HW ELEVATION	= 10.62 FT
BASE DISCHARGE	= 13822 CFS
BASE FREQUENCY	= 100 YRS
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OVERTOPPING FREQUENCY	= 7.50 YRS
OVERTOPPING ELEVATION	= 11.60 FT



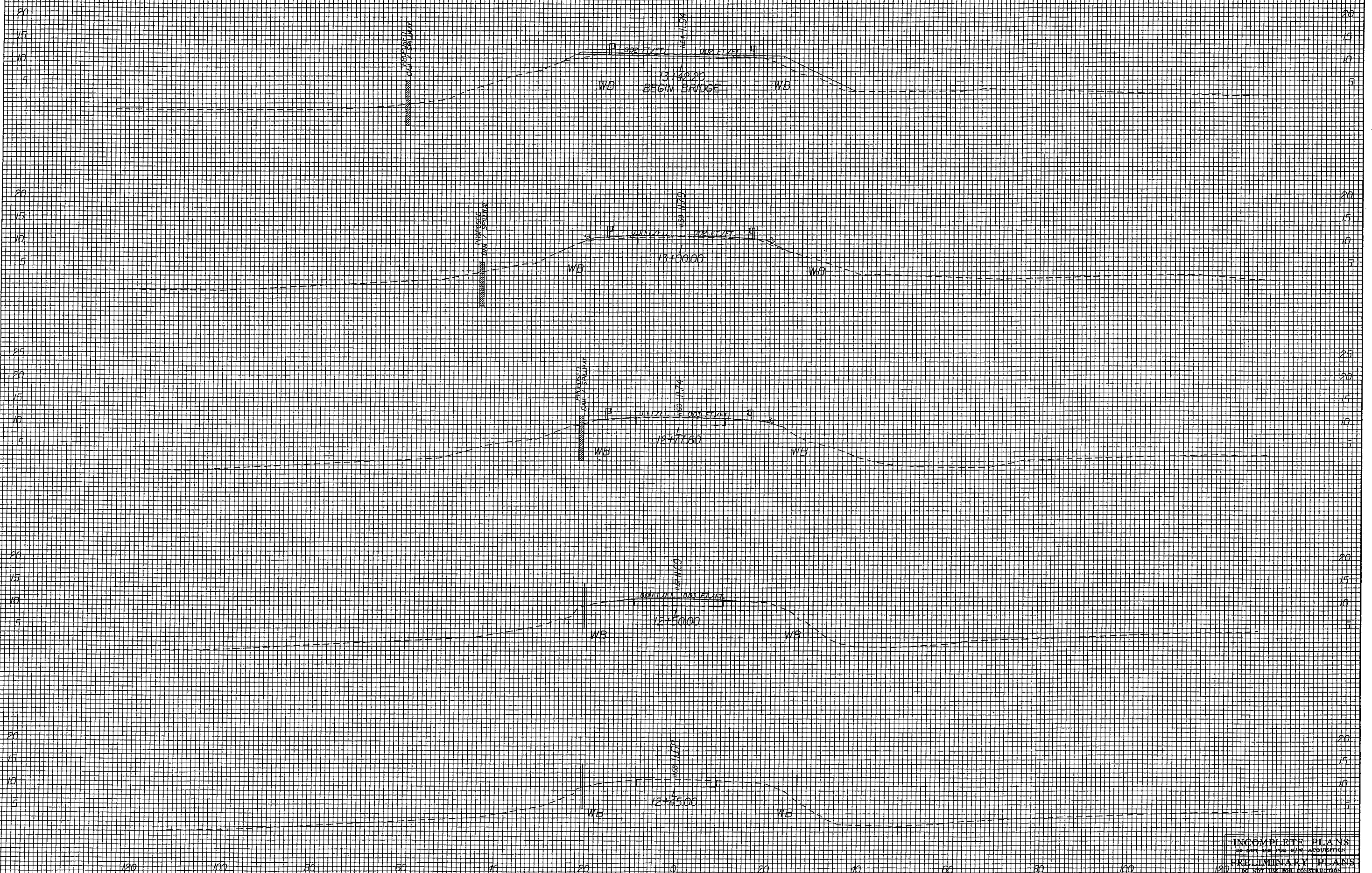
REVISIONS

STATES  
SPICES

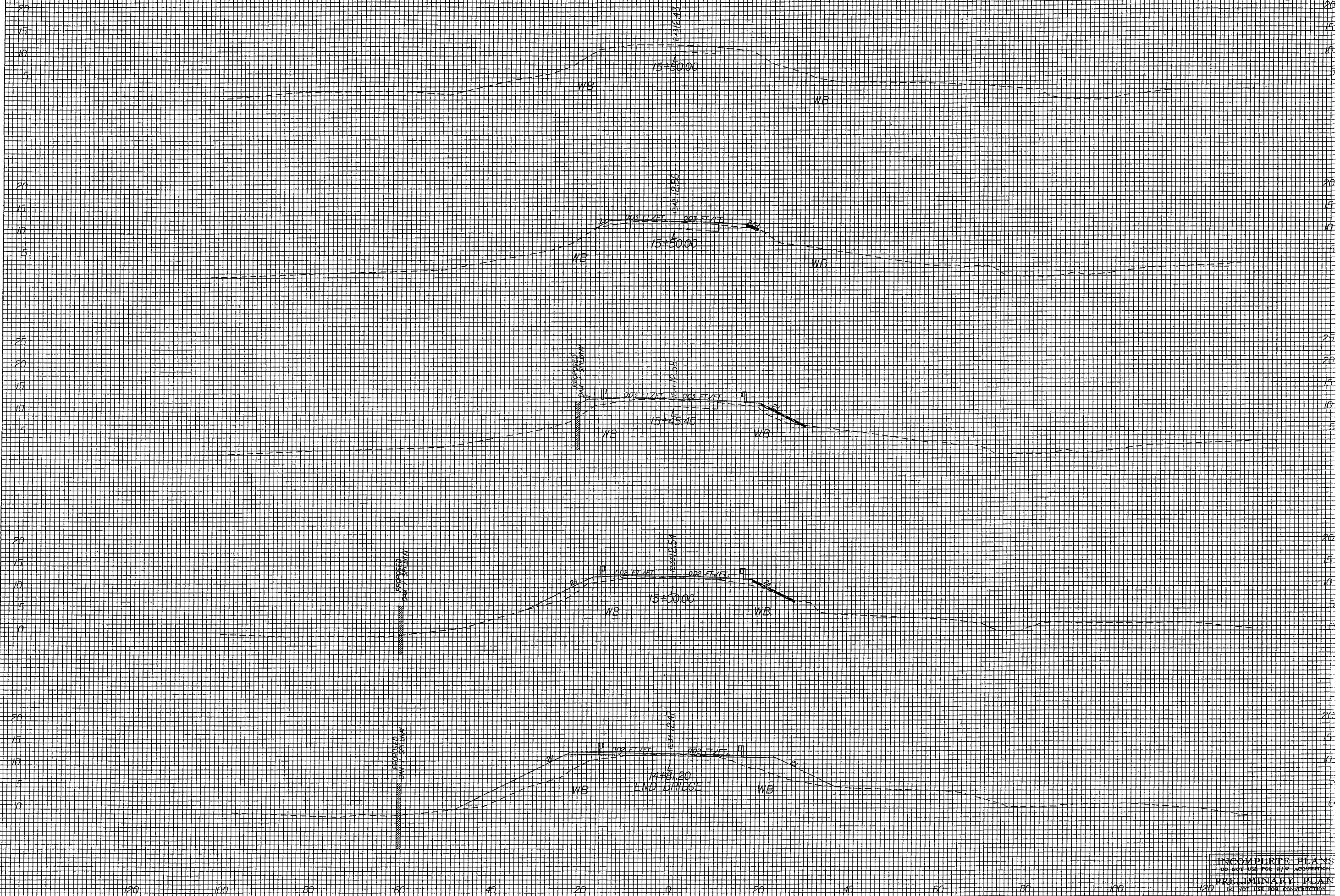
PROFILE FOR L-  
STA. 12+45.00 TO STA. 15+80.00



5 of 8



INCOMPLETE PLANS  
DO NOT USE FOR CONSTRUCTION  
PRELIMINARY PLANS  
FOR USE ONLY FOR CONSTRUCTION





List of Property Owners:

<u>PARCEL #</u>	<u>PROPERTY OWNER</u>	<u>ADDRESSES</u>
	State of NC Merchants Millpond State Park	
	NCDOT	

NC DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
GATES COUNTY  
33188.1.1 (B-3640)  
Replace Br#16 Over Merchants  
Millpond  
Sheet 7 of 8

**WETLAND PERMIT IMPACT SUMMARY**

Site No.	Station (From/To)	Structure Size / Type	WETLAND IMPACTS						SURFACE WATER IMPACTS								
			Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)					
1	14+11 -L-	3@45" Cored Slab Bridge	0.10		0.02	0.07		0.14									
2	14+11 -L-	Temp Construction							0.14				63				
<b>TOTALS:</b>			0.10	0.00	0.02	0.07	0.00	0.14	0.14	0.14	0	63					0

\* Note: Linear Surface Water Impact taken from Existing Spillway downstream.

NC DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

GATES COUNTY  
B-3640

SHEET **8 of 8** #####