



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

BEVERLY PERDUE  
GOVERNOR

GENE CONTI  
SECRETARY

November 6, 2009

U. S. Army Corps of Engineers  
Regulatory Field Office  
151 Patton Avenue, Room 208  
Asheville, NC 28801-5006

ATTN: Mr. Dave Baker  
NCDOT Coordinator

Subject: **Application for Section 404 Nationwide Permit 33** for the proposed replacement of Bridge No. 32 over Webb's Creek on SR 1913 (Oak Grove Church Road) in Rutherford County, Federal Aid Project No. BRZ-1913(2); Division 13; TIP No. B-4633; WBS 33807.1.1

Dear Sir:

The North Carolina Department of Transportation (NCDOT) proposes to replace Bridge No. 32 over Webb's Creek on SR 1913. There will be 0.07 acres of temporary surface water impacts and <0.01 acre of temporary fill in wetlands.

Please see enclosed copies of the Pre-Construction Notification (PCN), Stormwater Management Plan, permit drawings, design plans and Rapanos form. The Programmatic Categorical Exclusion (PCE) was completed in August 2008. Documents were distributed shortly thereafter. Additional copies are available upon request.

This project calls for a letting date of March 16, 2010 and a review date of January 26, 2010; however, the let date may advance as additional funding becomes available.

Please note that this project is an accelerated bridge project on NCDOT's Maintenance of Effort list. The NCDOT Administration has deemed these projects highest priority.

**MAILING ADDRESS:**  
NC DEPARTMENT OF TRANSPORTATION  
PROJECT DEVELOPMENT AND ENVIRONMENTAL ANALYSIS  
1598 MAIL SERVICE CENTER  
RALEIGH NC 27699-1548

TELEPHONE: 919-431-6680  
FAX: 919-431-2002

**WEBSITE:** [WWW.NCDOT.ORG](http://WWW.NCDOT.ORG)

**LOCATION:**  
ENVIRONMENTAL RESOURCE CENTER  
4701 ATLANTIC AVENUE, SUITE 116  
RALEIGH NC 27604

A copy of this permit application will be posted on the NCDOT Website at:  
<http://www.ncdot.org/doh/preconstruct/pe/>. If you have any questions or need additional information, please call Jeremy Leamer at (919) 431-6680.

Sincerely,



Gregory J. Thorpe, Ph.D.  
Environmental Management Director, PDEA

w/attachment

Mr. Brian Wrenn, NCDWQ (2 copies)  
Ms. Marla Chambers, NCWRC  
Ms. Marella Buncick, USFWS

w/o attachment (see permit website for attachments)

Dr. David Chang, P.E., Hydraulics  
Mr. Mark Staley, Roadside Environmental  
Mr. Victor Barbour, P.E., Project Services Unit  
Mr. Greg Perfetti, P.E., Structure Design  
Mr. J. Jay Swain, Jr., P.E., Division 13 Engineer  
Mr. Mark Davis, DEO  
Mr. Jay Bennett, P.E., Roadway Design  
Mr. Majed Alghandour, P. E., Programming and TIP  
Mr. Art McMillan, P.E., Highway Design  
Mr. Scott McLendon, USACE, Wilmington  
Ms. Brenna Poole, PDEA



Office Use Only:  
 Corps action ID no. \_\_\_\_\_  
 DWQ project no. \_\_\_\_\_  
 Form Version 1.3 Dec 10 2008

## Pre-Construction Notification (PCN) Form

### A. Applicant Information

#### 1. Processing

1a. Type(s) of approval sought from the Corps:	<input checked="" type="checkbox"/> Section 404 Permit	<input type="checkbox"/> Section 10 Permit
1b. Specify Nationwide Permit (NWP) number: 33 or General Permit (GP) number:		
1c. Has the NWP or GP number been verified by the Corps?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
1d. Type(s) of approval sought from the DWQ (check all that apply):		
<input type="checkbox"/> 401 Water Quality Certification – Regular <input type="checkbox"/> Non-404 Jurisdictional General Permit <input type="checkbox"/> 401 Water Quality Certification – Express <input type="checkbox"/> Riparian Buffer Authorization		
1e. Is this notification solely for the record because written approval is not required?	For the record only for DWQ 401 Certification: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	For the record only for Corps Permit: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
1f. Is payment into a mitigation bank or in-lieu fee program proposed for mitigation of impacts? If so, attach the acceptance letter from mitigation bank or in-lieu fee program.	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
1g. Is the project located in any of NC's twenty coastal counties. If yes, answer 1h below.	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
1h. Is the project located within a NC DCM Area of Environmental Concern (AEC)?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

#### 2. Project Information

2a. Name of project:	Replacment of Bridge 32 over Webb's Creek on SR 1913 (Oak Grove Church Road)
2b. County:	Rutherford
2c. Nearest municipality / town:	Forest City
2d. Subdivision name:	<i>not applicable</i>
2e. NCDOT only, T.I.P. or state project no:	B-4633

#### 3. Owner Information

3a. Name(s) on Recorded Deed:	North Carolina Department of Transportation
3b. Deed Book and Page No.	<i>not applicable</i>
3c. Responsible Party (for LLC if applicable):	<i>not applicable</i>
3d. Street address:	1598 Mail Service Center
3e. City, state, zip:	Raleigh, NC 27699-1598
3f. Telephone no.:	(919) 431-6680
3g. Fax no.:	(919) 431-2002
3h. Email address:	jtleamer@ncdot.gov

<b>4. Applicant Information (if different from owner)</b>	
4a. Applicant is:	<input type="checkbox"/> Agent <input type="checkbox"/> Other, specify:
4b. Name:	<i>not applicable</i>
4c. Business name (if applicable):	
4d. Street address:	
4e. City, state, zip:	
4f. Telephone no.:	
4g. Fax no.:	
4h. Email address:	
<b>5. Agent/Consultant Information (if applicable)</b>	
5a. Name:	<i>not applicable</i>
5b. Business name (if applicable):	
5c. Street address:	
5d. City, state, zip:	
5e. Telephone no.:	
5f. Fax no.:	
5g. Email address:	

<b>B. Project Information and Prior Project History</b>	
<b>1. Property Identification</b>	
1a. Property identification no. (tax PIN or parcel ID):	<i>not applicable</i>
1b. Site coordinates (in decimal degrees):	Latitude: 35.315528 (DD.DDDDDD) Longitude: - 81.799371 (-DD.DDDDDD)
1c. Property size:	1.25 acres
<b>2. Surface Waters</b>	
2a. Name of nearest body of water (stream, river, etc.) to proposed project:	Webb's Creek
2b. Water Quality Classification of nearest receiving water:	WS-IV
2c. River basin:	Broad
<b>3. Project Description</b>	
3a. Describe the existing conditions on the site and the general land use in the vicinity of the project at the time of this application: SR 1913 is a two lane rural local route transecting a semi-rural area with mostly agricultural and residential development.	
3b. List the total estimated acreage of all existing wetlands on the property: 0.03	
3c. List the total estimated linear feet of all existing streams (intermittent and perennial) on the property: 80	
3d. Explain the purpose of the proposed project: To replace bridge No. 32 which is considered structurally deficient.	
3e. Describe the overall project in detail, including the type of equipment to be used: The project involves replacing the existing 150-foot bridge with a new 150-foot bridge providing a minimum 28 feet clear deck width, on the existing alignment with an off-site detour. Standard road building equipment, such as trucks, dozers, and cranes will be used.	
<b>4. Jurisdictional Determinations</b>	
4a. Have jurisdictional wetland or stream determinations by the Corps or State been requested or obtained for this property / project (including all prior phases) in the past? Comments: Dave Baker made a desktop determination declaring a wetland adjacent to Webb's Creek on October 26, 2009 from information provided by NCDOT's field descriptions, pictures and a wetland data form.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
4b. If the Corps made the jurisdictional determination, what type of determination was made?	<input type="checkbox"/> Preliminary <input type="checkbox"/> Final
4c. If yes, who delineated the jurisdictional areas? Name (if known): Jeremy Leamer	Agency/Consultant Company: NCDOT Other:
4d. If yes, list the dates of the Corps jurisdictional determinations or State determinations and attach documentation. October 26, 2009	
<b>5. Project History</b>	
5a. Have permits or certifications been requested or obtained for this project (including all prior phases) in the past?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown
5b. If yes, explain in detail according to "help file" instructions.	

**6. Future Project Plans**

6a. Is this a phased project?

Yes

No

6b. If yes, explain.

C. Proposed Impacts Inventory						
1. Impacts Summary						
1a. Which sections were completed below for your project (check all that apply):						
<input checked="" type="checkbox"/> Wetlands		<input checked="" type="checkbox"/> Streams - tributaries		<input type="checkbox"/> Buffers		
<input type="checkbox"/> Open Waters		<input type="checkbox"/> Pond Construction				
2. Wetland Impacts						
If there are wetland impacts proposed on the site, then complete this question for each wetland area impacted.						
2a. Wetland impact number – Permanent (P) or Temporary (T)	2b. Type of impact	2c. Type of wetland (if known)	2d. Forested	2e. Type of jurisdiction (Corps - 404, 10 DWQ – non-404, other)	2f. Area of impact (acres)	
Site 1 <input type="checkbox"/> P <input checked="" type="checkbox"/> T	Causeway	Non-tidal freshwater marsh	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Corps <input type="checkbox"/> DWQ	0.001	
Site 2 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
Site 3 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
Site 4 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
Site 5 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
Site 6 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
<b>2g. Total wetland impacts</b>					0 Permanent <0.01 Temporary	
2h. Comments:						
3. Stream Impacts						
If there are perennial or intermittent stream impacts (including temporary impacts) proposed on the site, then complete this question for all stream sites impacted.						
3a. Stream impact number - Permanent (P) or Temporary (T)	3b. Type of impact	3c. Stream name	3d. Perennial (PER) or intermittent (INT)?	3e. Type of jurisdiction (Corps - 404, 10 DWQ – non-404, other)	3f. Average stream width (feet)	3g. Impact length (linear feet)
Site 1 <input type="checkbox"/> P <input checked="" type="checkbox"/> T	Causeway	Webb's Creek	<input checked="" type="checkbox"/> PER <input type="checkbox"/> INT	<input checked="" type="checkbox"/> Corps <input type="checkbox"/> DWQ	12	N/A
Site 2 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> PER <input type="checkbox"/> INT	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
Site 3 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> PER <input type="checkbox"/> INT	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
Site 4 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> PER <input type="checkbox"/> INT	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
Site 5 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> PER <input type="checkbox"/> INT	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
Site 6 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> PER <input type="checkbox"/> INT	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
<b>3h. Total stream and tributary impacts</b>					0 Perm 0.07 acres Temp	

3i. Comments:

**4. Open Water Impacts**

If there are proposed impacts to lakes, ponds, estuaries, tributaries, sounds, the Atlantic Ocean, or any other open water of the U.S. then individually list all open water impacts below.

4a. Open water impact number – Permanent (P) or Temporary (T)	4b. Name of waterbody (if applicable)	4c. Type of impact	4d. Waterbody type	4e. Area of impact (acres)
O1 <input type="checkbox"/> P <input type="checkbox"/> T				
O2 <input type="checkbox"/> P <input type="checkbox"/> T				
O3 <input type="checkbox"/> P <input type="checkbox"/> T				
O4 <input type="checkbox"/> P <input type="checkbox"/> T				
<b>4f. Total open water impacts</b>				X Permanent X Temporary

4g. Comments:

**5. Pond or Lake Construction**

If pond or lake construction proposed, then complete the chart below.

5a. Pond ID number	5b. Proposed use or purpose of pond	5c. Wetland Impacts (acres)			5d. Stream Impacts (feet)			5e. Upland (acres)
		Flooded	Filled	Excavated	Flooded	Filled	Excavated	Flooded
P1								
P2								
<b>5f. Total</b>								

5g. Comments:

5h. Is a dam high hazard permit required?	<input type="checkbox"/> Yes <input type="checkbox"/> No      If yes, permit ID no:
5i. Expected pond surface area (acres):	
5j. Size of pond watershed (acres):	
5k. Method of construction:	

**6. Buffer Impacts (for DWQ)**

If project will impact a protected riparian buffer, then complete the chart below. If yes, then individually list all buffer impacts below. If any impacts require mitigation, then you **MUST** fill out Section D of this form.

6a. Project is in which protected basin?		<input type="checkbox"/> Neuse <input type="checkbox"/> Catawba		<input type="checkbox"/> Tar-Pamlico <input type="checkbox"/> Randleman		<input type="checkbox"/> Other:	
6b. Buffer impact number – Permanent (P) or Temporary (T)	6c. Reason for impact	6d. Stream name	6e. Buffer mitigation required?	6f. Zone 1 impact (square feet)	6g. Zone 2 impact (square feet)		
B1 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No				
B2 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No				
B3 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No				
<b>6h. Total buffer impacts</b>							
6i. Comments:							

<b>D. Impact Justification and Mitigation</b>		
<b>1. Avoidance and Minimization</b>		
1a. Specifically describe measures taken to avoid or minimize the proposed impacts in designing project. There will be no permanent impacts. The proposed structure will be in the same location as the existing structure with an off-site detour. The "do-nothing" alternative is not practicable due to the resulting elimination of the use of SR 1913 and closing or removing the bridge. The roadway grade will be the same as the existing structure. 3:1 fill slopes will be utilized where practicable.		
1b. Specifically describe measures taken to avoid or minimize the proposed impacts through construction techniques. The two causeways will not be in use at the same time. The first will be used and then removed before the second one is constructed. Surficial bridge runoff will not be directed into Webb's Creek via deck drains. Causeways will not cover more than 50% of the stream channel at any time.		
<b>2. Compensatory Mitigation for Impacts to Waters of the U.S. or Waters of the State</b>		
2a. Does the project require Compensatory Mitigation for impacts to Waters of the U.S. or Waters of the State?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If no, explain: Minimal temporary impacts of less than 0.01 acres are from two temporary causeways which will be removed and result in no "loss of waters". Webb's Creek is not a trout stream, HQW or ORW.	
2b. If yes, mitigation is required by (check all that apply):	<input type="checkbox"/> DWQ <input type="checkbox"/> Corps	
2c. If yes, which mitigation option will be used for this project?	<input type="checkbox"/> Mitigation bank <input type="checkbox"/> Payment to in-lieu fee program <input type="checkbox"/> Permittee Responsible Mitigation	
<b>3. Complete if Using a Mitigation Bank</b>		
3a. Name of Mitigation Bank: not applicable		
3b. Credits Purchased (attach receipt and letter)	Type	Quantity
3c. Comments:		
<b>4. Complete if Making a Payment to In-lieu Fee Program</b>		
4a. Approval letter from in-lieu fee program is attached.	<input type="checkbox"/> Yes	
4b. Stream mitigation requested:	linear feet	
4c. If using stream mitigation, stream temperature:	<input type="checkbox"/> warm <input type="checkbox"/> cool <input type="checkbox"/> cold	
4d. Buffer mitigation requested (DWQ only):	square feet	
4e. Riparian wetland mitigation requested:	acres	
4f. Non-riparian wetland mitigation requested:	acres	
4g. Coastal (tidal) wetland mitigation requested:	acres	
4h. Comments:		
<b>5. Complete if Using a Permittee Responsible Mitigation Plan</b>		
5a. If using a permittee responsible mitigation plan, provide a description of the proposed mitigation plan.		

**6. Buffer Mitigation (State Regulated Riparian Buffer Rules) – required by DWQ**

6a. Will the project result in an impact within a protected riparian buffer that requires buffer mitigation?  Yes  No

6b. If yes, then identify the square feet of impact to each zone of the riparian buffer that requires mitigation. Calculate the amount of mitigation required.

Zone	6c. Reason for impact	6d. Total impact (square feet)	Multiplier	6e. Required mitigation (square feet)
Zone 1			3 (2 for Catawba)	
Zone 2			1.5	
<b>6f. Total buffer mitigation required:</b>				

6g. If buffer mitigation is required, discuss what type of mitigation is proposed (e.g., payment to private mitigation bank, permittee responsible riparian buffer restoration, payment into an approved in-lieu fee fund).

6h. Comments:

<b>E. Stormwater Management and Diffuse Flow Plan (required by DWQ)</b>	
<b>1. Diffuse Flow Plan</b>	
1a. Does the project include or is it adjacent to protected riparian buffers identified within one of the NC Riparian Buffer Protection Rules?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
1b. If yes, then is a diffuse flow plan included? If no, explain why. Comments:	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>2. Stormwater Management Plan</b>	
2a. What is the overall percent imperviousness of this project?	N/A
2b. Does this project require a Stormwater Management Plan?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
2c. If this project DOES NOT require a Stormwater Management Plan, explain why:	
2d. If this project DOES require a Stormwater Management Plan, then provide a brief, narrative description of the plan: See attached permit drawings.	
2e. Who will be responsible for the review of the Stormwater Management Plan?	<input type="checkbox"/> Certified Local Government <input type="checkbox"/> DWQ Stormwater Program <input type="checkbox"/> DWQ 401 Unit
<b>3. Certified Local Government Stormwater Review</b>	
3a. In which local government's jurisdiction is this project?	not applicable
3b. Which of the following locally-implemented stormwater management programs apply (check all that apply):	<input type="checkbox"/> Phase II <input type="checkbox"/> NSW <input type="checkbox"/> USMP <input type="checkbox"/> Water Supply Watershed <input type="checkbox"/> Other:
3c. Has the approved Stormwater Management Plan with proof of approval been attached?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>4. DWQ Stormwater Program Review</b>	
4a. Which of the following state-implemented stormwater management programs apply (check all that apply):	<input type="checkbox"/> Coastal counties <input type="checkbox"/> HQW <input type="checkbox"/> ORW <input type="checkbox"/> Session Law 2006-246 <input type="checkbox"/> Other:
4b. Has the approved Stormwater Management Plan with proof of approval been attached?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>5. DWQ 401 Unit Stormwater Review</b>	
5a. Does the Stormwater Management Plan meet the appropriate requirements?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
5b. Have all of the 401 Unit submittal requirements been met?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

<b>F. Supplementary Information</b>	
<b>1. Environmental Documentation (DWQ Requirement)</b>	
1a. Does the project involve an expenditure of public (federal/state/local) funds or the use of public (federal/state) land?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1b. If you answered "yes" to the above, does the project require preparation of an environmental document pursuant to the requirements of the National or State (North Carolina) Environmental Policy Act (NEPA/SEPA)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1c. If you answered "yes" to the above, has the document review been finalized by the State Clearing House? (If so, attach a copy of the NEPA or SEPA final approval letter.)  Comments:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>2. Violations (DWQ Requirement)</b>	
2a. Is the site in violation of DWQ Wetland Rules (15A NCAC 2H .0500), Isolated Wetland Rules (15A NCAC 2H .1300), DWQ Surface Water or Wetland Standards, or Riparian Buffer Rules (15A NCAC 2B .0200)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2b. Is this an after-the-fact permit application?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2c. If you answered "yes" to one or both of the above questions, provide an explanation of the violation(s):	
<b>3. Cumulative Impacts (DWQ Requirement)</b>	
3a. Will this project (based on past and reasonably anticipated future impacts) result in additional development, which could impact nearby downstream water quality?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
3b. If you answered "yes" to the above, submit a qualitative or quantitative cumulative impact analysis in accordance with the most recent DWQ policy. If you answered "no," provide a short narrative description.  Due to the minimal transportation impact resulting from this bridge replacement, this project will neither influence nearby land uses nor stimulate growth. Therefore, a detailed indirect or cumulative effects study will not be necessary.	
<b>4. Sewage Disposal (DWQ Requirement)</b>	
4a. Clearly detail the ultimate treatment methods and disposition (non-discharge or discharge) of wastewater generated from the proposed project, or available capacity of the subject facility.  not applicable	

<b>5. Endangered Species and Designated Critical Habitat (Corps Requirement)</b>		
5a. Will this project occur in or near an area with federally protected species or habitat?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
5b. Have you checked with the USFWS concerning Endangered Species Act impacts?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
5c. If yes, indicate the USFWS Field Office you have contacted.	<input type="checkbox"/> Raleigh <input type="checkbox"/> Asheville	
5d. What data sources did you use to determine whether your site would impact Endangered Species or Designated Critical Habitat? Habitat assessment and survey by NCDOT biologists. NHP database check.		
<b>6. Essential Fish Habitat (Corps Requirement)</b>		
6a. Will this project occur in or near an area designated as essential fish habitat?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
6b. What data sources did you use to determine whether your site would impact Essential Fish Habitat? NMFS County Index		
<b>7. Historic or Prehistoric Cultural Resources (Corps Requirement)</b>		
7a. Will this project occur in or near an area that the state, federal or tribal governments have designated as having historic or cultural preservation status (e.g., National Historic Trust designation or properties significant in North Carolina history and archaeology)?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
7b. What data sources did you use to determine whether your site would impact historic or archeological resources? NEPA Documentation		
<b>8. Flood Zone Designation (Corps Requirement)</b>		
8a. Will this project occur in a FEMA-designated 100-year floodplain?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
8b. If yes, explain how project meets FEMA requirements: NCDOT Hydraulics coordination with FEMA		
8c. What source(s) did you use to make the floodplain determination? FEMA Maps		
<u>Dr. Gregory J. Thorpe, Ph D</u> Applicant/Agent's Printed Name	 _____ Applicant/Agent's Signature (Agent's signature is valid only if an authorization letter from the applicant is provided.)	<u>11.6.09</u> Date

# **STORMWATER MANAGEMENT PLAN**

Project: 33807.1.1  
TIP No. B-4633  
Rutherford County

10/21/2009

Hydraulics Project Manager: Dennis Hoyle, P.E. (URS Corporation)  
Marshal Clawson, P.E. (NCDOT Hydraulics Unit)

## **ROADWAY DESCRIPTION**

The project B-4633 consists of constructing a new bridge 150 feet long to replace the existing bridge #32 in Rutherford County on SR-1913 over Webbs Creek. The total project length is 0.102 miles. The project creates impacts to Webbs Creek, which is located in the Broad River Basin. The project drainage system consists of a grated inlet with associated pipe system, and riprap pads at the pipe outlet to an existing swale.

Jurisdiction Stream: Webbs Creek

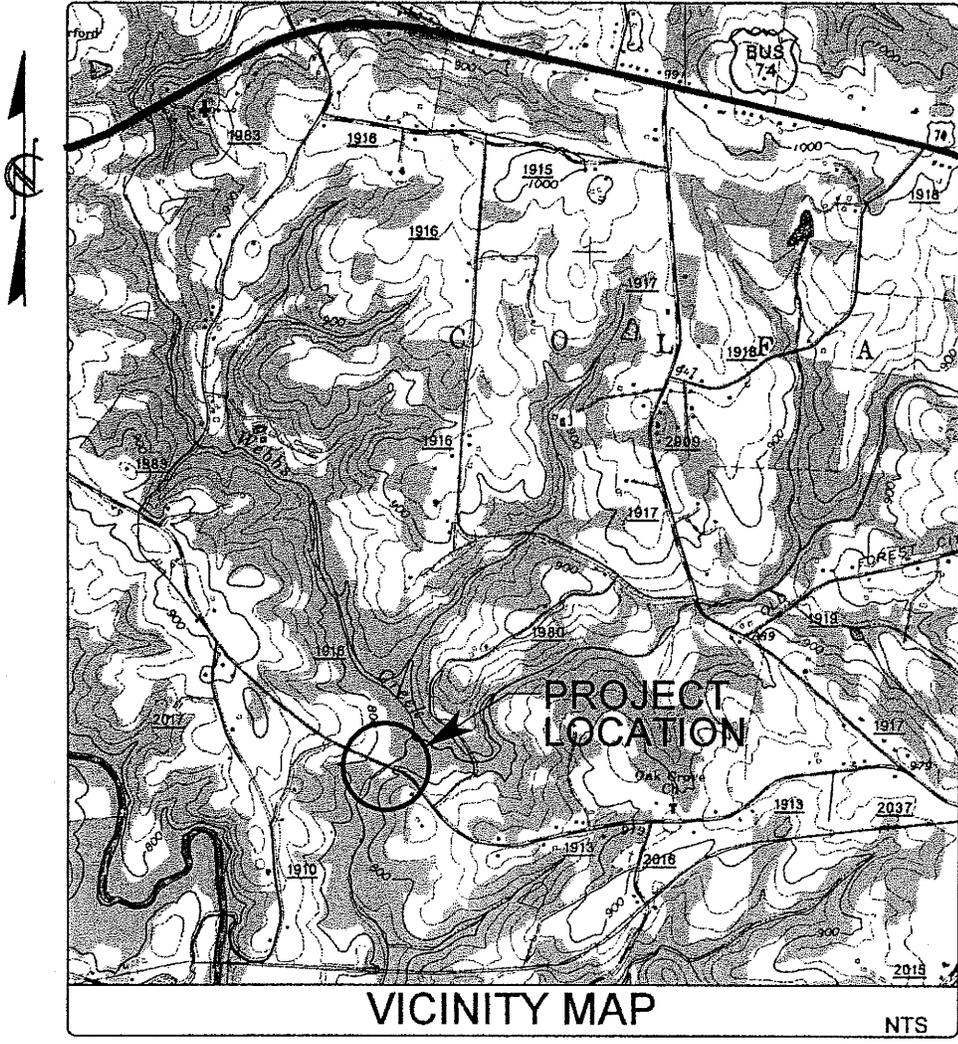
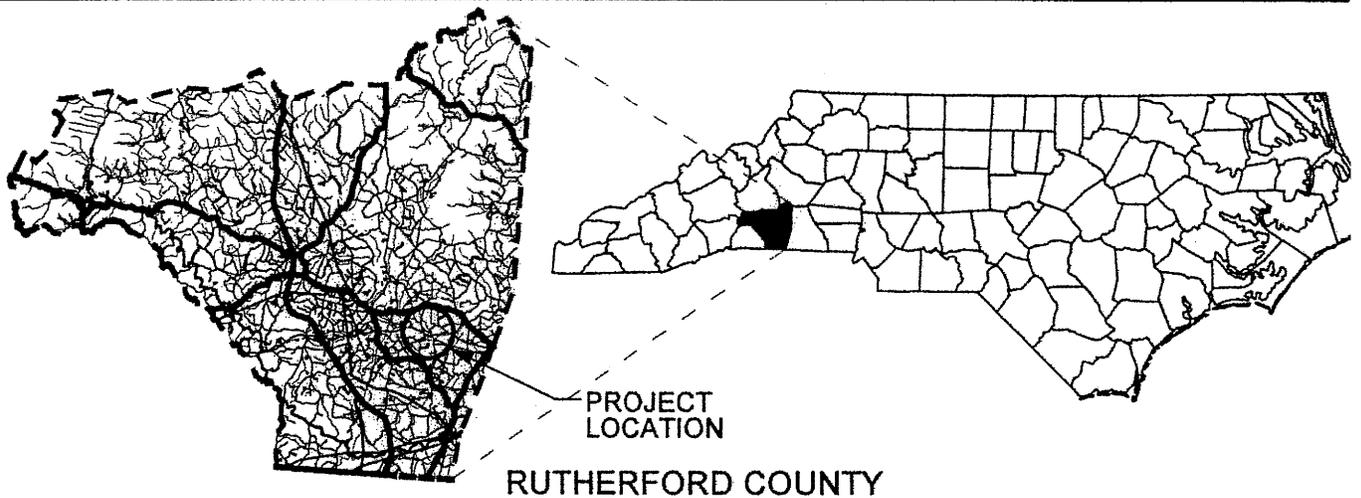
## **ENVIRONMENTAL DESCRIPTION**

The project is located within the Broad River Basin in Rutherford County. A temporary causeway will be required for removal of the existing structure and construction of the proposed structure. Degradation has been minimized by using a riprap pad at the pipe outlet into an existing swale. Open deck drains will be utilized to drain the structure but will not discharge directly over Webbs Creek which will reduce the impacts to the channel.

## **BEST MANAGEMENT PRACTICES AND MAJOR STRUCTURES**

The primary goal of Best Management Practices (BMPs) is to prevent degradation of the states surface waters caused by the location, construction and operation of the highway system. The BMPs are activities, practices and procedures taken to prevent or reduce stormwater pollution. The BMP measures used on this project to reduce stormwater impacts are:

- Retain existing grass swale to Webbs Creek
- Riprap pad at outlet of pipe in existing grass swale
- Open deck drains discharging over land (will not discharge directly into channel)



Permit Drawing  
Sheet 1 of 10

WETLAND/STREAM  
IMPACTS

NCDOT  
 DIVISION OF HIGHWAYS  
 RUTHERFORD COUNTY  
 PROJECT: 33807.L1 (B-4633)  
 BRIDGE NO. 32  
 OVER WEBBS CREEK  
 ON SR 1913  
 (OAK GROVE CHURCH ROAD)  
 SHEET OF 10/19/05

PROPERTY OWNERS  
NAMES AND ADDRESSES

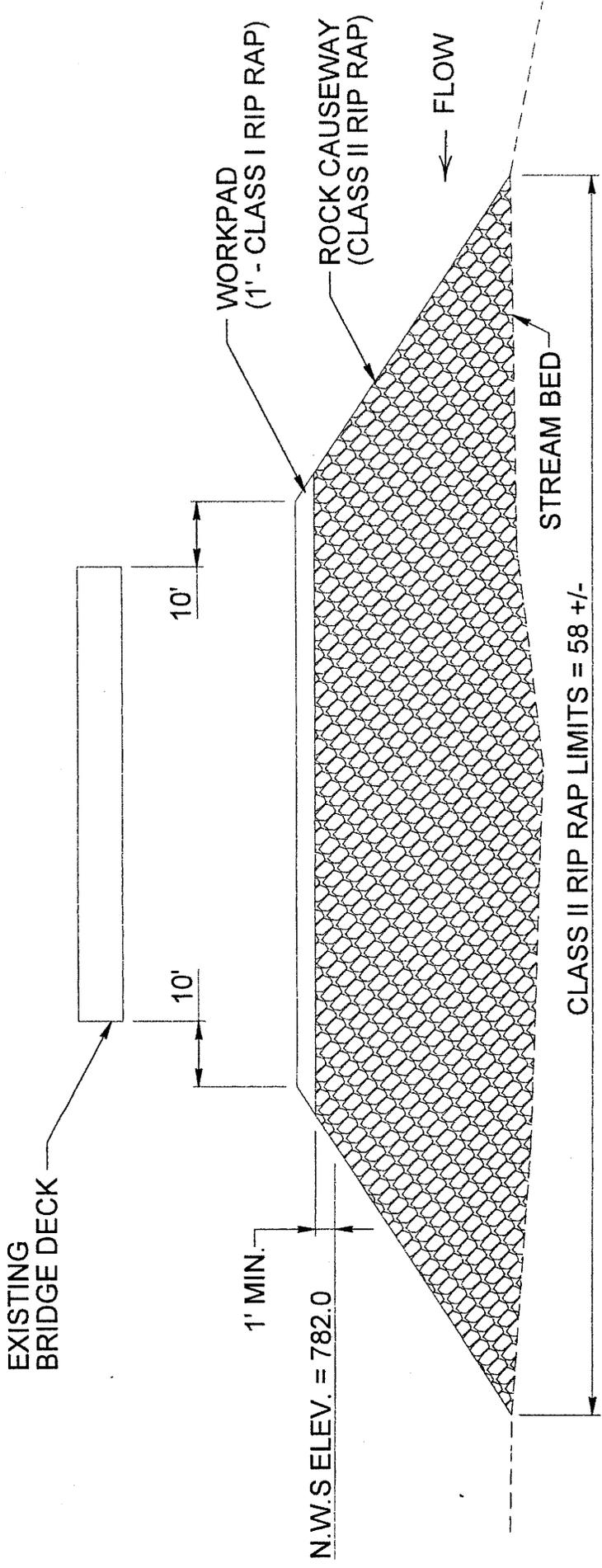
PARCEL NO.	NAMES	ADDRESSES
5	W. D. MELTON	P.O. BOX 428 ELLENBORO, NC 28040

Permit Drawing  
Sheet 2 of 10

NCDOT  
DIVISION OF HIGHWAYS  
RUTHERFORD COUNTY  
PROJECT: 33807.1.1 (B-4633)  
BRIDGE NO. 32  
OVER WEBBS CREEK  
ON SR 1913  
(OAK GROVE CHURCH ROAD)

SHEET OF 10 / 19 / C





NOTE:  
 BOTH TEMPORARY CAUSEWAYS  
 WILL NOT BE IN THE STREAM AT  
 THE SAME TIME.

**WORKPAD DETAIL**  
 N.T.S.

ESTIMATE OF QUANTITIES

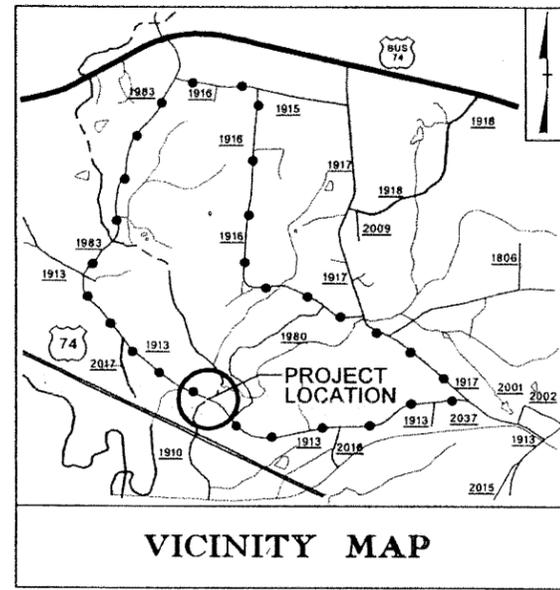
-L- STA. 15+05 TO STA. 15+70	-L- STA. 15+40 TO STA. 15+95
VOLUME CLASS I RIP RAP = 34 CY ESTIMATE 48 TON CLASS I RIP RAP	VOLUME CLASS I RIP RAP = 38 CY ESTIMATE 53 TONS CLASS I RIP RAP
VOLUME CLASS II RIP RAP = 85 CY ESTIMATE 123 TONS CLASS II RIP RAP	VOLUME CLASS II RIP RAP = 102 CY ESTIMATE 151 TONS CLASS II RIP RAP
AREA OF RIP RAP = 0.04 ACRES	AREA OF RIP RAP = 0.007 ACRES

**NC DOT**  
 DIVISION OF HIGHWAYS  
 RUTHERFORD COUNTY  
 PROJECT: 33807.1.1 (B-4633)  
 BRIDGE NO. 32  
 OVER WEBBS CREEK  
 ON SR 1913  
 (OAK GROVE CHURCH ROAD)  
 SHEET OF 10 / 19 / 2009

09/28/09

**CONTRACT: TIP PROJECT: B-4633**

See Sheet 1-A For Index of Sheets  
See Sheet 1-B For Conventional symbols  
See Sheet 1-C For Survey Control Sheet



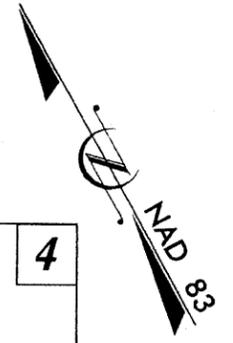
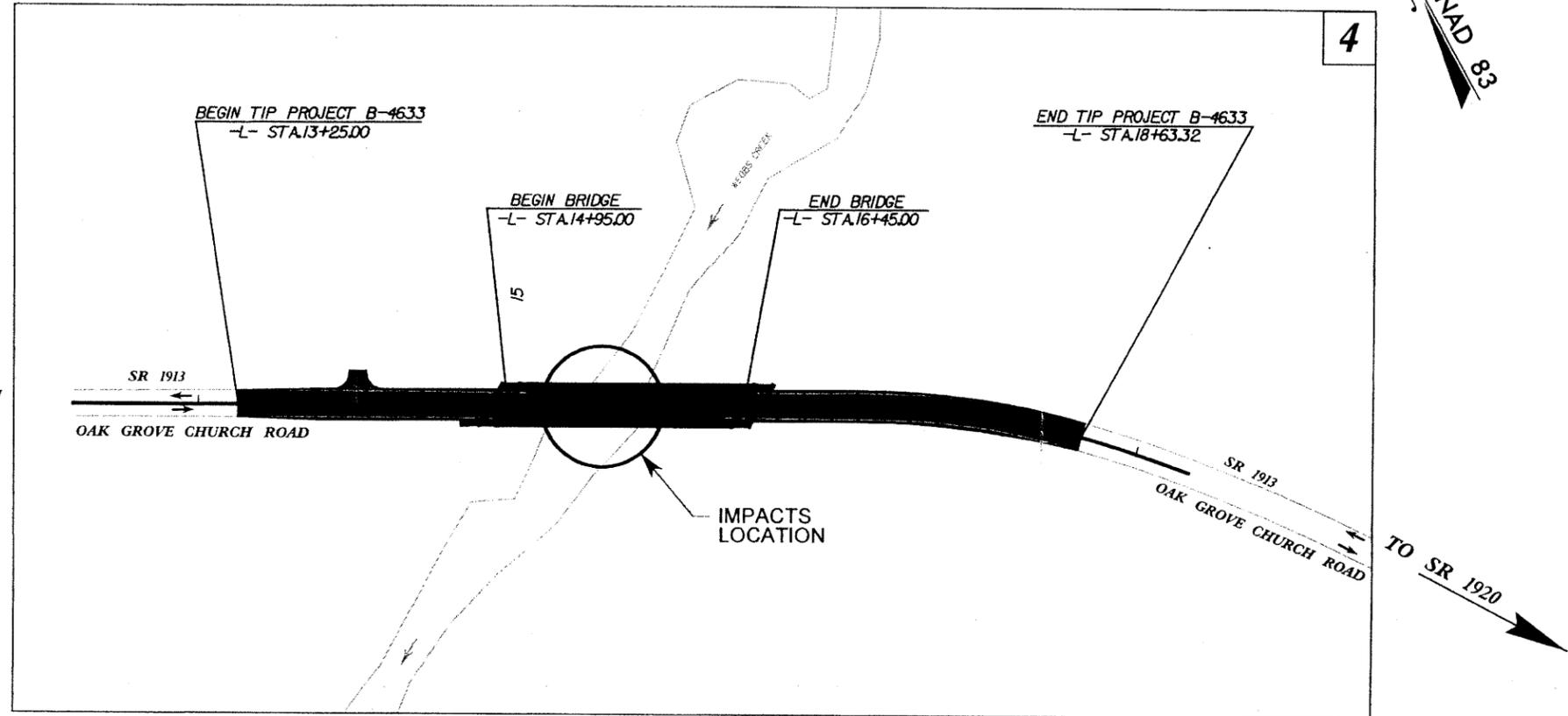
STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

**RUTHERFORD COUNTY**

**LOCATION: BRIDGE # 32 OVER WEBBS CREEK  
ON SR 1913 (OAK GROVE CHURCH RD.)**

**TYPE OF WORK: GRADING, DRAINAGE, PAVING, STRUCTURE**

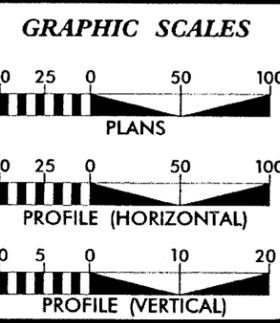
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-4633	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
33807.1.1	BRZ-1913(2)	PE	
33807.1.1	BRZ-1913(2)	RW	



THIS PROJECT IS NOT WITHIN MUNICIPAL BOUNDARIES.  
CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD II.

ENGINEERING GROUP

PRELIMINARY PLANS  
DO NOT USE FOR CONSTRUCTION



**DESIGN DATA**

ADT 2012 = 500  
ADT 2032 = 722

DHV = 10 %  
D = 60 %  
T = 3 % \*  
V = 40 MPH

FUNC CLASS = RURAL LOCAL  
\* TTST 1% DUAL 2%

**PROJECT LENGTH**

LENGTH OF ROADWAY TIP PROJECT B-4633 = 0.074 MI  
LENGTH OF STRUCTURE TIP PROJECT B-4633 = 0.028 MI  
TOTAL LENGTH OF TIP PROJECT B-4633 = 0.102 MI

DESIGN EXCEPTION REQUIRED:  
DESIGN SPEED  
SAG VERT. CURVE

Prepared in the Office of:

**SEPI**  
ENGINEERING & CONSTRUCTION

1025 Wade Avenue  
Raleigh, NC 27605  
Tel: 919-789-9677  
Fax: 919-789-9591

FOR THE NORTH CAROLINA DEPT. OF TRANSPORTATION

2006 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:  
NOVEMBER, 2009

LETTING DATE:  
MARCH, 2010

STEVE SCOTT, PE  
PROJECT ENGINEER

AGNIESZKA NAU, PE  
ROADWAY PROJECT DESIGN ENGINEER

B. DOUG TAYLOR, PE  
NCDOT CONTACT

HYDRAULICS ENGINEER

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

ROADWAY DESIGN ENGINEER

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

DIVISION OF HIGHWAYS  
STATE OF NORTH CAROLINA

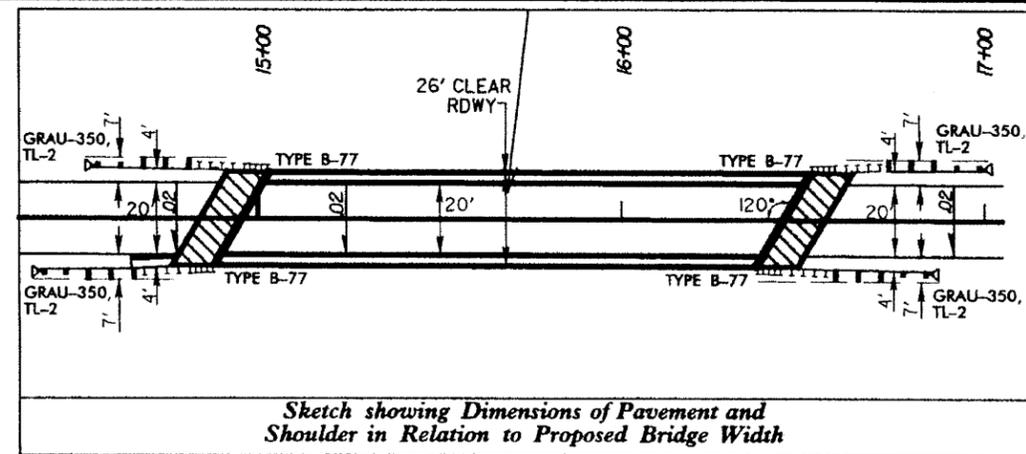
STATE HIGHWAY DESIGN ENGINEER

P.E.

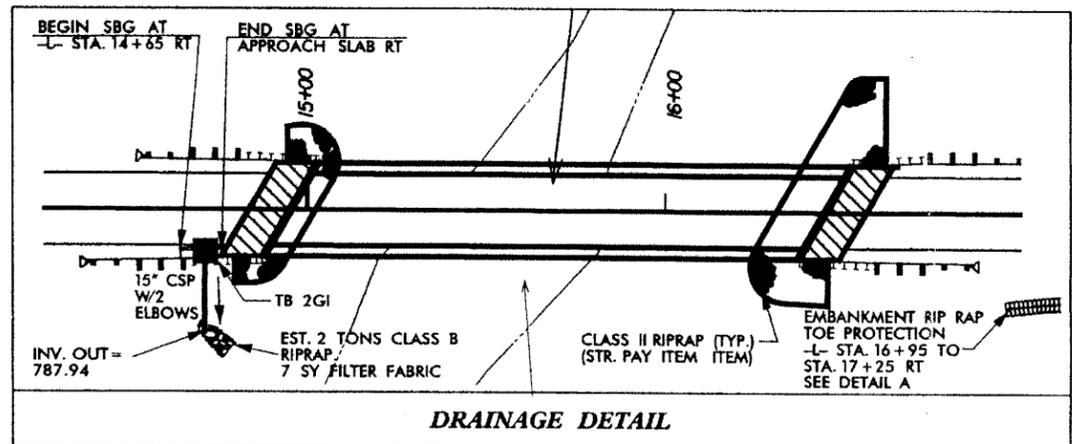
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Permit Drawing  
Sheet 5 of 10

5/14/99  
 ERMIT'S Environmental \Drawings\4633.HYD.prm:ps04.dgn

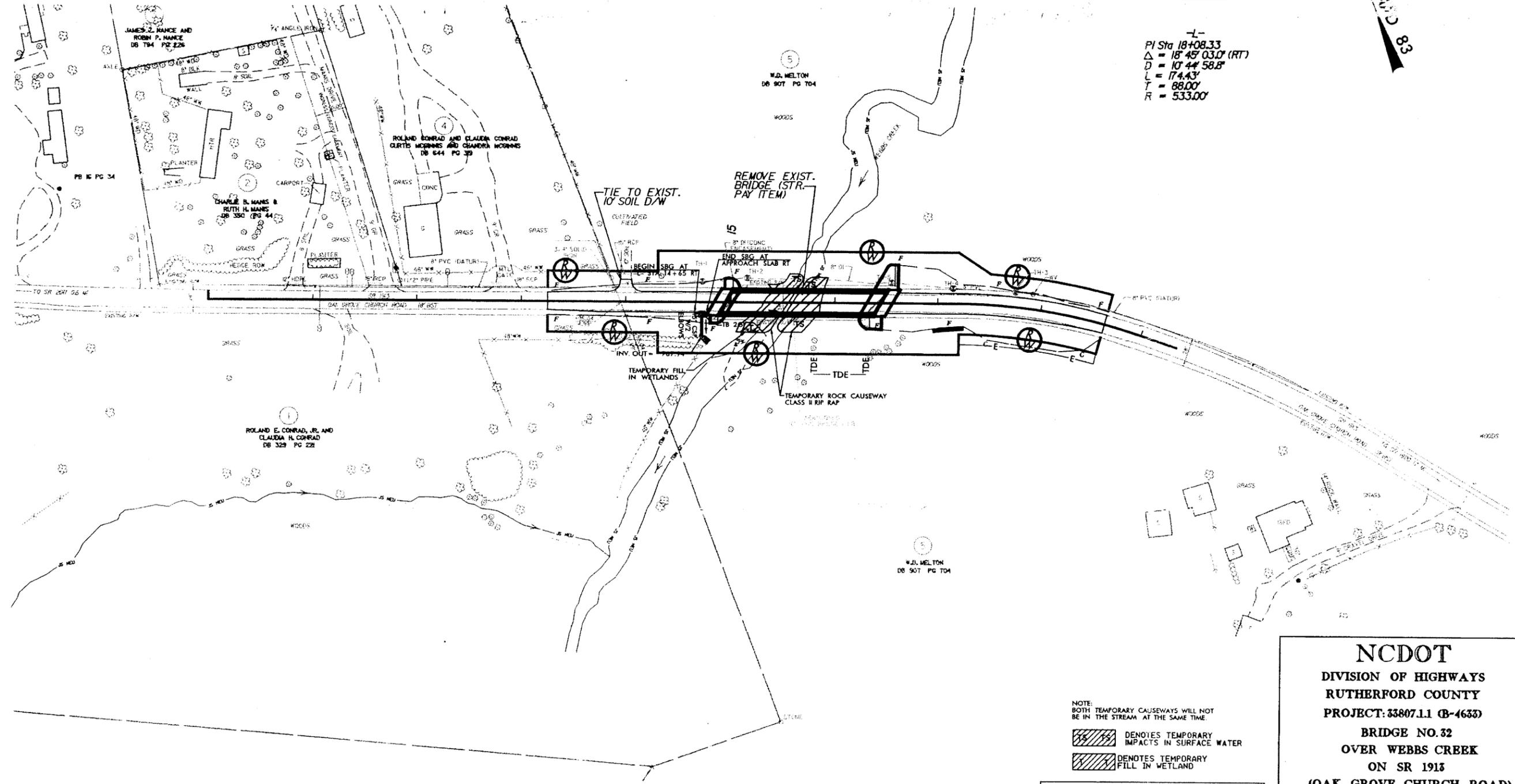
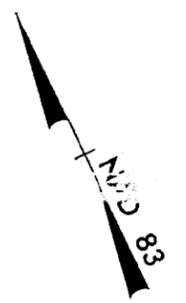


Sketch showing Dimensions of Pavement and Shoulder in Relation to Proposed Bridge Width



DRAINAGE DETAIL

PROJECT REFERENCE NO. B-4633	SHEET NO. 4
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	



-L-  
 PI Sta 18+08.33  
 $\Delta = 18^{\circ} 45' 03.0''$  (RT)  
 $D = 10^{\circ} 44' 58.8''$   
 $L = 174.43'$   
 $T = 88.00'$   
 $R = 533.00'$

- NOTE:  
 BOTH TEMPORARY CAUSEWAYS WILL NOT BE IN THE STREAM AT THE SAME TIME.
- DENOTES TEMPORARY IMPACTS IN SURFACE WATER
  - DENOTES TEMPORARY FILL IN WETLAND

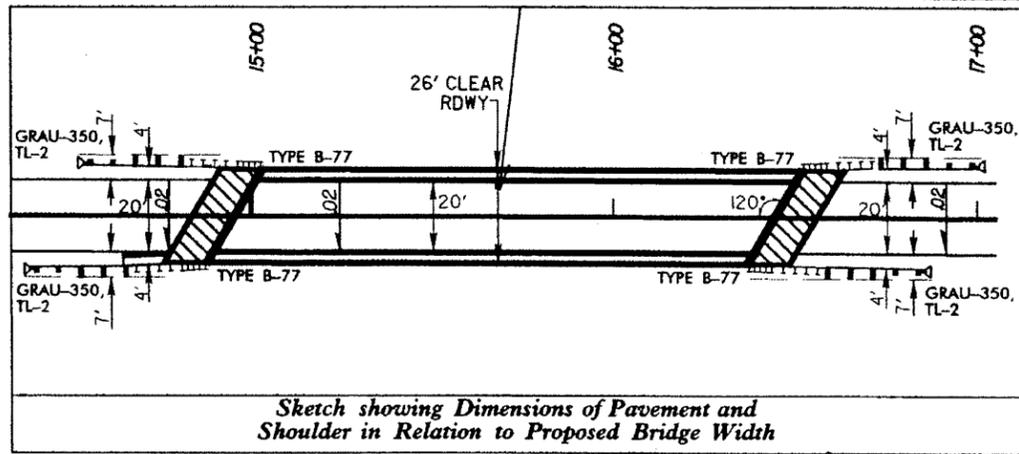
NOTE: SEE PLAN SHEET 5 FOR PROFILE

**NCDOT**  
 DIVISION OF HIGHWAYS  
 RUTHERFORD COUNTY  
 PROJECT: 33807.1.1 (B-4633)  
 BRIDGE NO. 32  
 OVER WEBBS CREEK  
 ON SR 1913  
 (OAK GROVE CHURCH ROAD)

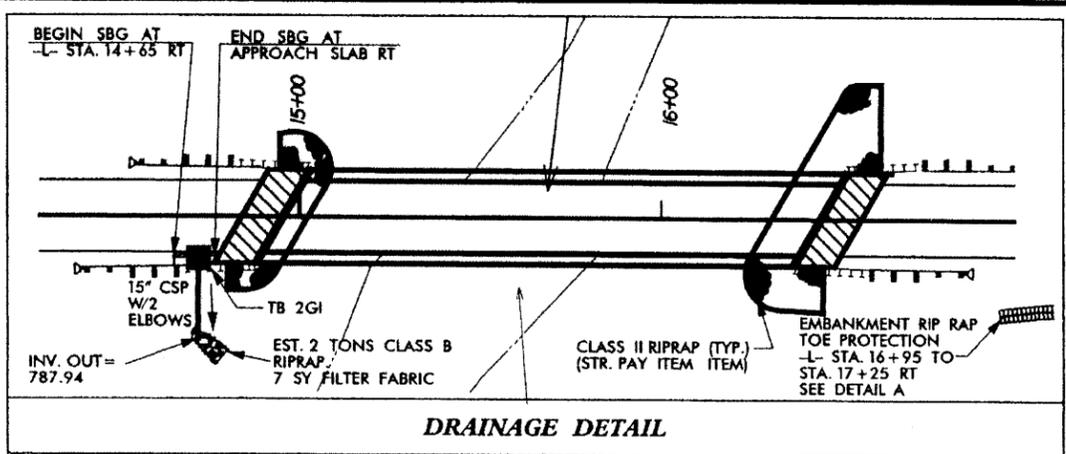
SHEET OF 10/19/09

Permit Drawing Sheet 6 of 10

5/11/09  
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 4/2/2009  
 Environmental

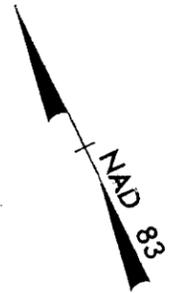


Sketch showing Dimensions of Pavement and Shoulder in Relation to Proposed Bridge Width

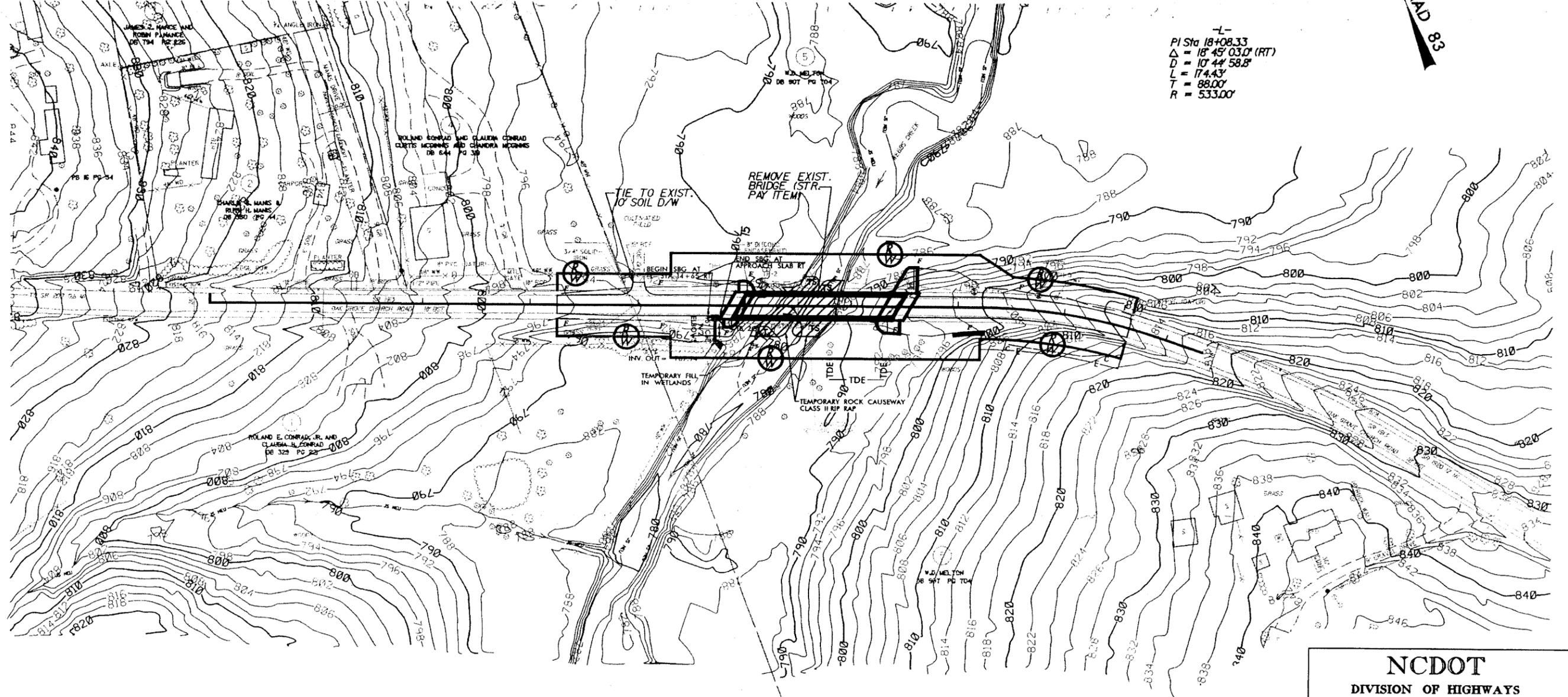


DRAINAGE DETAIL

PROJECT REFERENCE NO. B-4633		SHEET NO. 4	
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION			



-L-  
 PI Sta 18+08.33  
 $\Delta = 18^\circ 45' 03.0''$  (RT)  
 $D = 10' 44' 58.8''$   
 $L = 174.43'$   
 $T = 88.00'$   
 $R = 533.00'$



NOTE:  
 BOTH TEMPORARY CAUSEWAYS WILL NOT BE IN THE STREAM AT THE SAME TIME.  
 DENOTES TEMPORARY IMPACTS IN SURFACE WATER  
 DENOTES TEMPORARY FILL IN WETLAND

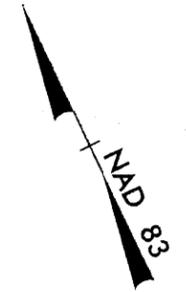
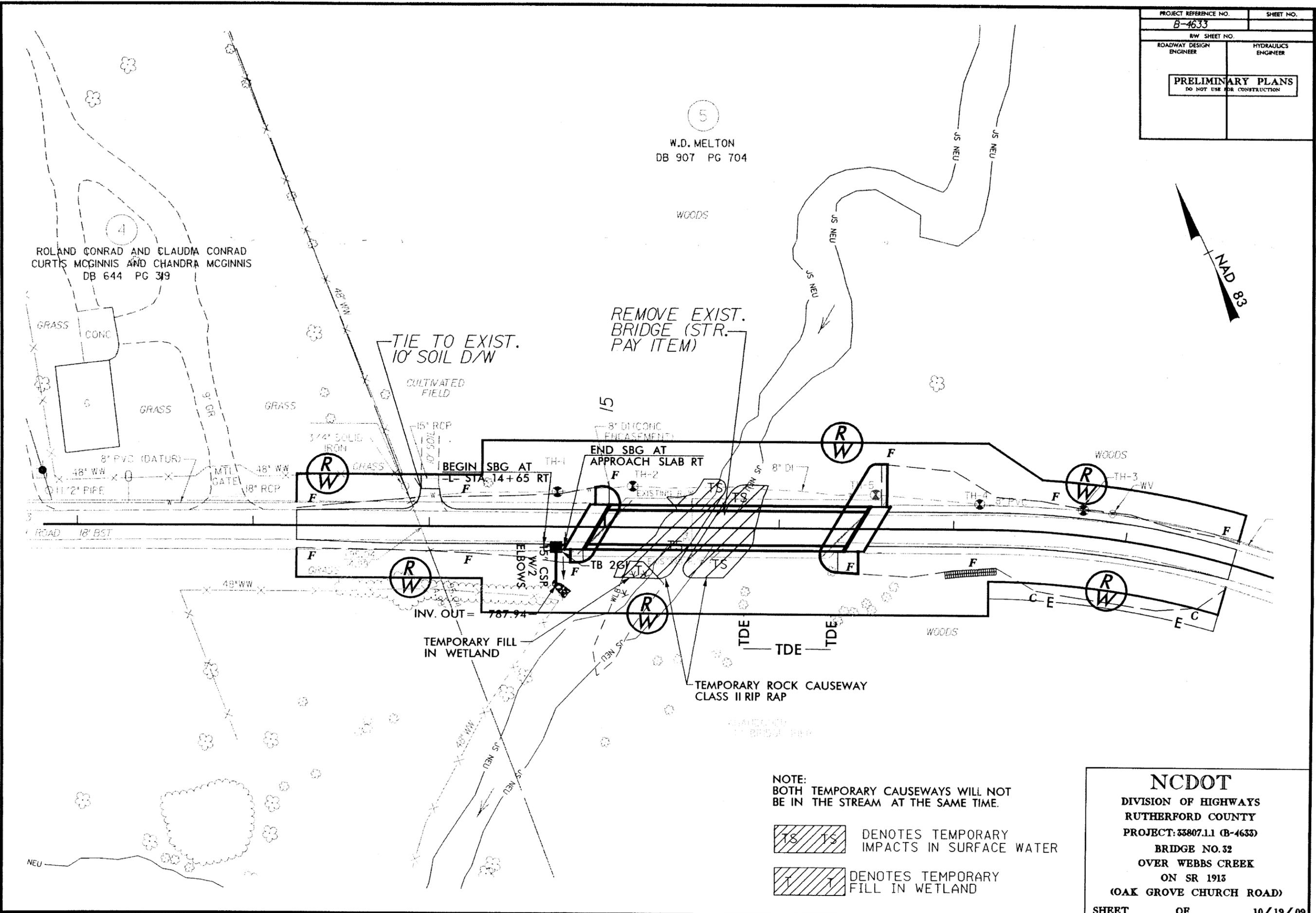
NOTE: SEE PLAN SHEET 5 FOR PROFILE

**NCDOT**  
 DIVISION OF HIGHWAYS  
 RUTHERFORD COUNTY  
 PROJECT: 53807.1.1 (B-4633)  
 BRIDGE NO. 32  
 OVER WEBBS CREEK  
 ON SR 1913  
 (OAK GROVE CHURCH ROAD)

Permit Drawing  
 Sheet 7 of 10

PROJECT REFERENCE NO. B-4633	SHEET NO.
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	

5/14/99  
TS\_EnvironmentalDrawings\B4633\_HYD\_orm.pat04\_50scale.dgn  
11/4/2009



**NOTE:**  
BOTH TEMPORARY CAUSEWAYS WILL NOT BE IN THE STREAM AT THE SAME TIME.

 DENOTES TEMPORARY IMPACTS IN SURFACE WATER

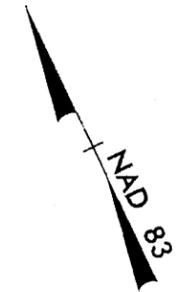
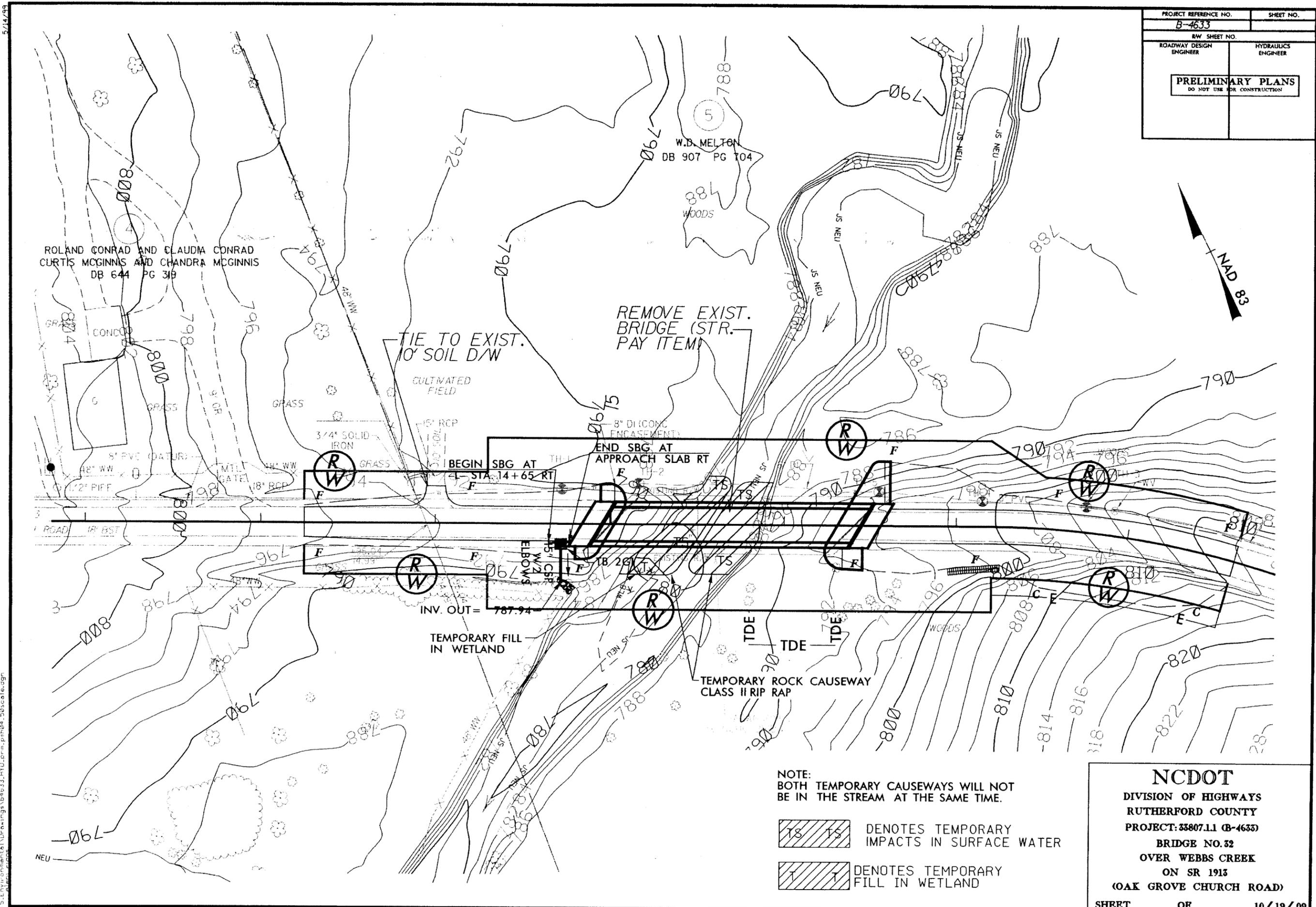
 DENOTES TEMPORARY FILL IN WETLAND

**NCDOT**  
DIVISION OF HIGHWAYS  
RUTHERFORD COUNTY  
PROJECT: 33807.1.1 (B-4633)  
BRIDGE NO. 32  
OVER WEBBS CREEK  
ON SR 1913  
(OAK GROVE CHURCH ROAD)

SHEET OF 10/19/09

Permit Drawing 8 of 10  
Sheet

PROJECT REFERENCE NO. B-4633	SHEET NO.
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	



NOTE:  
BOTH TEMPORARY CAUSEWAYS WILL NOT BE IN THE STREAM AT THE SAME TIME.

-  DENOTES TEMPORARY IMPACTS IN SURFACE WATER
-  DENOTES TEMPORARY FILL IN WETLAND

**NCDOT**  
DIVISION OF HIGHWAYS  
RUTHERFORD COUNTY  
PROJECT: 33807.11 (B-4633)  
BRIDGE NO. 52  
OVER WEBBS CREEK  
ON SR 1913  
(OAK GROVE CHURCH ROAD)

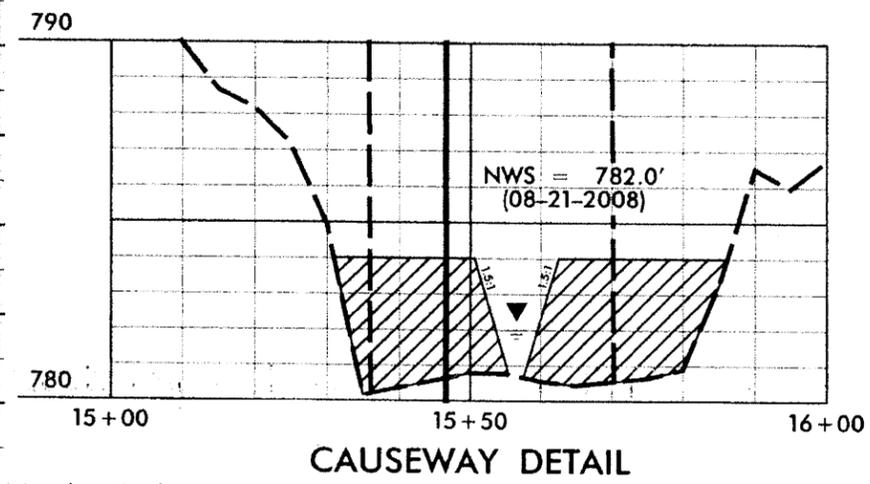
SHEET      OF      10/19/09

5/14/99  
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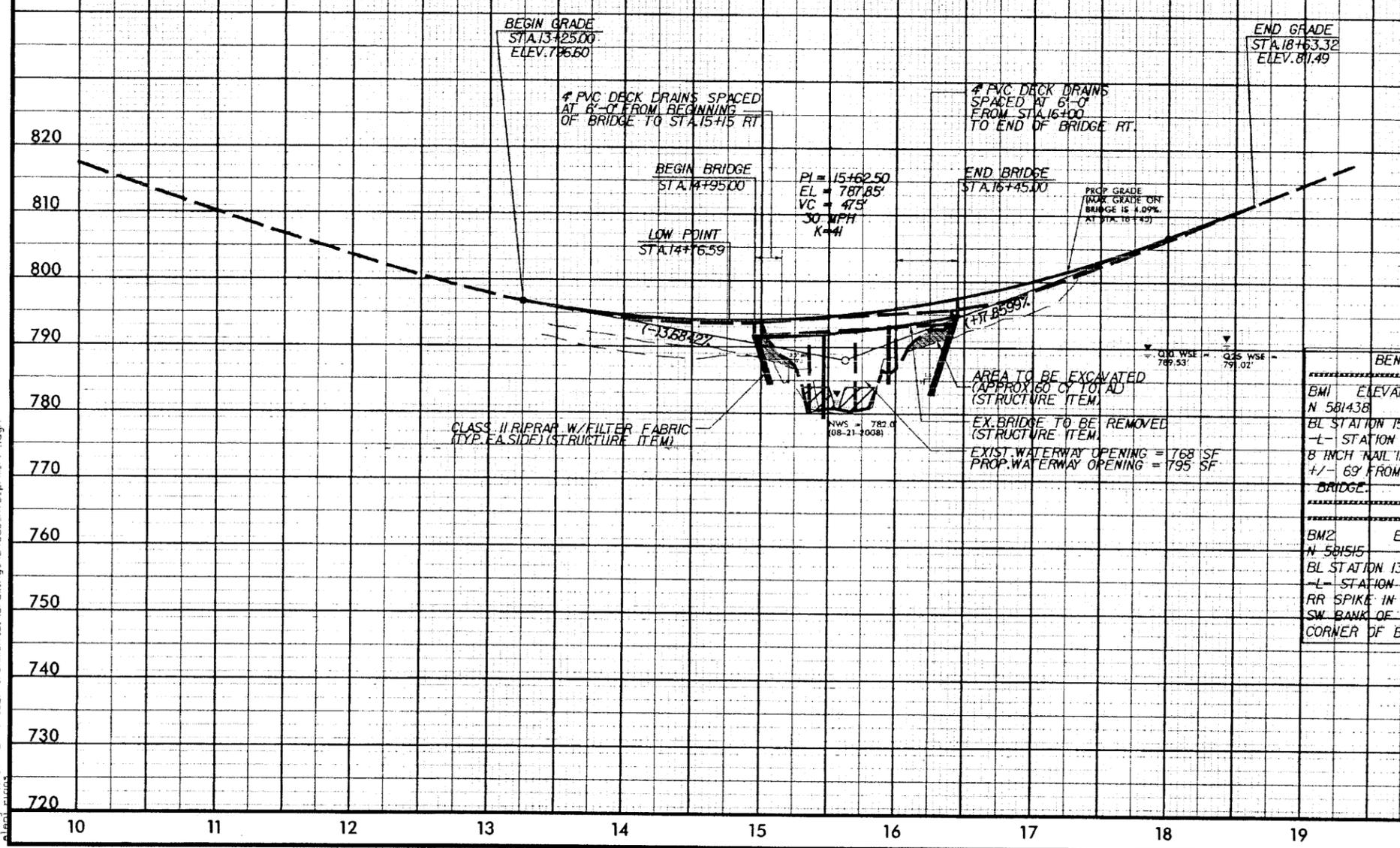
Permit Drawing  
Sheet 9 of 10

5/14/99

PROJECT REFERENCE NO. <b>B-4633</b>	SHEET NO.
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	



# -L-

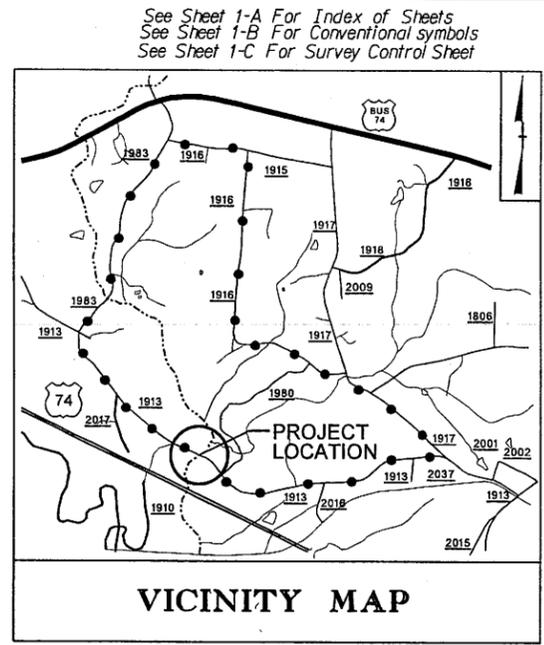


BENCHMARK DESCRIPTIONS	
BM1	ELEVATION = 798.43
N 581438	E 165109
BL STATION 15+99.00	792.7' RIGHT
-L- STATION 16+61.57	DIST. 67.68' RIGHT
8" INCH NAIL IN BASE OF 18" INCH OAK +/- 6" FROM THE SE CORNER OF BRIDGE.	
BM2	ELEVATION = 790.80
N 581515	E 164899
BL STATION 13+66.00	83.08' RIGHT
-L- STATION 14+35.45	DIST. 68.01' RIGHT
RR SPIKE IN BASE OF 46" INCH BIRCH ON SW BANK OF WEBB CK +/- 9' S OF SW CORNER OF BRIDGE.	

9/2/2009 10:05:10 AM \\P:\Projects\PERM\T.S.Environmental\Drawings\B-4633\_HYD.prm\_PFI.dgn

Permit Drawing

CONTRACT: TIP PROJECT: B-4633  
 SYSTEM TIME: 05/08/09  
 DGN: [unreadable]  
 USERNAME: [unreadable]

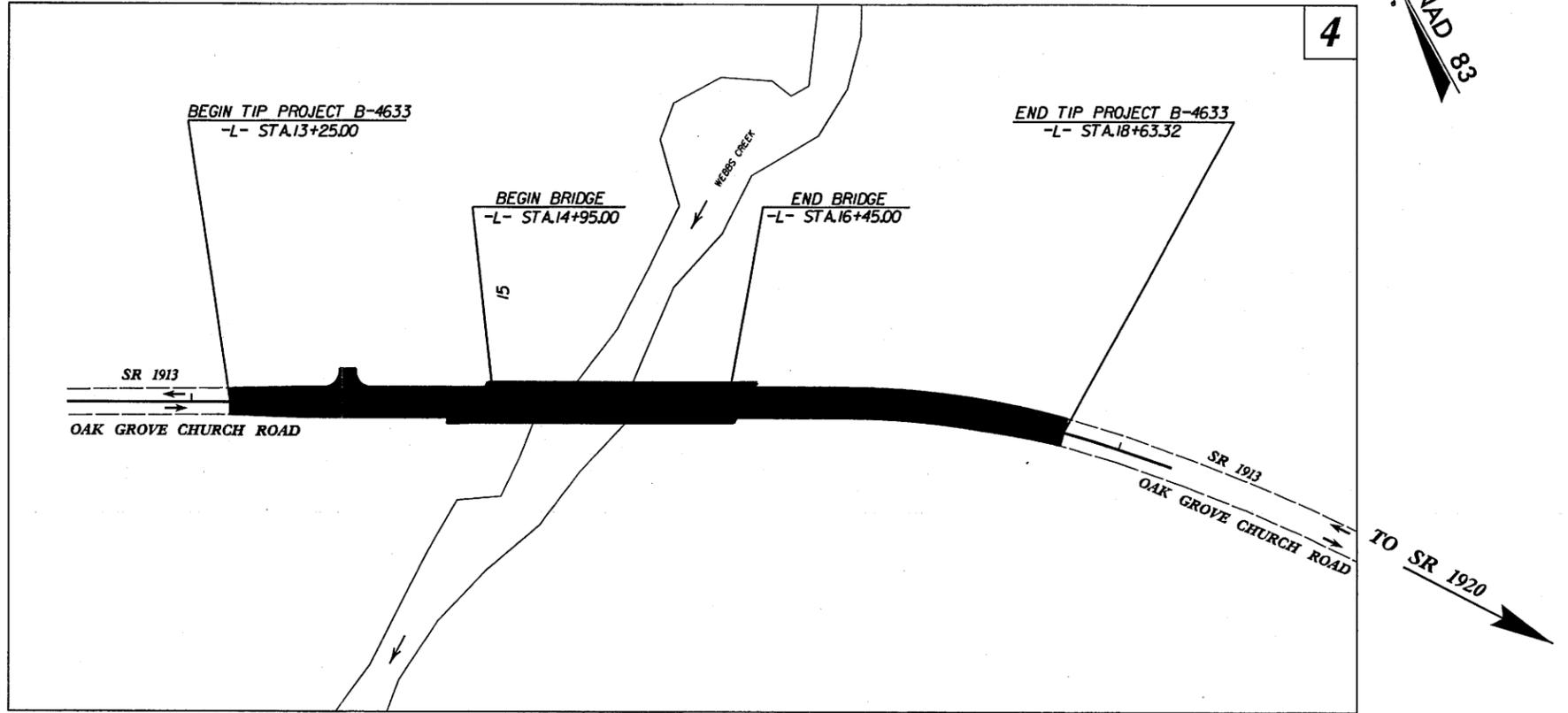


OFF-SITE DETOUR ROUTE ●●●●●●●●

STATE OF NORTH CAROLINA  
 DIVISION OF HIGHWAYS  
**RUTHERFORD COUNTY**

LOCATION: BRIDGE # 32 OVER WEBBS CREEK  
 ON SR 1913 (OAK GROVE CHURCH RD.)  
 TYPE OF WORK: GRADING, DRAINAGE, PAVING, STRUCTURE

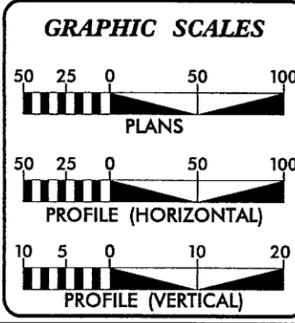
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-4633	I	
STATE PROJ. NO.	P.A. PROJ. NO.	DESCRIPTION	
33807.1.1	BRZ-1913(2)	PE	
33807.2.1	BRZ-1913(2)	RAW	



THIS PROJECT IS NOT WITHIN MUNICIPAL BOUNDARIES.  
 CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD II.

ENGINEERING GROUP

PRELIMINARY PLANS  
 DO NOT USE FOR CONSTRUCTION



DESIGN DATA

ADT 2012 = 500
ADT 2032 = 722
DHV = 10 %
D = 60 %
T = 3 % *
V = 40 MPH
FUNC CLASS = RURAL LOCAL
* TTST 1% DUAL 2%

PROJECT LENGTH

LENGTH OF ROADWAY TIP PROJECT B-4633 = 0.074 MI
LENGTH OF STRUCTURE TIP PROJECT B-4633 = 0.028 MI
TOTAL LENGTH OF TIP PROJECT B-4633 = 0.102 MI

DESIGN EXCEPTION REQUIRED:  
 DESIGN SPEED  
 SAG VERT. CURVE

Prepared In the Office of:

**SSEPI**  
 ENGINEERING & CONSTRUCTION  
 1025 Wade Avenue  
 Raleigh, NC 27605  
 Tel: 919-789-9977  
 Fax: 919-789-9591

FOR THE NORTH CAROLINA DEPT. OF TRANSPORTATION  
 2006 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:  
 NOVEMBER, 2009

LETTING DATE:  
 MARCH, 2010

STEVE SCOTT, PE  
 PROJECT ENGINEER

AGNIESZKA NAU, PE  
 ROADWAY PROJECT DESIGN ENGINEER

B. DOUG TAYLOR, PE  
 NCDOT CONTACT

HYDRAULICS ENGINEER

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

ROADWAY DESIGN ENGINEER

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

DIVISION OF HIGHWAYS  
 STATE OF NORTH CAROLINA

STATE HIGHWAY DESIGN ENGINEER P.E.

BL POINT	DESC.	NORTH	EAST	ELEVATION	L STATION	OFFSET
1	GPS1 (B4633-1)	581950.2410	1164129.2270	852.86	OUTSIDE PROJECTS LIMITS	
2	3 (BL-3)	581659.5790	1164735.4530	800.57	12+36.77	15.25' RT
3	GPS2 (B4633-2)	581507.2540	1165149.7900	796.38	16+77.36	12.36' LT
4	5 (BL-5)	581275.7500	1165456.5600	825.99	OUTSIDE PROJECTS LIMITS	

**PRELIMINARY PLANS**  
DO NOT USE FOR CONSTRUCTION

**INCOMPLETE PLANS**  
DO NOT USE FOR R/W ACQUISITION

**BENCHMARK DESCRIPTIONS**

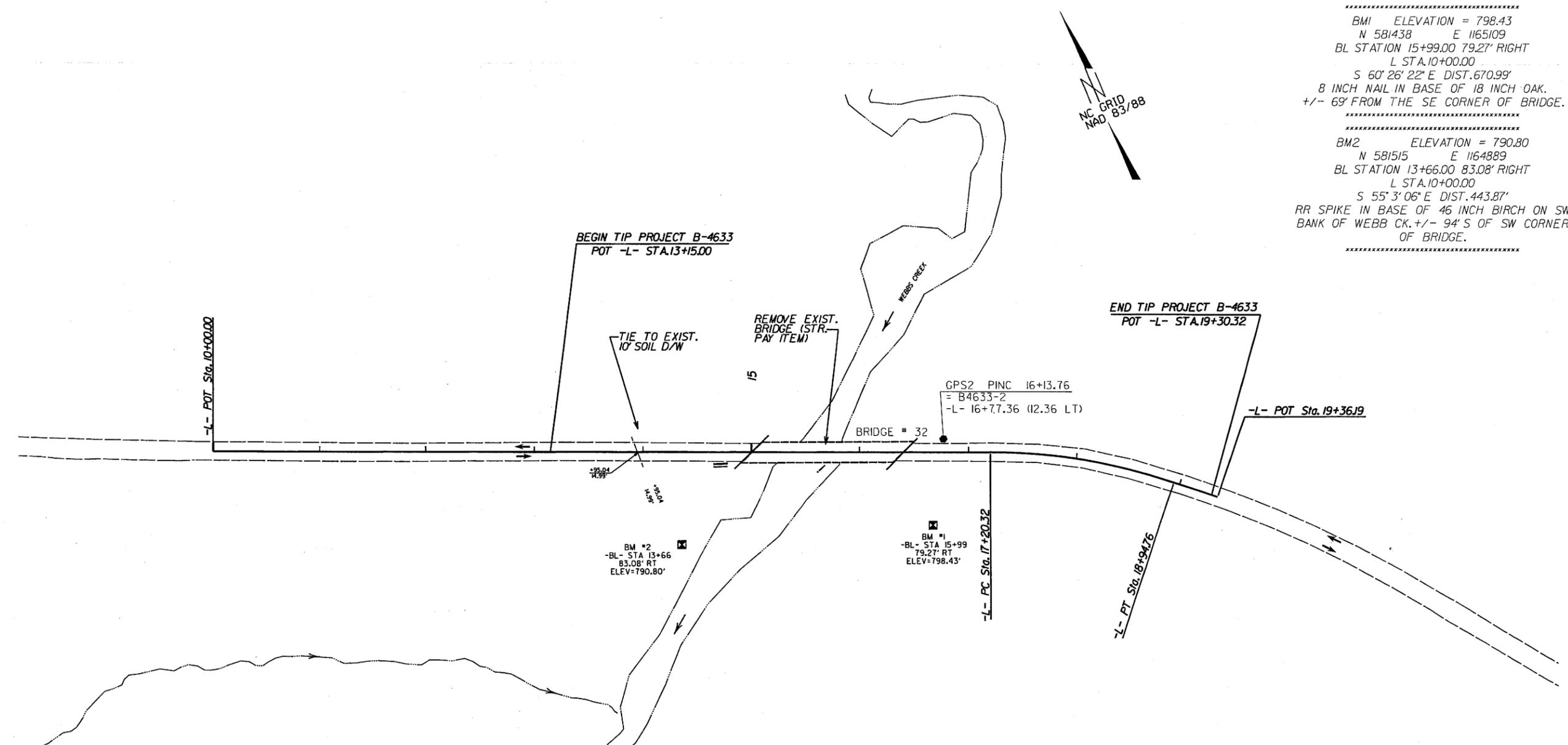
\*\*\*\*\*

BM1 ELEVATION = 798.43  
N 581438 E 1165109  
BL STATION 15+99.00 79.27' RIGHT  
L STA.10+00.00  
S 60° 26' 22" E DIST.670.99'  
8 INCH NAIL IN BASE OF 18 INCH OAK.  
+/- 69' FROM THE SE CORNER OF BRIDGE.

\*\*\*\*\*

BM2 ELEVATION = 790.80  
N 581515 E 1164889  
BL STATION 13+66.00 83.08' RIGHT  
L STA.10+00.00  
S 55° 3' 06" E DIST.443.87'  
RR SPIKE IN BASE OF 46 INCH BIRCH ON SW BANK OF WEBB CK. +/- 94' S OF SW CORNER OF BRIDGE.

\*\*\*\*\*

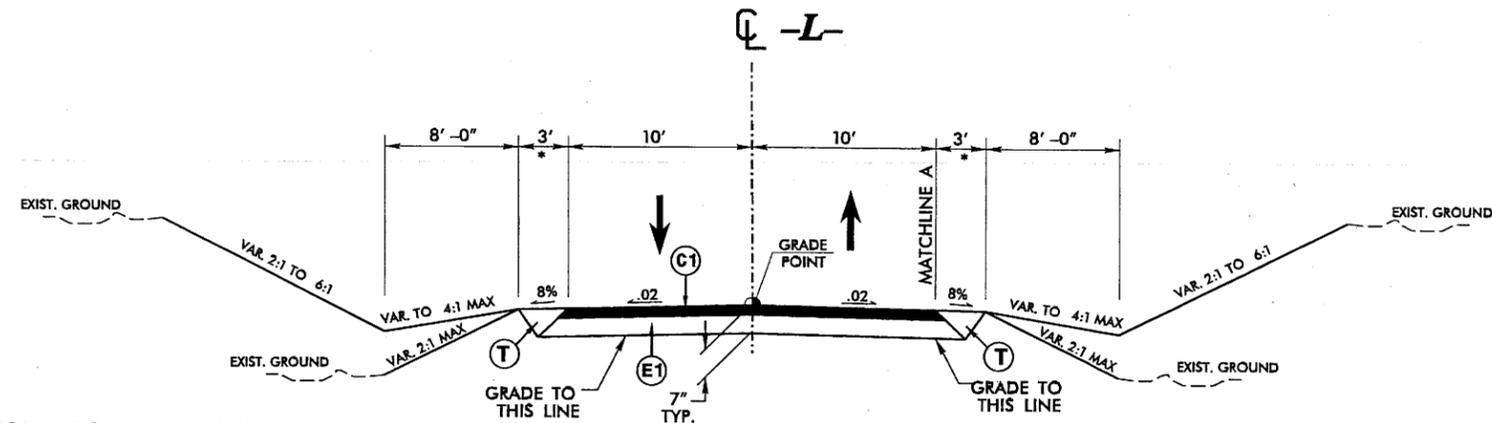


**DATUM DESCRIPTION**

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE NAD83 STATE PLANE COORDINATES FOR THE NCDOT GPS MONUMENT B4633-1 WITH A NORTHING OF 581950.2410, EASTING OF 1164129.2270 THE AVERAGE COMBINED FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS 0.999838875. THE NC LAMBERT GRID BEARING AND DISTANCE FROM B4633-1 TO -L- STA. 10+00.00 IS N 65° 23' 16" W FOR 435.23' ALL LINEAR DISTANCES ARE LOCALIZED HORIZONTAL DISTANCES. THE VERTICAL DATUM IS BASED ON NCDOT GPS MONUMENT B4633-1 (ELEV.852.86') (NAVD 88).

NOTE: DRAWING NOT TO SCALE

PROJECT REFERENCE NO. <b>B-4633</b>	SHEET NO. <b>2</b>
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	



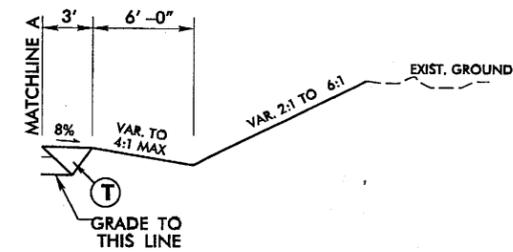
\* ADD 4' TO SHOULDERS FOR GUARDRAIL

**TYPICAL SECTION NO. 1**

-L- STA. 13+25.00 TO STA. 14+95.00 (BEGIN BRIDGE)  
 -L- STA. 16+45.00 (END BRIDGE) TO STA. 18+63.32

PAVEMENT SCHEDULE	
<b>C1</b>	PROP. APPROX. 2½" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 112 LBS. PER SQ. YD. PER 1" OF DEPTH. TO BE PLACED IN LAYERS NOT TO EXCEED 1½" IN DEPTH.
<b>E1</b>	PROP. APPROX. 4½" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 513 LBS. PER SQ. YD.
<b>T</b>	EARTH MATERIAL.

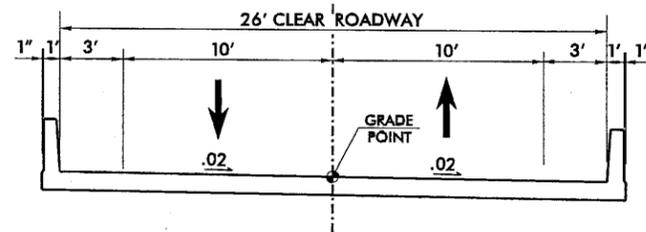
NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE



**PARTIAL TYPICAL SECTION 1A**  
 USE WITH TS# 1

-L- STA. 17+50.00 TO 18+63.32 RT

**-L- BRIDGE**



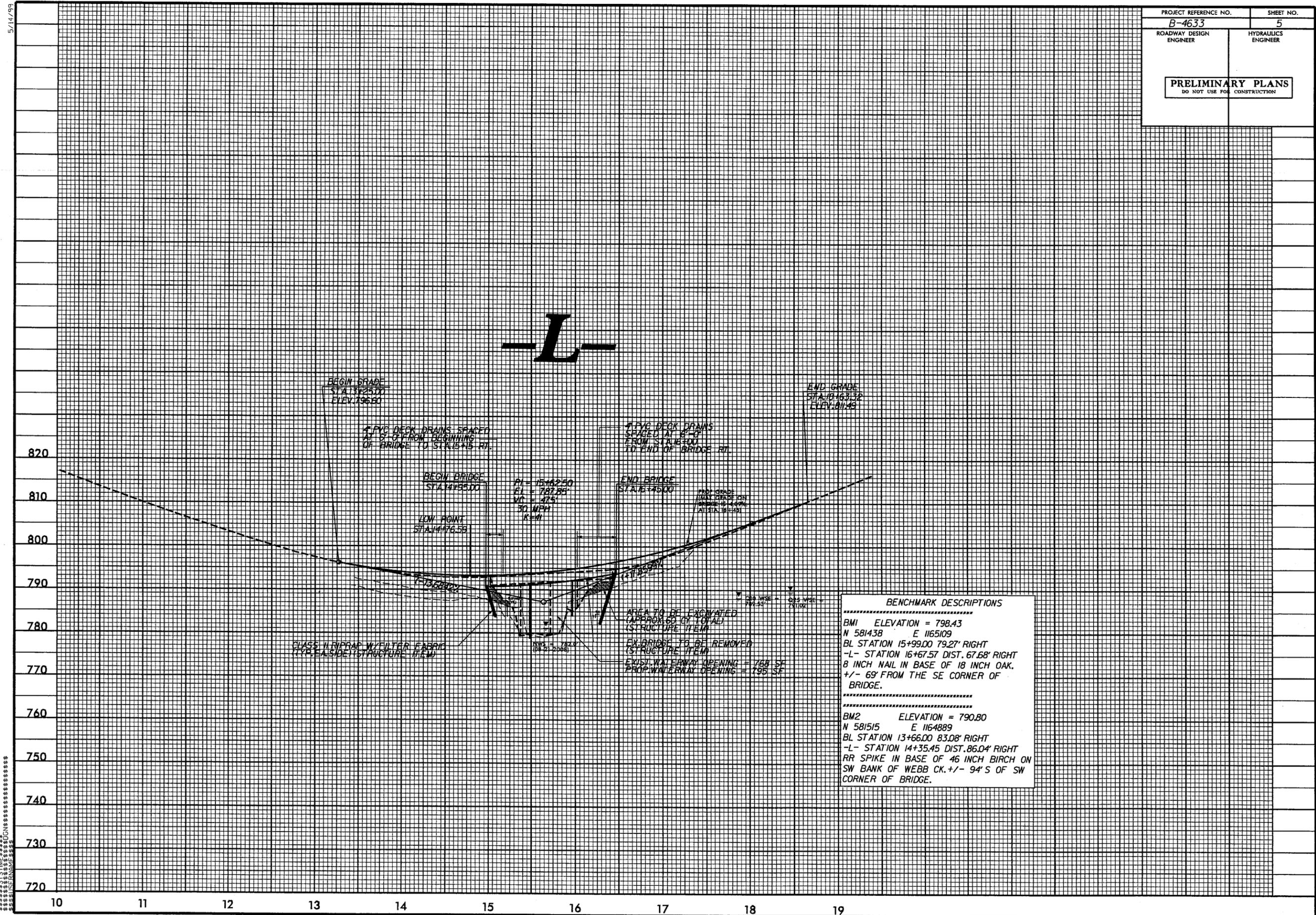
**TYPICAL SECTION NO. 2**

-L- STA. 14+95.00 (BEGIN BRIDGE) TO -L STA. 16+45.00 (END BRIDGE)

6/2/94  
 SYSTEMS DESIGN

5/14/99

PROJECT REFERENCE NO. <b>B-4633</b>	SHEET NO. <b>5</b>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	



**BENCHMARK DESCRIPTIONS**

\*\*\*\*\*

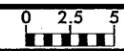
BM1 ELEVATION = 798.43  
 N 581438 E 1165109  
 BL STATION 15+99.00 79.27' RIGHT  
 -L- STATION 16+67.57 DIST. 67.68' RIGHT  
 8 INCH NAIL IN BASE OF 18 INCH OAK.  
 +/- 69' FROM THE SE CORNER OF  
 BRIDGE.

\*\*\*\*\*

BM2 ELEVATION = 790.80  
 N 581515 E 1164889  
 BL STATION 13+66.00 83.08' RIGHT  
 -L- STATION 14+35.45 DIST. 86.04' RIGHT  
 RR SPIKE IN BASE OF 46 INCH BIRCH ON  
 SW BANK OF WEBB CK. +/- 94'S OF SW  
 CORNER OF BRIDGE.

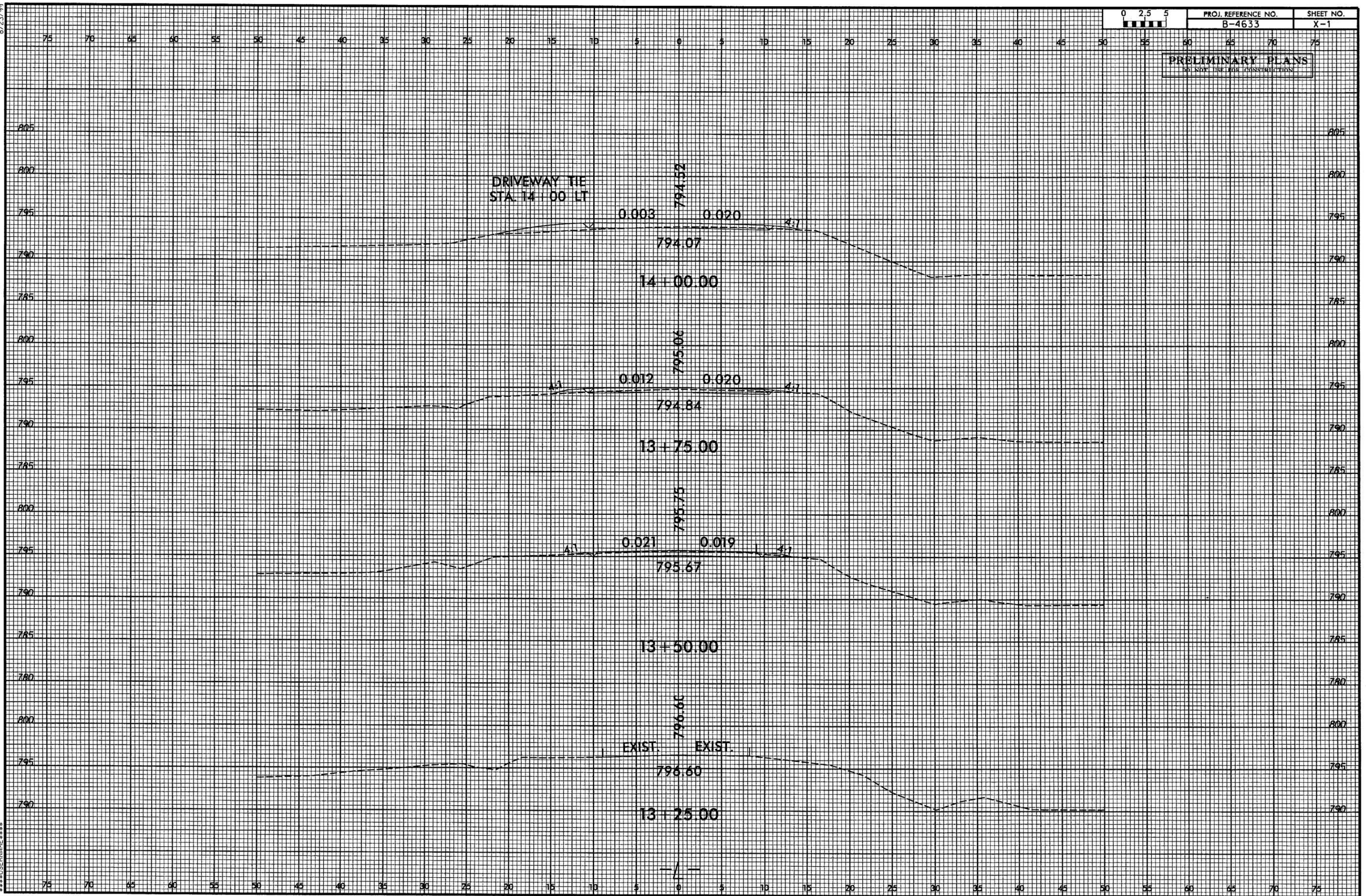
SYSTEMS & SOLUTIONS

8/23/99



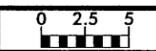
PROJ. REFERENCE NO. B-4633 SHEET NO. X-1

PRELIMINARY PLANS  
DO NOT USE FOR CONSTRUCTION

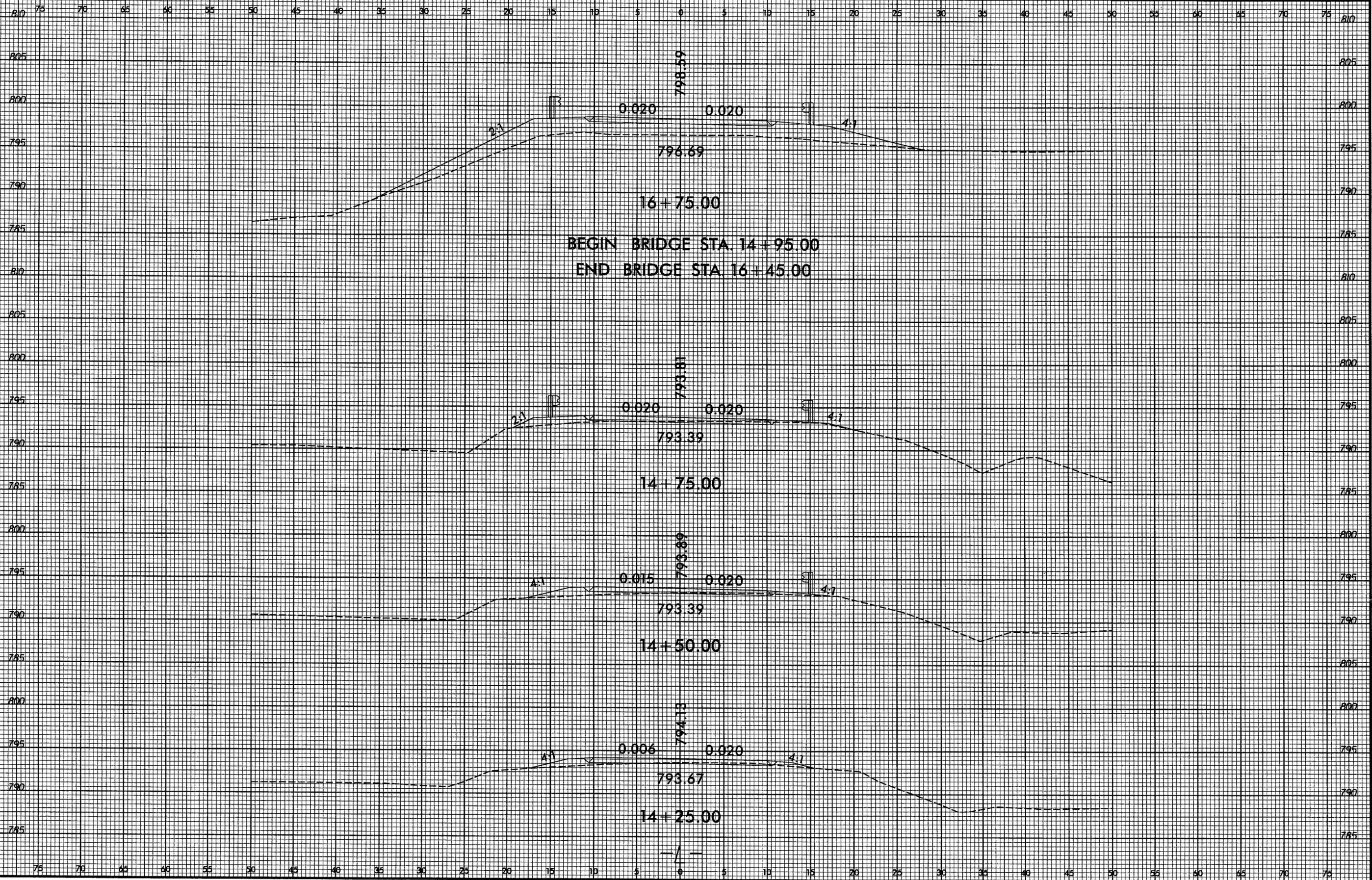


\*\*\*\*\*  
CUSTOMER'S USE ONLY  
\*\*\*\*\*

8/23/99



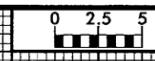
PROJ. REFERENCE NO.	SHEET NO.
B-4633	X-2



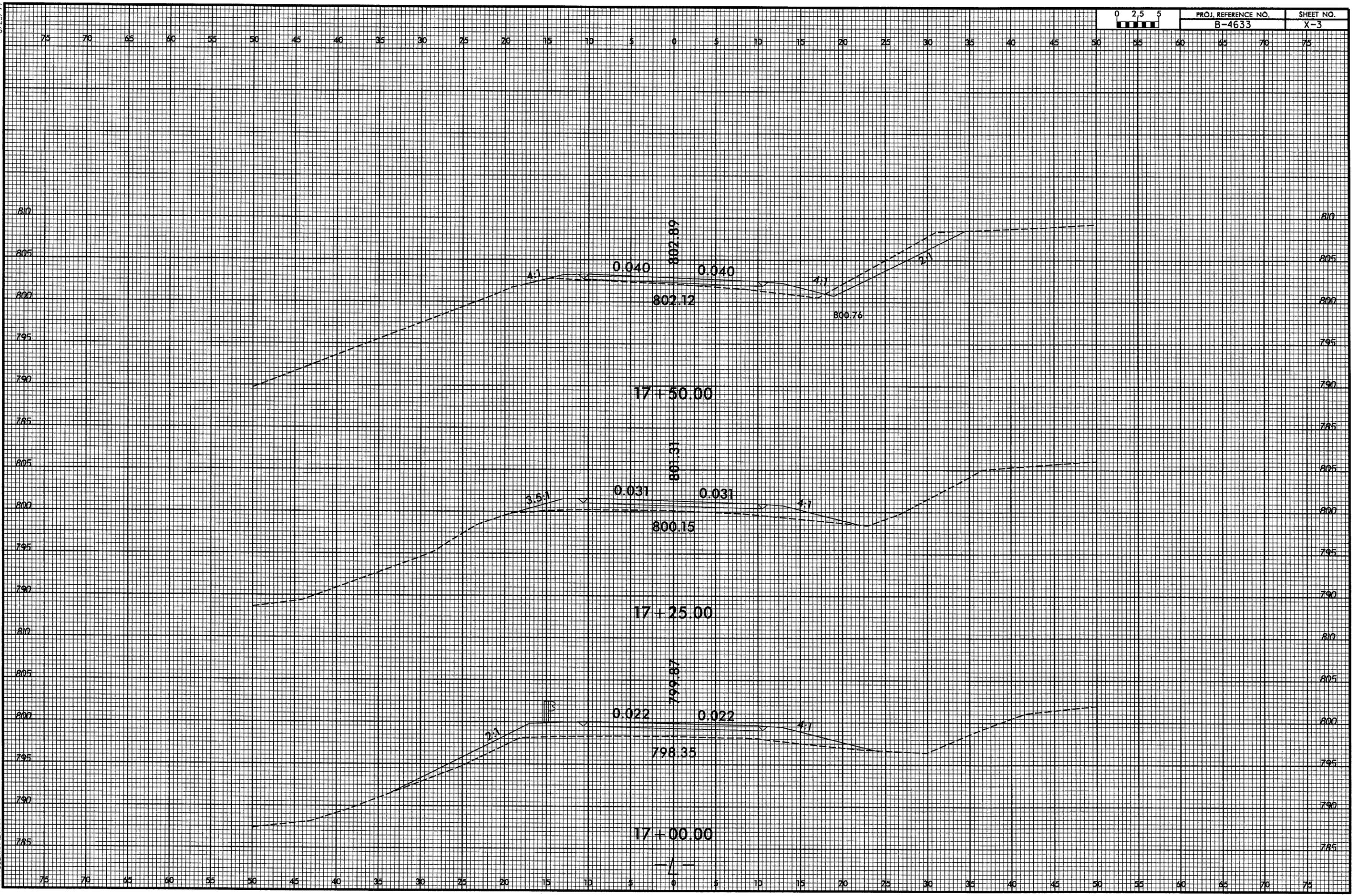
BEGIN BRIDGE STA. 14+95.00  
 END BRIDGE STA. 16+45.00

\$\$\$\$\$SYTIME\$\$\$\$\$  
 \$\$\$SUBSYSTEM\$\$\$\$\$  
 \$\$\$SUBSYSTEM\$\$\$\$\$

8/23/99



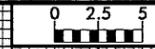
PROJ. REFERENCE NO.	SHEET NO.
B-4633	X-3



\$\$\$\$SYTIME\$\$\$\$  
 \$\$\$SDON\$\$\$\$  
 \$\$\$SUSR\$\$\$\$

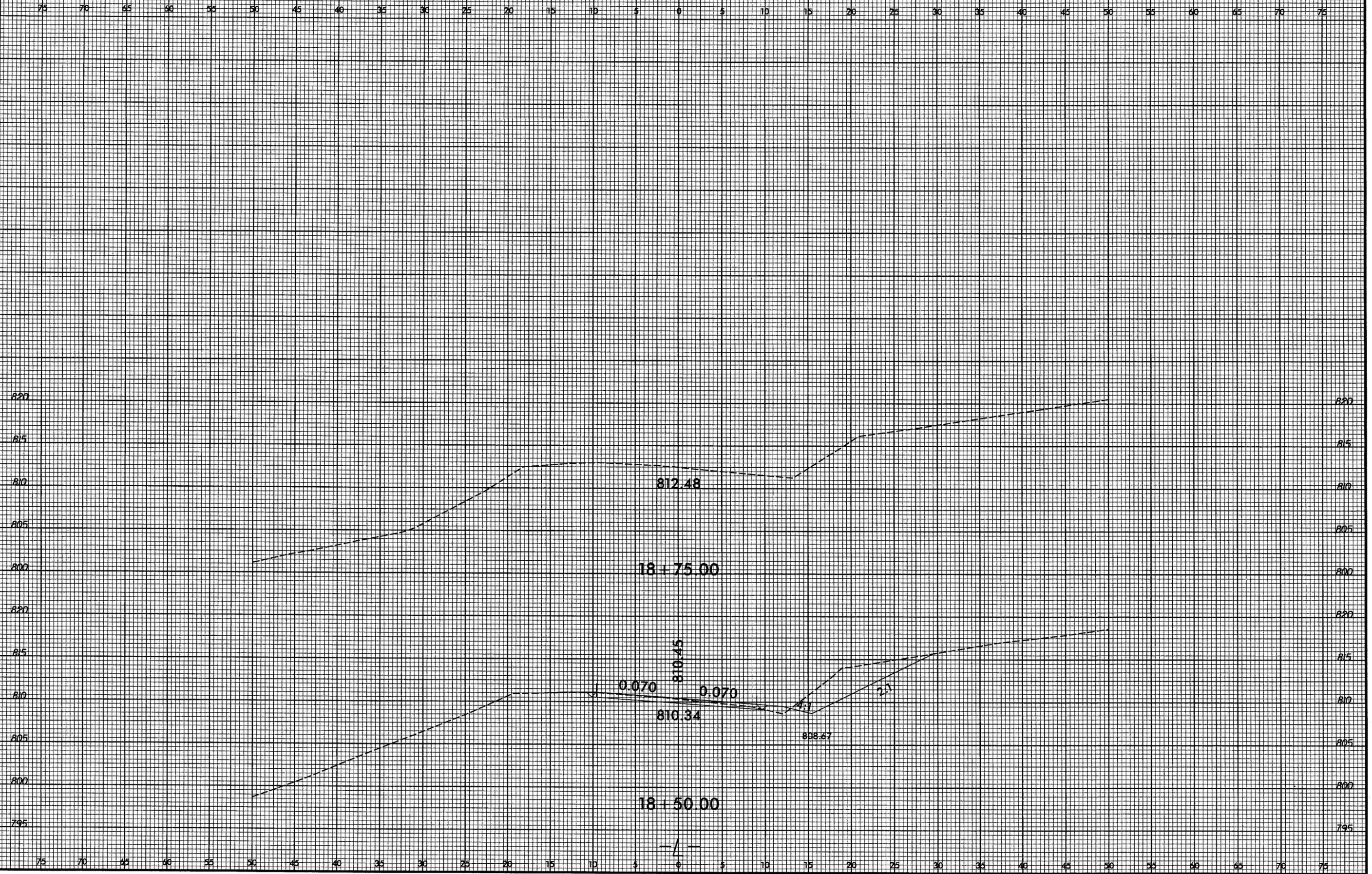


B.23/99



PROJ. REFERENCE NO.  
B-4633

SHEET NO.  
X-5



\*\*\*\*\*SYSTEM\*\*\*\*\*  
\*\*\*\*\*SERIAL\*\*\*\*\*  
\*\*\*\*\*TIME\*\*\*\*\*

**APPROVED JURISDICTIONAL DETERMINATION FORM**  
**U.S. Army Corps of Engineers**

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

**SECTION I: BACKGROUND INFORMATION**

**A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD):**

**B. DISTRICT OFFICE, FILE NAME, AND NUMBER: B-4633 (Replacement of Bridge 32 on SR 1913 over Webb's Creek)**

**C. PROJECT LOCATION AND BACKGROUND INFORMATION:**

State: NC County/parish/borough: Rutherford City: Forest City  
Center coordinates of site (lat/long in degree decimal format): Lat. 35.315528° **N**, Long. -81.799371° **W**.  
Universal Transverse Mercator:

Name of nearest waterbody: Webb's Creek

Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Second Broad River

Name of watershed or Hydrologic Unit Code (HUC): 03050105

Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.

Check if other sites (e.g., offsite mitigation sites, disposal sites, etc...) are associated with this action and are recorded on a different JD form.

**D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):**

Office (Desk) Determination. Date:

Field Determination. Date(s): 10/19/2009

**SECTION II: SUMMARY OF FINDINGS**

**A. RHA SECTION 10 DETERMINATION OF JURISDICTION.**

There **Are** "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [Required]

Waters subject to the ebb and flow of the tide.

Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.

Explain: Webb's Creek is large enough for navigation use in some areas.

**B. CWA SECTION 404 DETERMINATION OF JURISDICTION.**

There **Are** "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [Required]

**1. Waters of the U.S.**

**a. Indicate presence of waters of U.S. in review area (check all that apply):<sup>1</sup>**

TNWs, including territorial seas

Wetlands adjacent to TNWs

Relatively permanent waters<sup>2</sup> (RPWs) that flow directly or indirectly into TNWs

Non-RPWs that flow directly or indirectly into TNWs

Wetlands directly abutting RPWs that flow directly or indirectly into TNWs

Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs

Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs

Impoundments of jurisdictional waters

Isolated (interstate or intrastate) waters, including isolated wetlands

**b. Identify (estimate) size of waters of the U.S. in the review area:**

Non-wetland waters: 80 linear feet: 12 width (ft) and/or acres.

Wetlands: 0.03 acres.

**c. Limits (boundaries) of jurisdiction based on: Not Applicable.**

Elevation of established OHWM (if known):

**2. Non-regulated waters/wetlands (check if applicable):<sup>3</sup>**

Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.

Explain:

<sup>1</sup> Boxes checked below shall be supported by completing the appropriate sections in Section III below.

<sup>2</sup> For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).

<sup>3</sup> Supporting documentation is presented in Section III.F.

## SECTION III: CWA ANALYSIS

### A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

#### 1. TNW

Identify TNW: .

Summarize rationale supporting determination: .

#### 2. Wetland adjacent to TNW

Summarize rationale supporting conclusion that wetland is "adjacent": .

### B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody<sup>4</sup> is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

#### 1. Characteristics of non-TNWs that flow directly or indirectly into TNW

##### (i) General Area Conditions:

Watershed size: 10.5 square miles  
Drainage area: 14.35 square miles  
Average annual rainfall: 50 inches  
Average annual snowfall: 5.5 inches

##### (ii) Physical Characteristics:

###### (a) Relationship with TNW:

- Tributary flows directly into TNW.  
 Tributary flows through 10 (or more) tributaries before entering TNW.

Project waters are 1 (or less) river miles from TNW.  
Project waters are Pick List river miles from RPW.  
Project waters are Pick List aerial (straight) miles from TNW.  
Project waters are Pick List aerial (straight) miles from RPW.  
Project waters cross or serve as state boundaries. Explain:

Identify flow route to TNW<sup>5</sup>: 3,000 feet downstream to the Second Broad River.  
Tributary stream order, if known:

<sup>4</sup> Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.

<sup>5</sup> Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

(b) General Tributary Characteristics (check all that apply):

Tributary is:  Natural  
 Artificial (man-made). Explain:  
 Manipulated (man-altered). Explain:

Tributary properties with respect to top of bank (estimate):

Average width: 12 feet  
Average depth: 1 feet  
Average side slopes: **3:1**.

Primary tributary substrate composition (check all that apply):

Silts  Sands  Concrete  
 Cobbles  Gravel  Muck  
 Bedrock  Vegetation. Type/% cover:  
 Other. Explain:

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain:

Presence of run/riffle/pool complexes. Explain:

Tributary geometry: **Meandering**

Tributary gradient (approximate average slope): %

(c) Flow:

Tributary provides for: **Seasonal flow**

Estimate average number of flow events in review area/year: **20 (or greater)**

Describe flow regime:

Other information on duration and volume:

Surface flow is: **Pick List**. Characteristics:

Subsurface flow: **Unknown**. Explain findings:

Dye (or other) test performed:

Tributary has (check all that apply):

Bed and banks  
 OHWM<sup>6</sup> (check all indicators that apply):  
 clear, natural line impressed on the bank  the presence of litter and debris  
 changes in the character of soil  destruction of terrestrial vegetation  
 shelving  the presence of wrack line  
 vegetation matted down, bent, or absent  sediment sorting  
 leaf litter disturbed or washed away  scour  
 sediment deposition  multiple observed or predicted flow events  
 water staining  abrupt change in plant community  
 other (list):  
 Discontinuous OHWM.<sup>7</sup> Explain:

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

High Tide Line indicated by:  Mean High Water Mark indicated by:  
 oil or scum line along shore objects  survey to available datum;  
 fine shell or debris deposits (foreshore)  physical markings;  
 physical markings/characteristics  vegetation lines/changes in vegetation types.  
 tidal gauges  
 other (list):

(iii) Chemical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).

Explain:

Identify specific pollutants, if known:

<sup>6</sup>A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.

<sup>7</sup>Ibid.

(iv) **Biological Characteristics. Channel supports (check all that apply):**

- Riparian corridor. Characteristics (type, average width):
- Wetland fringe. Characteristics:
- Habitat for:
  - Federally Listed species. Explain findings:
  - Fish/spawn areas. Explain findings:
  - Other environmentally-sensitive species. Explain findings:
  - Aquatic/wildlife diversity. Explain findings:

2. **Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW**

(i) **Physical Characteristics:**

(a) General Wetland Characteristics:

Properties:

Wetland size:        acres

Wetland type. Explain:

Wetland quality. Explain:

Project wetlands cross or serve as state boundaries. Explain:

(b) General Flow Relationship with Non-TNW:

Flow is: **Intermittent flow**. Explain:

Surface flow is: **Discrete and confined**

Characteristics:

Subsurface flow: **Unknown**. Explain findings:

Dye (or other) test performed:

(c) Wetland Adjacency Determination with Non-TNW:

Directly abutting

Not directly abutting

Discrete wetland hydrologic connection. Explain:

Ecological connection. Explain:

Separated by berm/barrier. Explain:

(d) Proximity (Relationship) to TNW

Project wetlands are **30 (or more)** river miles from TNW.

Project waters are **30 (or more)** aerial (straight) miles from TNW.

Flow is from: **Wetland to/from navigable waters**.

Estimate approximate location of wetland as within the **500-year or greater** floodplain.

(ii) **Chemical Characteristics:**

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain:

Identify specific pollutants, if known:

(iii) **Biological Characteristics. Wetland supports (check all that apply):**

Riparian buffer. Characteristics (type, average width):

Vegetation type/percent cover. Explain:

Habitat for:

Federally Listed species. Explain findings:

Fish/spawn areas. Explain findings:

Other environmentally-sensitive species. Explain findings:

Aquatic/wildlife diversity. Explain findings:

3. **Characteristics of all wetlands adjacent to the tributary (if any)**

All wetland(s) being considered in the cumulative analysis: **30 (or more)**

Approximately (        ) acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

<u>Directly abuts? (Y/N)</u>	<u>Size (in acres)</u>	<u>Directly abuts? (Y/N)</u>	<u>Size (in acres)</u>
	0.03		

Summarize overall biological, chemical and physical functions being performed:

### C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

**Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:**

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D:
2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:
3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:

### D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:  
 TNWs: linear feet width (ft), Or, acres.  
 Wetlands adjacent to TNWs: acres.
2. **RPWs that flow directly or indirectly into TNWs.**  
 Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: Flow is constant year-round.  
 Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally:

Provide estimates for jurisdictional waters in the review area (check all that apply):

- Tributary waters: **80** linear feet **12** width (ft).  
 Other non-wetland waters:            acres.  
Identify type(s) of waters:            .

**3. Non-RPWs<sup>8</sup> that flow directly or indirectly into TNWs.**

- Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional waters within the review area (check all that apply):

- Tributary waters:            linear feet            width (ft).  
 Other non-wetland waters:            acres.  
Identify type(s) of waters:            .

**4. Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.**

- Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.  
 Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: **Wetland is adjacent and abutting Webb's Creek.**  
 Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW:

Provide acreage estimates for jurisdictional wetlands in the review area: **0.03** acres.

**5. Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.**

- Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area:            acres.

**6. Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.**

- Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area:            acres.

**7. Impoundments of jurisdictional waters.<sup>9</sup>**

As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.

- Demonstrate that impoundment was created from "waters of the U.S.," or  
 Demonstrate that water meets the criteria for one of the categories presented above (1-6), or  
 Demonstrate that water is isolated with a nexus to commerce (see E below).

**E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):<sup>10</sup>**

- which are or could be used by interstate or foreign travelers for recreational or other purposes.  
 from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.  
 which are or could be used for industrial purposes by industries in interstate commerce.  
 Interstate isolated waters. Explain:            .  
 Other factors. Explain:            .

**Identify water body and summarize rationale supporting determination:**            .

<sup>8</sup>See Footnote # 3.

<sup>9</sup>To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

<sup>10</sup>Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA Memorandum Regarding CWA Act Jurisdiction Following Rapanos.

Provide estimates for jurisdictional waters in the review area (check all that apply):

- Tributary waters: linear feet width (ft).
- Other non-wetland waters: acres.
- Identify type(s) of waters: .
- Wetlands: acres.

**F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):**

- If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
- Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
  - Prior to the Jan 2001 Supreme Court decision in "SWANCC," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
- Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: .
- Other: (explain, if not covered above): .

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):

- Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
- Lakes/ponds: acres.
- Other non-wetland waters: acres. List type of aquatic resource: .
- Wetlands: acres.

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):

- Non-wetland waters (i.e., rivers, streams): linear feet, width (ft).
- Lakes/ponds: acres.
- Other non-wetland waters: acres. List type of aquatic resource: .
- Wetlands: acres.

**SECTION IV: DATA SOURCES.**

**A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):**

- Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant:
- Data sheets prepared/submitted by or on behalf of the applicant/consultant.
  - Office concurs with data sheets/delineation report.
  - Office does not concur with data sheets/delineation report.
- Data sheets prepared by the Corps:
- Corps navigable waters' study:
- U.S. Geological Survey Hydrologic Atlas:
  - USGS NHD data.
  - USGS 8 and 12 digit HUC maps.
- U.S. Geological Survey map(s). Cite scale & quad name:
- USDA Natural Resources Conservation Service Soil Survey. Citation:
- National wetlands inventory map(s). Cite name:
- State/Local wetland inventory map(s): .
- FEMA/FIRM maps:
- 100-year Floodplain Elevation is: (National Geodetic Vertical Datum of 1929)
- Photographs:  Aerial (Name & Date): .  
or  Other (Name & Date): .
- Previous determination(s). File no. and date of response letter: .
- Applicable/supporting case law:
- Applicable/supporting scientific literature:
- Other information (please specify): .

**B. ADDITIONAL COMMENTS TO SUPPORT JD:** Phone conversation with USACE (Dave Baker) on October 26, 2009 where USACE determined the wetland to be jurisdictional.