



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

BEVERLY EAVES PERDUE  
GOVERNOR

EUGENE A. CONTI, JR.  
SECRETARY

June 13, 2012

U. S. Army Corps of Engineers  
Regulatory Field Office  
3331 Heritage Trade Drive, Suite 105  
Wake Forest, NC 27587

**ATTN:** Mr. Eric Alsmeyer  
NCDOT Division 5 Coordinator

**SUBJECT:** **Revision to Application for Section 404 Nationwide Permit No. 33, Section 401 Water Quality Certification, and Tar – Pamlico Riparian Buffer Authorization and Application for Section 404 Nationwide Permit No. 13** for the replacement of Bridge No. 124 over Reedy Pond Creek on SR 1510 (Mat Nelson Road), Warren County, North Carolina. Federal Aid Project No. BRZ – 1510 (3), TIP No. B-4835.

Debit \$240.00 from WBS Element No. 38605.1.1

**REFERENCE:** Application for Section 404 Nationwide Permit No. 33, Section 401 Water Quality Certification, and Tar – Pamlico Riparian Buffer Authorization, dated April 26, 2012

The North Carolina Department of Transportation (NCDOT) proposes to replace Bridge No. 124 over Reedy Pond Creek on SR 1510 (Mat Nelson Road) in Warren County. The project consists of replacing the existing one-span, 41-foot long bridge with a two-span, 100-foot long bridge along the existing alignment. Since the permit application was submitted, revisions have been made to the jurisdictional impacts associated with this project. Jurisdictional impacts to Reedy Pond Creek will now include 0.01 acres of temporary stream impacts due to the placement of a temporary rock causeway, 0.01 acres of additional temporary stream impacts associated with bank stabilization and, potentially, existing bridge removal, and 93 linear feet of permanent stream impacts due to bank stabilization. The causeway will be utilized for both existing bridge removal and new bridge construction. An additional 21.2 square feet of permanent stream impacts to Reedy Pond Creek will occur due to the placement of piers in the creek.

Please find enclosed revised versions of the Pre-Construction Notification (PCN), Permit Drawing Sheets 3 – 8 of 9, Buffer Drawing Sheets 4 and 5 of 7, and Plan Sheets 4 and 5.

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

**TELEPHONE:** 919-707-6100

**FAX:** 919-212-5785

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

**PHYSICAL ADDRESS:**  
Century Center - Building B  
1020 Birch Ridge Dr  
Raleigh, NC 27610-4328

The proposed let date for this project is February 19, 2013, with a let review date of January 1, 2013. However, the let date may advance as additional funds become available.

A copy of this revised permit application will be posted on the NCDOT Website at: <http://www.ncdot.org/doh/preconstruct/pe/neu/permit.html>.

Thank you for your assistance with this project. If you have any questions or need additional information, please contact Jim Mason at either [jsmason@ncdot.gov](mailto:jsmason@ncdot.gov) or (919) 707-6136.

Sincerely,

A handwritten signature in black ink that reads "E. R. Lusk". The signature is written in a cursive style with a large, looped "E" and "L".

for

Gregory J. Thorpe, Ph.D., Manager  
Project Development and Environmental Analysis Unit

cc: NCDOT Permit Application Standard Distribution List



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 13                      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 checked="" type="checkbox"/> 401 Water Quality Certification – Regular <input type="checkbox"/> Non-404 Jurisdictional General Permit <input type="checkbox"/> 401 Water Quality Certification – Express <input checked="" 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 type="checkbox"/> Yes <input checked="" 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:	Replacement of Bridge No. 124 over Reedy Pond Creek on SR 1510 (Mat Nelson Rd)
2b. County:	Warren
2c. Nearest municipality / town:	Grove Hill
2d. Subdivision name:	<i>not applicable</i>
2e. NCDOT only, T.I.P. or state project no.:	B-4835

#### 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) 707-6136
3g. Fax no.:	(919) 212-5785
3h. Email address:	jsmason@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: 36.3566 (DD.DDDDDD) Longitude: - 78.0030 (-DD.DDDDDD)
1c. Property size:	0.64 acres
<b>2. Surface Waters</b>	
2a. Name of nearest body of water (stream, river, etc.) to proposed project:	Reedy Pond Creek
2b. Water Quality Classification of nearest receiving water:	C NSW
2c. River basin:	Tar Pamlico
<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 1510 is designated as a Rural Local Route. Land use within the vicinity includes Forested Land, Silviculture, and Agriculture.	
3b. List the total estimated acreage of all existing wetlands on the property: 0 acres	
3c. List the total estimated linear feet of all existing streams (intermittent and perennial) on the property: 100 linear feet	
3d. Explain the purpose of the proposed project: To replace a structurally deficient and functionally obsolete bridge.	
3e. Describe the overall project in detail, including the type of equipment to be used: The project involves replacing a 1-span, 41-foot bridge with a 2-span, 100-foot Cored Slab bridge on the existing alignment. An off-site detour will be utilized. 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: Site visit with USACE occurred in 2008. A Preliminary JD Packet was provided to USACE on 03/20/12. No changes were made post-2008 site visit. JD Pending.	<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 checked="" type="checkbox"/> Preliminary <input type="checkbox"/> Final
4c. If yes, who delineated the jurisdictional areas? Name (if known): Principal investigator: James Pflaum	Agency/Consultant Company: Other:
4d. If yes, list the dates of the Corps jurisdictional determinations or State determinations and attach documentation. Preliminary Jurisdictional Determination Form included in original application, dated April 26, 2012	
<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 checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
5b. If yes, explain in detail according to "help file" instructions. Original application, dated April 26, 2012, was submitted to agencies. NCDWQ Permit No. 20120445 received May 14, 2012.	

**6. Future Project Plans**

6a. Is this a phased project?

Yes

No

6b. If yes, explain.

<b>C. Proposed Impacts Inventory</b>						
<b>1. Impacts Summary</b>						
1a. Which sections were completed below for your project (check all that apply):						
<input type="checkbox"/> Wetlands <input checked="" type="checkbox"/> Streams - tributaries <input checked="" type="checkbox"/> Buffers <input type="checkbox"/> Open Waters <input type="checkbox"/> Pond Construction						
<b>2. Wetland Impacts</b>						
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 type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
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 Temporary	
2h. Comments: No wetland impacts are associated with this project.						
<b>3. Stream Impacts</b>						
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	Temp. Rock Causeway	Reedy Pond Creek	<input checked="" type="checkbox"/> PER <input type="checkbox"/> INT	<input checked="" type="checkbox"/> Corps <input type="checkbox"/> DWQ	40	0.01 ac
Site 2 <input type="checkbox"/> P <input checked="" type="checkbox"/> T	Temporary Impacts	Reedy Pond Creek	<input checked="" type="checkbox"/> PER <input type="checkbox"/> INT	<input checked="" type="checkbox"/> Corps <input type="checkbox"/> DWQ	40	0.01 ac
Site 3 <input checked="" type="checkbox"/> P <input type="checkbox"/> T	Bank Stabilization	Reedy Pond Creek	<input checked="" type="checkbox"/> PER <input type="checkbox"/> INT	<input checked="" type="checkbox"/> Corps <input type="checkbox"/> DWQ	40	93
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>					93 Perm 0.02 ac Temp	
3i. Comments: An additional 21.2 sq. ft. of permanent stream impacts to Reedy Pond Creek will occur due to the placement of piers in the creek.						

**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>				0 Permanent 0 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 checked="" 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 checked="" type="checkbox"/> P <input type="checkbox"/> T	Road Crossing (12+65/13+15)	Reedy Pond Creek	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	232	232		
B2 <input checked="" type="checkbox"/> P <input type="checkbox"/> T	Bridge (13+15/14+15)	Reedy Pond Creek	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	986	63		
B3 <input checked="" type="checkbox"/> P <input type="checkbox"/> T	Road Crossing (14+15/14+45)	Reedy Pond Creek	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	27	314		
<b>6h. Total buffer impacts</b>				1245	609		
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. The proposed bridge is 59 feet longer than the existing bridge; the proposed bridge will be at approximately the same grade as the existing structure; an off-site detour will be used; a preformed scour hole will be installed outside of the riparian buffer in the southwest quadrant ( at -L- STA 12+50 LT) to capture bridge deck drainage; grassed shoulders and slopes will be employed to allow roadway runoff to sheetflow prior to entering the stream.		
1b. Specifically describe measures taken to avoid or minimize the proposed impacts through construction techniques. NCDOT Best Management Practices for Bridge Demolition and Removal will be implemented during the removal of the existing bridge; Best Management Practices for the Protection of Surface Waters will be employed; Design Standards in Sensitive Watersheds will be employed.		
<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: Temporary impacts do not require mitigation; Permanent bank stabilization is less than 150 lin. ft.	
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.		

<b>6. Buffer Mitigation (State Regulated Riparian Buffer Rules) – required by DWQ</b>				
6a. Will the project result in an impact within a protected riparian buffer that requires buffer mitigation?				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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.				
<b>Zone</b>	<b>6c. Reason for impact</b>	<b>6d. Total impact (square feet)</b>	<b>Multiplier</b>	<b>6e. Required mitigation (square feet)</b>
Zone 1			3 (2 for Catawba)	
Zone 2			1.5	
<b>6f. Total buffer mitigation required:</b>				<b>0</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: All buffer impacts are Allowable.				

<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 checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1b. If yes, then is a diffuse flow plan included? If not, explain why. Comments: See attached buffer permit drawings.	<input checked="" 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 checked="" 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 type="checkbox"/> Yes <input type="checkbox"/> No N/A
5b. Have all of the 401 Unit submittal requirements been met?	<input type="checkbox"/> Yes <input type="checkbox"/> No N/A

<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 type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
5b. Have you checked with the USFWS concerning Endangered Species Act impacts?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
5c. If yes, indicate the USFWS Field Office you have contacted.	<input checked="" 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? NC Natural Heritage Program data, USFWS website, NCDOT field surveys		
<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 Unit 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>06/13/12</u> Date



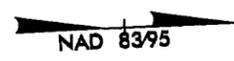




8/17/99  
\*\*\*\*\*SYSTEM TIME\*\*\*\*\*  
\*\*\*\*\*DATE\*\*\*\*\*  
\*\*\*\*\*TIME\*\*\*\*\*  
\*\*\*\*\*DRAWING\*\*\*\*\*  
\*\*\*\*\*SHEET\*\*\*\*\*

# ENLARGEMENT

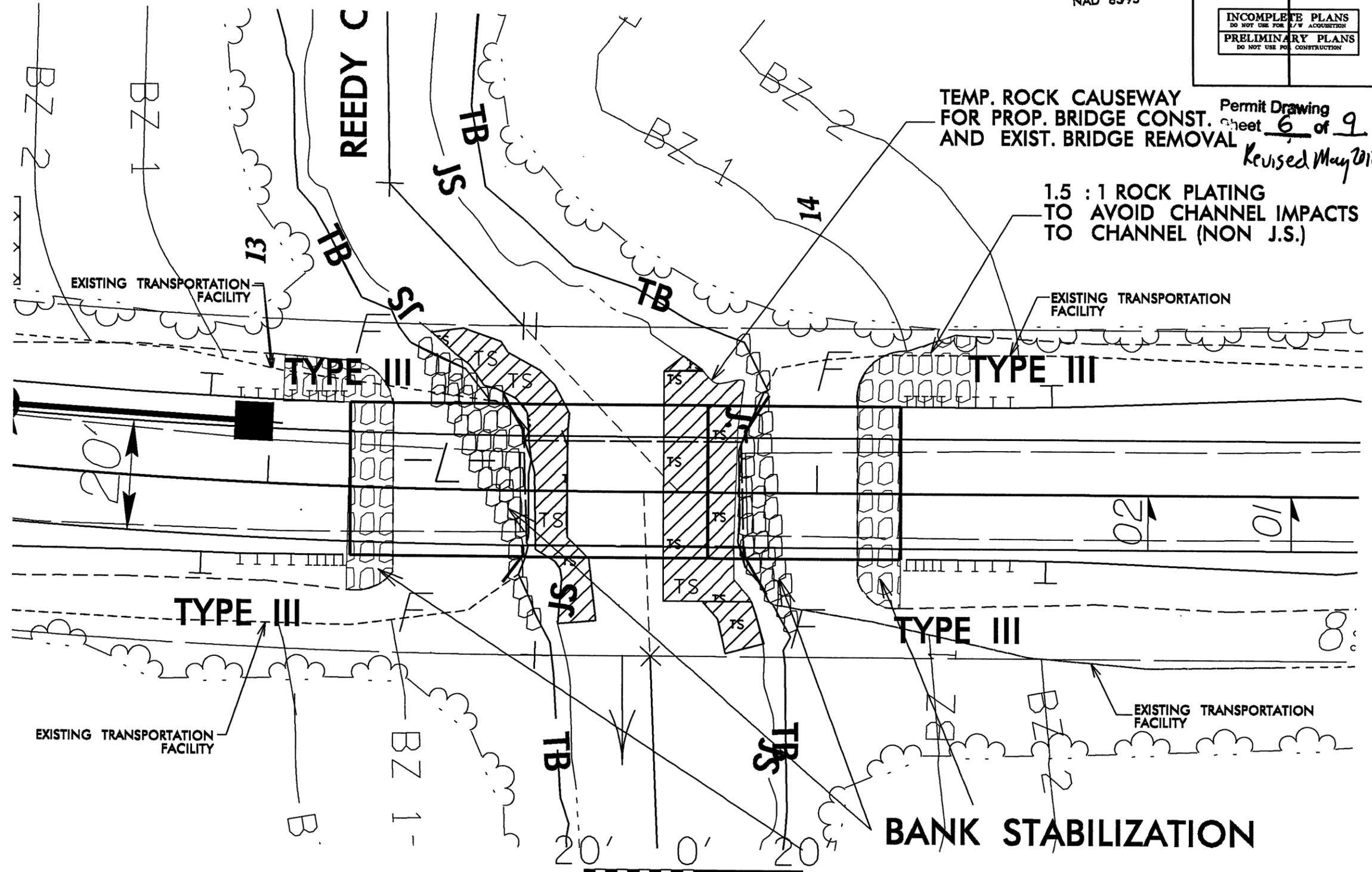
PROJECT REFERENCE NO. B-4835		SHEET NO.	
HW SHEET NO.		HYDRAULICS ENGINEER	
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
INCOMPLETE PLANS DO NOT USE FOR A/C ACQUISITION			
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION			



TEMP. ROCK CAUSEWAY  
FOR PROP. BRIDGE CONST.  
AND EXIST. BRIDGE REMOVAL

Permit Drawing  
Sheet 6 of 9  
Revised May 2012

1.5 : 1 ROCK PLATING  
TO AVOID CHANNEL IMPACTS  
TO CHANNEL (NON J.S.)



GRAPHIC SCALE

 DENOTES TEMPORARY IMPACTS IN SURFACE WATER

8/17/99

# ENLARGEMENT

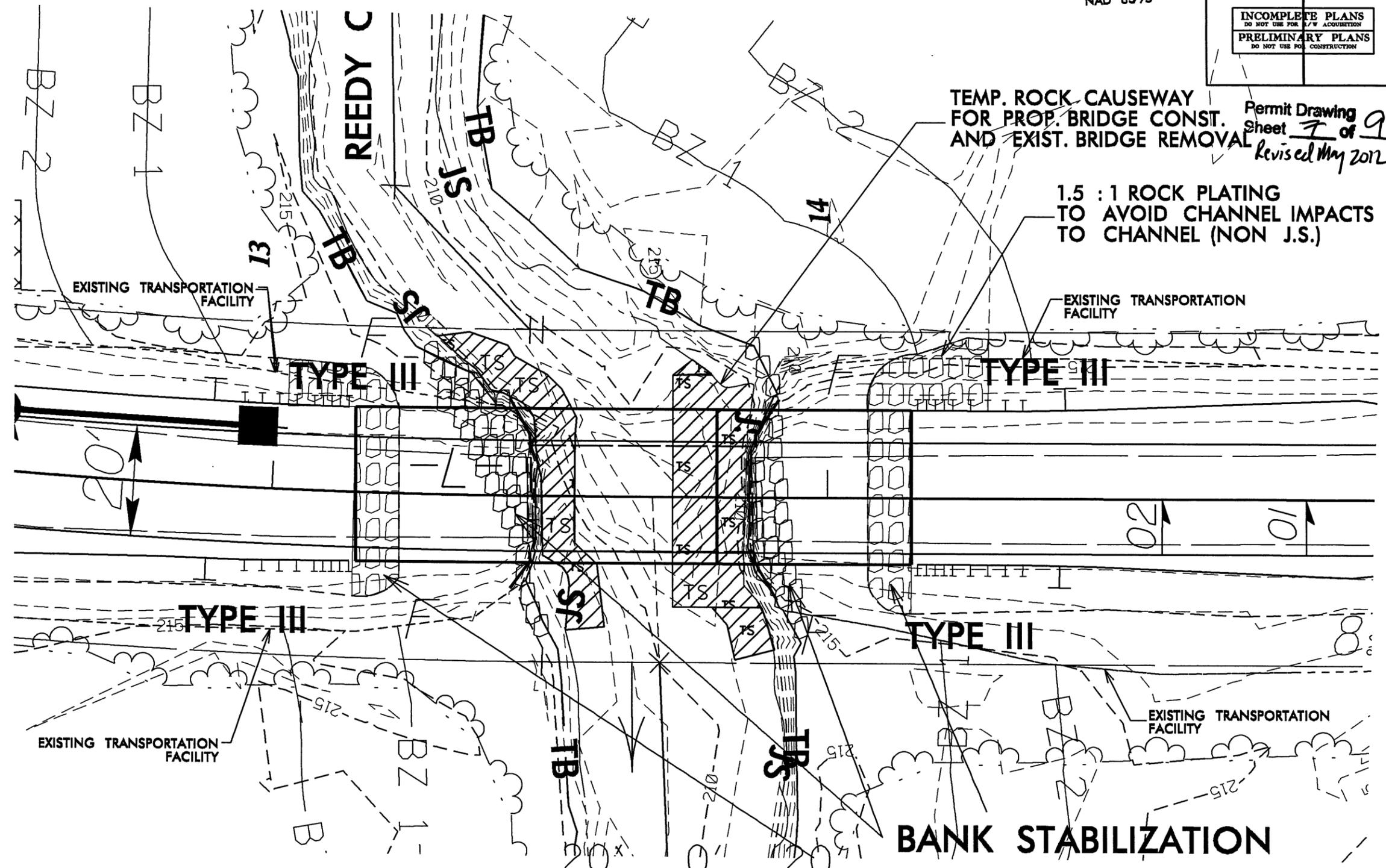
NAD 83/95

PROJECT REFERENCE NO. R-4835		SHEET NO.	
MW SHEET NO.		HYDRAULICS ENGINEER	
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
<b>INCOMPLETE PLANS</b> DO NOT USE FOR E/W ACQUISITION <b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION			

TEMP. ROCK CAUSEWAY  
FOR PROP. BRIDGE CONST.  
AND EXIST. BRIDGE REMOVAL

Permit Drawing  
Sheet 7 of 9  
Revised May 2012

1.5 : 1 ROCK PLATING  
TO AVOID CHANNEL IMPACTS  
TO CHANNEL (NON J.S.)



GRAPHIC SCALE

 DENOTES TEMPORARY IMPACTS IN SURFACE WATER

\*\*\*\*\*  
 SYSTEMS  
 DESIGN  
 SERVICES  
 \*\*\*\*\*

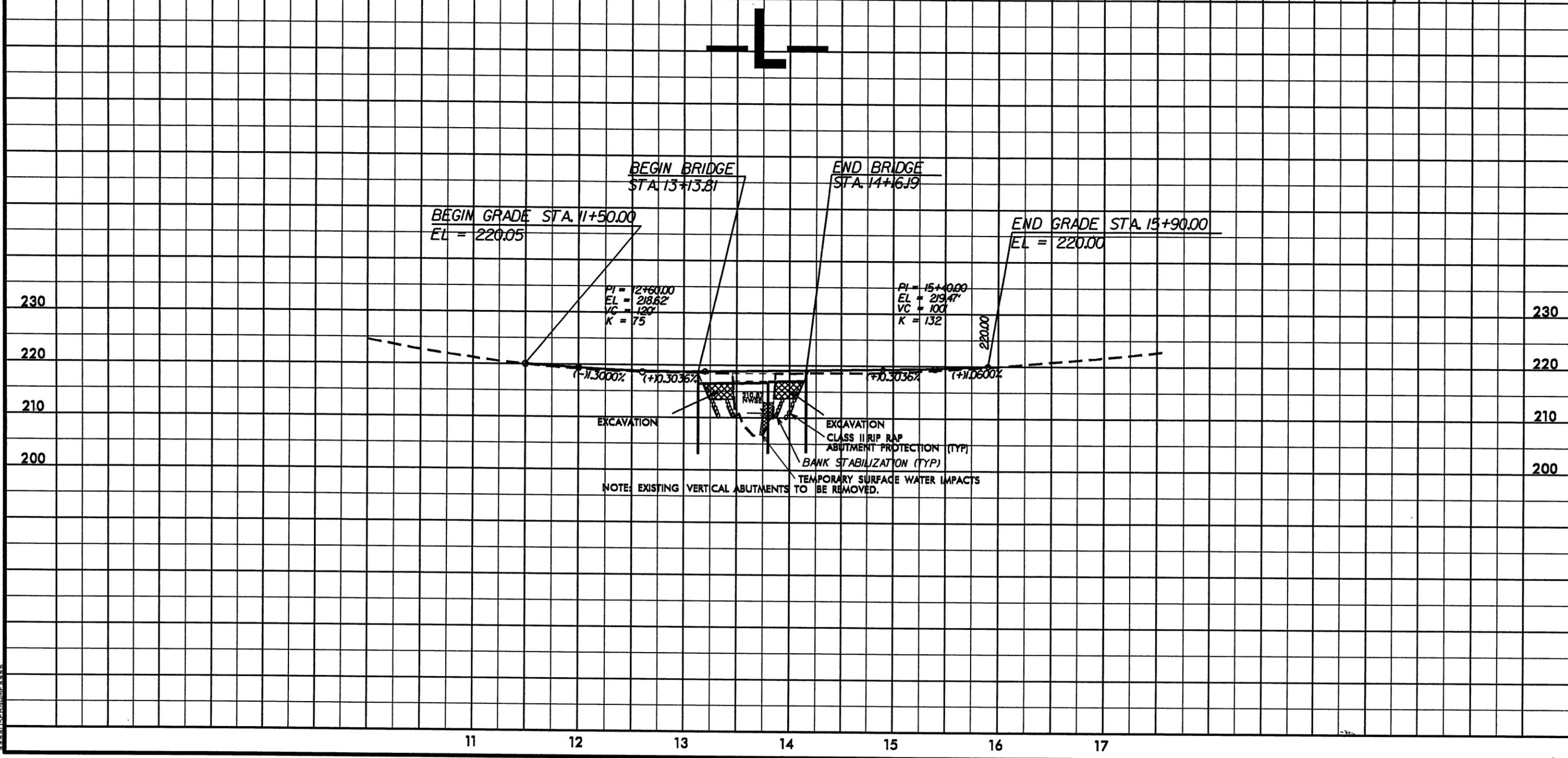
5/14/12

PROJECT REFERENCE NO. B-4835	SHEET NO. 5
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR A/W ACQUISITION <b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	

Permit Drawing  
Sheet 8 of 9

*Revised May 2012*

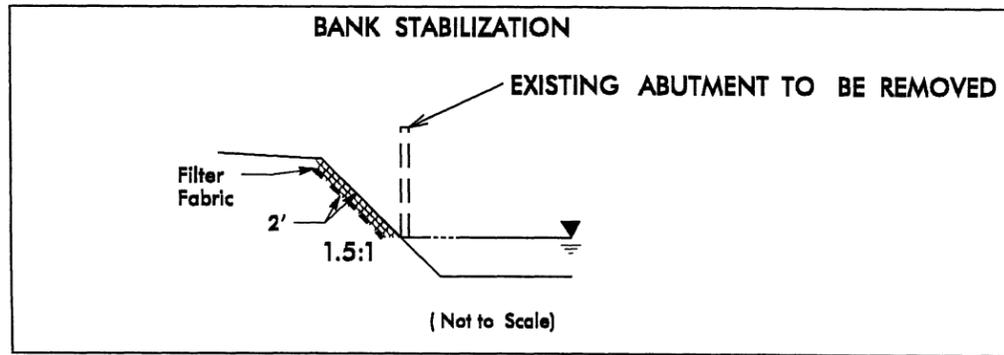
BRIDGE HYDRAULIC DATA	
DESIGN DISCHARGE	= 2850 CFS
DESIGN FREQUENCY	= 10 YRS
DESIGN HW ELEVATION	= 217.71 FT
BASE DISCHARGE	= 5160 CFS
BASE FREQUENCY	= 100 YRS
BASE HW ELEVATION	= 220.37 FT
OVERTOPPING DISCHARGE	= 3360 CFS
OVERTOPPING FREQUENCY	= 10 YRS
OVERTOPPING ELEVATION	= 218.77 FT



SYSTEMS DESIGN SERVICES

B-4779

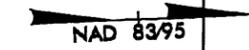
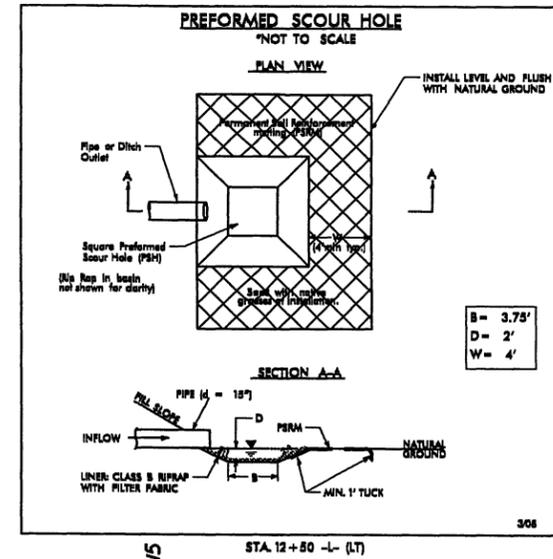
### DETAIL 'B'



FROM STA. 13+25 TO STA. 13+50 -L-  
 FROM STA. 13+82 TO STA. 13+97 -L-

Type of Liner= 61 TONS, CL II Rip-Rap  
 Filter Fabric= 62 sy  
 Type of Liner= 45 TONS, CL II Rip-Rap  
 Filter Fabric= 45 sy

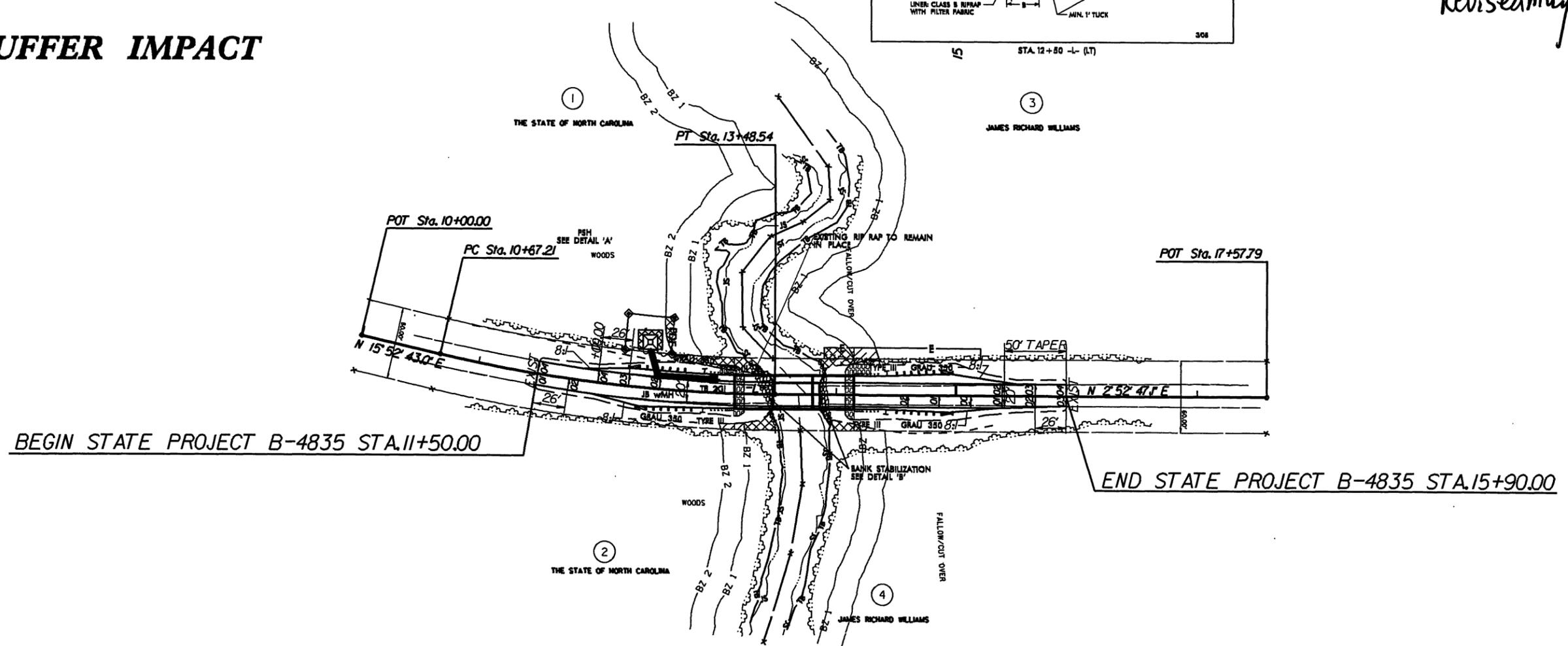
### DETAIL 'A'



PROJECT REFERENCE NO. B-4835	SHEET NO. 4
RAY SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR A/W ACQUISITION <b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	

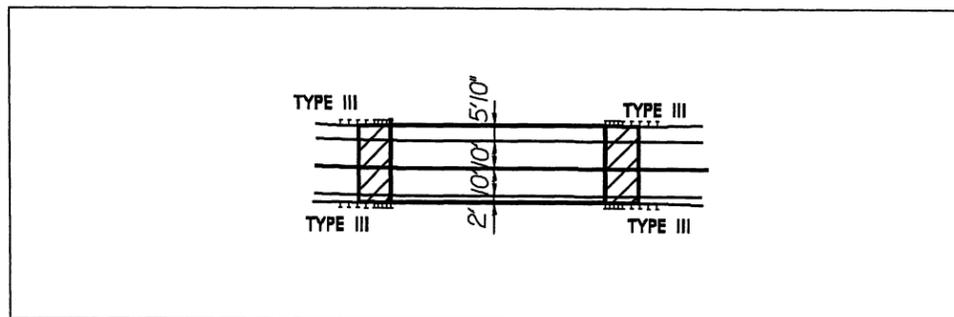
Buffer Drawing  
 Sheet 4 of 7  
 Revised May 2012

## BUFFER IMPACT

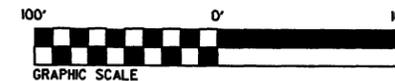


BEGIN STATE PROJECT B-4835 STA. 11+50.00

END STATE PROJECT B-4835 STA. 15+90.00



SKETCH OF BRIDGE IN RELATIONSHIP TO PAVEMENT



- ALLOWABLE IMPACTS ZONE 1
- ALLOWABLE IMPACTS ZONE 2

FOR -L- PROFILE SEE SHEET 5

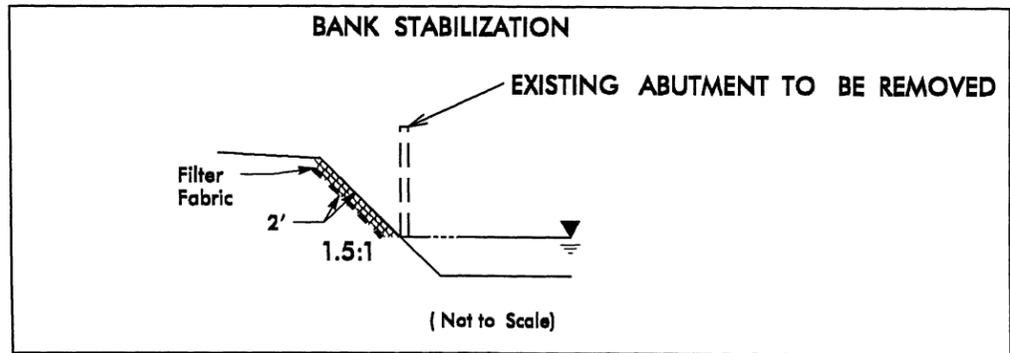
REVISIONS

\*\*\*\*\*SYTIME\*\*\*\*\*  
 \*\*\*\*\*LANSING\*\*\*\*\*

B/17/9

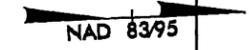
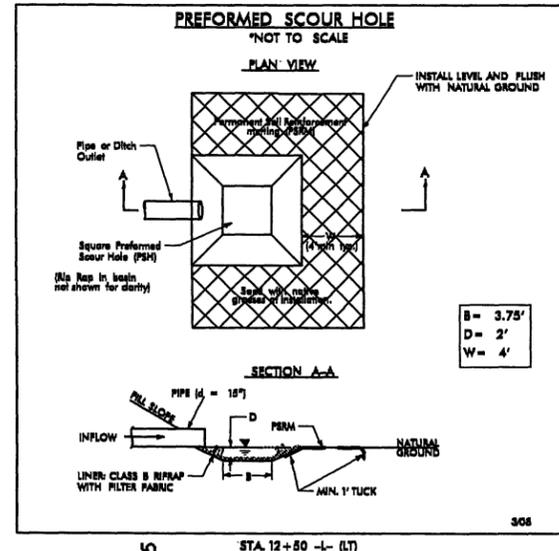
PROJECT REFERENCE NO. B-4835	SHEET NO. 4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR R/W ACQUISITION <b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	

### DETAIL 'B'



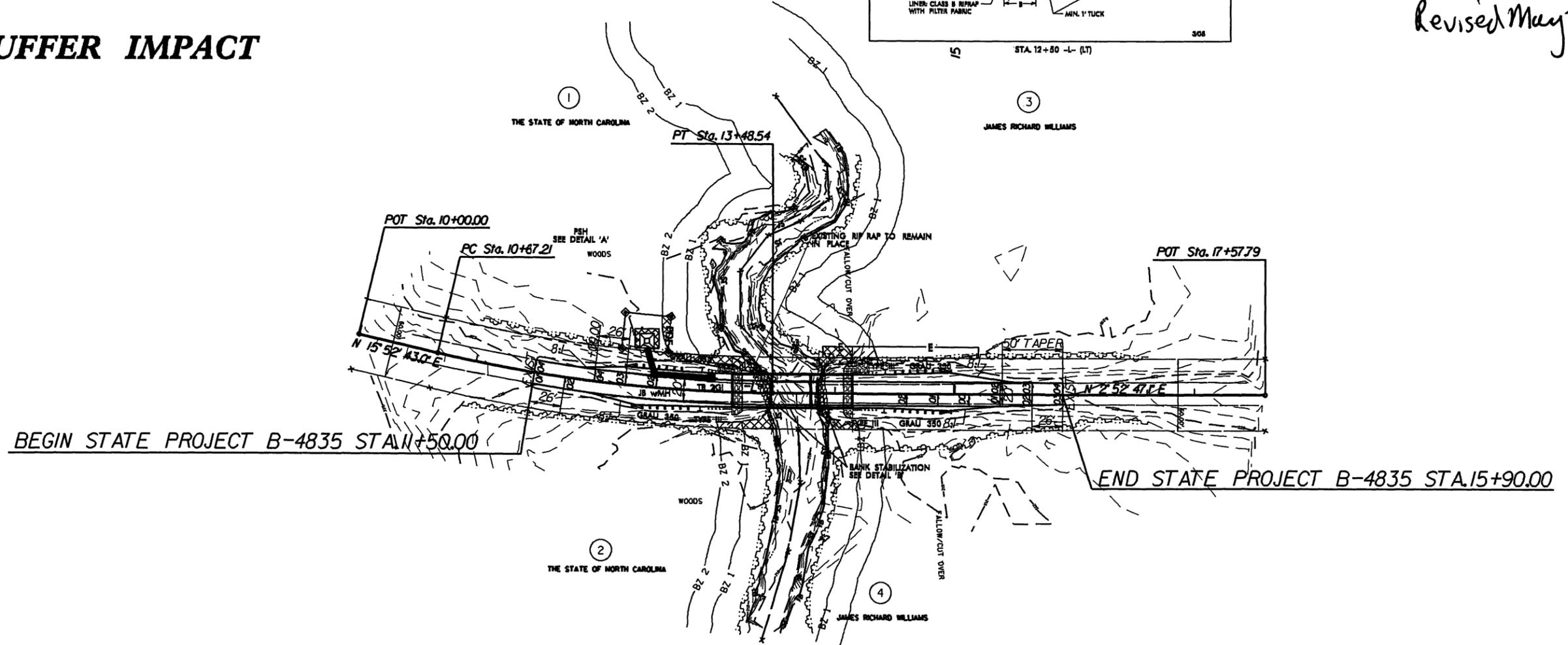
FROM STA. 13+25 TO STA. 13+50 -L- Type of Liner= 61 TONS, CL II Rip-Rap  
 Filter Fabric= 62 sy  
 FROM STA. 13+82 TO STA. 13+97 -L- Type of Liner= 45 TONS, CL II Rip-Rap  
 Filter Fabric= 45 sy

### DETAIL 'A'



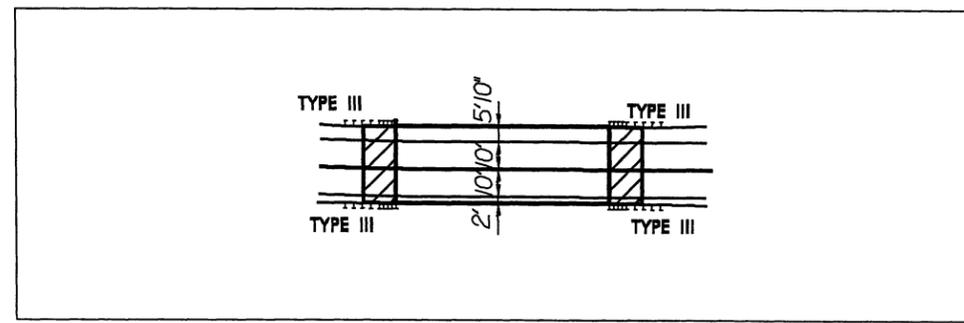
Buffer Drawing  
 Sheet 5 of 7  
 Revised May 2012

## BUFFER IMPACT

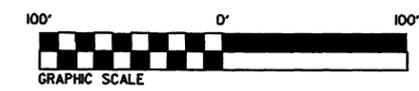


BEGIN STATE PROJECT B-4835 STA. 11+50.00

END STATE PROJECT B-4835 STA. 15+90.00



SKETCH OF BRIDGE IN RELATIONSHIP TO PAVEMENT



- ALLOWABLE IMPACTS ZONE 1
- ALLOWABLE IMPACTS ZONE 2

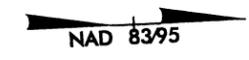
FOR -L- PROFILE SEE SHEET 5

REVISIONS

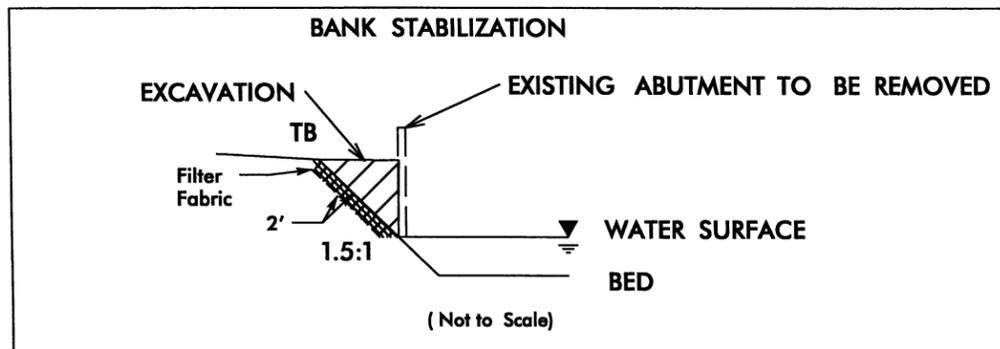
\*\*\*\*\*  
 SYSTEME  
 \*\*\*\*\*

PROJECT REFERENCE NO. <b>B-4835</b>	SHEET NO. <b>4</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR R/W ACQUISITION <b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	

*Revised May 2012*



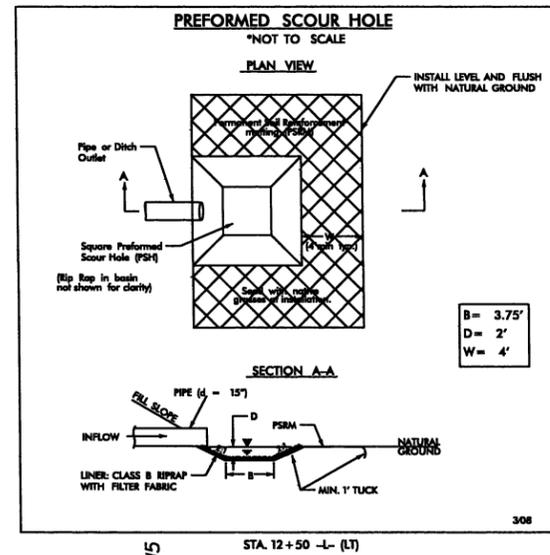
### DETAIL 'B'



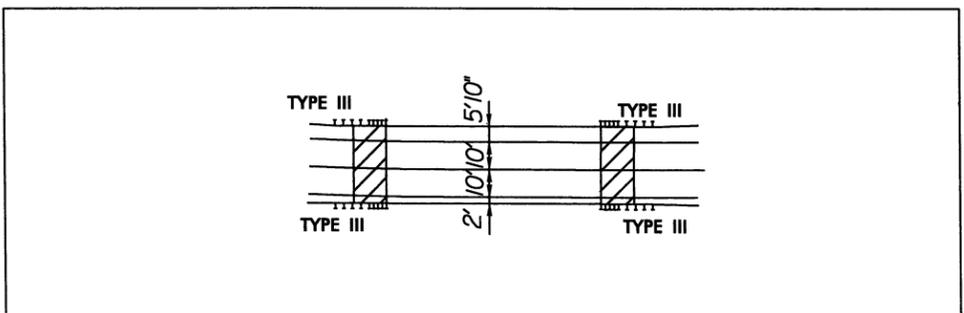
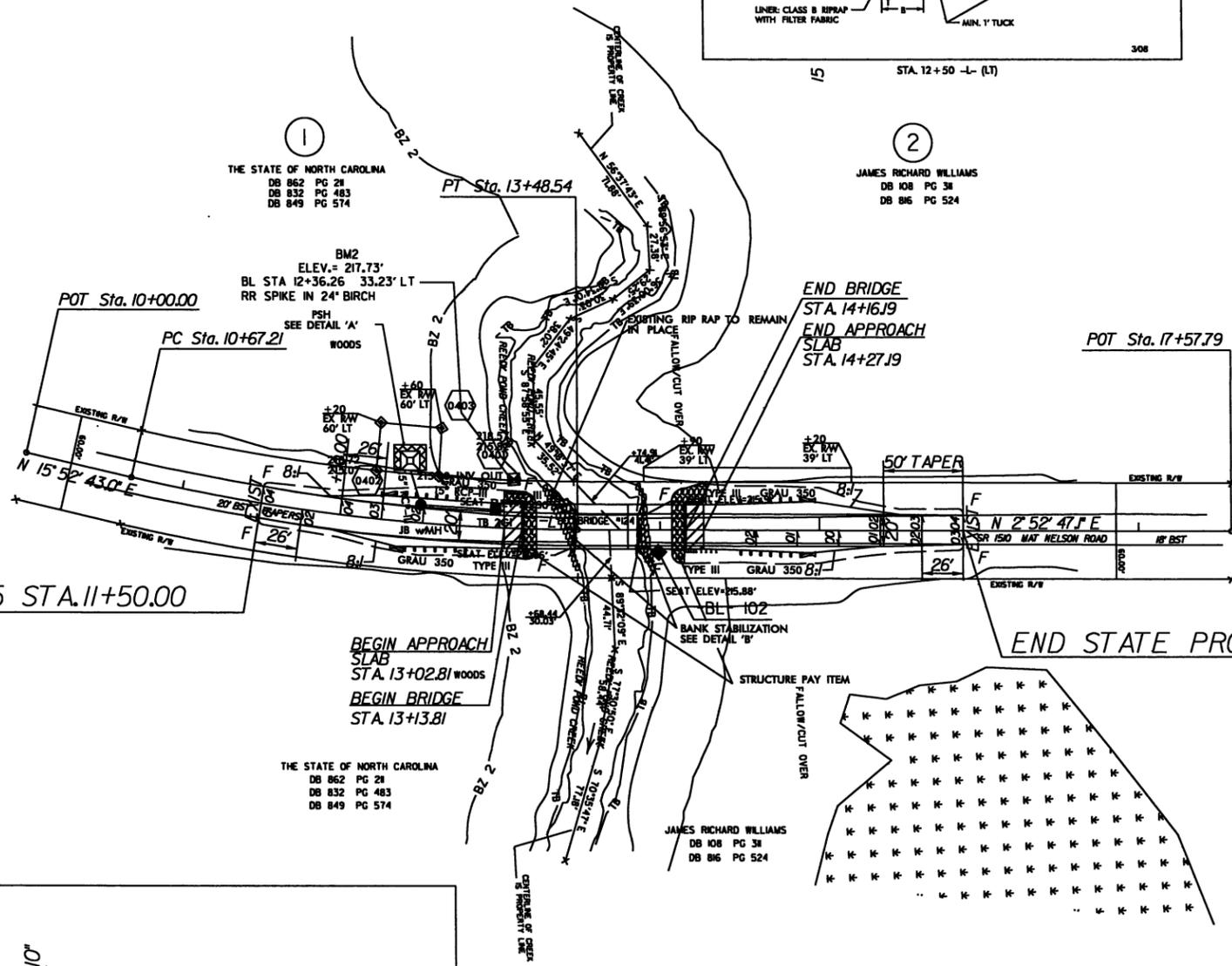
FROM STA. 13+25 TO STA. 13+50 -L-  
 FROM STA. 13+82 TO STA. 13+97 -L-

Type of Liner= 61 TONS, CL II Rip-Rap  
 Filter Fabric= 62 sy  
 Type of Liner= 45 TONS, CL II Rip-Rap  
 Filter Fabric= 45 sy

### DETAIL 'A'



15 STA. 12+50 -L- (LT)



SKETCH OF BRIDGE IN RELATIONSHIP TO PAVEMENT

-L-  
 PI Sta 12+08.48  
 $\Delta = 12' 59' 55.9\"$  (LT)  
 $D = 4' 37' 14.3\"$   
 $L = 281.32'$   
 $T = 141.27'$   
 $R = 1,240.00'$   
 SE = SEE PLANS  
 RO = SEE PLANS

SHOULDER BERM GUTTER  
 FROM STA 12+95 TO 13+03 -L- (LT)

FOR -L- PROFILE SEE SHEET 5

REVISIONS

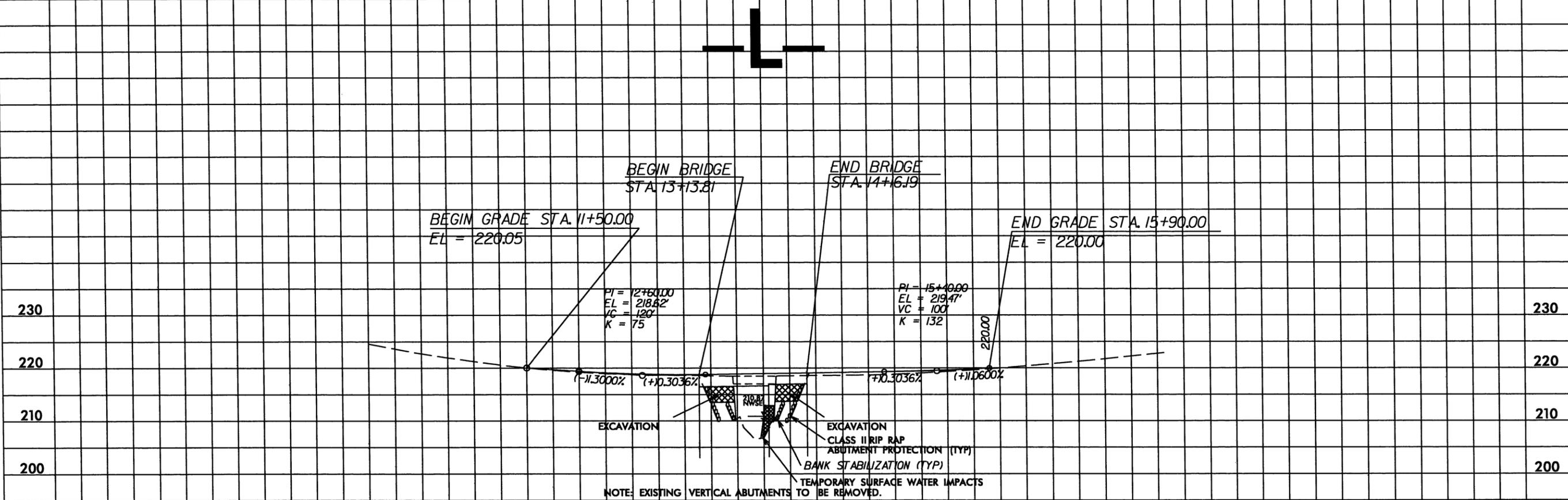
8/17/99

SYSTEMS  
 USER NAME

5/14/99

Revised May 2012

BRIDGE HYDRAULIC DATA		
DESIGN DISCHARGE	= 2850	CFS
DESIGN FREQUENCY	= 10	YRS
DESIGN HW ELEVATION	= 217.71	FT
BASE DISCHARGE	= 560	CFS
BASE FREQUENCY	= 100	YRS
BASE HW ELEVATION	= 220.37	FT
OVERTOPPING DISCHARGE	= 3360	CFS
OVERTOPPING FREQUENCY	= 10	YRS
OVERTOPPING ELEVATION	= 218.77	FT



\*\*\*\*\* SYSTEMS AND CONDITIONS \*\*\*\*\*  
\*\*\*\*\* USER NAME \*\*\*\*\*