



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

BEVERLY EAVES PERDUE
GOVERNOR

EUGENE A. CONTI, JR.
SECRETARY

January 13, 2010

U. S. Army Corps of Engineers
3331 Heritage Trade Drive
Wake Forest, NC 27587

ATTN: Mr. John Thomas
NCDOT Coordinator

Subject: **Application for Section 404 Nationwide Permits 13, 23, 33, and Section 401 Water Quality Certification** for the proposed replacement of Bridge No. 52 over Reedy Creek on SR 1445 (Old Mill Road) Davidson County, Federal Aid Project No. BRZ-1445(3); Division 9; TIP No. B-4694

Debit \$570.00 from WBS Element 38473.1.1

Dear Sir:

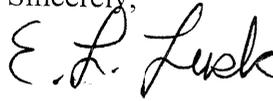
The North Carolina Department of Transportation (NCDOT) proposes to replace Bridge No. 52 over Reedy Creek on SR 1445 with a bridge. There will be 43 linear feet of temporary surface water impacts, 232 linear feet of permanent stream impacts, and 75 linear feet of bank stabilization.

Please see enclosed copies of the Pre-Construction Notification (PCN), jurisdictional determination from the USACE and NCDWQ, stormwater management plan, permit drawings, and design plans for the above referenced project. The Programmatic Categorical Exclusion (PCE) was completed December 14, 2009. The document was distributed shortly thereafter. Additional copies are available upon request.

This project calls for a letting date of November 15, 2011 and a review date of September 27, 2011. However, the let date may advance as additional funding becomes available.

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 James Pflaum at (919) 431-6527.

Sincerely,

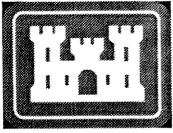


for Gregory J. Thorpe, Ph.D.
Environmental Management Director, PDEA

Cc: w/attachment
Mr. Brian Wrenn, NCDWQ (5 Copies)
Ms. Marla Chambers, NCWRC
Ms. Marella Buncick, USFWS

W/o attachment (see website for attachments)

Dr. David Chang, P.E., Hydraulics
Mr. Mark Staley, Roadside Environmental
Mr. Dewayne Sykes, P.E., Utilities
Mr. Greg Perfetti, P.E., Structure Design
Mr. S. P. Ivey, P.E., Division Engineer
Mr. Kent Boyer, DEO
Mr. Jay Bennett, P.E., Roadway Design
Mr. Majed Alghandour, P. E., Programming and TIP
Mr. Art McMillan, P.E., Highway Design
Mr. Greg Blakeney, 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: 13, 23, 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 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 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. 52 over Reedy Creek on SR 1445 (Old Mill Road)
2b. County:	Davidson
2c. Nearest municipality / town:	Arcadia
2d. Subdivision name:	<i>not applicable</i>
2e. NCDOT only, T.I.P. or state project no:	B-4694

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:	4701 Atlantic Ave, Suite 116
3e. City, state, zip:	Raleigh, NC 27604
3f. Telephone no.:	(919) 431-6527
3g. Fax no.:	(919) 431-2002
3h. Email address:	jrpflaum@ncdot.gov

4. Applicant Information (if different from owner)	
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:	
5. Agent/Consultant Information (if applicable)	
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. Project Information and Prior Project History	
1. Property Identification	
1a. Property identification no. (tax PIN or parcel ID):	<i>not applicable</i>
1b. Site coordinates (in decimal degrees):	Latitude: 35.908239 (DD.DDDDDD) Longitude: -80.358451 (-DD.DDDDDD)
1c. Property size:	10 acres
2. Surface Waters	
2a. Name of nearest body of water (stream, river, etc.) to proposed project:	Reedy Creek
2b. Water Quality Classification of nearest receiving water:	WS-IV
2c. River basin:	Yadkin
3. Project Description	
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: Agricultural area with rural residential housing and livestock operations.	
3b. List the total estimated acreage of all existing wetlands on the property: 0.11	
3c. List the total estimated linear feet of all existing streams (intermittent and perennial) on the property: 716	
3d. Explain the purpose of the proposed project: To replace a structurally deficient bridge.	
3e. Describe the overall project in detail, including the type of equipment to be used: The project involves replacing a 2 span 60 foot long timber deck on I beam bridge with a 105 foot long single span box beam bridge. Offsite detour will be used. A temporary work pad will be used to facilitate construction of the proposed bridge. Standard road building equipment, such as trucks, dozers, and cranes will be used.	
4. Jurisdictional Determinations	
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 12/5/2007	<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 checked="" type="checkbox"/> Final
4c. If yes, who delineated the jurisdictional areas? Name (if known): James Pflaum	Agency/Consultant Company: NCDOT Other:
4d. If yes, list the dates of the Corps jurisdictional determinations or State determinations and attach documentation. Field visit 12/5/2007, John Thomas USACE and Sue Homewood NCDWQ	
5. Project History	
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?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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):

- Wetlands Streams - tributaries Buffers
 Open Waters 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)
W1 <input checked="" type="checkbox"/> P <input type="checkbox"/> T	Roadway Fill	Riparian	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Corps <input type="checkbox"/> DWQ	<0.01
W2 <input type="checkbox"/> P <input checked="" type="checkbox"/> T	Hand Clearing	Riparian	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Corps <input type="checkbox"/> DWQ	0.01
W3 <input type="checkbox"/> P <input checked="" type="checkbox"/> T	Erosion Control Devices	Riparian	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Corps <input type="checkbox"/> DWQ	<0.01
W4 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ	
W5 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ	
W6 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ	
2g. Total wetland impacts					Perm <0.01 Temp <0.02

2h. Comments: Permanent Fill in wetlands = 0.0049 acres, Erosion Control Devices will be placed in hand cleared areas

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)
S1 <input checked="" type="checkbox"/> P <input checked="" type="checkbox"/> T	Bank Stabilization Temp. Work Pad	Reedy Creek	<input checked="" type="checkbox"/> PER <input type="checkbox"/> INT	<input checked="" type="checkbox"/> Corps <input type="checkbox"/> DWQ	12	75 Perm 43 Temp
S2 <input checked="" type="checkbox"/> P <input type="checkbox"/> T	Fill	UT2 to Reedy Creek	<input type="checkbox"/> PER <input checked="" type="checkbox"/> INT	<input checked="" type="checkbox"/> Corps <input type="checkbox"/> DWQ	1	85
S3 <input checked="" type="checkbox"/> P <input type="checkbox"/> T	Fill	UT3 to Reedy Creek	<input type="checkbox"/> PER <input checked="" type="checkbox"/> INT	<input checked="" type="checkbox"/> Corps <input type="checkbox"/> DWQ	1	147
S4 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> PER <input type="checkbox"/> INT	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
S5 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> PER <input type="checkbox"/> INT	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
S6 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> PER <input type="checkbox"/> INT	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
3h. Total stream and tributary impacts						307 Perm 43 Temp

3i. Comments:
 UT2 and UT3 are Jurisdictional Unimportant, per site visit with USACE

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				
4f. Total open water impacts				0

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								
5f. Total								

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"/> Tar-Pamlico <input type="checkbox"/> Other: <input type="checkbox"/> Catawba <input type="checkbox"/> Randleman			
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		
6h. Total buffer impacts				0	0
6i. Comments:					

D. Impact Justification and Mitigation		
1. Avoidance and Minimization		
1a. Specifically describe measures taken to avoid or minimize the proposed impacts in designing project. The proposed bridge will be replaced in place and is approximately 40 feet longer than existing bridge; proposed bridge will be approximately at the same elevation and grade as existing structure; no bents will be placed in the water; one bent will be removed from the water; 2:1 slopes are proposed to avoid wetland impacts; deck drains will not directly discharge into Reedy Creek; off site detour will be used.		
1b. Specifically describe measures taken to avoid or minimize the proposed impacts through construction techniques. NCDOT will implement Best Management practices (BMP's) for bridge demolition and removal.		
2. Compensatory Mitigation for Impacts to Waters of the U.S. or Waters of the State		
2a. Does the project require Compensatory Mitigation for impacts to Waters of the U.S. or Waters of the State? No mitigation is proposed for the <0.01 acres of permanent wetland impacts at the toe of slope. The impacts are minimal and the wetland is not associated with critical habitat for threatened and endangered species. The hand cleared area will not be regularly maintained by division after project completion. No mitigation is proposed for the 85 feet of impacts to UT3 or the 147 feet of impacts to UT2. The impacts under 150 feet and were ruled jurisdictional unimportant by the USACE and ephemeral by NCDWQ.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
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	
3. Complete if Using a Mitigation Bank		
3a. Name of Mitigation Bank: not applicable		
3b. Credits Purchased (attach receipt and letter)	Type	Quantity
3c. Comments:		
4. Complete if Making a Payment to In-lieu Fee Program		
4a. Approval letter from in-lieu fee program is attached.	<input type="checkbox"/> Yes	
4b. Stream mitigation requested:	0 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):	0 square feet	
4e. Riparian wetland mitigation requested:	0 acres	
4f. Non-riparian wetland mitigation requested:	0 acres	
4g. Coastal (tidal) wetland mitigation requested:	0 acres	
4h. Comments:		
5. Complete if Using a Permittee Responsible Mitigation Plan		

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.

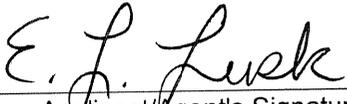
Zone	6c. Reason for impact	6d. Total impact (square feet)	Multiplier	6e. Required mitigation (square feet)
Zone 1			3 (2 for Catawba)	
Zone 2			1.5	
6f. Total buffer mitigation required:				0

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:

E. Stormwater Management and Diffuse Flow Plan (required by DWQ)	
1. Diffuse Flow Plan	
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: See Permit Drawings	<input type="checkbox"/> Yes <input type="checkbox"/> No
2. Stormwater Management Plan	
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 enclosed	
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
3. Certified Local Government Stormwater Review	
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
4. DWQ Stormwater Program Review	
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
5. DWQ 401 Unit Stormwater Review	
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

F. Supplementary Information	
1. Environmental Documentation (DWQ Requirement)	
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: PCE was approved September 14, 2009	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
2. Violations (DWQ Requirement)	
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):	
3. Cumulative Impacts (DWQ Requirement)	
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.	
4. Sewage Disposal (DWQ Requirement)	
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	

5. Endangered Species and Designated Critical Habitat (Corps Requirement)		
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 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? As of January 31, 2008 the USFWS lists two protected species in Davidson County, Bog Turtle and Schweinitz's Sunflower. Habitat for Schweinitz's Sunflower is present in the project area. Surveys were conducted on September 14, 2010 by NCDOT biologists, no specimens were found. Surveys for the Bog Turtle are not required. A review of NCNHP records, updated November 2010, for Schweinitz's Sunflower indicated no known occurrences within 1.0 mile of the project area. This project will have No Effect on Schweinitz's Sunflower. Suitable foraging habitat for the Bald eagle is not present in the study area or within 660 feet of the study area.		
6. Essential Fish Habitat (Corps Requirement)		
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		
7. Historic or Prehistoric Cultural Resources (Corps Requirement)		
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? Programmatic Categorical Exclusion dated September 14, 2009		
8. Flood Zone Designation (Corps Requirement)		
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: Hydraulics Unit coordinating with FEMA		
8c. What source(s) did you use to make the floodplain determination? FEMA maps		
Gregory J. Thorpe, Ph D Applicant/Agent's Printed Name	 Applicant/Agent's Signature (Agent's signature is valid only if an authorization letter from the applicant is provided.)	1.13.11 Date

Action ID: _____

Placement of dredged or fill material within waters of the US and/or wetlands without a Department of the Army permit may constitute a violation of Section 301 of the Clean Water Act (33 USC § 1311). If you have any questions regarding this determination and/or the Corps regulatory program, please contact John Thomas at 919 876-8441 ext. 25.

C. Basis For Determination

There are stream channels within your project site which are tributaries of Reedy Creek which flows into the Yadkin River and the Atlantic Ocean.

D. Remarks

E. Appeals Information (This information applies only to approved jurisdictional determinations as indicated in B. above)

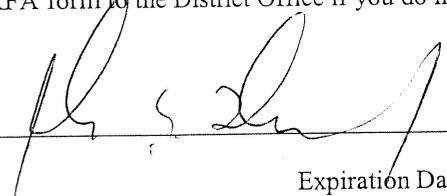
This correspondence constitutes an approved jurisdictional determination for the above described site. If you object to this determination, you may request an administrative appeal under Corps regulations at 33 CFR part 331. Enclosed you will find a Notification of Appeal Process (NAP) fact sheet and request for appeal (RFA) form. If you request to appeal this determination you must submit a completed RFA form to the following address:

District Engineer, Wilmington Regulatory Division
Attn: Jean Manuele, Project Manager,
Raleigh Regulatory Field Office
6508 Falls of the Neuse Road, Suite 120
Raleigh, North Carolina 27615

In order for an RFA to be accepted by the Corps, the Corps must determine that it is complete, that it meets the criteria for appeal under 33 CFR part 331.5, and that it has been received by the District Office within 60 days of the date of the NAP. Should you decide to submit an RFA form, it must be received at the above address by **February 20, 2008**.

It is not necessary to submit an RFA form to the District Office if you do not object to the determination in this correspondence.

Corps Regulatory Official: _____

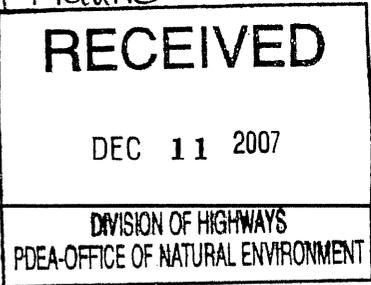


Date **December 20, 2007**

Expiration Date **12/20/2012**

The Wilmington District is committed to providing the highest level of support to the public. To help us ensure we continue to do so, please complete the Customer Satisfaction Survey located at our website at <http://regulatory.usacesurvey.com/> to complete the survey online.

Copy furnished:



Michael F. Easley, Governor
William G. Ross Jr., Secretary
North Carolina Department of Environment and Natural Resources
Coleen H. Sullins, Director
Division of Water Quality

December 5, 2007

James Pflaum
NCDOT – Natural Environment Unit
1598 Mail Service Center
Raleigh, North Carolina, 27699-1598

Subject: NCDOT TIP# B-4694
Davidson County
Reedy Creek [03-07-04, 12-96-(0.7), WS-IV]

NCDOT TIP# B-4741
Davidson County
Muddy Creek [03-07-04, 12-94-(0.5), C]

On-Site Determination for Applicability to the Mitigation Rules (15A NCAC 2H .0506(h))

Dear Mr. Pfaum:

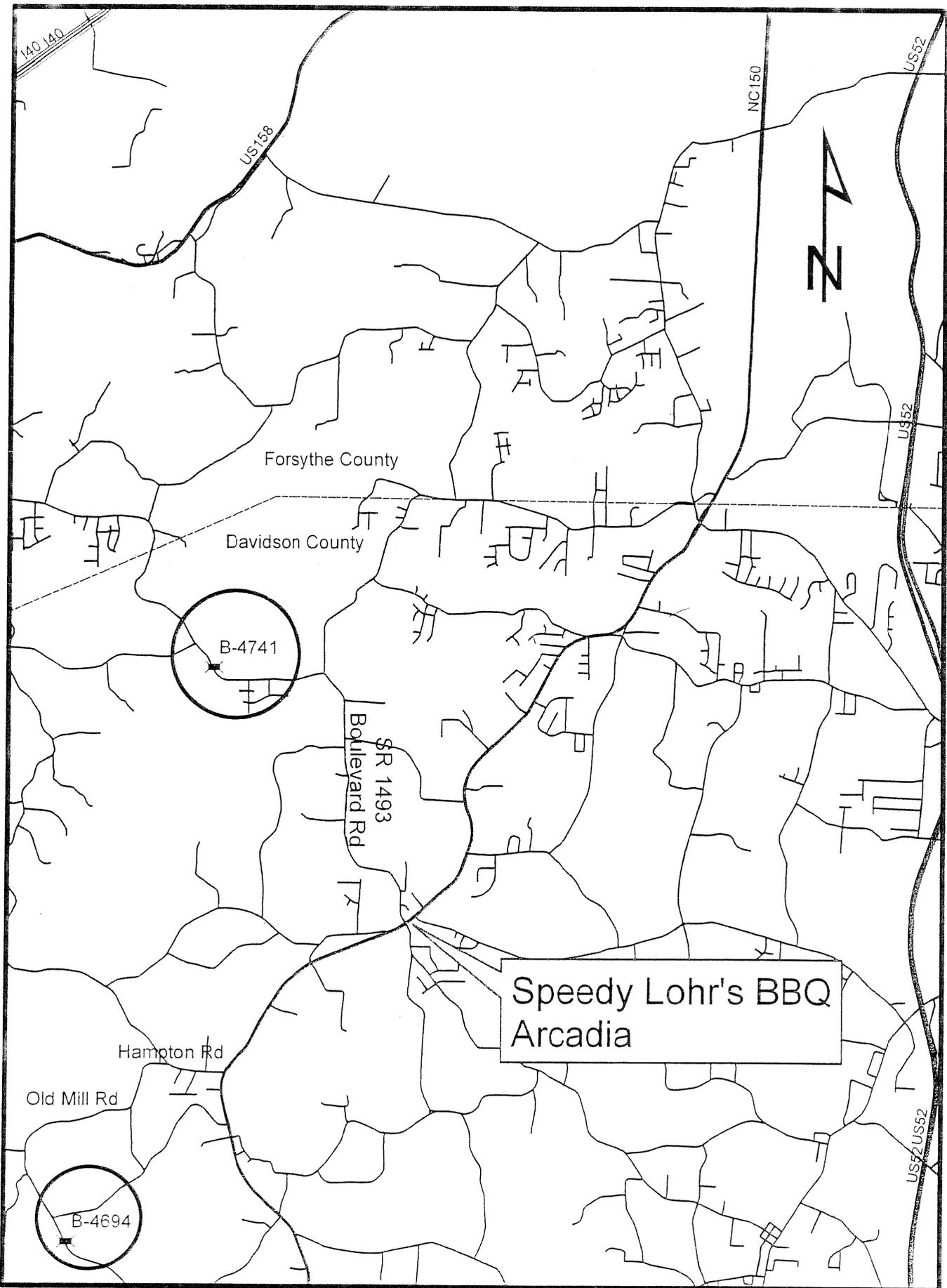
On December 5, 2007, at your request and in your attendance and with John Thomas of the US Army Corps of Engineers, Sue Homewood Division of Water Quality (DWQ) staff conducted an on-site determination to review drainage features located adjacent to the proposed new interchanges for the above referenced project for applicability to the mitigation rules (15A NCAC 2H .0506(h)). The drainage features are approximated on the attached maps initialed and dated December 5, 2007.

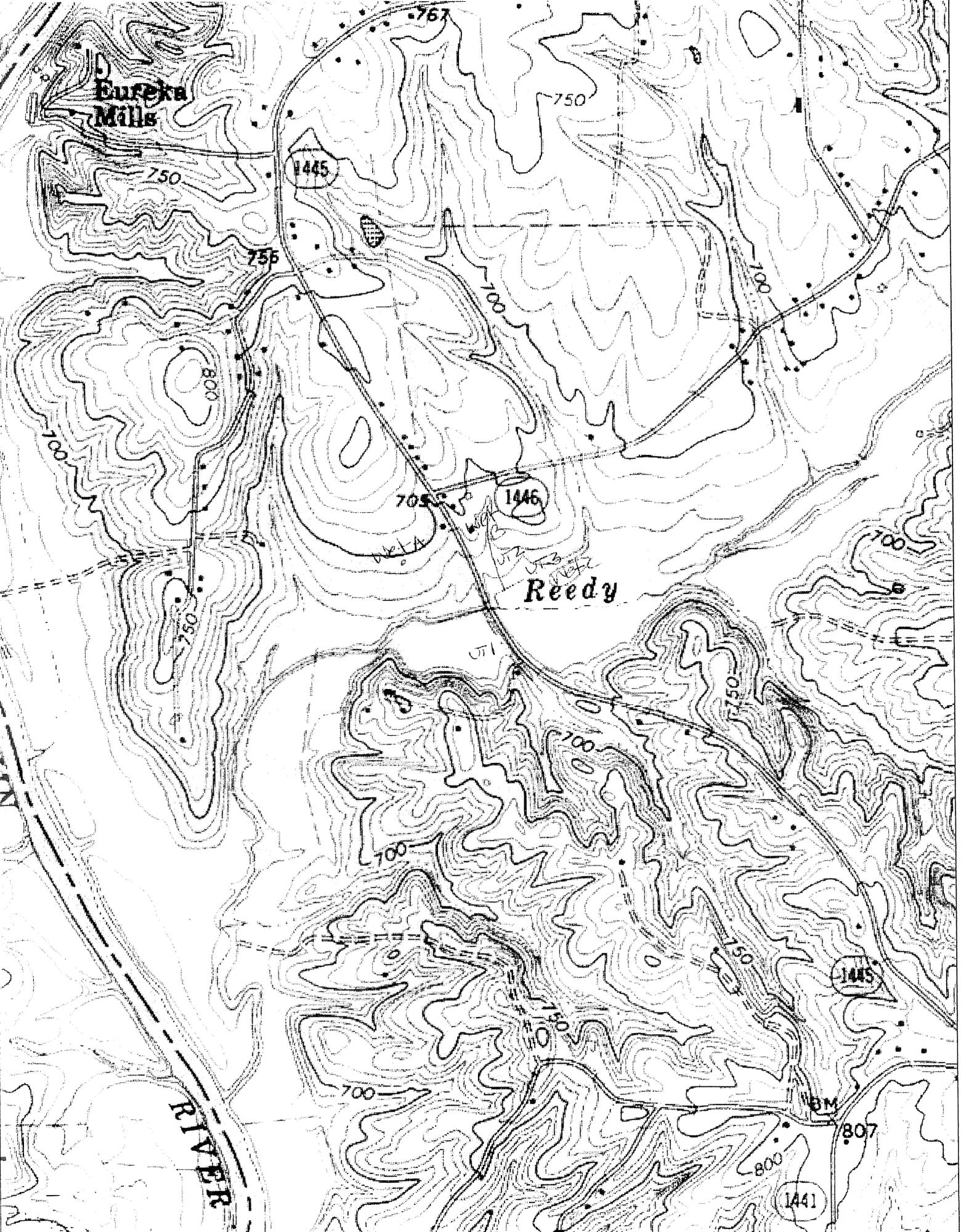
Within the project corridor for TIP# B-4694, the Division of Water Quality (DWQ) has determined that Reedy Creek and the stream identified as UT1 are perennial stream channels and therefore subject to the mitigation rules. The stream features identified as UT2 and UT3 were rated as ephemeral channels by DWQ and therefore not subject to the mitigation rules. Please note that the USACE rated these channels as jurisdictional features not subject to mitigation. The DWQ also acknowledges that the USACE determined wetlands A, B, and C to be jurisdictional wetlands.

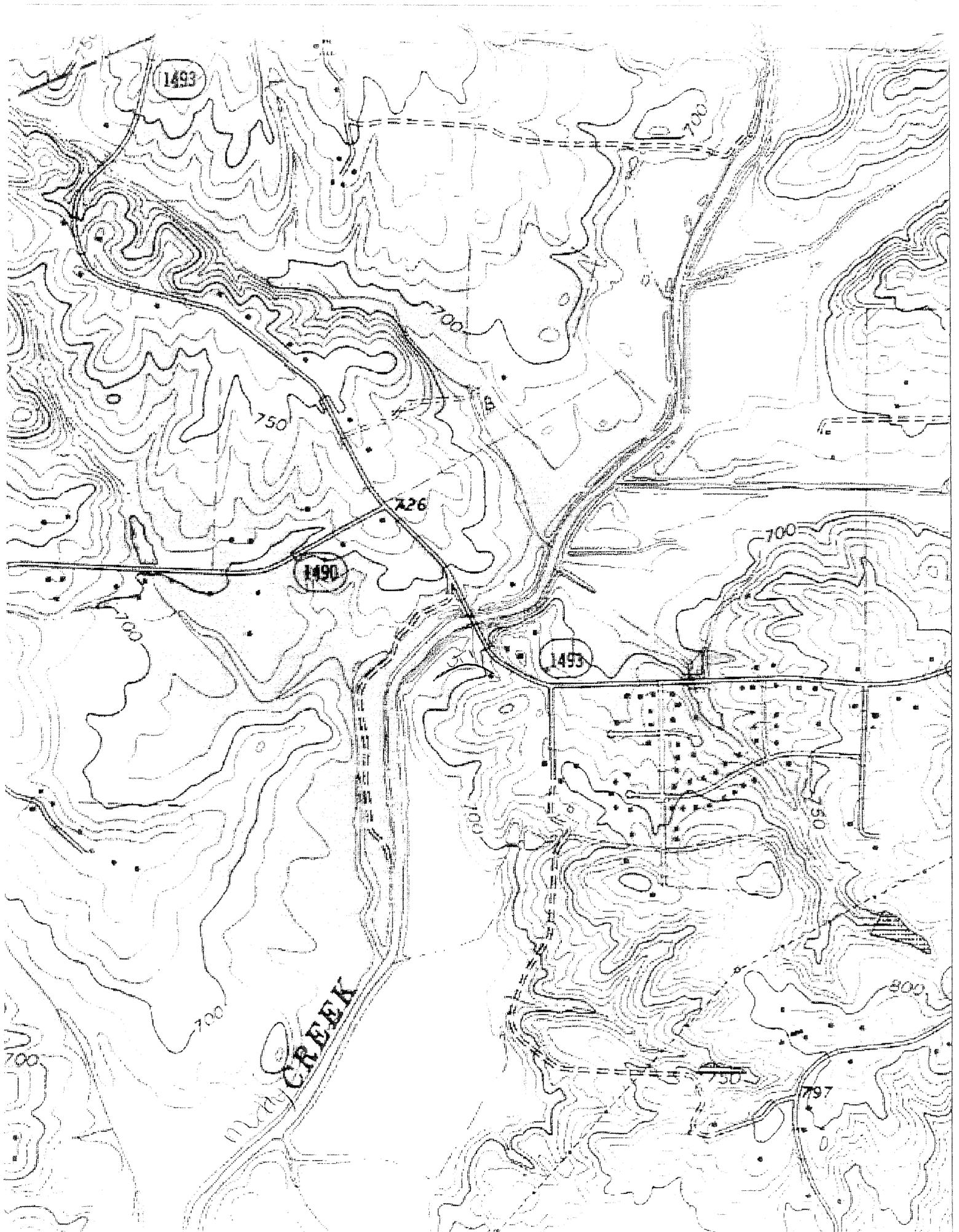
Within the project corridor for TIP# B-4741, the Division of Water Quality (DWQ) has determined Muddy Creek to be a perennial stream and therefore subject to the mitigation rules. The feature identified as UT1 was rated as an intermittent channel by DWQ and as a jurisdictional stream by the USACE.



B-4741 and B-4694 Vicinity Map







STORMWATER MANAGEMENT PLAN

Project: B-4694 (38473.1.1)
County: Davidson
Hydraulics Project Manager: Jay Twisdale, PE

April 20, 2009

ROADWAY DESCRIPTION

The project involves the replacement of Br. No. 52 over Reedy Creek on SR 1445 (Old Mill Rd.). The overall length of the project is 0.098 mi., and the existing 60.5'-long bridge is being replaced with a 105'-long bridge in-place. The proposed roadway utilizes shoulder section throughout. This is the only major crossing.

ENVIRONMENTAL DESCRIPTION

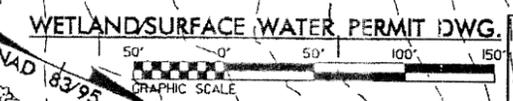
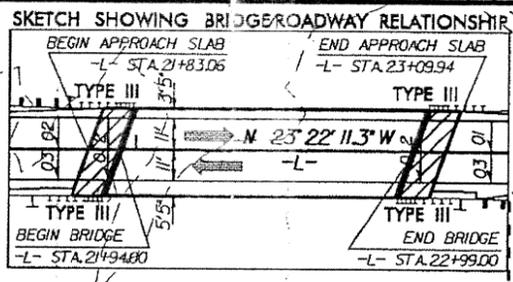
The project is located in the Yadkin-Pee Dee River Basin. Reedy Creek has a best usage classification of WS-IV Protected (Water Supply IV – Highly Developed). Riparian buffers are not required for Reedy Creek and the adjoining jurisdictional tributaries.

One wetland area (Wetland C) will be impacted from -L- Sta. 23+63 to Sta. 24+07 (RT). In addition, two jurisdictional streams (UT2 & UT3) will be impacted by the proposed roadway fill slope.

Portions of Reedy Creek will be affected as well. Stream banks along Reedy Creek potentially disturbed by the removal of the existing bridge will be stabilized with rip rap. A temporary workpad will be placed in Reedy Creek for the removal of the existing bridge.

BEST MANAGEMENT PRACTICES

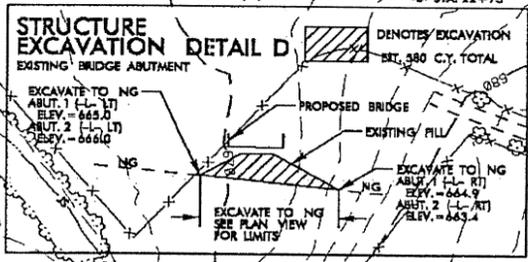
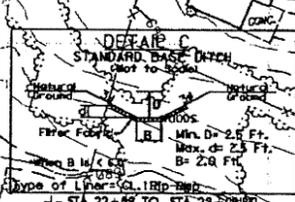
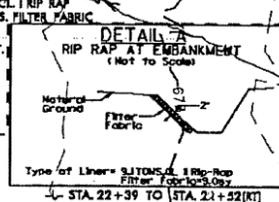
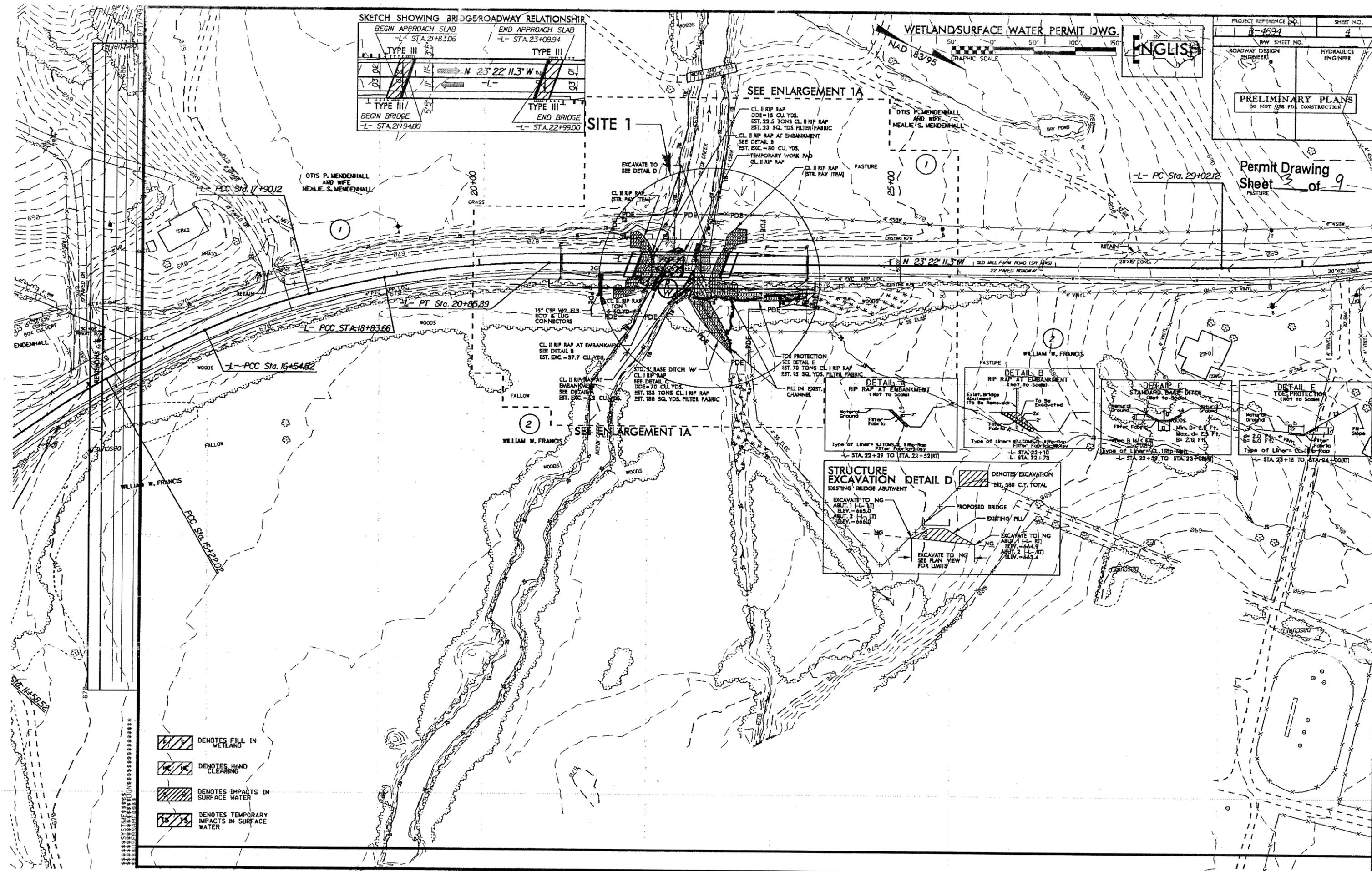
Best Management Practices (BMPs) and measures used on the project to reduce stormwater impacts. Slotted deck drains through the bridge rails will be utilized; however no deck drains will be allowed to discharge directly into Reedy Creek.



ENGLISH

PROJECT REFERENCE NO. B-4694	SHEET NO. 4
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

Permit Drawing Sheet 3 of 9



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

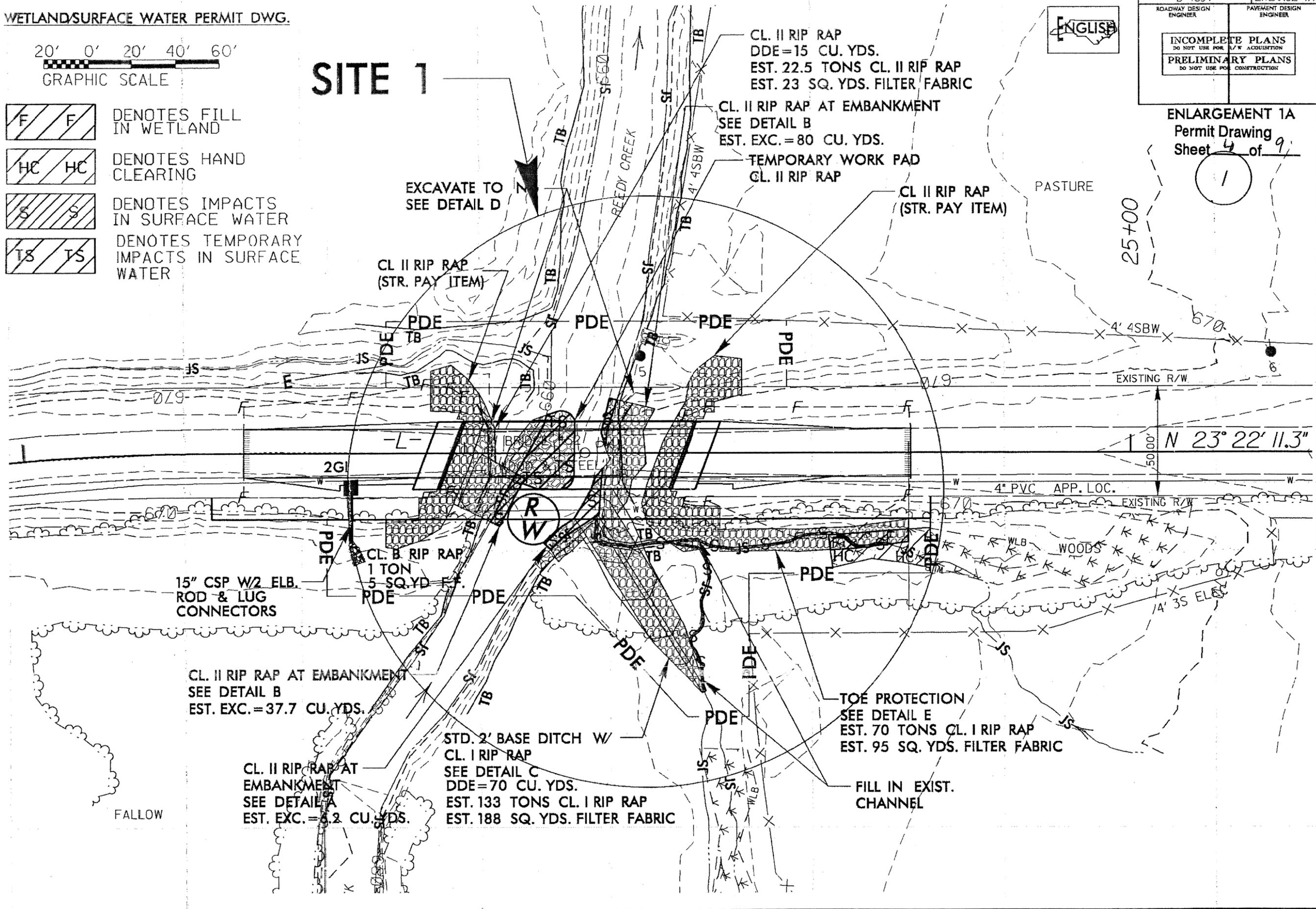
6/2/99
SYSTEMS DESIGN ENGINEERS
P.L.L.C.
1000 W. BROADWAY
SUITE 1000
DENVER, CO 80202
TEL: 303.733.8888
FAX: 303.733.8889
WWW.SDENGINEERS.COM

WETLAND/SURFACE WATER PERMIT DWG.



- F** DENOTES FILL IN WETLAND
- HC** DENOTES HAND CLEARING
- S** DENOTES IMPACTS IN SURFACE WATER
- TS** DENOTES TEMPORARY IMPACTS IN SURFACE WATER

SITE 1



CL. II RIP RAP
DDE=15 CU. YDS.
EST. 22.5 TONS CL. II RIP RAP
EST. 23 SQ. YDS. FILTER FABRIC

CL. II RIP RAP AT EMBANKMENT
SEE DETAIL B
EST. EXC.=80 CU. YDS.

TEMPORARY WORK PAD
CL. II RIP RAP

CL II RIP RAP
(STR. PAY ITEM)

EXCAVATE TO
SEE DETAIL D

CL II RIP RAP
(STR. PAY ITEM)

15" CSP W/2 ELB.
ROD & LUG
CONNECTORS

CL. II RIP RAP AT EMBANKMENT
SEE DETAIL B
EST. EXC.=37.7 CU. YDS.

CL. II RIP RAP AT
EMBANKMENT
SEE DETAIL A
EST. EXC.=6.2 CU. YDS.

STD. 2' BASE DITCH W/
CL. I RIP RAP
SEE DETAIL C
DDE=70 CU. YDS.
EST. 133 TONS CL. I RIP RAP
EST. 188 SQ. YDS. FILTER FABRIC

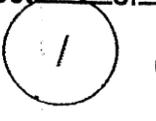
TOE PROTECTION
SEE DETAIL E
EST. 70 TONS CL. I RIP RAP
EST. 95 SQ. YDS. FILTER FABRIC

FILL IN EXIST.
CHANNEL

ENGLISH

PROJECT REFERENCE NO. B-4694	SHEET NO. ENLARGE 1A
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

ENLARGEMENT 1A
Permit Drawing
Sheet 4 of 9



25+00

EXISTING R/W

50.00' N 23° 22' 11.3"

4" PVC APP. LOC.

EXISTING R/W

14' 35' ELB.

FALLOW

PASTURE

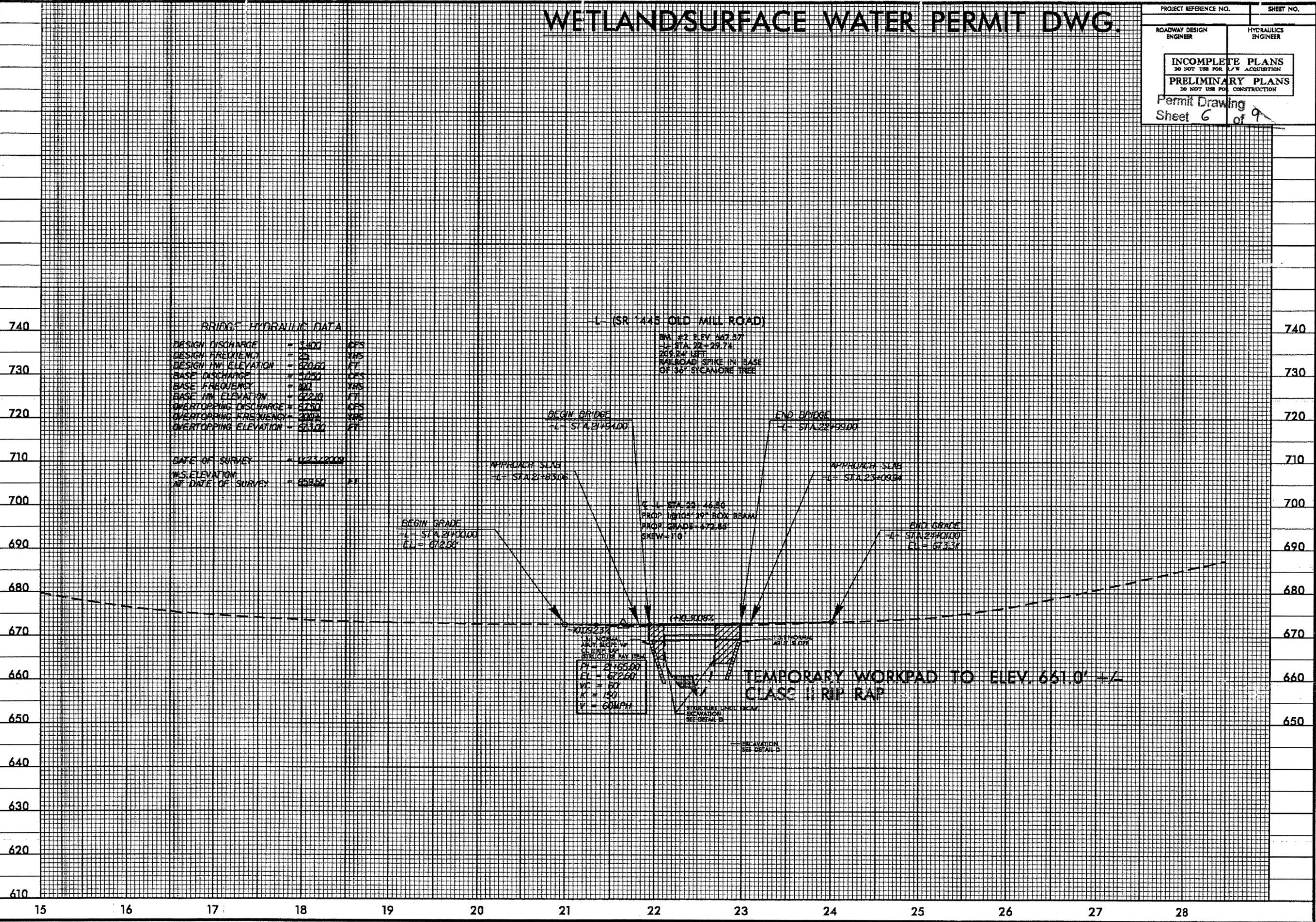
WOODS

WETLANDS/SURFACE WATER PERMIT DWG.

PROJECT REFERENCE NO.	SHEET NO.
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR A/W ACQUISITION	
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	
Permit Drawing Sheet 6 of 9	

5/14/99

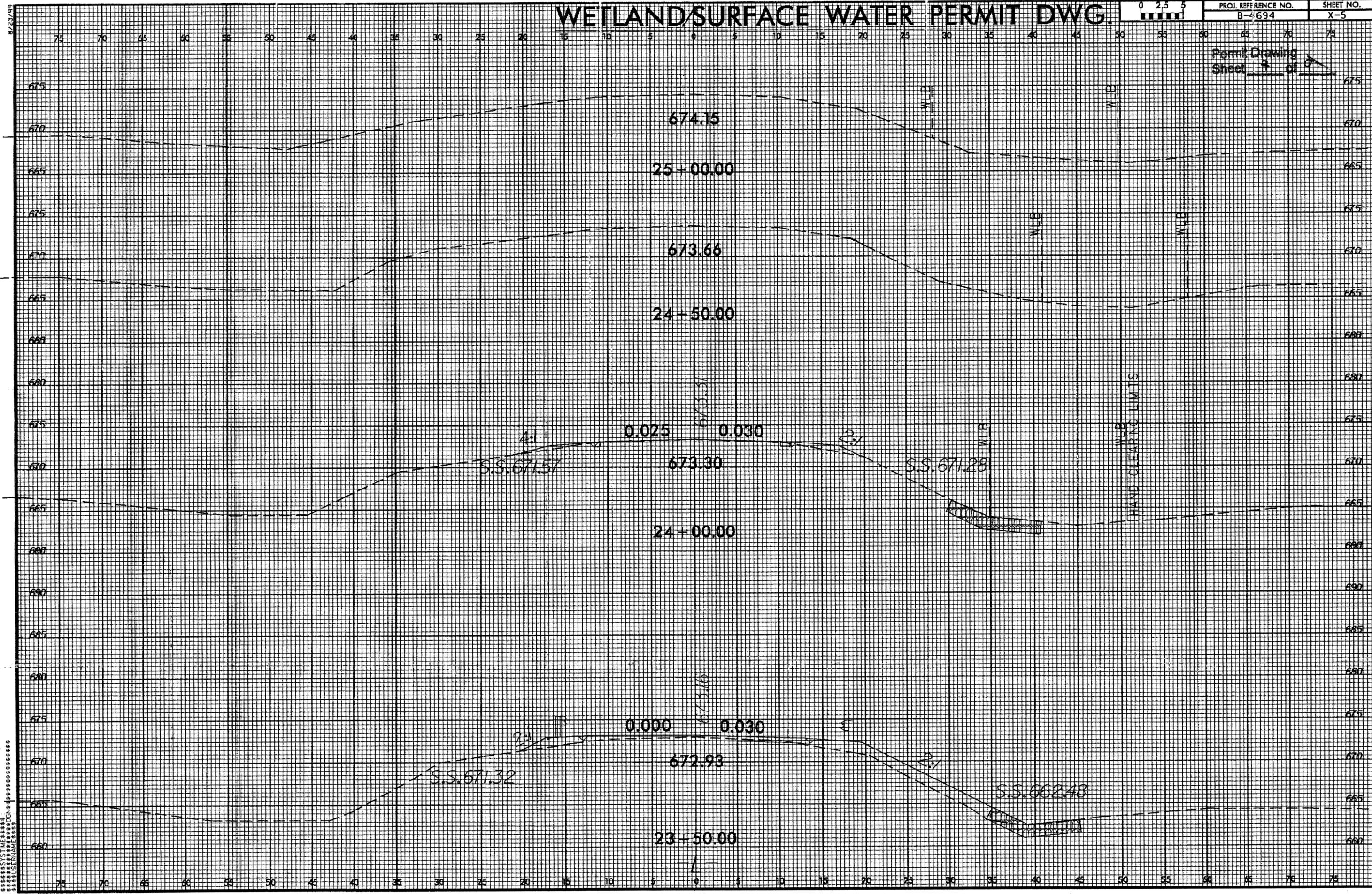
BM #1 ELEV. 609.17'
 -L- STA. 10+20.67
 65.54' LEFT
 RAILROAD SPIKE IN
 BASE OF 10" GUM TREE



WETLAND SURFACE WATER PERMIT DWG.

0 2.5 5	PROJ. REFERENCE NO. B-694	SHEET NO. X-5
---------	------------------------------	------------------

Permit Drawing
Sheet 2 of 9



B-4694 Davidson Co.
Property Owner Information

Courtesy Title	Alternate Col Last Name	First Name	Alternate Name	Address	City/Town	State	Zip Code	Home Phone
	FRANCIS	WILLIAM		39428 308 AVE SE	ENUMCLAW	WA	98022	
	WINYARD	MARK		230 DEER PATH LANE	LEXINGTON	NC	27295	
	MENDENHALL	OTIS		2574 OLD MILL FARM RD	LEXINGTON	NC	27295	
	MENDENHALL	OTIS		2574 OLD MILL FARM RD	LEXINGTON	NC	27295	
	MENDENHALL	OTIS		2574 OLD MILL FARM RD	LEXINGTON	NC	27295	
	MENDENHALL	OTIS		2574 OLD MILL FARM RD	LEXINGTON	NC	27295	
	JAMES	KIM		958 WELDON SMITH RD	LEXINGTON	NC	27295	(336) 853-2117
	MCMATHAN	ANN		1945 OLD MILL FARM RD	LEXINGTON	NC	27295	(336) 764-0819

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

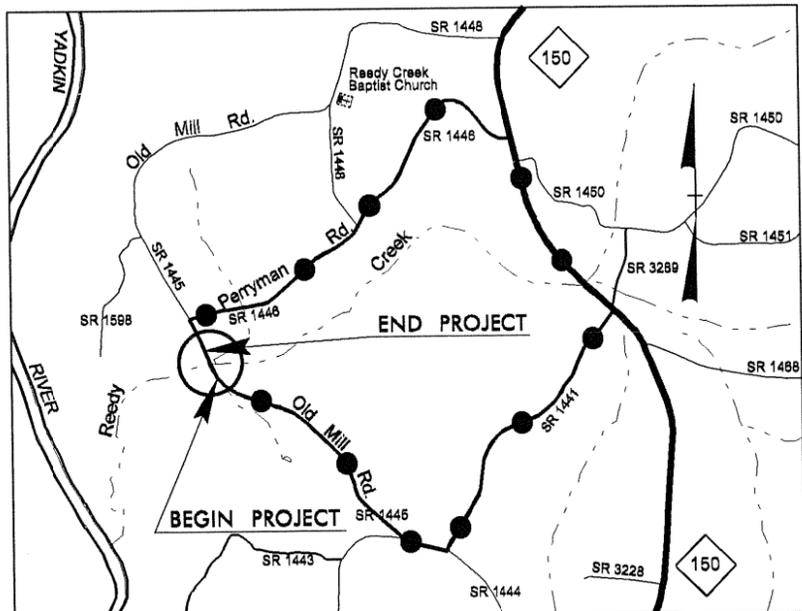
STATE OF NORTH CAROLINA
 DIVISION OF HIGHWAYS

DAVIDSON COUNTY

LOCATION: BRIDGE NO. 52 OVER REEDY CREEK ON
 SR 1445 (OLD MILL RD.)

TYPE OF WORK: GRADING, DRAINAGE, PAVING AND
 STRUCTURE.

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-4694	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
38473.1.1	BRZ-1445(3)	PE	
38473.2.1	BRZ-1445(3)	R.W./UTIL.	

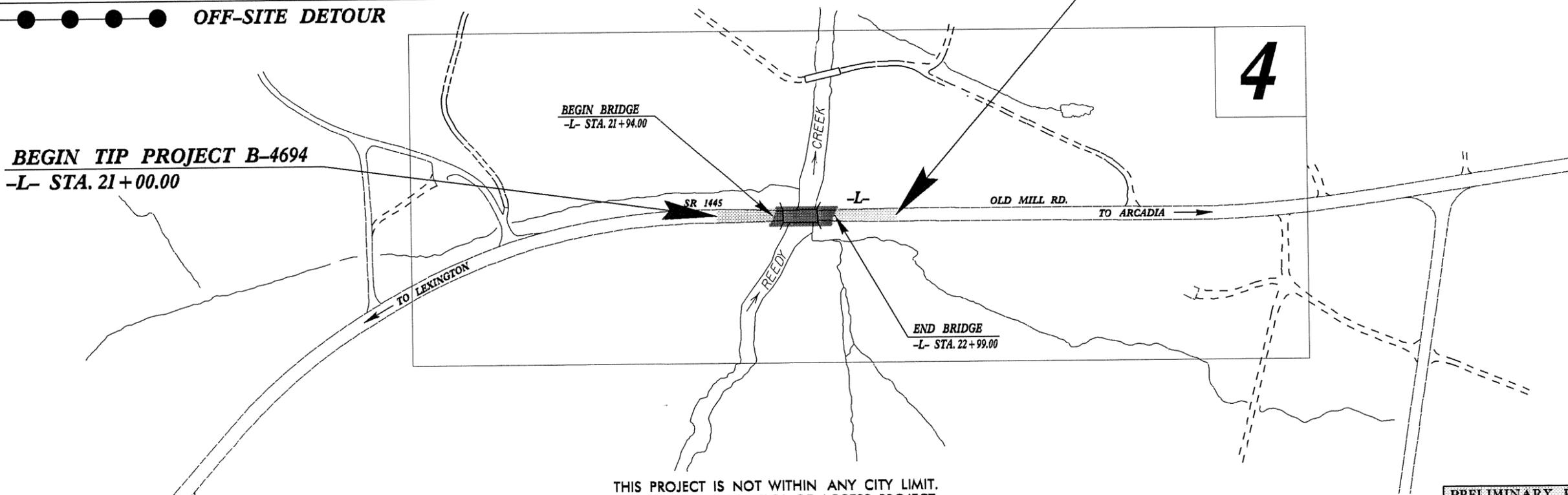


VICINITY MAP

●●●●● OFF-SITE DETOUR

BEGIN TIP PROJECT B-4694
 -L- STA. 21+00.00

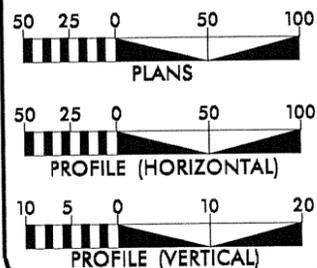
END TIP PROJECT B-4694
 -L- STA. 24+01.00



THIS PROJECT IS NOT WITHIN ANY CITY LIMIT.
 THIS IS NOT A CONTROL OF ACCESS PROJECT.
 CLEARING ON THIS PROJECT SHALL BE PERFORMED BY THE LIMITS ESTABLISHED BY METHOD II.

PRELIMINARY PLANS
 DO NOT USE FOR CONSTRUCTION

GRAPHIC SCALES



DESIGN DATA

ADT 2009 = 510
 ADT 2030 = 800
 DHV = 60 %
 D = 13 %
 T = 3 % *
 V = 60 MPH
 * TTST 1% DUAL 2%
 FUNC CLASS = LOCAL
 SUB-REGIONAL TIER

PROJECT LENGTH

LENGTH ROADWAY T.I.P. PROJECT B-4694 = 0.037 MI
 LENGTH STRUCTURE T.I.P. PROJECT B-4694 = 0.020 MI
 TOTAL LENGTH OF T.I.P. PROJECT B-4694 = 0.057 MI

Prepared in the Office of:
DIVISION OF HIGHWAYS
 1000 Birch Ridge Dr., Raleigh NC, 27610

2006 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
 NOVEMBER 9, 2009
 AUTH. MAY 13, 2010
 LETTING DATE:
 NOVEMBER 15, 2011

JASON MOORE, PE
 PROJECT ENGINEER

KEVIN E. MOORE, PE
 PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

SIGNATURE: _____ P.E.

ROADWAY DESIGN
 ENGINEER

SIGNATURE: _____ P.E.

DIVISION OF HIGHWAYS
 STATE OF NORTH CAROLINA



STATE HIGHWAY DESIGN ENGINEER P.E.

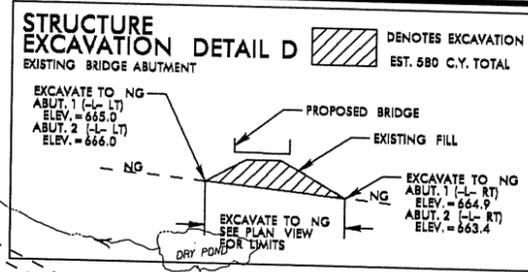
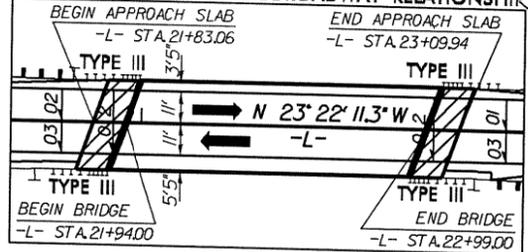
TIP PROJECT: B-4694

CONTRACT:

20-DEC-2010 08:29 R:\Roadway\Proj\B-4694_rdy_tsh.dgn \$\$\$USERNAME\$\$\$

8/17/99

SKETCH SHOWING BRIDGEROADWAY RELATIONSHIP



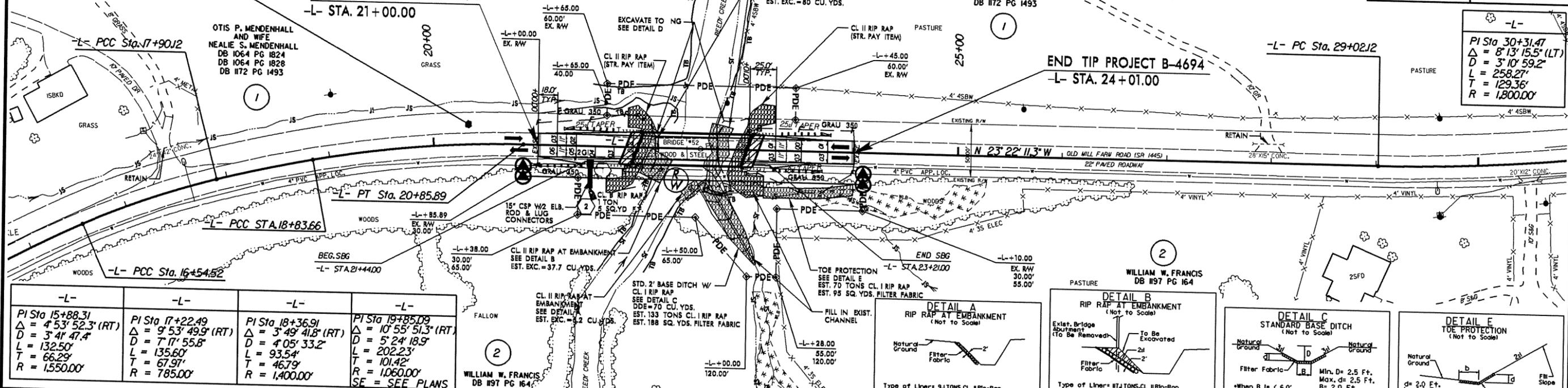
PROJECT REFERENCE NO.	SHEET NO.
B-4694	4
RW SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	
PRELIMINARY PLANS	
DO NOT USE FOR CONSTRUCTION	

-BL- 2 PINC (B4694-2) (GPS) 15+39.22
-L- STA. 20+33.76, 19.35' LT

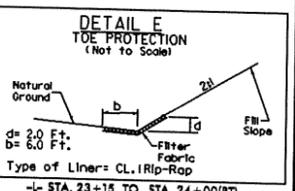
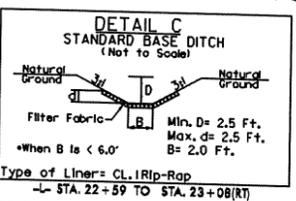
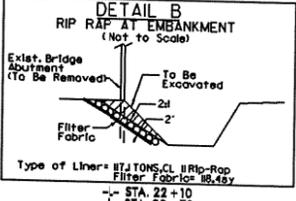
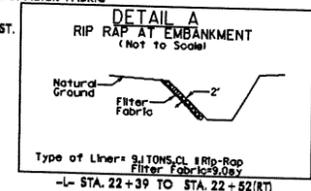
BEGIN TIP PROJECT B-4694
-L- STA. 21+00.00

END TIP PROJECT B-4694
-L- STA. 24+01.00

-L-
PI Sta 30+31.47
Δ = 8' 13" 15.5" (LT)
D = 3' 10" 59.2"
L = 258.27'
T = 129.36'
R = 1,800.00'

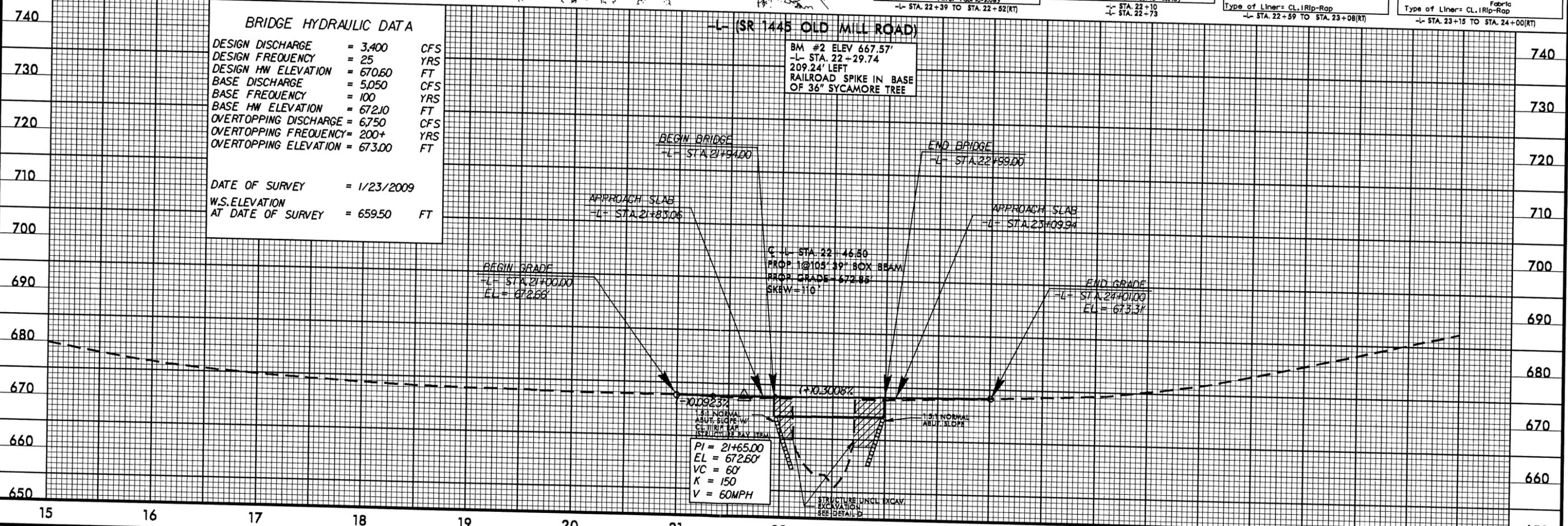


-L-	-L-	-L-	-L-
PI Sta 15+88.31 Δ = 4' 53" 52.3" (RT) D = 3' 41" 47.4" L = 132.50' T = 66.29' R = 1,550.00'	PI Sta 17+22.49 Δ = 9' 53" 49.9" (RT) D = 7' 17" 55.8" L = 135.60' T = 67.97' R = 785.00'	PI Sta 18+36.91 Δ = 3' 49" 41.8" (RT) D = 4' 05" 33.2" L = 93.54' T = 46.79' R = 1,400.00'	PI Sta 19+85.09 Δ = 10' 55" 51.3" (RT) D = 5' 24" 18.9" L = 202.23' T = 101.42' R = 1,060.00' SE = SEE PLANS



BRIDGE HYDRAULIC DATA

DESIGN DISCHARGE	= 3,400	CFS
DESIGN FREQUENCY	= 25	YRS
DESIGN HW ELEVATION	= 670.60	FT
BASE DISCHARGE	= 5,050	CFS
BASE FREQUENCY	= 100	YRS
BASE HW ELEVATION	= 672.10	FT
OVERTOPPING DISCHARGE	= 6,750	CFS
OVERTOPPING FREQUENCY	= 200+	YRS
OVERTOPPING ELEVATION	= 673.00	FT
DATE OF SURVEY	= 1/23/2009	
W.S. ELEVATION AT DATE OF SURVEY	= 659.50	FT



PI = 21+65.00
EL = 672.60'
VC = 60'
K = 150
V = 60MPH

20-DEC-2010 08:41
A:\Roadway\Proj\B-4694_rdy_psh_4.dgn