



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

BEVERLY EAVES PERDUE
GOVERNOR

EUGENE A. CONTI, JR.
SECRETARY

April 29, 2011

Mr. Bill Biddlecome
U. S. Army Corps of Engineers
Regulatory Field Office
Post Office Box 1000
Washington, NC 27889-1000

Mr. Stephen Lane
N. C. Dept. of Environment and Natural
Resources
Division of Coastal Management
400 Commerce Avenue
Morehead City, NC 28557

Dear Sirs:

Subject: Application for Section 404 General Permit 31, CAMA Major Development Permit Application, and Section 401 General Water Quality Certification for the replacement of Bridge No. 6 over Northwest Fork Alligator River on NC 94 in Tyrrell County. Federal Aid Project Number BRSTP-94(1). Debit \$400.00 from WBS 33813.1.1; TIP No. B-4647.

Please find enclosed the North Carolina Division of Coastal Management Major Permit Forms, Pre-Construction Notification (PCN) form, wetland restoration plan, Stormwater Management Plan, State Stormwater Permit exemption letter, permit drawings, half-size plan sheets, utility narrative and drawings, and the adjacent riparian landowner certified mail receipts. A Categorical Exclusion (CE) was completed for this project on August 26, 2008, and distributed shortly thereafter. A Federal Highway Administration (FHWA) Right-of-Way Consultation was completed on December 23, 2009. Additional copies are available upon request.

The North Carolina Department of Transportation (NCDOT), Division of Highways, in consultation with the FHWA, proposes to replace and relocate Bridge No. 6 on NC 94 over the Northwest Fork of the Alligator River in Tyrrell County. The existing structure is a 16-span, 360-foot long bridge with a continuous steel beams on timber pile bents. The proposed structure will be an 8-span, 370-foot long cored slab bridge on pipe piles and will be located to the west of the existing bridge. The causeway that is removed due to the relocation of the bridge will be excavated to natural wetland elevations and restored as onsite mitigation. There will be 0.49 ac. of permanent impacts to riparian wetlands adjacent to Northwest Fork of the Alligator River due to the relocation of the new bridge. There will be 0.52 ac. of onsite wetland mitigation. Traffic will be maintained onsite via staged construction.

The proposed let date for the project is January 17, 2012 with a review date of November 29, 2011; however, the let date may advance as additional funds become available.

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

TELEPHONE: 919-707-6000
FAX: 919-2125785
WEBSITE: WWW.NCDOT.ORG

LOCATION:
CENTURY CENTER
1020 BIRCH RIDGE DRIVE
RALEIGH NC 27610

Regulatory Approvals

CAMA: NCDOT requests that the proposed work be authorized under a Coastal Area Management Act Major Development Permit. Adjacent riparian landowner return receipts will be forwarded once they become available. Authorization to debit the \$400 Permit Application Fee from WBS Element 33813.1.1 is hereby given.

Section 404 Permit: All aspects of this project are being processed by the Federal Highway Administration as a "Categorical Exclusion" in accordance with 23 CFR 771.115(b). The NCDOT requests that a General Permit 198200031 authorize these activities.

Section 401 Permit: We anticipate 401 General Certification number 3820 will apply to this project. In accordance with 15A NCAC 2H, Section .0500(a), we are providing three copies of this application to the NCDWQ for their approval.

A copy of this permit application and its distribution list will be posted on the NCDOT website at <http://www.ncdot.org/doh/preconstruct/pe/neu/permit.html>

If you have any questions or need additional information, please call or email Mrs. Veronica Barnes, at 919-707-6102 or vabarnes@ncdot.gov.

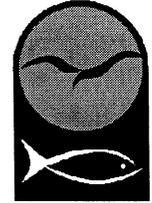
Sincerely,



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

cc:
NCDOT Permit Application Standard Distribution List

APPLICATION for Major Development Permit



(last revised 12/27/06)

North Carolina DIVISION OF COASTAL MANAGEMENT

1. Primary Applicant/ Landowner Information			
Business Name North Carolina Department Of Transportation		Project Name (if applicable) B-4647	
Applicant 1: First Name Gregory	MI	Last Name Thorpe	
Applicant 2: First Name	MI	Last Name	
<i>If additional applicants, please attach an additional page(s) with names listed.</i>			
Mailing Address 1598 Mail Service Center		PO Box	City Raleigh
			State NC
ZIP 27699 1598	Country USA	Phone No. 919 - 707 - 6102 ext.	FAX No. 919 - 212 - 5787
Street Address (if different from above) 1020 Birch Ridge Road		City Raleigh	State NC
			ZIP 27610-
Email vabarnes@ncdot.gov			

2. Agent/Contractor Information			
Business Name			
Agent/ Contractor 1: First Name	MI	Last Name	
Agent/ Contractor 2: First Name	MI	Last Name	
Mailing Address		PO Box	City
			State
ZIP		Phone No. 1 - - ext.	Phone No. 2 - - ext.
FAX No.	Contractor #		
Street Address (if different from above)		City	State
			ZIP -
Email			

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3. Project Location			
County (can be multiple) Tyrell	Street Address		State Rd. #
Subdivision Name	City	State	Zip
Phone No. - - ext.	Lot No.(s) (if many, attach additional page with list)		
a. In which NC river basin is the project located? Pasquotank	b. Name of body of water nearest to proposed project Alligator River		
c. Is the water body identified in (b) above, natural or manmade? <input checked="" type="checkbox"/> Natural <input type="checkbox"/> Manmade <input type="checkbox"/> Unknown	d. Name the closest major water body to the proposed project site. Albemarle Sound		
e. Is proposed work within city limits or planning jurisdiction? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	f. If applicable, list the planning jurisdiction or city limit the proposed work falls within.		

4. Site Description	
a. Total length of shoreline on the tract (ft.) 150	b. Size of entire tract (sq.ft.) 282,050
c. Size of individual lot(s) N/A, (if many lot sizes, please attach additional page with a list)	d. Approximate elevation of tract above NHW (normal high water) or NWL (normal water level) 1ft <input type="checkbox"/> NHW or <input checked="" type="checkbox"/> NWL
e. Vegetation on tract Vegetation in the area is consistant with a Cypress-Gum swamp Terrestrial community and includes bald cypress, swamp gum, red maple, titi, sweet pepper bush, lizard tail, and netted chain fern.	
f. Man-made features and uses now on tract Bridge and Roadway Approaches	
g. Identify and describe the existing land uses <u>adjacent</u> to the proposed project site. Forested	
h. How does local government zone the tract? Right of Way	i. Is the proposed project consistent with the applicable zoning? (Attach zoning compliance certificate, if applicable) <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
j. Is the proposed activity part of an urban waterfront redevelopment proposal? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
k. Has a professional archaeological assessment been done for the tract? If yes, attach a copy. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA If yes, by whom? NCDOT Archeology Group	
l. Is the proposed project located in a National Registered Historic District or does it involve a National Register listed or eligible property? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA	

<Form continues on next page>

m. (i) Are there wetlands on the site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
(ii) Are there coastal wetlands on the site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
(iii) If yes to either (i) or (ii) above, has a delineation been conducted? <i>(Attach documentation, if available)</i>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
n. Describe existing wastewater treatment facilities. None	
o. Describe existing drinking water supply source. None	
p. Describe existing storm water management or treatment systems. None	

5. Activities and Impacts	
a. Will the project be for commercial, public, or private use?	<input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Public/Government <input type="checkbox"/> Private/Community
b. Give a brief description of purpose, use, and daily operations of the project when complete. Public Road	
c. Describe the proposed construction methodology, types of construction equipment to be used during construction, the number of each type of equipment and where it is to be stored. Propose top/down construction with no temporary causeway(s). Underground telephone and water lines will be installed on the right side of the project by open trench and directional bore. Typical construction equipment includes crane, bulldozer, dump trucks, motor grader, etc.	
d. List all development activities you propose. Roadway and bridge construction	
e. Are the proposed activities maintenance of an existing project, new work, or both?	Both
f. What is the approximate total disturbed land area resulting from the proposed project?	3.06 <input type="checkbox"/> Sq.Ft or <input checked="" type="checkbox"/> Acres
g. Will the proposed project encroach on any public easement, public accessway or other area that the public has established use of?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
h. Describe location and type of existing and proposed discharges to waters of the state. There will be no direct discharges into waters of the state.	
i. Will wastewater or stormwater be discharged into a wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
If yes, will this discharged water be of the same salinity as the receiving water?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
j. Is there any mitigation proposed? If yes, attach a mitigation proposal.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA

<Form continues on back>

6. Additional Information

In addition to this completed application form, (MP-1) the following items below, if applicable, must be submitted in order for the application package to be complete. Items (a) – (f) are always applicable to any major development application. Please consult the application instruction booklet on how to properly prepare the required items below.

- a. A project narrative.
- b. An accurate, dated work plat (including plan view and cross-sectional drawings) drawn to scale. Please give the present status of the proposed project. Is any portion already complete? If previously authorized work, clearly indicate on maps, plats, drawings to distinguish between work completed and proposed.
- c. A site or location map that is sufficiently detailed to guide agency personnel unfamiliar with the area to the site.
- d. A copy of the deed (with state application only) or other instrument under which the applicant claims title to the affected properties.
- e. The appropriate application fee. Check or money order made payable to DENR.

f. A list of the names and complete addresses of the adjacent waterfront (riparian) landowners and signed return receipts as proof that such owners have received a copy of the application and plats by certified mail. Such landowners must be advised that they have 30 days in which to submit comments on the proposed project to the Division of Coastal Management.

Name see attached list in permit drawings.	Phone No.
Address	
Name	Phone No.
Address	
Name	Phone No.
Address	

g. A list of previous state or federal permits issued for work on the project tract. Include permit numbers, permittee, and issuing dates.

- h. Signed consultant or agent authorization form, if applicable.
- i. Wetland delineation, if necessary.
- j. A signed AEC hazard notice for projects in oceanfront and inlet areas. (Must be signed by property owner)
- k. A statement of compliance with the N.C. Environmental Policy Act (N.C.G.S. 113A 1-10), if necessary. If the project involves expenditure of public funds or use of public lands, attach a statement documenting compliance with the North Carolina Environmental Policy Act.

7. Certification and Permission to Enter on Land

I understand that any permit issued in response to this application will allow only the development described in the application. The project will be subject to the conditions and restrictions contained in the permit.

I certify that I am authorized to grant, and do in fact grant permission to representatives of state and federal review agencies to enter on the aforementioned lands in connection with evaluating information related to this permit application and follow-up monitoring of the project.

I further certify that the information provided in this application is truthful to the best of my knowledge.

Date 4.28.11 Print Name Gregory J. Thorpe, PhD
Signature E. J. Lusk for

- Please indicate application attachments pertaining to your proposed project.
- DCM MP-2 Excavation and Fill Information
 - DCM MP-3 Upland Development
 - DCM MP-4 Structures Information
 - DCM MP-5 Bridges and Culverts

BRIDGES and CULVERTS

Attach this form to Joint Application for CAMA Major Permit, Form DCM MP-1. Be sure to complete all other sections of the Joint Application that relate to this proposed project. Please include all supplemental information.

1. BRIDGES This section not applicable

- a. Is the proposed bridge:
 - Commercial Public/Government Private/Community
- b. Water body to be crossed by bridge:

Northwest Fork Alligator River

- c. Type of bridge (construction material):

21" Cored Slab

- d. Water depth at the proposed crossing at NLW or NWL.

19'

- e. (i) Will proposed bridge replace an existing bridge? Yes No

If yes,

 - (ii) Length of existing bridge: 360'
 - (iii) Width of existing bridge: 29.5'
 - (iv) Navigation clearance underneath existing bridge: 5'
 - (v) Will all, or a part of, the existing bridge be removed?

(Explain) Yes, All of the existing bridge will be removed

- f. (i) Will proposed bridge replace an existing culvert? Yes No

If yes,

 - (ii) Length of existing culvert: _____
 - (iii) Width of existing culvert: _____
 - (iv) Height of the top of the existing culvert above the NHW or NWL. _____
 - (v) Will all, or a part of, the existing culvert be removed?

(Explain)

- g. Length of proposed bridge: 370'
- h. Width of proposed bridge: 36'
- i. Will the proposed bridge affect existing water flow? Yes No

If yes, explain:

- j. Will the proposed bridge affect navigation by reducing or increasing the existing navigable opening? Yes No

If yes, explain:

- k. Navigation clearance underneath proposed bridge: 7'
- l. Have you contacted the U.S. Coast Guard concerning their approval? Yes No

If yes, explain: The waterway is subject to tidal influence and considered legally navigable for bridge administration purposes; however, the Commandant of CG has given advance approval for the construction of bridges across such waterways. No CG bridge permit required.

- m. Will the proposed bridge cross wetlands containing no navigable waters? Yes No

If yes, explain:

- n. Height of proposed bridge above wetlands: 5'

2. CULVERTS This section not applicable

- a. Number of culverts proposed: _____
- b. Water body in which the culvert is to be placed:

< Form continues on back >

c. Type of culvert (construction material):

d. (i) Will proposed culvert replace an existing bridge? Yes No

If yes,

- (ii) Length of existing bridge: _____
- (iii) Width of existing bridge: _____
- (iv) Navigation clearance underneath existing bridge: _____
- (v) Will all, or a part of, the existing bridge be removed? (Explain)

e. (i) Will proposed culvert replace an existing culvert? Yes No

If yes,

- (ii) Length of existing culvert(s): _____
- (iii) Width of existing culvert(s): _____
- (iv) Height of the top of the existing culvert above the NHW or NWL: _____
- (v) Will all, or a part of, the existing culvert be removed? (Explain)

f. Length of proposed culvert: _____

g. Width of proposed culvert: _____

h. Height of the top of the proposed culvert above the NHW or NWL.

i. Depth of culvert to be buried below existing bottom contour.

j. Will the proposed culvert affect navigation by reducing or increasing the existing navigable opening? Yes No

k. Will the proposed culvert affect existing water flow? Yes No

If yes, explain:

If yes, explain:

3. EXCAVATION and FILL

This section not applicable

a. (i) Will the placement of the proposed bridge or culvert require any excavation below the NHW or NWL? Yes No

If yes,

- (ii) Avg. length of area to be excavated: _____
- (iii) Avg. width of area to be excavated: _____
- (iv) Avg. depth of area to be excavated: _____
- (v) Amount of material to be excavated in cubic yards: _____

b. (i) Will the placement of the proposed bridge or culvert require any excavation within coastal wetlands/marsh (CW), submerged aquatic vegetation (SAV), shell bottom (SB), or other wetlands (WL)? If any boxes are checked, provide the number of square feet affected.

- CW _____ SAV _____ SB _____
- WL _____ None

(ii) Describe the purpose of the excavation in these areas:

c. (i) Will the placement of the proposed bridge or culvert require any high-ground excavation? Yes No

If yes,

(ii) Avg. length of area to be excavated: 19'

(iii) Avg. width of area to be excavated: 30'

(iv) Avg. depth of area to be excavated: 6'

(v) Amount of material to be excavated in cubic yards: 250

d. If the placement of the bridge or culvert involves any excavation, please complete the following:

(i) Location of the spoil disposal area: to be determined by contractor

(ii) Dimensions of the spoil disposal area: unknown

(iii) Do you claim title to the disposal area? Yes No (If no, attach a letter granting permission from the owner.)

(iv) Will the disposal area be available for future maintenance? Yes No

(v) Does the disposal area include any coastal wetlands/marsh (CW), submerged aquatic vegetation (SAVs), other wetlands (WL), or shell bottom (SB)?

CW SAV WL SB None

If any boxes are checked, give dimensions if different from (ii) above.

(vi) Does the disposal area include any area below the NHW or NWL? Yes No

If yes, give dimensions if different from (ii) above.

e. (i) Will the placement of the proposed bridge or culvert result in any fill (other than excavated material described in Item d above) to be placed below NHW or NWL? Yes No

If yes,

(ii) Avg. length of area to be filled: 600'

(iii) Avg. width of area to be filled: 20'

(iv) Purpose of fill: Shifting of roadway approaches, fill is under the OHW line, but it still a wetland impact due to tidal influence.

f. (i) Will the placement of the proposed bridge or culvert result in any fill (other than excavated material described in Item d above) to be placed within coastal wetlands/marsh (CW), submerged aquatic vegetation (SAV), shell bottom (SB), or other wetlands (WL)? If any boxes are checked, provide the number of square feet affected.

CW <0.01ac SAV _____ SB _____

WL 0.58ac None

(ii) Describe the purpose of the excavation in these areas:

Shifting of roadway approaches.

g. (i) Will the placement of the proposed bridge or culvert result in any fill (other than excavated material described in Item d above) to be placed on high-ground? Yes No

If yes,

(ii) Avg. length of area to be filled: 600

(iii) Avg. width of area to be filled: 20

(iv) Purpose of fill: fill for new bridge approaches.

4. GENERAL

a. Will the proposed project require the relocation of any existing utility lines? Yes No

If yes, explain: see attached utility drawings and narrative.

b. Will the proposed project require the construction of any temporary detour structures? Yes No

If yes, explain: The on-site detour will maintain traffic on the existing structure while the new structure is being constructed then transferred to the new structure while the old structure is removed. Phased construction methods will be used.

If this portion of the proposed project has already received approval from local authorities, please attach a copy of the approval or certification.

< Form continues on back >

c. Will the proposed project require any work channels?
 Yes No
If yes, complete Form DCM-MP-2.

d. How will excavated or fill material be kept on site and erosion controlled?
Use of Standard NCDOT BMP's

e. What type of construction equipment will be used (for example, dragline, backhoe, or hydraulic dredge)?
Crane, bulldozer, dump truck, motor grader, pile driver, etc.

f. Will wetlands be crossed in transporting equipment to project site?
 Yes No
If yes, explain steps that will be taken to avoid or minimize environmental impacts.

g. Will the placement of the proposed bridge or culvert require any shoreline stabilization?
 Yes No
If yes, complete form MP-2, Section 3 for Shoreline Stabilization only.

4.28.11

Date

B-4647

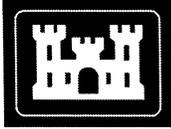
Project Name

Gregory J. Thorpe, PhD

Applicant Name

E. L. Lusk

Applicant Signature



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:	or General Permit (GP) number: 198200031	
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 checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
1h. Is the project located within a NC DCM Area of Environmental Concern (AEC)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	

2. Project Information

2a. Name of project:	Replace Bridge No. 6 over Northwest Fork Alligator River on NC 94
2b. County:	Tyrrell
2c. Nearest municipality / town:	Gum Neck
2d. Subdivision name:	not applicable
2e. NCDOT only, T.I.P or state project no:	B-4647

3. Owner Information

3a. Name(s) on Recorded Deed:	North Carolina Department of Transportation
3b. Deed Book and Page No.	not applicable
3c. Responsible Party (for LLC if applicable):	not applicable
3d. Street address:	1598 Mail Service Center
3e. City, state, zip:	Raleigh, NC 27699
3f. Telephone no.:	(919) 707-6102
3g. Fax no.:	(919) 212-5785
3h. Email address:	vabarnes@ncdot.gov

4. Applicant Information (if different from owner)	
4a. Applicant is:	<input type="checkbox"/> Agent <input type="checkbox"/> Other, specify:
4b. Name:	not applicable
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:	not applicable
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):	N/A
1b. Site coordinates (in decimal degrees):	Latitude: 35.721525 (DD.DDDDDD) Longitude: - 76.193354 (-DD.DDDDDD)
1c. Property size:	N/A acres
2. Surface Waters	
2a. Name of nearest body of water (stream, river, etc.) to proposed project:	Northwest Fork Alligator River
2b. Water Quality Classification of nearest receiving water:	C;Sw;ORW
2c. River basin:	Pasquotank
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: Existing conditions on the site include open water and Riverne Swamp Forest. Land use in the general vicinity is low density residential.	
3b. List the total estimated acreage of all existing wetlands on the property: 38	
3c. List the total estimated linear feet of all existing streams (intermittent and perennial) on the property: 1700	
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 structurally deficient bridge with a eight-span cored slab bridge with concrete overlay on steel pile bents. The existing structure is a sixteen-span bridge with reinforced concrete floor on continuous I-beams over concrete caps and timber piles. Standard road building equipment will be used. Existing utilities will be relocated on-site via the directional bore method.	
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: SAW200511639.	<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): Craig Terwillinger and Michael Gloden	Agency/Consultant Company: EcoScience Corporation Other:
4d. If yes, list the dates of the Corps jurisdictional determinations or State determinations and attach documentation. February 16, 2006	
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. N/A	
6. Future Project Plans	
6a. Is this a phased project?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
6b. If yes, explain. N/A	

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 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)	
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	0.17	
W2 <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	
W3 <input checked="" type="checkbox"/> P <input type="checkbox"/> T	Bridge and Roadway	Riparian	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Corps <input type="checkbox"/> DWQ	0.30	
W4 <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	
W5 <input checked="" type="checkbox"/> P <input type="checkbox"/> T	Bridge	Riparian	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Corps <input type="checkbox"/> DWQ	<0.01	
W6 <input checked="" type="checkbox"/> P <input type="checkbox"/> T	Bridge	CAMA	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Corps <input type="checkbox"/> DWQ	<0.01	
2g. Total wetland impacts					0.49	
2h. Comments: Proposed temporary impacts to 404 wetlands of 0.09 acre and <0.01 acre of CAMA wetlands of Temporary Fill in Wetlands in the Hand Clearing areas for the installation of erosion control measures, including Temporary Silt Fence and/or Special Sediment Control Fence.						
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 type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> PER <input type="checkbox"/> INT	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
S2 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> PER <input type="checkbox"/> INT	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
S3 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> PER <input type="checkbox"/> INT	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
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						
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				

4f. Total open water impacts

4g. Comments: N/A

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: N/A

5h. Is a dam high hazard permit required?	<input type="checkbox"/> Yes <input checked="" 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		
B4 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No		
B5 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No		
B6 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No		
B7 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No		
6h. Total buffer impacts					
6i. Comments: N/A					

D. Impact Justification and Mitigation		
1. Avoidance and Minimization		
1a. Specifically describe measures taken to avoid or minimize the proposed impacts in designing project. Measures taken during the design process to avoid or minimize impacts include the use of Design Standards for Sensitive Watersheds, increasing the length of the proposed bridge, decreasing the number of bents from 15 to 7, inclusion of Hazardous Spill Catch basins, and removal of the existing causeway graded down to natural wetland elevations.		
1b. Specifically describe measures taken to avoid or minimize the proposed impacts through construction techniques. Construction techniques used to minimize impacts include the use of NCDOT Best Management Practices for the Protection Surface Waters, In-water work moratorium for anadromous fish from February 15- June 15, top down construction and 3:1 fill slopes where practicable.		
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?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
2b. If yes, mitigation is required by (check all that apply):	<input type="checkbox"/> DWQ <input checked="" 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 checked="" 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:	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):	N/A square feet	
4e. Riparian wetland mitigation requested:	acres	
4f. Non-riparian wetland mitigation requested:	N/A acres	
4g. Coastal (tidal) wetland mitigation requested:	N/A acres	
4h. Comments: N/A		
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. Please see attached wetland restoration 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?				<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.				
Zone	6c. Reason for impact	6d. Total impact (square feet)	Multiplier	6e. Required mitigation (square feet)
Zone 1	N/A		3 (2 for Catawba)	
Zone 2	N/A		1.5	
6f. Total buffer mitigation required:				
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). N/A				
6h. Comments: N/A				

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:	<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 attachments.	
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
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 checked="" type="checkbox"/> Coastal counties <input type="checkbox"/> HQW <input checked="" 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 checked="" type="checkbox"/> Yes <input type="checkbox"/> No
5. DWQ 401 Unit Stormwater Review	
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

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:	<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 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? Phone conversation with USFWS representative (April 20, 2011), USFWS list of Threatened and Endangered Species for Tyrrell County (September 22, 2010); Natural Heritage Program Database.		
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? Index of Waterbodies with Essential Fish Habitat		
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? NC State Historic Preservation Office correspondence		
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: NCDOT Hydraulics Unit will coordinate with FEMA		
8c. What source(s) did you use to make the floodplain determination? FEMA maps		
Applicant/Agent's Printed Name	 Applicant/Agent's Signature (Agent's signature is valid only if an authorization letter from the applicant is provided.)	4.28.11 Date

**Wetland Restoration Plan
Bridge No. 6 over the Northwest Fork Alligator River on NC 94
Tyrrell County**

**TIP B-4647
Federal Aid Project No. BRSTP-94(1) and State Project No. 8.1130501
WBS No. 33813.1.1**

April 5, 2011

1.0 BASELINE INFORMATION

The project is located within sub-basin 03-01-51 of the Pasquotank River Basin and is part of the USGS Hydrologic Unit 03010205 of the South Atlantic Gulf region. The project is located on NC 94 in Tyrrell County near Gum Neck and is bordered by the Albermarle Sound to the north and east. It is within the Coastal Plain physiographic province; specifically the Mid-Atlantic Floodplain and Low Terrace Ecoregion. The majority of the land use in the vicinity of the project is undeveloped forest and wetlands. The entire project study area is part of the Pocosin Lakes National Wildlife Refuge.

One jurisdictional stream is located within the project area: Northwest Fork Alligator River. This portion of the river has been assigned Stream Index Number 30-16-8 (NCDWQ 2005a) and is designated a warm water stream (USACE et al. 2003) with a classification of C-Sw-ORW.

The two plant communities found within the project area are Cypress-Gum Swamp (Blackwater Subtype) and disturbed/maintained land. Approximately 83% of the project area (38 acres) is made up of the Cypress-Gum Swamp, 7% (3 acres) is composed of disturbed/maintained land containing both the narrow roadside shoulder of NC 94 and a boating access area, and the remaining 10% is the existing road (NC 94).

The North Carolina Department of Transportation (NCDOT) will perform on-site mitigation for wetland impacts associated with Transportation Improvement Program (TIP) B-4647 through the restoration of 0.52 acres of riverine wetland restoration via the removal of existing pavement and causeway associated with the current bridge and NC 94 alignment.

2.0 SITE SELECTION

TIP B-4647 will involve replacing bridge No. 6 over the Northwest Fork Alligator River as well as performing improvements to the approach roadway of the replacement structure. These improvements will extend approximately 780 feet south from the southwest end of the new structure and approximately 970 feet north from the northeast end of the new structure. Permanent wetland impacts associated with the project are 0.49 acres of riverine wetlands.

The mitigation site includes two areas which both occur within the existing Right-of-Way of NC 94 within the areas of the approach roadway improvements. The first area occurs from approximately Sta. 19+75 RT to Sta. 25+25 RT on the southwest end of the bridge. The second

area occurs from Sta. 30+25 RT to 34+00 RT on the northeast end. Within these areas NCDOT will restore 0.52 acre of riverine swamp forest via existing pavement and causeway removal, site grading and planting.

3.0 SITE PROTECTION INSTRUMENT

The mitigation areas are located with the NCDOT Right-of-Way for the project. They are outside of bridge maintenance areas and free of utilities. They will be managed to prohibit all use inconsistent with its use as mitigation property, including any activity that would materially alter the biological integrity or functional and educational value of the site, consistent with the mitigation plan.

The site will be placed on the NEU mitigation geo-database. It will be monitored for three years with annual reports provided to the agencies. After closeout, the site will be placed in the NCDOT Stewardship Program for long term management and protection.

4.0 OBJECTIVES

The goal of the project is to restore 0.52 acres of riverine swamp forest and mitigate for 0.49 acres of riverine wetland impacts associated with TIP B-4647. The functional restoration of the site will be accomplished through existing pavement and causeway removal and site grading to match the target elevation of the existing adjacent reference wetland system. The remaining 0.03 acres of riverine wetland restoration credit will be placed on the NCDOT debit ledger for future use.

5.0 MITIGATION WORK PLAN

The mitigation areas will be constructed in conjunction with TIP B-4647. Construction activities involve pavement and causeway removal, site grading and site planting. Once the pavement and causeway have been excavated, the areas will be graded to match existing adjacent reference wetland elevation as well as be ripped and disked if necessary.

The Natural Environment Unit shall be contacted to provide construction assistance to ensure that the mitigation areas are constructed appropriately.

Following the successful completion of site grading and stabilization, the restoration areas will be planted with species found in cypress-gum swamp communities including at least three of the following: bald cypress (*Taxodium distichum*), swamp gum (*Nyssa biflora*), atlantic white cedar (*Chamaecyparis thyoides*), and Carolina ash (*Fraxinus caroliniana*) depending on availability. Native grass seeding and mulching will be performed on all disturbed areas within the wetland restoration area for stabilization purposes according to guidance and standard procedures of NCDOT's Roadside Environmental Unit. An as-built report will be submitted within 60 days of completion of the project.

6.0 PERFORMANCE STANDARDS

No specific hydrological monitoring is proposed for the wetland restoration area. The target elevation will be based on the reference wetland and verified during construction. Constructing the site at the adjacent wetland elevation will ensure the hydrology in the restored area is similar to the hydrology in the reference area.

NCDOT shall monitor the restoration site by visual observation and photo points for survival and aerial cover of vegetation. NCDOT shall monitor the site for a minimum of three years or until the site is deemed successful. Monitoring will be initiated upon completion of the site planting.

7.0 MONITORING REQUIREMENTS

Upon successful completion of construction, the following monitoring strategy is proposed for the 0.52 acre restoration within the NCDOT Right-of-Way. NCDOT will perform visual inspection and photo points for three years and document monitoring activities on the site in an annual report distributed to the regulatory agencies.

8.0 OTHER INFORMATION

The Cypress-Gum Swamp plant community associated with B-4647, adjacent to Northwest Fork Alligator River is a Riverine Swamp Forest based on NCWAM field assessment methodology

9.0 DETERMINATION OF CREDITS

Per the NCDOT plans and 401/404 permit application for B-4647; NCDOT proposes to restore 0.52 acres of riverine wetlands via pavement/causeway removal and subsequent reforestation to mitigate for permanent impacts associated with the TIP at a 1:1 ratio. An as-built report will be submitted within 60 days of completion of the project to verify actual constructed acreage. The success of the mitigation area and determination of total credits will be based upon successful completion and closeout of the monitoring period.

9.1 CREDIT RELEASE SCHEDULE

NCDOT proposes immediate, full release of the proposed 0.52 acres of restored riverine wetlands as on-site mitigation for the associated riverine impacts of 0.49 acres for B-4647 at a 1:1 ratio. The remaining 0.03 acres of riverine restoration will be placed on the NCDOT on-site debit ledger but will not be available for use until the 0.52 acre site is closed out following a three year monitoring period.

10.0 GEOGRAPHIC SERVICE AREA

The proposed Geographic Service Area (GSA) for the mitigation area is composed of the Hydrologic Cataloging Unit (HUC) 03010205. 0.49 acres of the 0.52 acres will be used on-site at a 1:1 ratio to offset wetland impacts associated with B-4647. The remaining 0.03 acres will be available for use within HUC 03010205 once the mitigation site has been closed out and placed in the NCDOT Stewardship Program.

11.0 MAINTENANCE PLAN

The site will be held by NCDOT and placed on the NEU mitigation geodatabase. Once monitoring is completed and the site is closed out, it will be placed in the NCDOT Stewardship Program for long term maintenance and protection.

If an appropriate third party recipient is identified in the future, then the transfer of the property will include a conservation easement or other measure to protect the natural features and mitigation value of the site in perpetuity.

12.0 LONG TERM ADAPTIVE MANAGEMENT PLAN

The site will be managed by the NCDOT according to the mitigation plan. In the event that unforeseen issues arise that affect the management of the site, any remediation will be addressed by NCDOT in coordination with the Interagency Review Team.

13.0 FINANCIAL ASSURANCES

The site will be managed by NCDOT with its own distinct cost center number within the NCDOT budgeting and financial tracking system. Therefore, all accounting for revenues, contract encumbrances, fund transfers, and expenses will be performed and reported independent from other capital budget or operating budget accounting.



North Carolina Department of Transportation
 Highway Stormwater Program
 STORMWATER MANAGEMENT PLAN

Version 1.1



General Project Information

Project No.:	33813.1.1	Date:	12/21/2010
City/Town:		Designer:	Roger Weadon
County(ies):	Tyrrell County	Project Manager:	Marshall Clawson
River Basin(s):	Pasquotank	CAMA County?	yes
Primary Receiving Water:	Alligator River	NCDWQ Stream Index:	
NCDWQ Surface Water Classification for Primary Receiving Water		Class C	
Other Stream Classification:		Supplemental:	Outstanding Resource Waters (ORW)
303(d) Stream?		Type(s) of Impairment:	
State Stormwater Permit Required?	yes	If yes, why?	
Could the Project Impact Threatened or Endangered Species?			

Description:		Buffer Rules:	
Anadromous Fish Present?			
Description:			
Buffer Rules in Effect?	no		

Existing Site

Description of Existing Project Area:	Bridge # 6 and Approaches over the North Fork of the Alligator River
Average Daily Traffic (existing):	870
Existing Cross Section:	2 12' travel lanes
Surrounding Land Use:	Agricultural
General Comments:	

Project Description

Description of Proposed Project:	Replacement of Bridge # 6 over North Fork Alligator River on NC 94
Average Daily Traffic (proposed):	1300
Proposed Cross-Section:	2 11' travel lanes with 4' paved shoulders on each side
Interchange Modification:	no
Terminus:	Begins at STA 16+30
Terminus:	Ends at STA 39+20
Project Length (lin. miles/feet):	0.434 miles / 2290 feet
General Comments:	Added Impervious Area (ac.): 0.37 ac



North Carolina Department of Transportation
 Highway Stormwater Program
STORMWATER MANAGEMENT PLAN

Version 1.1

Page _____ of _____



Released: July 2010 (DRAFT)

Jurisdictional Wetlands

Station	Type of Impact	Minimization of Impact
-L- 15+99 to 24+00 LT	Permanent Fill and Hand Clearing	
-L- 16+23 to 18+46 RT	Permanent Fill and Hand Clearing	
-L- 24+99 to 25+54	Hand Clearing	
-L- 27+86 to 39+33 CL&L	Permanent Fill and Hand Clearing	
-L- 35+90 to 39+34RT	Permanent Fill and Hand Clearing	
General Comments:		



MWC

North Carolina Department of Environment and Natural Resources

Division of Water Quality

Beverly Eaves Perdue
Governor

Goleen H. Sullins
Director

Dee Freeman
Secretary

RECEIVED
NOV 12 2009
DIVISION OF HIGHWAYS
HYDRAULICS UNIT

November 4, 2009

Mr. D.R. Henderson, PE
NCDOT – Hydraulics Unit
1590 Mail Service Center
Raleigh, NC 27699-1590

13-4347

**Subject: Stormwater Permit Exclusion – NC DOT Activity
Replacement of Bridge No.6 on Southbound NC 94
Over Northwest Fork Alligator River
Stormwater Project No. SW7090917
Tyrell County**

Dear Mr. Henderson:

On September 30, 2009, the Washington Regional Office of the Division of Water Quality received a Coastal Stormwater Permit Application for project B-4647, the replacement of Bridge No. 6, located over the Northwest Fork Alligator River on NC 94 in Tyrell County. Staff review of the plans and supporting documents has determined that the project proposes activities that are excluded from State Stormwater permitting requirements as set forth in Section 2.(d)(1) of Session Law 2008-211, effective October 1, 2008, and the stormwater rules under Title 15A NCAC 2H .1000, as amended.

Therefore, the Director of the Division of Water Quality is hereby providing confirmation that the subject project is excluded from State Stormwater permitting requirements, **being an activity of the NC DOT that is regulated in accordance with the provisions of the NC DOT's National Pollutant Discharge Elimination System (NPDES) Stormwater Permit.**

Under Section 15A NCAC 2H .1003, any future development or changes to the proposed development, including but not limited to, the locations of the built-upon area and construction of additional built-upon area, may require approval or a Stormwater Management permit application and permit issuance from the Division of Water Quality prior to any construction. Any construction on the site prior to receipt of the required approval or permit will constitute a violation of Title 15A NCAC 2H.1000 and Session Law 2008-211, and may result in the initiation of appropriate enforcement action.

Please keep in mind that this determination does not affect your legal obligation to obtain other permits and approvals, which may be required by Federal, State, or local government agencies, rule or law. If you have any questions, or need additional information concerning this matter, please contact either Scott Vinson or me at (252) 946-6481.

Sincerely,

Al Hodge
Regional Supervisor
Surface Water Protection Section

AH/sv: S:\WQS\STORMWATER\PERMIT\EXCLUSIONS\SW7090917

cc: Garcy Ward, DWQ
Washington Regional Office
Central Files

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

TYRRELL COUNTY

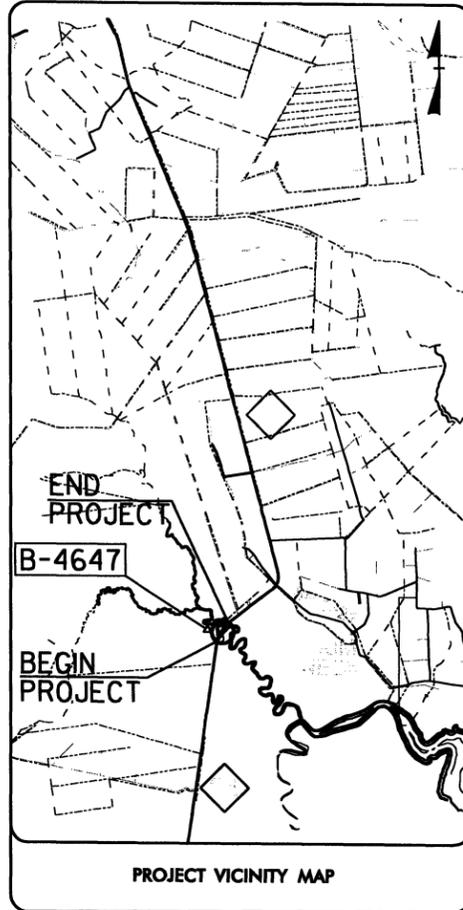
LOCATION: BRIDGE NO. 6 OVER NORTHWEST FORK ON NC 94.

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

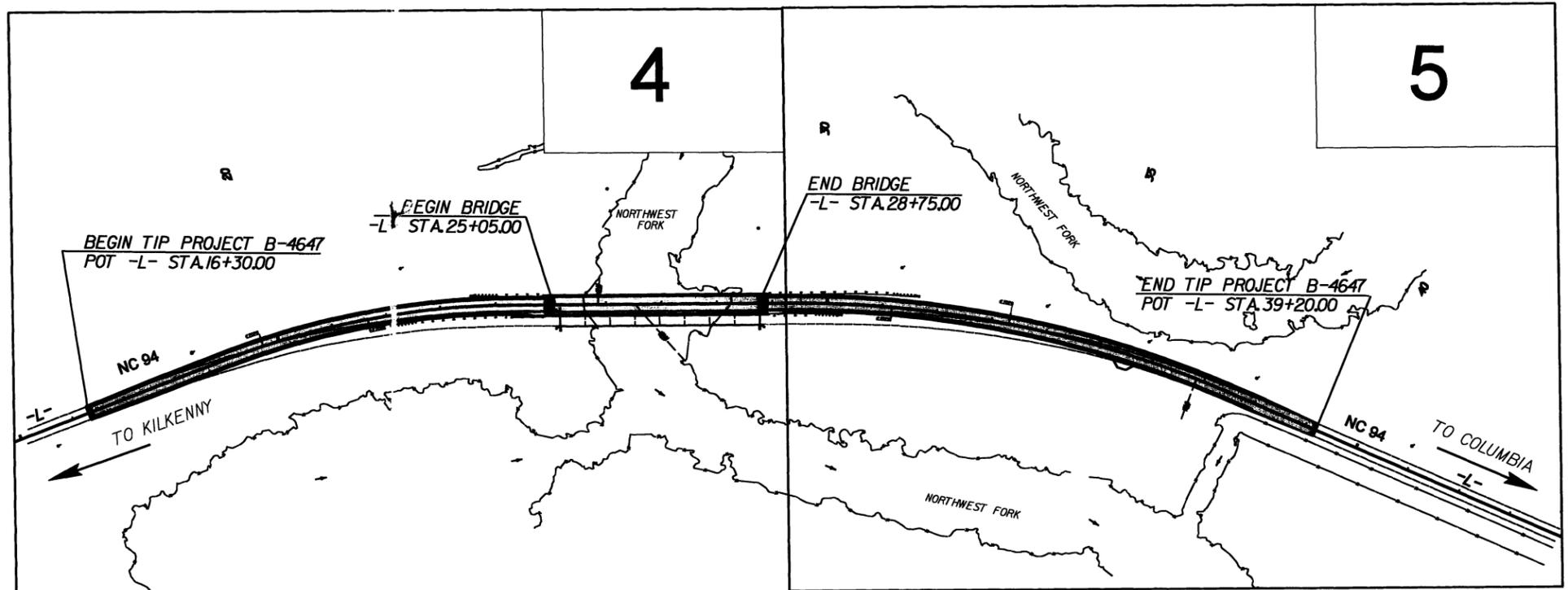
PERMIT DRAWINGS

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-4647	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
33813.1.1	BRSTP-94(1)	P.E.	
33813.2.1	BRSTP-94(1)	RW & UTILITY	
	BRSTP-94(1)	CONST.	

TIP PROJECT: B-4647



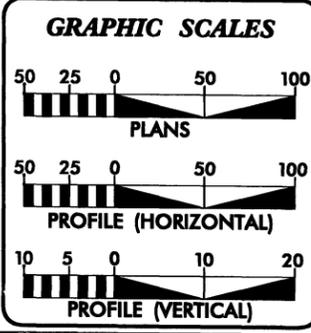
90% PLANS



PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NCDOT Contact: B. Doug Taylor, PE
Roadway Design-Engineering Coordination

CONTRACT:



DESIGN DATA

ADT 2011 =	870
ADT 2030 =	1300
DHV =	10 %
D =	60 %
T = 6% (TTST 3%, DUAL 3%)	
V =	60 MPH
FUNC CLASS = MAJOR COLLECTOR	

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT B-4647	=	0.364 MILE
LENGTH STRUCTURE TIP PROJECT B-4647	=	0.070 MILE
TOTAL LENGTH TIP PROJECT B-4647	=	0.434 MILE

Prepared In the Office of
DYER, RIDGLE, MILLS & PRECOURT, INC. (DRMP)
7506 EAST INDEPENDENCE BLVD., SUITE 105
CHARLOTTE, NORTH CAROLINA 28227
(704) 332-2289 NC LICENSE NO. C-2213

2006 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
FEBRUARY 19, 2010

LETTING DATE:
FEBRUARY 15, 2011

James E. Beck, PE
PROJECT ENGINEER

Phillip D. Hutcherson, PE
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

SIGNATURE: _____

ROADWAY DESIGN ENGINEER

SIGNATURE: _____

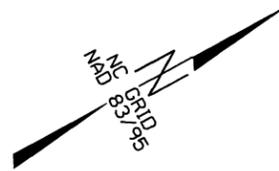
DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

STATE HIGHWAY DESIGN ENGINEER

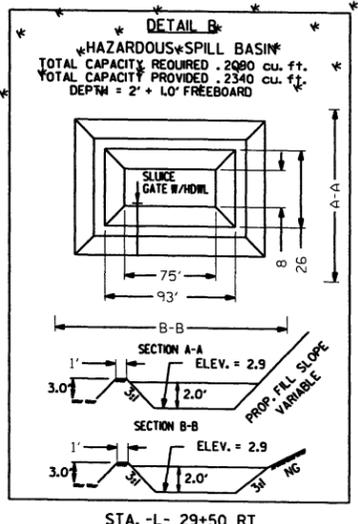
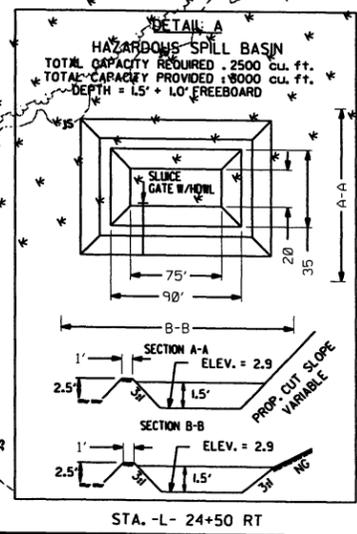
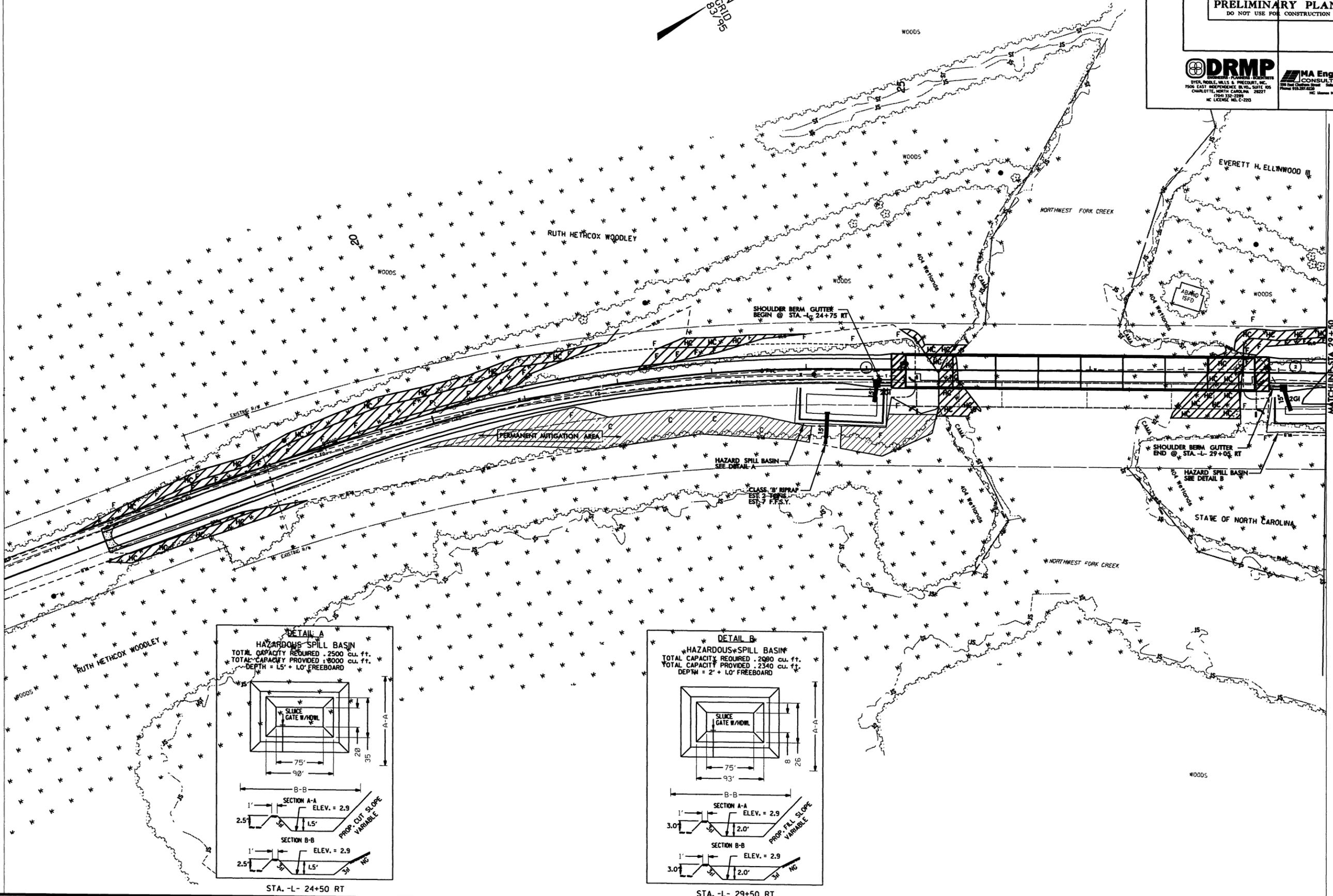
B.17/99

-  PERMANENT MITIGATION AREA
-  DENOTES FILL IN WETLAND
-  DENOTES HAND CLEARING

PROJECT REFERENCE NO. B-4647	SHEET NO. 4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	
 DRMP DESIGN, ROAD, MILLS & PRECINCT, INC. 1704 EAST WILSONVILLE RD., SUITE 105 CHARLOTTE, NORTH CAROLINA 28217 Phone: 919.397.8228 NC LICENSE NO. C-2203	 MA Engineering CONSULTANTS, INC. 1000 W. GARDNER ST., SUITE 100 CHARLOTTE, NC 28202 Phone: 919.397.8228 NC License No. 000000



REVISIONS

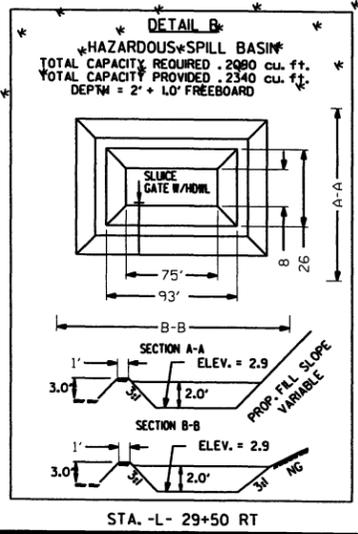
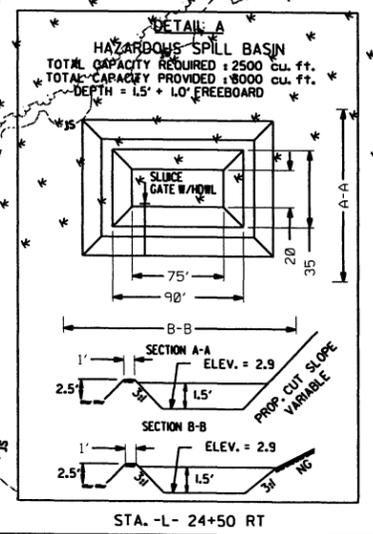
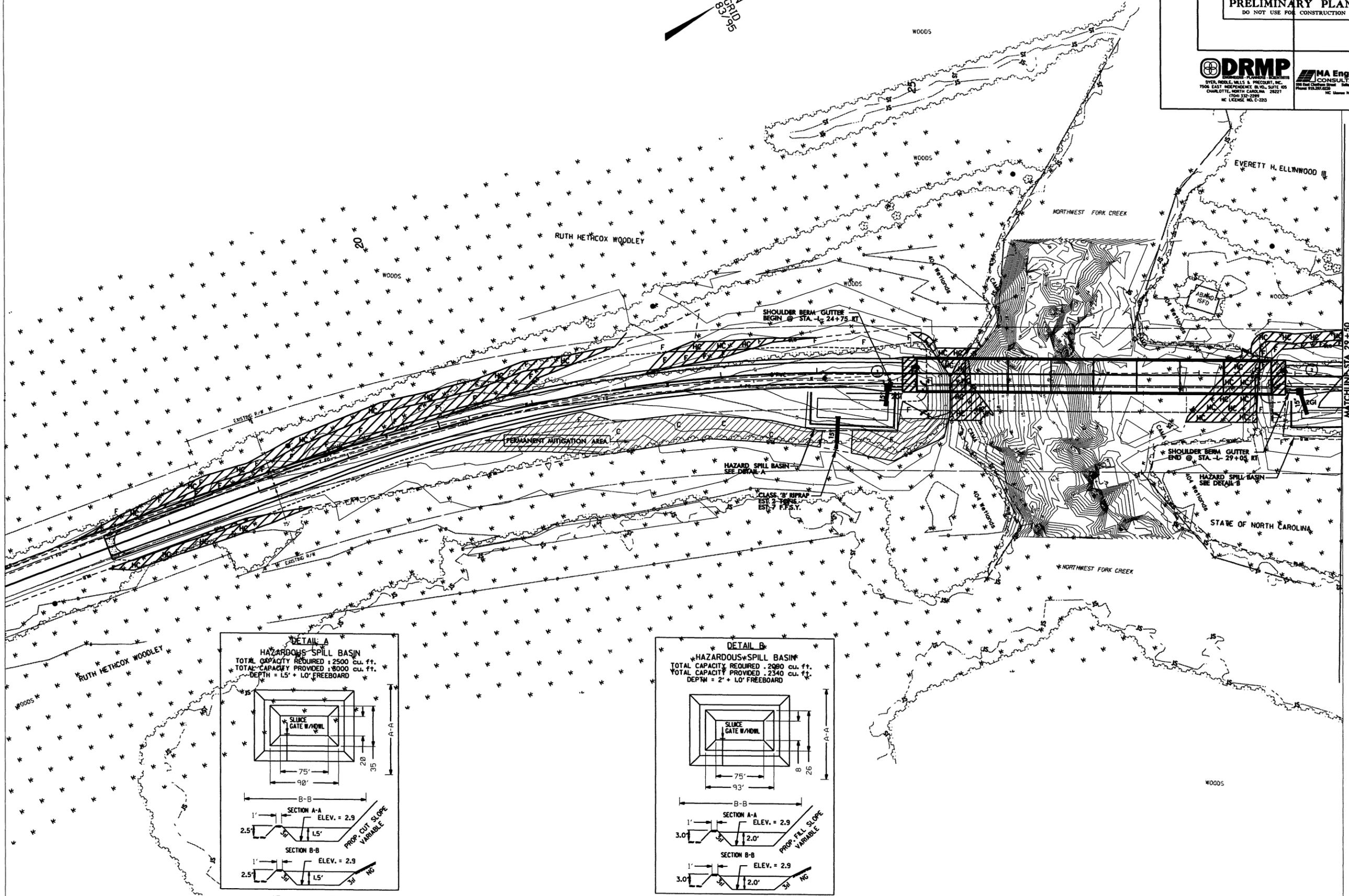
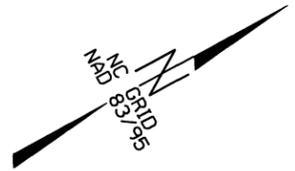


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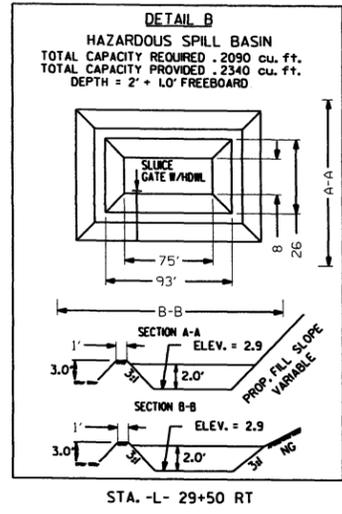
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-  DENOTES FILL IN WETLAND
-  DENOTES HAND CLEARING

PROJECT REFERENCE NO. B-4647		SHEET NO. 4	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION			
 DRMP <small>DESIGN, ROAD, PLANNING & PRECOURT, INC.</small> <small>7504 EAST WILSONVILLE RD., SUITE 400</small> <small>CHARLOTTE, NORTH CAROLINA 28227</small> <small>Phone: 919.397.6228</small> <small>NC LICENSE NO. C-2203</small>		 MA Engineering <small>CONSULTANTS, INC.</small> <small>1000 East Carolina Blvd., Suite 117, Cary, NC 27511</small> <small>Phone: 919.397.6228</small> <small>NC License No. P-2644</small>	



8/17/99

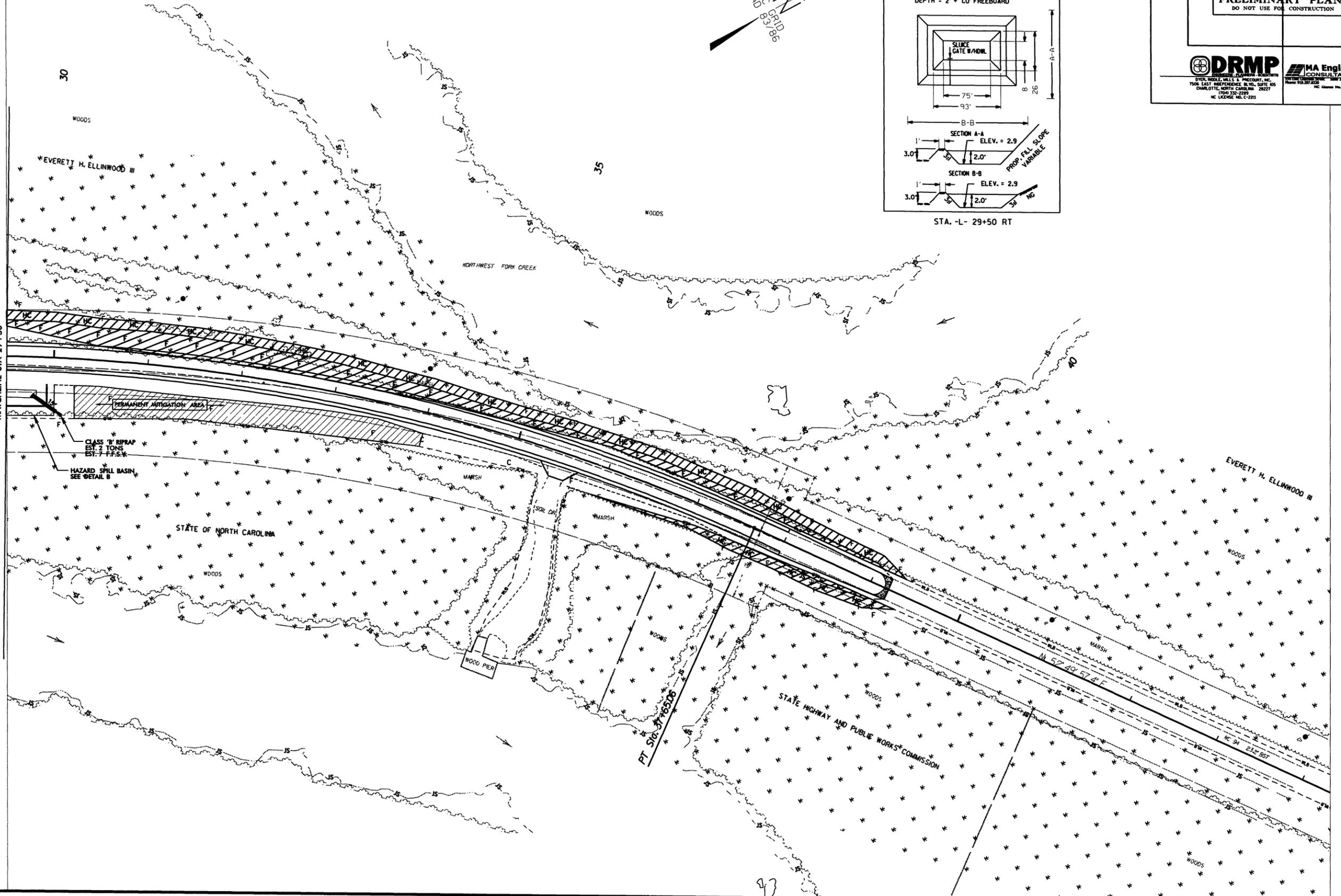
-  PERMANENT MITIGATION AREA
-  DENOTES FILL IN WETLAND
-  DENOTES HAND CLEARING



PROJECT REFERENCE NO. B-4647	SHEET NO. 5
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	
DRMP DESIGN RESOURCES MANAGEMENT 7508 EAST WINDSORFORD BLVD. SUITE 105 CHARLOTTE, NORTH CAROLINA 28227 (704) 332-2299 NC LICENSE NO. C-1293	MA Engineering CONSULTANTS, INC. 1000 W. 10TH STREET RICHMOND, VA 23220 (804) 622-5751 NC License No. P-4664

REVISIONS

MATCHLINE STA 29+50

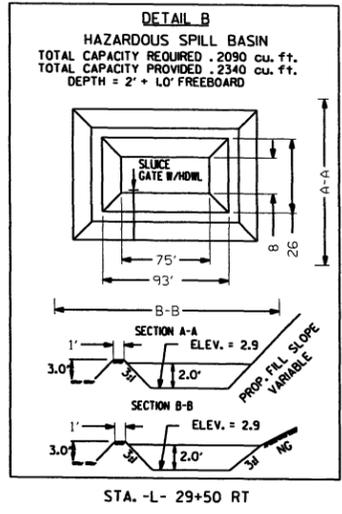
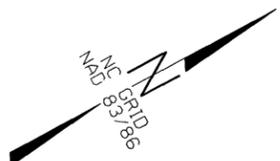


Permit Drawing
Sheet 4 of 8

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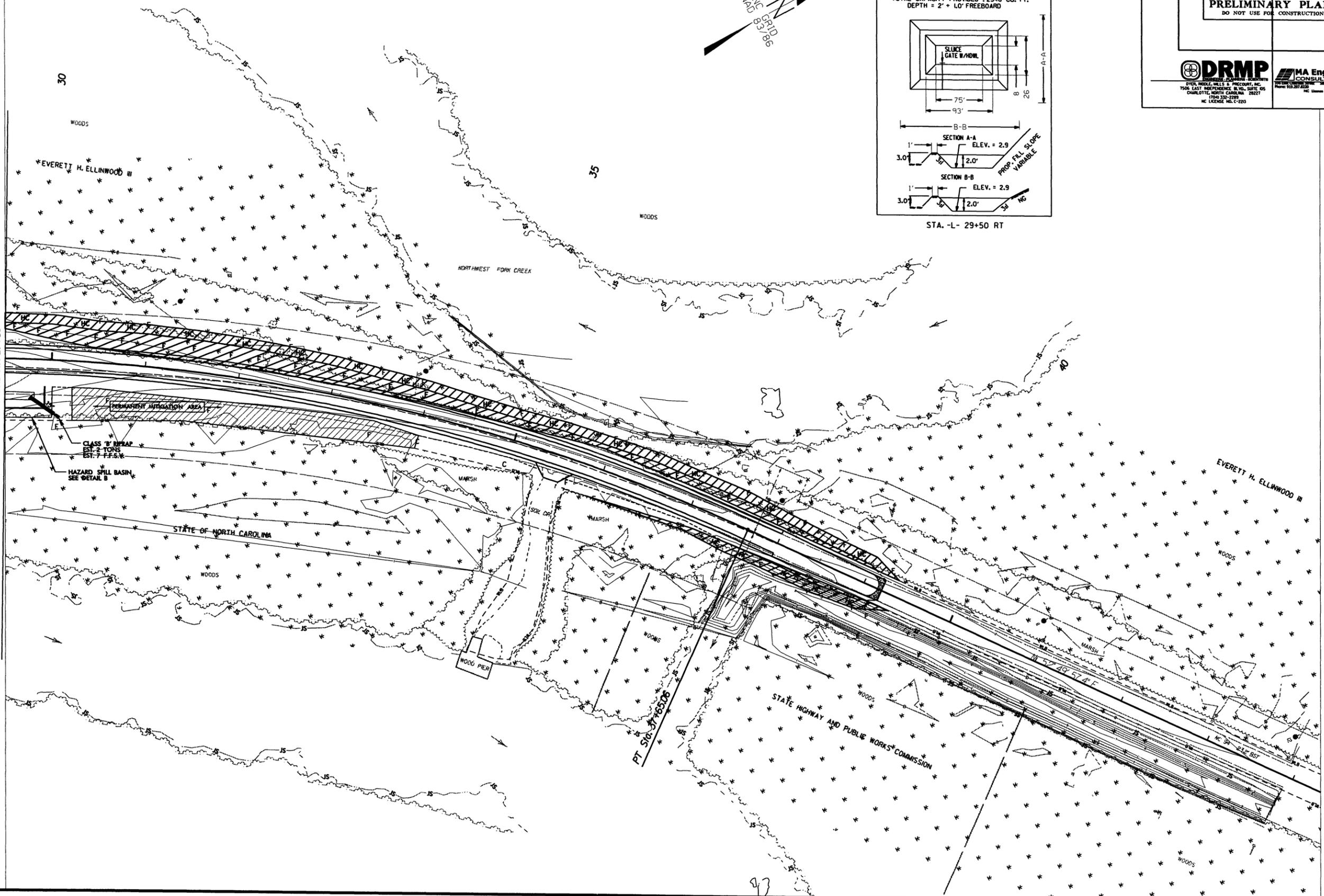
- PERMANENT MITIGATION AREA
- DENOTES FILL IN WETLAND
- DENOTES HAND CLEARING



PROJECT REFERENCE NO. B-4647		SHEET NO. 5	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION			
DRMP <small>DRMP, INC. 1750 LAST AVENUE, SUITE 105 CHARLOTTE, NORTH CAROLINA 28227 704.332.2282 NC LICENSE NO. C-2293</small>		MA Engineering <small>CONSULTANTS, INC. 1101 W. GOLF COURSE RD., SUITE 100 RANDOLPH, NORTH CAROLINA 28133 704.332.2282 NC LICENSE NO. C-2293</small>	

REVISIONS

MATCHLINE STA 29+50



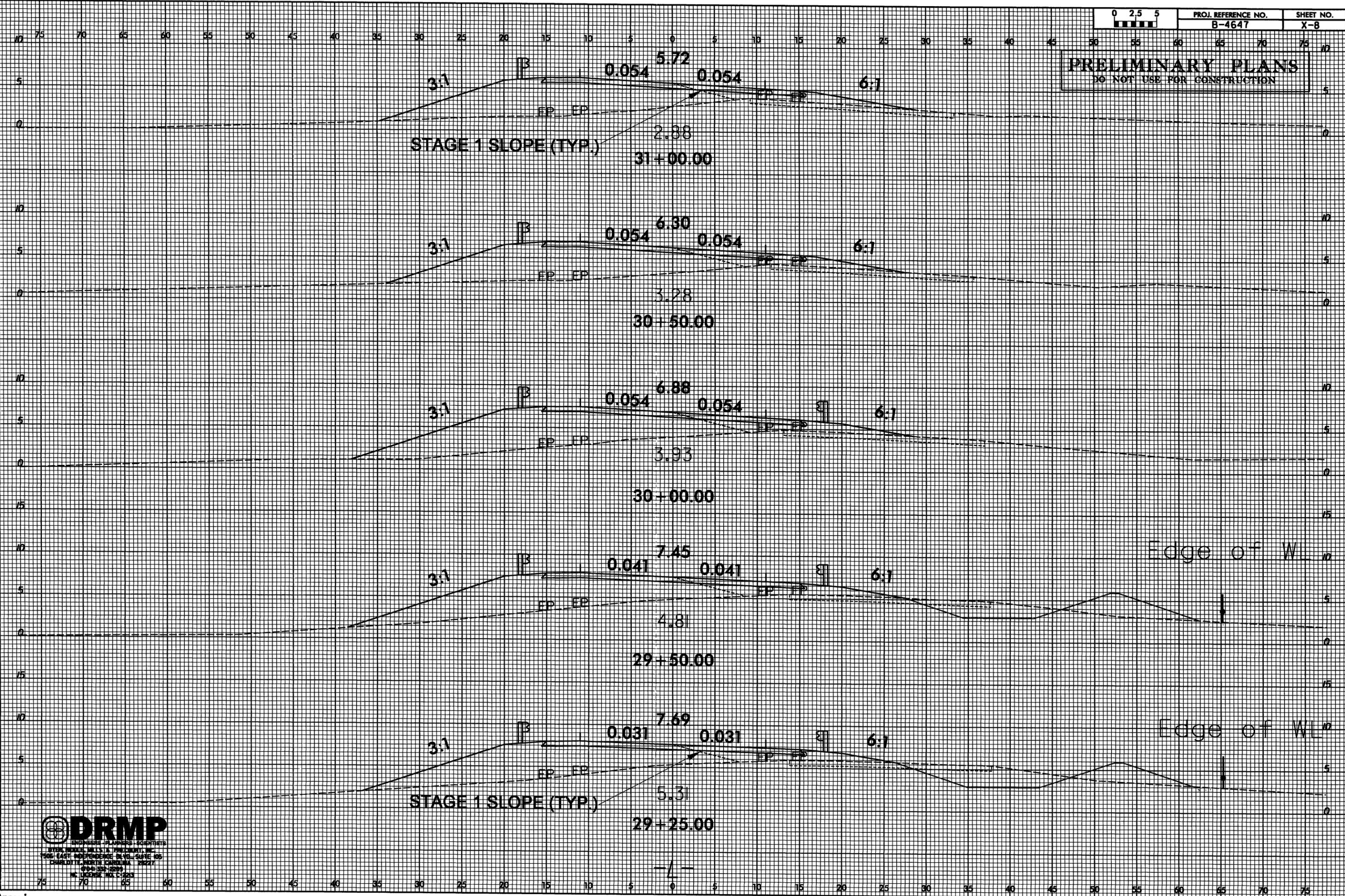
Permit Drawing
Sheet **5** of **8**

B/23/99



PROJ. REFERENCE NO. B-4647 SHEET NO. X-8

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

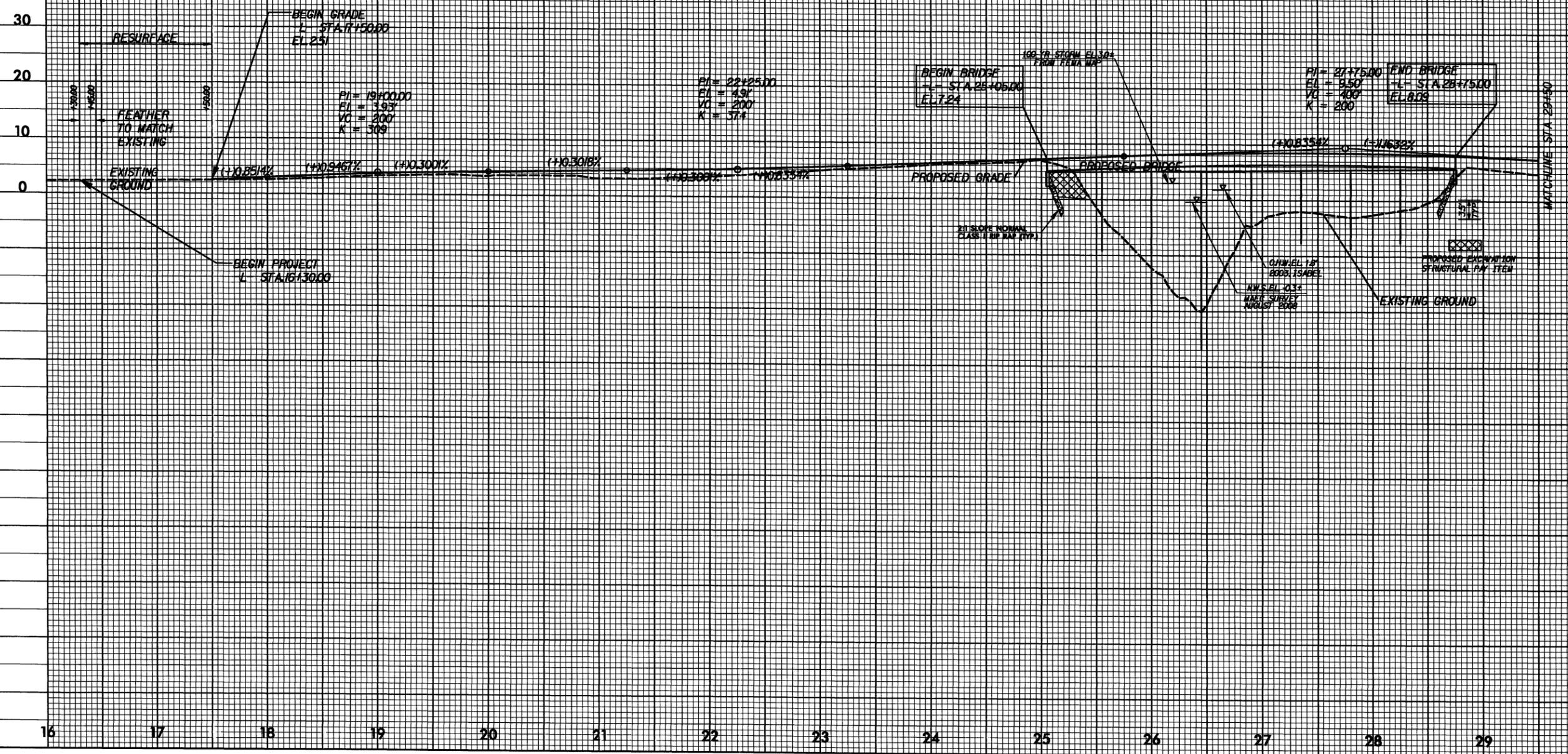


5/14/99

PROJECT REFERENCE NO. B-4647	SHEET NO. 6
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	
 	

-L-

BM #1
 -BL- STA 10+00
 ELEV= 0.90
 36" REBAR WITH CAP
 N: 726426 E: 2832320



R:\R090909\Proj\B4647_Rdy.dfn dgm
4/14/99

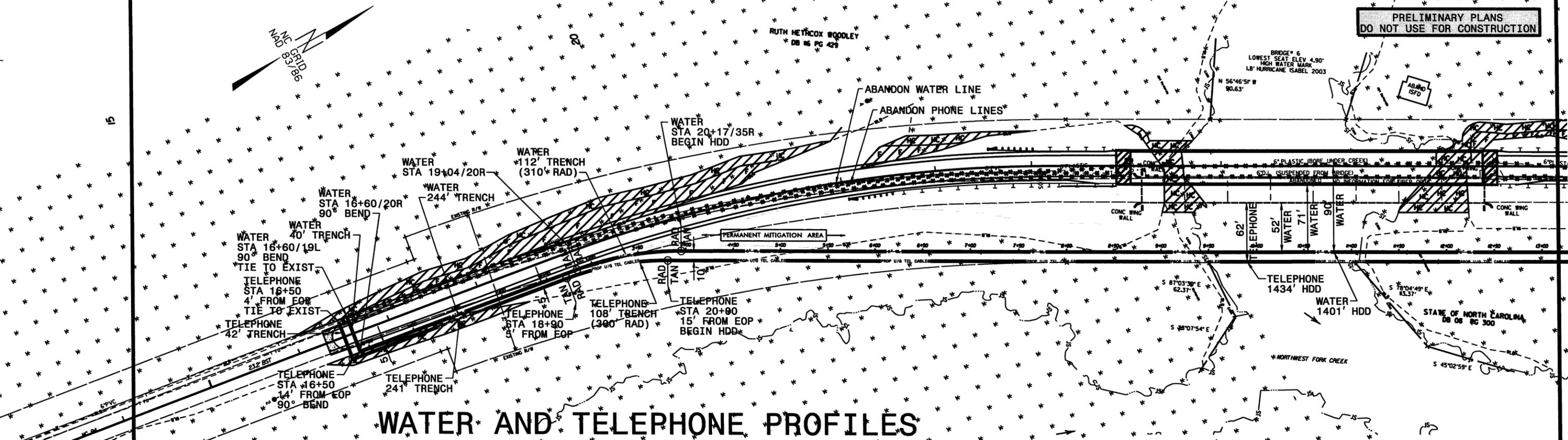
5/14/99

NEU PERMIT DRAWING (03-30-11) B-4647 (NC-94 OVER NORTHWEST FORK CREEK) WATER AND TELEPHONE RELOCATION PLAN

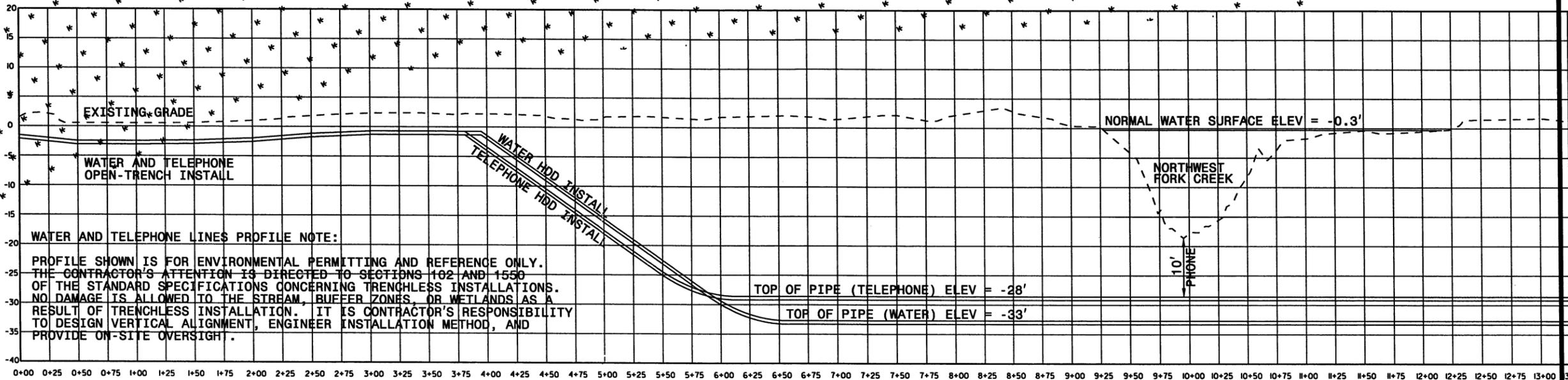
PROJECT REFERENCE NO.	SHEET NO.
DESIGNED BY:	
DRAWN BY:	
CHECKED BY:	
APPROVED BY:	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919) 250-4128 FAX: (919) 250-4119	
UTILITY CONSTRUCTION PLANS ONLY	

UTILITY CONSTRUCTION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION



WATER AND TELEPHONE PROFILES



WATER AND TELEPHONE LINES PROFILE NOTE:
 PROFILE SHOWN IS FOR ENVIRONMENTAL PERMITTING AND REFERENCE ONLY. THE CONTRACTOR'S ATTENTION IS DIRECTED TO SECTIONS 102 AND 1550 OF THE STANDARD SPECIFICATIONS CONCERNING TRENCHLESS INSTALLATIONS. NO DAMAGE IS ALLOWED TO THE STREAM, BUFFER ZONES, OR WETLANDS AS A RESULT OF TRENCHLESS INSTALLATION. IT IS CONTRACTOR'S RESPONSIBILITY TO DESIGN VERTICAL ALIGNMENT, ENGINEER INSTALLATION METHOD, AND PROVIDE ON-SITE OVERSIGHT.

SCALE:
 1" = 50' (FULL-SIZE PLANS)
 1" = 100' (HALF-SIZE PLANS)

NEU PERMIT DRAWING (03-30-11)

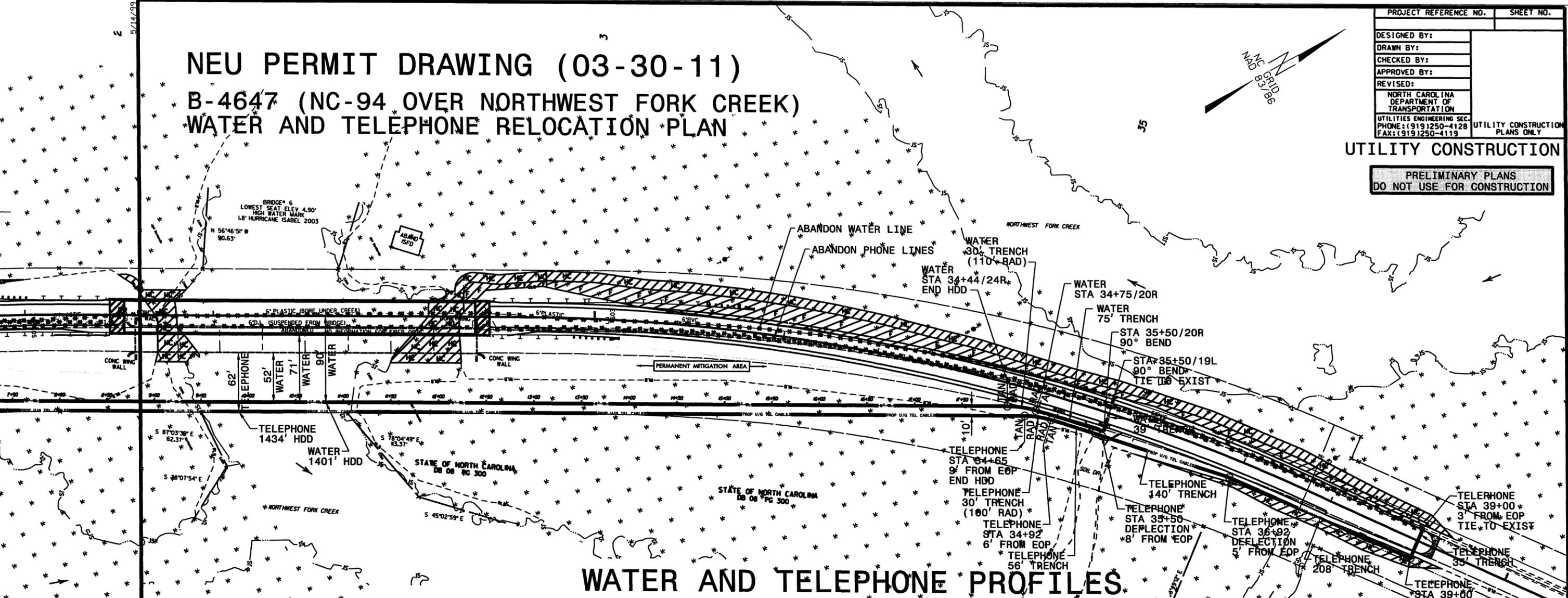
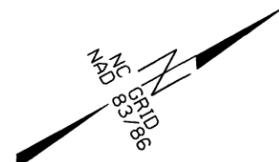
B-4647 (NC-94 OVER NORTHWEST FORK CREEK)

WATER AND TELEPHONE RELOCATION PLAN

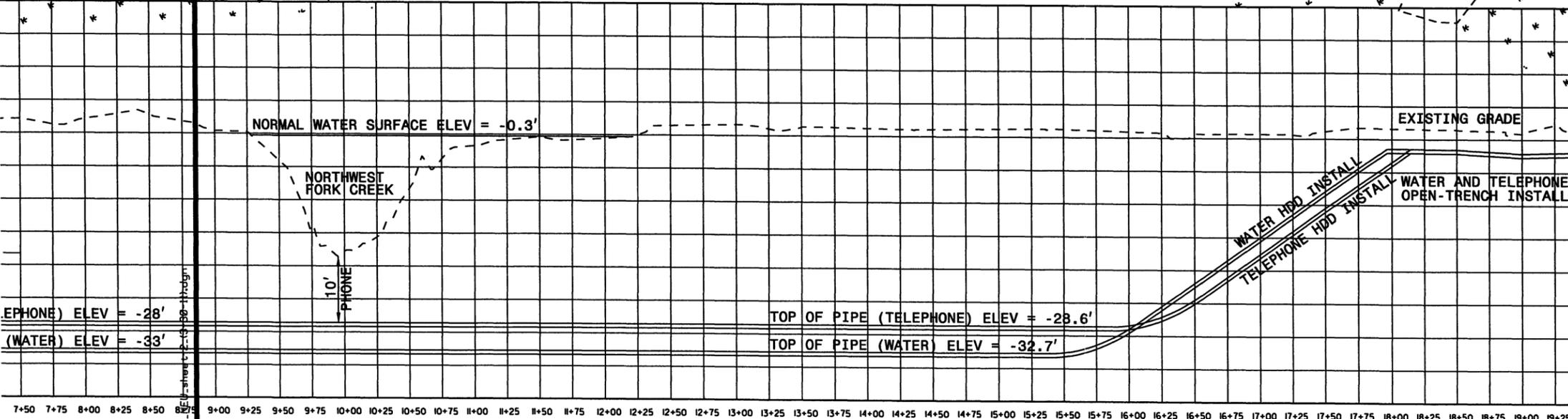
PROJECT REFERENCE NO.	SHEET NO.
DESIGNED BY:	
DRAWN BY:	
CHECKED BY:	
APPROVED BY:	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	UTILITY CONSTRUCTION PLANS ONLY
UTILITIES ENGINEERING SEC. PHONE: (919) 250-4128 FAX: (919) 250-4119	

UTILITY CONSTRUCTION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION



WATER AND TELEPHONE PROFILES



SCALE:
 1" = 50' (FULL-SIZE PLANS)
 1" = 100' (HALF-SIZE PLANS)

B-4647 NEU Narrative

March 30, 2011

Ref: Bridge replacement (#6) over Northwest Fork Creek on NC-94, Tyrell County

• Existing Utilities:

- Telephone. .owned by CenturyLink Telephone Company (contact: Ms. Cecilia Price: 252-321-9401). .underground telephone line runs along northwest (left) side of NC-94 for entire length of project limits
- Water. .owned by Tyrell County Water Department (contact: Mr. Johnny Spencer: 252-796-1371).. 6" diameter PVC water line runs along northwest (left) side of NC-94 for entire length of project limits

• Proposed Utilities:

- Telephone. .underground line will be installed on right side of project by open trench and directional bore (under creek)
- Water. .underground line will be installed on right side of project by open trench and directional bore (under creek)

• Additional Notes:

- There are existing power poles/lines on northwest (left) side of NC-94 that are not in conflict with any work undertaken in this project
- There are two wetland mitigation areas delineated inside project limits, but proposed water and telephone lines will not be located inside mitigation boundaries
- Tyrell County is CAMA county and requires utility profiles
- Open trench installations (water and telephone lines) will be used only in areas outside of wetlands or inside of Hydro's permitted area, therefore **there are no environmental impacts due to utility relocations**

See Sheet 1-A For Index of Sheets

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

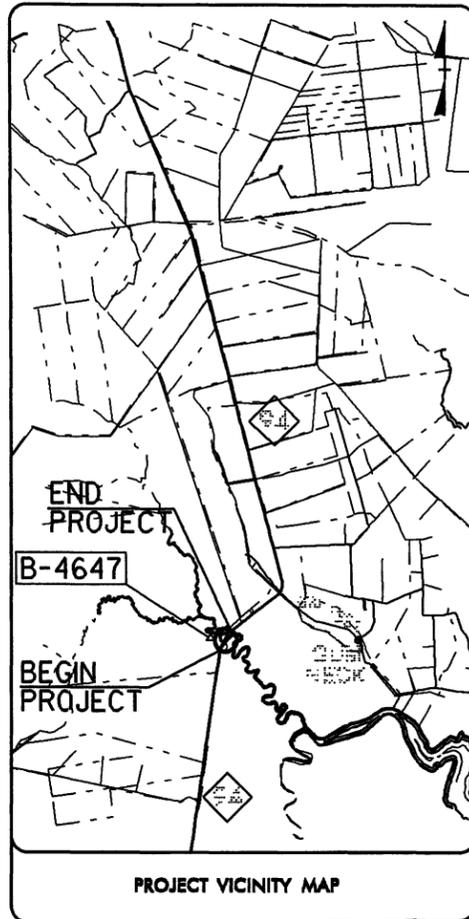
TYRRELL COUNTY

LOCATION: BRIDGE NO. 6 OVER NORTHWEST FORK ON NC 94.

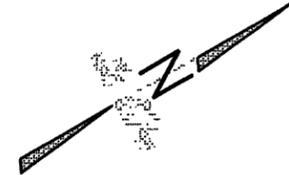
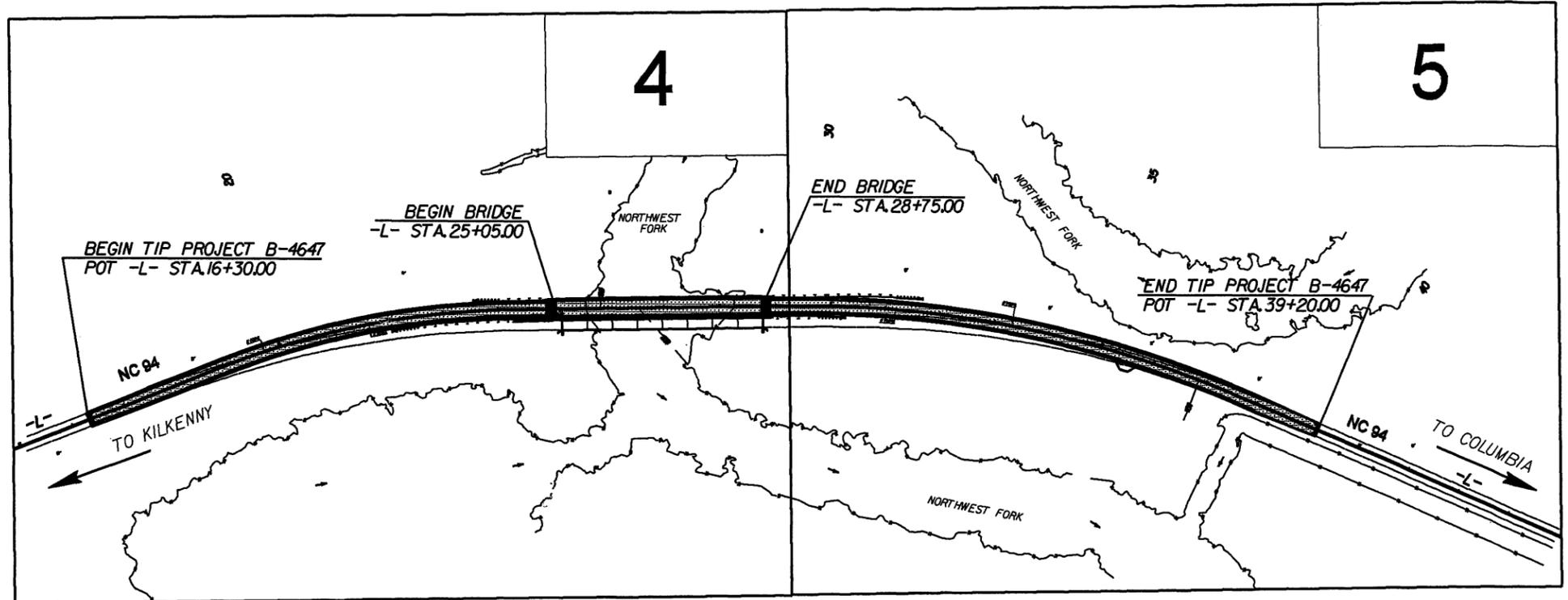
TYPE OF WORK: GRADING, PAVING, DRAINAGE, AND STRUCTURE

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-4647	1	
STATE PROJ. NO.	P.A. PROJ. NO.	DESCRIPTION	
33813.1.1	BRSTP-94(1)	P.E.	
33813.2.1	BRSTP-94(1)	R/W & UTILITY	

TIP PROJECT: B-4647



75% PLANS



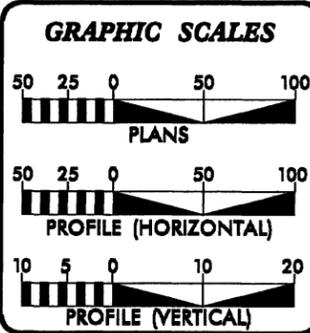
-THIS PROJECT IS NOT WITHIN ANY MUNICIPAL BOUNDARIES

-CLEARING ON THIS PROJECT SHALL BE TO THE LIMITS ESTABLISHED BY METHOD II

PRELIMINARY PLANS

NCDOT Contact: B. Doug Taylor, PE
Roadway Design-Engineering Coordination

CONTRACT:



DESIGN DATA

ADT 2011 =	870
ADT 2030 =	1300
DHV =	10 %
D =	60 %
T =	6% (TTST 3%, DUAL 3%)
V =	60 MPH
FUNC CLASS = MAJOR COLLECTOR	

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT B-4647	=	0.364 MILE
LENGTH STRUCTURE TIP PROJECT B-4647	=	0.070 MILE
TOTAL LENGTH TIP PROJECT B-4647	=	0.434 MILE

Prepared in the Office of
DYER, RIDDLE, MILLS & PRECOURT, INC. (DRMP)
7506 EAST INDEPENDENCE BLVD., SUITE 105
CHARLOTTE, NORTH CAROLINA 28227
(704) 332-2289 NC LICENSE NO. C-2213

2006 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
FEBRUARY 19, 2010

LETTING DATE:
FEBRUARY 15, 2011

Ronald C. Smith, PE
PROJECT ENGINEER

A. Matthew Thigpen, PE
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

SIGNATURE: _____

ROADWAY DESIGN ENGINEER

SIGNATURE: _____

P.E.

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

STATE HIGHWAY DESIGN ENGINEER

P.E.

10-MAR-2011 08:39
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\$\$\$\$\$USERNAME\$\$\$\$\$

6/2/09

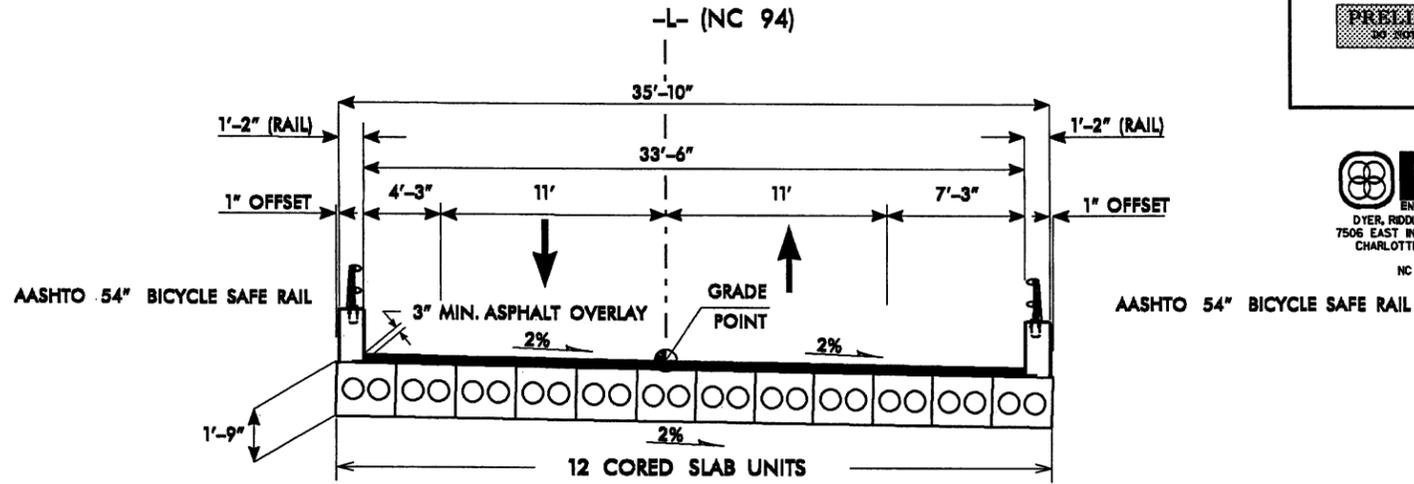
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PROJECT REFERENCE NO. B-4647	SHEET NO. 2
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER
PRELIMINARY PLANS <small>NOT FOR CONSTRUCTION</small>	



PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1.25" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 137.5 LBS. PER SQ. YD.
C2	PROP. APPROX. 2.5" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 137.5 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.
C3	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 1.0" IN DEPTH OR GREATER THAN 1.5" IN DEPTH.
E1	PROP. APPROX. 4.5" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 570 LBS. PER SQ. YD.
E2	PROP. VAR. DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 3" IN DEPTH OR GREATER THAN 5.5" IN DEPTH.
T	EARTH MATERIAL.
U	EXISTING PAVEMENT.
W	WEDGING. (SEE WEDGING DETAIL, THIS SHEET)

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

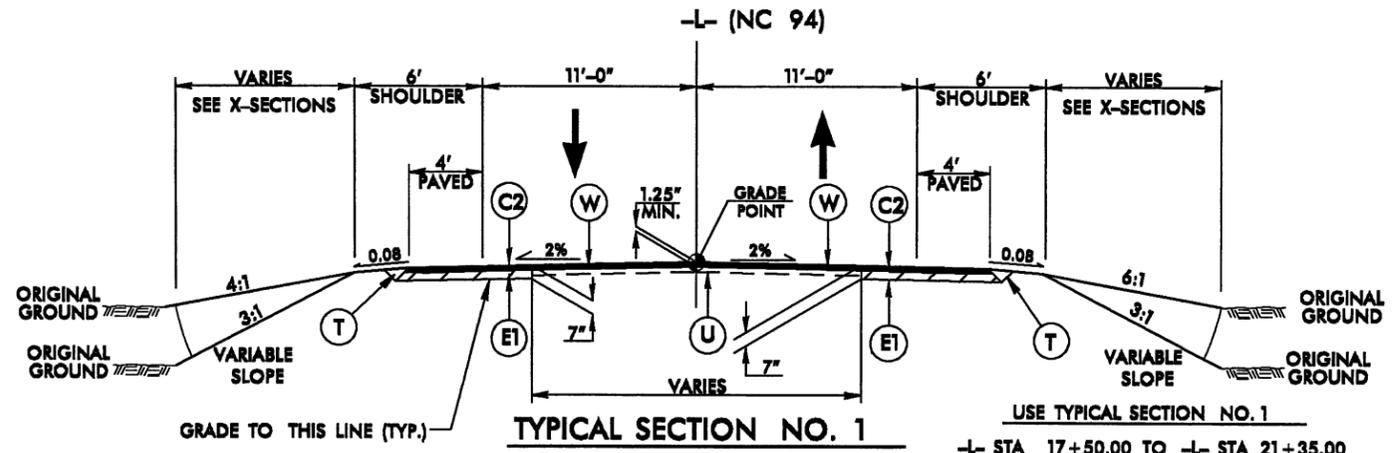


TYPICAL SECTION NO. 3

SEE STRUCTURE PLANS FOR DETAILS

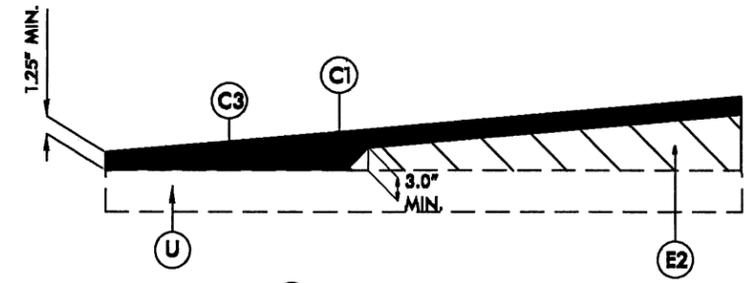
USE TYPICAL SECTION NO. 3

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 -L- STA 28+75.00 (END BRIDGE)

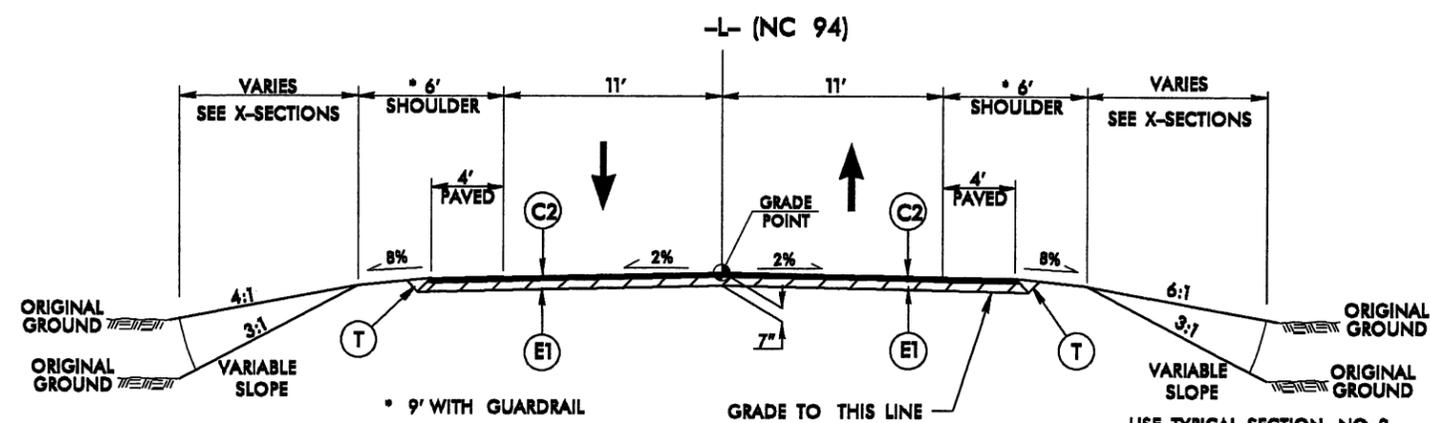


TYPICAL SECTION NO. 1

USE TYPICAL SECTION NO. 1
 -L- STA 17+50.00 TO -L- STA 21+35.00
 -L- STA 32+50.00 TO -L- STA 38+00.00



W - Wedging Detail



TYPICAL SECTION NO. 2

(SEE STAGE CONSTRUCTION TYPICAL SECTIONS SHEET 2-A)

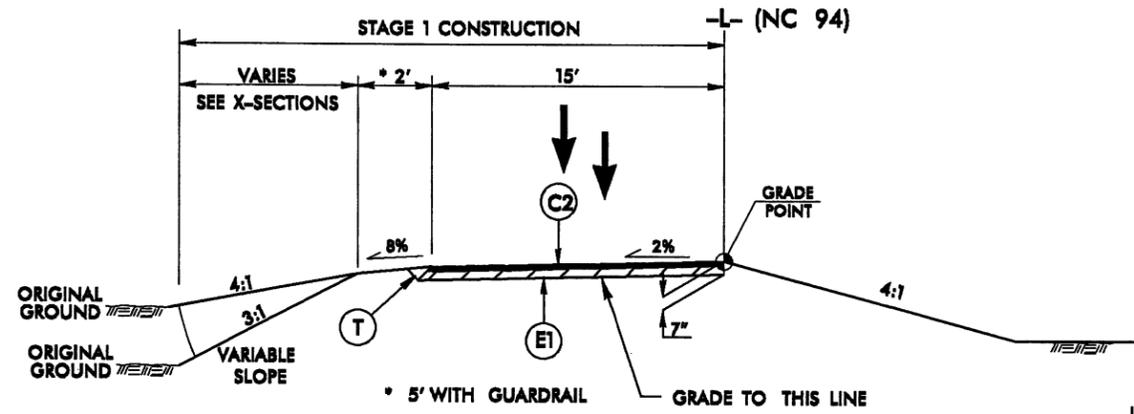
USE TYPICAL SECTION NO. 2
 -L- STA 21+35.00 TO -L- STA 25+05.00 (BEGIN BRIDGE)
 -L- STA 28+75.00 (END BRIDGE) TO -L- STA 32+50.00

TRANSITION FROM TYPICAL SECTION NO. 1 TO EXISTING (INCLUDES FEATHERING)
 -L- STA 16+30.00 (BEGIN PROJECT) TO -L- STA 17+50.00
 -L- STA 38+00.00 TO -L- STA 39+20.00 (END PROJECT)

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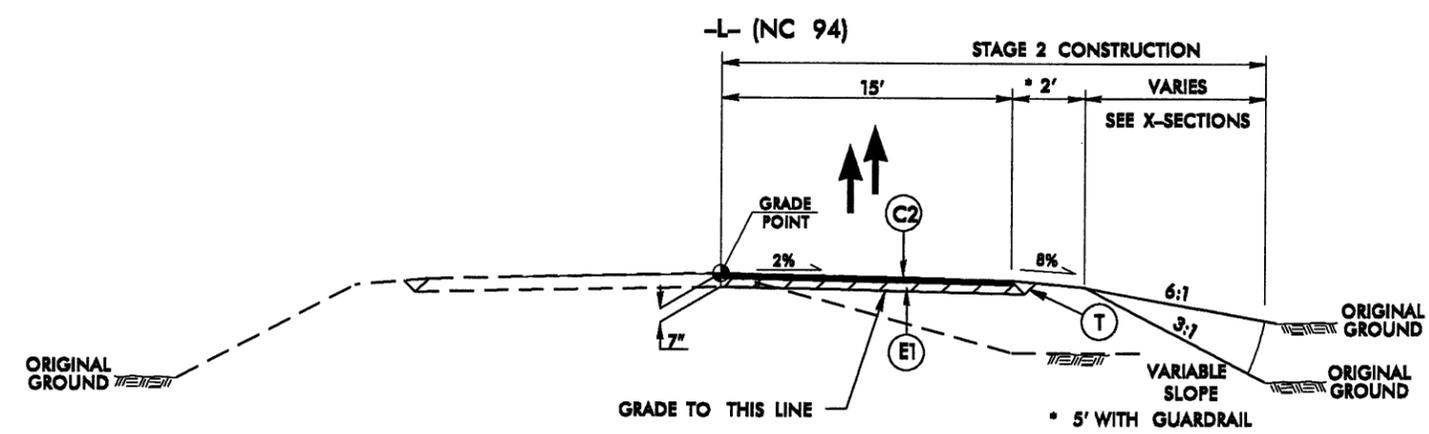
PROJECT REFERENCE NO. B-4647	SHEET NO. 2-A
DW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS	

PAVEMENT SCHEDULE	
C1	1.25" SF9.5A
C2	2.5" SF9.5A
C3	VAR. DEPTH SF9.5A
E1	4.5" B25.0B
E2	VAR. DEPTH TYPE B25.0B
T	EARTH MATERIAL.
U	EXISTING PAVEMENT.
W	WEDGING



TYPICAL SECTION NO. 2
STAGE 1 CONSTRUCTION

USE TYPICAL SECTION NO. 2
 -L- STA 21+35.00 TO -L- STA 25+05.00 (BEGIN BRIDGE)
 -L- STA 28+75.00 (END BRIDGE) TO -L- STA 32+50.00

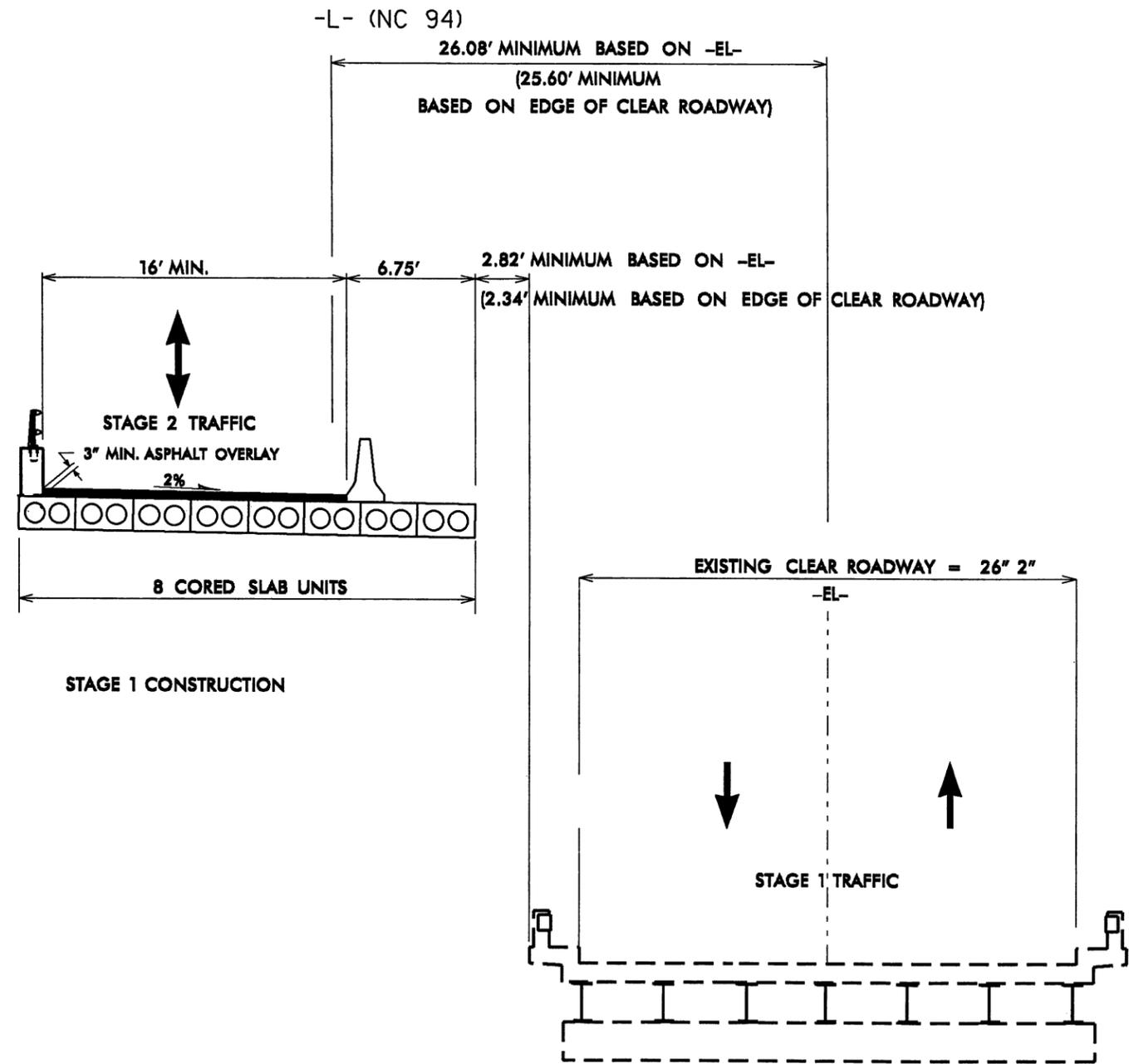


TYPICAL SECTION NO. 2
STAGE 2 CONSTRUCTION

USE TYPICAL SECTION NO. 2
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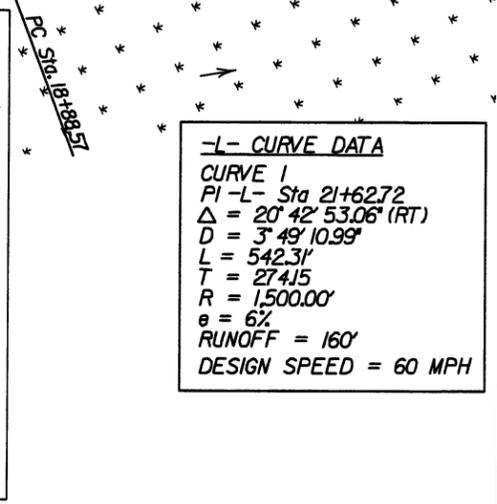
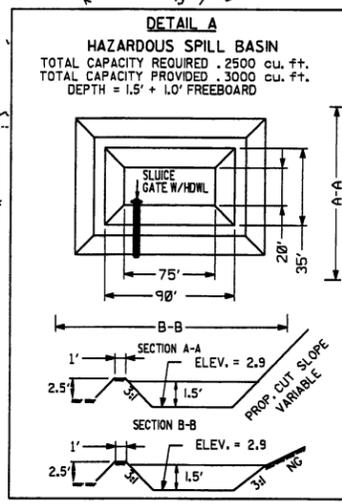
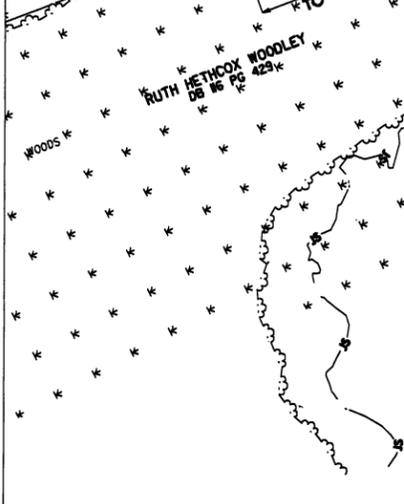
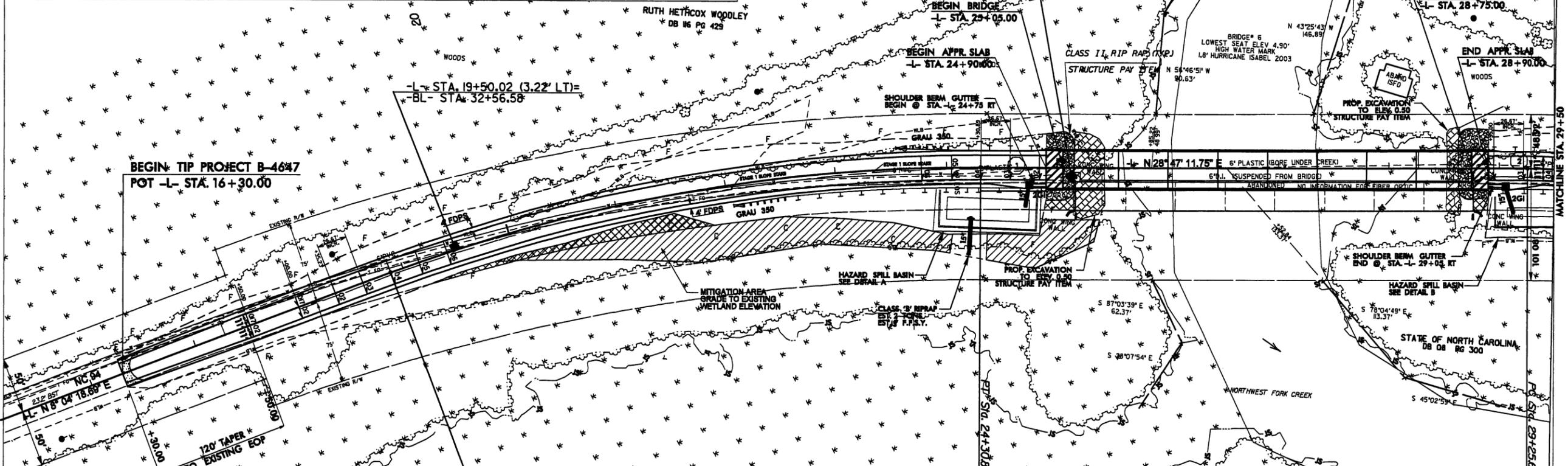
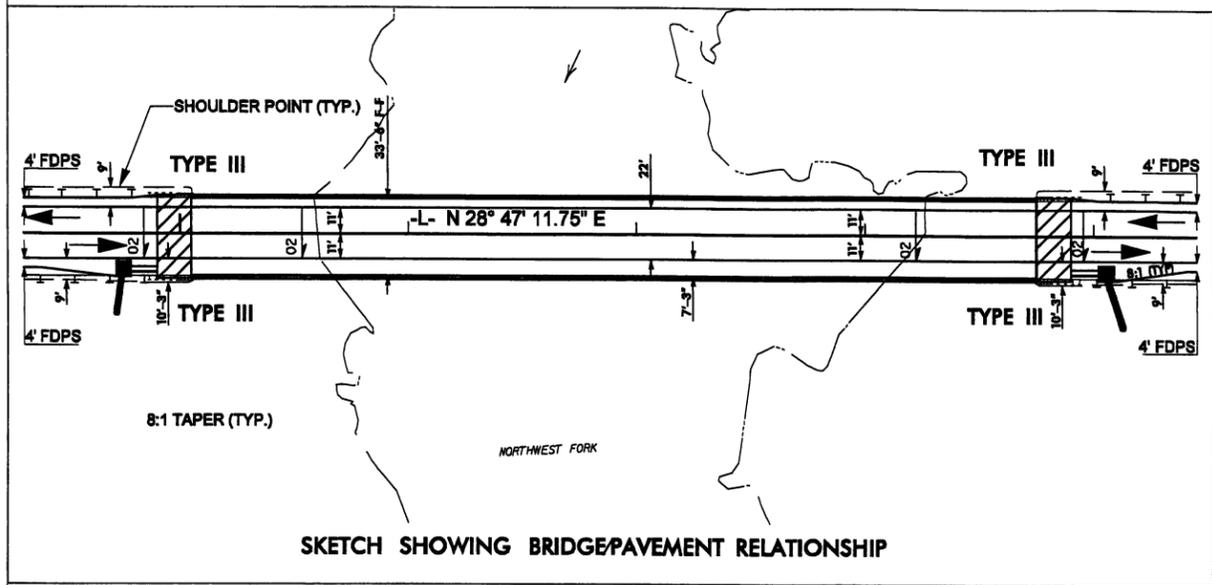
8/2/99

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION



NOTE: THIS SHEET IS FOR INFORMATION ONLY AND NOT FOR CONSTRUCTION.
(SEE STRUCTURE PLANS FOR CONSTRUCTION DETAILS)

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 PI -L- Sta 21+62.72
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 $D = 3^\circ 49' 10.99''$
 $L = 542.31'$
 $T = 274.15'$
 $R = 1500.00'$
 $e = 6\%$
RUNOFF = 160'
DESIGN SPEED = 60 MPH

FOR STRUCTURE PLANS SEE SHEET NOS. S-1 THRU S-11

FOR -L- PROFILE SEE SHEET NO. 6

ASPHALT PAVEMENT REMOVAL

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 5/26/2011
 REVISIONS

5/14/99

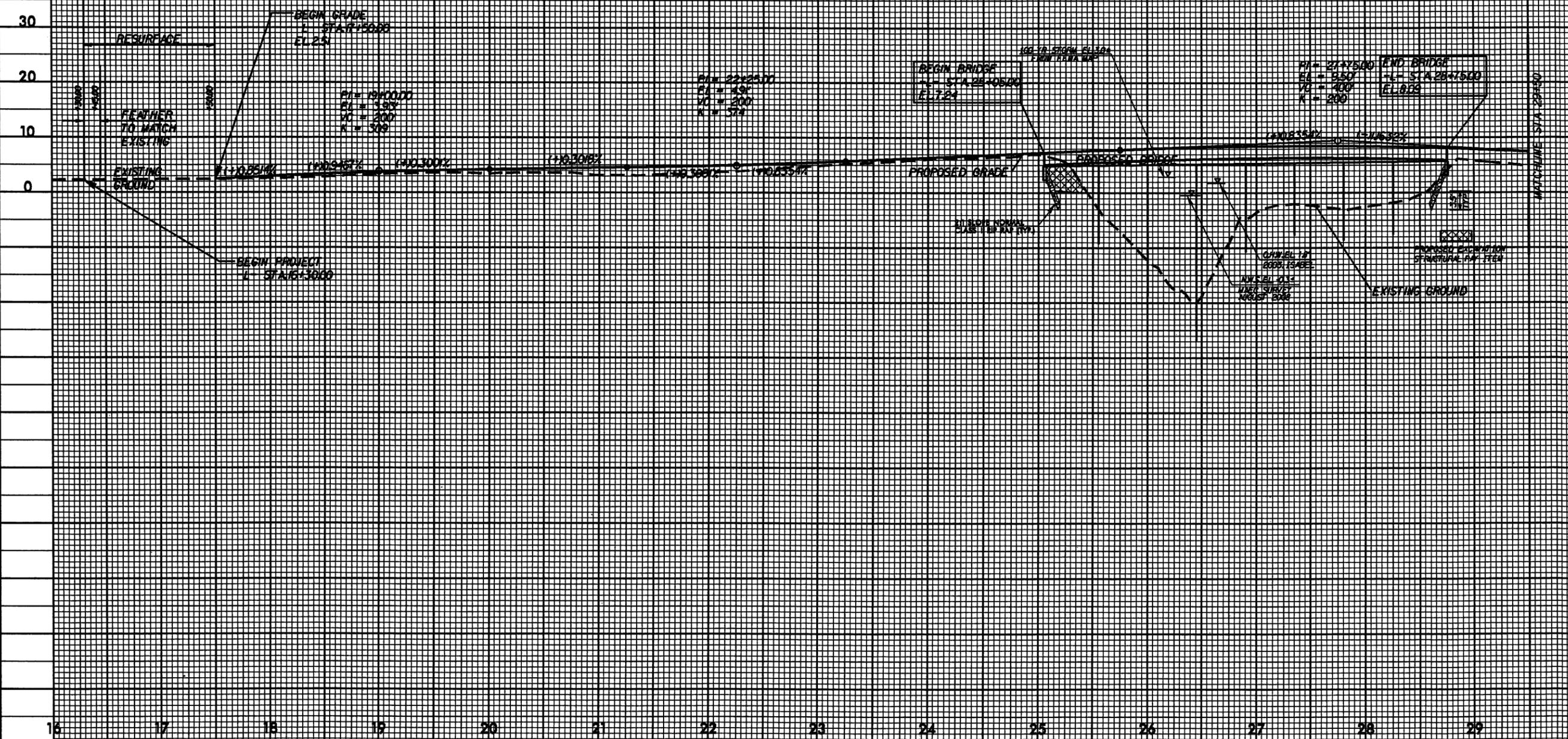
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ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS <small>NO GUARANTEE FOR CONSTRUCTION</small>	

-L-

DRMP CONSULTANTS, INC.
DRMP CONSULTANTS, INC. 1504 EAST WILSON AVENUE, SUITE 200 CHARLOTTE, NORTH CAROLINA 28207 (704) 333-2288 NC LICENSE NO. C-228

MA Engineering CONSULTANTS, INC.
MA Engineering Consultants, Inc. 1000 W. 10th St. Raleigh, NC 27603 (919) 876-1111 NC License No. 1478

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 N: 728426 E: 2832320

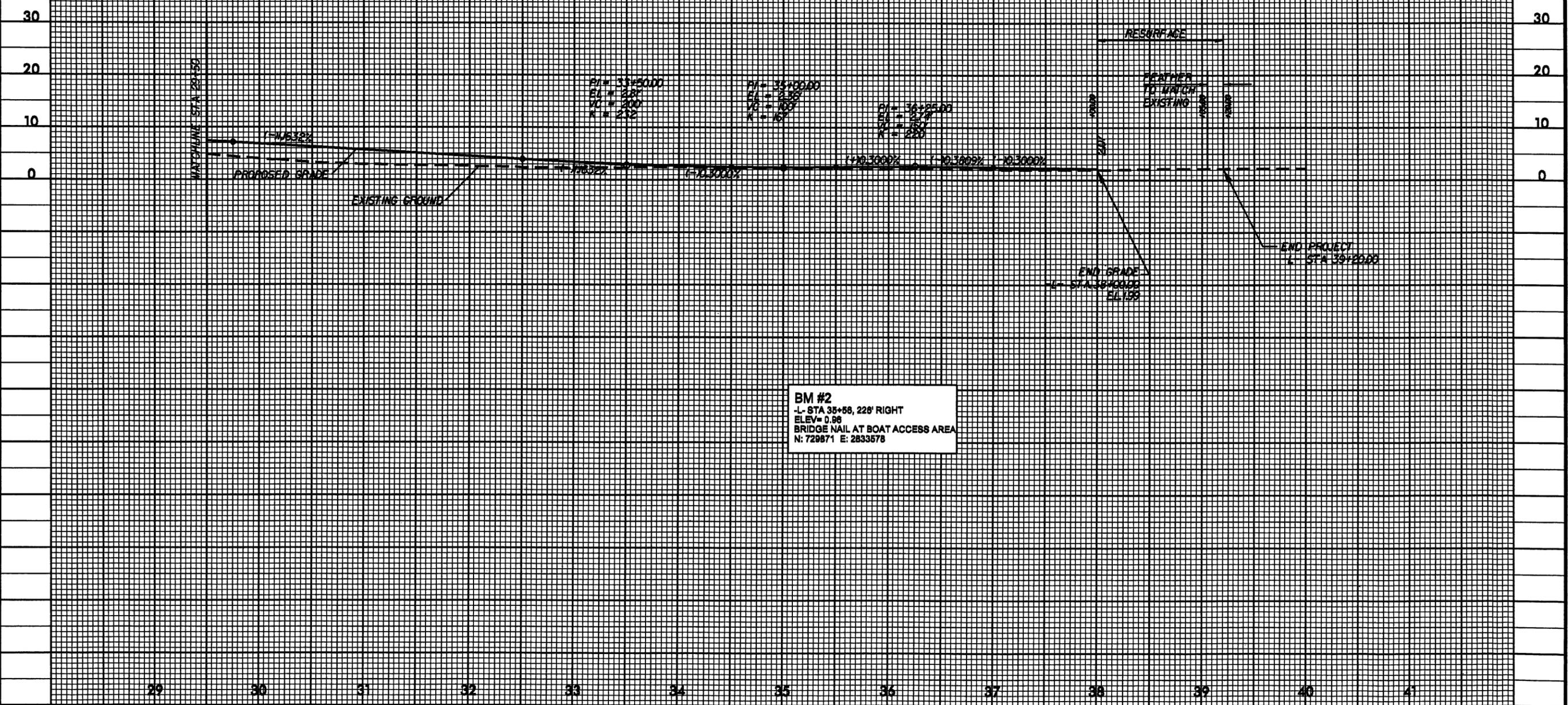


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PROJECT REFERENCE NO. B-4647	SHEET NO. 7
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS	
 DRMP <small>DESIGNERS • PLANNERS • CONSULTANTS</small>  MA Engineering <small>CONSULTANTS, INC.</small> <small>OVER, MOORE, HILLS & FREEDLEY, INC. 1504 EAST HERRINGBORO BLVD., SUITE 105 CHARLOTTE, NORTH CAROLINA 28227 (704) 332-2292</small>	

-L-



BM #2
 -L- STA 35+68, 22' RIGHT
 ELEV= 0.00
 BRIDGE NAIL AT BOAT ACCESS AREA
 N: 729871 E: 2833578

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B4647_Rdu-pf.sh.dgn

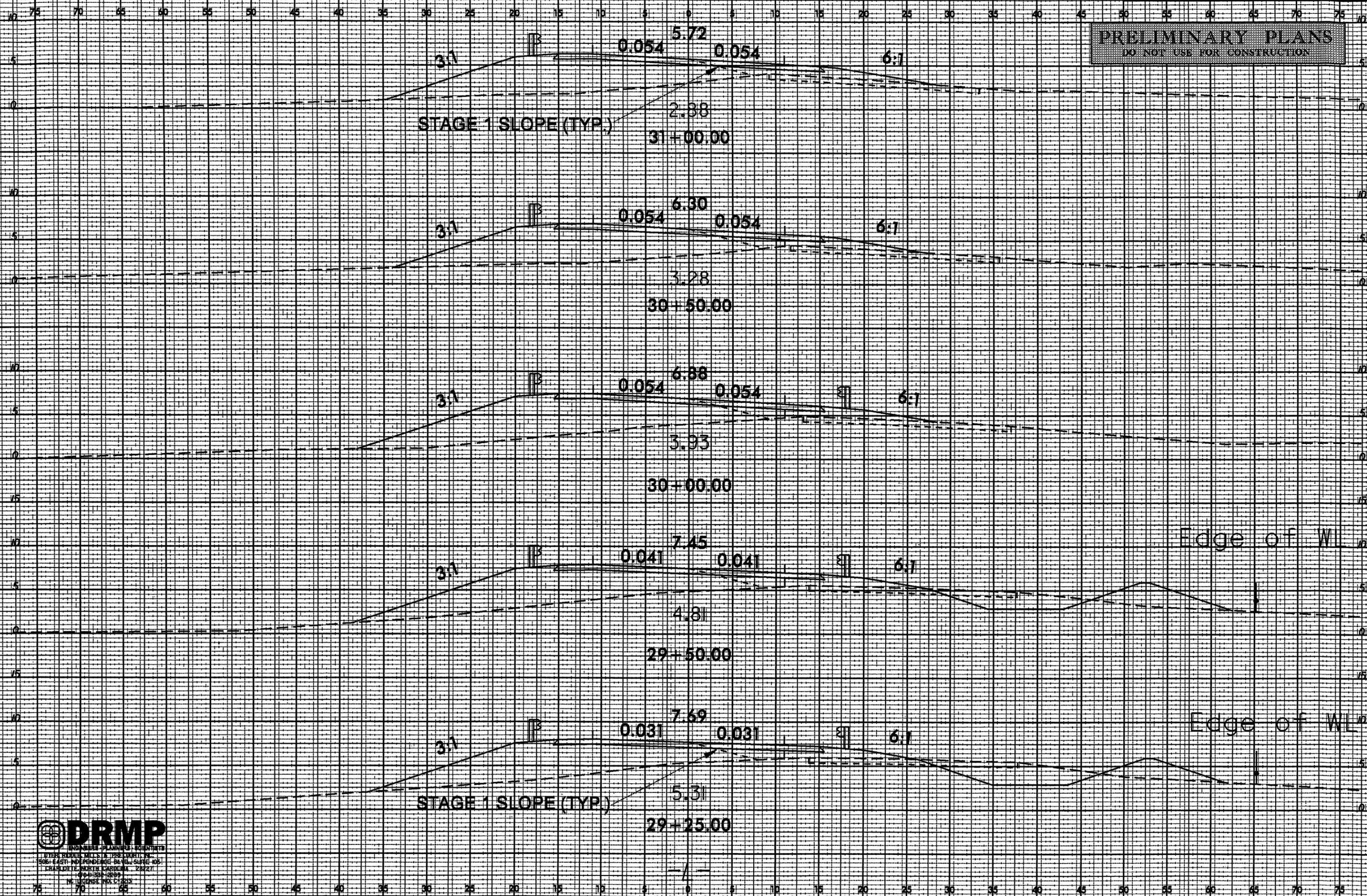
8/23/99

0 2.5 5

PROJ. REFERENCE NO.
B-4647

SHEET NO.
X-8

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION



10-MAR-2011 08:52
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