



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

PAT MCCRORY  
GOVERNOR

NICHOLAS J. TENNYSON  
SECRETARY

September 3, 2015

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

ATTN: Mr. Andy Williams  
NCDOT Division 8 Project Coordinator

SUBJECT: **Application for Section 404 Nationwide Permit Nos. 13, 23, and 33 and Section 401 Water Quality Certification** for the replacement of Bridge No. 58 over an Unnamed Tributary of the Little Uwharrie River on SR 1404 (Fuller Mill Road), Randolph County, North Carolina. Federal Aid Project No. BRZ-1404(12), TIP No. B-5128.

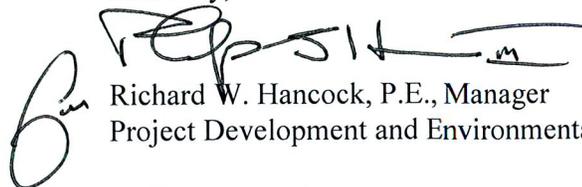
Debit \$240.00 from WBS Element No. 42286.1.1

Please find enclosed the Pre-Construction Notification, U.S. Army Corps of Engineers Approved Jurisdictional Determination, North Carolina Division of Mitigation Services Mitigation Acceptance Letter, U.S. Fish and Wildlife Service concurrence letter, Stormwater Management Plan, permit drawings, utility permit drawings, and roadway plans for the subject project. A Programmatic Categorical Exclusion (PCE) was completed for this project in August 2014.

The proposed let date for this project is March 15, 2016, with a let review date of January 26, 2016. However, the let date may advance as additional funds become available.

A copy of this permit application will be posted on the NCDOT Website at <https://connect.ncdot.gov/resources/Environmental/Pages/default.aspx>, under *Quick Links > Permit Applications*. A copy of the PCE is also available at the above website address under *Quick Links > Environmental Documents*. Thank you for your assistance with this project. If you have any questions or need additional information, please contact Jim Mason at either [jmason@ncdot.gov](mailto:jmason@ncdot.gov) or (919) 707-6136.

Sincerely,



Richard W. Hancock, P.E., Manager  
Project Development and Environmental Analysis Unit

cc: NCDOT Permit Application Standard Distribution List

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

TELEPHONE: 919-707-6100

FAX: 919-212-5785

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

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



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 <span style="margin-left: 100px;"><input type="checkbox"/> Non-404 Jurisdictional General Permit</span> <input type="checkbox"/> 401 Water Quality Certification – Express <span style="margin-left: 100px;"><input type="checkbox"/> Riparian Buffer Authorization</span>		
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 checked="" type="checkbox"/> Yes	<input 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. 58 over a UT of the Little Uwharrie River on SR 1404 (Fuller Mill Rd)
2b. County:	Randolph
2c. Nearest municipality / town:	Fuller Mill
2d. Subdivision name:	<i>not applicable</i>
2e. NCDOT only, T.I.P. or state project no.:	B-5128

#### 3. Owner Information

3a. Name(s) on Recorded Deed:	North Carolina Department of Transportation
3b. Deed Book and Page No.	<i>not applicable</i>
3c. Responsible Party (for LLC if applicable):	<i>not applicable</i>
3d. Street address:	1598 Mail Service Center
3e. City, state, zip:	Raleigh, NC 27699-1598
3f. Telephone no.:	(919) 707-6136
3g. Fax no.:	(919) 212-5785
3h. Email address:	jsmason@ncdot.gov

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

<b>B. Project Information and Prior Project History</b>	
<b>1. Property Identification</b>	
1a. Property identification no. (tax PIN or parcel ID):	<i>not applicable</i>
1b. Site coordinates (in decimal degrees):	Latitude: 35.7581 (DD.DDDDDD) Longitude: - 80.0163 (-DD.DDDDDD)
1c. Property size:	1.02 acres
<b>2. Surface Waters</b>	
2a. Name of nearest body of water (stream, river, etc.) to proposed project:	Little Uwharrie River
2b. Water Quality Classification of nearest receiving water:	WS III
2c. River basin:	Yadkin-Pee Dee
<b>3. Project Description</b>	
3a. Describe the existing conditions on the site and the general land use in the vicinity of the project at the time of this application: SR 1404 (Fuller Mill Rd) is classified as a Rural Local Route in the Statewide Functional Classification System and is not a National Highway System Route. Land use within the vicinity includes Forested Land, Low- to Mid-Density Residential, and Agriculture.	
3b. List the total estimated acreage of all existing wetlands on the property: 0 acres	
3c. List the total estimated linear feet of all existing streams (intermittent and perennial) on the property: 198 linear feet	
3d. Explain the purpose of the proposed project: To replace a functionally obsolete bridge.	
3e. Describe the overall project in detail, including the type of equipment to be used: The project consists of replacing the existing two-span, 36-foot long bridge with a 58-foot long double-barreled, 7-foot by 6-foot Reinforced Concrete Box Culvert (RCBC) on the existing alignment. Traffic will be maintained via off-site detour. Standard road building equipment, such as trucks, dozers, and cranes will be used.	
<b>4. Jurisdictional Determinations</b>	
4a. Have jurisdictional wetland or stream determinations by the Corps or State been requested or obtained for this property / project (including all prior phases) in the past? Comments: Action ID No. SAW-2009-01699	<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): Principal Investigator: Jim Mason	Agency/Consultant Company: NCDOT Other:
4d. If yes, list the dates of the Corps jurisdictional determinations or State determinations and attach documentation. 08/26/2015	
<b>5. Project History</b>	
5a. Have permits or certifications been requested or obtained for this project (including all prior phases) in the past?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown
5b. If yes, explain in detail according to "help file" instructions.	
<b>6. Future Project Plans</b>	
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)
Site <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ	
Site <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ	
Site <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ	
<b>2g. Total wetland impacts</b>					0 ac Perm. 0 ac Temp.
2h. Comments:					

**3. Stream Impacts**  
If there are perennial or intermittent stream impacts (including temporary impacts) proposed on the site, then complete this question for all stream sites impacted.

3a. Stream impact number - Permanent (P) or Temporary (T)	3b. Type of impact	3c. Stream name	3d. Perennial (PER) or intermittent (INT)?	3e. Type of jurisdiction (Corps - 404, 10 DWQ – non-404, other)	3f. Average stream width (feet)	3g. Impact length (linear feet)
Site 1 <input checked="" type="checkbox"/> P <input type="checkbox"/> T	Perm. Fill (RCBC)	UT of Little Uwharrie River (SA)	<input checked="" type="checkbox"/> PER <input type="checkbox"/> INT	<input checked="" type="checkbox"/> Corps <input type="checkbox"/> DWQ	14-30	87
Site 1 <input checked="" type="checkbox"/> P <input type="checkbox"/> T	Bank Stabilization	UT of Little Uwharrie River (SA)	<input checked="" type="checkbox"/> PER <input type="checkbox"/> INT	<input checked="" type="checkbox"/> Corps <input type="checkbox"/> DWQ	14-30	56
Site 1 <input type="checkbox"/> P <input checked="" type="checkbox"/> T	Temporary Fill	UT of Little Uwharrie River (SA)	<input checked="" type="checkbox"/> PER <input type="checkbox"/> INT	<input checked="" type="checkbox"/> Corps <input type="checkbox"/> DWQ	14-30	95
Site 2 <input type="checkbox"/> P <input checked="" type="checkbox"/> T	Temporary Fill	UT of Little Uwharrie River (SC)	<input type="checkbox"/> PER <input checked="" type="checkbox"/> INT	<input checked="" type="checkbox"/> Corps <input type="checkbox"/> DWQ	1-3	15
Utility Site 1 <input type="checkbox"/> P <input checked="" type="checkbox"/> T	Temporary Fill	UT of Little Uwharrie River (SA)	<input checked="" type="checkbox"/> PER <input type="checkbox"/> INT	<input checked="" type="checkbox"/> Corps <input type="checkbox"/> DWQ	14-30	<0.01 ac.
<b>3h. Total stream and tributary impacts</b>						143 ft Perm. 110 ft + <0.01 ac. Temp.
3i. Comments: The utility impacts are associated with the relocation of an 8-inch water line across Stream SA. The relocation requires temporary open-cutting of the streambed. These impacts occur in an area designated for permanent bank						

stabilization /temporary impacts associated with the RCBC installation, but since the trenching will occur prior to the RCBC installation, extends across the entire creek into areas where the bank stabilization would not, and is more invasive than the other culvert-related impacts, it was calculated and listed separately.

**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				
<b>4f. Total open water impacts</b>				0 Permanent 0 Temporary

4g. Comments:

5. Pond or Lake Construction								
If pond or lake construction proposed, then complete the chart below.								
5a. Pond ID number	5b. Proposed use or purpose of pond	5c. Wetland Impacts (acres)			5d. Stream Impacts (feet)			5e. Upland (acres)
		Flooded	Filled	Excavated	Flooded	Filled	Excavated	Flooded
P1								
P2								
<b>5f. Total</b>								
5g. Comments:								
5h. Is a dam high hazard permit required?				<input type="checkbox"/> Yes <input type="checkbox"/> No      If yes, permit ID no:				
5i. Expected pond surface area (acres):								
5j. Size of pond watershed (acres):								
5k. Method of construction:								
6. Buffer Impacts (for DWQ)								
If project will impact a protected riparian buffer, then complete the chart below. If yes, then individually list all buffer impacts below. If any impacts require mitigation, then you <b>MUST</b> 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					
<b>6h. Total buffer impacts</b>				0	0			
6i. Comments:								

<b>D. Impact Justification and Mitigation</b>		
<b>1. Avoidance and Minimization</b>		
1a. Specifically describe measures taken to avoid or minimize the proposed impacts in designing project. An off-site detour will be employed; Special Lateral 'V' Ditches will be constructed from -L- STA. 15+00 to STA 16+50 LT and from -L- STA. 15+00 to STA. 16+74 RT.		
1b. Specifically describe measures taken to avoid or minimize the proposed impacts through construction techniques. NCDOT Best Management Practices for Construction and Maintenance Activities and Best Management Practices for the Protection of Surface Waters will be employed.		
<b>2. Compensatory Mitigation for Impacts to Waters of the U.S. or Waters of the State</b>		
2a. Does the project require Compensatory Mitigation for impacts to Waters of the U.S. or Waters of the State?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If no, explain:	
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 checked="" type="checkbox"/> Payment to in-lieu fee program <input type="checkbox"/> Permittee Responsible Mitigation	
<b>3. Complete if Using a Mitigation Bank</b>		
3a. Name of Mitigation Bank: not applicable		
3b. Credits Purchased (attach receipt and letter)	Type	Quantity
3c. Comments:		
<b>4. Complete if Making a Payment to In-lieu Fee Program</b>		
4a. Approval letter from in-lieu fee program is attached.	<input checked="" type="checkbox"/> Yes	
4b. Stream mitigation requested:	87 linear ft @ 2:1 = 174 linear feet	
4c. If using stream mitigation, stream temperature:	<input checked="" 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:		
<b>5. Complete if Using a Permittee Responsible Mitigation Plan</b>		
5a. If using a permittee responsible mitigation plan, provide a description of the proposed mitigation plan.		

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

6a. Will the project result in an impact within a protected riparian buffer that requires buffer mitigation?

Yes       No

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

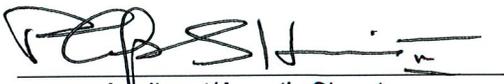
Zone	6c. Reason for impact	6d. Total impact (square feet)	Multiplier	6e. Required mitigation (square feet)
Zone 1			3 (2 for Catawba)	
Zone 2			1.5	
<b>6f. Total buffer mitigation required:</b>				0

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:

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

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

<b>5. Endangered Species and Designated Critical Habitat (Corps Requirement)</b>		
5a. Will this project occur in or near an area with federally protected species or habitat?	<input 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? NC Natural Heritage Program data, USFWS website, NCDOT field surveys; Concurrence was received from the USFWS for a "May Affect, Not Likely to Adversely Affect" Biological Conclusion for Schweinitz's sunflower on November 17, 2009. See attached.		
<b>6. Essential Fish Habitat (Corps Requirement)</b>		
6a. Will this project occur in or near an area designated as essential fish habitat?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
6b. What data sources did you use to determine whether your site would impact Essential Fish Habitat? NMFS County Index		
<b>7. Historic or Prehistoric Cultural Resources (Corps Requirement)</b>		
7a. Will this project occur in or near an area that the state, federal or tribal governments have designated as having historic or cultural preservation status (e.g., National Historic Trust designation or properties significant in North Carolina history and archaeology)?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
7b. What data sources did you use to determine whether your site would impact historic or archeological resources? NEPA Documentation		
<b>8. Flood Zone Designation (Corps Requirement)</b>		
8a. Will this project occur in a FEMA-designated 100-year floodplain?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
8b. If yes, explain how project meets FEMA requirements:		
8c. What source(s) did you use to make the floodplain determination? FEMA Maps		
 <u>Richard W. Hancock, P.E.</u> Applicant/Agent's Printed Name	 Applicant/Agent's Signature (Agent's signature is valid only if an authorization letter from the applicant is provided.)	09/03/2015 Date



North Carolina Department of Environment and Natural Resources

Pat McCrory  
Governor

Division of Mitigation Services

Donald R. van der Vaart  
Secretary

August 24, 2015

Mr. Richard W. Hancock, P.E.  
Project Development and Environmental Analysis Unit  
North Carolina Department of Transportation  
1548 Mail Service Center  
Raleigh, North Carolina 27699-1548

Dear Mr. Hancock:

Subject: Mitigation Acceptance Letter:

**B-5128**, Replace Bridge 58 on SR 1404 (Fuller Mill Road) over UT of the Little Uwharrie River Creek, Randolph County

The purpose of this letter is to notify you that the Division of Mitigation Services (DMS) will provide the compensatory stream mitigation for the subject project. Based on the information supplied by you on August 12, 2015, the impacts are located in CU 03040103 of the Yadkin River basin in the Central Piedmont (CP) Eco-Region, and are as follows:

Yadkin 03040103 CP	Stream			Wetlands			Buffer (Sq. Ft.)	
	Cold	Cool	Warm	Riparian	Non-Riparian	Coastal Marsh	Zone 1	Zone 2
Impacts (feet/acres)	0	0	87.0	0	0	0	0	0

\*Some of the stream impacts may be proposed to be mitigated at a 1:1 mitigation ratio. See permit application for details.

This impact and associated mitigation need were under projected by the NCDOT in the 2015 impact data. DMS will commit to implement sufficient compensatory stream mitigation credits to offset the impacts associated with this project as determined by the regulatory agencies using the delivery timeline listed in Section F.3.c.iii of the In-Lieu Fee Instrument dated July 28, 2010. If the above referenced impact amounts are revised, then this mitigation acceptance letter will no longer be valid and a new mitigation acceptance letter will be required from DMS.

If you have any questions or need additional information, please contact Beth Harmon at 919-707-8420.

Sincerely,

James B. Stanfill  
Asset Management Supervisor

cc: Ms. Liz Hair, USACE – Wilmington Regulatory Field Office  
Ms. Amy Chapman, NCDWR  
File: B-5128

CR-11-19-09  
VCC: L. Williams

Mason



# United States Department of the Interior

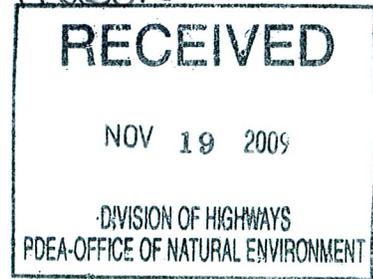
FISH AND WILDLIFE SERVICE

Raleigh Field Office

Post Office Box 33726

Raleigh, North Carolina 27636-3726

November 17, 2009



Gregory J. Thorpe, Ph.D.  
North Carolina Department of Transportation  
Project Development and Environmental Analysis  
1598 Mail Service Center  
Raleigh, North Carolina 27699-1598

Dear Dr. Thorpe:

This letter is in response to your letter of November 3, 2009 which provided the U.S. Fish and Wildlife Service (Service) with the biological determination of the North Carolina Department of Transportation (NCDOT) that the replacement of Bridge No. 58 on SR 1404 over UNT Little Uwharrie River in Randolph County (TIP No. B-5128) may affect, but is not likely to adversely affect the federally endangered Schweinitz's sunflower (*Helianthus schweinitzii*). In addition, NCDOT has determined that the project will have no effect on the federally endangered Cape Fear shiner (*Notropis mekistocholas*). These comments are provided in accordance with Section 7 of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531-1543).

According to information provided, a plant survey was conducted at the project site on October 1, 2008. No specimens of Schweinitz's sunflower were observed. However, a population of the plant was last observed in 2005 approximately 0.6 miles south of the project study area. Based on the survey results and other available information, the Service concurs with your determination that the proposed bridge replacement may affect, but is not likely to adversely affect the Schweinitz's sunflower. Also, based on the fact that the Cape Fear shiner is known only from the Cape Fear River Basin and the project area occurs within the Yadkin River Basin, the Service concurs with your determination that the project will have no effect on the Cape Fear shiner. We believe that the requirements of Section 7(a)(2) of the ESA have been satisfied. We remind you that obligations under Section 7 consultation must be reconsidered if: (1) new information reveals impacts of this identified action that may affect listed species or critical habitat in a manner not previously considered in this review; (2) this action is subsequently modified in a manner that was not considered in this review; or (3) a new species is listed or critical habitat determined that may be affected by this identified action.

The Service appreciates the opportunity to review this project. If you have any questions regarding our response, please contact Mr. Gary Jordan at (919) 856-4520 (Ext. 32).

Sincerely,

*Gary Jordan*  
for Pete Benjamin  
Field Supervisor

cc: Kim Garvey, USACE, Wilmington, NC  
Travis Wilson, NCWRC, Creedmoor, NC  
Chris Militscher, USEPA, Raleigh, NC  
John Sullivan, FHWA, Raleigh, NC  
David Harris, NCDOT, Raleigh, NC

# U.S. ARMY CORPS OF ENGINEERS

## WILMINGTON DISTRICT

Action Id. SAW-2009-01699 County: Randolph U.S.G.S. Quad: NC-FAIR GROVE

### NOTIFICATION OF JURISDICTIONAL DETERMINATION

**Property Owner: North Carolina Department of Transportation  
Project Development and Environmental Analysis (PDEA)  
Address: 1650 Mail Service Center  
Raleigh, North Carolina 27699**

Size (acres)	N/A	Nearest Town	<u>Fuller Mill</u>
Nearest Waterway	<u>Little Uwharrie River</u>	River Basin	<u>Lower Yadkin</u>
USGS HUC	<u>03040103</u>	Coordinates	Latitude: <u>35.7582</u> Longitude: <u>-80.0164</u>

**Location description: The project site is located within an approximate 5- acre corridor, along Fuller Mill Road (SR1404), north of U.S. Highway 64 West, in Fuller Mill, south of Thomasville, in Randolph County, North Carolina. TIP: B-5128**

#### Indicate Which of the Following Apply:

##### **A. Preliminary Determination**

- Based on preliminary information, there may be waters of the U.S. including wetlands on the above described project area. We strongly suggest you have this property inspected to determine the extent of Department of the Army (DA) jurisdiction. To be considered final, a jurisdictional determination must be verified by the Corps. This preliminary determination is not an appealable action under the Regulatory Program Administrative Appeal Process (Reference 33 CFR Part 331). If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also, you may provide new information for further consideration by the Corps to reevaluate the JD.

##### **B. Approved Determination**

- There are Navigable Waters of the United States within the above described project area subject to the permit requirements of Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act. Unless there is a change in the law or our published regulations, this determination may be relied upon for a period not to exceed five years from the date of this notification.

**There are waters of the U.S. on the above described project area subject to the permit requirements of Section 404 of the Clean Water Act (CWA)(33 USC § 1344). Unless there is a change in the law or our published regulations, this determination may be relied upon for a period not to exceed five years from the date of this notification.**

We strongly suggest you have the waters of the U.S. including wetlands on your project area delineated. Due to the size of your property and/or our present workload, the Corps may not be able to accomplish this wetland delineation in a timely manner. For a more timely delineation, you may wish to obtain a consultant. To be considered final, any delineation must be verified by the Corps.

**The waters of the U.S.s on your project area have been delineated and the delineation has been verified by the Corps. We strongly suggest you have this delineation surveyed. Upon completion, this survey should be reviewed and verified by the Corps. Once verified, this survey will provide an accurate depiction of all areas subject to CWA jurisdiction on your property which, provided there is no change in the law or our published regulations, may be relied upon for a period not to exceed five years.**

The waters of the U.S. including wetlands have been delineated and surveyed and are accurately depicted on the plat signed by the Corps Regulatory Official identified below on \_\_\_\_\_. Unless there is a change in the law or our published regulations, this determination may be relied upon for a period not to exceed five years from the date of this notification.

- There are no waters of the U.S., to include wetlands, present on the above described project area which are subject to the permit requirements of Section 404 of the Clean Water Act (33 USC 1344). Unless there is a change in the law or our published regulations, this determination may be relied upon for a period not to exceed five years from the date of this notification.
- The property is located in one of the 20 Coastal Counties subject to regulation under the Coastal Area Management Act (CAMA). You should contact the Division of Coastal Management in Morehead City, NC, at (252) 808-2808 to determine their requirements.

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 **Sarah Hair at 910-251-4049 or Sarah.E.Hair@usace.army.mil.**

**C. Basis For Determination:** *This site contains features which exhibit indicators of an Ordinary High Water Mark (OHWM). Waters onsite are unnamed tributaries to the Little Uwharrie River, which ultimately flow to the Pee Dee River (TNW, and a section 10 water at the Blewett falls Dam on the Anson/Richmond County line).*

**D. Remarks:**

**E. Attention USDA Program Participants**

This delineation/determination has been conducted to identify the limits of Corps' Clean Water Act jurisdiction for the particular site identified in this request. The delineation/determination may not be valid for the wetland conservation provisions of the Food Security Act of 1985. If you or your tenant are USDA Program participants, or anticipate participation in USDA programs, you should request a certified wetland determination from the local office of the Natural Resources Conservation Service, prior to starting work.

**F. 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:

US Army Corps of Engineers  
 South Atlantic Division  
 Attn: Jason Steele, Review Officer  
 60 Forsyth Street SW, Room 10M15  
 Atlanta, Georgia 30303-8801

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 Division 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 **October 25, 2015.**

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

Corps Regulatory Official: Liz Hair **HAIR.SARAH.E**  
**A.1054693512**

Digitally signed by  
 HAIR.SARAH.EA.1054693512  
 DN: c=US, o=U.S. Government,  
 ou=DoD, ou=PKI, ou=USA,  
 cn=HAIR.SARAH.EA.1054693512  
 Date: 2015.08.26 15:13:32 -0400

Date: **August 26, 2015** Expiration Date: **August 26, 2020**



North Carolina Department of Transportation

Highway Stormwater Program  
**STORMWATER MANAGEMENT PLAN**  
 FOR NCDOT PROJECTS



(Version 2.02; Released April 2015)

WBS Element: 42286.1.1      TIP No.: B-5128      County(ies): Randolph      Page 1 of 2

**General Project Information**

WBS Element:	42286.1.1	TIP Number:	B-5128	Project Type:	Bridge Replacement	Date:	6/24/2015
NCDOT Contact:	Binod Yadav, P.E., CFM		Contractor / Designer:	Binod Yadav, P.E., CFM			
Address:	1020 Birch Ridge Dr. Raleigh, NC 27610		Address:	1020 Birch Ridge Dr. Raleigh, NC 27610			
	Phone:	919-707-6758		Phone:	919-707-6758		
	Email:	bkyadav@ncdot.gov		Email:	bkyadav@ncdot.gov		
City/Town:	Trinity		County(ies):	Randolph			
River Basin(s):	Yadkin-Pee Dee		CAMA County?	No			
Wetlands within Project Limits?	No						

**Project Description**

Project Length (lin. miles or feet):	0.10	Surrounding Land Use:	Rural Agricultural Land					
	<b>Proposed Project</b>		<b>Existing Site</b>					
Project Built-Upon Area (ac.)	0.2	ac.	0.2	ac.				
Typical Cross Section Description:	ten-foot lanes; three to four-foot grassed shoulders, seven-foot shoulders with guardrail; no median			ten-foot lanes; three to four-foot grassed shoulders, seven-foot shoulders with guardrail; no median				
Annual Avg Daily Traffic (veh/hr/day):	Design/Future:	900	Year:	2035	Existing:	550	Year:	2013
General Project Narrative: (Description of Minimization of Water Quality Impacts)	<p>The project consists of replacing Bridge# 58 on SR 1404 (Fuller Mill Rd.) over Unnamed Trib. to Little Uwharrie River. The approach work will consist of raising the existing roadway grade and providing grass shoulders and guardrails. Bridge #58, existing two spans (1@18'-1" &amp; 1@17'-8") with timber deck on timber floor beams, will be replaced with 2@7'x6' RCBC (buried 1 foot)</p> <p>Best Management Practices            -Class B rip rap used for toe protection and also used in ditches to reduce velocity of stormwater flow            -Grass shoulders having a minimum three-foot width are used in the design            -Native bed material used to backfill both culvert barrels</p>							

**Waterbody Information**

Surface Water Body (1):	Unnamed Tributary To Little Uwharrie River		NCDWR Stream Index No.:	13-2-1			
NCDWR Surface Water Classification for Water Body	Primary Classification:	Class C		Water Supply III (WS-III)			
	Supplemental Classification:						
Other Stream Classification:							
Impairments:							
Aquatic T&E Species?	No	Comments:					
NRTR Stream ID:	SA		Buffer Rules in Effect:	N/A			
Project Includes Bridge Spanning Water Body?	No	Deck Drains Discharge Over Buffer?	N/A	Dissipator Pads Provided in Buffer?	N/A		
Deck Drains Discharge Over Water Body?	N/A	(If yes, provide justification in the General Project Narrative)		(If yes, describe in the General Project Narrative; if no, justify in the General Project Narrative)			
(If yes, provide justification in the General Project Narrative)							



North Carolina Department of Transportation  
 Highway Stormwater Program  
**STORMWATER MANAGEMENT PLAN**  
 FOR NCDOT PROJECTS



(Version 2.02; Released April 2015)

**WBS Element:** 42286.1.1    **TIP No.:** B-5128    **County(ies):** Randolph    **Page** 2 **of** 2

**Bridge to Culvert Avoidance and Minimization**

**Proposed Structure Summary**

<b>Sheet No. &amp; Station</b>	<b>Sheet No.:</b> 4	<b>Station:</b> 13+75 -L-	<b>Number of Culverts:</b>	2
<b>Drainage Area (ac or sq mi):</b>	0.69 Sq. Miles		<b>Culvert Width/Diameter (ft):</b>	7'
<b>Surface Water Body:</b>	(1) Unamed Tributary To Little Uwharrie River		<b>Culvert Height (ft):</b>	6'
<b>Culvert Type:</b>	Reinforced concrete box culvert		<b>Culvert Length (ft)</b>	58'

**Avoidance and Minimization Efforts:**  
(Bridge to Culvert)

**Stream Slope**

<b>Existing Average Stream Slope (%):</b>	1.00 %
<b>Proposed Culvert Slope (%):</b>	1.00 %

**Fish and/or Aquatic Life Passage**

<b>Existing Low Flow Channel Dimensions in the Stream:</b>	14 ft. wide
<b>Proposed Low Flow Dimensions Through the Culvert:</b>	15 ft wide
<b>Existing Low Flow Velocities in the Stream (ft/s):</b>	7.4
<b>Proposed Low Flow Velocities Through the Culvert (ft/s):</b>	6
<b>Alternating Low Flow Sills/Baffles:</b>	

**Culvert Burial**

<b>Proposed Culvert Burial Depth (ft):</b>	1
--	---

**Existing Streambed Material:** Cobbles and sand

**Proposed Sills/Baffles:**

**Culvert/Stream Alignment**

**Stream Patterns Upstream and Downstream of the Culvert that Could Affect Fish Passage and Bank Stability:**

**Bed Forms Impacted by Culvert (riffles, pools, glides, etc.):**

**Low Flow Floodplain Bench Required? (provide justification)**    No

**Sharp Bends at Inlet/Outlet? (describe culvert alignment with stream)**    No

**Stream Realignment Necessary? (provide justification)**    No

**Bank Stabilization:** CL I riprap with filter fabric is proposed for a bank stabilization. The width of bank stabilization varies from 12' to 15' at both upstream & downstream of the culverts.

**Outlet Velocities**

<b>Natural Stream Channel 2-yr Velocity (ft/s):</b>	4.7	<b>Natural Stream Channel 10-yr Velocity (ft/s):</b>	5.7
<b>Proposed Culvert 2-yr Outlet Velocity (ft/s):</b>	5.5	<b>Proposed Culvert 10-yr Outlet Velocity (ft/s):</b>	6.7

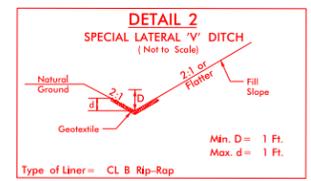
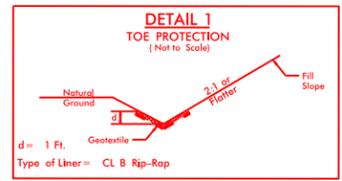
**Roadway Geometric Considerations**

**Evaluate/Describe Roadway Geometric Constraints:**

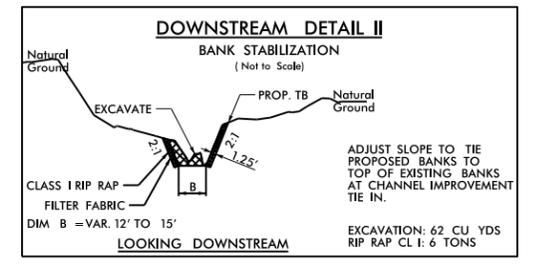
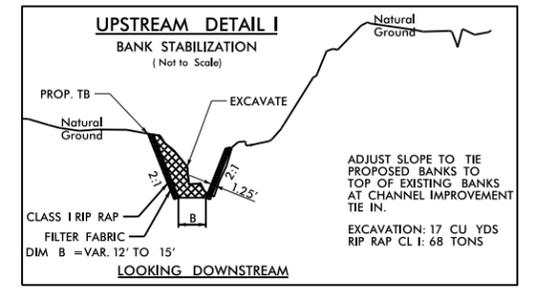
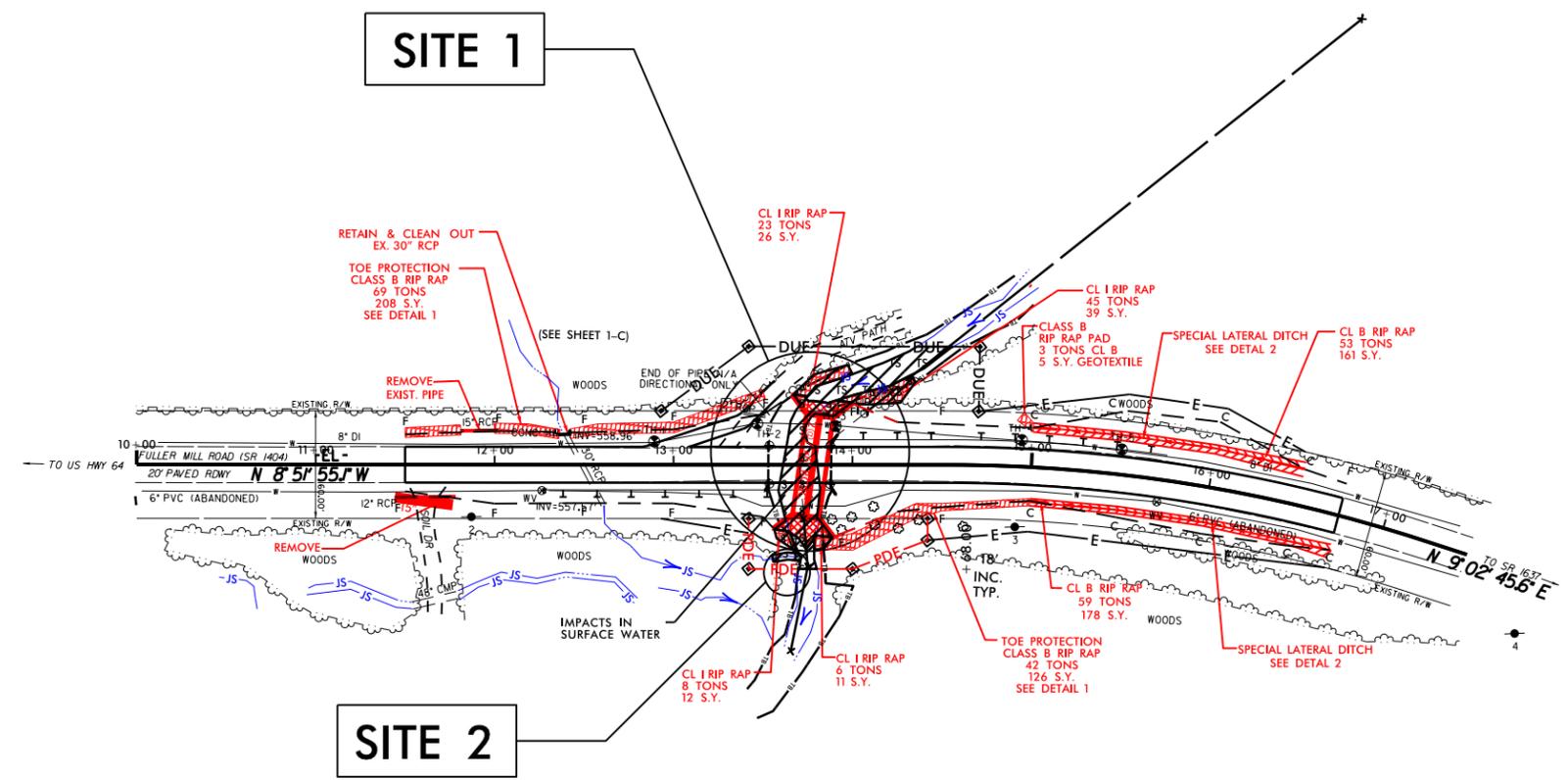


B.17/99

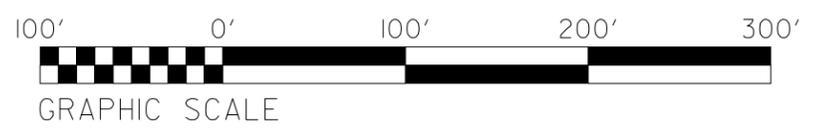
PROJECT REFERENCE NO. <b>B-5128</b>	SHEET NO. <b>4</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER SEAL 014571 NORTH CAROLINA PROFESSIONAL ENGINEER	HYDRAULICS ENGINEER SEAL 019775 NORTH CAROLINA PROFESSIONAL ENGINEER LOVINGGOOD



REVISIONS



**PERMIT DRAWING**  
**SHEET 2 OF 7**



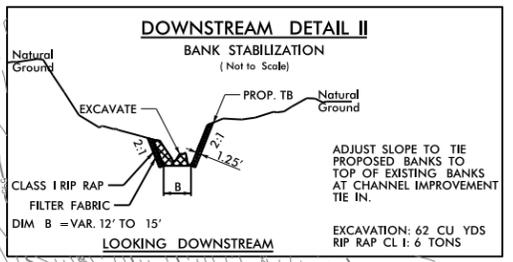
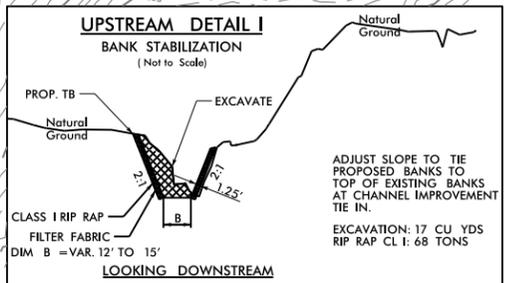
NOTE: SEE SHEET NO. 5 FOR -L- PROFILE  
NOTE: SEE SHEET C-1 THRU C-? FOR CULVERT PLANS.

- DENOTES IMPACTS IN SURFACE WATER
- DENOTES TEMPORARY IMPACTS IN SURFACE WATER

CONSTRUCTION

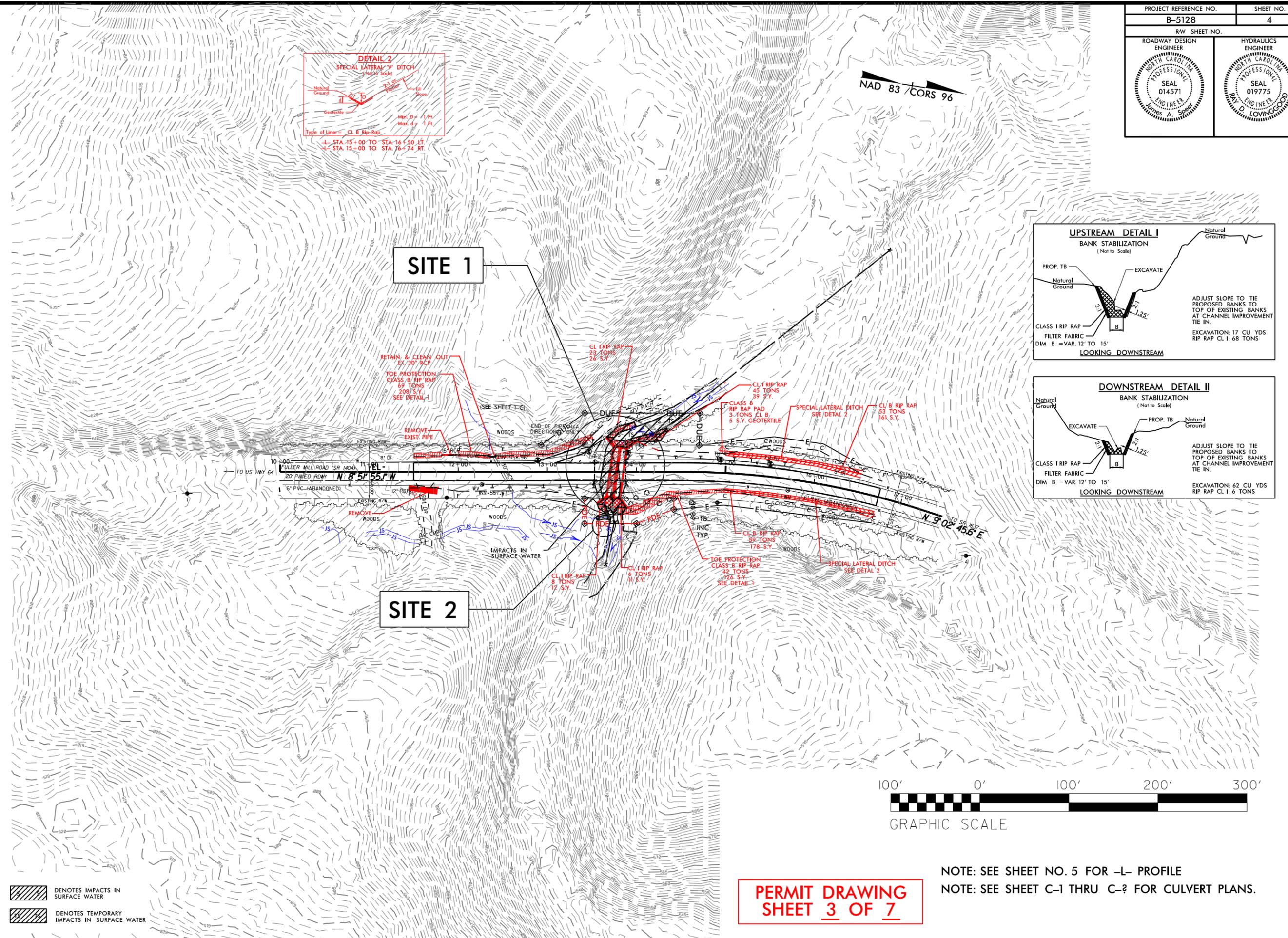
PROJECT REFERENCE NO.	SHEET NO.
B-5128	4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NAD 83 / CORS 96



**SITE 1**

**SITE 2**



GRAPHIC SCALE

**PERMIT DRAWING SHEET 3 OF 7**

NOTE: SEE SHEET NO. 5 FOR -L- PROFILE  
NOTE: SEE SHEET C-1 THRU C-? FOR CULVERT PLANS.

- DENOTES IMPACTS IN SURFACE WATER
- DENOTES TEMPORARY IMPACTS IN SURFACE WATER

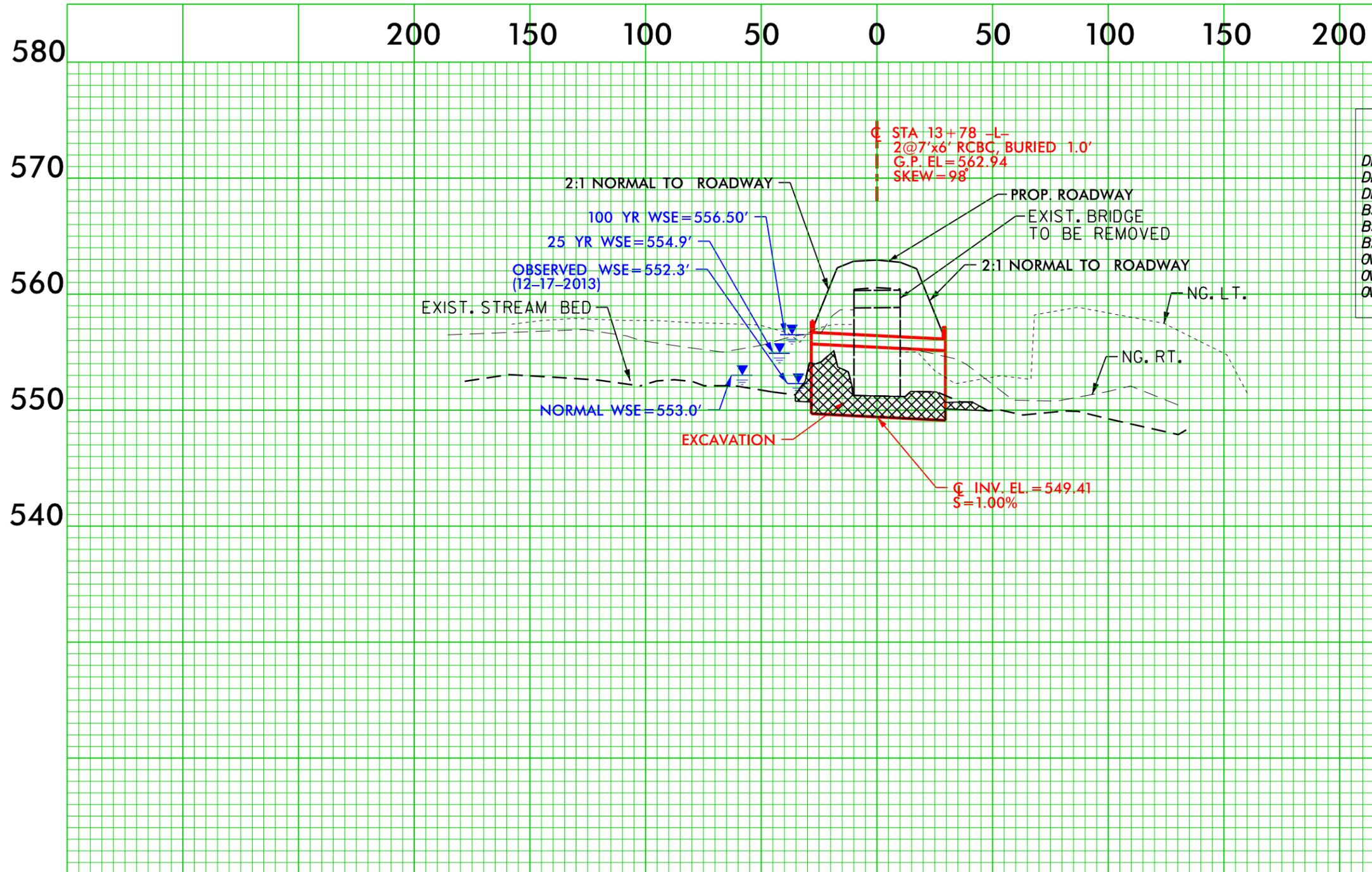
REVISIONS

8/17/99





PROJECT REFERENCE NO. <b>B-5128</b>	SHEET NO.
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR A/W ACQUISITION	



DESIGN DISCHARGE	= 340	CFS
DESIGN FREQUENCY	= 25	YRS
DESIGN HW ELEVATION	= 554.9	FT
BASE DISCHARGE	= 550	CFS
BASE FREQUENCY	= 100	YRS
BASE HW ELEVATION	= 556.50	FT
OVERTOPPING DISCHARGE	= 1375	CFS
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING ELEVATION	= 562.8	FT

**PERMIT DRAWING  
SHEET 6 OF 7**

B.17/99

REVISIONS

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**WETLAND PERMIT IMPACT SUMMARY**

Site No.	Station (From/To)	Structure Size / Type	WETLAND IMPACTS					SURFACE WATER IMPACTS				
			Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)
1	13+55 To 14+00	2@7'X6' RCBC						0.03	0.02	87	95	
	13+66 To 14+35	Bank Stabilization (Left)						0.01		45		
	13+56 To 13+89	Bank Stabilization (Right)						< 0.01		11		
2	13+55 To 13+71	Due to Bank Stabilization							< 0.01		15	
<b>TOTALS*:</b>								0.05	0.03	143	110	0

\*Rounded totals are sum of actual impacts

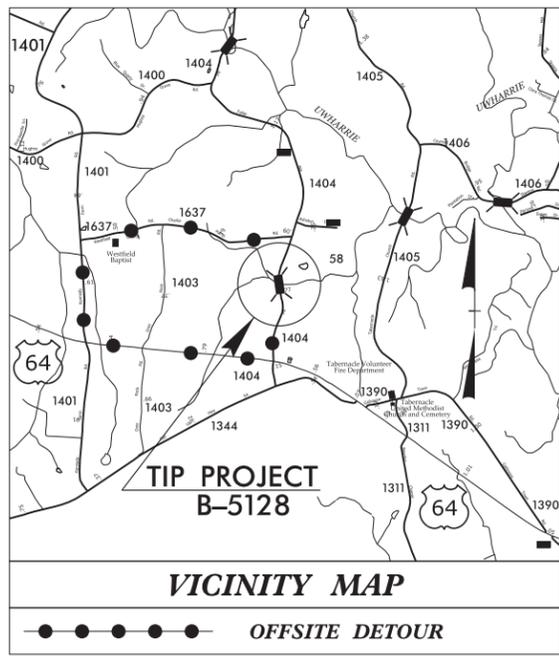
NOTES:

NC DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 06/24/2015  
 RANDOLPH  
 B-5128  
 42286.1.1  
 SHEET 7 OF 7

09.08/99

TIP PROJECT: B-5128

T.I.P. NO.	SHEET NO.
B-5128	UP-1



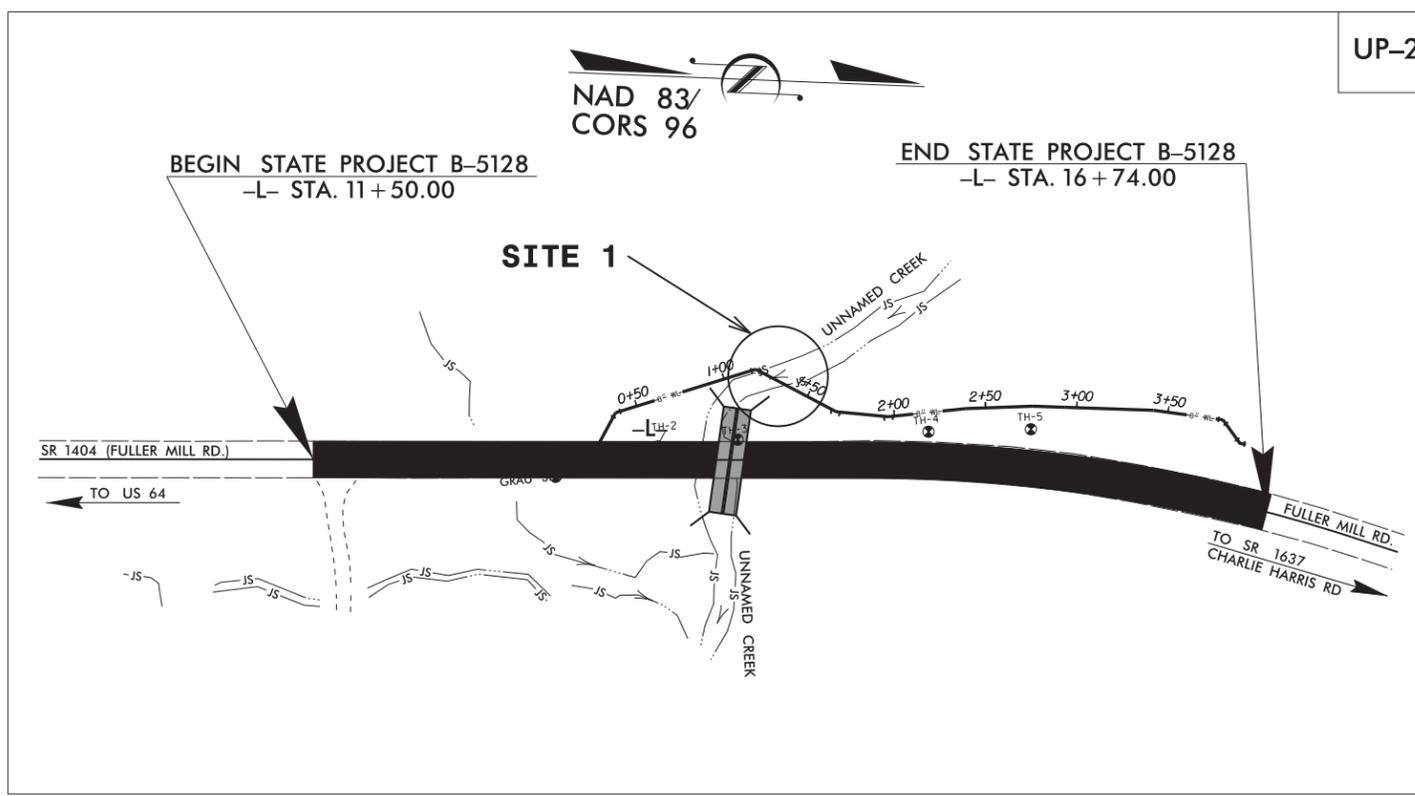
STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

UTILITY PERMIT DRAWING  
RANDOLPH COUNTY

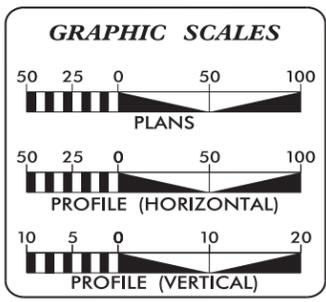
LOCATION: BRIDGE 58 ON SR 1404 (FULLER MILL RD.)  
OVER AN UNNAMED TRIBUTARY OF LITTLE UWHARRIE RIVER

TYPE OF WORK: WATER LINE RELOCATION

UTILITY PERMIT DRAWING  
SHEET 1 OF 5  
03/16/2015



INCOMPLETE PLANS  
DO NOT USE FOR R/W ACQUISITION  
PRELIMINARY PLANS  
DO NOT USE FOR CONSTRUCTION



INDEX OF SHEETS	
SHEET NO.	DESCRIPTION
UP-1	TITLE SHEET
UP-2	UTILITY CONSTRUCTION SHEET
UP-3 THRU UP-4	PROFILE SHEETS
SHEET 5	SUMMARY SHEET

WATER OWNERS ON PROJECT

(1) WATER ; DAVIDSON WATER INC.

SEAL

PREPARED IN THE OFFICE OF:  
DIVISION OF HIGHWAYS  
UTILITIES UNIT  
UTILITIES ENGINEERING

1555 MAIL SERVICES CENTER  
RALEIGH NC 27699-1555  
PHONE (919) 707-6690  
FAX (919) 250-4151

Roger Worthington, P.E. UTILITIES SECTION ENGINEER  
STEVE MCKEE, P.E. UTILITIES SQUAD LEADER PROJECT ENGINEER  
JONG-TAE YOON, P.E. UTILITIES PROJECT DESIGNER

16-MAR-2015 15:12  
R:\Utilities\Engineering\UC\Proj\B5128\_Ut\_tsh\_UPI\_psh.dgn  
\$\$\$\$\$SERNAME\$\$\$\$\$

PROJECT REFERENCE NO.	SHEET NO.
<b>B-5128</b>	<b>UP-2</b>
DESIGNED BY: <b>JTY</b>	
DRAWN BY: <b>JTY</b>	
CHECKED BY: <b>JSM</b>	
APPROVED BY: <b>JSM</b>	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	UTILITY CONSTRUCTION PLANS ONLY

**PIPE TO BE DUCTILE RESTRAINT JOINT PIPE PC 350  
RESTRAIN ALL BENDS TO PIPE**

**UTILITY PERMIT DRAWING  
SHEET 2 OF 5  
03 / 16 / 2015**

**BEGIN TIP PROJECT B-5128  
-L- STA 11+50.00**

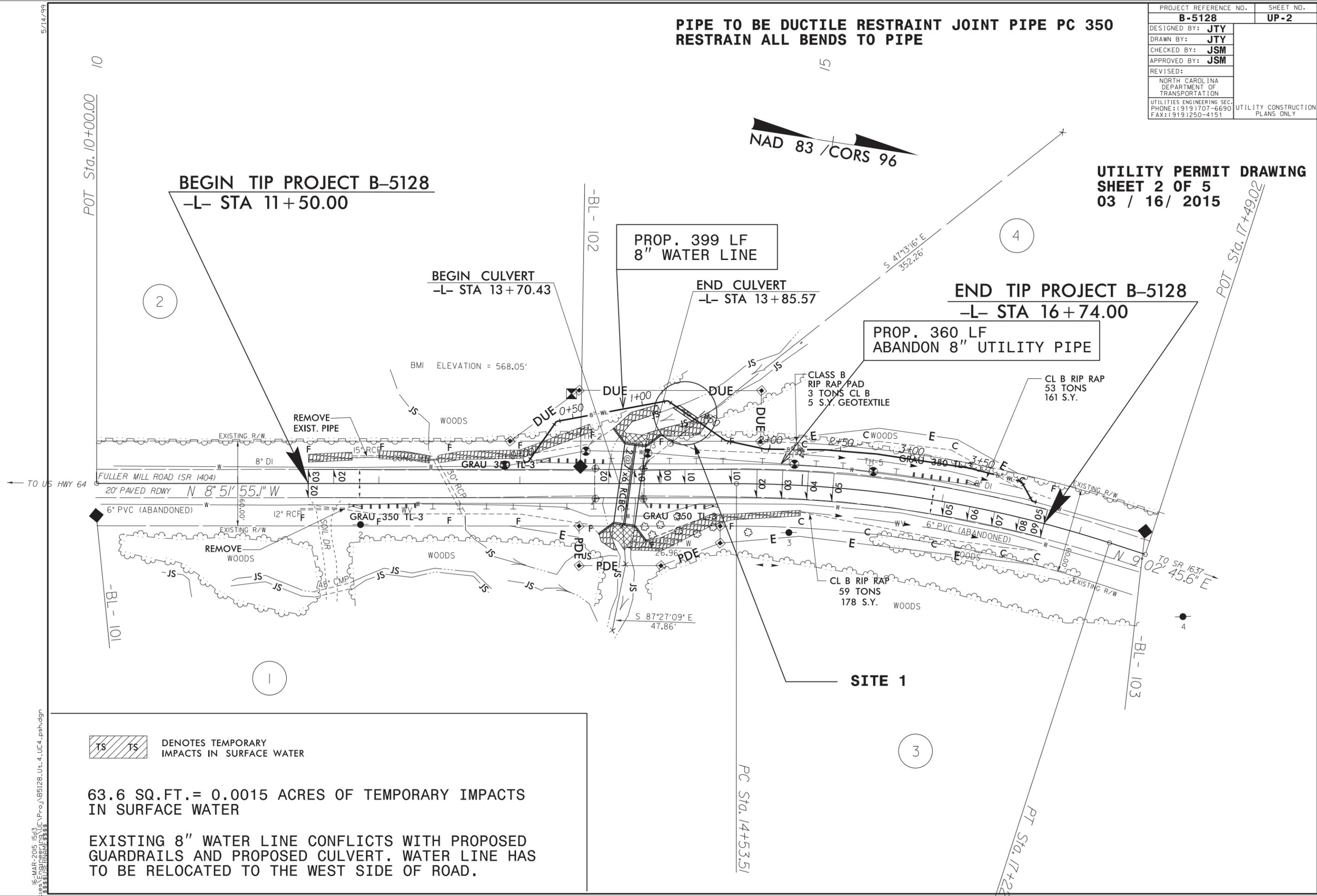
**BEGIN CULVERT  
-L- STA 13+70.43**

**PROP. 399 LF  
8" WATER LINE**

**END CULVERT  
-L- STA 13+85.57**

**END TIP PROJECT B-5128  
-L- STA 16+74.00**

**PROP. 360 LF  
ABANDON 8" UTILITY PIPE**



**TS TS DENOTES TEMPORARY IMPACTS IN SURFACE WATER**

**63.6 SQ.FT. = 0.0015 ACRES OF TEMPORARY IMPACTS IN SURFACE WATER**

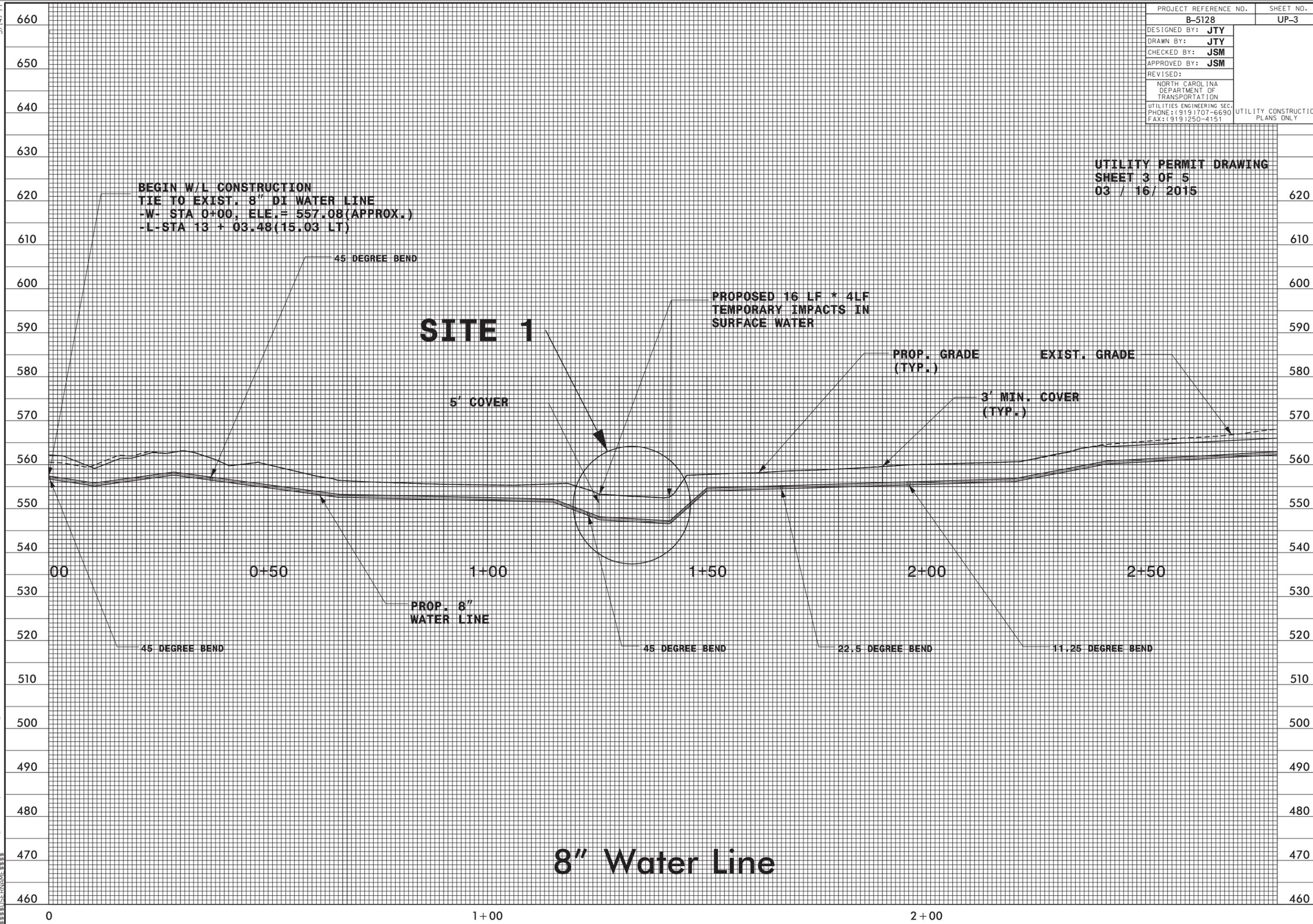
**EXISTING 8" WATER LINE CONFLICTS WITH PROPOSED GUARDRAILS AND PROPOSED CULVERT. WATER LINE HAS TO BE RELOCATED TO THE WEST SIDE OF ROAD.**

5/14/99  
16-MAR-2015 15:51 JTY\PC\Proj\B5128\_Ut-4\_UC4\_psh.dgn

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
B-5128	UP-3
DESIGNED BY: <b>JTY</b>	
DRAWN BY: <b>JTY</b>	
CHECKED BY: <b>JSM</b>	
APPROVED BY: <b>JSM</b>	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	UTILITY CONSTRUCTION PLANS ONLY

**UTILITY PERMIT DRAWING**  
**SHEET 3 OF 5**  
**03 / 16 / 2015**

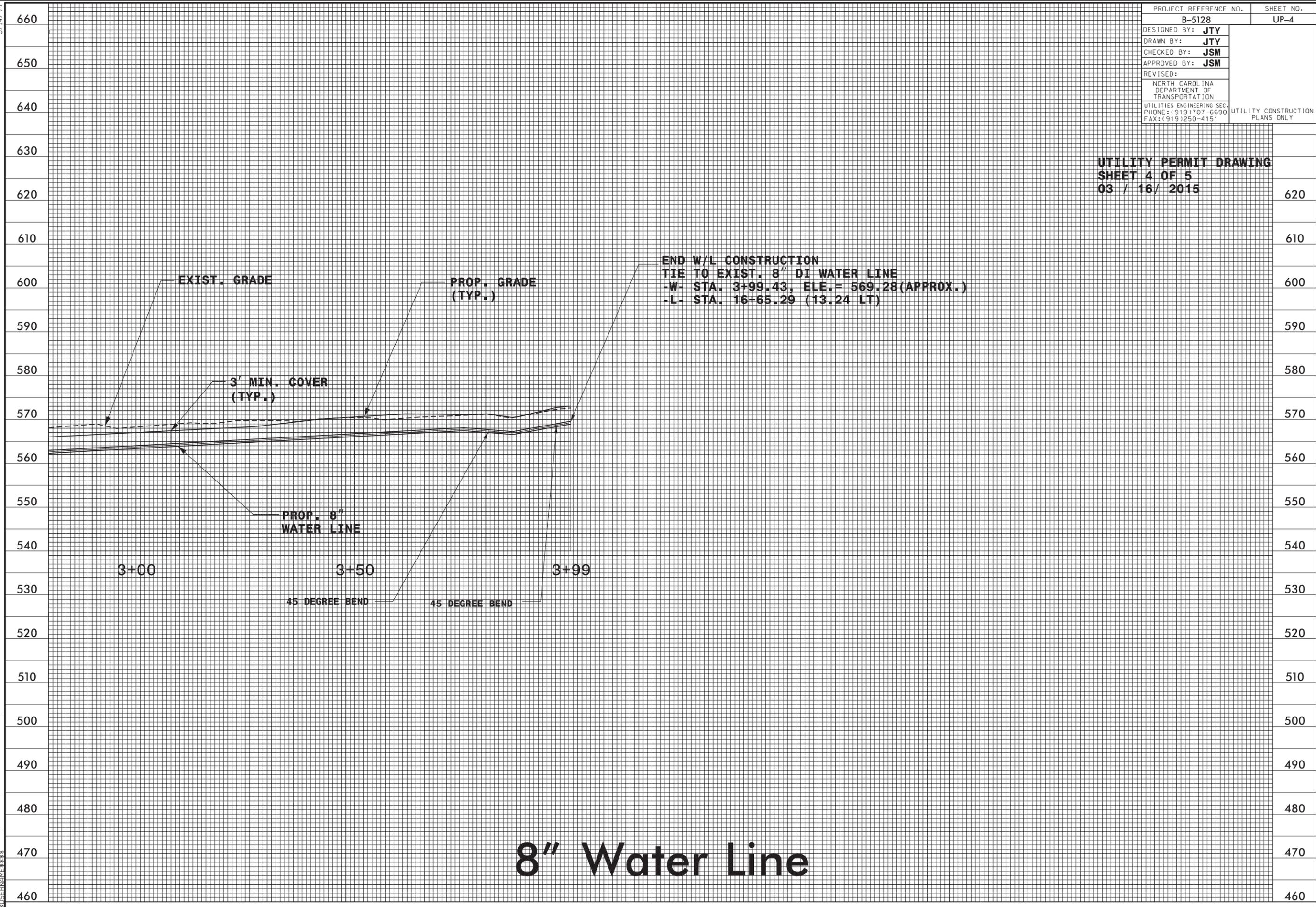


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 B-5128\Utilities\Engineering\UC\Proj\B5128\_Profile\_S1.dgn  
 \$\$\$\$SUBSTRANAME\$\$\$\$

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
B-5128	UP-4
DESIGNED BY: <b>JTY</b>	
DRAWN BY: <b>JTY</b>	
CHECKED BY: <b>JSM</b>	
APPROVED BY: <b>JSM</b>	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	UTILITY CONSTRUCTION PLANS ONLY

**UTILITY PERMIT DRAWING**  
**SHEET 4 OF 5**  
**03 / 16 / 2015**



# 8" Water Line

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 B:\Utilities\Engineering\UC\Proj\B5128\_Profile\_S2.dgn  
 \$\$\$\$BUSTRAME\$\$\$\$

3+00

**WETLAND PERMIT IMPACT SUMMARY**

Site No.	Station (From/To)	Structure Size / Type	WETLAND IMPACTS					SURFACE WATER IMPACTS				
			Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)
1	14+11/14+24	8" Water Line						< 0.01				
<b>TOTALS*:</b>								< 0.01	0	0	0	

\*Rounded totals are sum of actual impacts

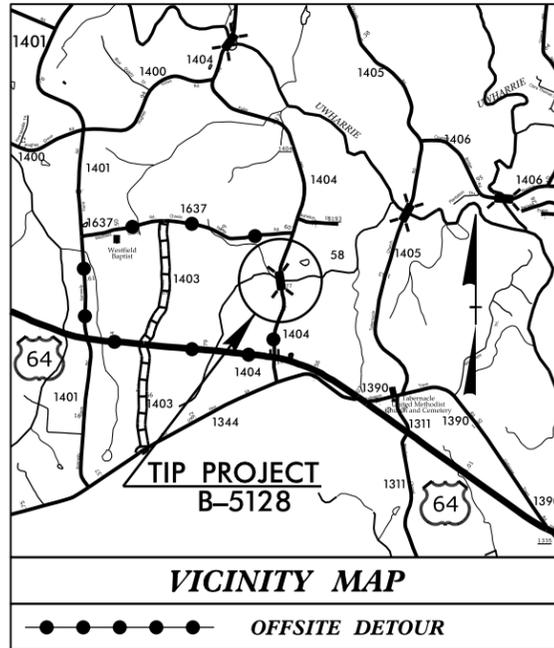
NOTES:

8" water line of Davidson Water Inc. conflicts with proposed culvert and proposed guardrails. Water line has to be relocated and it needs open cut within the impacted areas from hydraulics.

NC DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 3/16/2015  
 RANDOLPH  
 B-5128  
 42286.1.1  
 SHEET 5 OF 5

09/08/99

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



STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

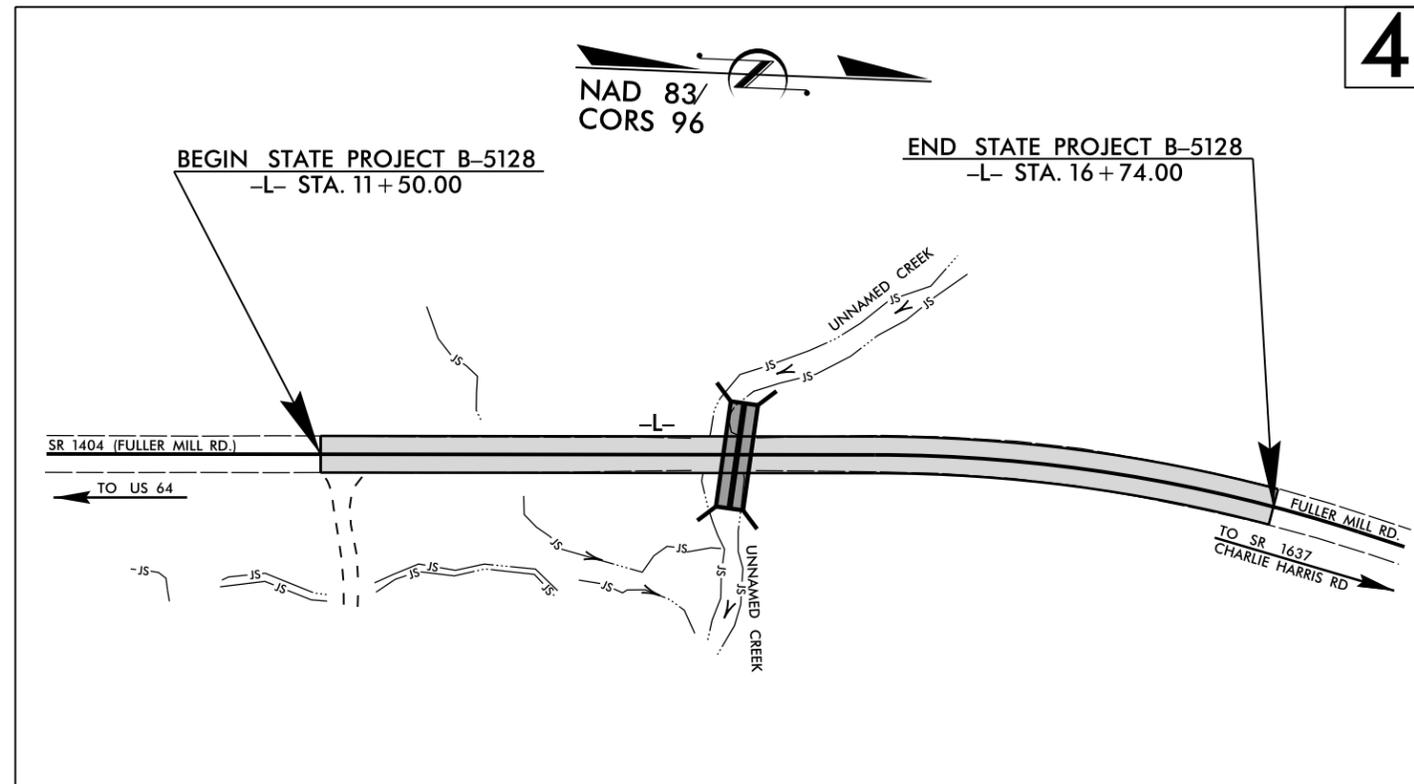
**RANDOLPH COUNTY**

**LOCATION: BRIDGE 58 ON SR 1404 (FULLER MILL RD.)  
OVER AN UNNAMED TRIBUTARY OF LITTLE UWHARRIE RIVER**

**TYPE OF WORK: GRADING, DRAINAGE, PAVING, AND CULVERT**

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-5128	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
42286.1.1	BRZ-1404 (12)	PE	
42286.2.FD1	BRZ-1404 (12)	R/W, UTIL.	

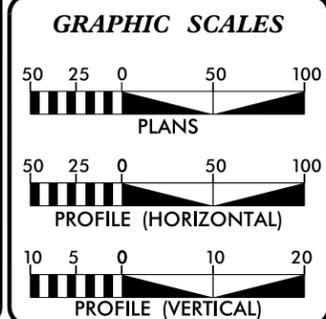
**TIP PROJECT: B-5128**



\*DESIGN EXCEPTION REQUIRED FOR SAG VERTICAL CURVE K FACTORS AND NIGHTTIME SSD  
CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III.  
THIS PROJECT IS NOT WITHIN ANY MUNICIPAL BOUNDARIES.

**PRELIMINARY PLANS**  
DO NOT USE FOR CONSTRUCTION

**CONTRACT:**



**DESIGN DATA**

ADT 2013 =	550
ADT 2035 =	900
K =	10 %
D =	65 %
T =	5 % *
V =	55 MPH
* TTST 1%	DUAL 4%
FUNC CLASS=RURAL LOCAL SUB REGIONAL TIER	

**PROJECT LENGTH**

LENGTH ROADWAY TIP PROJECT B-5128 = 0.099 MI  
TOTAL LENGTH TIP PROJECT B-5128 = 0.099 MI

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

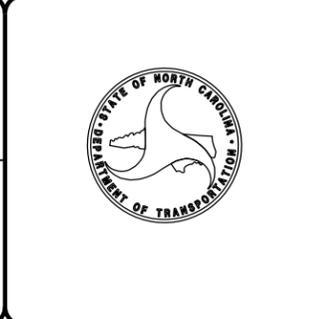
2012 STANDARD SPECIFICATIONS	
RIGHT OF WAY DATE: FEBRUARY 12, 2015	JAMES A. SPEER, PE PROJECT ENGINEER
LETTING DATE: MARCH 15, 2016	ALLISON K. WHITE PROJECT DESIGN ENGINEER

**HYDRAULICS ENGINEER**

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

**ROADWAY DESIGN ENGINEER**

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



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12/05/11

Note: Not to Scale

\*S.U.E. = Subsurface Utility Engineering

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

PROJECT REFERENCE NO. B-5128 SHEET NO. 1-B

# CONVENTIONAL PLAN SHEET SYMBOLS

## BOUNDARIES AND PROPERTY:

State Line	-----
County Line	-----
Township Line	-----
City Line	-----
Reservation Line	-----
Property Line	-----
Existing Iron Pin	○ EP
Property Corner	-----
Property Monument	□ EDM
Parcel/Sequence Number	① 23
Existing Fence Line	-x-x-x-
Proposed Woven Wire Fence	○
Proposed Chain Link Fence	□
Proposed Barbed Wire Fence	◇
Existing Wetland Boundary	---MLB---
Proposed Wetland Boundary	---MLB---
Existing Endangered Animal Boundary	---EAB---
Existing Endangered Plant Boundary	---EPB---
Known Soil Contamination: Area or Site	☠ ☠
Potential Soil Contamination: Area or Site	☠ ?

## BUILDINGS AND OTHER CULTURE:

Gas Pump Vent or U/G Tank Cap	○
Sign	○
Well	○
Small Mine	✕
Foundation	□
Area Outline	□
Cemetery	⊕
Building	□
School	□
Church	⊕
Dam	▬

## HYDROLOGY:

Stream or Body of Water	-----
Hydro, Pool or Reservoir	□
Jurisdictional Stream	---JS---
Buffer Zone 1	---BZ 1---
Buffer Zone 2	---BZ 2---
Flow Arrow	←
Disappearing Stream	→
Spring	○
Wetland	⋈
Proposed Lateral, Tail, Head Ditch	▬
False Sump	▽

## RAILROADS:

Standard Gauge	-----
RR Signal Milepost	○
Switch	□
RR Abandoned	-----
RR Dismantled	-----

## RIGHT OF WAY:

Baseline Control Point	◇
Existing Right of Way Marker	△
Existing Right of Way Line	-----
Proposed Right of Way Line	-----
Proposed Right of Way Line with Iron Pin and Cap Marker	○
Proposed Right of Way Line with Concrete or Granite RW Marker	○
Proposed Control of Access Line with Concrete CA Marker	○
Existing Control of Access	○
Proposed Control of Access	○
Existing Easement Line	-----
Proposed Temporary Construction Easement	-----
Proposed Temporary Drainage Easement	-----
Proposed Permanent Drainage Easement	-----
Proposed Permanent Drainage / Utility Easement	-----
Proposed Permanent Utility Easement	-----
Proposed Temporary Utility Easement	-----
Proposed Aerial Utility Easement	-----
Proposed Permanent Easement with Iron Pin and Cap Marker	◇

## ROADS AND RELATED FEATURES:

Existing Edge of Pavement	-----
Existing Curb	-----
Proposed Slope Stakes Cut	---C---
Proposed Slope Stakes Fill	---F---
Proposed Curb Ramp	○
Existing Metal Guardrail	-----
Proposed Guardrail	-----
Existing Cable Guiderail	-----
Proposed Cable Guiderail	-----
Equality Symbol	⊕
Pavement Removal	□
VEGETATION:	
Single Tree	☼
Single Shrub	☼
Hedge	-----
Woods Line	-----

Orchard	☼
Vineyard	□

## EXISTING STRUCTURES:

MAJOR:	
Bridge, Tunnel or Box Culvert	-----
Bridge Wing Wall, Head Wall and End Wall	-----
MINOR:	
Head and End Wall	-----
Pipe Culvert	-----
Footbridge	-----
Drainage Box: Catch Basin, DI or JB	□
Paved Ditch Gutter	-----
Storm Sewer Manhole	○
Storm Sewer	-----

## UTILITIES:

POWER:	
Existing Power Pole	●
Proposed Power Pole	○
Existing Joint Use Pole	●
Proposed Joint Use Pole	○
Power Manhole	⊕
Power Line Tower	⊗
Power Transformer	⊗
U/G Power Cable Hand Hole	□
H-Frame Pole	●
Recorded U/G Power Line	-----
Designated U/G Power Line (S.U.E.*)	-----

## TELEPHONE:

Existing Telephone Pole	●
Proposed Telephone Pole	○
Telephone Manhole	⊕
Telephone Booth	□
Telephone Pedestal	□
Telephone Cell Tower	⊗
U/G Telephone Cable Hand Hole	□
Recorded U/G Telephone Cable	-----
Designated U/G Telephone Cable (S.U.E.*)	-----
Recorded U/G Telephone Conduit	-----
Designated U/G Telephone Conduit (S.U.E.*)	-----
Recorded U/G Fiber Optics Cable	-----
Designated U/G Fiber Optics Cable (S.U.E.*)	-----

## WATER:

Water Manhole	⊕
Water Meter	○
Water Valve	⊗
Water Hydrant	⊕
Recorded U/G Water Line	-----
Designated U/G Water Line (S.U.E.*)	-----
Above Ground Water Line	-----

## TV:

TV Satellite Dish	☼
TV Pedestal	□
TV Tower	⊗
U/G TV Cable Hand Hole	□
Recorded U/G TV Cable	-----
Designated U/G TV Cable (S.U.E.*)	-----
Recorded U/G Fiber Optic Cable	-----
Designated U/G Fiber Optic Cable (S.U.E.*)	-----

## GAS:

Gas Valve	◇
Gas Meter	⊕
Recorded U/G Gas Line	-----
Designated U/G Gas Line (S.U.E.*)	-----
Above Ground Gas Line	-----

## SANITARY SEWER:

Sanitary Sewer Manhole	⊕
Sanitary Sewer Cleanout	⊕
U/G Sanitary Sewer Line	-----
Above Ground Sanitary Sewer	-----
Recorded SS Forced Main Line	-----
Designated SS Forced Main Line (S.U.E.*)	-----

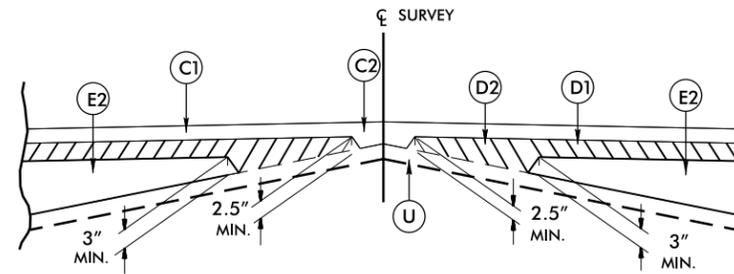
## MISCELLANEOUS:

Utility Pole	●
Utility Pole with Base	□
Utility Located Object	○
Utility Traffic Signal Box	⊕
Utility Unknown U/G Line	-----
U/G Tank; Water, Gas, Oil	□
Underground Storage Tank, Approx. Loc.	⊕
A/G Tank; Water, Gas, Oil	□
Geoenvironmental Boring	⊕
U/G Test Hole (S.U.E.*)	⊕
Abandoned According to Utility Records	AATUR
End of Information	E.O.I.

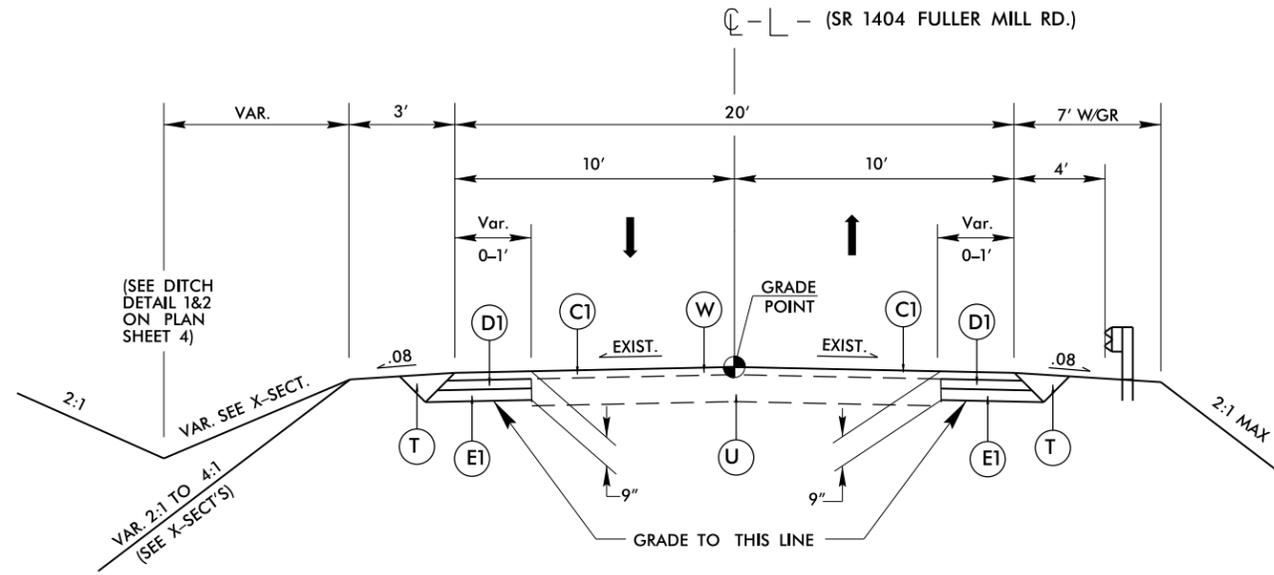
PROJECT REFERENCE NO. B-5128	SHEET NO. 2A-1
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	

PAVEMENT SCHEDULE	
C1	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.
C2	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 TO EXCEED 1 1/2" IN DEPTH.
D1	PROP. APPROX. 2.5" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD.
D2	PROP. VAR. DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH, TO BE PLACED IN LAYERS NOT LESS THAN 2 1/2" IN DEPTH OR GREATER THAN 4" IN DEPTH.
E1	PROP. APPROX. 4" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 456 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 1/2" IN DEPTH.
T	EARTH MATERIAL.
U	EXISTING PAVEMENT.
W	VARIABLE DEPTH ASPHALT PAVEMENT. SEE WEDGING DETAIL

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



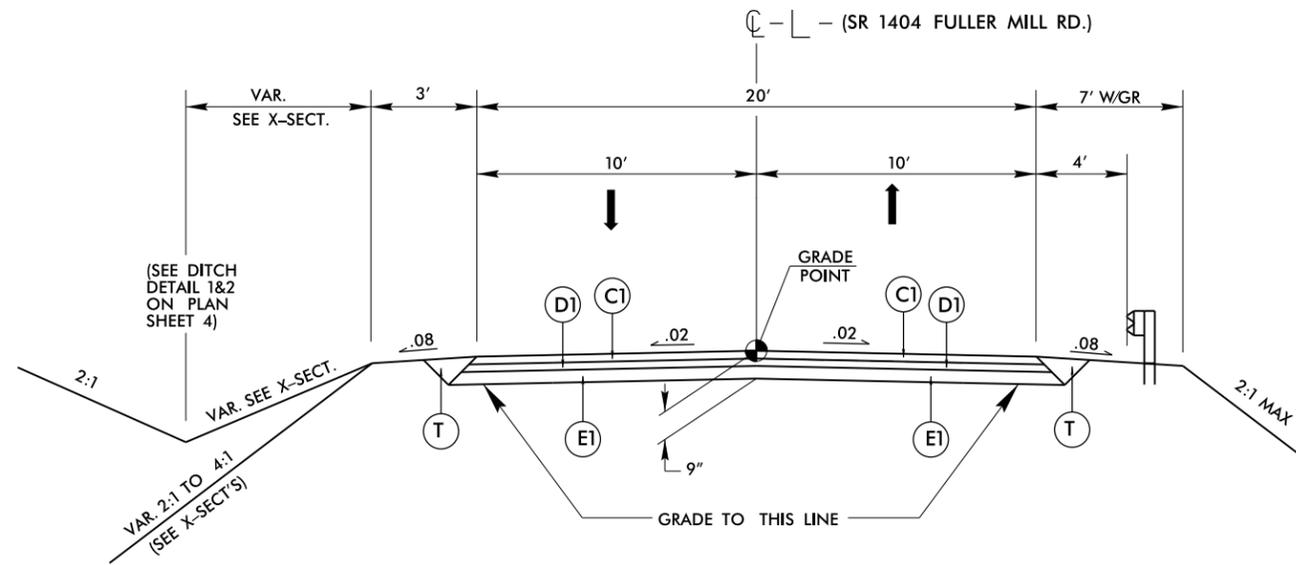
Detail Showing Method of Wedging



TYPICAL SECTION NO. 1

TYPICAL SECTION NO. 1

-L- STA. 11+50.00 TO -L- STA. 12+50.00  
-L- STA. 16+00.00 TO -L- STA. 16+74.00



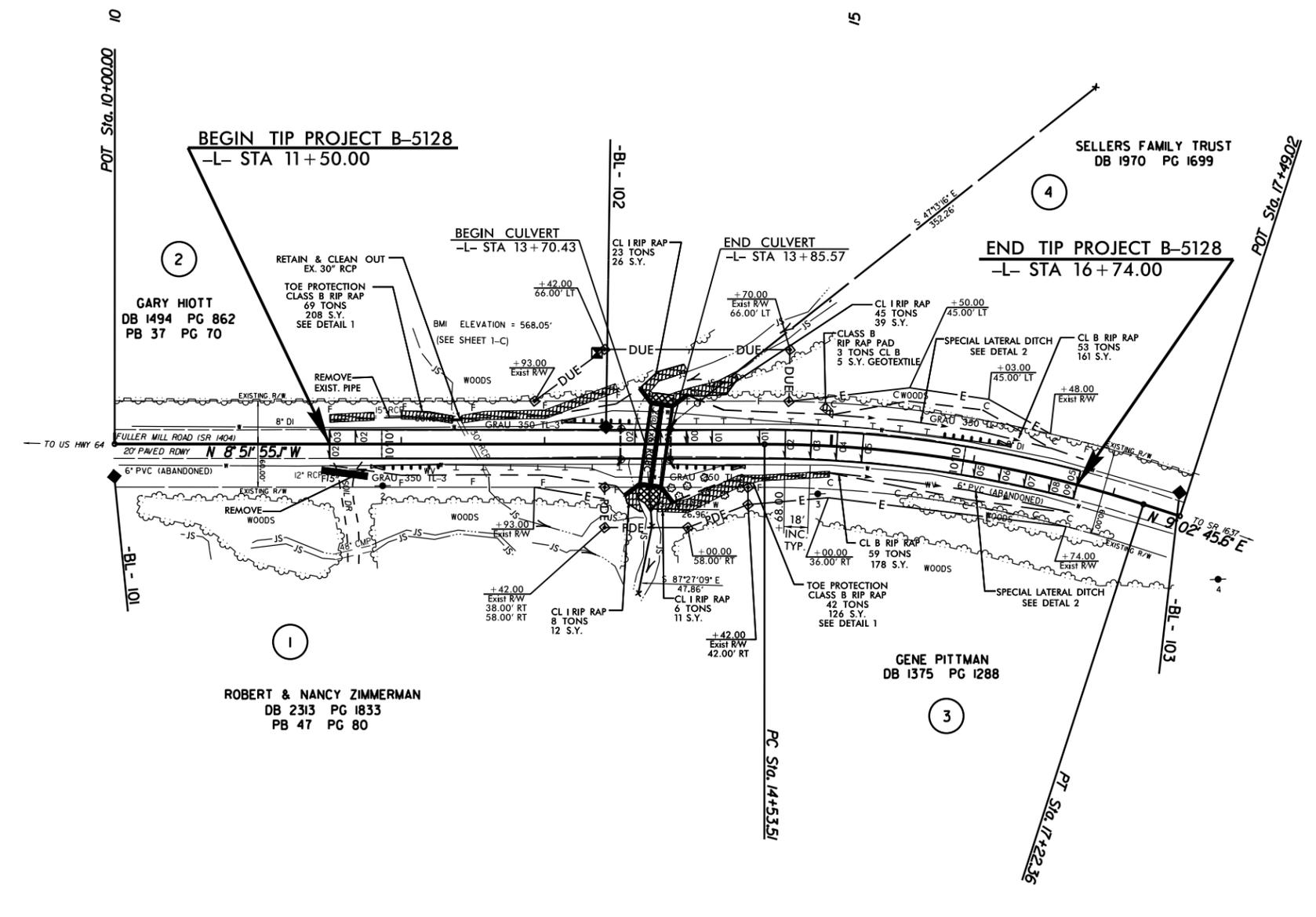
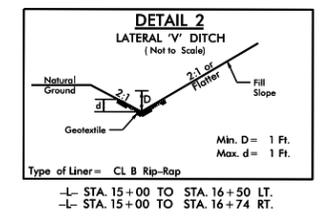
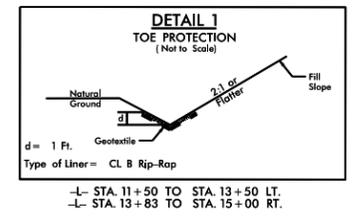
TYPICAL SECTION NO. 2

TYPICAL SECTION NO. 2

-L- STA. 12+50.00 TO -L- STA. 16+00.00

PROJECT REFERENCE NO. <b>B-5128</b>	SHEET NO. <b>4</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	

NAD 83 / CORS 96



-L-  
 PI Sta 15+89.04  
 $\Delta = 17' 54" 40.7" (RT)$   
 $D = 6' 39" 44.3"$   
 $L = 268.85'$   
 $T = 135.53'$   
 $R = 860.00'$   
 $SE = 05$   
 $RO = 90.00'$

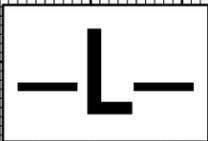
NOTE: SEE SHEET NO. 5 FOR -L- PROFILE  
 NOTE: SEE SHEET C-1 THRU C-? FOR CULVERT PLANS.

REVISIONS

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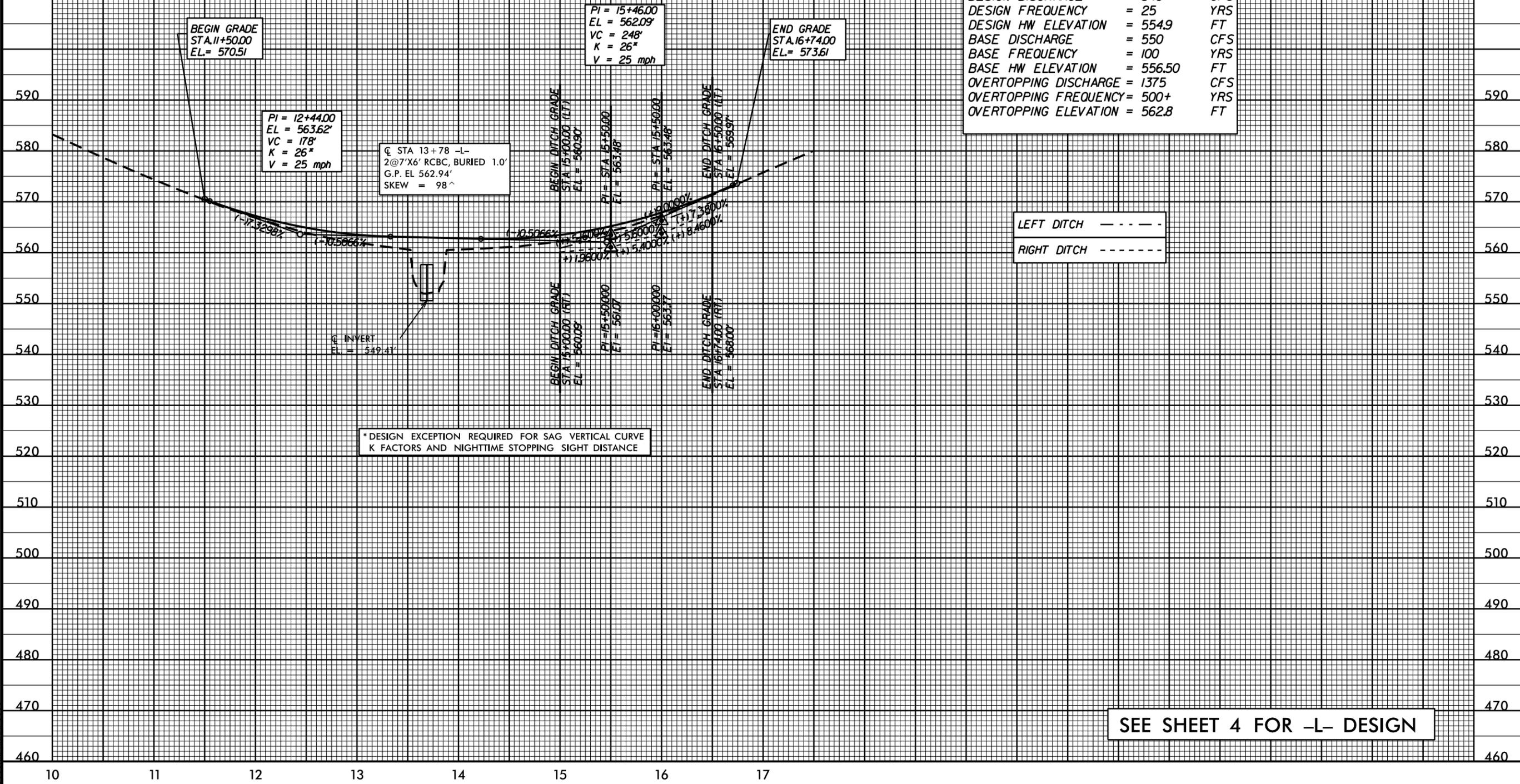
5/14/99

BM#1 RR SPIKE IN  
BASE OF 15" POPLAR  
-L- STA. 13+36.77 63.77' LT.  
ELVE. 568.05'



**CULVERT HYDRAULIC DATA**

DESIGN DISCHARGE	= 340	CFS
DESIGN FREQUENCY	= 25	YRS
DESIGN HW ELEVATION	= 554.9	FT
BASE DISCHARGE	= 550	CFS
BASE FREQUENCY	= 100	YRS
BASE HW ELEVATION	= 556.50	FT
OVERTOPPING DISCHARGE	= 1375	CFS
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING ELEVATION	= 562.8	FT



BEGIN GRADE  
STA. 11+50.00  
EL. = 570.51

PI = 12+44.00  
EL = 563.62'  
VC = 178'  
K = 26"  
V = 25 mph

☉ STA 13+78 -L-  
2@7'X6' RCBC, BURIED 1.0'  
G.P. EL 562.94'  
SKEW = 98 ^

PI = 15+46.00  
EL = 562.09'  
VC = 248'  
K = 26"  
V = 25 mph

END GRADE  
STA. 16+74.00  
EL. = 573.61

BEGIN DITCH GRADE  
STA. 15+00.00 (RT)  
EL. = 560.90'

PI = STA. 15+50.00  
EL = 563.48'

PI = STA. 15+50.00  
EL = 563.48'

END DITCH GRADE  
STA. 16+50.00 (LT)  
EL. = 569.97'

☉ INVERT  
EL. = 549.41'

BEGIN DITCH GRADE  
STA. 15+00.00 (RT)  
EL. = 560.90'

PI = 15+50.00  
EL = 561.87'

PI = 16+00.00  
EL = 563.77'

END DITCH GRADE  
STA. 16+74.00 (RT)  
EL. = 569.00'

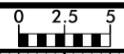
\* DESIGN EXCEPTION REQUIRED FOR SAG VERTICAL CURVE  
K FACTORS AND NIGHTTIME STOPPING SIGHT DISTANCE

LEFT DITCH - - - - -  
RIGHT DITCH . . . . .

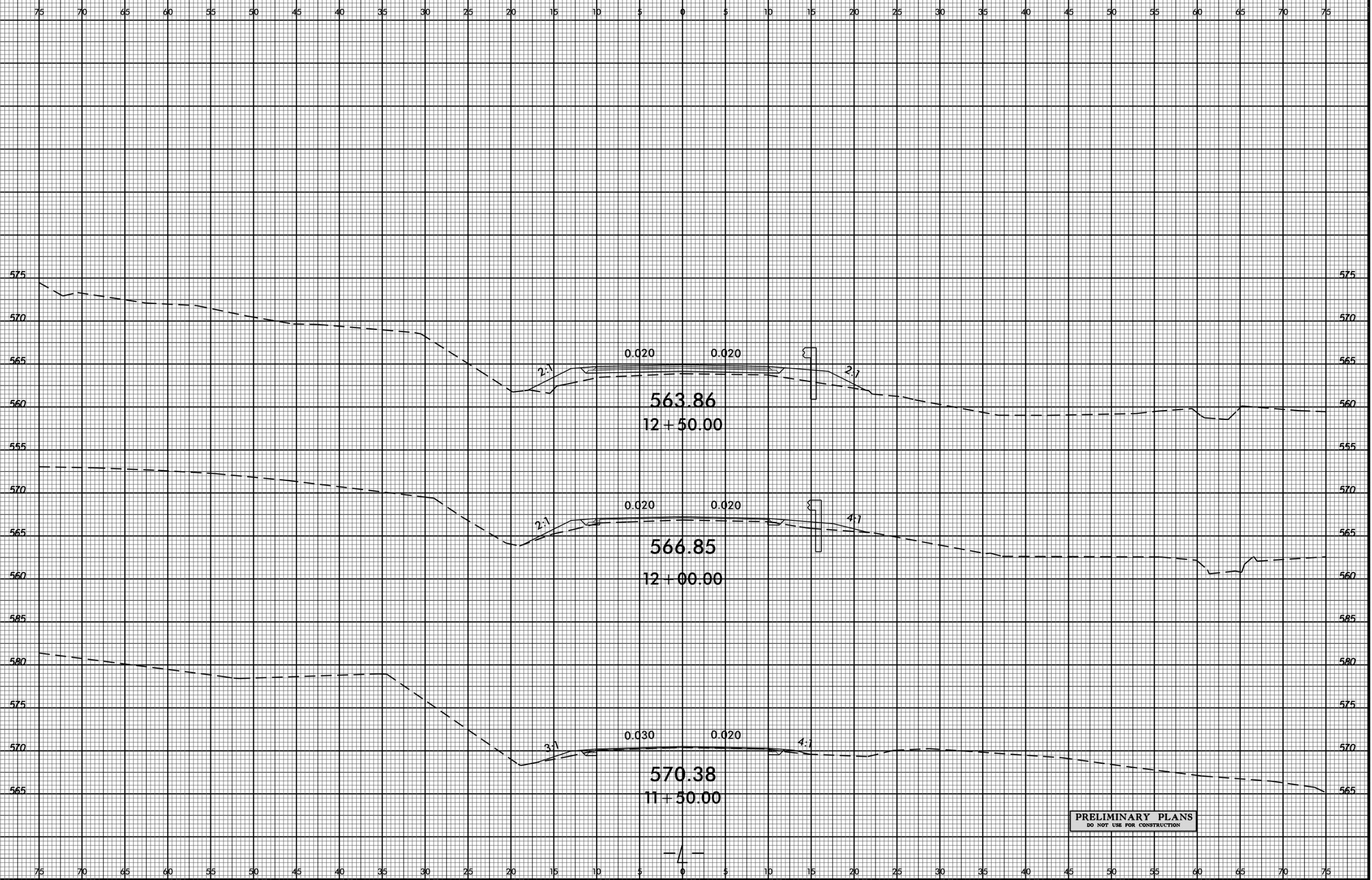
SEE SHEET 4 FOR -L- DESIGN

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PROJ. REFERENCE NO.	SHEET NO.
B-5128	X-1



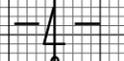
563.86  
12 + 50.00

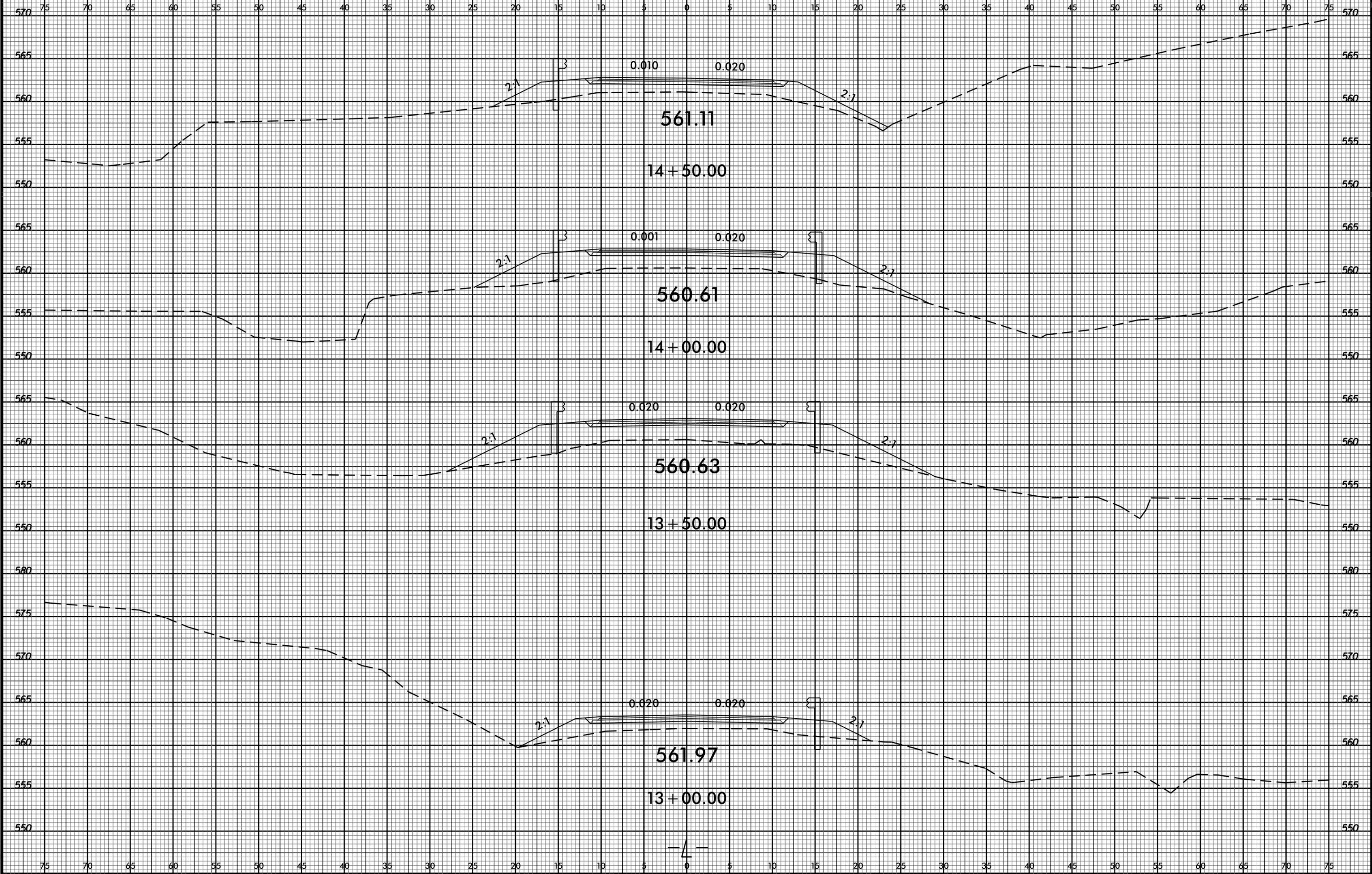
566.85  
12 + 00.00

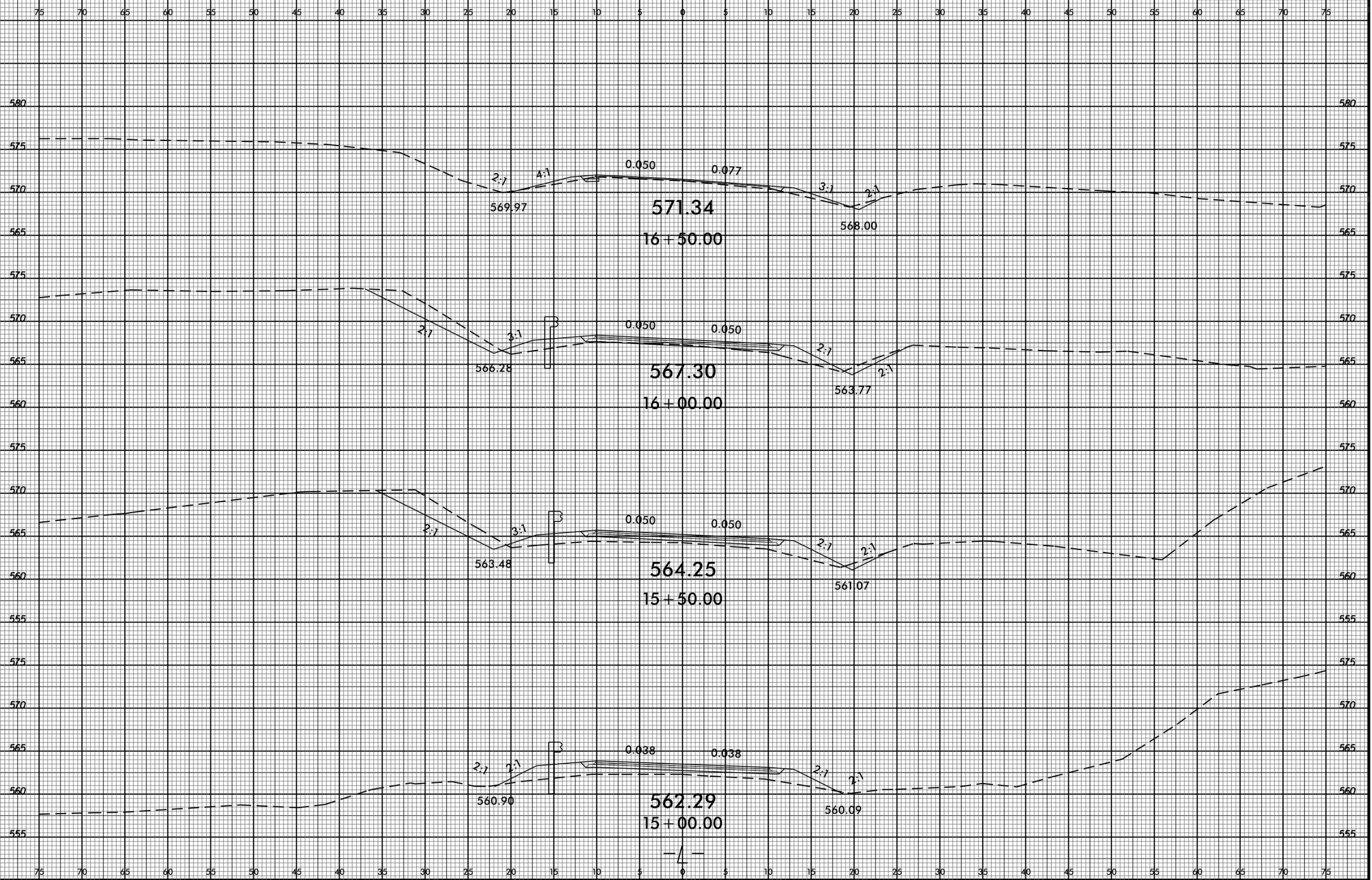
570.38  
11 + 50.00

**PRELIMINARY PLANS**  
DO NOT USE FOR CONSTRUCTION

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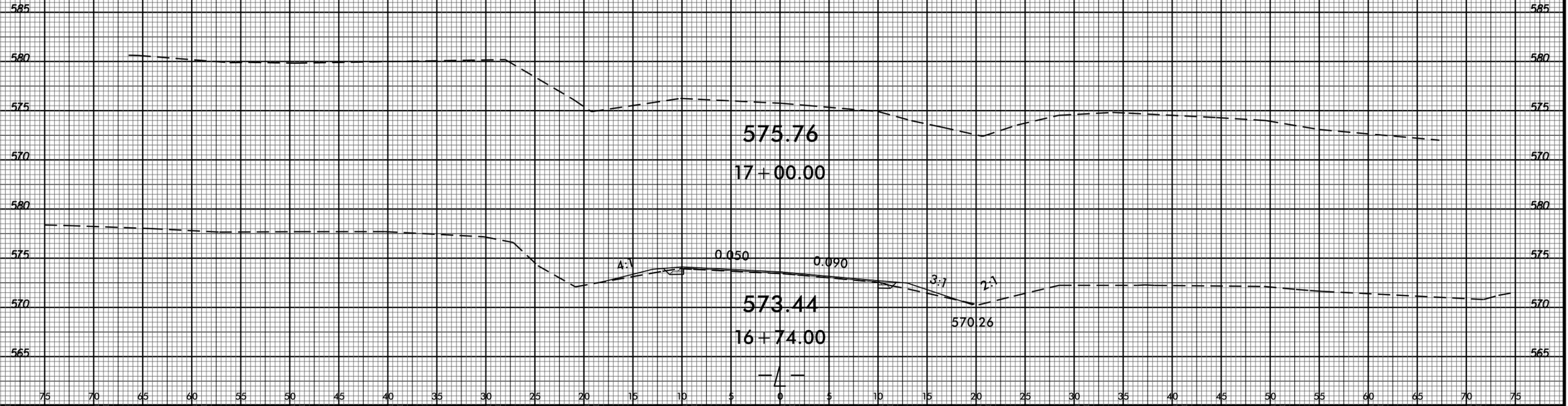
8/23/99



PROJ. REFERENCE NO.  
B-5128

SHEET NO.  
X-4

75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75



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