



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

PAT L. MCCRORY
GOVERNOR

ANTHONY J. TATA
SECRETARY

March 20, 2013

North Carolina Division of Water Quality
1650 Mail Service Center
Raleigh, NC 27699-1650

ATTN: Mr. Rob Ridings
NCDOT Project Coordinator

SUBJECT: **Application for Neuse Riparian Buffer Authorization, Section 401 Water Quality Certification and Notice of Use Nationwide Permits 3 and 13** for the proposed replacement of Bridge No. 31 over the Aldridge Creek on SR 1134 (Satterfield Road), Person County, Division 5., F.A. Project No. BRZ – 1134(3), T.I.P. Project No. B-4784.

Dear Sir:

The North Carolina Department of Transportation (NCDOT) proposes to replace Bridge No. 31 over Aldridge Creek on SR 1134 (Satterfield Road). There will be a total of 5,837 square feet of impact to the buffers. Of this, 444 square feet of impact to zone 2 is considered a parallel impact and is mitigable. The remaining 5,393 square feet of buffer impact results from the bridge and road crossing. These impacts are considered allowable and no mitigation is proposed. There will be 48 linear feet of permanent stream impact to Aldridge Creek due to bank stabilization. Temporary stream impact of 0.01 acres will occur to Aldridge Creek due to the use of workpads. No mitigation is proposed for impacts to Aldridge Creek.

Please see the enclosed copies of the Pre-Construction Notification (PCN), EEP acceptance letter, NCDWQ onsite determination letter, stormwater management plan, buffer permit drawings, stream and wetland permit drawings and roadway design plans for the subject project. A Programmatic Categorical Exclusion (PCE) was completed for this project in June 2012 and distributed shortly after completion. Additional copies are available upon request.

Due to minimal impacts, notification to the USACE is not required for the Nationwide Permits 3 and 13. Written concurrence from the USACE is not expected for this project.

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

TELEPHONE: 919-707-6000
FAX: 919-212-5785
WEBSITE: NCDOT.GOV

LOCATION:
CENTURY CENTER, BUILDING B
1020 BIRCH RIDGE DRIVE
RALEIGH NC 27610

This project calls for a letting date of November 19, 2013 and a review date of October 1, 2013; however, the let date may advance as additional funding becomes available.

A copy of this notice will be posted on the NCDOT website at: <https://connect.ncdot.gov/resources/Environmental/Pages/default.aspx>. If you have any questions or need additional information, please contact Jason Dilday at either (919) 707-6111 or jldilday@ncdot.gov.

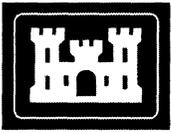
Sincerely,

A handwritten signature in black ink, appearing to read "E. J. Thorpe".

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

CC:

NCDOT Permit Application Standard Distribution List



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

Pre-Construction Notification (PCN) Form

A. Applicant Information

1. Processing

1a. Type(s) of approval sought from the Corps: Section 404 Permit Section 10 Permit

1b. Specify Nationwide Permit (NWP) number: 3 13 or General Permit (GP) number:

1c. Has the NWP or GP number been verified by the Corps? Yes No

1d. Type(s) of approval sought from the DWQ (check all that apply):
 401 Water Quality Certification – Regular Non-404 Jurisdictional General Permit
 401 Water Quality Certification – Express 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 checked="" type="checkbox"/> Yes <input type="checkbox"/> No
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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. Yes No

1g. Is the project located in any of NC's twenty coastal counties. If yes, answer 1h below. Yes No

1h. Is the project located within a NC DCM Area of Environmental Concern (AEC)? Yes No

2. Project Information

2a. Name of project:	Replacement of Bridge 31 over Aldridge Creek on SR 1134 (Satterfield Road)
2b. County:	Person
2c. Nearest municipality / town:	Roxboro
2d. Subdivision name:	<i>not applicable</i>
2e. NCDOT only, T.I.P. or state project no:	B-4784

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) 707-6111
3g. Fax no.:	(919) 212-5785
3h. Email address:	jldilday@ncdot.gov

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

B. Project Information and Prior Project History	
1. Property Identification	
1a. Property identification no. (tax PIN or parcel ID):	<i>not applicable</i>
1b. Site coordinates (in decimal degrees):	Latitude: 36.275802 (DD.DDDDDD) Longitude: -79.003424 (-DD.DDDDDD)
1c. Property size:	1.0 acres
2. Surface Waters	
2a. Name of nearest body of water (stream, river, etc.) to proposed project:	Aldridge Creek
2b. Water Quality Classification of nearest receiving water:	WS-III, NSW
2c. River basin:	Neuse
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: SR 1134 is a rural local route. Land use within the project vicinity consists primarily of agricultural fields interspersed with residential development.	
3b. List the total estimated acreage of all existing wetlands on the property: 0	
3c. List the total estimated linear feet of all existing streams (intermittent and perennial) on the property: 600	
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 involves replacing a three span, 52-foot bridge with a single span, 87-foot bridge on the existing alignment with an off-site detour. Workpads will be used. Standard road building equipment, such as trucks, dozers, and cranes will be used.	
4. Jurisdictional Determinations	
4a. Have jurisdictional wetland or stream determinations by the Corps or State been requested or obtained for this property / project (including all prior phases) in the past? Comments: UT to Aldridge Creek deemed jurisdictional in site visit by NCDWQ (R.Ridings) on 6/11/2009.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
4b. If the Corps made the jurisdictional determination, what type of determination was made?	<input type="checkbox"/> Preliminary <input type="checkbox"/> Final
4c. If yes, who delineated the jurisdictional areas? Name (if known):	Agency/Consultant Company: Other:
4d. If yes, list the dates of the Corps jurisdictional determinations or State determinations and attach documentation. NCDWQ field visit 6/11/2009, NCDWQ letter dated 6/12/2009.	
5. Project History	
5a. Have permits or certifications been requested or obtained for this project (including all prior phases) in the past?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown
5b. If yes, explain in detail according to "help file" instructions.	
6. Future Project Plans	
6a. Is this a phased project?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
6b. If yes, explain.	

C. Proposed Impacts Inventory						
1. Impacts Summary						
1a. Which sections were completed below for your project (check all that apply):						
<input type="checkbox"/> Wetlands		<input checked="" type="checkbox"/> Streams - tributaries		<input checked="" type="checkbox"/> Buffers		
<input type="checkbox"/> Open Waters		<input type="checkbox"/> Pond Construction				
2. Wetland Impacts						
If there are wetland impacts proposed on the site, then complete this question for each wetland area impacted.						
2a. Wetland impact number – Permanent (P) or Temporary (T)	2b. Type of impact	2c. Type of wetland (if known)	2d. Forested	2e. Type of jurisdiction (Corps - 404, 10 DWQ – non-404, other)	2f. Area of impact (acres)	
Site 1 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
Site 2 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
Site 3 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
Site 4 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
Site 5 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
Site 6 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
2g. Total wetland impacts					0 Permanent 0 Temporary	
2h. Comments: There are no wetland impacts associated with this project.						
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	bank stabilization	Aldridge Creek	<input checked="" type="checkbox"/> PER <input type="checkbox"/> INT	<input checked="" type="checkbox"/> Corps <input type="checkbox"/> DWQ	14	48
Site 2 <input type="checkbox"/> P <input checked="" type="checkbox"/> T	workpad	Aldridge Creek	<input checked="" type="checkbox"/> PER <input type="checkbox"/> INT	<input checked="" type="checkbox"/> Corps <input type="checkbox"/> DWQ	14	<0.01 ac.
Site 3 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> PER <input type="checkbox"/> INT	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
Site 4 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> PER <input type="checkbox"/> INT	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
Site 5 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> PER <input type="checkbox"/> INT	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
Site 6 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> PER <input type="checkbox"/> INT	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
3h. Total stream and tributary impacts					48 lf perm. <0.01 ac. temp	
3i. Comments:						

4. Open Water Impacts

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

4a. Open water impact number – Permanent (P) or Temporary (T)	4b. Name of waterbody (if applicable)	4c. Type of impact	4d. Waterbody type	4e. Area of impact (acres)
O1 <input type="checkbox"/> P <input type="checkbox"/> T				
O2 <input type="checkbox"/> P <input type="checkbox"/> T				
O3 <input type="checkbox"/> P <input type="checkbox"/> T				
O4 <input type="checkbox"/> P <input type="checkbox"/> T				
4f. Total open water impacts				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								
5f. Total								

5g. Comments:

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

6. Buffer Impacts (for DWQ)						
If project will impact a protected riparian buffer, then complete the chart below. If yes, then individually list all buffer impacts below. If any impacts require mitigation, then you MUST fill out Section D of this form.						
6a. Project is in which protected basin?				<input checked="" type="checkbox"/> Neuse <input type="checkbox"/> Catawba	<input type="checkbox"/> Tar-Pamlico <input type="checkbox"/> Randleman	<input type="checkbox"/> Other:
6b. Buffer impact number – Permanent (P) or Temporary (T)	6c. Reason for impact	6d. Stream name	6e. Buffer mitigation required?	6f. Zone 1 impact (square feet)	6g. Zone 2 impact (square feet)	
B1 <input checked="" type="checkbox"/> P <input type="checkbox"/> T	Bridge Impact	Aldridge Creek	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	3311	87	
B2 <input checked="" type="checkbox"/> P <input type="checkbox"/> T	Road Crossing Impact	Aldridge Creek	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	501	1494	
B3 <input checked="" type="checkbox"/> P <input type="checkbox"/> T	Parallel Impact	UT to Aldridge Creek	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		444	
6h. Total buffer impacts				3812	2025	
6i. Comments: Buffer impacts will occur due to fill slopes and construction access.						

D. Impact Justification and Mitigation	
1. Avoidance and Minimization	
1a. Specifically describe measures taken to avoid or minimize the proposed impacts in designing project. The proposed bridge is 35 feet longer than the existing bridge; the new bridge will be a single span; the proposed bridge will be at approximately the same grade and alignment as the existing structure; the new bridge will have no deck drains or direct discharge to Aldridge Creek. Stormwater conveyances are located outside the buffer areas.	
1b. Specifically describe measures taken to avoid or minimize the proposed impacts through construction techniques. NCDOT Best Management Practices for Bridge Demolition and Removal will be implemented during the removal of the existing bridge; Best Management Practices for the Protection of Surface Waters will be employed; Design Standards in Sensitive Watersheds will be employed.	
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 type="checkbox"/> Yes <input checked="" type="checkbox"/> No If no, explain
2b. If yes, mitigation is required by (check all that apply):	<input type="checkbox"/> DWQ <input type="checkbox"/> Corps
2c. If yes, which mitigation option will be used for this project?	<input type="checkbox"/> Mitigation bank <input type="checkbox"/> Payment to in-lieu fee program <input type="checkbox"/> Permittee Responsible Mitigation
3. Complete if Using a Mitigation Bank	
3a. Name of Mitigation Bank: not applicable	
3b. Credits Purchased (attach receipt and letter)	Type Quantity

3c. Comments:				
4. Complete if Making a Payment to In-lieu Fee Program				
4a. Approval letter from in-lieu fee program is attached.		<input checked="" 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):		666 square feet		
4e. Riparian wetland mitigation requested:		acres		
4f. Non-riparian wetland mitigation requested:		acres		
4g. Coastal (tidal) wetland mitigation requested:		acres		
4h. Comments:				
5. Complete if Using a Permittee Responsible Mitigation Plan				
5a. If using a permittee responsible mitigation plan, provide a description of the proposed mitigation plan.				
6. Buffer Mitigation (State Regulated Riparian Buffer Rules) – required by DWQ				
6a. Will the project result in an impact within a protected riparian buffer that requires buffer mitigation?			<input checked="" type="checkbox"/> Yes <input 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			3 (2 for Catawba)	
Zone 2	Approach fill slope	444	1.5	666
6f. Total buffer mitigation required:				666
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). Mitigation will be paid by use of NCEEP				
6h. Comments:				

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

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

5. Endangered Species and Designated Critical Habitat (Corps Requirement)		
5a. Will this project occur in or near an area with federally protected species or habitat?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
5b. Have you checked with the USFWS concerning Endangered Species Act impacts?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
5c. If yes, indicate the USFWS Field Office you have contacted.	<input checked="" type="checkbox"/> Raleigh	<input type="checkbox"/> Asheville
5d. What data sources did you use to determine whether your site would impact Endangered Species or Designated Critical Habitat? N.C. Natural Heritage Program database; USFWS-Raleigh Field Office website; biological surveys for protected species listed for Person County, which includes dwarf wedgemussel. The species received a Biological Conclusion of "No Effect".		
6. Essential Fish Habitat (Corps Requirement)		
6a. Will this project occur in or near an area designated as essential fish habitat?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
6b. What data sources did you use to determine whether your site would impact Essential Fish Habitat? NMFS County Index		
7. Historic or Prehistoric Cultural Resources (Corps Requirement)		
7a. Will this project occur in or near an area that the state, federal or tribal governments have designated as having historic or cultural preservation status (e.g., National Historic Trust designation or properties significant in North Carolina history and archaeology)?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
7b. What data sources did you use to determine whether your site would impact historic or archeological resources? NEPA Documentation		
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 coordination with FEMA		
8c. What source(s) did you use to make the floodplain determination? FEMA Maps		
Dr. Gregory J. Thorpe, Ph D Applicant/Agent's Printed Name	 Applicant/Agent's Signature (Agent's signature is valid only if an authorization letter from the applicant is provided.)	3. 2013 Date



PROGRAM
February 19, 2013

Mr. Gregory J. Thorpe, Ph.D.
Manager, Project Development and Environmental Analysis Unit
North Carolina Department of Transportation
1548 Mail Service Center
Raleigh, North Carolina 27699-1548

Dear Dr. Thorpe:

Subject: EEP Mitigation Acceptance Letter:

B-4784, Replace Bridge 31 over Aldridge Creek on SR 1134, Person County

The purpose of this letter is to notify you that the Ecosystem Enhancement Program (EEP) will provide the buffer mitigation for the subject project. Based on the information supplied by you on February 18, 2013, the buffer impacts are located in CU 03020201 of the Neuse River basin in the Central Piedmont (CP) Eco-Region and are as follows:

Buffer	River Basin	CU Location	Eco-Region	Buffer Impacts (in square feet)		
				Zone 1	Zone 2	TOTAL
Impacts	Neuse	03020201	CP	0.0	444.0	444.0

All buffer mitigation requests and approvals are administrated through the Riparian Restoration Buffer Fund. The NCDOT will be responsible to ensure that appropriate compensation for the buffer mitigation will be provided in the agreed upon method of fund transfer. Upon receipt of the NCDWQ's Buffer Authorization Certification, EEP will transfer funds from the NCDOT 2984 Fund into the Riparian Restoration Buffer Fund. Upon completion of transfer payment, NCDOT will have completed its riparian buffer mitigation responsibility for TIP Number B-4784. Subsequently, EEP will conduct a review of current NCDOT ILF Program mitigation projects in the river basin to determine if available buffer mitigation credits exist. If there are buffer mitigation credits available, then the Riparian Restoration Buffer Fund will purchase the appropriate amount of buffer mitigation credits from NCDOT ILF Program.

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

Sincerely,

Michael Ellison
EEP Acting Director

Cc: Mr. Eric Alsmeyer, USACE – Raleigh Regulatory Field Office
Ms. Amy Chapman, NC Division of Water Quality
File: TIP B-4784

Restoring... Enhancing... Protecting Our State





North Carolina Department of Environment and Natural Resources

Division of Water Quality
Coleen H. Sullins
Director

Beverly Eaves Perdue
Governor

Dee Freeman
Secretary

June 12, 2009

Kathy Herring
NCDOT Natural Environment Unit
1598 Mail Service Center
Raleigh, NC 27699

Subject: NCDOT TIP #B-4784, Person County
UT Aldridge Creek [Neuse River Basin]

On-Site Determination for Applicability to the Neuse Buffer Rules (15A NCAC 2B .0233)

Dear Ms. Herring:

On June 11, 2009, at your request and in your attendance, Rob Ridings, NC Division of Water Quality (NCDWQ) staff, conducted an on-site determination to review drainage the above mentioned drainage feature for applicability to the Neuse River Buffer Rules. The drainage feature is approximated on the attached map.

NCDWQ has determined that the stream feature labeled as "UT Aldridge Creek" on the attached map is Intermittent and is Subject to the Neuse Buffer Rules at the GPS point marked "sb5". Please note that no other features at the site were evaluated.

This letter only addresses the applicability to Neuse buffer rules and does not approve any activity within the buffer, Waters of the United States, or Waters of the State. Any impacts to wetlands, streams and buffers must comply with the Neuse Buffer Rules, 404/401 regulations, water supply regulations (15A NCAC 2B .0216), and any other required federal, state and local regulations. Please be aware that even if no direct impacts are proposed to the protected buffers, sheet flow of all new stormwater runoff as per 15A NCAC 2B .0250 is required.

The owner (or future owners) or permittee should notify NCDWQ (and other relevant agencies) of this decision in any future correspondences concerning this property and/or project. This on-site determination shall expire five (5) years from the date of this letter.

Landowners or affected parties that dispute a determination made by NCDWQ or Delegated Local Authority that a surface water exists and that it is subject to the mitigation rules may request a determination by the Director. A request for a determination by the Director shall be referred to the Director in writing c/o Brian Wrenn, NCDWQ Wetlands Branch, 1650 Mail Service Center, Raleigh, NC 27699-1650. Individuals that dispute a determination by NCDWQ or Delegated Local Authority that "exempts" a surface water from the mitigation rules may ask for an adjudicatory hearing. You must act within 60 days of the date that you receive this letter. Applicants are hereby notified that the 60-day statutory appeal time does not start until the affected party (including downstream and adjacent landowners) is notified of this decision. NCDWQ recommends that the applicant conduct this notification in order to be certain that third party appeals are made in a timely manner. To ask for a

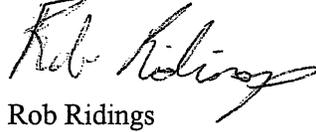
Transportation Permitting Unit
1650 Mail Service Center, Raleigh, North Carolina 27699-1650
Location: 2321 Crabtree Blvd., Raleigh, North Carolina 27604
Phone: 919-733-1786 \ FAX: 919-733-6893
Internet: <http://h2o.enr.state.nc.us/ncwetlands/>

One
North Carolina
Naturally

hearing, send a written petition, which conforms to Chapter 150B of the North Carolina General Statutes to the Office of Administrative Hearings, 6714 Mail Service Center, Raleigh, N.C. 27699-6714. This determination is final and binding unless you ask for a hearing within 60 days.

If you have any additional questions or require additional information please call Rob Ridings at 919-733-9817.

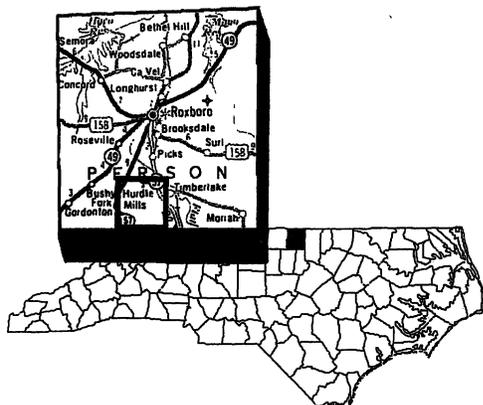
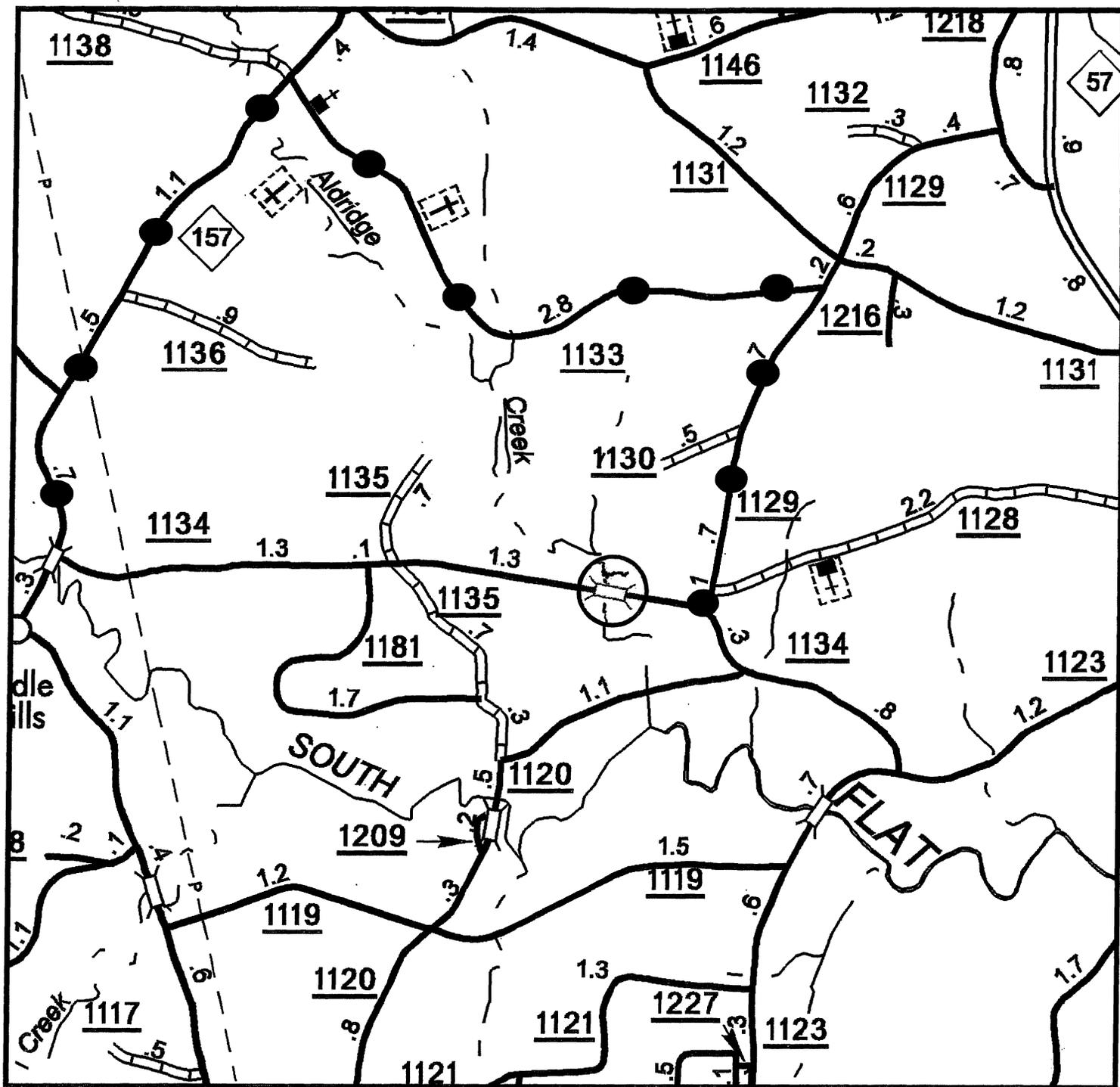
Sincerely,

A handwritten signature in black ink, appearing to read "Rob Ridings", written in a cursive style.

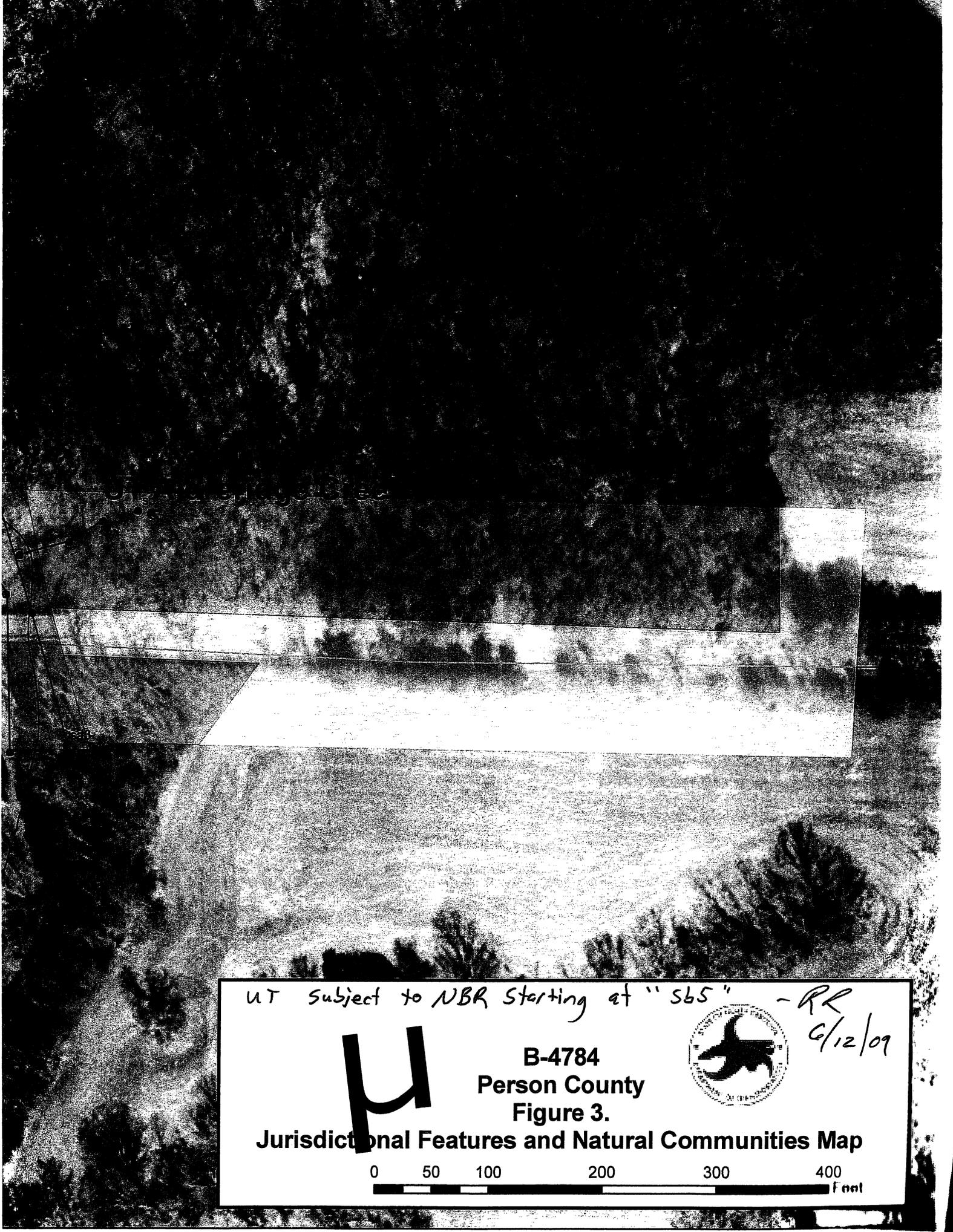
Rob Ridings

Attachments

cc: Eric Alsmeyer, US Army Corps of Engineers – Raleigh Regulatory Field Office
NCDWQ_Raleigh Regional Office
File Copy



STUDIED DETOUR ROUTE ●—●—●—●	
	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS PROJECT DEVELOPMENT & ENVIRONMENTAL ANALYSIS BRANCH
PERSON COUNTY REPLACE BRIDGE NO. 31 ON SR 1134 OVER ALDRIDGE CREEK <u>B-4784</u>	
Figure 1	



UT subject to NBR Starting at "565"

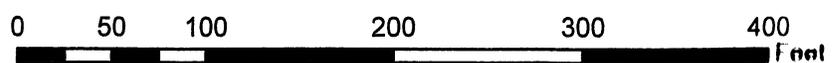
-RR
6/12/09

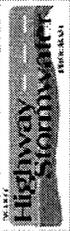


B-4784
Person County
Figure 3.



Jurisdictional Features and Natural Communities Map





North Carolina Department of Transportation
 Highway Stormwater Program
 STORMWATER MANAGEMENT PLAN
 FOR LINEAR ROADWAY PROJECTS



(Version 1.2; Released July 2012)

General Project Information

Project No.: B-4784	Project Type: Bridge Replacement	Date: 12/14/2012
NC DOT Contact: MARSHALL W. CLAWSON, PE	Contractor / Designer: DUSTIN D. CREECH, PE	
Address: 1020 BIRCH RIDGE RD. RALEIGH, NC 27610	Address: WETHERILL ENGINEERING, Inc. 559 JONES FRANKLIN RD. SUITE 164 RALEIGH, NC 27606	
Phone: 919-707-6713	Phone: 919-851-8077	
Email: mclawson@ncdot.gov	Email: dcreech@wetherilleng.com	
City/Town: Neuse	County(ies): Person	
River Basin(s): Alderidge Creek	CAMA County? No	
Primary Receiving Water:	NCDWQ Stream Index No.: 27-3-3-4	
NCDWQ Surface Water Classification for Primary Receiving Water	Primary: Water Supply III (WS-III)	
Other Stream Classification:	Supplemental: Nutrient Sensitive Waters (NSW)	
303(d) Impairments:		
Buffer Rules in Effect: Neuse		

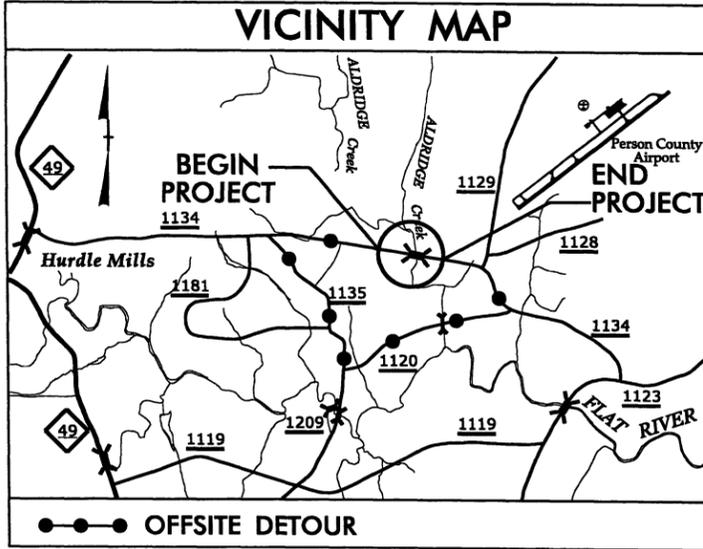
Project Description

Project Length (lin. Miles or feet): 0.085 Mi.	Surrounding Land Use: Primarily Wooded
Project Built-Upon Area (ac.): 0.20 ac.	Existing Site: 0.27 ac.
Typical Cross Section Description: (2) 11' LANES, 4' GRASSED SHOULDER SECTIONS OR 7' SHOULDERS WITH 4'+/- PAVED SHOULDERS UP TO GUARDRAIL	(2) 11 FT. LANES WITH GRASSED SHOULDER SECTION
Average Daily Traffic (veh/hr/day): Design/Future: ADT 1,262 (2033)	Existing: ADT 877 (2013)
General Project Narrative: REPLACE BRIDGE NO. 31 OVER ALDERIDGE CREEK ON SR 1134 (SATTERFIELD RD.)	

References

09/08/199

See Sheet 1-A For Index of Sheets



STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS



STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-4784	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
38555.1.1	BRZ-1134(3)	PE	

PERSON COUNTY

Buffer Drawing
Sheet 1 of 3

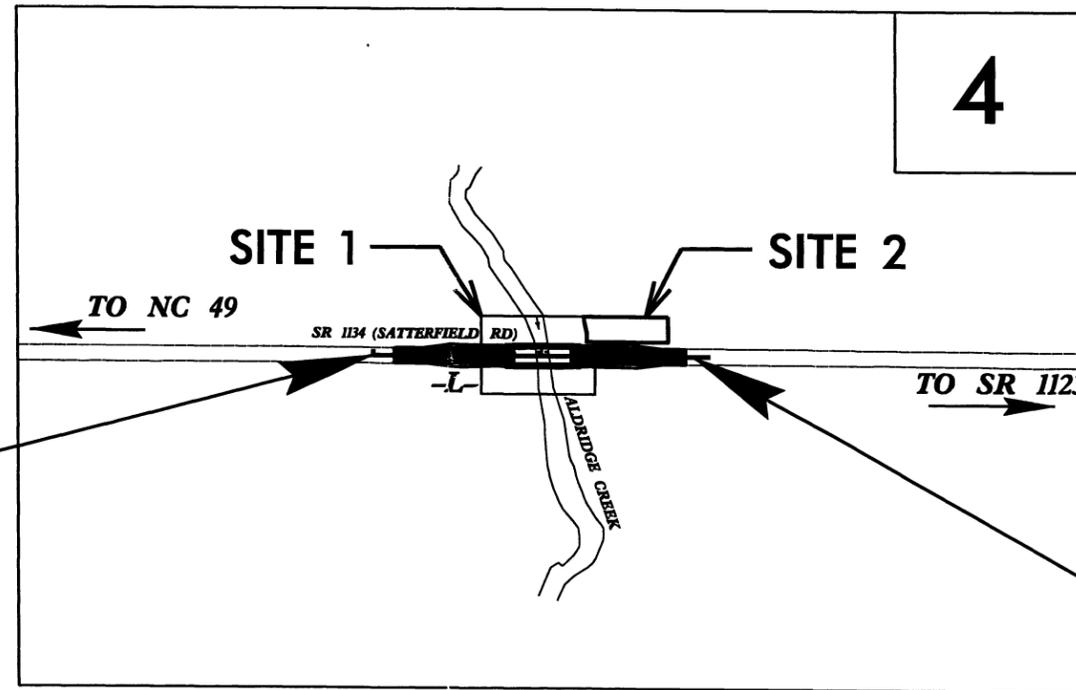
**LOCATION: BRIDGE NO. 31 OVER ALDRIDGE CREEK
ON SR 1134 (SATTERFIELD RD)**

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



BUFFER PERMIT DRAWINGS

TIP PROJECT: B-4784



**BEGIN TIP PROJECT B-4784
-L- POT STA. 10+00.00**

**END TIP PROJECT B-4784
-L- POT STA. 14+50.00**

THIS PROJECT IS NOT WITHIN ANY MUNICIPAL BOUNDARIES.

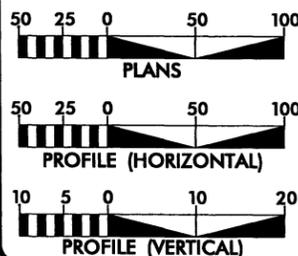
CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III.

THERE IS NO CONTROL OF ACCESS ON THIS PROJECT.

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

CONTRACT:

GRAPHIC SCALES



DESIGN DATA

ADT 2013 = 877
ADT 2033 = 1,262
DHV = 10 %
D = 60 %
T = 9 % *
V = 60 MPH
* (TTST 1% + DUAL 8%)
FUNC CLASS=RURAL LOCAL
SUBREGIONAL TIER

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT B-4784 = 0.068
LENGTH STRUCTURE TIP PROJECT B-4784 = 0.017
TOTAL LENGTH TIP PROJECT B-4784 = 0.085

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

2012 STANDARD SPECIFICATIONS

PRODUCTION
RIGHT OF WAY DATE:
SEPTEMBER 21, 2012

LETTING DATE:
NOVEMBER 19, 2013

TONY HOUSER, PE
PROJECT ENGINEER

BRUCE PAYNE, PE
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

SIGNATURE: _____
ROADWAY DESIGN
ENGINEER

SIGNATURE: _____

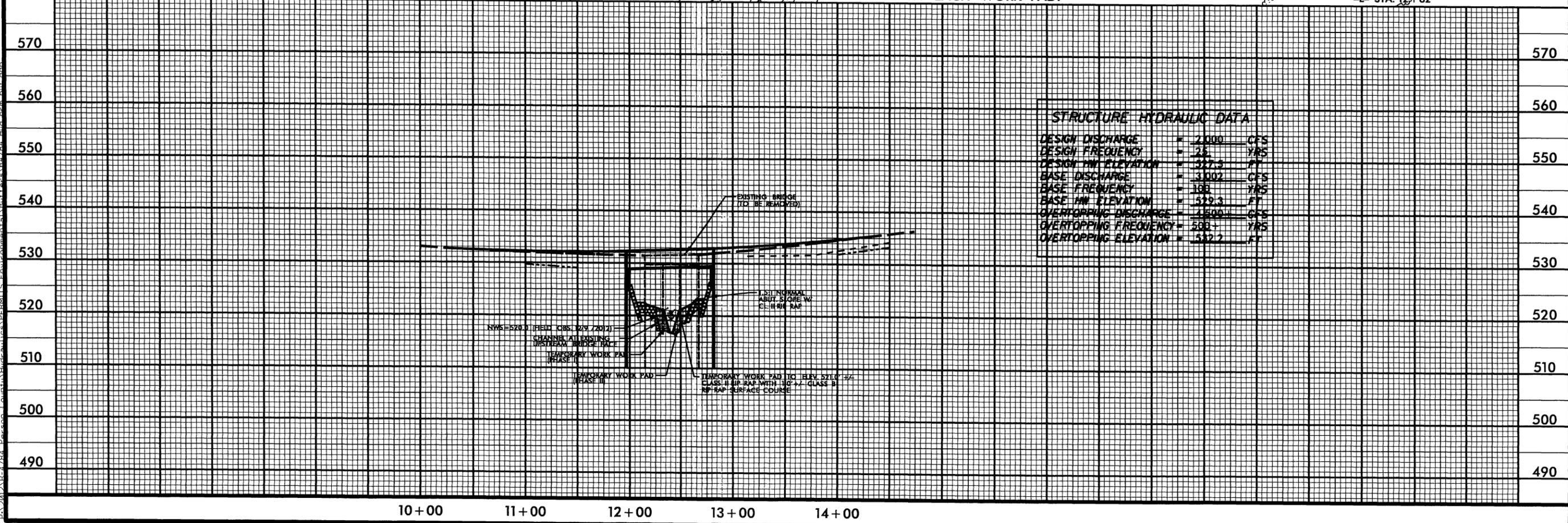
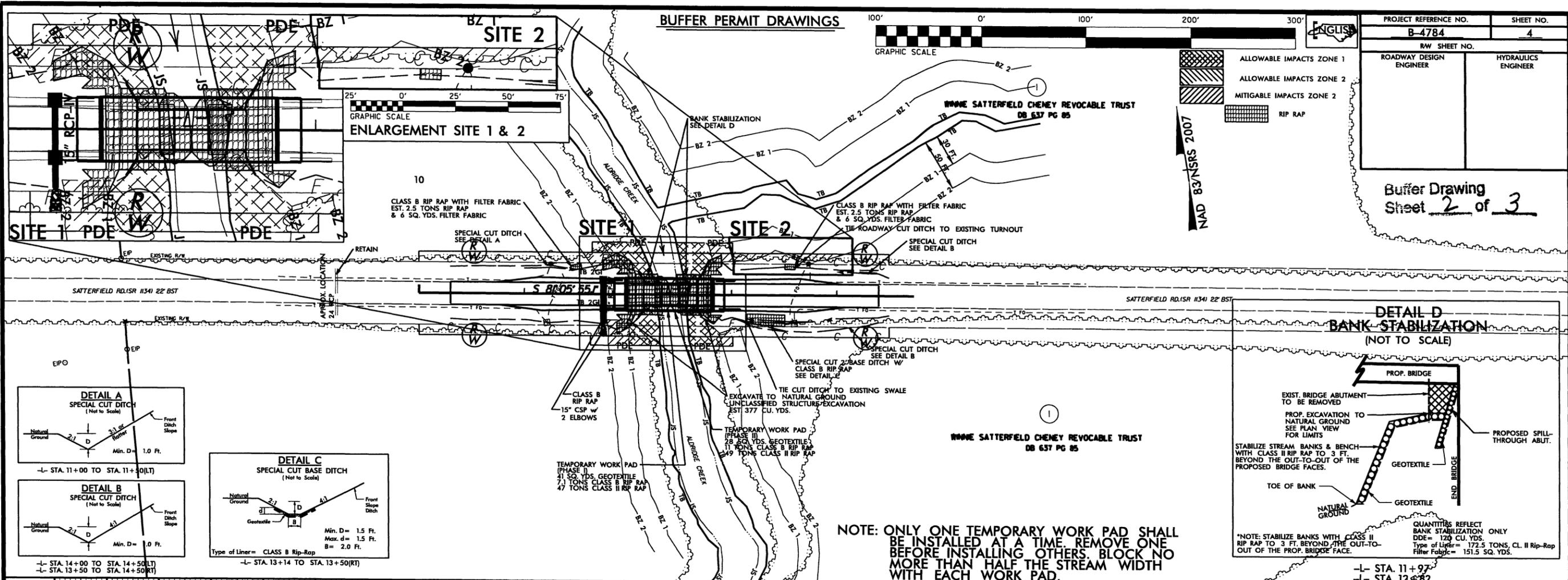
DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA



STATE HIGHWAY DESIGN ENGINEER

1/24/2013 3:30:44 PM P:\2012\B-4784 Person County\Hydraulics\PERMITS\Environmental\Buffers\B4784_Hyd_prm_buf.dgn

8/17/99
1/15/2013 PM
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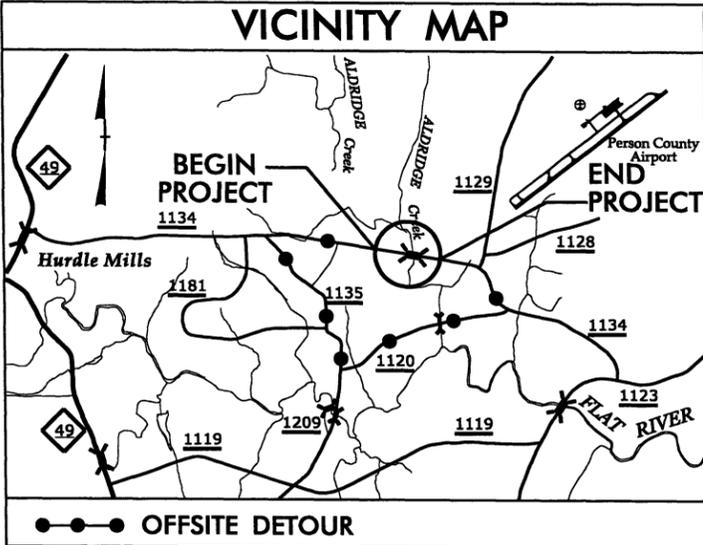


PROJECT REFERENCE NO.	B-4784	SHEET NO.	4
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	

Buffer Drawing Sheet 2 of 3

09/08/09
 1/24/2013 3:33:36 PM P:\2012\B-4784\Person County\Hydraulics\PERMITS_Environmental\Wetland\B4784_Hyd_perm_wet.dgn
 CONTRACT: TIP PROJECT: B-4784

See Sheet 1-A For Index of Sheets



STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

ENGLISH

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-4784	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
38555.1.1	BRZ-1134(3)	PE	

PERSON COUNTY

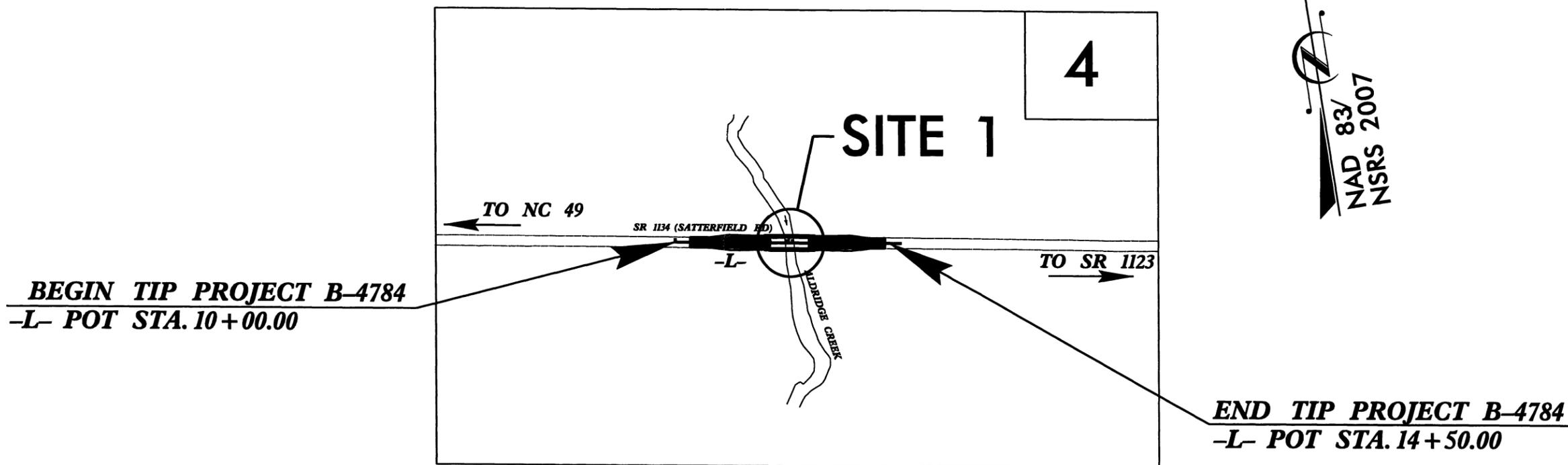
Permit Drawing
Sheet 1 of 5

LOCATION: BRIDGE NO. 31 OVER ALDRIDGE CREEK
ON SR 1134 (SATTERFIELD RD)

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



WETLAND/SURFACE WATER PERMIT DRAWINGS



THIS PROJECT IS NOT WITHIN ANY MUNICIPAL BOUNDARIES.
 CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III.
 THERE IS NO CONTROL OF ACCESS ON THIS PROJECT.

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

<p>GRAPHIC SCALES</p> <p>50 25 0 50 100 PLANS</p> <p>50 25 0 50 100 PROFILE (HORIZONTAL)</p> <p>10 5 0 10 20 PROFILE (VERTICAL)</p>	<p>DESIGN DATA</p> <p>ADT 2013 = 877 ADT 2033 = 1,262 DHV = 10 % D = 60 % T = 9 % * V = 60 MPH * (TTST 1% + DUAL 8%) FUNC CLASS=RURAL LOCAL SUBREGIONAL TIER</p>	<p>PROJECT LENGTH</p> <p>LENGTH ROADWAY TIP PROJECT B-4784 = 0.068 LENGTH STRUCTURE TIP PROJECT B-4784 = 0.017 TOTAL LENGTH TIP PROJECT B-4784 = 0.085</p>	<p>Prepared In the Office of: DIVISION OF HIGHWAYS 1000 Birch Ridge Dr., Raleigh NC, 27610</p> <p>2012 STANDARD SPECIFICATIONS</p> <p>PRODUCTION RIGHT OF WAY DATE: SEPTEMBER 21, 2012</p> <p>LETTING DATE: NOVEMBER 19, 2013</p> <p>TONY HOUSER, PE PROJECT ENGINEER</p> <p>BRUCE PAYNE, PE PROJECT DESIGN ENGINEER</p>	<p>HYDRAULICS ENGINEER</p> <p>SIGNATURE: _____</p> <p>ROADWAY DESIGN ENGINEER</p> <p>SIGNATURE: _____</p>	<p>DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA</p>  <p>STATE HIGHWAY DESIGN ENGINEER</p>
--	---	---	--	---	--

PROPERTY OWNERS
NAMES AND ADDRESSES

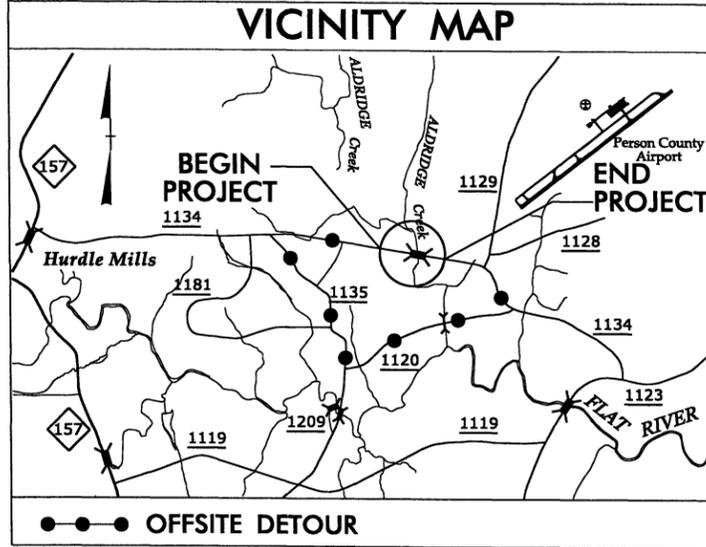
PARCEL NO.	NAMES	ADDRESSES
1	WINNIE SATTERFIELD CHENEY REVOCABLE TRUST	1267 WESTBROOK AVE. ELON, NC 27244

NCDOT
DIVISION OF HIGHWAYS
PERSON COUNTY
PROJECT: WBS - 38555.1.1 (B-4784)
BRG #31 OVER ALDERIDGE CREEK
ON SR1134 (SATTEFIELD RD.)

SHEET 4 OF 5 12/14/12

09/08/09

See Sheet 1-A For Index of Sheets



STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PERSON COUNTY

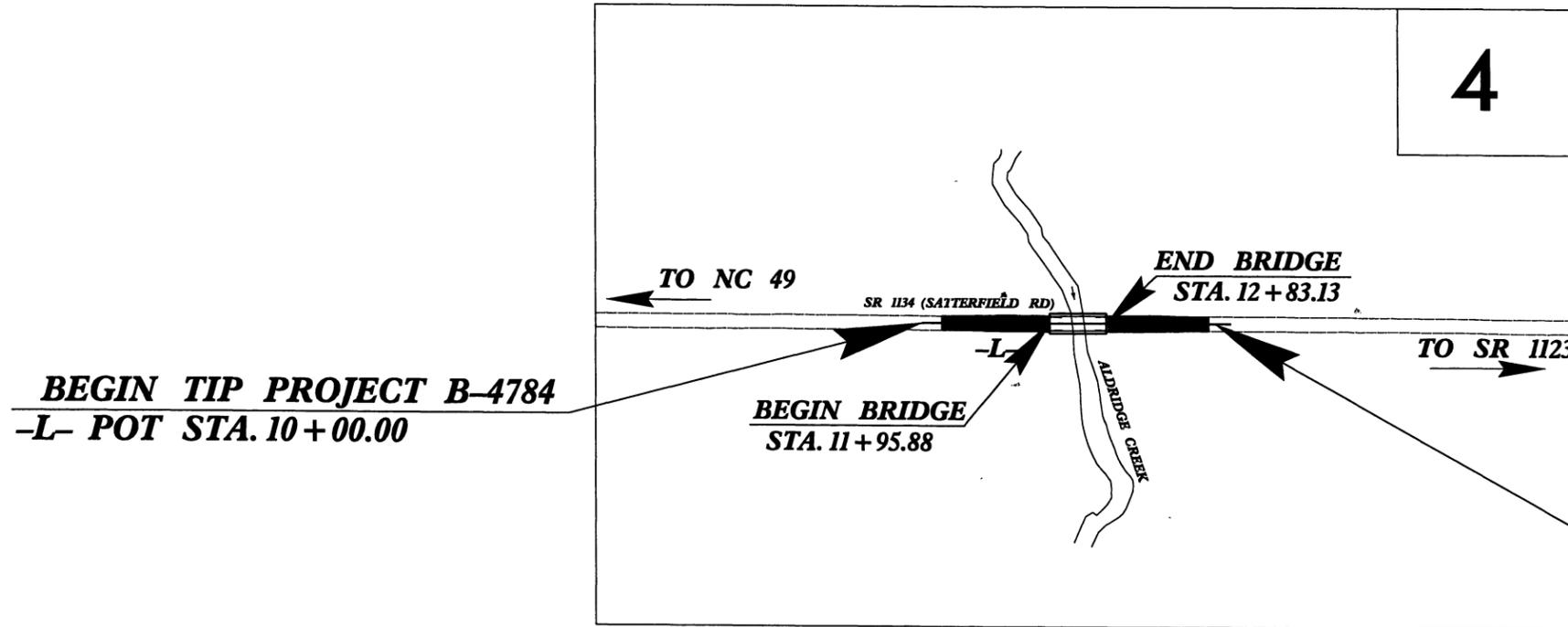
LOCATION: REPLACE BRIDGE NO. 31 OVER ALDRIDGE CREEK ON SR 1134 (SATTERFIELD RD)

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

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-4784	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
38555.1.1	BRZ-1134(3)	PE	
38555.2.1	BRZ-1134(3)	RW, UTL	



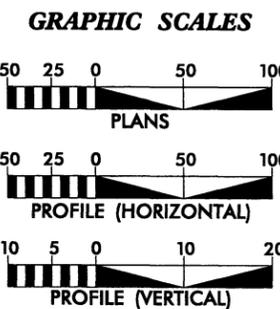
TIP PROJECT: B-4784



THIS PROJECT IS NOT WITHIN ANY MUNICIPAL BOUNDARIES.
CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III.
THERE IS NO CONTROL OF ACCESS ON THIS PROJECT.

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

CONTRACT:



DESIGN DATA

ADT 2013 =	877
ADT 2035 =	1,300
DHV =	10 %
D =	60 %
T =	9 % *
V =	55 MPH
* (TTST 1% + DUAL 8%)	
FUNC CLASS=RURAL LOCAL	
SUBREGIONAL TIER	

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT B-4784	=	0.068
LENGTH STRUCTURE TIP PROJECT B-4784	=	0.017
TOTAL LENGTH TIP PROJECT B-4784	=	0.085

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

2012 STANDARD SPECIFICATIONS	
RIGHT OF WAY DATE: NOVEMBER 20, 2012	TONY HOUSER, PE PROJECT ENGINEER
LETTING DATE: NOVEMBER 19, 2013	BRUCE PAYNE, PE PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

SIGNATURE: _____

ROADWAY DESIGN ENGINEER

SIGNATURE: _____

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

STATE HIGHWAY DESIGN ENGINEER

27-NOV-2012 14:08
R:\Roadway\Projects\B4784_Rdy_tsh.dgn
Chlee AT RD266395

04/16/11

Note: Not to Scale

*S.U.E. = Subsurface Utility Engineering

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PROJECT REFERENCE NO.
B-4784

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	○
Property Corner	✕
Property Monument	□
Parcel/Sequence Number	②3
Existing Fence Line	---x---x---x---
Proposed Woven Wire Fence	○
Proposed Chain Link Fence	□
Proposed Barbed Wire Fence	◇
Existing Wetland Boundary	-----
Proposed Wetland Boundary	-----
Existing Endangered Animal Boundary	-----
Existing Endangered Plant Boundary	-----
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 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	-----
Proposed Slope Stakes Fill	-----
Proposed Curb Ramp	○
Existing Metal Guardrail	-----
Proposed Guardrail	-----
Existing Cable Guiderail	-----
Proposed Cable Guiderail	-----
Equality Symbol	⊕

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.

01/25/12

SURVEY CONTROL SHEET B-4784 PERSON COUNTY

PROJECT REFERENCE NO. B-4784	SHEET NO. I-C
Location and Surveys	

**LOCATION: BRIDGE NO. 31 OVER ALDRIDGE CREEK
ON SR 1134 (SATTEFIELD RD)**

NCDOT GPS STATION B4784-1
LOCALIZED PROJECT COORDINATES
N = 919,907.084
E = 2,001,301.056



ROW MARKER CONCRETE OR GRANITE

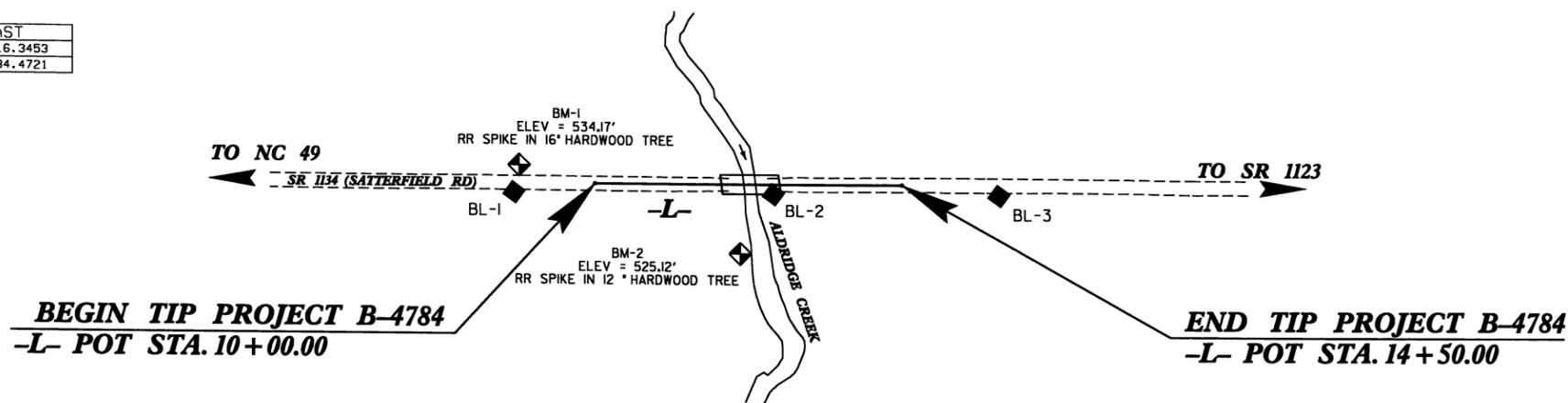
ALIGN	STATION	OFFSET	NORTH	EAST
L	10+00.00	40.00	919181.4599	1998710.1559
L	10+00.00	30.00	919191.3395	1998711.7033
L	10+00.00	-30.00	919250.6168	1998720.9873
L	10+00.00	-40.00	919260.4964	1998722.5346
L	14+50.00	40.00	919111.0297	1999154.7362
L	14+50.00	30.00	919121.7093	1999156.2836
L	14+50.00	-30.00	919180.9866	1999165.5676
L	14+50.00	-40.00	919190.8662	1999167.1149

PERMANENT EASEMENT

ALIGN	STATION	OFFSET	NORTH	EAST
L	11+63.00	50.00	919146.3587	1998869.6455
L	11+63.00	40.00	919156.2383	1998871.1928
L	11+65.00	-50.00	919244.8449	1998887.0948
L	11+65.00	-40.00	919234.9653	1998885.5474
L	13+01.00	50.00	919125.0055	1999025.9834
L	13+01.00	40.00	919134.8850	1999027.5308
L	13+01.00	-50.00	919223.8011	1999021.4568
L	13+01.00	-40.00	919213.9215	1999019.9095

L

TYPE	STATION	NORTH	EAST
POT	10+00.00	919220.9782	1998716.3453
POT	14+73.83	919147.6601	1999184.4721



NCDOT GPS STATION B4784-2
LOCALIZED PROJECT COORDINATES
N = 918,884.753
E = 2,001,010.610

HORIZONTAL CONTROL DATA

POINT	DESC.	NORTH	EAST	ELEVATION	L STATION	OFFSET
1	BL-1	919225.9680	1998591.0120	534.48	OUTSIDE PROJECT LIMITS	
2	BL-2	919163.2170	1998987.0230	530.76	12+76.36	15.18 RT
3	BL-3	919108.5280	1999330.3950	538.59	OUTSIDE PROJECT LIMITS	

VERTICAL CONTROL DATA

.....
BM-1 ELEVATION = 534.17	BM-2 ELEVATION = 525.12
N 919267 E 1998606	N 919080 E 1998922
L STATION 10+00.00	L STATION 12+25.25 107.04 RIGHT
N 67°37'56.73" W DIST 119.78	RR SPIKE IN 12' HARDWOOD
RR SPIKE IN 16' HARDWOOD

DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCDOT FOR MONUMENT "B4784-1" WITH NAD 83/NSRS 2007 STATE PLANE GRID COORDINATES OF NORTHING: 919907.084(±) EASTING: 2001301.056(±) ELEVATION: 586.81(±)

THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 1.00000970

THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "B4784-1" TO -L- STATION 10+00.00 IS S 75°08'01.7"W 2674.22'

ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES

VERTICAL DATUM USED IS NAVD 88

NOTES:

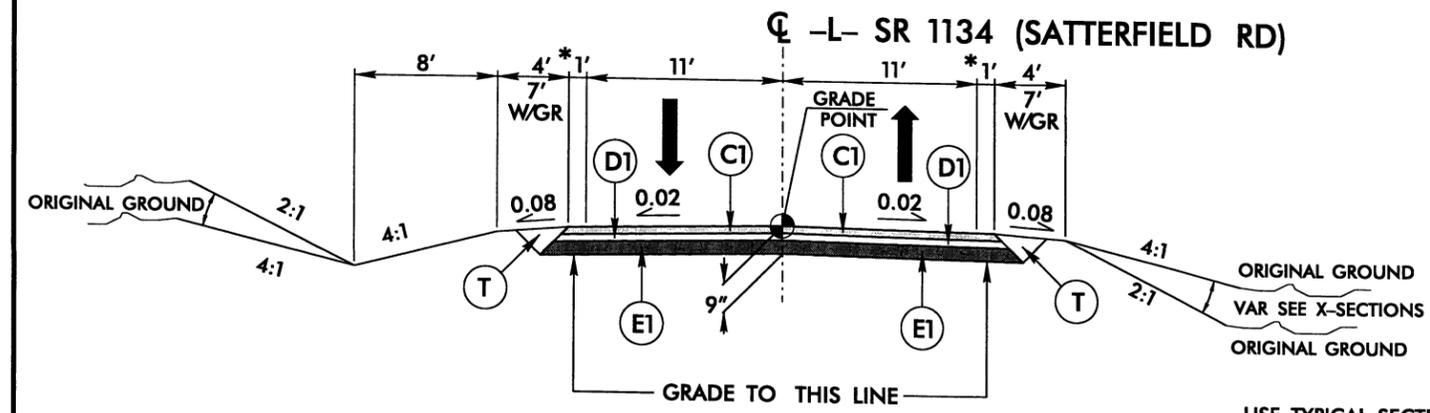
- THE CONTROL DATA FOR THIS PROJECT CAN BE FOUND ELECTRONICALLY BY SELECTING PROJECT CONTROL DATA AT:
[HTTP://WWW.NCDOT.ORG/DOH/PRECONSTRUCT/HIGHWAY/LOCATION/PROJECT/](http://www.ncdot.org/DOH/PRECONSTRUCT/HIGHWAY/LOCATION/PROJECT/)
THE FILES TO BE FOUND ARE AS FOLLOWS:
B4784_LS_CONTROL.TXT
- SITE CALIBRATION INFORMATION HAS NOT BEEN PROVIDED FOR THIS PROJECT. IF FURTHER INFORMATION IS NEEDED, PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.
- INDICATES GEODETIC CONTROL MONUMENTS USED OR SET FOR HORIZONTAL PROJECT CONTROL BY THE NCDOT LOCATION AND SURVEYS UNIT.
- PROJECT CONTROL ESTABLISHED USING GLOBAL POSITIONING SYSTEM.
- NETWORK ESTABLISHED FROM NGS ONLINE POSITIONING SERVICE (OPUS)
- SEE GPS CALIBRATION SHEET FOR HORIZONTAL AND VERTICAL COORDINATE VALUES.

NOTE: DRAWING NOT TO SCALE

27-NOV-2012 14:08 R:\Location\Survey\B4784-1a-1c.dgn

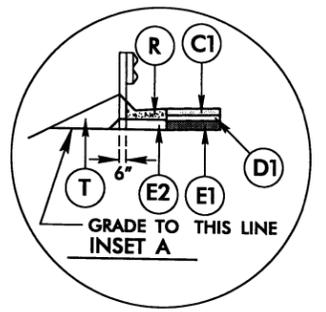
8/17/99

PROJECT REFERENCE NO. B-4784	SHEET NO. 2
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	



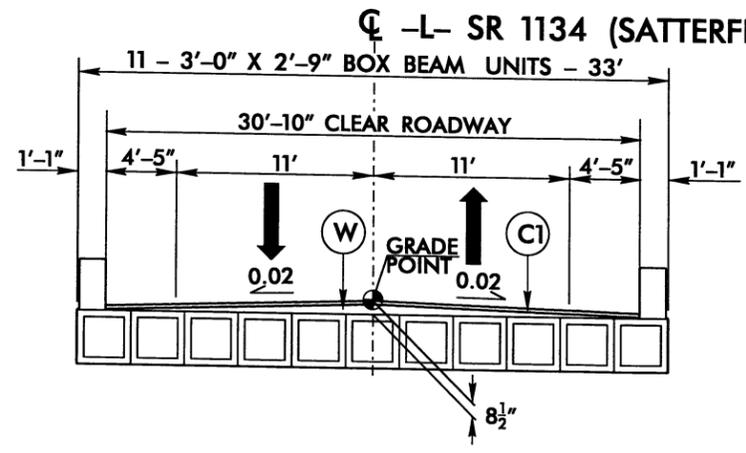
TYPICAL SECTION NO. 1

USE TYPICAL SECTION NO. 1
 -L- STA. 10+30.00 TO -L- STA. 11+95.88 (BEGIN BRIDGE)
 -L- STA. 12+83.13 (END BRIDGE) TO -L- STA. 14+40.00
 * DENOTES 1' PAVED SHOULDER



USE INSET A

-L- STA. 11+68.88 TO -L- STA. 11+95.88 (RT & LT)

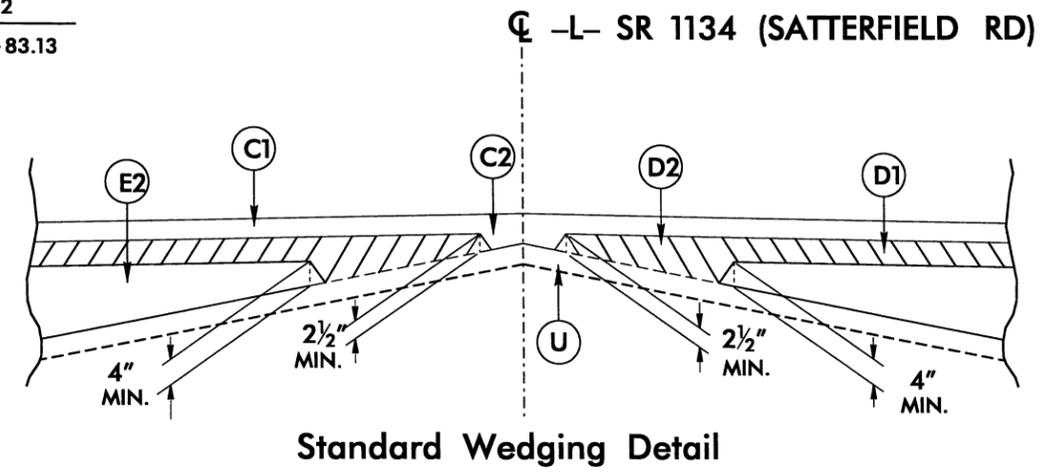


BRIDGE TYPICAL SECTION NO. 2

USE BRIDGE TYPICAL SECTION NO. 2
 -L- STA. 11+95.88 TO -L- STA. 12+83.13

PAVEMENT SCHEDULE (FINAL PAVEMENT DESIGN DATED JUNE 27, 2011)	
C1	PROP. APPROX. 2½" 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 LESS THAN 1" IN DEPTH OR GREATER THAN 1½" IN DEPTH.
D1	PROP. APPROX. 2½" 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 2½" 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 4" IN DEPTH OR GREATER THAN 5½" IN DEPTH.
R	SHOULDER BERM GUTTER
T	EARTH MATERIAL.
U	EXISTING PAVEMENT.
W	VARIABLE DEPTH ASPHALT PAVEMENT (SEE STANDARD WEDGING DETAIL)

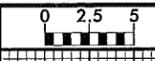
NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.



Standard Wedging Detail

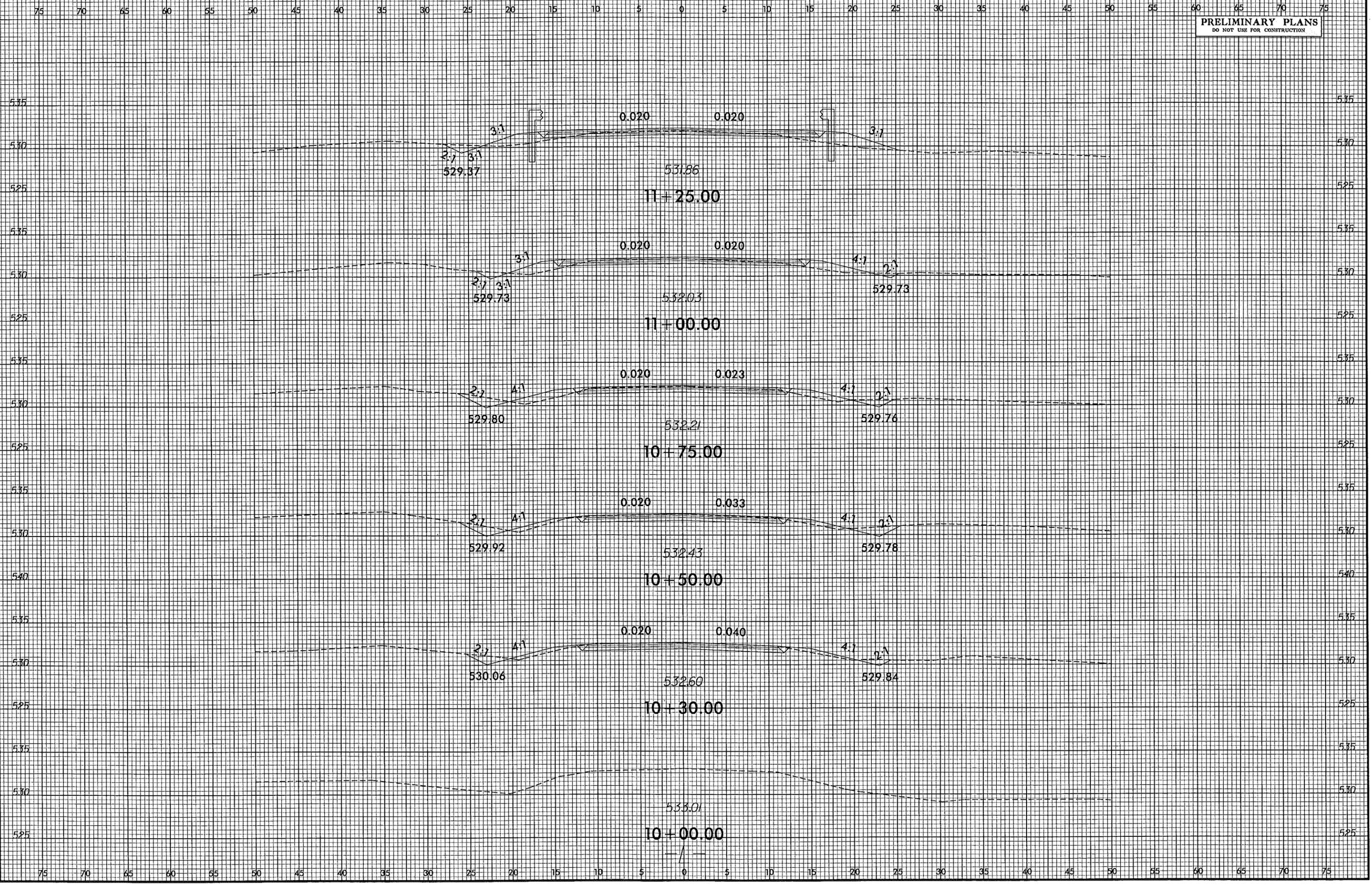
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B/23/99



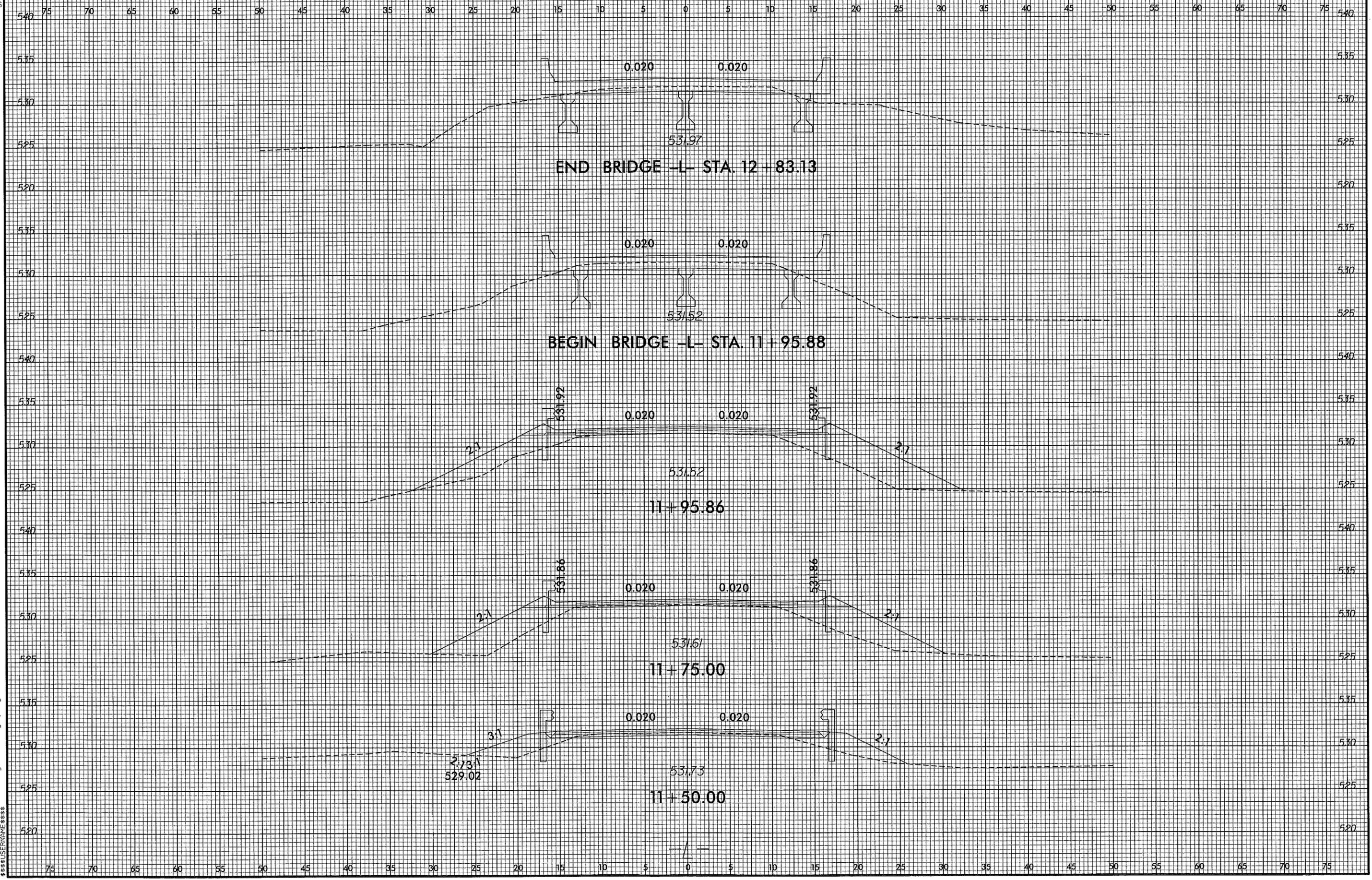
PROJ. REFERENCE NO. B-4784 SHEET NO. X-1

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION



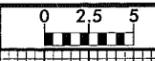
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8/23/99



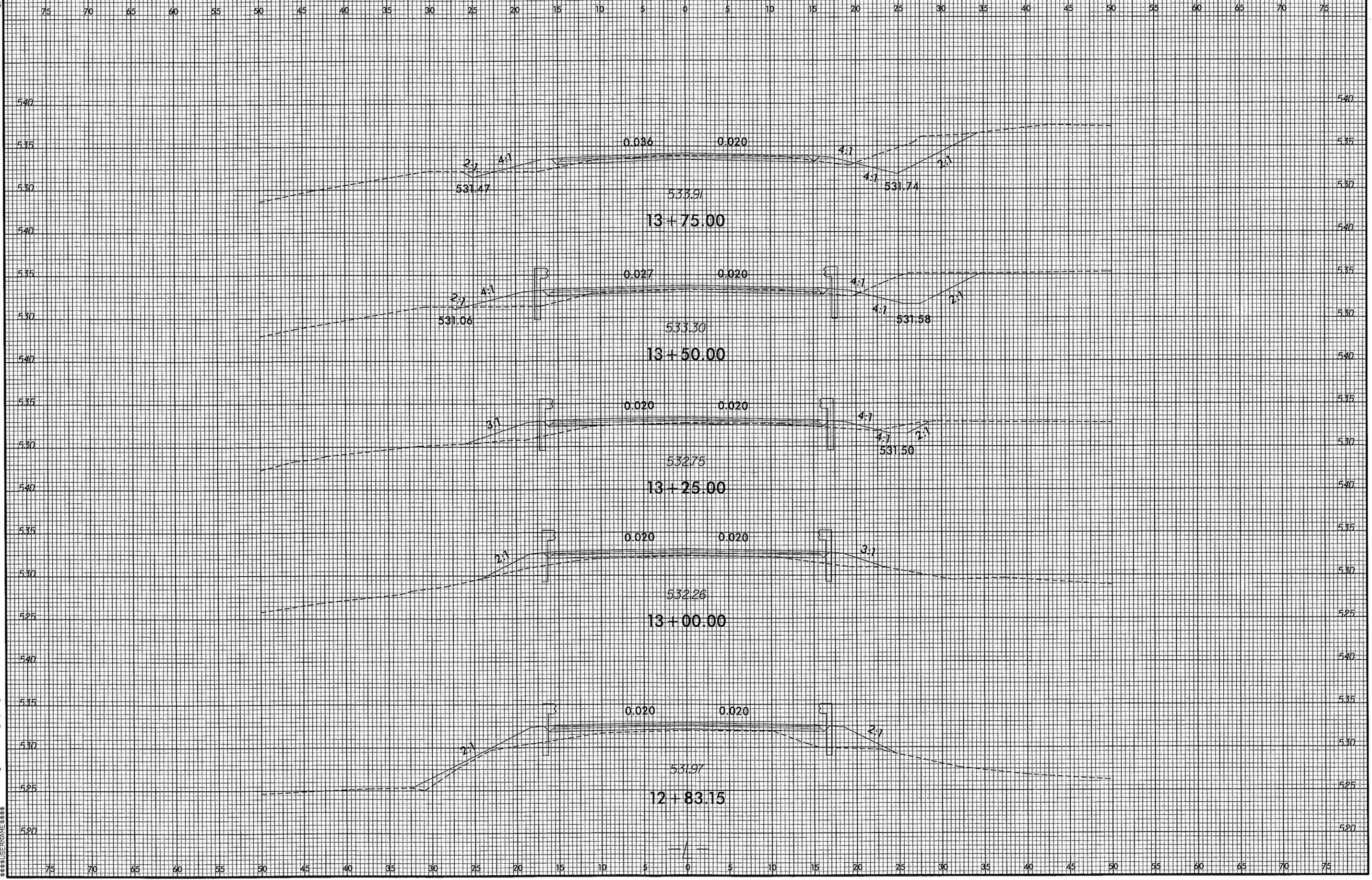
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PROJ. REFERENCE NO.
B-4784

SHEET NO.
X-3



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