



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

PAT L. MCCRORY
GOVERNOR

NICHOLAS J. TENNYSON
SECRETARY

September 24, 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 3** for replacement of Bridge No. 8 over Drowning Creek on SR 1203/1412 (Turnpike Road), Hoke and Scotland Counties, North Carolina. Federal Aid Project No. BRZ-1203(2), TIP No. B-4967.

Dear Sir,

Please find enclosed the Pre-Construction Notification (PCN) form, stormwater management plan, permit drawings, and roadway design plans for the above referenced project. A Programmatic Categorical Exclusion (PCE) was completed for this project September 23, 2014. No written approval from the N.C. Division of Water Resources (DWR) is required and this permit application is being sent to DWR for informational purposes only.

The proposed let date for the project is June 21, 2016 with a review date of May 3, 2016. However, the let date may advance as additional funds become available.

Please note that the PCE states that this project is over the Lumber River and thus classified as a National Wild and Scenic River and a North Carolina Natural and Scenic River. The DWR stream GIS layer and the USGS topo map designate this bridge crosses over Drowning Creek. Also the NC DENR stream classification [website](#) classifies the source of the Lumber River at the junction of Buffalo Creek and Drowning Creek. This is 1.3 miles downstream from SR 1412, Turnpike Road, where the National Wild and Scenic River System and North Carolina Natural and Scenic River System designate the Lumber to start.

A copy of this permit application and its distribution list 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 time and assistance with this project. Please contact Rachelle Beauregard at rbeauregard@ncdot.gov or (919) 707-6105 if you have any questions or need additional information.

Sincerely,



for

Richard W. Hancock, P.E. 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 1.4 January 2009

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: 3 or General Permit (GP) number:		
1c. Has the NWP or GP number been verified by the Corps?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
1d. Type(s) of approval sought from the DWQ (check all that apply):		
<input type="checkbox"/> 401 Water Quality Certification – Regular <input type="checkbox"/> Non-404 Jurisdictional General Permit <input checked="" type="checkbox"/> 401 Water Quality Certification – Express <input type="checkbox"/> Riparian Buffer Authorization		
1e. Is this notification solely for the record because written approval is not required?	For the record only for DWQ 401 Certification: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	For the record only for Corps Permit: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
1f. Is payment into a mitigation bank or in-lieu fee program proposed for mitigation of impacts? If so, attach the acceptance letter from mitigation bank or in-lieu fee program.	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
1g. Is the project located in any of NC's twenty coastal counties. If yes, answer 1h below.	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
1h. Is the project located within a NC DCM Area of Environmental Concern (AEC)?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

2. Project Information

2a. Name of project:	Replacement of Bridge No. 8 over Drowning Creek on SR 1203/1412
2b. County:	Hoke and Scotland
2c. Nearest municipality / town:	Raeford
2d. Subdivision name:	<i>not applicable</i>
2e. NCDOT only, T.I.P. or state project no.:	B-4967

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) 707-6105
3g. Fax no.:	(919) 212-5785
3h. Email address:	rbeauregard@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: 34.975077 (DD.DDDDDD) Longitude: - 79.376470 (-DD.DDDDDD)
1c. Property size:	6.9 acres
2. Surface Waters	
2a. Name of nearest body of water (stream, river, etc.) to proposed project:	Drowning Creek
2b. Water Quality Classification of nearest receiving water:	C, SW, HQW
2c. River basin:	Lumber
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: This site is forested except for the roadway. Land use in the vicinity is mainly agriculture and some residential.	
3b. List the total estimated acreage of all existing wetlands on the property: 1.63	
3c. List the total estimated linear feet of all existing streams (intermittent and perennial) on the property: 206	
3d. Explain the purpose of the proposed project: To replace a structurally deficient bridge.	
3e. Describe the overall project in detail, including the type of equipment to be used: The project involves replacing a 211-foot bridge with a 225-foot, 3-span bridge on the existing alignment with an off-site detour. The new bridge will span the creek. Causeways will be used to remove the interior bents but will not impact jurisdictional resources. 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:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
4b. If the Corps made the jurisdictional determination, what type of determination was made?	<input checked="" type="checkbox"/> Preliminary <input type="checkbox"/> Final
4c. If yes, who delineated the jurisdictional areas? Name (if known): Rachelle Beauregard NCDOT	Agency/Consultant Company: Other:
4d. If yes, list the dates of the Corps jurisdictional determinations or State determinations and attach documentation. Preliminary JD issued 10/26/10	
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 checked="" type="checkbox"/> Wetlands		<input type="checkbox"/> Streams - tributaries		<input type="checkbox"/> Buffers		
<input type="checkbox"/> Open Waters		<input type="checkbox"/> Pond Construction				
2. Wetland Impacts						
If there are wetland impacts proposed on the site, then complete this question for each wetland area impacted.						
2a. Wetland impact number – Permanent (P) or Temporary (T)	2b. Type of impact	2c. Type of wetland (if known)	2d. Forested	2e. Type of jurisdiction	2f. Area of impact (acres)	
Site 1 <input checked="" type="checkbox"/> P <input type="checkbox"/> T	fill	Bottomland Hardwood Forest	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Corps <input type="checkbox"/> DWQ	0.02	
Site 1 <input checked="" type="checkbox"/> P <input type="checkbox"/> T	mechanized clearing	Bottomland Hardwood Forest	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Corps <input type="checkbox"/> DWQ	0.05	
Site 1 <input checked="" type="checkbox"/> P <input type="checkbox"/> T	mechanized clearing	Riverine Swamp Forest	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Corps <input type="checkbox"/> DWQ	<0.01	
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		
2g. Total wetland impacts					0.07 Permanent X Temporary	
2h. Comments: The pipes and rip rap outlet protection is needed so that the stormwater is diverted away from the embankments. If these stormwater devices were not installed stormwater would flow along the embankments and cause erosion which would be a safety hazard for the construction of the bridge. The outlet protection will reduce velocity from the pipes to be non-erosive before entering the wetlands.						
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 type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> PER <input type="checkbox"/> INT	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
Site 2 <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 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					X Perm X 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				X Permanent X 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?

Yes

No

If yes, permit ID no:

5i. Expected pond surface area (acres):

5j. Size of pond watershed (acres):

5k. Method of construction:

6. Buffer Impacts (for DWQ)

If project will impact a protected riparian buffer, then complete the chart below. If yes, then individually list all buffer impacts below. If any impacts require mitigation, then you **MUST** fill out Section D of this form.

6a. Project is in which protected basin?		<input type="checkbox"/> Neuse <input type="checkbox"/> Tar-Pamlico <input type="checkbox"/> Other: <input type="checkbox"/> Catawba <input type="checkbox"/> Randleman			
6b. Buffer impact number – Permanent (P) or Temporary (T)	6c. Reason for impact	6d. Stream name	6e. Buffer mitigation required?	6f. Zone 1 impact (square feet)	6g. Zone 2 impact (square feet)
B1 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No		
B2 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No		
B3 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No		
6h. Total buffer impacts					
6i. Comments:					

D. Impact Justification and Mitigation		
1. Avoidance and Minimization		
1a. Specifically describe measures taken to avoid or minimize the proposed impacts in designing project. The proposed bridge is 14 feet longer than the existing bridge, it will be at approximately the same grade as the existing structure and will span the creek and remove two current bents in the water and an off site detour will be used.		
1b. Specifically describe measures taken to avoid or minimize the proposed impacts through construction techniques. Design Standards for Sensitive Watersheds will be implemented with this project. Best Management Practices for Construction and Maintenance Activities will be used.		
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: The amount of wetland impact is minimal (<0.1) and occurs along the edge of much larger wetland systems.	
2b. If yes, mitigation is required by (check all that apply):	<input type="checkbox"/> DWQ <input type="checkbox"/> Corps	
2c. If yes, which mitigation option will be used for this project?	<input type="checkbox"/> Mitigation bank <input type="checkbox"/> Payment to in-lieu fee program <input type="checkbox"/> Permittee Responsible Mitigation	
3. Complete if Using a Mitigation Bank		
3a. Name of Mitigation Bank: not applicable		
3b. Credits Purchased (attach receipt and letter)	Type	Quantity
3c. Comments:		
4. Complete if Making a Payment to In-lieu Fee Program		
4a. Approval letter from in-lieu fee program is attached.	<input type="checkbox"/> Yes	
4b. Stream mitigation requested:	linear feet	
4c. If using stream mitigation, stream temperature:	<input type="checkbox"/> warm <input type="checkbox"/> cool <input type="checkbox"/> cold	
4d. Buffer mitigation requested (DWQ only):	square feet	
4e. Riparian wetland mitigation requested:	acres	
4f. Non-riparian wetland mitigation requested:	acres	
4g. Coastal (tidal) wetland mitigation requested:	acres	
4h. Comments:		
5. Complete if Using a Permittee Responsible Mitigation Plan		
5a. If using a permittee responsible mitigation plan, provide a description of the proposed mitigation plan.		

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

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

Yes No

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

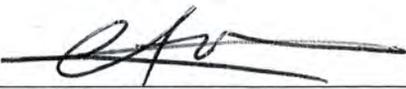
Zone	6c. Reason for impact	6d. Total impact (square feet)	Multiplier	6e. Required mitigation (square feet)
Zone 1			3 (2 for Catawba)	
Zone 2			1.5	
6f. Total buffer mitigation required:				

6g. If buffer mitigation is required, discuss what type of mitigation is proposed (e.g., payment to private mitigation bank, permittee responsible riparian buffer restoration, payment into an approved in-lieu fee fund).

6h. Comments:

E. Stormwater Management and Diffuse Flow Plan (required by DWQ)	
1. Diffuse Flow Plan	
1a. Does the project include or is it adjacent to protected riparian buffers identified within one of the NC Riparian Buffer Protection Rules?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
1b. If yes, then is a diffuse flow plan included? If not, explain why. Comments:	<input type="checkbox"/> Yes <input type="checkbox"/> No
2. Stormwater Management Plan	
2a. What is the overall percent imperviousness of this project?	N/A
2b. Does this project require a Stormwater Management Plan?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
2c. If this project DOES NOT require a Stormwater Management Plan, explain why:	
2d. If this project DOES require a Stormwater Management Plan, then provide a brief, narrative description of the plan: See 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
3. Certified Local Government Stormwater Review	
3a. In which local government's jurisdiction is this project?	N/A
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 N/A
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 checked="" 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
5. DWQ 401 Unit Stormwater Review	
5a. Does the Stormwater Management Plan meet the appropriate requirements?	<input type="checkbox"/> Yes <input type="checkbox"/> No N/A
5b. Have all of the 401 Unit submittal requirements been met?	<input type="checkbox"/> Yes <input type="checkbox"/> No N/A

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

5. Endangered Species and Designated Critical Habitat (Corps Requirement)		
5a. Will this project occur in or near an area with federally protected species or habitat?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
5b. Have you checked with the USFWS concerning Endangered Species Act impacts?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
5c. If yes, indicate the USFWS Field Office you have contacted.	<input 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? USFWS website, field surveys. All species No Effect. Updated surveys for RCW conducted March 2015		
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		
For <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.)	<u>9-24-2015</u> Date



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



(Version 2.02; Released April 2015)

WBS Element: 40158.1.1 **TIP No.:** B-4967 **County(ies):** Scotland Hoke **Page** 1 **of** 1

General Project Information

WBS Element:	40158.1.1	TIP Number:	B-4967	Project Type:	Bridge Replacement	Date:	8/7/2015
NCDOT Contact:	Galen Cail			Contractor / Designer:	Kimley-Horn and Associates, Inc.		
Address:	NCDOT Hydraulics Unit 1020 Birch Ridge Drive Raleigh, NC 27610			Address:	3001 Weston Parkway Cary, NC 27513		
Phone:	919-707-6711			Phone:	919-677-2153		
Email:	gcail@ncdot.gov			Email:	jason.lawing@kimley-horn.com		
City/Town:	Wagram			County(ies):	Scotland	Hoke	
River Basin(s):	Lumber			CAMA County?	No	No	
Wetlands within Project Limits?	Yes						

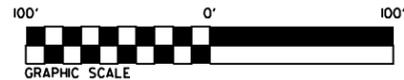
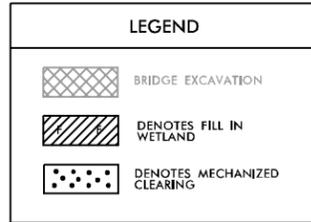
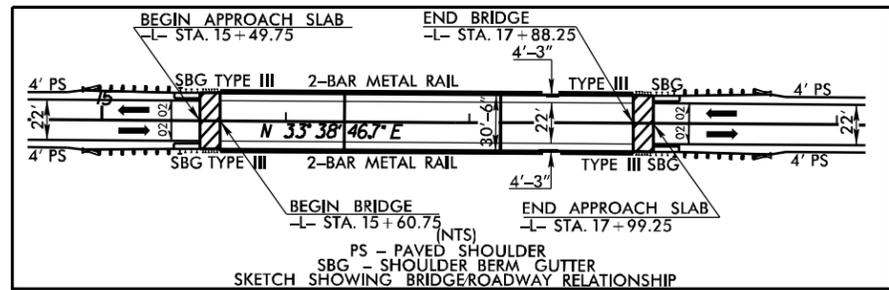
Project Description

Project Length (lin. miles or feet):	0.118 mi.	Surrounding Land Use:	Rural
	Proposed Project		Existing Site
Project Built-Up Area (ac.)	0.4 ac.		0.3 ac.
Typical Cross Section Description:	2 @ 11' wide lanes with 6' wide shoulders with 4' being paved, (9' shoulders in sections with guardrail) and sideslopes that vary from 3:1 or flatter.		2 @ 9.5' wide lanes with grass shoulders and varying sideslopes.
Annual Avg Daily Traffic (veh/hr/day):	Design/Future: 900	Year: 2035	Existing: 748 Year: 2016
General Project Narrative: (Description of Minimization of Water Quality Impacts)	Replacement of Bridge #8 on SR 1412/SR 1203 (Turnpike Road) over Drowning Creek in Scotland and Hoke Counties. The existing bridge will be replaced with a three-span bridge, 225' long x 33' wide bridge (Out-to-Out) constructed with 33" box beams. Span arrangement is 1@70', 1 @85', 1@ 70'. The proposed stormwater system on the begin bridge side outfall within the wetlands for treatment. The proposed stormwater system on the end bridge side outfall outside the wetlands but will filter through the wetlands for treatment.		

Waterbody Information

Surface Water Body (1):	Drowning Creek		NCDWR Stream Index No.:	14-2-(10.5)	
NCDWR Surface Water Classification for Water Body	Primary Classification:	Class C			
	Supplemental Classification:	Swamp Waters (Sw)	High Quality Waters (HQW)		
Other Stream Classification:	None				
Impairments:	None				
Aquatic T&E Species?	No	Comments:			
NRTR Stream ID:	G21SW4			Buffer Rules in Effect:	N/A
Project Includes Bridge Spanning Water Body?	Yes	Deck Drains Discharge Over Buffer?	No	Dissipator Pads Provided in Buffer?	No
Deck Drains Discharge Over Water Body?	No	(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)				

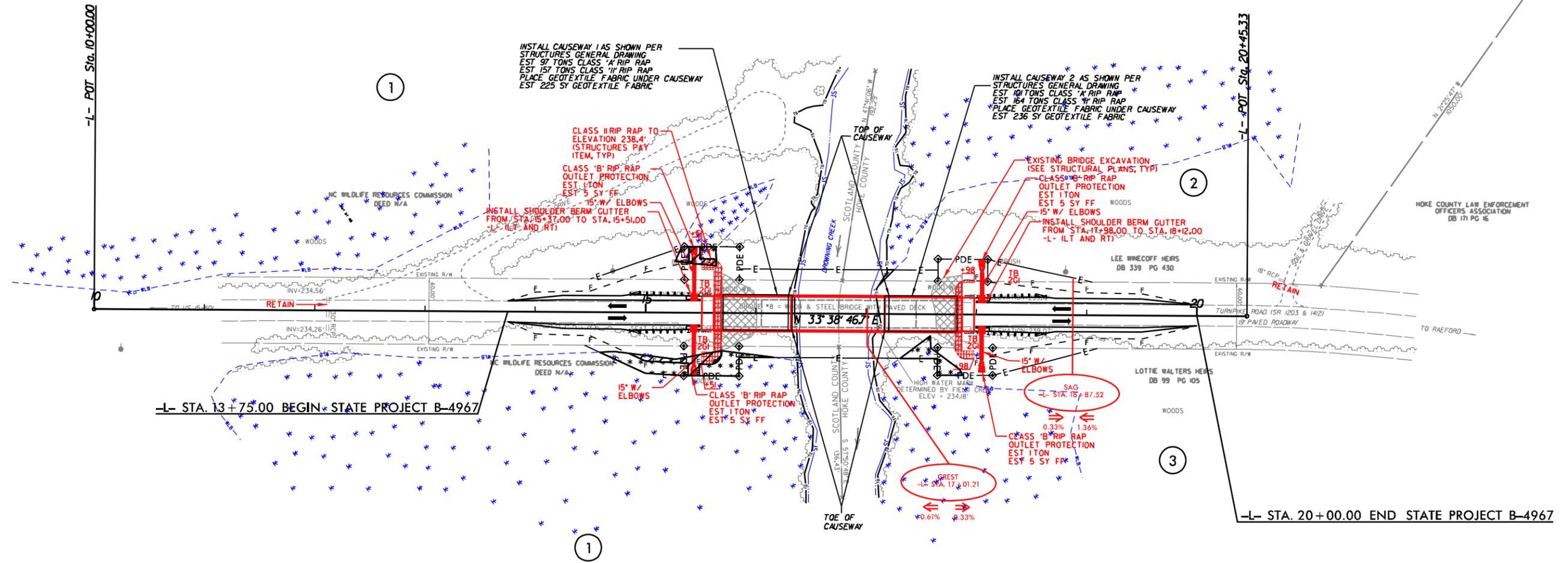
8/17/99



PROJECT REFERENCE NO. B-4967	SHEET NO. 4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

PERMIT DRAWING SHEET 2 OF 8

SITE 1



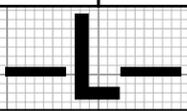
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SEE SHEET 5 FOR -L- PROFILE
SEE SHEET S-1 THRU S- FOR STRUCTURE PLANS

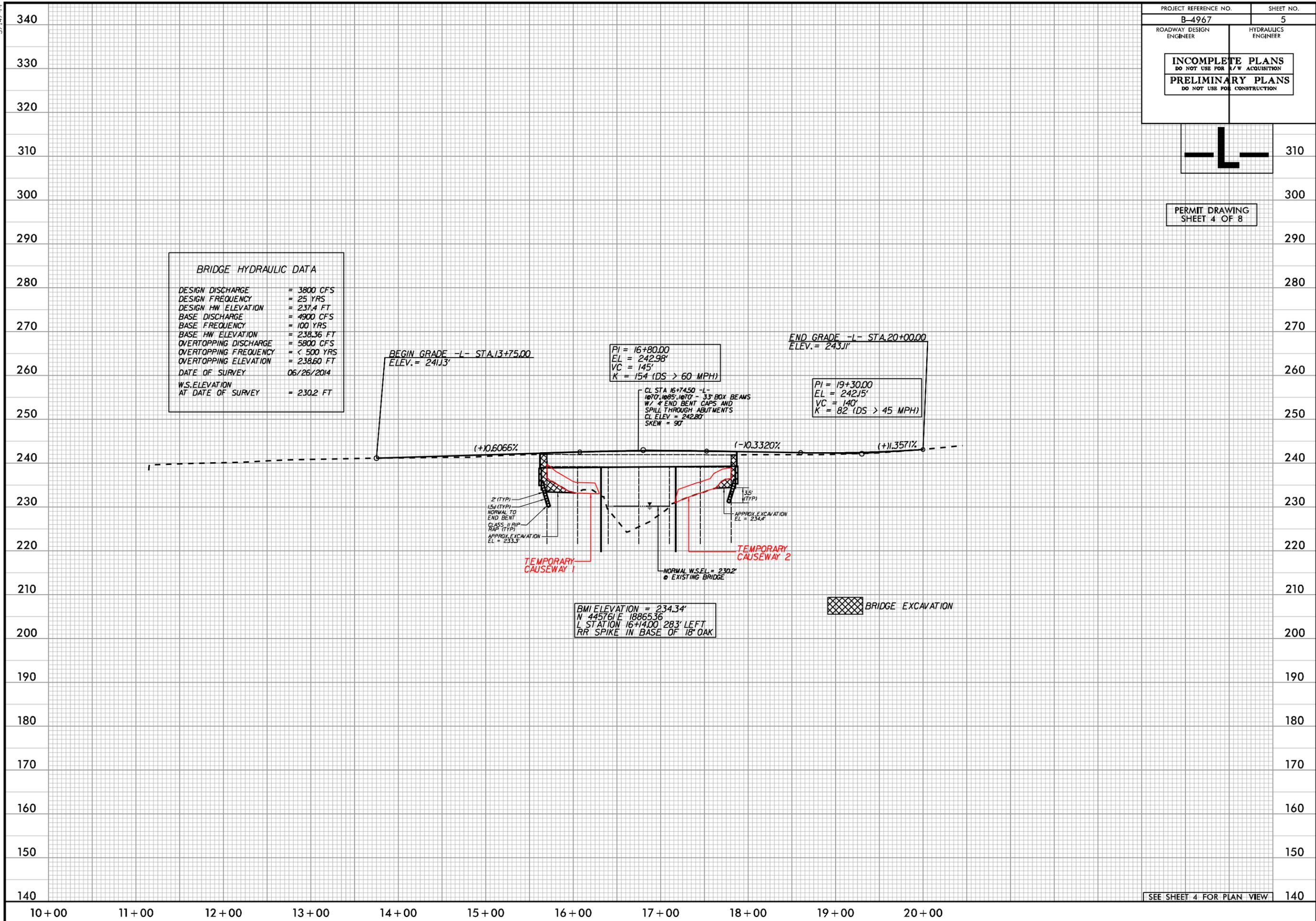
5/14/99

PROJECT REFERENCE NO. B-4967	SHEET NO. 5
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR A/W ACQUISITION PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	



PERMIT DRAWING
SHEET 4 OF 8

BRIDGE HYDRAULIC DATA	
DESIGN DISCHARGE	= 3800 CFS
DESIGN FREQUENCY	= 25 YRS
DESIGN HW ELEVATION	= 237.4 FT
BASE DISCHARGE	= 4900 CFS
BASE FREQUENCY	= 100 YRS
BASE HW ELEVATION	= 238.36 FT
OVERTOPPING DISCHARGE	= 5800 CFS
OVERTOPPING FREQUENCY	= < 500 YRS
OVERTOPPING ELEVATION	= 238.60 FT
DATE OF SURVEY	06/26/2014
W.S. ELEVATION AT DATE OF SURVEY	= 230.2 FT



SEE SHEET 4 FOR PLAN VIEW

7/15/2015
K:\184_Recorby\011083240 - B-4967 Hydraulics PERMITS Environmental Drawings\Plan Sheets\B-4967_hyd_perm_wsl_plat5.dgn

8/23/99

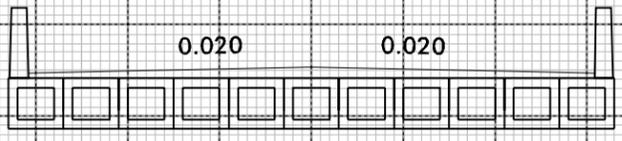


PROJ. REFERENCE NO.
B-4967

SHEET NO.
X-3

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

PERMIT DRAWING
SHEET 5 OF 8



250 250

245 245

240 240

235 235

233.29
16 + 00.00

230 230

250 250

245 245

MECHANIZED
CLEARING

FILL IN
WETLAND

WETLAND
LIMIT

3:1

0.020

0.020

241.95

3:1

WETLAND
LIMIT

FILL IN
WETLAND

MECHANIZED
CLEARING

240 240

235 235

15 + 50.00

230 230

250 250

245 245

3:1

0.020

0.020

241.53

3:1

240 240

235 235

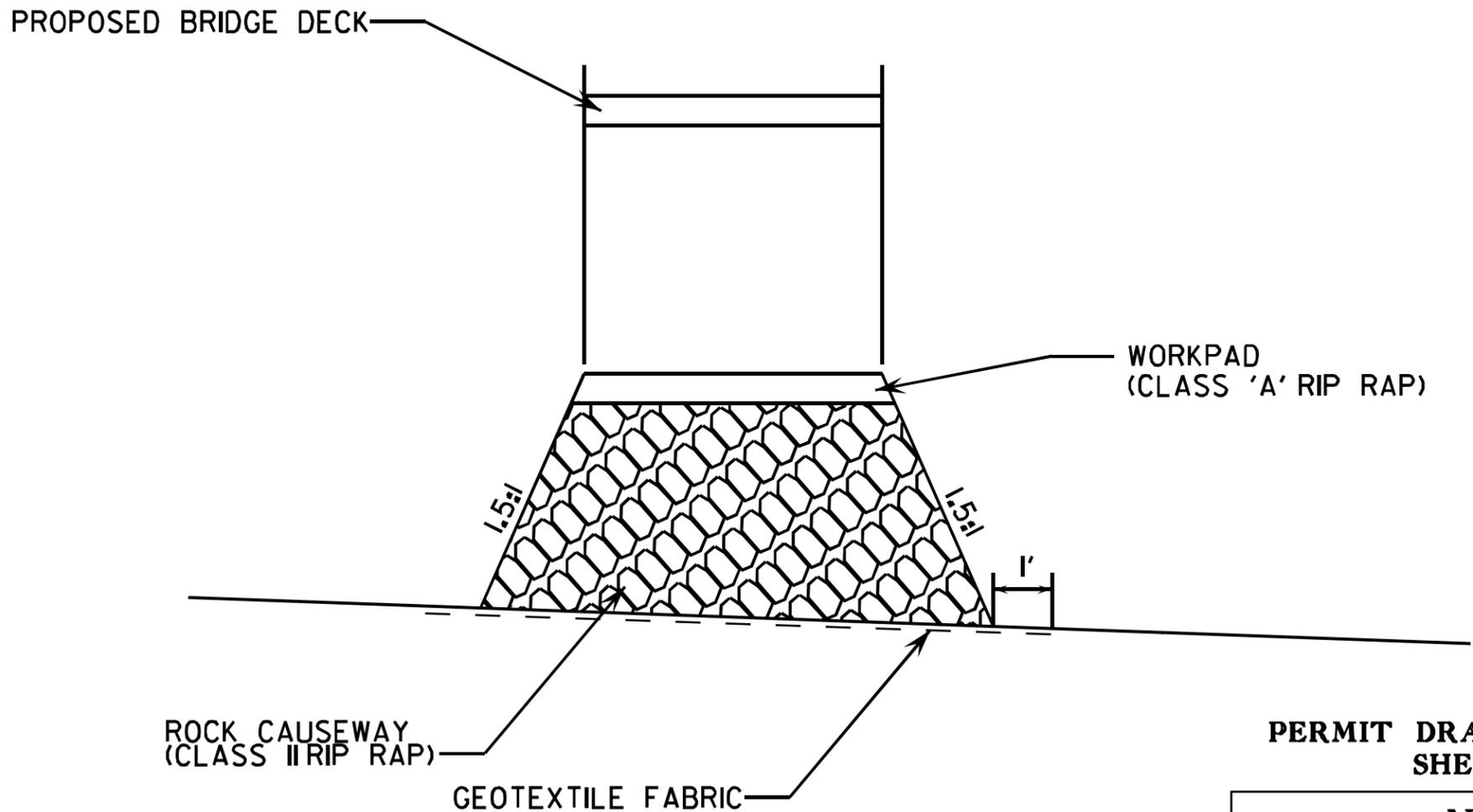
15 + 00.00

230 230

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

SYNTHETIC
CONCRETE
PAVING
SYSTEMS
CORPORATION
1111
SUNBELT
AVENUE
DALLAS,
TEXAS
75201
TEL: 214/343-8300
FAX: 214/343-8301

CAUSEWAY 1 DETAIL (NOT TO SCALE)



**PERMIT DRAWING SHEET DT-1
SHEET 6 OF 8**

QUANTITIES OF ESTIMATES: CAUSEWAY I

VOLUME OF CLASS 'A' RIP RAP= 72 yds³

AREA OF CLASS 'A' RIP RAP= 0.044 acres

Estimate 97 Tons Class 'A' Rip Rap

VOLUME OF CLASS II RIP RAP= 111 yds³

AREA OF CLASS II RIP RAP= 0.046 acres

Estimate 157 Tons Class II Rip Rap

Estimate 225 SY of Geotextile Fabric

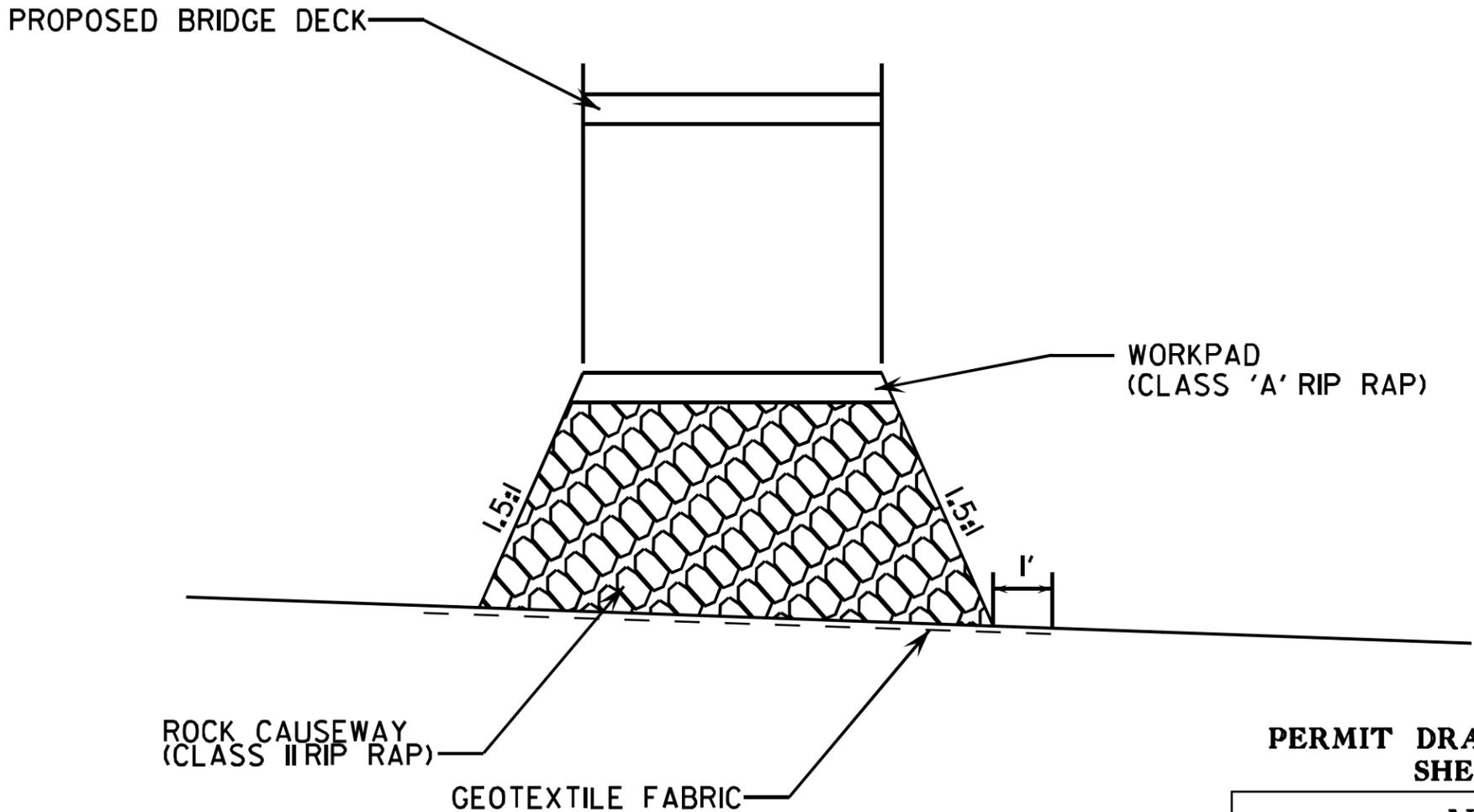
NCDOT

**DIVISION OF HIGHWAYS
WAKE COUNTY
PROJECT: B-4967
BRIDGE NO. 8 OVER
DROWNING CREEK ON
SR 1412 / SR 1203 (TURNPIKE RD.)**

08 / 07 / 2015

8/10/2015

CAUSEWAY 2 DETAIL
(NOT TO SCALE)



PERMIT DRAWING SHEET DT-2
SHEET 7 OF 8

QUANTITIES OF ESTIMATES: CAUSEWAY 2
 VOLUME OF CLASS 'A' RIP RAP= 75 yds³
 AREA OF CLASS 'A' RIP RAP= 0.046 acres
 Estimate 101 Tons Class 'A' Rip Rap
 VOLUME OF CLASS II RIP RAP= 116 yds³
 AREA OF CLASS II RIP RAP= 0.048 acres
 Estimate 164 Tons Class II Rip Rap
 Estimate 236 SY of Geotextile Fabric

NCDOT
 DIVISION OF HIGHWAYS
 WAKE COUNTY
 PROJECT: B-4967
 BRIDGE NO. 8 OVER
 DROWNING CREEK ON
 SR 1412 / SR 1203 (TURNPIKE RD.)

08 / 07 / 2015

8/10/2015

09/08/99

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

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

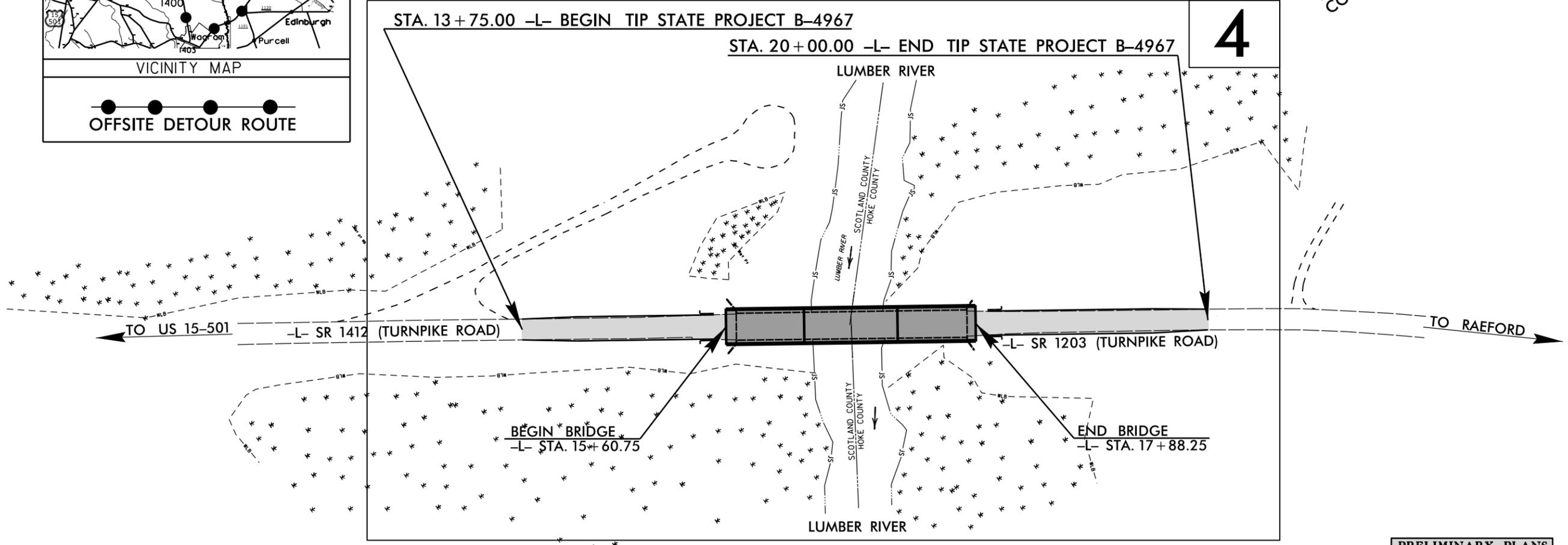
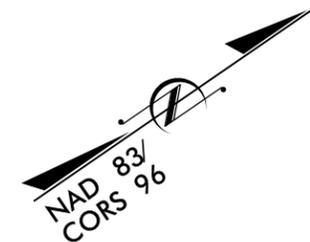
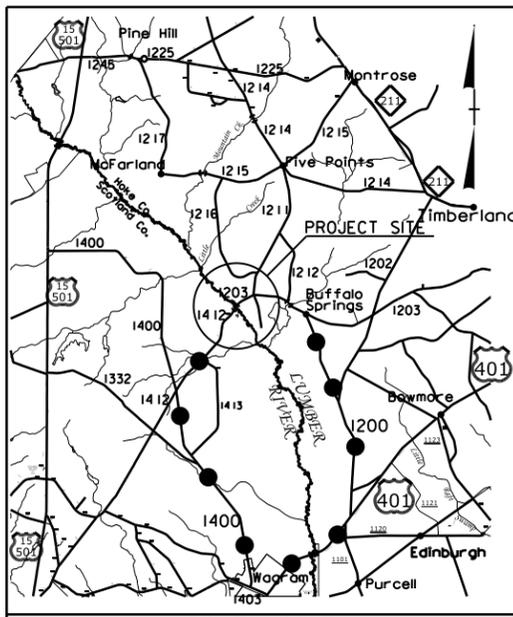
SCOTLAND & HOKE COUNTIES

LOCATION: BRIDGE NO. 8 OVER LUMBER RIVER ON
SR 1412/SR 1203 (TURNPIKE ROAD)

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

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-4967	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
40158.1.1	BRZ-1203(2)	PE	
40158.2.1	BRZ-1203(2)	R/W & UTILITIES	

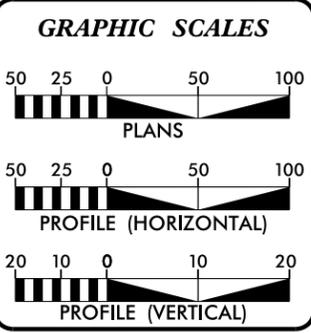
TIP PROJECT: B-4967



THIS PROJECT IS NOT WITHIN ANY MUNICIPAL BOUNDARIES.
CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III.

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

CONTRACT: C203750



DESIGN DATA

ADT 2016 =	748
ADT 2035 =	900
K =	10 %
D =	55 %
T =	6 % *
V =	60 MPH
* TTST =	2% DUAL = 4%
FUNC CLASS =	RURAL LOCAL
	"SUB-REGIONAL TIER"

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT B-4967 =	0.075 MILES
LENGTH STRUCTURE TIP PROJECT B-4967 =	0.043 MILES
TOTAL LENGTH OF TIP PROJECT B-4967 =	0.118 MILES

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

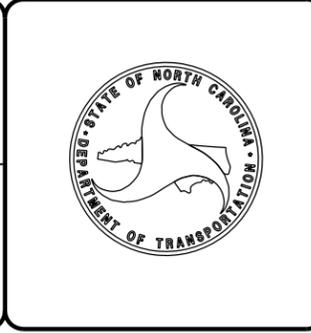
2012 STANDARD SPECIFICATIONS	
RIGHT OF WAY DATE:	JAMES A. SPEER, PE PROJECT ENGINEER
JUNE 29, 2015	
LETTING DATE:	DANIEL W. GARDNER, JR., PE PROJECT DESIGN ENGINEER
JUNE 21, 2016	

HYDRAULICS ENGINEER

SIGNATURE: _____ P.E.

ROADWAY DESIGN ENGINEER

SIGNATURE: _____ P.E.



29-JUN-2015 08:40 R:\Roadway\Proj\B4967_rdy_tsh.dgn \$\$\$USERNAME\$\$\$

02/03/15

Note: Not to Scale

*S.U.E. = Subsurface Utility Engineering

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

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	②③
Existing Fence Line	-x-x-x-
Proposed Woven Wire Fence	○
Proposed Chain Link Fence	□
Proposed Barbed Wire Fence	◇
Existing Wetland Boundary	----- WLB
Proposed Wetland Boundary	----- WLB
Existing Endangered Animal Boundary	----- EAB
Existing Endangered Plant Boundary	----- EPB
Existing Historic Property Boundary	----- HPB
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	----- E
Proposed Temporary Construction Easement	----- E
Proposed Temporary Drainage Easement	----- TDE
Proposed Permanent Drainage Easement	----- PDE
Proposed Permanent Drainage / Utility Easement	----- DUE
Proposed Permanent Utility Easement	----- PUE
Proposed Temporary Utility Easement	----- TUE
Proposed Aerial Utility Easement	----- AUE
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	----- CONC
Bridge Wing Wall, Head Wall and End Wall	----- CONC WW
MINOR:	
Head and End Wall	----- CONC HW
Pipe Culvert	-----
Footbridge	-----
Drainage Box: Catch Basin, DI or JB	□ CB
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	----- TC
Designated U/G Telephone Conduit (S.U.E.*)	----- TC
Recorded U/G Fiber Optics Cable	----- T FO
Designated U/G Fiber Optics Cable (S.U.E.*)	----- T FO

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	----- A/G Water

TV:

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

GAS:

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

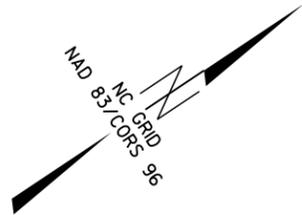
SANITARY SEWER:

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

MISCELLANEOUS:

Utility Pole	●
Utility Pole with Base	□
Utility Located Object	○
Utility Traffic Signal Box	⊕
Utility Unknown U/G Line	----- TUTL
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.

SURVEY CONTROL SHEET B-4967

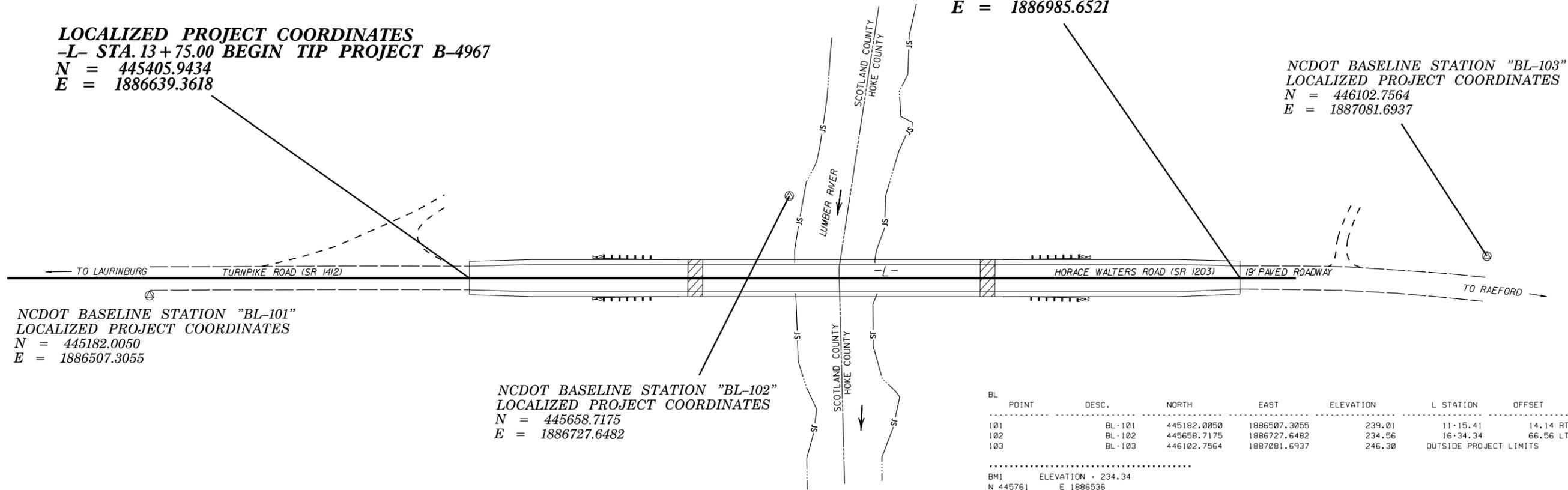


BM #1
 ELEVATION = 234.34'
 N 445761 E 1886536
 L STATION 16+14.00 283' LEFT
 RR SPIKE IN BASE OF 18" OAK

LOCALIZED PROJECT COORDINATES
-L- STA. 20+00.00 END TIP PROJECT B-4967
 N = 445926.2395
 E = 1886985.6521

LOCALIZED PROJECT COORDINATES
-L- STA. 13+75.00 BEGIN TIP PROJECT B-4967
 N = 445405.9434
 E = 1886639.3618

NCDOT BASELINE STATION "BL-103"
 LOCALIZED PROJECT COORDINATES
 N = 446102.7564
 E = 1887081.6937



NCDOT BASELINE STATION "BL-101"
 LOCALIZED PROJECT COORDINATES
 N = 445182.0050
 E = 1886507.3055

NCDOT BASELINE STATION "BL-102"
 LOCALIZED PROJECT COORDINATES
 N = 445658.7175
 E = 1886727.6482

BL POINT	DESC.	NORTH	EAST	ELEVATION	L STATION	OFFSET
101	BL-101	445182.0050	1886507.3055	239.01	11+15.41	14.14 RT
102	BL-102	445658.7175	1886727.6482	234.56	16+34.34	66.56 LT
103	BL-103	446102.7564	1887081.6937	246.30	OUTSIDE PROJECT LIMITS	

.....
 BM1 ELEVATION = 234.34
 N 445761 E 1886536
 L STATION 16+14.00 283 LEFT
 RR SPIKE IN BASE OF 18" OAK

DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCDOT FOR MONUMENT "B4967-1" WITH NAD 83/ CORS 96 STATE PLANE GRID COORDINATES OF NORTHING: 446559.274(±) EASTING: 1887752.455(±) ELEVATION: 292.132(±) THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.9998747093 THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "B4967-1" TO -L- STATION 13+75.00 IS S 43° 58' 58.4" W 1602.856' ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES VERTICAL DATUM USED IS NAVD88

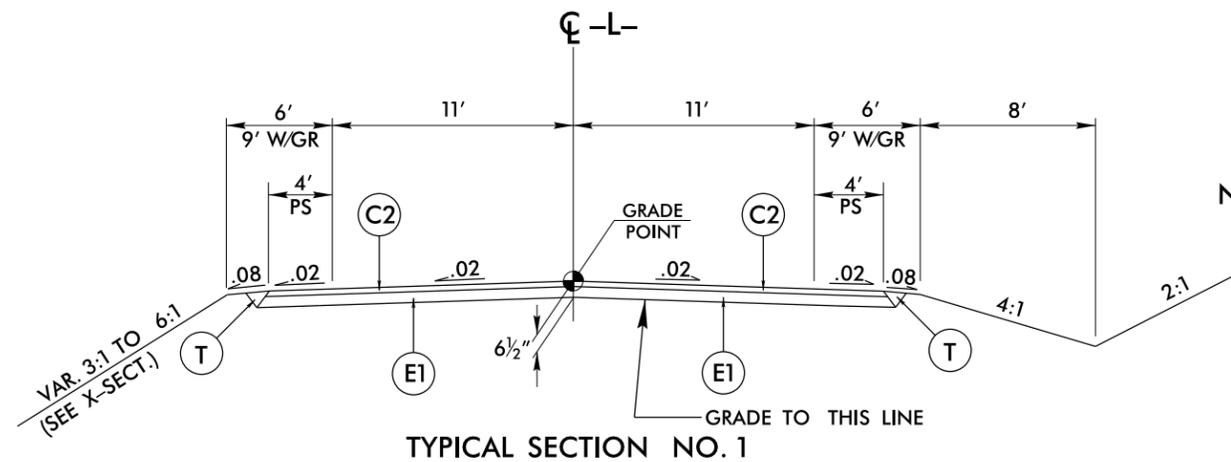
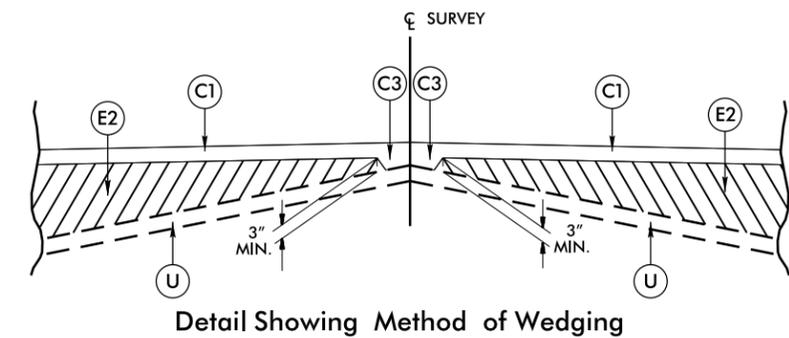
NOTES:

- THE CONTROL DATA FOR THIS PROJECT CAN BE FOUND ELECTRONICALLY BY SELECTING PROJECT CONTROL DATA AT:
[HTTPS://CONNECT.NCDOT.GOV/RESOURCES/LOCATION](https://connect.ncdot.gov/resources/location)
 THE FILES TO BE FOUND ARE AS FOLLOWS:
 B4967_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)

NOTE: DRAWING NOT TO SCALE

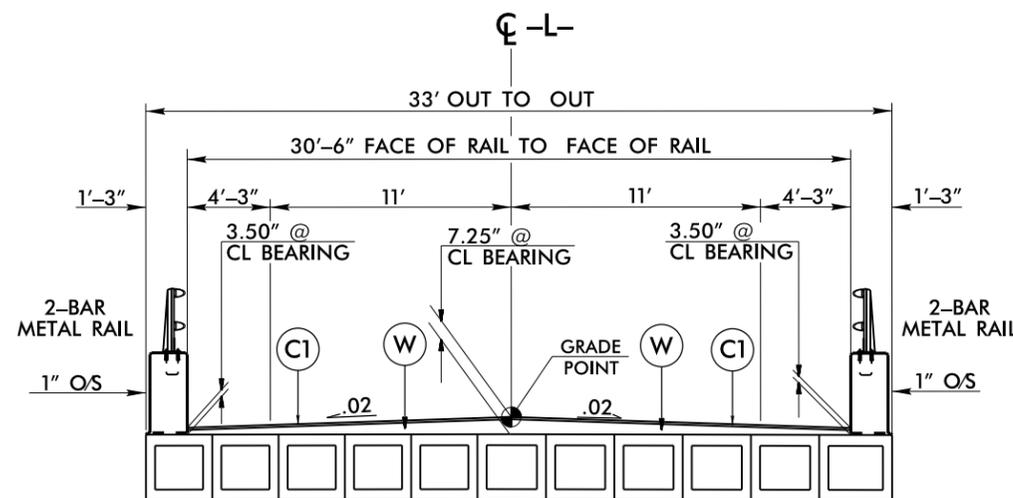
PROJECT REFERENCE NO. B-4967	SHEET NO. 2A-1
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 137.5 LBS. PER SQ. YD.
C2	PROP. APPROX. 2 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 137.5 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.
C3	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT TO EXCEED 1 1/2" 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	ASPHALT WEDGING (SEE DETAIL)



NOTE: TRANSITION FROM EXISTING TO TYPICAL SECTION NO. 1 FROM -L- STA. 13+75.00 TO 14+25.00

USE TYPICAL SECTION NO. 1 AS FOLLOWS
 -L- STA. 14+25.00 TO STA. 15+60.75 (BEGIN BRIDGE)
 -L- STA. 17+88.25 (END BRIDGE) TO STA. 19+50.00



NOTE: TRANSITION FROM TYPICAL SECTION NO. 1 TO EXISTING FROM -L- STA. 19+50.00 TO 20+00.00

USE TYPICAL SECTION NO. 2 AS FOLLOWS
 -L- STA. 15+60.75 (BEGIN BRIDGE) TO STA. 17+88.25 (END BRIDGE)

TYPICAL SECTION NO. 2

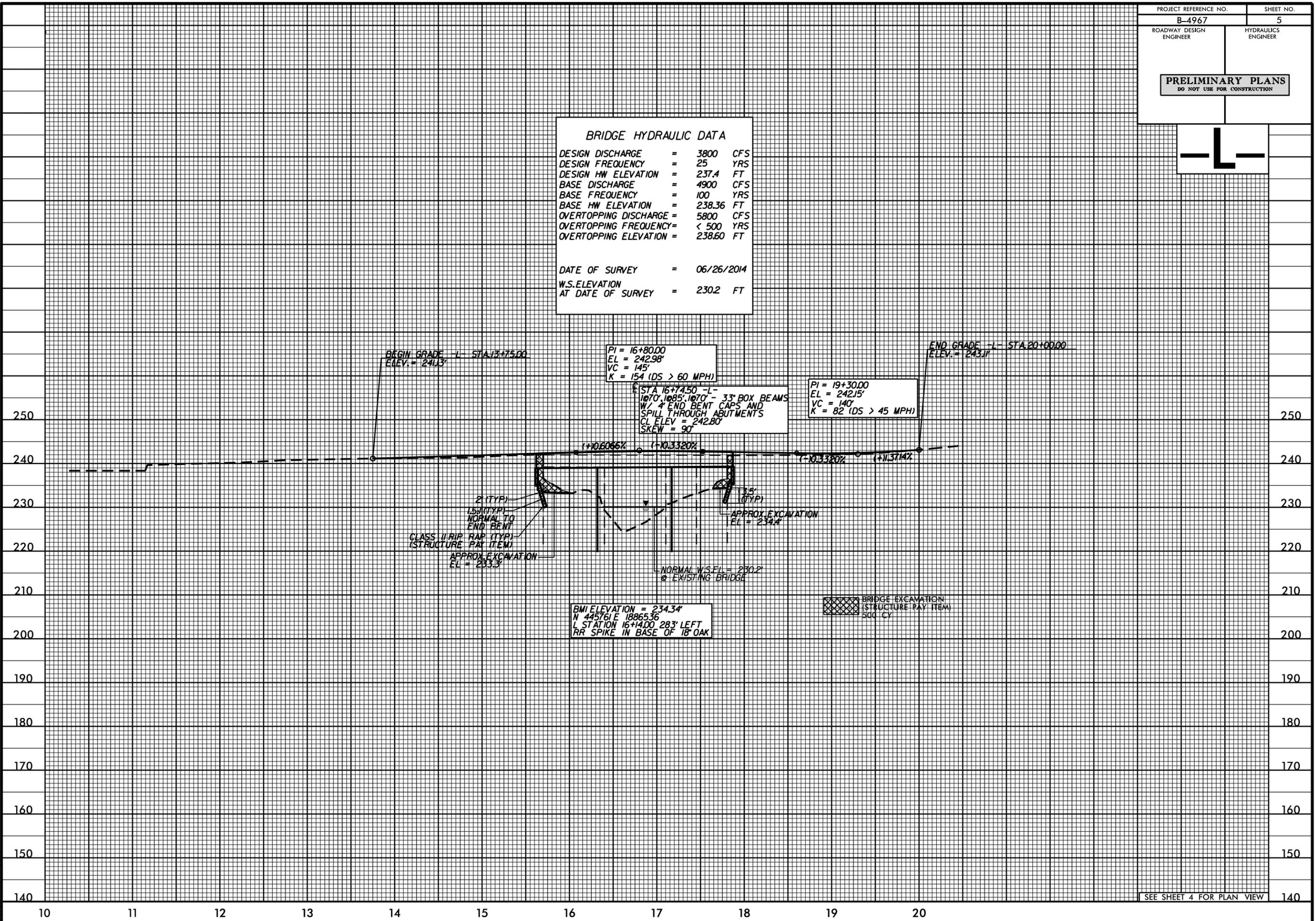
NOTE: SR 1412/SR 1203 (TURNPIKE ROAD) IS A STATE DESIGNATED BICYCLE ROUTE #1, (CAROLINA CONNECTION)

5/14/99

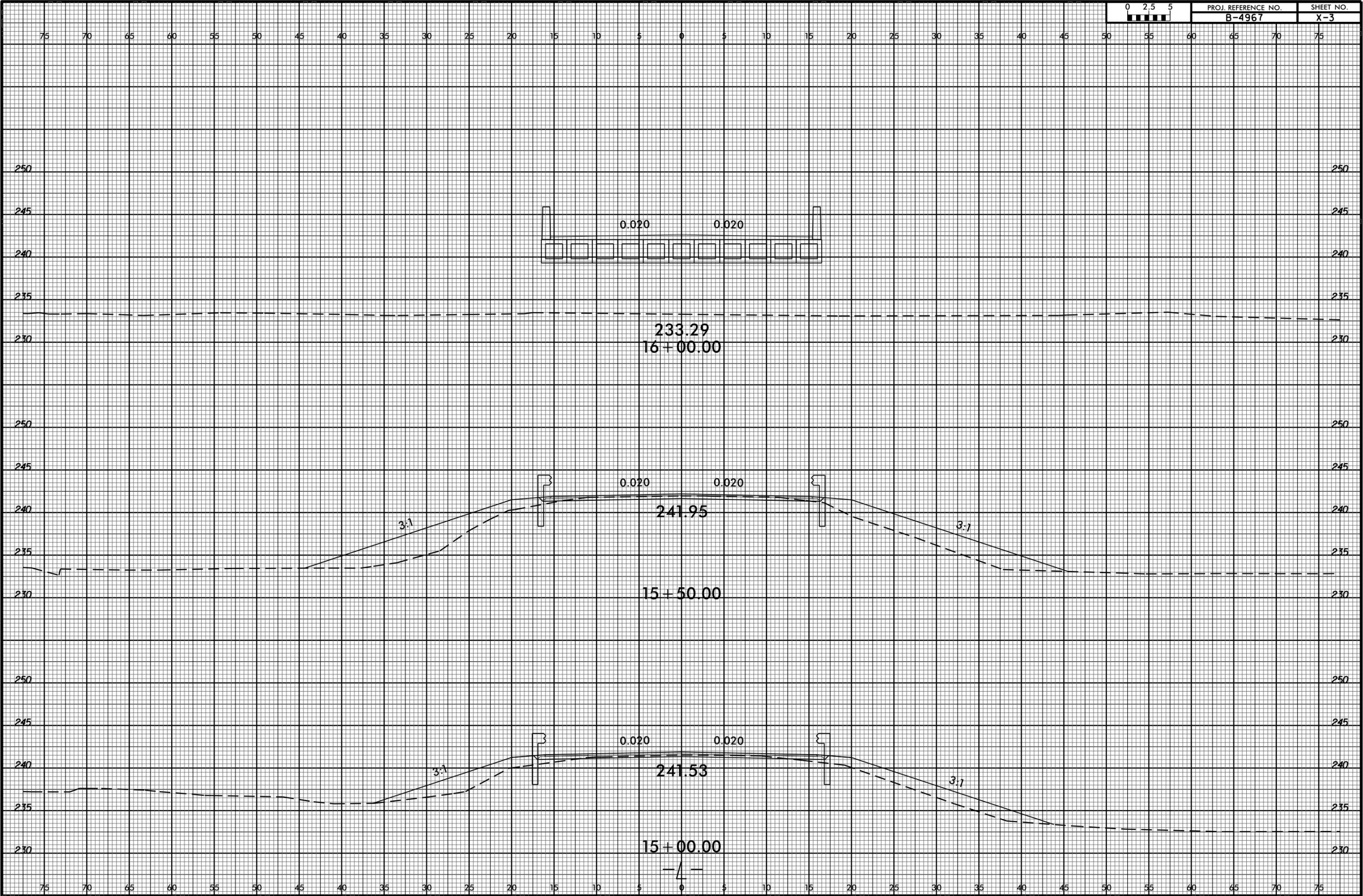
BRIDGE HYDRAULIC DATA

DESIGN DISCHARGE = 3800 CFS
 DESIGN FREQUENCY = 25 YRS
 DESIGN HW ELEVATION = 237.4 FT
 BASE DISCHARGE = 4900 CFS
 BASE FREQUENCY = 100 YRS
 BASE HW ELEVATION = 238.36 FT
 OVERTOPPING DISCHARGE = 5800 CFS
 OVERTOPPING FREQUENCY = < 500 YRS
 OVERTOPPING ELEVATION = 238.60 FT

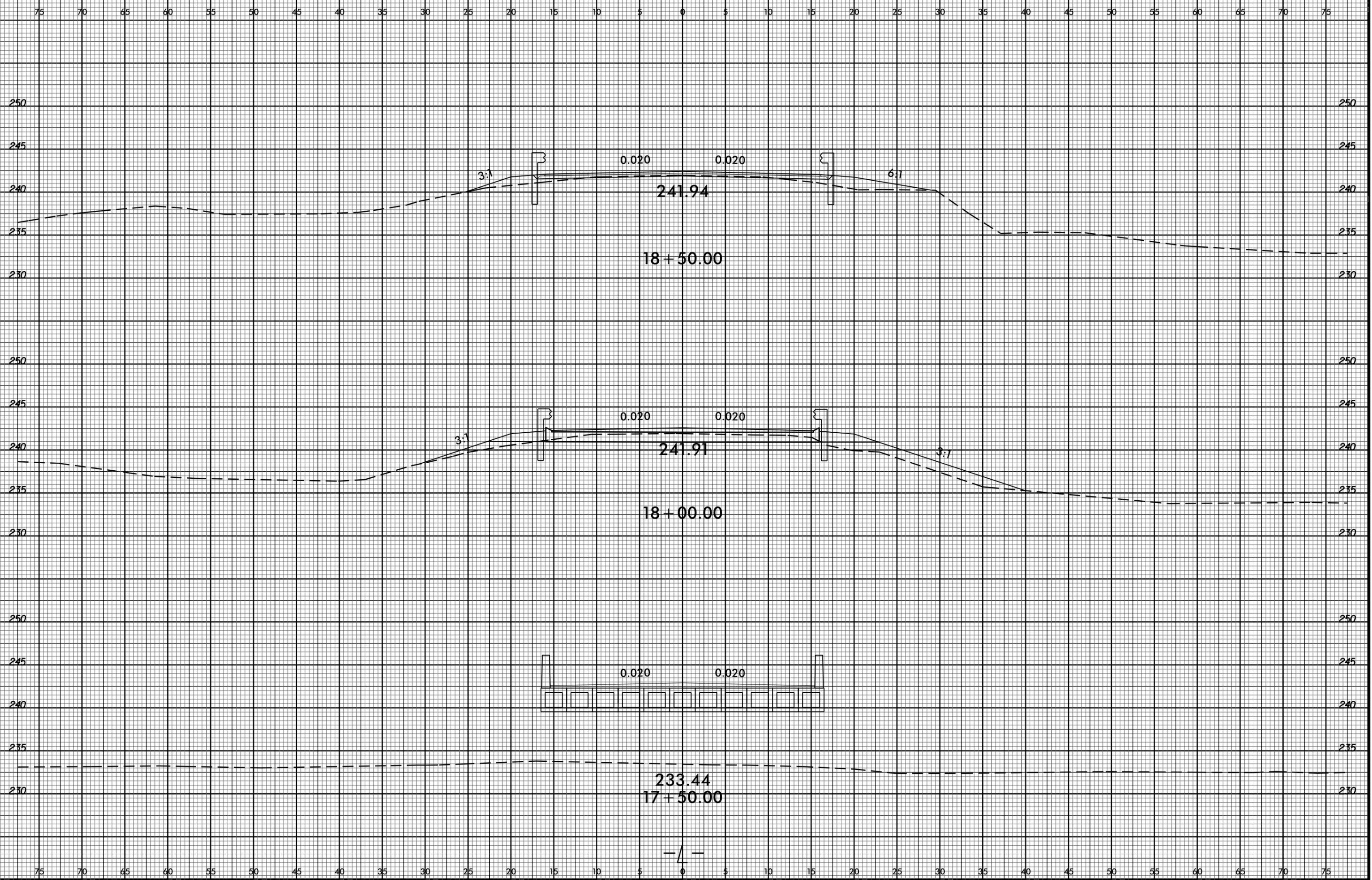
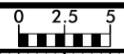
DATE OF SURVEY = 06/26/2014
 W.S. ELEVATION AT DATE OF SURVEY = 230.2 FT



29-JUN-2015 08:41 R:\Roadway\Projects\B4967_rdy_pf1.dgn



8/23/99



29 JUN 2015 08:41
RA\Projects\N\Cur\rdg-Modeling\B4967_Rdy_xpl.dgn
\$\$\$\$USERNAME\$\$\$\$

