



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

PAT L. MCCRORY
GOVERNOR

ANTHONY J. TATA
SECRETARY

July 15, 2013

U.S. Army Corps of Engineers
Regulatory Field Office
151 Patton Avenue, Room 208
Asheville, NC 28801-5006

ATTN: Ms. Lori Beckwith
NCDOT Coordinator

Subject: **Application for Section 404 Nationwide Permit 33** for the Replacement of Bridge# 138 on SR 1151 (Big Pine Road) over Big Pine Creek in Madison County, Federal Aid Project No.BRSTP-1151(6); Division 13; TIP No B-4984, WBS Element 40165.1.1.

Dear Madam:

The North Carolina Department of Transportation (NCDOT) proposes to replace Bridge No. 138 over Big Pine Creek on SR 1151 (Big Pine Road) with a 72- foot, single span cored slab bridge on the existing alignment. There will be a no permanent impacts to surface waters from this action. There will be <0.01 acre of temporary impacts to surface waters resulting from dewatering during the removal of the existing abutments. An onsite detour will utilize an 80-foot temporary bridge to the southwest of the existing bridge that will result in 10 square feet of temporary impacts to surface waters from two interior bents.

Please see enclosed copies of the Pre-Construction Notification (PCN), stormwater management plan, permit drawings, and design plans for the above-referenced project. The Categorical Exclusion (CE) was completed in June 2012 and was distributed shortly thereafter. Additional copies are available upon request.

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

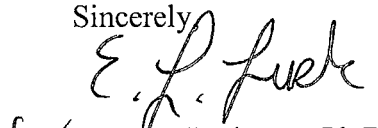
LOCATION:
CENTURY CENTER, BUILDING B
1020 BIRCH RIDGE DRIVE
RALEIGH NC 27610

Correspondence from the North Carolina Wildlife Resources Commission (NCWRC) dated February 11, 2008 offers no moratoriums for the project. By copy of this letter and attachment, NCDOT hereby requests NCWRC review and forward for any updated comments for this project to the Army Corps of Engineers and the NCDOT within 30 calendar days of receipt of this application.

This project calls for a letting date of February 18, 2014 and a review date of December 31, 2013; however, the let date may advance as additional funding becomes available.

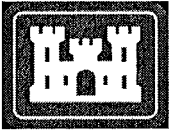
A copy of this permit application and its distribution list will be posted on the NCDOT website at: <https://connect.ncdot.gov/resources/Environmental/Pages/default.aspx>. If you have any questions or need additional information, please e-mail Jeff Hemphill at jhemphill@ncdot.gov.

Sincerely



for Gregory J. Thorpe, Ph.D., Manager
Project Development & Environmental Analysis Unit

Cc: NCDOT Permit Application Standard Distribution List
File



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

Pre-Construction Notification (PCN) Form

A. Applicant Information

1. Processing

1a. Type(s) of approval sought from the Corps:	<input checked="" type="checkbox"/> Section 404 Permit	<input type="checkbox"/> Section 10 Permit
1b. Specify Nationwide Permit (NWP) number: 33 or General Permit (GP) number:		
1c. Has the NWP or GP number been verified by the Corps?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
1d. Type(s) of approval sought from the DWQ (check all that apply):		
<input checked="" type="checkbox"/> 401 Water Quality Certification – Regular <input type="checkbox"/> Non-404 Jurisdictional General Permit <input type="checkbox"/> 401 Water Quality Certification – Express <input type="checkbox"/> Riparian Buffer Authorization		
1e. Is this notification solely for the record because written approval is not required?	For the record only for DWQ 401 Certification: <input 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 138 on SR 1151 (Big Pine Road) over Big Pine Creek
2b. County:	Madison
2c. Nearest municipality / town:	Barnard
2d. Subdivision name:	<i>not applicable</i>
2e. NCDOT only, T.I.P. or state project no:	B-4984

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) 707-6126
3g. Fax no.:	(919) 212-5785
3h. Email address:	jhemphill@ncdot.gov

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

B. Project Information and Prior Project History	
1. Property Identification	
1a. Property identification no. (tax PIN or parcel ID):	<i>not applicable</i>
1b. Site coordinates (in decimal degrees):	Latitude: 35.83927 (DD.DDDDDD) Longitude: - 88.77030 (-DD.DDDDDD)
1c. Property size:	0.20 acre
2. Surface Waters	
2a. Name of nearest body of water (stream, river, etc.) to proposed project:	Big Pine Creek
2b. Water Quality Classification of nearest receiving water:	WS-IV
2c. River basin:	French Broad River
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: Forestland interspersed with residential development and agricultural land.	
3b. List the total estimated acreage of all existing wetlands on the property:	
3c. List the total estimated linear feet of all existing streams (intermittent and perennial) on the property: 275	
3d. Explain the purpose of the proposed project: To replace a structurally deficient (and/ or) functionally obsolete bridge.	
3e. Describe the overall project in detail, including the type of equipment to be used: Replace existing 40' x 23' single span, timber on I-beams bridge with a on the existing alignment. 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 type="checkbox"/> Yes <input checked="" 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: NCDOT Other:
4d. If yes, list the dates of the Corps jurisdictional determinations or State determinations and attach documentation.	
5. Project History	
5a. Have permits or certifications been requested or obtained for this project (including all prior phases) in the past?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown
5b. If yes, explain in detail according to "help file" instructions.	
6. Future Project Plans	
6a. Is this a phased project?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
6b. If yes, explain.	

C. Proposed Impacts Inventory

1. Impacts Summary

1a. Which sections were completed below for your project (check all that apply):

- Wetlands Streams - tributaries Buffers
 Open Waters Pond Construction

2. Wetland Impacts

If there are wetland impacts proposed on the site, then complete this question for each wetland area impacted.

2a. Wetland impact number – Permanent (P) or Temporary (T)	2b. Type of impact	2c. Type of wetland (if known)	2d. Forested	2e. Type of jurisdiction (Corps - 404, 10 DWQ – non-404, other)	2f. Area of impact (acres)
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					

2h. Comments: The two wetlands onsite will not be impacted by the 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 type="checkbox"/> P <input checked="" type="checkbox"/> T	Dewatering	Big Pine Creek	<input checked="" type="checkbox"/> PER <input type="checkbox"/> INT	<input checked="" type="checkbox"/> Corps <input type="checkbox"/> DWQ	13	43
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 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 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						43 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				

4g. Comments:

5. Pond or Lake Construction

If pond or lake construction proposed, then complete the chart below.

5a. Pond ID number	5b. Proposed use or purpose of pond	5c. Wetland Impacts (acres)			5d. Stream Impacts (feet)			5e. Upland (acres)
		Flooded	Filled	Excavated	Flooded	Filled	Excavated	Flooded
P1								
P2								
5f. Total								

5g. Comments:

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

6. Buffer Impacts (for DWQ)

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

6a. Project is in which protected basin?			<input type="checkbox"/> Neuse	<input type="checkbox"/> Tar-Pamlico	<input type="checkbox"/> Other:
			<input checked="" 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: Project is not on the main stem of the Catawba					

D. Impact Justification and Mitigation**1. Avoidance and Minimization**

1a. Specifically describe measures taken to avoid or minimize the proposed impacts in designing project.

Preformed Scour Holes will be utilized on both sides of the proposed bridge. Due to a 303(d) stream within one mile downstream of the bridge; Design Standards in Sensitive Watersheds will be implemented for the project. No deck drains on the proposed bridge.

1b. Specifically describe measures taken to avoid or minimize the proposed impacts through construction techniques.

Existing grass lined ditches will be maintained for stormwater runoff treatment.

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?

Yes No

If no, explain:

2b. If yes, mitigation is required by (check all that apply):

DWQ Corps

2c. If yes, which mitigation option will be used for this project?

Mitigation bank
 Payment to in-lieu fee program
 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.

Yes

4b. Stream mitigation requested:

4c. If using stream mitigation, stream temperature:

warm cool 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:

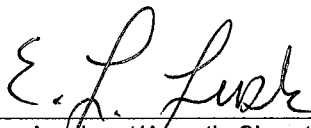
5. Complete if Using a Permittee Responsible Mitigation Plan

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?				<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
6b. If yes, then identify the square feet of impact to each zone of the riparian buffer that requires mitigation. Calculate the amount of mitigation required.					
Zone	6c. Reason for impact	6d. Total impact (square feet)	Multiplier	6e. Required mitigation (square feet)	
Zone 1			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: If required from 1a, see attached buffer permit drawings.	<input type="checkbox"/> Yes <input type="checkbox"/> No
2. Stormwater Management Plan	
2a. What is the overall percent imperviousness of this project?	N/A
2b. Does this project require a Stormwater Management Plan?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
2c. If this project DOES NOT require a Stormwater Management Plan, explain why:	
2d. If this project DOES require a Stormwater Management Plan, then provide a brief, narrative description of the plan: See 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?	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 type="checkbox"/> Yes <input type="checkbox"/> No N/A
5b. Have all of the 401 Unit submittal requirements been met?	<input type="checkbox"/> Yes <input type="checkbox"/> No N/A

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

5. Endangered Species and Designated Critical Habitat (Corps Requirement)		
5a. Will this project occur in or near an area with federally protected species or habitat?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
5b. Have you checked with the USFWS concerning Endangered Species Act impacts?	<input 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? A habitat assessment for Virginia big-eared bats was conducted on February 14, 2008 by NCDOT biologists with a determination of No Habitat – 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 <small>(Agent's signature is valid only if an authorization letter from the applicant is provided.)</small>	7-16-13 Date



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



(Version 1.2; Released July 2012)

Project/TIP No.: B-4984

County(ies): MADISON

Page 1 **of** 2

General Project Information

Project No.:	B-4984	Project Type:	Bridge Replacement	Date:	3/18/2013
NCDOT Contact:		Contractor / Designer:	Steve Bondor, P.E. Stantec		
Address:		Address:	5565 Centerview Drive Suite 107 Raleigh NC 27606		
Phone:		Phone:	919-859-1919		
Email:		Email:	steven.bondor@stantec.com		
City/Town:	BARNARD	County(ies):	Madison		
River Basin(s):	French Broad	CAMA County?	No		
Primary Receiving Water:	Big Pine Creek	NCDWQ Stream Index No.:	6-108		
NCDWQ Surface Water Classification for Primary Receiving Water		Primary:	Class C		
		Supplemental:	None		
Other Stream Classification:	None				
303(d) Impairments:	None				
Buffer Rules in Effect	N/A				

Project Description

Project Length (lin. Miles or feet):	0.09 miles	Surrounding Land Use:	rural residential / forest		
	Proposed Project		Existing Site		
Project Built-Upon Area (ac.)	0.20 ac.		0.20 ac.		
Typical Cross Section Description:	Normal crown shoulder section with 10' travel lanes and 6' shoulders				
Average Daily Traffic (veh/hr/day):	Design/Future:	2033 / 785 VPD	Existing:	2013 / 645 VPD	

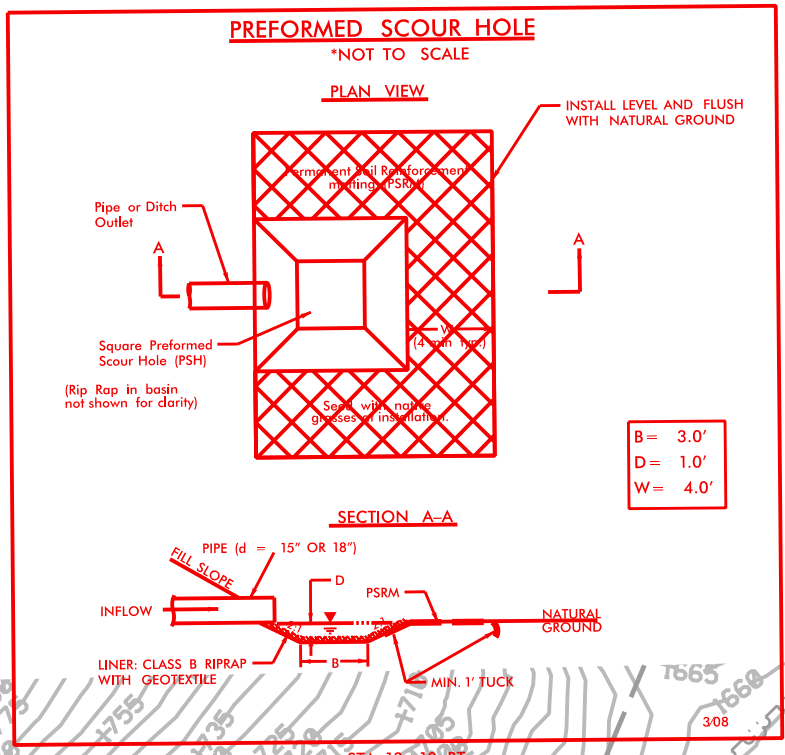
General Project Narrative: Maintain existing roadway grass ditches, add inlets and pipes for driveway crossing and bridge drainage. Preformed Scour Holes will be used at pipe system and bridge drainage outfall. No construction or demolition impacts to stream are anticipated per the NCDOT Division Construction Engineer.

References

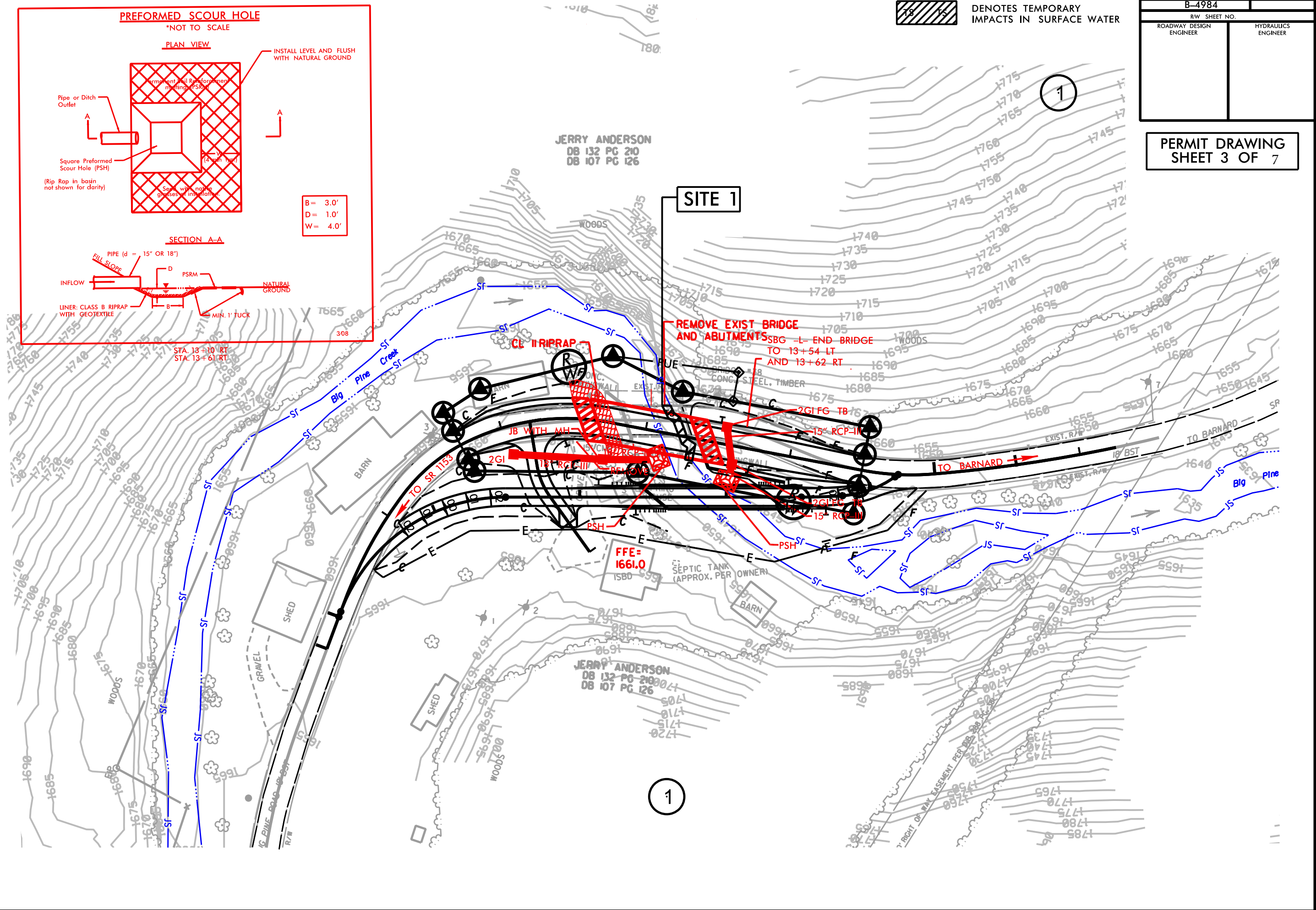
PROJECT REFERENCE NO.	SHEET NO.
B-4984	
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PERMIT DRAWING
SHEET 3 OF 7

 DENOTES TEMPORARY IMPACTS IN SURFACE WATER



8.17/99



SITE 1

1

B = 3.0'
D = 1.0'
W = 4.0'

JERRY ANDERSON
DB 132 PG 210
DB 107 PG 126

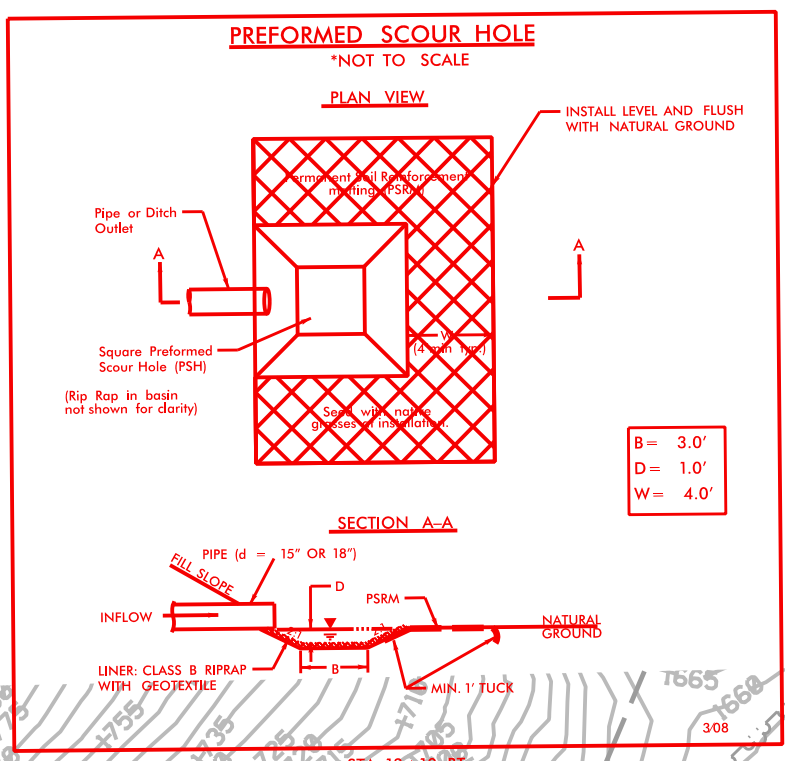
JERRY ANDERSON
DB 132 PG 210
DB 107 PG 126

05/02/2013
STANTEC
B-4984_PERMIT PACKAGE_03/05/2013

PROJECT REFERENCE NO. B-4984	SHEET NO.
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PERMIT DRAWING
SHEET 5 OF 7

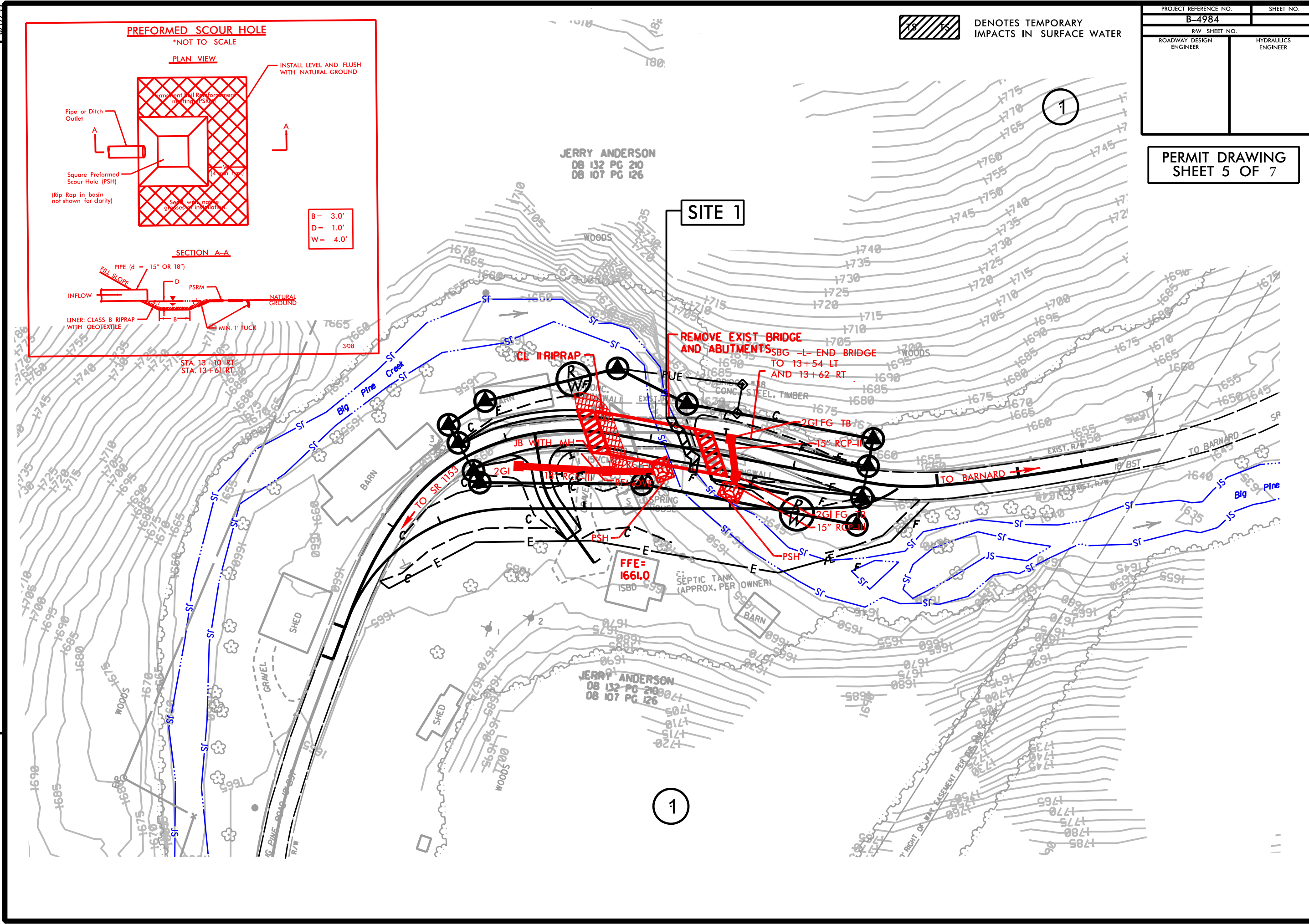
 DENOTES TEMPORARY IMPACTS IN SURFACE WATER



JERRY ANDERSON
DB 132 PG 210
DB 107 PG 126

SITE 1

REMOVE EXIST BRIDGE
AND ABUTMENTS
SBG = L END BRIDGE
TO 13+54 LT
AND 13+62 RT

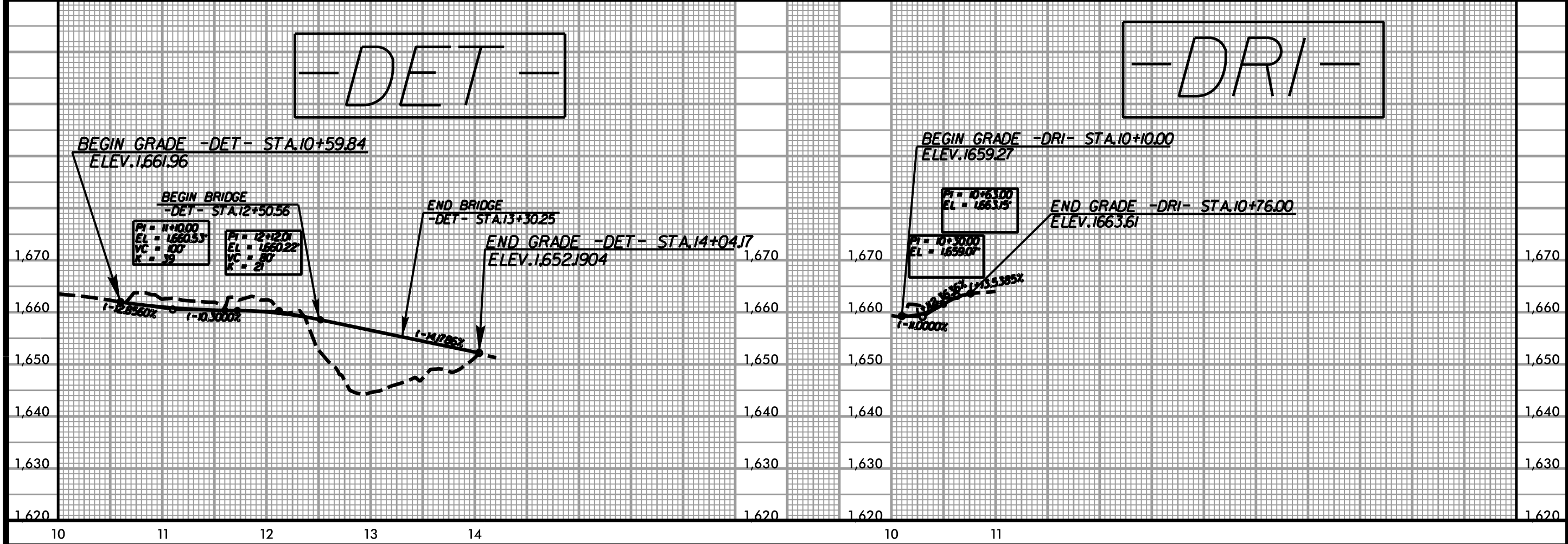
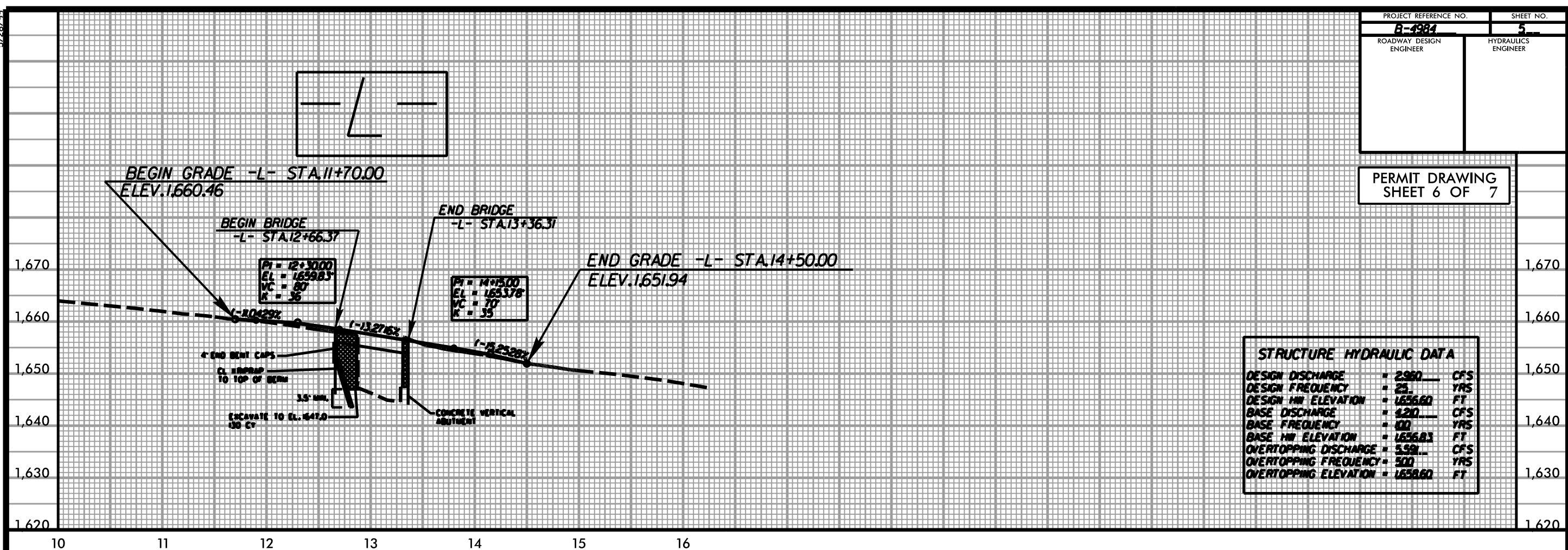


05/02/2013
STANTEC
B-4984_PERMIT PACKAGE_03/05/2013

5/28/99

PROJECT REFERENCE NO. B-4984	SHEET NO. 5
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PERMIT DRAWING SHEET 6 OF 7



03/05/2013
STANTEC
B-4984_PERMIT PACKAGE_03/05/2013

WETLAND PERMIT IMPACT SUMMARY

Site No.	Station (From/To)	Structure Size / Type	WETLAND IMPACTS					SURFACE WATER IMPACTS				
			Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)
1	L-STA. 13+08 LT TO 13+35 RT	BRIDGE						<0.01			43	
TOTALS:								<0.01			43	

There will be 10 sq. ft. of temporary impacts from two interior bents on the temporary detour bridge.

NC DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

 COUNTY
 40165.1.1 (B-4984)

 PERMIT DRAWINGS 7 OF 7 5/2/2013

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

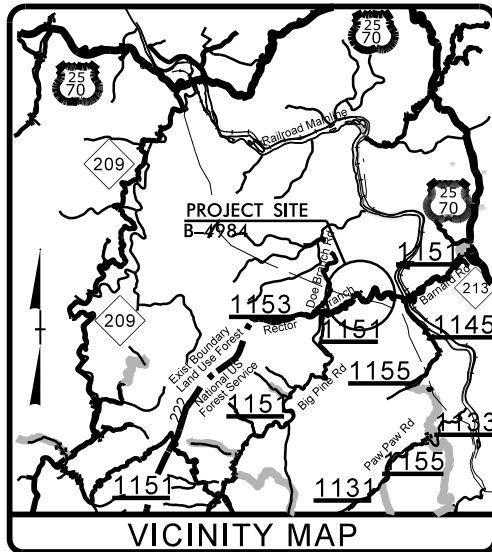
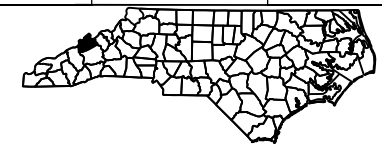
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

MADISON COUNTY

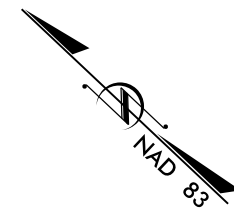
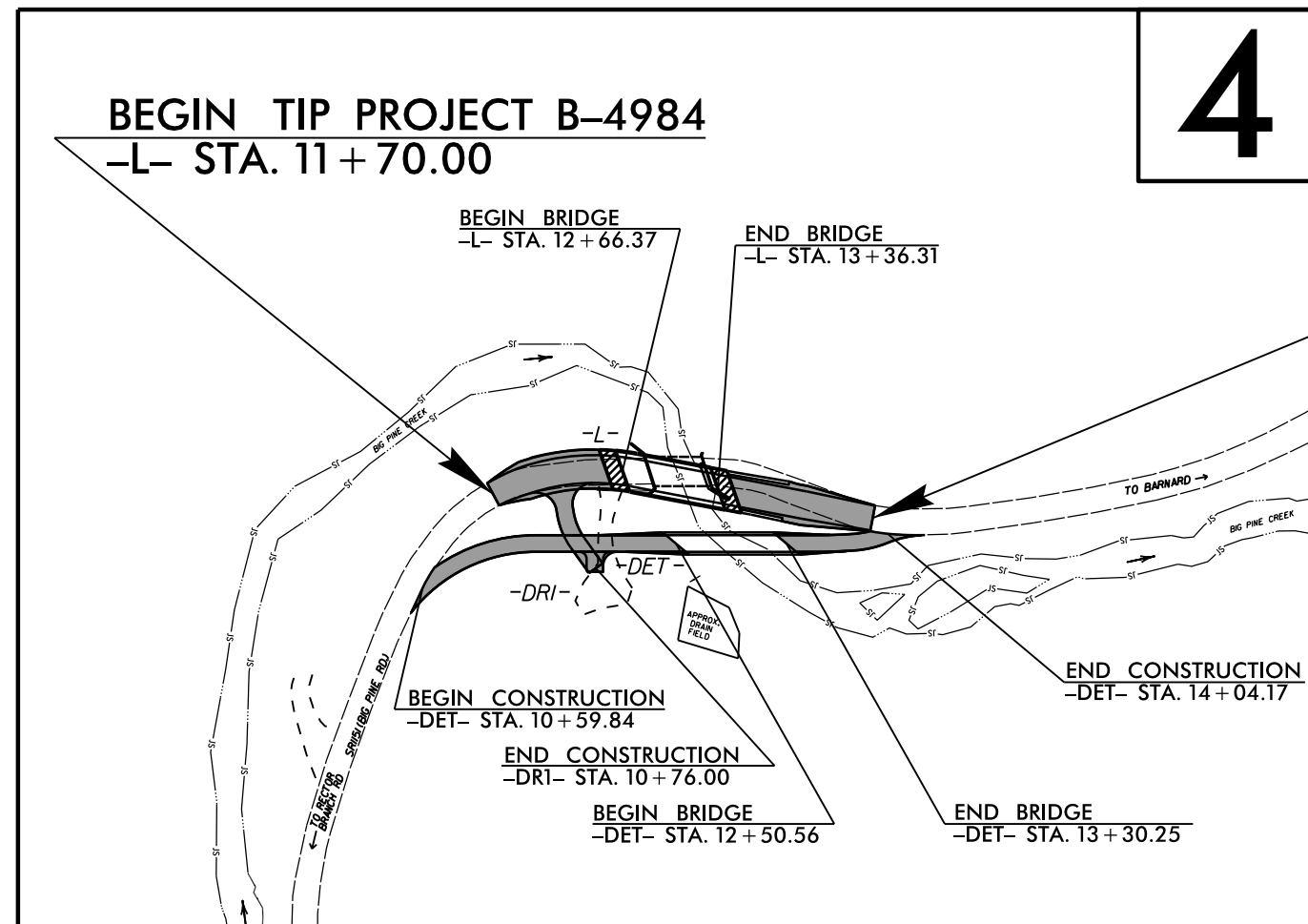
LOCATION: BRIDGE No. 138 OVER BIG PINE CREEK ON
SR 1151 (BIG PINE RD.)

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

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-4984	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
40165.1.1	BRSTP-1151(6)	PE	
40165.2.1	BRSTP-1151(6)	ROW, UTIL.	



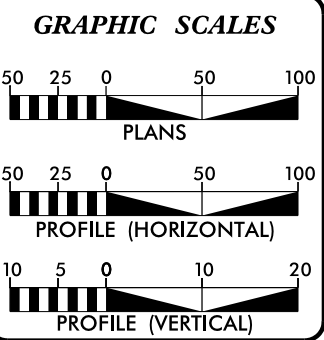
TIP PROJECT: B-4984



END TIP PROJECT B-4984
-L- 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 II.

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION



DESIGN DATA

ADT 2013 =	645
ADT 2033 =	785
DHV =	12 %
D =	60 %
T =	3 % *
V =	20 MPH
*(TTST 1% + DUAL 2%)	
FUNC CLASS. =	RURAL LOCAL
CLASS. =	SUBREGIONAL

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT B-4984	=	0.040
LENGTH STRUCTURE TIP PROJECT B-4984	=	0.013
TOTAL LENGTH TIP PROJECT B-4984	=	0.053

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

2012 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
OCTOBER 24, 2012

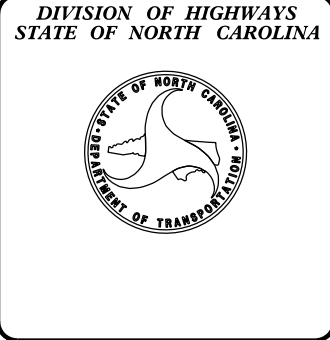
LETTING DATE:
FEBRUARY 18, 2014

HYDRAULICS ENGINEER

SIGNATURE: _____ P.E.

ROADWAY DESIGN ENGINEER

SIGNATURE: _____ P.E.



04-FEB-2013 11:18
R:\PROJECTS\118\118_04\B4984_Rdy_tsh.dgn
\$\$\$\$\$USERNAME\$\$\$\$\$

CONTRACT:

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

CONVENTIONAL PLAN SHEET SYMBOLS

Note: Not to Scale

*S.U.E. = Subsurface Utility Engineering

BOUNDARIES AND PROPERTY:

State Line	-----
County Line	-----
Township Line	-----
City Line	-----
Reservation Line	-----
Property Line	-----
Existing Iron Pin	○ EP
Property Corner	-----
Property Monument	□ ECM
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	---MLB---
Proposed Wetland Boundary	---MLB---
Existing Endangered Animal Boundary	---EAB---
Existing Endangered Plant Boundary	---EPB---
Known Soil Contamination: Area or Site	☠ ☠
Potential Soil Contamination: Area or Site	☠ ☠

BUILDINGS AND OTHER CULTURE:

Gas Pump Vent or U/G Tank Cap	○
Sign	○ S
Well	○ W
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	○ MILEPOST 35
Switch	□ 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	○ CR
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	□ Vineyard

EXISTING STRUCTURES:

MAJOR:	
Bridge, Tunnel or Box Culvert	-----
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	-----
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	-----

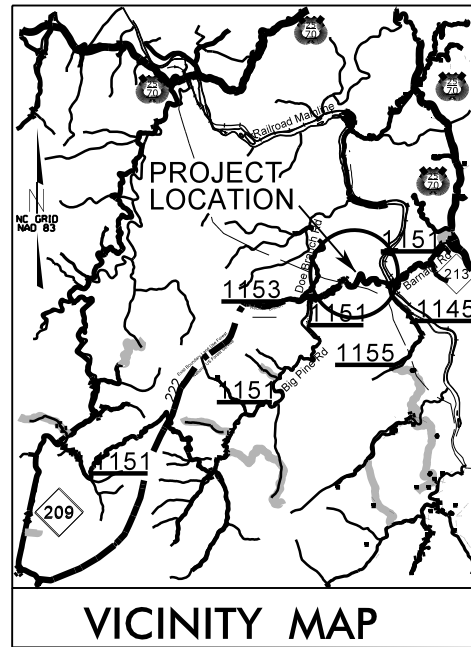
SANITARY SEWER:

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.

SURVEY CONTROL SHEET B-4984



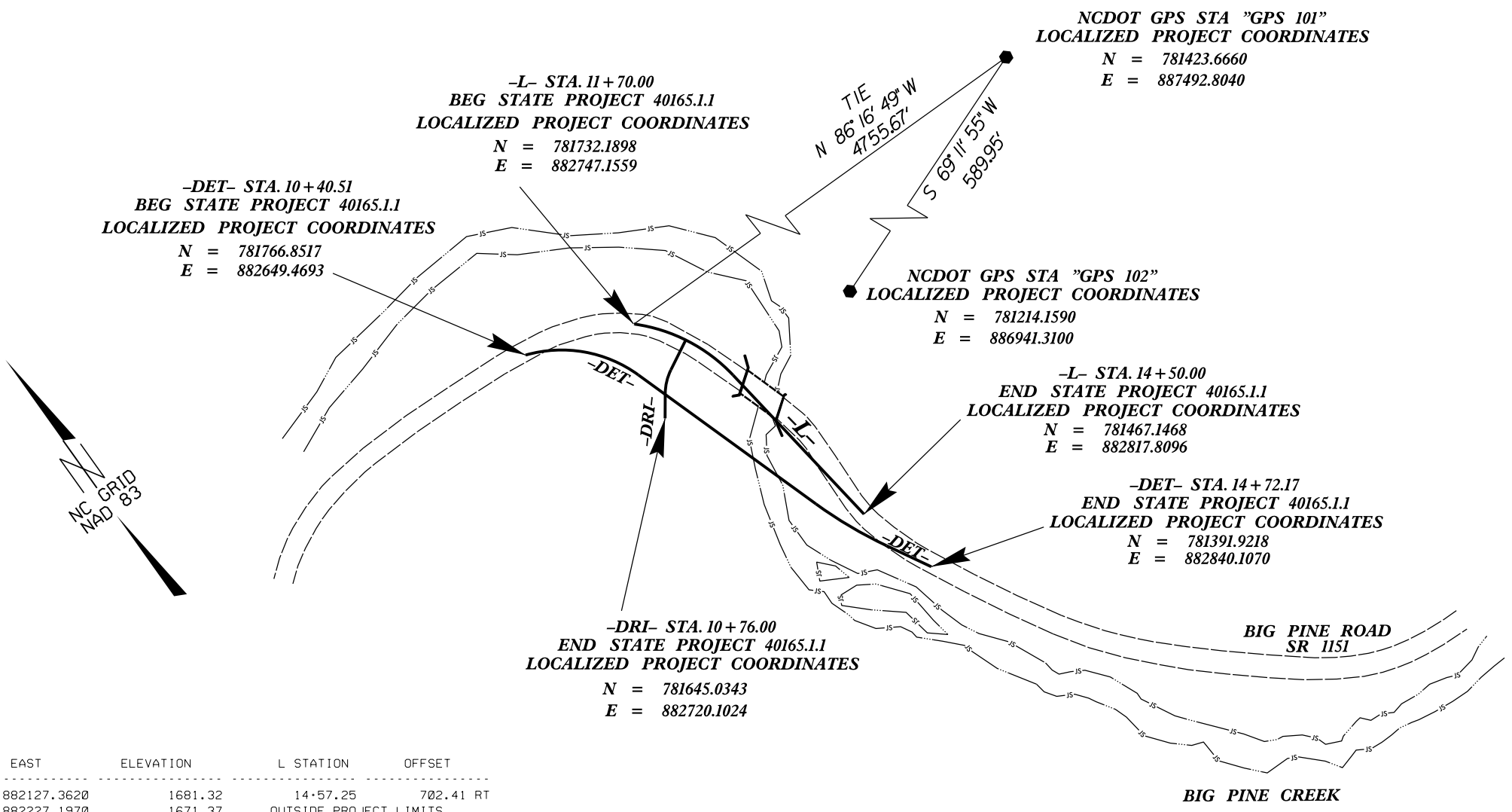
.....
 BM1 ELEVATION = 1677.67
 N 781468 E 882150
 BL STATION 13+68.00 25 LEFT
 RAILROAD SPIKE IN TELEPHONE POLE

.....
 BM3 ELEVATION = 1661.20
 N 781751 E 882747
 BL STATION 21+04.00 53 LEFT
 RAILROAD SPIKE IN POWER POLE

BL	POINT	DESC.	NORTH	EAST	ELEVATION	L STATION	OFFSET
4	BL-4		781337.0860	882127.3620	1681.32	14+57.25	702.41 RT
5	BL-5		781602.3130	882227.1970	1671.37	OUTSIDE PROJECT LIMITS	
6	BL-6		781784.3240	882445.4160	1667.23	OUTSIDE PROJECT LIMITS	
7	BL-7		781681.1610	882795.8680	1658.26	12+37.49	12.02 LT
8	BL-8		781366.7090	882843.7080	1649.32	15+52.56	10.66 RT
9	BL-9		781076.8080	883083.5440	1636.28	OUTSIDE PROJECT LIMITS	

NOTES:

- THE CONTROL DATA FOR THIS PROJECT CAN BE FOUND ELECTRONICALLY BY SELECTING PROJECT CONTROL DATA AT:
[HTTP://WWW.DOH.DOT.STATE.NC.US/PRECONSTRUCT/HIGHWAY/LOCATION/PROJECT/](http://www.doh.dot.state.nc.us/preconstruct/highway/location/project/)
 THE FILES TO BE FOUND ARE AS FOLLOWS:
 B4984_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)
 BL-1 THROUGH BL-3 ARE NOT SHOWN AS THEY ARE NOT WITHIN THE PROJECT LIMITS.



DATUM DESCRIPTION
 THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY OTHERS FOR MONUMENT "GPS-101"
 WITH NAD 83 STATE PLANE GRID COORDINATES OF
 NORTHING: 781423.6660 (ft) EASTING: 887492.8040 (ft)
 THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.9998572246
 THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "GPS-101" TO -L- STATION 11+70.00 IS
 N 86° 16' 49" W 4755.67'
 ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES
 VERTICAL DATUM USED IS NAVD 88

NOTE: DRAWING NOT TO SCALE

5/28/99
 04-FEB-2013 JH8
 P:\Roadwork\Projects\B4984_1s_1c.dgn
 11:51:58 AM

SURVEY CONTROL SHEET B-4984

PRELIMINARY

(DESIGN ALIGNMENTS)

DET			
TYPE	STATION	NORTH	EAST
POT	10+00.00	781773.7821	882609.7427
PC	10+03.73	781773.6567	882613.4734
PT	11+49.43	781691.8221	882723.2333
PC	13+51.30	781500.3911	882787.3247
PCC	13+79.38	781474.1008	882797.1655
PT	14+17.87	781444.2684	882820.7122
POT	14+20.56	781442.6885	882822.8896

DR1			
TYPE	STATION	NORTH	EAST
POT	10+00.00	781692.6170	882777.3570
PC	10+30.59	781678.2321	882750.3580
PT	10+53.41	781663.3553	882733.3178
POT	11+00.00	781625.5697	882706.0620

L			
TYPE	STATION	NORTH	EAST
POT	10+00.00	781774.5637	882586.4919
PC	10+34.68	781773.3986	882621.1511
PCC	11+18.67	781758.4194	882703.4895
PCC	11+70.56	781731.8064	882747.5610
PT	12+74.46	781641.0700	882794.0241
PC	14+50.00	781467.1468	882817.8096
PCC	14+98.66	781420.3869	882830.7498
PT	16+25.00	781307.6751	882887.6334

(ROW MARKERS)

ROW MARKER IRON PIN AND CAP-E				
ALIGN	STATION	OFFSET	NORTH	EAST
L	11+70.00	20.00	781717.6318	882733.4423
L	11+70.00	11.00	781724.1829	882739.6134
L	11+70.00	-11.00	781740.1967	882754.6984
L	11+70.00	-25.00	781750.3873	882764.2980
L	11+95.00	-30.00	781731.8322	882787.7146
L	12+70.00	-45.00	781652.8627	882837.7460
L	13+00.00	30.00	781611.6985	882767.7616
L	13+20.00	-29.93	781600.0030	882829.8468
L	14+50.00	30.00	781463.0818	882788.0863
L	14+50.00	11.00	781465.6563	882806.9111
L	14+50.00	-11.00	781468.6372	882828.7082
L	14+50.00	-30.00	781471.2117	882847.5329

(PERMANENT EASEMENTS)

ROW MARKER PERMANENT EASEMENT-E				
ALIGN	STATION	OFFSET	NORTH	EAST
L	13+55.00	-29.95	781565.3284	882834.6084
L	13+55.00	-50.00	781568.0455	882854.4762

NOTES:

- THE CONTROL DATA FOR THIS PROJECT CAN BE FOUND ELECTRONICALLY BY SELECTING PROJECT CONTROL DATA AT:
[HTTP://WWW.DOH.DOT.STATE.NC.US/PRECONSTRUCT/HIGHWAY/LOCATION/PROJECT/](http://www.doh.dot.state.nc.us/preconstruct/highway/location/project/)
THE FILES TO BE FOUND ARE AS FOLLOWS:
B4984_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)
BL-1 THROUGH BL-6 ARE NOT SHOWN AS THEY ARE NOT WITHIN THE PROJECT LIMITS.

DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY OTHERS FOR MONUMENT "GPS-101"
WITH NAD 83 STATE PLANE GRID COORDINATES OF
NORTHING: 781423.6660 (ft) EASTING: 887492.8040 (ft)
THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT
(GROUND TO GRID) IS: 0.9998572246
THE N.C. LAMBERT GRID BEARING AND
LOCALIZED HORIZONTAL GROUND DISTANCE FROM
"GPS-101" TO -L- STATION 11+70.00 IS
N 86° 16' 49" W 4755.67'
ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES
VERTICAL DATUM USED IS NAVD 88

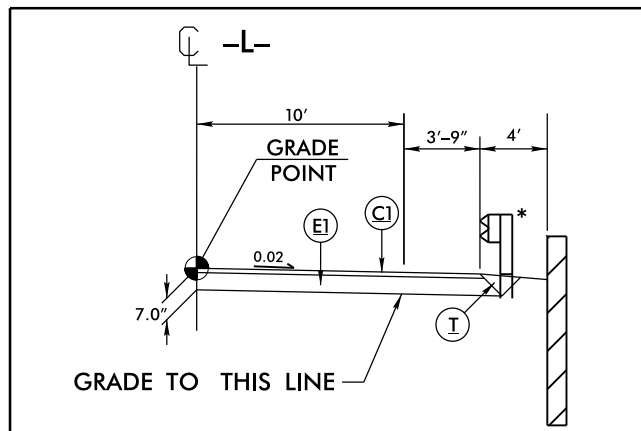
NOTE: DRAWING NOT TO SCALE

PAVEMENT SCHEDULE
(FINAL PAVEMENT DESIGN)

C1	PROP. APPROX. 2.5" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 137.5 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.	R1	CONCRETE SHOULDER BERM GUTTER.
C2	PROP. APPROX. 1.25" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 137.5 LBS. PER SQ. YD.	T	EARTH MATERIAL.
E1	PROP. APPROX. 4.5" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 513 LBS. PER SQ. YD.	U ₋	EXISTING PAVEMENT.
E2	PROP. APPROX. 4.0" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.	W	VARIABLE DEPTH ASPHALT PAVEMENT (SEE STANDARD WEDGING DETAIL).

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

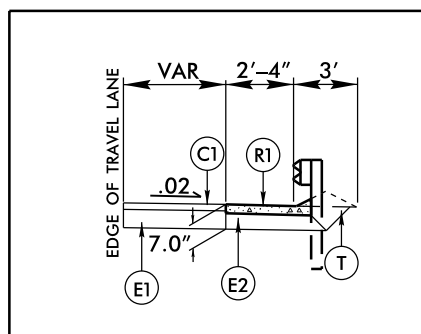
RETAINING WALL DETAIL



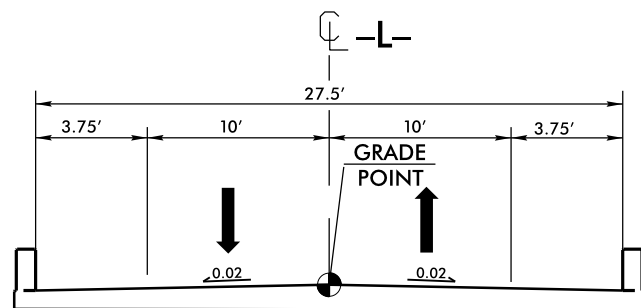
* USE 3'-1.5" GUARDRAIL POST SPACING

-L- STA. 13+36.31 (END BRIDGE) TO STA. 13+80.00 RT
USE IN CONJUNCTION WITH TYPICAL SECTION NO. 1

SHOULDER BERM GUTTER DETAIL



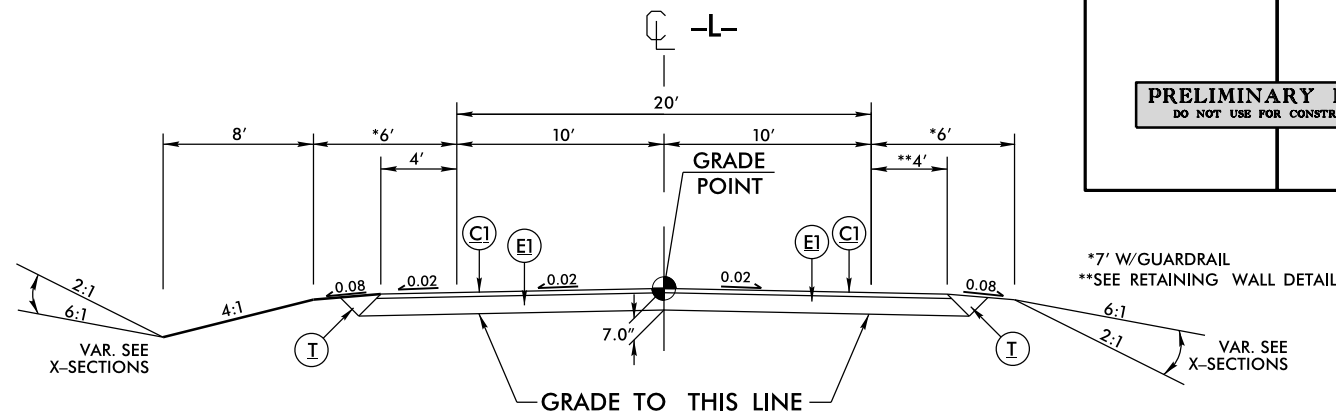
-L- STA 13+28.27 (END BRIDGE TO -L- STA 13+54.00 LT
-L- STA 13+44.34 (END BRIDGE) TO -L- STA 13+62.00 RT



USE BRIDGE TYPICAL SECTION NO. 1
-L- STA. 12+66.37 TO STA. 13+36.31

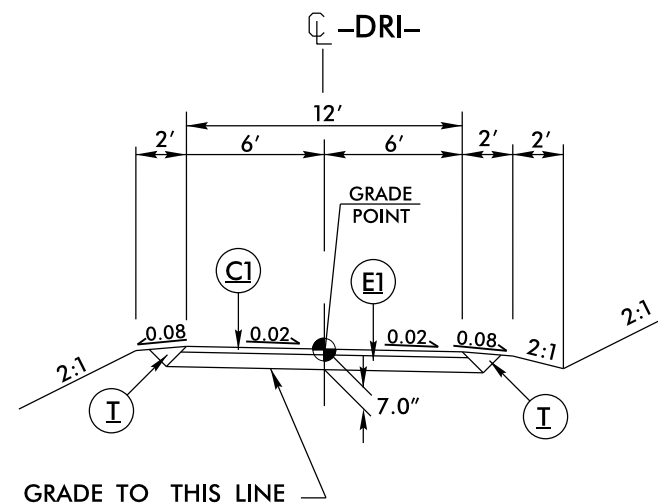
PROJECT REFERENCE NO. B-4984	SHEET NO. 2
ROADWAY DESIGN	PAVEMENT DESIGN ENGINEER
	ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION



USE TYPICAL SECTION NO. 1

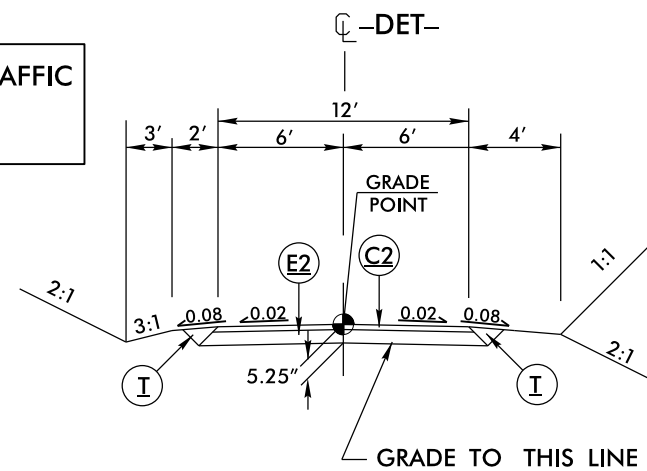
-L- STA. 11+70.00 TO STA. 12+66.37 (BEGIN BRIDGE)
-L- STA. 13+36.31 (END BRIDGE) TO STA. 14+50.00



USE TYPICAL SECTION NO. 2

-DRI- Sta. 10+10.00 to Sta. 10+76.00

NOTE: ONE LANE TWO WAY TRAFFIC TO BE MAINTAINED UTILIZING TEMPORARY TRAFFIC SIGNAL.

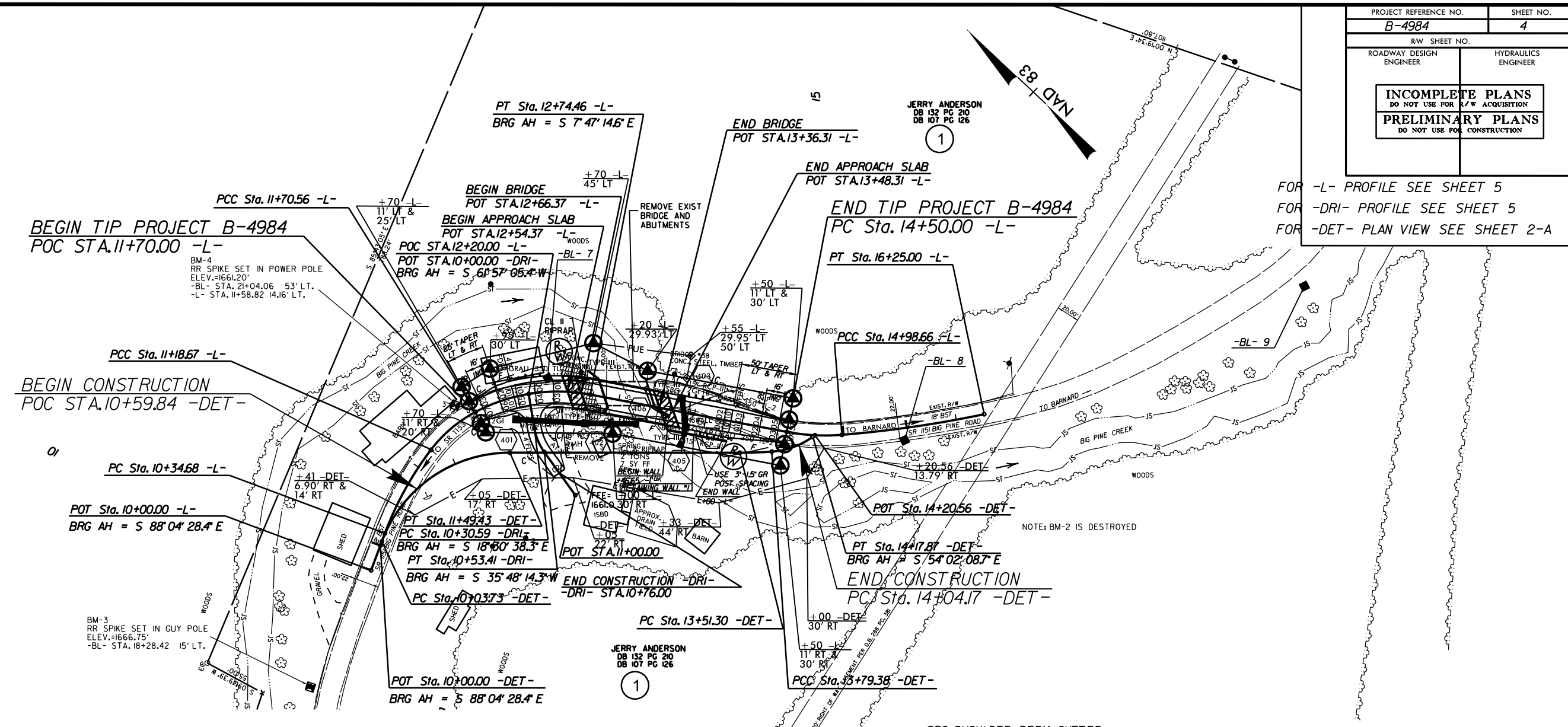


USE TYPICAL SECTION NO. 3

-DET- STA. 10+59.84 TO STA. 12+50.56 (BEGIN BRIDGE)
-DET- STA. 13+30.25 (END BRIDGE) TO STA. 14+04.17

PROJECT REFERENCE NO. B-4984	SHEET NO. 4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

FOR -L- PROFILE SEE SHEET 5
 FOR -DRI- PROFILE SEE SHEET 5
 FOR -DET- PLAN VIEW SEE SHEET 2-A



-L-

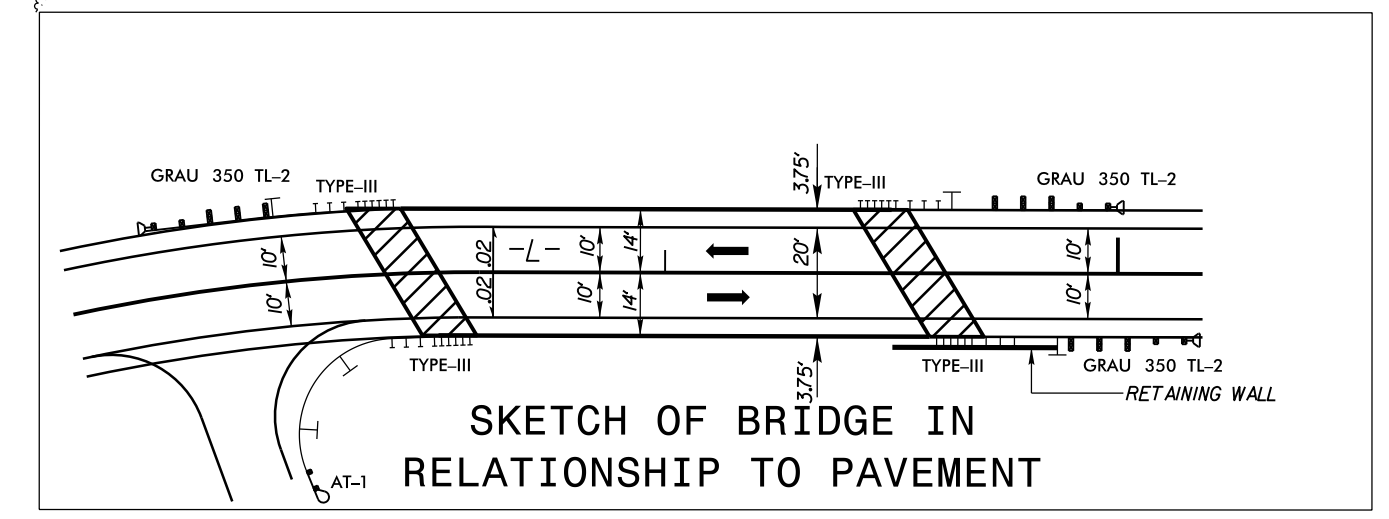
PI Sta 10+76.98 Δ = 16° 46' 13.0" (RT) D = 19' 58" 01.7" L = 83.99' T = 42.30' R = 286.95' SE = EXIST.	PI Sta 11+45.03 Δ = 24° 51' 38.8" (RT) D = 47' 54" 39.4" L = 51.89' T = 26.36' R = 119.59' SE = EXIST.	PI Sta 12+24.57 Δ = 38° 39' 22.0" (RT) D = 37' 12" 18.2" L = 103.90' T = 54.01' R = 154.00' SE = SEE PLANS RO = SEE PLANS	PI Sta 14+74.48 Δ = 15° 21' 45.3" (LT) D = 31' 34" 09.6" L = 48.66' T = 24.48' R = 181.49' SE = EXIST.	PI Sta 15+61.92 Δ = 7° 15' 31.0" (LT) D = 5' 44" 43.5" L = 126.34' T = 63.25' R = 997.24' SE = EXIST.
--	--	--	--	---

-DRI-

PI Sta 10+42.20 Δ = 26° 08' 51.2" (LT) D = 114' 35' 29.6" L = 22.82' T = 11.61' R = 50.00' SE = SEE PLANS

-DET-

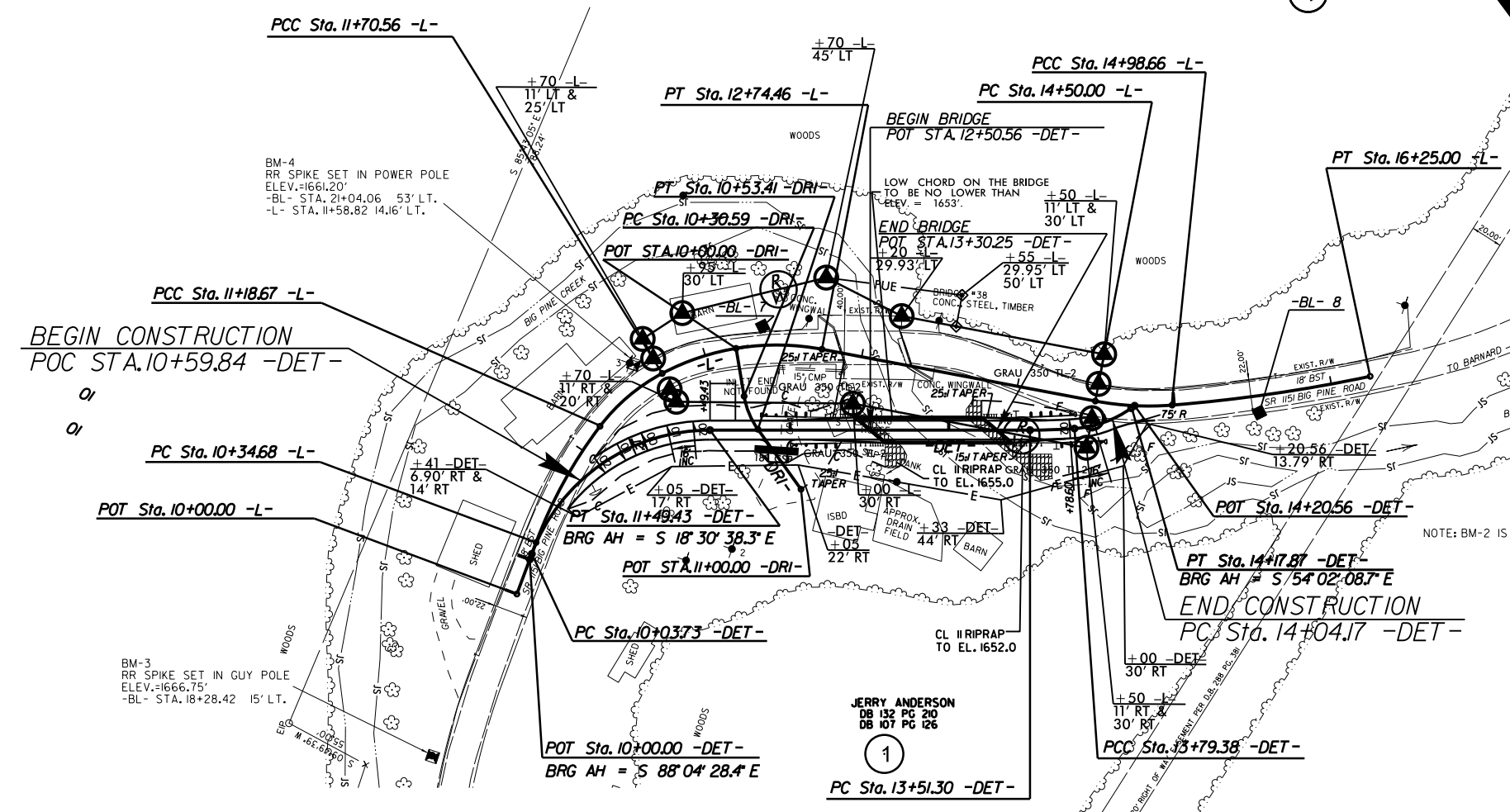
PI Sta 10+87.08 Δ = 69° 33' 50.1" (RT) D = 47' 44" 47.3" L = 145.69' T = 83.35' R = 120.00' SE = 04 RO = 64'	PI Sta 13+65.35 Δ = 4° 01' 18.5" (LT) D = 14' 19" 26.2" L = 28.08' T = 14.04' R = 400.00' SE = SEE PLANS	PI Sta 13+99.12 Δ = 31° 30' 12.0" (LT) D = 81' 51" 04.0" L = 38.49' T = 19.74' R = 70.00' SE = SEE PLANS
---	--	--



8/17/99
 REVISIONS
 R/W REVISION: UPDATED RIGHT OF WAY OFFSET DISTANCES AT PROPOSED RIGHT OF WAY MONUMENTS. 2/11/2013 AJF
 04-FEB-2013 jhb
 04-FEB-2013 jhb
 04-FEB-2013 jhb

PROJECT REFERENCE NO. B-4984	SHEET NO. 4-A
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

FOR -DET- PROFILE SEE SHEET 5
FOR -L- & -DRI- PLAN VIEW SEE SHEET 4
USE THIS SHEET FOR DETOUR CONSTRUCTION ONLY

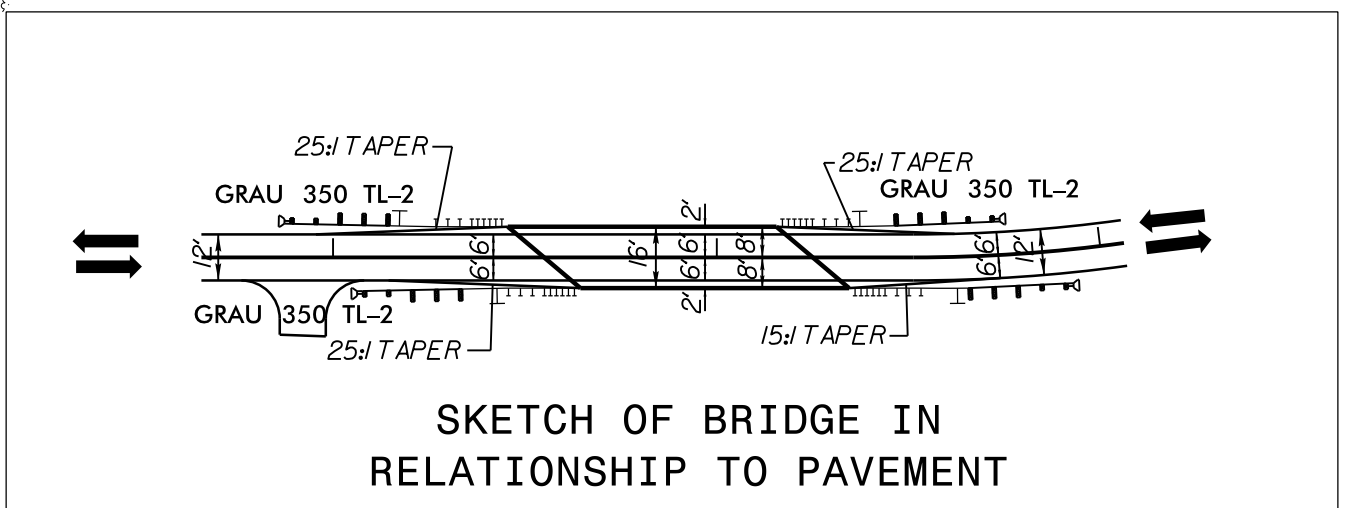


-L-

PI Sta 10+76.98 Δ = 16° 46' 13.0" (RT) D = 19' 58" 01.7" L = 83.99' T = 42.30' R = 286.95' SE = EXIST.	PI Sta 11+45.03 Δ = 24° 51' 38.8" (RT) D = 47' 54" 39.4" L = 51.89' T = 26.36' R = 119.59' SE = EXIST.	PI Sta 12+24.57 Δ = 38° 39' 22.0" (RT) D = 37' 12" 18.2" L = 103.90' T = 54.01' R = 154.00' SE = SEE PLANS RO = SEE PLANS	PI Sta 14+74.48 Δ = 15° 21' 45.3" (LT) D = 6' 34" 09.6" L = 48.66' T = 24.48' R = 181.49' SE = EXIST.	PI Sta 15+61.92 Δ = 7° 15' 31.0" (LT) D = 5' 44" 43.5" L = 126.34' T = 63.25' R = 997.24' SE = EXIST.
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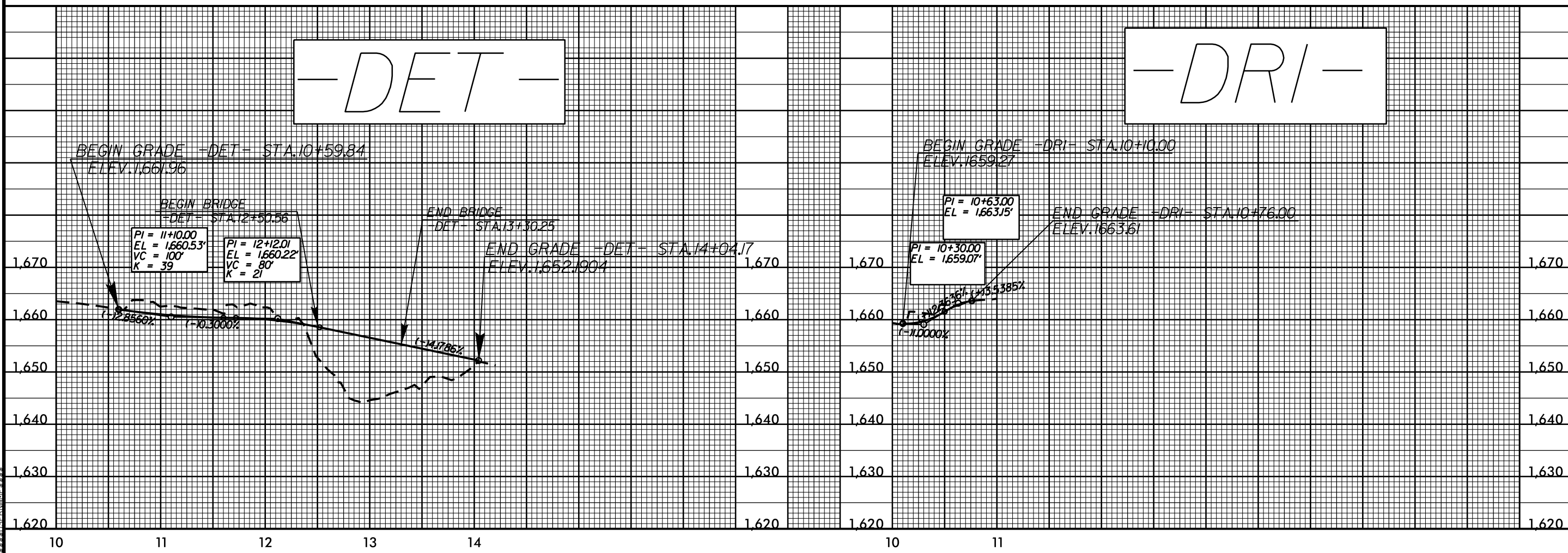
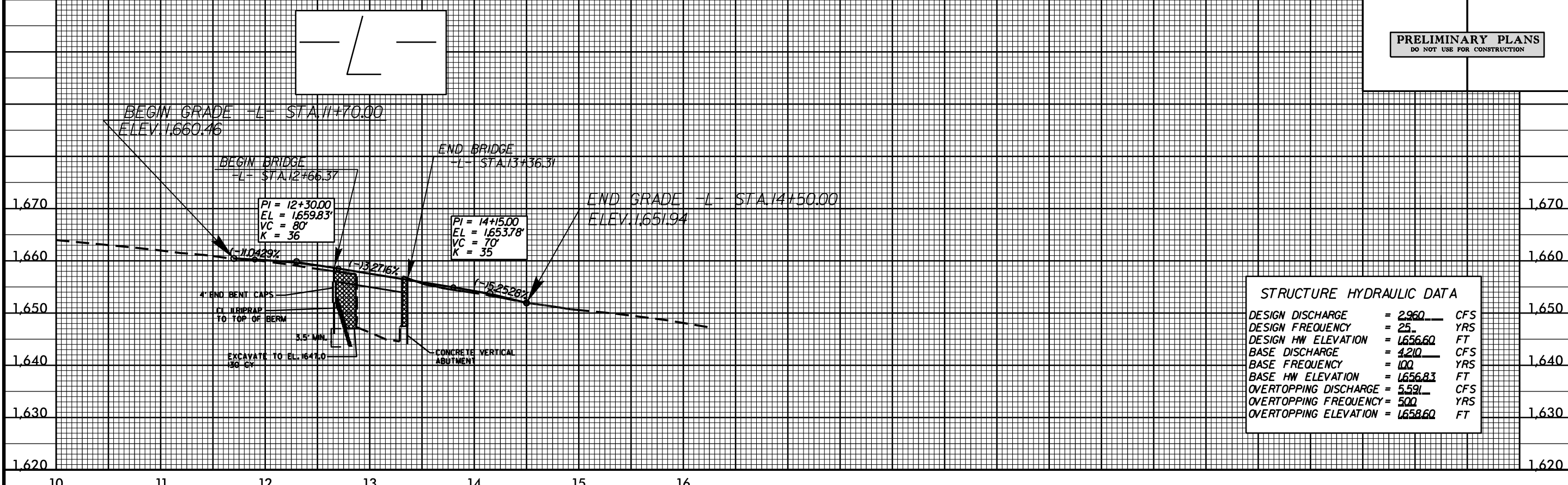
-DRI-		-DET-	
PI Sta 10+42.20 Δ = 26° 08' 51.2" (LT) D = 114' 35" 29.6" L = 22.82' T = 11.61' R = 50.00' SE = SEE PLANS	PI Sta 10+87.08 Δ = 69° 33' 50.1" (RT) D = 47' 44" 47.3" L = 145.69' T = 83.35' R = 120.00' SE = 02 RO = SEE PLANS	PI Sta 13+65.35 Δ = 4° 01' 18.5" (LT) D = 14' 19" 26.2" L = 28.08' T = 14.04' R = 400.00' SE = SEE PLANS	PI Sta 13+99.2 Δ = 31° 30' 12.0" (LT) D = 81' 51" 04.0" L = 38.49' T = 19.74' R = 70.00' SE = SEE PLANS

NOTE: ONE LANE TWO WAY TRAFFIC TO BE MAINTAINED UTILIZING TEMPORARY TRAFFIC SIGNALS.



8/17/99
 REVISIONS
 04-FEB-2013 JHB
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5/28/99



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