



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

JAMES H. TROGDON, III
SECRETARY

March 17, 2017

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

ATTN: Ms. Loretta Beckwith
NCDOT Coordinator

Subject: **Application for Section 404 Nationwide Permits 13, 23, and 33**, for the Proposed Replacement of Bridge 101 on SR 1740 (Moses Creek Road) over Caney Fork in Jackson County, Division 14, TIP No. B-5159, Federal Aid Project No. BRZ-1740(2); Debit \$240 from WBS# 42334.1.1.

Dear Ms. Beckwith:

The North Carolina Department of Transportation (NCDOT) proposes to replace bridge number 101 on SR 1740 (Moses Creek Road) over Caney Fork in Jackson County with a new two span, 107-foot, 4.5 inch cored slab bridge on a new alignment just west of the existing bridge. The existing bridge will be utilized as an onsite detour during construction as Moses Creek Road has no outlet. Bank stabilization comprises 41 lf of permanent impacts and 20 lf of temporary impacts to surface waters. There will be 0.04 acre (70 lf) of temporary impacts to surface waters resulting from two (2) causeways needed for the removal of the existing bridge bent and the installation of a new bridge bent.

In addition, there will be 0.02 acre of wetland fill impacts.

Please see enclosed copies of the Pre-Construction Notification (PCN), DMS Acceptance Letter, Stormwater Management Plan, Permit Drawings, and Roadway Plan Sheets. A Programmatic Categorical Exclusion (PCE) was completed in October 2015 and distributed shortly thereafter. Additional copies are available upon request.

This project calls for a letting date of June 20, 2017 and a review date of May 2, 2017; 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: <http://connect.ncdot.gov/resources/Environmental>. If you have any questions or need additional information, please call Bill Barrett at (919) 707-6103.

Sincerely,



PS Philip S. Harris III, P.E., C.P.M.
Natural Environment Section Head

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: 13 23 33 or General Permit (GP) number:		
1c. Has the NWP or GP number been verified by the Corps?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
1d. Type(s) of approval sought from the DWQ (check all that apply):		
<input checked="" type="checkbox"/> 401 Water Quality Certification – Regular <input type="checkbox"/> Non-404 Jurisdictional General Permit <input type="checkbox"/> 401 Water Quality Certification – Express <input type="checkbox"/> Riparian Buffer Authorization		
1e. Is this notification solely for the record because written approval is not required?	For the record only for DWQ 401 Certification: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	For the record only for Corps Permit: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
1f. Is payment into a mitigation bank or in-lieu fee program proposed for mitigation of impacts? If so, attach the acceptance letter from mitigation bank or in-lieu fee program.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
1g. Is the project located in any of NC's twenty coastal counties. If yes, answer 1h below.	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
1h. Is the project located within a NC DCM Area of Environmental Concern (AEC)?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

2. Project Information

2a. Name of project:	Replacement of Bridge 101 over Caney Fork on SR 1740 (Moses Creek Road)
2b. County:	Jackson
2c. Nearest municipality / town:	Cullowhee
2d. Subdivision name:	<i>not applicable</i>
2e. NCDOT only, T.I.P. or state project no.:	B-5159

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) 707-6103
3g. Fax no.:	(919) 212-5785
3h. Email address:	wabarrett@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: 35.304980 (DD.DDDDDD) Longitude: - 83.125993 (-DD.DDDDDD)
1c. Property size:	0.8 acre
2. Surface Waters	
2a. Name of nearest body of water (stream, river, etc.) to proposed project:	Caney Fork and Moses Creek
2b. Water Quality Classification of nearest receiving water:	WS-III; Tr and WS-III;Tr
2c. River basin:	Little Tennessee
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: Development in the area is primarily residential in nature with very low density, agricultural, and large open spaces.	
3b. List the total estimated acreage of all existing wetlands on the property: 0.1	
3c. List the total estimated linear feet of all existing streams (intermittent and perennial) on the property: 1,516	
3d. Explain the purpose of the proposed project: To replace a structurally deficient and functionally obsolete bridge (sufficiency rating of 9.38 out of a possible 100 for a new structure, and a deck geometry rating of 3 out of 9).	
3e. Describe the overall project in detail, including the type of equipment to be used: The project involves replacing a 3-span, 91-foot bridge with a 107-foot, 2-span bridge on an alignment just to the west of the existing bridge. Traffic will remain on the existing structure during construction. 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: USACE and NCDWQ	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
4b. If the Corps made the jurisdictional determination, what type of determination was made?	<input type="checkbox"/> Preliminary <input checked="" type="checkbox"/> Final
4c. If yes, who delineated the jurisdictional areas? Name (if known): Jennifer Harrod and Jeff Hemphill	Agency/Consultant Company: NCDOT Other:
4d. If yes, list the dates of the Corps jurisdictional determinations or State determinations and attach documentation. USACE: February 2, 2010; NCDWQ: February 8, 2010. Dave McHenry, the DEO for Division 12 assessed the site on February 16, 2017, and determined that the wetland is still present in the same location.	
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 checked="" 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	Roadway Fill	Floodplain Pool	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Corps <input type="checkbox"/> DWQ	0.02 (Fill)	
2g. Total wetland impacts					0.02 Permanent	
2h. Comment: There will be 0.03 acre of hand clearing to the wetland on 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 checked="" type="checkbox"/> P <input type="checkbox"/> T	Bank Stabilization	Caney Fork	<input checked="" type="checkbox"/> PER <input type="checkbox"/> INT	<input checked="" type="checkbox"/> Corps <input type="checkbox"/> DWQ	50	30
Site 1 <input type="checkbox"/> P <input checked="" type="checkbox"/> T	Bank stabilization	Caney Fork	<input checked="" type="checkbox"/> PER <input type="checkbox"/> INT	<input checked="" type="checkbox"/> Corps <input type="checkbox"/> DWQ	50	10 (<0.01 ac.)
Site 1 <input checked="" type="checkbox"/> P <input type="checkbox"/> T	Caney Fork Road 18-inch pipe-Bank stabilization	Caney Fork	<input checked="" type="checkbox"/> PER <input type="checkbox"/> INT	<input checked="" type="checkbox"/> Corps <input type="checkbox"/> DWQ	50	11
Site 1 <input type="checkbox"/> P <input checked="" type="checkbox"/> T	Bank stabilization	Caney Fork	<input checked="" type="checkbox"/> PER <input type="checkbox"/> INT	<input checked="" type="checkbox"/> Corps <input type="checkbox"/> DWQ	50	10 (<0.01 ac.)
Site 1 <input type="checkbox"/> P <input checked="" type="checkbox"/> T	temporary work pad (piling removal)	Caney Fork	<input checked="" type="checkbox"/> PER <input type="checkbox"/> INT	<input checked="" type="checkbox"/> Corps <input type="checkbox"/> DWQ	50	32 (0.01 ac.)
Site 1 <input type="checkbox"/> P <input checked="" type="checkbox"/> T	temporary work pad (piling installation)	Caney Fork	<input checked="" type="checkbox"/> PER <input type="checkbox"/> INT	<input checked="" type="checkbox"/> Corps <input type="checkbox"/> DWQ	50	38 (0.02 ac.)
3h. Total stream and tributary impacts					41 Perm 70 Temp (0.04 ac.)	
3i. Comments: The 41 linear feet of PERMANENT stream impact is from bank stabilization, which does not require mitigation from the USACE (see Section D.2a.), and is below the mitigation threshold for the NCDWR.						

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) O1 <input type="checkbox"/> P <input type="checkbox"/> T	4b. Name of waterbody (if applicable)	4c. Type of impact			4d. Waterbody type	4e. Area of impact (acres)			
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									
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"/> Catawba		<input type="checkbox"/> Tar-Pamlico <input type="checkbox"/> Randleman		<input type="checkbox"/> Other:
6b. Buffer impact number – Permanent (P) or Temporary (T)	6c. Reason for impact	6d. Stream name	6e. Buffer mitigation required?	6f. Zone 1 impact (square feet)	6g. Zone 2 impact (square feet)				
B1 <input 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. <p>The proposed bridge is a 2-span structure and is 16 feet longer than the existing 3-span structure, and it will provide approximately 500 cubic yard larger hydraulic opening; traffic will be maintained on the existing structure during construction; 2:1 fill slopes will be used adjacent to the wetland to minimize impacts.</p> <p>The bridge is as narrow as practicable to help reduce the project footprint. However, in doing so, the structure does not have the typical shoulders to store roadway stormwater (called spread) and will therefore have deck drains. However, these drains will not discharge directly into Caney Fork; rather, they will drain to dissipator (splash) pads prior to discharging into Caney Fork. These deck drains are also necessary to prevent stormwater from flowing onto the adjacent Caney Fork Road.</p>		
1b. Specifically describe measures taken to avoid or minimize the proposed impacts through construction techniques. <p><i>Design Standards in Sensitive Waters</i> (15A NCAC 04B.0124) will be adhered to throughout the construction of the project to reduce stormwater impacts to the receiving stream due to erosion and runoff.</p> <p>A Trout Moratorium prohibiting in-stream work and land disturbance within the 25-foot trout buffer will be adhered to from October 15 to April 15.</p>		
2. Compensatory Mitigation for Impacts to Waters of the U.S. or Waters of the State		
2a. Does the project require Compensatory Mitigation for impacts to Waters of the U.S. or Waters of the State?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <p>If no, explain: NCDOT will mitigate for the 0.02 acre of permanent wetland fill .</p> <p>NCDOT does not propose mitigation for the 41 linear feet of bank stabilization impact, as it does not require fill in the stream bed and therefore, under Section 404 of the Clean Water Act, does not constitute Loss of Waters of the U.S. and is not subject to compensatory mitigation. Furthermore, the proposed bank stabilization is necessary to prevent erosion and sedimentation by preventing bank de-stabilization and thereby minimizing impacts to the environment.</p>	
2b. If yes, mitigation is required by (check all that apply):	<input type="checkbox"/> DWQ <input checked="" type="checkbox"/> Corps	
2c. If yes, which mitigation option will be used for this project?	<input type="checkbox"/> Mitigation bank <input checked="" type="checkbox"/> Payment to in-lieu fee program <input type="checkbox"/> Permittee Responsible Mitigation	
3. Complete if Using a Mitigation Bank		
3a. Name of Mitigation Bank: not applicable		
3b. Credits Purchased (attach receipt and letter)	Type	Quantity

3c. Comments:				
4. Complete if Making a Payment to In-lieu Fee Program				
4a. Approval letter from in-lieu fee program is attached.		<input checked="" type="checkbox"/> Yes		
4b. Stream mitigation requested:		N/A linear feet		
4c. If using stream mitigation, stream temperature:		<input type="checkbox"/> warm <input type="checkbox"/> cool <input checked="" type="checkbox"/> cold		
4d. Buffer mitigation requested (DWQ only):		N/A square feet		
4e. Riparian wetland mitigation requested:		0.02 acres		
4f. Non-riparian wetland mitigation requested:		N/A acres		
4g. Coastal (tidal) wetland mitigation requested:		N/A acres		
4h. Comments: see Section D.2a for justification of not mitigating for bank stabilization impacts.				
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 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 checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
5c. If yes, indicate the USFWS Field Office you have contacted.	<input type="checkbox"/> Raleigh <input checked="" type="checkbox"/> Asheville	
5d. What data sources did you use to determine whether your site would impact Endangered Species or Designated Critical Habitat? USFWS and NHP website were used, along with on-site surveys. A Memo, dated August 2, 2016, was submitted to USFWS-Asheville on August 26, 2016 regarding the Northern long-eared bat (NLEB), noting that NCDOT has determined that the proposed action does not require separate consultation on the grounds that the proposed action is consistent with the final Section 4(d) rule, codified at 50 C.F.R. 17.40(o) and effective February 16, 2016. Two species listed for Jackson County were determined to have habitat at the site: small whorled pogonia and swamp pink: - A survey for small whorled pogonia was conducted on July 17, 2009, with a follow-up survey conducted on June 10, 2014. During both surveys, no individuals of this species were identified, resulting in a No Effect determination. - A survey for swamp pink was conducted on April 14, 2010, with a follow-up survey conducted on May 10, 2014. During both surveys, no individuals of this species were identified, resulting in a No Effect determination.		
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 type="checkbox"/> Yes	<input checked="" 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 Philip S. Harris, P.E., C.P.M. Applicant/Agent's Printed Name	 Applicant/Agent's Signature (Agent's signature is valid only if an authorization letter from the applicant is provided.)	03-17-2017 Date



ROY COOPER
Governor

March 1, 2017

Mr. Philip S. Harris, P.E., CPM
Project Development and Environmental Analysis Unit
North Carolina Department of Transportation
1598 Mail Service Center
Raleigh, North Carolina 27699-1598

Dear Mr. Harris:

Subject: EEP Mitigation Acceptance Letter:

B-5159, Replace Bridge 101 over Caney Fork on SR 1740 (Moses Creek Rd), Jackson County

The purpose of this letter is to notify you that the Division of Mitigation Services (DMS) will provide the wetland mitigation for the subject project. Based on the information supplied by you on February 13, 2017, the wetland impacts are located in CU 06010203 of the Little Tennessee River basin in the Southern Mountains (SM) Eco-Region, and are as follows:

Stream and Wetlands	River Basin	CU Location	Eco-Region	Stream			Wetlands		
				Cold	Cool	Warm	Riparian	Non-Riparian	Coastal Marsh
Impacts	Little Tennessee	06010203	SM	0	0	0	0.02	0	0

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

DMS commits to implementing sufficient compensatory wetland mitigation credits to offset the impacts associated with this project as determined by the regulatory agencies in accordance with the In-Lieu Fee Instrument dated July 28, 2010. If the above referenced impact amounts are revised, then this mitigation acceptance letter will no longer be valid and a new mitigation acceptance letter will be required from DMS

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

Sincerely,

James B. Stanfill
DMS Credit Management Supervisor

Cc: Ms. Lori Beckwith, USACE – Asheville Regulatory Field Office
Ms. Amy Chapman, NC Division of Water Resources
File: B-5159





North Carolina Department of Transportation

Highway Stormwater Program
STORMWATER MANAGEMENT PLAN
 FOR NCDOT PROJECTS



(Version 2.06; Released June 2016)

WBS Element: B-5159 TIP No.: County(ies): Jackson Page 1 of 2

General Project Information

WBS Element:	B-5159	TIP Number:		Project Type:	Bridge Replacement	Date:	10/7/2016
NCDOT Contact:	Vincent Rivers - NCDOT Hydraulics		Contractor / Designer:	HNTB North Carolina, P.C. / James A. Byrd, PE			
	Address:	1590 Mail Service Center Raleigh, NC 27699-1590			Address:	343 E. Six Forks Road Suite 200 Raleigh, NC 27609	
	Phone:	(919) 707-6748			Phone:	(919) 424-0437	
	Email:	vnrivers@ncdot.gov			Email:	jabyrd@hntb.com	
City/Town:	Cullowhee		County(ies):	Jackson			
River Basin(s):	Little Tennessee		CAMA County?	No			
Wetlands within Project Limits?	Yes						

Project Description

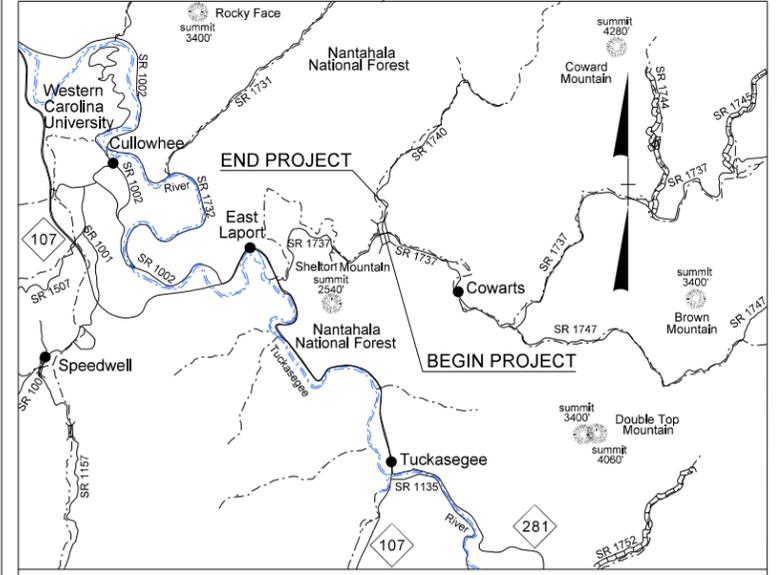
Project Length (lin. miles or feet):	0.13	Surrounding Land Use:	Agriculture / Rural					
	Proposed Project		Existing Site					
Project Built-Upon Area (ac.)	0.8	ac.	0.7 ac.					
Typical Cross Section Description:	2-10' asphal paved lanes with 4' paved shoulders, roadside ditches, and drives at the bridge.			2-10' asphalt paved lanes with grass shoulders, grass ditches, and soil drives at bridge.				
Annual Avg Daily Traffic (veh/hr/day):	Design/Future:	400	Year:	2035	Existing:	200	Year:	2013
General Project Narrative: (Description of Minimization of Water Quality Impacts)	Replacemnt of Bridge No.101 over Caney Fork on SR 1739 (Hopper Rd.) Deck drains installed over bank areas because of spread issues. Deck drain dissipator pads will be installed under the proposed deck drains.							

Waterbody Information

Surface Water Body (1):	Caney Fork		NCDWR Stream Index No.:	2-79-28-(2.5)				
NCDWR Surface Water Classification for Water Body	Primary Classification:	Water Supply III (WS-III)						
	Supplemental Classification:	Trout Waters (Tr)		None				
Other Stream Classification:								
Impairments:								
Aquatic T&E Species?	Comments:							
NRTR Stream ID:							Buffer Rules in Effect:	N/A
Project Includes Bridge Spanning Water Body?	Yes	Deck Drains Discharge Over Buffer?	N/A	Dissipator Pads Provided in Buffer?				N/A
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)								

09/26/19

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



VICINITY MAP

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

JACKSON COUNTY

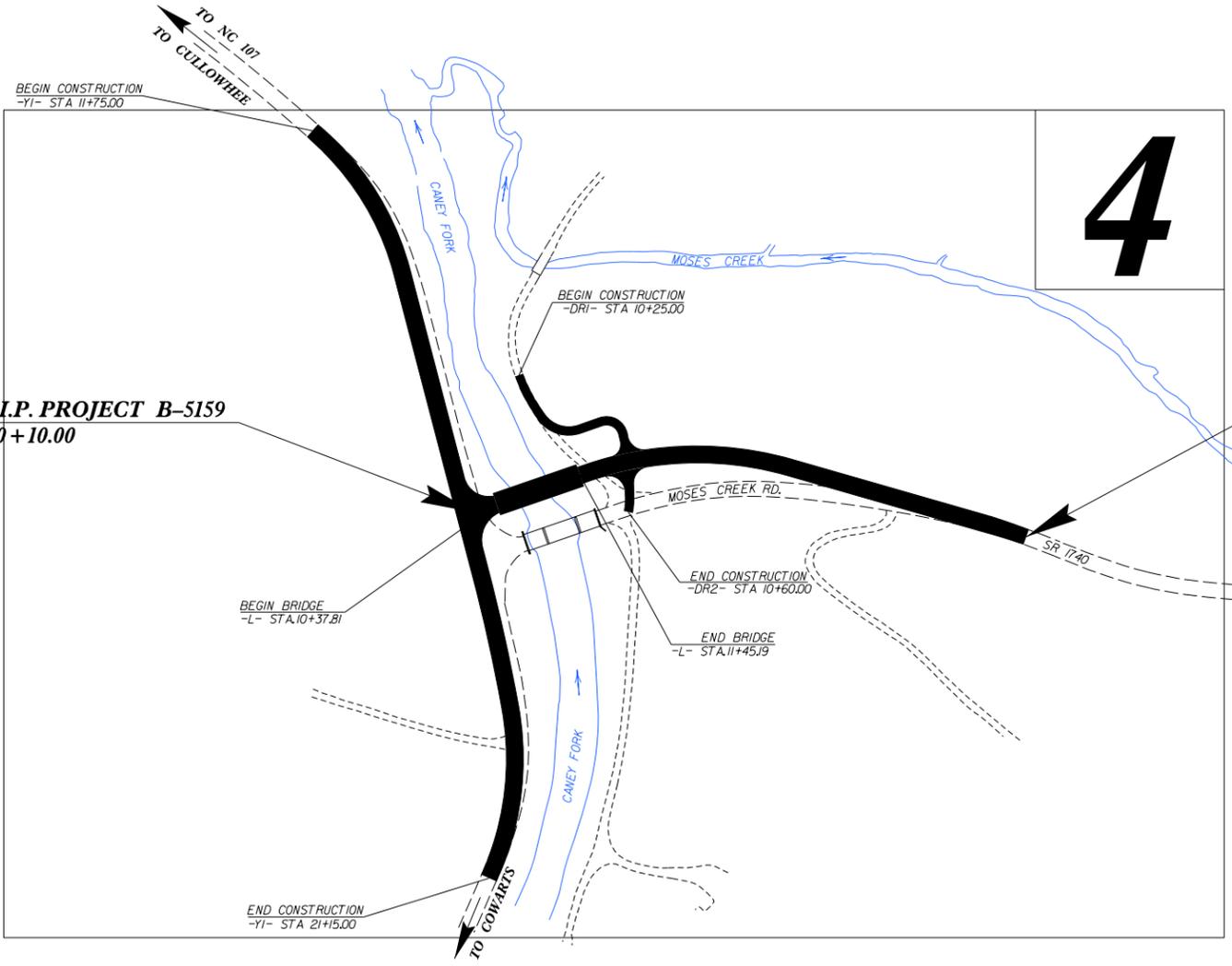
LOCATION: BRIDGE NO. 101 ON SR 1740 OVER CANEY FORK
TYPE OF WORK: GRADING, DRAINAGE, PAVING & STRUCTURE
WETLAND & STREAM IMPACTS

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-5159	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
42334.1.1	BRZ-1740(2)	PE	
42334.2.1	BRZ-1740(2)	ROW & UTIL	



TIP PROJECT: B-5159

CONTRACT: C203939



4

NAD 83/
NSRS 2007

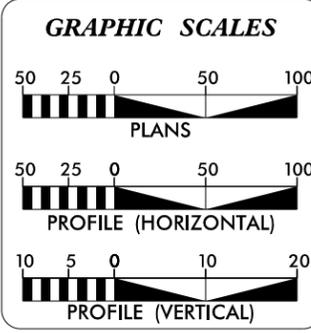
END T.I.P. PROJECT B-5159
-L- Sta. 16+90.00

BEGIN T.I.P. PROJECT B-5159
-L- Sta. 10+10.00

PERMIT DRAWING
SHEET 1 OF 10

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

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



DESIGN DATA

ADT 2015 =	200
ADT 2040 =	300
K =	10 %
D =	65 %
T =	3 % *
V =	35 MPH
* TTST =	1% DUAL 2%
FUNC CLASS =	LOCAL RURAL
SUB-REGIONAL TIER	

PROJECT LENGTH

LENGTH ROADWAY T.I.P. PROJECT B-5159 =	0.109 MI
LENGTH STRUCTURE T.I.P. PROJECT B-5159 =	0.020 MI
TOTAL LENGTH OF T.I.P. PROJECT B-5159 =	0.129 MI

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

2012 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
SEPTEMBER 23, 2016

LETTING DATE:
JUNE 20, 2017

KEVIN E. MOORE, PE
PROJECT ENGINEER

STEVEN D. KENDALL, PE
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

SIGNATURE: _____ P.E.

ROADWAY DESIGN ENGINEER

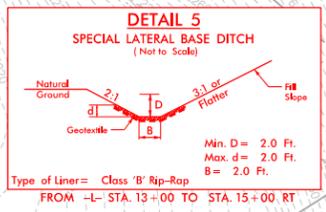
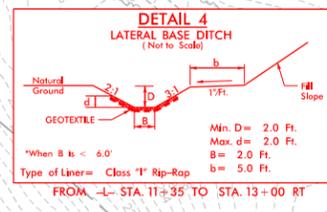
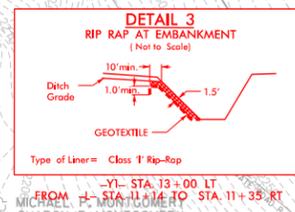
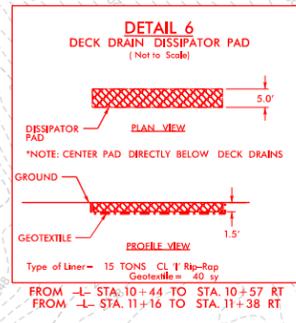
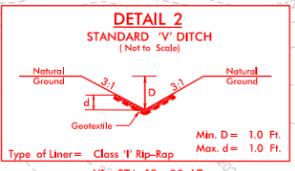
SIGNATURE: _____ P.E.



5:10:52 PM
\\B-5159_hyd_prm_tsh.dgn
HN1B

PROJECT REFERENCE NO. B-5159	SHEET NO. 4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR A/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
PERMIT DRAWINGS SHEET 3 OF 10	

NAD 83/NSRS 2007



LEGEND

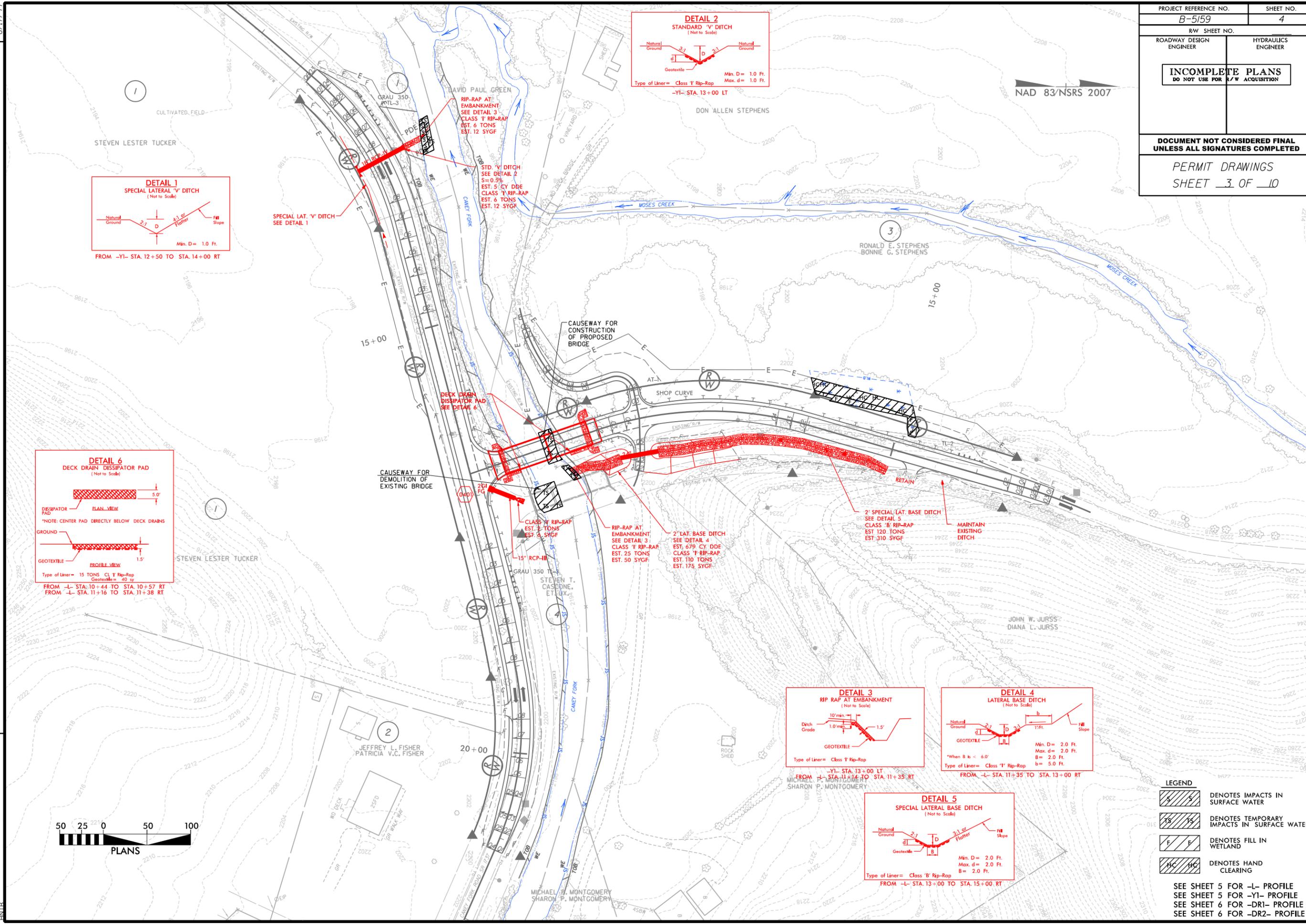
	DENOTES IMPACTS IN SURFACE WATER
	DENOTES TEMPORARY IMPACTS IN SURFACE WATER
	DENOTES FILL IN WETLAND
	DENOTES HAND CLEARING

SEE SHEET 5 FOR -L- PROFILE
SEE SHEET 5 FOR -YI- PROFILE
SEE SHEET 6 FOR -DR1- PROFILE
SEE SHEET 6 FOR -DR2- PROFILE



REVISIONS

3:19:53 PM 3/15/16 hyd_perm_psh_4.dgn



5/28/99

BRIDGE HYDRAULIC DATA		
DESIGN DISCHARGE	= 5,800	CFS
DESIGN FREQUENCY	= 25	YRS
DESIGN HW ELEVATION	= 2,201.8	FT
BASE DISCHARGE	= 8,000	CFS
BASE FREQUENCY	= 100	YRS
BASE HW ELEVATION	= 2,202.36	FT
OVERTOPPING DISCHARGE	= 3,600	CFS
OVERTOPPING FREQUENCY	= 10 (-)	YRS
OVERTOPPING ELEVATION	= 2,201.03	FT
DATE OF SURVEY	= 11/11/15	
W.S. ELEVATION AT DATE OF SURVEY	= 2,194.1	FT

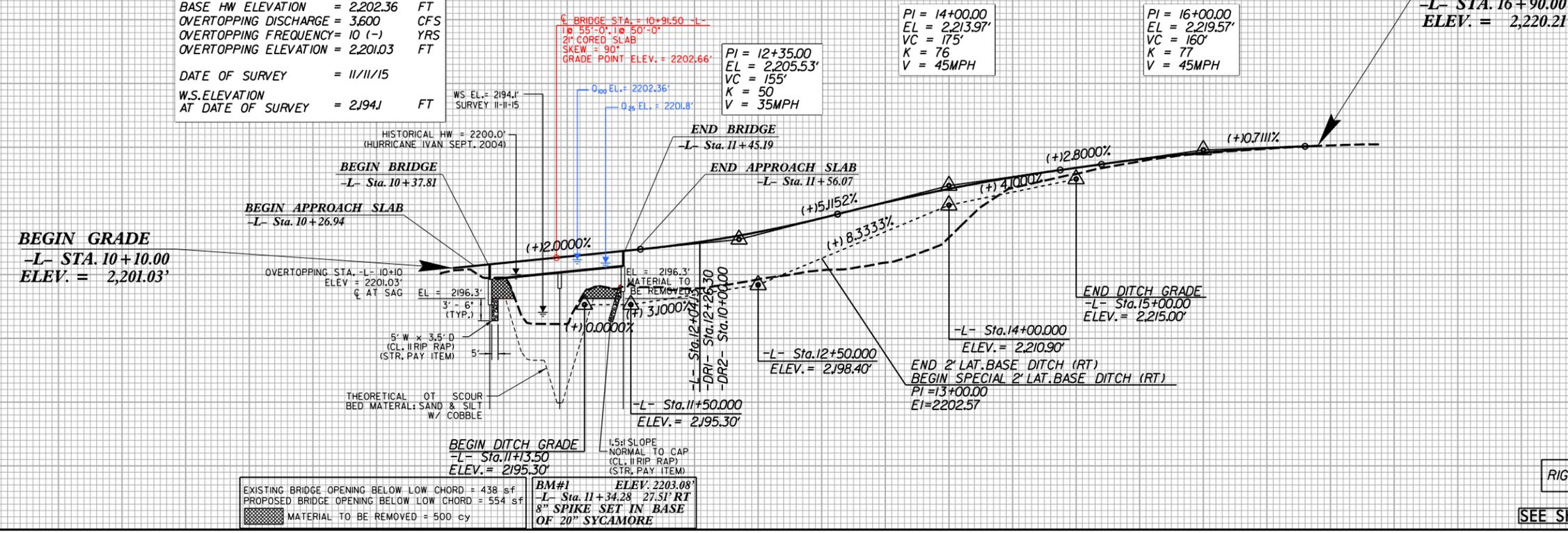
-L- SR 1740

BM#2 ELEV. 2223.33'
 -L- Sta. 16+90.12 26.15' LT
 8" SPIKE SET IN BASE OF 18" WHITEOAK

END GRADE
 -L- STA. 16+90.00
 ELEV. = 2,220.21'

PROJECT REFERENCE NO. B-5159	SHEET NO. 5
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
PERMIT DRAWINGS SHEET 6 OF 10	

2,230
2,220
2,210
2,200
2,190
2,180
2,170
2,160



RIGHT DITCH -----
 SEE SHEET 4 FOR PLAN VIEW

-YI- SR 1737

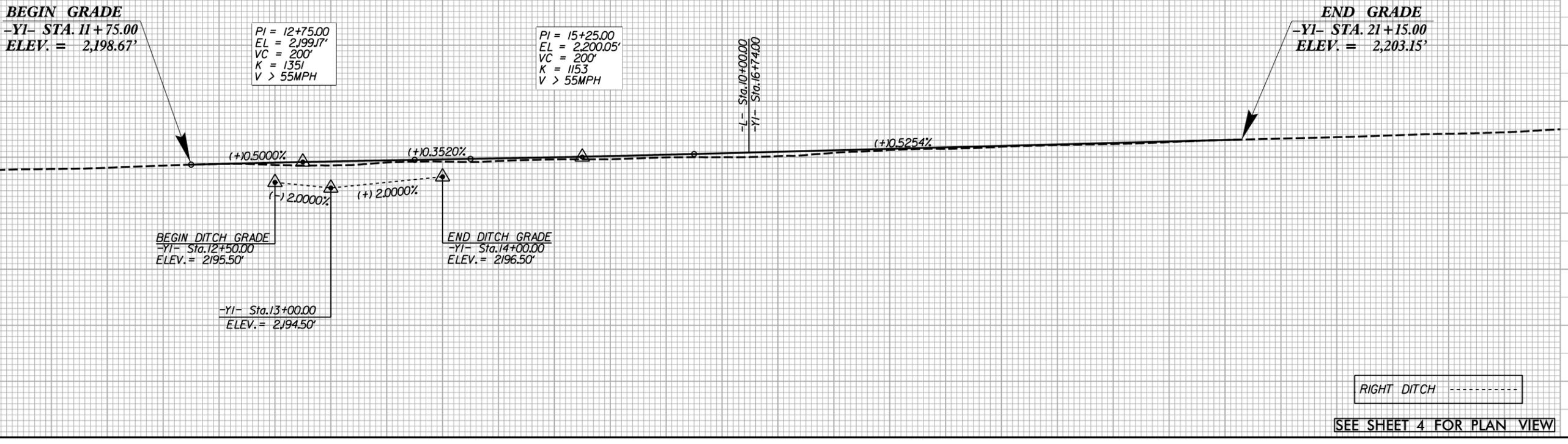
BEGIN GRADE
 -YI- STA. 11+75.00
 ELEV. = 2,198.67'

PI = 12+75.00
 EL = 2,199.17'
 VC = 200'
 K = 1351
 V > 55MPH

PI = 15+25.00
 EL = 2,200.05'
 VC = 200'
 K = 1153
 V > 55MPH

END GRADE
 -YI- STA. 21+15.00
 ELEV. = 2,203.15'

2,210
2,200
2,190
2,180
2,170
2,160
2,150



RIGHT DITCH -----
 SEE SHEET 4 FOR PLAN VIEW

51653.BM 5/28/99 11:15 AM 51653.BM-hyd-prm-ef1.dgn

5/28/99

PROJECT REFERENCE NO. B-5159	SHEET NO. 6
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	

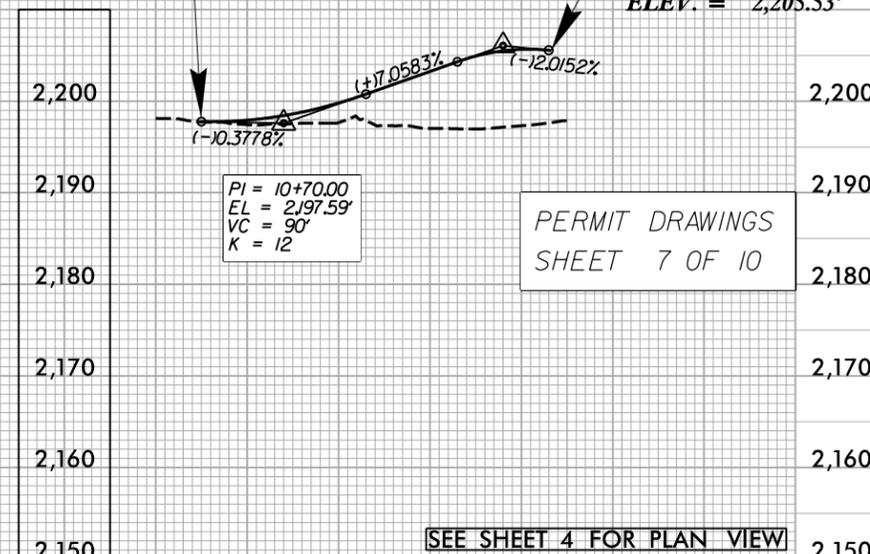
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

-DR1-

BEGIN GRADE
-DR1- STA. 10+25.00
ELEV. = 2,197.76'

PI = 11+90.00
 EL = 2,206.06'
 VC = 50'
 K = 6

END GRADE
-DR1- STA. 12+16.30
ELEV. = 2,205.53'



PERMIT DRAWINGS
SHEET 7 OF 10

SEE SHEET 4 FOR PLAN VIEW

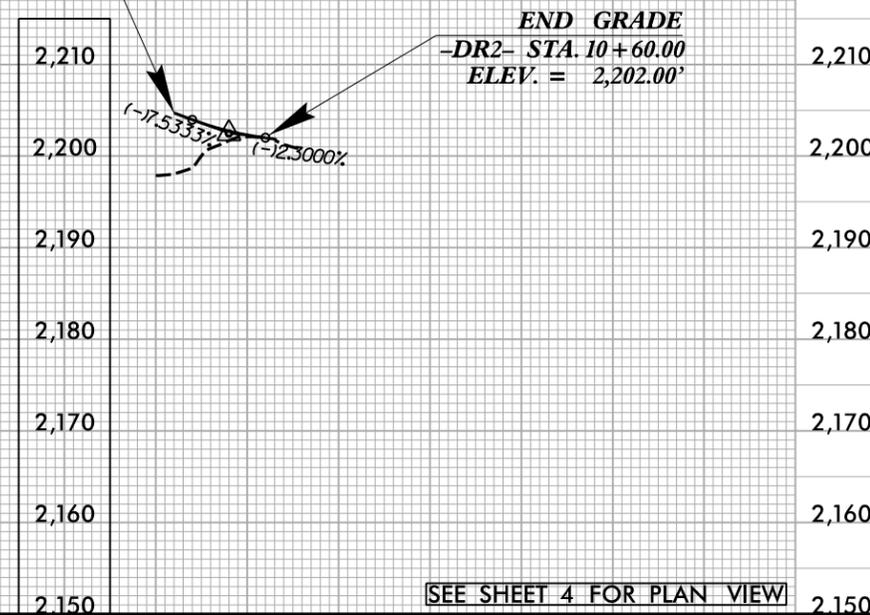
10 11 12

-DR2-

BEGIN GRADE
-DR2- STA. 10+10.00
ELEV. = 2,204.72'

PI = 10+40.00
 EL = 2,202.46'
 VC = 40'
 K = 8

END GRADE
-DR2- STA. 10+60.00
ELEV. = 2,202.00'



SEE SHEET 4 FOR PLAN VIEW

10

5:17:10 PM 5/28/99 5159-hyd-prm-pl.dgn

8/23/99



PROJ. REFERENCE NO.
B-5159

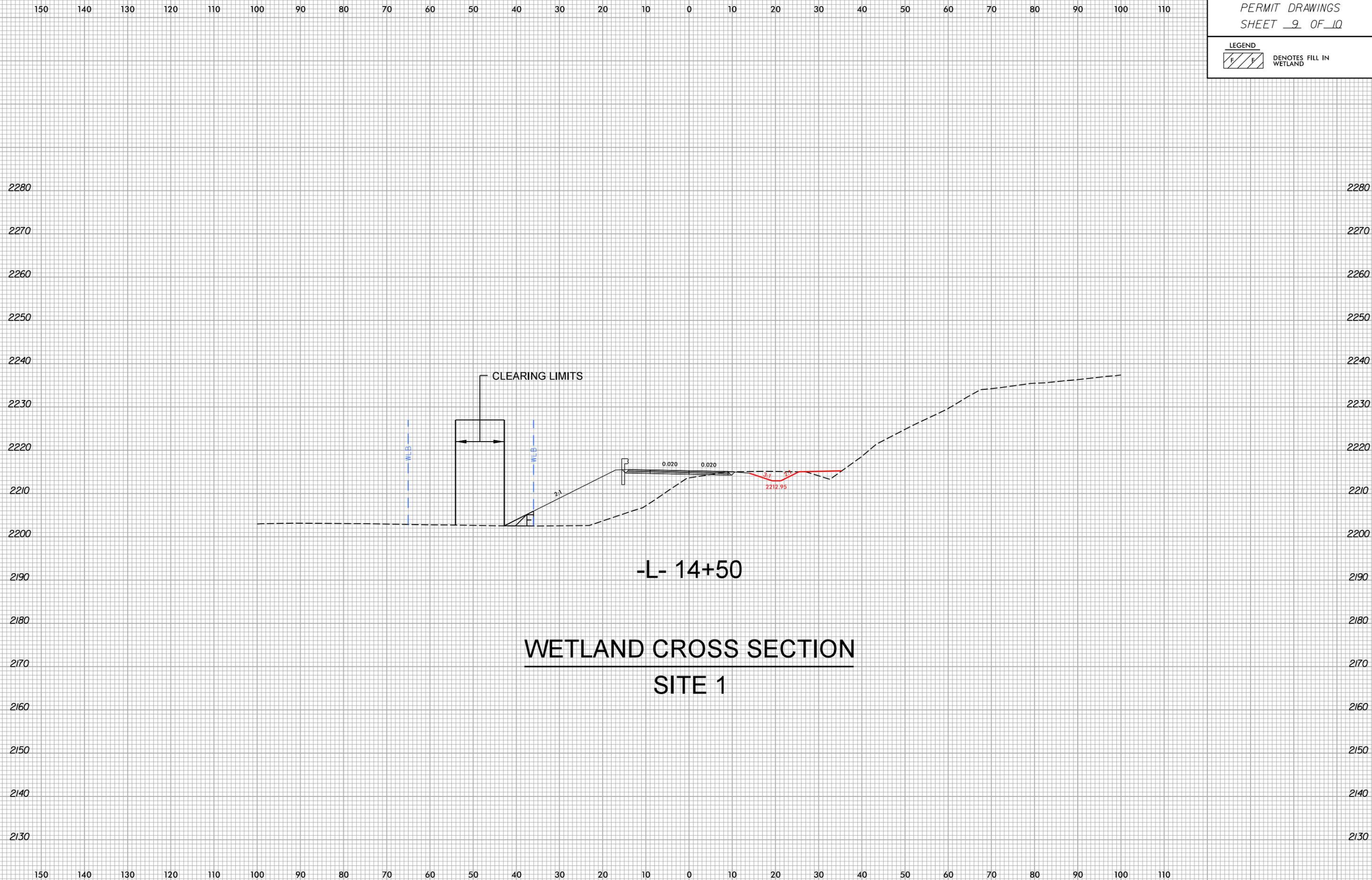
SHEET NO.

PERMIT DRAWINGS
SHEET 9 OF 10

LEGEND



DENOTES FILL IN WETLAND



-L- 14+50

WETLAND CROSS SECTION
SITE 1

5:19:23 PM
\\N1B\5159_hyd-prm-Wetland_XSC.dgn
N1B

STATE OF NORTH CAROLINA, DIVISION OF HIGHWAYS

CONVENTIONAL PLAN SHEET SYMBOLS

12/2/2016

BOUNDARIES AND PROPERTY:

State Line	-----
County Line	-----
Township Line	-----
City Line	-----
Reservation Line	-----
Property Line	-----
Existing Iron Pin	○ EP
Computed Property Corner	-----
Property Monument	◻ ECM
Parcel/Sequence Number	⑩ 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 Contamination Area: Soil	☠ S ☠
Potential Contamination Area: Soil	☠ S ☠
Known Contamination Area: Water	☠ W ☠
Potential Contamination Area: Water	☠ W ☠
Contaminated Site: Known or Potential	☠ ?

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 & PROJECT CONTROL:

Secondary Horiz and Vert Control Point	◆
Primary Horiz Control Point	◻
Primary Horiz and Vert Control Point	◆
Exist Permanent Easement Pin and Cap	◇
New Permanent Easement Pin and Cap	◆
Vertical Benchmark	⊕
Existing Right of Way Marker	△
Existing Right of Way Line	-----
New Right of Way Line	-----
New Right of Way Line with Pin and Cap	○ RW ▲
New Right of Way Line with Concrete or Granite RW Marker	○ RW ▲
New Control of Access Line with Concrete C/A Marker	○ CA
Existing Control of Access	○ CA
New Control of Access	○ CA
Existing Easement Line	----- E
New Temporary Construction Easement	----- E
New Temporary Drainage Easement	----- TDE
New Permanent Drainage Easement	----- PDE
New Permanent Drainage / Utility Easement	----- DUE
New Permanent Utility Easement	----- PUE
New Temporary Utility Easement	----- TUE
New Aerial Utility Easement	----- AUE

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	☀

Note: Not to Scale *S.U.E. = *Subsurface Utility Engineering*

Hedge	-----
Woods Line	-----
Orchard	-----
Vineyard	----- 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	----- S
Storm Sewer	----- S

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	●
U/G Power Line LOS B (S.U.E.*)	----- P
U/G Power Line LOS C (S.U.E.*)	----- P
U/G Power Line LOS D (S.U.E.*)	----- P

TELEPHONE:

Existing Telephone Pole	●
Proposed Telephone Pole	○
Telephone Manhole	⊕
Telephone Pedestal	⊕
Telephone Cell Tower	⊕
U/G Telephone Cable Hand Hole	-----
U/G Telephone Cable LOS B (S.U.E.*)	----- T
U/G Telephone Cable LOS C (S.U.E.*)	----- T
U/G Telephone Cable LOS D (S.U.E.*)	----- T
U/G Telephone Conduit LOS B (S.U.E.*)	----- TC
U/G Telephone Conduit LOS C (S.U.E.*)	----- TC
U/G Telephone Conduit LOS D (S.U.E.*)	----- TC
U/G Fiber Optics Cable LOS B (S.U.E.*)	----- T FO
U/G Fiber Optics Cable LOS C (S.U.E.*)	----- T FO
U/G Fiber Optics Cable LOS D (S.U.E.*)	----- T FO

WATER:

Water Manhole	⊕
Water Meter	○
Water Valve	⊕
Water Hydrant	⊕
U/G Water Line LOS B (S.U.E.*)	-----
U/G Water Line LOS C (S.U.E.*)	-----
U/G Water Line LOS D (S.U.E.*)	-----
Above Ground Water Line	----- A/G Water

TV:

TV Pedestal	⊕
TV Tower	⊕
U/G TV Cable Hand Hole	-----
U/G TV Cable LOS B (S.U.E.*)	----- TV
U/G TV Cable LOS C (S.U.E.*)	----- TV
U/G TV Cable LOS D (S.U.E.*)	----- TV
U/G Fiber Optic Cable LOS B (S.U.E.*)	----- TV FO
U/G Fiber Optic Cable LOS C (S.U.E.*)	----- TV FO
U/G Fiber Optic Cable LOS D (S.U.E.*)	----- TV FO

GAS:

Gas Valve	◇
Gas Meter	⊕
U/G Gas Line LOS B (S.U.E.*)	----- G
U/G Gas Line LOS C (S.U.E.*)	----- G
U/G Gas Line LOS D (S.U.E.*)	----- G
Above Ground Gas Line	----- A/G Gas

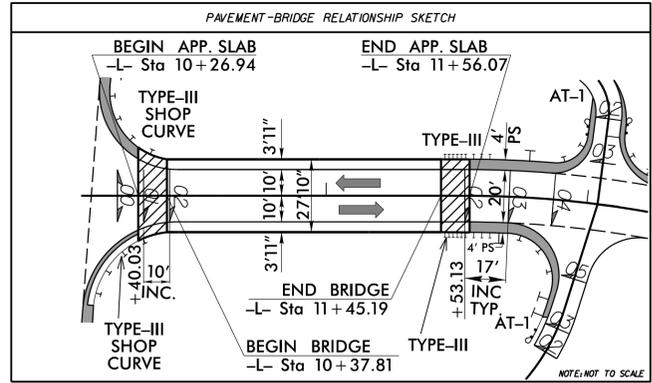
SANITARY SEWER:

Sanitary Sewer Manhole	⊕
Sanitary Sewer Cleanout	⊕
U/G Sanitary Sewer Line	----- SS
Above Ground Sanitary Sewer	----- A/G Sanitary Sewer
SS Forced Main Line LOS B (S.U.E.*)	----- FSS
SS Forced Main Line LOS C (S.U.E.*)	----- FSS
SS Forced Main Line LOS D (S.U.E.*)	----- FSS

MISCELLANEOUS:

Utility Pole	●
Utility Pole with Base	⊕
Utility Located Object	○
Utility Traffic Signal Box	⊕
Utility Unknown U/G Line LOS B (S.U.E.*)	----- 2UTL
U/G Tank; Water, Gas, Oil	-----
Underground Storage Tank, Approx. Loc.	----- UST
A/G Tank; Water, Gas, Oil	-----
Geoenvironmental Boring	⊕
U/G Test Hole LOS A (S.U.E.*)	⊕
Abandoned According to Utility Records	AATUR
End of Information	E.O.I.

NAD 83/NSRS 2007



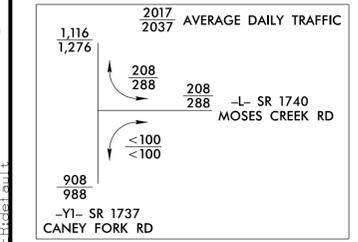
DO NOT CLEAR EXIST. VEGETATION ALONG -Y1- LEFT SIDE UNLESS DIRECTED BY THE ENGINEER

-L-
 PI Sta 12+79.26 Δ = 35°00'11.2" (RT) D = 14°19'26.2" L = 244.37' T = 126.13' R = 400.00' SE = 04 INC. = 17'
 PI Sta 16+89.18 Δ = 7°51'38.2" (RT) D = 7°51'27.9" L = 98.78' T = 49.47' R = 720.00'

-Y1-
 PI Sta 10+87.45 Δ = 3°31'07.8" (RT) D = 2°51'53.2" L = 122.83' T = 61.43' R = 2,000.00'
 PI Sta 12+82.84 Δ = 34°03'23.9" (RT) D = 17°37'46.1" L = 193.18' T = 99.54' R = 325.00' SE = 08 INC. = 22'

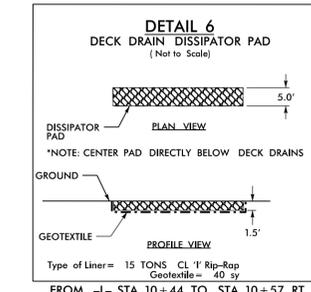
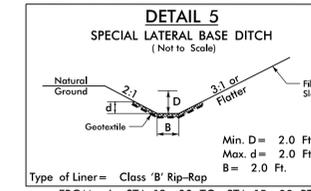
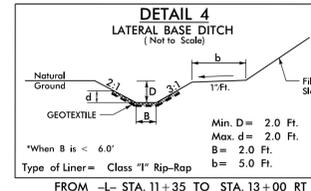
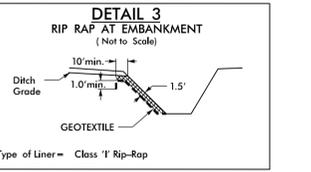
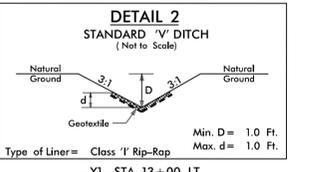
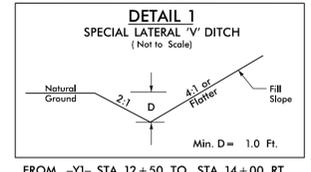
-DR1-
 PI Sta 10+41.61 Δ = 24°19'57.1" (LT) D = 29°41'13.0" L = 81.96' T = 41.61' R = 193.00'
 PI Sta 11+11.21 Δ = 72°18'54.4" (LT) D = 143°14'22.0" L = 50.51' T = 29.25' R = 40.00'
 PI Sta 11+82.16 Δ = 97°18'21.3" (RT) D = 286°28'44.0" L = 33.97' T = 22.73' R = 20.00'

-DR2-
 PI Sta 10+61.15 Δ = 27°47'46.7" (RT) D = 76°23'39.7" L = 36.39' T = 18.56' R = 75.00'



BEGIN TIP PROJECT B-5159
 -L- Sta. 10+00.00

END TIP PROJECT B-5159
 -L- Sta. 16+90.00



SEE SHEET 5 FOR -L- PROFILE
 SEE SHEET 5 FOR -Y1- PROFILE
 SEE SHEET 6 FOR -DR1- PROFILE
 SEE SHEET 6 FOR -DR2- PROFILE
 SEE SHEET S-1 TO S-17 FOR STRUCTURE PLANS

REVISIONS
 3/3/2017 B-5159_Rdy_psh_04.dgn
 1116
 1,276
 208
 288
 208
 288
 <100
 <100
 908
 988
 -Y1- SR 1737
 CANEY FORK RD