



NICHOLAS J. TENNYSON

April 7, 2016

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 Permits 23 and 33, for the Proposed Replacement of Bridge 221 on SR 1367 over Little Savannah Creek in Jackson County, Federal Aid Project No. BRZ-1367(3); TIP B-5410, Division 14

Dear Madam:

The North Carolina Department of Transportation (NCDOT) proposes to replace bridge number 221 on SR 1367 over Little Savannah Creek in Jackson County with a single span, 57.5 feet core slab bridge on a new alignment 65 feet downstream. The existing bridge will be utilized as an onsite detour during construction. There will be 25 lf of permanent impacts to surface waters from roadway fill. There will be <0.01 acre of temporary impacts to surface waters resulting from this action. Mitigation will be acquired from the North Carolina Division of Mitigation Services (NCDMS) for the stream impacts for this project.

Please see enclosed copies of the Pre-Construction Notification (PCN), NCDMS acceptance letter, USFWS Concurrence Letter, Stormwater Management Plan, Permit Drawings, and Roadway Plansheets. A Categorical Exclusion (CE) was completed in June 2014 and distributed shortly thereafter. Additional copies are available upon request.

This project is located in a trout county; therefore comments from the NCWRC will be required prior to authorization by the Corps of Engineers. By copy of this letter and attachment, NCDOT hereby requests NCWRC Review. NCDOT requests that NCWRC forward their comments to the Corps of Engineers and the NCDOT within 30 calendar days of receipt of this application.

A letter from USFWS dated February 23, 2016, granted concurrence for the Appalachian elktoe with a call of May Affect, Not Likely to Adversely Affect.



This project calls for a letting date of June 23, 2016 and a review date of May 3, 2016; 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 Jeff Hemphill at (919) 707-6126.

Sincerely,

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 1.3 Dec 10 2008	

	Pre-Construction Notification (PCN) Form					
A.	. Applicant Information					
1.	Processing					
1a.	Type(s) of approval sought from Corps:	the	⊠ Section 404 Permit ☐ Secti	ion 10 Permit		
1b.	Specify Nationwide Permit (NWP) number: 2	23,33 or General Permit (GP) number:		
1c.	Has the NWP or GP number bee	en verified b	by the Corps?	⊠ Yes	□No	
1d.	Type(s) of approval sought from	the DWQ (check all that apply):			
		n – Regula	r Non-404 Jurisdiction	al General Permi	t	
	☐ 401 Water Quality Certification	n – Expres	Riparian Buffer Autho	orization		
1e.	Is this notification solely for the rebecause written approval is not r		For the record only for DWQ 401 Certification: ☐ Yes ☐ No		only for Corps Permit:	
				_		
1g.	Is the project located in any of N below.	C's twenty	coastal counties. If yes, answer 1h	Yes	⊠ No	
1h.	Is the project located within a NC	DCM Area	a of Environmental Concern (AEC)?	☐ Yes	⊠ No	
2.	Project Information					
2a.	Name of project:	Replacem Road)	nent of Bridge 221 over Little Savann	ah Creek on SR	1367 (Little Savannah	
2b.	County:	Jackson				
2c.	Nearest municipality / town:	Webster				
2d.	Subdivision name:	not applic	cable			
2e.	NCDOT only, T.I.P. or state project no:	B-5410				
3.	Owner Information					
3a.	Name(s) on Recorded Deed:	North Car	rolina Department of Transportation			
3b.	Deed Book and Page No.	not applic	cable			
3c.	c. Responsible Party (for LLC if applicable): not applicable					
3d.	d. Street address: 1598 Mail Service Center					
3e.	City, state, zip:	Raleigh, N	NC 27699-1598			
3f.	Telephone no.:	(919) 707	7-6126			
3g.	Fax no.:	(919) 212	2-5785			
3h.	h. Email address: jhemphill@ncdot.gov					

4.	Applicant Information (if different from owner)			
4a.	Applicant is:	Agent Other, specify:		
4b.	Name:	not applicable		
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	ı (if applicable)		
5a.	Name:	not applicable		
5b.	Business name (if applicable):			
5c.	Street address:			
5d.	City, state, zip:			
5e.	Telephone no.:			
5f.	Fax no.:			
5g.	Email address:			

В.	Project Information and Prior Project History		
1.	Property Identification		
1a.	Property identification no. (tax PIN or parcel ID):	not applicable	
1b.	Site coordinates (in decimal degrees):	Latitude: 35.33244 (DD.DDDDDD)	Longitude: - 83.23293 (-DD.DDDDDD)
1c.	Property size:	2.4 acres	
2.	Surface Waters		
2a.	Name of nearest body of water (stream, river, etc.) to proposed project:	Little Savannah Creek	
2b.	Water Quality Classification of nearest receiving water:	С	
2c.	River basin:	Little Tennessee	
3.	Project Description		
3a.	Describe the existing conditions on the site and the general lar application:		t the time of this
	Forest communities, agriculture, minor residential developmen		
3b.	List the total estimated acreage of all existing wetlands on the	•	
	0.1 acre – this wetland is located just next to the project footpo	int – no impacts	
3c.	List the total estimated linear feet of all existing streams (interm 1,068 lf	ittent and perennial) on the property	y:
3d.	Explain the purpose of the proposed project: To replace a structurally deficient and functionally obsolete brid	lge.	
3e.	Describe the overall project in detail, including the type of equi		
	The project involves replacing a three span 51-foot reinforced foot precast concrete core slab bridge on a new alignment to tl detour. Standard road building equipment, such as trucks, doz	ne north with the existing bridge utili	
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:	☐ Yes	Unknown
4b.	If the Corps made the jurisdictional determination, what type of determination was made?	☐ Preliminary ☐ Final	
4c.	If yes, who delineated the jurisdictional areas? Name (if known):	Agency/Consultant Company: Other: NCDOT	
4d.	If yes, list the dates of the Corps jurisdictional determinations of 7/27/2011 w/ Lori Beckwith – she said she would issue a verif		documentation.
5.	Project History		
5a.	Have permits or certifications been requested or obtained for this project (including all prior phases) in the past?	☐ Yes	Unknown
5b.	If yes, explain in detail according to "help file" instructions.		
6.	Future Project Plans		
6a.	Is this a phased project?	☐ Yes	
6b.	If yes, explain.		

C. Proposed Imp	acts Inventory					
1. Impacts Summ	ary					
1a. Which sections	were completed b	elow for your project	(check all that a	apply):		
	\boxtimes :	Streams - tributaries	Bu	ıffers		
☐ Open Waters	s 🗆 F	Pond Construction				
2. Wetland Impac	ts					
			1	tion for each wetland		
2a. Wetland impact	2b.	2c.	2d.	2e. Type of jurisd		2f.
number –	Type of impact	Type of wetland	Forested	(Corps - 404		Area of impact
Permanent (P) or		(if known)		DWQ - non-404	, other)	(acres)
Temporary (T)			Yes	Corps		
Site 1 P T			□ No	☐ DWQ		
Site 2 P T			Yes	Corps		
			□ No	DWQ		
Site 2 P T			☐ Yes ☐ No	│		
			☐ NO	Corps		
Site P T			□ No	☐ DWQ		
Site P T			Yes	Corps		
			☐ No	☐ DWQ		
				2g. Total wetlar	nd impacts	
2h. Comme	nts:					
3. Stream Impact						
If there are perennia question for all strea		ream impacts (includ	ng temporary ir	npacts) proposed on t	he site, then o	•
3a.	3b.	3c.	3d.	3e.	3f.	3g.
Stream impact number -	Type of impact	Stream name	Perennial (PER) or	Type of jurisdiction	Average	Impact length (linear feet)
Permanent (P) or			intermittent	(Corps - 404, 10	stream width	(iiiieai ieet)
Temporary (T)			(INT)?	DWQ – non-404,	(feet)	
				other)		
Site 1 ⊠ P □ T	Roadway fill	UT to Blake Branch	⊠ PER	⊠ Corps	1	25
		Dianch	☐ INT ☐ PER	☑ DWQ☐ Corps		
Site 1 ☐ P ⊠ T	Dewatering	Blake Branch		☐ DWQ	2	28
Site 2 P T			☐ PER	Corps		
Sile 2 P T			INT	DWQ		
Site 3 P T			PER	Corps		
			☐ INT	DWQ Corps		
Site 4 P T			INT	☐ DWQ		
Site 5 P T			☐ PER	Corps		
			☐ INT	DWQ		
			3h. T	otal stream and tribu	ıtary impacts	25 Perm 28 Temp
3i. Comments:						

4. Open	Water Im	pacts								
	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.		4b.	4c.				4d.		4e.	
Open w		Name of		T	()	1	\\\ - (- \ - \ - \		A 6 !	()
impact nu Permanen		waterbody (if applicable)		Type of i		I	Waterbod	y type	Area of im	pact (acres)
Tempora		(ii applicable)								
01 🗆 F	РПТ									
02 🗌 F	Р∏Т									
O3 🗌 F	РПТ									
O4 □ F	P □ T									
						4f. Total o	pen water i	mpacts		manent nporary
4g. Comm	4g. Comments:									
5. Pond	5. Pond or Lake Construction									
		truction proposed,	then con	nplete	the chart b	elow.				
5a.	5b.		5c.				5d.			5e.
Pond ID	Pro	posed use or	We	Wetland Impacts (acres)		Stream Impac		ets (feet)	Upland (acres)	
number		pose of pond	Flood	ded	Filled	Excavat ed	Flooded	Filled	Excavated	Flooded
P1										
P2										
		5f. Total								
5g. Comm	ents:									
5h. Is a dam high hazard permit required?		ed?	□Y	es	□No	If yes, perr	mit ID no	:		
5i. Expected pond surface area (acres):										
5j. Size o	of pond wa	atershed (acres):								
5k. Method of construction:					<u>-</u>			- 		

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

D. In	D. Impact Justification and Mitigation				
1. A	. Avoidance and Minimization				
1a. S	a. Specifically describe measures taken to avoid or minimize the proposed impacts in designing project.				
	See Stormwater Management Plan. The new bridge will span the creek with the existing bents removed. No deck drains will be required on the proposed bridge. The existing bridge will be utilized as an onsite detour.				
1b. S	Specifically describe measures taken to avoid or minimize	the proposed impacts	through construction techniques.		
Е	Best Management Practices for Surface Waters will be use	d during all phases of	construction.		
2. 0	Compensatory Mitigation for Impacts to Waters of the U	J.S. or Waters of the	State		
	Does the project require Compensatory Mitigation for mpacts to Waters of the U.S. or Waters of the State?	⊠ Yes □ No	0		
		☐ DWQ ☐ C	orps		
	f yes, which mitigation option will be used for this project?	☐ Mitigation bank ☐ Payment to in-lie ☐ Permittee Response	eu fee program onsible Mitigation		
3. 0	Complete if Using a Mitigation Bank				
3a. N	lame of Mitigation Bank: not applicable				
3b. C	redits Purchased (attach receipt and letter)	Туре	Quantity		
3c. C	comments:				
4. C	Complete if Making a Payment to In-lieu Fee Program				
4a. A	pproval letter from in-lieu fee program is attached.	Yes			
4b. S	tream mitigation requested:	25 linear feet			
4c. If	using stream mitigation, stream temperature:	☐ warm ☐ co	ool ⊠cold		
4d. B	suffer mitigation requested (DWQ only):	0 square feet			
4e. R	tiparian wetland mitigation requested:				
4f. N	lon-riparian wetland mitigation requested:	0 acres			
4g. C	Coastal (tidal) wetland mitigation requested:	0 acres			
4h. C	4h. Comments:				
5. C	Complete if Using a Permittee Responsible Mitigation F	Plan			
5a. If	5a. If using a permittee responsible mitigation plan, provide a description of the proposed mitigation plan.				

6. Buffe	6. Buffer Mitigation (State Regulated Riparian Buffer Rules) – required by DWQ						
	ne project result in an impact wi r mitigation?	n buffer that requires	☐ Yes				
,	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.						
	6c.	6d.		6e.			
Zone	Reason for impact	Total impact	Multiplier	Required mitigation			
		(square feet)		(square feet)			
Zone 1							
Zone 2							
		6f. Total buffer i	mitigation required:				
perm	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. Comr	ments:						

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?	☐ Yes	⊠ No			
1b.	If yes, then is a diffuse flow plan included? If no, explain why. Comments:	Yes	⊠ 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?	⊠ Yes	□ No			
2c.	If this project DOES NOT require a Stormwater Management Plan, explain why:					
2d.	2d. If this project DOES require a Stormwater Management Plan, then provide a brief, narrative description of the plan: See attached.					
2e.	Who will be responsible for the review of the Stormwater Management Plan?		cal Government water Program nit			
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):	Phase II NSW USMP Water Supp Other:	ly Watershed			
3c.	Has the approved Stormwater Management Plan with proof of approval been attached?	⊠ Yes	□ No			
4.	DWQ Stormwater Program Review					
4a.	Which of the following state-implemented stormwater management programs apply (check all that apply):	Coastal could HQW ORW Session La	unties w 2006-246			
4b.	Has the approved Stormwater Management Plan with proof of approval been attached?	☐ Yes	□ No N/A			
5.	DWQ 401 Unit Stormwater Review					
5a.	Does the Stormwater Management Plan meet the appropriate requirements?	☐ Yes	□ No N/A			
5b.	Have all of the 401 Unit submittal requirements been met?	Yes	□ 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?	⊠ Yes	□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)?	⊠ Yes	□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.)	⊠ Yes	□No
	Comments:		
2.	Violations (DWQ Requirement)	<u>, </u>	
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)?	☐ Yes	⊠ No
2b.	Is this an after-the-fact permit application?	☐ Yes	⊠No
2c.	If you answered "yes" to one or both of the above questions, provide an explanation of	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?	☐ Yes ☑ No	
3b.	If you answered "yes" to the above, submit a qualitative or quantitative cumulative impost recent DWQ policy. If you answered "no," provide a short narrative description.	pact analysis in ac	ccordance with the
	Due to the minimal transportation impact resulting from this bridge replacement, this pland uses nor stimulate growth. Therefore, a detailed indirect or cumulative effects st		
4.	Sewage Disposal (DWQ Requirement)		
4a.	Clearly detail the ultimate treatment methods and disposition (non-discharge or discharge the proposed project, or available capacity of the subject facility. not applicable	arge) of wastewate	er generated from

5.	Endangered Species and Designat	ed Critical Habitat (Corps Requiremen	t)			
5a.	Will this project occur in or near an ar habitat?	ea with federally protected species or	⊠ Yes	□No		
5b.	Have you checked with the USFWS of impacts?	concerning Endangered Species Act	⊠ Yes	□No		
5c.	If yes, indicate the USFWS Field Office	ce you have contacted.	☐ Raleigh ☐ Asheville			
5d.	What data sources did you use to det Habitat?	ermine whether your site would impact E	ndangered Species or I	Designated Critical		
	N.C. Natural Heritage Program database; USFWS-website; biological surveys for protected species listed for Jackson County. Habitat for swamp pink exists in a wetland adjacent to the project footprint but a survey conducted in the study area in 2014 resulted in no specimens being found. A Section 7 Survey Memo for the northern long-eared bat and Indiana bat with calls of May Affect, Not Likely to Adversely Affect No Habitat/No Effect, respectively. The survey Memo declared that NCDOT was in Section 7 compliance for the NLEB with this information included with a Concurrence request sent February 18, 2016 to USFWS. A letter from USFWS dated February 23, 2016, granted concurrence for Appalachian elktoe with a call of May Affect, Not Likely to Adversely Affect. Email correspondance with Andrew Henderson of USFWS on April 1, 2016, confirmed that no concurrence was required for NLEB and Indiana bat for this project.					
6.	Essential Fish Habitat (Corps Requ	irement)				
6a.	Will this project occur in or near an are	ea designated as essential fish habitat?	☐Yes	⊠ No		
6b.	What data sources did you use to det	ermine whether your site would impact Es	ssential Fish Habitat?			
	NMFS County Index					
7.	Historic or Prehistoric Cultural Res	ources (Corps Requirement)				
7a.	Will this project occur in or near an argovernments have designated as hav status (e.g., National Historic Trust de North Carolina history and archaeolog	ing historic or cultural preservation signation or properties significant in	☐Yes	⊠ No		
7b.	NEPA Documentation					
8. F	lood Zone Designation (Corps Requ	irement)				
8a.	Will this project occur in a FEMA-desig	nated 100-year floodplain?	⊠ Yes [□No		
8b.	If yes, explain how project meets FEM.	A requirements: NCDOT Hydraulics Unit	coordination with FEMA			
8c. \	What source(s) did you use to make th	e floodplain determination? FEMA Maps				
	Phillip S. Harris Applicant/Agent's Printed Name Applicant/Agent's Signature (Agent's signature is valid only if an authorization letter from the applicant					



DONALD R. VAN DER VAART

April 6, 2016

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

Dear Mr. Harris:

Subject: Mitigation Acceptance Letter:

B-5410, Replace Bridge 221 on SR 1367 over Little Savannah Creek, Jackson County

The purpose of this letter is to notify you that the Division of Mitigation Services (DMS) will provide the compensatory stream mitigation for the subject project. Based on the information supplied by you on April 1, 2016, the impacts are located in CU 06010203 of the Little Tennessee River basin in the Southern Mountains (SM) Eco-Region, and are as follows:

Little Tennessee	Stream				Wetlands	Buffer (Sq. Ft.)		
06010203 SM	Cold	Cool	Warm	Riparian	Non- Riparian	Coastal Marsh	Zone 1	Zone 2
Impacts (feet/acres)	25.0	0	0	0	0	0	0	0

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

This impact and associated mitigation need were under projected by the NCDOT in the 2016 impact data. DMS will commit to implement sufficient compensatory stream mitigation credits to offset the impacts associated with this project as determined by the regulatory agencies using the delivery timeline listed in Section F.3.c.iii of the In-Lieu Fee Instrument dated July 28, 2010. If the above referenced impact amounts are revised, then this mitigation acceptance letter will no longer be valid and a new mitigation acceptance letter will be required from DMS.

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

Sincerely,

James B. Stanfill

Credit Management Supervisor

cc: Ms. Lori Beckwith, USACE - Asheville Regulatory Field Office

Ms. Amy Chapman, NCDWR

File: B-5410



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Asheville Field Office 160 Zillicoa Street Asheville, North Carolina 28801

February 23, 2016

Ms. Carla Dagnino NC Department of Transportation Natural Environment Section 1598 Mail Service Center Raleigh, North Carolina 27699-1598

Dear Ms. Dagnino:

Subject: Endangered Species Concurrence for Proposed Replacement of Bridge Number 221 on State Road 1367 (Little Savannah Road) over Little Savannah Creek, Jackson County, North Carolina, TIP No. B-5410

On February 19, 2015, we received your letter (via email) requesting section 7 concurrence on effects the subject bridge replacement may have on the federally endangered Appalachian elktoe (*Alasmidonta raveneliana*). The following comments are provided in accordance with section 7 of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531-1543) (Act).

We have reviewed the information provided in your concurrence request letter and the North Carolina Department of Transportation's freshwater mussel survey report, dated October 29, 2013, as well as the Section 7 survey memo for the Northern long-eared bat and Indiana bat, dated February 18, 2016. We concur with your biological conclusion that the proposed construction may affect, but is not likely to adversely affect the Appalachian elktoe.

Therefore, we believe the requirements under section 7(c) of the Act are fulfilled for the Appalachian elktoe. However, obligations under section 7 of the Act must be reconsidered if: (1) new information reveals impacts of this identified action that may affect listed species or critical habitat in a manner not previously considered, (2) this action is subsequently modified in a manner that was not considered in this review, or (3) a new species is listed or critical habitat is determined that may be affected by the identified action.

If we can be of assistance or if you have any questions about these comments, please contact Mr. Andrew Henderson of our staff at 828/258-3939, Ext. 227. In any future correspondence concerning this project, please reference our Log Number 4-2-13-089.

Sincerely,

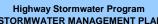
Jall 198

Janet A. Mizzi Field Supervisor



(If yes, provide justification in the General Project Narrative)

North Carolina Department of Transportation



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8	
433490	OF HEADINGS

STORMWATER MANAGEMENT PLAN Version 2.01; Released December 2014) FOR NCDOT PROJECTS WBS Element: 46125.1.1 TIP No.: B-5410 County(ies): Jackson Page of **General Project Information** 46125.1.1 TIP Number: B-5410 Bridge Replacement Date: 8/21/2015 WBS Element: Project Type: **NCDOT Contact:** Stephen Morgan Contractor / Designer: Address: NCDOT Hydraulics Unit Address: 1590 Mail Service Center Raleigh, NC 27699 Phone: 919-707-6755 Phone: Email: smorgan@ncdot.gov Email: City/Town: County(ies): Jackson CAMA County? No River Basin(s): Little Tennessee Wetlands within Project Limits? No **Project Description** Rural Project Length (lin. miles or feet): 660 ft. Surrounding Land Use: **Existing Site Proposed Project** Project Built-Upon Area (ac.) 0.5 ac. 0.3 **Typical Cross Section Description:** Two lane section- 11' lanes with 4' paved shoulders. Two lane- 9' lanes. Annual Avg Daily Traffic (veh/hr/day): Year: 2036 Design/Future: 1645 Existing: 1,168 Year: 2016 Replace Bridge number 221 on SR 1367 (Little Savannah Road) over 65 FT Little Savannah Creek. The new bridge will be located downstream on new alignment. A 60" metal General Project Narrative: pipe will be replaced with a concrete pipe at the project begin station. The new bridge will be a single span structure with no direct discharge to Little Savannah Creek. Roadway (Description of Minimization of Water stormwater is dispersed through natural steeam buffer before entering the creek. High ground areas subject to erosive forces will be armored with the minimum amount of rip rap Quality Impacts) required for stabilization. Impacts to surface waters will be temporary for construction only. The existing roadway will be removed and regraded, erosion and sedimentation will be controlled through the appropriate measuers during construction. Any disturbed areas will be properly vegetated post-construction. **Waterbody Information** Surface Water Body (1): NCDWR Stream Index No.: 2-79-36-14 **Primary Classification:** Class C NCDWR Surface Water Classification for Water Body Supplemental Classification: Other Stream Classification: Impairments: Threatened/Endangered Species? Comments: NRTR Stream ID: Buffer Rules in Effect: Dissipator Pads Provided in Buffer? Project Includes Bridge Spanning Water Body? Deck Drains Discharge Over Buffer? (If yes, provide justification in the General Project Narrative) (If yes, describe in the General Project Narrative; if no, justify in the Deck Drains Discharge Over Water Body? General Project Narrative)

See Sheet 1-A For Index of Sheets B-5410VICINITY MAP

STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

PERMIT DRAWING SHEET 1 OF 5

					NU.	SIBBIS	
\neg	N.C.		B-5410		1		
	8TATE PROJ.NO. 46125.1.1		F. A. PROJ. NO.		DESCRIPTION		
			BRZ-1367(3)	PE		
	46	125.2.1	BRZ-1367(3)	R/W, UTIL.		

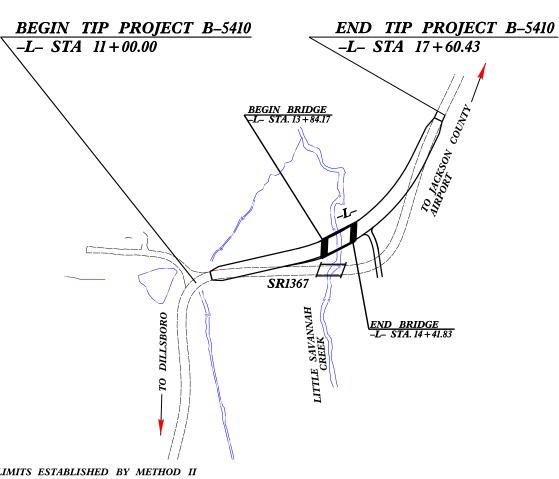
JACKSON COUNTY

LOCATION: BRIDGE 221 OVER LITTLE SAVANNAH CREEK ON SR 1367.

TYPE OF WORK: GRADING, DRAINAGE, PAVING AND STRUCTURE

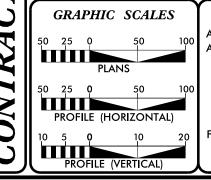


WETLAND AND SURFACE WATER IMPACTS PERMIT



THIS PROJECT IS NOT WITHIN ANY MUNICIPAL BOUNDARIES. CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD II ** DESIGN EXCEPTION REQUIRED FOR HORIZONTAL STOPPING SIGHT DISTANCE

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION



DESIGN DATA

ADT 2016 = 1,168ADT 2036 = 1,645K = 10 %T = 11 % *

V = 35 MPH* TTST =1 DUAL 10 FUNC CLASS = LOCAL SUB REGIONAL TIER

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT B-5410 = 0.114 Miles LENGTH STRUCTURE TIP PROJECT B-5410 = 0.011 Miles TOTAL LENGTH TIP PROJECT B-5410 = 0.125 Miles.

Prepared in the Office of: **DIVISION OF HIGHWAYS** 1000 Birch Ridge Dr., Raleigh NC, 27610 2012 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: JULY 23, 2015

LETTING DATE: JULY 19, 2016

KEVIN E. MOORE, PE

MARK HUSSEY

HYDRAULICS ENGINEER ROADWAY DESIGN **ENGINEER**

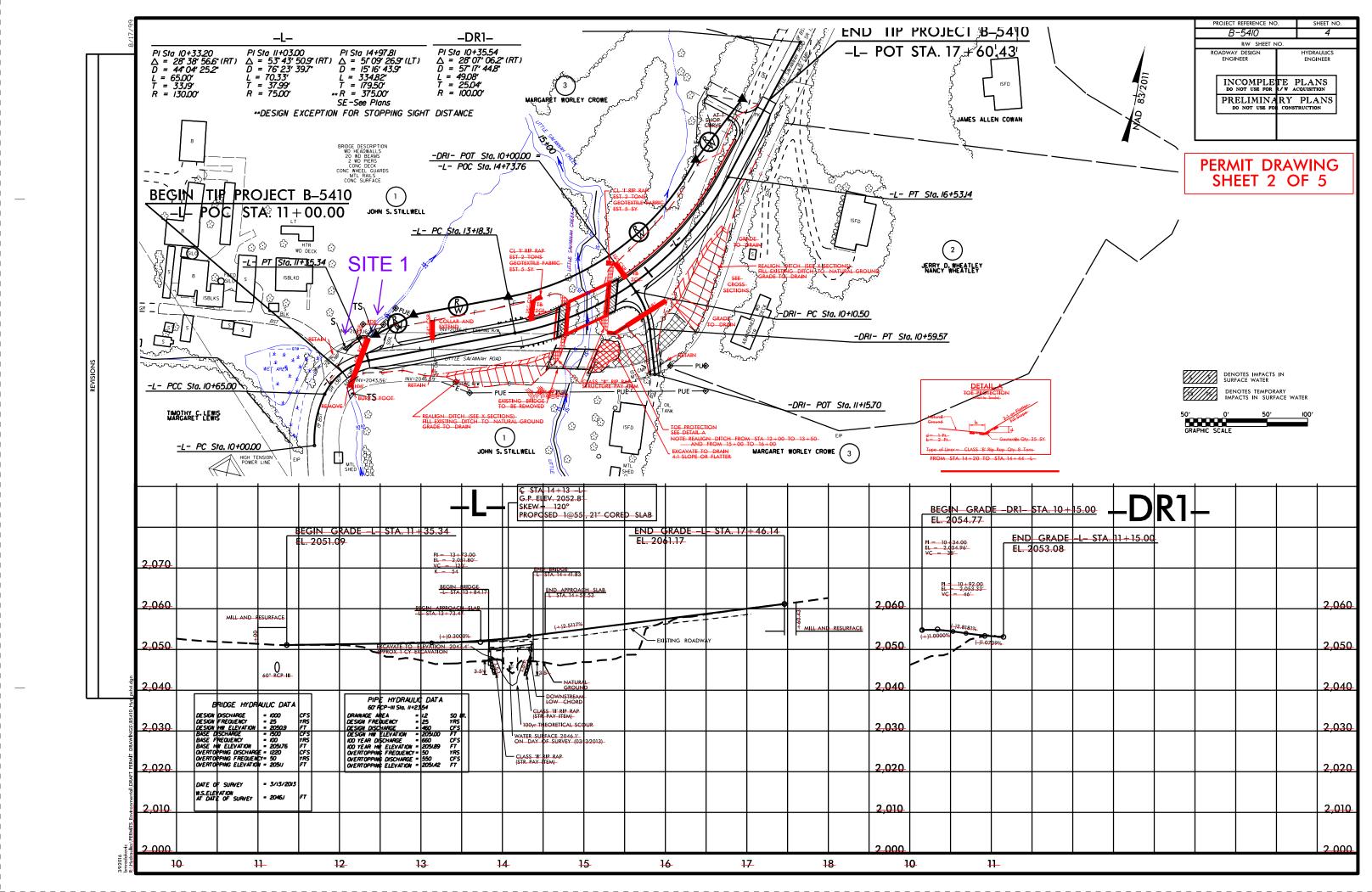


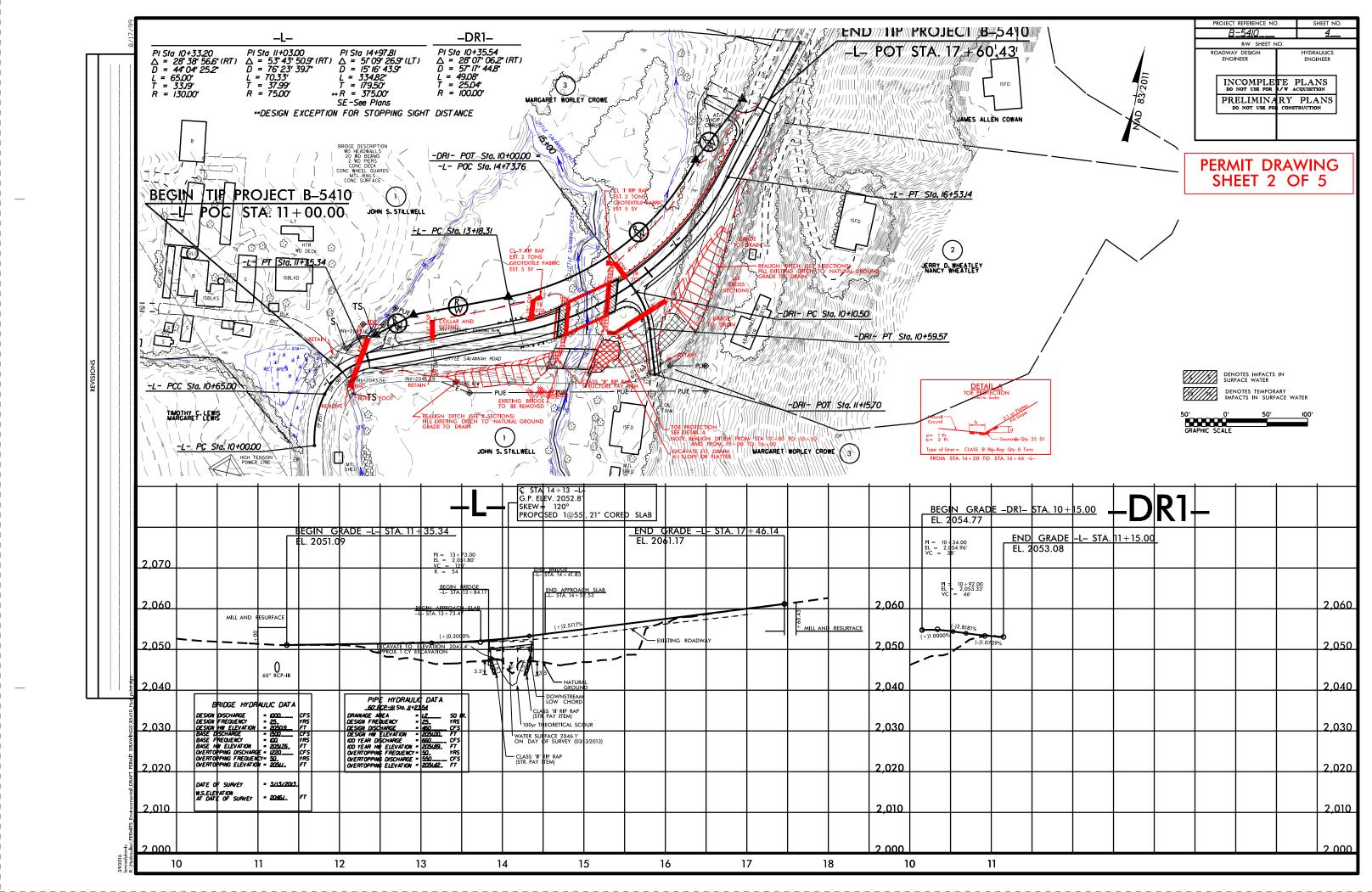
5410

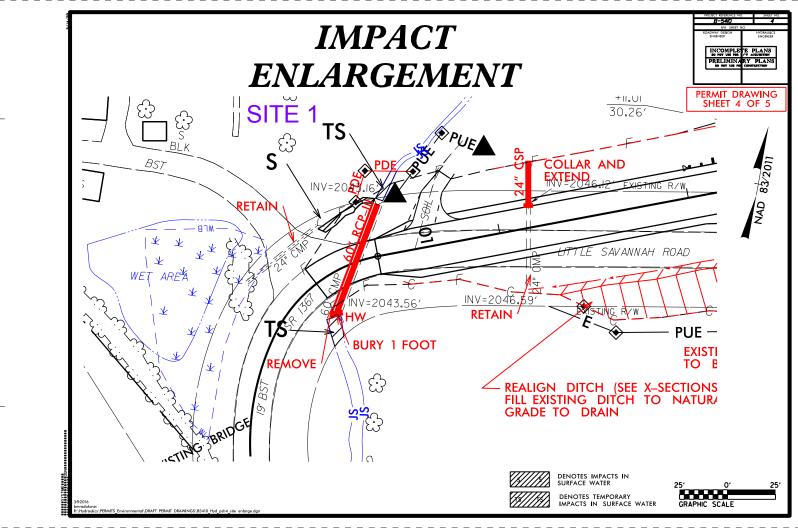
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				WETLAND PERMIT IMPACT SUM WETLAND IMPACTS				SURFACE WATER IMPACTS				
Site	Station	Structure	Permanent Fill In	Temp. Fill In	Excavation in	Mechanized Clearing	Hand Clearing in	SW	SW	Existing Channel Impacts	Existing Channel Impacts	Natural Stream
No.	(From/To)	Size / Type	Wetlands (ac)	Wetlands (ac)	Wetlands (ac)	in Wetlands (ac)	Wetlands (ac)	impacts (ac)	impacts (ac)	Permanent (ft)	Temp. (ft)	Design (ft)
SITE 1	11+25 -L-	60" RCP	, ,	/	. ,	` ′		` ′	< 0.01	` ′	28	
	11+13 -L-	Fill Slope						< 0.01		25		
												_
												-
												+
												+
												+
											-	

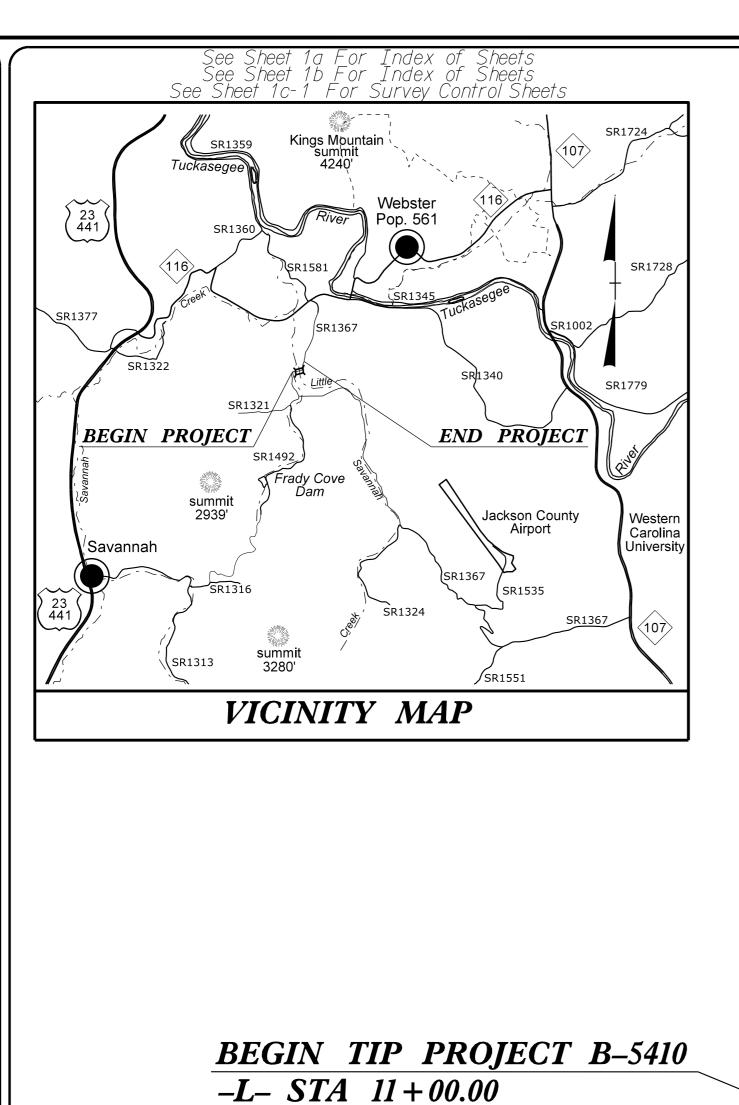
^{*}Rounded totals are sum of actual impacts

NOTES:

EXISTING PIIERS WILL BE REMOVED.

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
8/19/2015
JACKSON COUNTY
B-5410
WBS 46125.1.1
SHEET 5 OF 5

Revised 2013 10 24



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PROJECI

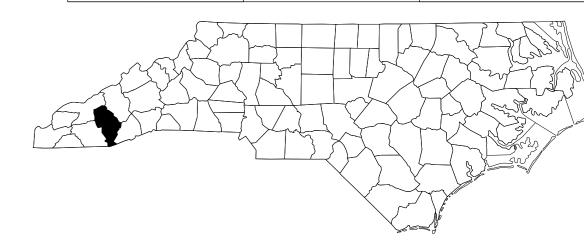
STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

JACKSON COUNTY

LOCATION: BRIDGE 221 OVER LITTLE SAVANNAH CREEK ON SR 1367

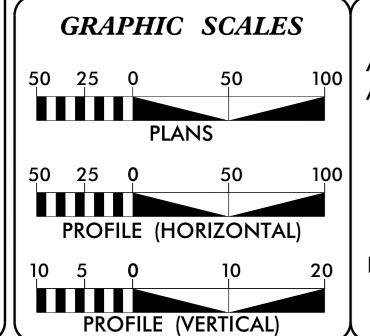
TYPE OF WORK: GRADING, DRAINAGE, PAVING, STRUCTURE

STATE	STATE PROJECT REFERENCE NO.			SHEET NO.	SHEETS	
N.C.		B-5410		1		
STATE	PROJ. NO.	F. A. PROJ. NO.		DESCRIPTION		
46125.1.1		BRZ-1367(3)		PE		
46125.2.1		BRZ-1367(3)		R/W, UTIL		
46125.3.1		BRZ-1367(3)	CONST			



END TIP PROJECT B-5410 -L-STA 17+60.43 **BEGIN BRIDGE** -L- STA. 13 + 84.17 $-5R^{-1367}$ COUNTY AIRPORT END CONSTRUCTION
-DRI- Sta. 11+15.00

** DESIGN EXCEPTION REQUIRED FOR HORIZONTAL STOPPING SIGHT DISTANCE



DESIGN DATA

ADT 2016 = 1,168 ADT 2036 = 1,645K = 10 %D = 65 %T = 11 % *

V = 35 MPH *** TTST =1 DUAL 10 FUNC CLASS = LOCAL

SUB REGIONAL TIER

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT B-5410 = 0.114 Miles LENGTH STRUCTURE TIP PROJECT B-5410 = 0.011 Miles TOTAL LENGTH TIP PROJECT B-5410 = 0.125 Miles.

Prepared in the Office of: **DIVISION OF HIGHWAYS**

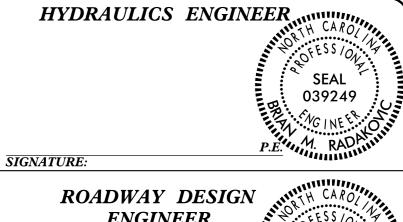
1000 Birch Ridge Dr., Raleigh NC, 27610 2012 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: JULY 23, 2015

> LETTING DATE: JUNE 21, 2016

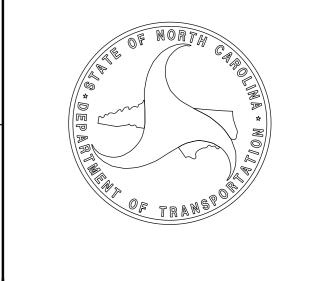
KEVIN E. MOORE, PE PROJECT ENGINEER

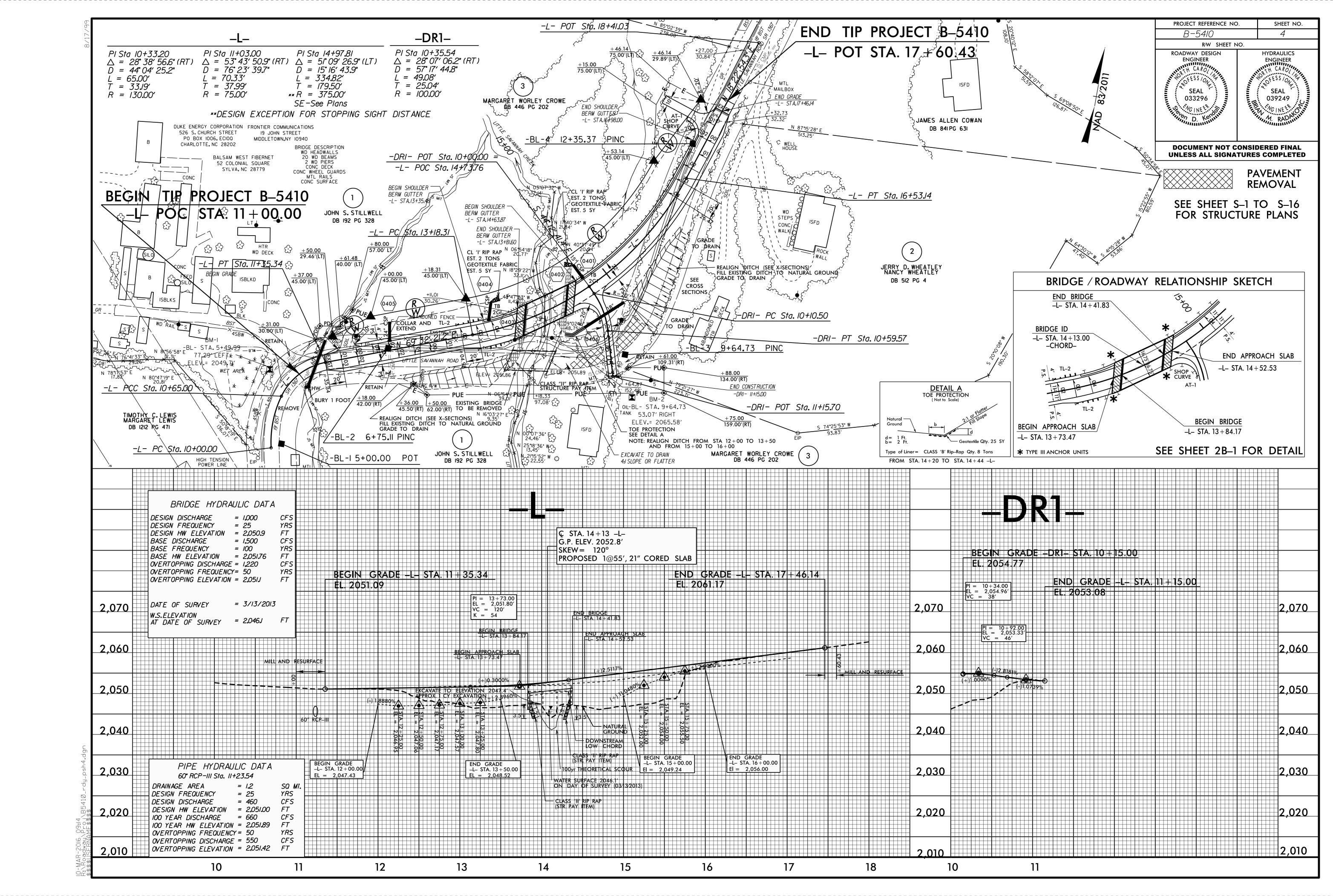
STEVEN D. KENDALL, PE PROJECT DESIGN ENGINEER

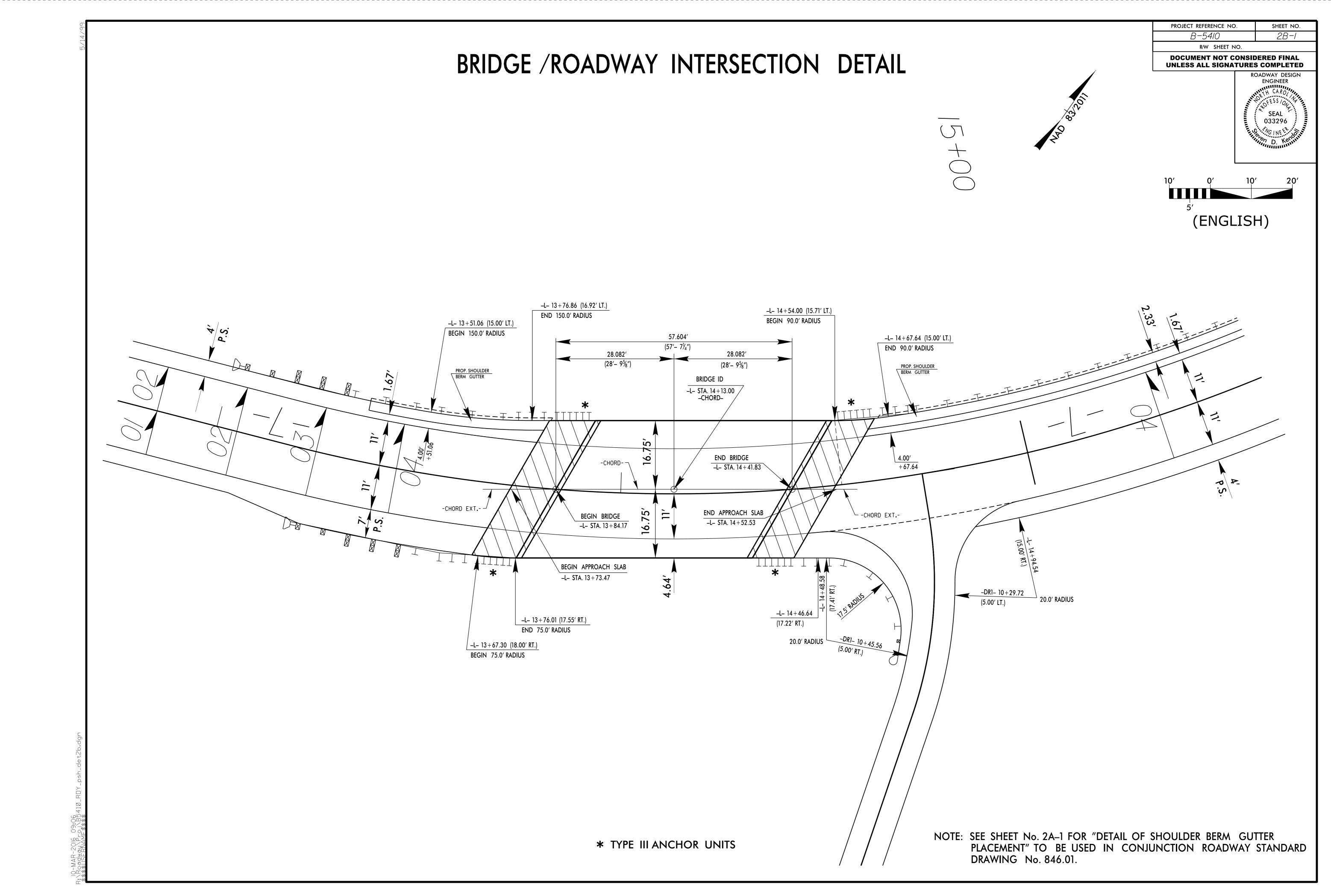


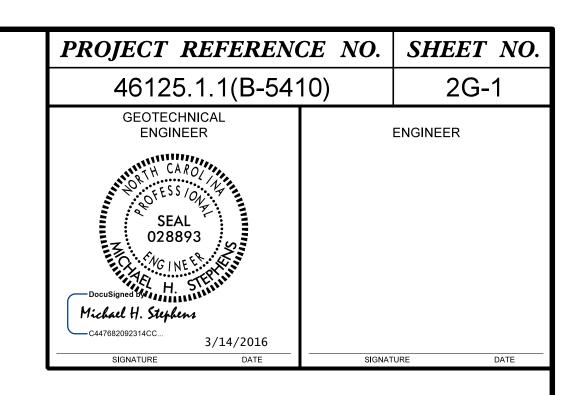
ENGINEER SEAL 033296

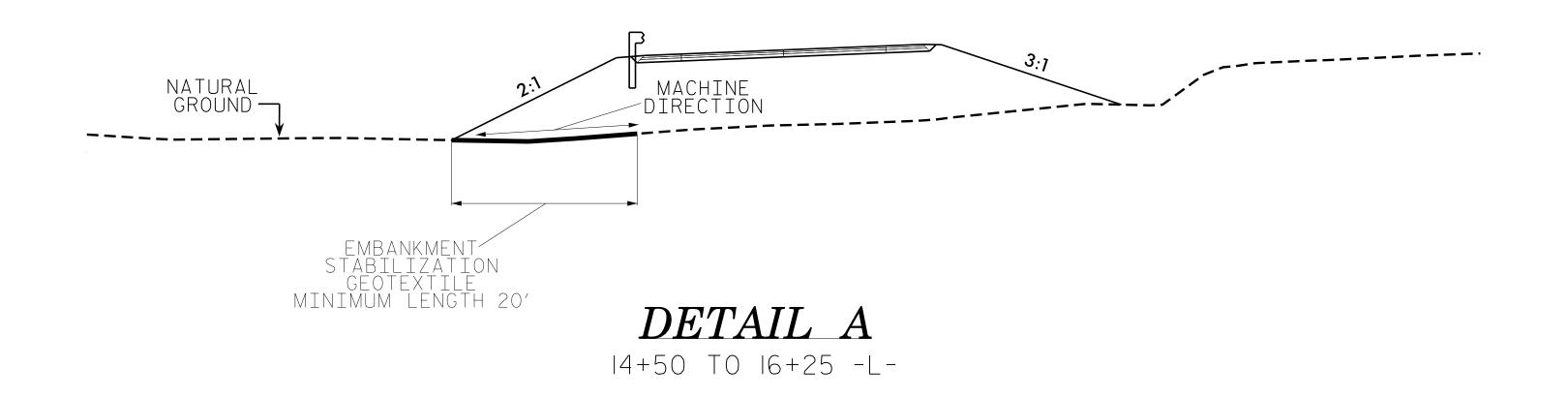
SIGNATURE:









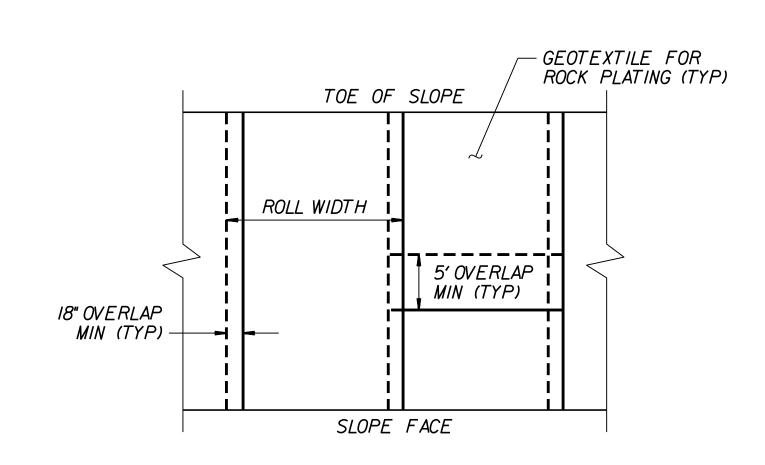


NOTES

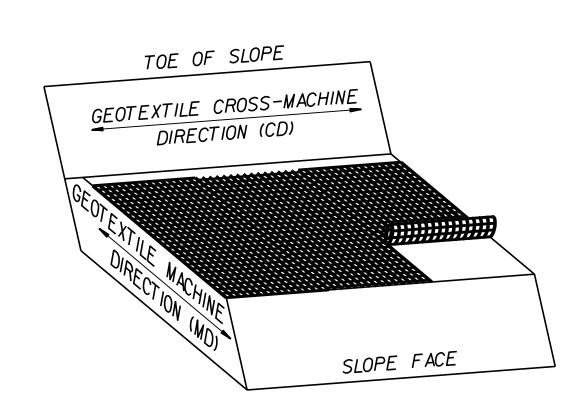
1. FOR ROADWAY EMBANKMENTS WITH LESS THAN A 2.5:1 SLOPE.
2. PLACE ALL GEOTEXTILE WITH THE MACHINE DIRECTION PERPENDICULAR TO THE SLOPE FACE.
3. GEOTEXTILE FOR EMBANKMENT STABILIZATION SHALL BE PLACED FROM TOE OF PROPOSED SLOPE EXTENDING A MINIMUM OF 20 FT ALONG THE TRANSITION FORM EXISTING GROUND AND NEW EMBANKMENT FILL

GEOTEXTILE FOR
EMBANKMENT STABILIZATION
(SQUARE YARDS)

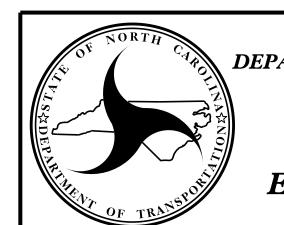
GEOTEXTILE 1,100 SYDS



GEOTEXTILE OVERLAP DETAIL (PLAN VIEW)



GEOTEXTILE PLACEMENT DETAIL (PLAN VIEW)



NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

GEOTECHNICAL ENGINEERING UNIT EMBANKMENT STABILIZATION DETAIL

	REVISIONS							
IO.	BY	DATE	NO.	BY	DATE			
1			3					
2			4					

PREPARED BY: MHS

DATE: 12/17/14

REVIEWED BY: SCC

DATE: 12/17/14