



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

JAMES H. TROGDON, III
SECRETARY

March 6, 2017

Washington Regulatory Field Office
U. S. Army Corps of Engineers
2407 West 5th Street
Washington, North Carolina 27889

N.C. Dept. of Environmental Quality
Division of Coastal Management
400 Commerce Avenue
Morehead City, NC 28557

ATTN: Mr. Tom Steffens
NCDOT Coordinator

ATTN: Mr. Stephen Lane
NCDOT Coordinator

Subject: **Revised Application for Section 10 Permit, Nationwide Permits 12, 23, & 33, Section 401 Water Quality Certification, Buffer Authorization, and CAMA Major Development Permit** for the Proposed Replacement of Bridge No. 16 over Mason Creek on SR 1324 (Florence Rd) in Pamlico County, North Carolina; TIP No. B-4598; Federal Aid Project No. BRZ-1324(5); Debit \$475 from WBS No. 38426.1.2

Reference: Permit Application dated January 13, 2017

Dear Sirs,

The NCDOT submitted a permit application to your agencies for this project on January 13, 2017; however, due to Session Law 2015-246 (§143-214.23A. Sec. 13.3(b)) buffer limits in coastal wetlands have changed. Therefore the permit and buffer drawings have been modified. In addition to the revised buffer impacts, the proposed temporary work pad has been removed and proposed stormwater discharge outlets have been relocated out of the revised buffer zones. Please see enclosed copies of the revised permit drawings, buffer drawings, utility drawings, pre-construction notification, mitigation debit ledger summary, and CAMA MP1 form for the subject project (there were no changes to MP5).

This project calls for a letting date of June 20, 2017 and a review date of May 2, 2017.

Regulatory Approvals

Section 10 Permit: Application is hereby made for a Section 10 Permit as required for the above-described activities in accordance with Section 10 of the Rivers and Harbors Act of March 3, 1899 (33 U.S.C. 403)

Section 404 Permit: We anticipate that the bridge replacement, including all approach work will be authorized under a Section 404 Nationwide Permit (NWP) 23 (Categorical Exclusions), the temporary work pad under a NWP 33, and utility relocations under a NWP 12 in accordance with Section 404 of the Clean Water Act (33 U.S.C. 1344).

Section 401 Permit: We anticipate 401 General Certification numbers 3891, 3893, and 3884 will apply to this project. NCDOT is requesting written concurrence from the North Carolina Department of Environmental Quality, Division of Water Resources.

Neuse Riparian Buffer Authorization: NCDOT is requesting a Neuse Riparian Buffer Authorization from the North Carolina Department of Environmental Quality, Division of Water Resources.

CAMA Major Development Permit: NCDOT requests that the proposed work be authorized under a Coastal Area Management Act Major Permit. Adjacent riparian landowner certified mail receipts have been provided. Authorization to debit the \$475 Permit Application Fee from WBS Element 38426.1.2 is hereby given.

A copy of this revised permit application and its distribution list will be posted at the NCDOT Website at <https://connect.ncdot.gov/resources/Environmental>. Should you have any questions regarding this information, please contact Tyler Stanton at (919) 707-6156 or tstanton@ncdot.gov.

Sincerely,



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



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: Section 404 Permit Section 10 Permit

1b. Specify Nationwide Permit (NWP) number: 12, 23, 33 or General Permit (GP) number:

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

1d. Type(s) of approval sought from the DWQ (check all that apply):
 401 Water Quality Certification – Regular Non-404 Jurisdictional General Permit
 401 Water Quality Certification – Express Riparian Buffer Authorization

1e. Is this notification solely for the record because written approval is not required?	For the record only for DWQ 401 Certification: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	For the record only for Corps Permit: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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1f. Is payment into a mitigation bank or in-lieu fee program proposed for mitigation of impacts? If so, attach the acceptance letter from mitigation bank or in-lieu fee program. Yes No

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

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

2. Project Information

2a. Name of project:	B-4598 - PROPOSED REPLACEMENT OF BRIDGE 16 OVER MASON CREEK ON SR 1324
2b. County:	Pamlico
2c. Nearest municipality / town:	Merritt
2d. Subdivision name:	n/a
2e. NCDOT only, T.I.P. or state project no.:	B-4598

3. Owner Information

3a. Name(s) on Recorded Deed:	North Carolina Department of Transportation
3b. Deed Book and Page No.	
3c. Responsible Party (for LLC if applicable):	
3d. Street address:	1598 Mail Service Center
3e. City, state, zip:	Raleigh, NC 27699-1598
3f. Telephone no.:	919-707-6156
3g. Fax no.:	919-212-5785
3h. Email address:	tstanton@ncdot.gov

4. Applicant Information (if different from owner)	
4a. Applicant is:	<input type="checkbox"/> Agent <input type="checkbox"/> Other, specify:
4b. Name:	
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:	
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):	
1b. Site coordinates (in decimal degrees):	Latitude: 35.1319 (DD.DDDDDD) Longitude: - 76.6845 (-DD.DDDDDD)
1c. Property size:	Approximately 30 acres
2. Surface Waters	
2a. Name of nearest body of water (stream, river, etc.) to proposed project:	Mason Creek
2b. Water Quality Classification of nearest receiving water:	SC; Sw, NSW, HQW
2c. River basin:	Neuse
3. Project Description	
3a. Describe the existing conditions on the site and the general land use in the vicinity of the project at the time of this application: swamp, marsh, forest, cropland, some rural residential	
3b. List the total estimated acreage of all existing wetlands on the property: Approximately 4.5 acre	
3c. List the total estimated linear feet of all existing streams (intermittent and perennial) on the property: 315'	
3d. Explain the purpose of the proposed project: Replace a functionally obsolete and structurally deficient bridge that is approaching the end of its useful life. Replacement of the bridge will result in safer traffic operations.	
3e. Describe the overall project in detail, including the type of equipment to be used: The proposed project will replace Pamlico County Bridge No. 16 on SR 1324 (Florence Road) over Mason Creek. Currently, bridge No. 16 is 61 feet long. The replacement structure will be a bridge approximately 110 feet long providing a minimum of 33.5 feet of clear deck width. Grading, paving, clearing, utility relocation, excavation and fill associated with the roadway and bridge work. Cranes, pile driving equipment, grading equipment, bull dozers, excavators, offroad trucks, and boring machines will be used.	
4. Jurisdictional Determinations	
4a. Have jurisdictional wetland or stream determinations by the Corps or State been requested or obtained for this property / project (including all prior phases) in the past? Comments:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
4b. If the Corps made the jurisdictional determination, what type of determination was made?	<input checked="" type="checkbox"/> Preliminary <input type="checkbox"/> Final
4c. If yes, who delineated the jurisdictional areas? Name (if known): NCDOT	Agency/Consultant Company: Other:
4d. If yes, list the dates of the Corps jurisdictional determinations or State determinations and attach documentation. A JD Request was sent on 6/25/12	
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. Please see attached cover letter.	

6. Future Project Plans

6a. Is this a phased project?

Yes

No

6b. If yes, explain.

C. Proposed Impacts Inventory					
1. Impacts Summary					
1a. Which sections were completed below for your project (check all that apply):					
<input checked="" type="checkbox"/> Wetlands		<input type="checkbox"/> Streams - tributaries		<input checked="" type="checkbox"/> Buffers	
<input checked="" type="checkbox"/> Open Waters		<input type="checkbox"/> Pond Construction			
2. Wetland Impacts					
If there are wetland impacts proposed on the site, then complete this question for each wetland area impacted.					
2a. Wetland impact number – Permanent (P) or Temporary (T)	2b. Type of impact	2c. Type of wetland (if known)	2d. Forested	2e. Type of jurisdiction (Corps - 404, 10 DWQ – non-404, other)	2f. Area of impact (acres)
W1 <input checked="" type="checkbox"/> P <input type="checkbox"/> T	bridge approach fill	coastal marsh	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Corps <input type="checkbox"/> DWQ	0.09
W2 <input checked="" type="checkbox"/> P <input type="checkbox"/> T	excavation	coastal marsh	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Corps <input type="checkbox"/> DWQ	< 0.01
W3 <input type="checkbox"/> P <input type="checkbox"/> T			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Corps <input type="checkbox"/> DWQ	
W4 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Corps <input type="checkbox"/> DWQ	
W4 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Corps <input type="checkbox"/> DWQ	
W5 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Corps <input type="checkbox"/> DWQ	
W6 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Corps <input type="checkbox"/> DWQ	
W7 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Corps <input type="checkbox"/> DWQ	
2g. Total wetland impacts					0.09
2h. Comments: There will be 0.07 ac of handclearing due to road construction and 0.13 ac due to utility relocation. Additionally there will be 0.01 ac of temporary fill in handclearing areas due to erosion control measures.					

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)
S1 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> PER <input type="checkbox"/> INT	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
S2 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> PER <input type="checkbox"/> INT	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
S3 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> PER <input type="checkbox"/> INT	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
S4 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> PER <input type="checkbox"/> INT	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
S5 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> PER <input type="checkbox"/> INT	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
S6 <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

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 checked="" type="checkbox"/> P <input type="checkbox"/> T	Mason Creek	Excavation	Stream	< 0.01
O1 <input type="checkbox"/> P <input type="checkbox"/> T				
O3 <input type="checkbox"/> P <input type="checkbox"/> T				
O4 <input type="checkbox"/> P <input type="checkbox"/> T				

4f. Total open water impacts

< 0.01

4g. Comments: There will be <0.01 acres of Permanent SW impacts for interior bent at 16+43

5. Pond or Lake Construction

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

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

5g. Comments:

5h. Is a dam high hazard permit required?

Yes No If yes, permit ID no:



5i. Expected pond surface area (acres):

5j. Size of pond watershed (acres):					
5k. Method of construction:					
6. Buffer Impacts (for DWQ)					
If project will impact a protected riparian buffer, then complete the chart below. If yes, then individually list all buffer impacts below. If any impacts require mitigation, then you MUST fill out Section D of this form.					
6a. Project is in which protected basin?			<input checked="" type="checkbox"/> Neuse <input type="checkbox"/> Tar-Pamlico <input type="checkbox"/> Other: <input type="checkbox"/> Catawba <input type="checkbox"/> Randleman		
6b. Buffer impact number – Permanent (P) or Temporary (T)	6c. Reason for impact	6d. Stream name	6e. Buffer mitigation required?	6f. Zone 1 impact (square feet)	6g. Zone 2 impact (square feet)
B1 <input checked="" type="checkbox"/> P <input type="checkbox"/> T	Bridge	Mason Creek	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	724	98
B1 <input checked="" type="checkbox"/> P <input type="checkbox"/> T	Roadway	Mason Creek	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	1802	1083
B1 <input checked="" type="checkbox"/> P <input type="checkbox"/> T	O/H Power	Mason Creek	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	146	750
6h. Total buffer impacts				2672	1931
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. A maximum of 3:1 fill slopes will be constructed in jurisdictional areas will be used. The proposed bridge will have no direct discharge into the water as no deck drains will be installed.					
1b. Specifically describe measures taken to avoid or minimize the proposed impacts through construction techniques. An in-water work moratorium for the Primary Nursery Area between April 1 and September 30 will be strictly enforced during construction. The majority of stormwater runoff from the proposed bridge is to flow to two proposed drop inlets, located at the approach on each side of the bridge. Stormwater runoff will be discharged at minimum practicable slopes, yielding minimum velocities and diffused with riprap pads at pipe outlets, which the existing drainage does not benefit from. All proposed stormwater runoff is discharged as far away from the stream and at lowest velocities as practicable. NCDOT will implement "Guidelines for Avoiding Impacts to the West Indian Manatee, Precautionary Measures for Construction Activities in North Carolina Waters," during work for this project. Design Standards in Sensitive Watersheds will be implemented during construction.					
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		
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 type="checkbox"/> Payment to in-lieu fee program <input checked="" type="checkbox"/> Permittee Responsible Mitigation		
3. Complete if Using a Mitigation Bank					
3a. Name of Mitigation Bank:					
3b. Credits Purchased (attach receipt and letter)			Type	Quantity	

3c. Comments: Credits will be debited from the Lengyel Mitigation Site				
4. Complete if Making a Payment to In-lieu Fee Program				
4a. Approval letter from in-lieu fee program is attached.			<input type="checkbox"/> Yes	
4b. Stream mitigation requested:			0 linear feet	
4c. If using stream mitigation, stream temperature:			<input type="checkbox"/> warm <input type="checkbox"/> cool <input type="checkbox"/> cold	
4d. Buffer mitigation requested (DWQ only):			0 square feet	
4e. Riparian wetland mitigation requested:			0 acres	
4f. Non-riparian wetland mitigation requested:			0 acres	
4g. Coastal (tidal) wetland mitigation requested:			0 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. Credits will be debited from the Lengyel Mitigation Site				
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 checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1b. If yes, then is a diffuse flow plan included? If no, explain why. Comments:	<input type="checkbox"/> Yes <input type="checkbox"/> No
2. Stormwater Management Plan	
2a. What is the overall percent imperviousness of this project?	N/A
2b. Does this project require a Stormwater Management Plan?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
2c. If this project DOES NOT require a Stormwater Management Plan, explain why:	
2d. If this project DOES require a Stormwater Management Plan, then provide a brief, narrative description of the plan: See attached permit drawings and stormwater management plan.	
2e. Who will be responsible for the review of the Stormwater Management Plan?	<input type="checkbox"/> Certified Local Government <input type="checkbox"/> DWQ Stormwater Program <input checked="" type="checkbox"/> DWQ 401 Unit
3. Certified Local Government Stormwater Review	
3a. In which local government's jurisdiction is this project?	N/A
3b. Which of the following locally-implemented stormwater management programs apply (check all that apply):	<input type="checkbox"/> Phase II <input type="checkbox"/> NSW <input type="checkbox"/> USMP <input type="checkbox"/> Water Supply Watershed <input type="checkbox"/> Other:
3c. Has the approved Stormwater Management Plan with proof of approval been attached?	<input type="checkbox"/> Yes <input type="checkbox"/> No
4. DWQ Stormwater Program Review	
4a. Which of the following state-implemented stormwater management programs apply (check all that apply):	<input checked="" type="checkbox"/> Coastal counties <input checked="" type="checkbox"/> HQW <input type="checkbox"/> ORW <input type="checkbox"/> Session Law 2006-246 <input type="checkbox"/> Other:
4b. Has the approved Stormwater Management Plan with proof of approval been attached?	<input type="checkbox"/> Yes <input type="checkbox"/> No N/A
5. DWQ 401 Unit Stormwater Review	
5a. Does the Stormwater Management Plan meet the appropriate requirements?	<input type="checkbox"/> Yes <input type="checkbox"/> No N/A
5b. Have all of the 401 Unit submittal requirements been met?	<input type="checkbox"/> Yes <input type="checkbox"/> No N/A

F. Supplementary Information	
1. Environmental Documentation (DWQ Requirement)	
1a. Does the project involve an expenditure of public (federal/state/local) funds or the use of public (federal/state) land?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1b. If you answered "yes" to the above, does the project require preparation of an environmental document pursuant to the requirements of the National or State (North Carolina) Environmental Policy Act (NEPA/SEPA)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1c. If you answered "yes" to the above, has the document review been finalized by the State Clearing House? (If so, attach a copy of the NEPA or SEPA final approval letter.) Comments: NEPA PCE for TIP B-4598	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
2. Violations (DWQ Requirement)	
2a. Is the site in violation of DWQ Wetland Rules (15A NCAC 2H .0500), Isolated Wetland Rules (15A NCAC 2H .1300), DWQ Surface Water or Wetland Standards, or Riparian Buffer Rules (15A NCAC 2B .0200)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2b. Is this an after-the-fact permit application?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2c. If you answered "yes" to one or both of the above questions, provide an explanation of the violation(s):	
3. Cumulative Impacts (DWQ Requirement)	
3a. Will this project (based on past and reasonably anticipated future impacts) result in additional development, which could impact nearby downstream water quality?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
3b. If you answered "yes" to the above, submit a qualitative or quantitative cumulative impact analysis in accordance with the most recent DWQ policy. If you answered "no," provide a short narrative description. Due to the minimal transportation impact resulting from this bridge replacement, this project will neither influence nearby land uses nor stimulate growth. Therefore, a detailed indirect or cumulative effects study will not be necessary.	
4. Sewage Disposal (DWQ Requirement)	
4a. Clearly detail the ultimate treatment methods and disposition (non-discharge or discharge) of wastewater generated from the proposed project, or available capacity of the subject facility. Not applicable.	

5. Endangered Species and Designated Critical Habitat (Corps Requirement)		
5a. Will this project occur in or near an area with federally protected species or habitat?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
5b. Have you checked with the USFWS concerning Endangered Species Act impacts?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
5c. If yes, indicate the USFWS Field Office you have contacted.	<input checked="" type="checkbox"/> Raleigh	<input type="checkbox"/> Asheville
5d. What data sources did you use to determine whether your site would impact Endangered Species or Designated Critical Habitat? USFWS & NOAA Fisheries websites and agency consultations		
6. Essential Fish Habitat (Corps Requirement)		
6a. Will this project occur in or near an area designated as essential fish habitat?	<input checked="" type="checkbox"/> Yes	<input 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:		
8c. What source(s) did you use to make the floodplain determination? approved NEPA documents		
 Philip S. Harris III, 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.)	03-06-2017 Date

APPLICATION for Major Development Permit

(last revised 12/27/06)



North Carolina DIVISION OF COASTAL MANAGEMENT

1. Primary Applicant/ Landowner Information			
Business Name North Carolina Department Of Transportation		Project Name (if applicable) B-4598 Bridge Replacement over Mason Creek	
Applicant 1: First Name Philip	MI S.	Last Name Harris	
Applicant 2: First Name	MI	Last Name	
<i>If additional applicants, please attach an additional page(s) with names listed.</i>			
Mailing Address 1598 Mail Service Center		PO Box	City Raleigh
		State NC	
ZIP 27699 1598	Country USA	Phone No. 919 - 707 - 6156 ext.	FAX No. - -
Street Address (if different from above)		City	State
		ZIP -	
Email tstanton@ncdot.gov			

2. Agent/Contractor Information			
Business Name			
Agent/ Contractor 1: First Name	MI	Last Name	
Agent/ Contractor 2: First Name	MI	Last Name	
Mailing Address		PO Box	City
		State	
ZIP		Phone No. 1 - - ext.	Phone No. 2 - - ext.
FAX No.	Contractor #		
Street Address (if different from above)		City	State
		ZIP -	
Email			

<Form continues on back>

3. Project Location				
County (can be multiple) Pamlico	Street Address Florence Rd	State Rd. # SR 1324		
Subdivision Name	City Merritt	State NC	Zip 28556 -	
Phone No. - - ext.		Lot No.(s) <i>(if many, attach additional page with list)</i> , , , ,		
a. In which NC river basin is the project located? Neuse		b. Name of body of water nearest to proposed project Mason Creek		
c. Is the water body identified in (b) above, natural or manmade? <input checked="" type="checkbox"/> Natural <input type="checkbox"/> Manmade <input type="checkbox"/> Unknown		d. Name the closest major water body to the proposed project site. Bay River / Pamlico Sound		
e. Is proposed work within city limits or planning jurisdiction? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		f. If applicable, list the planning jurisdiction or city limit the proposed work falls within. Town of Merritt, NC		

4. Site Description	
a. Total length of shoreline on the tract (ft.) 275'	b. Size of entire tract (sq.ft.) 43705 sq. ft.
c. Size of individual lot(s) NA, <i>(If many lot sizes, please attach additional page with a list)</i>	d. Approximate elevation of tract above NHW <i>(normal high water)</i> or NWL <i>(normal water level)</i> 0.0' <input checked="" type="checkbox"/> NHW or <input type="checkbox"/> NWL
e. Vegetation on tract Marsh, maintained-disturbed, forested	
f. Man-made features and uses now on tract Roadway, bridge, utility structures	
g. Identify and describe the existing land uses <u>adjacent</u> to the proposed project site. Cropland, woods, rural residential.	
h. How does local government zone the tract? Rural	i. Is the proposed project consistent with the applicable zoning? (Attach zoning compliance certificate, if applicable) <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
j. Is the proposed activity part of an urban waterfront redevelopment proposal? <input type="checkbox"/>Yes <input checked="" type="checkbox"/>No	
k. Has a professional archaeological assessment been done for the tract? If yes, attach a copy. <input type="checkbox"/>Yes <input checked="" type="checkbox"/>No <input type="checkbox"/>NA If yes, by whom?	
l. Is the proposed project located in a National Registered Historic District or does it involve a National Register listed or eligible property? <input type="checkbox"/>Yes <input checked="" type="checkbox"/>No <input type="checkbox"/>NA	

<Form continues on next page>

m. (i) Are there wetlands on the site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
(ii) Are there coastal wetlands on the site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
(iii) If yes to either (i) or (ii) above, has a delineation been conducted? <i>(Attach documentation, if available)</i>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
n. Describe existing wastewater treatment facilities. N/A	
o. Describe existing drinking water supply source. N/A	
p. Describe existing storm water management or treatment systems. Stormwater runoff on the existing bridge discharges directly into the water through deck drains along the full length of the bridge.	

5. Activities and Impacts	
a. Will the project be for commercial, public, or private use?	<input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Public/Government <input type="checkbox"/> Private/Community
b. Give a brief description of purpose, use, and daily operations of the project when complete. B-4598 is the planned replacement of bridge 16 in Pamlico County. The project lies within a CAMA county and CAMA wetlands are involved. The existing structure over Mason Creek was built in 1966 and is a dual span bridge on prestressed concrete channels with a total length of 61'. The proposed structure will be a dual span 21" Cored Slab structure with an overall length of 110'. The final proposed structure does not require deck drains.	
c. Describe the proposed construction methodology, types of construction equipment to be used during construction, the number of each type of equipment and where it is to be stored. Cranes, pile driving equipment, grading equipment, bull dozers, excavators, offroad trucks, and boring machines.	
d. List all development activities you propose. Removal of the existing bridge. Installation of the new bridge. Grading, paving, clearing, utility relocation, excavation and fill associated with the roadway and bridge work.	
e. Are the proposed activities maintenance of an existing project, new work, or both?	New Work
f. What is the approximate total disturbed land area resulting from the proposed project?	1.0 <input type="checkbox"/> Sq.Ft or <input checked="" type="checkbox"/> Acres
g. Will the proposed project encroach on any public easement, public accessway or other area that the public has established use of?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
h. Describe location and type of existing and proposed discharges to waters of the state. Stormwater runoff on the existing bridge discharges directly into the water through deck drains along the full length of the bridge. However, the proposed bridge will have no direct discharge into the water as no deck drains will be installed. The majority of stormwater runoff from the proposed bridge is to flow to two (2) proposed drop inlets, located at the approach on each side of the bridge then to junction boxes and outlet 10'+ outside BZ 2. Stormwater runoff will be discharged at minimum practicable slopes, yielding minimum velocities and diffused with riprap pads at pipe outlets, which the existing drainage does not benefit from. All proposed stormwater runoff is discharged as far away from the stream and at lowest velocities as practicable.	
i. Will wastewater or stormwater be discharged into a wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
If yes, will this discharged water be of the same salinity as the receiving water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA
j. Is there any mitigation proposed?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
If yes, attach a mitigation proposal.	

<Form continues on back>

6. Additional Information

In addition to this completed application form, (MP-1) the following items below, if applicable, must be submitted in order for the application package to be complete. Items (a) – (f) are always applicable to any major development application. Please consult the application instruction booklet on how to properly prepare the required items below.

- a. A project narrative.
- b. An accurate, dated work plat (including plan view and cross-sectional drawings) drawn to scale. Please give the present status of the proposed project. Is any portion already complete? If previously authorized work, clearly indicate on maps, plats, drawings to distinguish between work completed and proposed.
- c. A site or location map that is sufficiently detailed to guide agency personnel unfamiliar with the area to the site.
- d. A copy of the deed (with state application only) or other instrument under which the applicant claims title to the affected properties.
- e. The appropriate application fee. Check or money order made payable to DENR.

f. A list of the names and complete addresses of the adjacent waterfront (riparian) landowners and signed return receipts as proof that such owners have received a copy of the application and plats by certified mail. Such landowners must be advised that they have 30 days in which to submit comments on the proposed project to the Division of Coastal Management.

Name see previously provided letters	Phone No.
Address	
Name	Phone No.
Address	
Name	Phone No.
Address	

g. A list of previous state or federal permits issued for work on the project tract. Include permit numbers, permittee, and issuing dates.

- h. Signed consultant or agent authorization form, if applicable.
- i. Wetland delineation, if necessary.
- j. A signed AEC hazard notice for projects in oceanfront and inlet areas. (Must be signed by property owner)
- k. A statement of compliance with the N.C. Environmental Policy Act (N.C.G.S. 113A 1-10), if necessary. If the project involves expenditure of public funds or use of public lands, attach a statement documenting compliance with the North Carolina Environmental Policy Act.

7. Certification and Permission to Enter on Land

I understand that any permit issued in response to this application will allow only the development described in the application. The project will be subject to the conditions and restrictions contained in the permit.

I certify that I am authorized to grant, and do in fact grant permission to representatives of state and federal review agencies to enter on the aforementioned lands in connection with evaluating information related to this permit application and follow-up monitoring of the project.

I further certify that the information provided in this application is truthful to the best of my knowledge.

Date 03-06-2017 Print Name PHILIP S. HARRIS

Signature 

Please indicate application attachments pertaining to your proposed project.

- DCM MP-2 Excavation and Fill Information
- DCM MP-3 Upland Development
- DCM MP-4 Structures Information
- DCM MP-5 Bridges and Culverts

BRIDGES and CULVERTS

Attach this form to Joint Application for CAMA Major Permit, Form DCM MP-1. Be sure to complete all other sections of the Joint Application that relate to this proposed project. Please include all supplemental information.

1. BRIDGES This section not applicable

a. Is the proposed bridge:
 Commercial Public/Government Private/Community

b. Water body to be crossed by bridge:
Mason Creek

c. Type of bridge (construction material):
The proposed bridge is a two span 21" cored slab bridge

d. Water depth at the proposed crossing at NLW or NWL:
4.5' at MTL (Mean Tide Level)

e. (i) Will proposed bridge replace an existing bridge? Yes No
If yes,
(ii) Length of existing bridge: 61'
(iii) Width of existing bridge: 26'
(iv) Navigation clearance underneath existing bridge: 3.0'
(v) Will all, or a part of, the existing bridge be removed?
(Explain) All of the existing bridge and abandoned piers are proposed to be removed.

f. (i) Will proposed bridge replace an existing culvert? Yes No
If yes,
(ii) Length of existing culvert: _____
(iii) Width of existing culvert: _____
(iv) Height of the top of the existing culvert above the NHW or NWL: _____
(v) Will all, or a part of, the existing culvert be removed?
(Explain)

g. Length of proposed bridge: 110'

h. Width of proposed bridge: 36'

i. Will the proposed bridge affect existing water flow? Yes No
If yes, explain: Flooding source controlled by Pamlico Sound tidal surge.

j. Will the proposed bridge affect navigation by reducing or increasing the existing navigable opening? Yes No
If yes, explain: The existing bridge has a navigational clearance of 3.0' but the proposed bridge will have a navigational clearance of 3.3'.

k. Navigation clearance underneath proposed bridge: 3.3'

l. Have you contacted the U.S. Coast Guard concerning their approval? Yes No
If yes, explain: An Advance Approval Letter was issued (see attached).

m. Will the proposed bridge cross wetlands containing no navigable waters? Yes No
If yes, explain:

n. Height of proposed bridge above wetlands: 1' to 3'

2. CULVERTS This section not applicable

a. Number of culverts proposed: _____

b. Water body in which the culvert is to be placed:

< Form continues on back >

c. Type of culvert (construction material):

d. (i) Will proposed culvert replace an existing bridge? Yes No

If yes,

(ii) Length of existing bridge: _____

(iii) Width of existing bridge: _____

(iv) Navigation clearance underneath existing bridge: _____

(v) Will all, or a part of, the existing bridge be removed? (Explain)

e. (i) Will proposed culvert replace an existing culvert? Yes No

If yes,

(ii) Length of existing culvert(s): _____

(iii) Width of existing culvert(s): _____

(iv) Height of the top of the existing culvert above the NHW or NWL: _____

(v) Will all, or a part of, the existing culvert be removed? (Explain)

f. Length of proposed culvert: _____

g. Width of proposed culvert: _____

h. Height of the top of the proposed culvert above the NHW or NWL.

i. Depth of culvert to be buried below existing bottom contour.

j. Will the proposed culvert affect navigation by reducing or increasing the existing navigable opening? Yes No

If yes, explain:

k. Will the proposed culvert affect existing water flow? Yes No

If yes, explain:

3. EXCAVATION and FILL

This section not applicable

a. (i) Will the placement of the proposed bridge or culvert require any excavation below the NHW or NWL? Yes No

If yes,

(ii) Avg. length of area to be excavated: _____

(iii) Avg. width of area to be excavated: _____

(iv) Avg. depth of area to be excavated: _____

(v) Amount of material to be excavated in cubic yards: _____

b. (i) Will the placement of the proposed bridge or culvert require any excavation within coastal wetlands/marsh (CW), submerged aquatic vegetation (SAV), shell bottom (SB), or other wetlands (WL)? If any boxes are checked, provide the number of square feet affected.

CW 259 s.f. SAV _____ SB _____

WL _____ None

(ii) Describe the purpose of the excavation in these areas:

Excavation was required for the spill through abutment.

c. (i) Will the placement of the proposed bridge or culvert require any high-ground excavation? Yes No

If yes,

(ii) Avg. length of area to be excavated: 45 ft

(iii) Avg. width of area to be excavated: 28 ft

(iv) Avg. depth of area to be excavated: 3ft

(v) Amount of material to be excavated in cubic yards: 170 cy

Form DCM MP-5 (Bridges and Culverts, Page 3 of 4)

- d. If the placement of the bridge or culvert involves any excavation, please complete the following:
- (i) Location of the spoil disposal area: TBD by contractor; however, excavated soil will likely be stored under proposed roadbed and used for roadbed fill or removed for off-site storage on high ground.

 - (ii) Dimensions of the spoil disposal area: N/A
 - (iii) Do you claim title to the disposal area? Yes No (If no, attach a letter granting permission from the owner.)
 - (iv) Will the disposal area be available for future maintenance? Yes No
 - (v) Does the disposal area include any coastal wetlands/marsh (CW), submerged aquatic vegetation (SAVs), other wetlands (WL), or shell bottom (SB)?
CW SAV WL SB None
If any boxes are checked, give dimensions if different from (ii) above.

 - (vi) Does the disposal area include any area below the NHW or NWL? Yes No
If yes, give dimensions if different from (ii) above.

- e. (i) Will the placement of the proposed bridge or culvert result in any fill (other than excavated material described in Item d above) to be placed below NHW or NWL? Yes No
If yes,
(ii) Avg. length of area to be filled: _____
(iii) Avg. width of area to be filled: _____
(iv) Purpose of fill: There are fourteen proposed 12" x 12" concrete piles at interior bent.

- f. (i) Will the placement of the proposed bridge or culvert result in any fill (other than excavated material described in Item d above) to be placed within coastal wetlands/marsh (CW), submerged aquatic vegetation (SAV), shell bottom (SB), or other wetlands (WL)? If any boxes are checked, provide the number of square feet affected.
CW 4125 s.f. SAV _____ SB _____
WL _____ None _____
(ii) Describe the purpose of the excavation in these areas:
To construct roadway embankment.

- g. (i) Will the placement of the proposed bridge or culvert result in any fill (other than excavated material described in Item d above) to be placed on high-ground? Yes No
If yes,
(ii) Avg. length of area to be filled: 465 ft
(iii) Avg. width of area to be filled: 45 ft
(iv) Purpose of fill: To construct roadway embankment.

4. GENERAL

- a. Will the proposed project require the relocation of any existing utility lines? Yes No
If yes, explain: Water line, power line, fiber optic, copper (telephone). See attached Utility Plans

- b. Will the proposed project require the construction of any temporary detour structures? Yes No
If yes, explain:

If this portion of the proposed project has already received approval from local authorities, please attach a copy of the approval or certification.

< Form continues on back >

c. Will the proposed project require any work channels? Yes No

If yes, complete Form DCM-MP-2.

d. How will excavated or fill material be kept on site and erosion controlled?

NCDOT Design Standards in Sensitive Watersheds will be implemented during project construction

e. What type of construction equipment will be used (for example, dragline, backhoe, or hydraulic dredge)?

Cranes, pile driving equipment, grading equipment, bull dozers, excavators, offroad trucks, and boring machines.

f. Will wetlands be crossed in transporting equipment to project site? Yes No

If yes, explain steps that will be taken to avoid or minimize environmental impacts.

Crane Mats used to reach temporary power lines.

g. Will the placement of the proposed bridge or culvert require any shoreline stabilization? Yes No

If yes, complete form MP-2, Section 3 for Shoreline Stabilization only.

1/5/2017

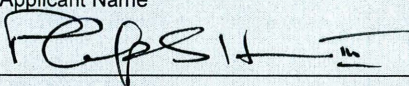
Date

B-4598

Project Name

NC Department of Transportation

Applicant Name

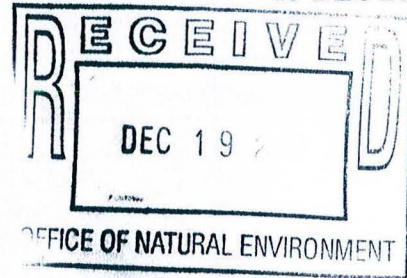


Applicant Signature



16590
13 DEC 2016

Mr. Phil S. Harris, III, P.E.
North Carolina Department of Transportation
Natural Environment Section
1598 Mail Service Center
Raleigh, NC 27699-1598



Dear Mr. Harris:

Coast Guard review of your proposed project as provided in your email dated November 17, 2016, is complete.

Based on the documentation provided and our research, it is determined that a Coast Guard bridge permit will not be required for the proposed new bridge construction on S.R. 1324 (Florence Road) across Mason Creek, at Pamlico, NC.

The project will be placed in our Advance Approval category as per Title 33 Code of Federal Regulations Part 115.70. This Advance Approval determination is for the location and structure described above and is **valid for five years from the date of this letter**. If the construction project does not commence within this time period, you must contact this office for reaffirmation of this authorization. Future bridge projects along the same waterway will have to be independently evaluated before they may be considered for placement in the Advance Approval category.

The fact that a Coast Guard bridge permit is not required does not relieve you of the responsibility for compliance with the requirements of any other Federal, State, or local agency who may have jurisdiction over any aspect of the project. Although the project will not require a bridge permit, other areas of Coast Guard jurisdiction apply. The following must be met:

- a. You or your contractor must notify this office at least 30 days in advance of the start of construction and any other work which may be an obstruction to navigation, so we may issue and update the information in our Local Notice to Mariners and monitor the project.
- b. At no time during the project will the waterway be closed to navigation without the prior notification and approval of the Coast Guard.
- c. The lowest portion of the superstructure of the bridge across the waterway should clear the 100-year flood height elevation, if feasible.
- d. In addition, the requirement to display navigational lighting at the aforementioned bridge is hereby waived, as per Title 33 Code of Federal Regulations, Part 118.40(b). This waiver may be rescinded at anytime in the future should nighttime navigation through the proposed bridge be increased to a level determined by the District Commander to warrant lighting.

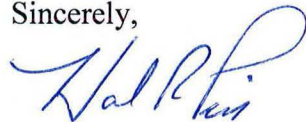
The National Ocean Service (NOS) of the National Oceanic and Atmosphere Administration (NOAA) is responsible for maintaining the charts of U.S. waters; therefore, they must be notified of this proposed work. You must notify our office and the NOS at the address below upon completion of the activity approved in this letter. Your notification of project completion must include as-built drawings or certification of the following:

- a. Bridge name
- b. Action type (new construction, modification, relocation, conversion (fixed/draw), etc.)
- c. Dates (commenced and completed)
- d. Location (latitude and longitude at bridge center and centerline of channel, statute miles above mouth of waterway, and bridge or causeway orientation or geographic positions of approaches)
- e. Type of bridge (fixed, vertical lift, bascule, suspension, swing, trestle, pontoon, etc.)
- f. Navigation clearances (vertical at mean high water and horizontal)
(Moveable – vertical at mean high water in open and closed positions)
- g. Whether or not the bridge is fitted with clearance gauges
- h. Whether or not the bridge has pier protection and/or fender system.
- i. Type of land traffic (highway, railroad, pedestrian, pipeline, etc.)

Mr. Chris Libeau
National Ocean Service
N/CS26, Room 7317
1315 East-West Highway
Silver Spring, MD 20910-3282

If you have any further questions, please contact Mr. Mickey Sanders at the above listed address or telephone number.

Sincerely,



HAL R. PITTS
Bridge Program Manager
By direction of the Commander
Fifth Coast Guard District

Copy: Chris Libeau, NOS
CG Sector North Carolina, Waterways Management
U. S. Army Corps of Engineers, Wilmington District

Lengyel Mitigation Site
ONEID 025-001

The Lengyel Site is located in Craven County within the USGS hydrologic unit 03020202 of the Neuse River. NCDOT acquired the 11.9 acre brackish marsh site to mitigate for unavoidable, jurisdictional impacts associated with TIP B-2531. Monitoring requirements were performed from 1999 to 2003 and the site was closed out in 2004. Table 1 shows the final mitigation quantities approved for the site. The site has been placed on the NCDOT On-site Debit Ledger for use within HUC 03020202. Table 2 indicates all mitigation debits that have occurred per regulatory agency approval.

In order to offset 0.09 acres of unavoidable brackish marsh impacts, the Lengyel Mitigation Site will be debited at a 2:1 ratio, totaling 0.18 acres of brackish marsh mitigation.

Table 1. Mitigation Quantities Approved

HUC	Mitigation Type	Starting Amount	Additional Notes
3020202	Brackish Marsh Restoration	7.2	.78@2:1 ratio
3020202	Brackish Marsh Restoration	4.7	Do not debit.

Table 2. Mitigation Debts – Brackish Marsh Restoration

Mitigation Type	Debit Amount	Status	Site TIP	Action ID#	Notes
Brackish Marsh Restoration	1.56	Close Out	B-2531	199401568	
Brackish Marsh Restoration	1.08	Close Out	B-2531 Mod	1994-01568	.46 acres of these impacts were charged to Sawmill
Brackish Marsh Restoration	0.18	Close Out	B-4598		Impacts were 0.09 @ 2:1 ratio



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



(Version 2.06; Released June 2016)

WBS Element: 38426.1.2 **TIP No.:** B-4598 **County(ies):** Pamlico **Page** 1 **of** 1

General Project Information

WBS Element:	38426.1.2	TIP Number:	B-4598	Project Type:	Bridge Replacement	Date:	2/25/2017
NCDOT Contact:	Paul Atkinson, PE			Contractor / Designer:	TGS Engineers (David B. Petty, PE)		
Address:	1590 Mail Service Center Raleigh, NC 27699-1590			Address:	706 Hillsborough Street Suite 200 Raleigh, NC 27603		
Phone:	919-707-6707			Phone:	919-773-8887 (Ext. 104)		
Email:	patkinson@ncdot.gov			Email:	dpetty@tgsengineers.com		
City/Town:	Merritt			County(ies):	Pamlico		
River Basin(s):	Neuse			CAMA County?	Yes		
Wetlands within Project Limits?	Yes						

Project Description

Project Length (lin. miles or feet):	575 feet	Surrounding Land Use:	swamp, marsh, forest, cropland, some rural residential				
	Proposed Project			Existing Site			
Project Built-Upon Area (ac.)	0.4 ac.		0.3 ac.				
Typical Cross Section Description:	Two 12' wide paved travel lanes w/ pavement to face of guardrail, 0 to 2' paved shoulders and 1' to 3' grassed shoulders and 3(H):1(V) grassed side slopes.			Two 9' paved travel lanes w/ 2' to 5' wide grassed shoulders, w/ grassed side slopes ranging from about 3(H):1(V) to 4(H):1(V).			

Annual Avg Daily Traffic (veh/hr/day):	Design/Future: 1326	Year: 2037	Existing: 1065	Year: 2017
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General Project Narrative:
 (Description of Minimization of Water Quality Impacts)

Replacement of Bridge No. 680016 on SR 1324 (Florence Rd.) over Mason Creek (a tributary to Bay River/Pamlico Sound) in Pamlico County northeast of Merritt, NC. Proposed 110' long (2@55') by 36' wide double-span bridge to replace existing 61' long (2@30.5') by 26' wide double-span bridge. The proposed grade across the bridge exceeds existing by about 1' to maintain navigable clearance. Stormwater runoff on the existing bridge discharges directly into the water through deck drains along the full length of the bridge. However, the proposed bridge will have no direct discharge into the water as no deck drains will be installed. The majority of stormwater runoff from the proposed bridge is to flow to two proposed drop inlets, located at the approach on each side of the bridge then to junction boxes and outlet 10'+ outside BZ 2. Stormwater runoff will be discharged at minimum practicable slopes, yielding minimum velocities and diffused with riprap pads at pipe outlets, which the existing drainage does not benefit from. All proposed stormwater runoff is discharged as far away from the stream and at lowest velocities as practicable.

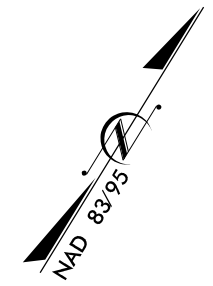
All wetland impacts occur within CAMA wetlands.

Waterbody Information

Surface Water Body (1):	Mason Creek		NCDWR Stream Index No.:	27-150-9		
NCDWR Surface Water Classification for Water Body	Primary Classification:	Class SC				
	Supplemental Classification:	Swamp Waters (Sw)	(HQW)	(NSW)		
Other Stream Classification:	Primary Nursery Areas	Areas of Environmental Concern				
Impairments:	None					
Aquatic T&E Species?	Yes	Comments: Construction activities to adhere to Guidelines for Avoiding Impacts to the West Indian Manatee				
NRTR Stream ID:	Mason Creek			Buffer Rules in Effect:	Neuse	
Project Includes Bridge Spanning Water Body?	Yes	Deck Drains Discharge Over Buffer?	No	Dissipator Pads Provided in Buffer?	No	
Deck Drains Discharge Over Water Body?	No	(If yes, provide justification in the General Project Narrative)		(If yes, describe in the General Project Narrative; if no, justify in the General Project Narrative)		
	(If yes, provide justification in the General Project Narrative)					

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-4598	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
38426.1.2	BRZ-1324(5)	PE	
38426.2.1		RW, UTL.	

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



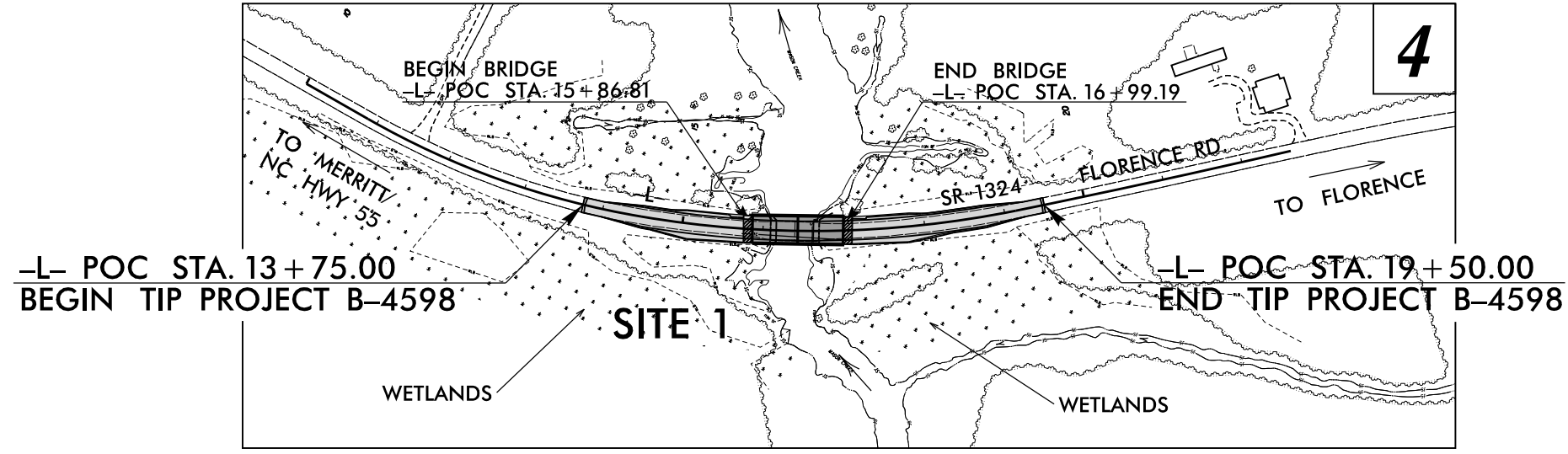
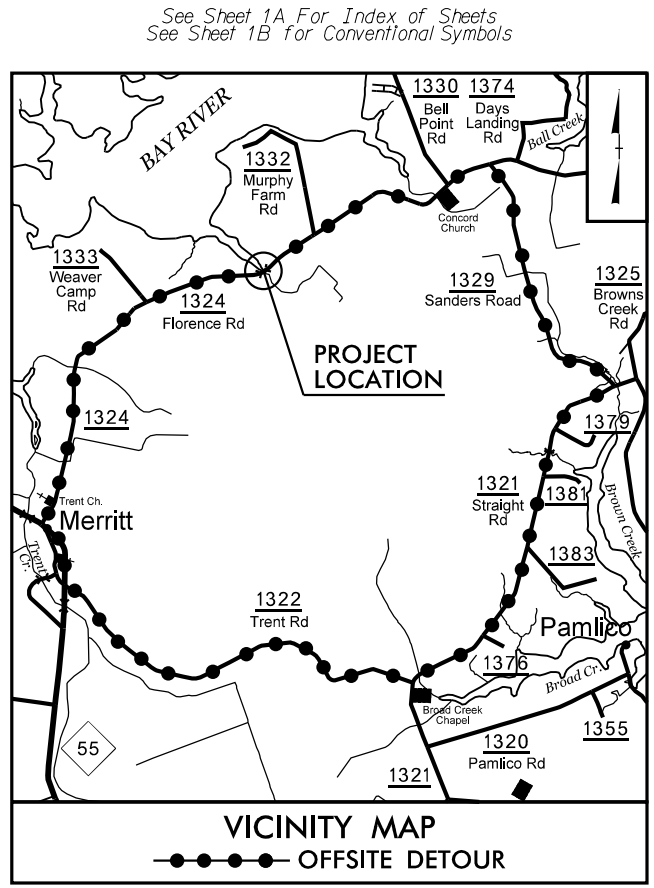
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PAMLICO COUNTY

LOCATION: REPLACE BRIDGE 16 OVER MASON CREEK
ON SR 1324 (FLORENCE RD.)

TYPE OF WORK: GRADING, DRAINAGE, STRUCTURE AND PAVING

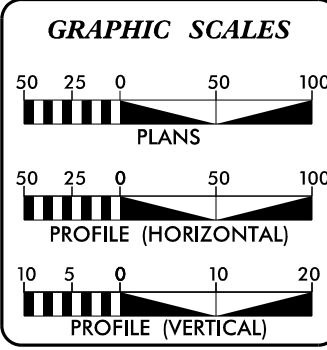
PERMIT DRAWINGS
STREAM AND WETLAND IMPACTS
DUE TO ROADWAY/BRIDGE
FEBRUARY 25, 2017



PERMIT DRAWING
SHEET 1 OF 7

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

DESIGN EXCEPTIONS
-L-
Horizontal SSD, Sta. 13+75 to Sta. 19+50
Superelevation, Sta. 13+75 to Sta. 19+50



DESIGN DATA

ADT 2017 =	1065
ADT 2037 =	1326
DHV =	10 %
D =	55 %
T =	10 % *
V =	60 MPH
* (TTST 1% + DUAL 9%)	
FUNCT CLASS=RURAL LOCAL	
SUB-REGIONAL TIER DESIGN	

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT B-4598	=	0.088 miles
LENGTH STRUCTURES TIP PROJECT B-4598	=	0.021 miles
TOTAL LENGTH TIP PROJECT B-4598	=	0.109 miles

Prepared For:
DIVISION OF HIGHWAYS
1000 Birch Ridge Dr., Raleigh NC, 27610

By:
TGS ENGINEERS
804-C N. LAFAYETTE ST
SHELBY, NC 28150

PH (704) 476-0003
CORP. LICENSE NO.: C-0275

2012 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
MAY 16, 2016

LETTING DATE:
JUNE 20, 2017

JIMMY TERRY, P.E.
PROJECT ENGINEER

BURKE EVANS, P.E.
PROJECT DESIGN ENGINEER

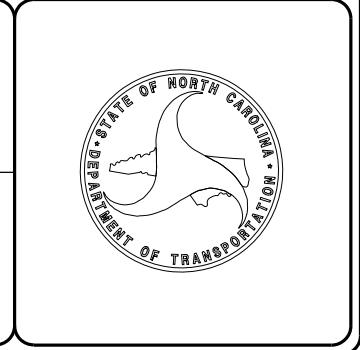
GARY LOVERING, PE
PROJECT ENGINEER
NCDOT ROADWAY DESIGN

HYDRAULICS ENGINEER

SIGNATURE: _____ P.E.

ROADWAY DESIGN ENGINEER

SIGNATURE: _____ P.E.




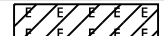
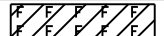

TIP PROJECT: B-4598

CONTRACT:

09/08/99
2/25/2017
X:\NCDOT\B-4598\Hydraulics\PERMITS_Environmental\Drawings\Permit Package(Roadway)_20170225\B-4598_Hyd_prm_wet_tsh.dgn
User:dperry

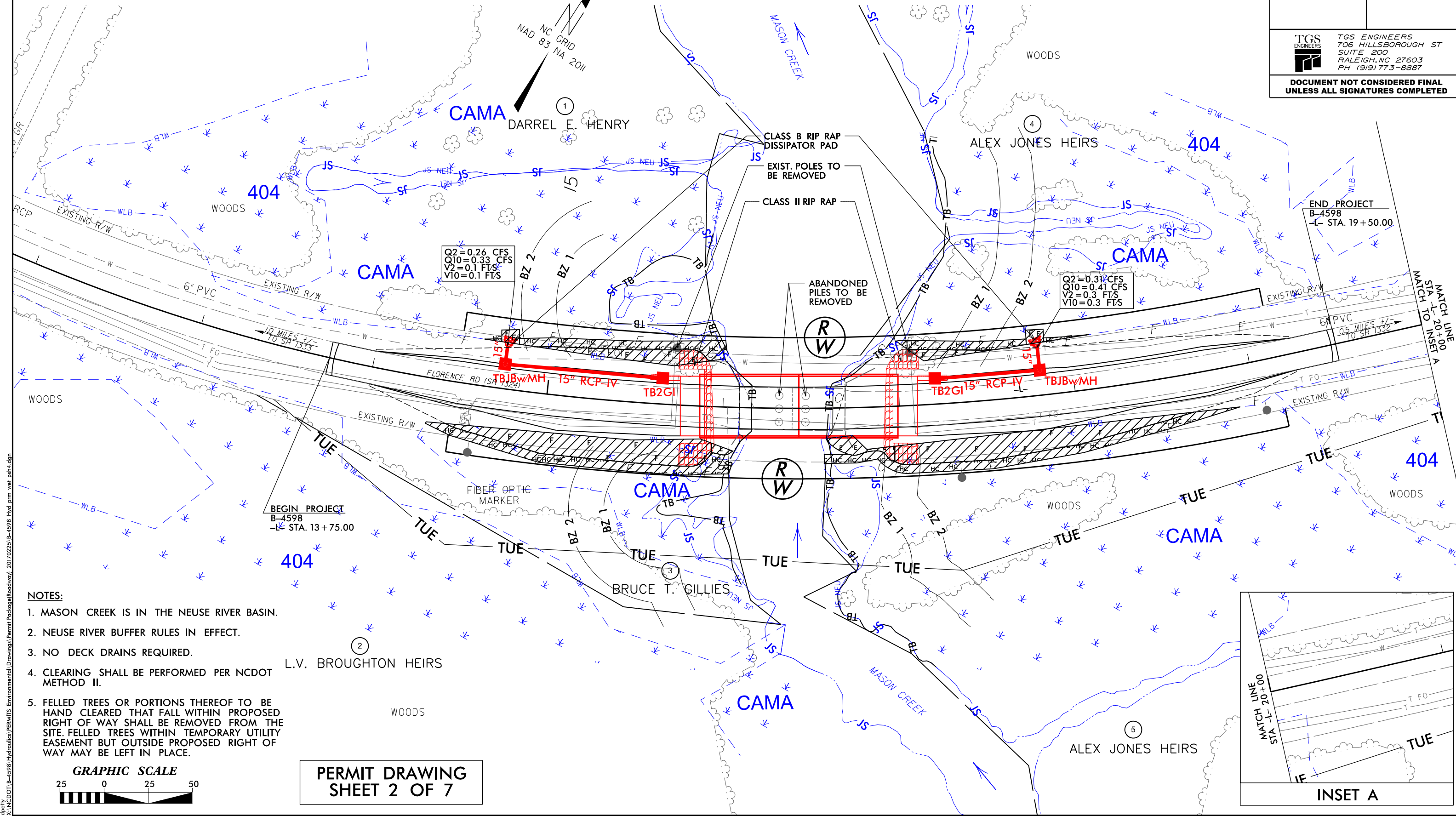
**PERMIT DRAWINGS
FOR B-4598
PAMLICO COUNTY
BRIDGE #680016**

PROJECT REFERENCE NO. B-4598	SHEET NO. 4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
 TGS ENGINEERS 706 HILLSBOROUGH ST SUITE 200 RALEIGH, NC 27603 PH (919) 773-8887	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

WETLAND IMPACTS		
Excavation in Wetlands	Permanent Fill in Wetlands	Hand Clearing in Wetlands
		

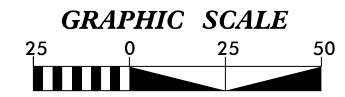
EXISTING BRIDGE DIMENSIONS 60'X26' (DOUBLE-SPAN), 90 DEG. SKEW
 PROPOSED BRIDGE DIMENSIONS 110'X36' (DOUBLE-SPAN), 90 DEG. SKEW
 TOTAL PROJECT LENGTH - 575'

STREAM AND WETLAND IMPACTS

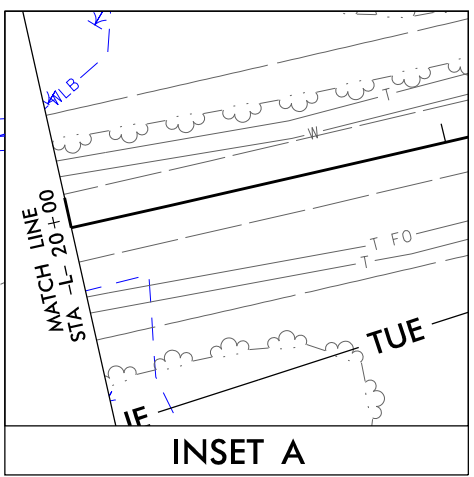


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- NOTES:**
1. MASON CREEK IS IN THE NEUSE RIVER BASIN.
 2. NEUSE RIVER BUFFER RULES IN EFFECT.
 3. NO DECK DRAINS REQUIRED.
 4. CLEARING SHALL BE PERFORMED PER NCDOT METHOD II.
 5. FELLED TREES OR PORTIONS THEREOF TO BE HAND CLEARED THAT FALL WITHIN PROPOSED RIGHT OF WAY SHALL BE REMOVED FROM THE SITE. FELLED TREES WITHIN TEMPORARY UTILITY EASEMENT BUT OUTSIDE PROPOSED RIGHT OF WAY MAY BE LEFT IN PLACE.



**PERMIT DRAWING
SHEET 2 OF 7**



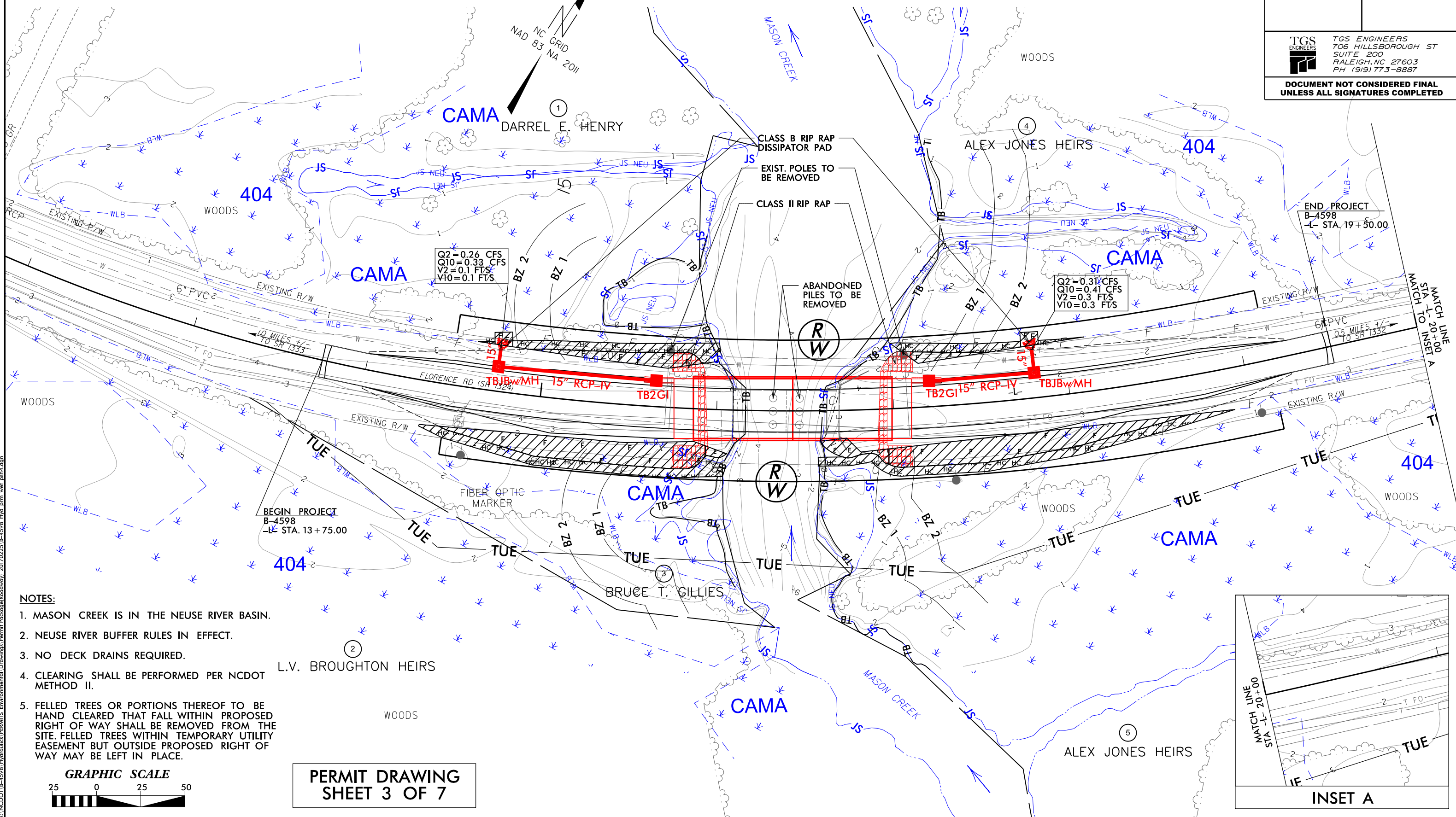
WETLAND IMPACTS		
Excavation in Wetlands	Permanent Fill in Wetlands	Hand Clearing in Wetlands

EXISTING BRIDGE DIMENSIONS 60'X26' (DOUBLE-SPAN), 90 DEG. SKEW
 PROPOSED BRIDGE DIMENSIONS 110'X36' (DOUBLE-SPAN), 90 DEG. SKEW
 TOTAL PROJECT LENGTH - 575'

**PERMIT DRAWINGS
 FOR B-4598
 PAMLICO COUNTY
 BRIDGE #680016**

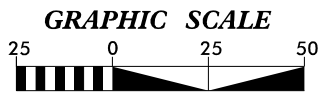
PROJECT REFERENCE NO. B-4598	SHEET NO. 4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
 TGS ENGINEERS 706 HILLSBOROUGH ST SUITE 200 RALEIGH, NC 27603 PH (919) 773-8887	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

STREAM AND WETLAND IMPACTS

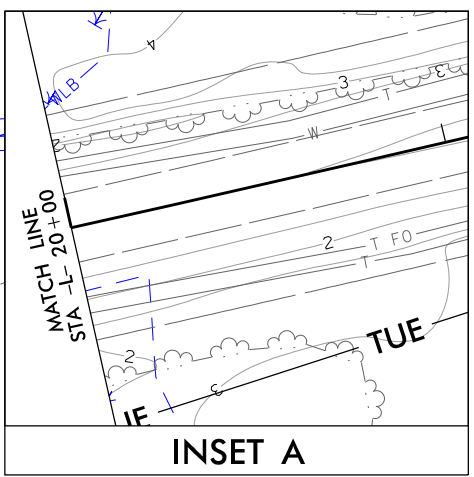


2/25/2017 10:41:00 AM C:\NGDOT\B-4598\Hydraulics\PERMITS\Environmental Drawings\Permit Pack\Roadway\20170223_B-4598_Hyd_perm_wet_perk.dgn

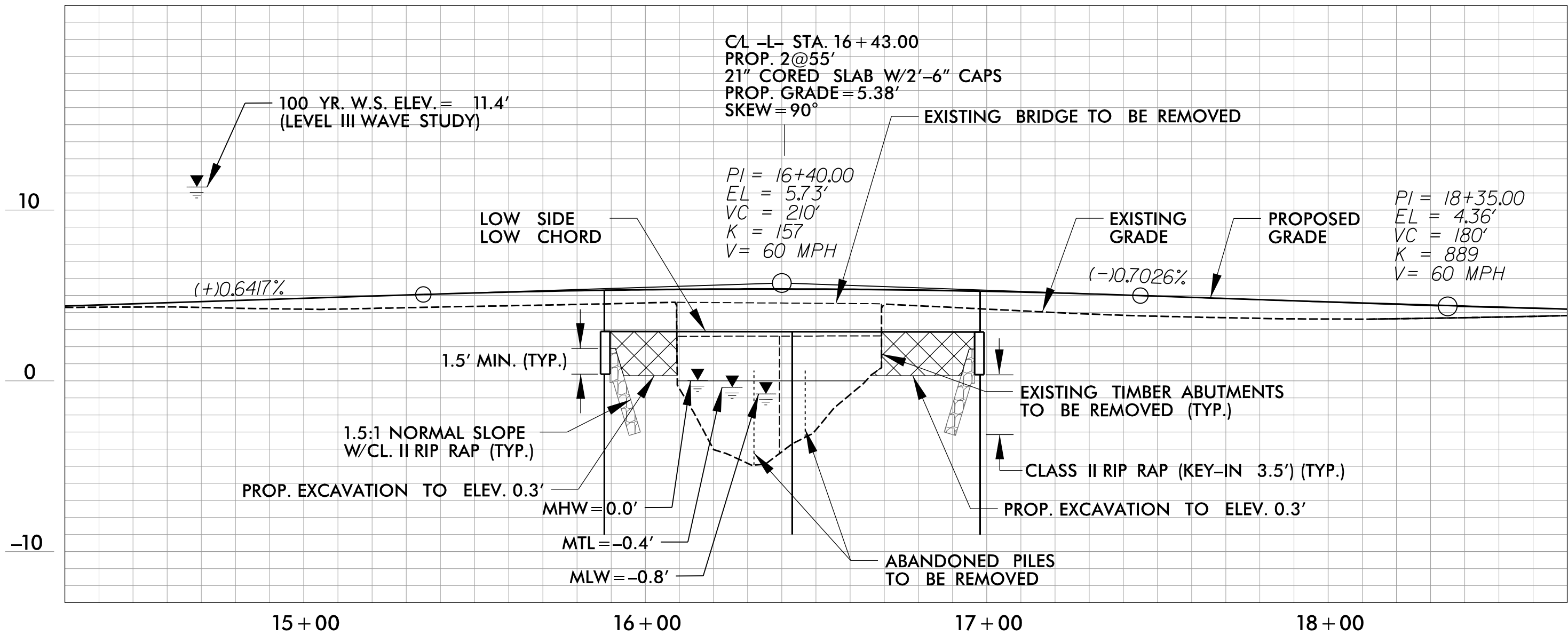
- NOTES:**
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**PERMIT DRAWING
 SHEET 3 OF 7**



2/24/2017
 atturner
 X:\NCDOT\B-4598\Hydraulics\PERMITS_Environmental\Drawings\Permit Package[Roadway]_20170224\B-4598_Hyd_perm_pfl.dgn



STRUCTURE HYDRAULIC DATA

DESIGN DISCHARGE	= ---	CFS
DESIGN FREQUENCY	= <5*	YRS
DESIGN HW ELEVATION	= ---	FT
BASE DISCHARGE	= ---	CFS
BASE FREQUENCY	= 100	YRS
BASE HW ELEVATION	= 11.4**	FT
OVERTOPPING DISCHARGE	= 5,800	CFS
OVERTOPPING FREQUENCY	= <5	YRS
OVERTOPPING ELEVATION	= 3.7***	FT

* DESIGN MAINTAINS EXISTING LEVEL OF SERVICE. NOT PRACTICABLE TO SERVICE 25-YR EVENT.
 ** 100-YR WSE (NAVD 88) FROM LEVEL III WAVE STUDY
 *** OVERTOPPING ELEVATION REPRESENTS LOWEST HIGH POINT ON DECK/ROADWAY, WHICH OCCURS AT RIGHT EDGE OF PAVEMENT @ -L- STA. 11+03

PROFILE

PERMIT DRAWING SHEET 4 OF 7

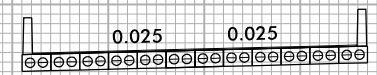
NCDOT
 DIVISION OF HIGHWAYS
 PAMLICO COUNTY
 PROJECT: 38426.1.2 (B-4598)
 REPLACEMENT OF BRIDGE NO. 680016
 ON SR 1324 (FLORENCE RD)
 OVER MASON CREEK

PERMIT DRAWINGS
 FOR B-4598
 PAMLICO COUNTY
 BRIDGE #680016

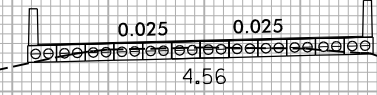
8/23/99

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

END BRIDGE
-L- STA. 16+99.19

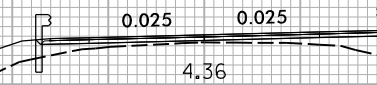


-2.87
16+50.00

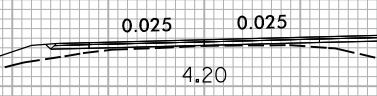


16+00.00

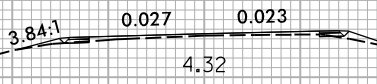
BEGIN BRIDGE
-L- STA. 15+86.81



15+50.00



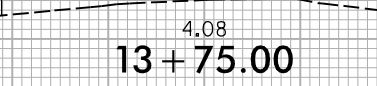
15+00.00



14+50.00

14+00.00

BEGIN CONSTRUCTION
-L- STA. 13+75.00



13+50.00

3.96

WETLANDS

WETLANDS

WETLANDS

WETLANDS

WETLANDS

WETLANDS

WETLANDS

WETLANDS

WETLANDS

WETLANDS

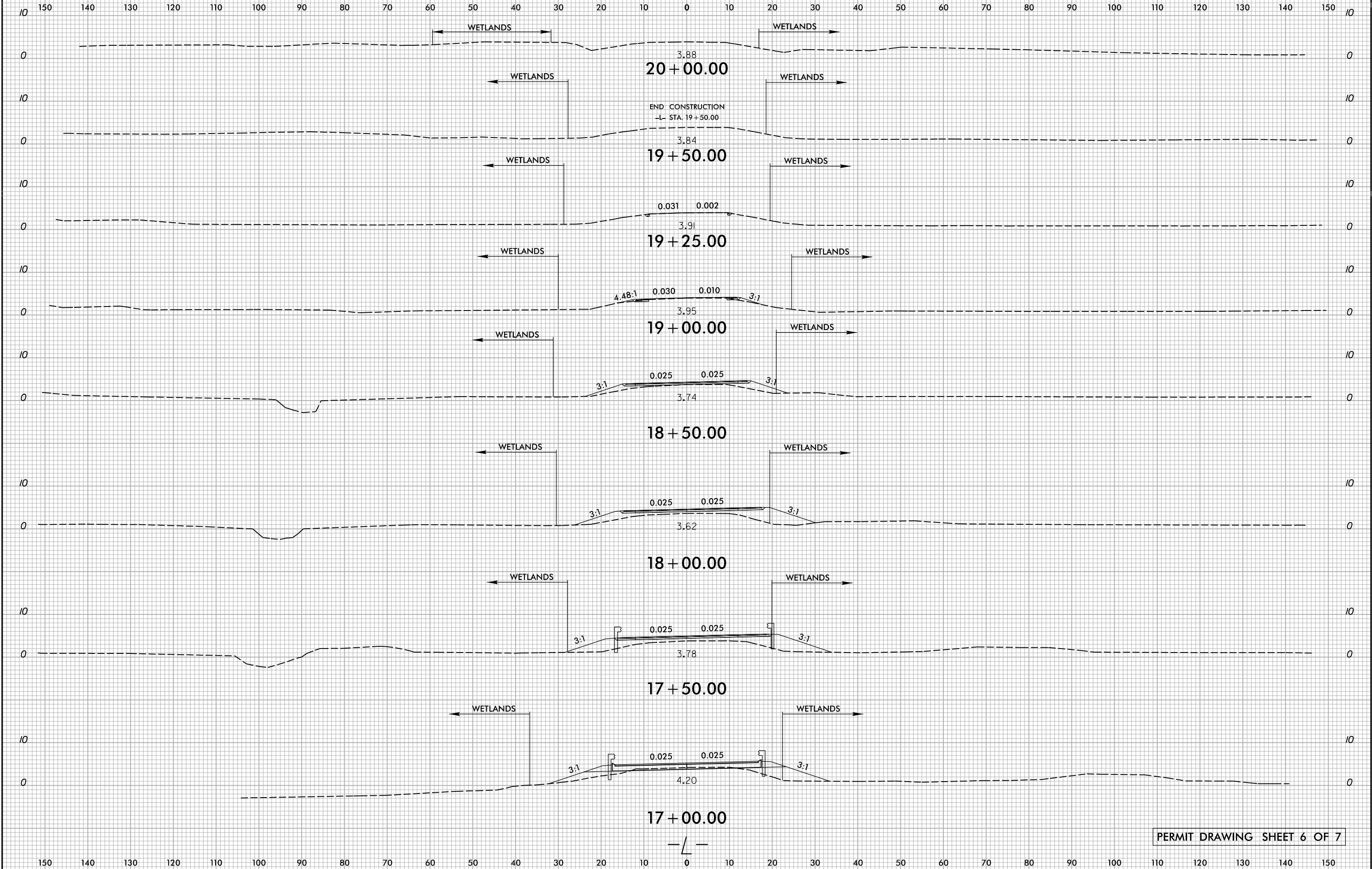
WETLANDS

WETLANDS

WETLANDS

WETLANDS

7/21/2016 X:\N\001\B-4598\Hydraulics\PERMITS\Environmental\Drawings\Permit_Peckogel(Roadway)_20160721\B-4598_Hyd_perm_xpl.dgn User:sme\lvt



7/21/2016 X:\N\000\B-4598\Hydro\Permits\Environmental\Drawings\Permit\Peckogel(Roadway)_20160721\B-4598_Hyd_perm_xpl.dgn User:samal\m

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	14+46 to 18+64	Roadway/Bridge	0.09									
1	15+94 RT to 16+96 RT	Roadway/Bridge			< 0.01							
1	14+35 to 18+90	Roadway/Bridge					0.07					
1	16+10 RT,16+76 LT	Excavation						< 0.01				
TOTALS*:			0.09		< 0.01		0.07	< 0.01		0	0	0

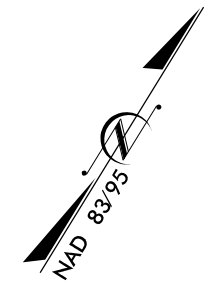
*Rounded totals are sum of actual impacts

NOTES:
Wetland impacts listed in table above are all in CAMA Wetlands.
0.01 acres of Temporary Fill in Wetlands in the Hand Clearing areas for erosion control measures.
<0.01 acres of Permanent SW impacts for interior bent at 16+43.

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
2/25/2017
PAMLICO
PROJECT: 38426.1.2 (B-4598)

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-4598	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
38426.1.2	BRZ-1324(5)	PE	
38426.2.1		RW, UTL.	

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



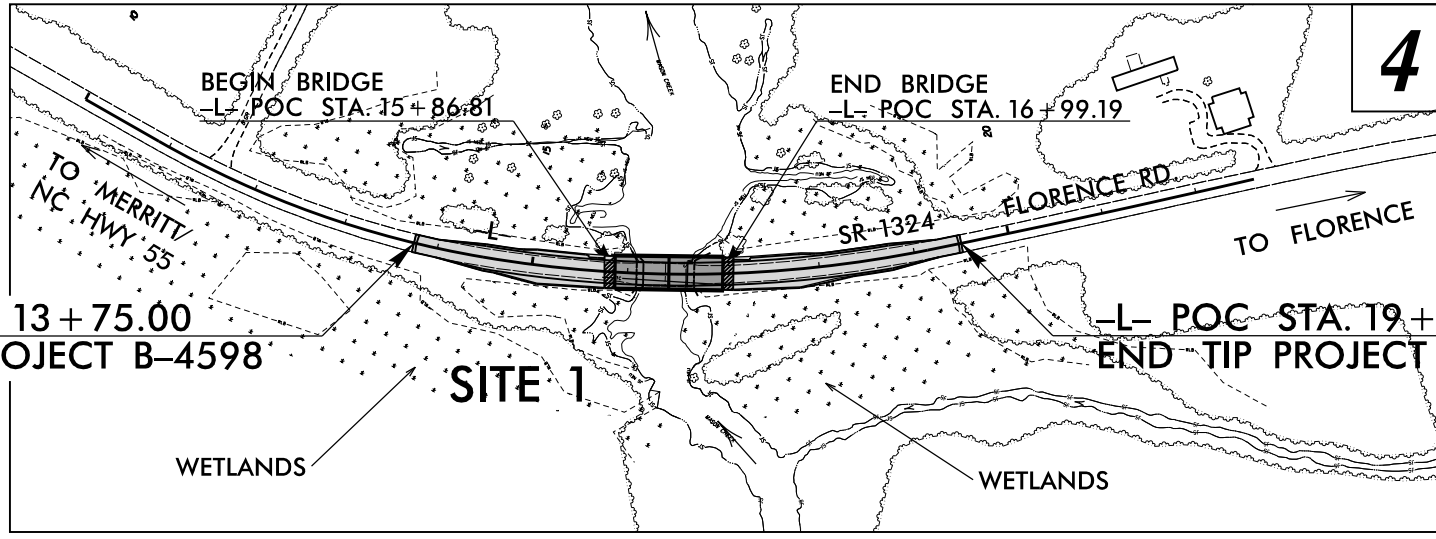
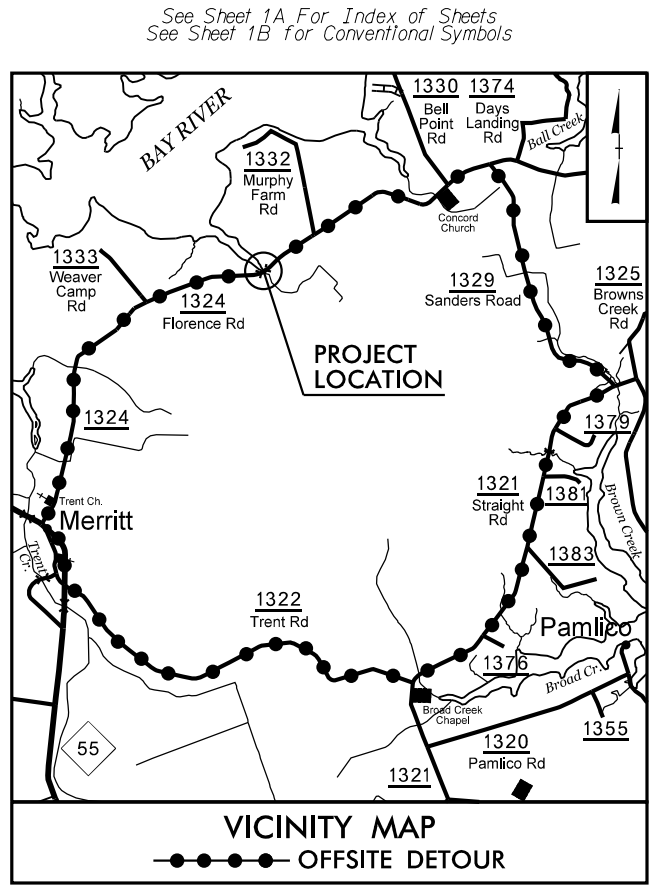
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PAMLICO COUNTY

LOCATION: REPLACE BRIDGE 16 OVER MASON CREEK
ON SR 1324 (FLORENCE RD.)

TYPE OF WORK: GRADING, DRAINAGE, STRUCTURE AND PAVING

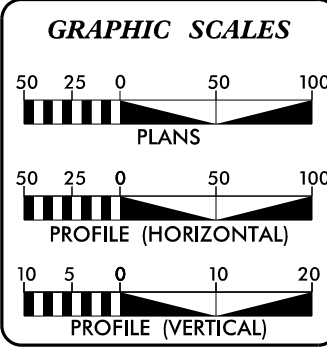
PERMIT DRAWINGS
BUFFER IMPACTS
DUE TO ROADWAY/BRIDGE
FEBRUARY 25, 2017



BUFFER DRAWING
SHEET 1 OF 5

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

DESIGN EXCEPTIONS
-L- Horizontal SSD, Sta. 13+75 to Sta. 19+50
Superelevation, Sta. 13+75 to Sta. 19+50



DESIGN DATA
ADT 2017 = 1065
ADT 2037 = 1326
DHV = 10 %
D = 55 %
T = 10 % *
V = 60 MPH
* (TTST 1% + DUAL 9%)
FUNCT CLASS=RURAL LOCAL
SUB-REGIONAL TIER DESIGN

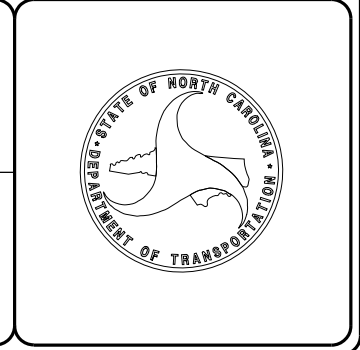
PROJECT LENGTH
LENGTH ROADWAY TIP PROJECT B-4598 = 0.088 miles
LENGTH STRUCTURES TIP PROJECT B-4598 = 0.021 miles
TOTAL LENGTH TIP PROJECT B-4598 = 0.109 miles

Prepared For:
DIVISION OF HIGHWAYS
1000 Birch Ridge Dr., Raleigh NC, 27610
By:
TGS ENGINEERS
804-C N. LAFAYETTE ST
SHELBY, NC 28150
PH (704) 476-0003
CORP. LICENSE NO.: C-0275

2012 STANDARD SPECIFICATIONS
RIGHT OF WAY DATE: MAY 16, 2016
LETTING DATE: JUNE 20, 2017

JIMMY TERRY, P.E.
PROJECT ENGINEER
BURKE EVANS, P.E.
PROJECT DESIGN ENGINEER
GARY LOVERING, PE
PROJECT ENGINEER
NCDOT ROADWAY DESIGN


HYDRAULICS ENGINEER
SIGNATURE: _____ P.E.
ROADWAY DESIGN ENGINEER
SIGNATURE: _____ P.E.



TIP PROJECT: B-4598


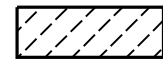
CONTRACT:

09/08/99
2/25/2017
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User:dperry

PROJECT REFERENCE NO.	SHEET NO.
B-4598	4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
 TGS ENGINEERS 706 HILLSBOROUGH ST SUITE 200 RALEIGH, NC 27603 PH (919) 773-8887	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

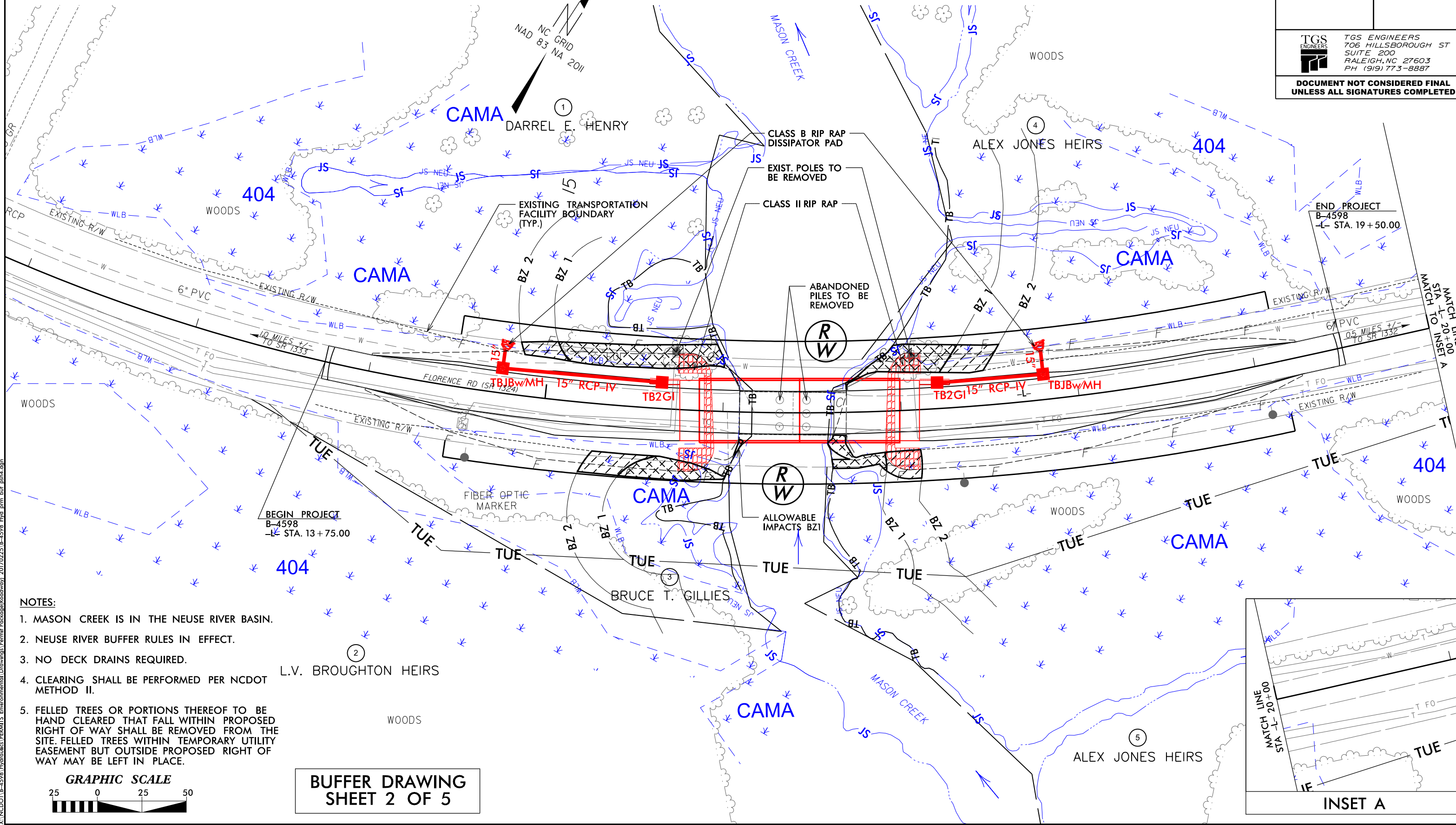
PERMIT DRAWINGS FOR B-4598 PAMLICO COUNTY BRIDGE #680016

EXISTING BRIDGE DIMENSIONS 60'X26' (DOUBLE-SPAN), 90 DEG. SKEW
 PROPOSED BRIDGE DIMENSIONS 110'X36' (DOUBLE-SPAN), 90 DEG. SKEW
 TOTAL PROJECT LENGTH - 575'

Buffer Zone (BZ) Impacts	
Area of Allowable Impacts within BZ1	Area of Allowable Impacts within BZ2
	

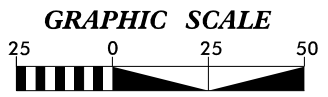
LEGEND

BUFFER IMPACTS

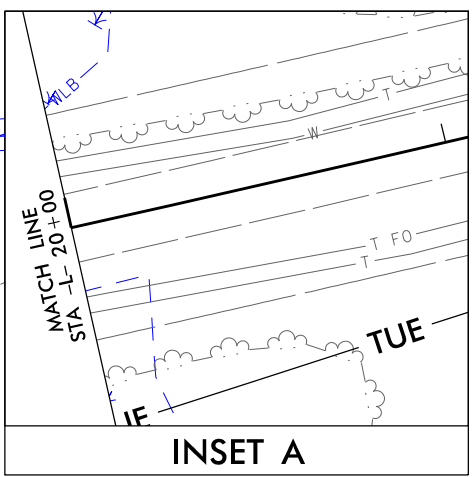


2/25/2017
 gpenly
 21.14.0001.B-4598.Hydraulics.PEMITS.Environmental.Drawings.Permit.Packaging.Roadway.20170223.B-4598.Hyd.prm.buf.gsh4.dgn


- NOTES:**
1. MASON CREEK IS IN THE NEUSE RIVER BASIN.
 2. NEUSE RIVER BUFFER RULES IN EFFECT.
 3. NO DECK DRAINS REQUIRED.
 4. CLEARING SHALL BE PERFORMED PER NCDOT METHOD II.
 5. FELLED TREES OR PORTIONS THEREOF TO BE HAND CLEARED THAT FALL WITHIN PROPOSED RIGHT OF WAY SHALL BE REMOVED FROM THE SITE. FELLED TREES WITHIN TEMPORARY UTILITY EASEMENT BUT OUTSIDE PROPOSED RIGHT OF WAY MAY BE LEFT IN PLACE.



**BUFFER DRAWING
SHEET 2 OF 5**


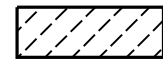


INSET A

PROJECT REFERENCE NO. B-4598	SHEET NO. 4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
 TGS ENGINEERS 706 HILLSBOROUGH ST SUITE 200 RALEIGH, NC 27603 PH (919) 773-8887	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

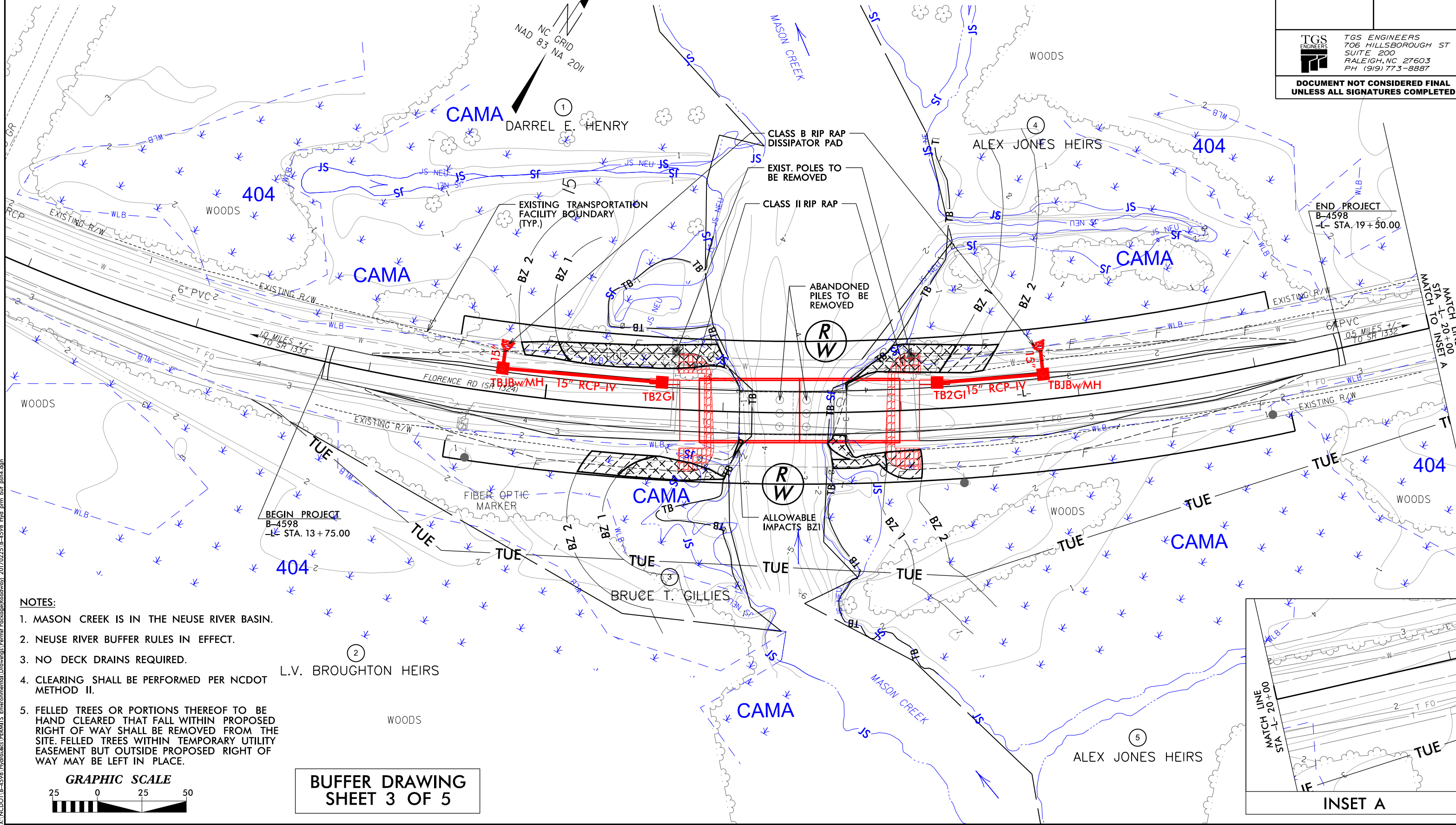
**PERMIT DRAWINGS
FOR B-4598
PAMLICO COUNTY
BRIDGE #680016**

EXISTING BRIDGE DIMENSIONS 60'X26' (DOUBLE-SPAN), 90 DEG. SKEW
 PROPOSED BRIDGE DIMENSIONS 110'X36' (DOUBLE-SPAN), 90 DEG. SKEW
 TOTAL PROJECT LENGTH - 575'

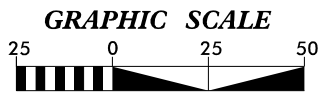
Buffer Zone (BZ) Impacts	
Area of Allowable Impacts within BZ1	Area of Allowable Impacts within BZ2
	

LEGEND

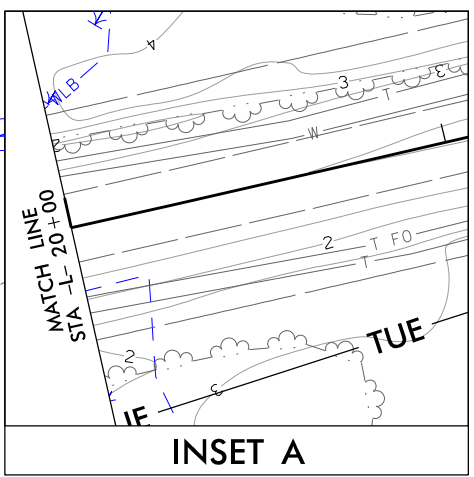
BUFFER IMPACTS



- NOTES:**
1. MASON CREEK IS IN THE NEUSE RIVER BASIN.
 2. NEUSE RIVER BUFFER RULES IN EFFECT.
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**BUFFER DRAWING
SHEET 3 OF 5**



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BUFFER IMPACTS SUMMARY

			IMPACT									BUFFER REPLACEMENT	
SITE NO.	STRUCTURE SIZE / TYPE	STATION (FROM/TO)	TYPE			ALLOWABLE			MITIGABLE			ZONE 1 (ft ²)	ZONE 2 (ft ²)
			ROAD CROSSING	BRIDGE	PARALLEL IMPACT	ZONE 1 (ft ²)	ZONE 2 (ft ²)	TOTAL (ft ²)	ZONE 1 (ft ²)	ZONE 2 (ft ²)	TOTAL (ft ²)		
1	Bridge	L 15+86 to 17+00		X		724	98	822					
1	Roadway	L 14+83 to 17+58	X			1802	1083	2885					
TOTAL:						2526.0	1181.0	3707.0	0.0	0.0	0.0		

NOTES:

N.C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS

PAMLICO COUNTY
PROJECT: 38426.1.2 (B-4598)

2/25/2017
SHEET 4 OF 5

B-4598- ENVIROMENTAL NARRATIVE

Utility Owners

Water- Al Gerard, Field Operations Manager
Pamlico County Water System
Pamlico County, N.C.
(252)745-5453
a_gerard@yahoo.com

Century Link-Phone- Mitch Averitte
311 Hancock St.
New Bern NC 28560
252-636-6620.
Mitchell.Averitte@centurylink.com>

Power- John Marsh
Senior Staking Technician
Tideland Electric Membership Corporation
P O Box 38, Grantsboro, NC 28529
252-637-8314 / 1-800-637-1079 x4324
johnmarsh@tidelandemc.com
www.tidelandemc.com

General Utility Relocation:

All utility lines inside the project limits currently within the construction limits will be adjusted or relocated as necessary before the project Let Date.

Power

Tideland EMC- John Marsh stated there are two poles on the east side of the bridge that will be moved back 15' to accommodate crane clearance. In addition one pole to the north of these poles will be moved to eliminate pull and the need for a side guy. A 15' wide TUE will be needed from the center of the poles on each side. It is recommended that the trees cut for clearing be left where they fall as there will be no other work in this area by any other contractors. This would leave a minimum impact on the wetland areas. All clearing will be with non-mechanized means. The existing poles will be left in place. At the completion of the bridge replacement the lines can be transferred back to the existing poles, as the proposed poles will be unreachable by a pole truck should an outage or maintenance be required.

All pole placement inside the wetland areas will be accomplished with the use of mats. There will be minimum impact to environmentally sensitive areas due to the non-mechanized clearing and the use of mats.

Telephone

Century Link/Embarq- Mitch Averitte, stated that Century Link/Embarq has facilities in conflict. Relocation of the telephone facilities will be accomplished with a 4" directional drill. The proposed cables will be placed inside of the 4" plastic pipe pulled back with the directional drill. There are (2) buried copper cables on the right side of SR1324 (Florence Road) and (1) buried copper on the left side of SR1324 (Florence Road). This one buried copper crosses -L- at station 15+75 and transitions to an aerial crossing. This aerial crossing and all buried cables inside of the project limits will be replaced with (2) copper and (1) fiber optic cable. The relocated cables will be placed/relocated by directional drill. The bore entry will begin at station 13+75 RT-L to 19+50 RT-L. As outlined in the bore profile the bore will be a minimum of 15' below the stream bottom of Mason Creek.

There will be no impact to environmentally sensitive areas due to the buried cable relocation because all trenching will take place in the roadway fill. All telephone lines constructed in wetlands, streams, and buffer zones will be by directional drill.

Water

Pamlico County Water- Al Gerard-, it has been determined there will be a conflict with the water line. Pamlico County Water requested the NCDOT handle the design, specifications, surveying, construction, inspection, ie., and all permitting required to relocate the existing water main located at the waterway crossing on Florence Road in Pamlico County.

An existing 6" water line on the left side of SR1324 (Florence Road) will be replaced in kind by a new section of 6" water line. The relocated water line will be constructed by directional drill. The directional drill will begin approximately 25' after the start of the project in the roadway fill and end approximately 25' before the end of the project in the roadway fill. This bore will be a minimum of 10' below the stream bottom of Mason's Creek.

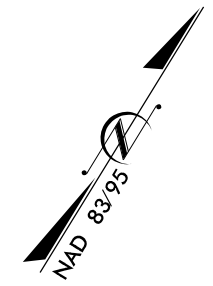
There will be no impact to environmentally sensitive areas due to the water line because all trenching will take place in the roadway fill. All water line constructed in wetlands, streams, and buffer zones will be by directional drill. Cutoff valves will be provided on each side of the stream.

Summary of Environmental Impacts

Based on the preliminary relocation plans provided by the power and telephone companies, there appears to be minimum impacts. The proposed directional bores will enter and exit as such with minimum impacts. Silt fence and all proper erosion control measures will be required and implemented. Any proposed telephone splice pits will be outside of the wetland boundaries. Hand clearing is typically expected in the wetlands and required for most buffer impacts. In addition mats can be placed as well to further minimize impacts.

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-4598	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
38426.1.2	BRZ-1324(5)	PE	
38426.2.1		RW, UTL.	

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



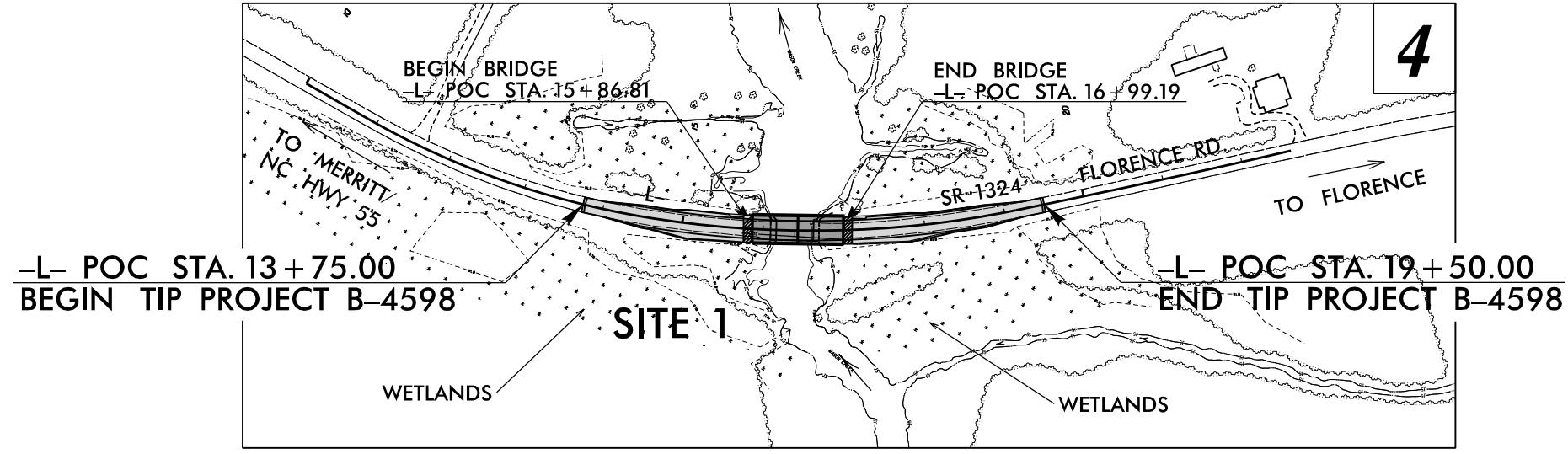
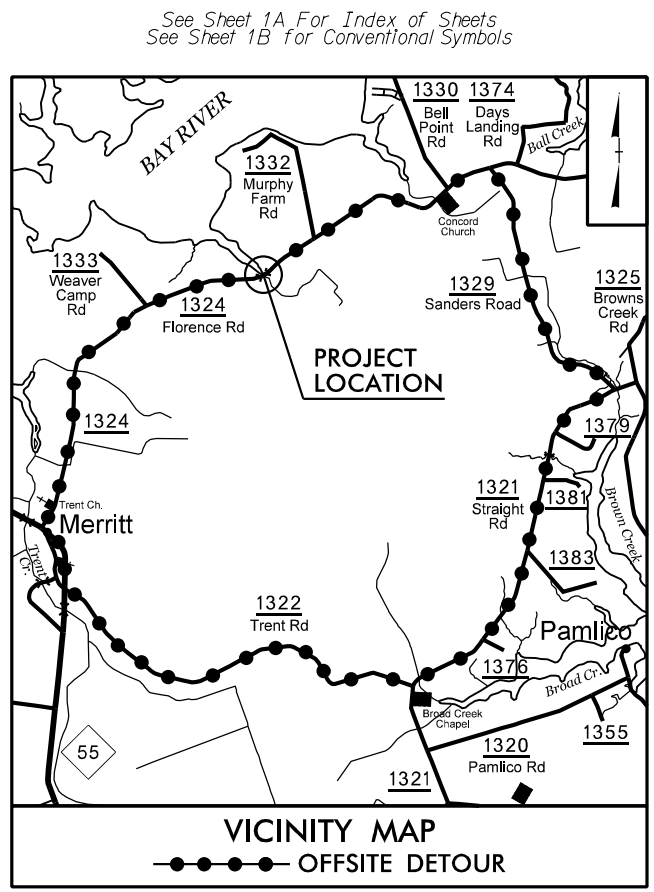
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PAMLICO COUNTY

LOCATION: REPLACE BRIDGE 16 OVER MASON CREEK
ON SR 1324 (FLORENCE RD.)

TYPE OF WORK: GRADING, DRAINAGE, STRUCTURE AND PAVING

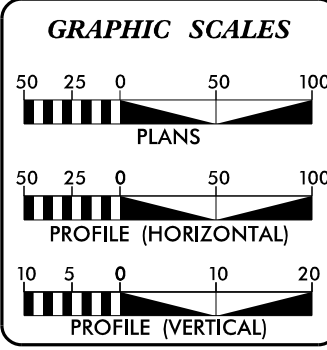
**PERMIT DRAWINGS
STREAM AND WETLAND IMPACTS
DUE TO UTILITY RELOCATION
FEBRUARY 24, 2017**



**PERMIT DRAWING
SHEET 1 OF 7**

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

DESIGN EXCEPTIONS
-L- Horizontal SSD, Sta. 13+75 to Sta. 19+50
Superelevation, Sta. 13+75 to Sta. 19+50



DESIGN DATA
ADT 2017 = 1065
ADT 2037 = 1326
DHV = 10 %
D = 55 %
T = 10 % *
V = 60 MPH
* (TTST 1% + DUAL 9%)
FUNCT CLASS=RURAL LOCAL
SUB-REGIONAL TIER DESIGN

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT B-4598 = 0.088 miles
LENGTH STRUCTURES TIP PROJECT B-4598 = 0.021 miles
TOTAL LENGTH TIP PROJECT B-4598 = 0.109 miles

Prepared For:
DIVISION OF HIGHWAYS
1000 Birch Ridge Dr., Raleigh NC, 27610
By:
TGS ENGINEERS
804-C N. LAFAYETTE ST
SHELBY, NC 28150
PH (704) 476-0003
CORP. LICENSE NO.: C-0275

2012 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
MAY 16, 2016

LETTING DATE:
JUNE 20, 2017

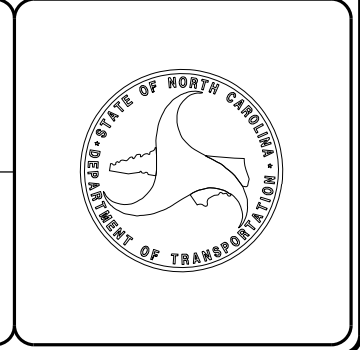
JIMMY TERRY, P.E.
PROJECT ENGINEER
BURKE EVANS, P.E.
PROJECT DESIGN ENGINEER
GARY LOVERING, PE
PROJECT ENGINEER
NCDOT ROADWAY DESIGN

HYDRAULICS ENGINEER

SIGNATURE: _____ P.E.

ROADWAY DESIGN ENGINEER

SIGNATURE: _____ P.E.



TIP PROJECT: B-4598

CONTRACT:

09/28/99
2/24/2017
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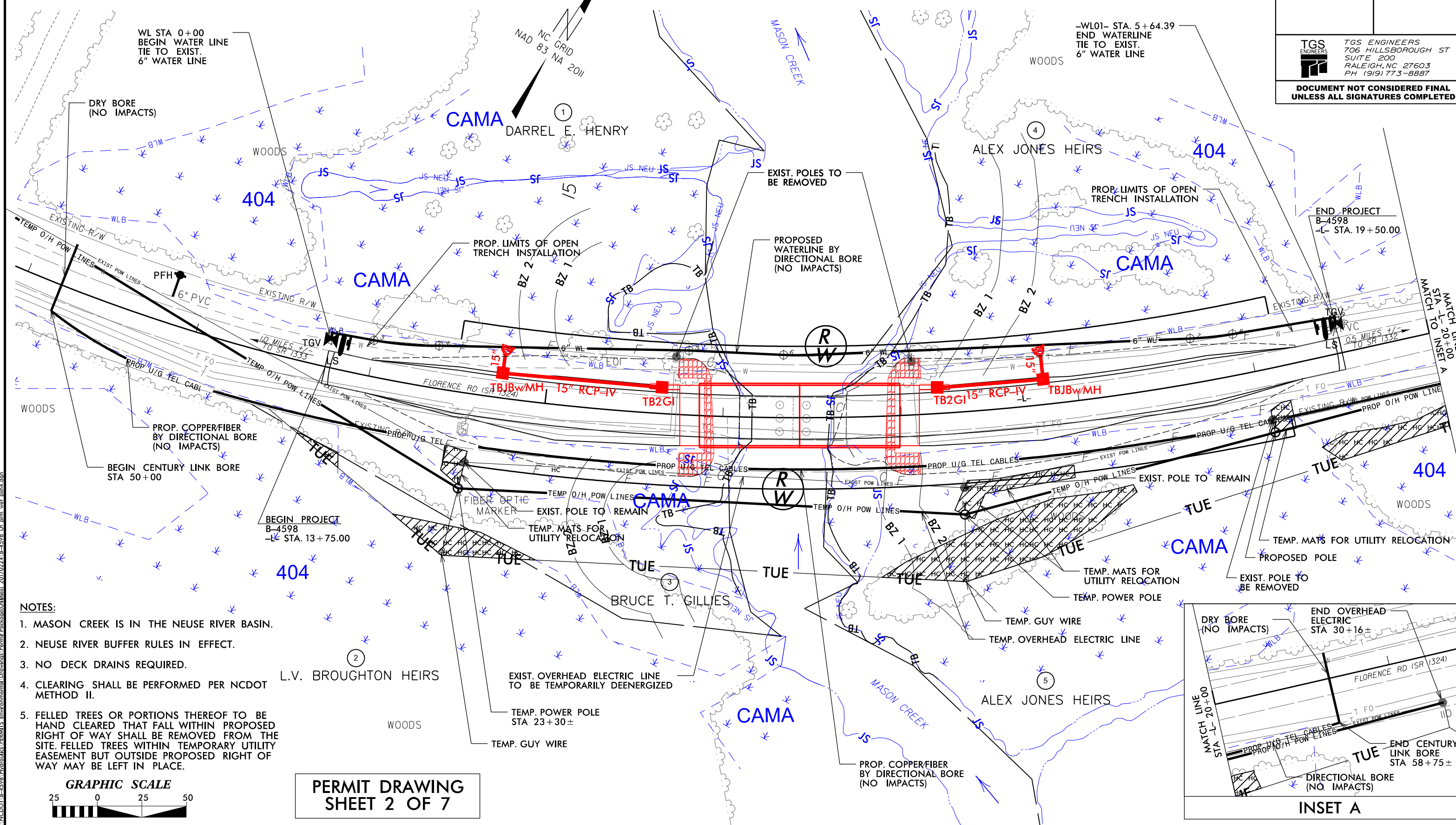
WETLAND IMPACTS	
Hand Clearing in Wetlands	

EXISTING BRIDGE DIMENSIONS 60'X26' (DOUBLE-SPAN), 90 DEG. SKEW
 PROPOSED BRIDGE DIMENSIONS 110'X36' (DOUBLE-SPAN), 90 DEG. SKEW
 TOTAL PROJECT LENGTH - 575'

PERMIT DRAWINGS FOR B-4598 PAMLICO COUNTY BRIDGE #680016

PROJECT REFERENCE NO. B-4598	SHEET NO. 4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
 TGS ENGINEERS 706 HILLSBOROUGH ST SUITE 200 RALEIGH, NC 27603 PH (919) 773-8887	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

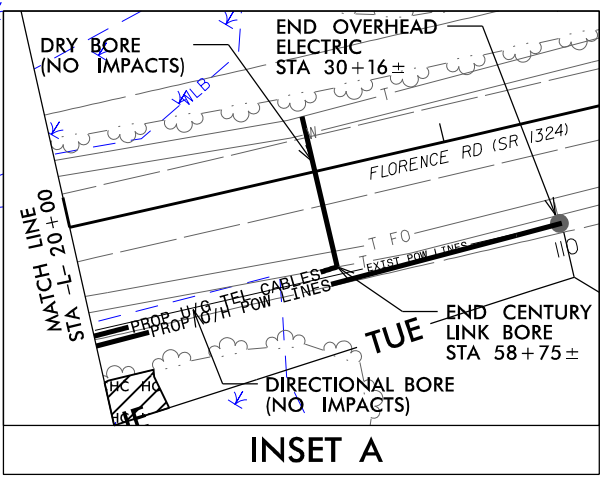
STREAM AND WETLAND IMPACTS



- NOTES:**
1. MASON CREEK IS IN THE NEUSE RIVER BASIN.
 2. NEUSE RIVER BUFFER RULES IN EFFECT.
 3. NO DECK DRAINS REQUIRED.
 4. CLEARING SHALL BE PERFORMED PER NCDOT METHOD II.
 5. FELLED TREES OR PORTIONS THEREOF TO BE HAND CLEARED THAT FALL WITHIN PROPOSED RIGHT OF WAY SHALL BE REMOVED FROM THE SITE. FELLED TREES WITHIN TEMPORARY UTILITY EASEMENT BUT OUTSIDE PROPOSED RIGHT OF WAY MAY BE LEFT IN PLACE.



**PERMIT DRAWING
 SHEET 2 OF 7**

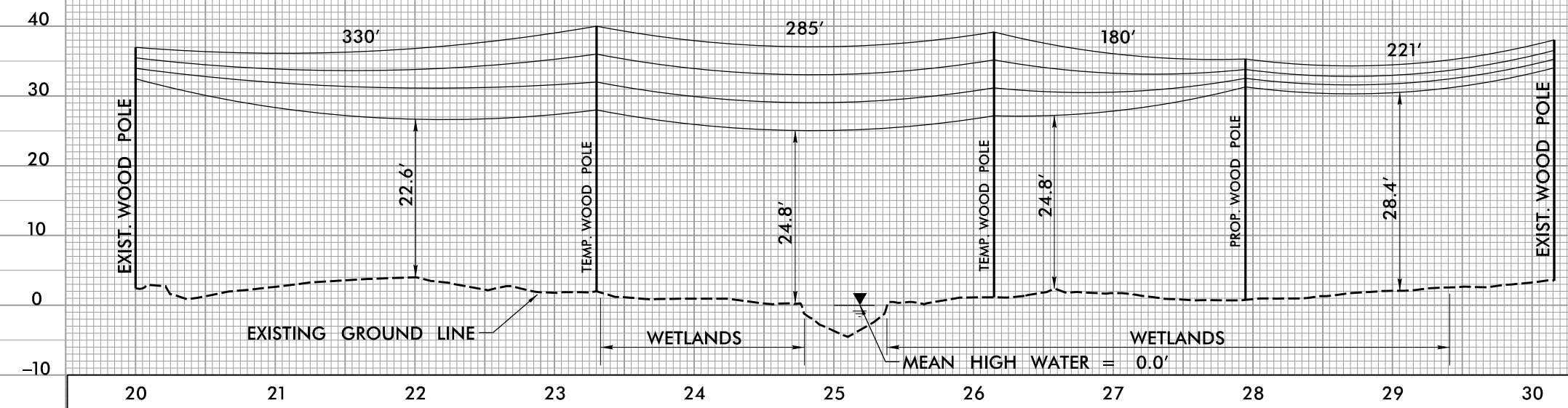


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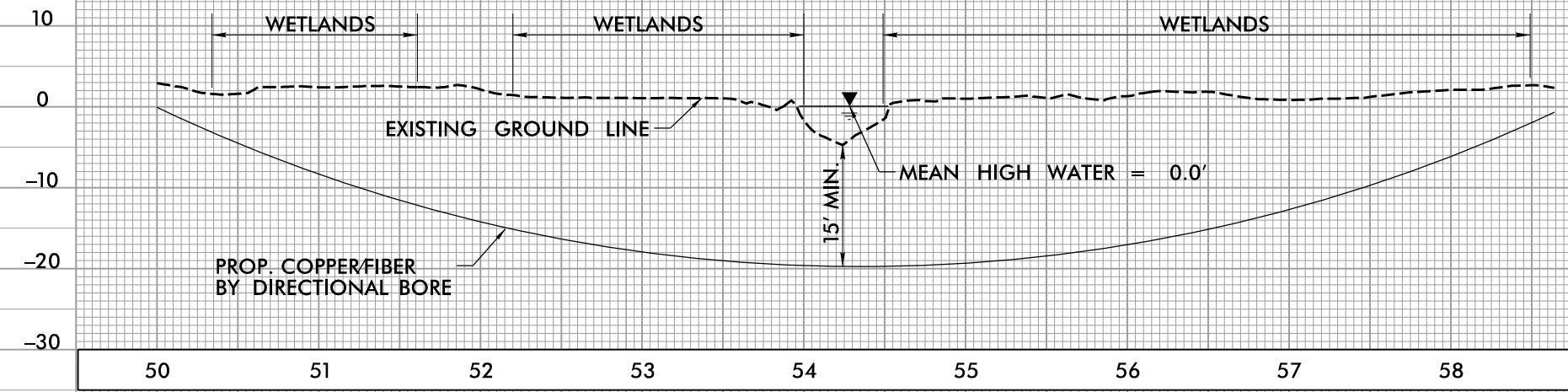
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PROJECT REFERENCE NO. <i>B-4598</i>	SHEET NO. <i>5</i>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

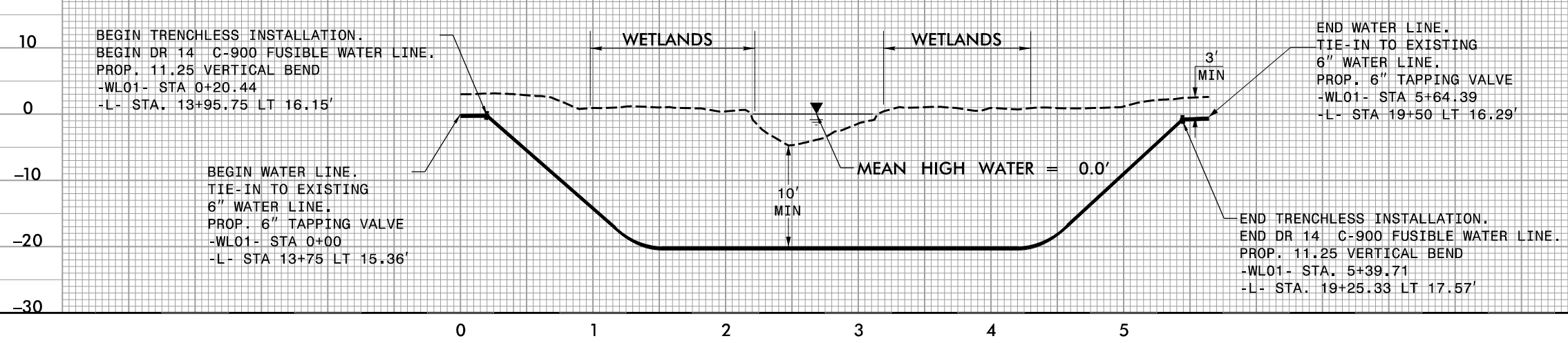
TEMC OVERHEAD ELECTRIC PROFILE



CENTURY LINK PROFILE



WATER LINE PROFILE



PERMIT DRAWING SHEET 4 OF 7

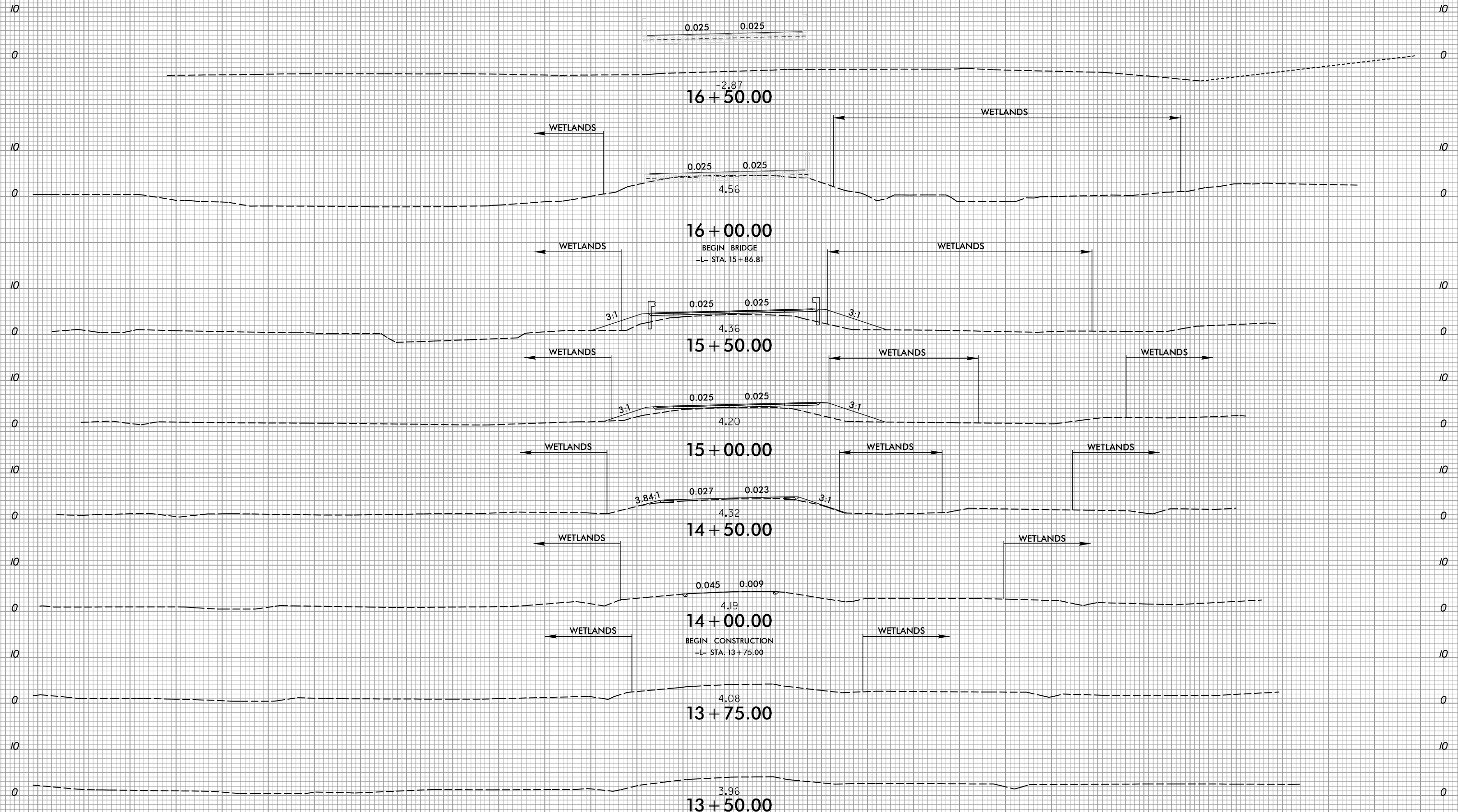
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8/23/99



150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

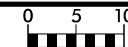
END BRIDGE
-L- STA. 16+99.19



-L-

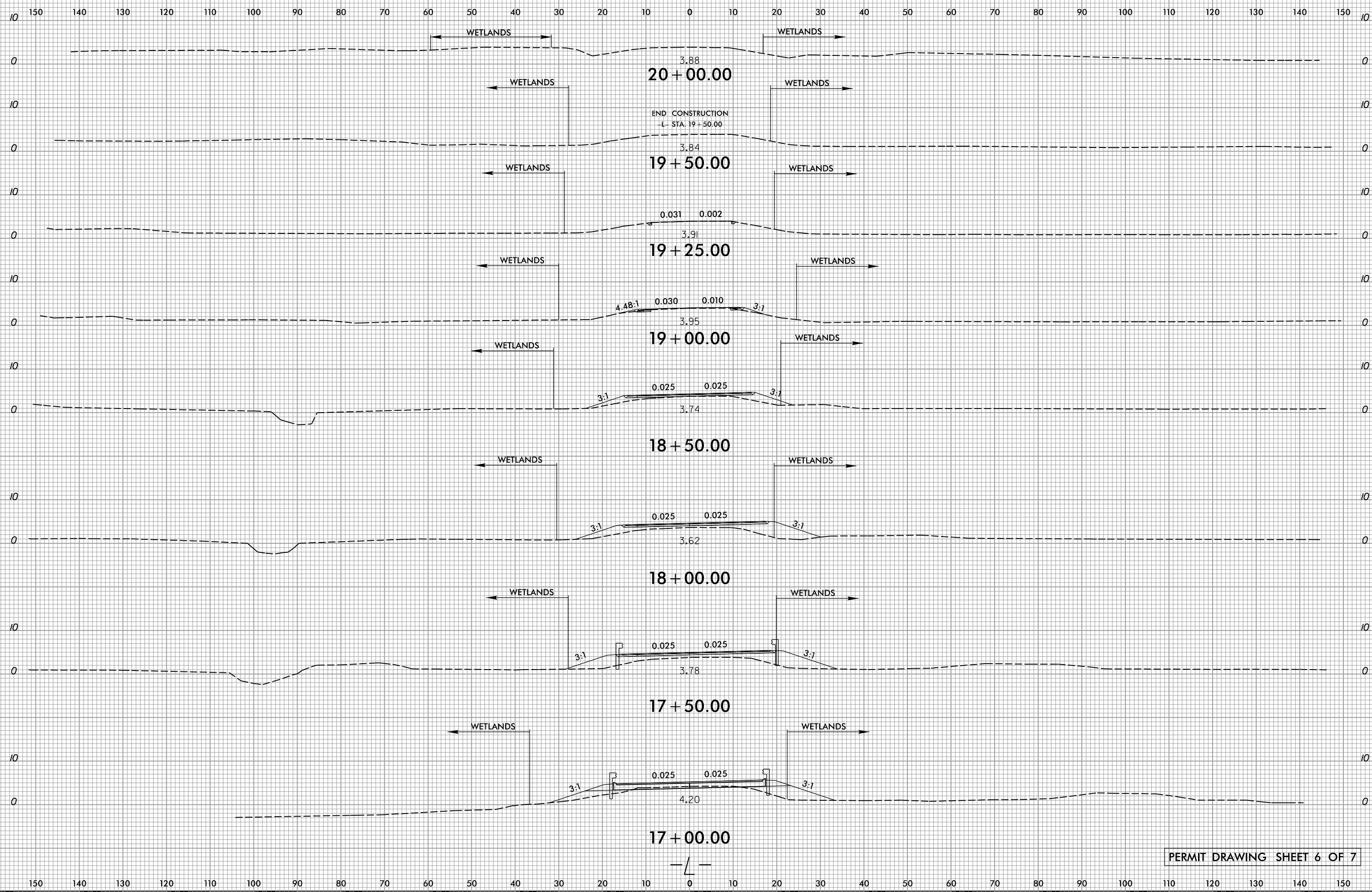
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 User: jburner

8/23/99



PROJ. REFERENCE NO.
B-4598

SHEET NO.
X-2



X:\NC001\B-4598\Hydraulics\PERMITS\Environmental\Drawings\Permit Package\Utilities\20170224\B-4598-Ut.prm.xpl.dgn
User: jburner

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 13+68 to 20+15	Overhead Power Line					0.13					
TOTALS*:							0.13			0	0	0

*Rounded totals are sum of actual impacts

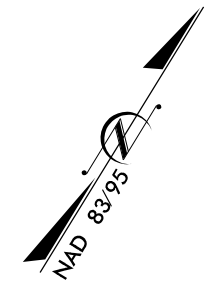
NOTES:
 Wetland Impacts listed in table above are total quantities for both CAMA & 404 Wetlands.
 0.09 acres of Hand Clearing are in CAMA Wetlands.

NC DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 2/24/2017
 PAMLICO
 PROJECT: 38426.1.2 (B-4598)

 SHEET 7 OF 7

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-4598	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
38426.1.2	BRZ-1324(5)	PE	
38426.2.1		RW, UTL.	

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



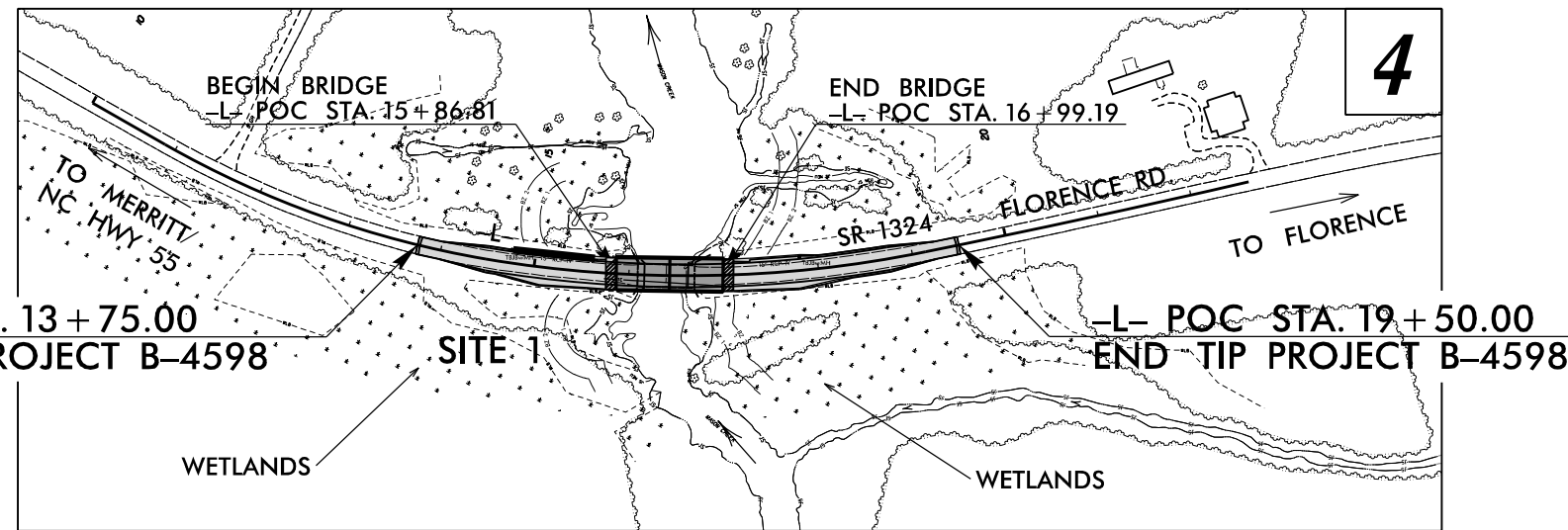
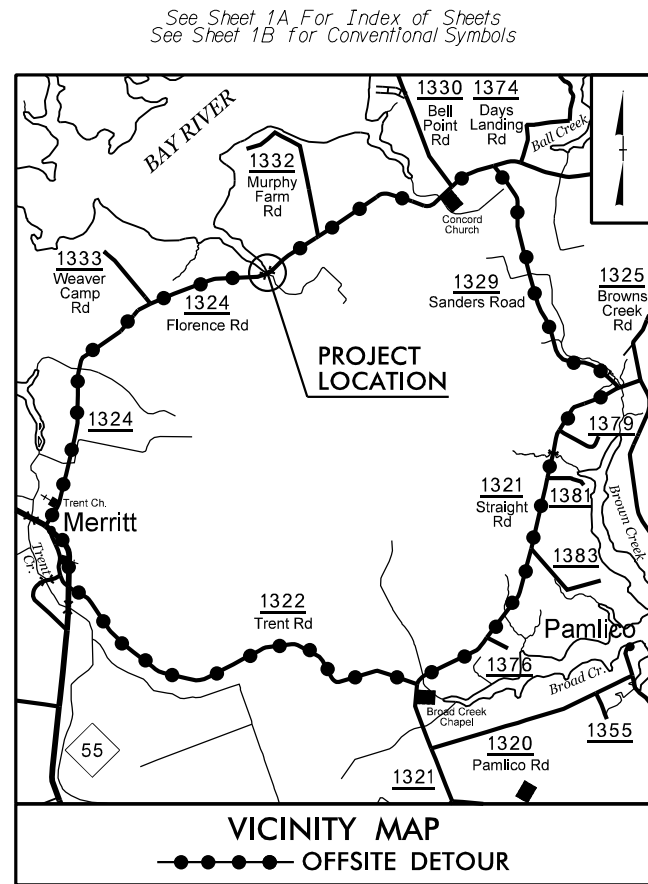
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PAMLICO COUNTY

LOCATION: REPLACE BRIDGE 16 OVER MASON CREEK
ON SR 1324 (FLORENCE RD.)

TYPE OF WORK: GRADING, DRAINAGE, STRUCTURE AND PAVING

PERMIT DRAWINGS
BUFFER IMPACTS
DUE TO UTILITY RELOCATION
FEBRUARY 24, 2017



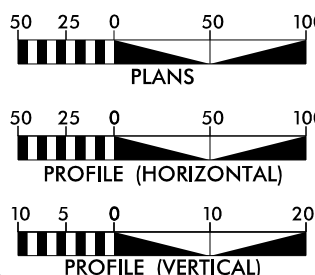
BUFFER DRAWING
SHEET 1 OF 5

DESIGN EXCEPTIONS

-L- Horizontal SSD, Sta. 13+75 to Sta. 19+50
Superelevation, Sta. 13+75 to Sta. 19+50

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

GRAPHIC SCALES



DESIGN DATA

ADT 2017 = 1065
ADT 2037 = 1326
DHV = 10 %
D = 55 %
T = 10 % *
V = 60 MPH
* (TTST 1% + DUAL 9%)
FUNCT CLASS=RURAL LOCAL
SUB-REGIONAL TIER DESIGN

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT B-4598 = 0.088 miles
LENGTH STRUCTURES TIP PROJECT B-4598 = 0.021 miles
TOTAL LENGTH TIP PROJECT B-4598 = 0.109 miles

Prepared For:
DIVISION OF HIGHWAYS
1000 Birch Ridge Dr., Raleigh NC, 27610



TGS ENGINEERS
804-C N. LAFAYETTE ST
SHELBY, NC 28150

PH (704) 476-0003
CORP. LICENSE NO.:
C-0275

2012 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
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LETTING DATE:
JUNE 20, 2017

JIMMY TERRY, P.E.
PROJECT ENGINEER

BURKE EVANS, P.E.
PROJECT DESIGN ENGINEER

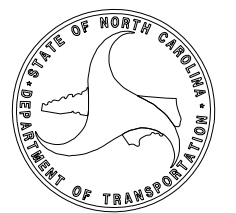
GARY LOVERING, PE
PROJECT ENGINEER
NCDOT ROADWAY DESIGN

HYDRAULICS ENGINEER

SIGNATURE: _____ P.E.


ROADWAY DESIGN ENGINEER

SIGNATURE: _____ P.E.





TIP PROJECT: B-4598

CONTRACT:

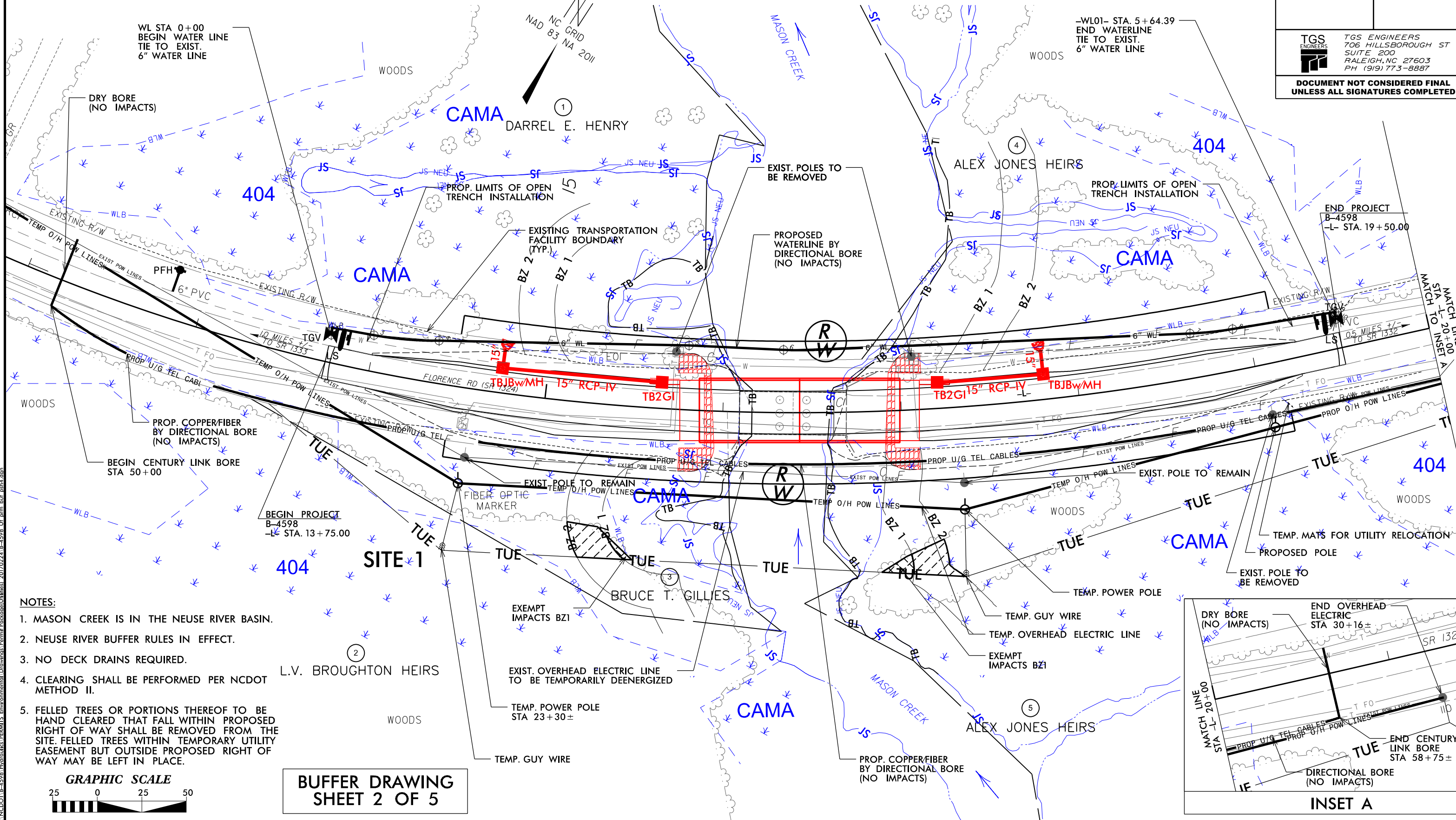
PROJECT REFERENCE NO. B-4598	SHEET NO. 4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
 TGS ENGINEERS 706 HILLSBOROUGH ST SUITE 200 RALEIGH, NC 27603 PH (919) 773-8887	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

PERMIT DRAWINGS FOR B-4598 PAMLICO COUNTY BRIDGE #680016

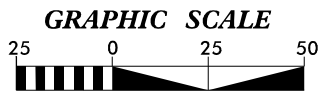
Buffer Zone (BZ) Impacts	
Area of Exempt Bridge Impacts within BZ1	Area of Exempt Bridge Impacts within BZ2
	

EXISTING BRIDGE DIMENSIONS 60'X26' (DOUBLE-SPAN), 90 DEG. SKEW
 PROPOSED BRIDGE DIMENSIONS 110'X36' (DOUBLE-SPAN), 90 DEG. SKEW
 TOTAL PROJECT LENGTH - 575'

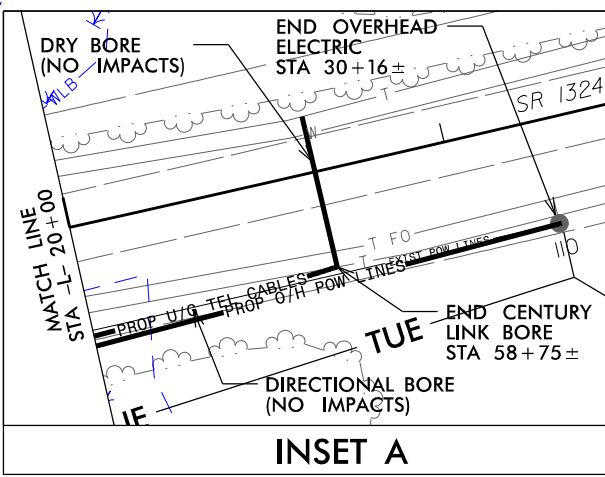
BUFFER IMPACTS




- NOTES:**
1. MASON CREEK IS IN THE NEUSE RIVER BASIN.
 2. NEUSE RIVER BUFFER RULES IN EFFECT.
 3. NO DECK DRAINS REQUIRED.
 4. CLEARING SHALL BE PERFORMED PER NCDOT METHOD II.
 5. FELLED TREES OR PORTIONS THEREOF TO BE HAND CLEARED THAT FALL WITHIN PROPOSED RIGHT OF WAY SHALL BE REMOVED FROM THE SITE. FELLED TREES WITHIN TEMPORARY UTILITY EASEMENT BUT OUTSIDE PROPOSED RIGHT OF WAY MAY BE LEFT IN PLACE.




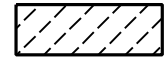
**BUFFER DRAWING
SHEET 2 OF 5**



22-22017
 Turner
 MANAGED BY: 4598 Hydraulics PERMITS Environmental Drawings Permit Packets/Utilities 20170224 B-4598 U:\perm\buf\ash4.dgn

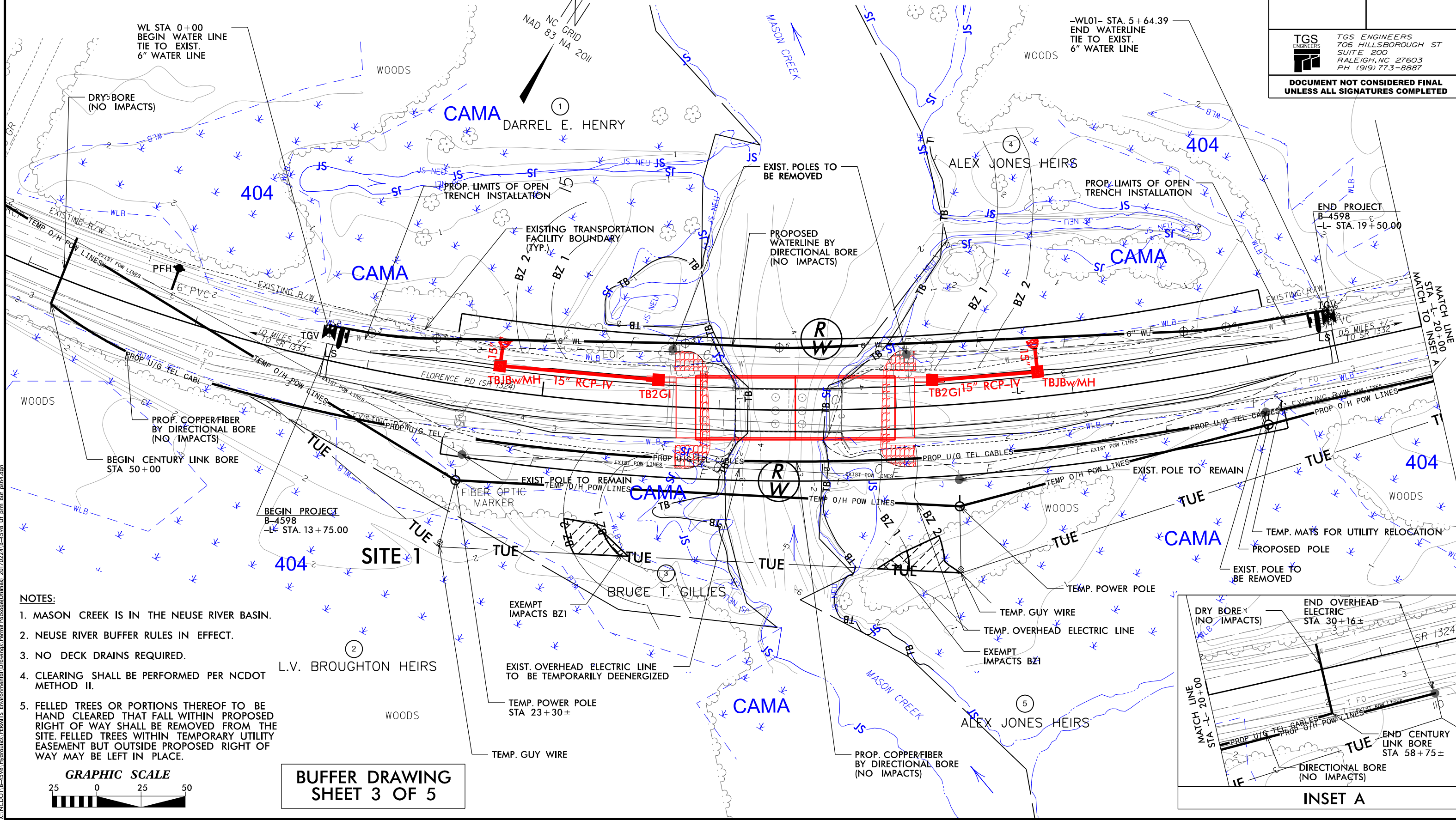
PROJECT REFERENCE NO. B-4598	SHEET NO. 4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
 TGS ENGINEERS 706 HILLSBOROUGH ST SUITE 200 RALEIGH, NC 27603 PH (919) 773-8887	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

PERMIT DRAWINGS FOR B-4598 PAMLICO COUNTY BRIDGE #680016

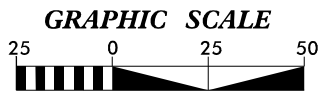
Buffer Zone (BZ) Impacts	
Area of Exempt Bridge Impacts within BZ1	Area of Exempt Bridge Impacts within BZ2
	

EXISTING BRIDGE DIMENSIONS 60'X26' (DOUBLE-SPAN), 90 DEG. SKEW
 PROPOSED BRIDGE DIMENSIONS 110'X36' (DOUBLE-SPAN), 90 DEG. SKEW
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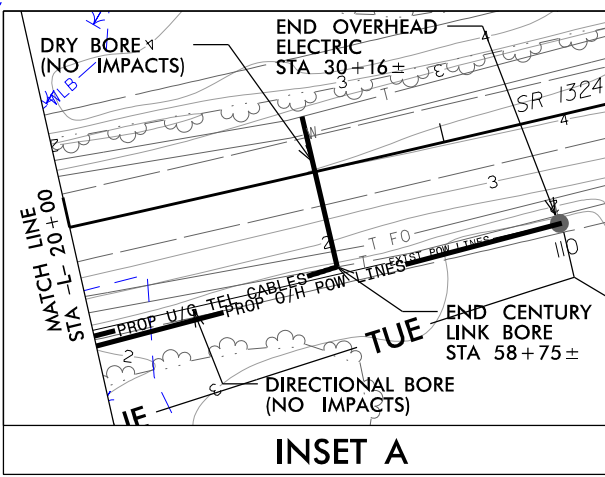
BUFFER IMPACTS



- NOTES:**
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**BUFFER DRAWING
SHEET 3 OF 5**



22/2/2017
 Turner
 P:\PROJECTS\B-4598\Hydraulics\PERMITS\Environmental\Drawings\Permit Pack\Utilities\20170224\B-4598_Ul_perm_buf_ast4.dgn

BUFFER IMPACTS SUMMARY

			IMPACT									BUFFER REPLACEMENT	
SITE NO.	STRUCTURE SIZE / TYPE	STATION (FROM/TO)	TYPE			ALLOWABLE EXEMPT			MITIGABLE			ZONE 1 (ft ²)	ZONE 2 (ft ²)
			ROAD CROSSING	BRIDGE	PARALLEL IMPACT	ZONE 1 (ft ²)	ZONE 2 (ft ²)	TOTAL (ft ²)	ZONE 1 (ft ²)	ZONE 2 (ft ²)	TOTAL (ft ²)		
1	Overhead Power Line	L 15+19 to 17+30	X			146	750	896					
TOTAL:						146.0	750.0	896.0	0.0	0.0	0.0		

NOTES:
 All Zone 1 and Zone 2 impacts are due to overhead power line relocations which are exempt impacts.

N.C. DEPT. OF TRANSPORTATION
 DIVISION OF HIGHWAYS

PAMLICO COUNTY
 PROJECT: 38426.1.2 (B-4598)

2/24/2017
 SHEET 4 OF 5

