STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

PAT L. MCCRORY
GOVERNOR

NICHOLAS J. TENNYSON
SECRETARY

August 7, 2015

U.S. Army Corps of Engineers
Regulatory Field Office
2407 West 5th St.
Washington, NC 27889

Attention: Thomas Steffens
NCDOT Coordinator

Dear Sir:

Subject: **Application for Section 404 Nationwide Permits (NWP) 12 & 23, Section 401 Water Quality Certification & Riparian Buffer Certification** for the proposed replacement of Bridge Nos. 114 and 116 over the Little River on I-95 in Johnston County; TIP Project I-3318BB; Federal Aid Project No. IMS-095-2(119)105; Debit $240 from WBS No. 34182.1.2.

Please find enclosed PCN, permit drawings, utility drawings, roadway plans, stormwater management plan, Jeffrey's Warehouse Mitigation Site, and USFWS concurrence letter, for the above referenced project proposed by the North Carolina Department of Transportation (NCDOT). A Categorical Exclusion (CE) was completed for this project on March 14, 2013 and distributed shortly thereafter. Additional copies are available upon request. The NCDOT proposes to replace existing Bridge Nos. 114 and 116 over the Little River on I-95 in Johnston County. Bridge No. 114 is 237 feet long, has a structural sufficiency rating of 4, and is functionally obsolete and structurally deficient. Bridge No. 116 is 237 feet long, has a structural sufficiency rating of 60.8, and is functionally obsolete. Bridge No. 114 will be 270 feet long and widened to five-lanes for a total of 78 feet wide. Bridge No. 116 will be 270 feet long and widened to four-lanes for a total of 75.5 feet wide.

Proposed permanent impacts to riparian wetlands from bridge construction are 0.06 acre for fill and 0.09 acre for mechanized clearing. The project will impact riparian buffers due to bridge construction and approach work. Roadway and bridge buffer impacts total 15,262 sq. ft. in Zone 1 and 7889 sq. ft. in Zone 2. Buffer impacts due to utility relocation total 3,466 sq. ft. in Zone 2. Traffic will be detoured off-site during construction of one of the ramps at the end of the project. Additionally, during the

MAILING ADDRESS:
NC DEPARTMENT OF TRANSPORTATION
PROJECT DEVELOPMENT & ENVIRONMENTAL ANALYSIS UNIT
1598 MAIL SERVICE CENTER
RALEIGH NC 27699-1548

TELEPHONE: 919-707-6000
FAX: 919-212-5785
WEBSITE:NCDOT.GOV

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

construction of the bridge there will be an on-site detour on a portion of the newly constructed bridge. The width of the proposed bridge will allow for traffic during construction. The bridge contruction will be phased and will utilize lane shifting to accommodate traffic.

This project calls for a letting date of November 17, 2015 and a review date of September 29, 2015; however, the let date may advance as additional funding becomes available.

Regulatory Approvals

Section 404 Permit: All aspects of this project are being processed by the Federal Highway Administration as a "Categorical Exclusion" in accordance with 23 CFR 771.115(b). The NCDOT requests that the project be authorized by NWP 23 for bridge construction as well as a NWP 12 for utility relocation.

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

Neuse Riparian Buffer Authorization: NCDOT requests that the NC Division of Water Quality review this application and issue a written approval for a Neuse Riparian Buffer Authorization.

A copy of this permit application and its distribution list will be posted on the NCDOT website at https://connect.ncdot.gov/resources/Environmental/Pages, under Quick Links > Permit Applications.

If you have any questions or need additional information, please contact Chris Manley at (919) 707-6135.

Sincerely,

LeAnn Paugh

for Richard W. Hancock, P.E., Manager
Project Development and Environmental Analysis Unit

cc

NCDOT Permit Application Standard Distribution List.

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

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 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: ☐ Yes ☒ No	For the record only for Corps Permit: ☐ Yes ☒ No
1f. Is payment into a mitigation bank or in-lieu fee program proposed for mitigation of impacts? If so, attach the acceptance letter from mitigation bank or in-lieu fee program.	☐ 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:	Replacement of Bridge Nos. 114 and 116 over the Little River on I-95 in Johnston County
2b. County:	Johnston
2c. Nearest municipality / town:	Kenly
2d. Subdivision name:	*not applicable*
2e. NCDOT only, T.I.P. or state project no:	I-3318BB

3. Owner Information

3a. Name(s) on Recorded Deed:	North Carolina Department of Transportation
3b. Deed Book and Page No.	*not applicable*
3c. Responsible Party (for LLC if applicable):	*not applicable*
3d. Street address:	1598 Mail Service Center
3e. City, state, zip:	Raleigh, NC 27699-1598
3f. Telephone no.:	(919) 707-6135
3g. Fax no.:	(919) 431-2002
3h. Email address:	cdmanley@ncdot.gov

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

B. Project Information and Prior Project History	
1. Property Identification	
1a. Property identification no. (tax PIN or parcel ID):	*not applicable*
1b. Site coordinates (in decimal degrees):	Latitude: 35.569920 Longitude: -78.162560 (DD.DDDDDD) (-DD.DDDDDD)
1c. Property size:	10.2 acres
2. Surface Waters	
2a. Name of nearest body of water (stream, river, etc.) to proposed project:	Little River
2b. Water Quality Classification of nearest receiving water:	WS-V;NSW
2c. River basin:	Neuse River Basin
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: Undeveloped forestland, low density residential, and commercial property.	
3b. List the total estimated acreage of all existing wetlands on the property: 2.39	
3c. List the total estimated linear feet of all existing streams (intermittent and perennial) on the property: 400	
3d. Explain the purpose of the proposed project: To replace a structurally deficient bridge.	
3e. Describe the overall project in detail, including the type of equipment to be used: The project involves replacing two 237-foot bridges with two 270-foot bridges on the existing alignment using both off-site and on-site detours. Standard road building equipment, such as trucks, dozers, and cranes will be used.	
4. Jurisdictional Determinations	
4a. Have jurisdictional wetland or stream determinations by the Corps or State been requested or obtained for this property / project (including all prior phases) in the past? Comments: A preliminary JD is requested with this application.	☐ Yes ☒ No ☐ Unknown
4b. If the Corps made the jurisdictional determination, what type of determination was made?	☐ Preliminary ☐ Final
4c. If yes, who delineated the jurisdictional areas? Name (if known): Chris Underwood, Tyler Stanton, Chris Manley, Lance Fontaine, Amy James	Agency/Consultant Company: NCDOT Other:
4d. If yes, list the dates of the Corps jurisdictional determinations or State determinations and attach documentation.	
5. Project History	
5a. Have permits or certifications been requested or obtained for this project (including all prior phases) in the past?	☐ Yes ☒ No ☐ Unknown
5b. If yes, explain in detail according to “help file” instructions.	
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):

☒ Wetlands ☐ Streams - tributaries ☒ Buffers

☐ Open Waters ☐ Pond Construction

2. Wetland Impacts

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

2a. Wetland impact number – Permanent (P) or Temporary (T)	2b. Type of impact	2c. Type of wetland (if known)	2d. Forested	2e. Type of jurisdiction (Corps - 404, 10 DWQ – non-404, other)	2f. Area of impact (acres)
Site 1 ☒ P ☐ T	Fill	Bottomland Hardwood	☒ Yes ☐ No	☒ Corps ☒ DWQ	0.02
Site 2 ☒ P ☐ T	Fill	Bottomland Hardwood	☒ Yes ☐ No	☒ Corps ☒ DWQ	0.04
Site 1 ☒ P ☐ T	Mechanized Clearing	Bottomland Hardwood	☒ Yes ☐ No	☒ Corps ☒ DWQ	0.07
Site 2 ☒ P ☐ T	Mechanized Clearing	Bottomland Hardwood	☒ Yes ☐ No	☒ Corps ☒ DWQ	0.02
Site 1 ☐ P ☒ T	Temporary Fill	Bottomland Hardwood	☒ Yes ☐ No	☒ Corps ☒ DWQ	0.04
Site U1 ☒ P ☐ T	Fill,Excavation	Bottomland Hardwood	☒ Yes ☐ No	☒ Corps ☒ DWQ	<0.01
Site U2 ☒ P ☐ T	Fill,Excavation	Bottomland Hardwood	☒ Yes ☐ No	☒ Corps ☒ DWQ	<0.01
Site U4 ☒ P ☐ T	Mechanized Clearing	Bottomland Hardwood	☒ Yes ☐ No	☒ Corps ☒ DWQ	<0.01
				2g. **Total wetland impacts**	0.15 Perm. 0.04 Temp.

2h. Comments: There will be 0.22 acre of hand clearing in wetlands for utility work.

3. Stream Impacts

If there are perennial or intermittent stream impacts (including temporary impacts) proposed on the site, then complete this question for all stream sites impacted.

3a. Stream impact number - Permanent (P) or Temporary (T)	3b. Type of impact	3c. Stream name	3d. Perennial (PER) or intermittent (INT)?	3e. Type of jurisdiction (Corps - 404, 10 DWQ – non-404, other)	3f. Average stream width (feet)	3g. Impact length (linear feet)
Site 1 ☐ P ☐ T			☐ PER ☐ INT	☐ Corps ☐ DWQ		
Site 2 ☐ P ☐ T			☐ PER ☐ INT	☐ Corps ☐ DWQ		
Site 3 ☐ P ☐ T			☐ PER ☐ INT	☐ Corps ☐ DWQ		
Site 4 ☐ P ☐ T			☐ PER ☐ INT	☐ Corps ☐ DWQ		
					3h. **Total stream and tributary impacts**	0.0

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 ☐ P ☐ T				
O2 ☐ P ☐ T				
O3 ☐ P ☐ T				
O4 ☐ P ☐ T				
			4f. Total open water impacts	0 Permanent 0.0 Temporary

4g. Comments:

5. Pond or Lake Construction

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

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

5g. Comments:

5h. Is a dam high hazard permit required?	☐ Yes ☐ No If yes, permit ID no:
5i. Expected pond surface area (acres):	
5j. Size of pond watershed (acres):	
5k. Method of construction:	

6. Buffer Impacts (for DWQ)

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

6a. Project is in which protected basin?			☒ Neuse ☐ Catawba ☐ Tar-Pamlico ☐ Randleman ☐ Other:		
6b. Buffer impact number – Permanent (P) or Temporary (T)	6c. Reason for impact	6d. Stream name	6e. Buffer mitigation required?	6f. Zone 1 impact (square feet)	6g. Zone 2 impact (square feet)
B1 ☒ P ☐ T	Bridge	Little River	☐ Yes ☒ No	15262	7889
B2 ☒ P ☐ T	Utilities	Little River	☐ Yes ☒ No	0	3466
B3 ☐ P ☐ T			☐ Yes ☐ No		
		6h. **Total buffer impacts**		15262	11355
6i. Comments:					

D. Impact Justification and Mitigation

1. Avoidance and Minimization

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

The proposed bridge is longer than the existing bridge; the proposed bridge will be at approximately the same grade as the existing structure

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

NCDOT will adhere to a February 15-June 15 in-water work moratorium for anadromous fish; top-down construction and Design Standards in Sensitive Waters will be implemented; an off-site detour and an on-site (utilizing the new bridge during phased contraction) will be used.

2. Compensatory Mitigation for Impacts to Waters of the U.S. or Waters of the State

2a. Does the project require Compensatory Mitigation for impacts to Waters of the U.S. or Waters of the State?	☒ Yes ☐ No If no, explain:
2b. If yes, mitigation is required by (check all that apply):	☐ DWQ ☒ Corps
2c. If yes, which mitigation option will be used for this project?	☒ Mitigation bank ☐ Payment to in-lieu fee program ☐ Permittee Responsible Mitigation

3. Complete if Using a Mitigation Bank

3a. Name of Mitigation Bank: Jeffery's Warehouse

3b. Credits Purchased (attach receipt and letter)	Type: Riparian Wetland Restoration	Quantity : 0.15 ac.

3c. Comments: See Attached

4. Complete if Making a Payment to In-lieu Fee Program

4a. Approval letter from in-lieu fee program is attached.	☐ Yes
4b. Stream mitigation requested:	linear feet
4c. If using stream mitigation, stream temperature:	☐ warm ☐ cool ☐ cold
4d. Buffer mitigation requested (DWQ only):	square feet
4e. Riparian wetland mitigation requested:	0 acres
4f. Non-riparian wetland mitigation requested:	acres
4g. Coastal (tidal) wetland mitigation requested:	acres

4h. Comments:

5. Complete if Using a Permittee Responsible Mitigation Plan

5a. If using a permittee responsible mitigation plan, provide a description of the proposed mitigation plan.

6. Buffer Mitigation (State Regulated Riparian Buffer Rules) – required by DWQ				
6a. Will the project result in an impact within a protected riparian buffer that requires buffer mitigation?			☐ Yes	☒ No
6b. If yes, then identify the square feet of impact to each zone of the riparian buffer that requires mitigation. Calculate the amount of mitigation required.				
Zone	6c. Reason for impact	6d. Total impact (square feet)	Multiplier	6e. Required mitigation (square feet)
Zone 1			3 (2 for Catawba)	
Zone 2			1.5	
	6f. **Total buffer mitigation required:**			
6g. If buffer mitigation is required, discuss what type of mitigation is proposed (e.g., payment to private mitigation bank, permittee responsible riparian buffer restoration, payment into an approved in-lieu fee fund).				
6h. Comments:				

E. Stormwater Management and Diffuse Flow Plan (required by DWQ)	
1. Diffuse Flow Plan	
1a. Does the project include or is it adjacent to protected riparian buffers identified within one of the NC Riparian Buffer Protection Rules?	☒ Yes ☐ No
1b. If yes, then is a diffuse flow plan included? If no, explain why. Comments:	☒ Yes ☐ No
2. Stormwater Management Plan	
2a. What is the overall percent imperviousness of this project?	N/A
2b. Does this project require a Stormwater Management Plan?	☒ Yes ☐ No
2c. If this project DOES NOT require a Stormwater Management Plan, explain why:	
2d. If this project DOES require a Stormwater Management Plan, then provide a brief, narrative description of the plan: See attached permit drawings.	
2e. Who will be responsible for the review of the Stormwater Management Plan?	☐ Certified Local Government ☐ DWQ Stormwater Program ☒ DWQ 401 Unit
3. Certified Local Government Stormwater Review	
3a. In which local government's jurisdiction is this project?	not applicable
3b. Which of the following locally-implemented stormwater management programs apply (check all that apply):	☐ Phase II ☐ NSW ☐ USMP ☐ Water Supply Watershed ☐ Other:
3c. Has the approved Stormwater Management Plan with proof of approval been attached?	☐ Yes ☐ No
4. DWQ Stormwater Program Review	
4a. Which of the following state-implemented stormwater management programs apply (check all that apply):	☐ Coastal counties ☐ HQW ☐ ORW ☐ Session Law 2006-246 ☐ Other:
4b. Has the approved Stormwater Management Plan with proof of approval been attached?	☐ Yes ☐ No
5. DWQ 401 Unit Stormwater Review	
5a. Does the Stormwater Management Plan meet the appropriate requirements?	☒ Yes ☐ No N/A
5b. Have all of the 401 Unit submittal requirements been met?	☒ Yes ☐ No N/A

F. Supplementary Information		
1. Environmental Documentation (DWQ Requirement)		
1a. Does the project involve an expenditure of public (federal/state/local) funds or the use of public (federal/state) land?	☒ Yes	☐ No
1b. If you answered "yes" to the above, does the project require preparation of an environmental document pursuant to the requirements of the National or State (North Carolina) Environmental Policy Act (NEPA/SEPA)?	☒ Yes	☐ No
1c. If you answered "yes" to the above, has the document review been finalized by the State Clearing House? (If so, attach a copy of the NEPA or SEPA final approval letter.) Comments: A Categorical Exclusion was completed March 14, 2013	☒ Yes	☐ 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)?	☐ Yes	☒ No
2b. Is this an after-the-fact permit application?	☐ Yes	☒ No
2c. If you answered "yes" to one or both of the above questions, provide an explanation of the violation(s):		
3. Cumulative Impacts (DWQ Requirement)		
3a. Will this project (based on past and reasonably anticipated future impacts) result in additional development, which could impact nearby downstream water quality?	☐ Yes ☒ No	
3b. If you answered "yes" to the above, submit a qualitative or quantitative cumulative 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?	☒ Yes	☐ No
5b. Have you checked with the USFWS concerning Endangered Species Act impacts?	☐ Yes	☒ No
5c. If yes, indicate the USFWS Field Office you have contacted.	☐ Raleigh ☐ Asheville	
5d. What data sources did you use to determine whether your site would impact Endangered Species or Designated Critical Habitat? USFWS County Site, NC Natural Heritage site, NCDOT field surveys		
6. Essential Fish Habitat (Corps Requirement)		
6a. Will this project occur in or near an area designated as essential fish habitat?	☐ Yes	☒ 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)?	☐ Yes	☒ 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?	☒ Yes	☐ No
8b. If yes, explain how project meets FEMA requirements: NCDOT Hydraulics Unit coordination with FEMA		
8c. What source(s) did you use to make the floodplain determination? FEMA Maps		

for Richard W. Hancock, PE Applicant/Agent's Printed Name	Lee Lam Pacey Applicant/Agent's Signature (Agent's signature is valid only if an authorization letter from the applicant is provided.)	8/7/15 Date

Jeffrey's Warehouse Mitigation Site
ONEID 096-003

The Jeffrey's Warehouse Mitigation Site is located in Wayne County within the USGS hydrologic unit 03020201 of the Neuse River. NCDOT acquired the 93.16 acre site to mitigate for unavoidable, jurisdictional impacts associated with TIP R-1030AA. Monitoring requirements were performed from 2007 to 2011 and the site was closed out in 2012. 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 03020201. Tables 2-6 indicate all mitigation debits that have occurred per regulatory agency approval.

In order to offset unavoidable impacts affiliated with TIP I-3318BB, the Jeffery's Warehouse Mitigation Site will be debited 0.15 acres of Riparian Wetland Restoration.

Table 1. Mitigation Quantities Approved

Mitigation Type	Debit Amount	Starting Amount	Notes
3020201	Non Riparian Wetland Restoration	16.23	
3020201	Riparian Wetland Preservation	12.36	
3020201	Riparian Wetland Restoration	3.66	
3020201	Stream Restoration	3731	
3020201	Buffer Restoration	316507	

Table 2. Mitigation Debits – Non Riparian Wetlands

Mitigation Type	Debit Amount	Status	Site TIP	Action ID#	Notes
Non Riparian Restoration	2.76	Close Out	R-2719A	2008-02460	
Non Riparian Restoration	0.92	Close Out	B-4304	2004-20510	
Non Riparian Restoration	1.96	Close Out	R-2814A&B	2008-01316	

Table 3. Mitigation Debits – Riparian Wetland Preservation

Mitigation Type	Debit Amount	Status	Site TIP	Action ID#	Notes
Riparian Wetland Preservation	3.05	Close Out	R-2814A&B	2008-01316	
Riparian Wetland Preservation	8.61	Close Out	R-2554A	2008-00252	

Table 4. Mitigation Debits – Riparian Wetland Restoration

Mitigation Type	Debit Amount	Status	Site TIP	Action ID#	Notes
Riparian Wetland Restoration	2.49	Close Out	R-2814A&B	2008-01316	
Riparian Wetland Restoration	0.21	Close Out	R-2554A		
Riparian Wetland Restoration	0.22	Close Out	B-4659		2:1 Ratio
Riparian Wetland Restoration	0.15	Close Out	I-3318BB	Proposed Debit	

Table 5. Mitigation Debits – Stream Restoration

Mitigation Type	Debit Amount	Status	Site TIP	Action ID#	Notes
Stream Restoration	452	Close Out	B-3528 226ft@2:1	2008-00153	
Stream Restoration	61	Close Out	U-4011	2005-20914	
Stream Restoration	25	Close Out	U-3344A	2003-20445	
Stream Restoration	279	Close Out	EB-4993	2011-00602	
Stream Restoration	174	Close Out	R-3825a	2011-01695	
Stream Restoration	20	Close Out	I-5311/I-5338	2013-00068	

Table 6. Mitigation Debits – Non-Riparian Wetland Restoration

Mitigation Type	Debit Amount	Status	Site TIP	Action ID#	Notes
Buffer Restoration	38648	Close Out	B-4300	2004-20705	
Buffer Restoration	161453	Close Out	R-2719A	2008-02460	
Buffer Restoration	3653	Close Out	B-4304	2004-20510	
Buffer Restoration	16398	Close Out	B-4592	2008-02056	
Buffer Restoration	24458	Close Out	U-4703	2005-20126	
Buffer Restoration	45558	Close Out	U-3344A	2003-20445	
Buffer Restoration	11393	Close Out	Div Proj. SR 1340	2010-00420	
Buffer Restoration	2199	Close Out	DIV Proj SR1204	No action ID due to a non-reporting NWP14	
Buffer Restoration	3861	Close Out	I-5311/I5338	2013-00068	

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Raleigh Field Office
Post Office Box 33726
Raleigh, North Carolina 27636-3726

October 16, 2014

Richard W. Hancock, P.E.
North Carolina Department of Transportation
Project Development and Environmental Analysis
1598 Mail Service Center
Raleigh, North Carolina 27699-1598

Dear Mr. Hancock:

This letter is in response to your letter of October 15, 2014 which provided the U.S. Fish and Wildlife Service (Service) with the biological conclusion of the North Carolina Department of Transportation (NCDOT) that the replacement of Bridge Nos. 114 and 116 on I-95 over Little River in Johnston County (TIP No. I-3318BB) may affect, but is not likely to adversely affect the federally endangered dwarf wedgemussel (*Alasmidonta heterodon*) and Tar River spinymussel (*Elliptio steinstansana*). In addition, you have concluded that the project will have no effect on the federally endangered red-cockaded woodpecker (*Picoides borealis*) and Michaux's sumac (*Rhus michauxii*). These comments are provided in accordance with Section 7 of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531-1543).

According to information provided, mussel surveys were conducted at the project site on April 4, 2014 and August 24, 2011. The surveys extended 100 meters upstream and 400 meters downstream of I-95. Neither of the federally listed species was found, and habitat quality for the two species was not optimal due to unstable substrates. In both surveys, only a small number of common mussel species were observed. Although the Tar River spinymussel has been observed approximately 6.75 miles upstream and the dwarf wedgemussel has been observed approximately 5.5 miles upstream, the habitat within this portion of the Little River appears degraded due to the continuing readjustment of the river to new flow conditions since the 2006 removal of the Lowell Mill Dam approximately 0.35 mile downstream.

Based on the mussel survey results and other available information, the Service concurs with your conclusion that the proposed bridge replacements may affect, but are not likely to adversely affect the dwarf wedgemussel and Tar River spinymussel. Furthermore, we concur that the project will have no effect on the federally endangered red-cockaded woodpecker and Michaux's sumac. We believe that the requirements of Section 7(a)(2) of the ESA have been satisfied. We remind you that obligations under Section 7 consultation must be reconsidered if: (1) new information reveals impacts of this identified action that may affect listed species or critical habitat in a manner not previously considered in this review; (2) this action is subsequently

modified in a manner that was not considered in this review; or (3) a new species is listed or critical habitat determined that may be affected by this identified action.

The Service appreciates the opportunity to review this project. If you have any questions regarding our response, please contact Mr. Gary Jordan at (919) 856-4520 (Ext. 32).

Sincerely,

Gary Jordan

for Pete Benjamin
Field Supervisor

Electronic copy:

Tom Steffens, USACE, Washington, NC
Travis Wilson, NCWRC, Creedmoor, NC
Ron Lucas, FHWA, Raleigh, NC
Chris Manley, NCDOT, Raleigh, NC

North Carolina Department of Transportation

Highway Stormwater Program

STORMWATER MANAGEMENT PLAN

FOR NCDOT PROJECTS

(Version 2.01; Released December 2014)

General Project Information

WBS Element:	34182.1.4	**TIP Number:**	I-3318BB	**Project Type:**	Bridge Replacement
Date:	6/22/2015				

NCDOT Contact:	Paul Atkinson, PE	**Contractor / Designer:**	Christopher R. Lewis, PE		
Address:	NCDOT Hydraulics 1020 Birch Ridge Rd. Raleigh, NC 27610		**Address:**	NCDOT Hydraulics 1020 Birch Ridge Rd. Raleigh, NC 27610	
Phone:	919-707-6707		**Phone:**	(919) 707-6700	
Email:	patkinson@ncdot.gov		**Email:**	crlewis2@ncdot.gov	
City/Town:	Bagley	**County(ies):**	Johnston		
River Basin(s):	Neuse	**CAMA County?**	No		
Wetlands within Project Limits?	Yes				

Project Description

Project Length (lin. miles or feet):	0.421 MI	**Surrounding Land Use:**	Urban

	Proposed Project	**Existing Site**
Project Built-Upon Area (ac.)	7.4 ac.	5.0 ac.
Typical Cross Section Description:	Four lane divided highway with 22' grassed median. 4' interior paved shoulder, two 12' travel lanes, 34' and 42' exterior paved shoulder width.	Four lane divided highway with 24' grassed median. 3' interior paved shoulder, two 12' travel lanes, 9' and 15' exterior paved shoulder width.
Annual Avg Daily Traffic (veh/hr/day):	Design/Future: 40900 Year: 2035	Existing: 34640 Year: 2015
General Project Narrative: (Description of Minimization of Water Quality Impacts)	The bridge replacement of Johnston County structures 114 and 116 over Little River on I-95 is governed by Neuse River Buffer Rules. The existing structures have a total length of 237' and the proposed structure will have total length of 270'. The final proposed structure does not require deck drains. There will be an onsite detour which will be left in place as part of the final structure for future widening purposes. The detour structures required the use of deck drains to maintain the spread of water into the travel lanes. The temporary deck drains will be 6" diameter drains on 10' centers from -L- Sta. 23+69 to 24+29 Lt. , from -L- Sta. 25+18 to 26+28 Lt., from -L- Sta. 23+07 to 24+27 Rt., and from -L- Sta. 25+17 to 25+67 Rt. We have called for the deck drains to be filled in upon completion of project. Grass swales are being utilized to treat all runoff and promote infiltration prior to entering the the buffers. All swales treat the entire drainage area coming to the swale, not just the impervious area. Check dams were required to meet swale criteria for velocity when analyzing the entire drainage area. During construction the median shoulders require additional pavement for traffic control. Due to constructability issues, this widening in the median will be left in place upon completion of the project. The division has maintenance concerns with the median ditches and therefore will line the ditches with stone to prevent grass growth. This additional impervious area has been accounted for in the grass swale treatment even though no additional travel lanes will be added.	

Waterbody Information

Surface Water Body (1):	Little River	**NCDWR Stream Index No.:**	27-57-(8.5)b		
NCDWR Surface Water Classification for Water Body		**Primary Classification:**	Water Supply V (WS-V)		
		Supplemental Classification:	Nutrient Sensitive Waters (NSW)		
Other Stream Classification:	None				
Impairments:	fecal coliform				
Threatened/Endangered Species?	No	Comments:	N/A		
NRTR Stream ID:	Little River			**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)					

North Carolina Department of Transportation

Highway Stormwater Program

STORMWATER MANAGEMENT PLAN

FOR NCDOT PROJECTS

(Version 2.01; Released December 2014)

WBS Element: 34182.1.4 **TIP No.:** I-3318BB **County(ies):** Johnston

Swales

Sheet No.	Station & Coordinates (Road and Non Road Projects)	Surface Water Body	Base Width (ft)	Front Slope (H:1)	Back Slope (H:1)	Drainage Area (ac)	Recommended Treatm't Length (ft)	Actual Length (ft)	Longitudinal Slope (%)	Q2 (cfs)	V2 (fps)	Q10 (cfs)	V10 (fps)	Rock Checks Used	BMP Associated w/ Buffer Rules?
4	-NB- Sta. 11+66 Rt. 35.5685502°, -078.1656137°	(1)Little River	3.0	4.0	3.0	1.6	163	404	0.96%	3.9	2.0	5.0	2.1	No	Yes
5	-NB- Sta. 16+14 Rt. 35.5689781°, -078.1641905°	(1)Little River	3.0	4.0	3.0	1.7	165	336	1.20%	10.0	1.7	14.0	1.8	Yes	Yes
5	-NB- Sta. 17+48 Rt. 35.5691315°, -078.1637802°	(1)Little River	3.0	4.0	3.0	1.3	134	128	0.60%	11.6	1.7	16.2	1.9	Yes	Yes
5	-NB- 18+56 Rt. 35.5691537°, -078.1637341°	(1)Little River	3.0	4.0	3.0	1.0	104	102	0.60%	12.8	1.8	17.9	1.9	Yes	Yes
5	-NB- Sta. 19+64 Rt. 35.5692849°, -078.1630688°	(1)Little River	3.0	3.0	3.0	0.2	19	75	0.30%	13.0	1.5	18.0	1.7	Yes	Yes

Additional Comments

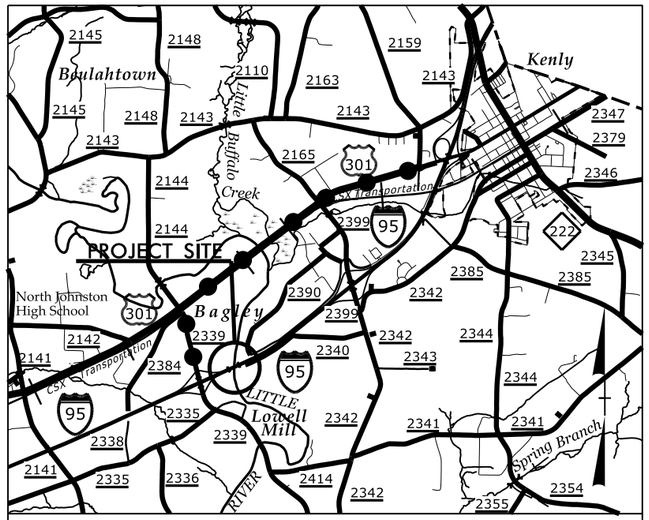
The grass swale velocities were found for the entire drainage area coming to the swale and therefore required check dams. Additional pavement is being left in place in the median upon completion of the project due to constructability and maintenance issues This additional pavement has been accounted for in areas where swales are present. Grass swales -NB-17+48 Rt. and -NB- 18+56 Rt. are in series with -NB- 19+64 Rt. The total recommended length for the swales in series is 257 ft. The length provide for the swales in series is 305 ft thus providing adequate treatment. The grass swale at -NB- 19+64 Rt. only treats the fill slope and no additional impervious area to treat. The impacts are allowable for bridges.

09/26/99

TIP PROJECT: I-3318BB

CONTRACT: C203658

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



VICINITY MAP
OFFSITE DETOUR

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

JOHNSTON COUNTY

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	I-3318BB	1	

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
34182.1.4	IMS-095-2(119)105	P.E.
34182.3.FS3	IMS-095-2(119)105	R/W
34182.3.FSU3	IMS-095-2(119)105	UTILITIES

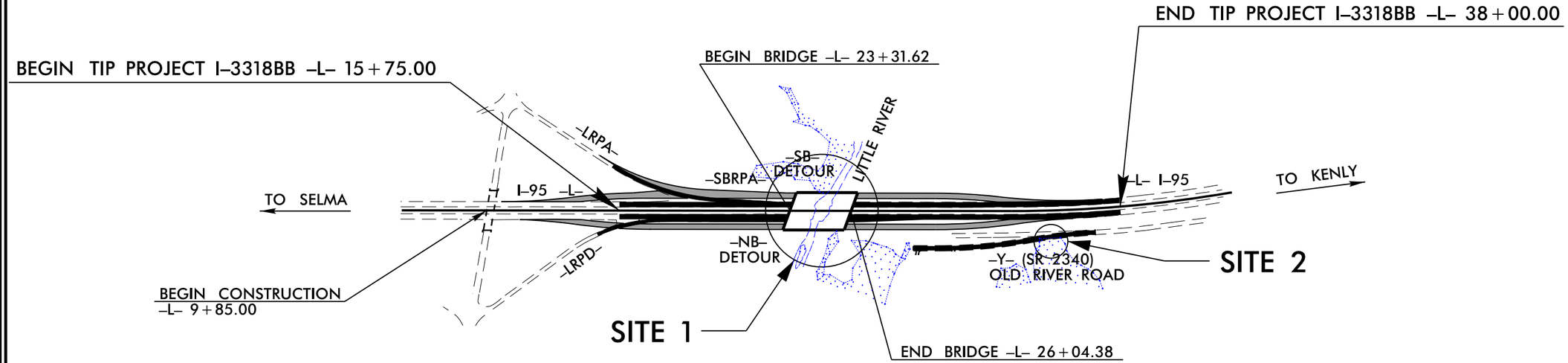
LOCATION: REPLACE BRIDGES 114 & 116 OVER THE LITTLE RIVER ON I-95

TYPE OF WORK: GRADING, PAVING, RESURFACING, DRAINAGE AND STRUCTURES

PERMIT DRAWING
SHEET 1 OF 10

NAD 83/
NSRS 2007

WETLAND AND SURFACE WATER IMPACTS PERMIT



THIS IS A CONTROLLED-ACCESS PROJECT WITH ACCESS BEING LIMITED TO INTERCHANGES.
THIS PROJECT IS NOT WITHIN ANY MUNICIPAL BOUNDARIES.
CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III.

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

GRAPHIC SCALES

50 25 0 50 100
PLANS

50 25 0 50 100
PROFILE (HORIZONTAL)

10 5 0 10 20
PROFILE (VERTICAL)

DESIGN DATA

ADT 2015 = 34640
ADT 2035 = 40900
DHV = 12 %
D = 55 %
T = 29 % *
V = 70 MPH
*(TTST=23%+DUAL=6%)

FUNC CLASS=INTERSTATE
STATEWIDE TIER

PROJECT LENGTH

LENGTH OF ROADWAY TIP PROJECT I-3318BB = 0.369 MI
LENGTH OF STRUCTURE TIP PROJECT I-3318BB = 0.052 MI
TOTAL LENGTH OF TIP PROJECT I-3318BB = 0.421 MI

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

2012 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
JUNE 24, 2014

LETTING DATE:
NOVEMBER 17, 2015

RON E. McCOLLUM, PE
PROJECT ENGINEER

TATIA L. WHITE, P.E.
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

P.E.
SIGNATURE:

ROADWAY DESIGN ENGINEER

P.E.
SIGNATURE:

STATE OF NORTH CAROLINA • DEPARTMENT OF TRANSPORTATION •

5/6/2015
mjyork
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PROJECT REFERENCE NO.	SHEET NO.
I-3318BB	5
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

PERMIT DRAWING SHEET 2 OF 10

NAD 83/NSRS 2007

REVISIONS

8/17/99 – R/W REVISIONS: UPDATED THE OFFSETS AT THE EXISTING RIGHT OF WAY BASED ON THE FIELD STAKING AT –L– STA. 20+20.00 LT. ON PARCEL 1 AND –L– STA. 20+08.00 RT. ON PARCEL 2; UPDATED PROPERTY LINES, PROPERTY OWNER NAME, DEED REFERENCE AND BILLBOARD LOCATION ON PARCEL 7 AND DELETED PARCEL 6. – TLW

11/24/14 – R/W REVISION: ADDED PARCEL 1A WITH PROPERTY OWNER NAMES AND DEED REFERENCE, DELETED PARCEL 6 AND ASSOCIATED "NO CLAIM" REFERENCES AND ADDED TCE ON PARCEL 2. – TLW

02/11/15 – R/W REVISION: UPDATED PROPERTY LINES ON PARCELS 4, 5 AND 8. – PJS

04/08/15 – R/W REVISION: ADDED TCE FROM –L– STA. 19+50.00 TO STA. 20+00.00 RT. ON PARCEL 2. – PJS

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6/22/2015
miyork
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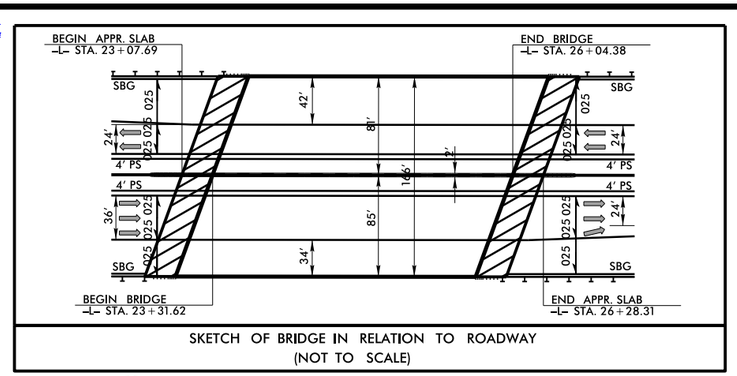
-LRPA-
PI Sta 13+37.19
Δ = 30° 32' 01.4" (RT)
D = 5° 58' 05.9"
L = 511.60'
T = 262.03'
R = 960.00'
SE = SEE PLANS
RO = SEE PLANS

-LRPD-
PI Sta 12+31.26
Δ = 36° 33' 50.2" (LT)
D = 8° 11' 06.4"
L = 446.71'
T = 231.26'
R = 700.00'
SE = SEE PLANS
RO = SEE PLANS

-Y-
PI Sta 13+32.23
Δ = 10° 23' 09.4" (LT)
D = 2° 29' 28.0"
L = 416.92'
T = 209.03'
R = 2,300.00'
SE = SEE PLANS
RO = SEE PLANS



SKETCH OF BRIDGE IN RELATION TO ROADWAY
(NOT TO SCALE)

MATCHLINE –L– STA. 17+50.00 SEE SHEET 4

MATCHLINE –L– STA. 30+50.00 SEE SHEET 6

1 KENNETH P. ETHERIDGE DB 1801 PG 421

1A KENLY PROPERTIES, LLC. DB 2562 PG 878

2 WALTER POWELL DB 2094 PG 511

3 NORMAN L. RICHARDSON DB 3320 PG 358

4 DAVID ALDEN DB 2744 PG 121

5 CRYSTAL AND DUSTY TOLER DB 2040 PG 931

7 INTERSTATE OUTDOOR INC. DB 4140 PG 353

8 KENNETH M. TAYLOR DB 2284 PG 721

–LRPA– PC Sta. 10+75.16

–LRPA– POT Sta. 10+00.00 = –L– POT Sta. 21+00.00 OFF 39' LT.

–LRPD– PC Sta. 10+00.00 = –L– POT Sta. 17+66.52 OFF 39' RT.

–Y– PC Sta. 11+23.20

–Y– POT Sta. 10+00.00

END GRADE –L– STA. 29+30.00

BEGIN OVERLAY –L– STA. 29+30.00

MECHANIZED CLEARING

TEMPORARY WORK PAD

TEMPORARY WORK BRIDGE I

TEMPORARY WORK BRIDGE II

FILL IN WETLAND

TEMPORARY FILL IN WETLAND

SITE 1
(SEE SHEET 4 FOR ENLARGEMENT)

DENOTES FILL IN WETLAND

DENOTES TEMPORARY FILL IN WETLAND

DENOTES MECHANIZED CLEARING

GRAPHIC SCALE 50' 0' 50' 100' 150'

FOR –L– PROFILE SEE SHEET 7
FOR –LRPA– PROFILE SEE SHEET 8
FOR –LRPD– PROFILE SEE SHEET 8
FOR TEMP. SHORING SEE SHEET 2B–10

REVISIONS

08/29/14 – R/W REVISIONS: UPDATED THE OFFSETS AT THE EXISTING RIGHT OF WAY BASED ON THE FIELD STAKING AT –L– STA. 20+20.00 LT. ON PARCEL 1 AND –L– STA. 20+08.00 RT. ON PARCEL 2; UPDATED PROPERTY LINES, PROPERTY OWNER NAME, DEED REFERENCE AND BILLBOARD LOCATION ON PARCEL 7 AND DELETED PARCEL 6. – TLW
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02/11/15 – R/W REVISION: UPDATED PROPERTY LINES ON PARCELS 4, 5 AND 8. – PJS
04/08/15 – R/W REVISION: ADDED TCE FROM –L– STA. 19+50.00 TO STA. 20+00.00 RT. ON PARCEL 2. – PJS

8/17/99

6/22/2015
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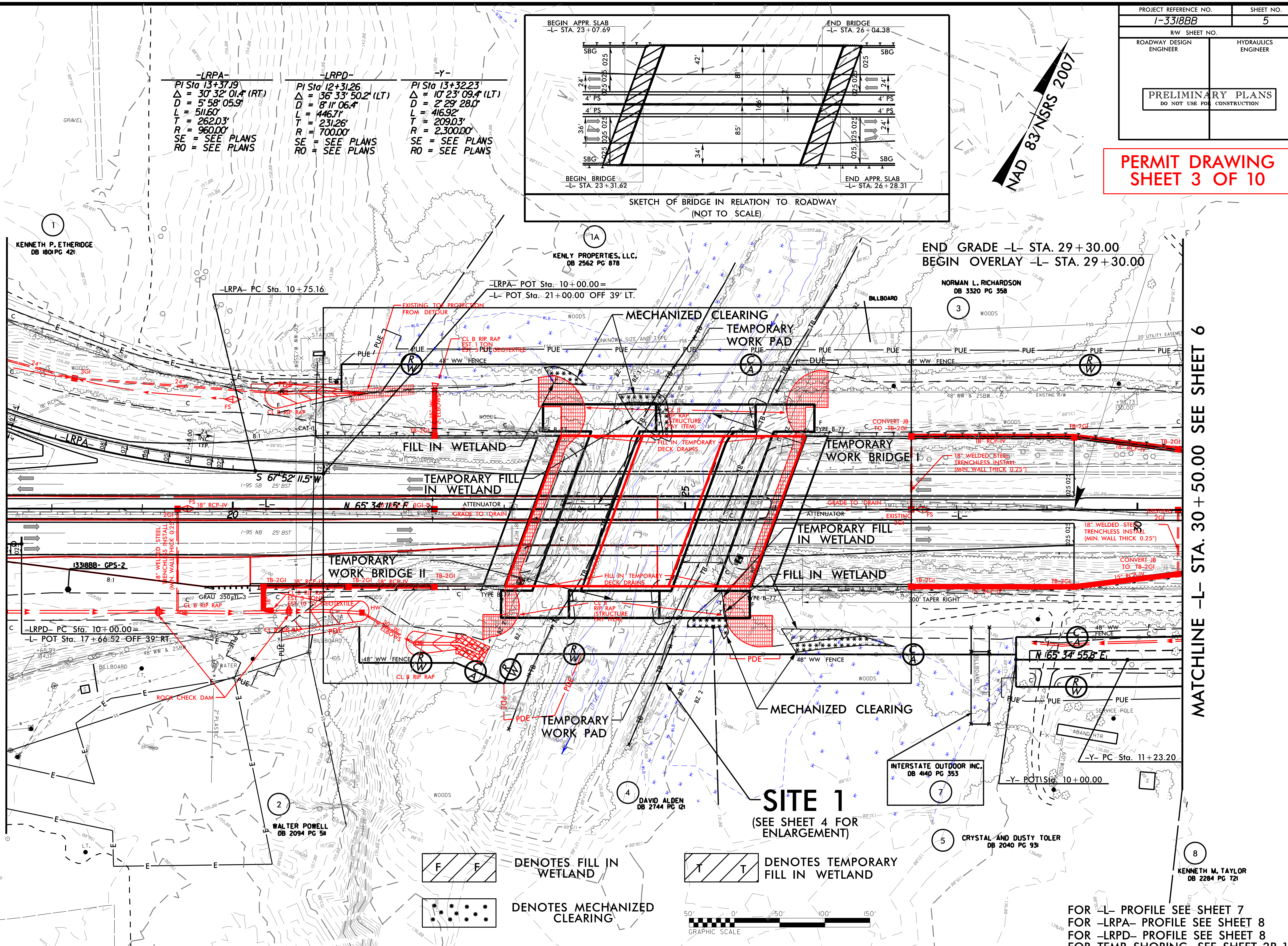

SITE 1

PERMIT DRAWING
SHEET 4 OF 10

FROM DETOUR
MECHANIZED CLEARING
TEMPORARY WORK PAD
TEMPORARY FILL SLOPE STAKE
CL B RIP RAP
EST. 1 TON
EST. 5 GEOTEXTILE
48" WW FENCE
15" W
2 ELBOWS
TB–2GI
FILL IN WETLAND
TEMPORARY FILL IN WETLAND
TEMPORARY WORK BRIDGE I
CL II RIP RAP (STRUCTURE PAY ITEM)
FILL IN TEMPORARY DECK DRAINS
CONVERT JB TO TB–2GI
ATTENUATOR
GRADE TO DRAIN
EXISTING 2GI
TEMPORARY FILL SLOPE STAKE
TEMPORARY WORK BRIDGE II
18" RCP–IV
HW
30" W
2 ELBOWS
PDE
48" WW & I 2SBW
MECHANIZED CLEARING
TEMPORARY FILL SLOPE STAKE
TEMPORARY WORK PAD

NAD 83/NSRS 2007

F F DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

T T DENOTES TEMPORARY FILL IN WETLAND

NOTE : RIP RAP TURNED OFF FOR CLARITY

50′ 0′ 50′ 100′ 150′
GRAPHIC SCALE

6/22/2015
mjyork
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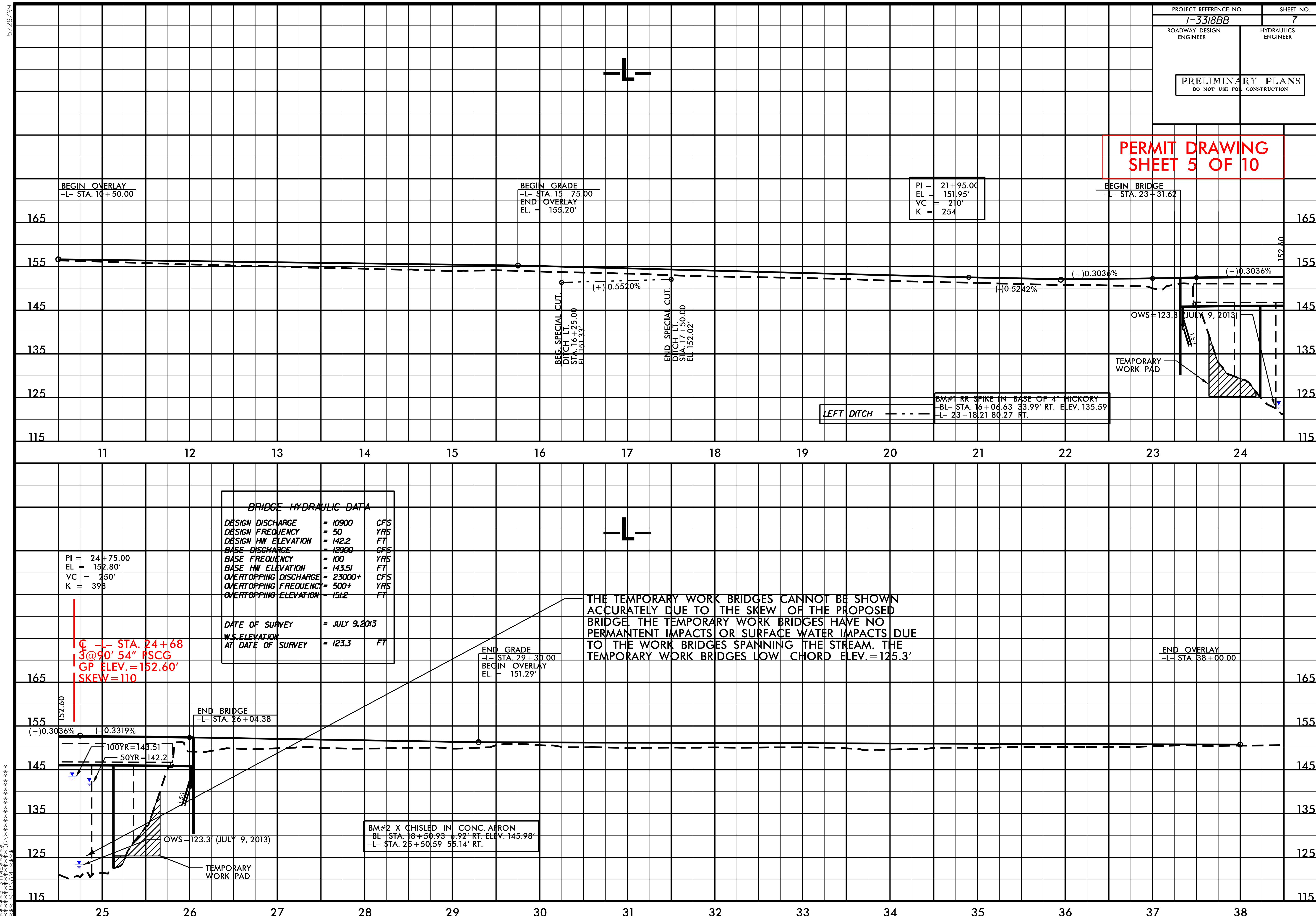
PROJECT REFERENCE NO.	SHEET NO.
I-3318BB	7

ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

PERMIT DRAWING
SHEET 5 OF 10



BRIDGE HYDRAULIC DATA

DESIGN DISCHARGE	= 10900	CFS
DESIGN FREQUENCY	= 50	YRS
DESIGN HW ELEVATION	= 142.2	FT
BASE DISCHARGE	= 12900	CFS
BASE FREQUENCY	= 100	YRS
BASE HW ELEVATION	= 143.51	FT
OVERTOPPING DISCHARGE	= 23000+	CFS
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING ELEVATION	= 151.2	FT
DATE OF SURVEY	= JULY 9, 2013	
W.S. ELEVATION AT DATE OF SURVEY	= 123.3	FT

THE TEMPORARY WORK BRIDGES CANNOT BE SHOWN ACCURATELY DUE TO THE SKEW OF THE PROPOSED BRIDGE. THE TEMPORARY WORK BRIDGES HAVE NO PERMANTENT IMPACTS OR SURFACE WATER IMPACTS DUE TO THE WORK BRIDGES SPANNING THE STREAM. THE TEMPORARY WORK BRIDGES LOW CHORD ELEV.=125.3'

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5/6/2015
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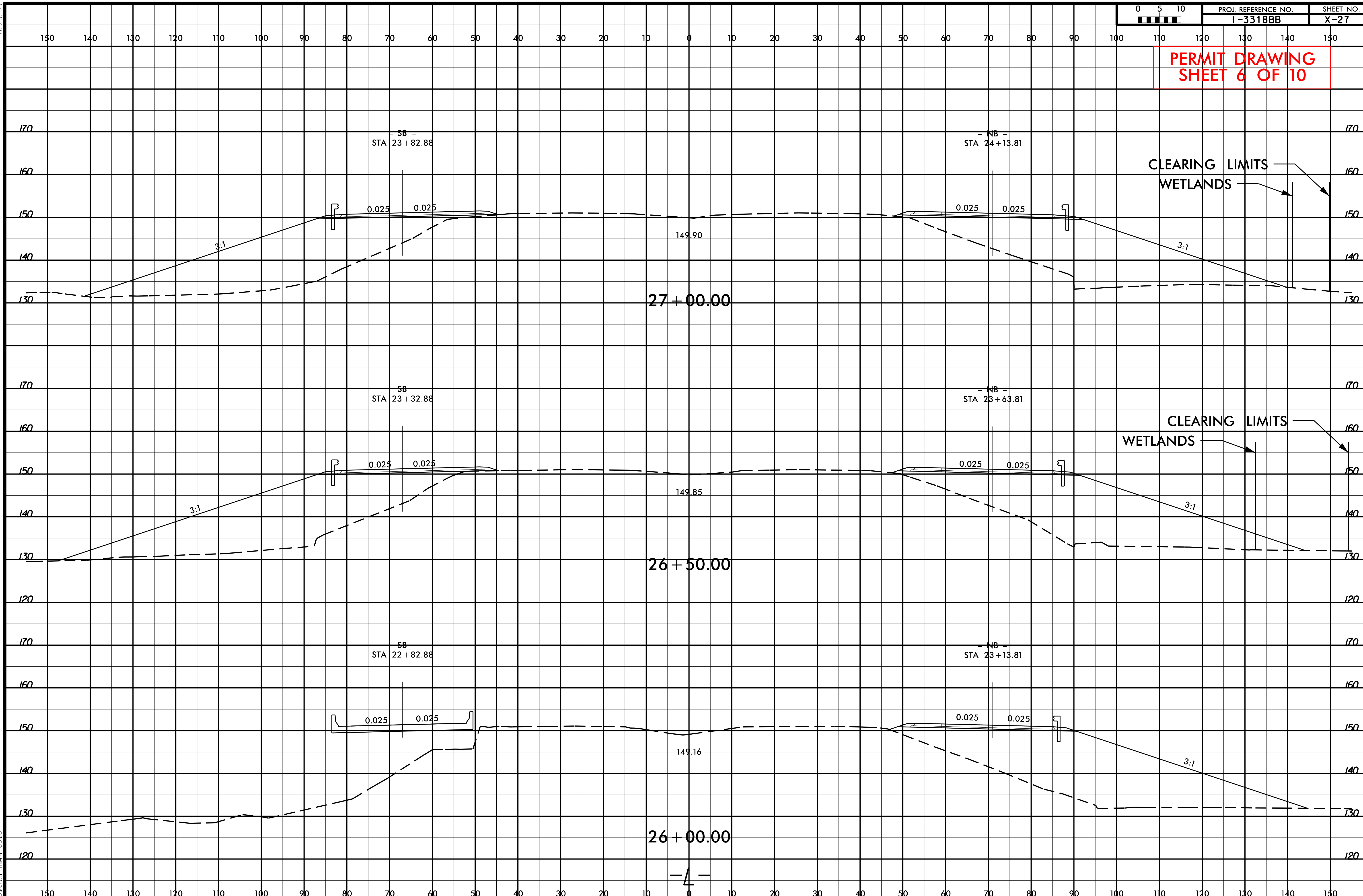

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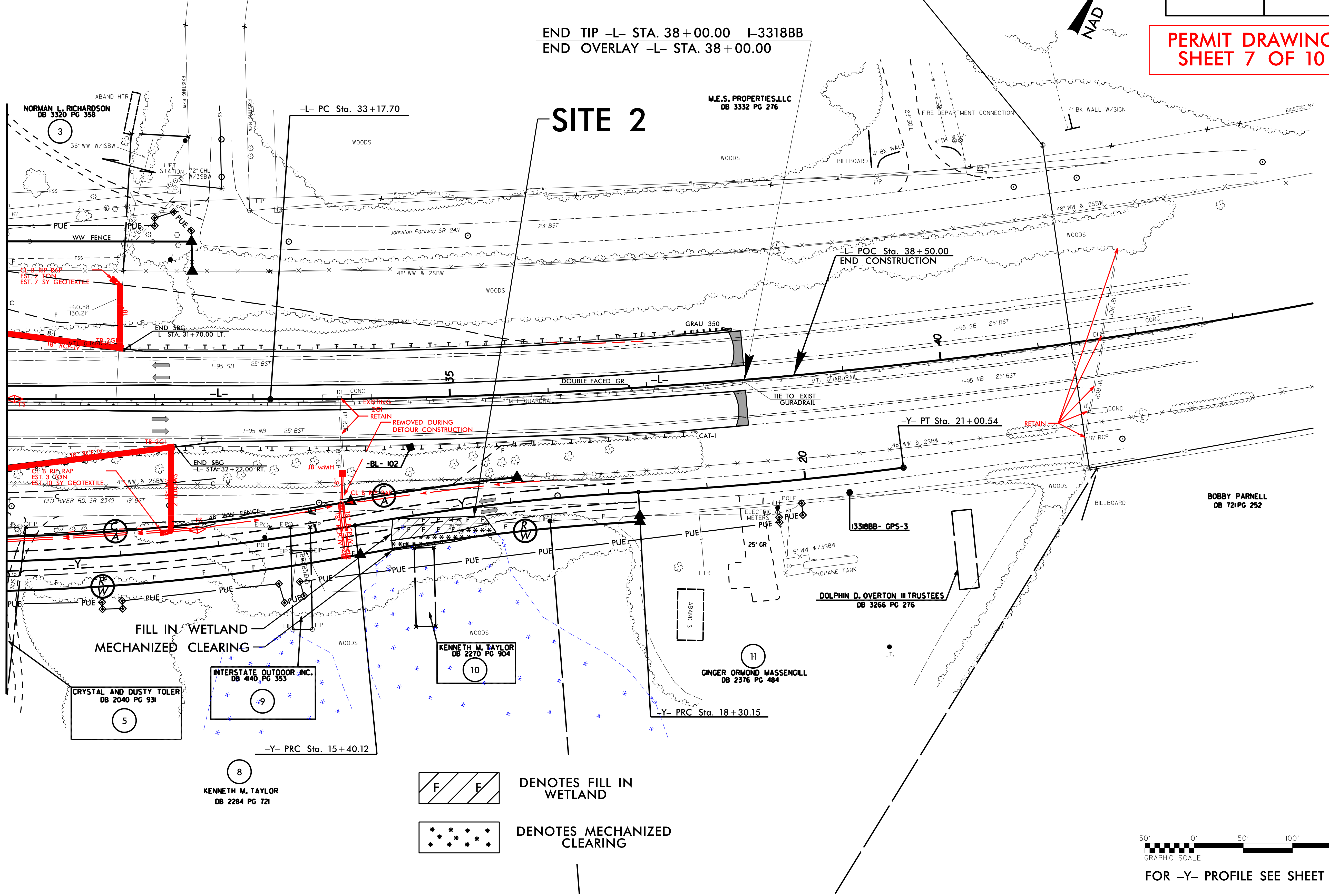
PROJECT REFERENCE NO.	SHEET NO.
I-3318BB	6
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

PERMIT DRAWING
SHEET 7 OF 10

-L-	-Y-	
PI Sta 40+13.59	PI Sta 13+32.23	PI Sta 16+85.32
Δ = 13° 51' 00.0" (LT)	Δ = 10° 23' 09.4" (LT)	Δ = 7° 13' 29.9" (RT)
D = 1° 00' 00.0"	D = 2° 29' 28.0"	D = 2° 29' 28.0"
L = 1,385.00'	L = 416.92'	L = 290.03'
T = 695.89'	T = 209.03'	T = 145.21'
R = 5,729.58'	R = 2,300.00'	R = 2,300.00'
SE = SEE PLANS	SE = SEE PLANS	SE = SEE PLANS
RO = SEE PLANS	RO = SEE PLANS	RO = SEE PLANS



FOR -Y- PROFILE SEE SHEET 9

REVISIONS

08/29/14 - R/W REVISIONS: UPDATED THE OFFSETS AT THE EXISTING RIGHT OF WAY BASED ON THE FIELD STAKING AT -L- STA. 32+37.09, 32+37.39 AND 32+38.21 ON PARCEL 3 AND AT -Y- STA. 18+30.15 RT. ON PARCEL 11; UPDATED PROPERTY OWNER NAME AND DEED REFERENCE ON PARCEL 9. - TLW

02/11/15 - R/W REVISION: UPDATED PROPERTY LINES ON PARCELS 8 THROUGH 11. - PJS

8/17/99

5/6/2015
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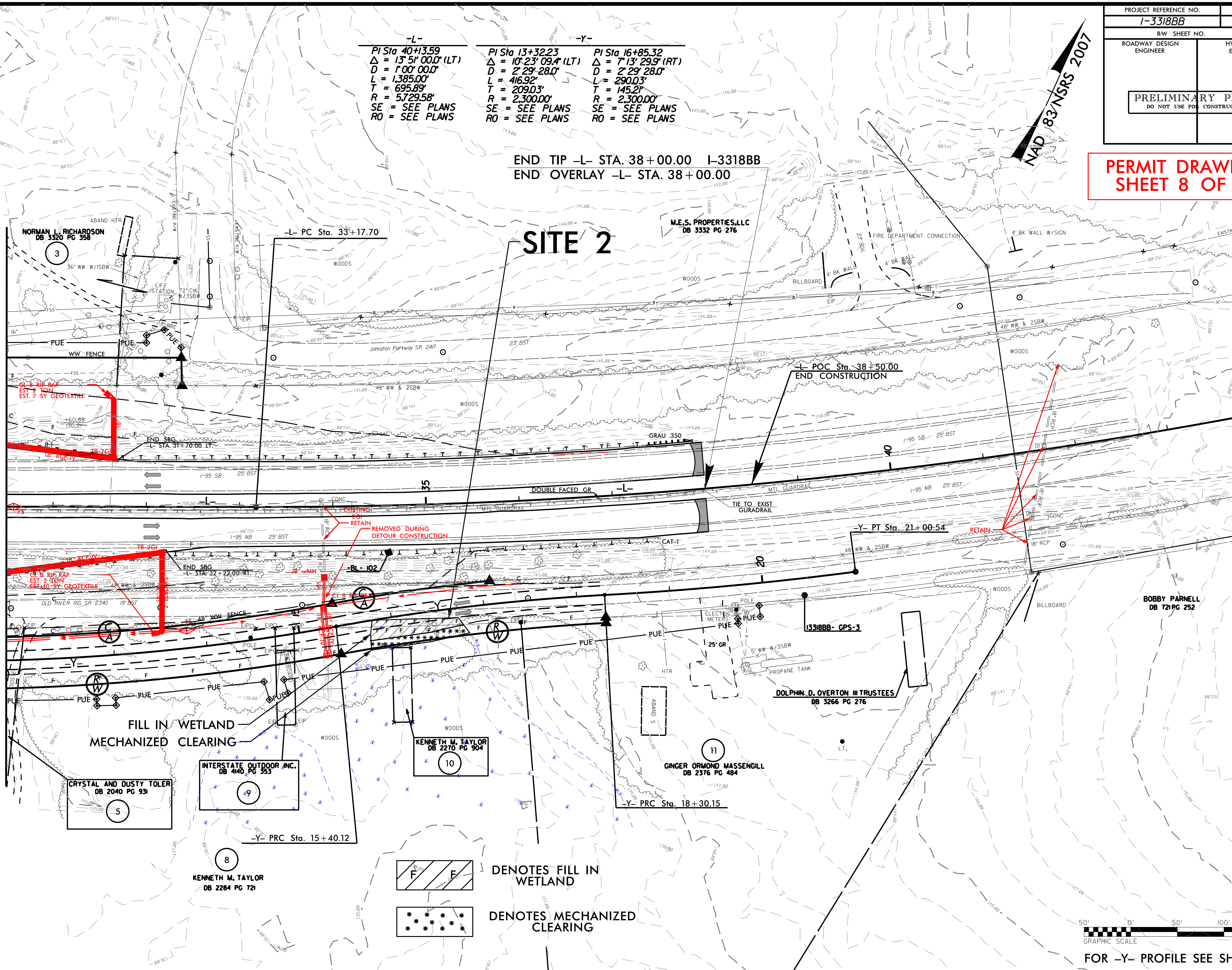
PROJECT REFERENCE NO.	SHEET NO.
I-3318BB	6

R/W SHEET NO.

ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

PERMIT DRAWING SHEET 8 OF 10



FOR -Y- PROFILE SEE SHEET 9

REVISIONS

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02/11/15 - R/W REVISION: UPDATED PROPERTY LINES ON PARCELS 8 THROUGH 11. - PJS

8/17/99

5/6/2015
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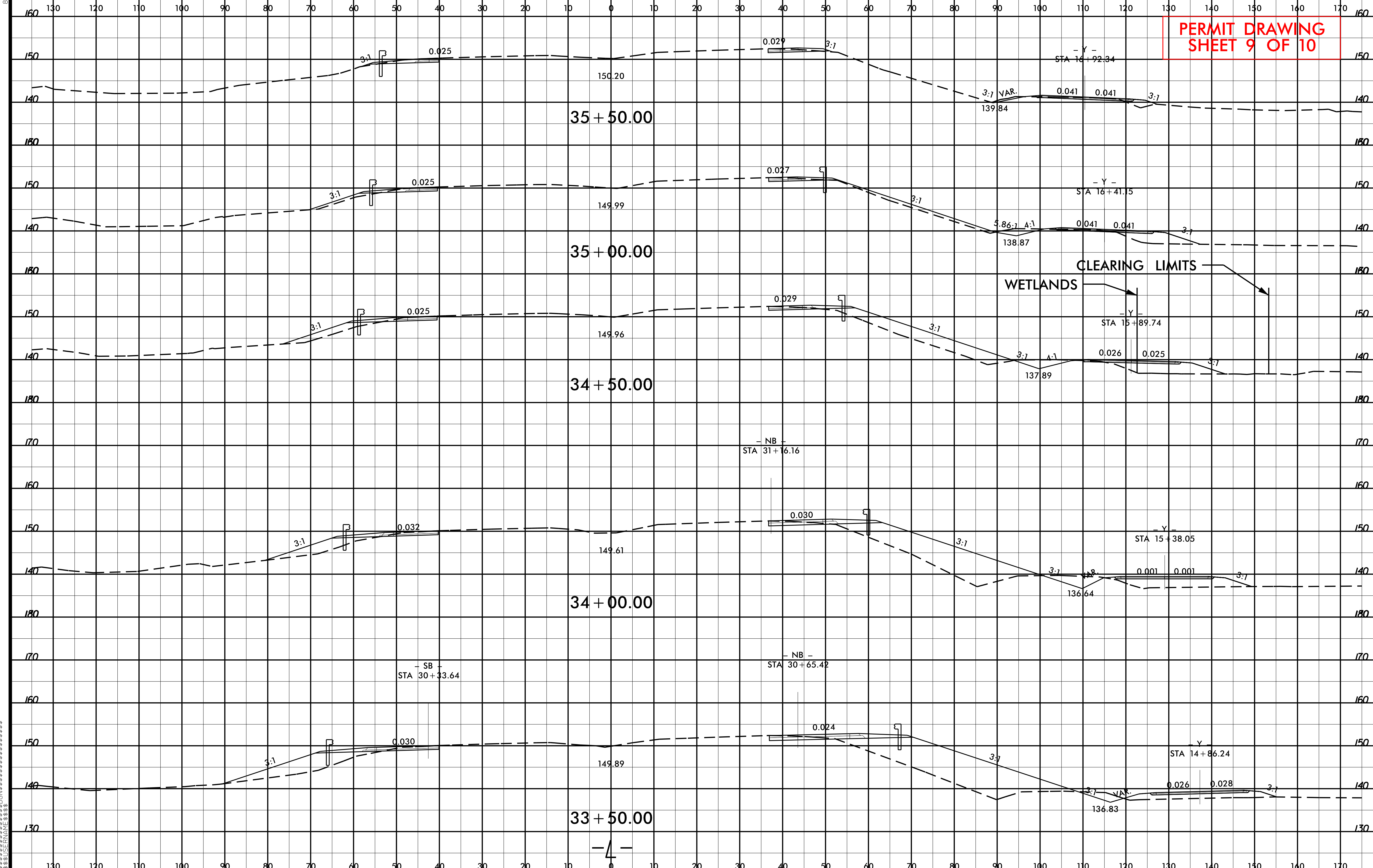
PROJ. REFERENCE NO. I-3318BB
SHEET NO. X-35

PERMIT DRAWING
SHEET 9 OF 10



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WETLAND PERMIT IMPACT SUMMARY

			WETLAND IMPACTS					SURFACE WATER IMPACTS				
Site No.	Station (From/To)	Structure Size / Type	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	23+44 To 23+90 -L-		< 0.01			< 0.01						
1	24+26 To 24+86 -L-			0.02		0.02						
1	25+03 To 25+48-L-		< 0.01	0.01		0.01						
1	26+06 To 27+32 -L-		0.02			0.02						
2	15+73 To 16+82 -Y-		0.04			0.02						
TOTALS*:			0.06	0.04		0.09				0	0	0

*Rounded totals are sum of actual impacts

NOTES:

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
5/6/2015
JOHNSTON COUNTY
I-3318BB
34182.1.4
SHEET 10 OF 10

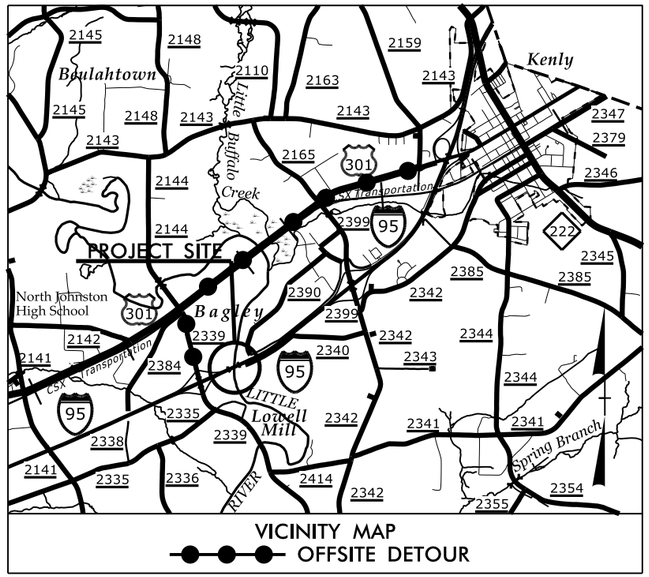
Revised 2013 10 24

09/26/99

TIP PROJECT: I-3318BB

CONTRACT: C203658

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



VICINITY MAP
OFFSITE DETOUR

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

JOHNSTON COUNTY

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	I-3318BB	1	

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
34182.1.4	IMS-095-2(119)105	P.E.
34182.3.FS3	IMS-095-2(119)105	R/W
34182.3.FSU3	IMS-095-2(119)105	UTILITIES

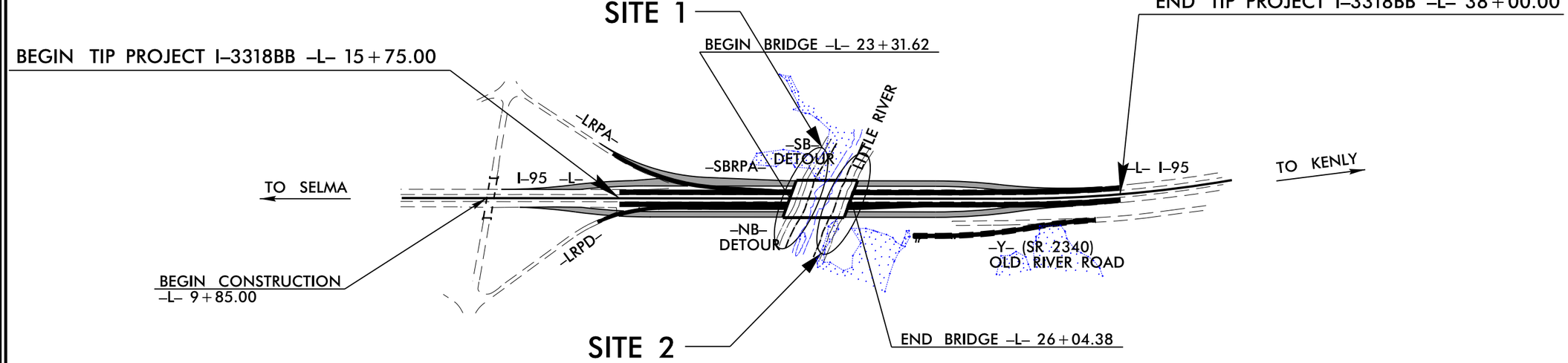
BUFFER DRAWING
SHEET 1 OF 4

LOCATION: REPLACE BRIDGES 114 & 116 OVER THE LITTLE RIVER ON I-95

TYPE OF WORK: GRADING, PAVING, RESURFACING, DRAINAGE AND STRUCTURES

BUFFER IMPACTS PERMIT

NAD 83/
NSRS 2007



THIS IS A CONTROLLED-ACCESS PROJECT WITH ACCESS BEING LIMITED TO INTERCHANGES.
THIS PROJECT IS NOT WITHIN ANY MUNICIPAL BOUNDARIES.
CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III.

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

GRAPHIC SCALES

50 25 0 50 100
PLANS

50 25 0 50 100
PROFILE (HORIZONTAL)

10 5 0 10 20
PROFILE (VERTICAL)

DESIGN DATA

ADT 2015 = 34640
ADT 2035 = 40900
DHV = 12 %
D = 55 %
T = 29 % *
V = 70 MPH
*(TTST=23% +DUAL=6%)

FUNC CLASS=INTERSTATE
STATEWIDE TIER

PROJECT LENGTH

LENGTH OF ROADWAY TIP PROJECT I-3318BB = 0.369 MI
LENGTH OF STRUCTURE TIP PROJECT I-3318BB = 0.052 MI
TOTAL LENGTH OF TIP PROJECT I-3318BB = 0.421 MI

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

2012 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
JUNE 24, 2014

LETTING DATE:
NOVEMBER 17, 2015

RON E. McCOLLUM, PE
PROJECT ENGINEER

TATIA L. WHITE, P.E.
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

P.E.
SIGNATURE:

ROADWAY DESIGN ENGINEER

P.E.
SIGNATURE:

STATE OF NORTH CAROLINA • DEPARTMENT OF TRANSPORTATION •

5/6/2015
mjyork
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$$$$$$$$$$$$$$$$$$$$DGN
$$$$USERNAME$$$$

REVISIONS

08/29/14 – R/W REVISION: UPDATED THE OFFSETS AT THE EXISTING RIGHT OF WAY BASED ON THE FIELD STAKING AT –L– STA. 20+20.00 LT. ON PARCEL 1 AND –L– STA. 20+08.00 RT. ON PARCEL 2; UPDATED PROPERTY LINES, PROPERTY OWNER NAME, DEED REFERENCE AND BILLBOARD LOCATION ON PARCEL 7 AND DELETED PARCEL 6. – TLW
11/24/14 – R/W REVISION: ADDED PARCEL 1A WITH PROPERTY OWNER NAMES AND DEED REFERENCE, DELETED PARCEL 6 AND ASSOCIATED "NO CLAIM" REFERENCES AND ADDED TCE ON PARCEL 2. – TLW
02/11/15 – R/W REVISION: UPDATED PROPERTY LINES ON PARCELS 4, 5 AND 8. – PJS
04/08/15 – R/W REVISION: ADDED TCE FROM –L– STA. 19+50.00 TO STA. 20+00.00 RT. ON PARCEL 2. – PJS

8/17/99

6/22/2015
mjyork
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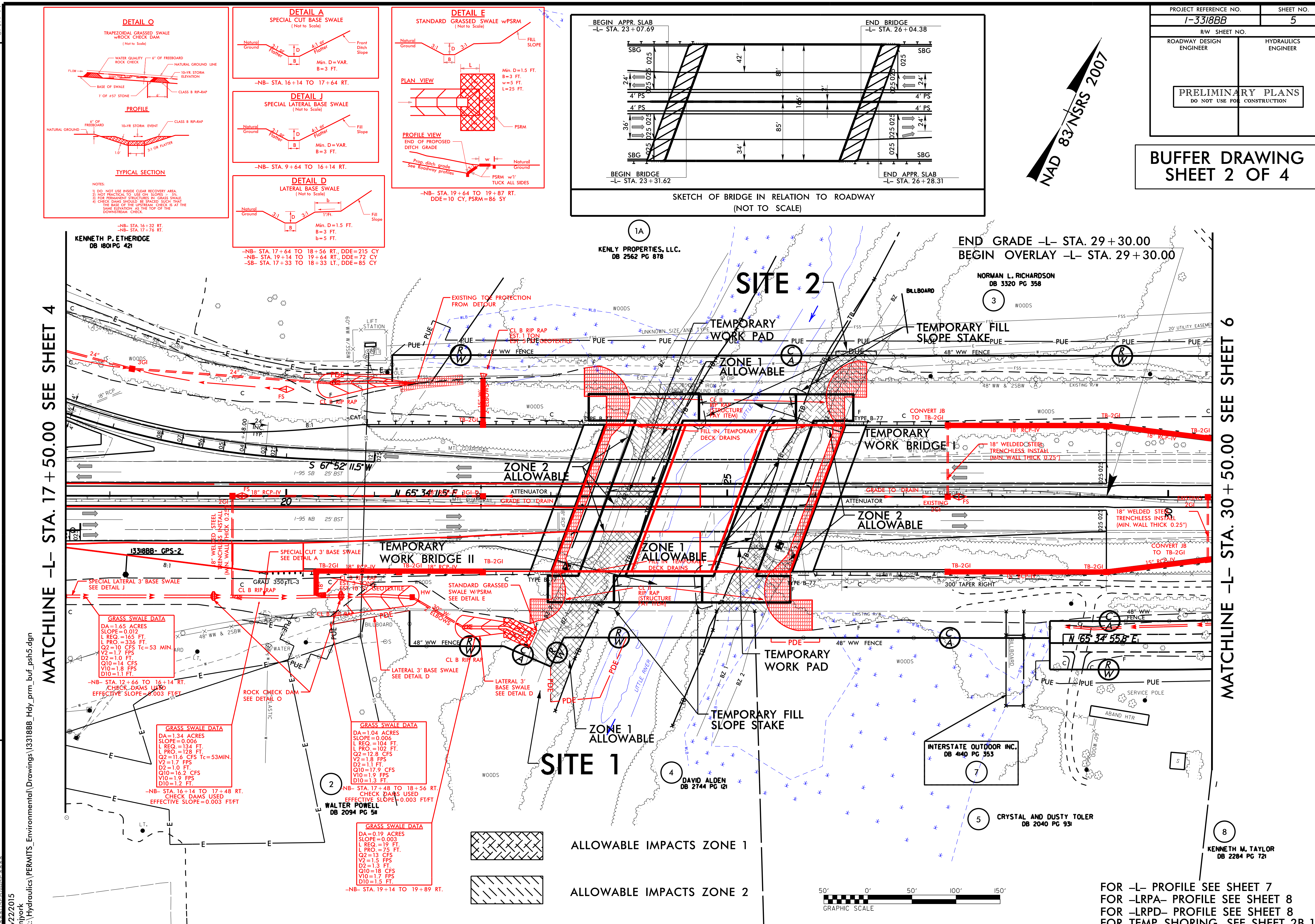


BUFFER IMPACTS SUMMARY

			IMPACT									BUFFER REPLACEMENT	
			TYPE			ALLOWABLE			MITIGABLE				
SITE NO.	STRUCTURE SIZE / TYPE	STATION (FROM/TO)	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)	ZONE 1 (ft^2)	ZONE 2 (ft^2)
1	3@90' PCG	-L- STA. 22+75 TO		X		9429	4595	14024					
		-L- STA. 24+89											
2	3@90' PCG	-L- STA. 24+76 TO		X		5833	3295	9127					
		-L- STA. 26+71											
TOTAL:						15262	7889	23151	0	0	0		

N.C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS

JOHNSTON COUNTY
PROJECT: 34182.1.4 (I-3318BB)

5/6/2015
SHEET 3 OF 4

Rev. May 2006

WETLANDS IN BUFFER IMPACTS SUMMARY

SITE NO.	STATION (FROM/TO)		WETLANDS IN BUFFERS ZONE 1 (ft^2)	WETLANDS IN BUFFERS ZONE 2 (ft^2)
1	-L- STA. 24+27 TO	-L- STA. 24+68	767	30
2	-L- STA. 25+03 TO	-L- STA. 25+46	482	528
TOTAL:			1249	558

N.C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS

JOHNSTON COUNTY
PROJECT: 34182.1.4 (I-3318BB)

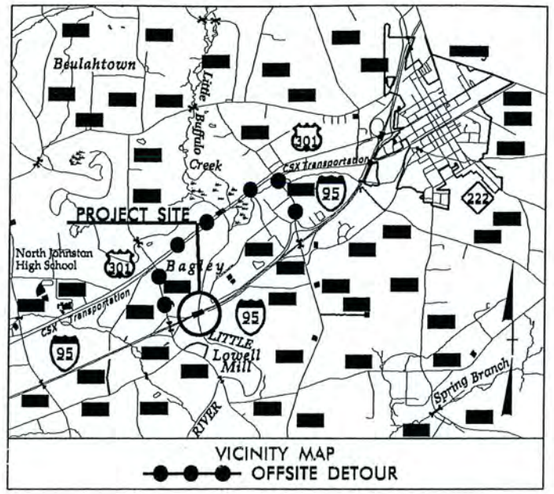
5/6/2015
SHEET 4 OF 4

Rev. Jan 2009

03/08/99

TIP PROJECT: I-3318BB

CONTRACT: _____



STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

NEU UTILITY RELOCATION PLANS JOHNSTON COUNTY

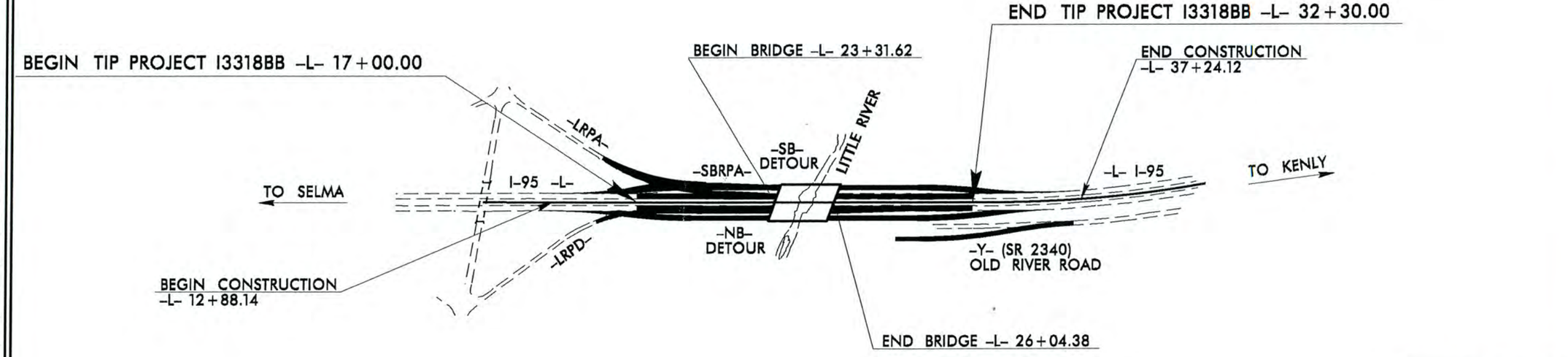
T.I.P. NO.	SHEET NO.
I-3318BB	UE-1

Utility Permit Drawing
Sheet 1 of 4

LOCATION: BRIDGES 114 & 116 OVER THE LITTLE RIVER ON I-95

TYPE OF WORK: RELOCATION OF POWER

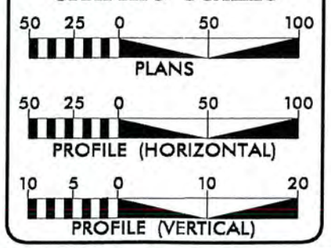
NAD 83/ NSRS 2007



INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

GRAPHIC SCALES



INDEX OF SHEETS

SHEET NO.	*DESCRIPTION*
UE-1	*TITLE SHEET*
UE-2 THRU UE-4	*UTILITY PERMIT PLAN SHEETS*

UTILITY OWNERS ON PROJECT

(A) JOHNSTON COUNTY PUBLIC UTILITIES (WATER)
(B) TOWN OF KENLY PUBLIC WORKS (SEWER)
(C) DUKE ENERGY PROGRESS (POWER)
(D) CENTURYLINK TELEPHONE

PREPARED IN THE OFFICE OF:
DIVISION OF HIGHWAYS
UTILITIES UNIT
UTILITIES ENGINEERING
1555 MAIL SERVICES CENTER
RALEIGH NC 27699-1555
PHONE (919) 707-6690
FAX (919) 250-4151

Roger Worthington, P.E. — *UTILITIES SECTION ENGINEER*
Corey Bouquet — *UTILITIES SQUAD LEADER PROJECT ENGINEER*
Kelvin Martin — *UTILITIES PROJECT DESIGNER*

09-JUL-2015 15:44
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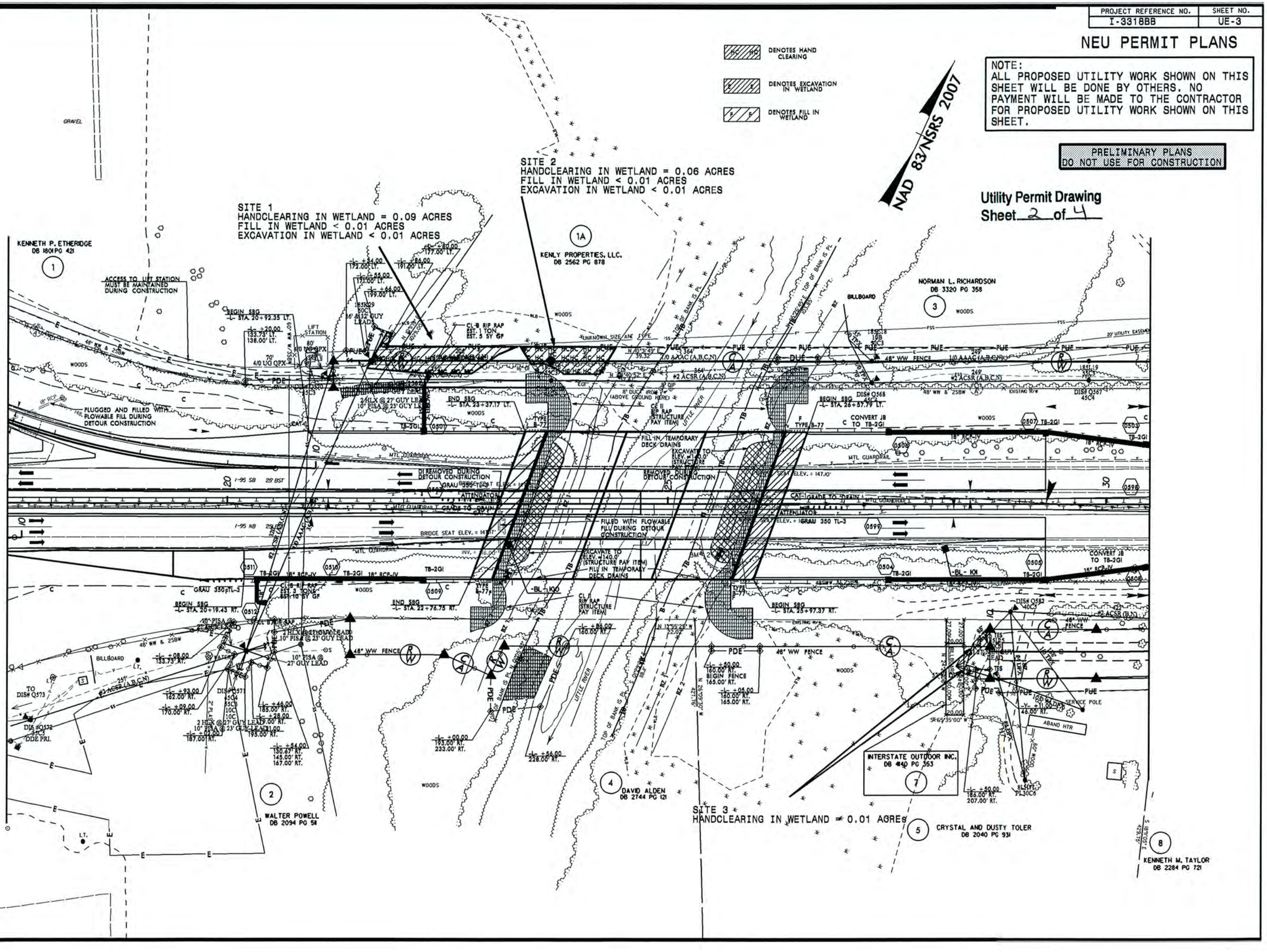
PROJECT REFERENCE NO.	SHEET NO.
I-3318BB	UE-3

NEU PERMIT PLANS

NOTE:
ALL PROPOSED UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS. NO PAYMENT WILL BE MADE TO THE CONTRACTOR FOR PROPOSED UTILITY WORK SHOWN ON THIS SHEET.

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Utility Permit Drawing
Sheet 2 of 4



PROJECT REFERENCE NO.	SHEET NO.
I-3318BB	UE-4

UTILITIES BY OTHERS

NOTE:
ALL PROPOSED UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS. NO PAYMENT WILL BE MADE TO THE CONTRACTOR FOR PROPOSED UTILITY WORK SHOWN ON THIS SHEET.

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Utility Permit Drawing
Sheet 3 of 4

SITE 4
HANDCLEARING = 0.06 ACRES
MECHANIZED CLEARING < 0.01 ACRES

NAD 83/NSRS 2007

MATCHLINE -L- STA. 30+50.00 SEE SHEET 5

Mechanized Clearing

Hand Clearing

			WETLAND IMPACTS					SURFACE WATER IMPACTS				
Site No.	Station (From/To)	Structure Size / Type	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	23+31 to 24+41	Power Pole/Lines	< 0.01		<0.01		0.09					
2	27+88 to 27+96	Power Pole/ Lines	<0.01		<0.01		0.06					
3	28+35 to 28+63	Power Lines					0.01					
4		Power Lines				<0.01	0.06					
TOTALS:			<0.01		<0.01	<0.01	0.22					

Note:

Utility Permit Drawing
Sheet 4 of 4

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

JOHNSTON COUNTY
WBS - 34182.1.1 (I-3318BB)

SHEET 1 OF 1 8/6/2015

ATN Revised 3/31/05

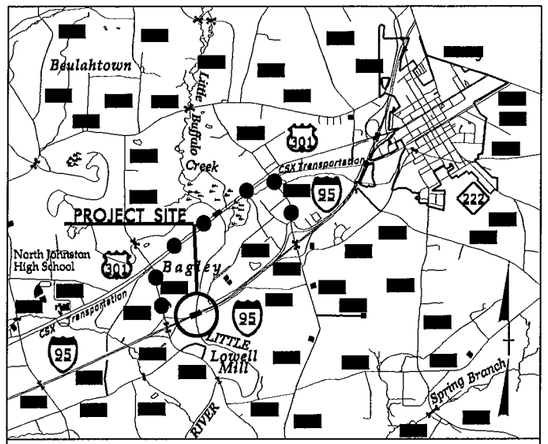
09/08/99

TIP PROJECT: I-3318BB

CONTRACT:

T.I.P. NO.	SHEET NO.
I-3318BB	UE-1

Utility
Buffer Drawing
Sheet 1 of 3



VICINITY MAP
OFFSITE DETOUR

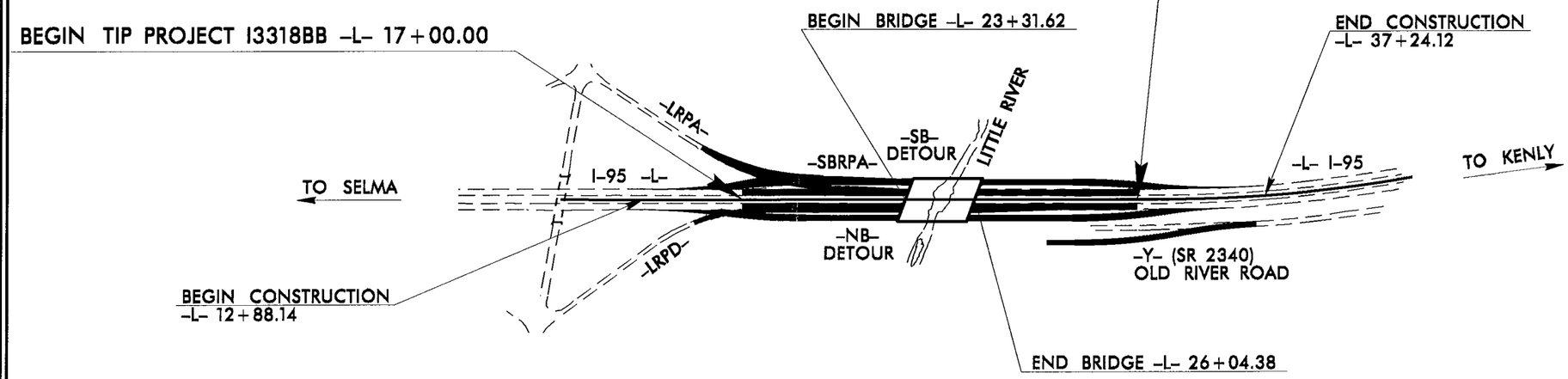
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

NEU UTILITY RELOCATION PLANS JOHNSTON COUNTY

LOCATION: BRIDGES 114 & 116 OVER THE LITTLE RIVER ON I-95

TYPE OF WORK: RELOCATION OF POWER

NAD 83/ NSRS 2007



INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

GRAPHIC SCALES

50 25 0 50 100
PLANS

50 25 0 50 100
PROFILE (HORIZONTAL)

10 5 0 10 20
PROFILE (VERTICAL)

INDEX OF SHEETS

SHEET NO.	*DESCRIPTION*
UE-1	*TITLE SHEET*
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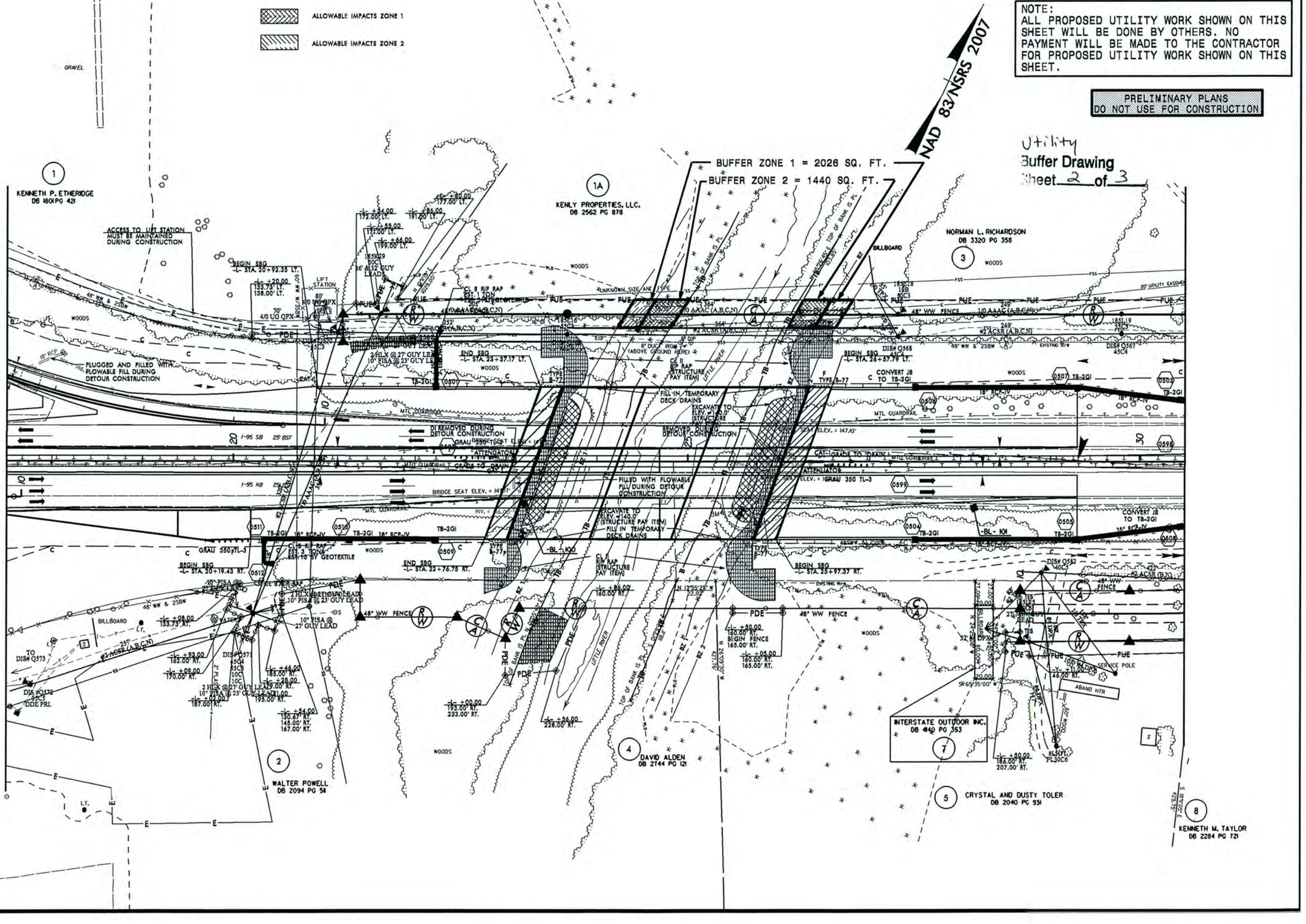
PROJECT REFERENCE NO.	SHEET NO.
I-3318BB	UE-3

NEU PERMIT PLANS

NOTE:
ALL PROPOSED UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS. NO PAYMENT WILL BE MADE TO THE CONTRACTOR FOR PROPOSED UTILITY WORK SHOWN ON THIS SHEET.

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Utility
Buffer Drawing
Sheet 2 of 3



BUFFER IMPACTS SUMMARY

			IMPACT									BUFFER REPLACEMENT	
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SITE NO.	STRUCTURE SIZE / TYPE	STATION (FROM/TO)	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)	ZONE 1 (ft^2)	ZONE 2 (ft^2)
A1	Power Line	24+45 to 25+01-L-					2026.0						
A2	Power Line	24+42 to 24+64 -L-					1440.0						
TOTALS:							3466.0						

Utility
Buffer Drawing
Sheet 3 of 3

N.C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS

JOHNSTON COUNTY
PROJECT: I-3318BB
Revised 05/12/2014

SHEET 1 OF 1

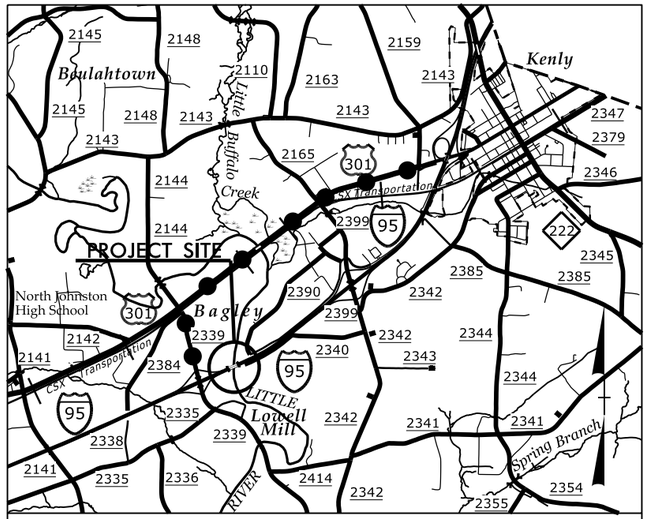
Rev. May 2006

09/08/99

TIP PROJECT: I-3318BB

CONTRACT: C203658

See Sheet 1A For Index of Sheets
See Sheet 1B For Conventional Symbols
See Sheet 1C-1 through 1C-2 For Survey Control Sheets



VICINITY MAP
OFFSITE DETOUR

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

JOHNSTON COUNTY

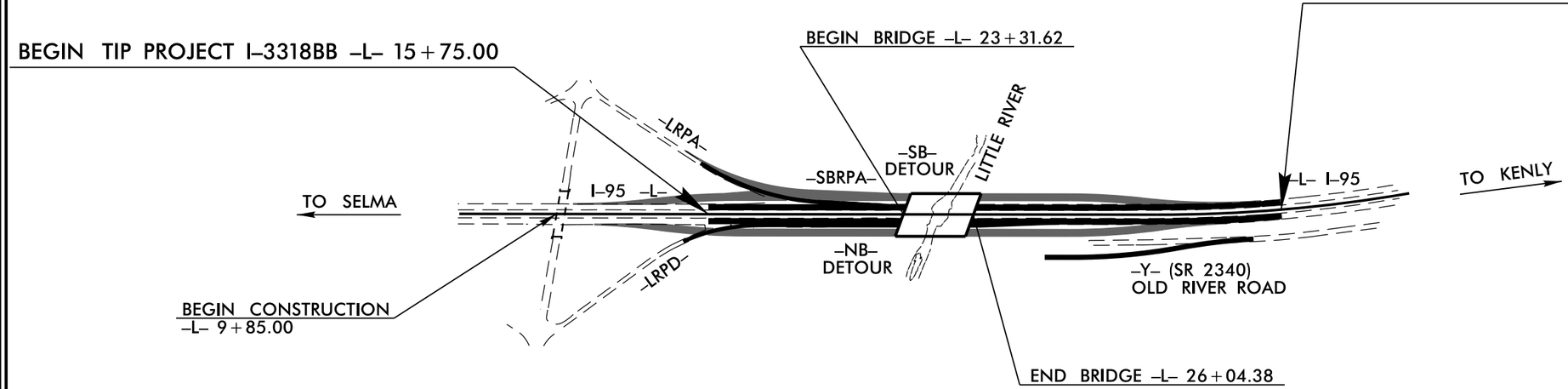
LOCATION: REPLACE BRIDGES 114 & 116 OVER THE LITTLE RIVER ON I-95

TYPE OF WORK: GRADING, PAVING, RESURFACING, DRAINAGE AND STRUCTURES

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	I-3318BB	1	

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
34182.1.4	IMS-095-2(119)105	P.E.
34182.3.FS3	IMS-095-2(119)105	R/W
34182.3.FSU3	IMS-095-2(119)105	UTILITIES

NAD 83/ NSRS 2007



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

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

GRAPHIC SCALES

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PLANS

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PROFILE (HORIZONTAL)

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PROFILE (VERTICAL)

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D = 55 %
T = 29 % *
V = 70 MPH
*(TTST=23% +DUAL=6%)

FUNC CLASS = INTERSTATE
STATEWIDE TIER

PROJECT LENGTH

LENGTH OF ROADWAY TIP PROJECT I-3318BB = 0.369 MI
LENGTH OF STRUCTURE TIP PROJECT I-3318BB = 0.052 MI
TOTAL LENGTH OF TIP PROJECT I-3318BB = 0.421 MI

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

2012 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
JUNE 24, 2014

LETTING DATE:
NOVEMBER 17, 2015

RON E. McCOLLUM, PE
PROJECT ENGINEER

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HYDRAULICS ENGINEER

P.E.
SIGNATURE:

ROADWAY DESIGN ENGINEER

P.E.
SIGNATURE:

STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION ·

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04/06/15

PROJECT REFERENCE NO.	SHEET NO.
I-3318BB	1B

Note: Not to Scale

****S.U.E. = Subsurface Utility Engineering***

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

CONVENTIONAL PLAN SHEET SYMBOLS

BOUNDARIES AND PROPERTY:

- State Line
- County Line
- Township Line
- City Line
- Reservation Line
- Property Line
- Existing Iron Pin — EIP
- Property Corner
- Property Monument — ECM
- Parcel/Sequence Number — 123
- Existing Fence Line
- Proposed Woven Wire Fence
- Proposed Chain Link Fence
- Proposed Barbed Wire Fence
- Existing Wetland Boundary — WLB
- Proposed Wetland Boundary — WLB
- Existing Endangered Animal Boundary — EAB
- Existing Endangered Plant Boundary — EPB
- Existing Historic Property Boundary — HPB
- Known Soil Contamination: Area or Site
- Potential Soil Contamination: Area or Site

BUILDINGS AND OTHER CULTURE:

- Gas Pump Vent or U/G Tank Cap
- Sign — S
- Well — W
- Small Mine
- Foundation
- Area Outline
- Cemetery
- Building
- School
- Church
- Dam

HYDROLOGY:

- Stream or Body of Water
- Hydro, Pool or Reservoir
- Jurisdictional Stream — JS
- Buffer Zone 1 — BZ 1
- Buffer Zone 2 — BZ 2
- Flow Arrow
- Disappearing Stream
- Spring
- Wetland
- Proposed Lateral, Tail, Head Ditch — FLOW
- False Sump

RAILROADS:

- Standard Gauge — CSX TRANSPORTATION
- RR Signal Milepost — MILEPOST 35
- Switch — SWITCH
- RR Abandoned
- RR Dismantled

RIGHT OF WAY:

- Baseline Control Point
- Existing Right of Way Marker
- Existing Right of Way Line
- Proposed Right of Way Line — RW
- Proposed Right of Way Line with Iron Pin and Cap Marker — RW
- Proposed Right of Way Line with Concrete or Granite R/W Marker — RW
- Proposed Control of Access Line with Concrete C/A Marker — CA
- Existing Control of Access — CA
- Proposed Control of Access — CA
- Existing Easement Line — E
- Proposed Temporary Construction Easement — E
- Proposed Temporary Drainage Easement — TDE
- Proposed Permanent Drainage Easement — PDE
- Proposed Permanent Drainage / Utility Easement — DUE
- Proposed Permanent Utility Easement — PUE
- Proposed Temporary Utility Easement — TUE
- Proposed Aerial Utility Easement — AUE
- Proposed Permanent Easement with Iron Pin and Cap Marker

ROADS AND RELATED FEATURES:

- Existing Edge of Pavement
- Existing Curb
- Proposed Slope Stakes Cut — C
- Proposed Slope Stakes Fill — F
- Proposed Curb Ramp — CR
- Existing Metal Guardrail
- Proposed Guardrail
- Existing Cable Guiderail
- Proposed Cable Guiderail
- Equality Symbol
- Pavement Removal

VEGETATION:

- Single Tree
- Single Shrub
- Hedge
- Woods Line
- Orchard
- Vineyard — Vineyard

EXISTING STRUCTURES:

MAJOR:

- Bridge, Tunnel or Box Culvert — CONC
- Bridge Wing Wall, Head Wall and End Wall — CONC WW

MINOR:

- Head and End Wall — CONC HW
- Pipe Culvert
- Footbridge
- Drainage Box: Catch Basin, DI or JB — CB
- Paved Ditch Gutter
- Storm Sewer Manhole — S
- Storm Sewer — S

UTILITIES:

POWER:

- Existing Power Pole
- Proposed Power Pole
- Existing Joint Use Pole
- Proposed Joint Use Pole
- Power Manhole — P
- Power Line Tower
- Power Transformer
- U/G Power Cable Hand Hole
- H-Frame Pole
- U/G Power Line LOS B (S.U.E.*) — P
- U/G Power Line LOS C (S.U.E.*) — P
- U/G Power Line LOS D (S.U.E.*) — P

TELEPHONE:

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

WATER:

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

TV:

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

GAS:

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

SANITARY SEWER:

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

MISCELLANEOUS:

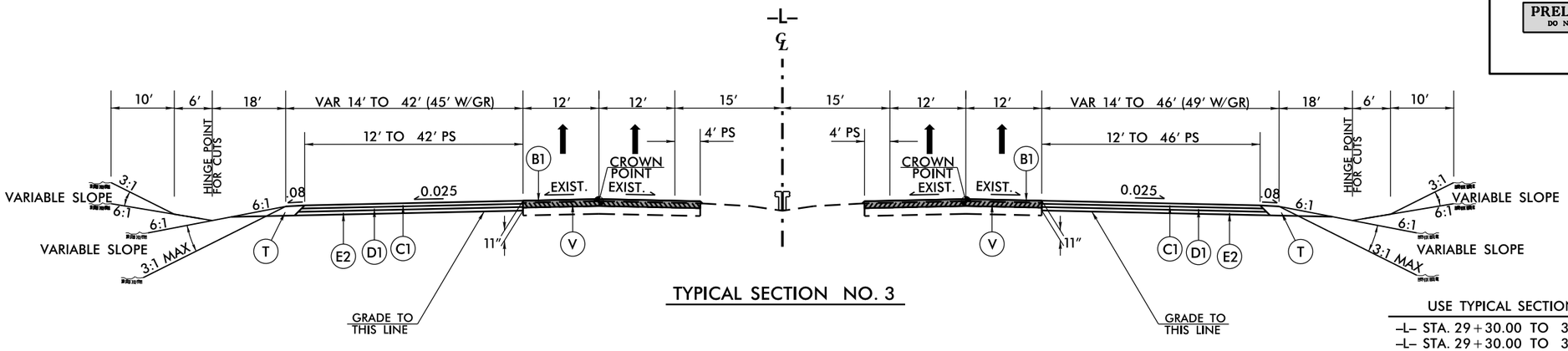
- Utility Pole
- Utility Pole with Base
- Utility Located Object
- Utility Traffic Signal Box — S
- Utility Unknown U/G Line LOS B (S.U.E.*) — ?UTL
- U/G Tank; Water, Gas, Oil
- Underground Storage Tank, Approx. Loc. — UST
- A/G Tank; Water, Gas, Oil
- Geoenvironmental Boring
- U/G Test Hole LOS A (S.U.E.*)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

8/17/99

PAVEMENT SCHEDULE (FINAL PAVEMENT DESIGN)	
A1	11" PCCP
B1	3/4" OGAFC TYPE FC-2 MODIFIED
C1	3" S9.5C
C2	VAR. S9.5C
D1	4" I19.0C
D2	VAR. I19.0C
E1	4" B25.0B
E2	4" B25.0C
E3	VAR. B25.0C
T	EARTH MATERIAL
U1	EX. CONC. PVMT.
U2	EX. ASPH. PVMT.

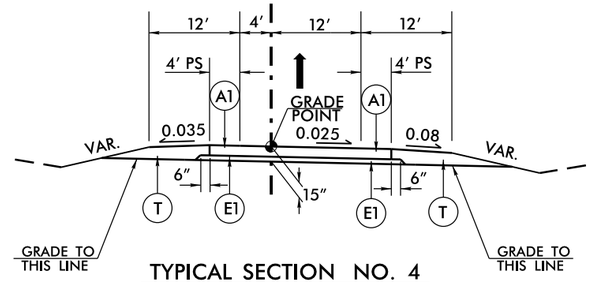
PROJECT REFERENCE NO.	SHEET NO.
I-3318BB	2A-2
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION



TYPICAL SECTION NO. 3

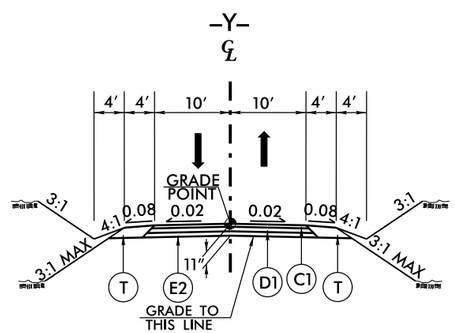
USE TYPICAL SECTION NO. 3
–L– STA. 29+30.00 TO 31+88.81 LT.
–L– STA. 29+30.00 TO 32+65.14 RT.



TYPICAL SECTION NO. 4

USE TYPICAL SECTION NO. 4
–LRPA– STA. 10+00.00 TO 15+86.75

REVERSE OF TYPICAL SECTION NO. 4
–LRPD– STA. 10+00.00 TO 13+00.00



TYPICAL SECTION NO. 5

USE TYPICAL SECTION NO. 5
–Y– STA. 10+15.00 TO 18+30.15

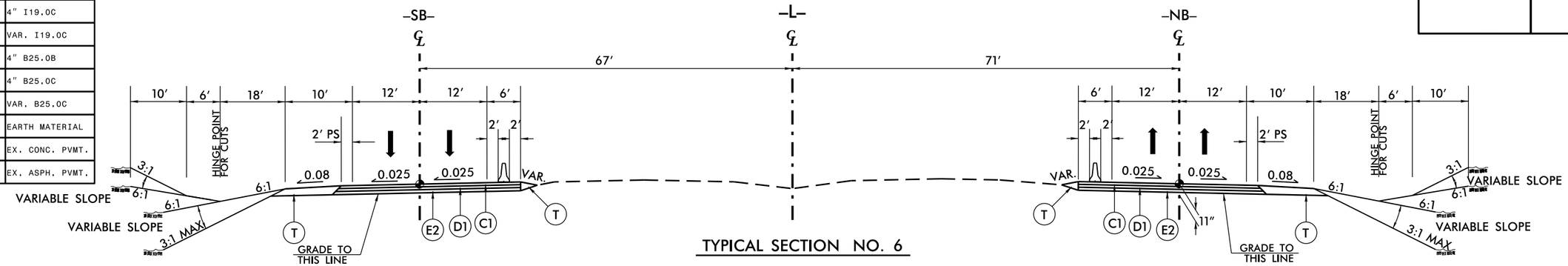
23-MAY-2015 09:54
R:\Roadway\Proj\I3318BB_Rdy_typ.dgn
$$$$USERNAME$$$$

8/17/99

PAVEMENT SCHEDULE (FINAL PAVEMENT DESIGN)	
A1	11" PCCP
B1	3/4" OGAFC TYPE FC-2 MODIFIED
C1	3" S9.5C
C2	VAR. S9.5C
D1	4" I19.0C
D2	VAR. I19.0C
E1	4" B25.0B
E2	4" B25.0C
E3	VAR. B25.0C
T	EARTH MATERIAL
U1	EX. CONC. PVMT.
U2	EX. ASPH. PVMT.

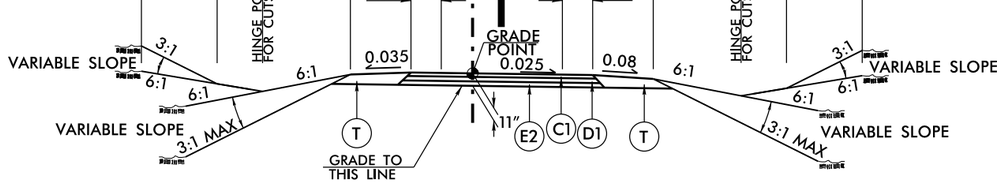
PROJECT REFERENCE NO.	SHEET NO.
I-3318BB	2A-3
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION



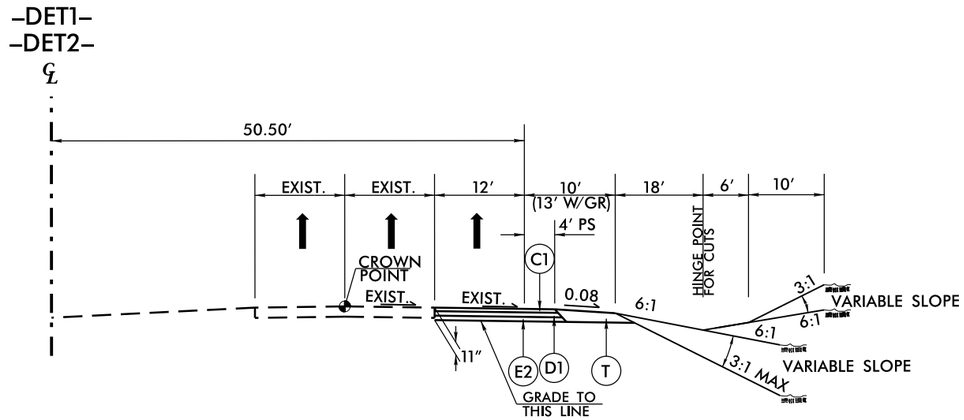
TYPICAL SECTION NO. 6

USE TYPICAL SECTION NO. 6
–NB– STA. 7+61.86 TO 20+19.59 (BEG. BRIDGE)
–NB– STA. 22+92.35 (END BRIDGE) TO 33+05.82
–SB– STA. 7+31.19 TO 20+38.88 (BEG. BRIDGE)
–SB– STA. 23+11.64 (END BRIDGE) TO 34+06.10



TYPICAL SECTION NO. 7

USE TYPICAL SECTION NO. 7
–SBRPA– STA. 10+00.00 TO 15+64.46



TYPICAL SECTION NO. 8

USE TYPICAL SECTION NO. 8
–DET1– STA. 24+00.00 TO 31+00.00

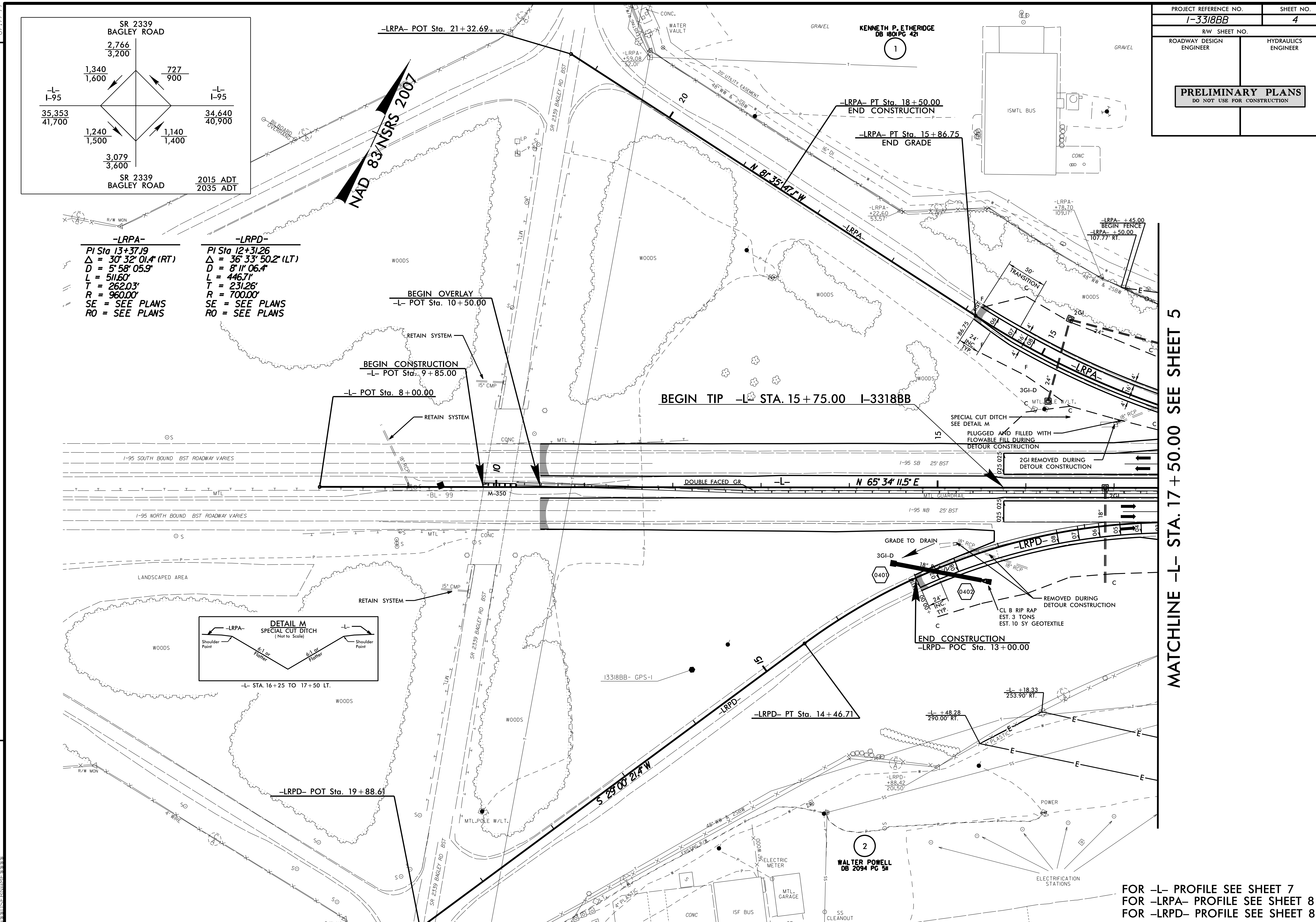
REVERSE OF TYPICAL SECTION NO. 8
–DET2– STA. 17+40.00 TO 23+75.00

PROJECT REFERENCE NO.	SHEET NO.
I-3318BB	4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

REVISIONS

08/29/14 – RW REVISION: UPDATED THE OFFSET AT THE EXISTING RIGHT OF WAY BASED ON THE FIELD STAKING AT -LRPA- STA. 14+50.00 LT. ON PARCEL 1. – TLW
11/24/14 – RW REVISION: ADDED TCE ON PARCEL 2. – TLW



SR 2339
BAGLEY ROAD
2,766
3,200
1,340
1,600
727
900
-L-
I-95
35,353
41,700
34,640
40,900
1,240
1,500
1,140
1,400
3,079
3,600
2015 ADT
2035 ADT
NAD 83/NSRS 2007
-LRPA-
PI Sta 13+37.19
Δ = 30° 32' 01.4" (RT)
D = 5° 58' 05.9"
L = 511.60'
T = 262.03'
R = 960.00'
SE = SEE PLANS
RO = SEE PLANS
-LRPD-
PI Sta 12+31.26
Δ = 36° 33' 50.2" (LT)
D = 8° 11' 06.4"
L = 446.71'
T = 231.26'
R = 700.00'
SE = SEE PLANS
RO = SEE PLANS
-LRPA- POT Sta. 21+32.69
KENNETH P. ETHERIDGE
DB 1801 PG 421
-LRPA- PT Sta. 18+50.00
END CONSTRUCTION
-LRPA- PT Sta. 15+86.75
END GRADE
N 81° 35' 47.1" W
BEGIN OVERLAY
-L- POT Sta. 10+50.00
RETAIN SYSTEM
BEGIN CONSTRUCTION
-L- POT Sta. 9+85.00
-L- POT Sta. 8+00.00
BEGIN TIP -L- STA. 15+75.00 I-3318BB
SPECIAL CUT DITCH
SEE DETAIL M
PLUGGED AND FILLED WITH
FLOWABLE FILL DURING
DETOUR CONSTRUCTION
2GI REMOVED DURING
DETOUR CONSTRUCTION
I-95 SOUTH BOUND BST ROADWAY VARIES
I-95 NORTH BOUND BST ROADWAY VARIES
DOUBLE FACED GR
N 65° 34' 11.5" E
GRADE TO DRAIN
3GI-D
REMOVED DURING
DETOUR CONSTRUCTION
CL B RIP RAP
EST. 3 TONS
EST. 10 SY GEOTEXTILE
END CONSTRUCTION
-LRPD- POC Sta. 13+00.00
DETAIL M
SPECIAL CUT DITCH
(Not to Scale)
6:1 or Flatter
Shoulder Point
-L- STA. 16+25 TO 17+50 LT.
I3318BB- GPS-1
-LRPD- PT Sta. 14+46.71
S 29° 00' 21.4" W
-LRPD- POT Sta. 19+88.61
SR 2339 BAGLEY RD BST
WALTER POWELL
DB 2094 PG 511
ELECTRIFICATION STATIONS
MATCHLINE -L- STA. 17+50.00 SEE SHEET 5

FOR -L- PROFILE SEE SHEET 7
FOR -LRPA- PROFILE SEE SHEET 8
FOR -LRPD- PROFILE SEE SHEET 8

PROJECT REFERENCE NO.	SHEET NO.
I-3318BB	5
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 83/NSRS 2007

REVISIONS

8/17/99

0829/14 – R/W REVISIONS: UPDATED THE OFFSETS AT THE EXISTING RIGHT OF WAY BASED ON THE FIELD STAKING AT –L– STA. 20+20.00 LT. ON PARCEL 1 AND –L– STA. 20+08.00 RT. ON PARCEL 2; UPDATED PROPERTY LINES, PROPERTY OWNER NAME, DEED REFERENCE AND BILLBOARD LOCATION ON PARCEL 7 AND DELETED PARCEL 6. – TLW

11/24/14 – R/W REVISION: ADDED PARCEL 1A WITH PROPERTY OWNER NAMES AND DEED REFERENCE, DELETED PARCEL 6 AND ASSOCIATED "NO CLAIM" REFERENCES AND ADDED TCE ON PARCEL 2. – TLW

02/11/15 – R/W REVISION: UPDATED PROPERTY LINES ON PARCELS 4, 5 AND 8. – PJS

04/08/15 – R/W REVISION: ADDED TCE FROM –L– STA. 19+50.00 TO STA. 20+00.00 RT. ON PARCEL 2. – PJS

06-MAY-2015 16:04
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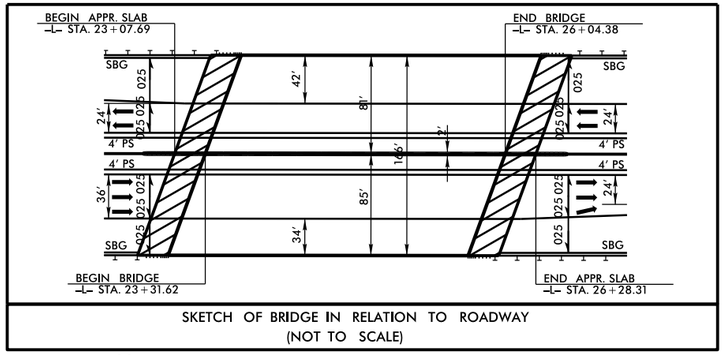
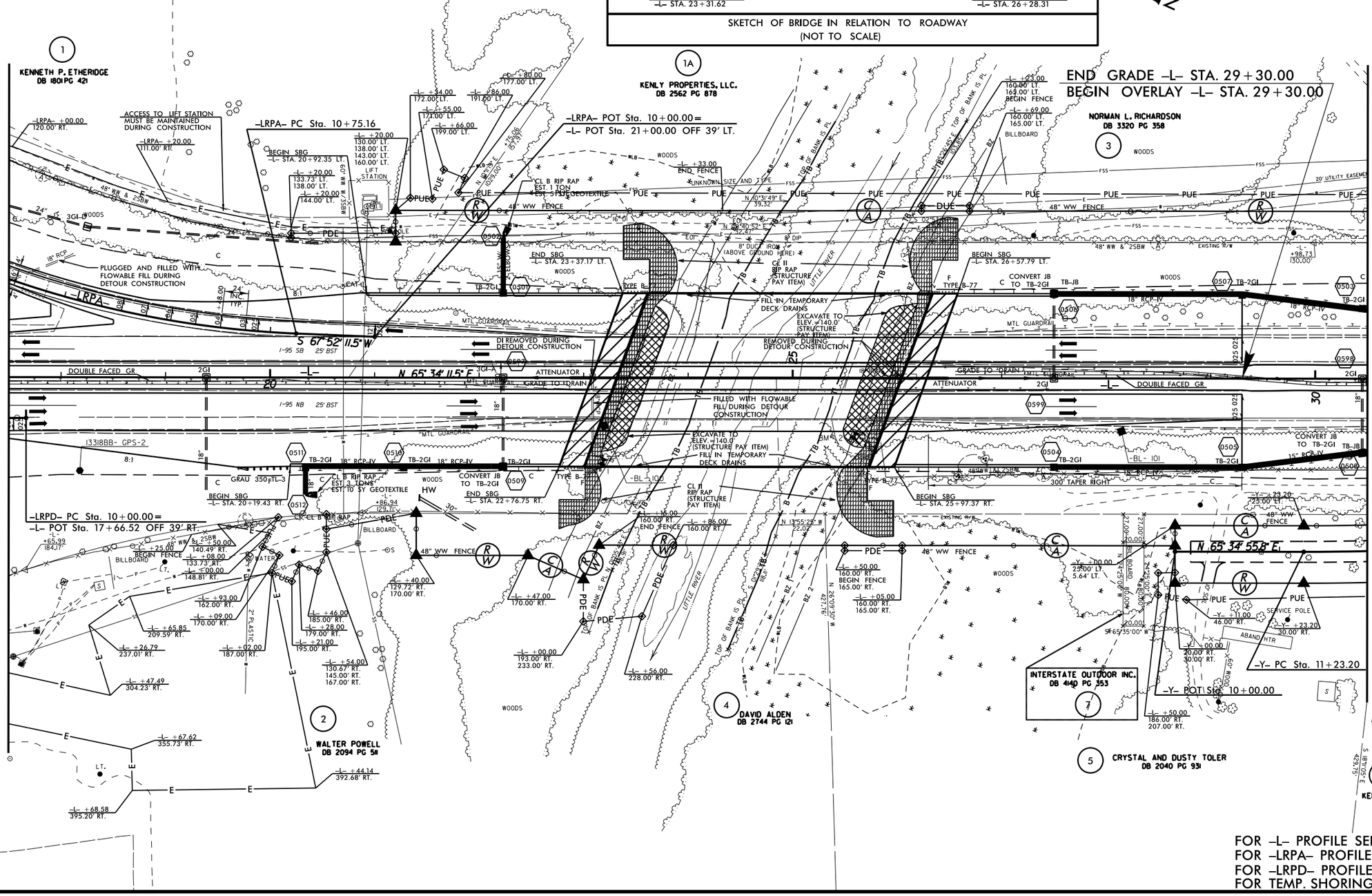
–LRPA–	–LRPD–	–Y–
PI Sta 13+37.19	PI Sta 12+31.26	PI Sta 13+32.23
Δ = 30° 32' 01.4" (RT)	Δ = 36° 33' 50.2" (LT)	Δ = 10° 23' 09.4" (LT)
D = 5° 58' 05.9"	D = 8° 11' 06.4"	D = 2° 29' 28.0"
L = 511.60'	L = 446.71'	L = 416.92'
T = 262.03'	T = 231.26'	T = 209.03'
R = 960.00'	R = 700.00'	R = 2,300.00'
SE = SEE PLANS	SE = SEE PLANS	SE = SEE PLANS
RO = SEE PLANS	RO = SEE PLANS	RO = SEE PLANS



SKETCH OF BRIDGE IN RELATION TO ROADWAY
(NOT TO SCALE)



PROJECT REFERENCE NO.	SHEET NO.
I-3318BB	6
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 83/NSRS 2007

-L-	-Y-	
PI Sta 40+13.59	PI Sta 13+32.23	PI Sta 16+85.32
Δ = 13° 51' 00.0" (LT)	Δ = 10° 23' 09.4" (LT)	Δ = 7° 13' 29.9" (RT)
D = 1° 00' 00.0"	D = 2° 29' 28.0"	D = 2° 29' 28.0"
L = 1,385.00'	L = 416.92'	L = 290.03'
T = 695.89'	T = 209.03'	T = 145.21'
R = 5,729.58'	R = 2,300.00'	R = 2,300.00'
SE = SEE PLANS	SE = SEE PLANS	SE = SEE PLANS
RO = SEE PLANS	RO = SEE PLANS	RO = SEE PLANS

END TIP -L- STA. 38+00.00 I-3318BB
END OVERLAY -L- STA. 38+00.00

MATCHLINE -L- STA. 30+50.00 SEE SHEET 5

-L- PC Sta. 33+17.70

-L- POC Sta. 38+50.00
END CONSTRUCTION

-Y- PT Sta. 21+00.54

-Y- PRC Sta. 18+30.15

-Y- PRC Sta. 15+40.12

NORMAN L. RICHARDSON
DB 3320 PG 358
3

M.E.S. PROPERTIES,LLC
DB 3332 PG 276

DOLPHIN D. OVERTON III TRUSTEES
DB 3266 PG 276

BOBBY PARNELL
DB 721PG 252

CRYSTAL AND DUSTY TOLER
DB 2040 PG 931
5

INTERSTATE OUTDOOR INC.
DB 4140 PG 353
9

KENNETH M. TAYLOR
DB 2270 PG 904
10

KENNETH M. TAYLOR
DB 2284 PG 721
8

GINGER ORMOND MASSENGILL
DB 2376 PG 484
11

Johnston Parkway SR 2417
I-95 SB 25' BST
I-95 NB 25' BST
OLD RIVER RD. SR 2340 19' BST

FOR -Y- PROFILE SEE SHEET 9

REVISIONS

08/29/14 - R/W REVISIONS: UPDATED THE OFFSETS AT THE EXISTING RIGHT OF WAY BASED ON THE FIELD STAKING AT -L- STA. 32+37.09, 32+37.39 AND 32+38.21 ON PARCEL 3 AND AT -Y- STA. 18+30.15 RT. ON PARCEL 11; UPDATED PROPERTY OWNER NAME AND DEED REFERENCE ON PARCEL 9. - TLW
02/11/15 - R/W REVISION: UPDATED PROPERTY LINES ON PARCELS 8 THROUGH 11. - PJS
06/01/15 - R/W REVISION: ADDED A TCE ON PARCEL 9. - PJS

8/17/99

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