



## Pre-Construction Notification (PCN) Form

For Nationwide Permits and Regional General Permits  
(along with corresponding Water Quality Certifications)

September 29, 2018 Ver 3

Please note: fields marked with a red asterisk \* below are required. You will not be able to submit the form until all mandatory questions are answered.

Also, if at any point you wish to print a copy of the E-PCN, all you need to do is right-click on the document and you can print a copy of the form.

Below is a link to the online help file.

<https://edocs.deq.nc.gov/WaterResources/0/edoc/624704/PCN%20Help%20File%202018-1-30.pdf>

### A. Processing Information

County (or Counties) where the project is located: \*

Pitt

Is this project a public transportation project? \*

☒ Yes ☐ No

This is any publicly funded by municipal, state or federal funds road, rail, airport transportation project.

Is this a NCDOT Project? \*

☒ Yes ☐ No

(NCDOT only) T.I.P. or state project number:

17BP.2.R.92

WBS # \*

17BP.2.R.92

(for NCDOT use only)

1a. Type(s) of approval sought from the Corps: \*

☒ Section 404 Permit (wetlands, streams and waters, Clean Water Act)

☐ Section 10 Permit (navigable waters, tidal waters, Rivers and Harbors Act)

1b. What type(s) of permit(s) do you wish to seek authorization? \*

☒ Nationwide Permit (NWP)

☐ Regional General Permit (RGP)

☐ Standard (IP)

This form may be used to initiate the standard/individual permit process with the Corps. Please contact your Corps representative concerning submittals for standard permits. All required items that are not provided in the E-PCN can be added to the miscellaneous upload area located at the bottom of this form.

1c. Has the NWP or GP number been verified by the Corps? \*

☐ Yes ☒ No

Nationwide Permit (NWP) Number:

03 - Maintenance

NWP Numbers (for multiple NWPS):

List all NW numbers you are applying for not on the drop down list.

1d. Type(s) of approval sought from the DWR: \*

check all that apply

☒ 401 Water Quality Certification - Regular

☐ Non-401 Jurisdictional General Permit

☐ Individual 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 DWR 401 Certification:

☐ Yes ☒ No

For the record only for Corps Permit:

☒ Yes ☐ No

1f. Is this an after-the-fact permit application? \*

☐ Yes

☒ No

**1g. 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

**Acceptance Letter Attachment**

Click the upload button or drag and drop files here to attach document

FILETYPE MUST BE PDF

**1h. Is the project located in any of NC's twenty coastal counties? \***

☐ Yes ☒ No

**1j. Is the project located in a designated trout watershed? \***

☐ Yes ☒ No

Link to trout information: <http://www.saw.usace.army.mil/Missions/Regulatory-Permit-Program/Agency-Coordination/Trout.aspx>

## B. Applicant Information

**1a. Who is the Primary Contact? \***

NCDOT

**1b. Primary Contact Email: \***

jldilley@ncdot.gov

**1c. Primary Contact Phone: \***

(xxx)xxx-xxxx

(919)707-6111

**1d. Who is applying for the permit? \***

☒ Owner

(Check all that apply)

☐ Applicant (other than owner)

**1e. Is there an Agent/Consultant for this project? \***

☐ Yes ☒ No

## 2. Owner Information

**2a. Name(s) on recorded deed: \***

NCDOT

**2b. Deed book and page no.:**

**2c. Responsible party:**

(for Corporations)

**2d. Address \***

Street Address

1000 Birch Ridge Drive

Address Line 2

City

Raleigh

Postal / Zip Code

27610

State / Province / Region

NC

Country

USA

**2e. Telephone Number: \***

(xxx)xxx-xxxx

(919)707-6111

**2f. Fax Number:**

(xxx)xxx-xxxx

**2g. Email Address: \***

pharris@ncdot.gov

## C. Project Information and Prior Project History

### 1. Project Information

**1a. Name of project: \***

Bridge 171 over Johnson Mill Run on SR 1418 (17BP.2.R.92 - Central)

**1b. Subdivision name:**

(if appropriate)

**1c. Nearest municipality / town: \***

Greenville

### 2. Project Identification

2a. Property Identification Number:

(tax PIN or parcel ID)

2b. Property size:

(in acres)

2c. Project Address

Street Address

Address Line 2

City

Postal / Zip Code

State / Province / Region

Country

2d. Site coordinates in decimal degrees

Please collect site coordinates in decimal degrees. Use between 4-6 digits (unless you are using a survey-grade GPS device) after the decimal place as appropriate, based on how the location was determined. (For example, most mobile phones with GPS provide locational precision in decimal degrees to map coordinates to 5 or 6 digits after the decimal place.)

Latitude: \*

Longitude: \*

35.656803

-77.403640

ex: 34.208504

-77.796371

3. Surface Waters

3a. Name of the nearest body of water to proposed project: \*

Johnson Mill Run

3b. Water Resources Classification of nearest receiving water: \*

WS-IV; NSW

[Surface Water Lookup](#)

3c. What river basin(s) is your project located in? \*

Tar-Pamlico

3d. Please provide the 12-digit HUC in which the project is located. \*

030201030402

[River Basin Lookup](#)

4. Project Description and History

4a. Describe the existing conditions on the site and the general land use in the vicinity of the project at the time of this application: \*

Land use in the project vicinity consists primarily of agriculture and residential development.

4b. Have Corps permits or DWR certifications been obtained for this project (including all prior phases) in the past? \*

☒ Yes ☐ No ☐ Unknown

4d. Attach an 8 1/2 X 11 excerpt from the most recent version of the USGS topographic map indicating the location of the project site. (for DWR)

[Click the upload button or drag and drop files here to attach document](#)  
File type must be pdf

4e. Attach an 8 1/2 X 11 excerpt from the most recent version of the published County NRCS Soil Survey map depicting the project site. (for DWR)

[Click the upload button or drag and drop files here to attach document](#)  
File type must be pdf

4f. List the total estimated acreage of all existing wetlands on the property:

0

4g. List the total estimated linear feet of all existing streams on the property:

(intermittent and perennial)  
225

4h. Explain the purpose of the proposed project: \*

The purpose of this project is to replace a structurally deficient bridge.

4i. Describe the overall project in detail, including indirect impacts and the type of equipment to be used: \*

This project involves replacing the 53-foot, 3-span bridge with a 85-foot, 2-span bridge on existing alignment using an off-site detour. Standard road building equipment, such as trucks, dozers, and cranes will be used.

4j. Please upload project drawings for the proposed project.

<a href="#">Click the upload button or drag and drop files here to attach document</a>	
17BP.2.R.92_Buffer_Drawings_2019-10-22.pdf	1.45MB
17BP.2.R.92_Permit_Drawings_2019-10-22.pdf	3.47MB
17BP.2.R.92_Utility_Buffer_Drawings_2019-10-22.pdf	1.42MB
File type must be pdf	

5. Jurisdictional Determinations

5a. Have the wetlands or streams been delineated on the property or proposed impact areas? \*

☒ Yes ☐ No ☐ Unknown

Comments:

No wetlands were identified

5b. If the Corps made a jurisdictional determination, what type of determination was made? \*

☐ Preliminary ☐ Approved ☒ Not Verified ☐ Unknown ☐ N/A

Corps AID Number:

Example: SAW-2017-99999

5c. If 5a is yes, who delineated the jurisdictional areas?

Name (if known): Tyler Stanton

Agency/Consultant Company: NCDOT

Other:

5d1. Jurisdictional determination upload

Click the upload button or drag and drop files here to attach document

File type must be PDF

6. Future Project Plans

6a. Is this a phased project? \*

☐ Yes ☒ No

Are any other NWP(s), regional general permit(s), or individual permits(s) used, or intended to be used, to authorize any part of the proposed project or related activity? This includes other separate and distant crossing for linear projects that require Department of the Army authorization but don't require pre-construction notification.

D. Proposed Impacts Inventory

1. Impacts Summary

1a. Where are the impacts associated with your project? (check all that apply):

☐ Wetlands ☒ Streams-tributaries ☒ Buffers  
☐ Open Waters ☐ Pond Construction

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.

"S." will be used in the table below to represent the word "stream".

	3a. Reason for impact * (?)	3b.Impact type *	3c. Type of impact *	3d. S. name *	3e. Stream Type * (?)	3f. Type of Jurisdiction *	3g. S. width *  Average (feet)	3h. Impact length *  (linear feet)
S1	Ditch outfall/riprap	Permanent	Rip Rap Fill	Johnson Mill Run	Perennial	Both	25 Average (feet)	19 (linear feet)
S2	Ditch outfall/riprap	Temporary	Rip Rap Fill	Johnson Mill Run	Perennial	Both	25 Average (feet)	43 (linear feet)

\*\* All Perennial or Intermittent streams must be verified by DWR or delegated local government.

3i. Total jurisdictional ditch impact in square feet:

0

3i. Total permanent stream impacts:

19

3i. Total temporary stream impacts:

43

3i. Total stream and ditch impacts:

62

3j. Comments:

6. Buffer Impacts (for DWR)

If project will impact a protected riparian buffer, then complete the chart below. Individually list all buffer impacts below.

6a. Project is in which protect basin(s)? \*

Check all that apply.

- ☐ Neuse  
☐ Catawba  
☐ Goose Creek  
☐ Other

- ☒ Tar-Pamlico  
☐ Randleman  
☐ Jordan Lake

6b. Impact Type <sup>*</sup> (?)	6c. Per or Temp <sup>*</sup> (?)	6d. Stream name <sup>*</sup>	6e. Buffer mitigation required? <sup>*</sup>	6f. Zone 1 impact <sup>*</sup>	6g. Zone 2 impact <sup>*</sup>
Bridge-Allowable	P	Johnson Mill Run	No	1,642 (square feet)	1,589 (square feet)
Bridge (Utility)-Allowable	P	Johnson Mill Run	No	782 (square feet)	477 (square feet)

## 6h. Total buffer impacts:

	Zone 1	Zone 2
Total Temporary impacts:	0.00	0.00

	Zone 1	Zone 2
Total Permanent impacts:	2,424.00	2,066.00

	Zone 1	Zone 2
Total combined buffer impacts:	2,424.00	2,066.00

### 6i. Comments:

Bridge buffer impacts are due to the conversion of previous stormwater ditches to riprap swales in all four quadrants. An additional impact is attributed to a utility easement on eastside of bridge.

### Supporting Documentation - i.e. Impact Maps, Plan Sheet, etc.

Click the upload button or drag and drop files here to attach document  
File must be PDF

## E. Impact Justification and Mitigation

### 1. Avoidance and Minimization

#### 1a. Specifically describe measures taken to avoid or minimize the proposed impacts in designing the project:<sup>\*</sup>

The bridge will be replaced on the existing alignment. The proposed bridge will have no direct discharge into Johnson Mill Run. See the stormwater management plan for additional measures.

#### 1b. Specifically describe measures taken to avoid or minimize the proposed impacts through construction techniques:<sup>\*</sup>

An off-site detour will be used during construction. NCDOT's Design Standards for Sensitive Watersheds will be adhered to.

### 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

#### 2b. If this project DOES NOT require Compensatory Mitigation, explain why:

Impacts are deemed minimal and compensatory mitigation is not proposed.

NC Stream Temperature Classification Maps can be found under the Mitigation Concepts tab on the Wilmington District's [RIBITS](#) website.

## F. Stormwater Management and Diffuse Flow Plan (required by DWR)

\*\*\* Recent changes to the stormwater rules have required updates to this section .\*\*\*

### 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. All buffer impacts and high ground impacts require diffuse flow or other form of stormwater treatment. If the project is subject to a state implemented riparian buffer protection program, include a plan that fully documents how diffuse flow will be maintained.

All Stormwater Control Measures (SCM)s must be designed in accordance with the [NC Stormwater Design Manual](#). Associated supplement forms and other documentation shall be provided.

What type of SCM are you providing?

- ☐ Level Spreader
- ☐ Vegetated Conveyance (lower SHWT)
- ☒ Wetland Swale (higher SHWT)
- ☐ Other SCM that removes minimum 30% nitrogen
- ☐ Proposed project will not create concentrated stormwater flow through the buffer  
(check all that apply)

For a list of options to meet the diffuse flow requirements, click [here](#).

#### Diffuse Flow Documentation

Click the upload button or drag and drop files here to attach document

File type must be PDF

## 2. Stormwater Management Plan

2a. Is this a NCDOT project subject to compliance with NCDOT's Individual NPDES permit NCS000250? \*

☒ Yes ☐ No

Comments:

## G. Supplementary Information



### 1. Environmental Documentation

1a. Does the project involve an expenditure of public (federal/state/local) funds or the use of public (federal/state) land? \*

☒ Yes ☐ No

1b. If you answered "yes" to the above, does the project require preparation of an environmental document pursuant to the requirements of the National or State (North Carolina) Environmental Policy Act (NEPA/SEPA)? \*

☒ Yes ☐ No

1c. If you answered "yes" to the above, has the document review been finalized by the State Clearing House? (If so, attach a copy of the NEPA or SEPA final approval letter.) \*

☒ Yes ☐ No

#### NEPA or SEPA Final Approval Letter

Click the upload button or drag and drop files here to attach document

FILETYPE MUST BE PDF

### 2. Violations (DWR Requirement)

2a. Is the site in violation of DWR Water Quality Certification Rules (15A NCAC 2H .0500), Isolated Wetland Rules (15A NCAC 2H .1300), or DWR Surface Water or Wetland Standards or Riparian Buffer Rules (15A NCAC 2B .0200)? \*

☐ Yes ☒ No

### 3. Cumulative Impacts (DWR 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 "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 (DWR Requirement)

4a. Is sewage disposal required by DWR for this project? \*

☐ Yes ☐ No ☒ NA

### 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

5d. Is another Federal agency involved? \*

☐ Yes ☒ No

☐ Unknown

5e. Is this a DOT project located within Division's 1-8? \*

☒ Yes ☐ No

**5j. What data sources did you use to determine whether your site would impact Endangered Species or Designated Critical Habitat? \***

N.C. Natural Heritage Program database; USFWS-Raleigh Field Office website; biological surveys for protected species listed for Pitt County, which include Tar River spiny mussel, yellow lance, dwarf wedgemussel, and red-cockaded woodpecker. All current listed species received biological conclusions of "No Effect" with the exception of the Northern long-eared bat which received a biological conclusion of "May Affect, Likely to Adversely Affect". The Atlantic pigtoe has been proposed for federal listing. Updated aquatic surveys are currently underway to determine potential impacts to the proposed species. If it is determined that the project would negatively impact the Atlantic pigtoe, NCDOT proposes to use the programmatic biological opinion for freshwater mussels to satisfy Section 7. The NLEB has been addressed via the programmatic biological opinion for that species.

**Consultation Documentation Upload**

Click the upload button or drag and drop files here to attach document

File type must be PDF

**6. Essential Fish Habitat (Corps Requirement)**

**6a. Will this project occur in or near an area designated as an Essential Fish Habitat? \***

☐ Yes

☒ No

**6b. What data sources did you use to determine whether your site would impact an Essential Fish Habitat? \***

NMFS county index

**7. Historic or Prehistoric Cultural Resources (Corps Requirement)**

Link to the State Historic Preservation Office Historic Properties Map (does not include archaeological data: <http://gis.ncdcr.gov/hpoweb/>)

**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

**7c. Historic or Prehistoric Information Upload**

Click the upload button or drag and drop files here to attach document

File must be PDF

**8. Flood Zone Designation (Corps Requirement)**

Link to the FEMA Floodplain Maps: <https://msc.fema.gov/portal/search>

**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

**Miscellaneous**



**Comments**

**Miscellaneous attachments not previously requested.**

Click the upload button or drag and drop files here to attach document

File must be PDF or KMZ

**Signature**



\*

☒ By checking the box and signing below, I certify that:

- ☐ I have given true, accurate, and complete information on this form;
- ☐ I agree that submission of this PCN form is a "transaction" subject to Chapter 66, Article 40 of the NC General Statutes (the "Uniform Electronic Transactions Act");
- ☐ I agree to conduct this transaction by electronic means pursuant to Chapter 66, Article 40 of the NC General Statutes (the "Uniform Electronic Transactions Act");
- ☐ I understand that an electronic signature has the same legal effect and can be enforced in the same way as a written signature; AND
- ☐ I intend to electronically sign and submit the PCN form.

**Full Name: \***

Mack Christopher Rivenbark III

**Signature**

Mack C Rivenbark, III

Date

10/30/2019





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



(Version 2.08; Released April 2018)

WBS Element: 17BP.2.R.92 TIP No.: County(ies): Pitt Page 1 of 1

General Project Information

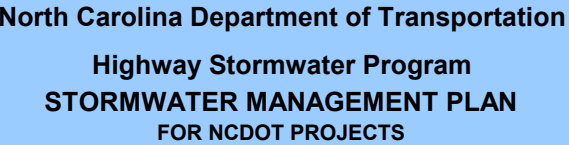
WBS Element:	17BP.2.R.92	TIP Number:		Project Type:	Bridge Replacement	Date:	1/18/2019
NCDOT Contact:	William (Galen) G. Cail, PE			Contractor / Designer:	TGS Engineers (Ben Henegar, PE)		
	Address:	1590 Mail Service Center Raleigh, NC 27699-1590			Address:	706 Hillsborough Street Suite 200 Raleigh, NC 27603	
	Phone:	919-707-6711			Phone:	919-773-8887 ext. 123	
	Email:	gcail@ncdot.gov			Email:	bhenegar@tgsengineers.com	
City/Town:	Greenville			County(ies):	Pitt		
River Basin(s):	Tar-Pamlico			CAMA County?	No		
Wetlands within Project Limits?	No						

Project Description

Project Length (lin. miles or feet):	0.111 Mi.	Surrounding Land Use:	Forest, Cropland, and Rural Residential					
	Proposed Project		Existing Site					
Project Built-Up Area (ac.)	0.4	ac.	0.3	ac.				
Typical Cross Section Description:	Two 11' paved travel lanes with 2' paved shoulders and 2' grassed shoulders (5' with guardrail).		Two 11' paved travel lanes with 3'-10' grassed shoulders.					
Annual Avg Daily Traffic (veh/hr/day):	Design/Future:	500	Year:	2035	Existing:	430	Year:	2018
General Project Narrative: (Description of Minimization of Water Quality Impacts)	<p>Replacement of Bridge No. 730171 on SR 1418 (Staton House Rd.) over Johnsons Mill Run in Pitt County, NC. The proposed 85' long by 33' wide two-span bridge would replace the existing 53' long by 28' wide three span bridge. The proposed grade will be about 0.5' above existing ground within the vicinity of the bridge and roughly matching existing ground outside of the bridge.</p> <p>Bridge No. 730171 is within the Tar-Pamlico River Drainage Basin and shall adhere to the Tar-Pamlico Buffer Rules. The proposed bridge will have no direct discharge into Johnsons Mill Run. Stormwater runoff from the proposed bridge will flow to two traffic bearing grated inlets at the downgrade end of the bridge and outlet into a proposed grass swale outside buffer zone 2 in the southwest quadrant of the crossing.</p> <p>There are existing corrugated steel drive pipes that outlet directly in Johnsons Mill Run in all four quadrants. The proposed bridge construction will conflict with these pipes and existing ditches. The ditches will be moved outside the bridge construction and the drive pipes will be removed and replaced with class 'I' rip-rap at embankment. It was determined that the rip-rap at embankment would be a better option for long-term maintenance in lieu of replacing the pipes because of future drainage district maintenance.</p>							

Waterbody Information

Surface Water Body (1):	Johnsons Mill Run		NCDWR Stream Index No.:	28-91		
NCDWR Surface Water Classification for Water Body	Primary Classification:	Water Supply IV (WS-IV)				
	Supplemental Classification:	Nutrient Sensitive Waters (NSW)				
Other Stream Classification:						
Impairments:	None					
Aquatic T&E Species?	No	Comments:				
NRTR Stream ID:	N/A			Buffer Rules in Effect:	Tar-Pamlico	
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)						



**(Version 2.08; Released April 2018)**

<b>WBS Element:</b> 17BP.2.R.92	<b>TIP No.:</b>	<b>County(ies):</b> Pitt	<b>Page</b>	<b>2</b>	<b>of</b>	<b>2</b>
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## Swales

[illegible]

### Additional Comments

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	17BP.2.R.92	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
17BP.2.R.92	N/A	PE	
17BP.2.R.92	N/A	RW, UTIL	
17BP.2.R.92	N/A	CONST.	

PERMIT DRAWING  
SHEET 1 OF 5

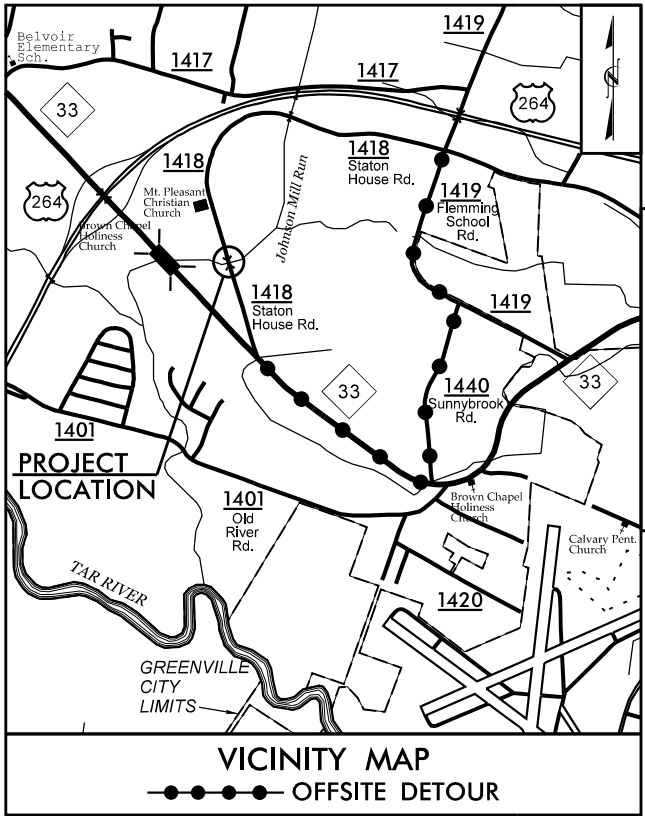
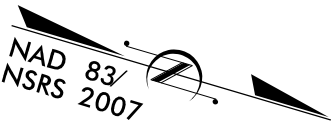
STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

PITT COUNTY

LOCATION: BRIDGE NO. 171 OVER JOHNSON MILL RUN  
ON SR 1418 (STATON HOUSE ROAD)

TYPE OF WORK: GRADING, DRAINAGE, STRUCTURE AND PAVING

WETLAND AND SURFACE WATER IMPACTS



BEGIN STATE PROJECT 17BP.2.R.92  
-L- STA. 10 + 65.00

BEGIN BRIDGE  
-L- STA. 13 + 34.63

END BRIDGE  
-L- STA. 14 + 22.37

END STATE PROJECT 17BP.2.R.92  
-L- STA. 16 + 61.00

TO NC 33  
(BELVOIR HWY.)

-L- SR 1418

(STATON HOUSE ROAD)

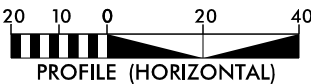
TO SR 1419  
(FLEMMING SCHOOL RD.)

SITE 1

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

DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED

GRAPHIC SCALES



DESIGN DATA

ADT 2020 = 440  
ADT 2040 = 520  
DHV = 12%  
D = 55%  
T = 15%  
V = 60 MPH  
\* TTST = 4 % DUAL = 11 %  
FUNC CLASS =  
LOCAL RURAL  
SUB-REGIONAL TIER

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT 17BP.2.R.92 = 0.096 mile  
LENGTH STRUCTURES TIP PROJECT 17BP.2.R.92 = 0.017 mile  
TOTAL LENGTH TIP PROJECT 17BP.2.R.92 = 0.113 mile

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



TGS ENGINEERS  
706 HILLSBOROUGH ST.  
SUITE 200  
RALEIGH, NC 27603

By:  
PH (919) 733-8887  
CORP. LICENSE NO.:  
C-0275

2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:  
OCTOBER 9, 2019

LETTING DATE:  
MARCH 17, 2020

V. MARCUS LOWERY, PE  
PROJECT ENGINEER

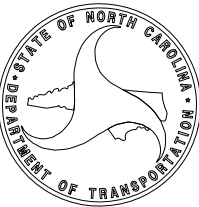
DAVID STUTTS, PE  
NCDOT CONTACT

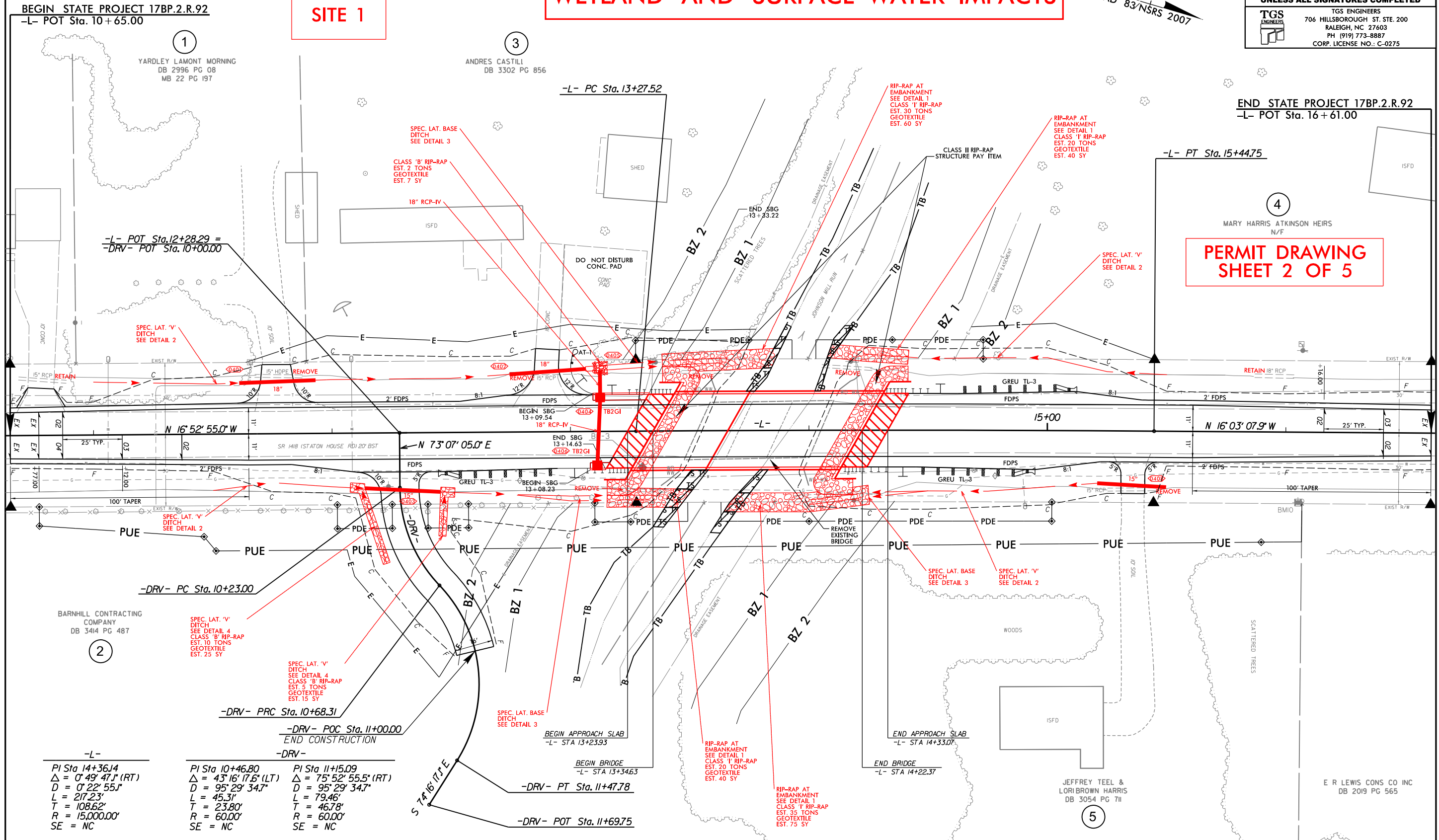
HYDRAULICS ENGINEER

SIGNATURE: \_\_\_\_\_ P.E.

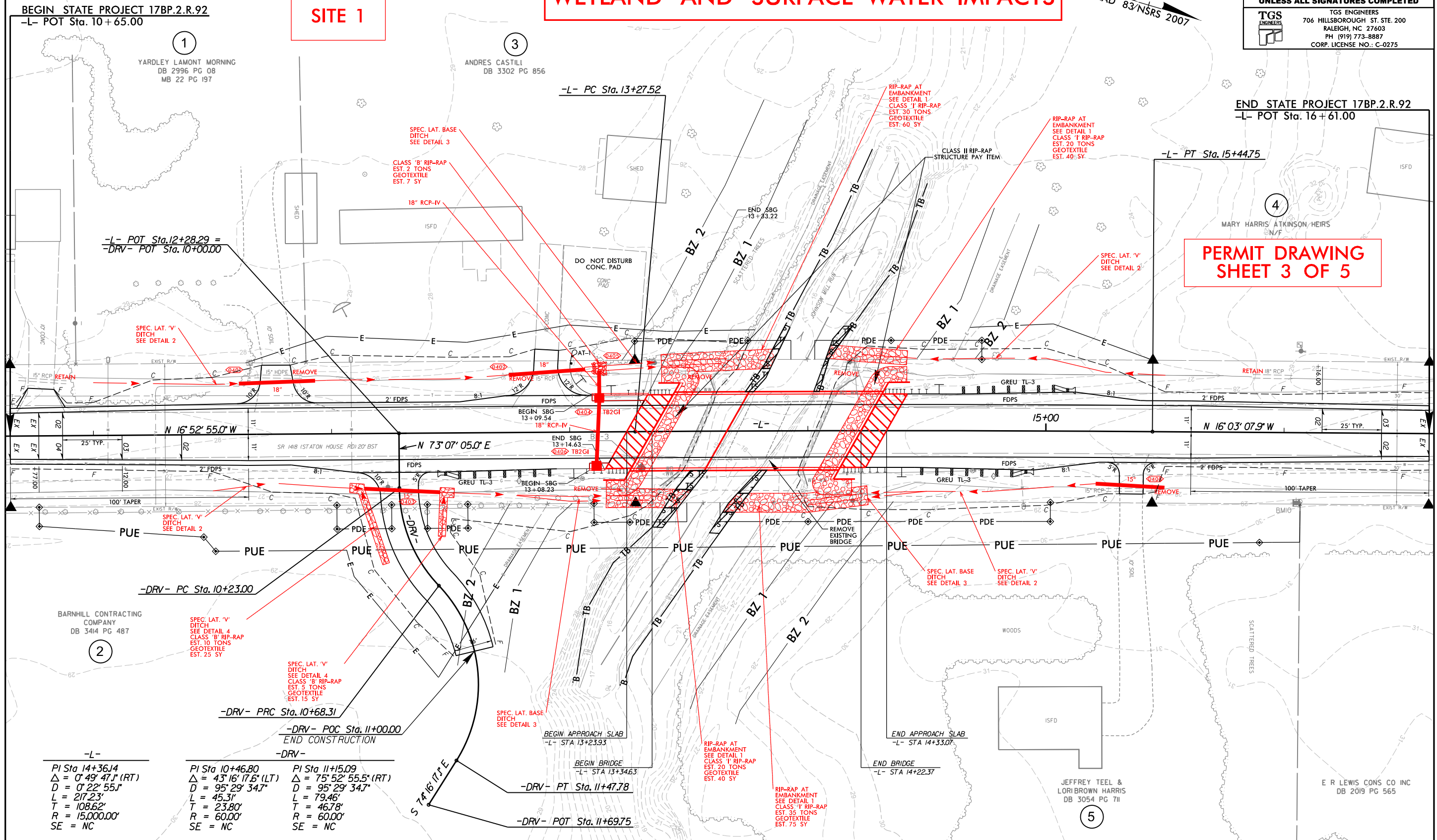
ROADWAY DESIGN  
ENGINEER

SIGNATURE: \_\_\_\_\_ P.E.










**-L-**  
**SR 1418**


**TGS ENGINEERS**  
 706 HILLSBOROUGH ST., SUITE 200  
 RALEIGH, NC 27603  
 PH. (919) 773-8887  
 CORP. LICENSE NO.: C-0275

PROJECT REFERENCE NO.	SHEET NO.
17BP 2R.92	05
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<p align="center"><b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b></p>	

PERMIT DRAWING  
SHEET 4 OF 5

BRIDGE HYDRAULIC DATA

DESIGN DISCHARGE	=	1500	CFS
DESIGN FREQUENCY	=	25	YRS
DESIGN HW ELEVATION	=	26.0	FT
BASE DISCHARGE	=	2620	CFS
BASE FREQUENCY	=	100	YRS
BASE HW ELEVATION	=	28.6	FT
OVERTOPPING DISCHARGE	=	1800	CFS
OVERTOPPING FREQUENCY	=	50 +/-	YRS
OVERTOPPING ELEVATION	=	27.2	FT

DATE OF SURVEY = 9/6/2018  
W.S.ELEVATION  
AT DATE OF SURVEY = 16.5

FOR -L- PLAN SEE SHEET 04

**-L-**  
**SR 1418**

***-DRV-***

$$\begin{aligned} PI &= 10 + 30.00 \\ EL &= 27.40' \\ VC &= 20' \\ K &= 10 \end{aligned}$$
$$\begin{aligned} PI &= 10+60.00 \\ EL &= 28.88' \\ VC &= 40' \\ K &= 7 \end{aligned}$$

BM#10 ELEVATION=31.09'  
N=698013' E=2474157'  
-L- STA 16+05 30' RT  
RR SPIKE IN POWER POLE

FOR -L- PLAN SEE SHEET 04

FOR -DRV- PLAN SEE SHEET 04

## WETLAND AND SURFACE WATER IMPACTS 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	-L- 13+74 to 14+19 LT	1@30', 1@55' Cored Slab						< 0.01	< 0.01	9	21	
1	-L- 13+35 to 13+83 RT	1@30', 1@55' Cored Slab						< 0.01	< 0.01	10	22	
TOTALS*:								< 0.01	< 0.01	19	43	0

\*Rounded totals are sum of actual impacts

NOTES:

NC DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
9/16/2019  
PITT COUNTY  
17BP.2.R.92

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	17BP.2.R.92	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
17BP.2.R.92	N/A	PE	
17BP.2.R.92	N/A	RW, UTIL	
17BP.2.R.92	N/A	CONST.	

PERMIT DRAWING  
SHEET 1 OF 6

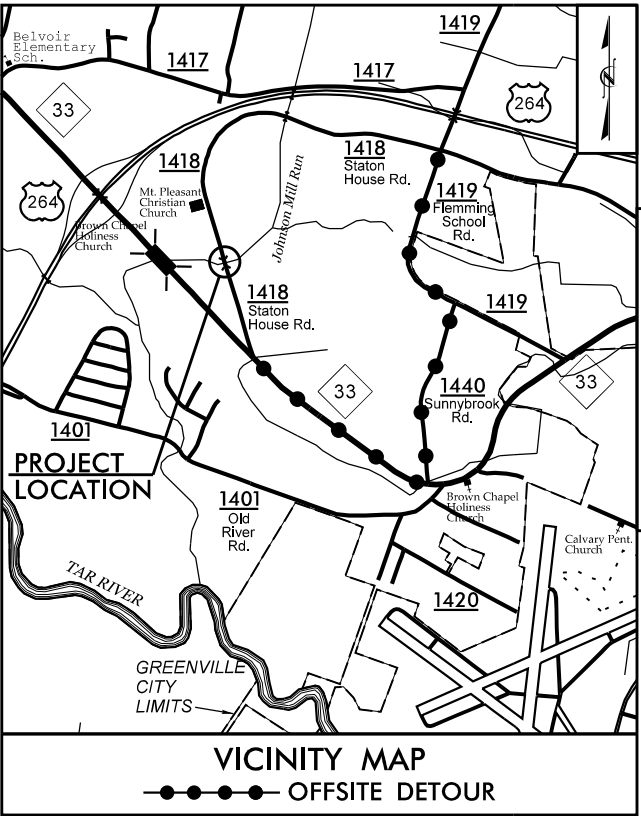
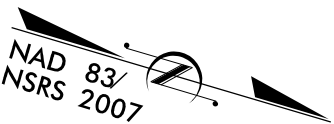
STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

PITT COUNTY

LOCATION: BRIDGE NO. 171 OVER JOHNSON MILL RUN  
ON SR 1418 (STATON HOUSE ROAD)

TYPE OF WORK: GRADING, DRAINAGE, STRUCTURE AND PAVING

BUFFER IMPACTS



BEGIN STATE PROJECT 17BP.2.R.92  
-L- STA. 10 + 65.00

BEGIN BRIDGE  
-L- STA. 13 + 34.63

END BRIDGE  
-L- STA. 14 + 22.37

END STATE PROJECT 17BP.2.R.92  
-L- STA. 16 + 61.00

TO NC 33  
(BELVOIR HWY.)

-L- SR 1418

(STATON HOUSE ROAD)

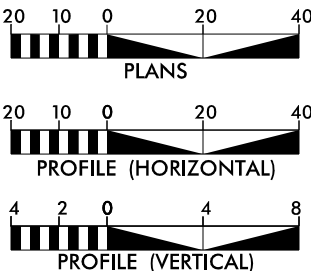
TO SR 1419  
(FLEMMING SCHOOL RD.)

SITE 1

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

DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED

GRAPHIC SCALES



DESIGN DATA

ADT 2020 = 440  
ADT 2040 = 520  
DHV = 12%  
D = 55%  
T = 15%  
V = 60 MPH  
\* TTST = 4 % DUAL = 11 %  
FUNC CLASS =  
LOCAL RURAL  
SUB-REGIONAL TIER

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT 17BP.2.R.92 = 0.096 mile  
LENGTH STRUCTURES TIP PROJECT 17BP.2.R.92 = 0.017 mile  
TOTAL LENGTH TIP PROJECT 17BP.2.R.92 = 0.113 mile

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



TGS ENGINEERS  
706 HILLSBOROUGH ST.  
SUITE 200  
RALEIGH, NC 27603

By:  
PH (919) 733-8887  
CORP. LICENSE NO.:  
C-0275

2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:  
OCTOBER 9, 2019

LETTING DATE:  
MARCH 17, 2020

V. MARCUS LOWERY, PE  
PROJECT ENGINEER

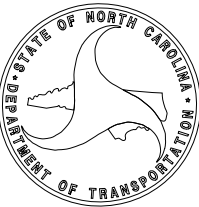
DAVID STUTTS, PE  
NCDOT CONTACT

HYDRAULICS ENGINEER

SIGNATURE: \_\_\_\_\_ P.E.

ROADWAY DESIGN  
ENGINEER

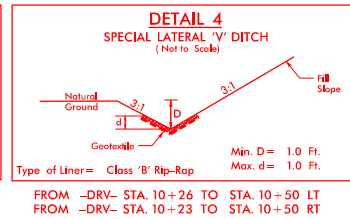
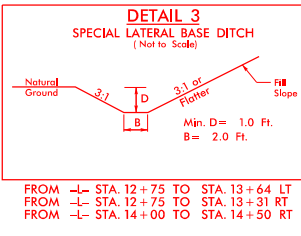
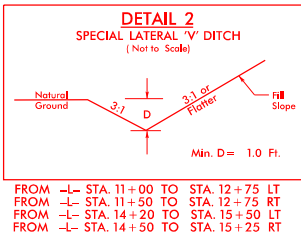
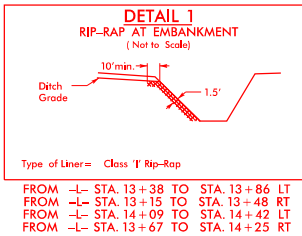
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ALLOWABLE IMPACTS ZONE 1

ALLOWABLE IMPACTS ZONE 2



PROJECT REFERENCE NO.	SHEET NO.
17BP.2.R.92	04
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
TGS ENGINEERS	TGS ENGINEERS
706 HILLSBOROUGH ST. STE. 200	706 HILLSBOROUGH ST. STE. 200
RALEIGH, NC 27603	RALEIGH, NC 27603
PH (919) 773-8887	PH (919) 773-8887
CORP. LICENSE NO.: C-0275	CORP. LICENSE NO.: C-0275

BEGIN STATE PROJECT 17BP.2.R.92  
-L- POT Sta. 10+65.00

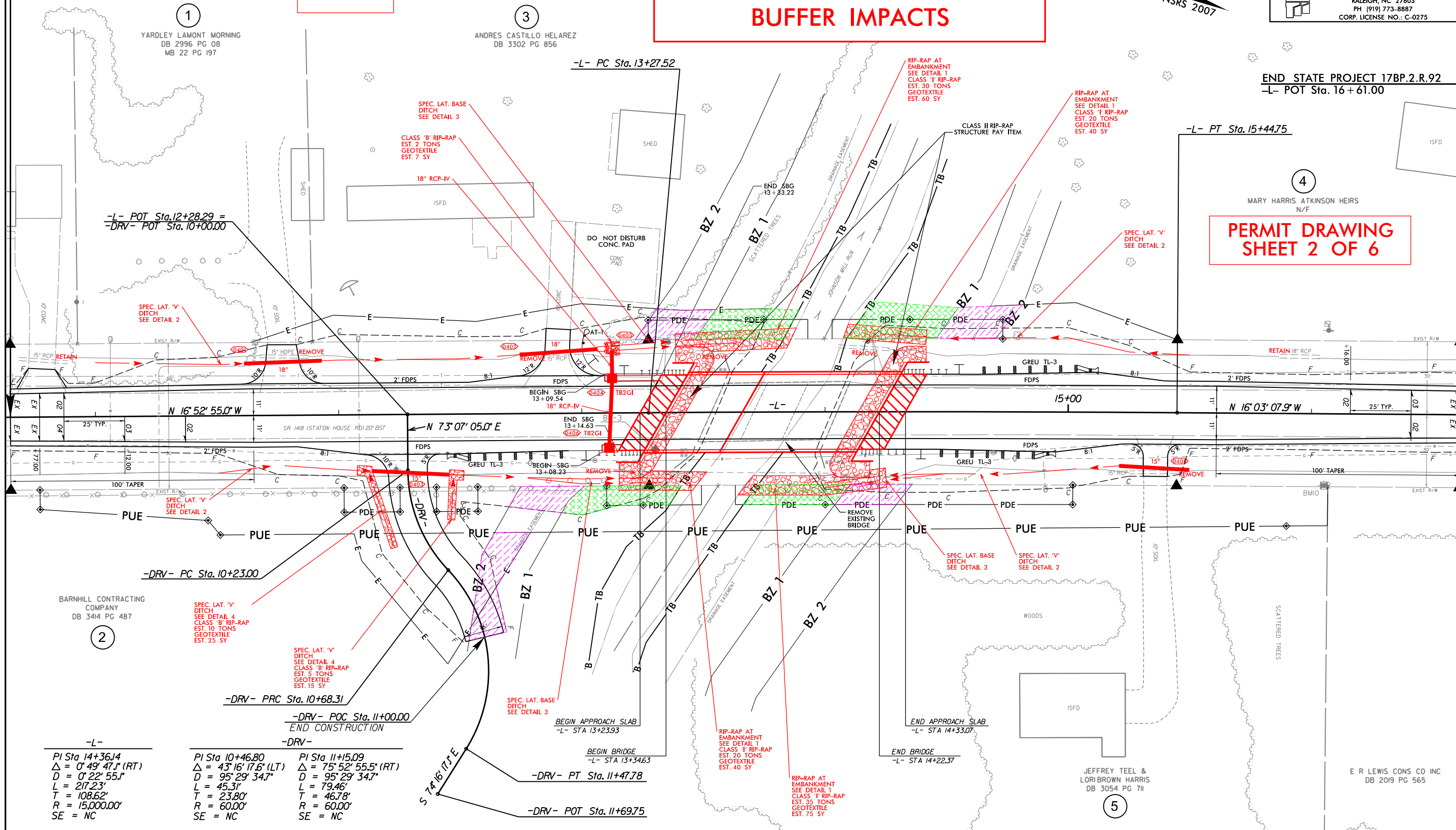
SITE 1

BUFFER IMPACTS

NAD 83/NSRS 2007

END STATE PROJECT 17BP.2.R.92  
-L- POT Sta. 16+61.00

PERMIT DRAWING  
SHEET 2 OF 6



BARNHILL CONTRACTING  
COMPANY  
DB 3414 PG 487

JEFFREY TEEL &  
LORIBROWN HARRIS  
DB 3054 PG 711

E R LEWIS CONS CO INC  
DB 2019 PG 565







RIPARIAN BUFFER IMPACTS SUMMARY													
			IMPACTS									BUFFER REPLACEMENT	
Site No.	Station (From/To)	Structure Size / Type	TYPE			ALLOWABLE			MITIGABLE				
			ROAD CROSSING	BRIDGE	PARALLEL IMPACT	ZONE 1 (ft²)	ZONE 2 (ft²)	TOTAL (ft²)	ZONE 1 (ft²)	ZONE 2 (ft²)	TOTAL (ft²)	ZONE 1 (ft²)	ZONE 2 (ft²)
1	-L- 13+20 to 13+90 LT	1@30', 1@55' Cored Slab		x		432	300	732					
1	-L- 14+10 to 14+80 LT	1@30', 1@55' Cored Slab		x		509	328	837					
1	-L- 12+50 to 13+40 RT	1@30', 1@55' Cored Slab		x		389	747	1136					
1	-L- 13+65 to 14+35 RT	1@30', 1@55' Cored Slab		x		312	214	526					
TOTALS*:						1642	1589	3231	0	0	0	0	0

NOTES:  
Total Buffer Impacts = 0.08 Ac.

NC DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
9/16/2019  
PITT COUNTY  
17BP.2.R.92  
  
SHEET 5 OF 6

WETLANDS IN BUFFER IMPACTS SUMMARY

			WETLANDS IN BUFFERS	
SITE NO.	STATION (FROM/TO)		ZONE 1 (ft²)	ZONE 2 (ft²)
			0	0
TOTAL:			0	0

NOTES:  
No wetlands in buffer impacts at site.

NC DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
9/16/2019  
PITT COUNTY  
17BP.2.R.92

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	17BP.2.R.92	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
17BP.2.R.92	N/A	PE	
17BP.2.R.92	N/A	RW, UTIL	
17BP.2.R.92	N/A	CONST.	

PERMIT DRAWING  
SHEET 1 OF 6

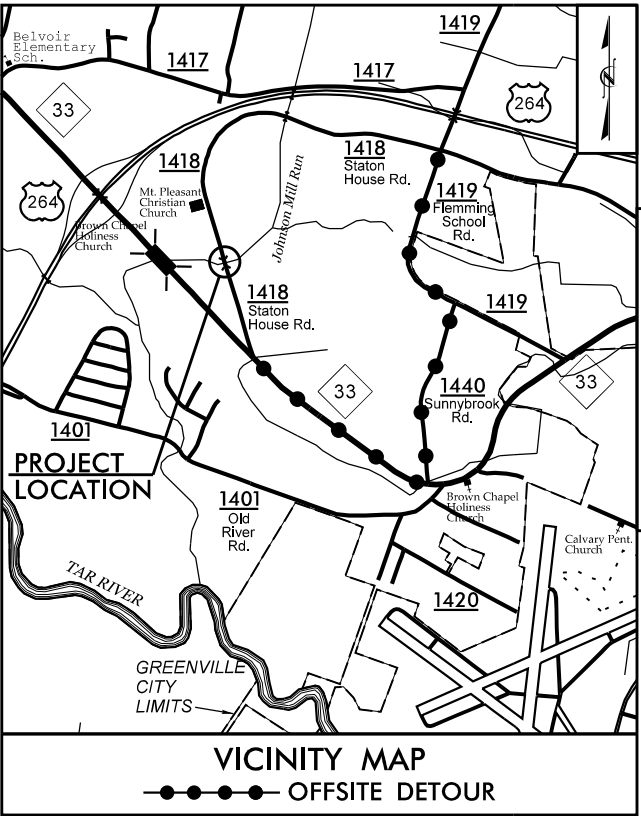
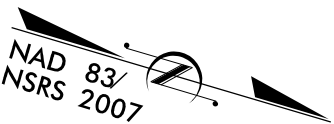
STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

PITT COUNTY

LOCATION: BRIDGE NO. 171 OVER JOHNSON MILL RUN  
ON SR 1418 (STATON HOUSE ROAD)

TYPE OF WORK: GRADING, DRAINAGE, STRUCTURE AND PAVING

BUFFER IMPACTS



BEGIN STATE PROJECT 17BP.2.R.92  
-L- STA. 10 + 65.00

BEGIN BRIDGE  
-L- STA. 13 + 34.63

END BRIDGE  
-L- STA. 14 + 22.37

END STATE PROJECT 17BP.2.R.92  
-L- STA. 16 + 61.00

TO NC 33  
(BELVOIR HWY.)

-L- SR 1418

(STATON HOUSE ROAD)

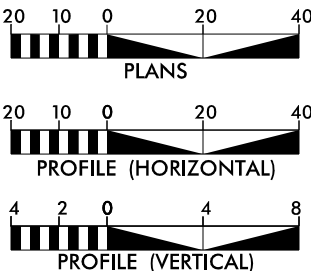
TO SR 1419  
(FLEMMING SCHOOL RD.)

SITE 1

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GRAPHIC SCALES



DESIGN DATA

ADT 2020 = 440  
ADT 2040 = 520  
DHV = 12%  
D = 55%  
T = 15%  
V = 60 MPH  
\* TTST = 4 % DUAL = 11 %  
FUNC CLASS =  
LOCAL RURAL  
SUB-REGIONAL TIER

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT 17BP.2.R.92 = 0.096 mile  
LENGTH STRUCTURES TIP PROJECT 17BP.2.R.92 = 0.017 mile  
TOTAL LENGTH TIP PROJECT 17BP.2.R.92 = 0.113 mile

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



TGS ENGINEERS  
706 HILLSBOROUGH ST.  
SUITE 200  
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By:  
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CORP. LICENSE NO.:  
C-0275

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PROJECT ENGINEER

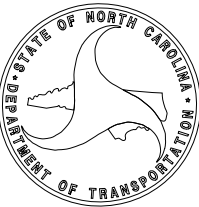
DAVID STUTTS, PE  
NCDOT CONTACT

HYDRAULICS ENGINEER

SIGNATURE: \_\_\_\_\_ P.E.

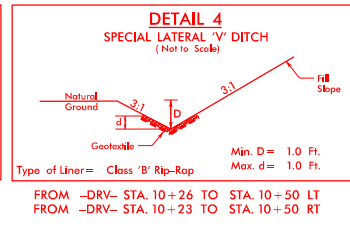
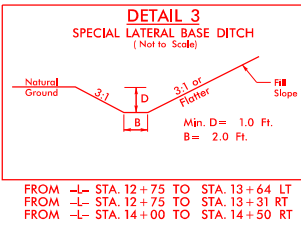
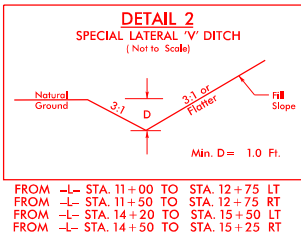
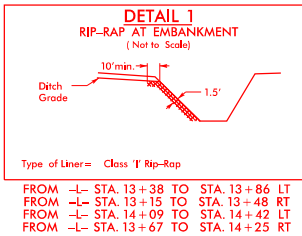
ROADWAY DESIGN  
ENGINEER

SIGNATURE: \_\_\_\_\_ P.E.

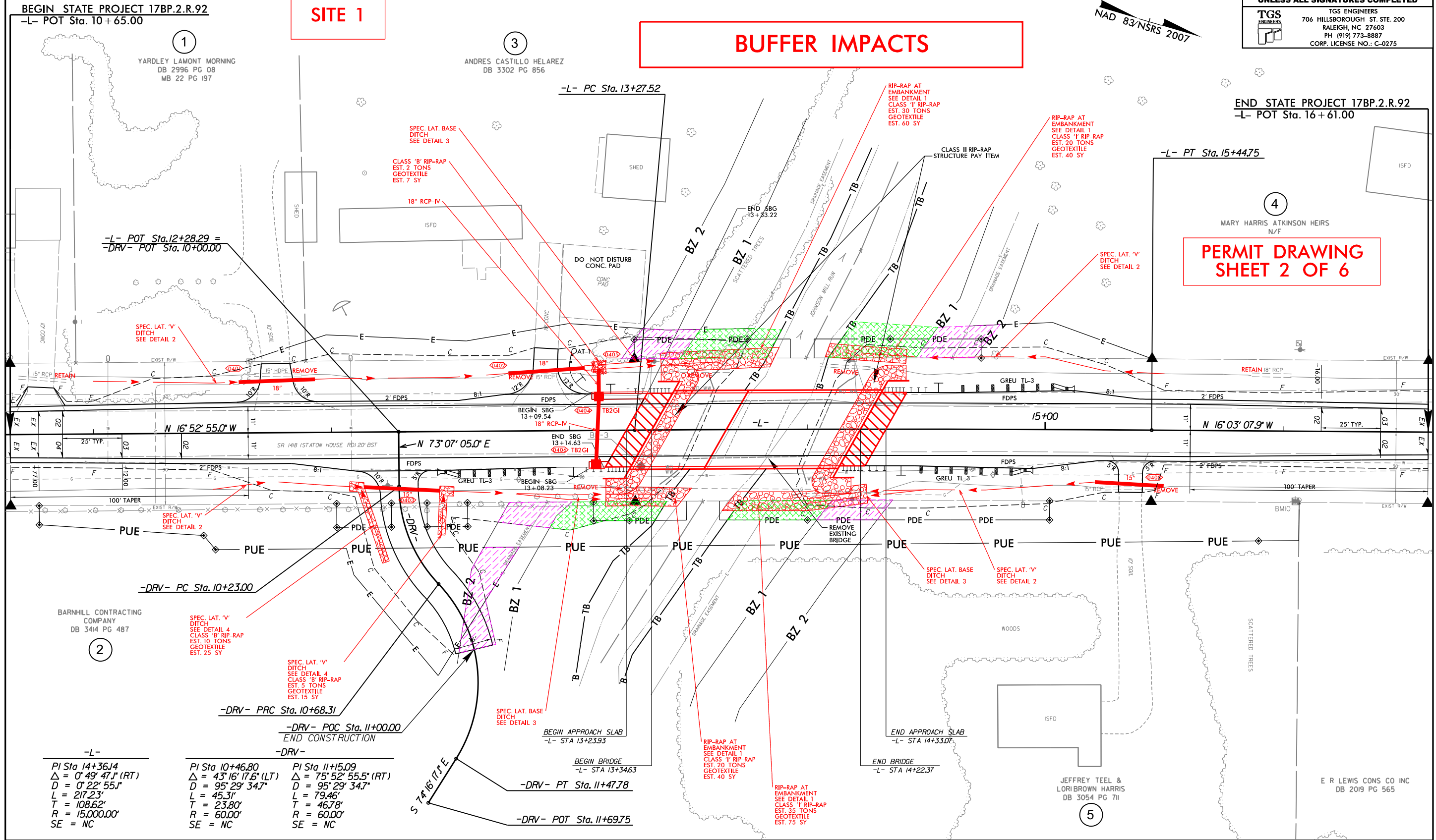


ALLOWABLE IMPACTS ZONE 1

ALLOWABLE IMPACTS ZONE 2



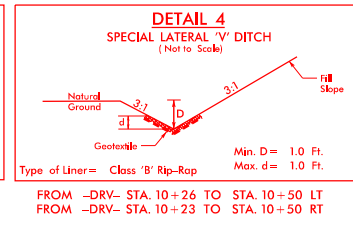
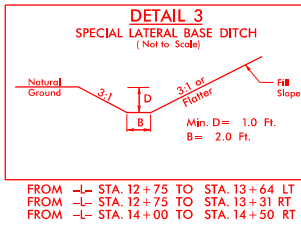
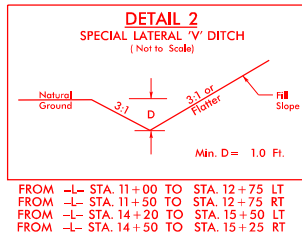
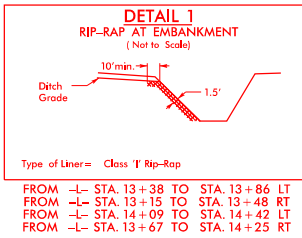
PROJECT REFERENCE NO.	SHEET NO.
17BP.2.R.92	04
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
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TGS ENGINEERS	TGS ENGINEERS
706 HILLSBOROUGH ST. STE. 200	706 HILLSBOROUGH ST. STE. 200
RALEIGH, NC 27603	RALEIGH, NC 27603
PH (919) 773-8887	PH (919) 773-8887
CORP. LICENSE NO.: C-0275	CORP. LICENSE NO.: C-0275



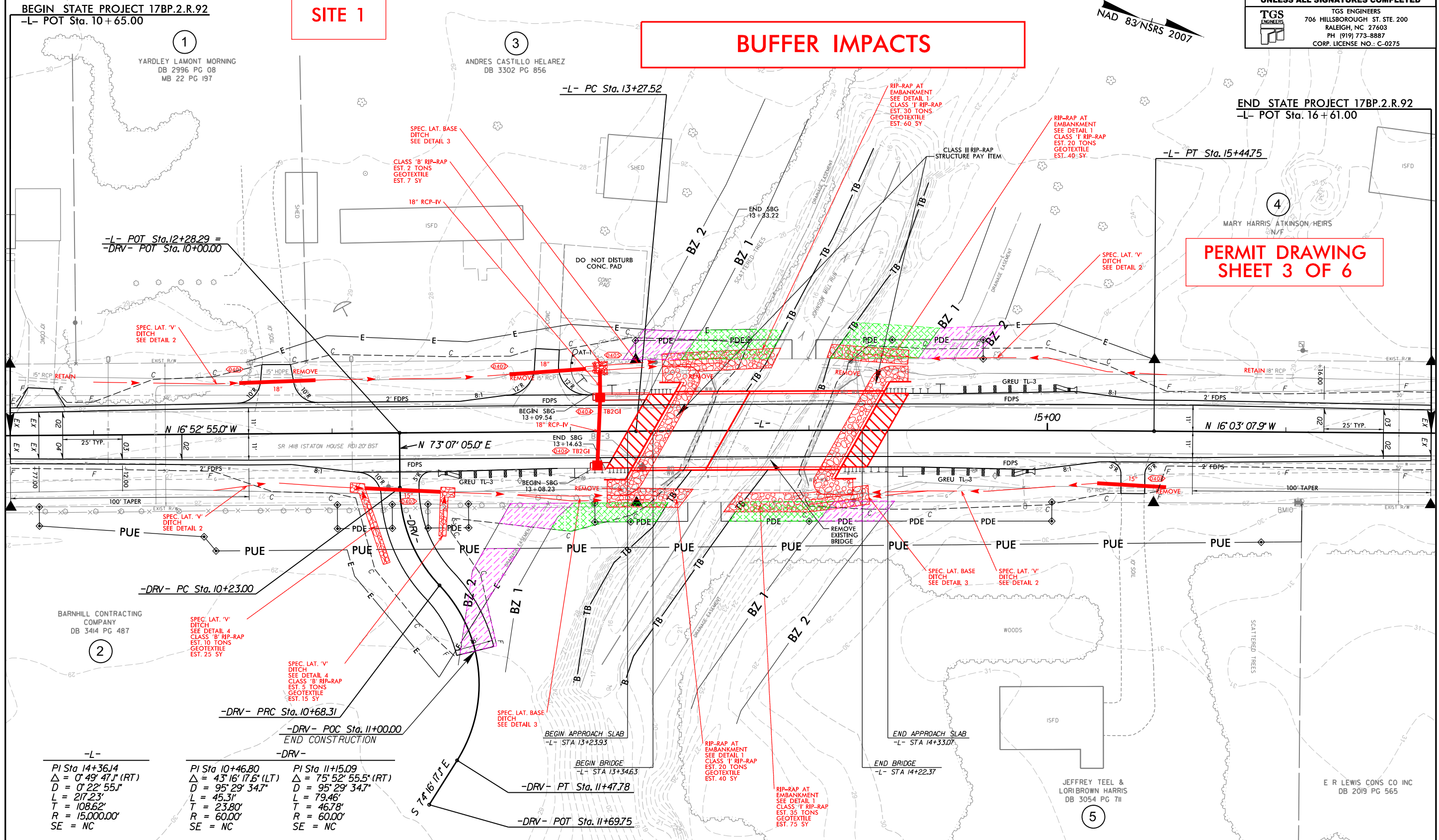


ALLOWABLE IMPACTS ZONE 1

ALLOWABLE IMPACTS ZONE 2



PROJECT REFERENCE NO.	SHEET NO.
17BP.2.R.92	04
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
TGS ENGINEERS	TGS ENGINEERS
706 HILLSBOROUGH ST. STE. 200	706 HILLSBOROUGH ST. STE. 200
RALEIGH, NC 27603	RALEIGH, NC 27603
PH (919) 773-8887	PH (919) 773-8887
CORP. LICENSE NO.: C-0275	CORP. LICENSE NO.: C-0275





**-L-**  
**SR 1418**

**TGS ENGINEERS**  
 706 HILLSBOROUGH ST., SUITE 200  
 RALEIGH, NC 27603  
 PH (919) 773-8887  
 CORP. LICENSE NO.: C-0275

**EXISTING GROUND** \_\_\_\_\_  
**PROPOSED GRADE** \_\_\_\_\_  
**LEFT DITCH GRADE** - - - - -  
**RIGHT DITCH GRADE** - - - - -

PROJECT REFERENCE NO.	SHEET NO.
17BP 2R92	05
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<p><b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b></p>	

PERMIT DRAWING  
SHEET 4 OF 6

BRIDGE HYDRAULIC DATA

DESIGN DISCHARGE	= 1500	CFS
DESIGN FREQUENCY	= 25	YRS
DESIGN HW ELEVATION	= 26.0	FT
BASE DISCHARGE	= 2620	CFS
BASE FREQUENCY	= 100	YRS
BASE HW ELEVATION	= 28.6	FT
OVERTOPPING DISCHARGE	= 1800	CFS
OVERTOPPING FREQUENCY	= 50 +/-	YRS
OVERTOPPING ELEVATION	= 27.2	FT

DATE OF SURVEY = 9/6/2018  
W.S.ELEVATION  
AT DATE OF SURVEY = 16.5

FOR -L- PLAN SEE SHEET 04

**-L-**  
**SR 1418**

***-DRV-***

$$\begin{aligned} PI &= 10 + 30.00 \\ EL &= 27.40' \\ VC &= 20' \\ K &= 10 \end{aligned}$$
$$\begin{aligned} PI &= 10+60.00 \\ EL &= 28.88' \\ VC &= 40' \\ K &= 7 \end{aligned}$$

BM#10 ELEVATION=31.09'  
N=698013' E=2474157'  
-L- STA 16+05 30' RT  
RR SPIKE IN POWER POLE

FOR -L- PLAN SEE SHEET 04

FOR -DRV- PLAN SEE SHEET 04

RIPARIAN BUFFER IMPACTS SUMMARY													
			IMPACTS									BUFFER REPLACEMENT	
Site No.	Station (From/To)	Structure Size / Type	TYPE			ALLOWABLE			MITIGABLE				
			ROAD CROSSING	BRIDGE	PARALLEL IMPACT	ZONE 1 (ft²)	ZONE 2 (ft²)	TOTAL (ft²)	ZONE 1 (ft²)	ZONE 2 (ft²)	TOTAL (ft²)	ZONE 1 (ft²)	ZONE 2 (ft²)
1	-L- 13+20 to 13+90 LT	1@30', 1@55' Cored Slab		x		432	300	732					
1	-L- 14+10 to 14+80 LT	1@30', 1@55' Cored Slab		x		509	328	837					
1	-L- 12+50 to 13+40 RT	1@30', 1@55' Cored Slab		x		389	747	1136					
1	-L- 13+65 to 14+35 RT	1@30', 1@55' Cored Slab		x		312	214	526					
TOTALS*:						1642	1589	3231	0	0	0	0	0

NOTES:  
Total Buffer Impacts = 0.08 Ac.

NC DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
9/16/2019  
PITT COUNTY  
17BP.2.R.92

SHEET 5 OF 6

WETLANDS IN BUFFER IMPACTS SUMMARY

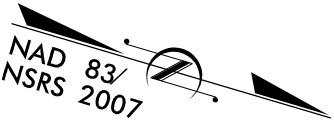
			WETLANDS IN BUFFERS	
SITE NO.	STATION (FROM/TO)		ZONE 1 (ft²)	ZONE 2 (ft²)
			0	0
TOTAL:			0	0

NOTES:  
No wetlands in buffer impacts at site.

NC DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
9/16/2019  
PITT COUNTY  
17BP.2.R.92

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	17BP.2.R.92	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
17BP.2.R.92	N/A	PE	
17BP.2.R.92	N/A	RW, UTIL	
17BP.2.R.92	N/A	CONST.	

PERMIT DRAWING  
SHEET 1 OF 6



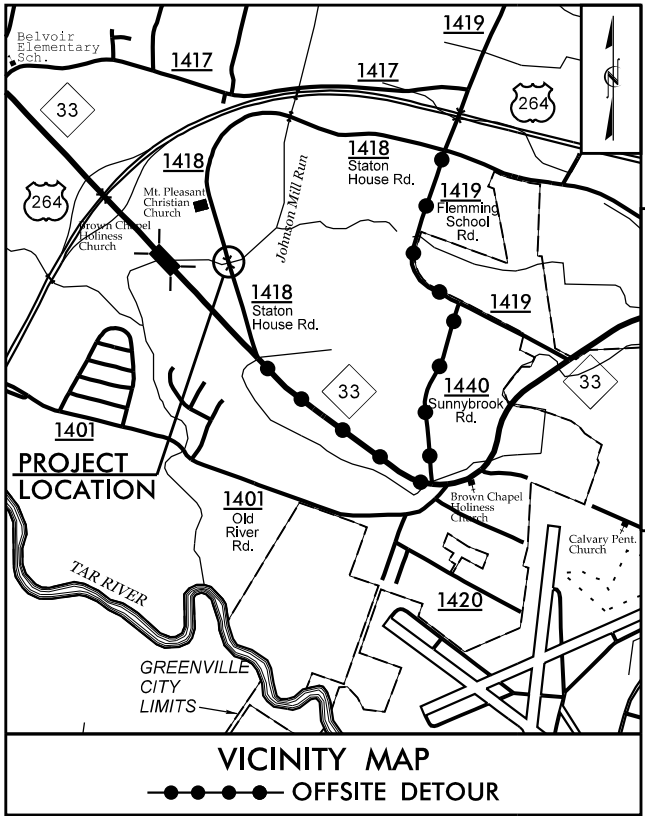
STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

PITT COUNTY

LOCATION: BRIDGE NO.171 OVER JOHNSON MILL RUN  
ON SR 1418 (STATON HOUSE ROAD)

TYPE OF WORK: GRADING, DRAINAGE, STRUCTURE AND PAVING

UTILITY BUFFER IMPACTS



BEGIN STATE PROJECT 17BP.2.R.92  
-L- STA. 10 + 65.00

BEGIN BRIDGE  
-L- STA. 13 + 34.63

END BRIDGE  
-L- STA. 14 + 22.37

END STATE PROJECT 17BP.2.R.92  
-L- STA. 16 + 61.00

TO NC 33  
(BELVOIR HWY.)

-L- SR 1418

(STATON HOUSE ROAD)

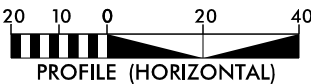
TO SR 1419  
(FLEMMING SCHOOL RD.)

SITE 1

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

DOCUMENT NOT CONSIDERED FINAL  
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GRAPHIC SCALES



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ADT 2040 = 520  
DHV = 12%  
D = 55%  
T = 15%  
V = 60 MPH  
\* TTST = 4 % DUAL = 11 %  
FUNC CLASS =  
LOCAL RURAL  
SUB-REGIONAL TIER

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT 17BP.2.R.92 = 0.096 mile  
LENGTH STRUCTURES TIP PROJECT 17BP.2.R.92 = 0.017 mile  
TOTAL LENGTH TIP PROJECT 17BP.2.R.92 = 0.113 mile

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



TGS ENGINEERS  
706 HILLSBOROUGH ST.  
SUITE 200  
RALEIGH, NC 27603

By:  
PH (919) 733-8887  
CORP. LICENSE NO.:  
C-0275

2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:  
OCTOBER 9, 2019

LETTING DATE:  
MARCH 17, 2020

V. MARCUS LOWERY, PE  
PROJECT ENGINEER

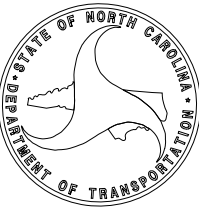
DAVID STUTTS, PE  
NCDOT CONTACT

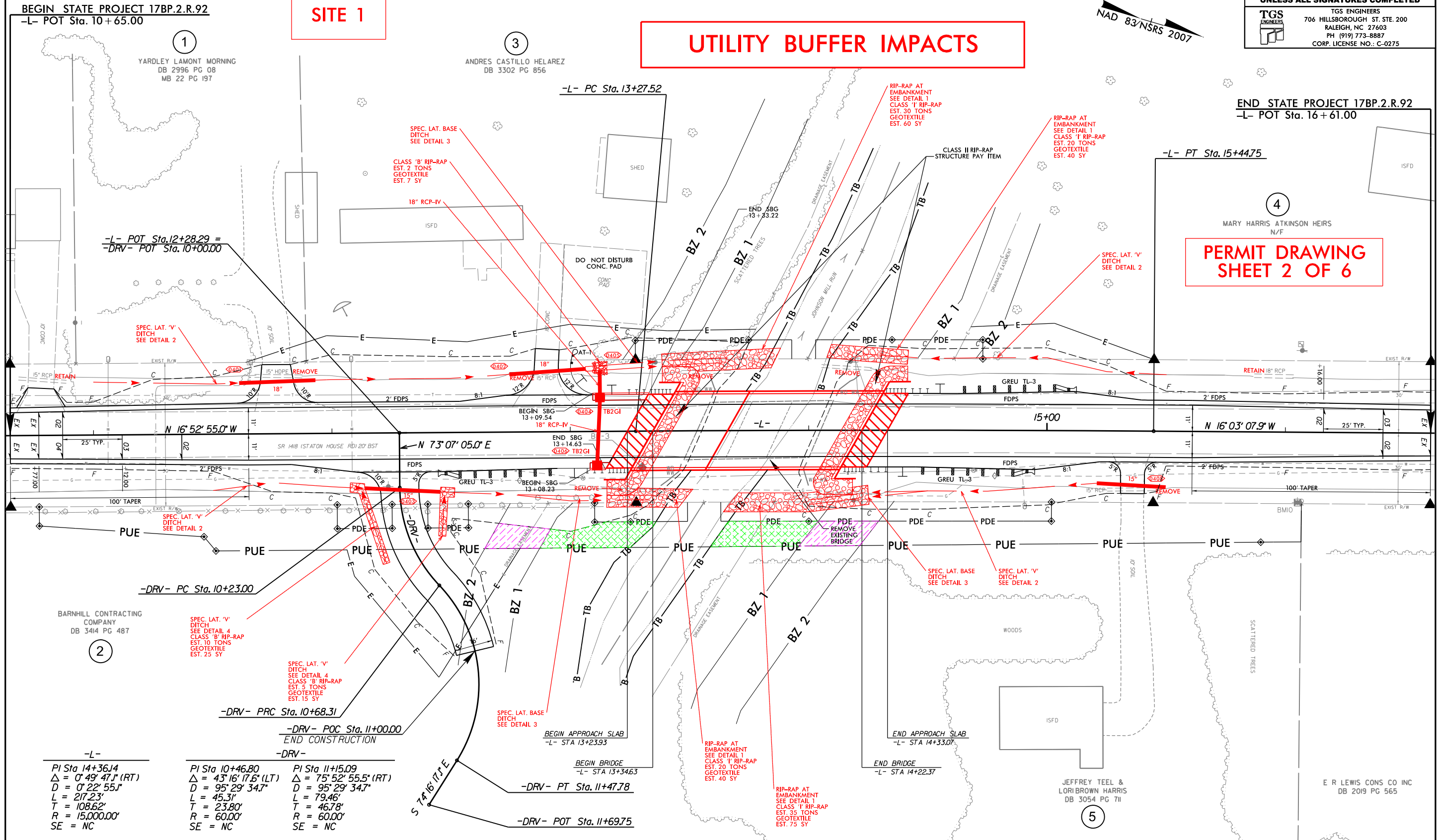
HYDRAULICS ENGINEER

SIGNATURE: \_\_\_\_\_ P.E.

ROADWAY DESIGN  
ENGINEER

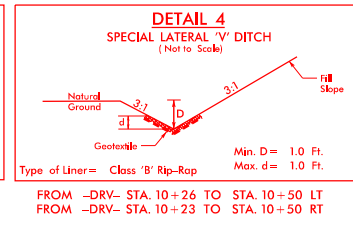
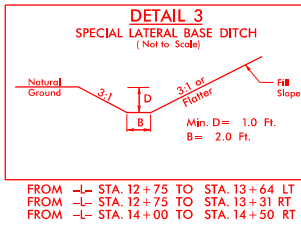
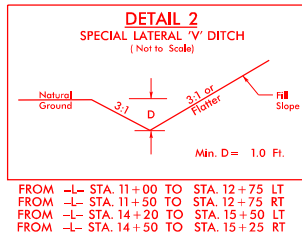
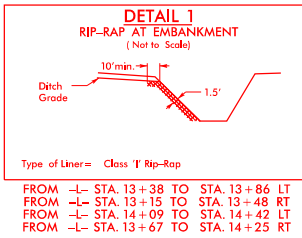
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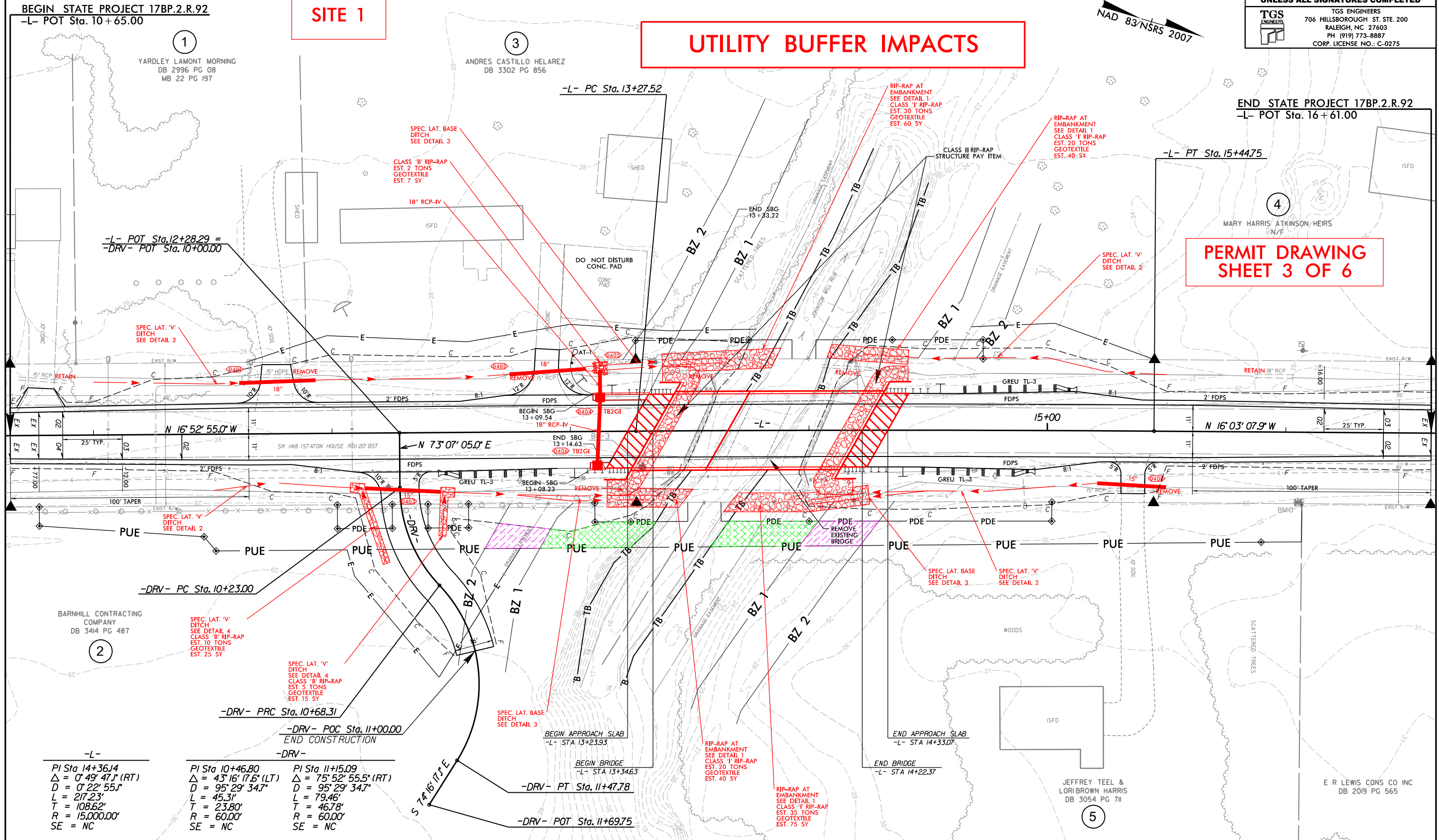





ALLOWABLE IMPACTS ZONE 1  
ALLOWABLE IMPACTS ZONE 2



PROJECT REFERENCE NO.	SHEET NO.
17BP.2.R.92	04
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
TGS ENGINEERS	TGS ENGINEERS
706 HILLSBOROUGH ST. STE. 200	706 HILLSBOROUGH ST. STE. 200
RALEIGH, NC 27603	RALEIGH, NC 27603
PH (919) 773-8887	PH (919) 773-8887
CORP. LICENSE NO.: C-0275	CORP. LICENSE NO.: C-0275



**-L-**  
**SR 1418**



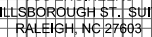
**TGS ENGINEERS**  
706 HILLSBOROUGH ST., SUITE 200  
RALEIGH, NC 27603  
PH (919) 773-8887  
CORP. LICENSE NO.: C-0275

**EXISTING GROUND**

**PROPOSED GRADE**

**LEFT DITCH GRADE**

**RIGHT DITCH GRADE**



PROJECT REFERENCE NO.	SHEET NO.
17BP 2R.92	05
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<p align="center"><b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b></p>	

PERMIT DRAWING  
SHEET 4 OF 6

BRIDGE HYDRAULIC DATA

DESIGN DISCHARGE	=	1500	CFS
DESIGN FLOW FREQUENCY	=	25	YRS
DESIGN HW ELEVATION	=	26.0	FT
BASE DISCHARGE	=	2620	CFS
BASE FLOW FREQUENCY	=	100	YRS
BASE HW ELEVATION	=	28.6	FT
OVERTOPPING DISCHARGE	=	1800	CFS
OVERTOPPING FREQUENCY	=	50 +/-	YRS
OVERTOPPING ELEVATION	=	27.2	FT

DATE OF SURVEY = 9/6/2018  
W.S.ELEVATION  
AT DATE OF SURVEY = 16.5

FOR -L- PLAN SEE SHEET 04

**-L-**  
**SR 1418**

***-DRV-***

$$\begin{aligned} PI &= 10 + 30.00 \\ EL &= 27.40' \\ VC &= 20' \\ K &= 10 \end{aligned}$$
$$\begin{aligned} PI &= 10+60.00 \\ EL &= 28.88' \\ VC &= 40' \\ K &= 7 \end{aligned}$$

BM#10 ELEVATION=31.09'  
N=698013' E=2474157'  
-L- STA 16+05 30' RT  
RR SPIKE IN POWER POLE

FOR -L- PLAN SEE SHEET 04

FOR -DRV- PLAN SEE SHEET 04

UTILITY RIPARIAN BUFFER IMPACTS SUMMARY													
			IMPACTS									BUFFER REPLACEMENT	
Site No.	Station (From/To)	Structure Size / Type	TYPE			ALLOWABLE			MITIGABLE				
			ROAD CROSSING	BRIDGE	PARALLEL IMPACT	ZONE 1 (ft²)	ZONE 2 (ft²)	TOTAL (ft²)	ZONE 1 (ft²)	ZONE 2 (ft²)	TOTAL (ft²)	ZONE 1 (ft²)	ZONE 2 (ft²)
1	-L- 12+60 to 13+35 RT	Permanent Utility Easement		x		386	215	601					
1	-L- 13+60 to 14+30 RT	Permanent Utility Easement		x		396	262	658					
TOTALS*:						782	477	1259	0	0	0	0	0

NOTES:  
Total Buffer Impacts for Utilities= 0.04 Ac.

NC DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
9/16/2019  
PITT COUNTY  
17BP.2.R.92

SHEET 5 OF 6



UTILITY WETLANDS IN BUFFER IMPACTS SUMMARY

			WETLANDS IN BUFFERS	
SITE NO.	STATION (FROM/TO)		ZONE 1 (ft <sup>2</sup> )	ZONE 2 (ft <sup>2</sup> )
			0	0
TOTAL:			0	0

NOTES:  
No wetlands in buffer impacts at site for utilities.

NC DEPARTMENT OF TRANSPORTATION  
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