



PAT McCRORY  
*Governor*

NICHOLAS J. TENNYSON  
*Secretary*

November 12, 2015

Mr. Brad Shaver  
U.S. Army Corps of Engineers  
Regulatory Field Office  
69 Darlington Ave.  
Wilmington, NC 28402-1890

Mr. Stephen Lane  
N.C. Dept. of Environment and Natural Resources  
Division of Coastal Management  
400 Commerce Avenue  
Morehead City, NC 28557

Subject: **Modification Request for the Individual Section 404 and Section 10 Permits, Section 401 Water Quality Certification and CAMA Major Development Permit** for the Wilmington Bypass from north of US 74/76 in Brunswick County to US 421 in New Hanover County. Federal Aid Project Nos. NHF-0017 (96) and STM-0017 (97), Division 3, TIP No. R-2633B. Debit \$475 from WBS Element 34491.1.2

References: Section 404 Individual Permit, issued January 13, 2011 and modified July 9 and August 23, 2013, August 28, 2014, February 12, 2015 and February 18, 2015, USACE Action ID SAW-1994-03352.  
Section 401 Water Quality Certification No. 003842, issued January 13, 2011 and modified May 31, August 19, 2013, March 26, 2014 and August 15, 2014 February 9, 2015 and February 10, 2015.  
CAMA Consistency Concurrence – CD11-003, issued January 14, 2011 and CAMA Major Development Permit, 76-13, issued June 28, 2013 and modified August 22, 2013, October 3, 2014 and February 16, 2015.

Dear Sirs:

As you are aware, the North Carolina Department of Transportation (NCDOT) is currently constructing an approximately 7.6 miles of fully controlled access freeway on new alignment from north of US 74/76 in Brunswick County to US 421 in New Hanover County. The purpose of this letter is to request modifications of the Section 404 Individual Permit, Section 10 Permit, Section 401 Water Quality Certification and CAMA Major Development Permit due changes at Site 19 and Site 20 from road construction and utility work.



**Mt. Misery Road**

Utility Site 3

The current 16" force main sewer line is located on the east side of SR 1246 (Mt. Misery Rd.) and conflicts with the proposed drainage pipes. The 2" and 8" force main sewer lines and 6" water line are located on the east side of SR 1246 (Mt. Misery Rd) and conflict with the proposed culvert. They will need to be relocated.

The proposed water line (6") and proposed force main lines (2", 8", 16") will be located to the east side of the road through the wetland and jurisdiction stream. All these lines will be placed next to each other and will require temporary excavation in the wetland and jurisdictional stream. This trench will be 5 feet wide and will be set to the side and then placed back into the trench.

This area was already permitted for temporary impacts with the road construction. The temporary excavation for the utilities will be 0.02 acre of riverine wetland impacts and 40 feet of stream impacts.

Wetland and Stream Permit Site 19

It was discovered while revising this site for additional utility impacts that the slope stake lines had been revised. This increased the temporary fill 0.03 acre in riverine wetlands. The permit drawings have been revised.

**Cedar Hill Road**

Wetland and Stream Permit Site 20

There was an error in calculation for the permanent fill in wetlands for the proposed bridge at this site. Impacts are now 0.02 acre of riverine wetlands. This is an increase of 0.01 acre.

Impacts associated with the culvert removal will be 0.04 acre of temporary fill in riverine wetlands and 0.02 acre of mechanized clearing. These are new additional impacts.

The temporary work bridge at this site was re-designed. This changed only hand clearing for the proposed bridge and temporary work bridge. The hand clearing impacts for the bridge increased 0.01 acre for a total of 0.18 acre. The temporary work bridge hand clearing impacts decreased by 0.02 acre for a total of 0.12 acre.

Utility Site 1

Progress Energy will relocate power poles outside of the project. Under the proposed overhead power lines there will be hand clearing impact on the wetland.

A 6" water line will be installed by horizontal directional drill method and will not incur any environmental impacts.

The existing road on part of this Y Line will be removed. The culvert to the jurisdictional stream will be removed and daylighted permanently. A 10" gravity sewer line will be trenched across this stream and will be laid at least 6 inches below the streambed. Flowable fill will be used to protect the pipe under the streambed and prevent displacement. See Utility Permit Drawing 14B of 15. The proposed sewer alignment will cross an already impacted stream where the culvert is



and will not incur any does new impacts for the gravity sewer line. This was done to avoid impacts to the nearby wetlands.

A proposed water line (12") and proposed force main line (8") will be located to the west side of the road through the wetland. Temporary excavation of a 3 foot wide trench will occur in the riverine wetland. The trench which will be set to the side and then place back into the hole. These impacts are less than 0.02 acre of temporary excavation.

This modification has increased the riparian wetland impacts by 0.03 acre.

These revised wetland and stream impacts will not occur in any CAMA AECs.

### **Mitigation**

Mitigation is proposed for the additional 0.03 acres of riparian wetlands. A request for mitigation has been sent DMS. The acceptance letter will be forwarded to you once it is received.

New total wetland impacts requiring mitigation for the entire R-2633 A&B project are 7.32 acres of riparian wetlands and 58.33 acres of non-riparian wetlands.

## **REGULATORY APPROVALS**

### Section 404

Application is hereby made for a modification to the USACE Individual 404 Permit as required for the above-described activities.

### Section 401

Application is hereby made for a modification to the Section 401 Water Quality Certification from the N. C. Division of Water Quality.


CAMA: Application is hereby made for a modification to the Coastal Area Management Act Major Development Permit. Authorization to debit the \$475 Permit Application Fee from WBS Element 34491.1.2 is hereby given.

This project was let in September 2013 and is currently under construction. We respectfully request that this modification be processed as soon as possible.

A copy of this permit modification request will be posted on the DOT website at: <https://connect.ncdot.gov/resources/Environmental/Pages>. If you have any questions or need additional information, please contact Chris Rivenbark at [crivenbark@ncdot.gov](mailto:crivenbark@ncdot.gov) or (919) 707-6152.

Sincerely,



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

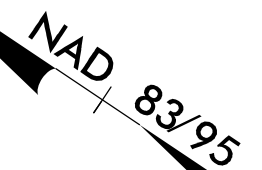
cc:  
NCDOT Permit Application Standard Distribution List.



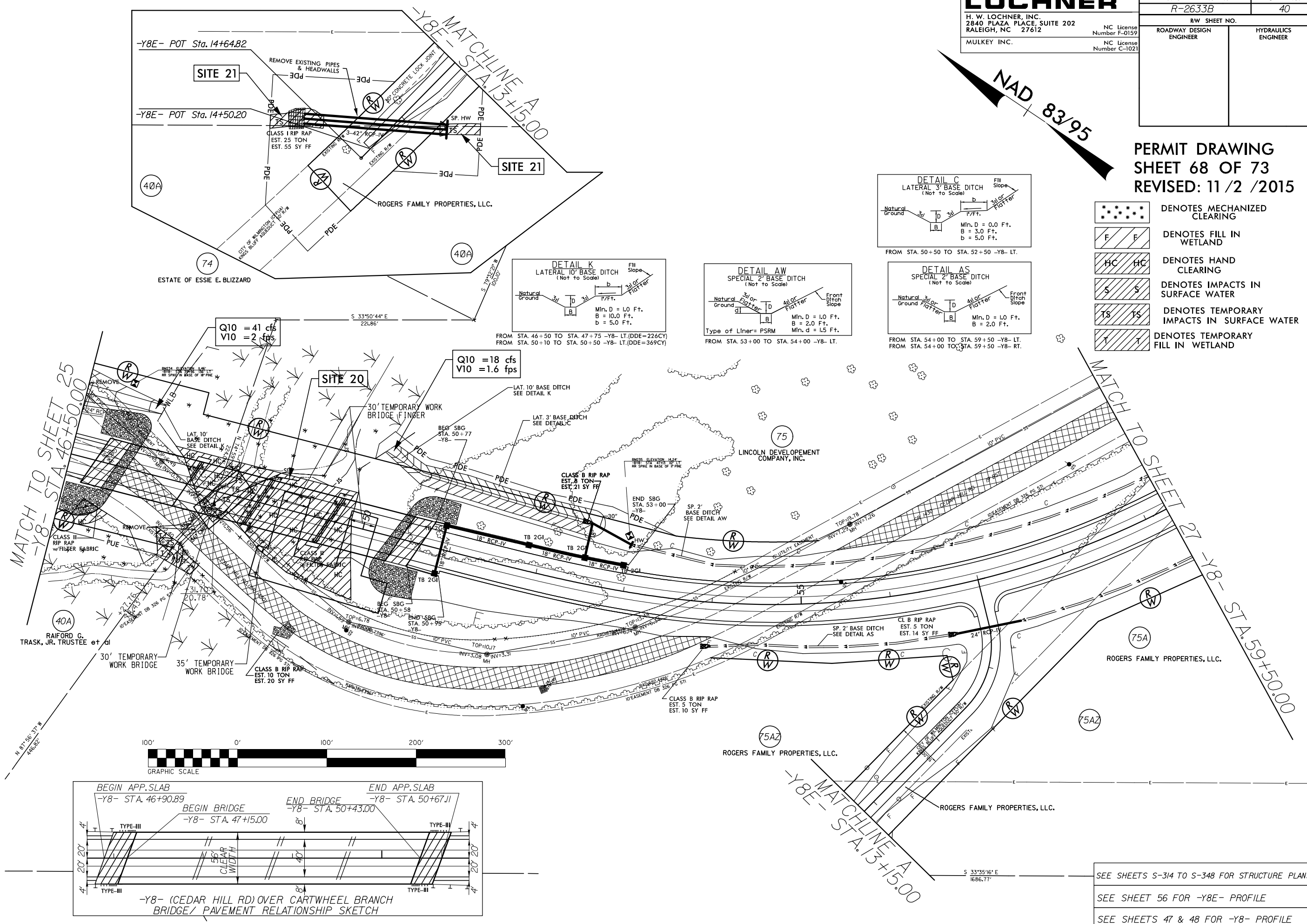
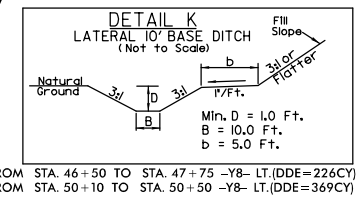
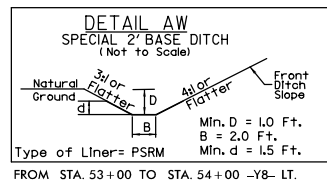
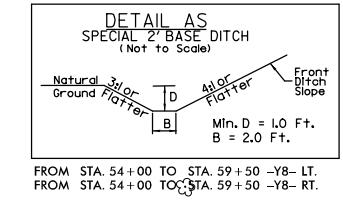
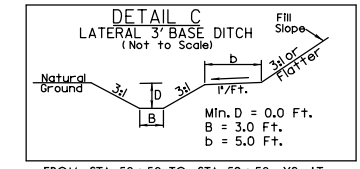


|                                  |                     |
|----------------------------------|---------------------|
| PROJECT REFERENCE NO.<br>R-2633B | SHEET NO.<br>40     |
| RW SHEET NO.                     | HYDRAULICS ENGINEER |
| ROADWAY DESIGN ENGINEER          |                     |

**PERMIT DRAWING  
SHEET 68 OF 73  
REVISED: 11/2/2015**

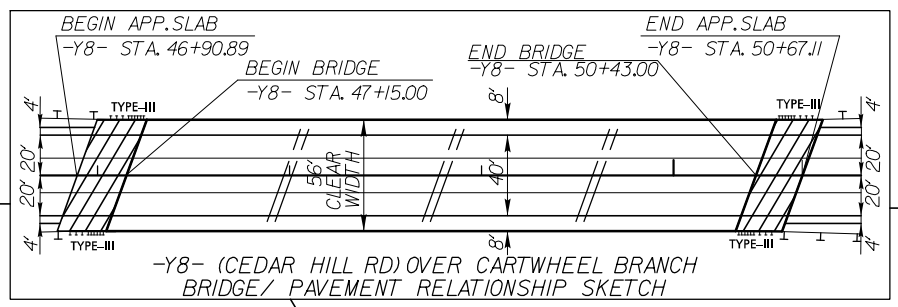
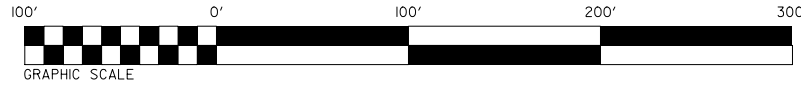


- DENOTES MECHANIZED CLEARING
- DENOTES FILL IN WETLAND
- DENOTES HAND CLEARING
- DENOTES IMPACTS IN SURFACE WATER
- DENOTES TEMPORARY IMPACTS IN SURFACE WATER
- DENOTES TEMPORARY FILL IN WETLAND



MATCH TO SHEET 25  
-Y8- STA. 46+50.00

MATCH TO SHEET 27  
-Y8- STA. 59+50.00



SEE SHEETS S-314 TO S-348 FOR STRUCTURE PLANS  
SEE SHEET 56 FOR -Y8E- PROFILE  
SEE SHEETS 47 & 48 FOR -Y8- PROFILE

REVISIONS  
CONSTRUCTION REVISION: 8/20/2014, ADDED SERVICE ROAD -Y8E-

8/17/99



8/17/99

**LOCHNER**

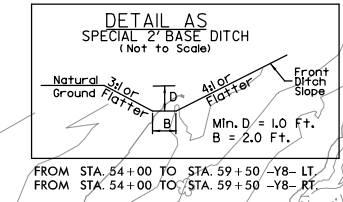
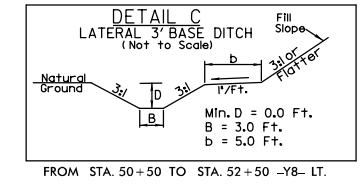
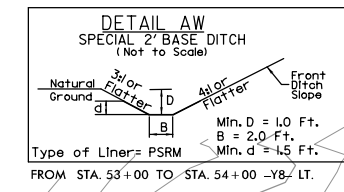
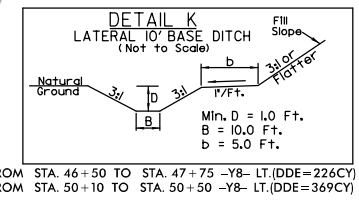
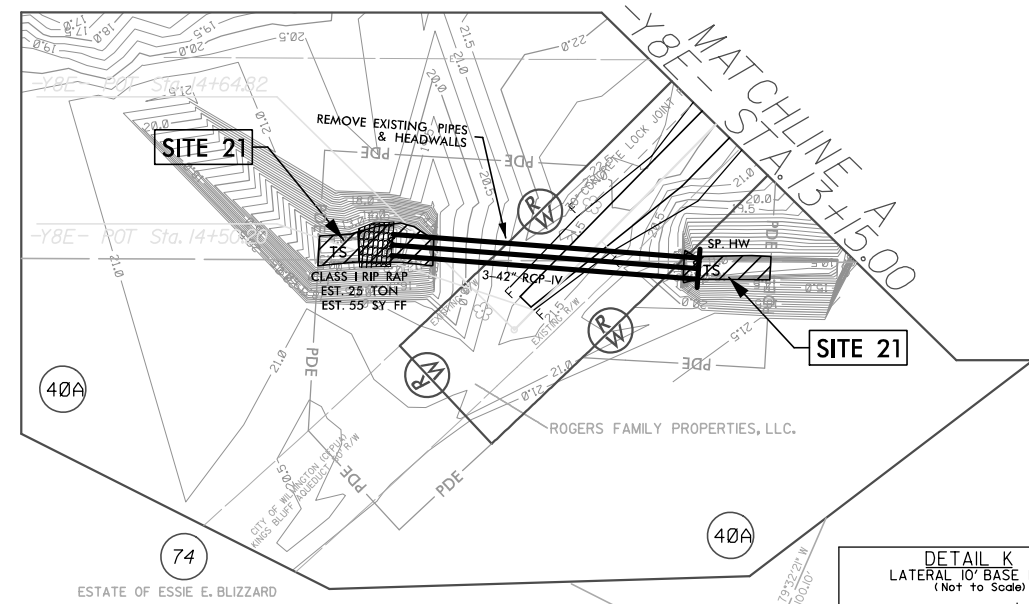
H. W. LOCHNER, INC.  
2840 PLAZA PLACE, SUITE 202  
RALEIGH, NC 27612  
MULKEY INC.

NC License  
Number F-0159  
NC License  
Number C-1021

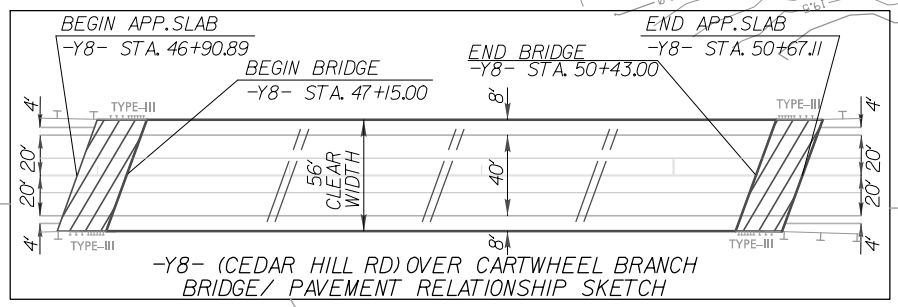
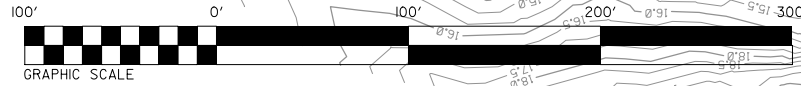
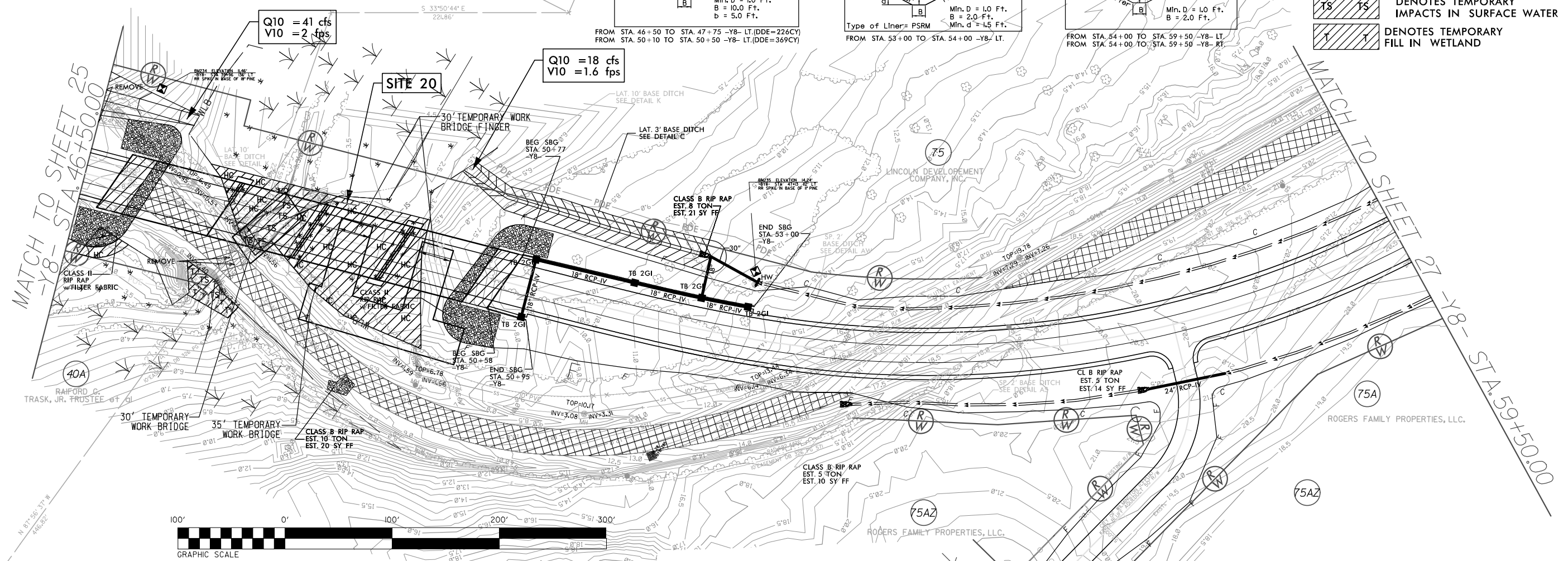
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|----------------------------------|---------------------|
| PROJECT REFERENCE NO.<br>R-2633B | SHEET NO.<br>40     |
| R/W SHEET NO.                    |                     |
| ROADWAY DESIGN ENGINEER          | HYDRAULICS ENGINEER |

NAD 83/95

PERMIT DRAWING  
SHEET 69 OF 73  
REVISED: 11/2/2015



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



REVISIONS

CONSTRUCTION REVISION: 8/20/2014, ADDED SERVICE ROAD -Y8E-

SYTIME  
DONG  
USERS  
ENRHE

SEE SHEETS S-314 TO S-348 FOR STRUCTURE PLANS  
SEE SHEET 56 FOR -Y8E- PROFILE  
SEE SHEETS 47 & 48 FOR -Y8- PROFILE



**WETLAND PERMIT IMPACT SUMMARY**

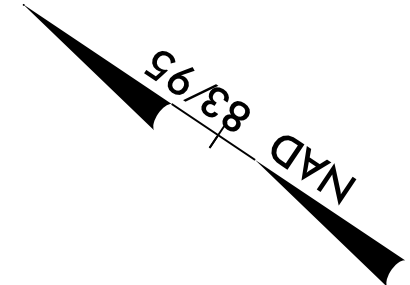
| Site No.       | Station (From/To)         | Structure Size / Type             | WETLAND IMPACTS                     |                                      |                             |                             |                                      |                                    |                                     | SURFACE WATER IMPACTS     |                       |   |                                     |                            |
|----------------|---------------------------|-----------------------------------|-------------------------------------|--------------------------------------|-----------------------------|-----------------------------|--------------------------------------|------------------------------------|-------------------------------------|---------------------------|-----------------------|---|-------------------------------------|----------------------------|
|                |                           |                                   | 404 Permanent Fill In Wetlands (ac) | CAMA Permanent Fill In Wetlands (ac) | Temp. Fill In Wetlands (ac) | Excavation in Wetlands (ac) | Mechanized Clearing in Wetlands (ac) | 404 Hand Clearing in Wetlands (ac) | CAMA 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-24+75 Lt.              | Roadway Fill                      |                                     |                                      |                             |                             |                                      |                                    |                                     |                           |                       |   |                                     |                            |
| 2***           | -L-37+96 Rt.              | Bridge                            |                                     |                                      |                             |                             |                                      |                                    |                                     |                           |                       |   |                                     |                            |
| 3****          | -LREV- 339+73 to 358+92   | Roadway Fill                      | 7.51                                |                                      |                             | 0.03                        | 0.29                                 | 0.29                               |                                     |                           |                       |   |                                     |                            |
| 4              | -RP D1- 22+60             | Deleted due to new JS delineation |                                     |                                      |                             |                             |                                      |                                    |                                     |                           |                       |   |                                     |                            |
| 5*             | -LREV- 372+74 to -L-85+08 | Roadway Fill                      | 1.04                                |                                      |                             |                             | 0.05                                 | 0.05                               |                                     |                           |                       |   |                                     |                            |
| 6*             | -L- 109+28 to 134+54      | Roadway Fill                      | 9.72                                |                                      |                             |                             | 0.57                                 | 0.57                               |                                     |                           |                       |   |                                     |                            |
| 6A**           | -L- 138+11 to 140+70      | Roadway Fill                      | 0.68                                |                                      |                             |                             |                                      |                                    |                                     |                           |                       |   |                                     |                            |
| 6B**           | -L- 141+20 to 144+29      | Roadway Fill                      | 0.41                                |                                      |                             |                             | 0.02                                 |                                    |                                     |                           |                       |   |                                     |                            |
| 7*             | -L- 146+78 to 165+66      | Roadway Fill                      | 10.61                               |                                      | 0.92                        |                             | 0.48                                 | 0.28                               |                                     |                           |                       |   |                                     |                            |
| 8              | -L 166+60                 | Deleted due to new JS delineation |                                     |                                      |                             |                             |                                      |                                    |                                     |                           |                       |   |                                     |                            |
| 9*             | -L- 186+97 to 191+88      | Roadway Fill                      | 1.04                                |                                      |                             |                             | 0.05                                 | 0.05                               |                                     |                           |                       |   |                                     |                            |
| 10             | -RP D2- 19+20 Lt.         | Deleted due to new JS delineation |                                     |                                      |                             |                             |                                      |                                    |                                     |                           |                       |   |                                     |                            |
| 11*            | -L- 194+75 to 216+13      | Roadway Fill; 3@42"               | 8.71                                |                                      |                             |                             | 0.48                                 | 0.47                               |                                     | 0.08                      | <0.01                 | 242                                     | 20                                  |                            |
| 12             | -L- 230+39 to 242+11      | Deleted due to new JS delineation |                                     |                                      |                             |                             |                                      |                                    |                                     |                           |                       |   |                                     |                            |
| 13             | -L- 256+36 to 265+87      | Deleted due to new JS delineation |                                     |                                      |                             |                             |                                      |                                    |                                     |                           |                       |   |                                     |                            |
| 14*            | -L- 264+32 to 266+94      | Bridge                            |                                     |                                      |                             |                             | 0.03                                 | 0.20                               |                                     | <0.01                     |                       |   |                                     |                            |
|                |                           | Temp. Work Bridge                 |                                     |                                      |                             |                             |                                      | 0.10                               |                                     |                           |                       |   |                                     |                            |
| 15*            | 319+46 to 387+92          | Bridge                            | 0.05                                |                                      |                             | *****0.93                   |                                      | 10.48                              | 7.79                                | 0.13                      | 0.03                  |   |                                     |                            |
|                |                           | Temp. Work Bridge                 |                                     |                                      |                             |                             |                                      | 6.43                               | 4.70                                |                           |                       |   |                                     |                            |
| 16*            | -L- 399+43 to 400+51      | Roadway Fill                      | 0.22                                |                                      |                             |                             |                                      |                                    |                                     |                           |                       |   |                                     |                            |
| 17***          | -Y5-16+25 Rt              | 48" RCP                           |                                     |                                      |                             |                             |                                      |                                    |                                     |                           |                       |   |                                     |                            |
| 18***          | -Y5-16+25 Lt              | 48" RCP                           |                                     |                                      |                             |                             |                                      |                                    |                                     |                           |                       |   |                                     |                            |
| 19*            | -Y7- 52+09                | Culvert                           |                                     |                                      |                             |                             |                                      |                                    |                                     | <0.01                     | <0.01                 | 5                                       | 39                                  |                            |
|                | -Y7 DET- 16+45            | Detour Culvert                    |                                     |                                      | 0.09                        |                             |                                      | 0.03                               |                                     |                           | 0.61                  |   | 90                                  |                            |
| 20*            | -Y8- 47+74 to 49+88       | Bridge                            | 0.02                                |                                      |                             |                             | 0.04                                 | 0.18                               |                                     |                           | 0.02                  |   | 34                                  |                            |
|                | -Y8- 48+78 to 49+95       | Temp. Work Bridge                 |                                     |                                      |                             |                             |                                      | 0.12                               |                                     |                           | 0.03                  |   | 58                                  |                            |
|                | -Y8- 47+74 to 49+88       | 2 @ 36" CMP Removal               |                                     |                                      | 0.04                        |                             |                                      | 0.02                               |                                     |                           | 0.01                  |   | 20                                  |                            |
| 21             | -Y8E-                     | 3@42" RCP-IV                      |                                     |                                      |                             |                             |                                      |                                    |                                     | 0.02                      | 0.02                  | 27                                      | 59                                  |                            |
| <b>TOTALS:</b> |                           |                                   | <b>40.01</b>                        | <b>0.00</b>                          | <b>1.05</b>                 | <b>0.96</b>                 | <b>2.03</b>                          | <b>19.25</b>                       | <b>12.49</b>                        | <b>0.23</b>               | <b>0.71</b>           | <b>274</b>                              | <b>320</b>                          | <b>0.00</b>                |

Site 14 See Structures sheet for Bridge Impacts on Cartwheel Branch  
 Site 15 Impacts for Permanent Dual Bridges CAMA=0.11 Ac, 404=0.05 Ac, Surface Water=0.13 Ac; Total=0.29 Ac.  
 Site 15 Impacts for Temporary Work Bridge CAMA=0.16 Ac, 404=0.21 Ac, Surface Water=0.01 Ac; Total=0.38 Ac.  
 \* Revised due to new JS Delineation  
 \*\* New Site due to new JS Delineation  
 \*\*\* Sites 1, 2, 17, and 18 are now permitted with R-2633AA & AB and the impacts are included with that project.  
 \*\*\*\* A portion of Site 3 is now permitted with R-2633AA & AB and the impacts are included with that project.  
 \*\*\*\*\* Temporary Excavation. CAMA=0.41Ac, 404 =0.52 Ac.; Total=0.93 Ac.  
 0.75 acres of Temp. Fill in 404 Wetlands in the Hand Clearing areas for Erosion Control Measures

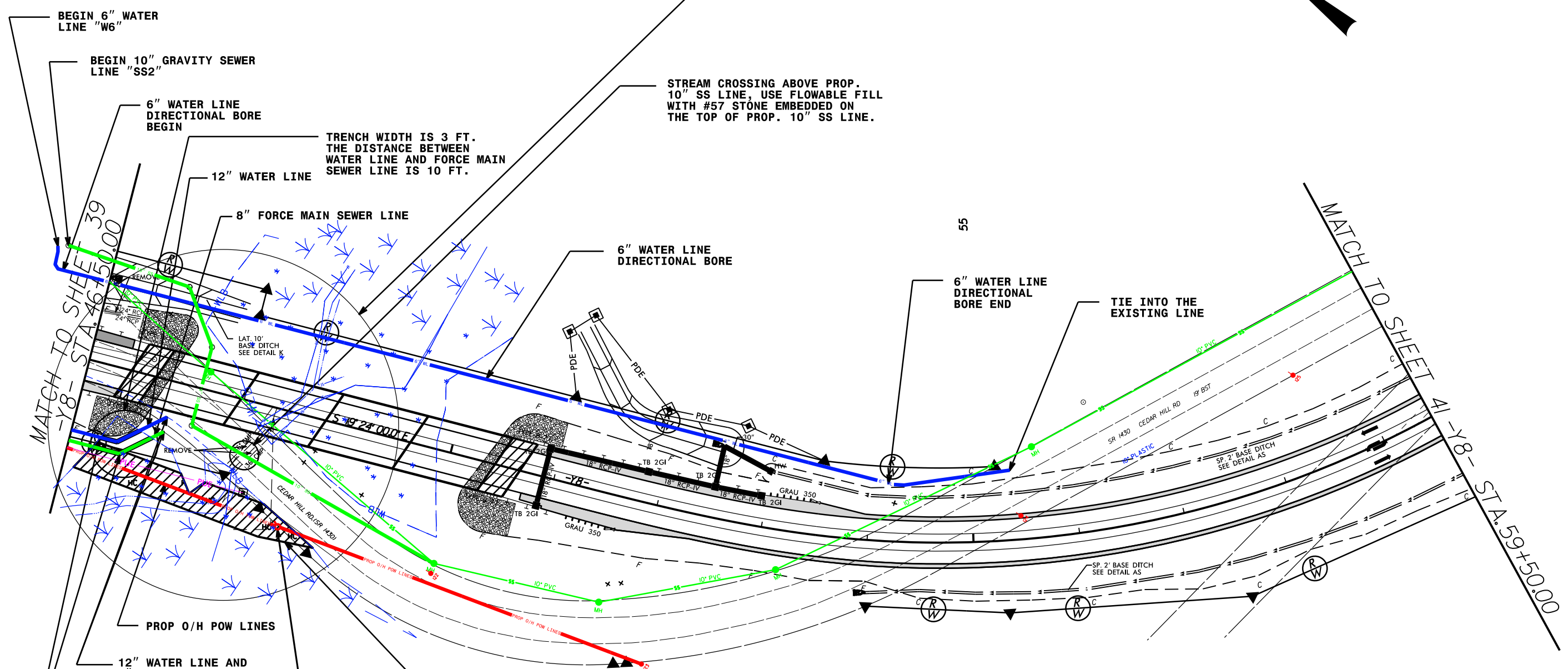
NC DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 BRUNSWICK AND NEW HANOVER COUNTIES  
 WBS - 34491.1.2 (R-2633B)

|  |                                    |
|--|------------------------------------|
| PROJECT REFERENCE NO.  | SHEET NO.                          |
| R-2633B  | 40                                 |
| DESIGNED BY: JTY   |                                    |
| DRAWN BY: JTY  |                                    |
| CHECKED BY:  |                                    |
| APPROVED BY:   |                                    |
| REVISED:   |                                    |
| NORTH CAROLINA<br>DEPARTMENT OF<br>TRANSPORTATION                          |                                    |
| UTILITIES ENGINEERING SEC.<br>PHONE: (919) 707-6690<br>FAX: (919) 250-4151 | UTILITY CONSTRUCTION<br>PLANS ONLY |

UTILITY PERMIT DRAWING  
SHEET 14 OF 15  
REVISED 8/15/13  
REVISED 10/21/15



**SITE 1**



R/W REVISION: 10/30/09 - ADDED PARCEL 75 LINCOLN DEVELOPMENT.  
 R/W REVISION: 02/11/10 - REVISED R/W ON PARCELS 74 AND 75 TO ACCOMMODATE WORK BRIDGE ALONG PROPOSED STRUCTURE.  
 R/W REVISION: 01/11/11 - CHANGED MONUMENT ON PARCEL 40 TO FC-ADDED R/W MONUMENTS ON EXISTING R/W-CHANGED PARCEL 75A TO RODGERS FAMILY PROPERTIES, LLC DB 2722 PG 07B2.  
 21-OCT-2015 14:26  
 e:\ing\UC\p\9\Wetland\permt\1-R-2633B-WP\_UT\_40\_Sitel.dgn  
 \$\$\$\$

TEMP EXCAVATION IN WETLAND FOR WATER LINE (0.0028 AC) AND FORCE MAIN SEWER (0.042 AC) WILL BE SET TO THE SIDE AND THEN PLACE BACK INTO THE HOLE

FILL IN WETLAND < 0.01 ACRES FOR POWER POLE

HAND CLEARING IN THE WETLAND 0.15 ACRES FOR PROP. O/H POWER LINE.

- DENOTES HAND CLEARING
- DENOTES EXCAVATION IN WETLAND

- CONTRACTOR AND/OR SUBCONTRACTOR INSTALLING ABOVE UTILITIES (6" WL, 12" WL, 8" FSS, 10" SS) MUST PUT THESE UTILITIES IN THE DRY.
- ABANDONED UTILITIES PIPE SHALL BE EMPTED AND PLUGGED.

THIS PROFILE SHEET REVISES THE VERTICAL ALIGNMENT OF PROPOSED SEWER LINE DESIGNATED AS "FSS2" TO ACCOMMODATE INSTALLATION OF A 12'x11' BOX CULVERT. THE ORIGINAL PROFILE TO RELOCATE THE SEWER LINE WAS NOT CONSTRUCTABLE SINCE TRAFFIC COULD NOT BE MAINTAINED ON MOUNT MISERY ROAD. THE SEWER LINE "FSS3" PROFILE HAS BEEN ADDED AND WAS NOT INCLUDED IN THE ORIGINAL PLANS.

NOTE: THIS DRAWING IS NOT CONSIDERED A CERTIFIED DOCUMENT AS TO THE ORIGINAL DESIGN BUT ONLY AS THE REVISIONS SHOWN ON THIS PROFILE SHEET. NOTE: ORIGINAL DRAWINGS WERE ISSUED AND SEALED BY JEFFREY J. WING, NC LICENSE NO. 030056 ON 11/06/2013.

R:\Utilities\5794\ref 21-OCT-2015 14:40 P:\external\dwg\submit\2633BA\_Mt\_Misery\_Triples\_Sewer\_Pipes\_08-14-15.dgn

PROFILE SCALE:

HORIZONTAL:  
 1" = 20' (FULL-SIZE)  
 1" = 40' (HALF-SIZE)

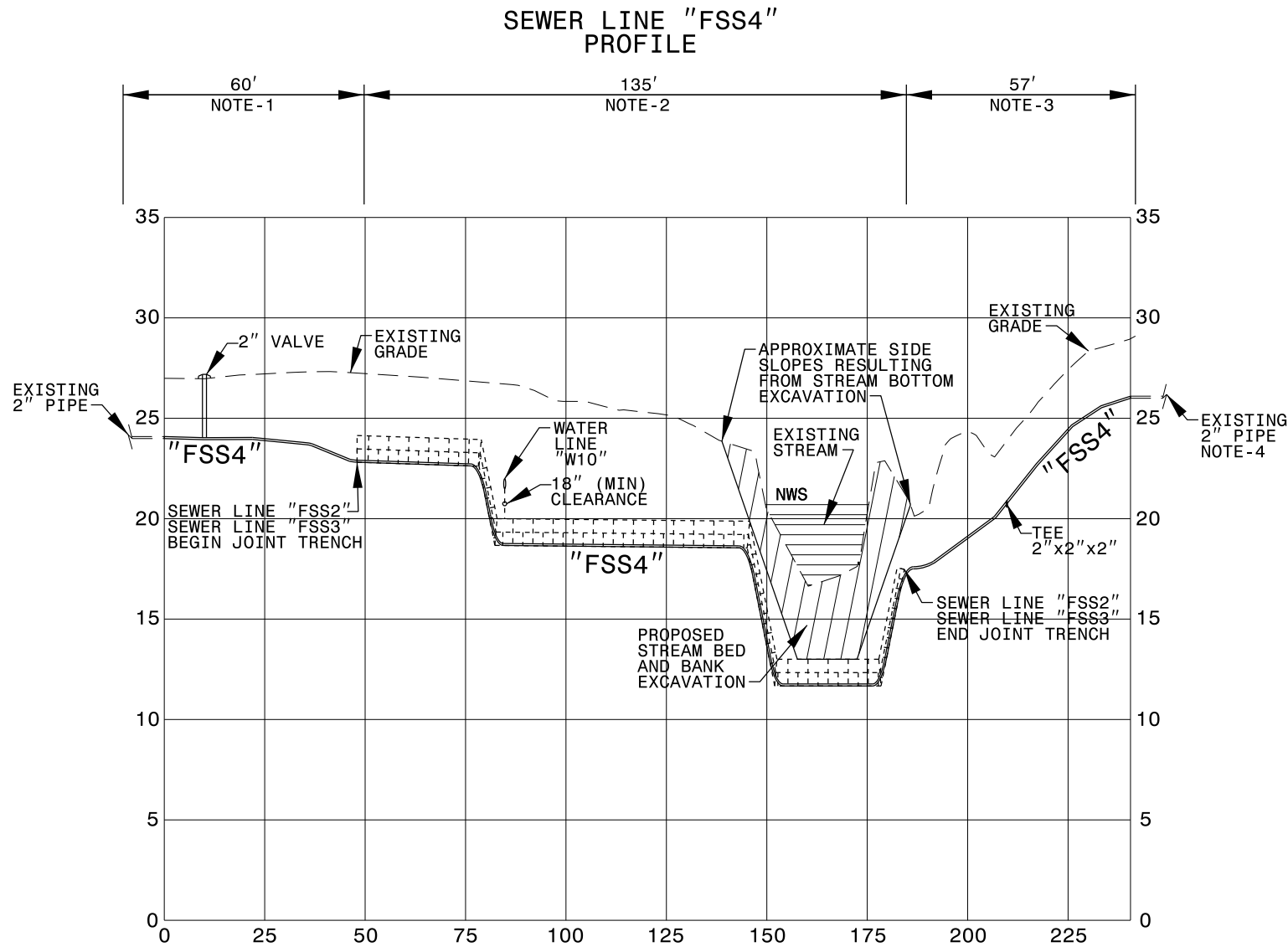
VERTICAL:  
 1" = 4' (FULL-SIZE)  
 1" = 8' (HALF-SIZE)

# R-2633BA AT MOUNT MISERY RD (Y7) SEWER LINE "FSS4" PROFILE (SEE SHEET UC-9A FOR "FSS4" PLAN LAYOUT)

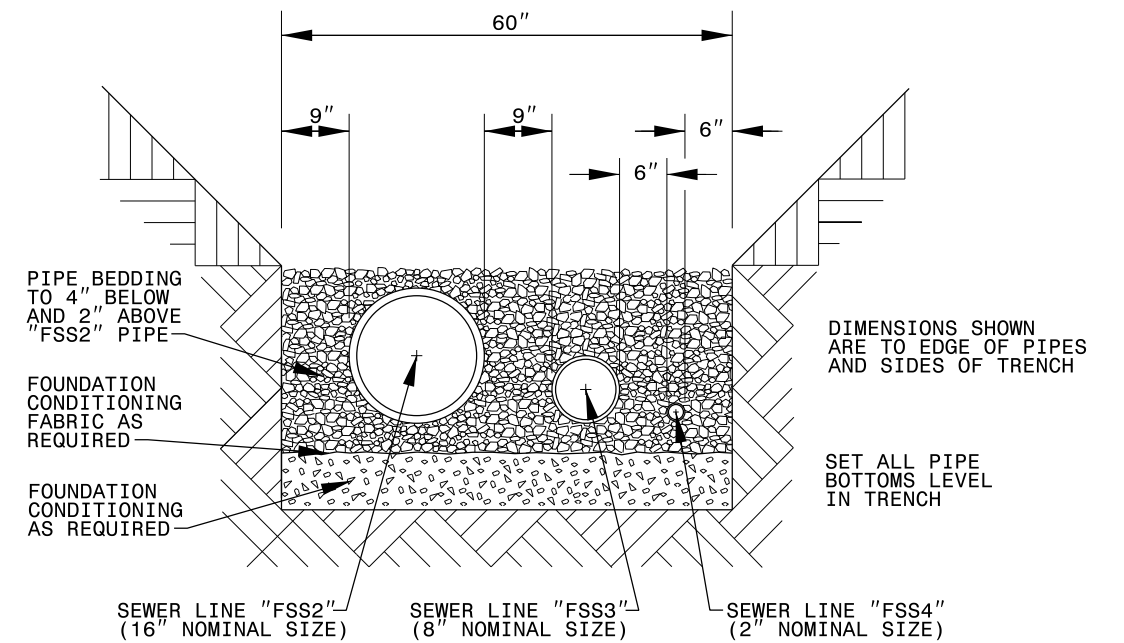
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| PROJECT REFERENCE NO.<br>R-2633BA  | SHEET NO.<br>UC-9D                 |
| DESIGNED BY: EWH   | UTILITY CONSTRUCTION<br>PLANS ONLY |
| DRAWN BY: EWH  |                                    |
| CHECKED BY: JSM  |                                    |
| APPROVED BY: JSM   |                                    |
| REVISED: 07-25-15  |                                    |
| NORTH CAROLINA<br>DEPARTMENT OF<br>TRANSPORTATION                          |                                    |
| UTILITIES ENGINEERING SEC.<br>PHONE: (919) 707-6690<br>FAX: (919) 250-4151 |                                    |

UTILITY CONSTRUCTION

PRELIMINARY PLANS  
 DO NOT USE FOR CONSTRUCTION



CROSS SECTION A-A  
 SHOWING SEWER LINES  
 "FSS2", "FSS3", "FSS4"  
 JOINT-USE TRENCH



PLACE FOUNDATION CONDITIONING MATERIAL BELOW BEDDING IF REQUIRED, AS DIRECTED BY ENGINEER. PIPE BEDDED IN SELECT MATERIAL, CLASS II (TYPE 1) OR CLASS III. TRENCH BACKFILLED IN LOOSE 6" LAYERS COMPACTED TO TOP OF TRENCH USING LOCAL EXCAVATED MATERIAL IF APPROVED BY THE ENGINEER, OR SELECT MATERIAL. ALL MATERIAL SHALL BE FREE OF ROCKS, FOREIGN MATERIAL, AND FROZEN EARTH. COMPACTION TO APPROXIMATELY 95% DENSITY IN ACCORDANCE WITH AASHTO T-99 AS MODIFIED BY THE DEPARTMENT OF TRANSPORTATION.

SEWER LINE "FSS4" PROFILE NOTES:

- (1) BEND PIPE TO RADIUS NOT EXCEEDING MANUFACTURER'S MINIMUM COLD-BEND RADIUS SPECIFICATIONS TO MAINTAIN MINIMUM 3' COVER.
- (2) INSTALL PIPE IN SAME TRENCH AS SEWER LINE "FSS2" AS SHOWN IN CROSS-SECTION A-A (THIS SHEET).
- (3) PROFILE SHOWN IS APPROXIMATE...ACTUAL PROFILE TO BE DETERMINED BY ELEVATIONS OF PROPOSED DITCH (I.E. MAINTAIN MINIMUM 2' BELOW DITCH BOTTOM) AND WATER LINE "W10" (I.E. MAINTAIN MINIMUM 18" CLEARANCE BELOW WATER LINE "W10").
- (4) DEPTH OF EXISTING LINE SHOWN IS APPROXIMATE...VERIFY ELEVATION.

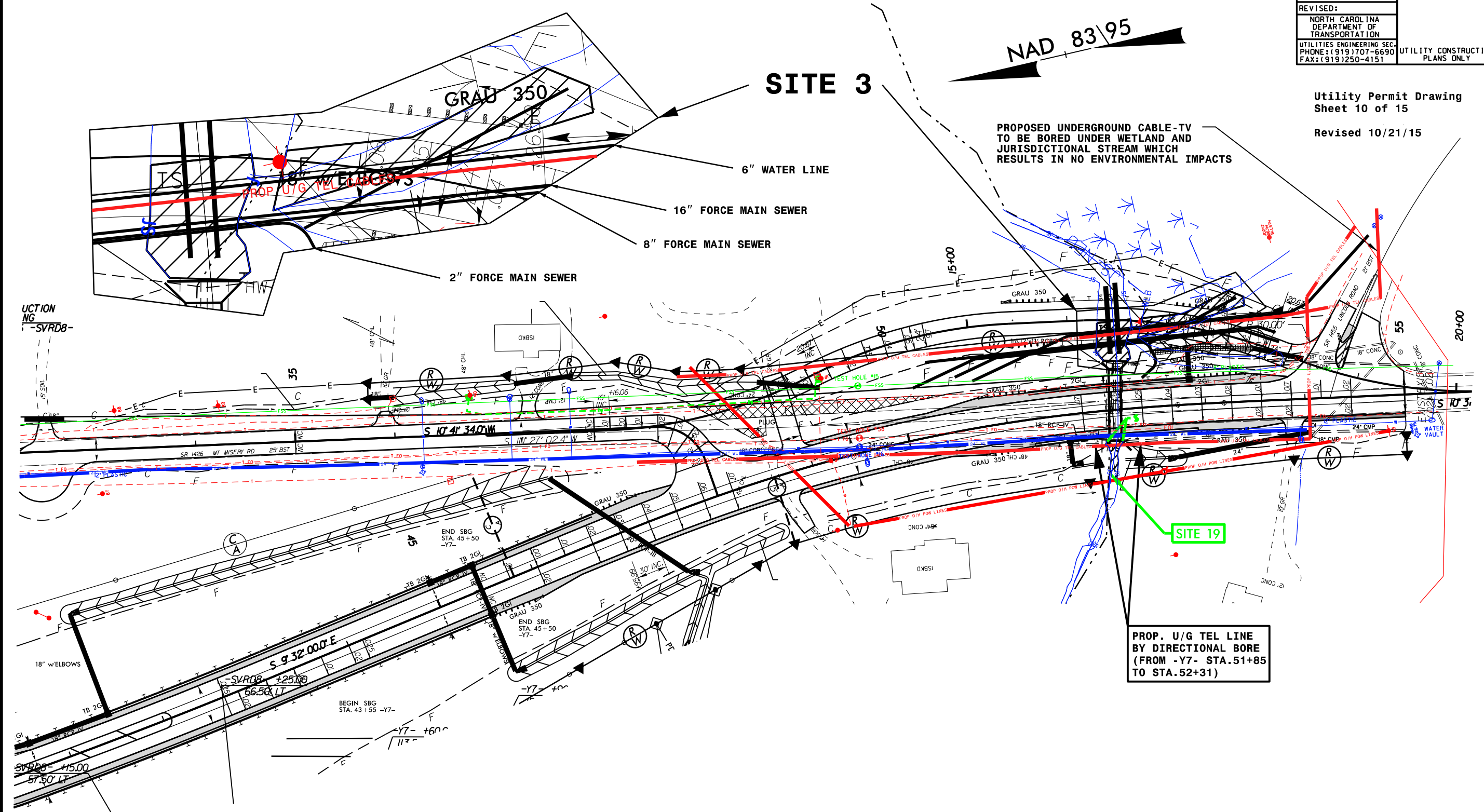
|  |                                 |
|--|---------------------------------|
| PROJECT REFERENCE NO.  | SHEET NO.                       |
| R-2633B  | 37                              |
| DESIGNED BY: JTY   |                                 |
| DRAWN BY: JTY  |                                 |
| CHECKED BY:  |                                 |
| APPROVED BY:   |                                 |
| REVISED:   |                                 |
| NORTH CAROLINA DEPARTMENT OF TRANSPORTATION                          |                                 |
| UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151 | UTILITY CONSTRUCTION PLANS ONLY |

Utility Permit Drawing  
Sheet 10 of 15  
Revised 10/21/15

NAD 83/95

**SITE 3**

PROPOSED UNDERGROUND CABLE-TV TO BE BORED UNDER WETLAND AND JURISDICTIONAL STREAM WHICH RESULTS IN NO ENVIRONMENTAL IMPACTS



- DENOTES TEMPORARY IMPACTS IN SURFACE WATER
- DENOTES EXCAVATION IN WETLAND

TS : 0.0289 AC, E : 0.0351 AC  
 - CONTRACTOR AND/ OR SUBCONTRACTOR INSTALLING ABOVE UTILITIES(6" WL, 16" FSS, 8" FSS, 2" FSS) MUST PUT THESE UTILITIES IN THE DRY.  
 - ABANDONED WATER AND SEWER SHALL BE EMPTIED AND PLUGGED.

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 5/14/99



**WETLAND PERMIT IMPACT SUMMARY**

| Site No.       | Station (From/To)   | Structure Size / Type              | WETLAND IMPACTS                     |                                      |                             |                             |                                      |                                    | SURFACE WATER IMPACTS               |                           |                       |   |                                     |                            |      |
|----------------|---------------------|------------------------------------|-------------------------------------|--------------------------------------|-----------------------------|-----------------------------|--------------------------------------|------------------------------------|-------------------------------------|---------------------------|-----------------------|---|-------------------------------------|----------------------------|------|
|                |                     |                                    | 404 Permanent Fill In Wetlands (ac) | CAMA Permanent Fill In Wetlands (ac) | Temp. Fill In Wetlands (ac) | Excavation in Wetlands (ac) | Mechanized Clearing in Wetlands (ac) | 404 Hand Clearing in Wetlands (ac) | CAMA 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              | -Y8- 46+60          | Prop. O/H Power line               |                                     |                                      |                             |                             |                                      |                                    | 0.15                                |                           |                       |   |                                     |                            |      |
|                | -Y8- 48+58          | Prop. Power Pole                   | <0.01                               |                                      |                             |                             |                                      |                                    |                                     |                           |                       |   |                                     |                            |      |
| 2              | -Y8- 46+77 ~ 47+14  | Prop. 12" Water Line               |                                     |                                      |                             | <0.01*                      |                                      |                                    |                                     |                           |                       |   |                                     |                            |      |
|                | -Y8- 46+72 ~ 47+26  | Prop. 8" Force Main Sewer          |                                     |                                      |                             | <0.01*                      |                                      |                                    |                                     |                           |                       |   |                                     |                            |      |
|                | -L- 140+00~141+23   | Rig set up of bores 4" gas line    |                                     |                                      |                             |                             |                                      |                                    | 0.22                                |                           |                       |   |                                     |                            |      |
|                | -L- 140+36~140+74   | Bell holes for tie-ins 4" gas line |                                     |                                      |                             | 0.02*                       |                                      |                                    |                                     |                           |                       |   |                                     |                            |      |
|                | -L- 142+78~147+63   | Equipment Movement                 |                                     |                                      |                             |                             |                                      |                                    | 0.77                                |                           |                       |   |                                     |                            |      |
| 3              | -L- 147+50~147+89   | Bell holes for tie-ins 4" gas line |                                     |                                      |                             | 0.02*                       |                                      |                                    |                                     |                           |                       |   |                                     |                            |      |
|                | -L- 147+75~148+80   | Weld pipe for bore                 |                                     |                                      |                             |                             |                                      |                                    | 0.05                                |                           |                       |   |                                     |                            |      |
|                | -Y7- 51+96.05~52+84 | Prop. 6" Water Line                |                                     |                                      |                             | 0.01*                       |                                      |                                    |                                     | 0.01*                     |                       | 10                                      |                                     |                            |      |
|                | -Y7- 51+96.62~52+25 | Prop. 16" Force Main Sewer         |                                     |                                      |                             |                             |                                      |                                    |                                     | 0.01*                     |                       | 11                                      |                                     |                            |      |
|                | -Y7- 51+96.22~52+25 | Prop. 8" Force Main Sewer          |                                     |                                      |                             |                             |                                      |                                    |                                     | < 0.01*                   |                       | 3                                       |                                     |                            |      |
|                | -Y7- 51+96~52+25    | Prop. 2" Force Main Sewer          |                                     |                                      |                             | 0.02*                       |                                      |                                    |                                     | 0.01*                     |                       | 16                                      |                                     |                            |      |
| <b>TOTALS:</b> |                     |                                    | <0.01                               |                                      | 0.00                        | 0.08                        | 0.00                                 |                                    | 1.19                                | 0.00                      | 0.00                  | 0.03                                    | 0                                   | 40                         | 0.00 |

\* Temporary Excavation  
 \* Excavation will be set to the side and then place back into the hole.

NC DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 BRUNSWICK AND NEW HANOVER COUNTIES  
 WBS - 34491.1.2 (R-2633B)