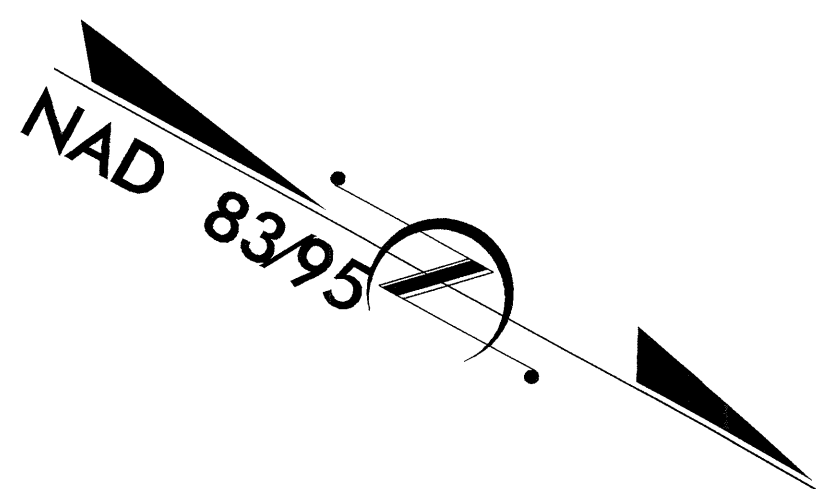


T.I.P. NO.	SHEET NO.
B-4435	UC-1



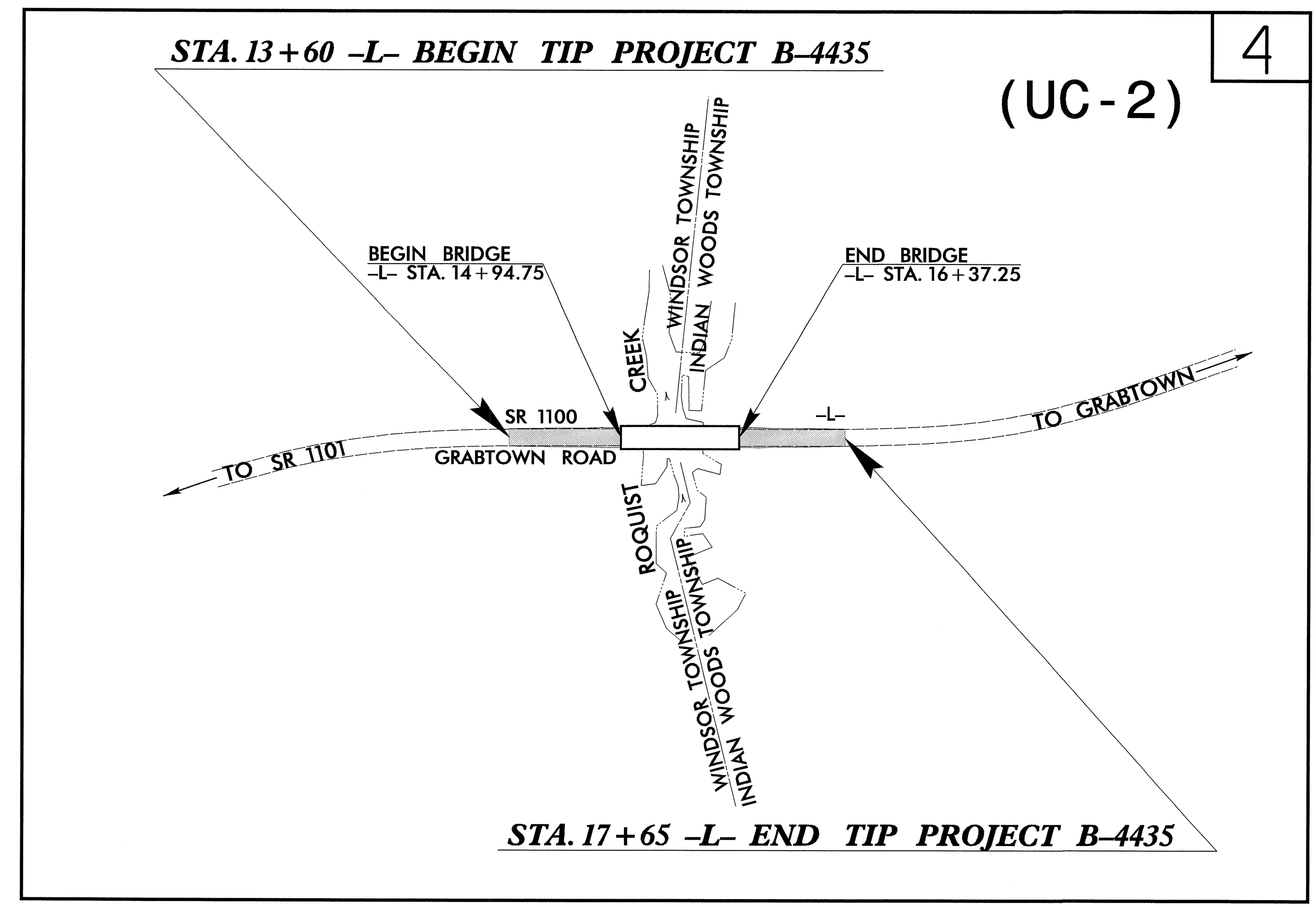
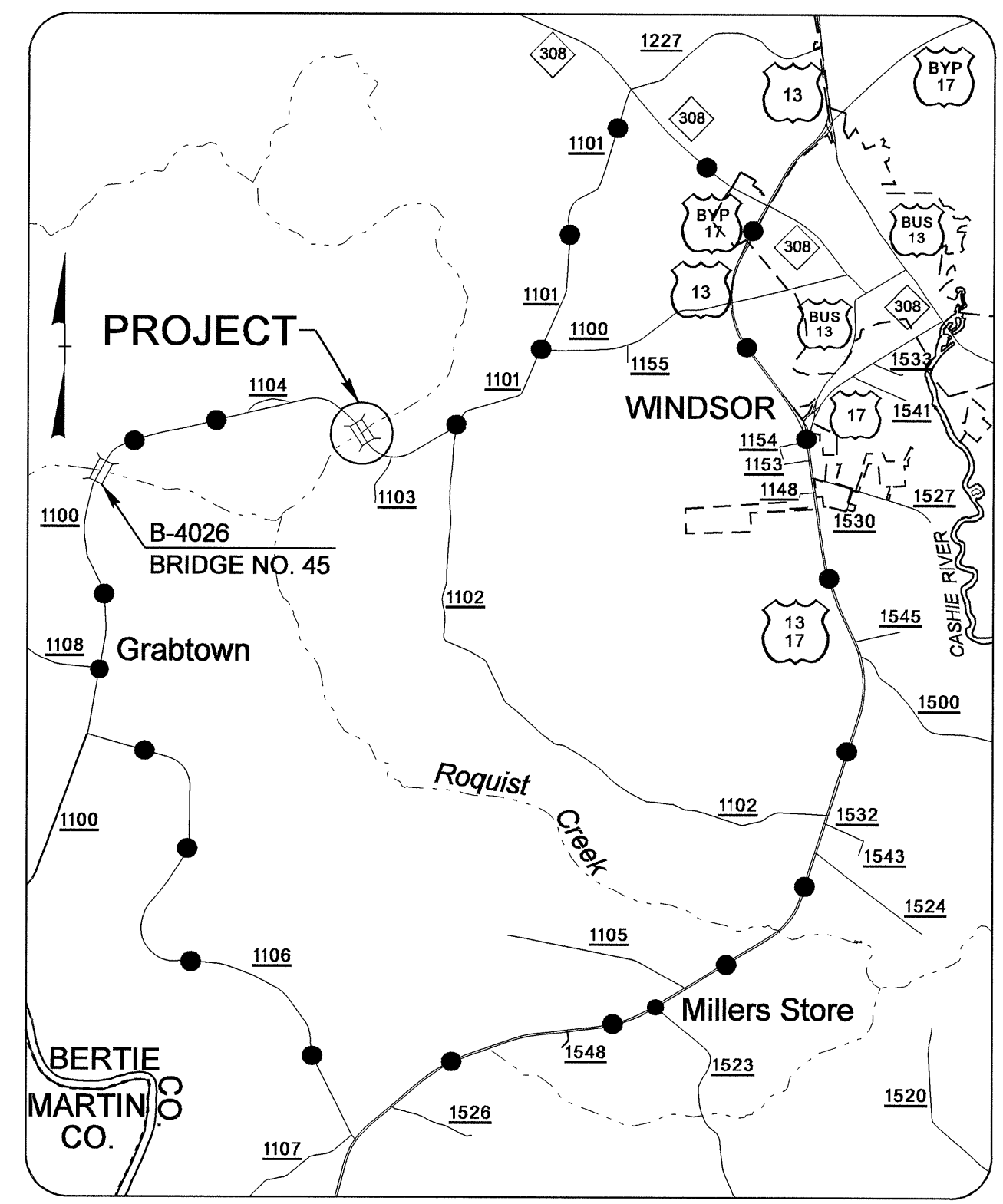
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

UTILITY CONSTRUCTION PLANS

BERTIE COUNTY

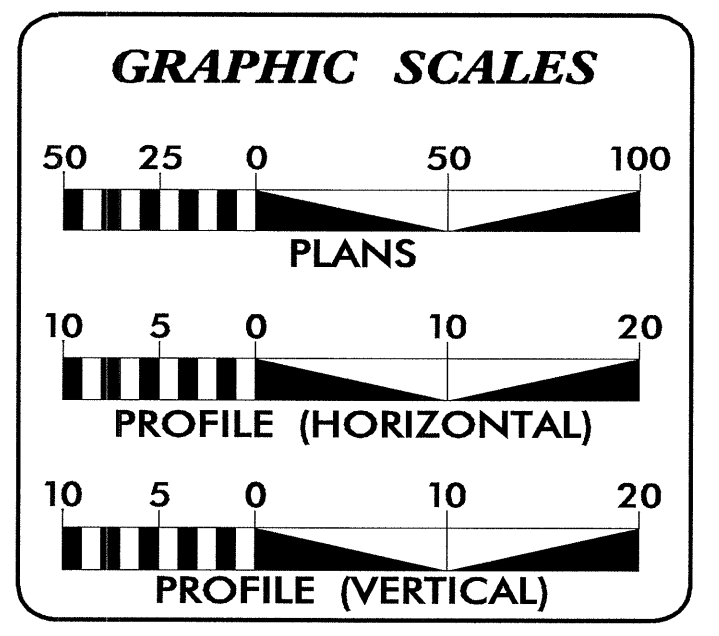
LOCATION: BRIDGE NO. 44 OVER ROQUIST CREEK ON SR 1100

TYPE OF WORK: UTILITY RELOCATION



TIP PROJECT: B-4435

2006 STANDARD SPECIFICATIONS

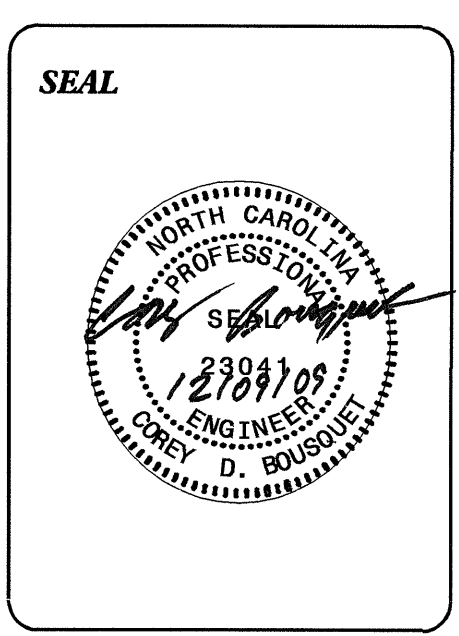


INDEX OF SHEETS

<u>SHEET NO.</u>	<u>DESCRIPTION</u>
UC-1	TITLE SHEET
UC-2	UTILITY CONSTRUCTION & DETAILS PLAN SHEET
UC-3 - UC-4	PROFILE SHEETS

WATER AND SEWER OWNERS ON PROJECT

(1) BERTIE COUNTY WATER (Water)



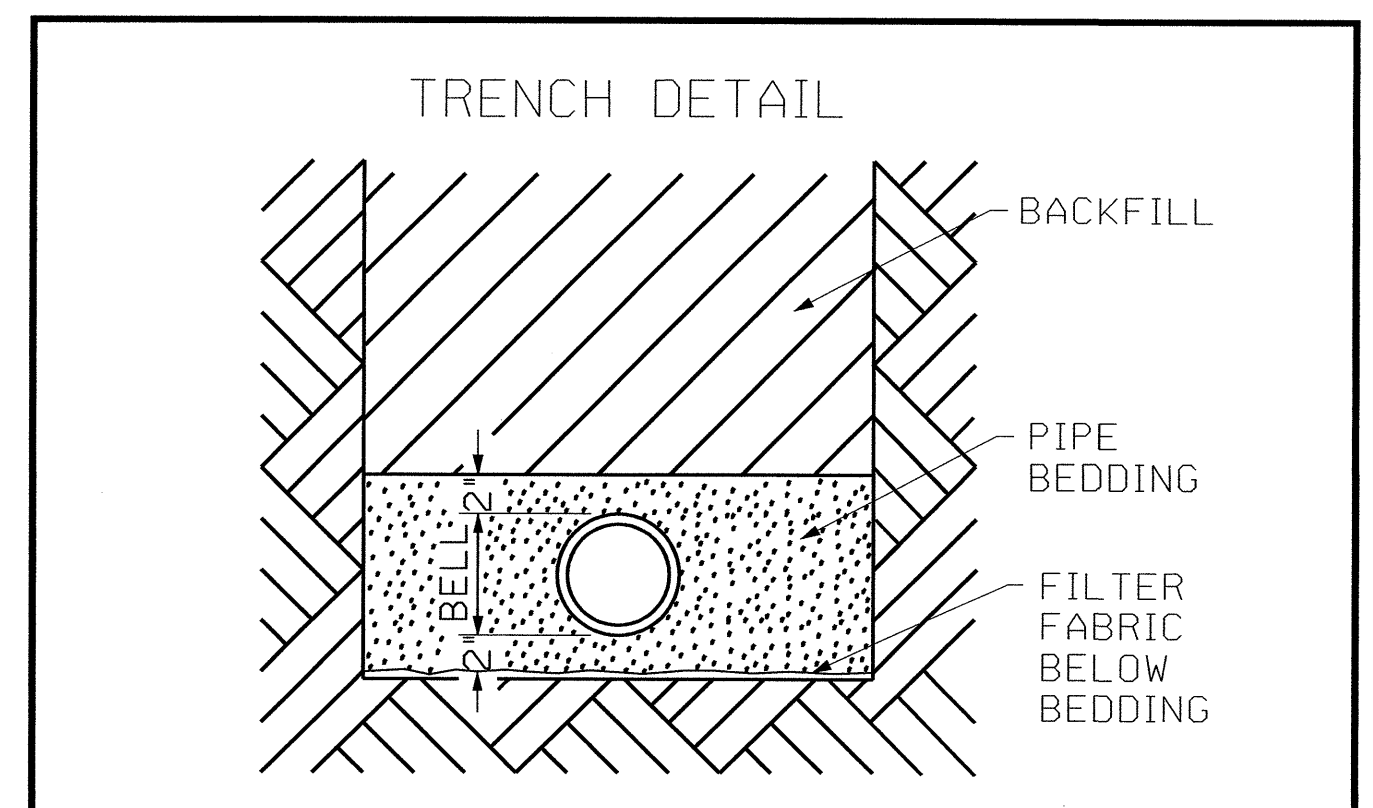
PREPARED IN THE OFFICE OF:
**DIVISION OF HIGHWAYS
UTILITIES ENGINEERING SECTION**

1591 MAIL SERVICES CENTER
RALEIGH, NC 27699-1591
PHONE (919) 250-4128
FAX (919) 250-4119

<u>Roger Worthington, P.E.</u>	UTILITIES SECTION ENGINEER
<u>Corey Bousquet, P.E.</u>	UTILITIES SQUAD LEADER PROJECT ENGINEER
<u>Nabil Hamdan</u>	UTILITIES PROJECT DESIGNER

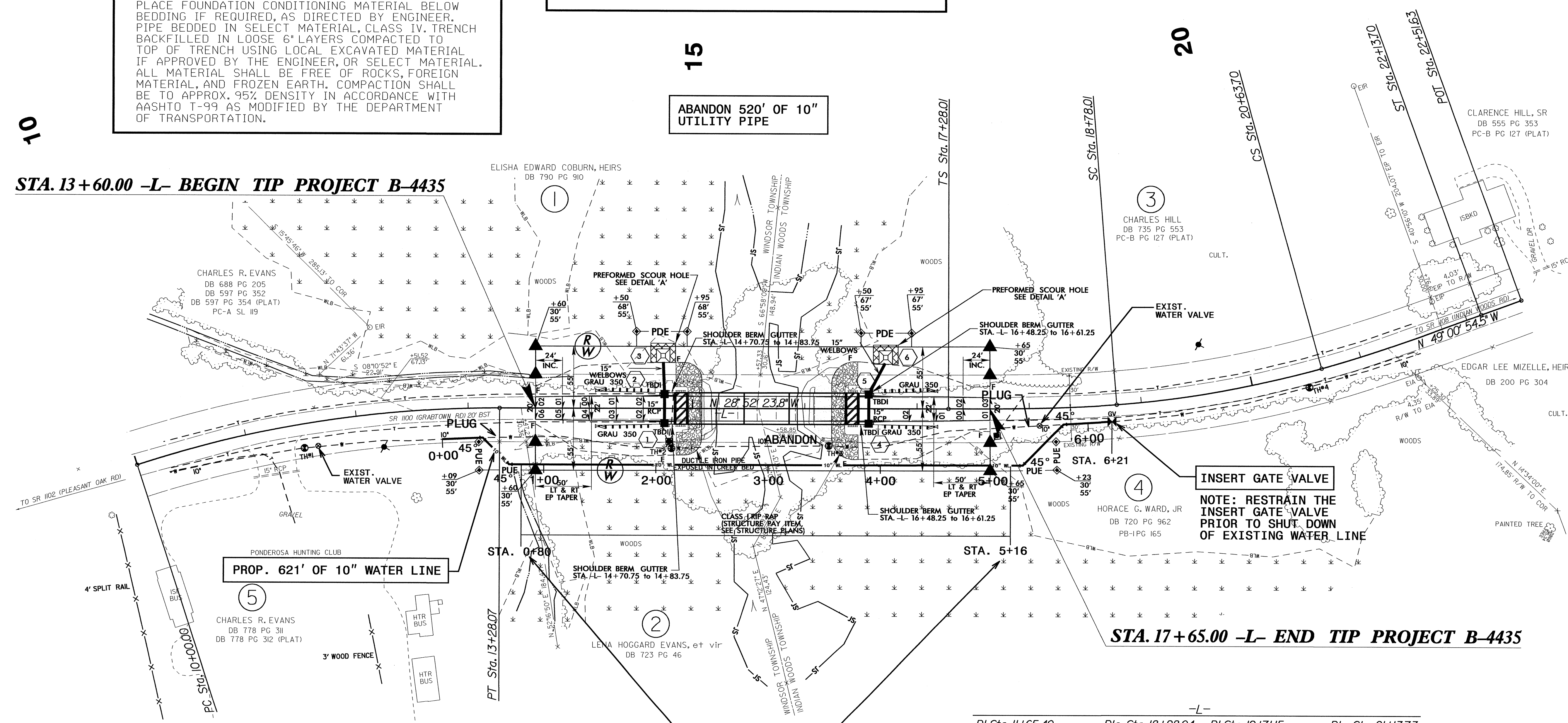
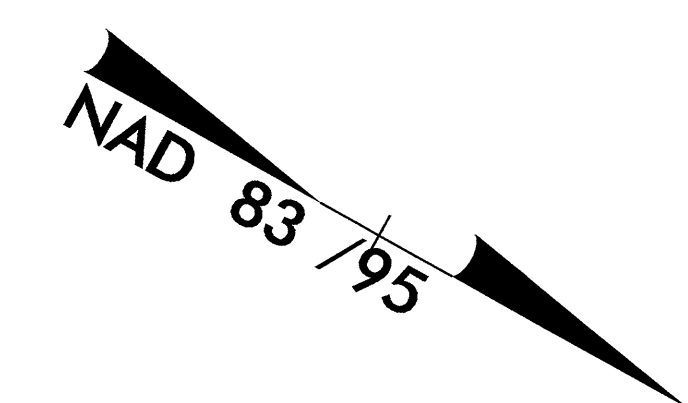
09-DEC-2009 10:45
F:\Utilities\rdy\ut\proj\B4435\ut_rdy\tsn_UC1.dgn
\$\$\$\$\$USERNAME\$\$\$\$\$

UTILITY CONSTRUCTION
 FOR -L- PROFILE SEE SHEET 5
 [Hatched Box Symbol] BRIDGE APPROACH SLAB



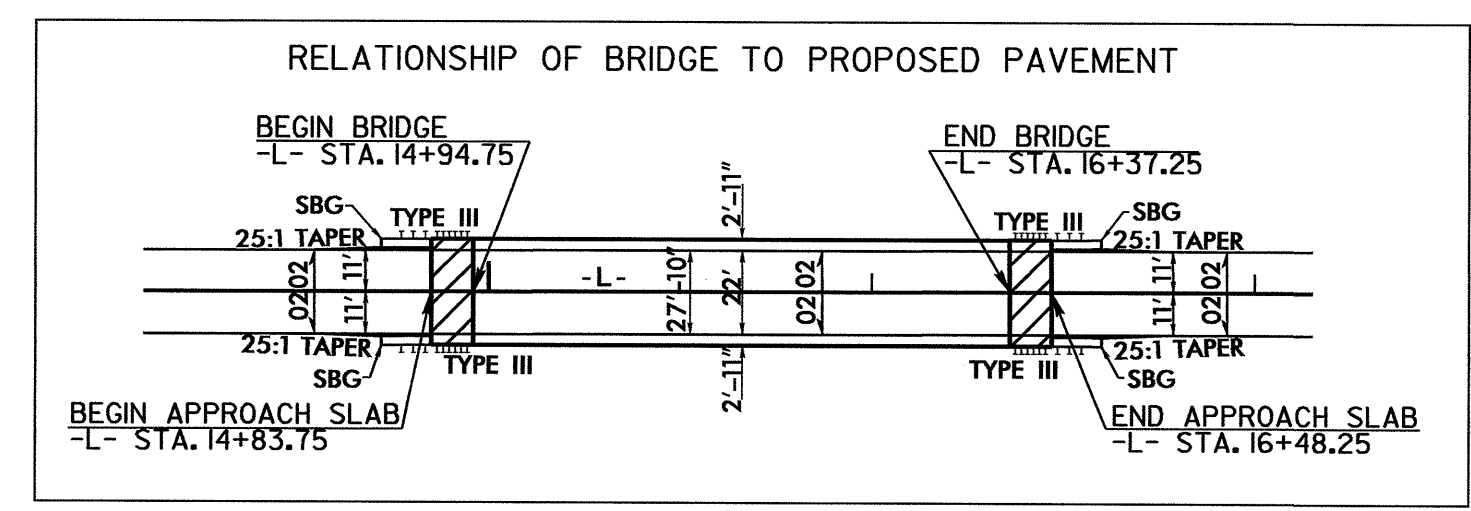
PLACE FOUNDATION CONDITIONING MATERIAL BELOW BEDDING IF REQUIRED, AS DIRECTED BY ENGINEER. PIPE BEDDED IN SELECT MATERIAL, CLASS IV. TRENCH BACKFILLED IN LOOSE 6" LAYERS COMPACTED TO TOP OF TRENCH USING LOCAL EXCAVATED MATERIAL IF APPROVED BY THE ENGINEER, OR SELECT MATERIAL. ALL MATERIAL SHALL BE FREE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

NOMINAL PIPE SIZE (INCHES)	TRENCH WIDTH (INCHES)	NOMINAL PIPE SIZE (INCHES)	TRENCH WIDTH (INCHES)
4	28	20	44
6	30	24	48
8	32	30	54
10	34	36	60
12	36	42	66
14	38	48	72
16	40	54	78
18	42		



STA. 13+60.00 -L- BEGIN TIP PROJECT B-4435

STA. 17+65.00 -L- END TIP PROJECT B-4435

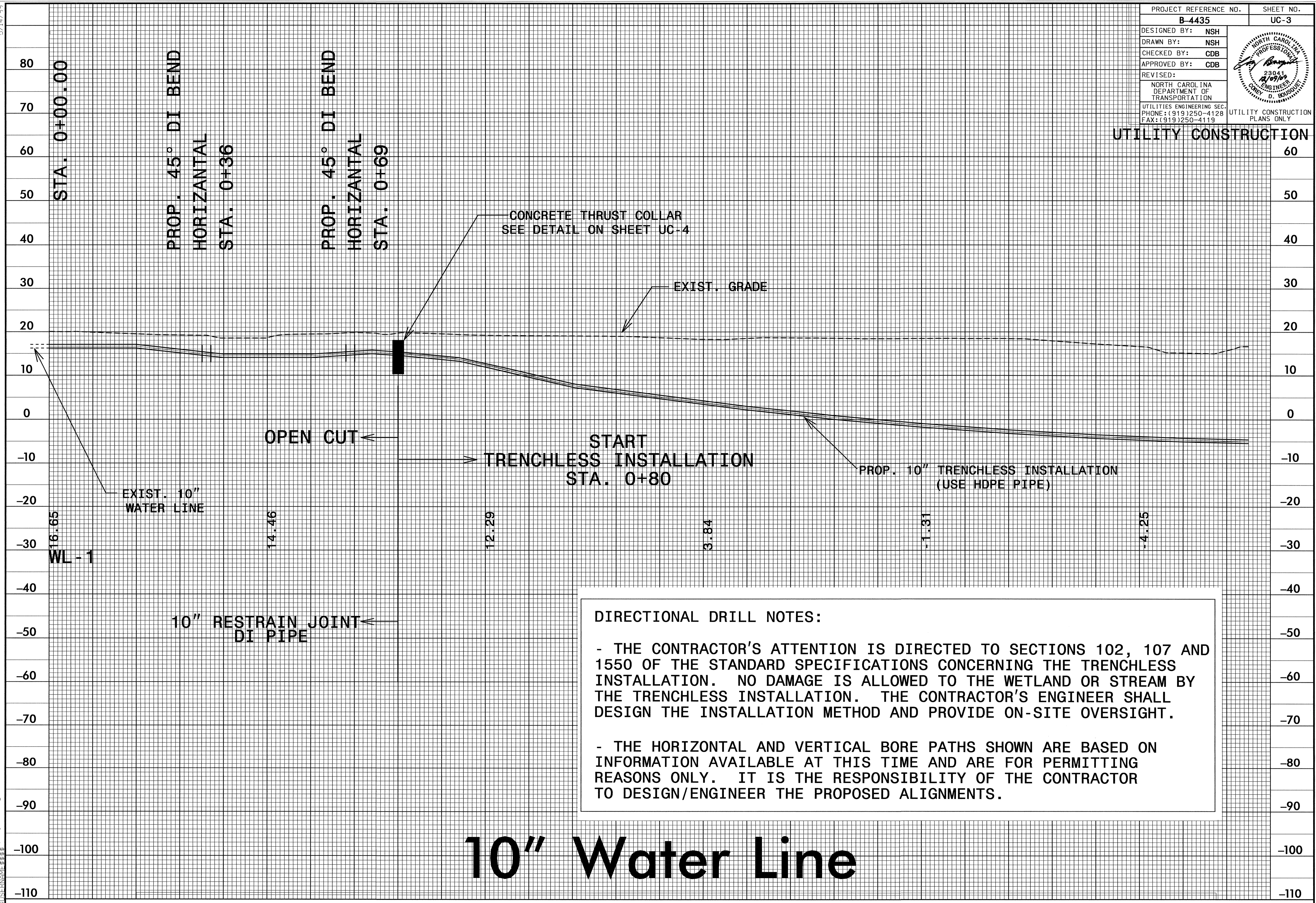


PI Sta 11+65.40	PIs Sta 18+28.04	PI Sta 19+71.15	PIs Sta 21+13.73
$\Delta = 18^{\circ} 02' 37.5''$ (RT)	$\Theta_s = 4^{\circ} 30' 00.0''$	$\Delta = 11^{\circ} 08' 30.7''$ (LT)	$\Theta_s = 4^{\circ} 30' 00.0''$
$D = 5^{\circ} 30' 00.0''$	$L_s = 150.00'$	$D = 6^{\circ} 00' 00.0''$	$L_s = 150.00'$
$L = 328.07'$	$LT = 100.03'$	$L = 185.70'$	$LT = 100.03'$
$T = 165.40'$	$ST = 50.03'$	$T = 93.14'$	$ST = 50.03'$
$R = 1,041.74'$		$R = 954.93'$	
		$SE = \text{SEE PLANS}$	

218' TRENCHLESS INSTALLATION OF 10" IN SOIL
218' TRENCHLESS INSTALLATION OF 10" NOT IN SOIL
 NOTE: THE 10" WATER PIPE USED FOR THE TRENCHLESS INSTALLATION SHALL HAVE AN INSIDE DIAMETER EQUAL TO OR GREATER THAN THE INSIDE DIAMETER FOR 10" DI WATER PIPE.

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
B-4435	UC-3
DESIGNED BY: NSH	
DRAWN BY: NSH	
CHECKED BY: CDB	
APPROVED BY: CDB	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919) 250-4128 FAX: (919) 250-4119	
UTILITY CONSTRUCTION PLANS ONLY	



DIRECTIONAL DRILL NOTES:

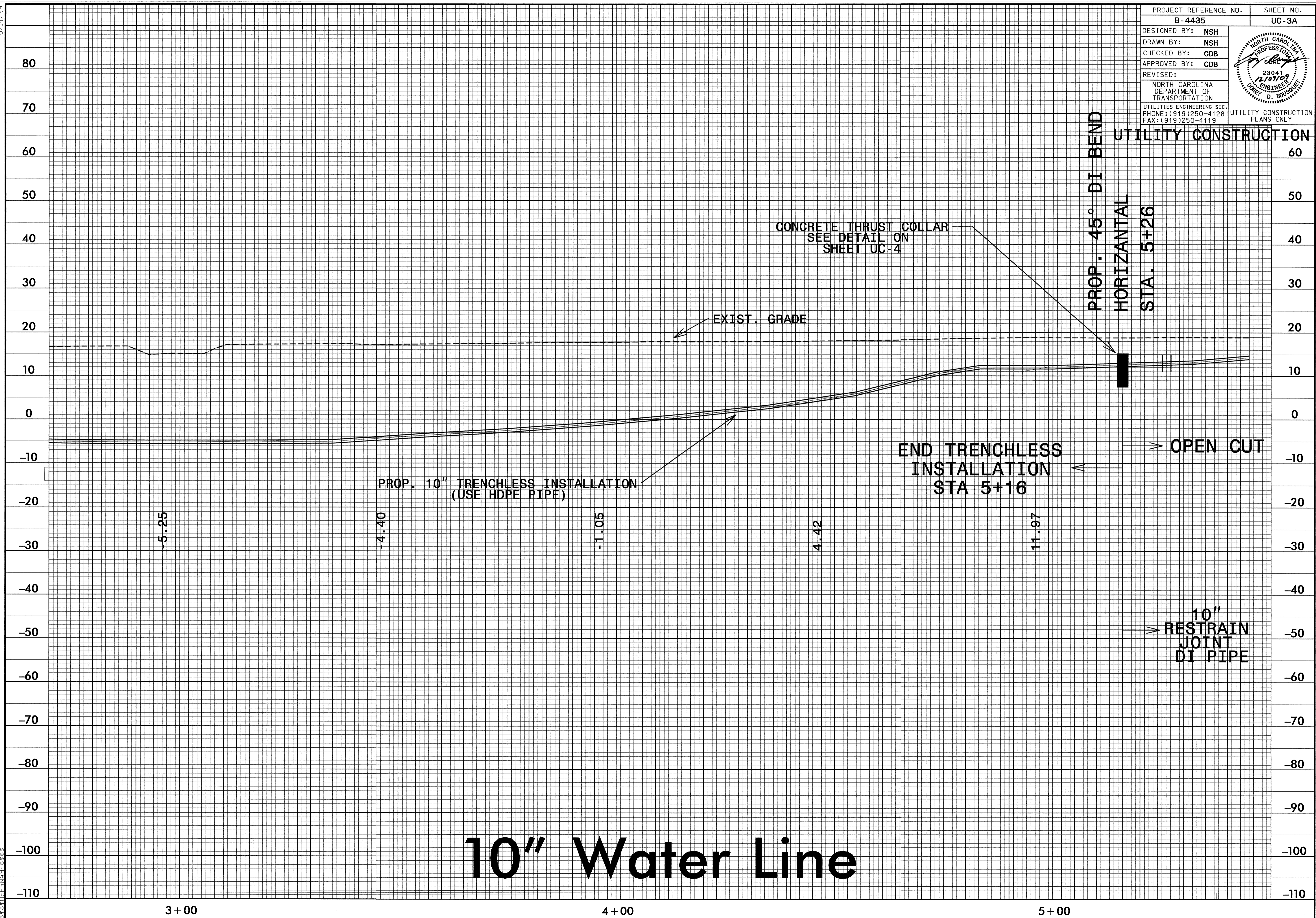
- THE CONTRACTOR'S ATTENTION IS DIRECTED TO SECTIONS 102, 107 AND 1550 OF THE STANDARD SPECIFICATIONS CONCERNING THE TRENCHLESS INSTALLATION. NO DAMAGE IS ALLOWED TO THE WETLAND OR STREAM BY THE TRENCHLESS INSTALLATION. THE CONTRACTOR'S ENGINEER SHALL DESIGN THE INSTALLATION METHOD AND PROVIDE ON-SITE OVERSIGHT.
- THE HORIZONTAL AND VERTICAL BORE PATHS SHOWN ARE BASED ON INFORMATION AVAILABLE AT THIS TIME AND ARE FOR PERMITTING REASONS ONLY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DESIGN/ENGINEER THE PROPOSED ALIGNMENTS.

10" Water Line

04-DEC-2009 17:29
 S:\SUT\STATION\WATER\10" WL 9.dgn

5/14/99

PROJECT REFERENCE NO. B-4435	SHEET NO. UC-3A
DESIGNED BY: NSH	
DRAWN BY: NSH	
CHECKED BY: CDB	
APPROVED BY: CDB	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919)250-4128 FAX: (919)250-4119	
UTILITY CONSTRUCTION PLANS ONLY	



10" Water Line

10-DEC-2009 10:46
C:\Users\j\Documents\10-DEC-2009 10:46
10-DEC-2009 10:46

3+00

4+00

5+00

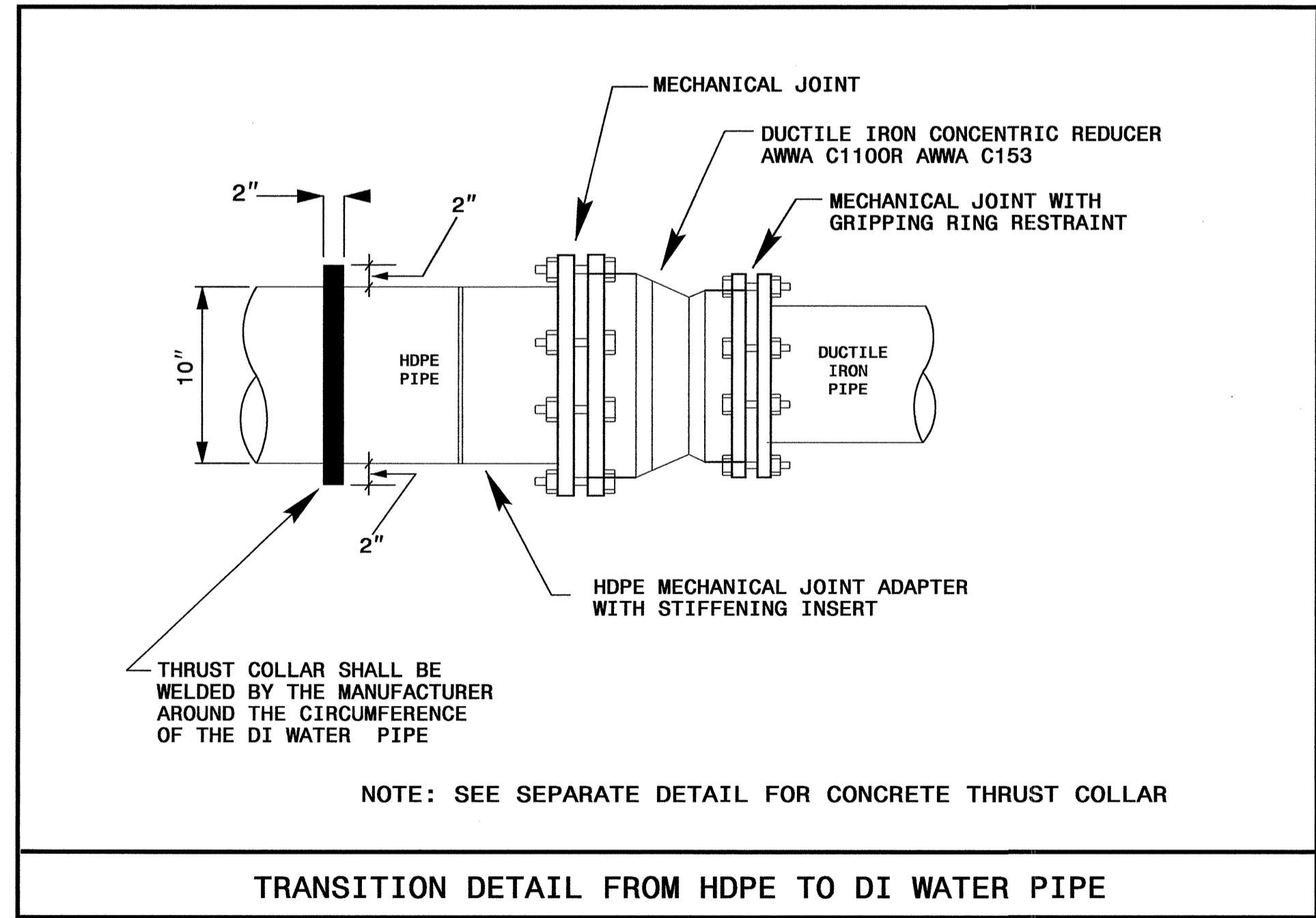
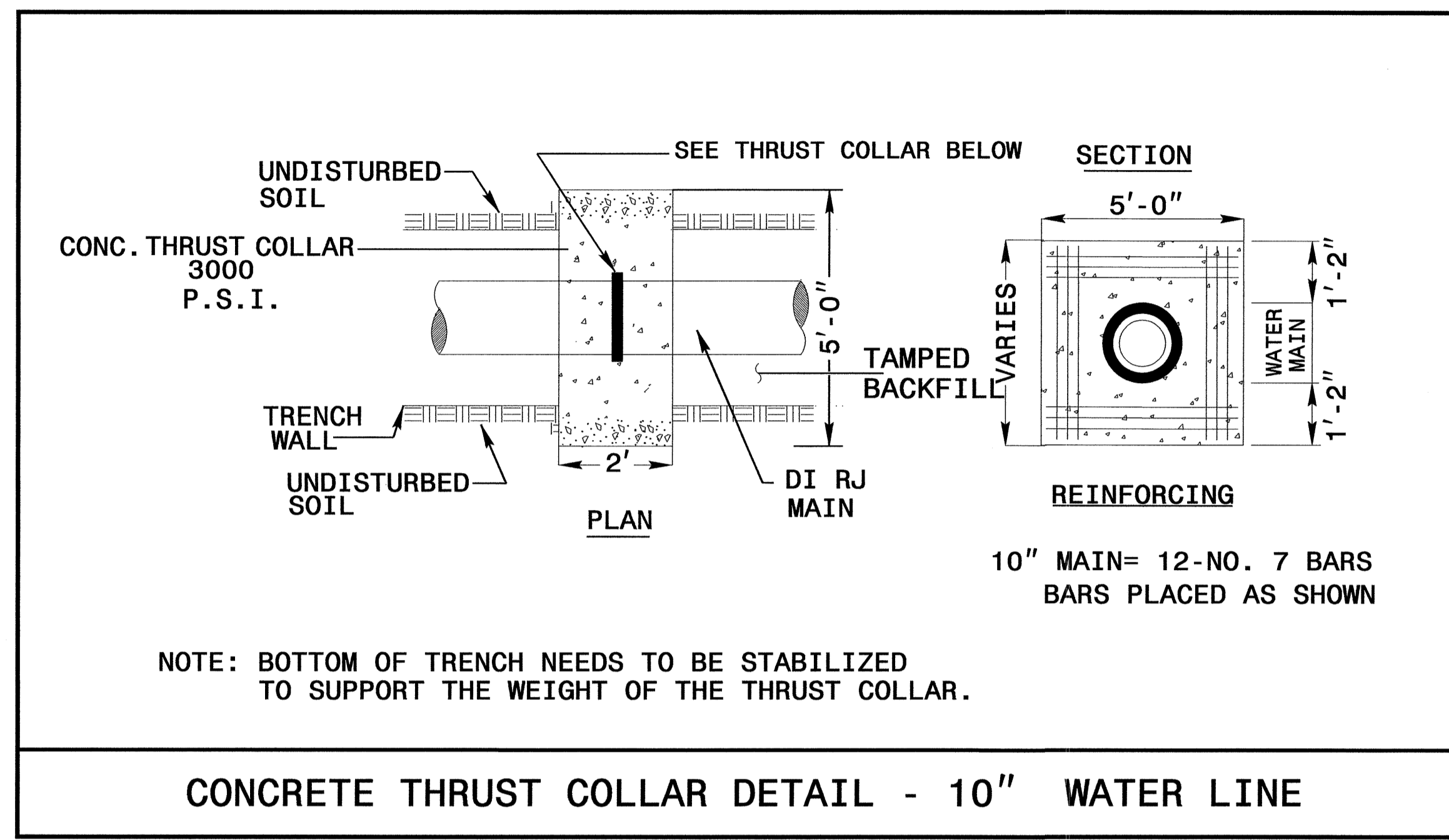
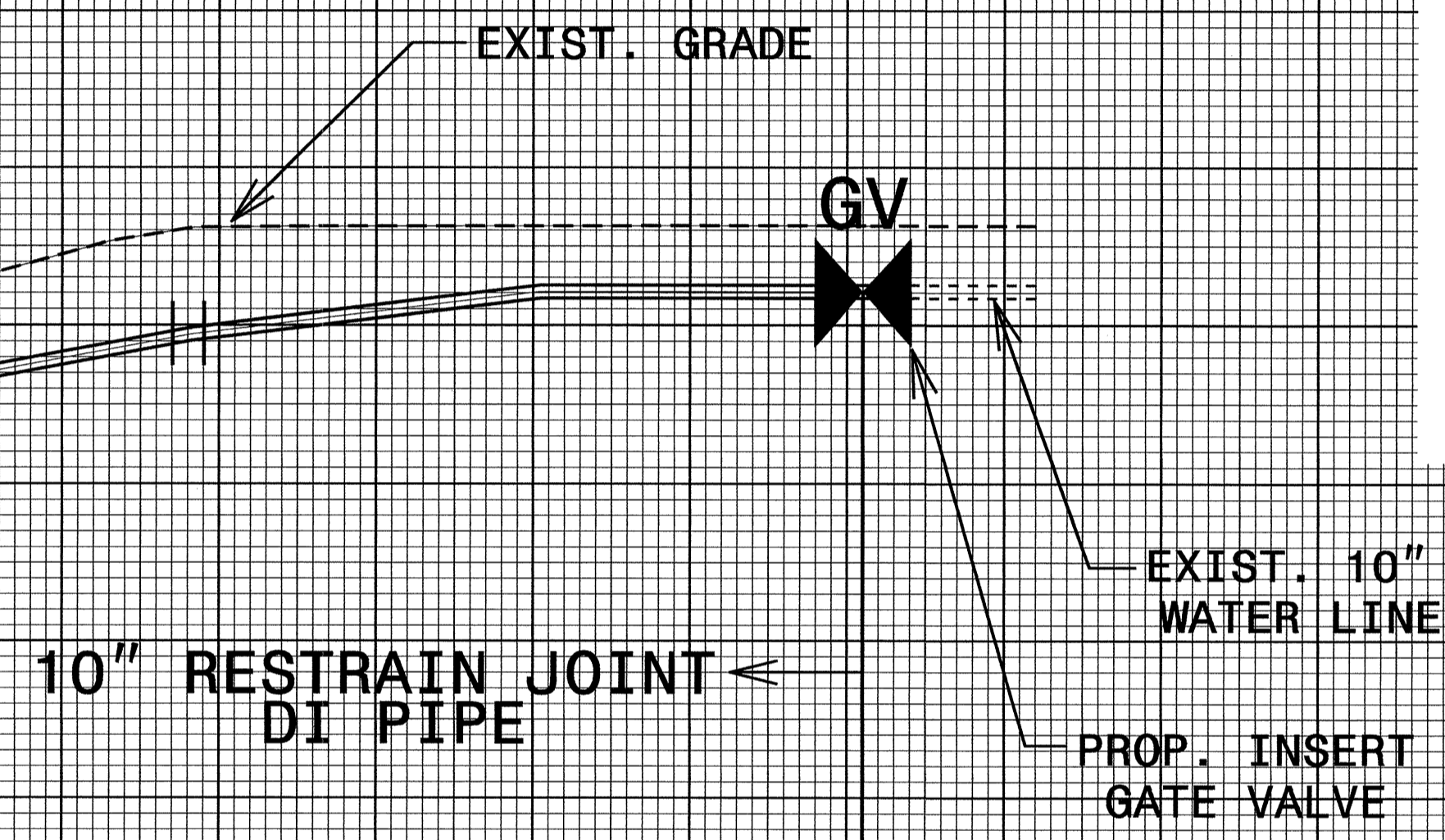
5/14/99

PROJECT REFERENCE NO.	SHEET NO.
B-4435	UC-4
DESIGNED BY: NSH	
DRAWN BY: NSH	
CHECKED BY: CDB	
APPROVED BY: CDB	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919)250-4128 FAX: (919)250-4119	
UTILITY CONSTRUCTION PLANS ONLY	

UTILITY CONSTRUCTION

90
80
70
60
50
40
30
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100

PROP. 45° DI BEND
HORIZONTAL
STA. 5+78



10" Water Line

09-DEC-2009 17:28
 C:\USERS\jason\proj\10" WL 9.dgn
 \$\$\$SUSANAME\$\$\$

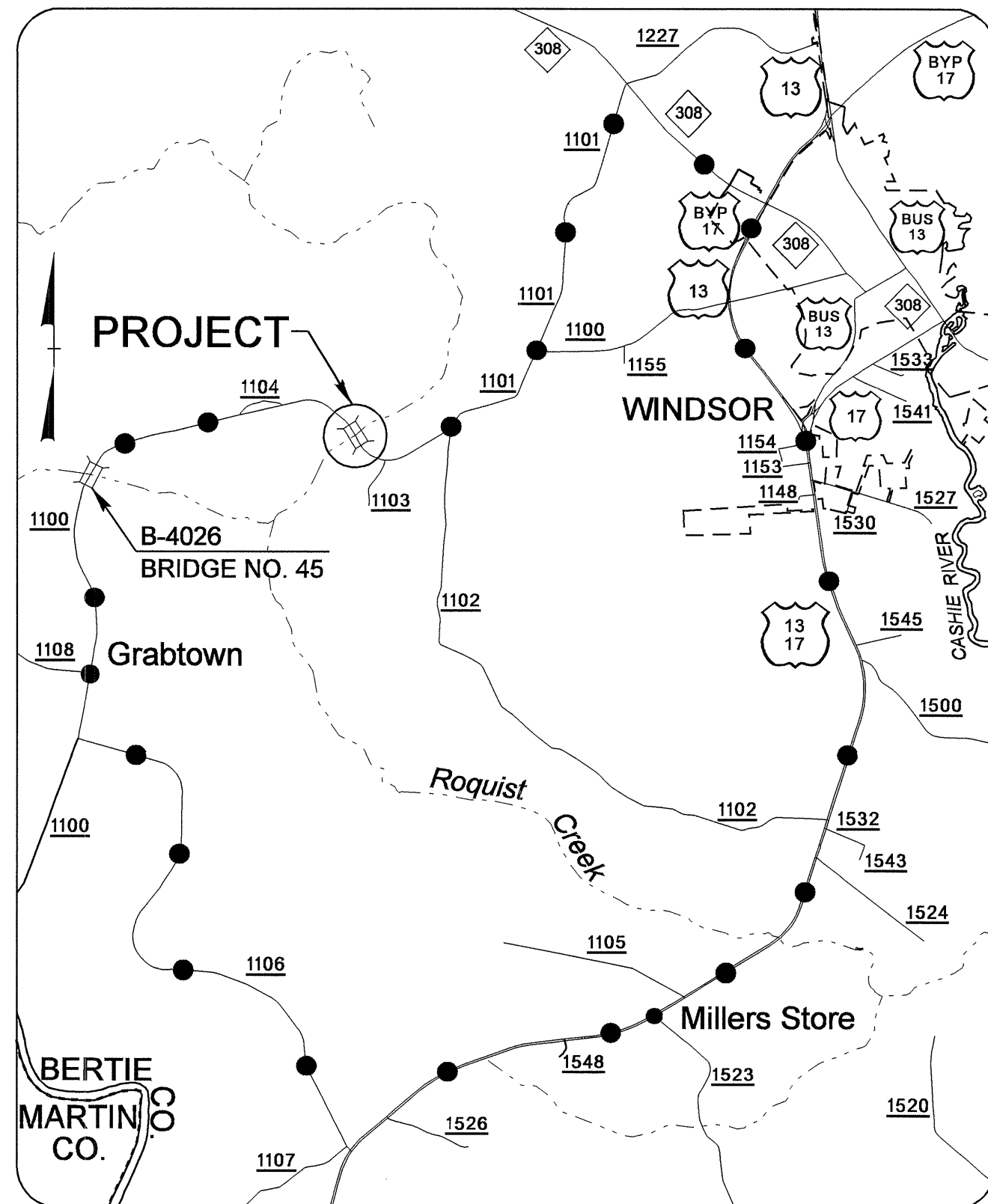
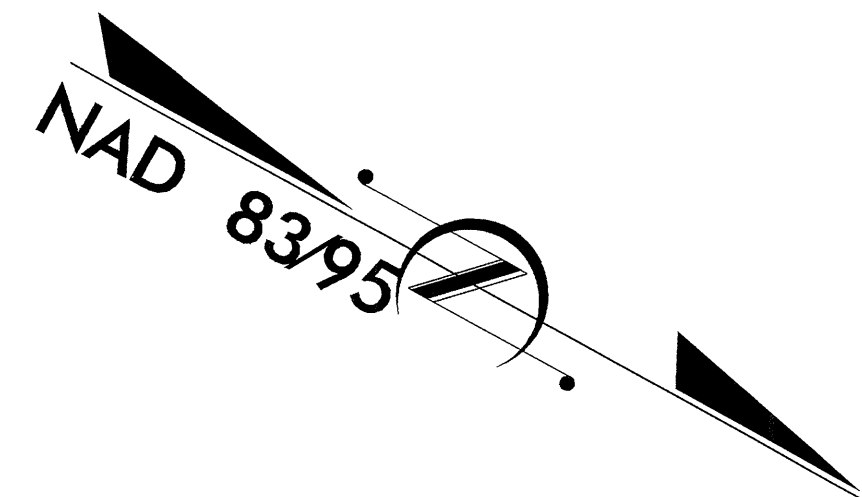
TIP PROJECT: B-4435

T.I.P. NO.	SHEET NO.
B-4435	UO-1

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

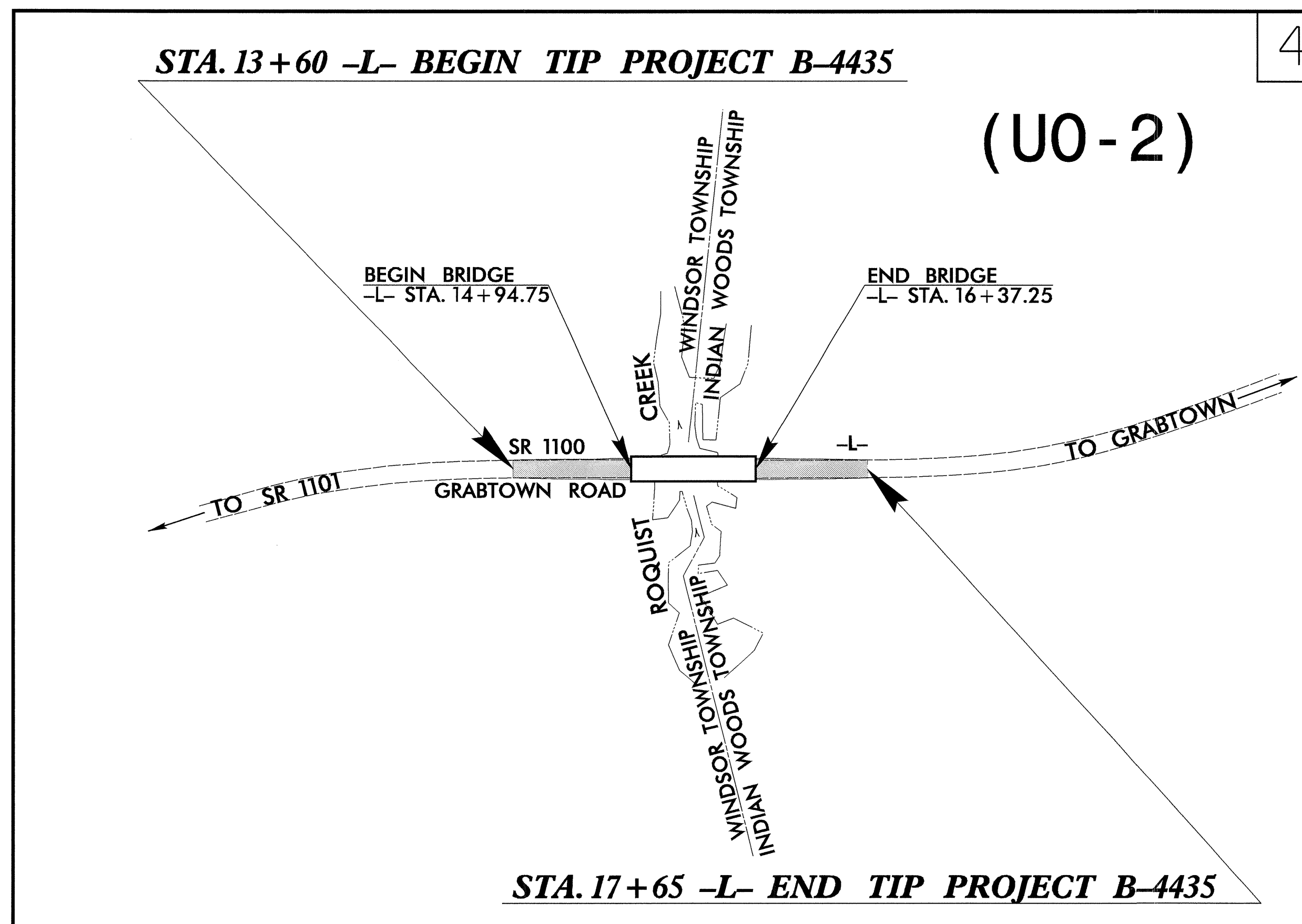
**UTILITIES BY OTHERS PLANS
BERTIE COUNTY**

LOCATION: BRIDGE NO. 44 OVER ROQUIST CREEK ON SR 1100
TYPE OF WORK: UTILITIES RELOCATION

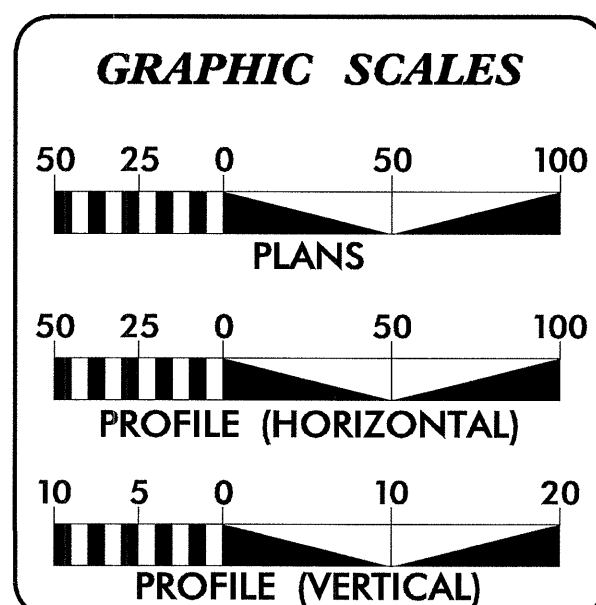


VICINITY MAP

● ● ● ● ● DETOUR ROUTE



2006 STANDARD SPECIFICATIONS



INDEX OF SHEETS	
SHEET NO.	DESCRIPTION
UO-1	TITLE SHEET
UO-2	UTILITY BY OTHERS PLAN SHEET

UTILITY OWNERS ON PROJECT
(1) Roanoke Electric Co-op (Power)
(2) Embarq (Telephone)
(3) Media-Com (CATV)

PREPARED IN THE OFFICE OF:
**DIVISION OF HIGHWAYS
UTILITIES ENGINEERING
SECTION**

1591 MAIL SERVICES CENTER
RALEIGH NC 27699-1591
PHONE (919) 250-4128
FAX (919) 250-4119

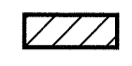

Roger Worthington, P.E. UTILITIES SECTION ENGINEER

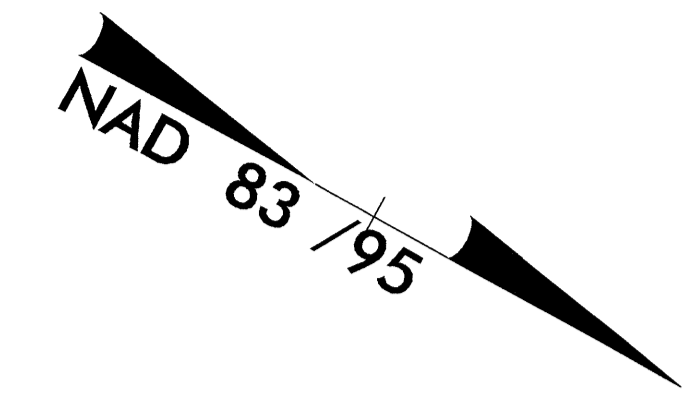
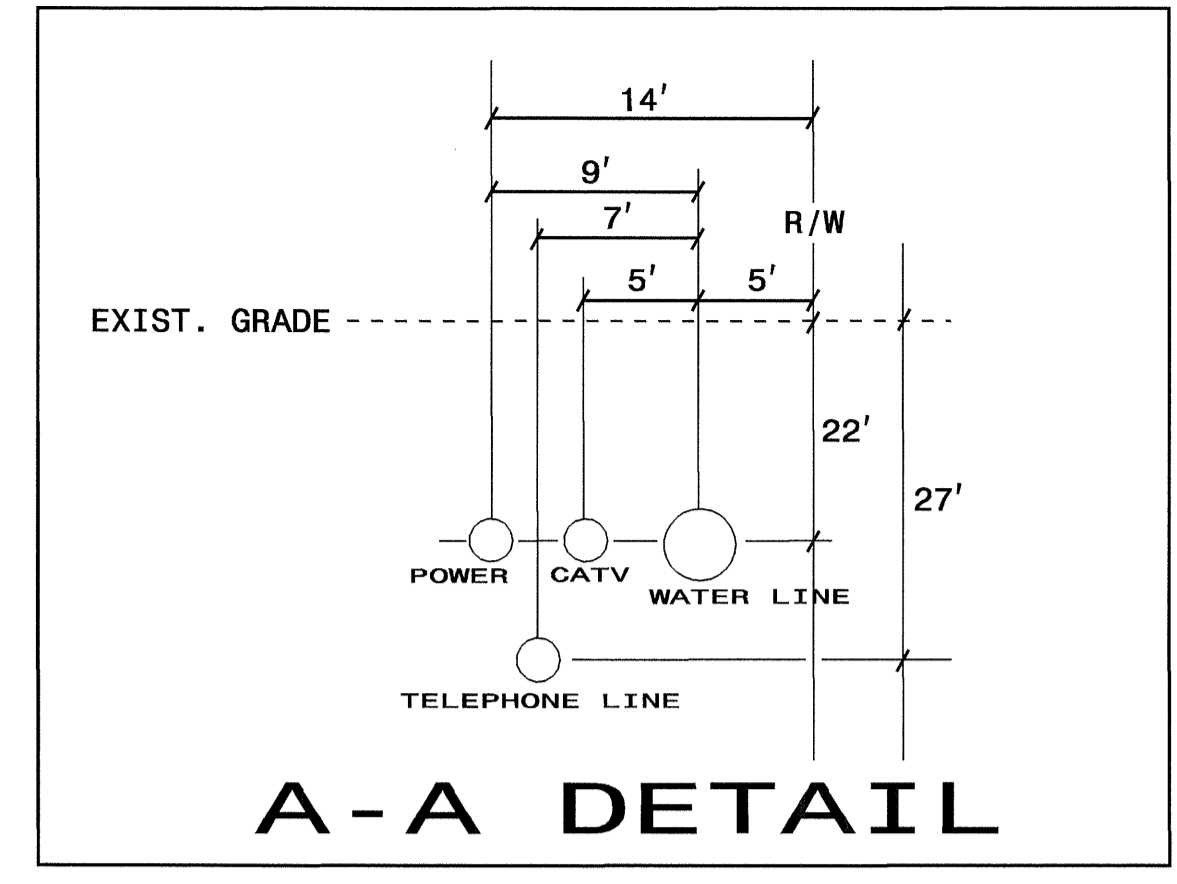
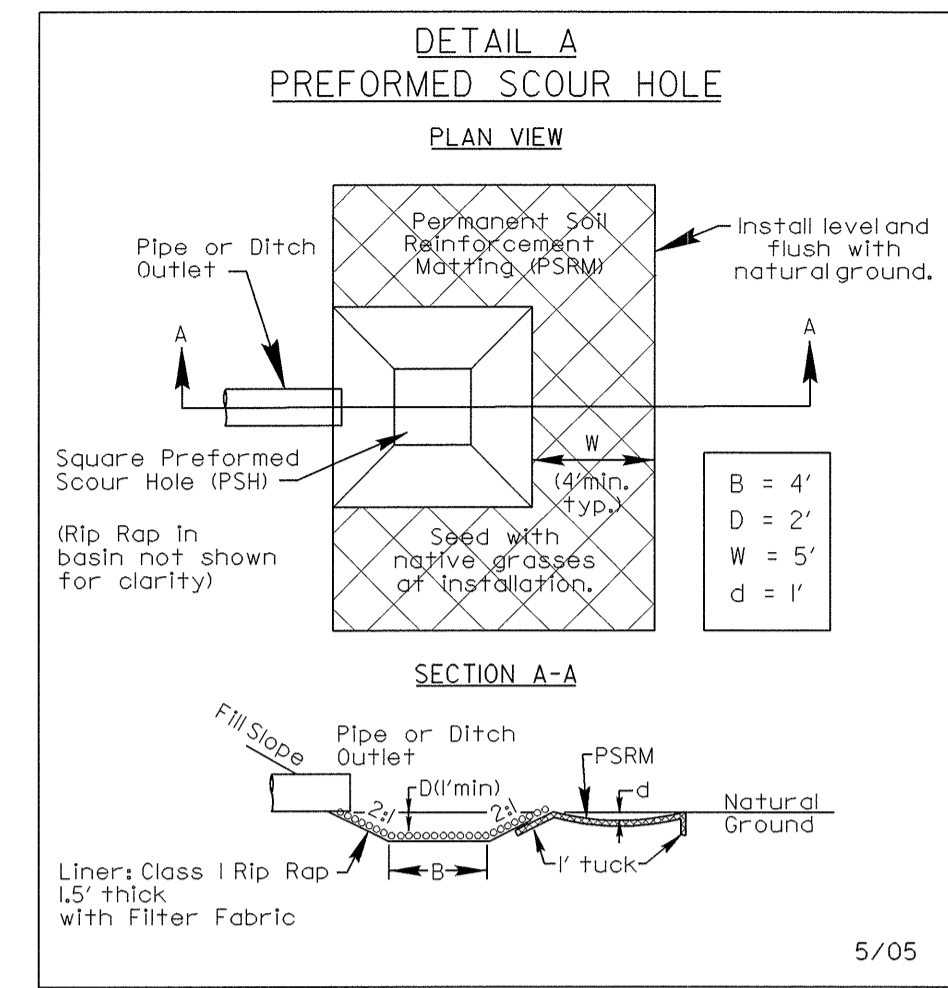
Corey Bousquet, P.E. UTILITIES SQUAD LEADER PROJECT ENGINEER

Nabil Hamdan UTILITIES PROJECT DESIGNER

UTILITIES BY OTHERS

NOTE:
 ALL PROPOSED UTILITY WORK
 SHOWN ON THIS SHEET WILL
 BE DONE BY OTHERS

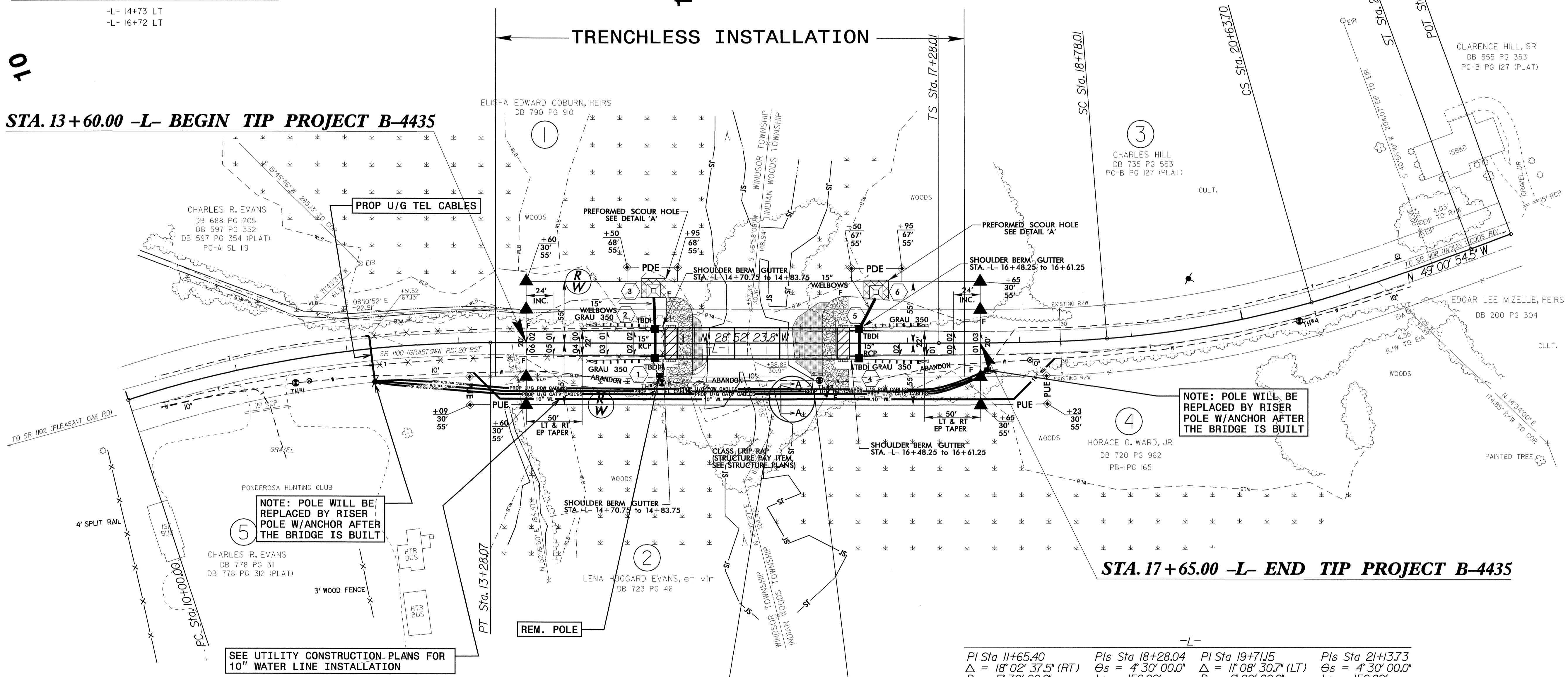
FOR -L- PROFILE SEE SHEET 5
 BRIDGE APPROACH SLAB
 UNCLASSIFIED STRUCTURE EXCAVATION (STRUCTURE PAY ITEM)



-L- 14+73 LT
 -L- 16+72 LT

10

STA. 13+60.00 -L- BEGIN TIP PROJECT B-4435

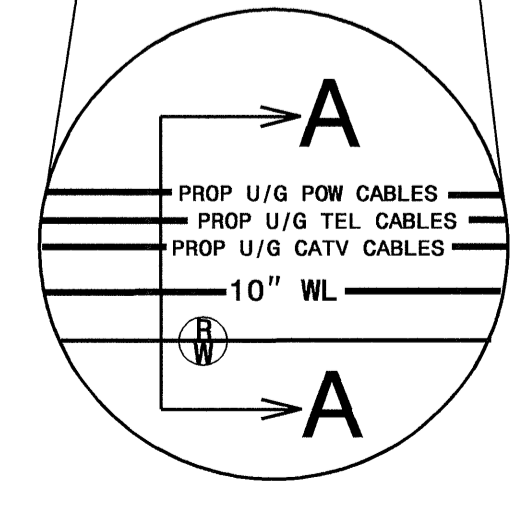
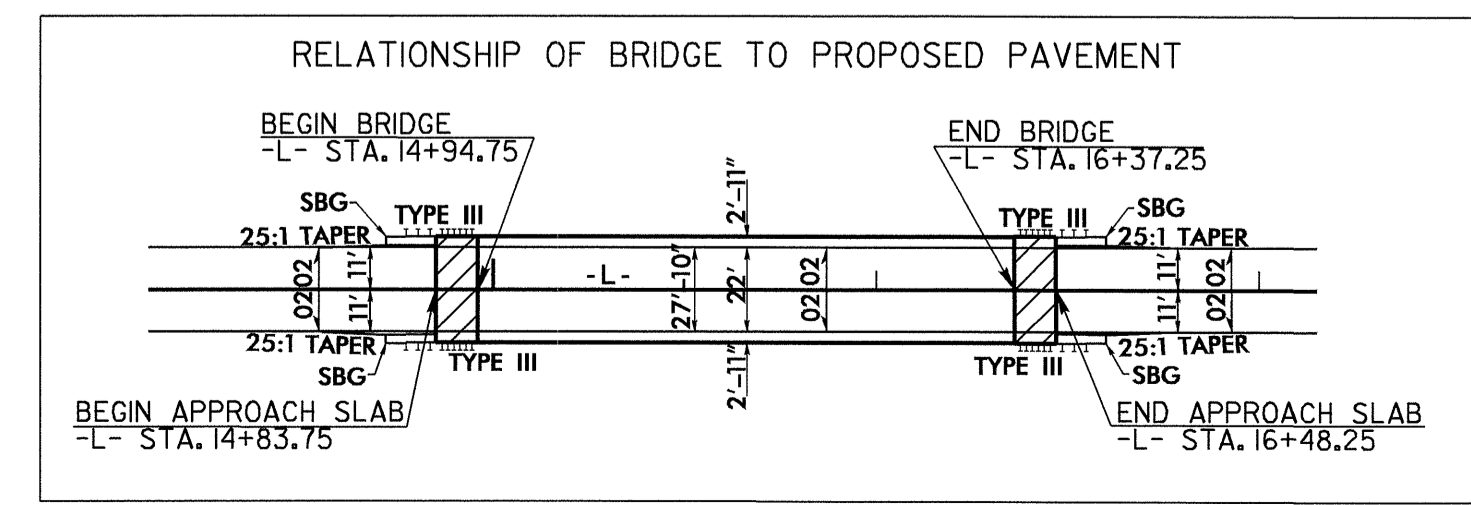


NOTE: POLE WILL BE REPLACED BY RISER POLE W/ANCHOR AFTER THE BRIDGE IS BUILT

NOTE: POLE WILL BE REPLACED BY RISER POLE W/ANCHOR AFTER THE BRIDGE IS BUILT

SEE UTILITY CONSTRUCTION PLANS FOR 10" WATER LINE INSTALLATION

STA. 17+65.00 -L- END TIP PROJECT B-4435



SEE A-A DETAIL

-L-			
PI Sta 11+65.40	PIs Sta 18+28.04	PI Sta 19+71.15	PIs Sta 21+13.73
$\Delta = 18^{\circ} 02' 37.5''$ (RT)	$\Theta_s = 4^{\circ} 30' 00.0''$	$\Delta = 11^{\circ} 08' 30.7''$ (LT)	$\Theta_s = 4^{\circ} 30' 00.0''$
$D = 5^{\circ} 30' 00.0''$	$L_s = 150.00'$	$D = 6^{\circ} 00' 00.0''$	$L_s = 150.00'$
$L = 328.07'$	$LT = 100.03'$	$L = 185.70'$	$LT = 100.03'$
$T = 165.40'$	$ST = 50.03'$	$T = 93.14'$	$ST = 50.03'$
$R = 1,041.74'$		$R = 954.93'$	
		$SE = \text{SEE PLANS}$	

5/14/99
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