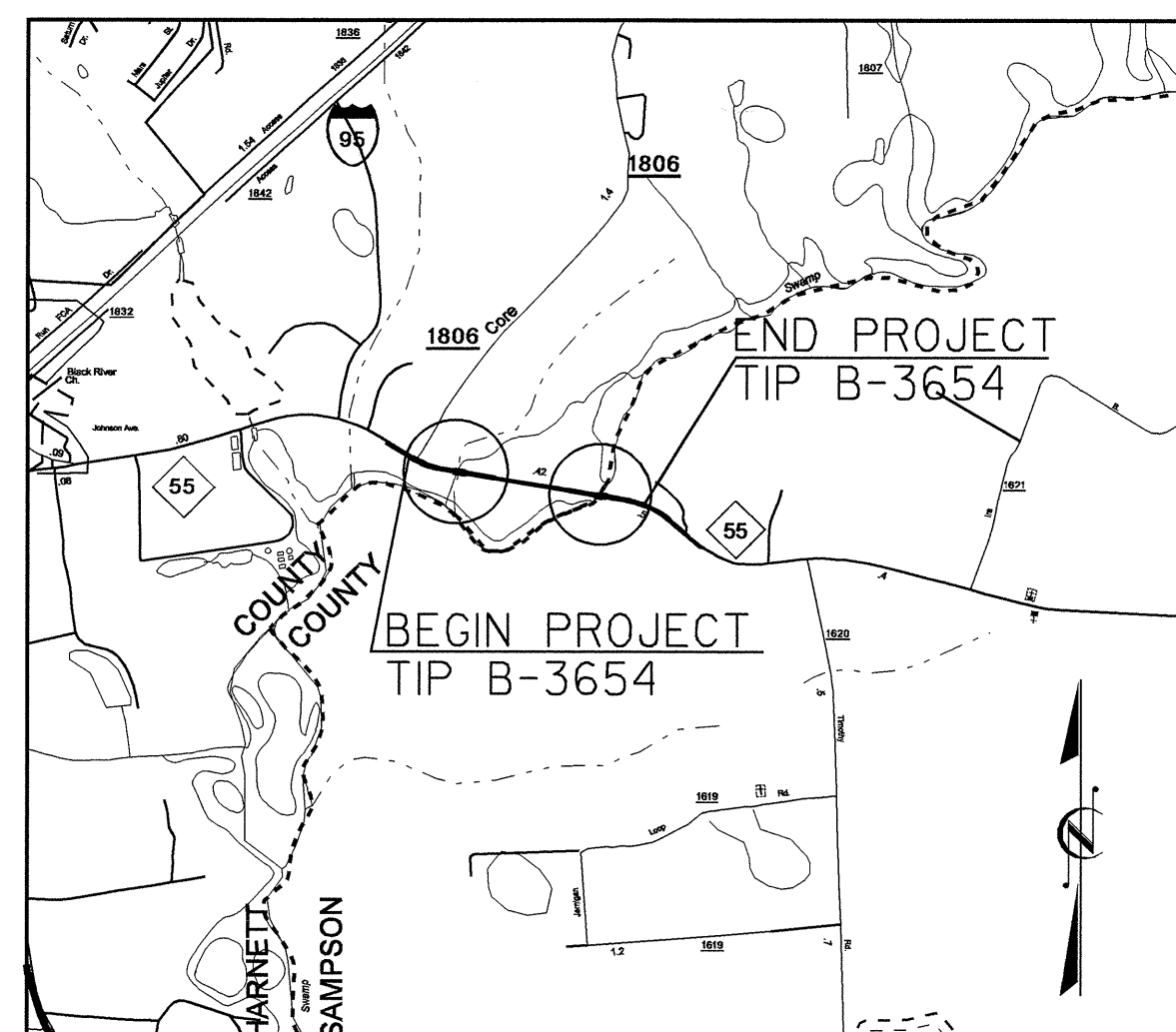


STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

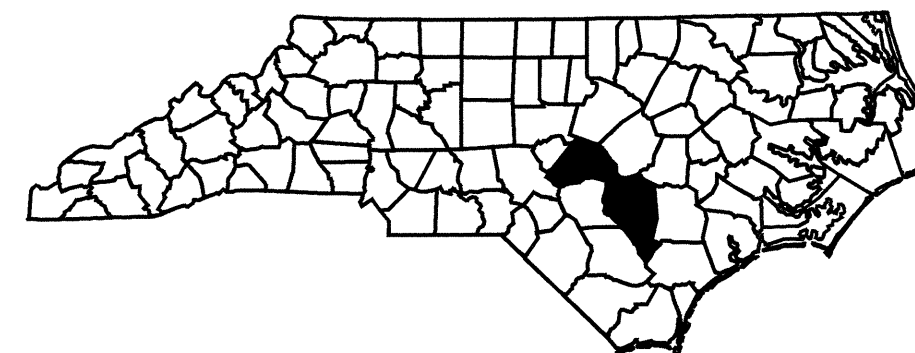
**UTILITY CONSTRUCTION PLANS
HARNETT AND SAMPSON COUNTIES**

LOCATION: REPLACE BRIDGES 29 & 53 OVER MINGO SWAMP ON NC 55

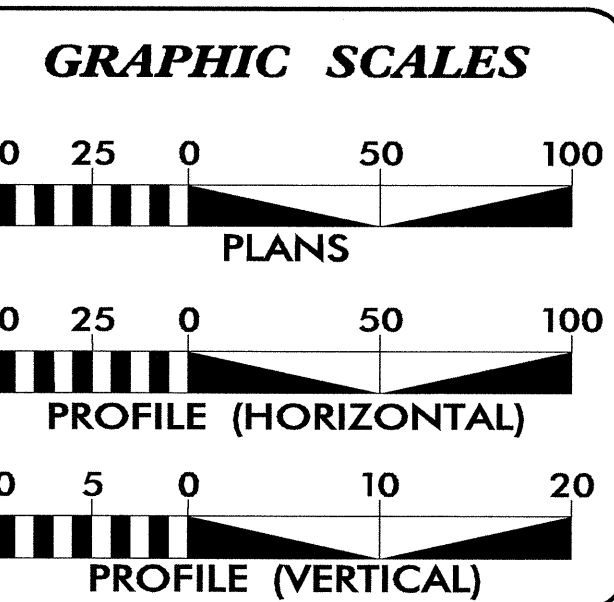
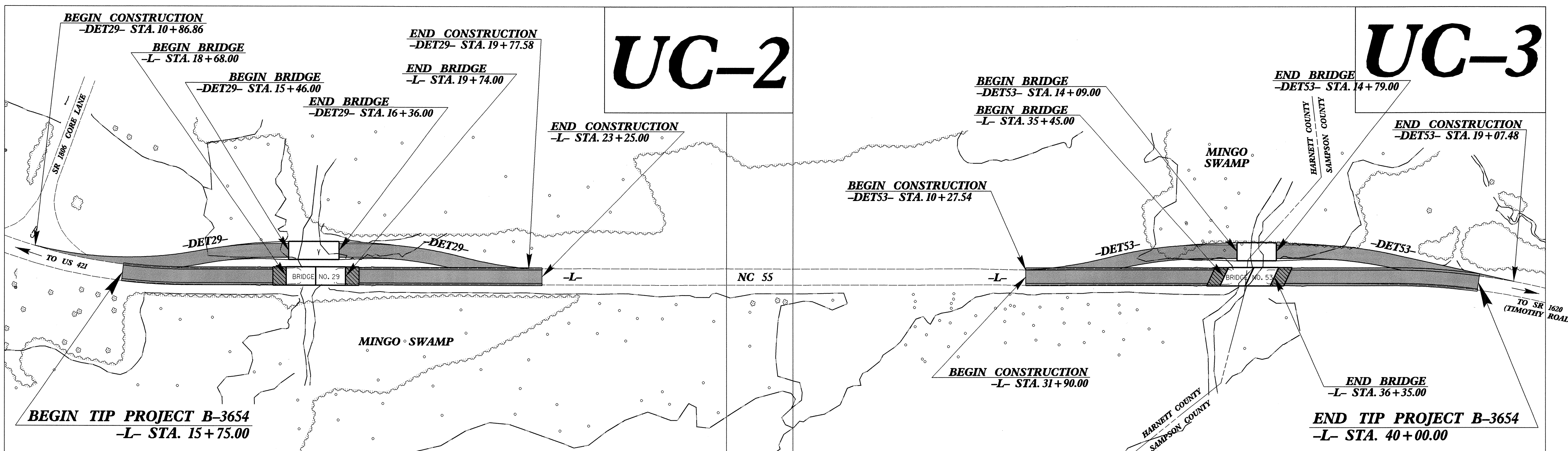
TYPE OF WORK: WATER LINE RELOCATION



VICINITY MAP



TIP PROJECT: B-3654



INDEX OF SHEETS

SHEET NO.	DESCRIPTION
UC-1	TITLE SHEET
UC-2 THRU UC-3	UTILITY CONSTRUCTION PLAN SHEETS
UC-4	DETAILS/NOTES SHEET

WATER AND SEWER OWNERS ON PROJECT

(1) WATER - Sampson County



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

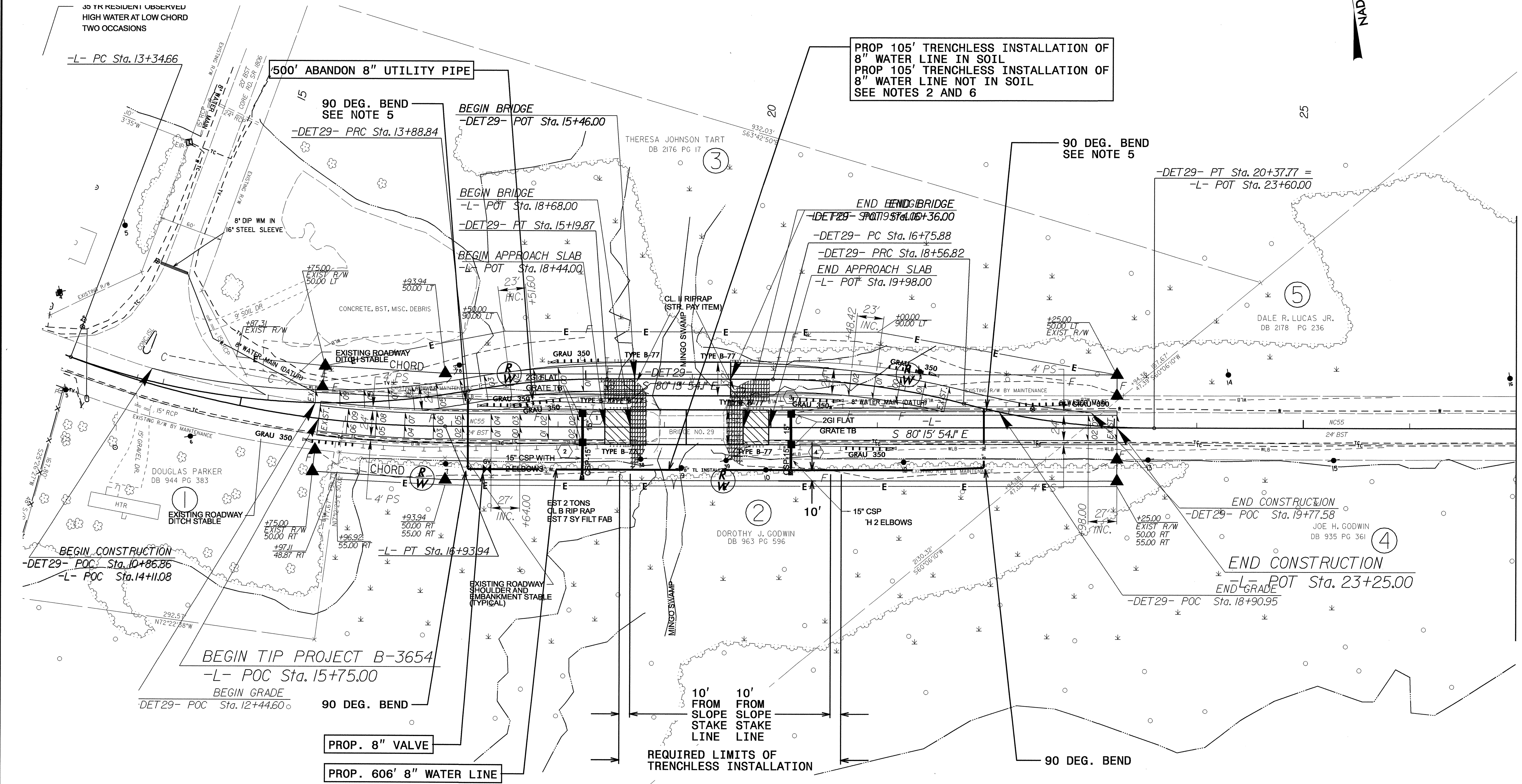
Roger Worthington, P.E. UTILITIES SECTION ENGINEER
Carl Barclay, P.E. UTILITIES SQUAD LEADER PROJECT ENGINEER
Bo Hemphill, P.E. UTILITIES PROJECT DESIGNER

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PROJECT REFERENCE NO.	SHEET NO.
B-3654	UC-2
DESIGNED BY: BH	
DRAWN BY: BH	
CHECKED BY: CAB	
APPROVED BY: CAB	
REVISER:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919) 250-4128 FAX: (919) 250-4119	
UTILITY CONSTRUCTION PLANS ONLY	

UTILITY CONSTRUCTION

NAD 83



PROP 105' TRENCHLESS INSTALLATION OF 8" WATER LINE IN SOIL
 PROP 105' TRENCHLESS INSTALLATION OF 8" WATER LINE NOT IN SOIL
 SEE NOTES 2 AND 6

500' ABANDON 8" UTILITY PIPE

PROP. 8" VALVE

PROP. 606' 8" WATER LINE

REQUIRED LIMITS OF TRENCHLESS INSTALLATION

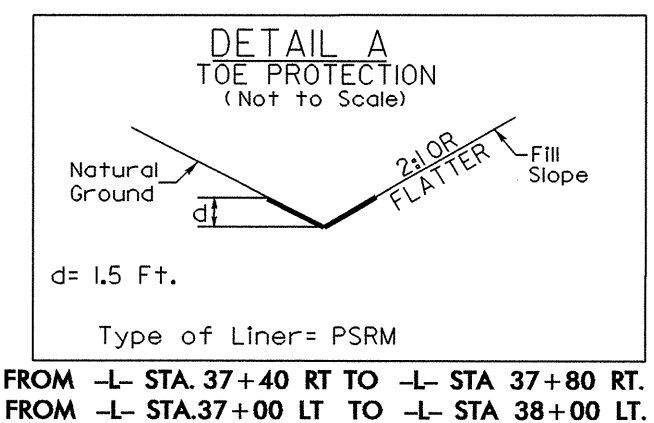
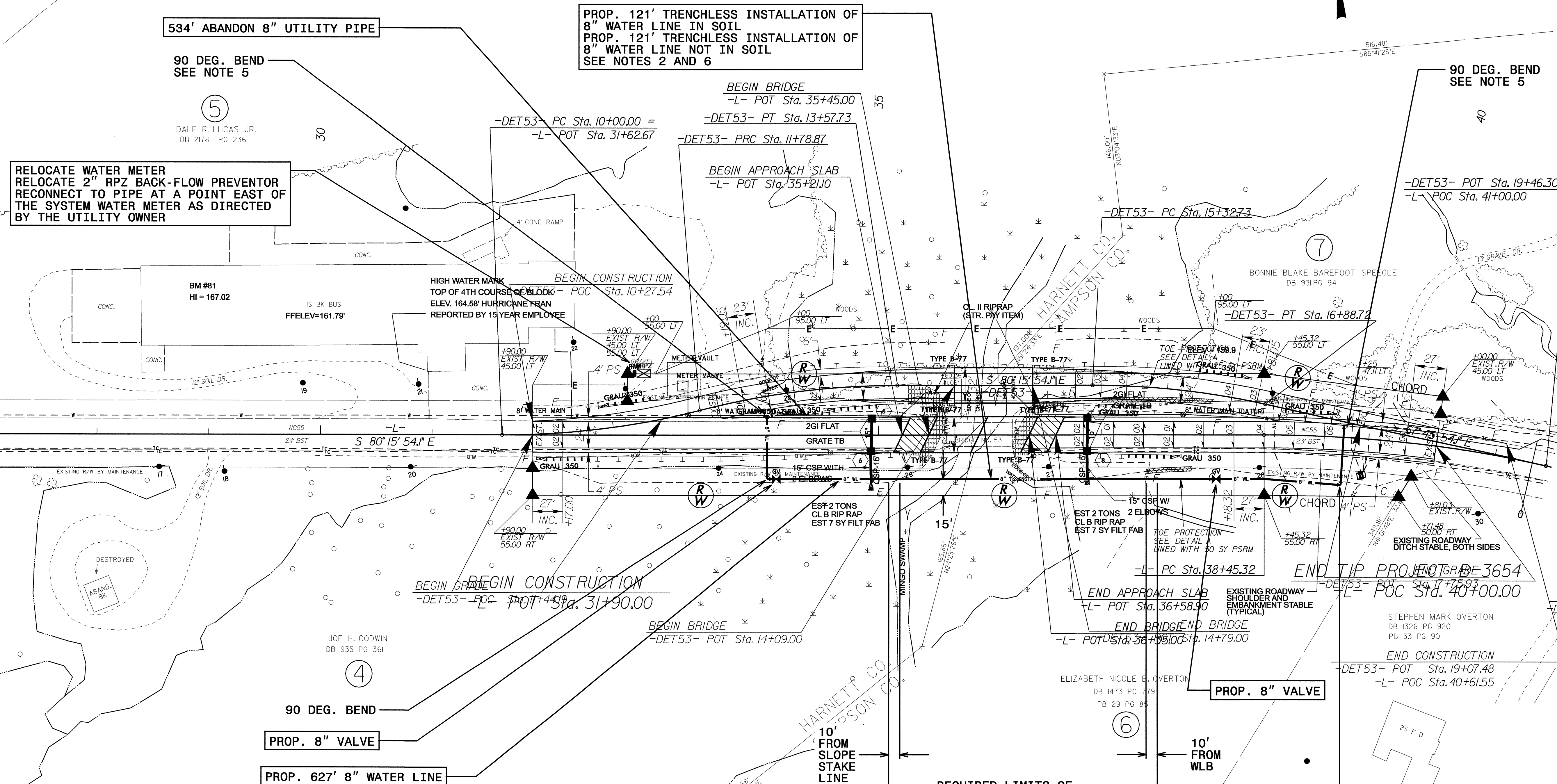
MATCHLINE -L- STA. 27 + 00.00 SEE SHEET UC-3

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PROJECT REFERENCE NO.	SHEET NO.
B-3654	UC-3
DESIGNED BY: BH	
DRAWN BY: BH	
CHECKED BY: CAB	
APPROVED BY: CAB	
REVISID:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919) 250-4128 FAX: (919) 250-4119	
UTILITY CONSTRUCTION PLANS ONLY	

UTILITY CONSTRUCTION

MATCHLINE -L- STA. 27+00.00 SEE SHEET UC-2



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5/14/99

PROJECT REFERENCE NO. B-3654	SHEET NO. UC-4
DESIGNED BY: BH	
DRAWN BY: BH	
CHECKED BY: CAB	
APPROVED BY: CAB	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919) 250-4128 FAX: (919) 250-4119	
UTILITY CONSTRUCTION PLANS ONLY	

UTILITY CONSTRUCTION

MAXIMUM TRENCH WIDTH AT TOP OF PIPE			
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		

NOTES:

1. ALL WATER LINES SHOWN ARE OWNED BY SAMPSON COUNTY.
2. THE MINIMUM REQUIRED REGIONS OF TRENCHLESS INSTALLATION ARE SHOWN ON THE PLANS. ADDITIONAL LENGTH OF TRENCHLESS INSTALLATION REQUIRED FOR THE CONSTRUCTION METHOD CHOSEN BY THE CONTRACTOR WILL BE CONSIDERED INCIDENTAL TO THE TRENCHLESS INSTALLATION.
3. THE INNER DIAMETER OF PIPE USED FOR THE TRENCHLESS INSTALLATION SHALL BE AT LEAST AS LARGE AS THE INNER DIAMETER OF THE PIPE TO WHICH IT IS CONNECTED.
4. THE PIPE SHALL BE INSTALLED AT LEAST 3' BELOW THE STREAM BOTTOM. HOWEVER, THE PIPE MAY BE DEEPER AS REQUIRED FOR THE PARTICULAR METHOD OF INSTALLATION CHOSEN.
5. ALL TIE-INS TO EXISTING PIPE SHALL BE MADE USING 90 DEGREE ELBOWS.
6. THE CONTRACTOR'S ATTENTION IS DIRECTED TO SECTIONS 102 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.

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TIP PROJECT: B-3654

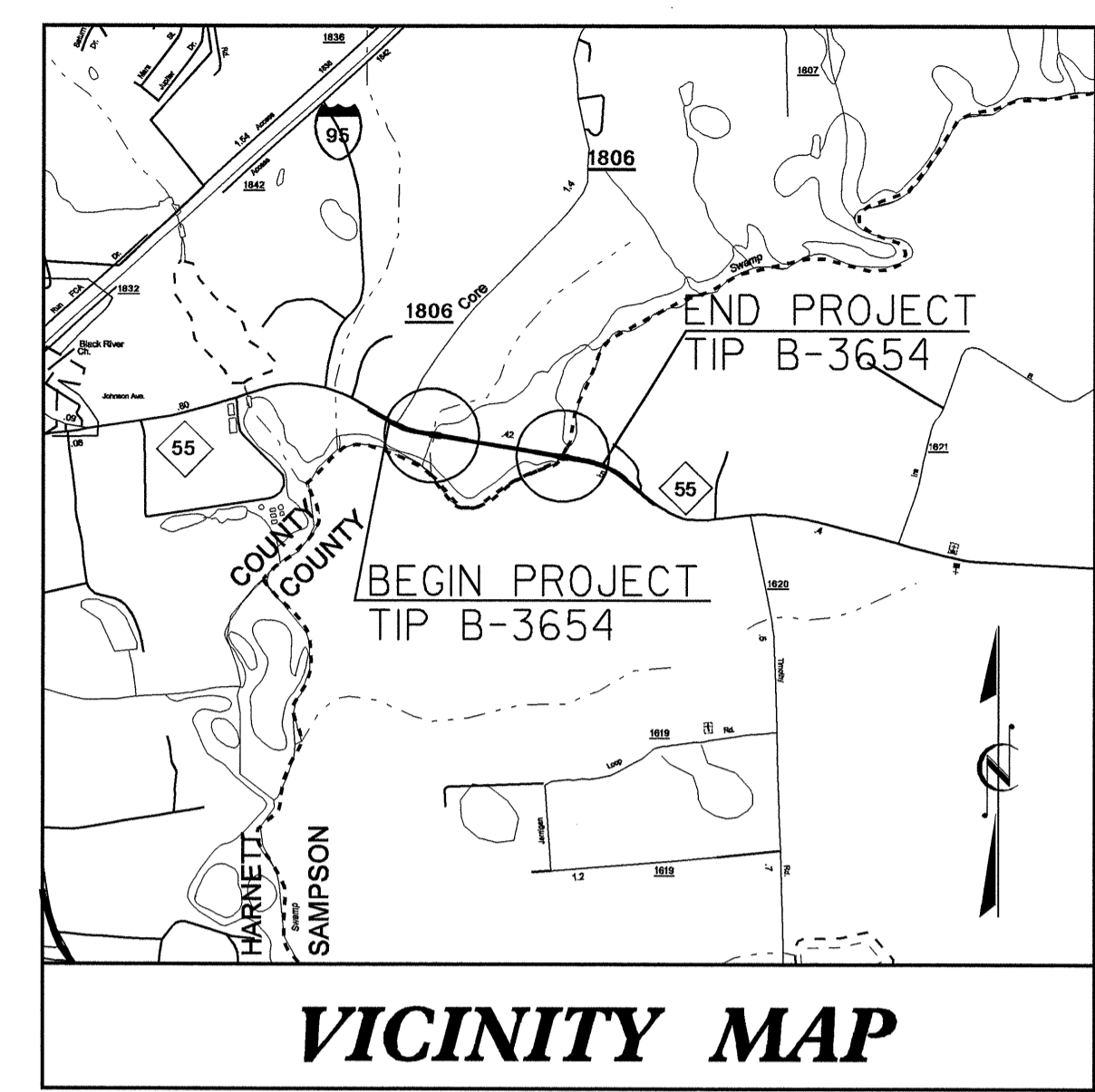
T.I.P. NO.	SHEET NO.
B-3654	UO-1

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

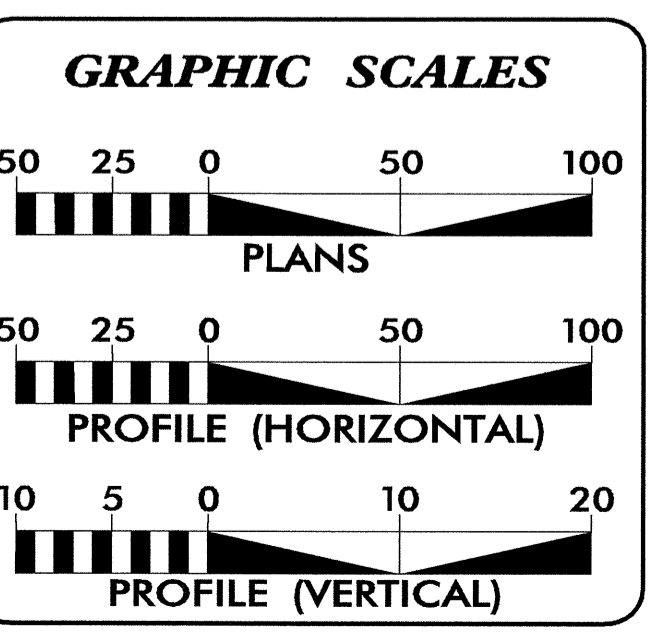
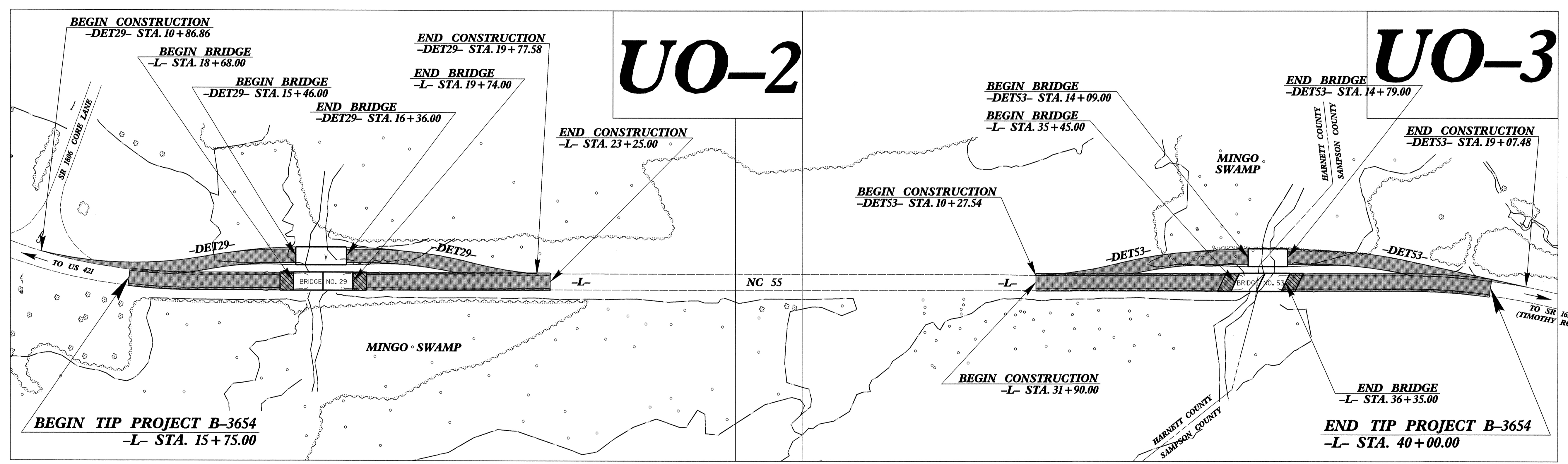
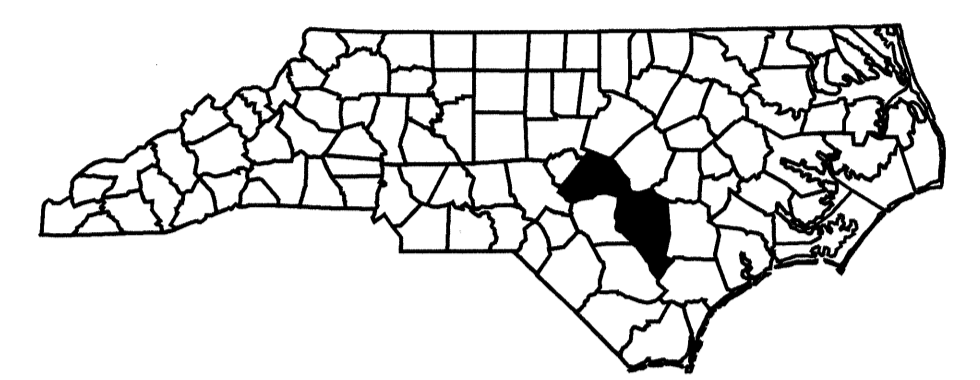
**UTILITIES BY OTHERS PLANS
HARNETT AND SAMPSON COUNTIES**

LOCATION: REPLACE BRIDGES 29 & 53 OVER MINGO SWAMP ON NC 55

TYPE OF WORK: POWER AND TELEPHONE RELOCATION



VICINITY MAP



INDEX OF SHEETS	
SHEET NO.	DESCRIPTION
UO-1	TITLE SHEET
UO-2 THRU UO-3	UTILITIES BY OTHERS PLAN SHEETS

UTILITY OWNERS ON PROJECT
(1) TELEPHONE - VERIZON
(2) POWER - PROGRESS ENERGY

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

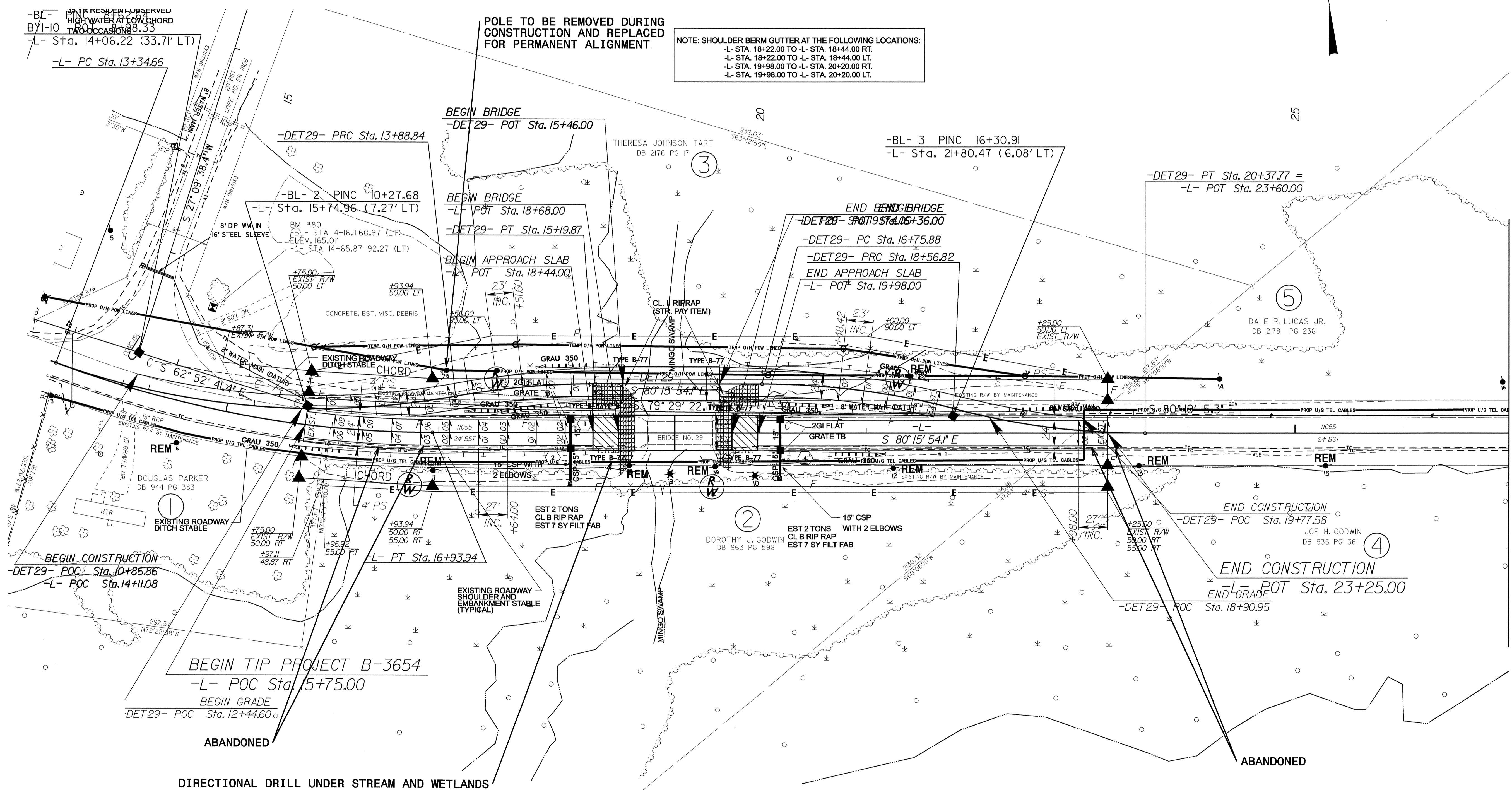
1591 MAIL SERVICES CENTER
RALEIGH, NC 27699-1591
PHONE (919) 250-4128
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Roger Worthington, P.E.	UTILITIES SECTION ENGINEER
Carl Barclay, P.E.	UTILITIES SQUAD LEADER PROJECT ENGINEER
Bo Hemphill, P.E.	UTILITIES PROJECT DESIGNER

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UTILITIES BY OTHERS

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



NOTE: SHOULDER BERM GUTTER AT THE FOLLOWING LOCATIONS:
 -L- STA. 18+22.00 TO -L- STA. 18+44.00 RT.
 -L- STA. 18+22.00 TO -L- STA. 18+44.00 LT.
 -L- STA. 19+98.00 TO -L- STA. 20+20.00 RT.
 -L- STA. 19+98.00 TO -L- STA. 20+20.00 LT.

**POLE TO BE REMOVED DURING
CONSTRUCTION AND REPLACED
FOR PERMANENT ALIGNMENT**

**BL- 3 PINK OBSERVED
HIGH WATER AT LOW CHORD
BY 1-10 TWICE OCCASION 88.33**
 -L- Sta. 14+06.22 (33.71' LT)
 -L- PC Sta. 13+34.66

BEGIN CONSTRUCTION
 -DET29- POC Sta. 10+86.86
 -L- POC Sta. 14+11.08

BEGIN TIP PROJECT B-3654
 -L- POC Sta. 5+75.00
BEGIN GRADE
 -DET29- POC Sta. 12+44.60

ABANDONED

DIRECTIONAL DRILL UNDER STREAM AND WETLANDS

END CONSTRUCTION
 -DET29- POC Sta. 19+77.58
END GRADE
 -L- POT Sta. 23+25.00
 -DET29- POC Sta. 18+90.95

ABANDONED

MATCHLINE -L- STA. 27+00.00 SEE SHEET UO-3

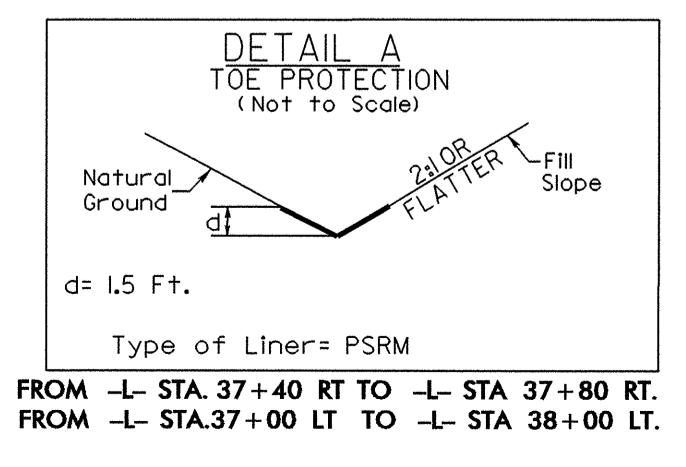
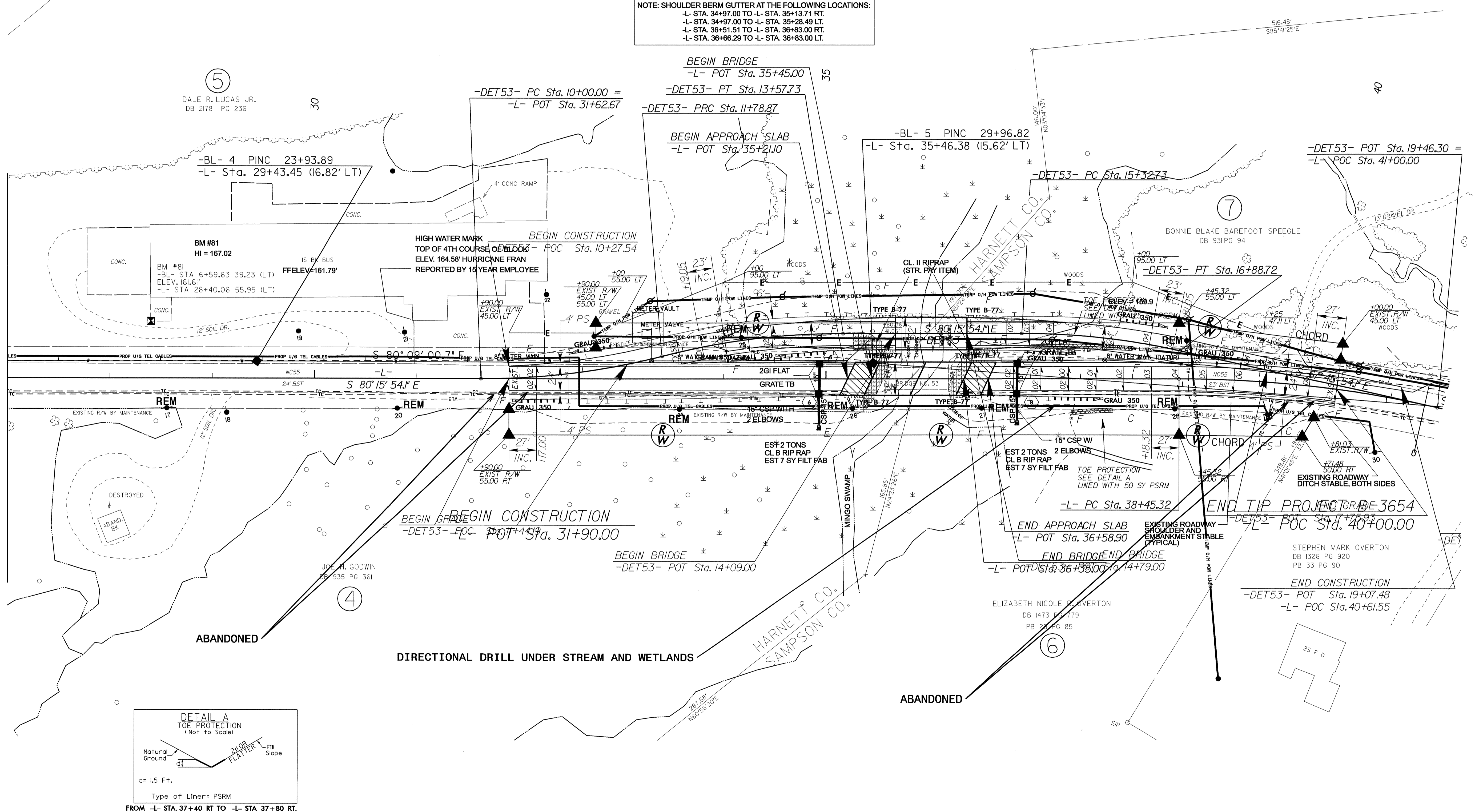
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UTILITIES BY OTHERS

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

NOTE: SHOULDER BERM GUTTER AT THE FOLLOWING LOCATIONS:
 -L- STA. 34+97.00 TO -L- STA. 35+13.71 RT.
 -L- STA. 34+97.00 TO -L- STA. 35+28.49 LT.
 -L- STA. 36+51.51 TO -L- STA. 36+83.00 RT.
 -L- STA. 36+66.29 TO -L- STA. 36+83.00 LT.

MATCHLINE -L- STA. 27+00.00 SEE SHEET UO-2



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