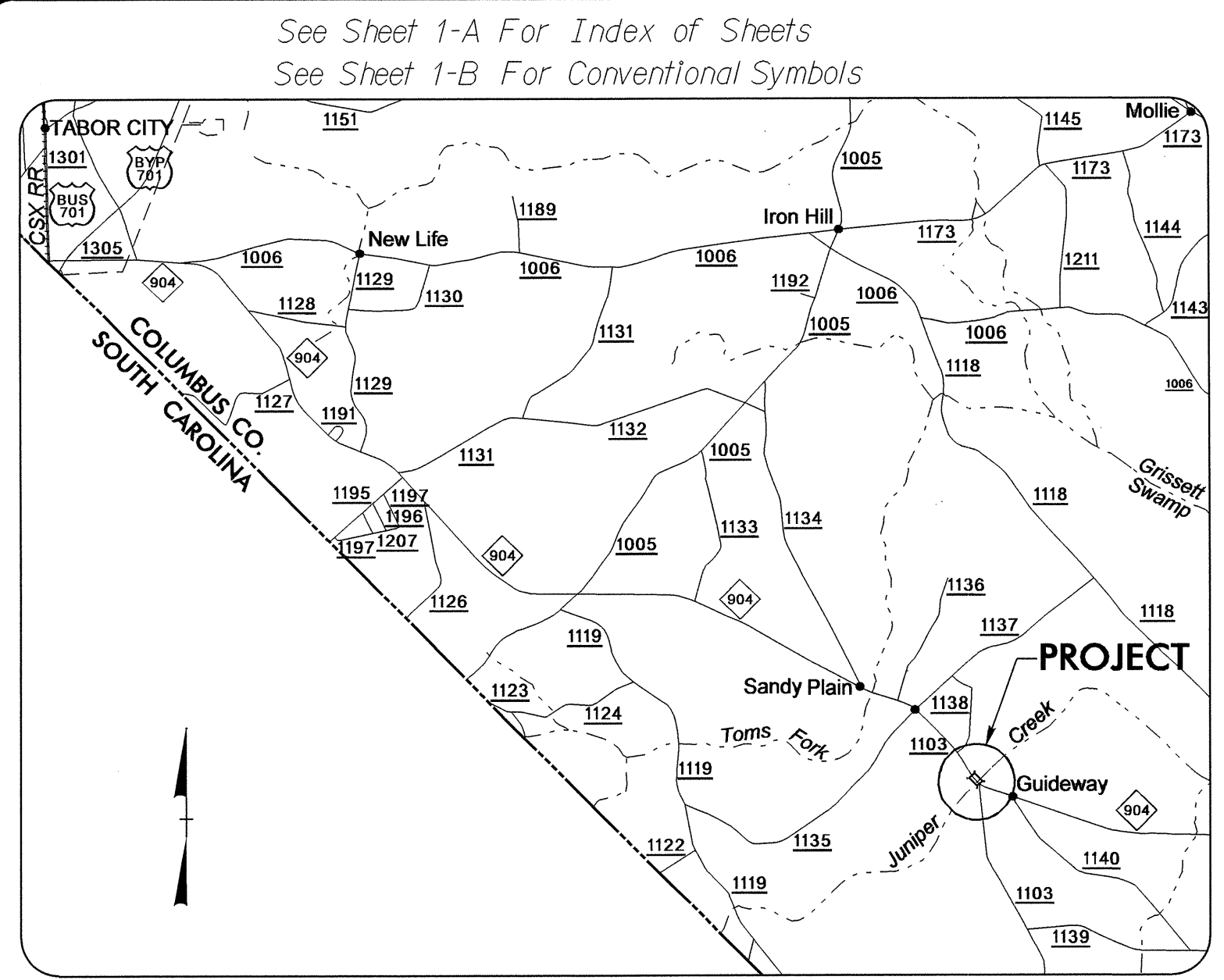
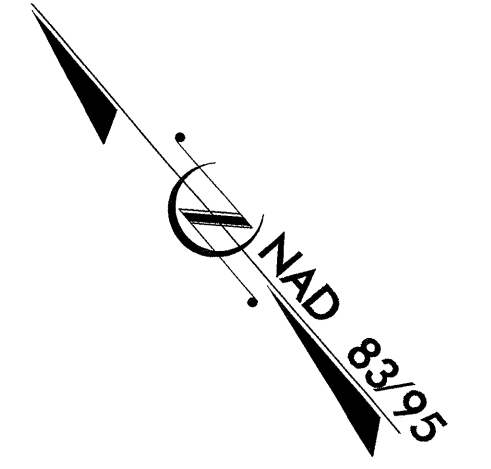


T.I.P. NO.	SHEET NO.
B-4471	UC-1

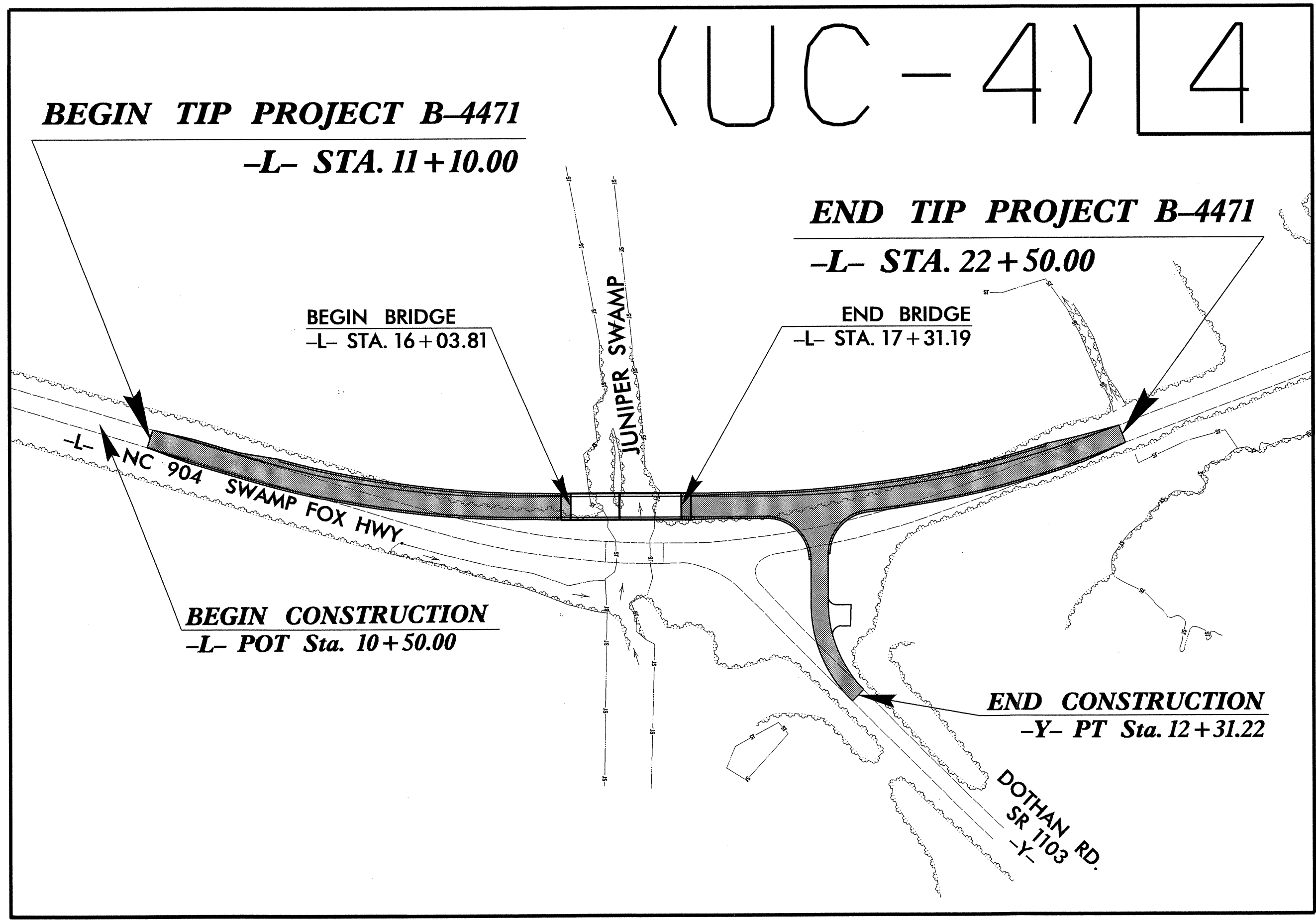
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

UTILITY CONSTRUCTION PLANS
COLUMBUS COUNTY

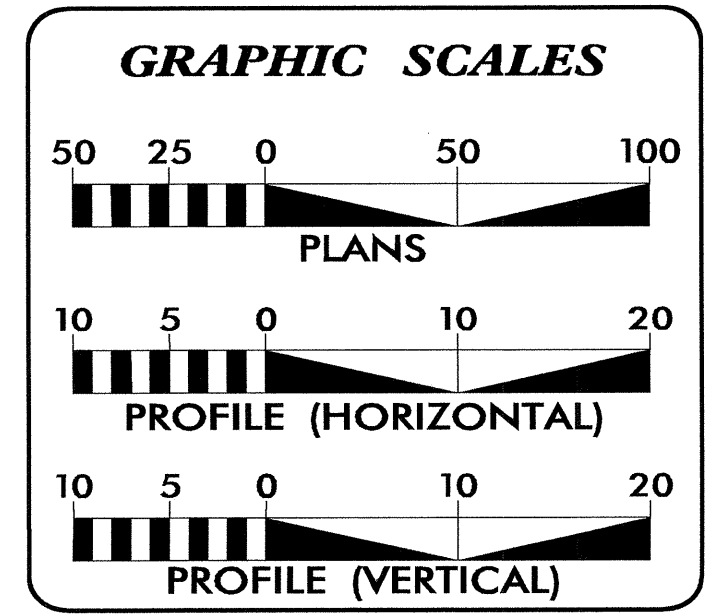
LOCATION: BRIDGE 44 OVER JUNIPER SWAMP ON NC 904
TYPE OF WORK: RELOCATION OF WATER LINE



VICINITY MAP



TIP PROJECT: B-4471

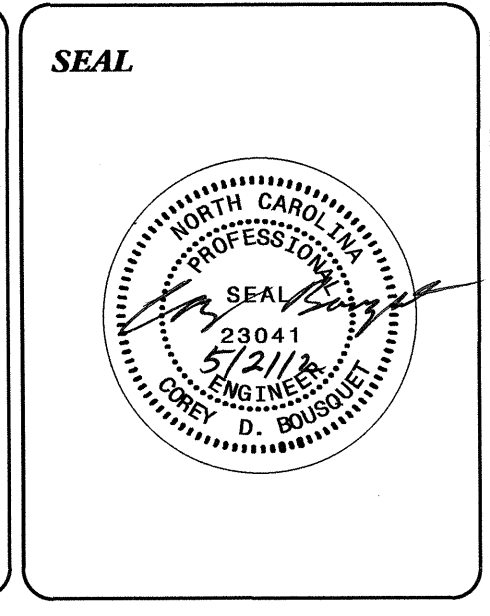


INDEX OF SHEETS

SHEET NO.	DESCRIPTION
UC-1	TITLE SHEET
UC-2	SYMBOLGY SHEET
UC-3	NOTES AND DETAIL SHEET
UC-4	UTILITY CONSTRUCTION PLAN SHEETS
UC-5 THRU UC-10	UTILITY CONSTRUCTION PROFILE SHEETS

UTILITY OWNERS ON PROJECT

(1) COLUMBUS COUNTY WATER



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

1591 MAIL SERVICES CENTER
RALEIGH, NC 27699-1591
PHONE (919) 707-6690
FAX (919) 250-4151

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

02-MAY-2012 12:00 R:\Utilities\rdy\uf\Proj\B-4471\UC.tsh.dgn \$\$\$USERNAME\$\$\$

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

UTILITIES PLAN SHEET SYMBOLS

PROPOSED WATER SYMBOLS

Water Line (Sized as Shown)	
11¼ Degree Bend	
22½ Degree Bend	
45 Degree Bend	
90 Degree Bend	
Plug	
Tee	
Cross	
Reducer	
Gate Valve	
Butterfly Valve	
Tapping Valve	
Line Stop	
Line Stop with Bypass	
Blow Off	
Fire Hydrant	
Relocate Fire Hydrant	
Remove Fire Hydrant	REM FH
Water Meter	
Relocate Water Meter	
Remove Water Meter	REM WM
Water Pump Station	PS(W)
RPZ Backflow Preventer	
DCV Backflow Preventer	
Relocate RPZ Backflow Preventer	
Relocate DCV Backflow Preventer	

PROPOSED SEWER SYMBOLS

Gravity Sewer Line (Sized as Shown)	
Force Main Sewer Line (Sized as Shown)	
Manhole (Sized per Note)	
Sewer Pump Station	PS(SS)

PROPOSED MISCELLANEOUS UTILITIES SYMBOLS

Power Pole	
Telephone Pole	
Joint Use Pole	
Telephone Pedestal	
Utility Line by Others (Type as Shown)	
Trenchless Installation	
Encasement by Open Cut	
Encasement	

Thrust Block	
Air Release Valve	
Utility Vault	
Concrete Pier	
Steel Pier	
Plan Note	
Pay Item Note	

EXISTING UTILITIES SYMBOLS

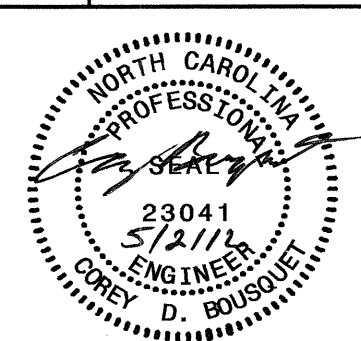
Power Pole		*Underground Power Line	
Telephone Pole		*Underground Telephone Cable	
Joint Use Pole		*Underground Telephone Conduit	
Utility Pole		*Underground Fiber Optics Telephone Cable	
Utility Pole with Base		*Underground TV Cable	
H-Frame Pole		*Underground Fiber Optics TV Cable	
Power Transmission Line Tower		*Underground Gas Pipeline	
Water Manhole		Aboveground Gas Pipeline	
Power Manhole		*Underground Water Line	
Telephone Manhole		Aboveground Water Line	
Sanitary Sewer Manhole		*Underground Gravity Sanitary Sewer Line	
Hand Hole for Cable		Aboveground Gravity Sanitary Sewer Line	
Power Transformer		*Underground SS Forced Main Line	
Telephone Pedestal		Underground Unknown Utility Line	
CATV Pedestal		SUE Test Hole	
Gas Valve		Water Meter	
Gas Meter		Water Valve	
Located Miscellaneous Utility Object		Fire Hydrant	
Abandoned According to Utility Records	AATUR	Sanitary Sewer Cleanout	
End of Information	E.O.I.		

*For Existing Utilities
 Utility Line Drawn from Record (Type as Shown)
 Designated Utility Line (Type as Shown)

5/14/99
 02-MAY-2012 12:03
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 REV: 2/1/2012

5/14/99

UTILITY CONSTRUCTION

PROJECT REFERENCE NO.	SHEET NO.
B-4471	UC-3
DESIGNED BY: KSM	
DRAWN BY: KSM	
CHECKED BY: CDB	
APPROVED BY: CDB	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	
UTILITY CONSTRUCTION PLANS ONLY	

GENERAL NOTES:

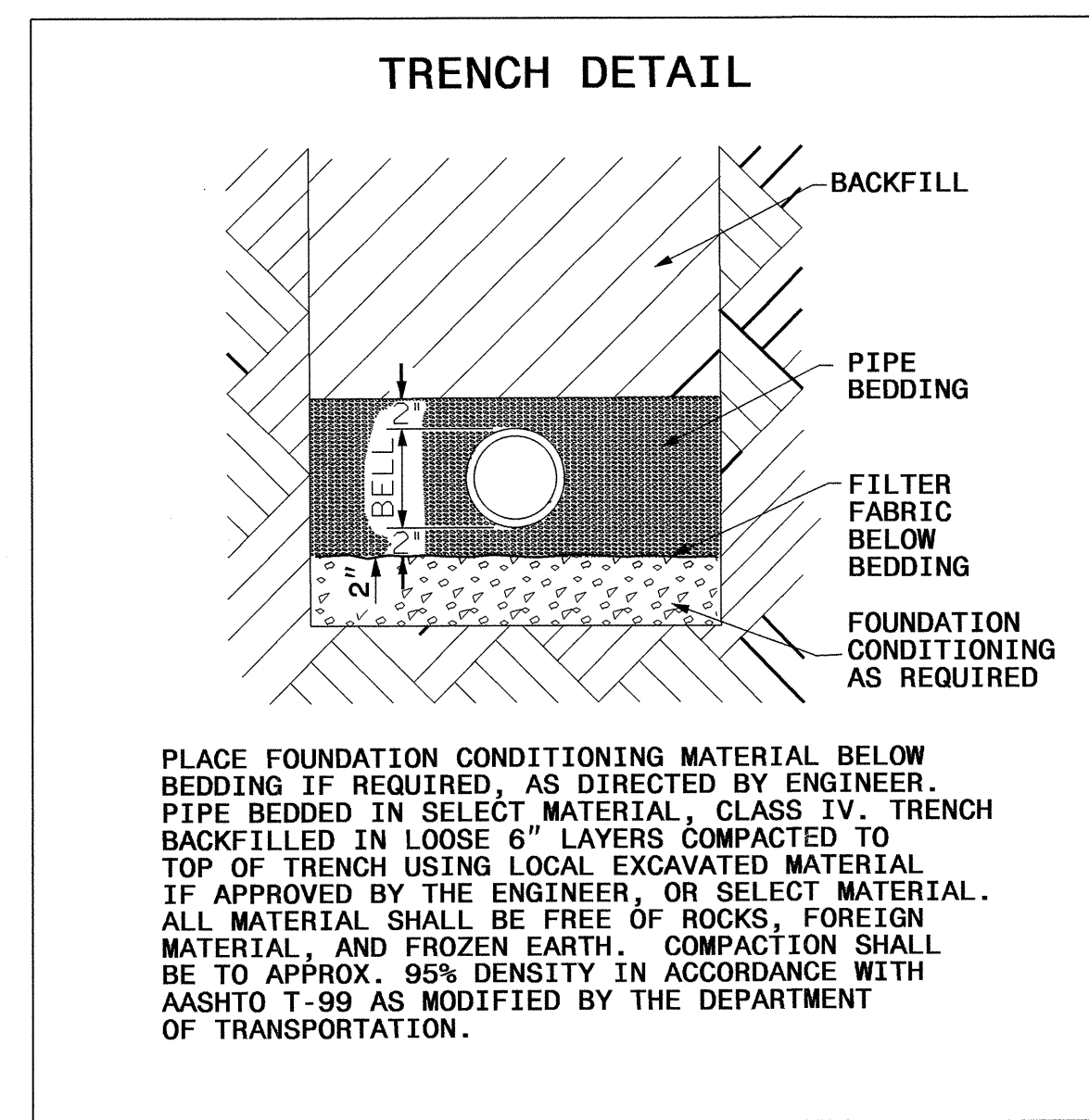
1. THE PROPOSED UTILITY CONSTRUCTION SHALL MEET THE APPLICABLE REQUIREMENTS OF THE NC DEPARTMENT OF TRANSPORTATION'S "STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES" DATED JANUARY 2012.
2. THE EXISTING UTILITIES BELONG TO COLUMBUS COUNTY PUBLIC UTILITIES.
3. ALL WATER LINES TO BE INSTALLED WITHIN COMPLIANCE OF THE RULES AND REGULATIONS OF THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL AND NATURAL RESOURCES, DIVISION OF ENVIRONMENTAL HEALTH. ALL SEWER LINES TO BE INSTALLED WITHIN COMPLIANCE OF THE RULES AND REGULATIONS OF THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES, DIVISION OF WATER QUALITY. PERFORM ALL WORK IN ACCORDANCE WITH THE APPLICABLE PLUMBING CODES.
4. THE UTILITY OWNER OWNS THE EXISTING UTILITY FACILITIES AND WILL OWN THE NEW UTILITY FACILITIES AFTER ACCEPTANCE BY THE DEPARTMENT. THE DEPARTMENT OWNS THE CONSTRUCTION CONTRACT AND HAS ADMINISTRATIVE AUTHORITY. COMMUNICATIONS AND DECISIONS BETWEEN THE CONTRACTOR AND UTILITY OWNER ARE NOT BINDING UPON THE DEPARTMENT OR THIS CONTRACT UNLESS AUTHORIZED BY THE ENGINEER. AGREEMENTS BETWEEN THE UTILITY OWNER AND CONTRACTOR FOR THE WORK THAT IS NOT PART OF THIS CONTRACT OR IS SECONDARY TO THIS CONTRACT ARE ALLOWED, BUT ARE NOT BINDING UPON THE DEPARTMENT.
5. PROVIDE ACCESS FOR THE DEPARTMENT PERSONNEL AND THE OWNER'S REPRESENTATIVES TO ALL PHASES OF CONSTRUCTION. NOTIFY DEPARTMENT PERSONNEL AND THE UTILITY OWNER TWO WEEKS PRIOR TO COMMENCEMENT OF ANY WORK AND ONE WEEK PRIOR TO SERVICE INTERRUPTION. KEEP UTILITY OWNERS' REPRESENTATIVES INFORMED OF WORK PROGRESS AND PROVIDE OPPROTUNITY FOR INSPECTION OF CONSTRUCTION AND TESTING.

6. THE PLANS DEPICT THE BEST AVAILABLE INFORMATION FOR THE LOCATION, SIZE, AND TYPE OF MATERIAL FOR ALL EXISTING UTILITIES. MAKE INVESTIGATIONS FOR DETERMINING THE EXACT LOCATION, SIZE, AND TYPE MATERIAL OF THE EXISTING FACILITIES AS NECESSARY FOR THE CONSTRUCTION OF THE PROPOSED UTILITIES AND FOR AVOIDING DAMAGE TO EXISTING FACILITIES. REPAIR ANY DAMAGE INCURRED TO EXISTING FACILITIES TO THE ORIGINAL OR BETTER CONDITION AT NO ADDITIONAL COST TO THE DEPARTMENT.
7. MAKE FINAL CONNECTIONS OF THE NEW WORK TO THE EXISTING SYSTEM WHERE INDICATED ON THE PLANS, AS REQUIRED TO FIT THE ACTUAL CONDITIONS, OR AS DIRECTED.
8. MAKE CONNECTIONS BETWEEN EXISTING AND PROPOSED UTILITIES AT TIMES MOST CONVENIENT TO THE PUBLIC, WITHOUT ENDANGERING THE UTILITY SERVICE, AND IN ACCORDANCE WITH THE UTILITY OWNER'S REQUIREMENTS. MAKE CONNECTIONS ON WEEKENDS, AT NIGHT, AND ON HOLIDAYS IF NECESSARY.
9. ALL UTILITY MATERIALS SHALL BE APPROVED PRIOR TO DELIVERY TO THE PROJECT. SEE 1500-7, " SUBMITTALS AND RECORDS" IN SECTION 1500 OF THE STANDARD SPECIFICATIONS.
10. CONTRACTOR'S ATTENTION IS DIRECTED TO SECTIONS 102, 107, AND 1550 OF THE STANDARD SPECIFICATIONS CONCERNING TRENCHLESS INSTALLATION. IT IS CONTRACTOR'S RESPONSIBILITY TO HAVE BORE PATH DESIGNED AND SEALED BY A LICENSED NORTH CAROLINA PROFESSIONAL ENGINEER. NO DAMAGE IS ALLOWED TO RIVER, WETLANDS, OR BUFFER ZONES.
11. IF HDPE PIPE IS INSTALLED BY DIRECTIONAL DRILL. IT SHALL BE FILLED WITH WATER AND NOT BE CONNECTED TO ANY OTHER PIPE OR FITTINGS FOR ONE WEEK FROM THE TIME OF INSTALLATION.
12. THE GENERAL UTILITY CONSTRUCTION WORK WILL BE INCIDENTAL AND WILL BE PAID AT THE CONTRACT PRICES OF THE VARIOUS UTILITY ITEMS INCLUDED IN THE CONTRACT.

LIST OF STANDARD DRAWINGS

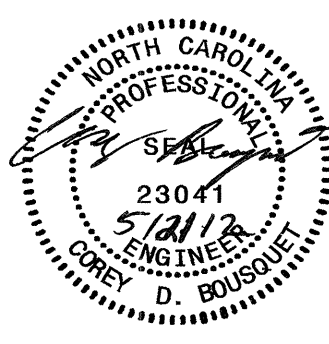
- 1515.01 WATER METER
- 1515.02 FIRE HYDRANT

PROJECT TYPICAL DETAILS

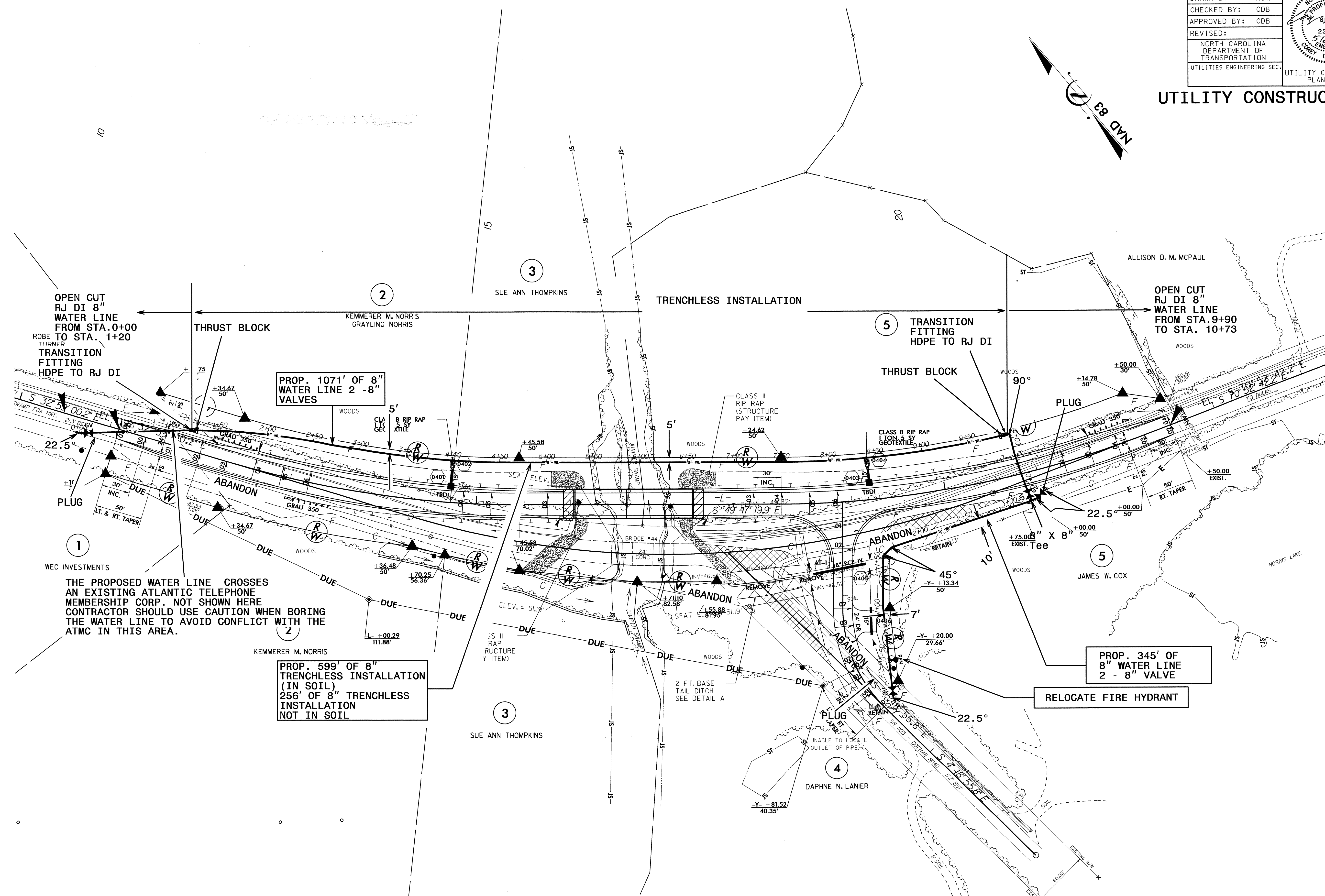
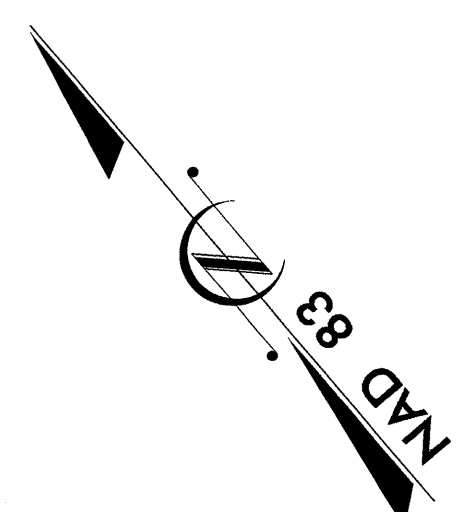


UTILITY CONSTRUCTION

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PROJECT REFERENCE NO. B-4471	SHEET NO. UC-4
DESIGNED BY: KSM	
DRAWN BY: KSM	
CHECKED BY: CDB	
APPROVED BY: CDB	
REVISER:	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC.
UTILITY CONSTRUCTION PLANS ONLY	

UTILITY CONSTRUCTION



OPEN CUT
RJ DI 8"
WATER LINE
FROM STA. 0+00
TO STA. 1+20
ROBE
TURNER
TRANSITION
FITTING
HDPE TO RJ DI

THRUST BLOCK

PROP. 1071' OF 8"
WATER LINE 2 - 8"
VALVES

TRENCHLESS INSTALLATION

5 TRANSITION
FITTING
HDPE TO RJ DI

THRUST BLOCK

OPEN CUT
RJ DI 8"
WATER LINE
FROM STA. 9+90
TO STA. 10+73

1
WEC INVESTMENTS
THE PROPOSED WATER LINE CROSSES
AN EXISTING ATLANTIC TELEPHONE
MEMBERSHIP CORP. NOT SHOWN HERE
CONTRACTOR SHOULD USE CAUTION WHEN BORING
THE WATER LINE TO AVOID CONFLICT WITH THE
ATMC IN THIS AREA.

2
KEMMERER M. NORRIS
PROP. 599' OF 8"
TRENCHLESS INSTALLATION
(IN SOIL)
256' OF 8" TRENCHLESS
INSTALLATION
NOT IN SOIL

5
JAMES W. COX
PROP. 345' OF
8" WATER LINE
2 - 8" VALVE
RELOCATE FIRE HYDRANT

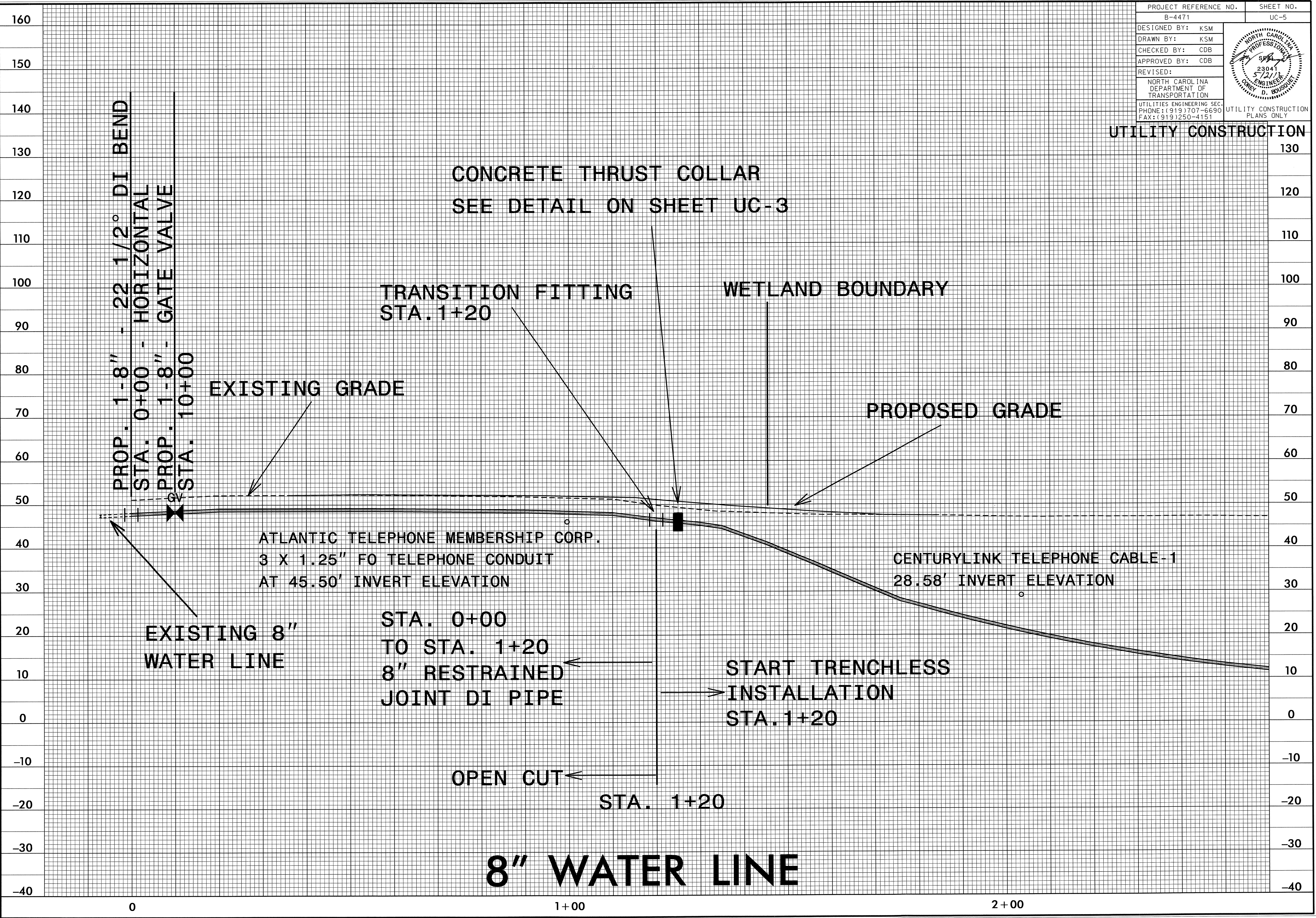
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PROJECT REFERENCE NO. B-4471	SHEET NO. UC-5
DESIGNED BY: KSM	
DRAWN BY: KSM	
CHECKED BY: CDB	
APPROVED BY: CDB	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	

UTILITY CONSTRUCTION

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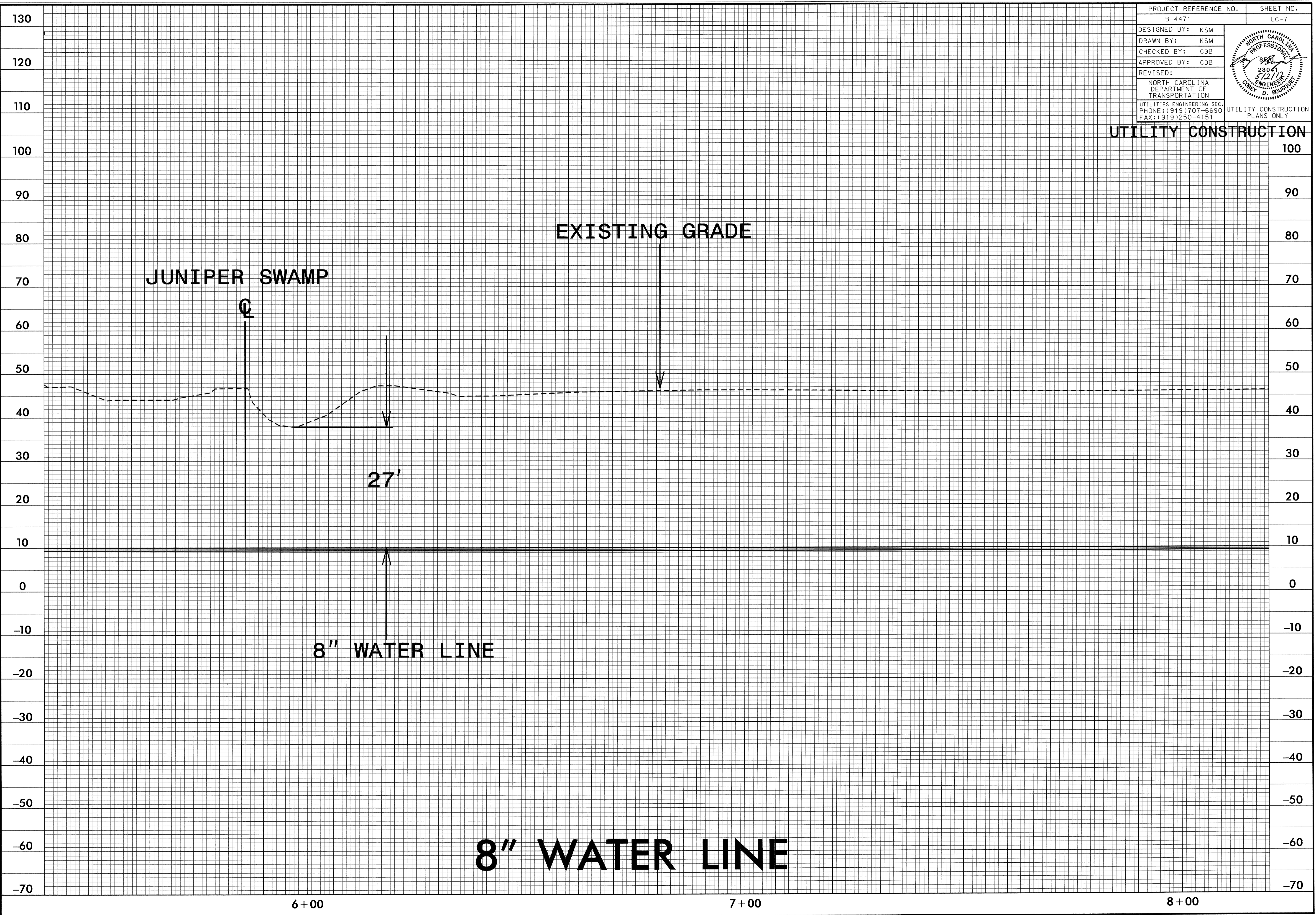


8" WATER LINE

5/14/99

PROJECT REFERENCE NO. B-4471	SHEET NO. UC-7
DESIGNED BY: KSM	
DRAWN BY: KSM	
CHECKED BY: CDB	
APPROVED BY: CDB	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	
UTILITY CONSTRUCTION PLANS ONLY	

UTILITY CONSTRUCTION



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CDB

6+00

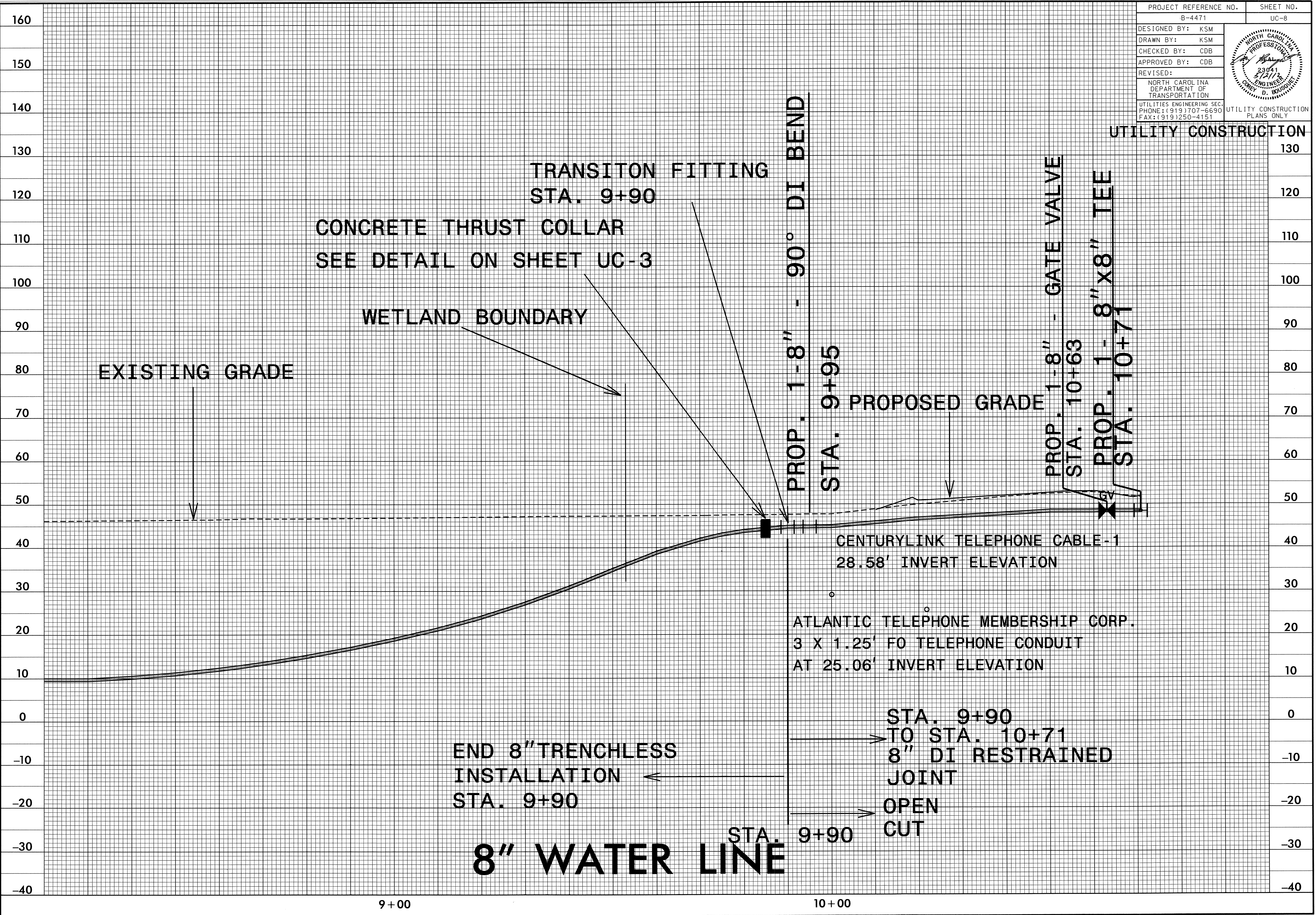
7+00

8+00

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DRAWN BY: KSM	
CHECKED BY: CDB	
APPROVED BY: CDB	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	
UTILITY CONSTRUCTION PLANS ONLY	

UTILITY CONSTRUCTION

5/14/99
02-MAY-2012 08:43
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EXISTING GRADE

CONCRETE THRUST COLLAR
SEE DETAIL ON SHEET UC-3

TRANSITION FITTING
STA. 9+90

WETLAND BOUNDARY

PROP. 1-8" - 90° DI BEND
STA. 9+95

PROPOSED GRADE

PROP. 1-8" - GATE VALVE
STA. 10+63

PROP. 1-8" X 8" TEE
STA. 10+71

CENTURYLINK TELEPHONE CABLE-1
28.58' INVERT ELEVATION

ATLANTIC TELEPHONE MEMBERSHIP CORP.
3 X 1.25' FO TELEPHONE CONDUIT
AT 25.06' INVERT ELEVATION

END 8" TRENCHLESS
INSTALLATION
STA. 9+90


STA. 9+90
TO STA. 10+71
8" DI RESTRAINED
JOINT

OPEN
CUT

8" WATER LINE

9+00

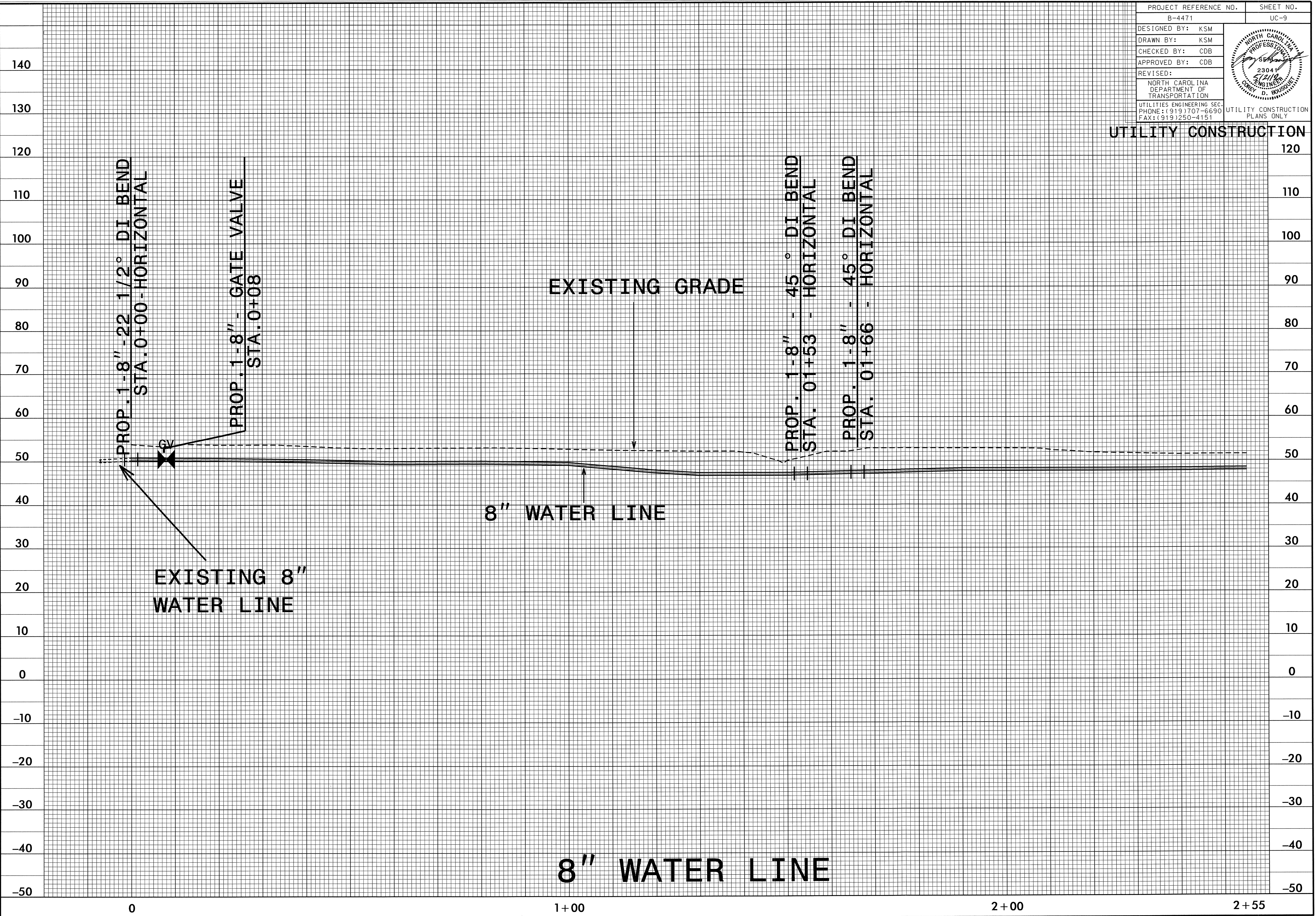
10+00

PROJECT REFERENCE NO. B-4471	SHEET NO. UC-9
DESIGNED BY: KSM	
DRAWN BY: KSM	
CHECKED BY: CDB	
APPROVED BY: CDB	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	
UTILITY CONSTRUCTION PLANS ONLY	

UTILITY CONSTRUCTION

5/14/99

02-MAY-2012 08:45
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 10



PROP. 1-8" - 22 1/2° DI BEND
 STA. 0+00 - HORIZONTAL

PROP. 1-8" - GATE VALVE
 STA. 0+08

EXISTING GRADE

8" WATER LINE

EXISTING 8"
 WATER LINE

PROP. 1-8" - 45° DI BEND
 STA. 0+53 - HORIZONTAL

PROP. 1-8" - 45° DI BEND
 STA. 0+66 - HORIZONTAL

8" WATER LINE

0

1+00

2+00

2+55

140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
-40
-50

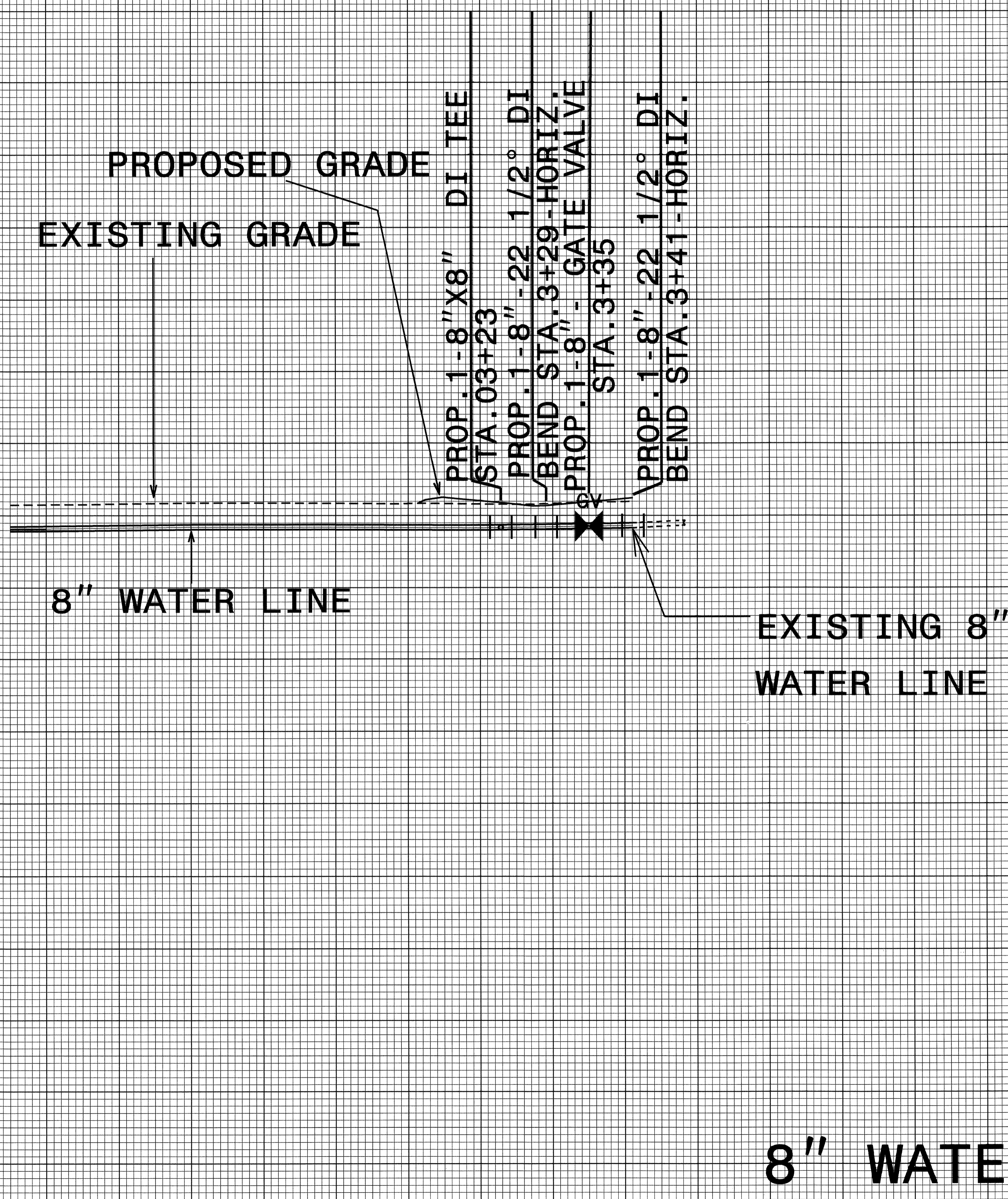
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-40
-50

PROJECT REFERENCE NO.	SHEET NO.
B-4471	UC-10
DESIGNED BY: KSM	
DRAWN BY: KSM	
CHECKED BY: CDB	
APPROVED BY: CDB	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	

UTILITY CONSTRUCTION

120
110
100
90
80
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60
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30
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-20
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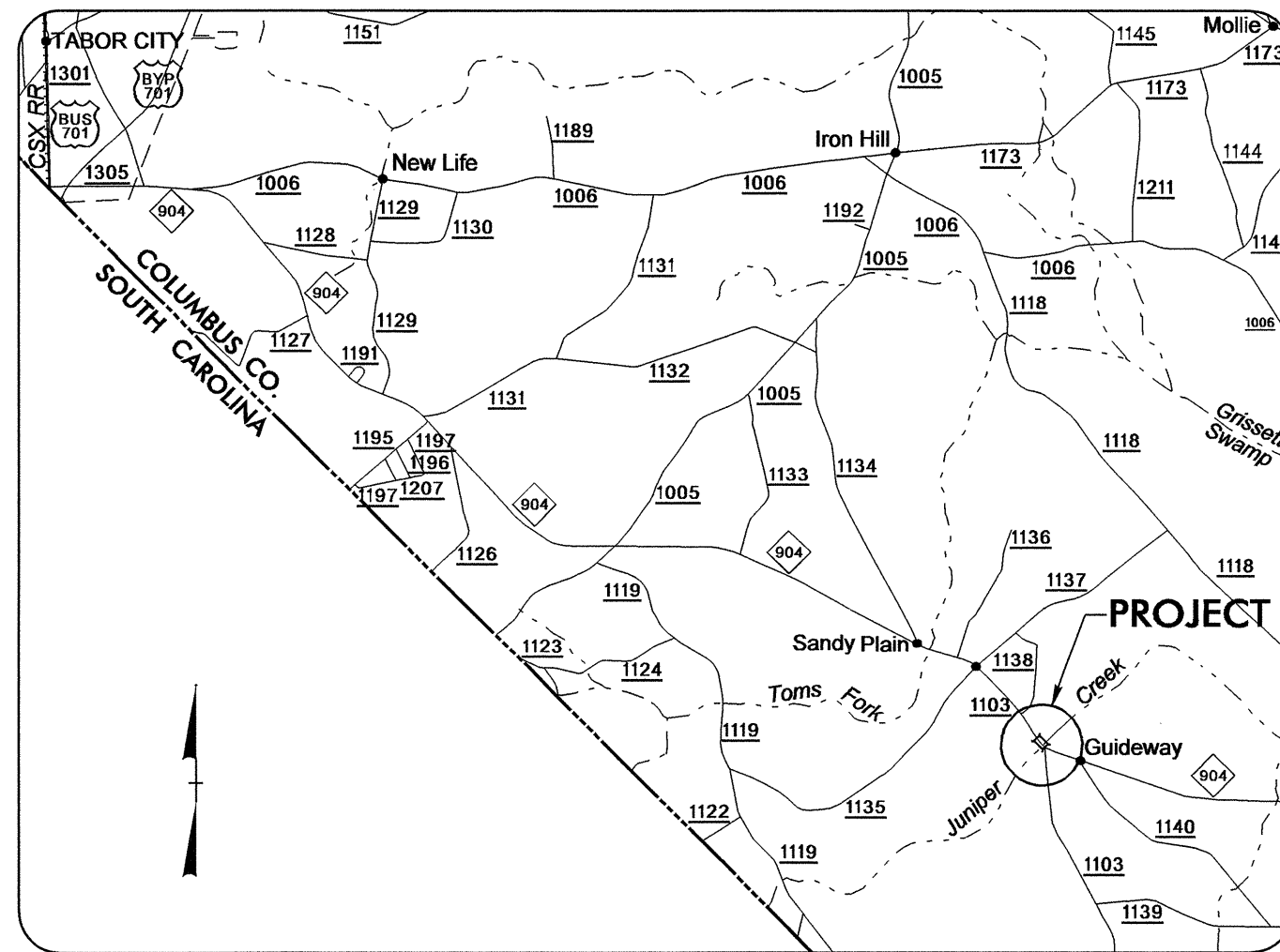


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TIP PROJECT: B-4471

T.I.P. NO.	SHEET NO.
B-4471	UO-1



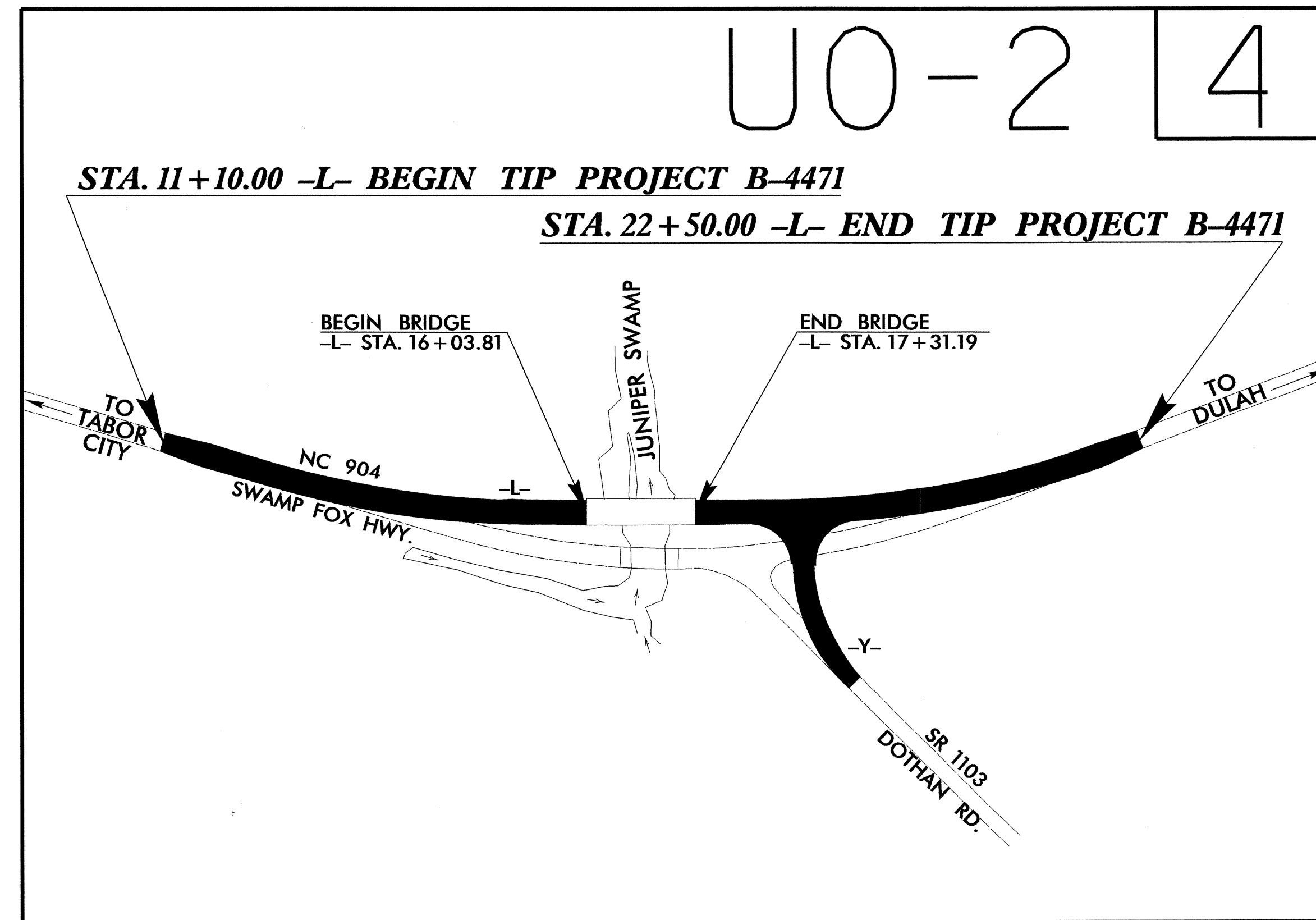
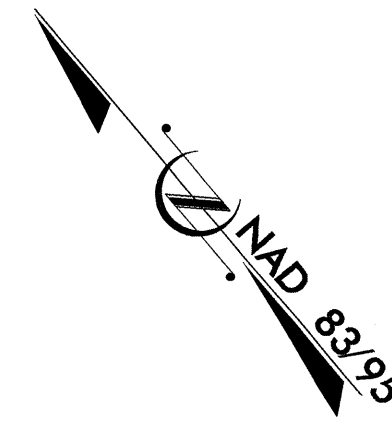
VICINITY MAP

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

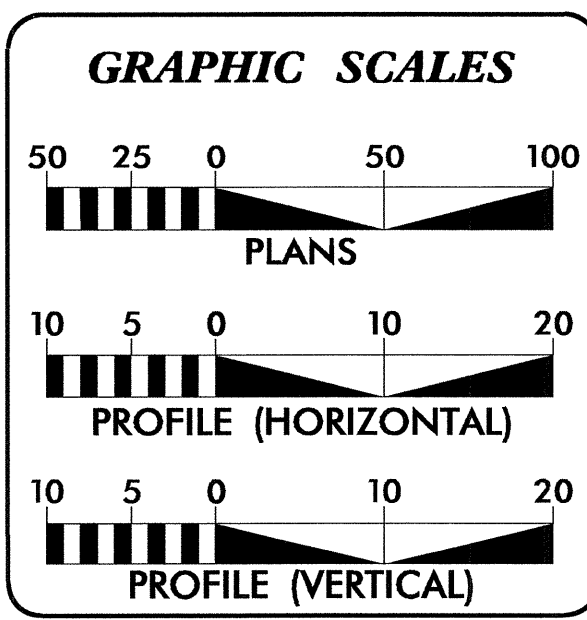
**UTILITIES BY OTHERS PLANS
COLUMBUS COUNTY**

**LOCATION: BRIDGE 44 OVER JUNIPER SWAMP
ON NC 904**

**TYPE OF WORK: RELOCATION OF
TELEPHONE LINE**



UO-2 | 4



INDEX OF SHEETS	
SHEET NO.	DESCRIPTION
UO-1	TITLE SHEET
UO-2	UTILITY BY OTHERS PLAN SHEET
UO-3 THRU UO-8	UTILITY BY OTHERS PROFILE SHEETS

UTILITY OWNERS ON PROJECT
(1) CENTURYLINK

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

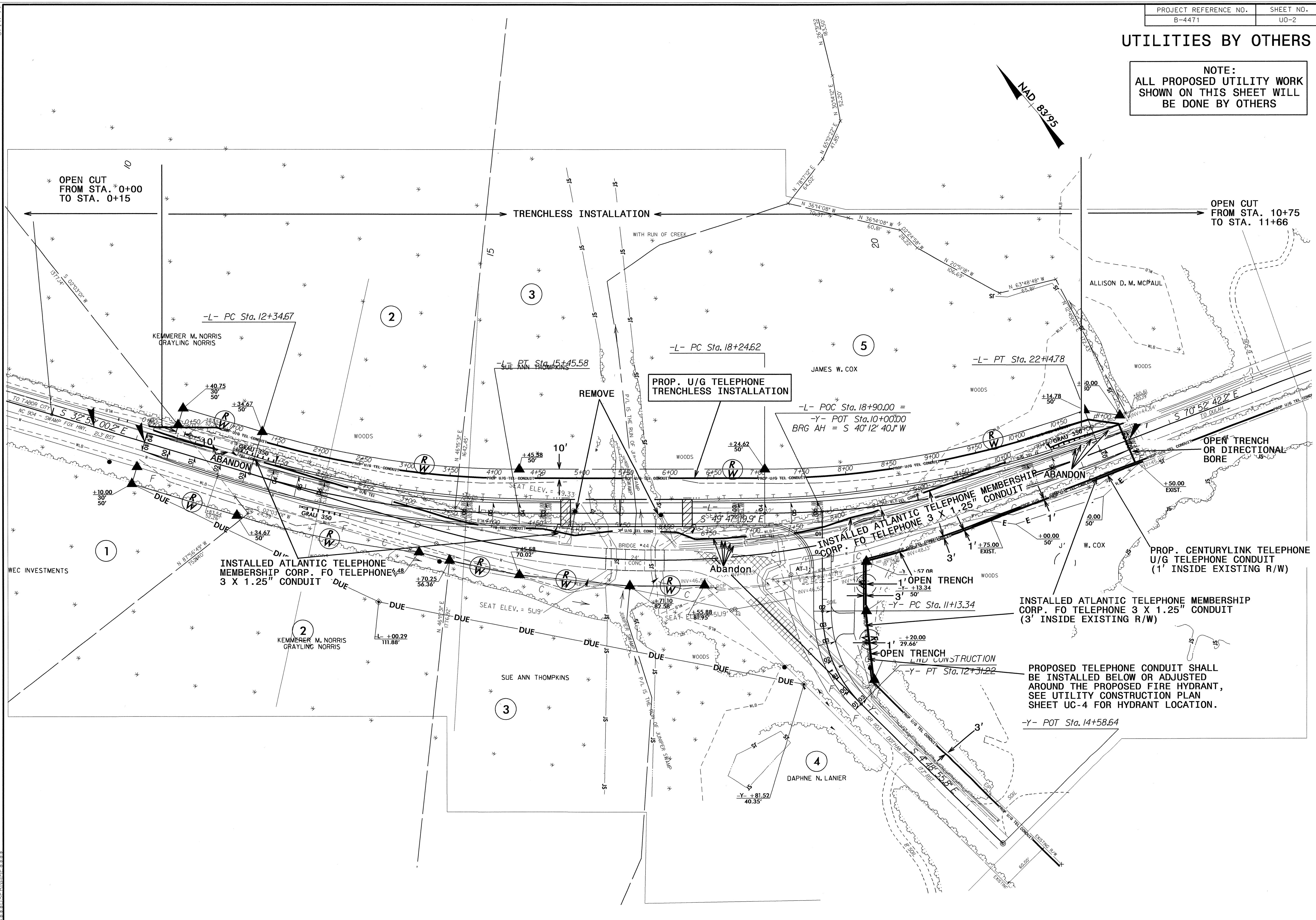
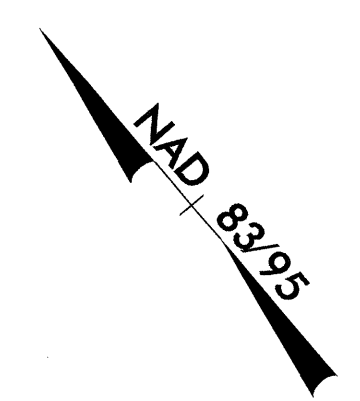
1591 MAIL SERVICES CENTER
RALEIGH, NC 27699-1591
PHONE (919) 707-6690
FAX (919) 250-4151

Roger Worthington, P.E. UTILITIES SECTION ENGINEER
Corey Bousquet, P.E. UTILITIES SQUAD LEADER PROJECT ENGINEER
Kevin Martin UTILITIES PROJECT DESIGNER

08-MAY-2012 12:25
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UTILITIES BY OTHERS

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

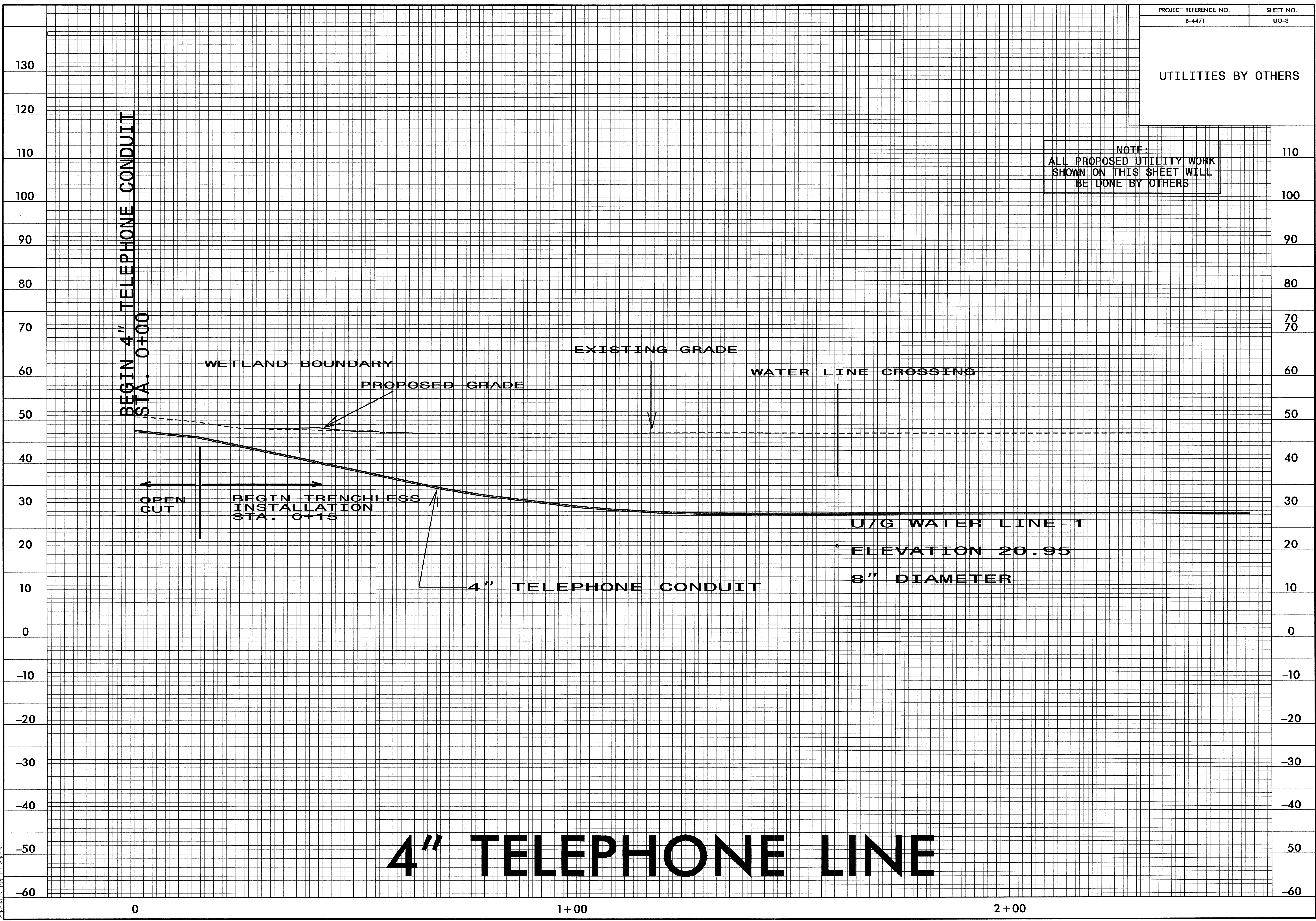


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 \$\$\$\$FRANNE\$\$\$\$

5/14/99

UTILITIES BY OTHERS

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



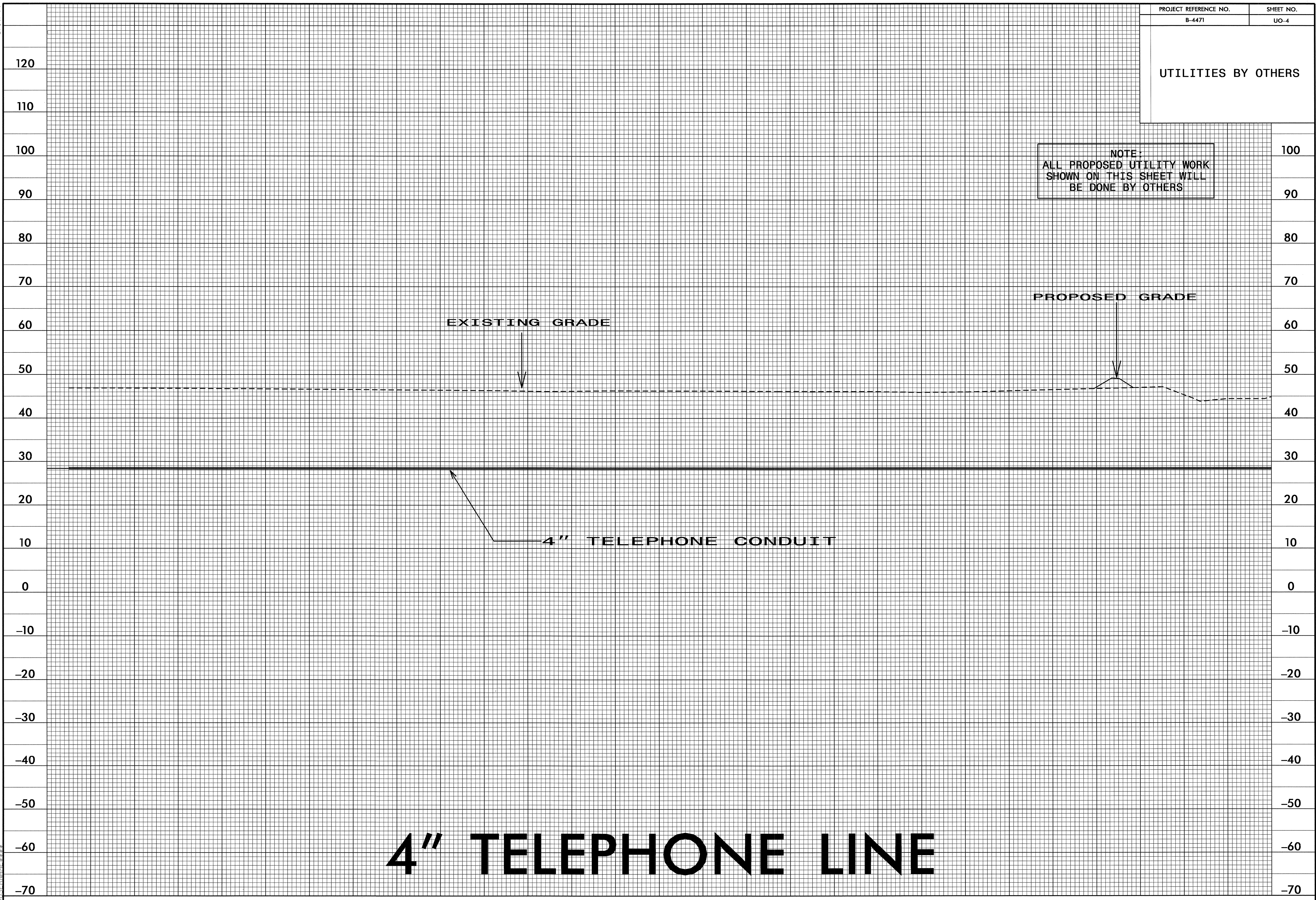
4" TELEPHONE LINE

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UTILITIES BY OTHERS

NOTE:
 ALL PROPOSED UTILITY WORK
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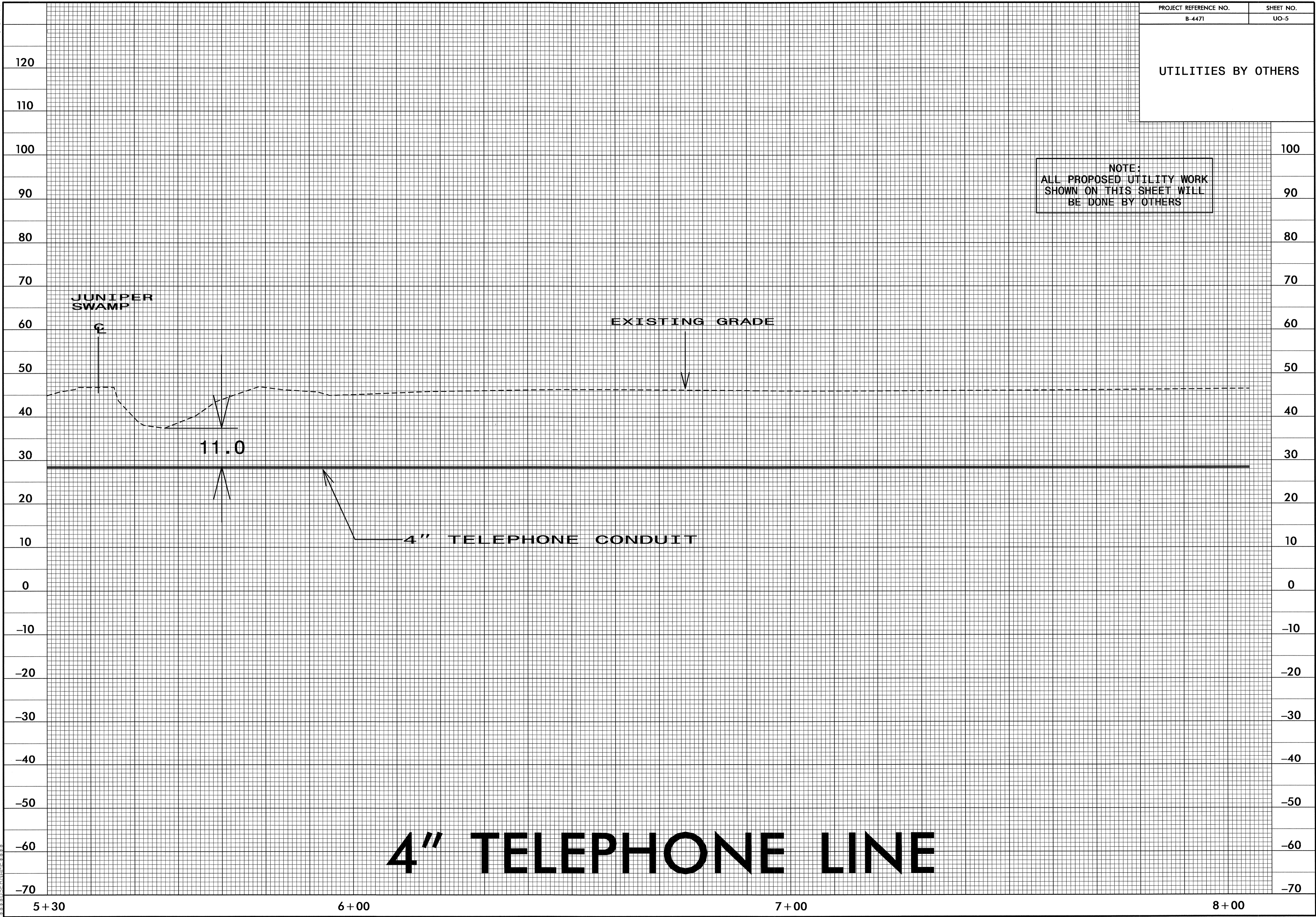
4" TELEPHONE LINE

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5/14/99

UTILITIES BY OTHERS

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



4" TELEPHONE LINE

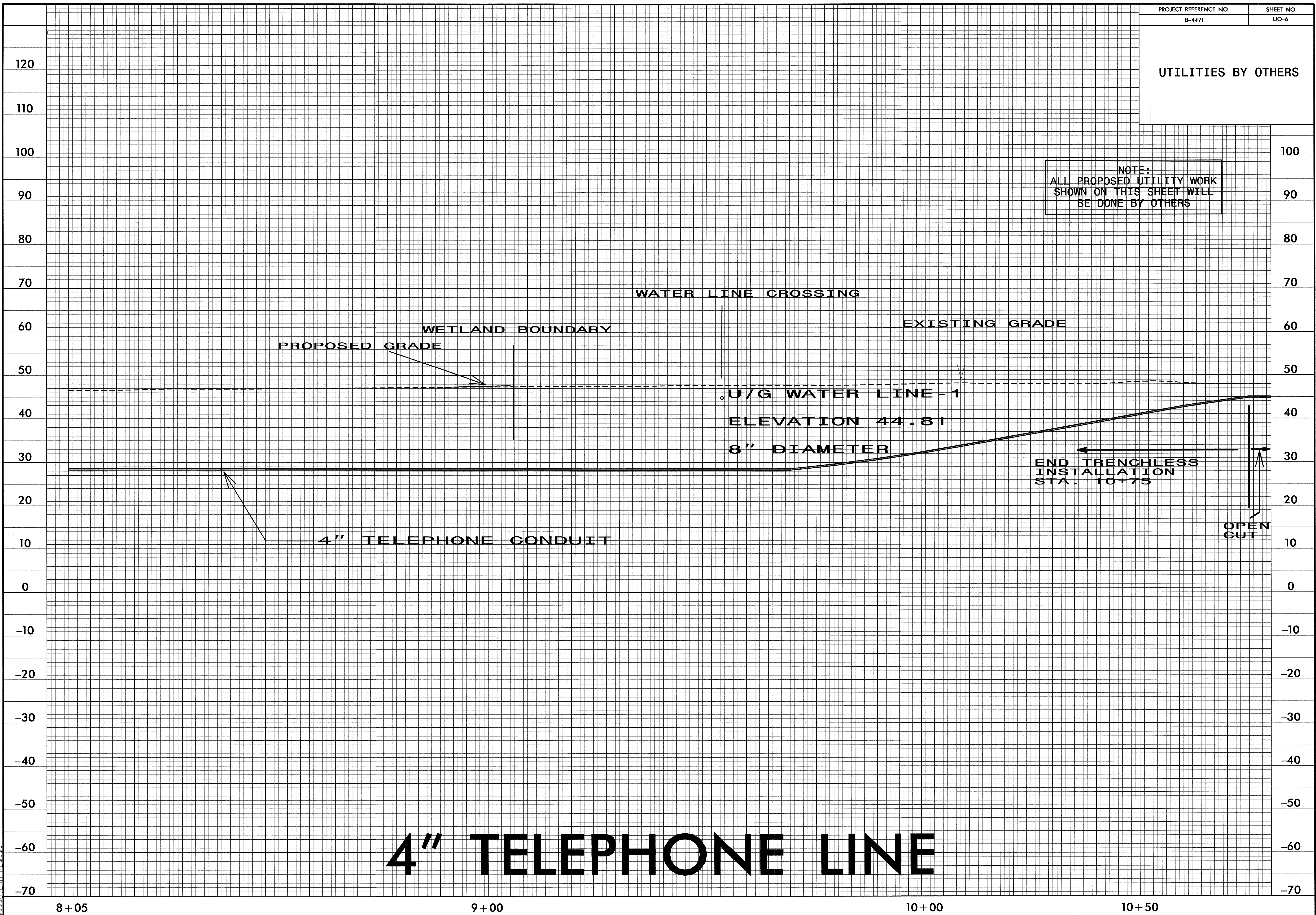
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PROJECT REFERENCE NO. B-4471	SHEET NO. UO-6
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UTILITIES BY OTHERS

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

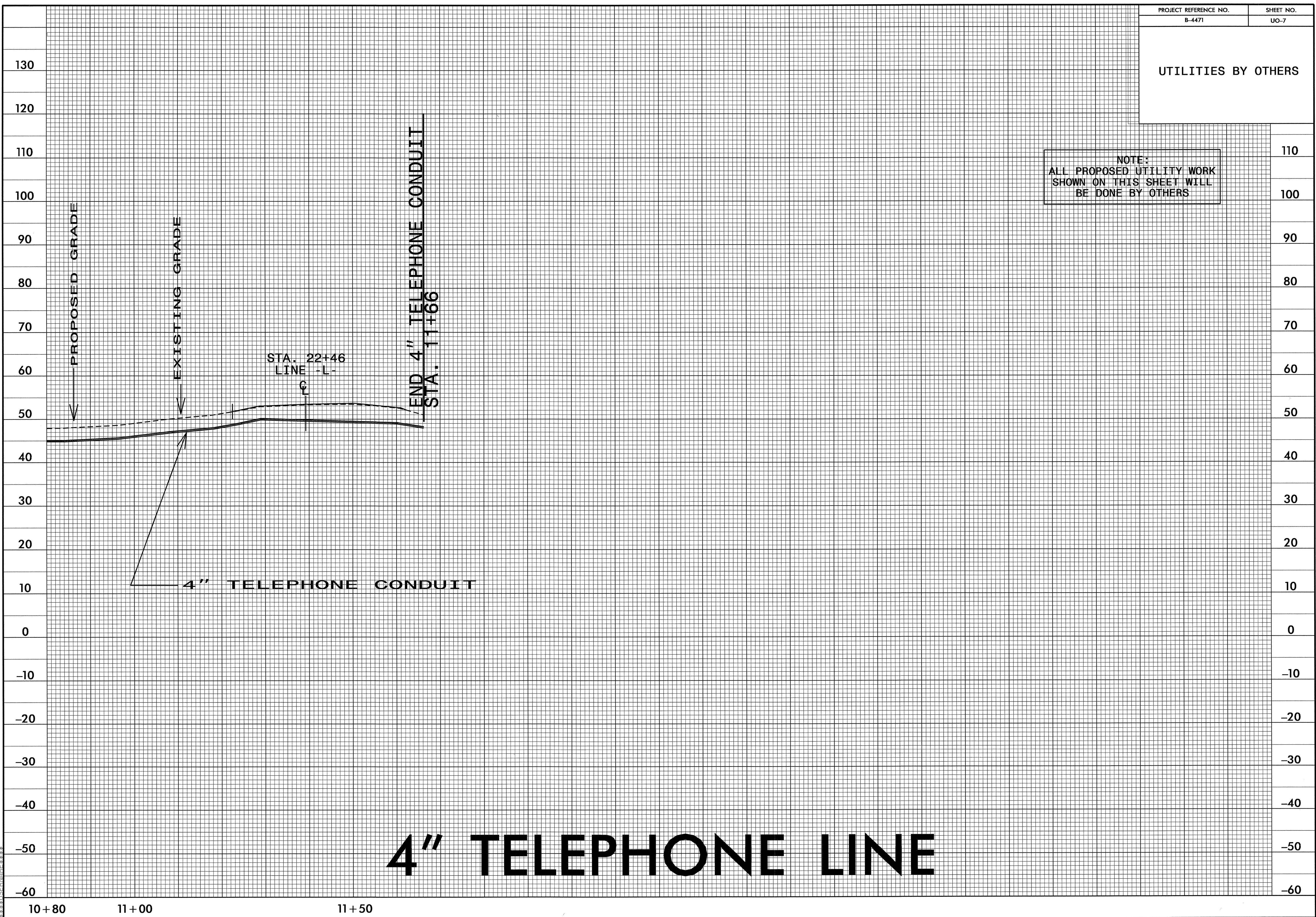


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PROJECT REFERENCE NO. B-4471	SHEET NO. UO-7
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UTILITIES BY OTHERS

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

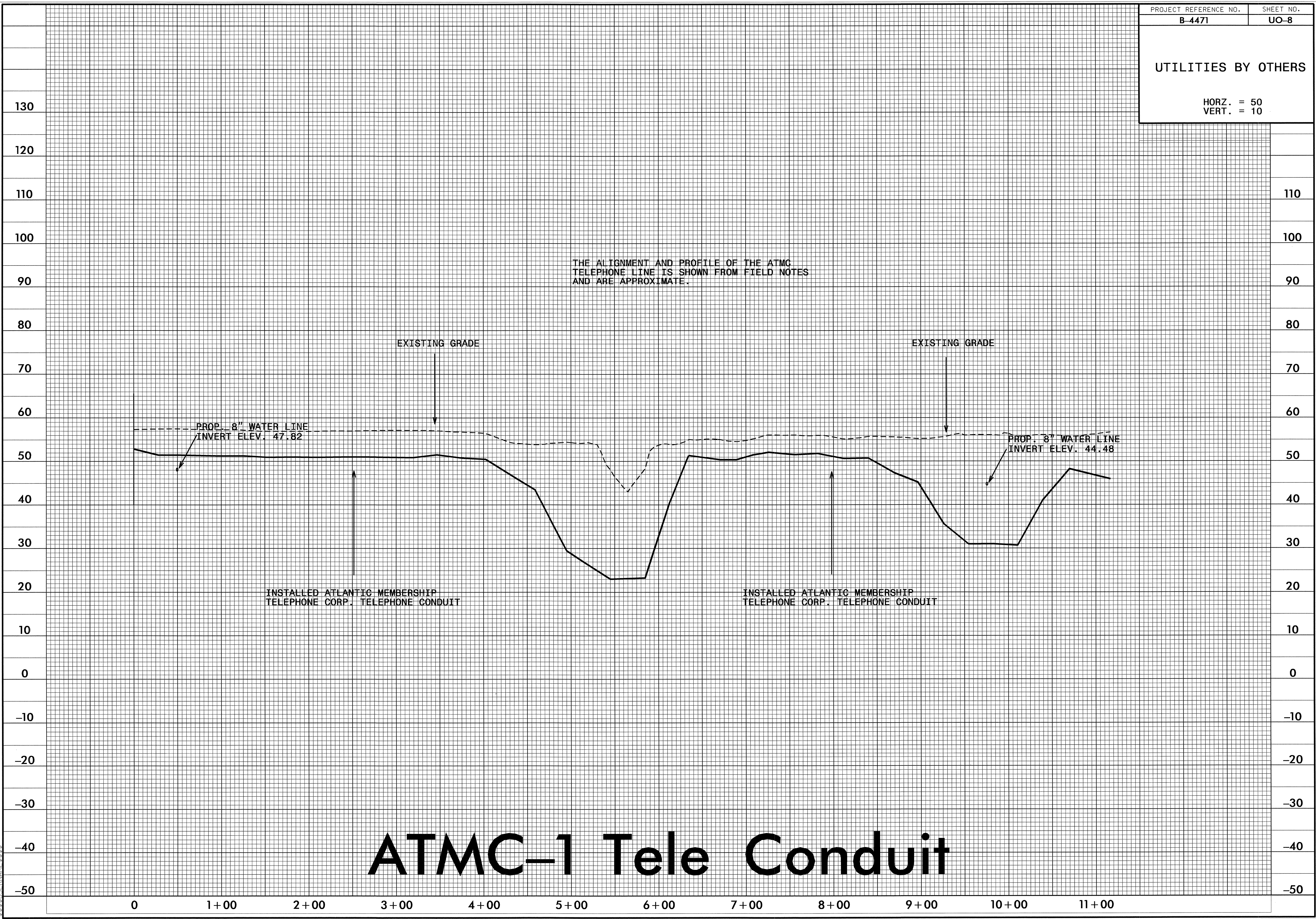


4" TELEPHONE LINE

5/14/99

UTILITIES BY OTHERS

HORZ. = 50
VERT. = 10



ATMC-1 Tele Conduit

08-MAY-2002 12:26
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