



STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

# UTILITIES PLAN SHEET SYMBOLS

## PROPOSED WATER SYMBOLS

Water Line (Sized as Shown)	
11 1/4 Degree Bend	
22 1/2 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	
Water Meter	
Relocate Water Meter	
Remove Water Meter	
Water Pump Station	
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	

## 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		Sanitary Sewer Cleanout	
End of Information			

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

5/14/99  
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 REV: 2/1/2012

5/14/99

**MA Engineering**  
**CONSULTANTS, INC.**  
 598 East Chatham Street Suite 137 Cary, NC 27511  
 Phone: 919.297.0220 Fax: 919.297.0221

PROJECT REFERENCE NO.	SHEET NO.
B-3680	UC-3
DESIGNED BY: SAG	 2012-07-02 UTILITY CONSTRUCTION PLANS ONLY
DRAWN BY: SAG	
CHECKED BY: KCZ	
APPROVED BY: KCZ	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	

# UTILITY CONSTRUCTION

## 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:
  - TOWN OF ABERDEEN  
CONTACT: RICKIE MONROE  
PHONE: 910-944-7012 .
  - MOORE COUNTY PUBLIC WORKS  
CONTACT: LEX KELLY  
PHONE: 910-947-6315
  - TOWN OF SOUTHERN PINES  
CONTACT: LARRY BRIDGES  
PHONE: 910-692-1983
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 ADDITONAL 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.

## LIST OF STANDARD DRAWINGS

- 1515.01 WATER METER
- 1515.02 FIRE HYDRANT
- 840.52 PRECAST MANHOLE 4', 5' AND 6' DIAMETER DETAIL
- 840.52 DRAINAGE STRUCTURE STEPS

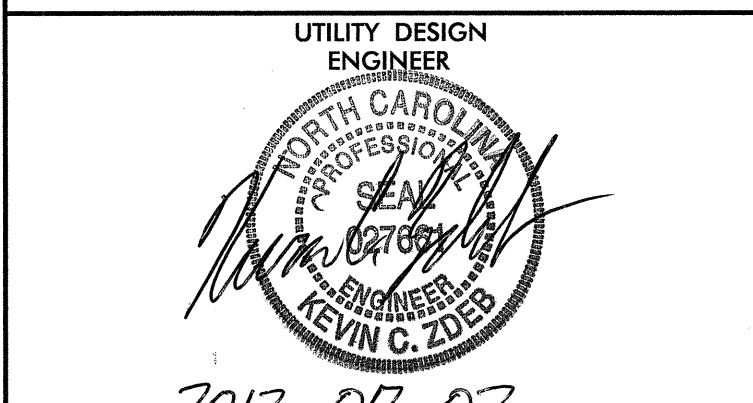
## PROJECT SPECIFIC NOTES:

1. 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.
2. PROPOSED 48-INCH SANITARY GRAVITY SEWER SHALL BE PVC AWWA C-905 DR-32.5 OR DR-25.
3. PROPOSED 16-INCH SANITARY GRAVITY SEWER SHALL BE DUCTILE IRON CLASS 350 WITH CEMENT MORTAR LINING.
4. PROPOSED 10-INCH WATER LINE SHALL BE PVC DR-21 OR PVC AWWA C-900 DR-18. WATER LINE TO BE INSTALLED BY HORIZONTAL DIRECTIONAL DRILLING (H.D.D.) SHALL BE PVC AWWA C-900 DR-18 WITH FUSIBLE JOINT CONSTRUCTION.
5. ALL WATER LINE FITTINGS SHALL BE DUCTILE IRON CLASS 350.
6. ANY BENDS OF PVC WATER PIPE NOT SPECIFICALLY CALLED OUT WITH A 90, 45, 22.5, OR 11.25 DEGREE BEND FITTING, SHALL BE CONSTRUCTED BY A RADIAL BEND OF THE PIPE AS NOTED ON THE PLANS OR IN ACCORDANCE WITH THE PIPE MANUFACTURER'S SPECIFICATIONS (WHICHEVER IS MORE STRINGENT) - OR A COMBINATION OF BEND FITTINGS AND A RADIAL BEND OF THE PIPE. DEFLECTION OF PIPE JOINTS ON PVC PIPE MATERIAL IS NOT AN ACCEPTABLE METHOD OF PIPE BENDING.
7. ALL FITTINGS (BENDS, TEES, CROSSES, REDUCERS, PLUGS, ETC.) SHALL BE ADEQUATELY RESTRAINED BY THE USE OF RESTRAINED JOINT CONSTRUCTION AND / OR CAST IN PLACE CONCRETE THRUST RESTRAINTS AS DETAILED ON THESE DRAWINGS, OR AS DIRECTED BY THE RESIDENT ENGINEER.
8. ALL WATER SERVICES, 2-INCHES IN DIAMETER AND SMALLER, SHALL BE CLASS 200 POLYETHYLENE TUBING AND INSTALLED UNDER ACTIVE ROADS BY TRENCHLESS METHOD, AS DIRECTED BY THE NCDOT RESIDENT ENGINEER.
9. ALL EXISTING WATER METERS TO REMAIN SHALL BE "RECONNECTED" TO THE PROPOSED WATER MAIN WITH NEW WATER SERVICE LINES.

## UTILITY CONSTRUCTION

10. ALL EXISTING WATER METERS TO BE RELOCATED SHALL BE DIRECTLY CONNECTED TO THE EXISTING OR PROPOSED WATER MAIN WITH NEW SERVICE LINES.
11. ALL NEW WATER SERVICE LINES SHALL BE CONSIDERED INCIDENTAL TO THE: CONSTRUCTION OF NEW WATER METERS; RELOCATION OF EXISTING WATER METERS; AND RECONNECTION OF EXISTING WATER METERS.
12. ALL NEW WATER METERS SHALL BE LOCATED AT THE RIGHT-OF-WAY LINE.
13. CONTRACTOR SHALL CONNECT THE OUTLET SIDE OF RELOCATED WATER METER TO THE EXISTING CUSTOMER SERVICE LINE OUTSIDE OF THE RIGHT-OF-WAY LINE.
14. CONTRACTOR SHALL RETURN ALL REMOVED WATER METERS TO THE TOWN OF ABERDEEN. CONTRACTOR SHALL PROPERLY DISPOSE OF ALL OTHER PARTS, PIPING, AND METER BOXES.
15. EXISTING WATER SERVICE LINES BETWEEN THE EXISTING WATER MAIN AND THE REMOVED WATER METER SHALL BE ABANDONED IN PLACE OR REMOVED AS NEEDED, AS PER NCDOT SPECIFICATIONS.
16. CONTRACTOR SHALL NOT OPERATE ANY VALVES ON THE EXISTING UTILITY SYSTEMS. CONTRACTOR SHALL CONTACT THE UTILITY OWNER TO CONDUCT STRATEGIC OPERATION OF VALVES FOR SERVICE INTERUPTION IN ORDER TO PERFORM SPECIFIC WORK.

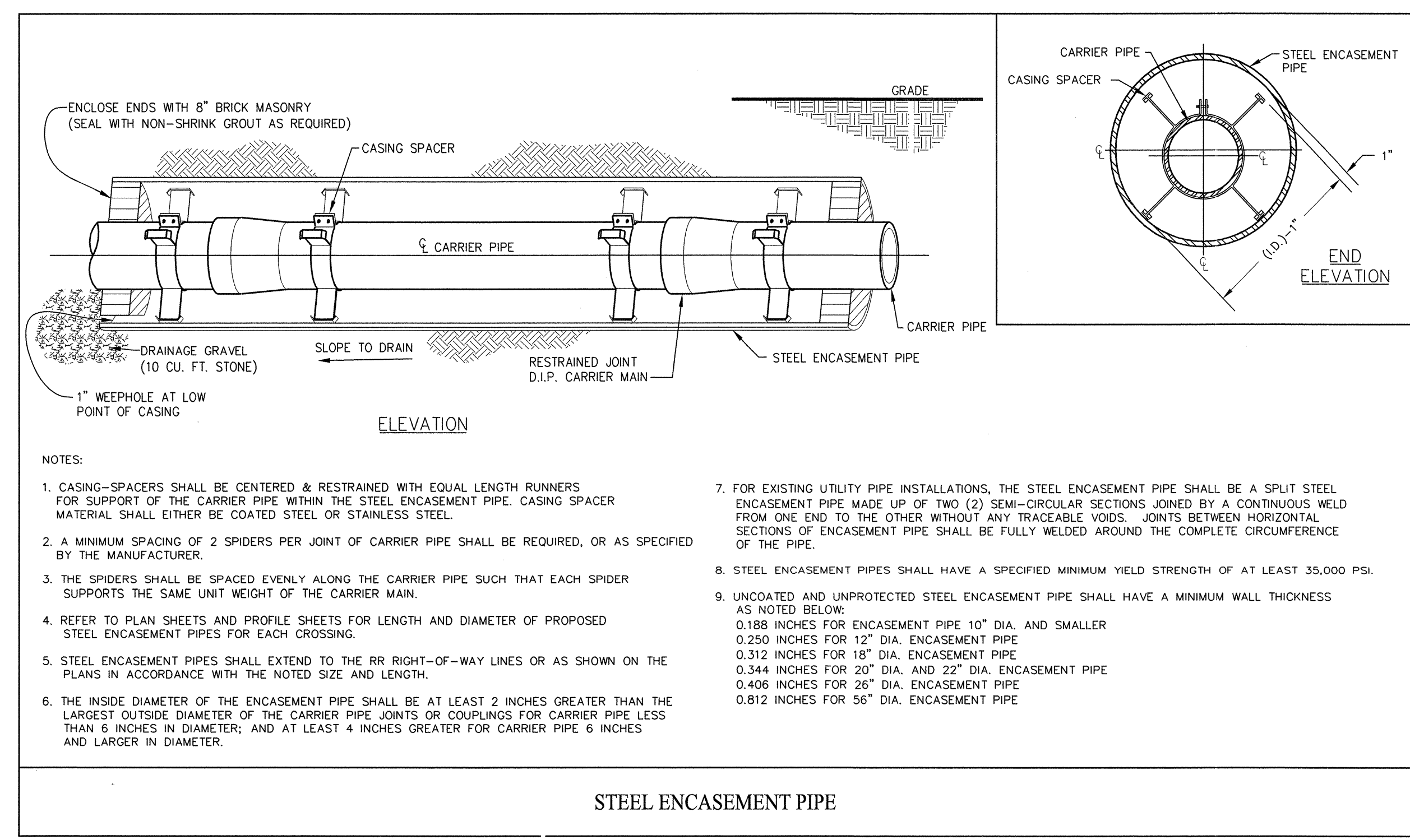
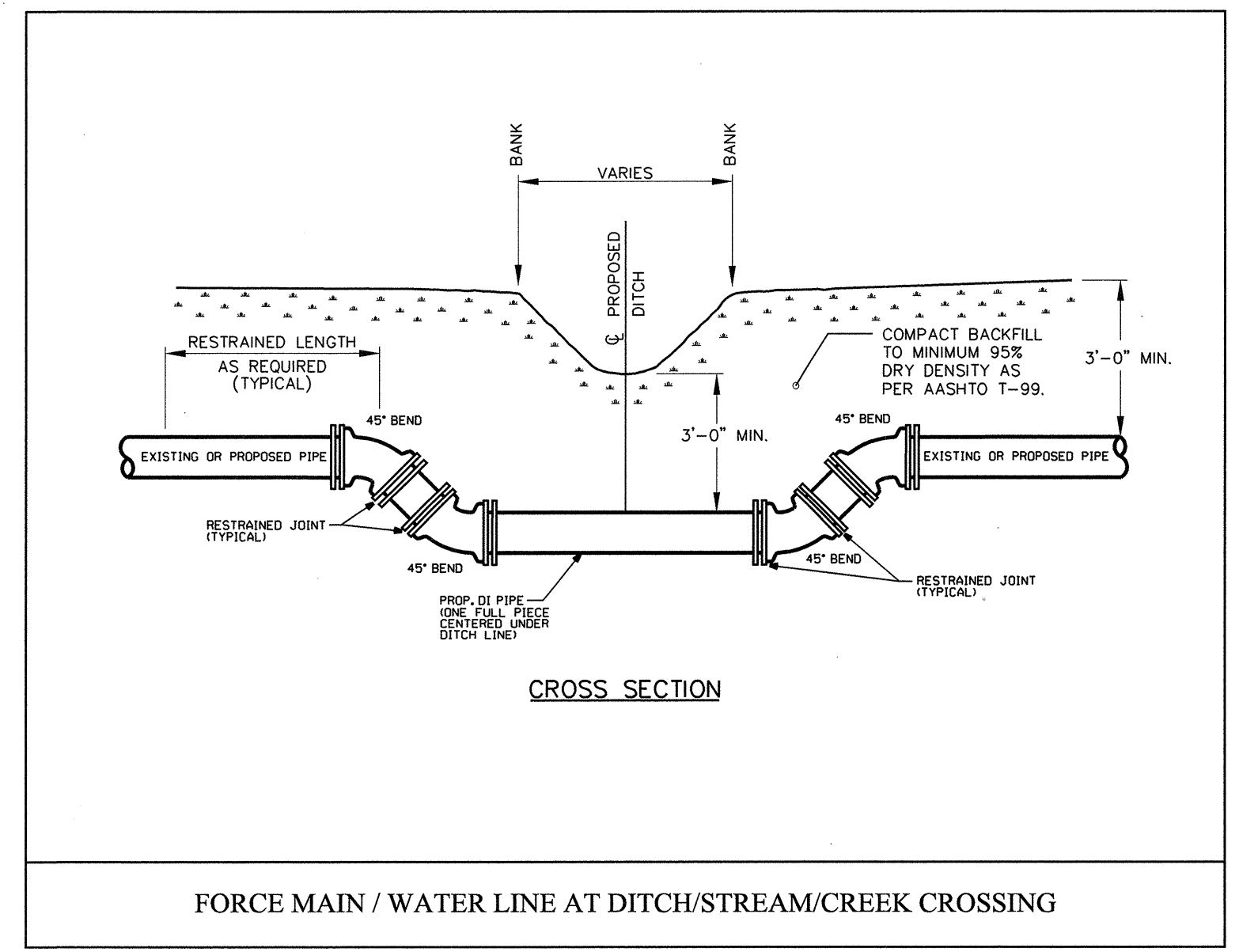
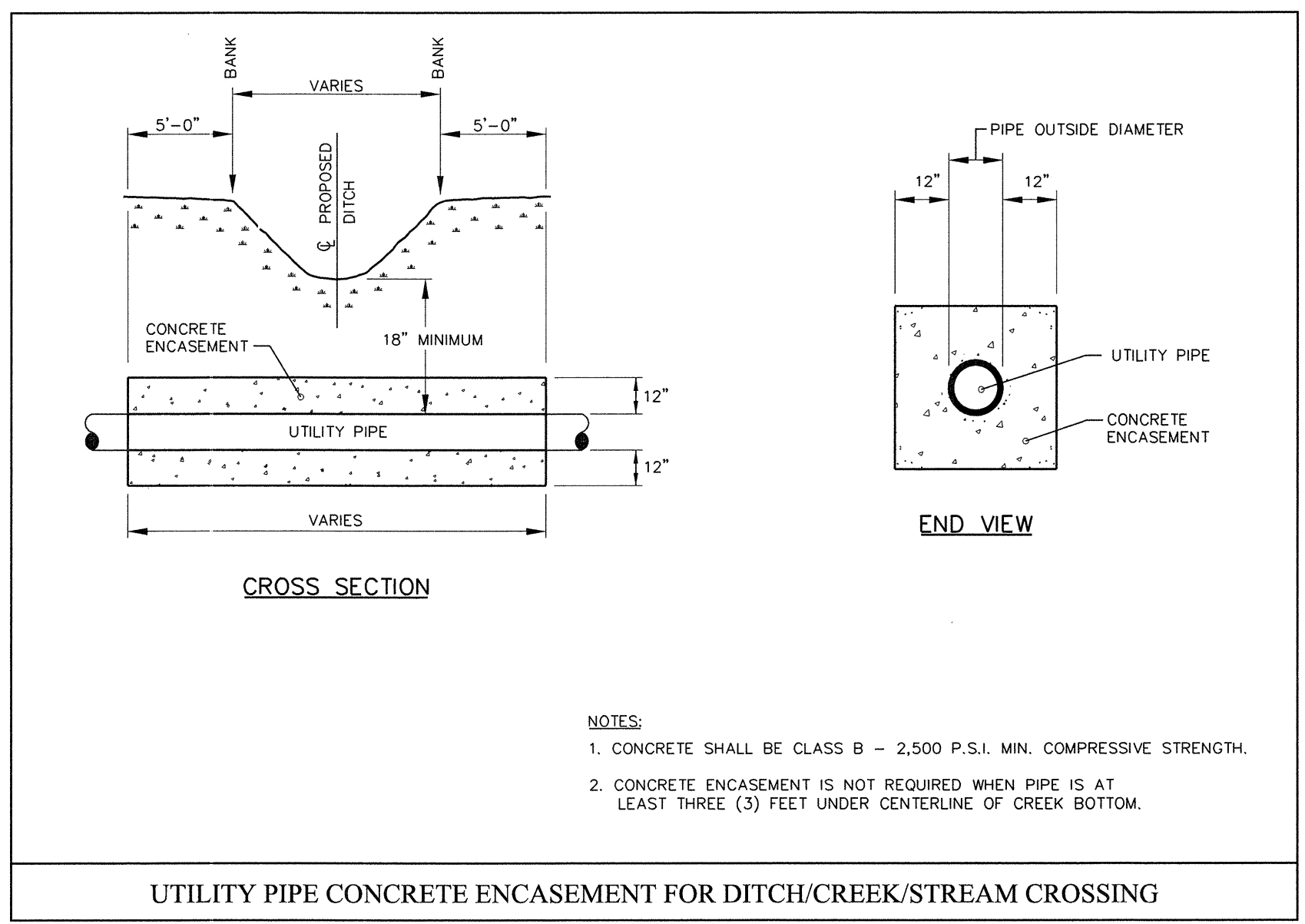
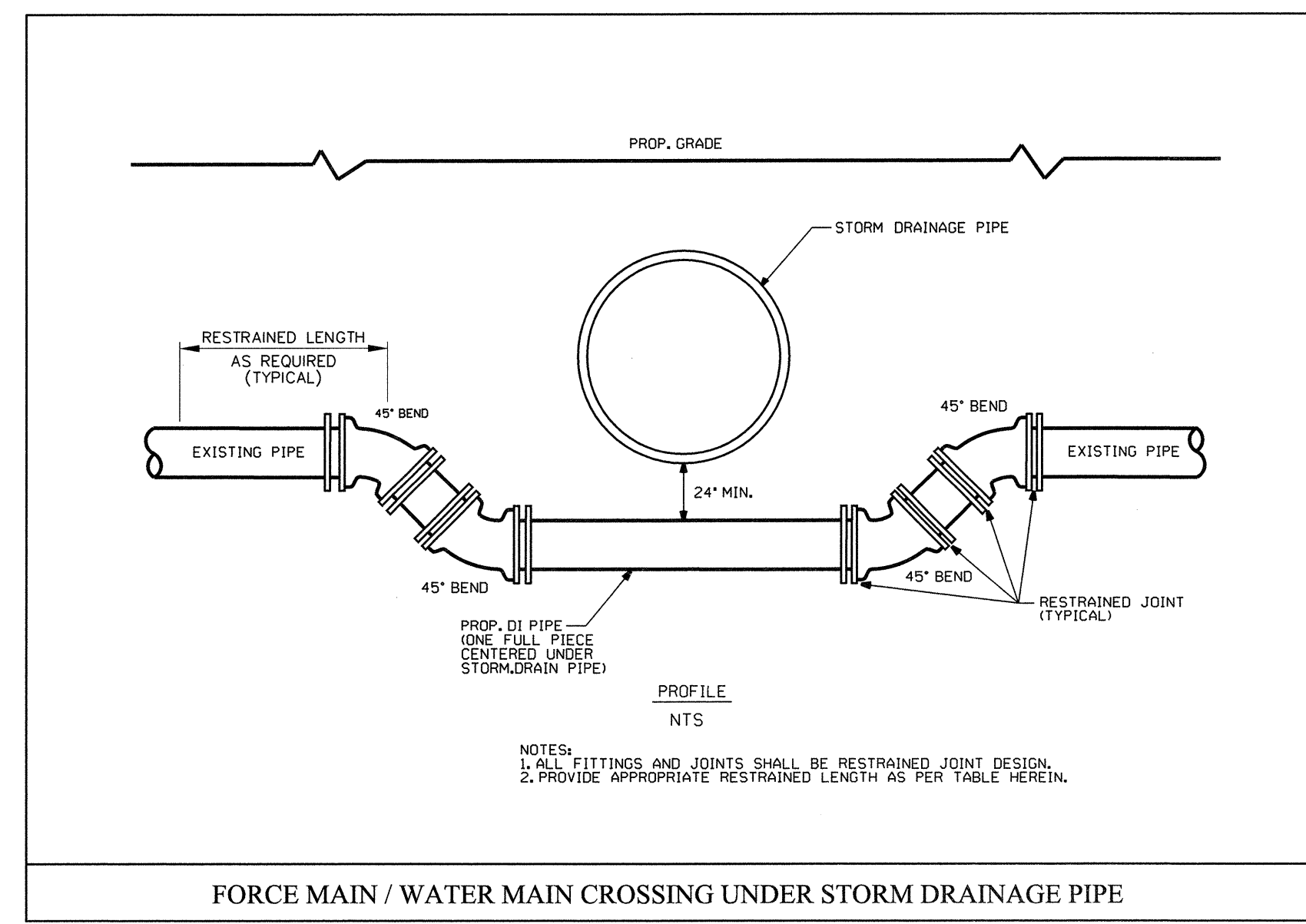
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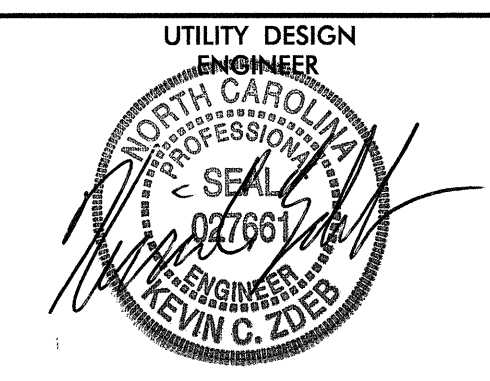
REVISIONS



- NOTES:
- CASING-SPACERS SHALL BE CENTERED & RESTRAINED WITH EQUAL LENGTH RUNNERS FOR SUPPORT OF THE CARRIER PIPE WITHIN THE STEEL ENCASEMENT PIPE. CASING SPACER MATERIAL SHALL EITHER BE COATED STEEL OR STAINLESS STEEL.
  - A MINIMUM SPACING OF 2 SPIDERS PER JOINT OF CARRIER PIPE SHALL BE REQUIRED, OR AS SPECIFIED BY THE MANUFACTURER.
  - THE SPIDERS SHALL BE SPACED EVENLY ALONG THE CARRIER PIPE SUCH THAT EACH SPIDER SUPPORTS THE SAME UNIT WEIGHT OF THE CARRIER MAIN.
  - REFER TO PLAN SHEETS AND PROFILE SHEETS FOR LENGTH AND DIAMETER OF PROPOSED STEEL ENCASEMENT PIPES FOR EACH CROSSING.
  - STEEL ENCASEMENT PIPES SHALL EXTEND TO THE RR RIGHT-OF-WAY LINES OR AS SHOWN ON THE PLANS IN ACCORDANCE WITH THE NOTED SIZE AND LENGTH.
  - THE INSIDE DIAMETER OF THE ENCASEMENT PIPE SHALL BE AT LEAST 2 INCHES GREATER THAN THE LARGEST OUTSIDE DIAMETER OF THE CARRIER PIPE JOINTS OR COUPLINGS FOR CARRIER PIPE LESS THAN 6 INCHES IN DIAMETER; AND AT LEAST 4 INCHES GREATER FOR CARRIER PIPE 6 INCHES AND LARGER IN DIAMETER.
  - FOR EXISTING UTILITY PIPE INSTALLATIONS, THE STEEL ENCASEMENT PIPE SHALL BE A SPLIT STEEL ENCASEMENT PIPE MADE UP OF TWO (2) SEMI-CIRCULAR SECTIONS JOINED BY A CONTINUOUS WELD FROM ONE END TO THE OTHER WITHOUT ANY TRACEABLE VOIDS. JOINTS BETWEEN HORIZONTAL SECTIONS OF ENCASEMENT PIPE SHALL BE FULLY WELDED AROUND THE COMPLETE CIRCUMFERENCE OF THE PIPE.
  - STEEL ENCASEMENT PIPES SHALL HAVE A SPECIFIED MINIMUM YIELD STRENGTH OF AT LEAST 35,000 PSI.
  - UNCOATED AND UNPROTECTED STEEL ENCASEMENT PIPE SHALL HAVE A MINIMUM WALL THICKNESS AS NOTED BELOW:  
0.188 INCHES FOR ENCASEMENT PIPE 10" DIA. AND SMALLER  
0.250 INCHES FOR 12" DIA. ENCASEMENT PIPE  
0.312 INCHES FOR 18" DIA. ENCASEMENT PIPE  
0.344 INCHES FOR 20" DIA. AND 22" DIA. ENCASEMENT PIPE  
0.406 INCHES FOR 26" DIA. ENCASEMENT PIPE  
0.812 INCHES FOR 56" DIA. ENCASEMENT PIPE

PIPE CROSSING AND ENCASEMENT DETAILS

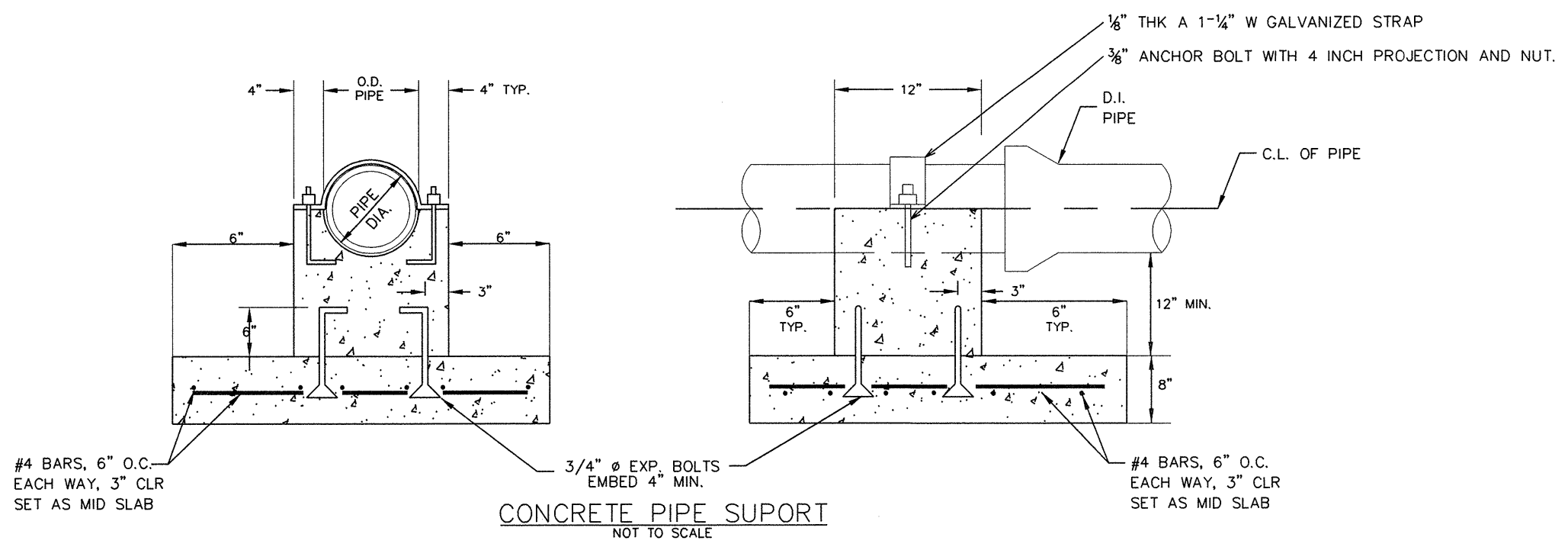




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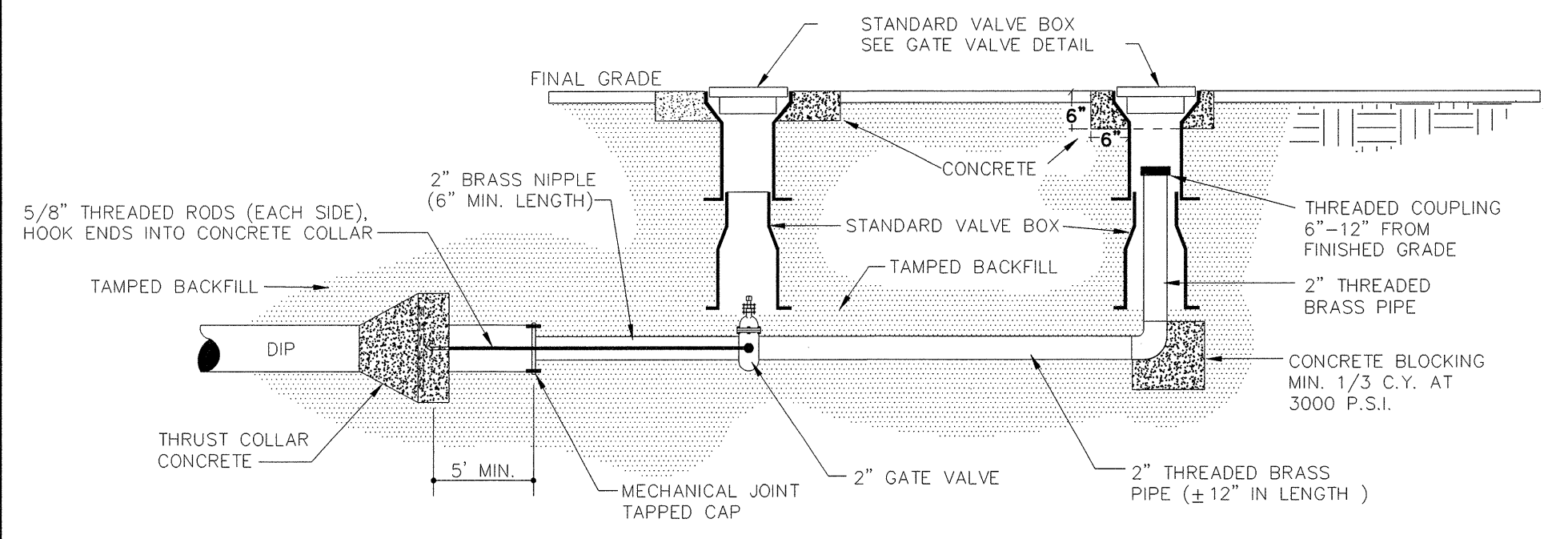
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NOTES:  
1. TWO SUPPORTS PER PIPE LENGTH, EVENLY SPACED.  
2. FOR USE WHERE PIPE IS TO BE ABOVE EXISTING GROUND AND WHERE PIPE WILL BE EXPOSED.

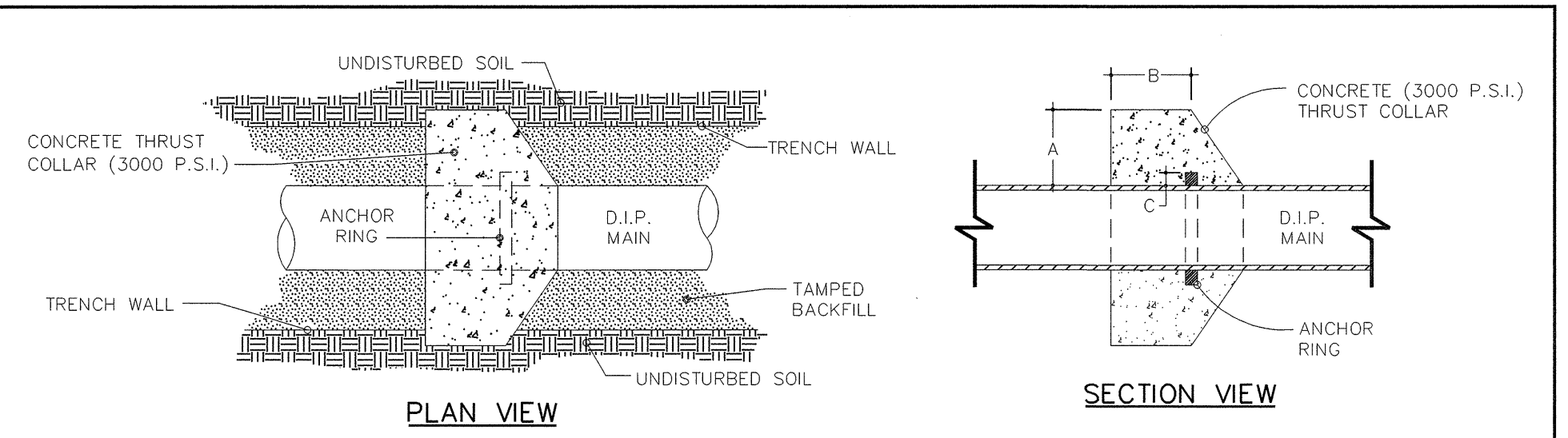


**CONCRETE PIPE SUPPORT DETAIL**

NOTE:  
2. ROD SHALL BE "HOOKED" INTO THRUST COLLAR.

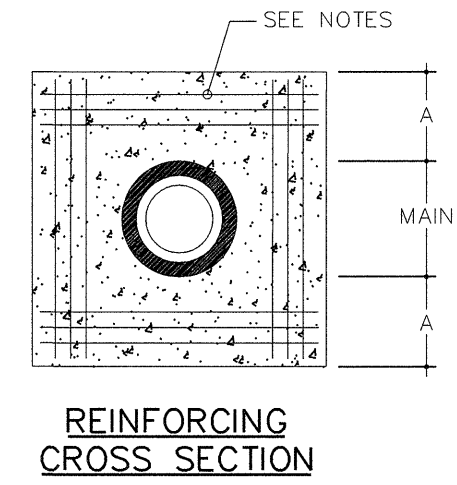


**STANDARD 2" BLOW-OFF ASSEMBLY**

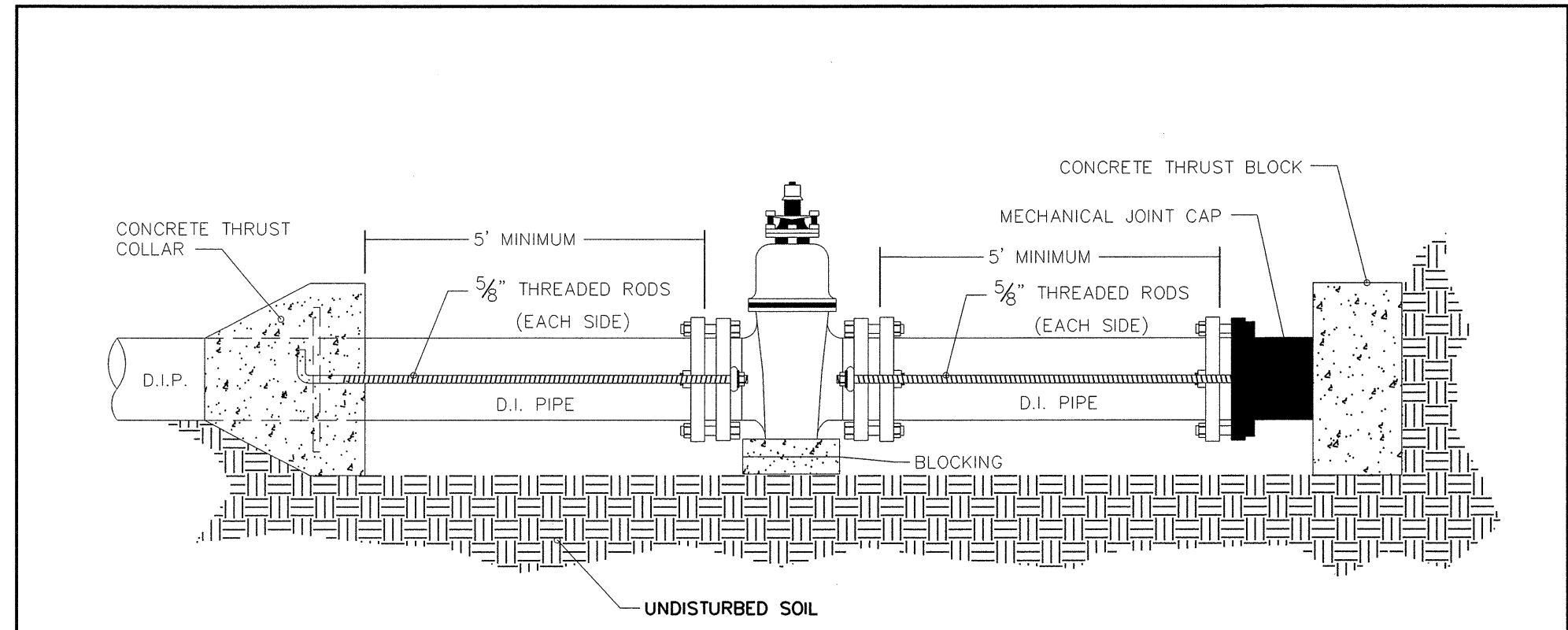


SCHEDULE				
PIPE DIAMETER	CONCRETE THRUST COLLAR	ANCHOR RING	RINGS REQUIRED	
6", 8", 10", 12"	A 1'-0"	B 1'-0"	C 2"	ONE

NOTES:  
1. 6" TO 16" MAINS: #7 BARS, QUANTITY = 12 TOTAL  
2. BARS PLACED AS SHOWN



**STANDARD THRUST COLLAR INSTALLATION**



**STANDARD CAPPING DETAIL**

REVISIONS

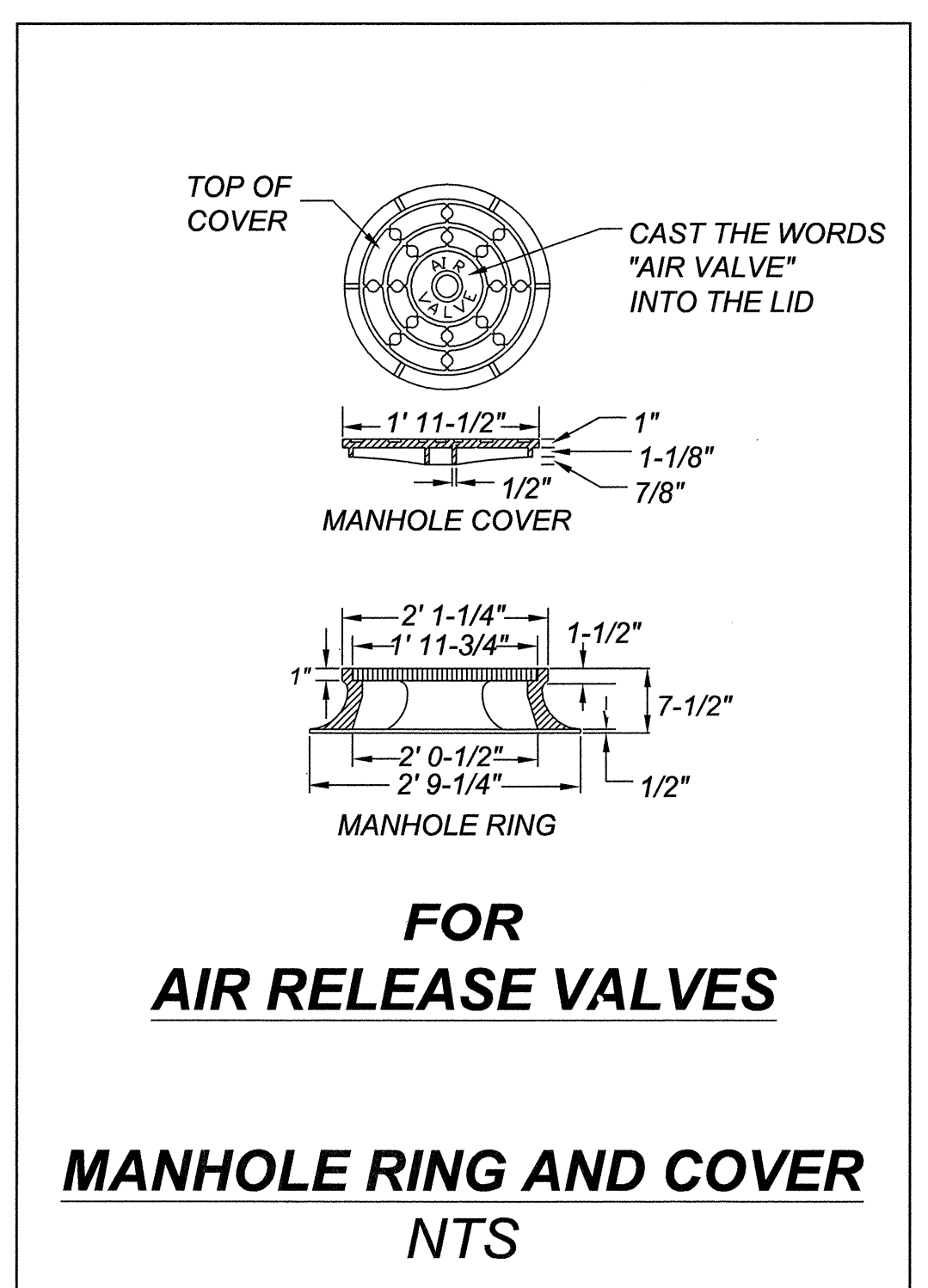
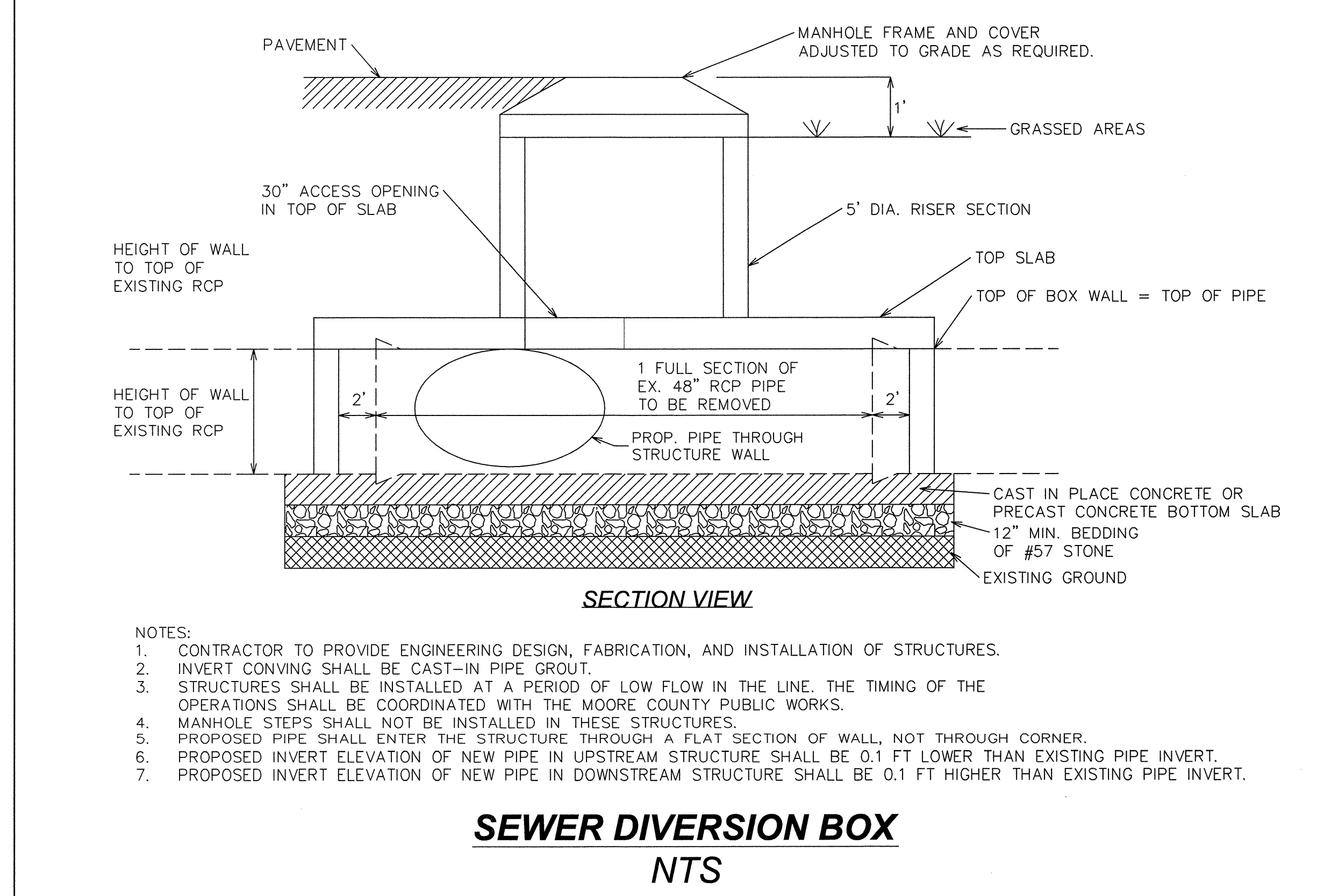
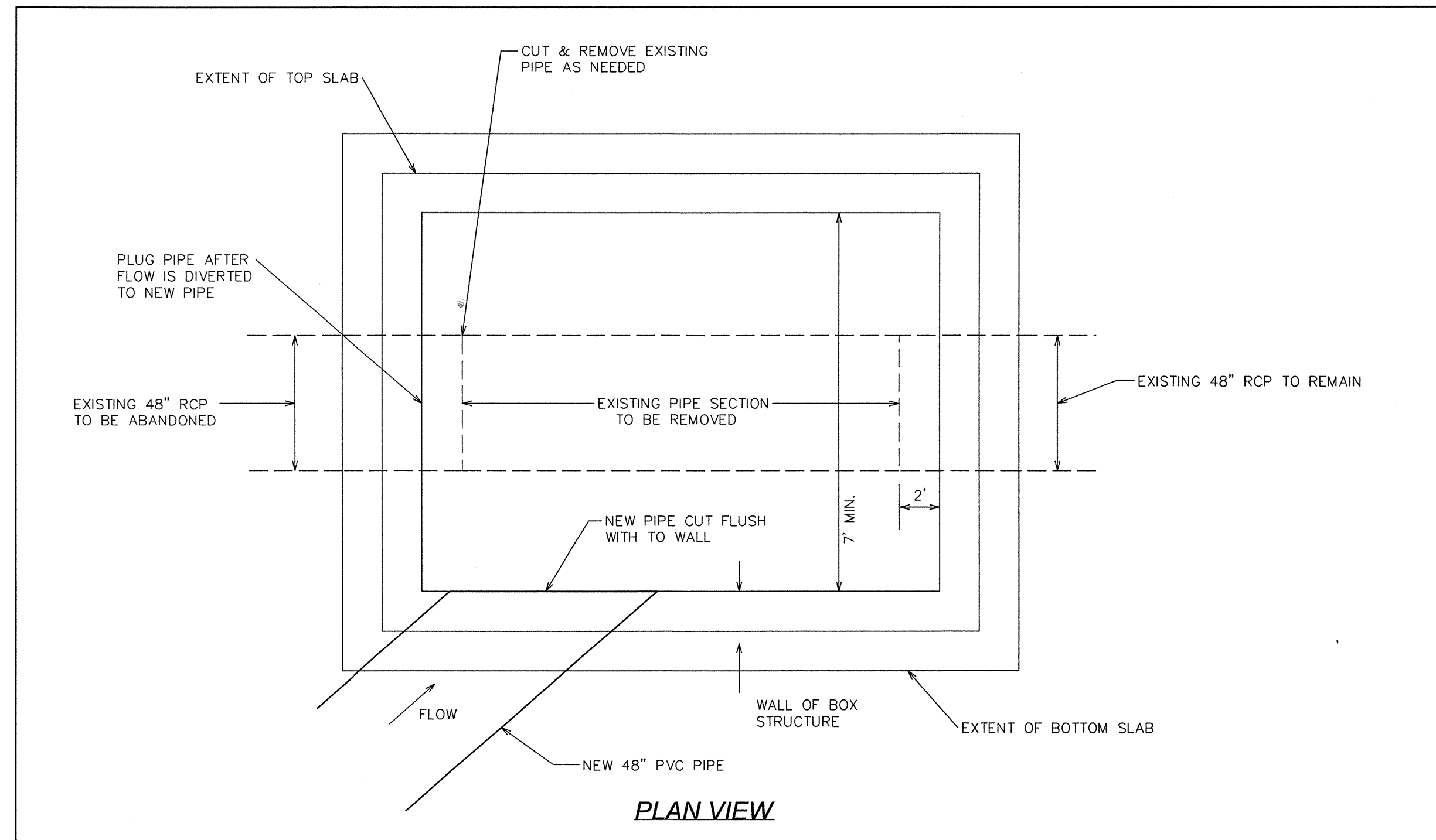
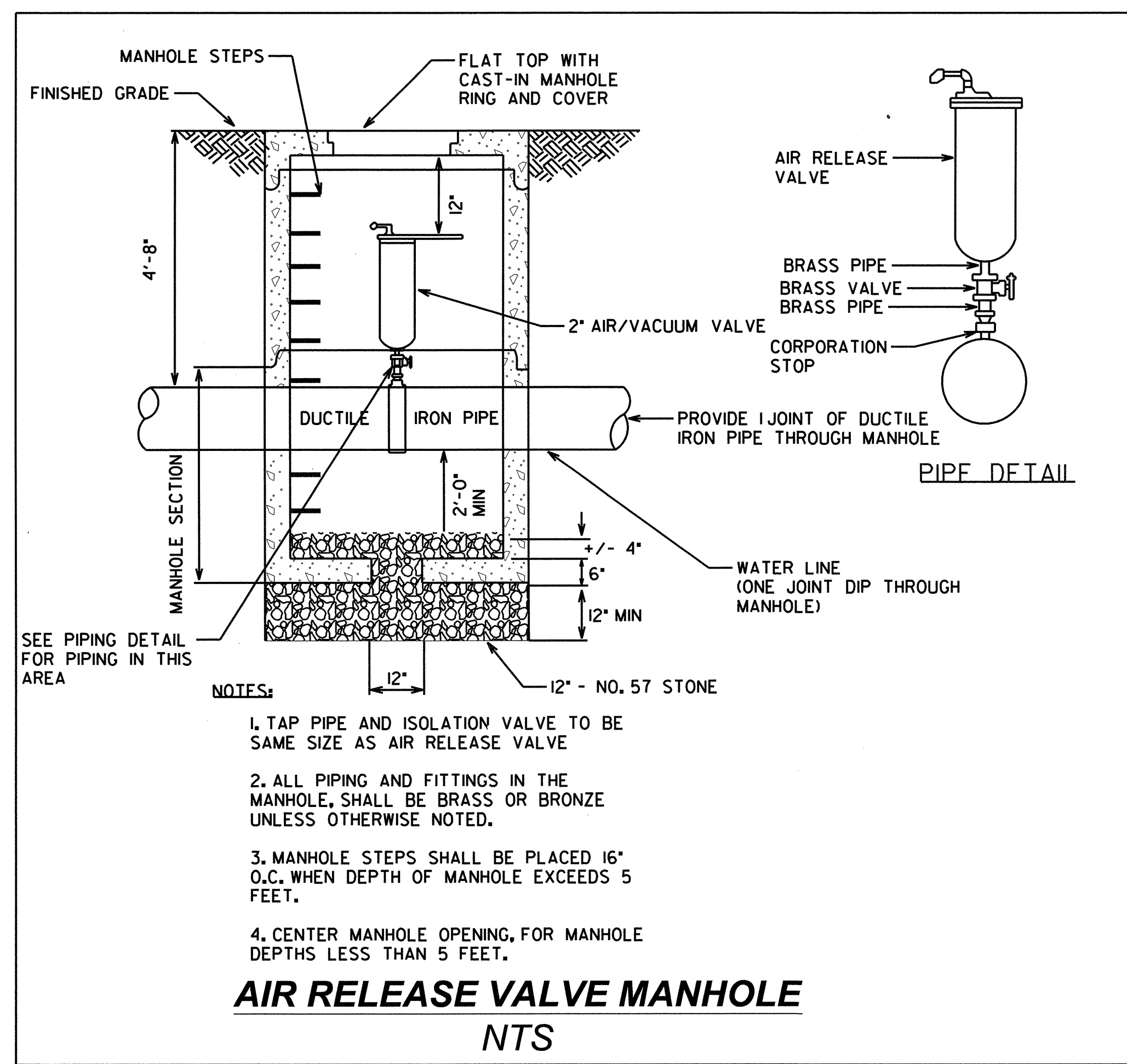
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UTILITY DESIGN ENGINEER

2012-07-02

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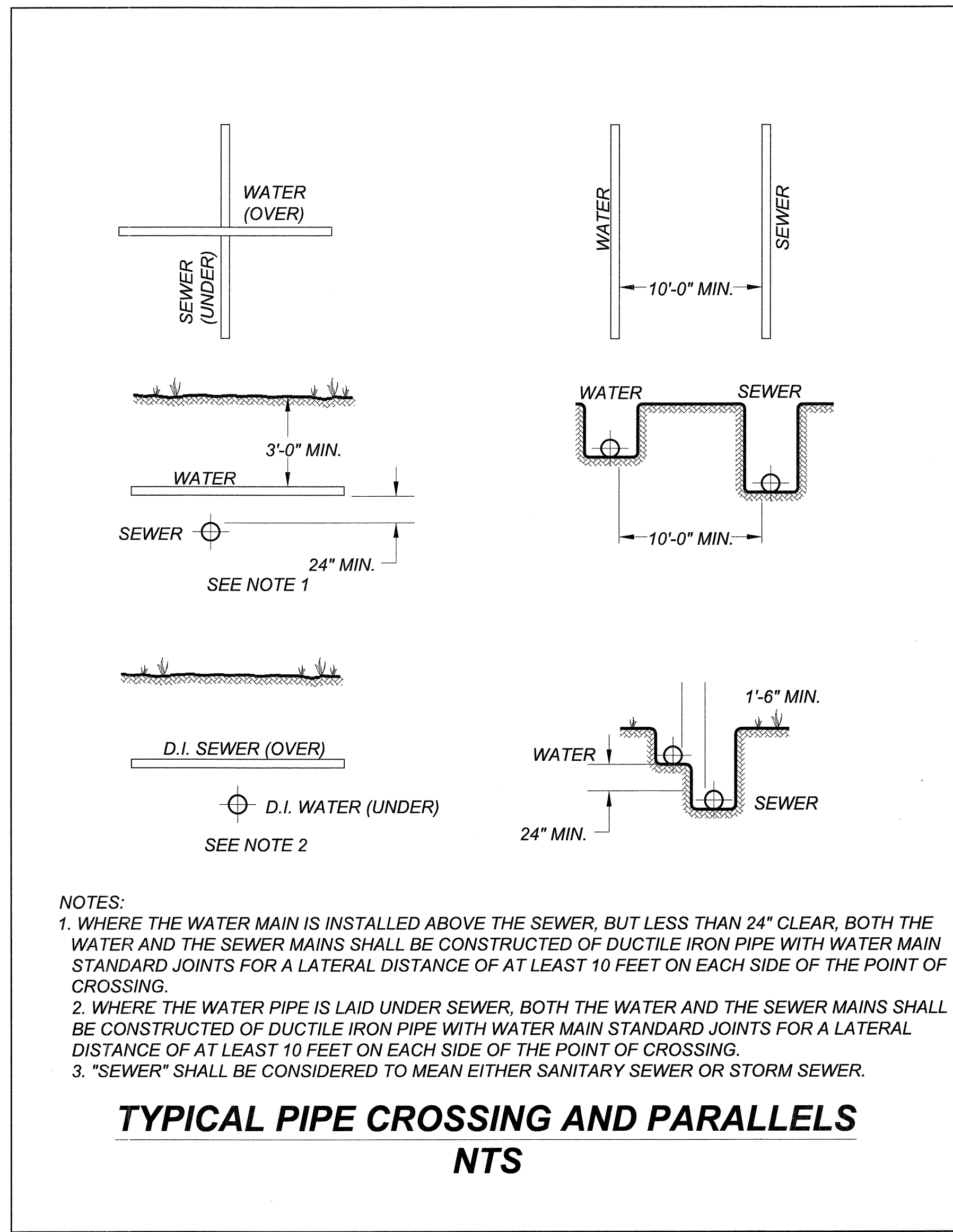
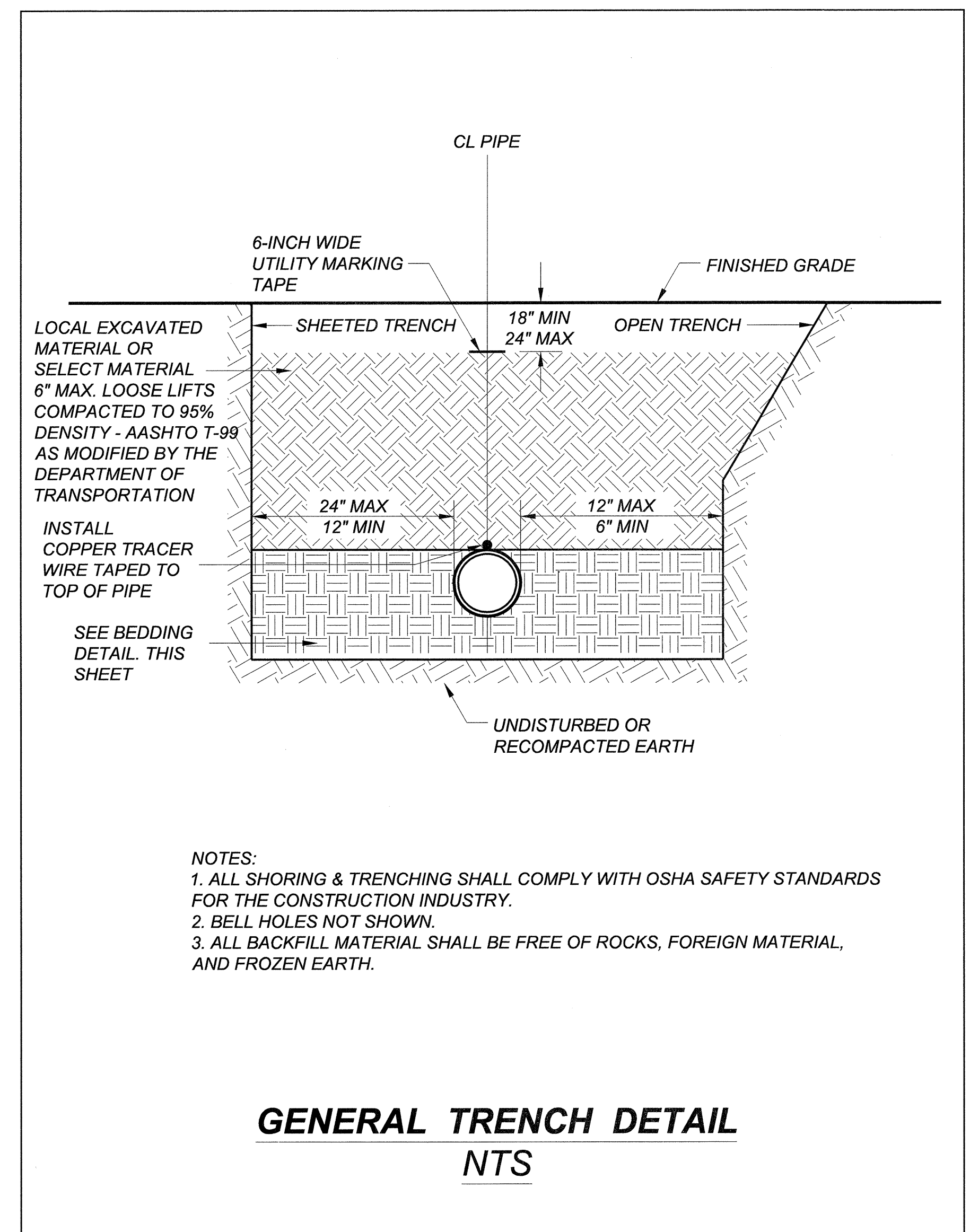


UTILITY DESIGN ENGINEER

2012-07-02

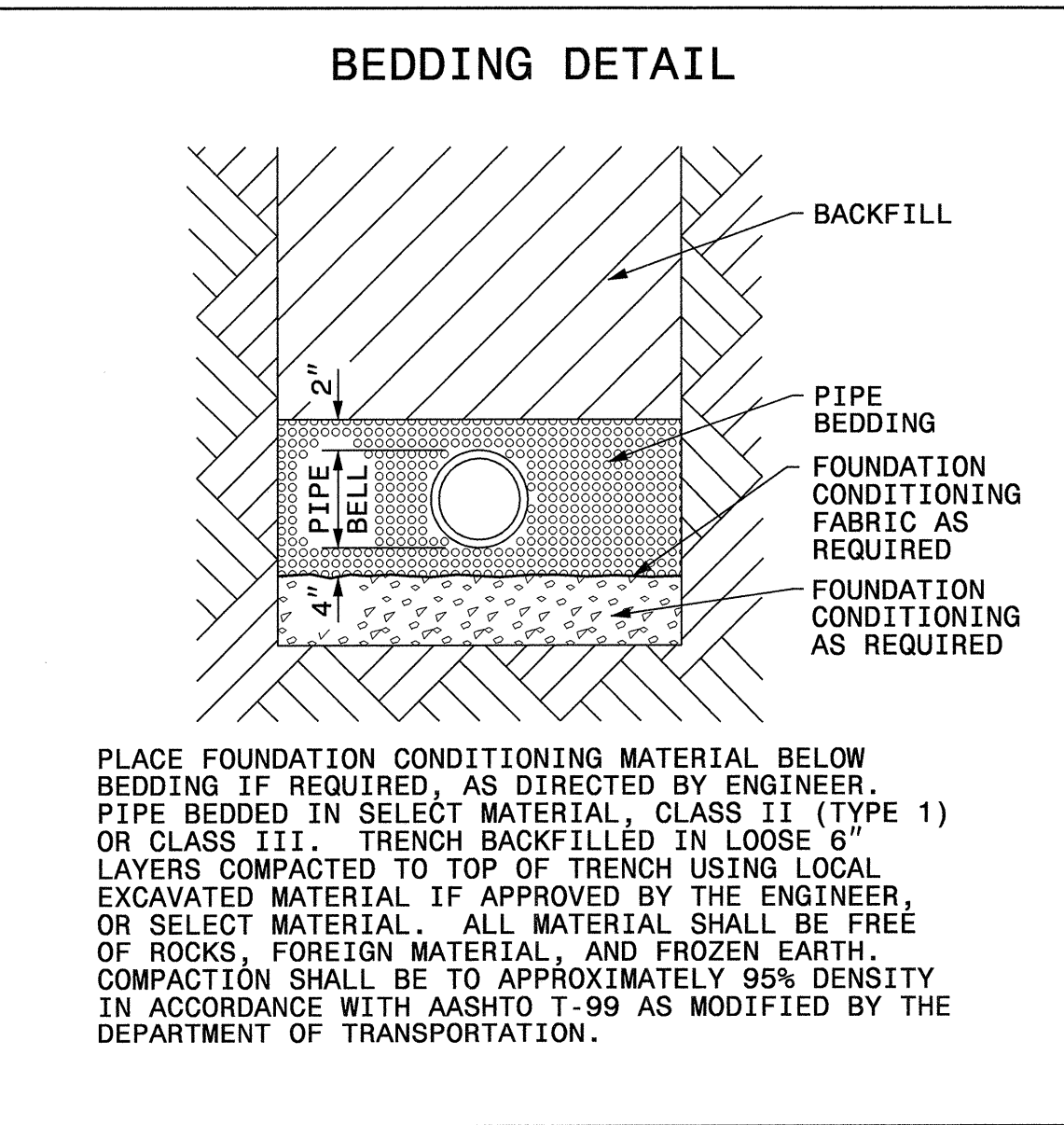
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MAXIMUM TRENCH WIDTH AT TOP OF PIPE

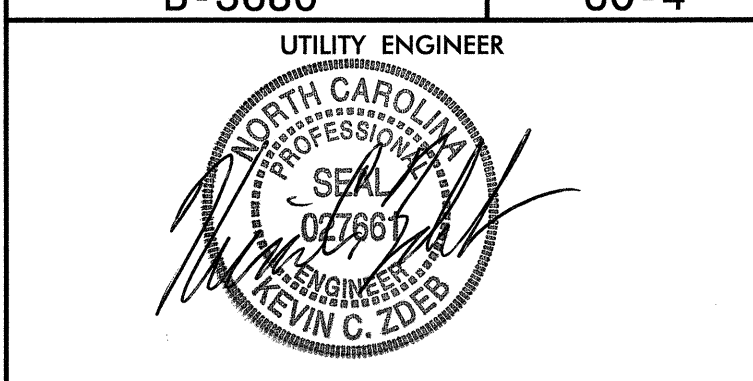
NOMINAL PIPE SIZE (INCHES)	TRENCH WIDTH (INCHES)	NOMINAL PIPE SIZE (INCHES)	TRENCH WIDTH (INCHES)
4	28	20	44
6	30	24	48
8	32	30	54
10	34	36	60
12	36	42	66
14	38	48	72
16	40	54	78
18	42		



TRENCH DETAILS

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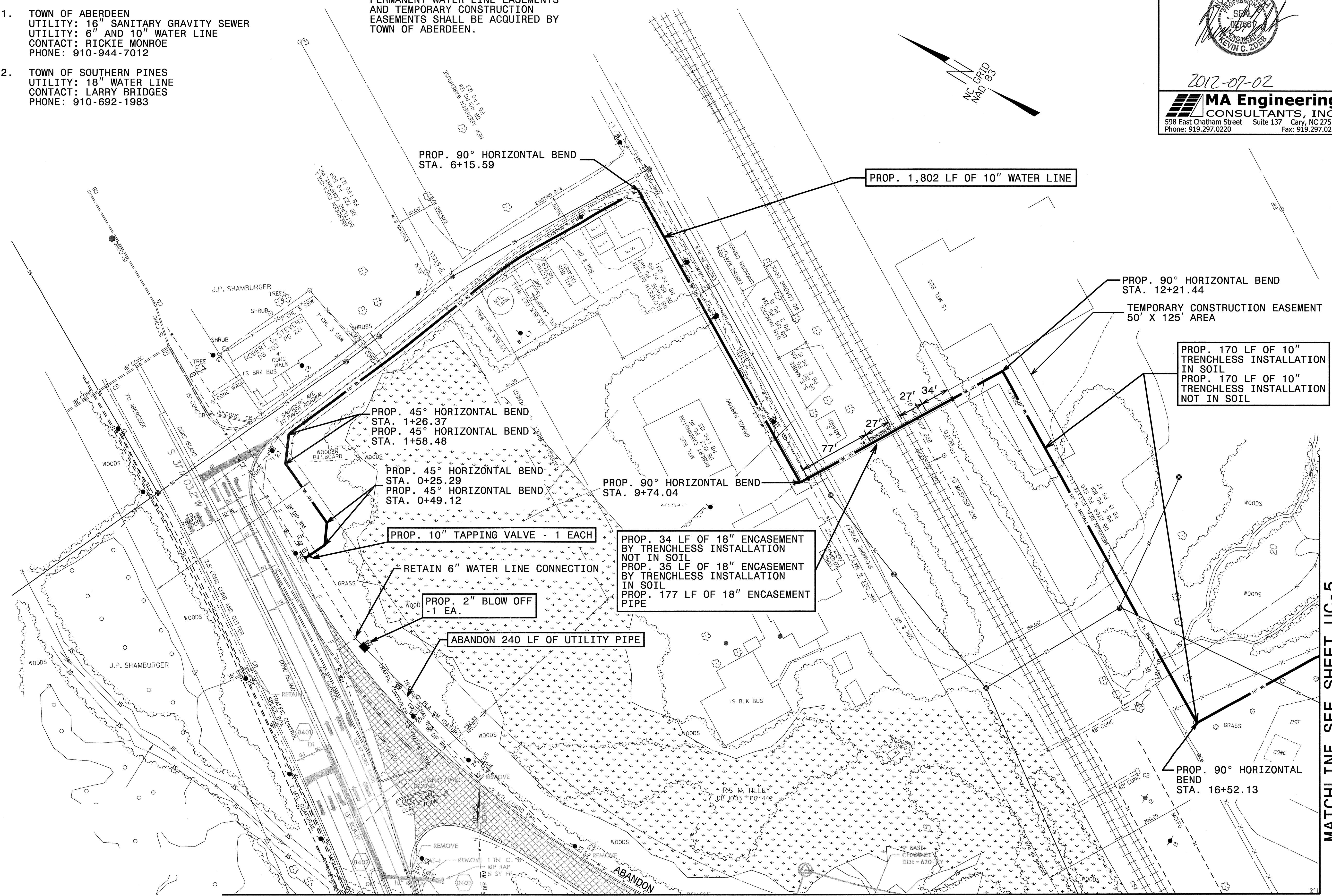
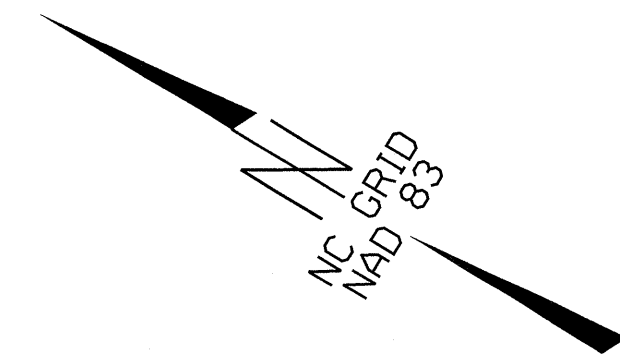




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- UTILITY OWNERS ON THIS SHEET:
- TOWN OF ABERDEEN  
 UTILITY: 16" SANITARY GRAVITY SEWER  
 UTILITY: 6" AND 10" WATER LINE  
 CONTACT: RICKIE MONROE  
 PHONE: 910-944-7012
  - TOWN OF SOUTHERN PINES  
 UTILITY: 18" WATER LINE  
 CONTACT: LARRY BRIDGES  
 PHONE: 910-692-1983

NOTE:  
 PERMANENT WATER LINE EASEMENTS  
 AND TEMPORARY CONSTRUCTION  
 EASEMENTS SHALL BE ACQUIRED BY  
 TOWN OF ABERDEEN.



PROP. 90° HORIZONTAL BEND  
 STA. 6+15.59

PROP. 1,802 LF OF 10" WATER LINE

PROP. 90° HORIZONTAL BEND  
 STA. 12+21.44

TEMPORARY CONSTRUCTION EASEMENT  
 50' X 125' AREA

PROP. 170 LF OF 10" TRENCHLESS INSTALLATION IN SOIL  
 PROP. 170 LF OF 10" TRENCHLESS INSTALLATION NOT IN SOIL

PROP. 45° HORIZONTAL BEND  
 STA. 1+26.37  
 PROP. 45° HORIZONTAL BEND  
 STA. 1+58.48

PROP. 45° HORIZONTAL BEND  
 STA. 0+25.29  
 PROP. 45° HORIZONTAL BEND  
 STA. 0+49.12

PROP. 90° HORIZONTAL BEND  
 STA. 9+74.04

PROP. 10" TAPPING VALVE - 1 EACH

PROP. 34 LF OF 18" ENCASEMENT BY TRENCHLESS INSTALLATION NOT IN SOIL  
 PROP. 35 LF OF 18" ENCASEMENT BY TRENCHLESS INSTALLATION IN SOIL  
 PROP. 177 LF OF 18" ENCASEMENT PIPE

RETAIN 6" WATER LINE CONNECTION



PROP. 2" BLOW OFF  
 -1 EA.

ABANDON 240 LF OF UTILITY PIPE

PROP. 90° HORIZONTAL BEND  
 STA. 16+52.13

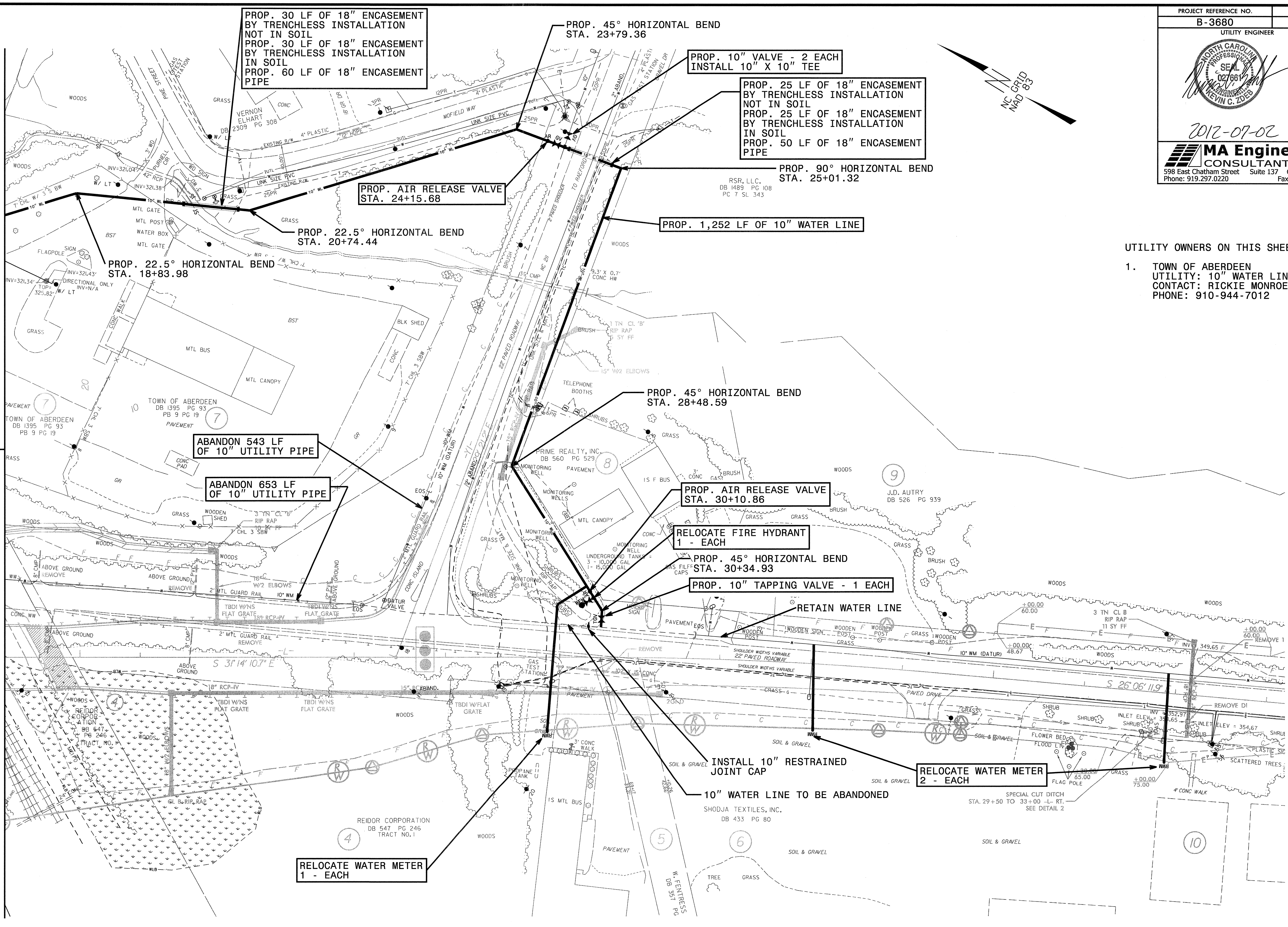
MATCHLINE SEE SHEET UC-6

MATCHLINE SEE SHEET UC-5

PROJECT REFERENCE NO.	SHEET NO.
B-3680	UC-5
UTILITY ENGINEER	
	
2012-07-02	
	
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MATCHLINE SEE SHEET UC-4

MATCHLINE SEE SHEET UC-6



PROP. 30 LF OF 18" ENCASEMENT BY TRENCHLESS INSTALLATION NOT IN SOIL  
 PROP. 30 LF OF 18" ENCASEMENT BY TRENCHLESS INSTALLATION IN SOIL  
 PROP. 60 LF OF 18" ENCASEMENT PIPE

PROP. 45° HORIZONTAL BEND STA. 23+79.36

PROP. 10" VALVE - 2 EACH  
 INSTALL 10" X 10" TEE

PROP. 25 LF OF 18" ENCASEMENT BY TRENCHLESS INSTALLATION NOT IN SOIL  
 PROP. 25 LF OF 18" ENCASEMENT BY TRENCHLESS INSTALLATION IN SOIL  
 PROP. 50 LF OF 18" ENCASEMENT PIPE

PROP. 90° HORIZONTAL BEND STA. 25+01.32

PROP. AIR RELEASE VALVE STA. 24+15.68

PROP. 22.5° HORIZONTAL BEND STA. 20+74.44

PROP. 1,252 LF OF 10" WATER LINE

PROP. 22.5° HORIZONTAL BEND STA. 18+83.98

ABANDON 543 LF OF 10" UTILITY PIPE

ABANDON 653 LF OF 10" UTILITY PIPE

PROP. 45° HORIZONTAL BEND STA. 28+48.59

PROP. AIR RELEASE VALVE STA. 30+10.86

RELOCATE FIRE HYDRANT 1 - EACH

PROP. 45° HORIZONTAL BEND STA. 30+34.93

PROP. 10" TAPPING VALVE - 1 EACH

RETAIN WATER LINE

INSTALL 10" RESTRAINED JOINT CAP

RELOCATE WATER METER 2 - EACH

10" WATER LINE TO BE ABANDONED

RELOCATE WATER METER 1 - EACH

UTILITY OWNERS ON THIS SHEET:

- TOWN OF ABERDEEN  
 UTILITY: 10" WATER LINE  
 CONTACT: RICKIE MONROE  
 PHONE: 910-944-7012

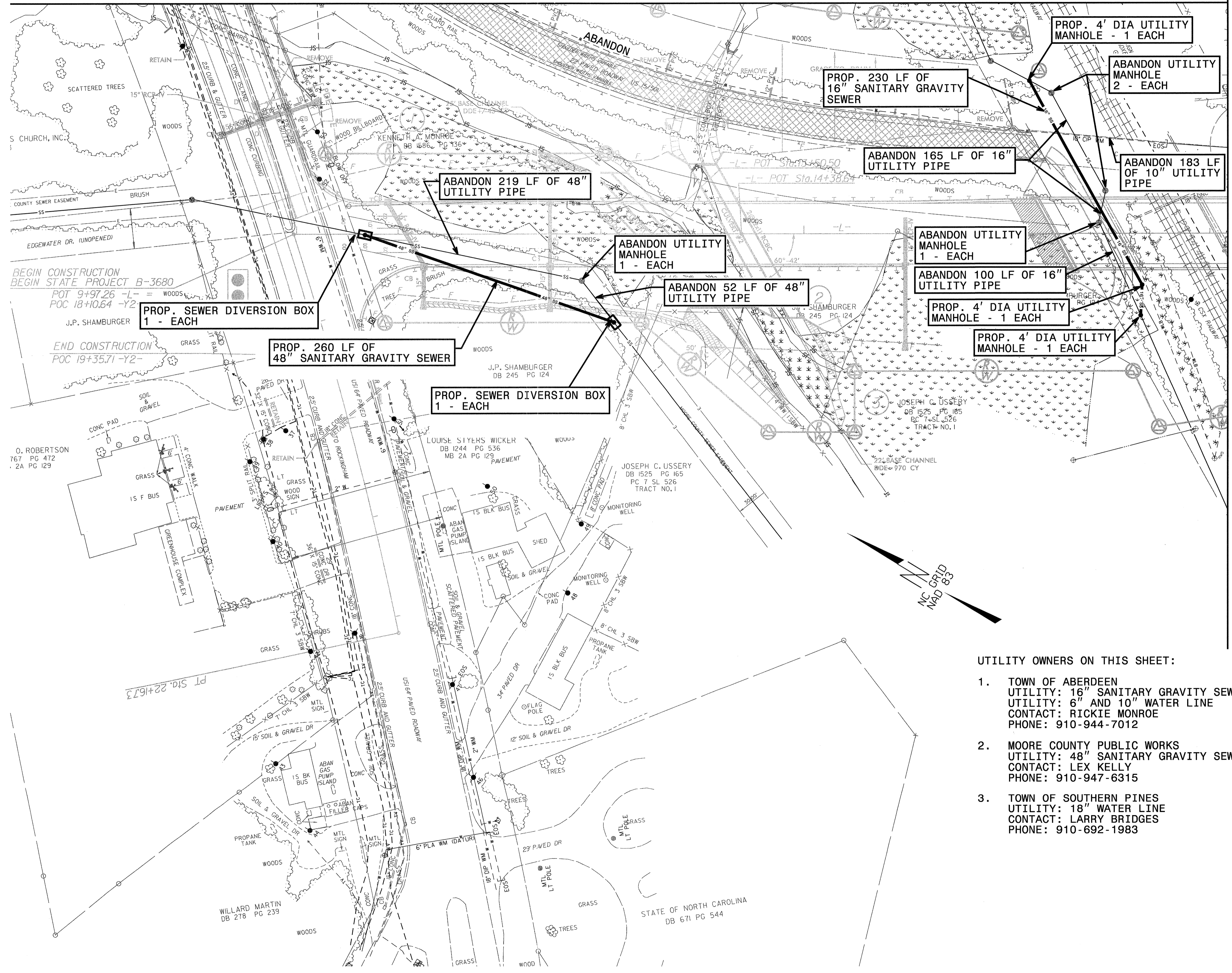
UTILITY ENGINEER



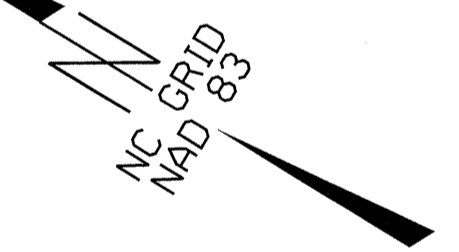
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MATCHLINE SEE SHEET UC-4



MATCHLINE SEE SHEET UC-5

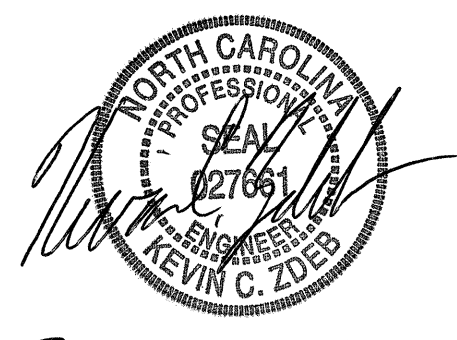



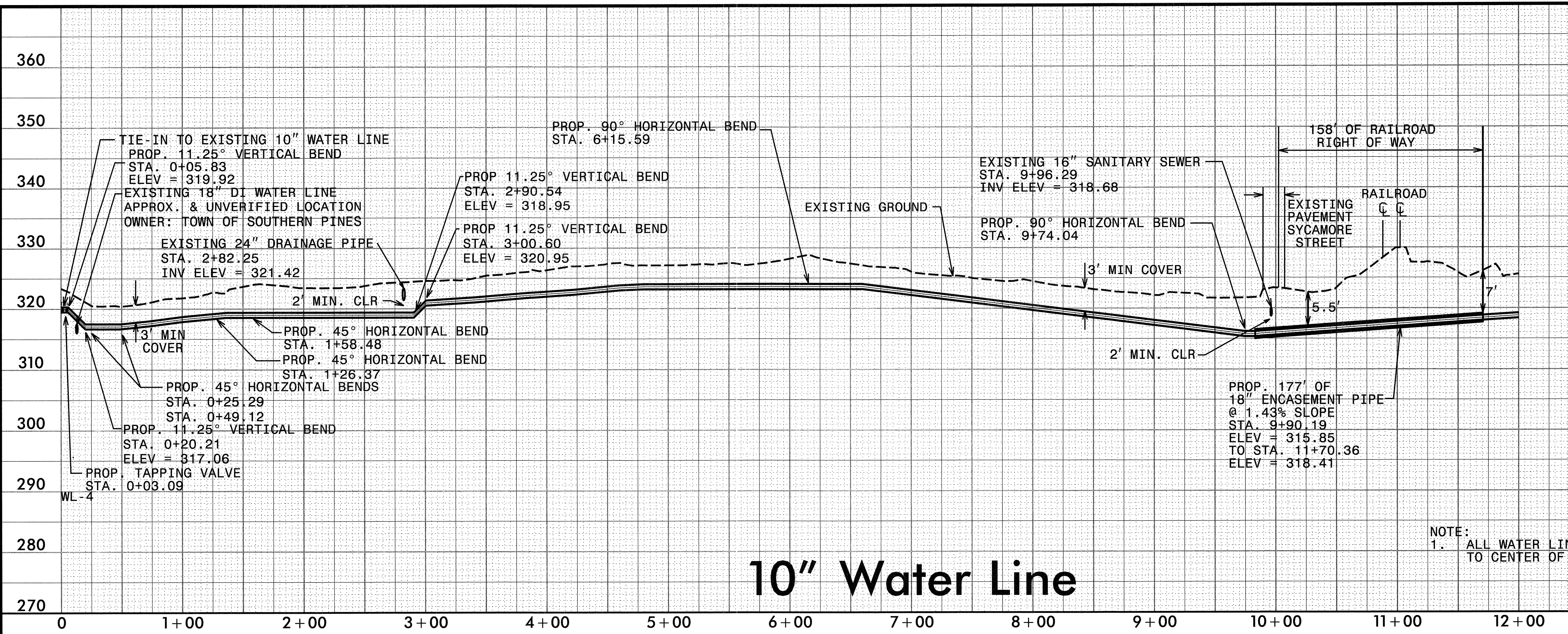
UTILITY OWNERS ON THIS SHEET:

1. TOWN OF ABERDEEN  
UTILITY: 16" SANITARY GRAVITY SEWER  
UTILITY: 6" AND 10" WATER LINE  
CONTACT: RICKIE MONROE  
PHONE: 910-944-7012
2. MOORE COUNTY PUBLIC WORKS  
UTILITY: 48" SANITARY GRAVITY SEWER  
CONTACT: LEX KELLY  
PHONE: 910-947-6315
3. TOWN OF SOUTHERN PINES  
UTILITY: 18" WATER LINE  
CONTACT: LARRY BRIDGES  
PHONE: 910-692-1983

5/28/09

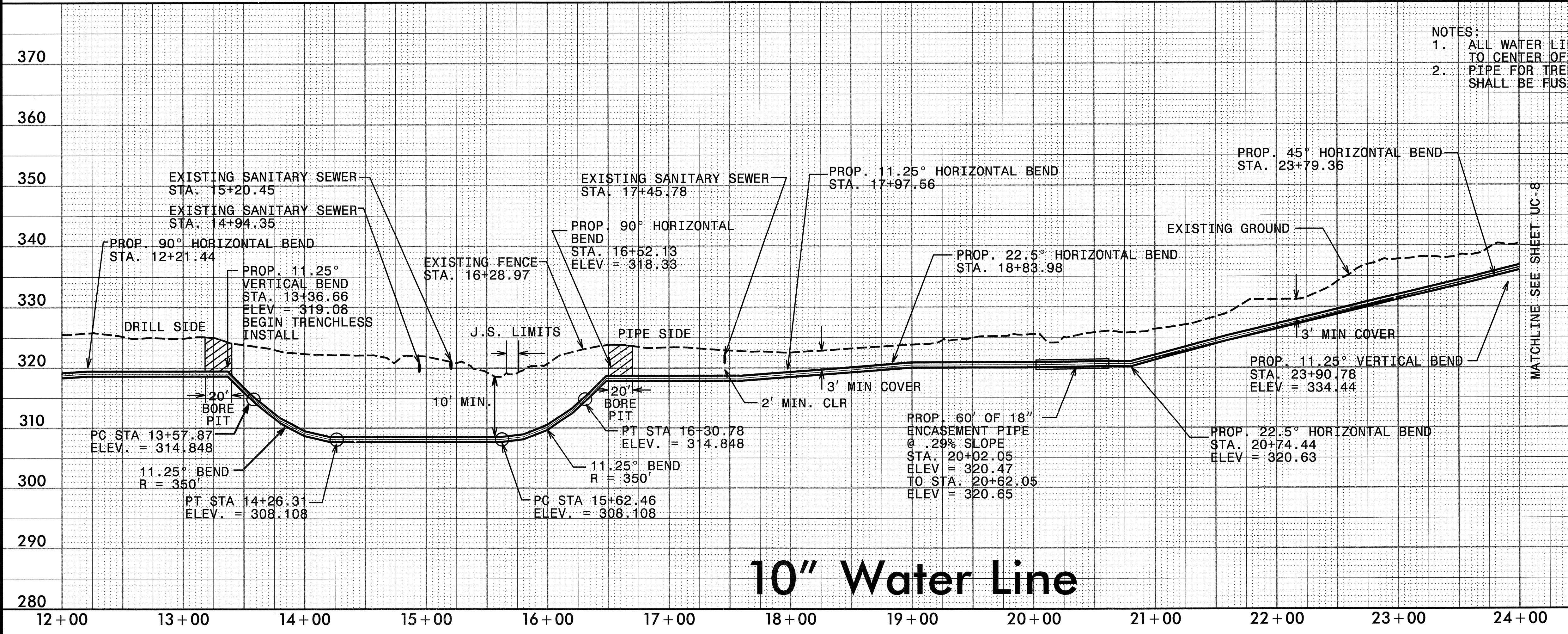
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PROJECT REFERENCE NO. <b>B-3680</b>	SHEET NO. <b>UC-7</b>
UTILITY DESIGN ENGINEER	
	
2012-07-02	
	



# 10" Water Line

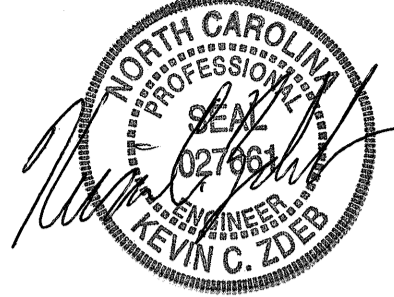

NOTE:  
1. ALL WATER LINE ELEVATIONS ARE TO CENTER OF PIPE.

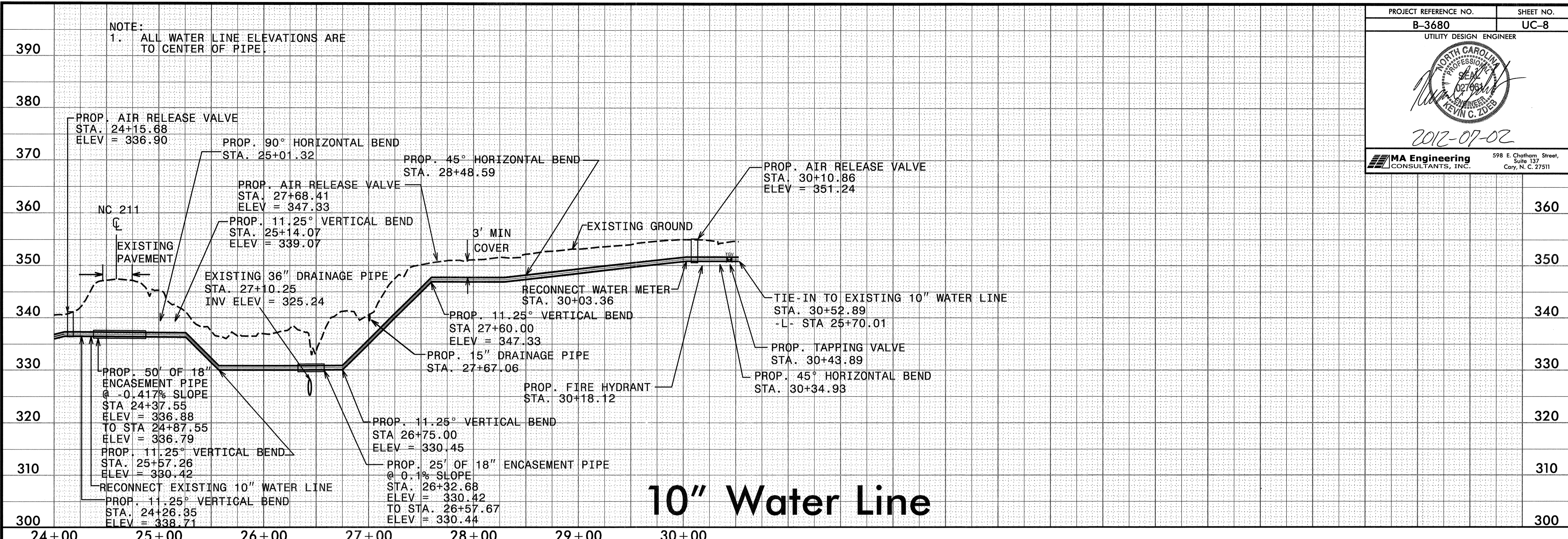


# 10" Water Line

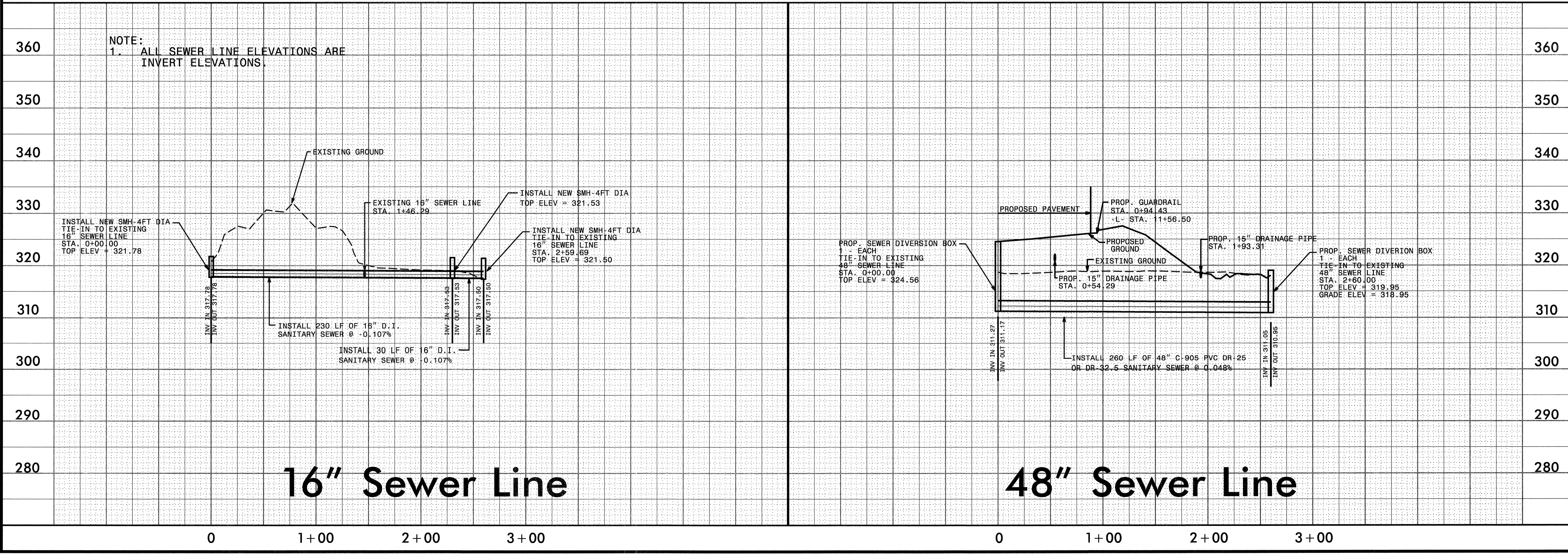
NOTES:  
1. ALL WATER LINE ELEVATIONS ARE TO CENTER OF PIPE.  
2. PIPE FOR TRENCHLESS INSTALLATION SHALL BE FUSIBLE PVC C-900, DR-18.

5/28/09

PROJECT REFERENCE NO. <b>B-3680</b>	SHEET NO. <b>UC-8</b>
UTILITY DESIGN ENGINEER	
 2012-07-02	
 IMA Engineering CONSULTANTS, INC.	
598 E. Chatham Street, Suite 137 Cary, N. C. 27511	



7/1/2012  
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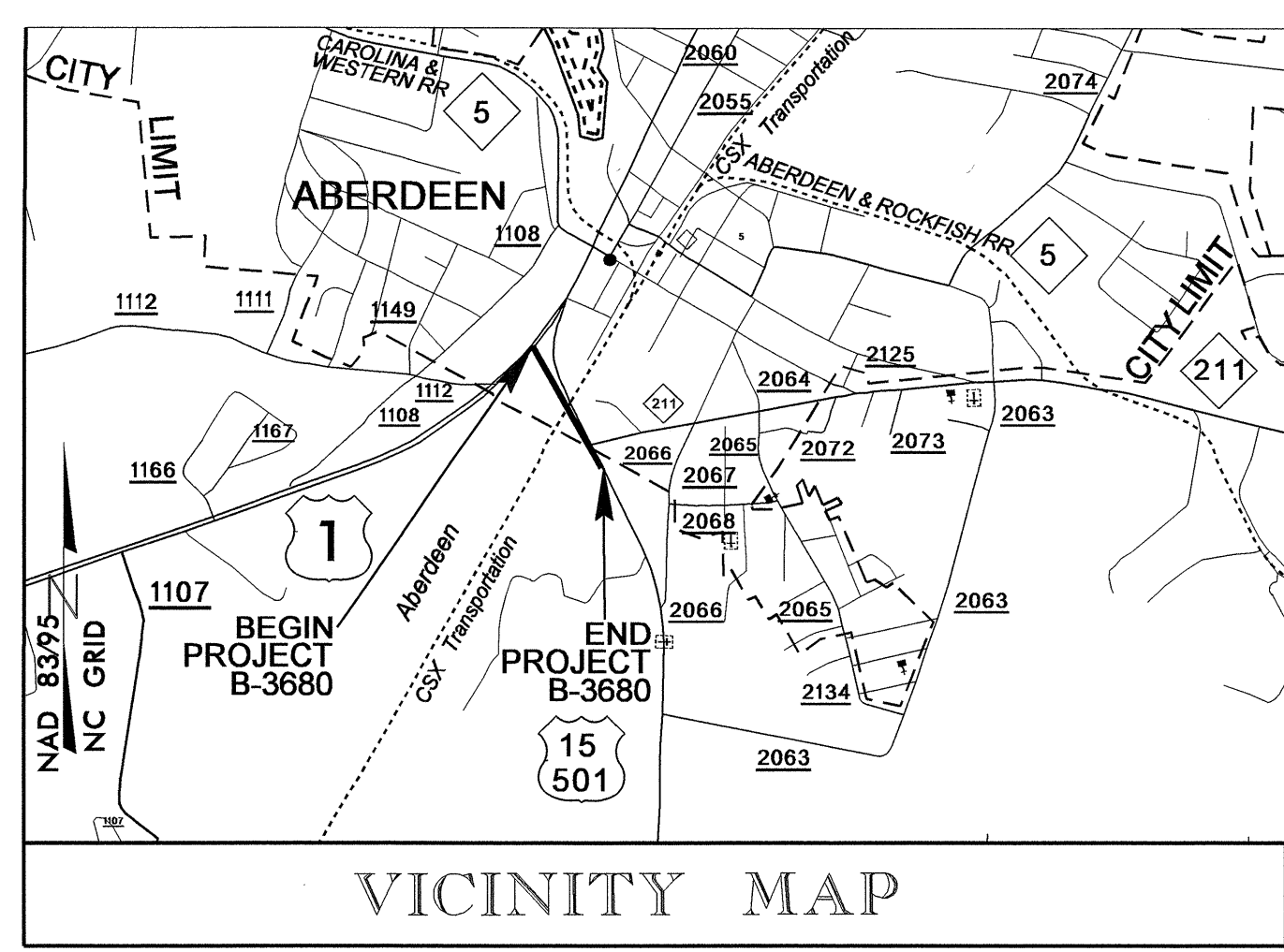
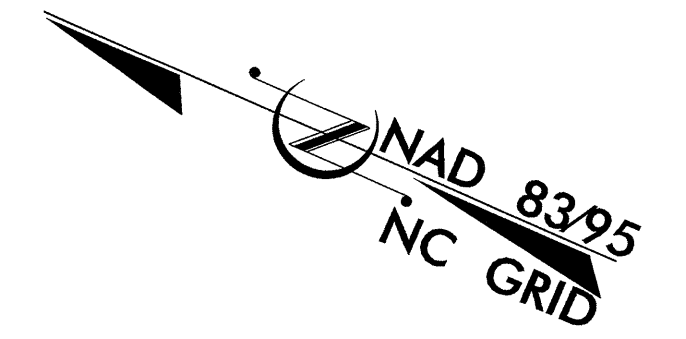


T.I.P. NO.	SHEET NO.
B-3680	UO-1

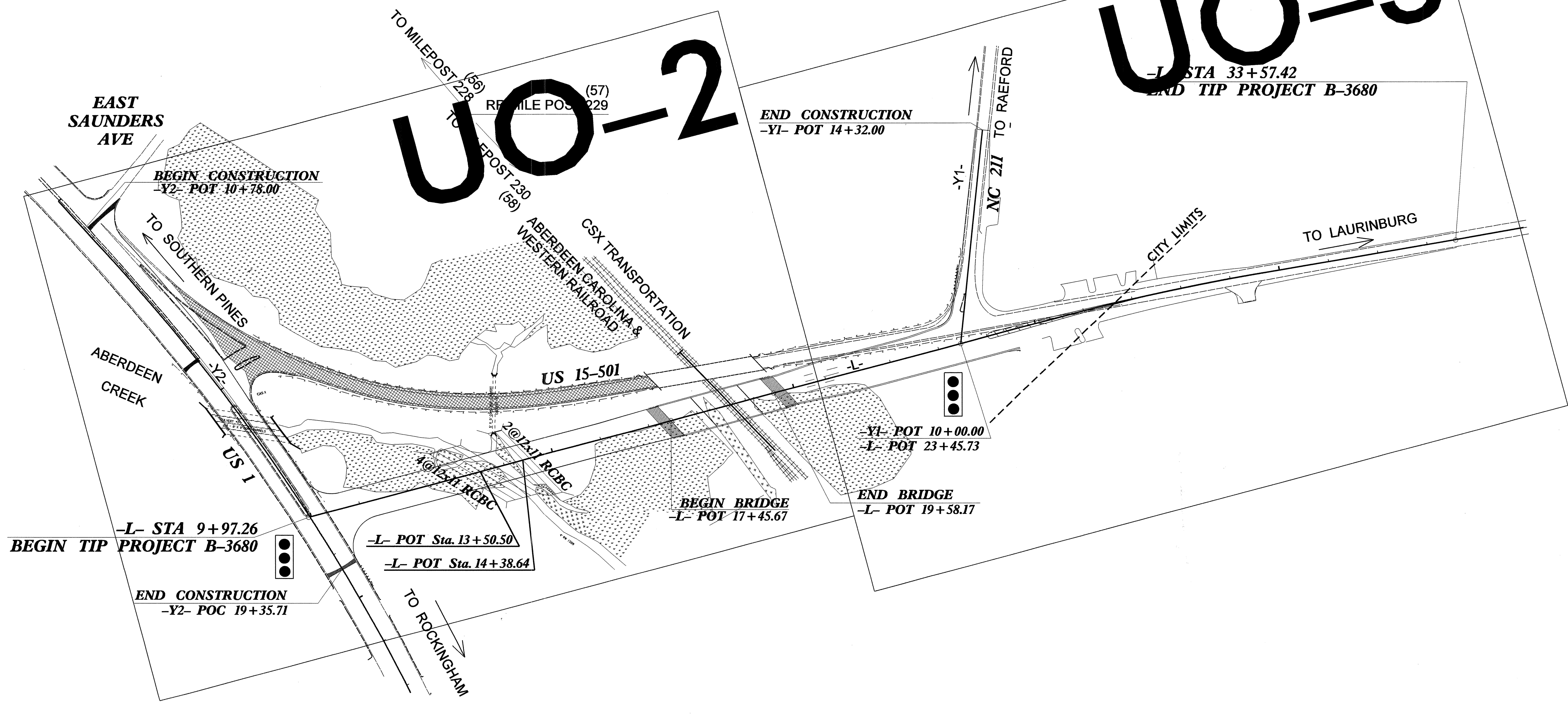
STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

**UTILITIES BY OTHERS PLANS  
MOORE COUNTY**

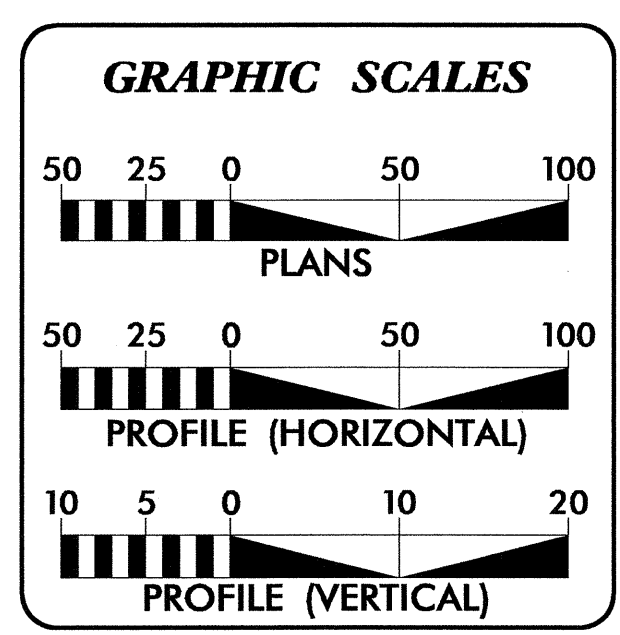
LOCATION: BRIDEG NO.2 OVER CSX TRANSPORTATION ON US 15/501  
TYPE OF WORK: UTILITY RELOCATION BY OTHERS



TIP PROJECT: B-3680



UO-3



**INDEX OF SHEETS**

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

- UTILITY OWNERS ON PROJECT**
- (1) POWER : PROGRESS ENERGY
  - (2) CABLE : TIME WARNER CABLE
  - (3) TELEPHONE : WINDSTREAM
  - (4) GAS : PIEDMONT NATURAL GAS

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

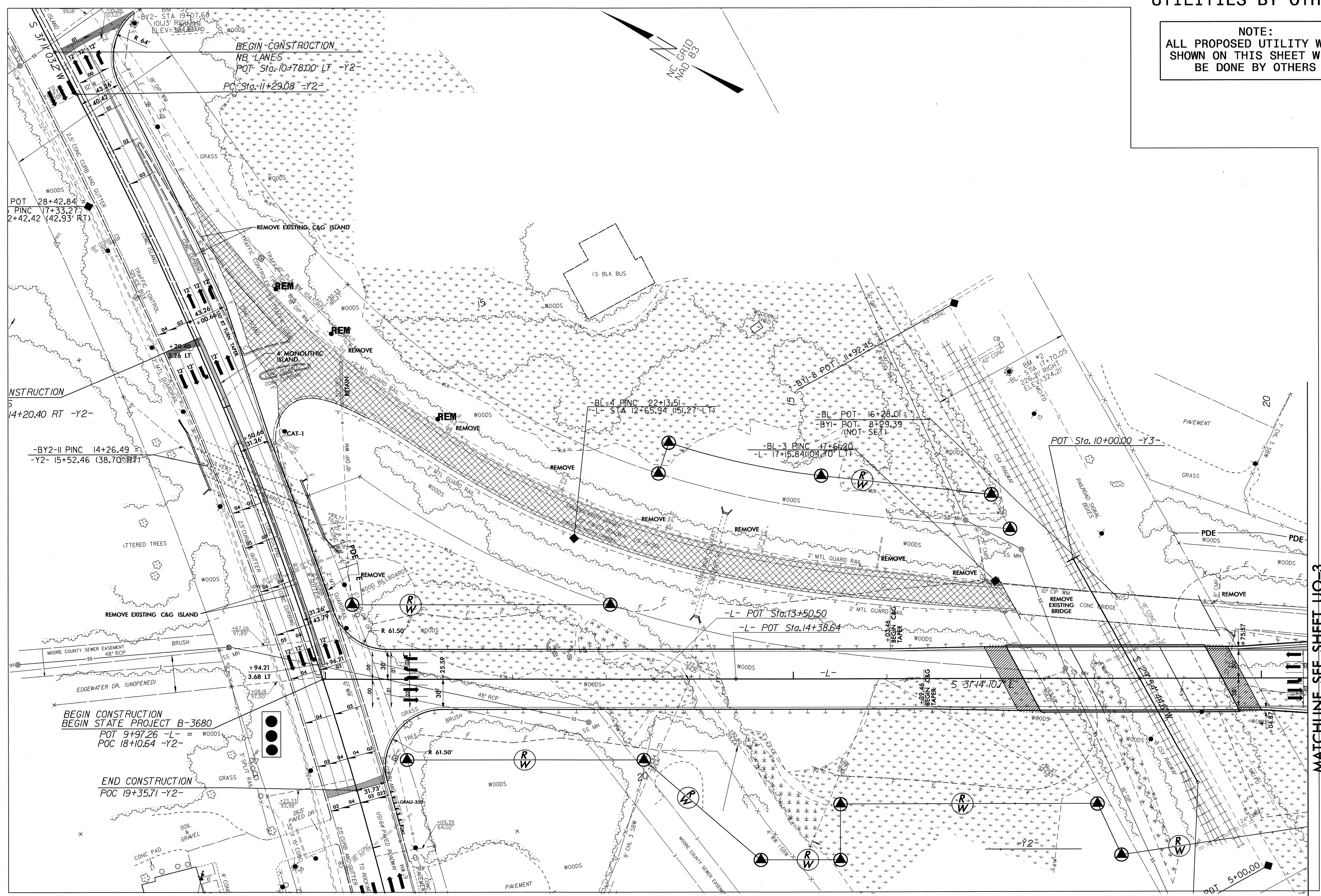
1591 MAIL SERVICES CENTER  
RALEIGH NC 27699-1591  
PHONE (919) 707-6690  
FAX (919) 250-4151

**Roger Worthington, P.E.** UTILITIES SECTION ENGINEER  
**R.B. WILKINS, P.E.** UTILITIES SQUAD LEADER PROJECT ENGINEER  
**JONG-TAE YOON** UTILITIES PROJECT DESIGNER

12-JUN-2012 09:46 R:\Utilities\B3680\ut\_title\_uc01.psh.dgn

**UTILITIES BY OTHERS**

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

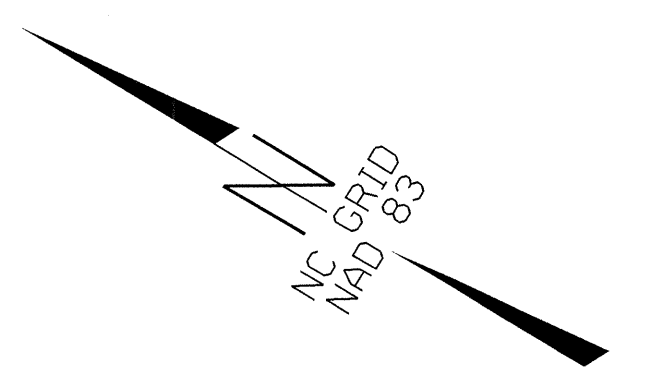


MATCHLINE SEE SHEET UO-3  
 -L- Sta. 20 + 50.00

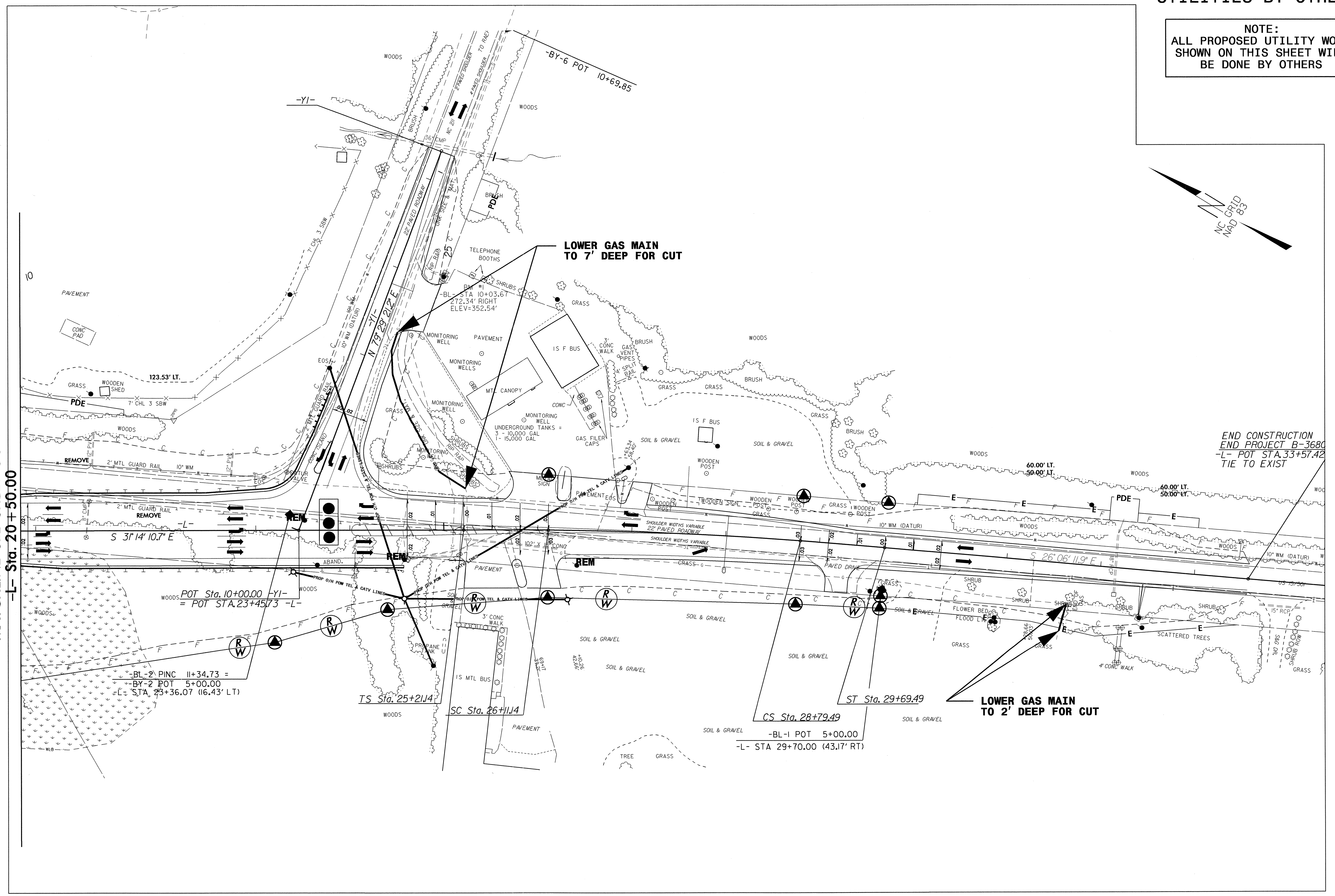
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 \$\$\$\$US\$ENDME\$\$\$\$

### UTILITIES BY OTHERS

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



MATCHLINE SEE SHEET UO-2  
-L- Sta. 20+50.00



END CONSTRUCTION  
END PROJECT B-3680  
-L- POT STA. 33+57.42  
TIE TO EXIST