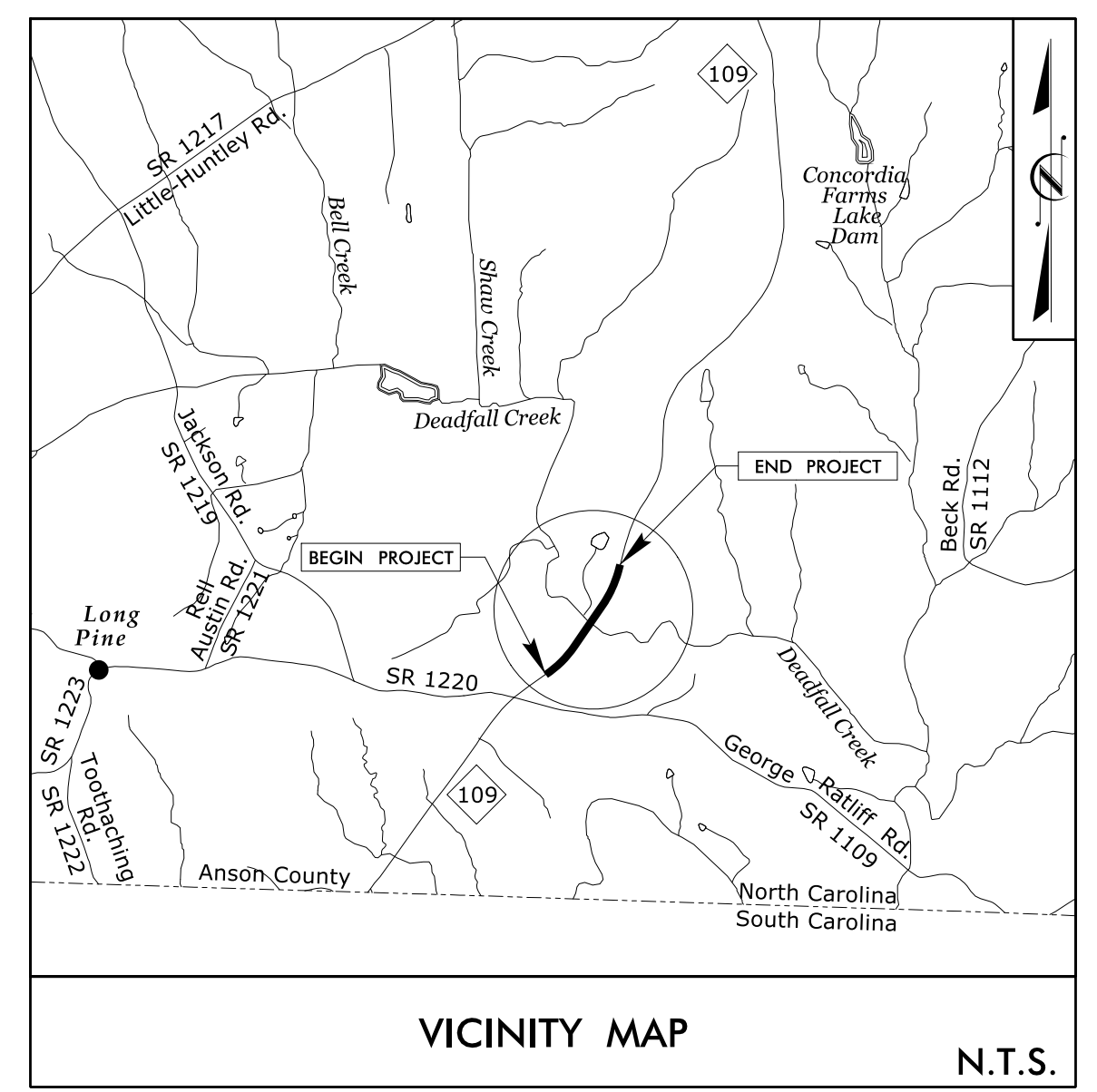


09.08/2019

TIP PROJECT: B-5818

See Sheet UC-1 For Index of Sheets
See Sheet UC-2 For Standard Symbology Sheet

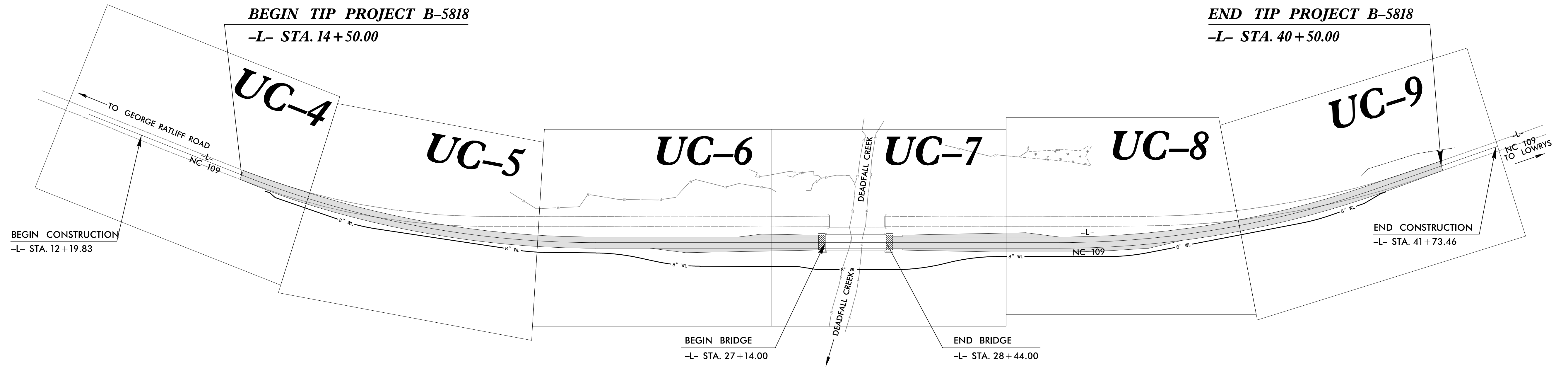
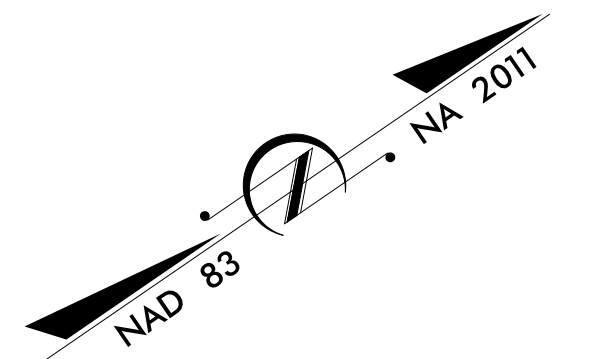
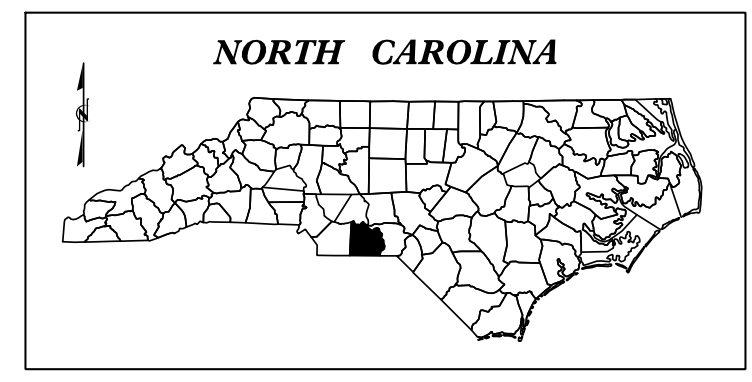


STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

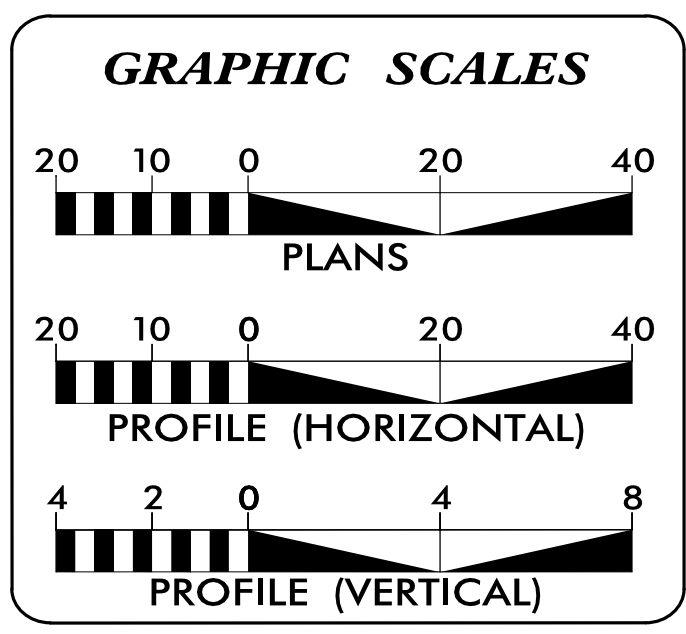
**UTILITY CONSTRUCTION PLANS
ANSON COUNTY**

LOCATION: BRIDGE #011 OVER DEADFALL CREEK ON NC 109
TYPE OF WORK: WATER LINE RELOCATIONS

PROJECT WBS NO.	SHEET NO.
B-5818	UC-1



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INDEX OF SHEETS

SHEET NO.:	DESCRIPTION:
UC-1	TITLE SHEET
UC-2	UTILITY SYMBOLOGY
UC-3	NOTES
UC-3A	DETAILS
UC-4 THRU UC-9	UTILITY CONSTRUCTION SHEETS
UC-10 THRU UC-14	PROFILE SHEETS

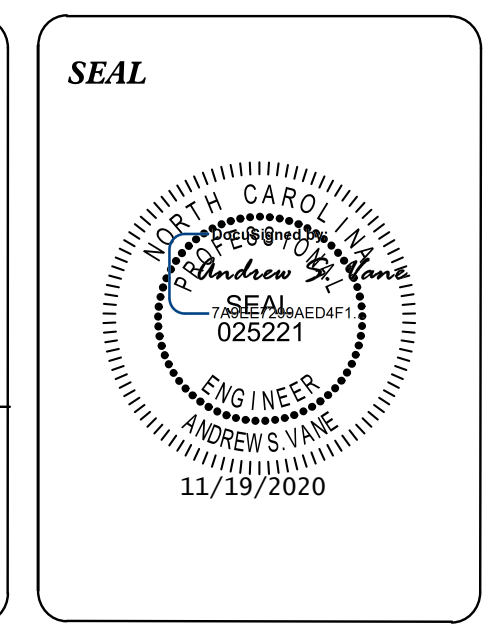
WATER AND SEWER OWNERS ON PROJECT

(A) WATER - ANSON COUNTY UTILITIES DEPARTMENT

PREPARED IN THE OFFICE OF

STV Engineers, Inc.
300 West Trade St., Suite 715
Charlotte, NC 28202
NC License Number F-0991
(704) 372-1885 FAX: (704) 372-3393


JASON GRISCOM, PE PROJECT ENGINEER
ANDREW VANE, PE PROJECT DESIGN ENGINEER



DIVISION OF HIGHWAYS
UTILITIES UNIT
1555 MAIL SERVICES CENTER
RALEIGH, NC 27699-1555
PHONE (919) 707-6690
FAX (919) 250-4151

MICHAEL BRIGHT UTILITIES REGIONAL ENGINEER
JONG - TAE YOON, PE UTILITIES ENGINEER
AMY DUPREE YORK UTILITIES AREA COORDINATOR
STEVE TREXLER UTILITIES COORDINATOR

STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

PROJECT REFERENCE NO. B-5818	SHEET NO. UC-2
 STV Engineers, Inc. 900 West Trade St., Suite 715 Charlotte, NC 28202 NC License Number F-0991	
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UTILITIES PLAN SHEET SYMBOLS

PROPOSED WATER SYMBOLS

Water Line (Sized as Shown) 12" WL
11¼ Degree Bend ++
22½ Degree Bend	..... +x
45 Degree Bend	..... +X
90 Degree Bend +†
Plug █
Tee ⊕
Cross ⊕
Reducer ▶
Gate Valve	..... GV
Butterfly Valve	..... BV
Tapping Valve	..... TGV
Line Stop	..... LS
Line Stop with Bypass	..... LS/BP
Blow Off	..... BO
Fire Hydrant	..... PFH
Relocate Fire Hydrant	..... RFH
Remove Fire Hydrant	..... REM FH
Water Meter	..... PWM
Relocate Water Meter	..... RWM
Remove Water Meter	..... REM WM
Water Pump Station	..... PST(W)
RPZ Backflow Preventer	..... PRPZ
DCV Backflow Preventer	..... PBFP
Relocate RPZ Backflow Preventer	..... RRPZ
Relocate DCV Backflow Preventer	..... RBFP

PROPOSED SEWER SYMBOLS

Gravity Sewer Line (Sized as Shown)	..... 12" SS
Force Main Sewer Line (Sized as Shown)	..... 12" FSS
Manhole (Sized per Note) ●
Sewer Pump Station	..... PST(SS)

PROPOSED MISCELLANEOUS UTILITIES SYMBOLS

Power Pole ○
Telephone Pole -○-
Joint Use Pole -○-
Telephone Pedestal	..... TEL PED
Utility Line by Others (Type as Shown)	..... PROP O/H POW LINES
Trenchless Installation	..... 12" TL INSTALL
Encasement by Open Cut	..... 24" ENCAS BY OC
Encasement	..... 24" ENCASUREMENT

Thrust Block █
Air Release Valve	..... AR
Utility Vault	..... UV
Concrete Pier	..... CP
Steel Pier	..... SP
Plan Note	..... NOTE
Pay Item Note	..... PAY ITEM

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	..... A/G Gas
Power Manhole	..... ⊗	*Underground Water Line	.....
Telephone Manhole	..... ⊗	Aboveground Water Line	..... A/G Water
Sanitary Sewer Manhole	..... ⊗	*Underground Gravity Sanitary Sewer Line	..... ss
Hand Hole for Cable	..... ☒	Aboveground Gravity Sanitary Sewer Line	..... A/G Sanitary Sewer
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)

UTILITY CONSTRUCTION

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 NC License Number F-0991

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PROJECT REFERENCE NO.	SHEET NO.
B-5818	UC-3
DESIGNED BY: PRJ	
DRAWN BY: PRJ	
CHECKED BY: ASV	
APPROVED BY:	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	
11/19/2020 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 2018.
2. THE EXISTING UTILITIES BELONG TO ANSON COUNTY UTILITIES DEPARTMENT.
3. ALL WATER LINES TO BE INSTALLED WITHIN COMPLIANCE OF THE RULES AND REGULATIONS OF THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY, DIVISION OF WATER RESOURCES, PUBLIC WATER SUPPLY SECTION. ALL SEWER LINES TO BE INSTALLED WITHIN COMPLIANCE OF THE RULES AND REGULATIONS OF THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY, DIVISION OF WATER RESOURCES, WATER QUALITY SECTION. 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 OPPORTUNITY 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.


PROJECT SPECIFIC NOTES:

1. PROPOSED WATER LINE FROM -WL1- LINE STATION 10+00.00 TO -WL1- LINE STATION 34+33.61 SHALL BE PC350 RESTRAINED JOINT D.I. PIPE.
2. WELL IN ADVANCE OF BEGINNING UTILITY WORK, SOFT DIGS SHALL BE PERFORMED BY CONTRACTOR TO VERIFY ACTUAL WATER LINE DEPTH AND MATERIAL AT PROPOSED TIE-IN LOCATIONS.
3. CONTRACTOR TO INSTALL GATE VALVES OUTSIDE OF PROPOSED WATER LINE TIE-IN LOCATIONS AS SHOWN ON PLANS.
4. LAY PIPE STRAIGHT IN ALIGNMENT AND GRADIENT OR FOLLOW TRUE CURVES AS NEARLY AS POSSIBLE. DO NOT DEFLECT ANY JOINT MORE THAN THE MAXIMUM DEFLECTION RECOMMENDED BY THE MANUFACTURER.
5. CONTRACTOR SHALL ADHERE TO SECTION 1530 "ABANDON OR REMOVE UTILITIES" FOR ABANDONMENT OF EXISTING 8" WATER LINE.
6. PRIOR TO THE START OF PROJECT, CONTRACTOR MUST CONTACT MICHAEL SESSIONS, DIRECTOR OF THE ANSON COUNTY UTILITIES DEPARTMENT AT (704) 994-3050. THE ANSON COUNTY UTILITIES DEPARTMENT MAY INSPECT THE WORK AT ANY TIME.
7. NO INTERRUPTION OF EXISTING WATER SERVICE SHALL BE MADE DURING CONSTRUCTION UNTIL AUTHORIZED BY THE DIRECTOR OF ANSON COUNTY UTILITIES DEPARTMENT. ANSON COUNTY UTILITIES DEPARTMENT WILL BE COPIED ON BOTH THE WATER MAIN PRESSURE TEST REPORT AND THE WATER MAIN CHLORINATION TEST REPORT.
8. NO INTERRUPTION TO EXISTING WATER SERVICE SHALL TAKE PLACE UNTIL ALL CUSTOMERS HAVE BEEN NOTIFIED A MINIMUM OF 48 HOURS IN ADVANCE. NOTICE OF INTERRUPTION SHALL BE PREPARED BY THE UTILITIES DEPARTMENT ON OFFICIAL LETTERHEAD. SERVICE TO EACH CUSTOMER SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR UNDER THE DIRECTION OF THE UTILITIES DEPARTMENT.

UTILITY CONSTRUCTION

5/14/20

PROJECT TYPICAL DETAILS



STV Engineers, Inc.
300 West Trade St., Suite 715
Charlotte, NC 28202
NC License Number F-0991

PROJECT REFERENCE NO. **B-5818**

SHEET NO. **UC-3A**

DESIGNED BY: **PRJ**

DRAWN BY: **PRJ**

CHECKED BY: **ASV**

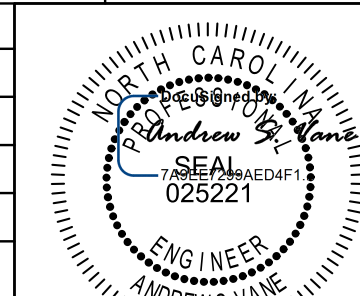
APPROVED BY:

REVISED:

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
11/19/2020

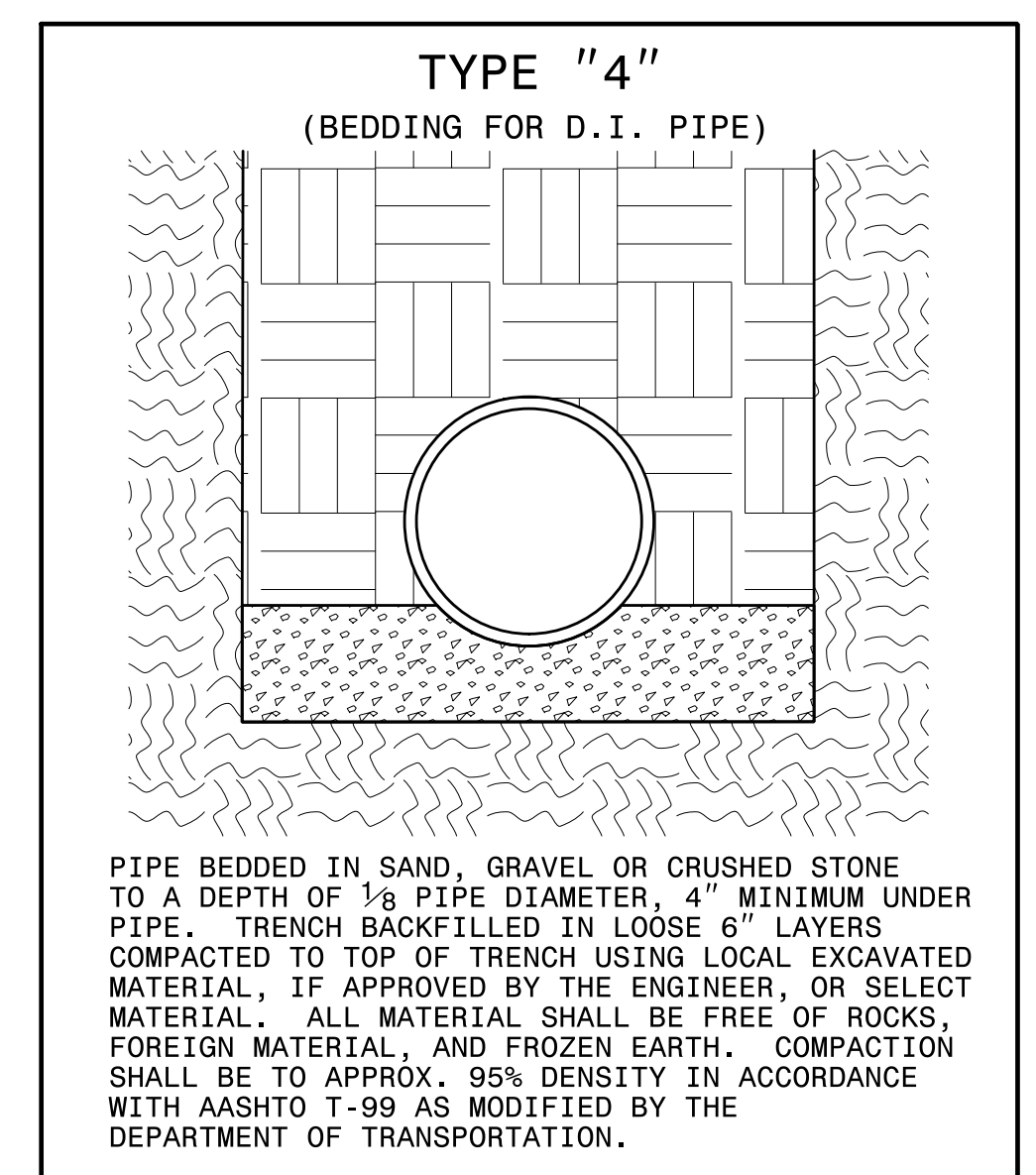
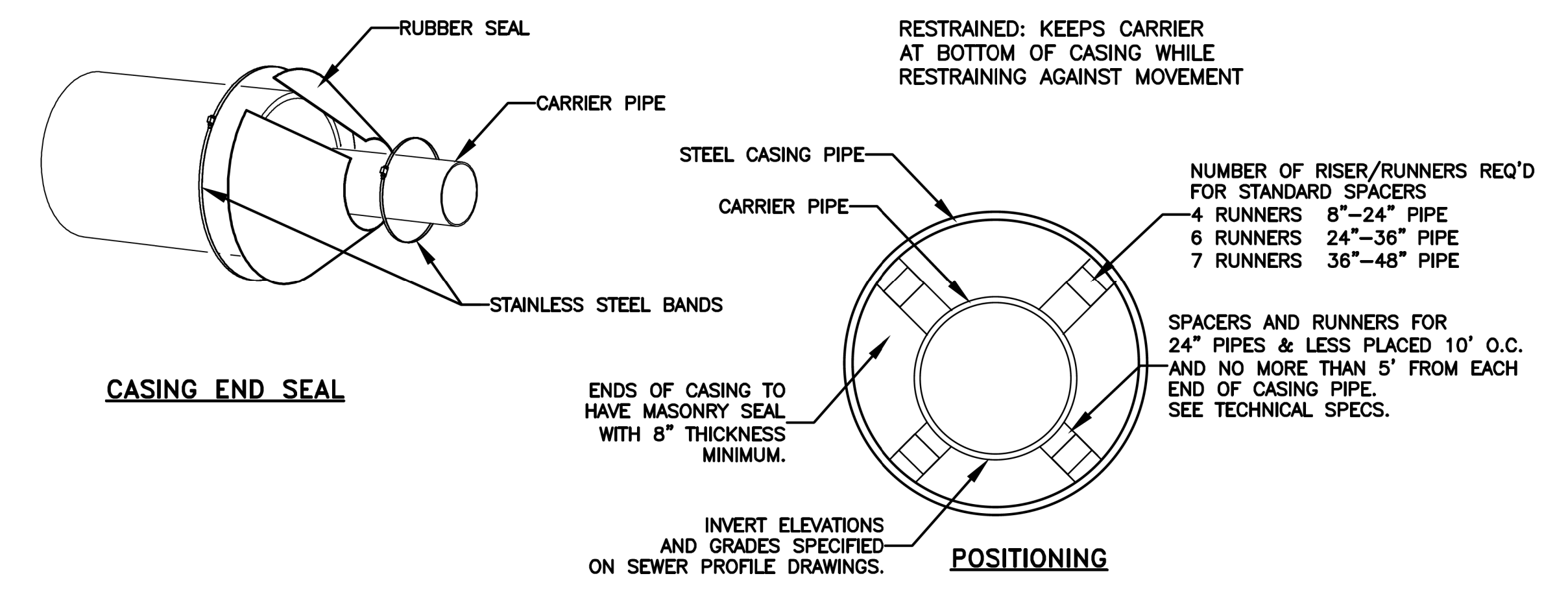
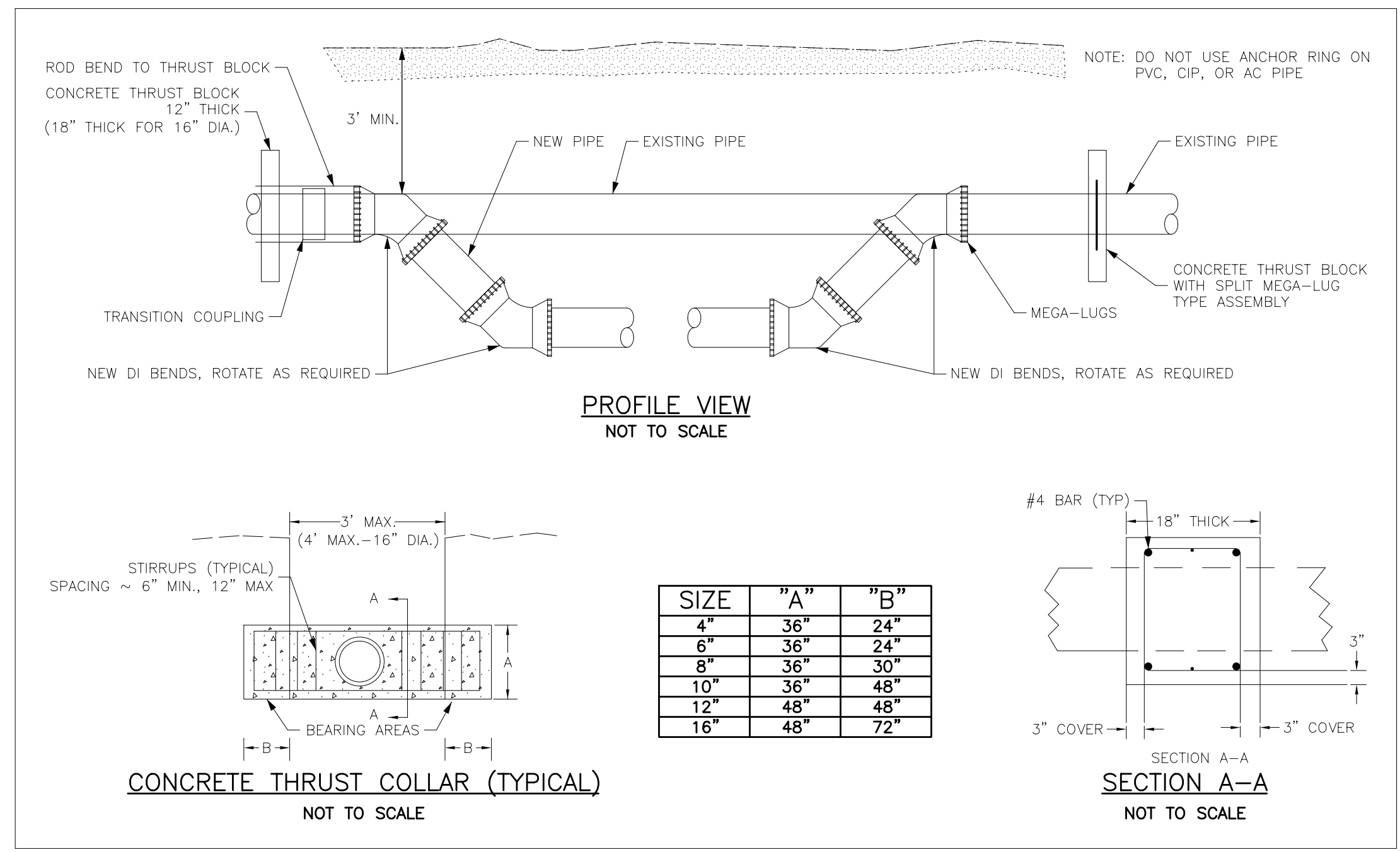
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151

UTILITY CONSTRUCTION PLANS ONLY



ENGINEER
ANDREW D. VAN
025221

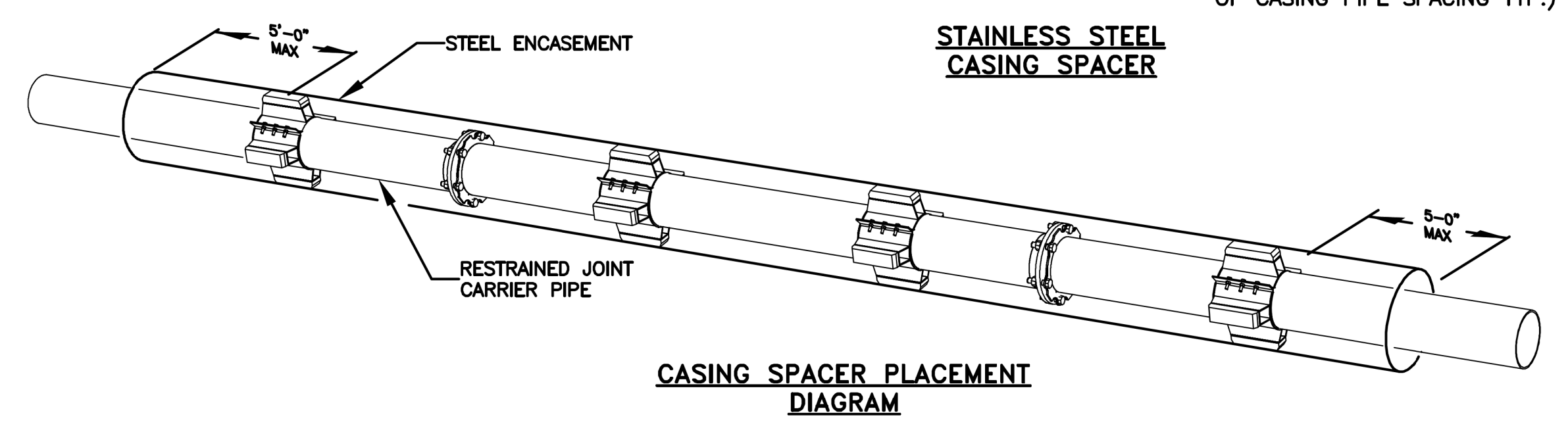
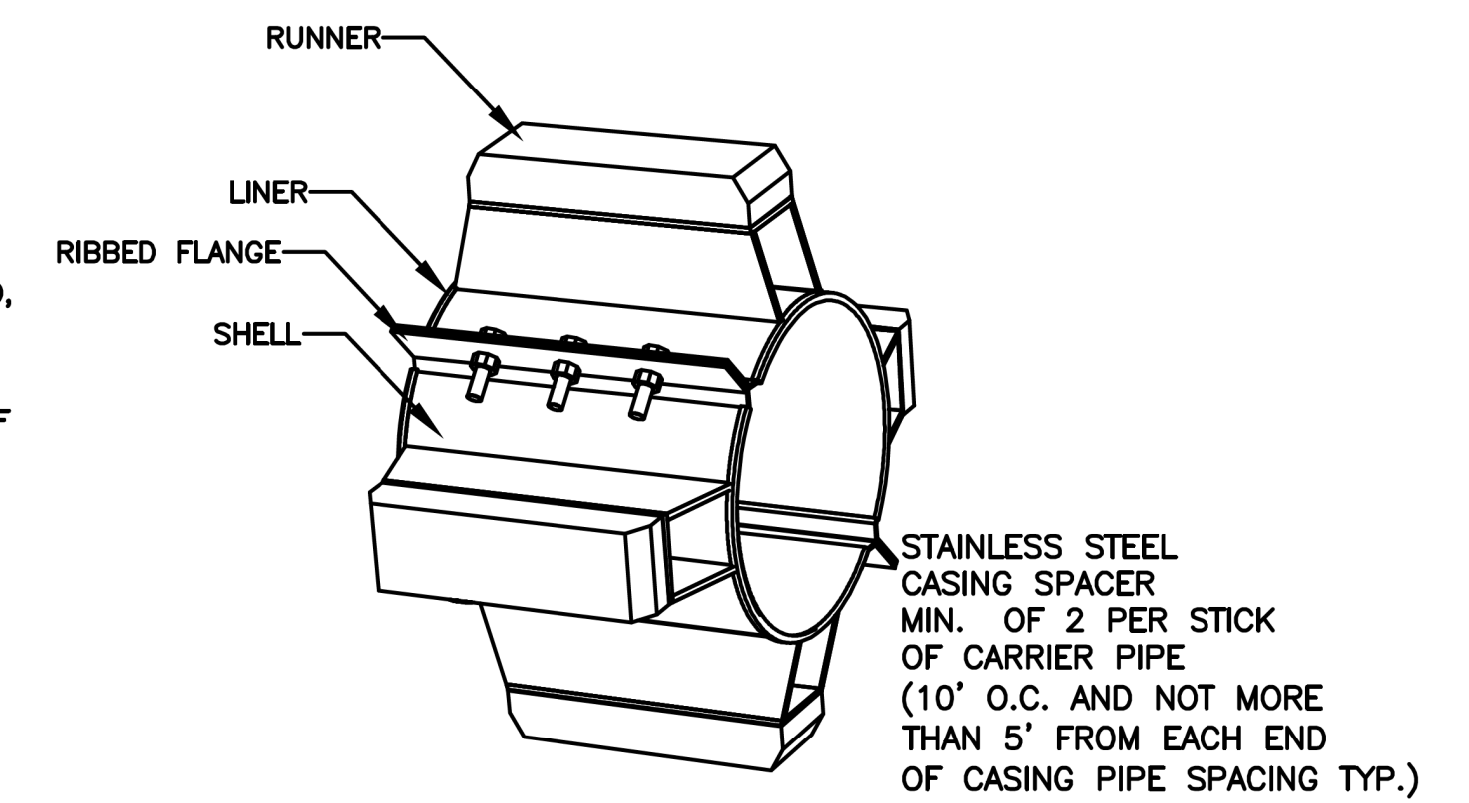
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MAXIMUM TRENCH WIDTH AT TOP OF PIPE

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		

- NOTES:**
- RESTRAINED POSITIONING TO BE USED AT ALL TIMES.
 - CARRIER PIPE JOINTS SHALL BE MECHANICALLY RESTRAINED, DUCTILE IRON OR C900 PVC ONLY.
 - STAINLESS STEEL CASING SPACERS SHALL BE STYLE CCS AS MANUFACTURED BY CASCADE WATERWORKS MFG. CO. OF YORKVILLE, IL OR ENGINEER APPROVED EQUIVALENT.
 - CASING END SEAL SHALL BE STYLE CCES AS MANUFACTURED BY CASCADE WATERWORKS MFG. CO. OF YORKVILLE, IL OR ENGINEER APPROVED EQUIVALENT.

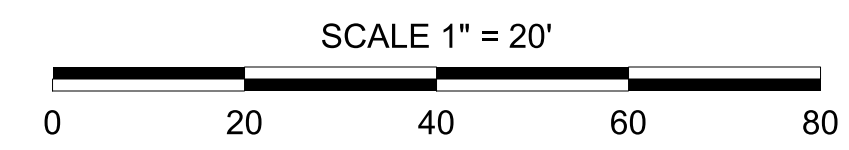


CARRIER PIPE IN STEEL ENCASEMENT

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 11/18/2020
 Nbrasilah

5/14/99

- NOTES:**
1. CONTRACTOR TO FIELD VERIFY EXISTING PIPE MATERIAL AND DEPTH AT TIE-IN POINTS. DEPTH OF ALL UTILITIES PRIOR TO CONSTRUCTION.
 2. FOLLOWING SUCCESSFUL INSTALLATION OF VALVES, CONTRACTOR AT THE DISCRETION OF THE UTILITY OWNER MAY SHUTDOWN AND ISOLATE SECTION OF WATER LINE TO BE ROLOCATED UNTIL PROPOSED WATER LINE IS INSTALLED, TESTED AND SUCCESSFULLY TIED IN.
 3. CONTRACTOR SHALL RESTRAIN THE TRANSITION CONNECTION. REFER TO SHEET UC-3A FOR CONCRETE THRUST COLLAR DETAIL.



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PROJECT REFERENCE NO. **B-5818**
 SHEET NO. **UC-4**

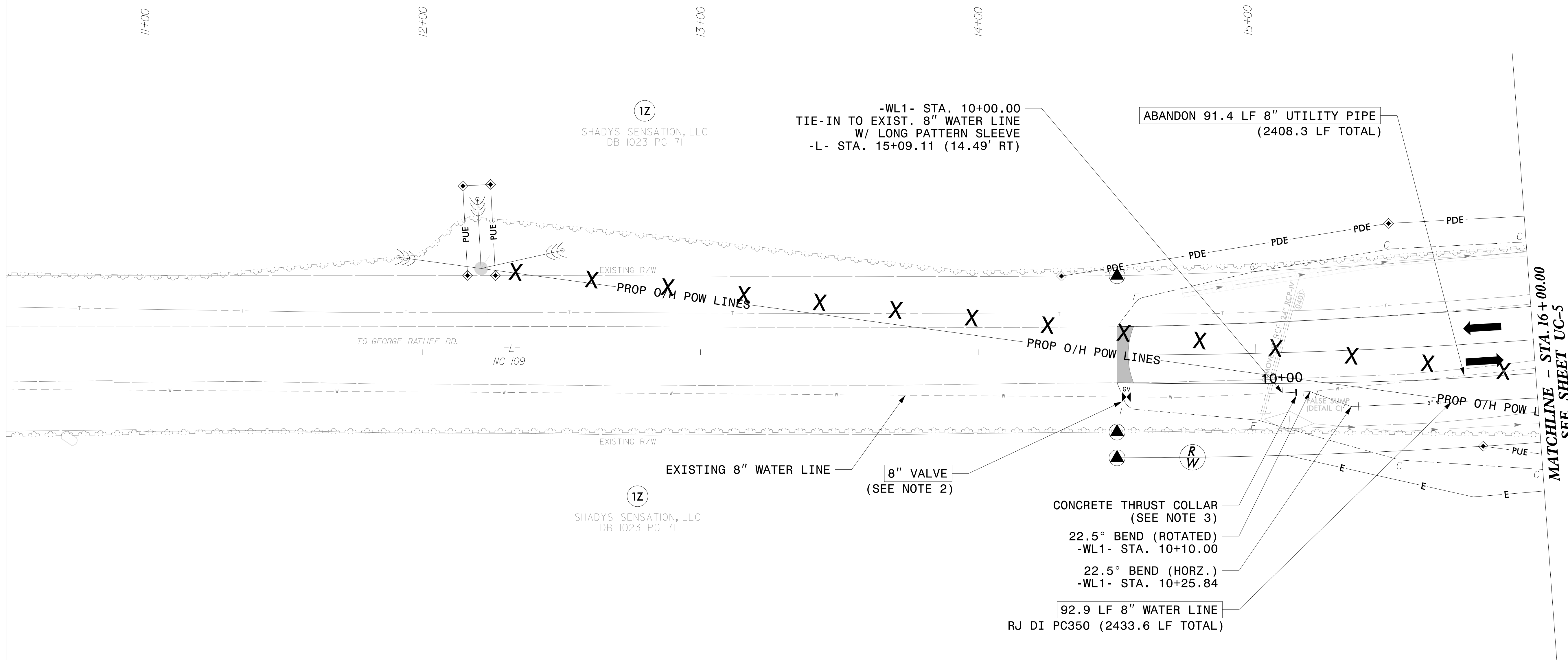
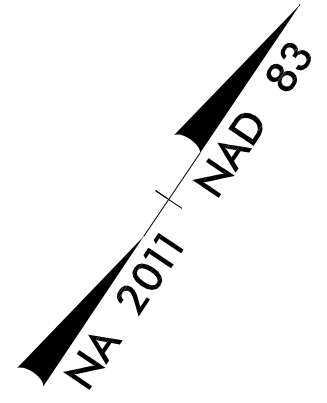
DESIGNED BY: PRJ
 DRAWN BY: PRJ
 CHECKED BY: ASV
 APPROVED BY:
 REVISED:

NORTH CAROLINA
 DEPARTMENT OF
 TRANSPORTATION

UTILITIES ENGINEERING SEC.
 PHONE: (919) 707-6690
 FAX: (919) 250-4151

UTILITY CONSTRUCTION
 PLANS ONLY

Professional Engineer Seal: Andrew S. Vane, License No. 025221, dated 11/15/2021.



MATCHLINE - STA. 16+00.00
 SEE SHEET UC-5

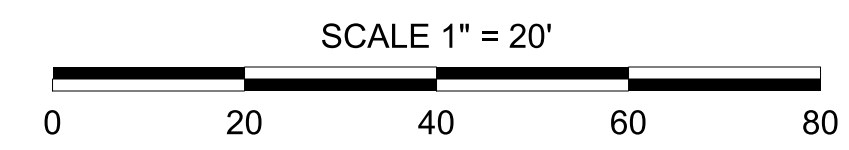
THE ESTIMATED QUANTITY OF DUCTILE IRON WATER PIPE FITTINGS ON THIS PLAN SHEET IS 305 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.

SEE SHEET UC-10 FOR -WL1- PROFILE

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 walline

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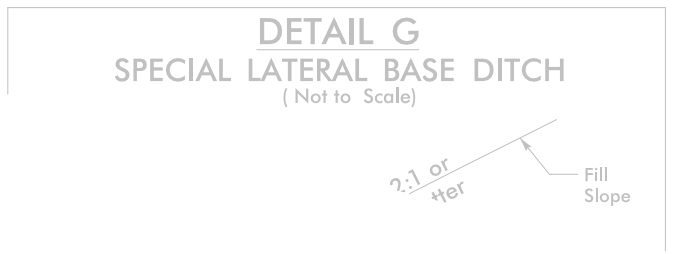
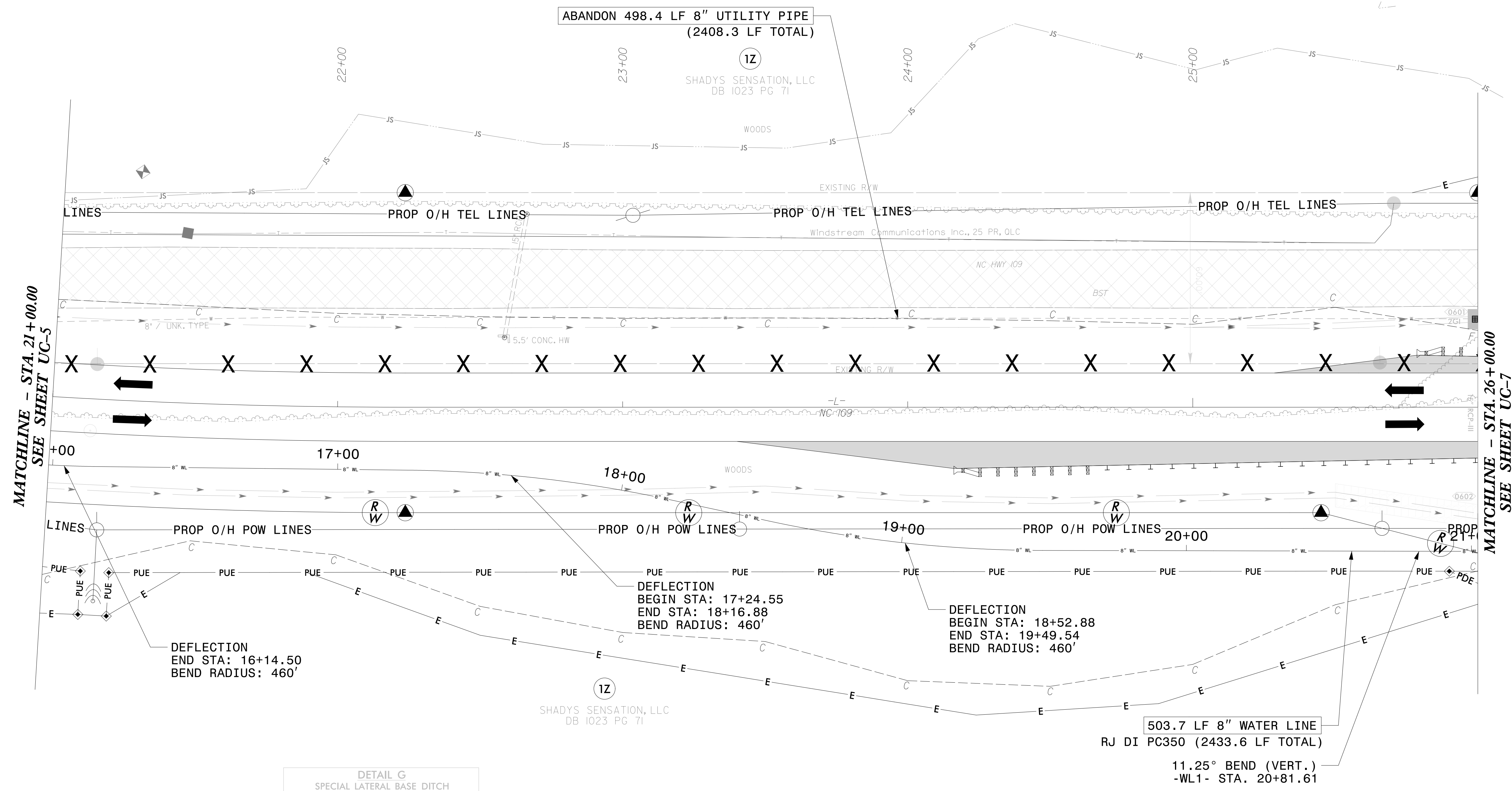
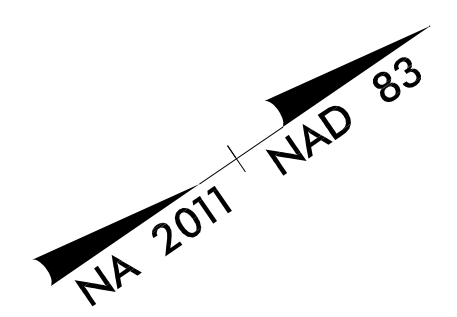
NOTES:
 1. CONTRACTOR TO NOTE THAT BETWEEN -WL1- STA.14+45 TO STA.21+50 (-L- STA.19+48.11 TO STA.26+47.75) AND -WL1- STA.23+40 TO STA.25+35 (L- STA.28+37.24 TO STA.30+30.06) PRE-GRADING WILL BE REQUIRED PRIOR TO WATER LINE INSTALLATION. CONTRACTOR SHALL PLAN CLEARING, GRADING AND EROSION CONTROL ACTIVITIES AS NECESSARY TO INSTALL PROPOSED WATER LINE.



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PROJECT REFERENCE NO. B-5818	SHEET NO. UC-6
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UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	
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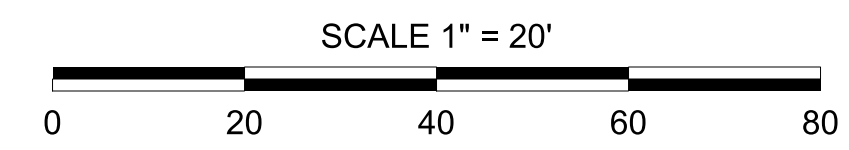
THE ESTIMATED QUANTITY OF DUCTILE IRON WATER PIPE FITTINGS ON THIS PLAN SHEET IS 110 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.

SEE SHEETS UC-11 & UC-12 FOR -WL1- PROFILE

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 walline

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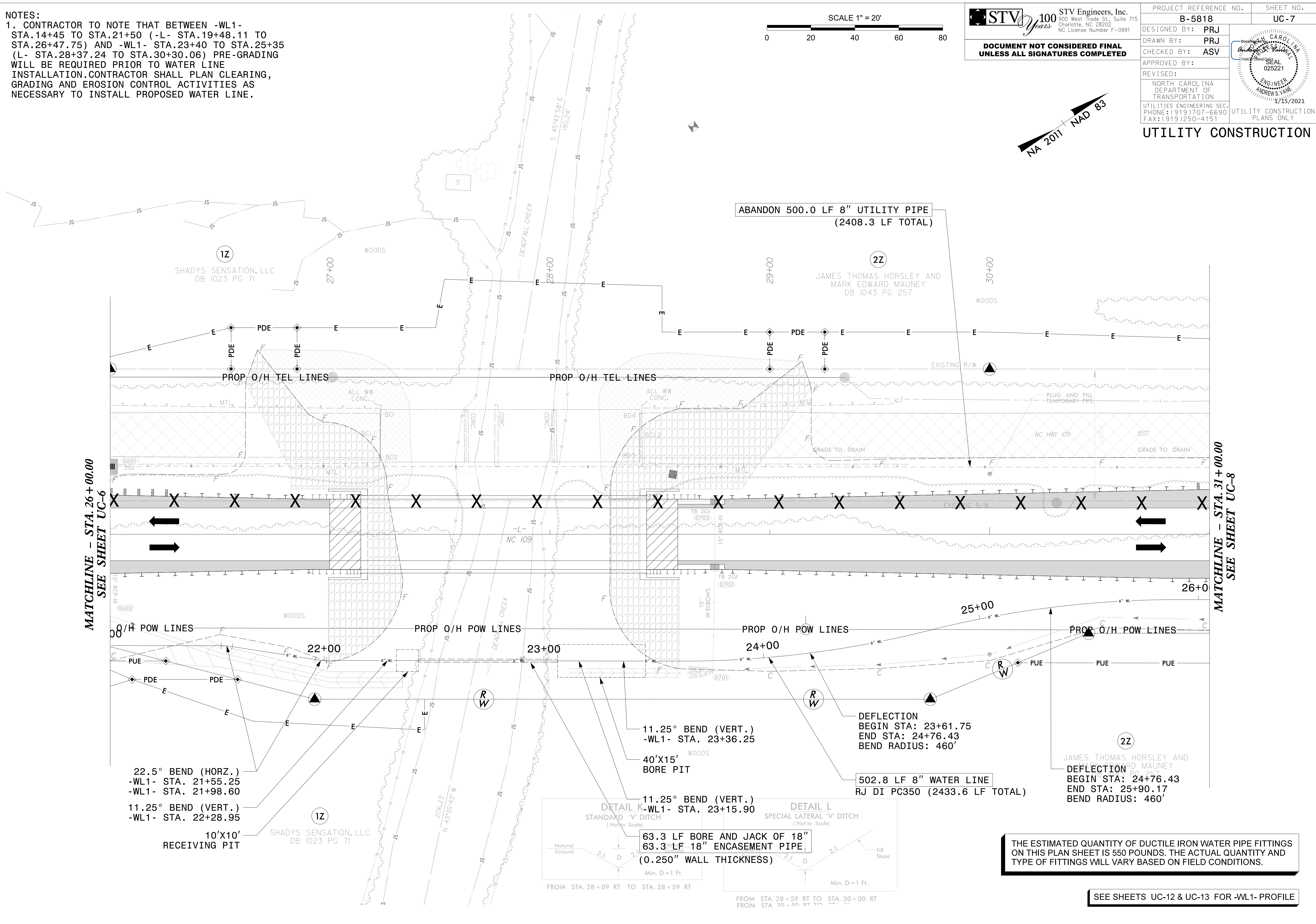
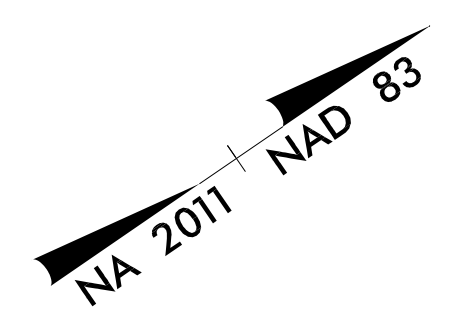
NOTES:
 1. CONTRACTOR TO NOTE THAT BETWEEN -WL1- STA.14+45 TO STA.21+50 (-L- STA.19+48.11 TO STA.26+47.75) AND -WL1- STA.23+40 TO STA.25+35 (L- STA.28+37.24 TO STA.30+30.06) PRE-GRADING WILL BE REQUIRED PRIOR TO WATER LINE INSTALLATION. CONTRACTOR SHALL PLAN CLEARING, GRADING AND EROSION CONTROL ACTIVITIES AS NECESSARY TO INSTALL PROPOSED WATER LINE.



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MATCHLINE - STA. 26+00.00
SEE SHEET UC-6

MATCHLINE - STA. 31+00.00
SEE SHEET UC-8

22.5° BEND (HORZ.)
 -WL1- STA. 21+55.25
 -WL1- STA. 21+98.60

11.25° BEND (VERT.)
 -WL1- STA. 22+28.95

10'X10'
 RECEIVING PIT

11.25° BEND (VERT.)
 -WL1- STA. 23+36.25
 40'X15'
 BORE PIT

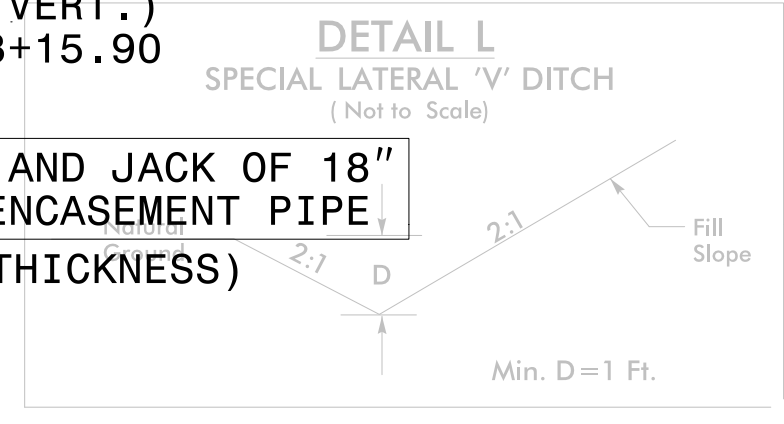
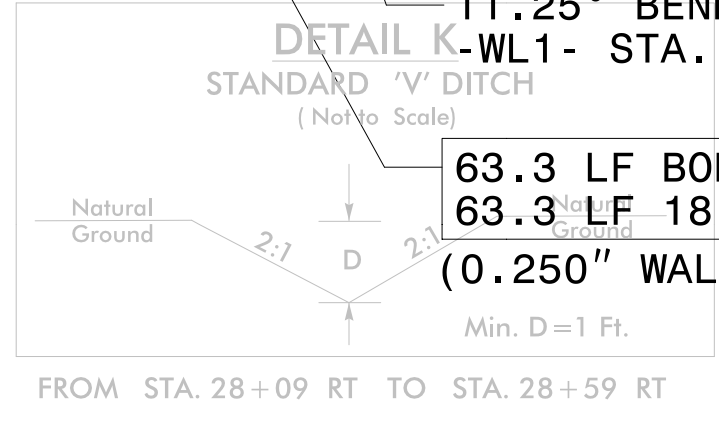
11.25° BEND (VERT.)
 -WL1- STA. 23+15.90

63.3 LF BORE AND JACK OF 18"
 63.3 LF 18" ENCASEMENT PIPE
 (0.250" WALL THICKNESS)

DEFLECTION
 BEGIN STA: 23+61.75
 END STA: 24+76.43
 BEND RADIUS: 460'

502.8 LF 8" WATER LINE
 RJ DI PC350 (2433.6 LF TOTAL)

DEFLECTION
 BEGIN STA: 24+76.43
 END STA: 25+90.17
 BEND RADIUS: 460'

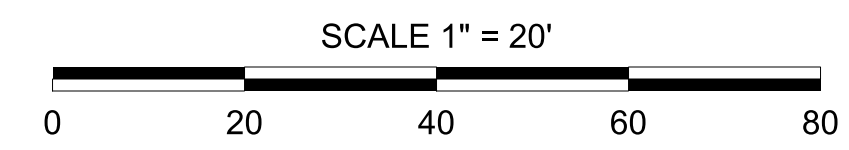


THE ESTIMATED QUANTITY OF DUCTILE IRON WATER PIPE FITTINGS ON THIS PLAN SHEET IS 550 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.

SEE SHEETS UC-12 & UC-13 FOR -WL1- PROFILE

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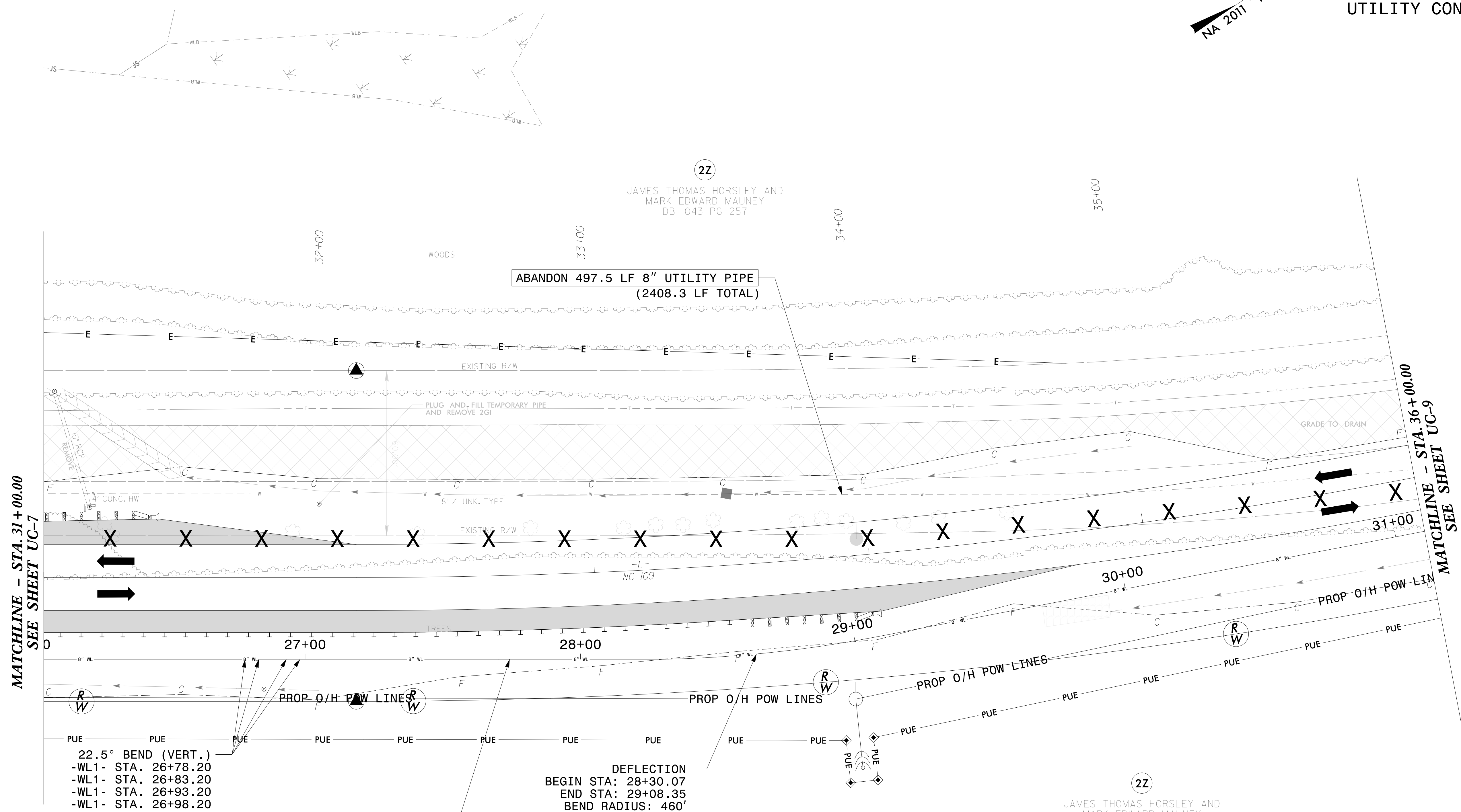
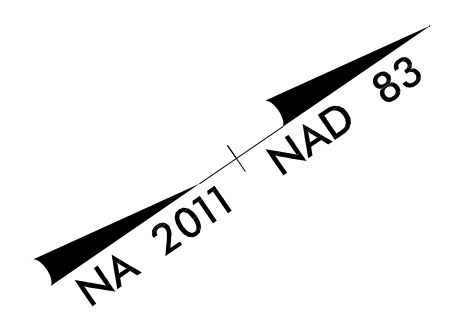
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PROJECT REFERENCE NO.	B-5818	SHEET NO.	UC-8
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CHECKED BY:	ASV		
APPROVED BY:			
REVISED:			
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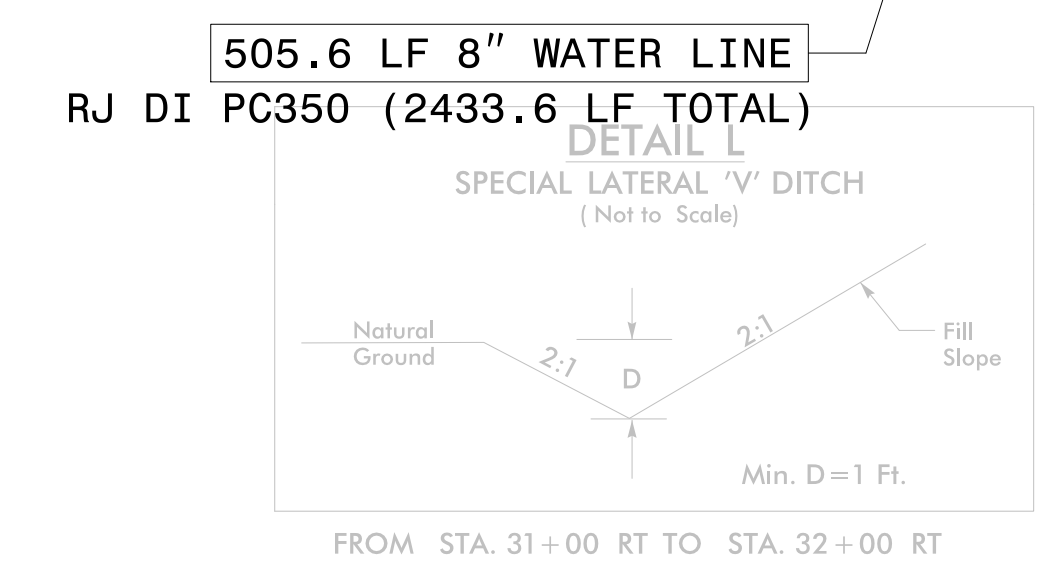


MATCHLINE - STA. 31+00.00
SEE SHEET UC-7

MATCHLINE - STA. 36+00.00
SEE SHEET UC-9

- 22.5° BEND (VERT.)
- WL1- STA. 26+78.20
- WL1- STA. 26+83.20
- WL1- STA. 26+93.20
- WL1- STA. 26+98.20

DEFLECTION
 BEGIN STA: 28+30.07
 END STA: 29+08.35
 BEND RADIUS: 460'



22
 JAMES THOMAS HORSLEY AND
 MARK EDWARD MAUNEY
 DB 1043 PG 257

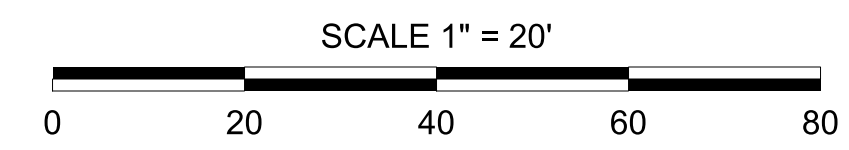
THE ESTIMATED QUANTITY OF DUCTILE IRON WATER PIPE FITTINGS ON THIS PLAN SHEET IS 440 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.

SEE SHEETS UC-13 & UC-14 FOR -WL1- PROFILE

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 R:\Utilities\Engineering\UC\Proj\Sheet\B5818.WS_UC8.dgn
 wallnee

5/14/99

- NOTES:
1. CONTRACTOR TO FIELD VERIFY EXISTING PIPE MATERIAL AND DEPTH AT TIE-IN POINTS. DEPTH OF ALL UTILITIES PRIOR TO CONSTRUCTION.
 2. FOLLOWING SUCCESSFUL INSTALLATION OF VALVES, CONTRACTOR AT THE DISCRETION OF THE UTILITY OWNER MAY SHUTDOWN AND ISOLATE SECTION OF WATER LINE TO BE ROLOCATED UNTIL PROPOSED WATER LINE IS INSTALLED, TESTED AND SUCCESSFULLY TIED IN.
 3. CONTRACTOR SHALL RESTRAIN THE TRANSITION CONNECTION. REFER TO SHEET UC-3A FOR CONCRETE THRUST COLLAR DETAIL.



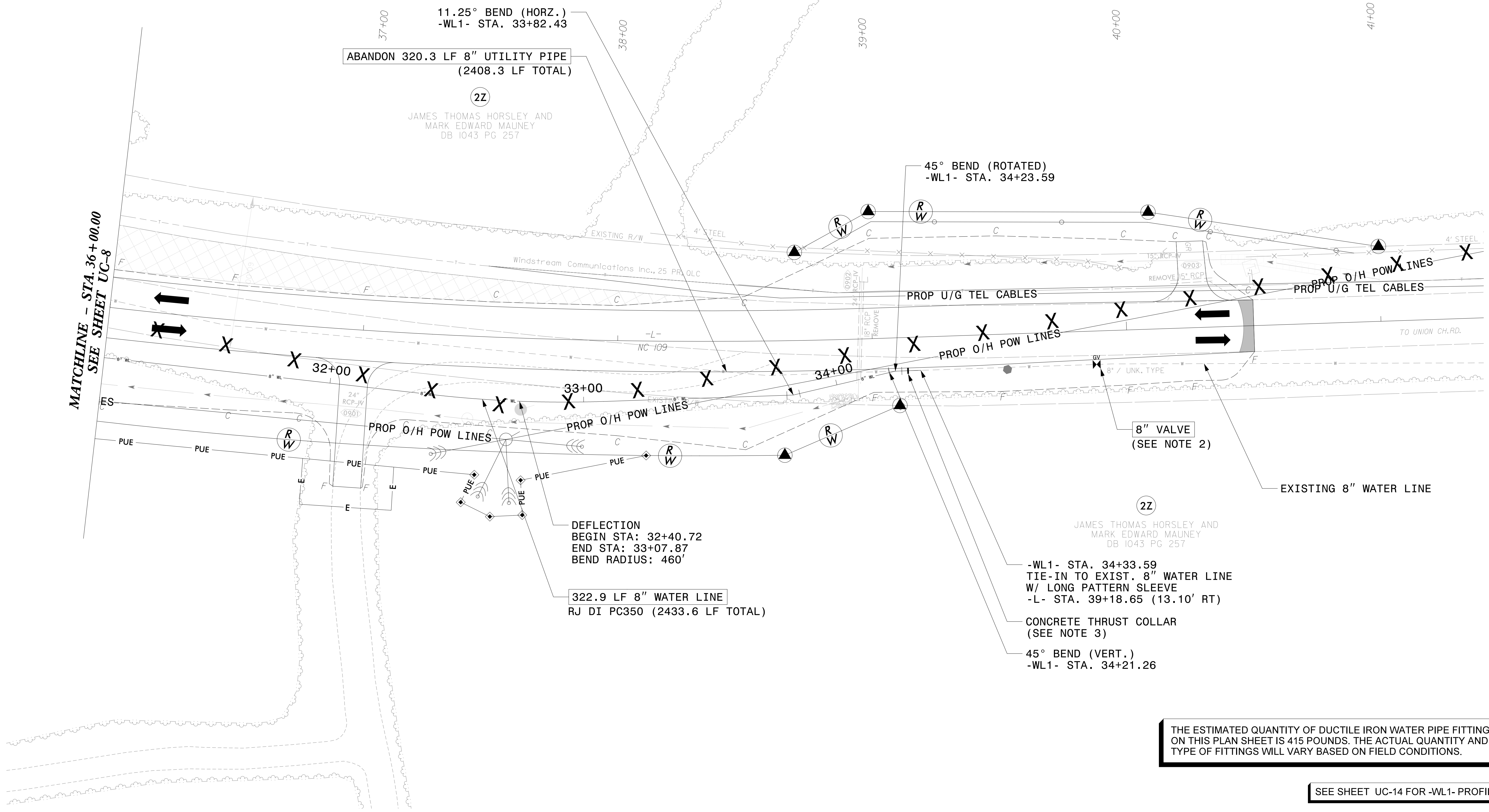
STV 100 Years
 STV Engineers, Inc.
 800 West Trade St., Suite 715
 Charlotte, NC 28202
 NC License Number F-0991

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 UNLESS ALL SIGNATURES COMPLETED**

PROJECT REFERENCE NO.	B-5818	SHEET NO.	UC-9
DESIGNED BY:	PRJ		
DRAWN BY:	PRJ		
CHECKED BY:	ASV		
APPROVED BY:			
REVISED:			
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION		UTILITY CONSTRUCTION PLANS ONLY	
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151			



MATCHLINE - STA. 36+00.00
SEE SHEET UC-8



THE ESTIMATED QUANTITY OF DUCTILE IRON WATER PIPE FITTINGS ON THIS PLAN SHEET IS 415 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.

SEE SHEET UC-14 FOR -WL1- PROFILE

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wallnee

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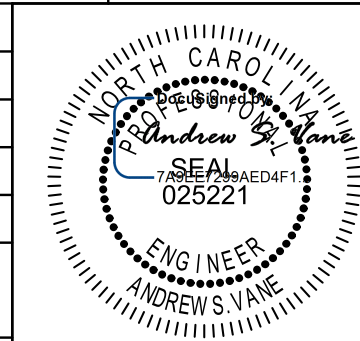
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1" = 4' VERTICAL

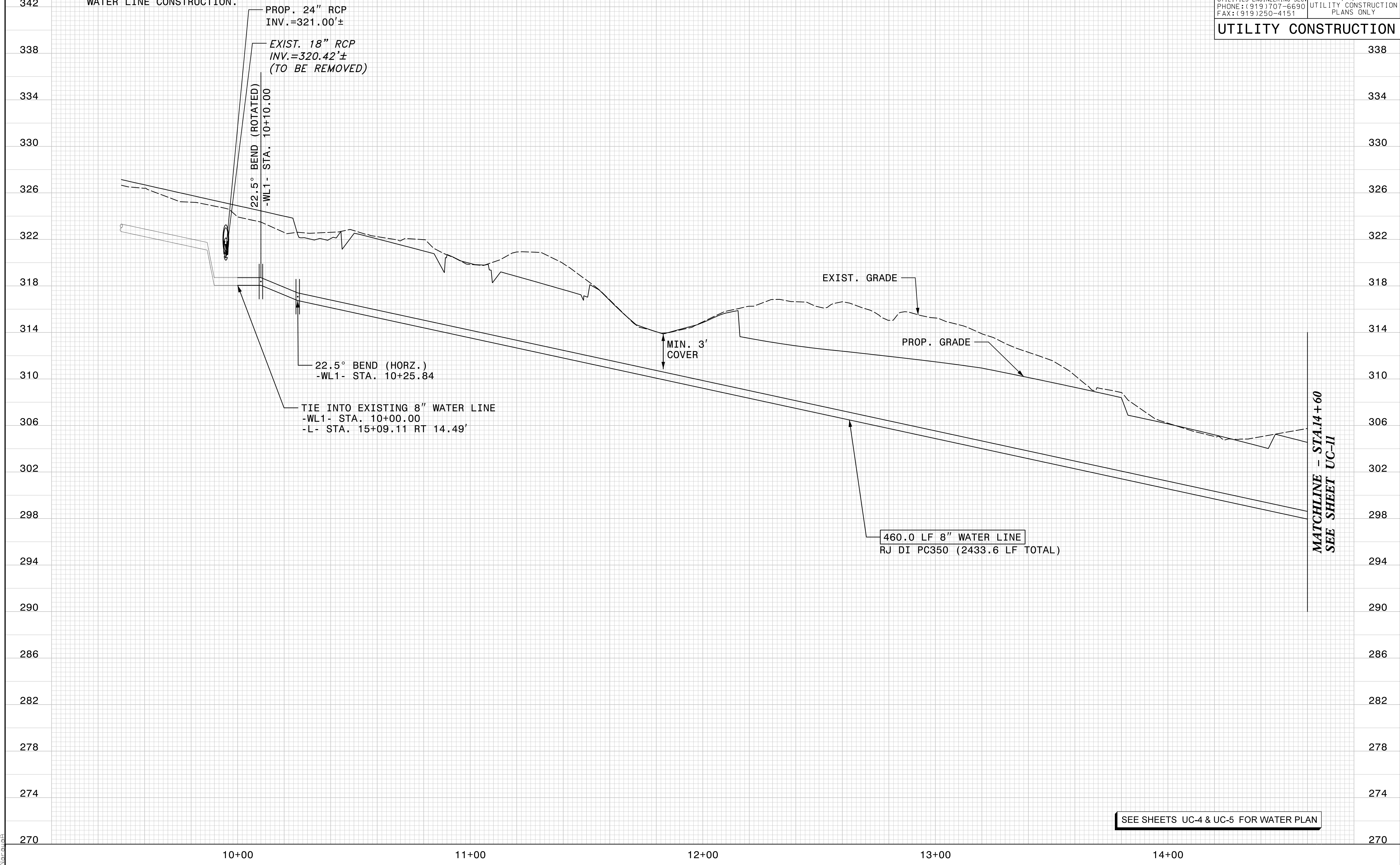
NOTES:
1. LOCATION AND DEPTHS OF EXISTING UTILITIES ARE APPROXIMATE. CONTRACTOR TO FIELD VERIFY LOCATIONS AND DEPTHS PRIOR TO WATER LINE CONSTRUCTION.

PROP. 8" WATER LINE -WL1- NC-109

STV 100 Years
STV Engineers, Inc.
300 West Trade St., Suite 715
Charlotte, NC 28202
NC License Number F-0991

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PROJECT REFERENCE NO. B-5818	SHEET NO. UC-10
DESIGNED BY: PRJ	
DRAWN BY: PRJ	
CHECKED BY: ASV	
APPROVED BY:	
REVISED:	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION 11/19/2020 UTILITY CONSTRUCTION PLANS ONLY
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UTILITY CONSTRUCTION	



SEE SHEETS UC-4 & UC-5 FOR WATER PLAN

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SCALE: 1" = 20' HORIZONTAL
1" = 4' VERTICAL

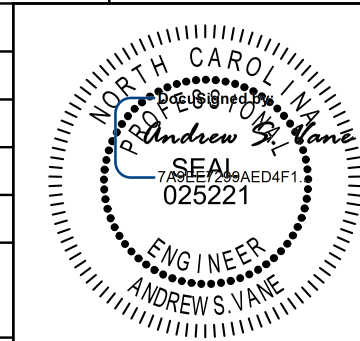
NOTES:

1. LOCATION AND DEPTHS OF EXISTING UTILITIES ARE APPROXIMATE. CONTRACTOR TO FIELD VERIFY LOCATIONS AND DEPTHS PRIOR TO WATER LINE CONSTRUCTION.
2. CONTRACTOR TO NOTE THAT BETWEEN -WL1- STA.14+45 TO STA.21+50 (-L- STA.19+48.11 TO STA.26+47.75) AND -WL1- STA.23+40 TO STA.25+35 (L- STA.28+37.24 TO STA.30+30.06) PRE-GRADING WILL BE REQUIRED PRIOR TO WATER LINE INSTALLATION.CONTRACTOR SHALL PLAN CLEARING, GRADING AND EROSION CONTROL ACTIVITIES AS NECESSARY TO INSTALL PROPOSED WATER LINE.

PROP. 8" WATER LINE -WL1- NC-109

STV 100 Years
 STV Engineers, Inc.
 300 West Trade St., Suite 715
 Charlotte, NC 28202
 NC License Number F-0991

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PROJECT REFERENCE NO. B-5818	SHEET NO. UC-11
DESIGNED BY: PRJ	 NORTH CAROLINA DEPARTMENT OF TRANSPORTATION 11/19/2020 UTILITY CONSTRUCTION PLANS ONLY
DRAWN BY: PRJ	
CHECKED BY: ASV	
APPROVED BY:	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	
UTILITY CONSTRUCTION	



SEE SHEETS UC-5 & UC-6 FOR WATER PLAN

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5/14/19

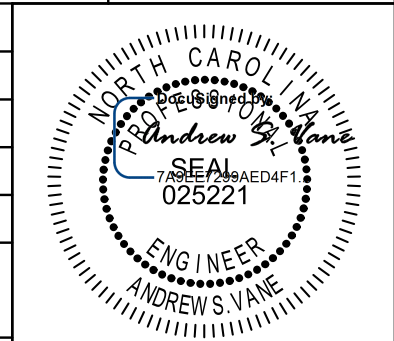
SCALE: 1" = 20' HORIZONTAL
1" = 4' VERTICAL

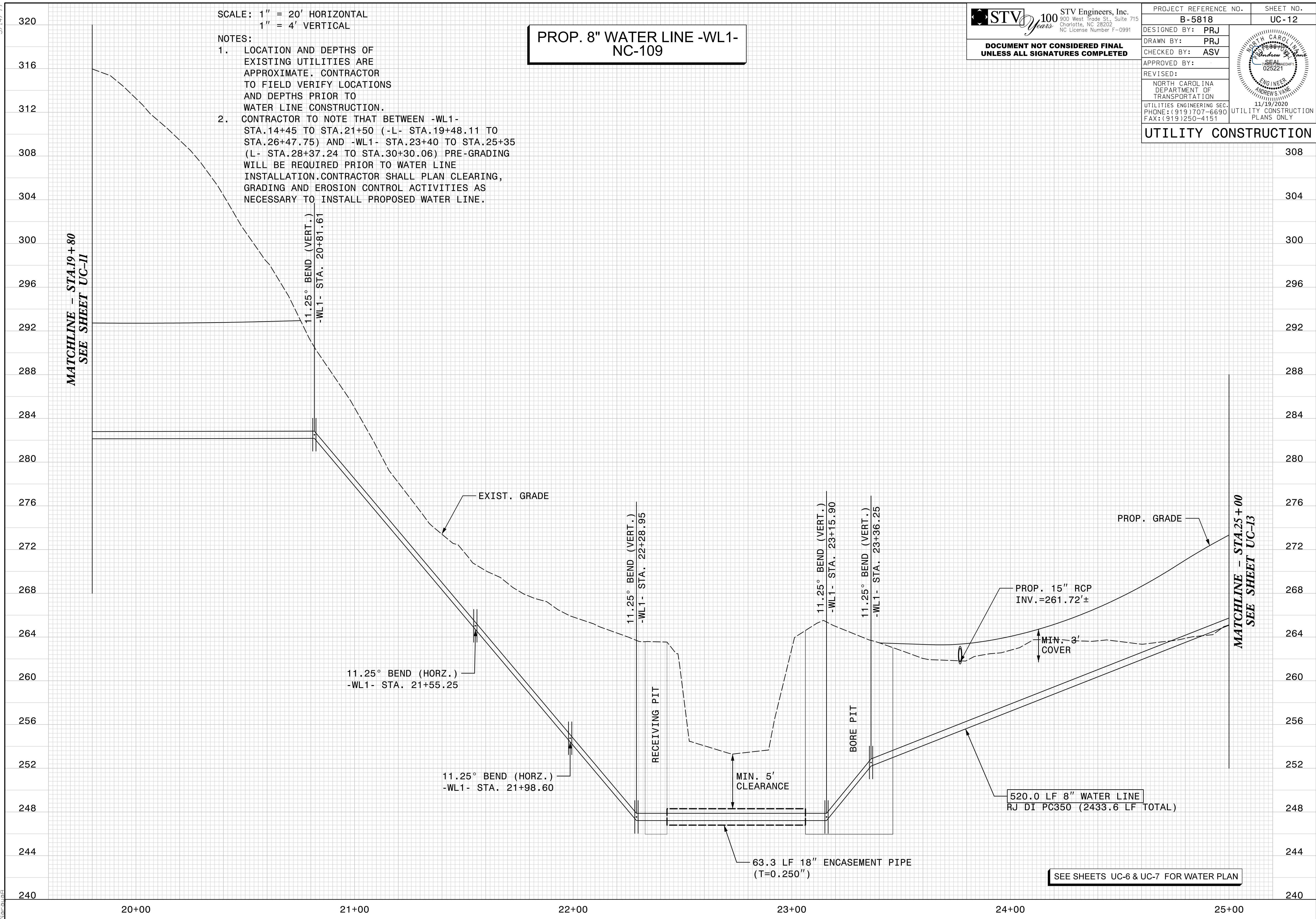
- NOTES:
1. LOCATION AND DEPTHS OF EXISTING UTILITIES ARE APPROXIMATE. CONTRACTOR TO FIELD VERIFY LOCATIONS AND DEPTHS PRIOR TO WATER LINE CONSTRUCTION.
 2. CONTRACTOR TO NOTE THAT BETWEEN -WL1- STA.14+45 TO STA.21+50 (-L- STA.19+48.11 TO STA.26+47.75) AND -WL1- STA.23+40 TO STA.25+35 (L- STA.28+37.24 TO STA.30+30.06) PRE-GRADING WILL BE REQUIRED PRIOR TO WATER LINE INSTALLATION. CONTRACTOR SHALL PLAN CLEARING, GRADING AND EROSION CONTROL ACTIVITIES AS NECESSARY TO INSTALL PROPOSED WATER LINE.

PROP. 8" WATER LINE -WL1- NC-109

STV 100 Years
 STV Engineers, Inc.
 300 West Trade St., Suite 715
 Charlotte, NC 28202
 NC License Number F-0991

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PROJECT REFERENCE NO. B-5818	SHEET NO. UC-12
DESIGNED BY: PRJ	
DRAWN BY: PRJ	
CHECKED BY: ASV	
APPROVED BY:	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	11/19/2020
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MATCHLINE - STA.19+80
SEE SHEET UC-11

MATCHLINE - STA.25+00
SEE SHEET UC-13

SEE SHEETS UC-6 & UC-7 FOR WATER PLAN

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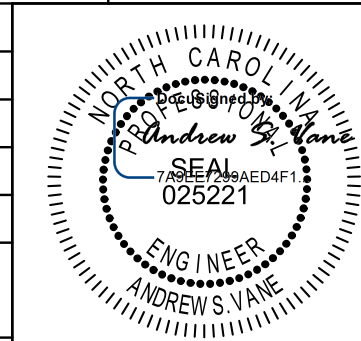
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SCALE: 1" = 20' HORIZONTAL
1" = 4' VERTICAL

NOTES:
1. LOCATION AND DEPTHS OF EXISTING UTILITIES ARE APPROXIMATE. CONTRACTOR TO FIELD VERIFY LOCATIONS AND DEPTHS PRIOR TO WATER LINE CONSTRUCTION.

PROP. 8" WATER LINE -WL1-NC-109

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CHECKED BY: ASV	
APPROVED BY:	
REVISED:	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION 11/19/2020 UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151
UTILITY CONSTRUCTION	

MATCHLINE - STA.25+00
SEE SHEET UC-12

VERT. DEFLECTION
BEND RADIUS: 460'
BEGIN STA: 25+90.17
END STA: 26+22.98

22.5° BEND (VERT.)
-WL1- STA. 26+78.20

22.5° BEND (VERT.)
-WL1- STA. 26+83.20

22.5° BEND (VERT.)
-WL1- STA. 26+93.20

22.5° BEND (VERT.)
-WL1- STA. 26+98.20

PROP. 15" RCP
INV. =274.25'±

EXIST. GRADE
PROP. GRADE

MIN. 3'
COVER

520.0 LF 8" WATER LINE
RJ DI PC350 (2433.6 LF TOTAL)

MATCHLINE - STA.30+20
SEE SHEET UC-14

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SEE SHEETS UC-7 & UC-8 FOR WATER PLAN

25+00 26+00 27+00 28+00 29+00 30+00

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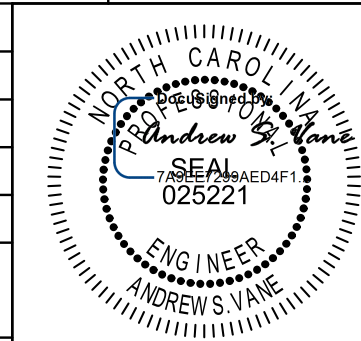
SCALE: 1" = 20' HORIZONTAL
1" = 4' VERTICAL

NOTES:
1. LOCATION AND DEPTHS OF EXISTING UTILITIES ARE APPROXIMATE. CONTRACTOR TO FIELD VERIFY LOCATIONS AND DEPTHS PRIOR TO WATER LINE CONSTRUCTION.

PROP. 8" WATER LINE -WL1- NC-109

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REVISED:	
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MATCHLINE - STA. 30+20
SEE SHEET UC-13

MIN. 3'
COVER

EXIST. GRADE

PROP. GRADE

PROP. 24" RCP
INV. = 303.59'±

45° BEND (VERT.)
-WL1- STA. 34+21.26

45° BEND (ROTATED)
-WL1- STA. 34+23.59

11.25° BEND (HORZ.)
-WL1- STA. 33+82.43

413.6 LF 8" WATER LINE
RJ DI PC350 (2433.6 LF TOTAL)

TIE INTO EXISTING 8" WATER LINE
-WL1- STA. 34+33.59
-L- STA. 39+18.65 RT 13.10'

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31+00

32+00

33+00

34+00

35+00

SEE SHEETS UC-8 & UC-9 FOR WATER PLAN

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