

5/14/09

MARTIN COUNTY PROJECT WATER DETAILS

PREPARED IN THE OFFICE OF:



THE WOOTEN COMPANY
120 North Roper Avenue Raleigh, NC 27603-1423
919.876.1100
License Number: F-0155

PROJECT REFERENCE NO.

R-2511

SHEET NO.

UC-35A

DESIGNED BY: JRG

DRAWN BY: TK

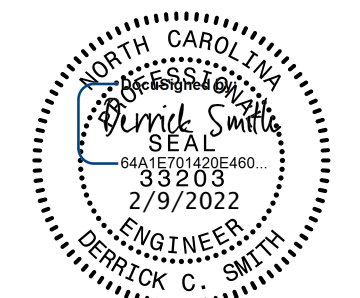
CHECKED BY: JRG

APPROVED BY: JRG

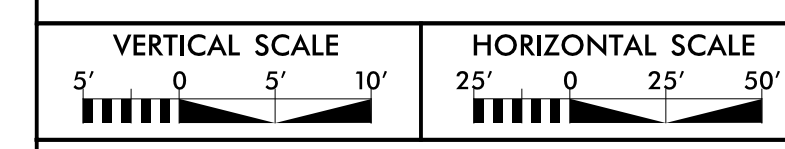
REVISED:

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

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



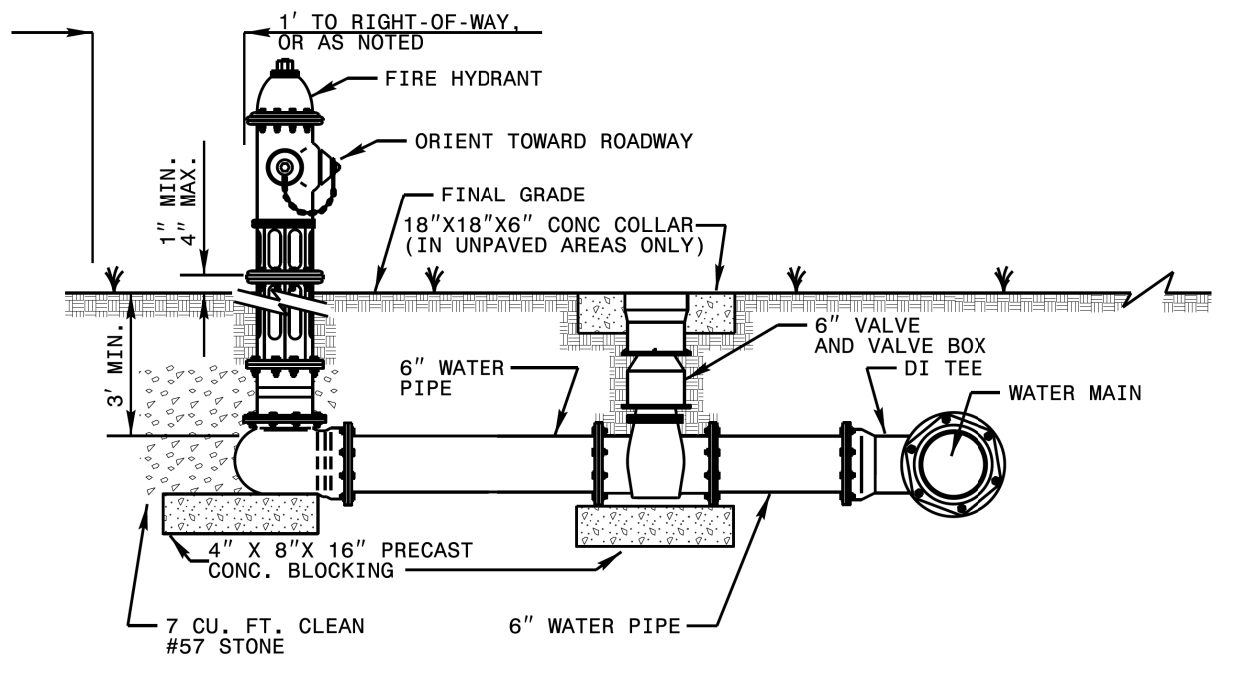
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UTILITY CONSTRUCTION PLANS ONLY



WATER LINE CONSTRUCTION SHOWN ON THIS SHEET

UTILITY CONSTRUCTION

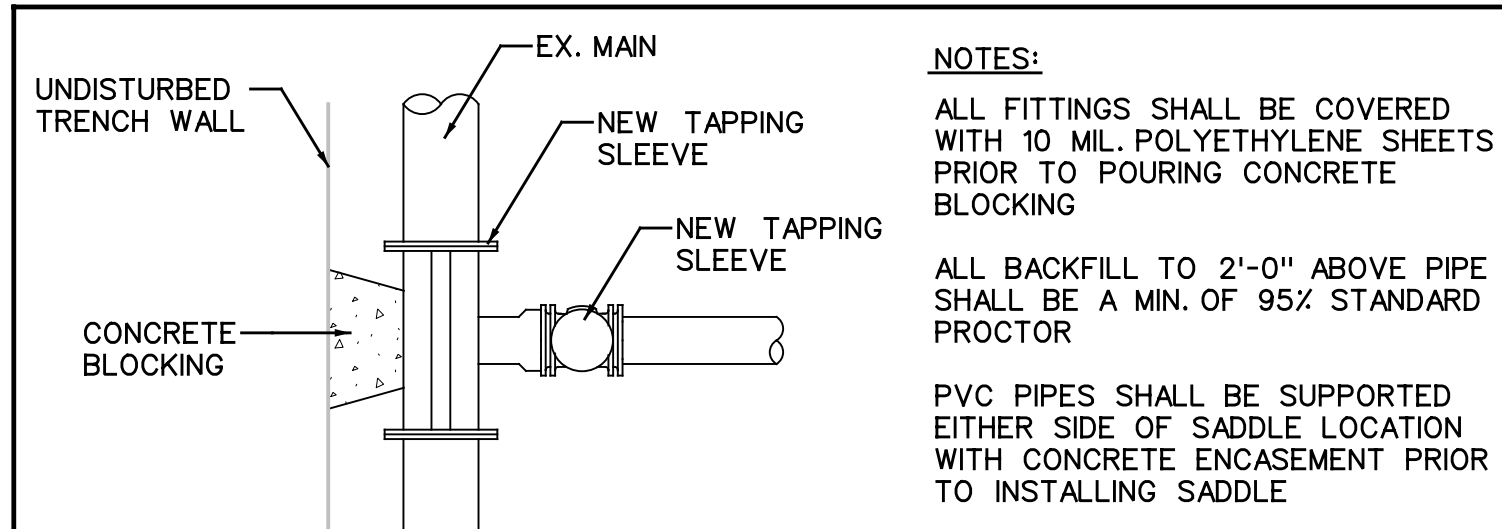
- NOTES:
- THIS DETAIL SHOWS THE TYPICAL FINAL FIRE HYDRANT CONFIGURATION AFTER INSTALLATION OF A PROPOSED FIRE HYDRANT, RECONNECTION OF AN EXISTING FIRE HYDRANT, OR RELOCATION OF A FIRE HYDRANT.
 - KEEP DRAIN PORTS FREE FROM OBSTRUCTION.
 - RESTRAIN ALL PIPE JOINTS AND FITTINGS. ACCEPTABLE TYPES OF RESTRAINT INCLUDE RESTRAINING GLANDS; RESTRAINED, PUSH-ON JOINTS; AND 3/4" BITUMINOUS COATED, ALL-THREAD RESTRAINING RODS. THRUST BLOCKS ARE NOT AN ACCEPTABLE TYPE OF RESTRAINT.
 - FOR RELOCATED OR RECONNECTED FIRE HYDRANTS, VERIFY THE VALVE IS RESTRAINED TO THE MAIN. PROVIDE APPROPRIATE RESTRAINT.
 - HYDRANT LOCATION APPLIES TO PROPOSED AND RELOCATED FIRE HYDRANTS.
 - LOCATE FIRE HYDRANT WITH 3' HORIZONTAL CLEARANCE FROM ABOVE GROUND OBJECTS.
 - PROVIDE A MINIMUM OF 3' COVER OVER ALL SECTIONS OF HORIZONTAL PIPE. USE FITTINGS AS NECESSARY.
 - TAPPING SLEEVES MAY BE USED ON EXISTING MAINS IN LIEU OF DI TEES.
 - LOCATE FIRE HYDRANT OUTSIDE OF THE VEHICLE RECOVERY AREA, ADJACENT TO THE R/W LINE, OR IN A PROTECTED AREA.



STATE OF NORTH CAROLINA
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DIVISION OF HIGHWAYS
RALEIGH, N.C.

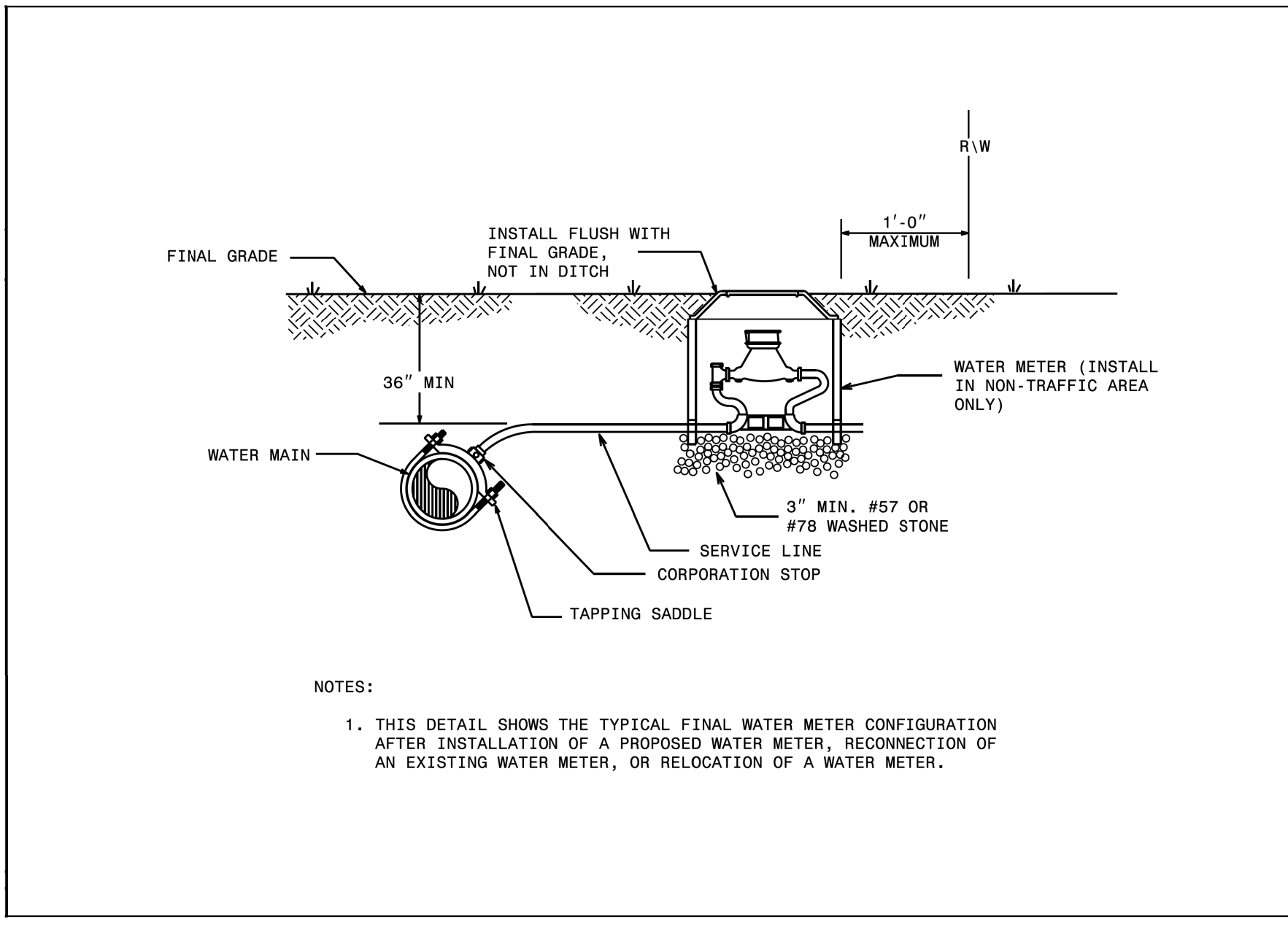
ROADWAY STANDARD DRAWING FOR
FIRE HYDRANT

SHEET 1 OF 1
1515.02



- NOTES:
- ALL FITTINGS SHALL BE COVERED WITH 10 MIL. POLYETHYLENE SHEETS PRIOR TO POURING CONCRETE BLOCKING
- ALL BACKFILL TO 2'-0" ABOVE PIPE SHALL BE A MIN. OF 95% STANDARD PROCTOR
- PVC PIPES SHALL BE SUPPORTED EITHER SIDE OF SADDLE LOCATION WITH CONCRETE ENCASEMENT PRIOR TO INSTALLING SADDLE

TAPPING SLEEVE AND VALVE
NOT TO SCALE

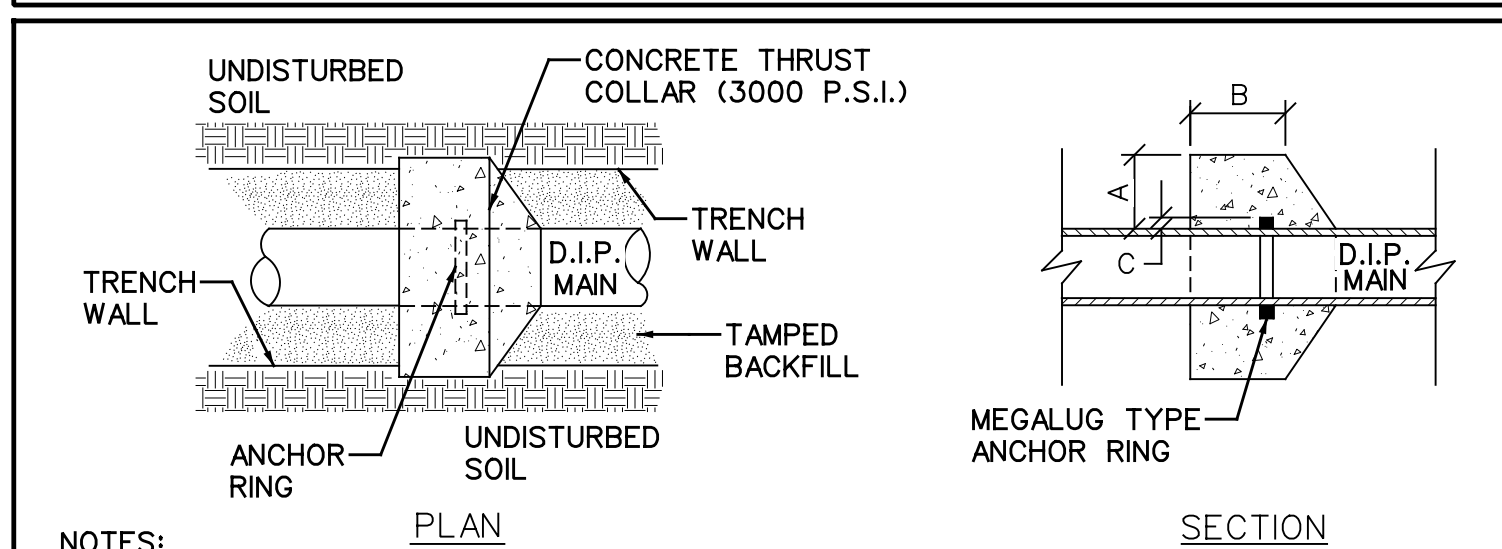


- NOTES:
- THIS DETAIL SHOWS THE TYPICAL FINAL WATER METER CONFIGURATION AFTER INSTALLATION OF A PROPOSED WATER METER, RECONNECTION OF AN EXISTING WATER METER, OR RELOCATION OF A WATER METER.

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DIVISION OF HIGHWAYS
RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR
WATER METER

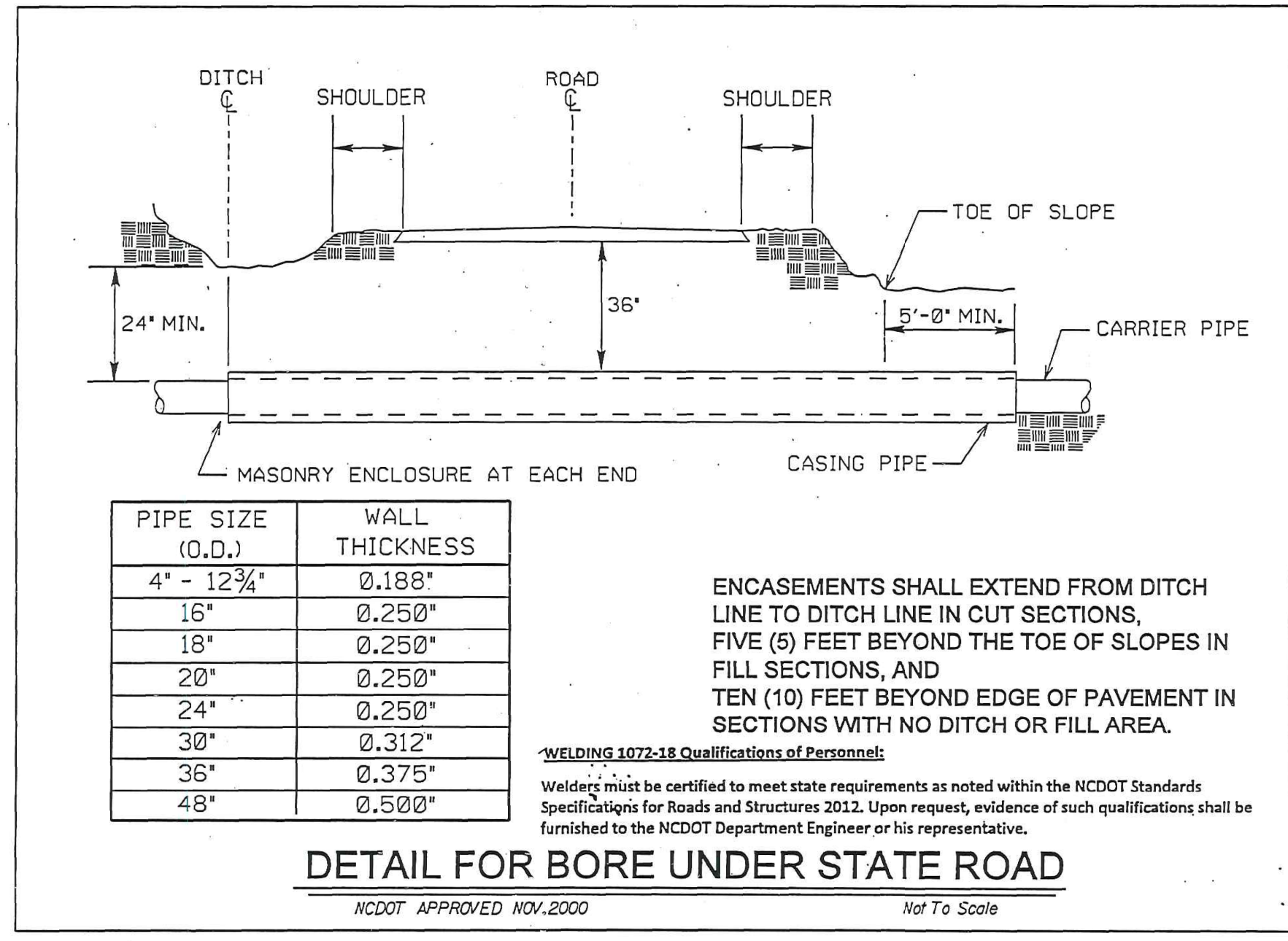
SHEET 1 OF 1
1515.01



- NOTES:
- 6" TO 16" MAINS-12-No.7 BARS
 - 20" TO 36" MAINS-12-No.8 BARS
 - BARS PLACED AS SHOWN

PIPE DIA.	SCHEDULE			RING REQUIRED
	A	B	C	
6"-12"	1'-0"	1'-0"	2"	ONE
16"	1'-4"	1'-0"	2"	ONE
20"	1'-4"	1'-0"	3"	ONE
24"	1'-4"	1'-0"	3"	TWO
30"	1'-4"	1'-2"	4"	TWO
36"	1'-4"	1'-4"	4"	TWO

THRUST COLLAR INSTALLATION
NOT TO SCALE

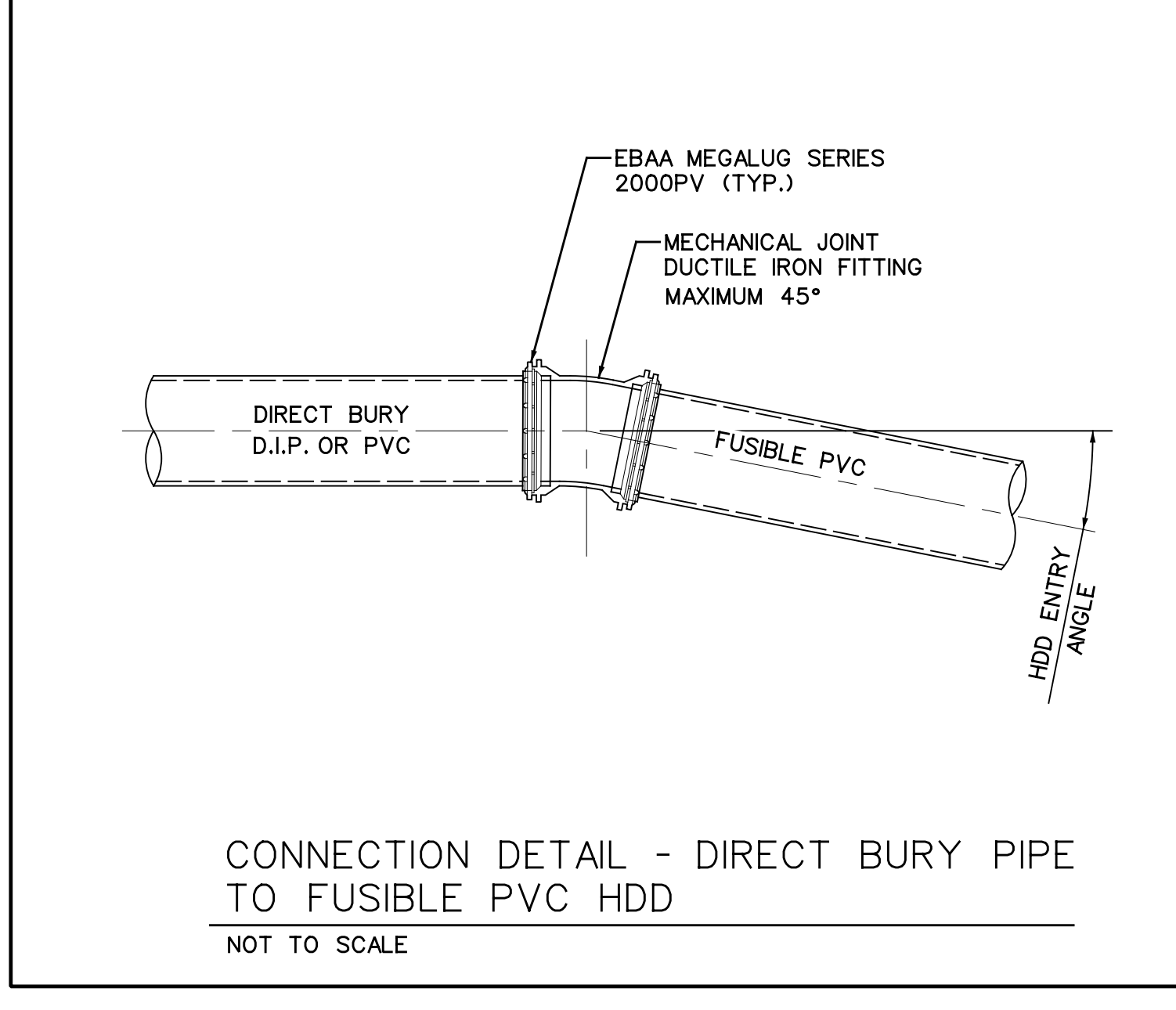


PIPE SIZE (O.D.)	WALL THICKNESS
4" - 12 3/4"	0.188"
16"	0.250"
18"	0.250"
20"	0.250"
24"	0.250"
30"	0.312"
36"	0.375"
48"	0.500"

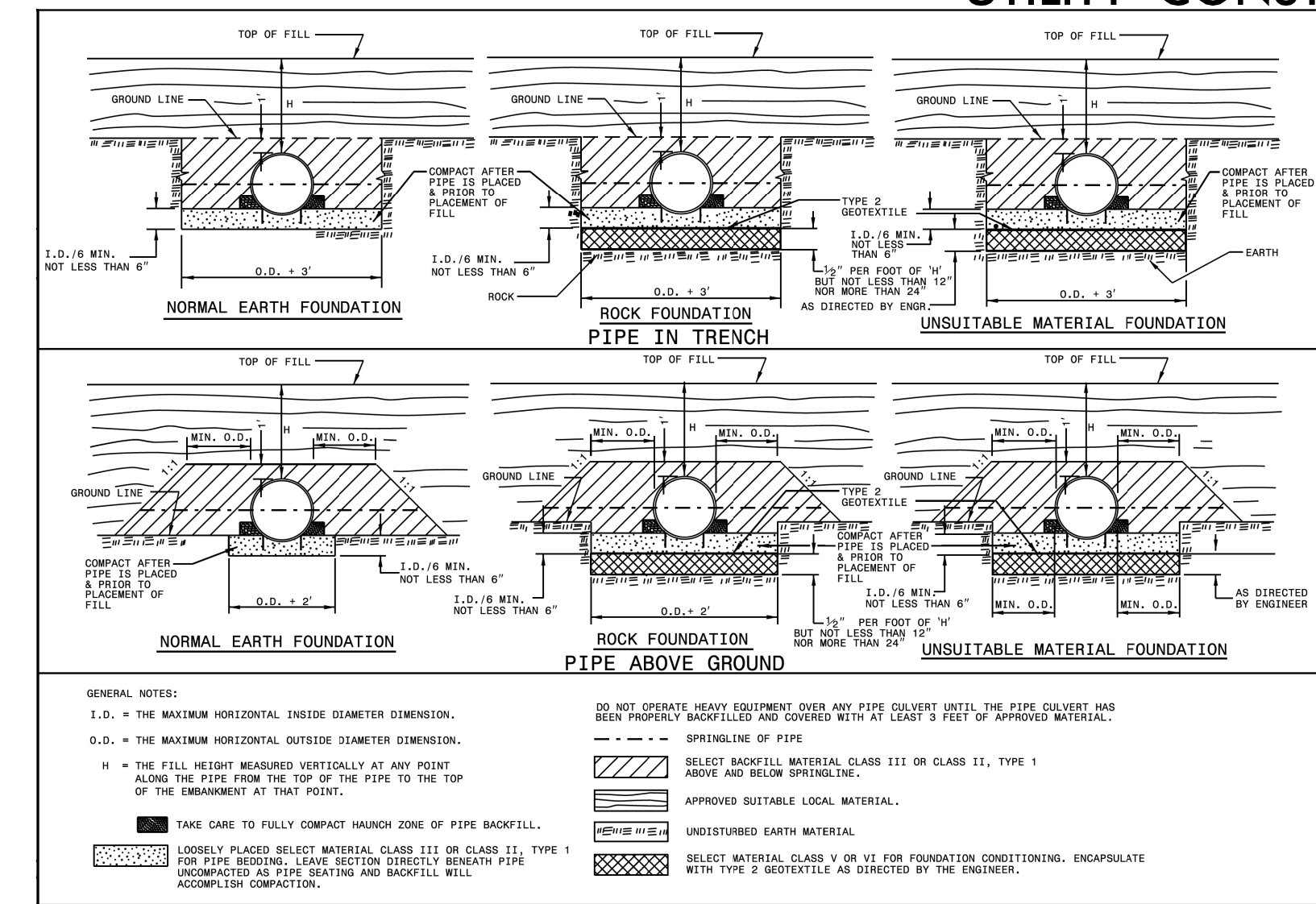
ENCASEMENTS SHALL EXTEND FROM DITCH LINE TO DITCH LINE IN CUT SECTIONS, FIVE (5) FEET BEYOND THE TOE OF SLOPES IN FILL SECTIONS, AND TEN (10) FEET BEYOND EDGE OF PAVEMENT IN SECTIONS WITH NO DITCH OR FILL AREA.

WELDING 1072-18 Qualifications of Personnel:
Welders must be certified to meet state requirements as noted within the NCDOT Standards Specifications for Roads and Structures 2012. Upon request, evidence of such qualifications shall be furnished to the NCDOT Department Engineer or his representative.

DETAIL FOR BORE UNDER STATE ROAD
NCDOT APPROVED NOV. 2000 Not To Scale



CONNECTION DETAIL - DIRECT BURY PIPE TO FUSIBLE PVC HDD
NOT TO SCALE

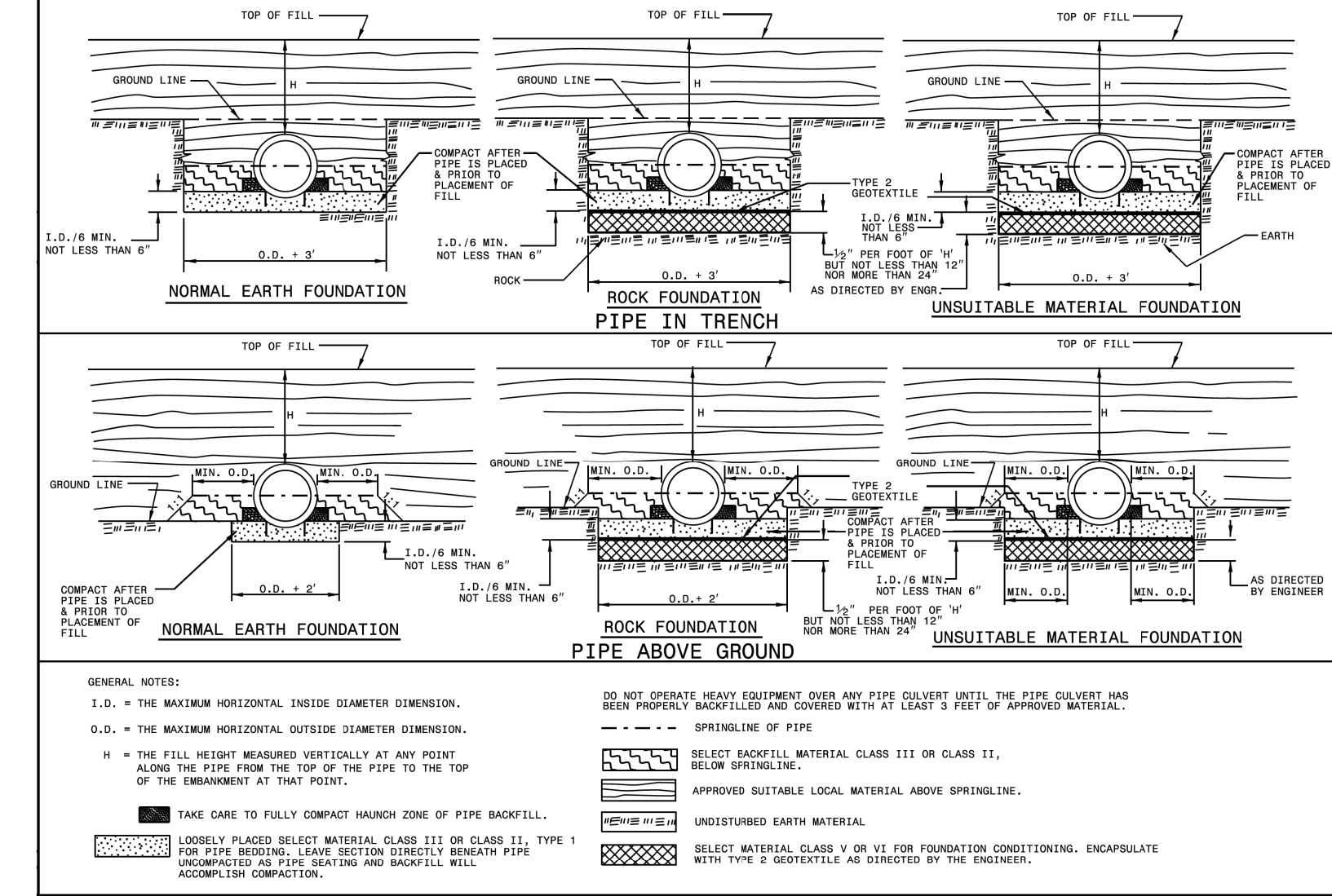


- GENERAL NOTES:
- I.O.D. = THE MAXIMUM HORIZONTAL INSIDE DIAMETER DIMENSION.
 - O.D. = THE MAXIMUM HORIZONTAL OUTSIDE DIAMETER DIMENSION.
 - H = THE FILL HEIGHT MEASURED VERTICALLY AT ANY POINT ALONG THE PIPE FROM THE TOP OF THE PIPE TO THE TOP OF THE EMBANKMENT AT THAT POINT.
 - DO NOT OPERATE HEAVY EQUIPMENT OVER ANY PIPE UNLESS THE PIPE HAS BEEN PROPERLY BACKFILLED AND COVERED WITH AT LEAST 3 FEET OF APPROVED MATERIAL.
 - BEHIND SPRINGLINE.
 - SELECT BACKFILL MATERIAL CLASS III OR CLASS II, TYPE 1 ABOVE AND BELOW SPRINGLINE.
 - APPROVED SUITABLE LOCAL MATERIAL.
 - UNDISTURBED EARTH MATERIAL.
 - SELECT MATERIAL CLASS V OR VI FOR FOUNDATION CONDITIONING. ENCAPSULATE WITH TYPE 2 GEOTEXTILE AS DIRECTED BY THE ENGINEER.

STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
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RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR
METHOD OF PIPE INSTALLATION

SHEET 1 OF 3
300.01



- GENERAL NOTES:
- I.O.D. = THE MAXIMUM HORIZONTAL INSIDE DIAMETER DIMENSION.
 - O.D. = THE MAXIMUM HORIZONTAL OUTSIDE DIAMETER DIMENSION.
 - H = THE FILL HEIGHT MEASURED VERTICALLY AT ANY POINT ALONG THE PIPE FROM THE TOP OF THE PIPE TO THE TOP OF THE EMBANKMENT AT THAT POINT.
 - DO NOT OPERATE HEAVY EQUIPMENT OVER ANY PIPE UNLESS THE PIPE HAS BEEN PROPERLY BACKFILLED AND COVERED WITH AT LEAST 3 FEET OF APPROVED MATERIAL.
 - BEHIND SPRINGLINE.
 - SELECT BACKFILL MATERIAL CLASS III OR CLASS II, TYPE 1 ABOVE AND BELOW SPRINGLINE.
 - APPROVED SUITABLE LOCAL MATERIAL.
 - UNDISTURBED EARTH MATERIAL.
 - SELECT MATERIAL CLASS V OR VI FOR FOUNDATION CONDITIONING. ENCAPSULATE WITH TYPE 2 GEOTEXTILE AS DIRECTED BY THE ENGINEER.

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ROADWAY STANDARD DRAWING FOR
METHOD OF PIPE INSTALLATION

SHEET 2 OF 3
300.01

Round Corrugated Steel Pipe 2 2/3 x 1/2 corrugation **					Round Corrugated Aluminum Pipe 2 2/3 x 1/2 corrugation **				
Diameter (Inches)	Minimum cover (Inches)	Maximum Height of Cover (feet)			Diameter (Inches)	Minimum cover (Inches)	Maximum Height of Cover (feet)		
		(a)	(b)	(c)			(a)	(b)	(c)
12	12	204	256	12	12	123	155	218	281
18	12	162	204	10	18	98	123	174	224
24	12	135	169	239	24	81	102	144	187
30	12	115	144	204	30	69	97	123	160
36	12	100	128	178	36	60	76	108	139
42	12	79	100	142	42	47	58	81	103
48	12	65	83	117	48	40	50	67	88
54	12	55	70	100	54	34	43	57	74
60	12	48	61	87	60	30	38	50	65
66	12	44	54	77	66	26	34	45	58
72	12	40	49	69	72	23	31	41	53
78	12	37	45	63	78	21	28	37	48
84	12	34	41	58	84	19	25	34	44

- REFER TO THE FOLLOWING FOR PIPE SPECIFICATIONS:
- CSP - AASHTO M38
 - CAAP - AASHTO M196
 - HDPE - AASHTO M254
 - PVC - ASTM F949 or AASHTO M304
- NOTES: FILL HEIGHTS SHOWN WERE CALCULATED USING AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS
- * FILL HEIGHT IS MEASURED FROM THE TOP OF THE PIPE TO THE BOTTOM OF THE PAVEMENT STRUCTURE
- 1' MINIMUM COVER FOR ALL SIDE DRAIN PIPE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS

STATE OF NORTH CAROLINA
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RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR
METHOD OF PIPE INSTALLATION

SHEET 3 OF 3
300.01

MARTIN COUNTY PROJECT WATER DETAILS

PREPARED IN THE OFFICE OF:



THE WOOTEN COMPANY
 120 North Roper Avenue Raleigh, NC 27603-1423
 919.878.0331 Fax 919.878.2189
 License Number: F-0115

PROJECT REFERENCE NO.

R-2511

SHEET NO.

UC-35B

DESIGNED BY: JRG

DRAWN BY: TK

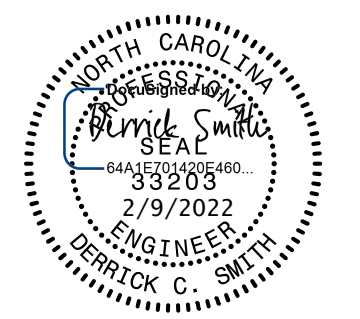
CHECKED BY: JRG

APPROVED BY: JRG

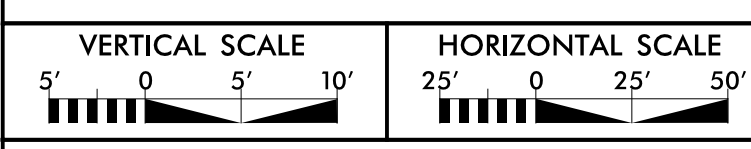
REVISED:

**NORTH CAROLINA
 DEPARTMENT OF
 TRANSPORTATION**

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



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 UTILITY CONSTRUCTION
 PLANS ONLY



**WATER LINE CONSTRUCTION
 SHOWN ON THIS SHEET**

UTILITY CONSTRUCTION

MINIMUM CONCRETE BLOCKING (C.Y.)*						
NOM. PIPE (I.D.)	TEES & DEAD ENDS	90° BEND	45° BEND	22 1/2° BEND	11 1/4° BEND	
4	.34	.34	.34	.34	.34	
6	.34	.34	.34	.34	.34	
8	.34	.50	.34	.34	.34	
10	.67	.75	.50	.34	.34	
12	.75	1.0	.67	.34	.34	
14	1.0	1.5	.75	.50	.34	
16	1.34	2.0	1.0	.50	.34	
18	1.67	2.34	1.34	.67	.34	
20	2.0	3.0	1.67	.75	.50	
24	3.0	4.34	2.34	1.34	.67	

*CONCRETE SHALL BE 3000 P.S.I. MIX.
 NOTE: NO CONCRETE SHALL COVER BOLTS OR GLANDS.

UNDISTURBED EARTH

STANDARD REACTION BLOCKING
 NOT TO SCALE

CONCRETE THRUST COLLAR
 D.I. PIPE
 5' MIN.
 5'-0" MINIMUM
 MECHANICAL JOINT CAP
 D.I. PIPE
 CONCRETE THRUST BLOCK
 5/8" THREADED RODS (EACH SIDE)
 1'-2"x1'-2" CONCRETE PAD TO BE POURED SO THAT NO FITTINGS OR FLANGES ARE COVERED
 UNDISTURBED SOIL

NOTE:
 THIS DETAIL SHALL APPLY TO TEMPORARY CAPPING. PERMANENT DEAD END LINES TO BE EQUIPPED WITH BLOW OFF ASSEMBLY.

STANDARD CAPPING DETAIL
 NOT TO SCALE

FITTING	SQ. FT. BEARING AREA				
	4"	6"	8"	12"	16"
90° BEND	3	5	7	10	16
D.E. OR TEE	2	3	5	8	11
45° OR LESS	1	2	4	6	8

EXCAVATE AS NEARLY VERTICAL AS POSSIBLE

PROVIDE 4 MIL POLYETHYLENE AROUND PIPE TO PREVENT CONCRETE FROM BONDING TO PIPE

1'-6" GREATER THAN OUTSIDE DIAMETER OF PIPE AT TOP OF PIPE

4" MIN. EQUAL 90°

CONCRETE THRUST BLOCK CONCRETE TO BE POURED AGAINST FIRM UNDISTURBED EARTH 2000 PSI CONCRETE

FINISHED GRADE
 12" MIN. 2'-0" MIN. DEPTH
 45° MAX.
 4" MIN. 1'-6" MIN. SECTION "A-A"


MIN. BEARING AREA OF UNDISTURBED EARTH REQUIRED TO HOLD LINE IN PLACE FOR FITTING AS LISTED IN CHART

THRUST BLOCK FOR HORIZONTAL PIPE BENDS
 NOT TO SCALE

5/14/99

5/14/2022

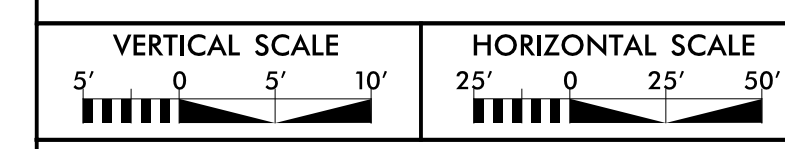
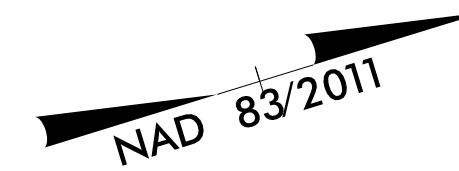
PREPARED IN THE OFFICE OF:



THE WOOTEN COMPANY
120 North Roper Avenue Raleigh, NC 27603-1423
919.428.0311 Fax 919.834.3109
License Number: F-0115

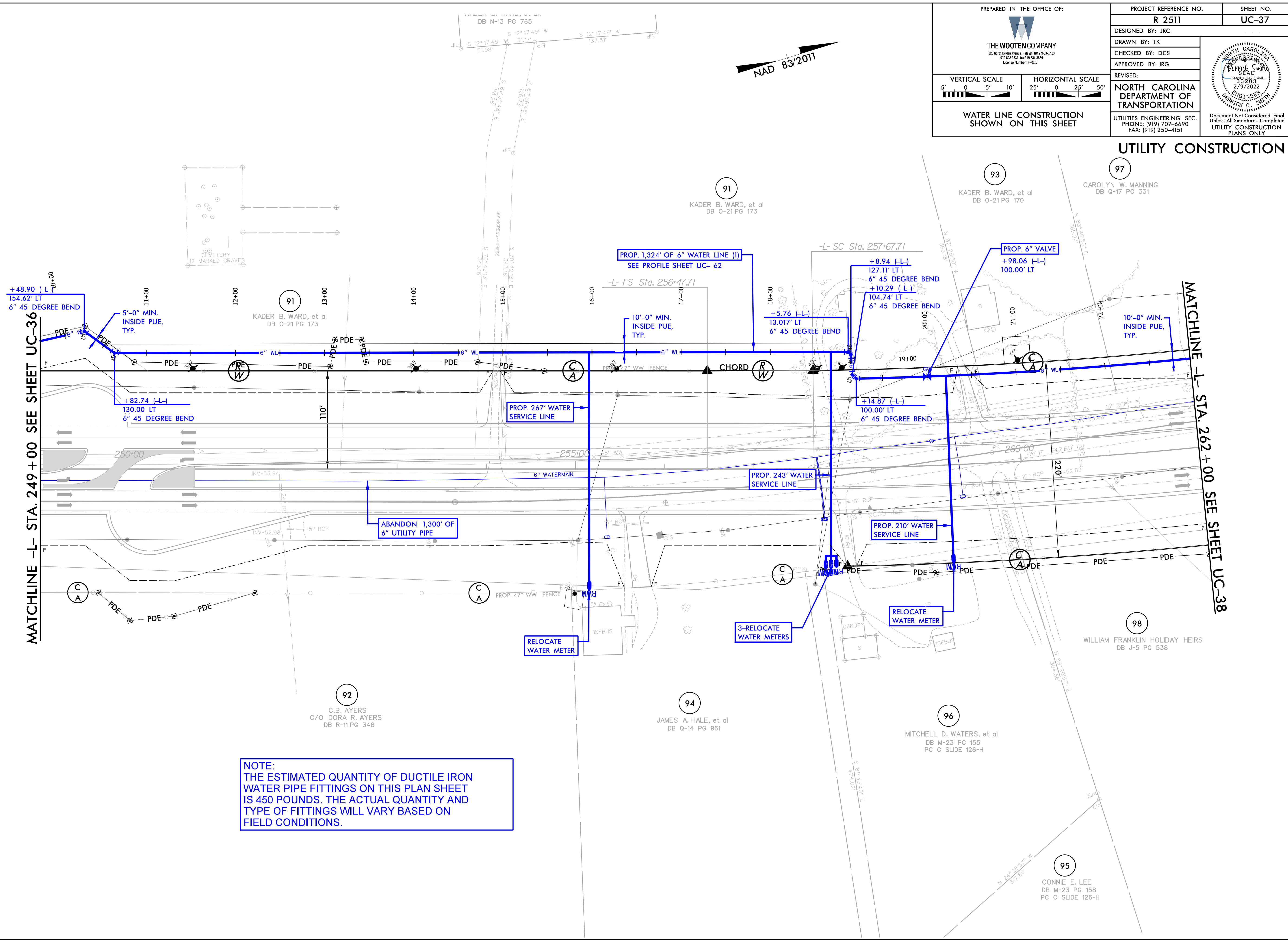
PROJECT REFERENCE NO.	SHEET NO.
R-2511	UC-37
DESIGNED BY: JRG	
DRAWN BY: TK	
CHECKED BY: DCS	
APPROVED BY: JRG	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	

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WATER LINE CONSTRUCTION SHOWN ON THIS SHEET

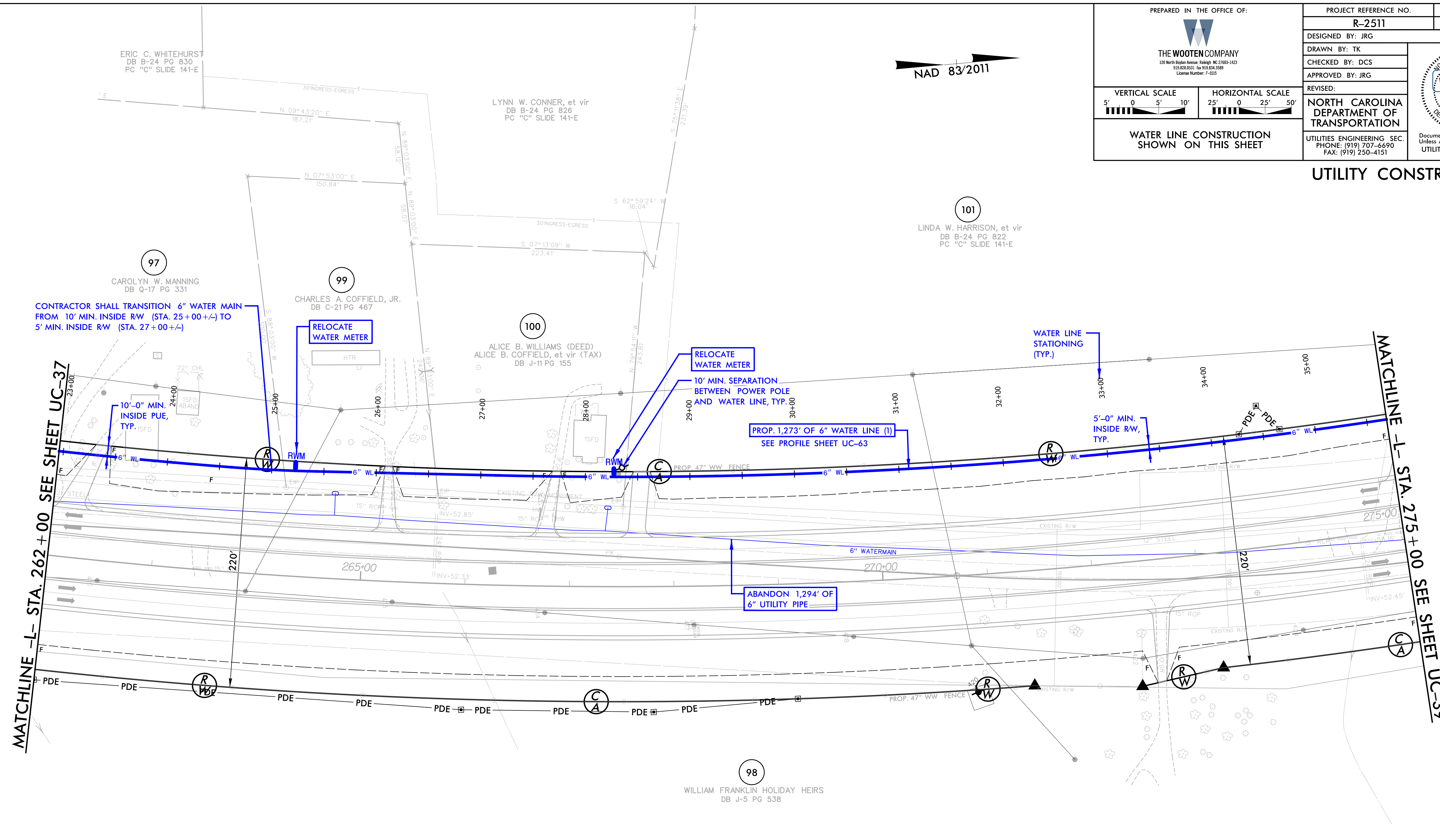
UTILITY CONSTRUCTION



NOTE:
THE ESTIMATED QUANTITY OF DUCTILE IRON WATER PIPE FITTINGS ON THIS PLAN SHEET IS 450 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.

5/14/2022

5/14/2022



CONTRACTOR SHALL TRANSITION 6" WATER MAIN FROM 10' MIN. INSIDE RW (STA. 25+00 +/-) TO 5' MIN. INSIDE RW (STA. 27+00 +/-)

RELOCATE WATER METER

RELOCATE WATER METER

10' MIN. SEPARATION BETWEEN POWER POLE AND WATER LINE, TYP.

PROP. 1,273' OF 6" WATER LINE (1) SEE PROFILE SHEET UC-63

ABANDON 1,294' OF 6" UTILITY PIPE

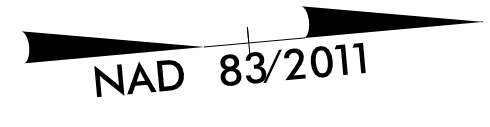
WATER LINE STATIONING (TYP.)

5'-0" MIN. INSIDE RW, TYP.

MATCHLINE -L- STA. 262+00 SEE SHEET UC-37


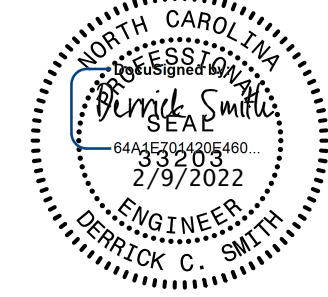
MATCHLINE -L- STA. 275+00 SEE SHEET UC-39

PREPARED IN THE OFFICE OF: THE WOOTEN COMPANY <small>120 North Roper Avenue Raleigh, NC 27603-1423 919.878.0311 Fax: 919.878.2109 License Number: F-0115</small>	PROJECT REFERENCE NO. R-2511	SHEET NO. UC-38
	DESIGNED BY: JRG DRAWN BY: TK CHECKED BY: DCS APPROVED BY: JRG REVISED: NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	
VERTICAL SCALE HORIZONTAL SCALE WATER LINE CONSTRUCTION SHOWN ON THIS SHEET	 Document Not Considered Final Unless All Signatures Completed UTILITY CONSTRUCTION PLANS ONLY	

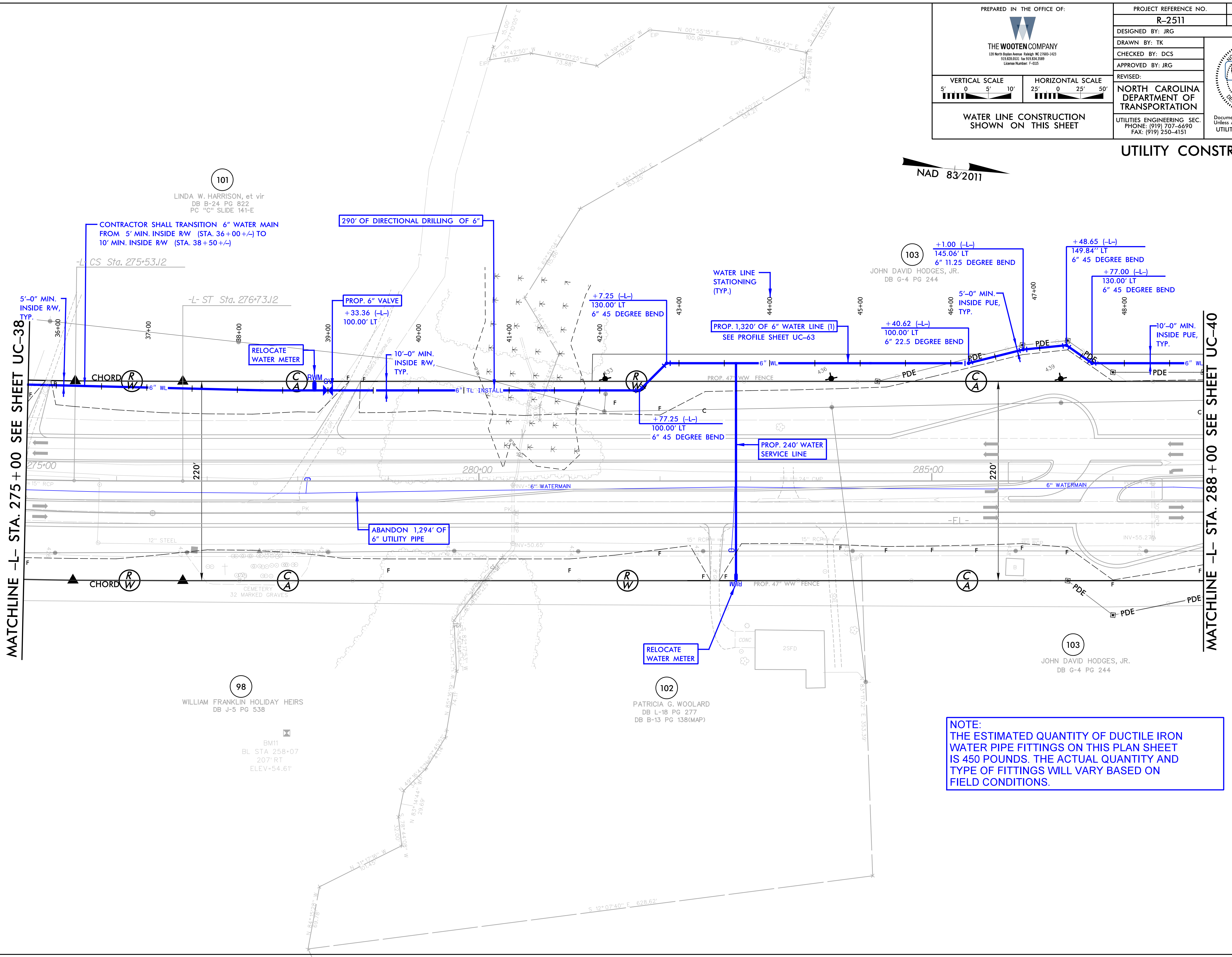
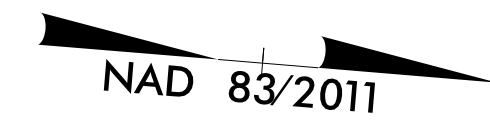


NOTE:
 THE ESTIMATED QUANTITY OF DUCTILE IRON WATER PIPE FITTINGS ON THIS PLAN SHEET IS 0 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.

5/14/99

PREPARED IN THE OFFICE OF:  THE WOOTEN COMPANY <small>120 North Roper Avenue Raleigh, NC 27603-1423 919.876.0311 Fax 919.876.3169 License Number: F-0115</small>	PROJECT REFERENCE NO.	SHEET NO.
	R-2511	UC-39
	DESIGNED BY: JRG	
	DRAWN BY: TK	
	CHECKED BY: DCS	
	APPROVED BY: JRG	
	REVIS:	
		
	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	
VERTICAL SCALE: 1" = 5' HORIZONTAL SCALE: 1" = 25'		
WATER LINE CONSTRUCTION SHOWN ON THIS SHEET		

UTILITY CONSTRUCTION



MATCHLINE -L- STA. 275 + 00 SEE SHEET UC-38

MATCHLINE -L- STA. 288 + 00 SEE SHEET UC-40

NOTE:
 THE ESTIMATED QUANTITY OF DUCTILE IRON WATER PIPE FITTINGS ON THIS PLAN SHEET IS 450 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.

5/14/2022

PREPARED IN THE OFFICE OF:



THE WOOTEN COMPANY
120 North Roper Avenue Raleigh, NC 27603-1423
919.878.0311 Fax: 919.878.3109
License Number: F-0115

PROJECT REFERENCE NO.

R-2511

SHEET NO.

UC-40

DESIGNED BY: JRG

DRAWN BY: TK

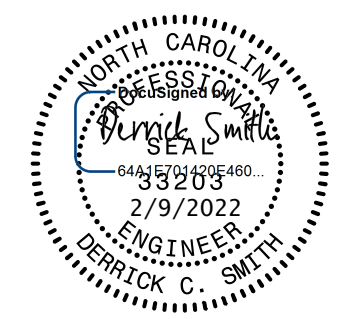
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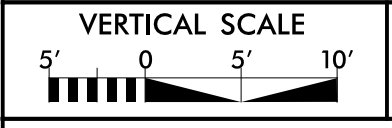
REVIS:

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

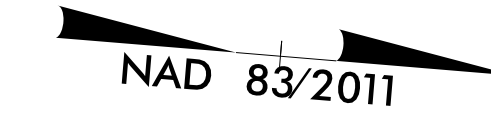
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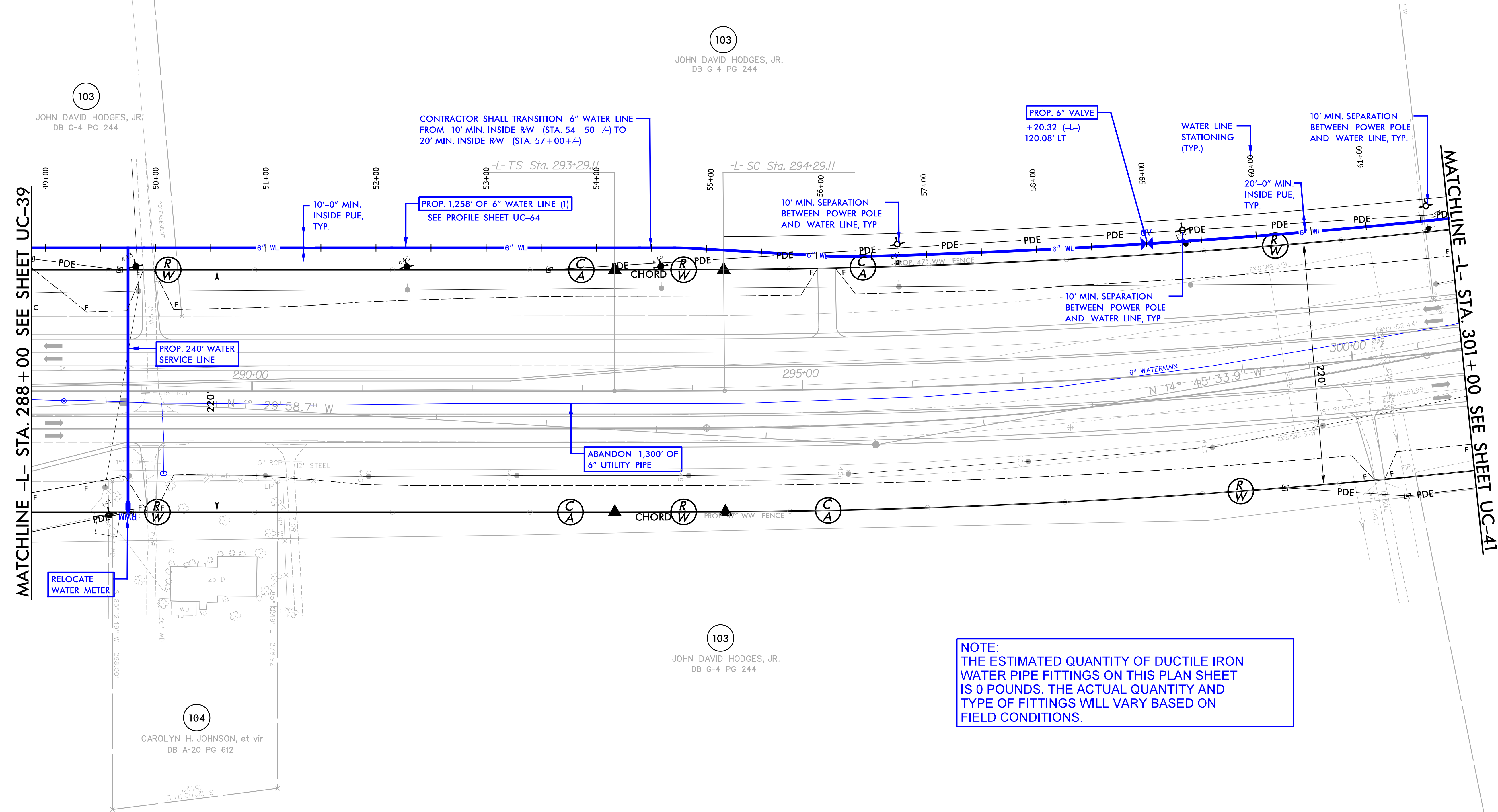
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UTILITY CONSTRUCTION
PLANS ONLY



WATER LINE CONSTRUCTION
SHOWN ON THIS SHEET



UTILITY CONSTRUCTION



NOTE:
THE ESTIMATED QUANTITY OF DUCTILE IRON WATER PIPE FITTINGS ON THIS PLAN SHEET IS 0 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.

-L-	
Pls Sta 293+95.78	Pl Sta 300+38.61
Fs = 0' 24' 33.3"	D = 9' 57' 09.2" (LT)
Ls = 100.00'	D = 0' 49' 06.6"
LT = 66.67'	L = 1,215.94'
ST = 33.33'	T = 609.50'
	R = 7,000.00'
	Se = 0.025

5/14/2022

5/14/99

PREPARED IN THE OFFICE OF:

THE WOOTEN COMPANY
120 North Roper Avenue Raleigh, NC 27603-1423
919.876.0011 Fax: 919.876.3109
License Number: F-1015

PROJECT REFERENCE NO. **R-2511** SHEET NO. **UC-41**

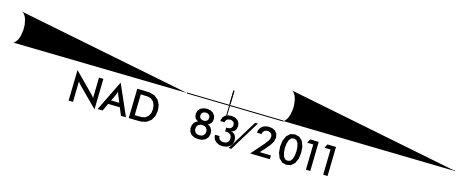
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VERTICAL SCALE 5' 0 5' 10'
HORIZONTAL SCALE 25' 0 25' 50'

WATER LINE CONSTRUCTION SHOWN ON THIS SHEET



105

BENJAMIN L. WARD, et ux et al
DB D-24 PG 690

109

LINDA W. HARRISON, et vir
PC "C" SLIDE 141-C
DB B-24 PG 815

CONTRACTOR SHALL TRANSITION 6" WATER LINE FROM 20' MIN. INSIDE RW (STA. 63+00+/-) TO 5' MIN. INSIDE RW (STA. 65+00+/-)

10' MIN. SEPARATION BETWEEN POWER POLE AND WATER LINE, TYP.

20'-0" MIN. INSIDE PUE, TYP.

+39.37 (-L)
135.00' LT
6" 45 DEGREE BEND

+69.79 (-L)
105.08' LT
6" 45 DEGREE BEND

5'-0" MIN. INSIDE PUE, TYP.

10' MIN. SEPARATION BETWEEN POWER POLE AND WATER LINE, TYP.

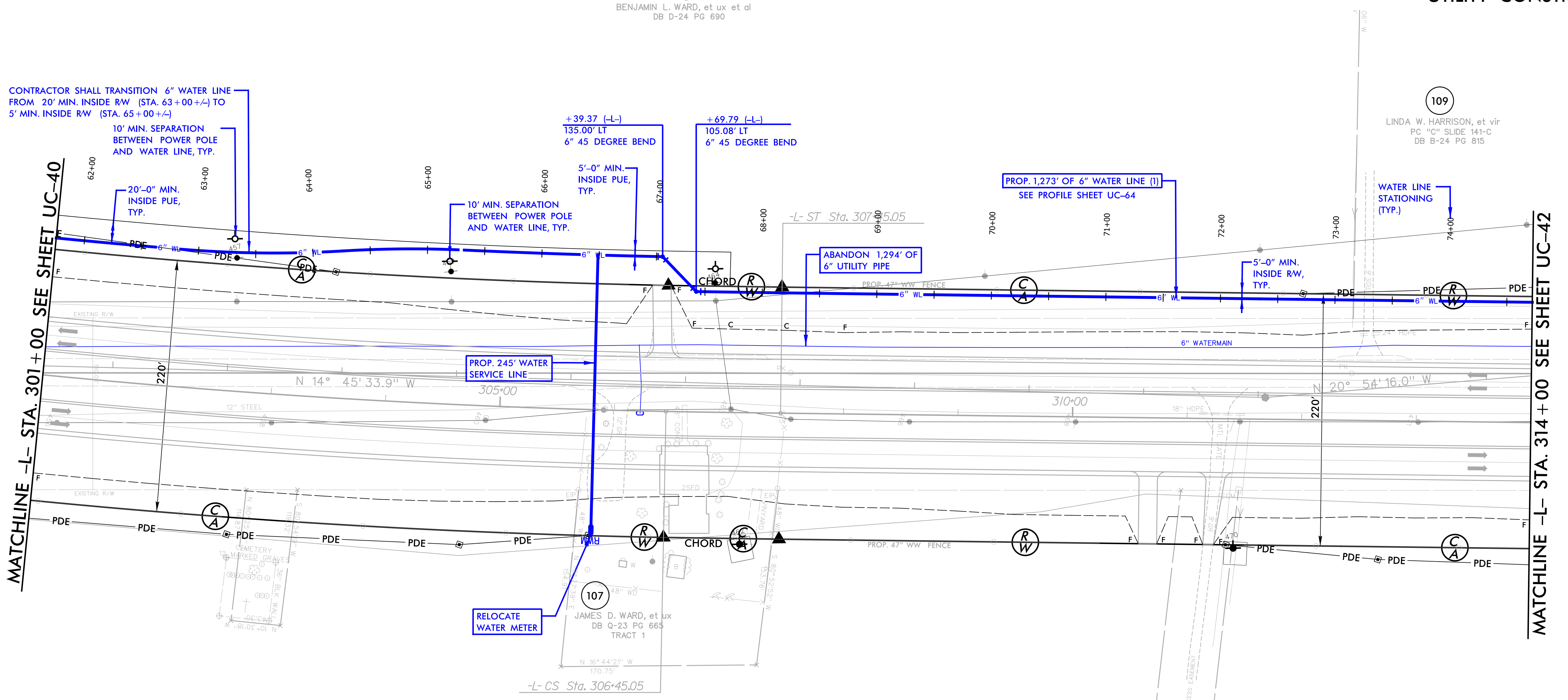
PROP. 1,273' OF 6" WATER LINE (1)
SEE PROFILE SHEET UC-64

ABANDON 1,294' OF 6" UTILITY PIPE

WATER LINE STATIONING (TYP.)

MATCHLINE -L- STA. 301+00 SEE SHEET UC-40

MATCHLINE -L- STA. 314+00 SEE SHEET UC-42



RELOCATE WATER METER

106

JAMES D. WARD, et ux
DB D-24 PG 692

NOTE:
THE ESTIMATED QUANTITY OF DUCTILE IRON WATER PIPE FITTINGS ON THIS PLAN SHEET IS 150 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.

108

BENJAMIN L. WARD
DB Q-17
PG 623

109

LINDA W. HARRISON, et vir
DB B-24 PG 815
PC "C" SLIDE 141-C

-L-

Pl Sta 300+38.61	Pls Sta 306+78.38
D = 9' 57' 09.2" (LT)	Rs = 0' 24' 33.3"
D = 0' 49' 06.6"	Ls = 100.00'
L = 1,215.94'	LT = 66.67'
T = 609.50'	ST = 33.33'
R = 7,000.00'	
Se = 0.025	

5/14/99

PREPARED IN THE OFFICE OF:

THE WOOTEN COMPANY
120 North Roper Avenue Raleigh, NC 27603-1423
919.876.0311 Fax: 919.876.3169
License Number: F-0115

PROJECT REFERENCE NO. **R-2511** SHEET NO. **UC-42**

DESIGNED BY: JRG
DRAWN BY: TK
CHECKED BY: DCS
APPROVED BY: JRG

REVISED:

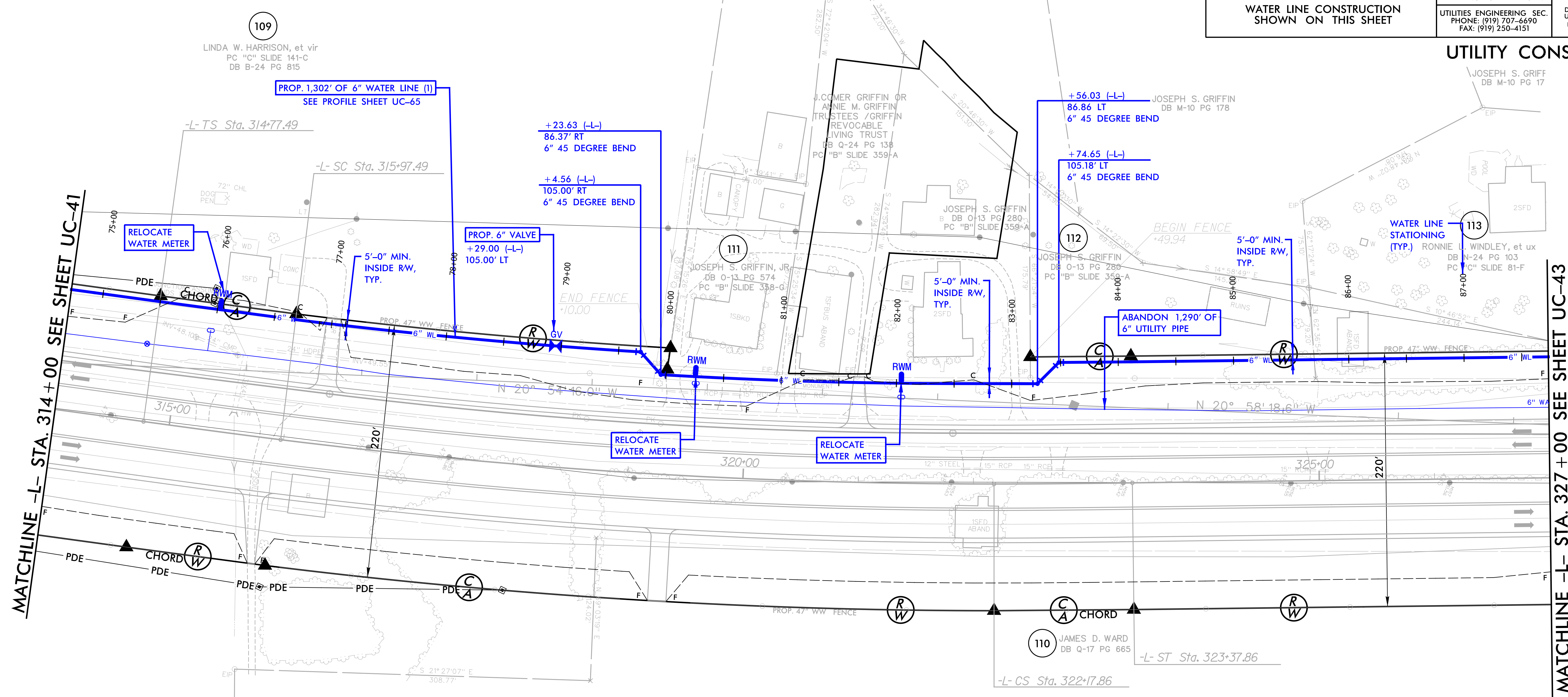
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

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

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Unless All Signatures Completed
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VERTICAL SCALE: 5' 0 5' 10'
HORIZONTAL SCALE: 25' 0 25' 50'

WATER LINE CONSTRUCTION SHOWN ON THIS SHEET



MATCHLINE -L- STA. 314+00 SEE SHEET UC-41

MATCHLINE -L- STA. 327+00 SEE SHEET UC-43

109
LINDA W. HARRISON, et vir
PC "C" SLIDE 141-C
DB B-24 PG 815

JOSEPH S. GRIFFIN
DB O-13 PG 280
PC "B" SLIDE 359-A



+56.03 (-L)
86.86 LT
6" 45 DEGREE BEND

+74.65 (-L)
105.18' LT
6" 45 DEGREE BEND

+23.63 (-L)
86.37' RT
6" 45 DEGREE BEND

+4.56 (-L)
105.00' RT
6" 45 DEGREE BEND

PROP. 6" VALVE
+29.00 (-L)
105.00' LT

RELOCATE
WATER METER

5'-0" MIN.
INSIDE RW,
TYP.

RELOCATE
WATER METER

RELOCATE
WATER METER

ABANDON 1,290' OF
6" UTILITY PIPE

5'-0" MIN.
INSIDE RW,
TYP.

WATER LINE
STATIONING
(TYP.)

109
LINDA W. HARRISON, et vir
DB B-24 PG 815
PC "C" SLIDE 141-C

110
JAMES D. WARD
DB Q-17 PG 665

NOTE:
THE ESTIMATED QUANTITY OF DUCTILE IRON
WATER PIPE FITTINGS ON THIS PLAN SHEET
IS 300 POUNDS. THE ACTUAL QUANTITY AND
TYPE OF FITTINGS WILL VARY BASED ON
FIELD CONDITIONS.

-L-		
Pls Sta 315+57.49	Pl Sta 319+08.08	Pls Sta 322+57.86
Fs = 0' 4' 15.2"	D = 7' 06' 32.2" (LT)	Fs = 0' 4' 15.2"
Ls = 120.00'	D = 1' 08' 45.3"	Ls = 120.00'
LT = 80.00'	L = 620.37'	LT = 80.00'
ST = 40.00'	T = 310.59'	ST = 40.00'
	R = 5,000.00'	
	Se = 0.03	

5/14/2022

PREPARED IN THE OFFICE OF:



THE WOOTEN COMPANY
120 North Beulah Avenue Raleigh, NC 27603-1423
919.876.0311 Fax: 919.876.3169
License Number: F-0115

PROJECT REFERENCE NO.

R-2511

SHEET NO.

UC-43

DESIGNED BY: JRG

DRAWN BY: TK

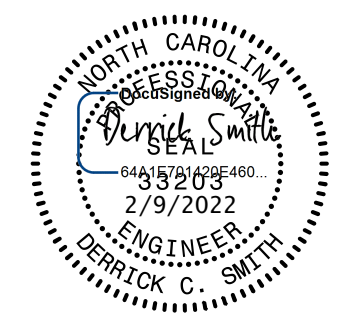
CHECKED BY: DCS

APPROVED BY: JRG

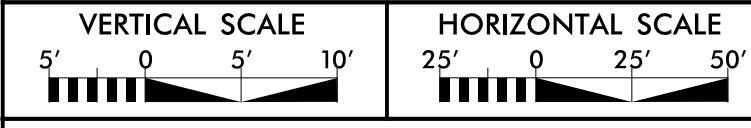
REVISED:

NORTH CAROLINA
DEPARTMENT OF
TRANSPORTATION

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

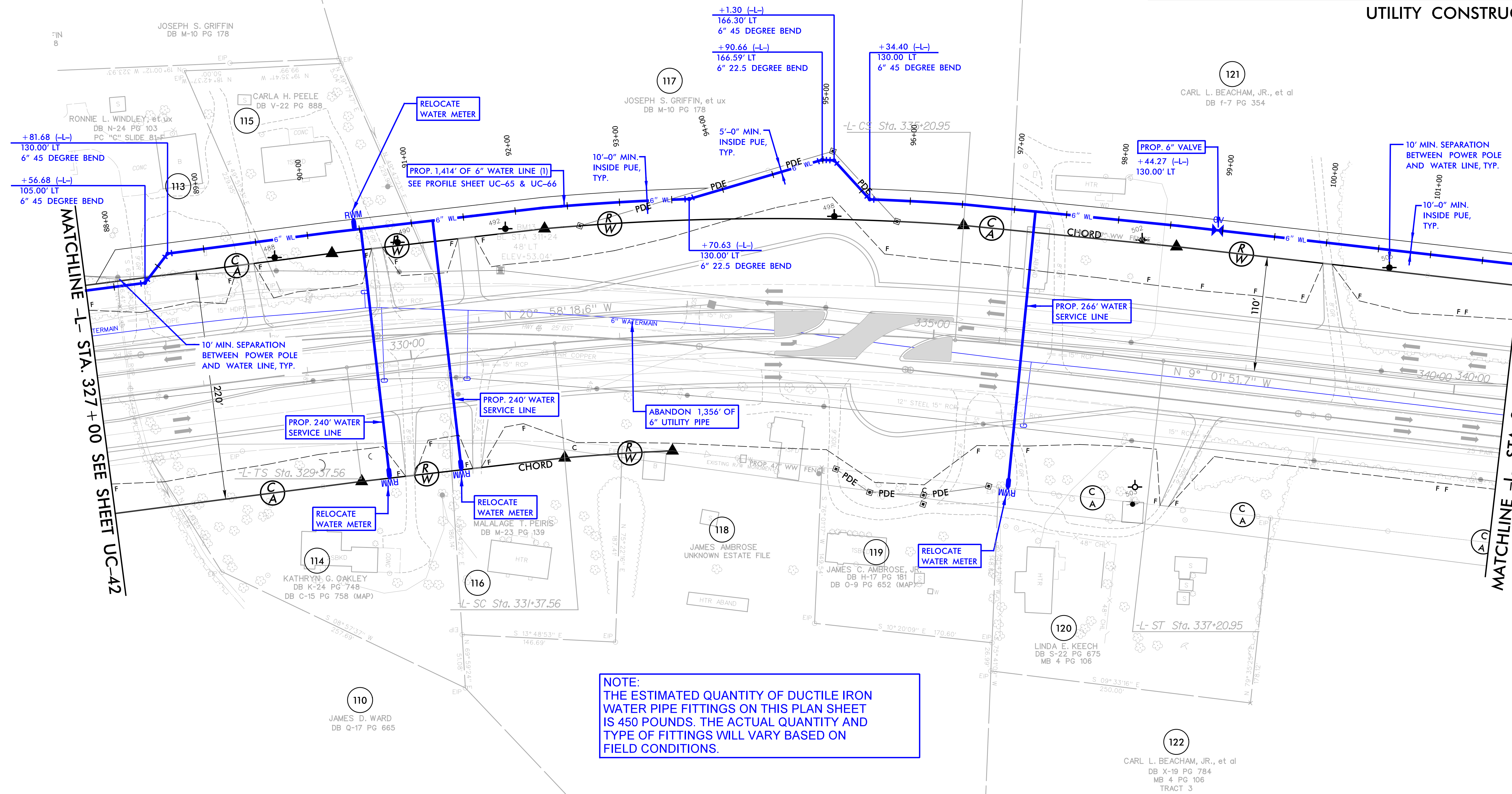


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PLANS ONLY



WATER LINE CONSTRUCTION
SHOWN ON THIS SHEET

UTILITY CONSTRUCTION



NOTE:
THE ESTIMATED QUANTITY OF DUCTILE IRON
WATER PIPE FITTINGS ON THIS PLAN SHEET
IS 450 POUNDS. THE ACTUAL QUANTITY AND
TYPE OF FITTINGS WILL VARY BASED ON
FIELD CONDITIONS.

-L-		
Pls Sta 330+70.91	Pl Sta 333+29.66	Pls Sta 335+87.62
Fs = 2' 23' 14.4"	D = 9' 09' 09.2" (RT)	Fs = 2' 23' 14.4"
Ls = 200.00'	D = 2' 23' 14.4"	Ls = 200.00'
LT = 133.35'	L = 383.38'	LT = 133.35'
ST = 66.68'	T = 192.10'	ST = 66.68'
	R = 2,400.00'	
	Se = 0.05	

MATCHLINE -L- STA. 327 + 00 SEE SHEET UC-42

MATCHLINE -L- STA. 340 + 50 SEE SHEET UC-44

NAD 83/2011

PREPARED IN THE OFFICE OF:



THE WOOTEN COMPANY
120 North Roper Avenue Raleigh, NC 27603-1423
919.878.0331 Fax 919.878.3189
License Number: F-0115

PROJECT REFERENCE NO.

R-2511

SHEET NO.

UC-44

DESIGNED BY: JRG

DRAWN BY: TK

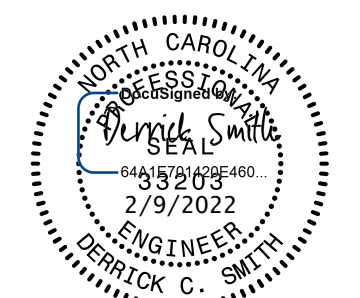
CHECKED BY: DCS

APPROVED BY: JRG

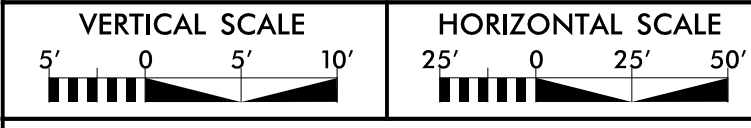
REVISED:

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

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

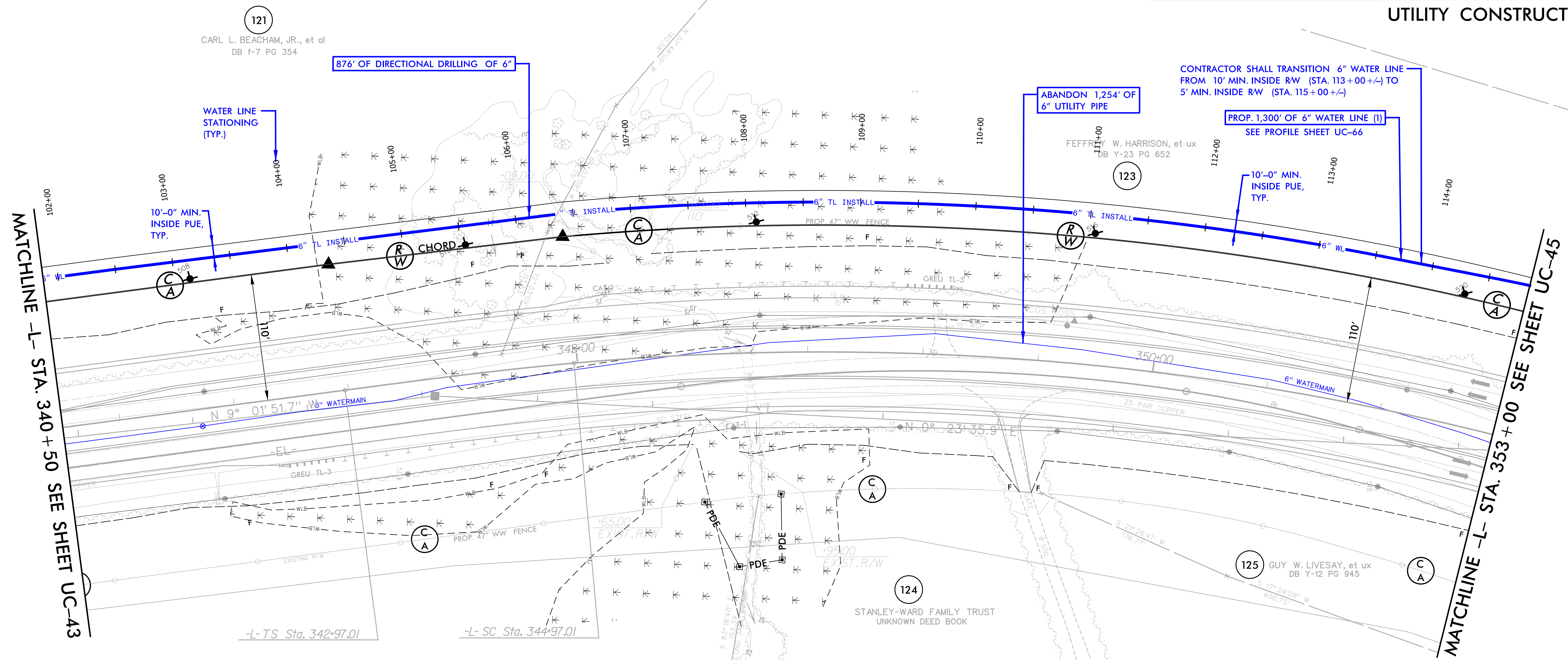


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WATER LINE CONSTRUCTION
SHOWN ON THIS SHEET

UTILITY CONSTRUCTION



121
CARL L. BEACHAM, JR., et al
DB f-7 PG 354

123
FEFFER W. HARRISON, et ux
DB Y-23 PG 652

125
GUY W. LIVESAY, et ux
DB Y-12 PG 945

124
STANLEY-WARD FAMILY TRUST
UNKNOWN DEED BOOK

122
CARL L. BEACHAM, JR., et al
DB X-19 PG 784
MB 4 PG 106
TRACT 3

NOTE:
THE ESTIMATED QUANTITY OF DUCTILE IRON
WATER PIPE FITTINGS ON THIS PLAN SHEET
IS 0 POUNDS. THE ACTUAL QUANTITY AND
TYPE OF FITTINGS WILL VARY BASED ON
FIELD CONDITIONS.

MATCHLINE -L- STA. 340 + 50 SEE SHEET UC-43

MATCHLINE -L- STA. 353 + 00 SEE SHEET UC-45

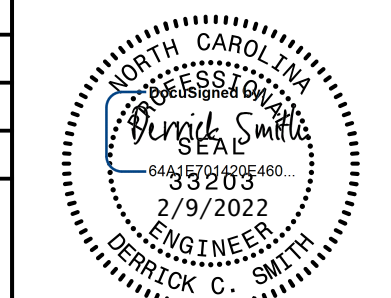
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PREPARED IN THE OFFICE OF:

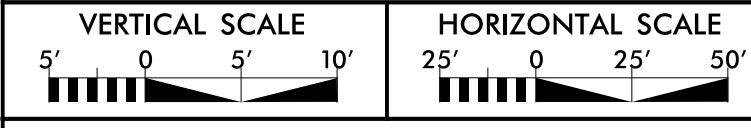


PROJECT REFERENCE NO. R-2511 SHEET NO. UC-46

DESIGNED BY: JRG
DRAWN BY: TK
CHECKED BY: DCS
APPROVED BY: JRG
REVISED:
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151

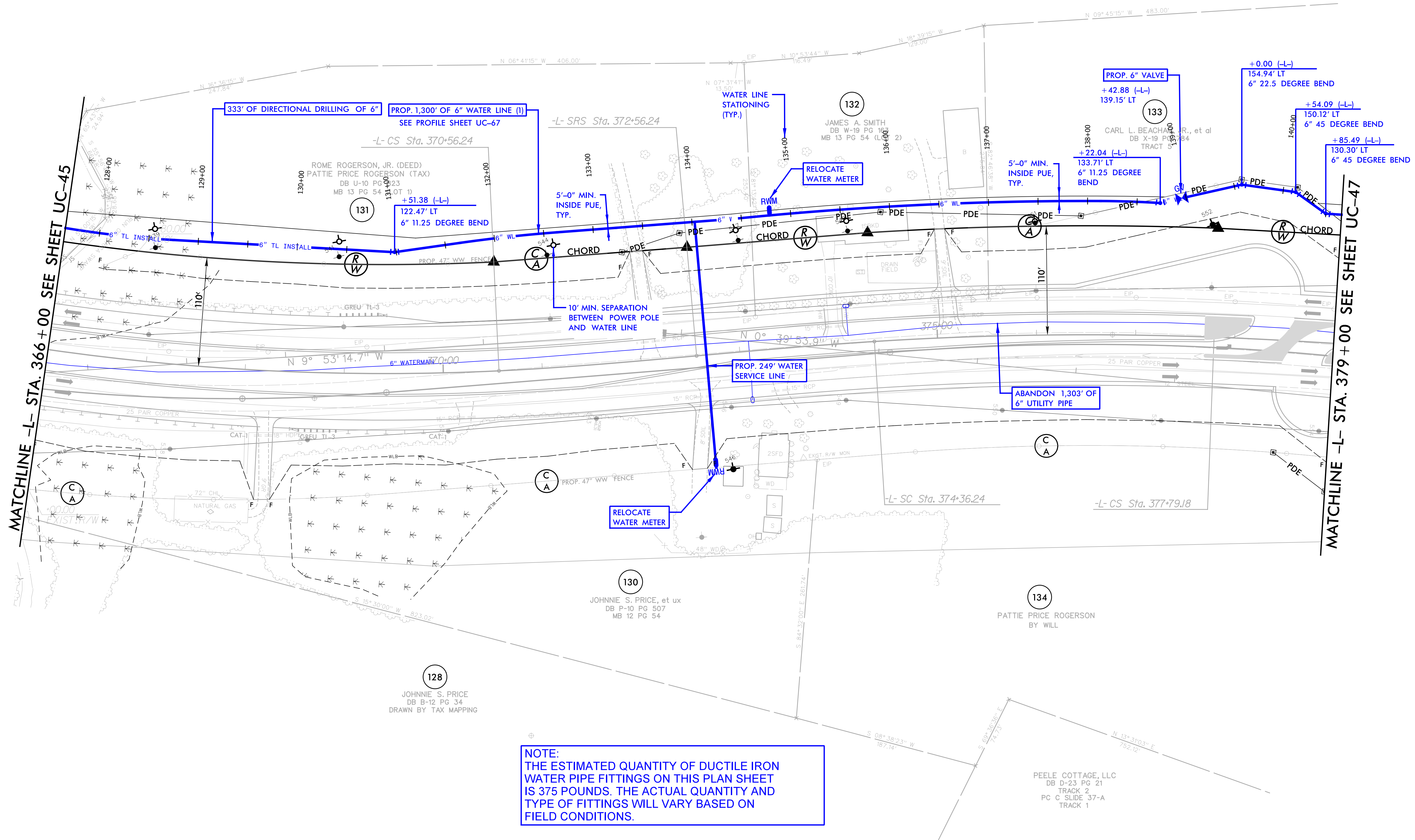
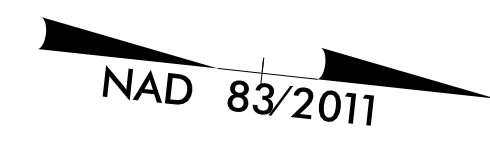


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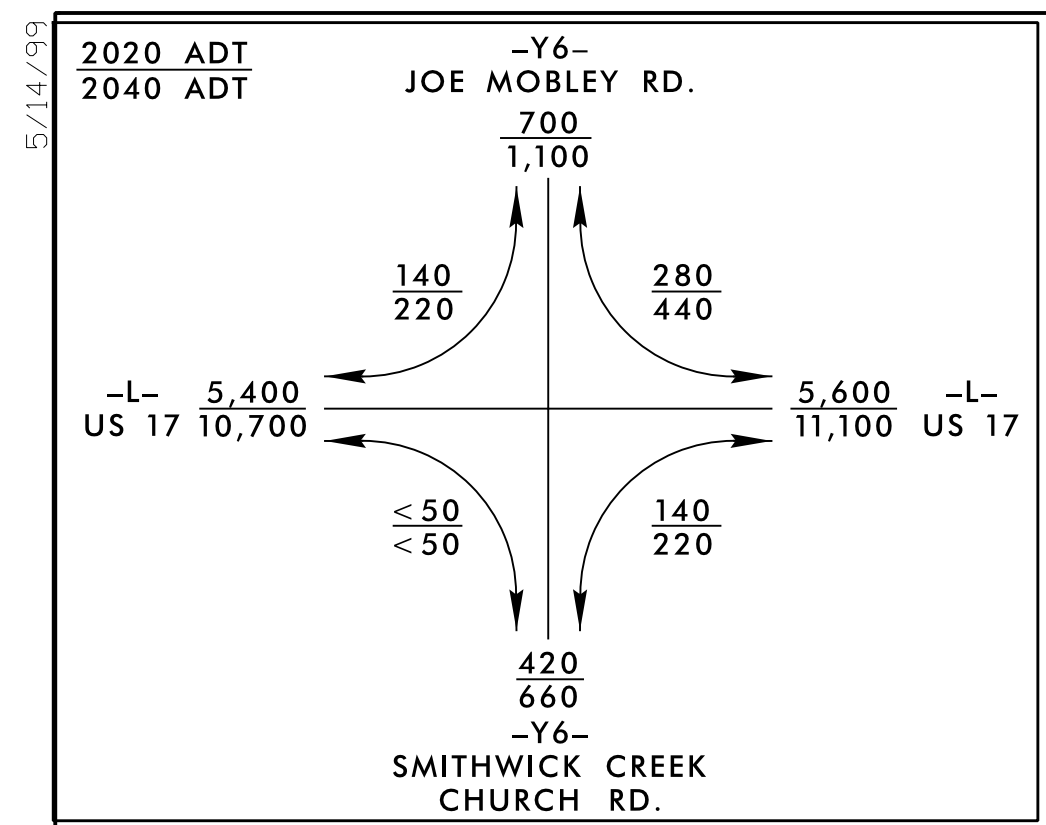


WATER LINE CONSTRUCTION SHOWN ON THIS SHEET

UTILITY CONSTRUCTION



NOTE:
 THE ESTIMATED QUANTITY OF DUCTILE IRON WATER PIPE FITTINGS ON THIS PLAN SHEET IS 375 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.



CARL L. BEACHAM, JR., et al
DB X-19 PG 784
MB 4 PG 106
TRACT 2

PREPARED IN THE OFFICE OF:

THE WOOTEN COMPANY
120 North Roper Avenue Raleigh, NC 27603-1423
919.876.0311 Fax: 919.876.3109
License Number: F-0115

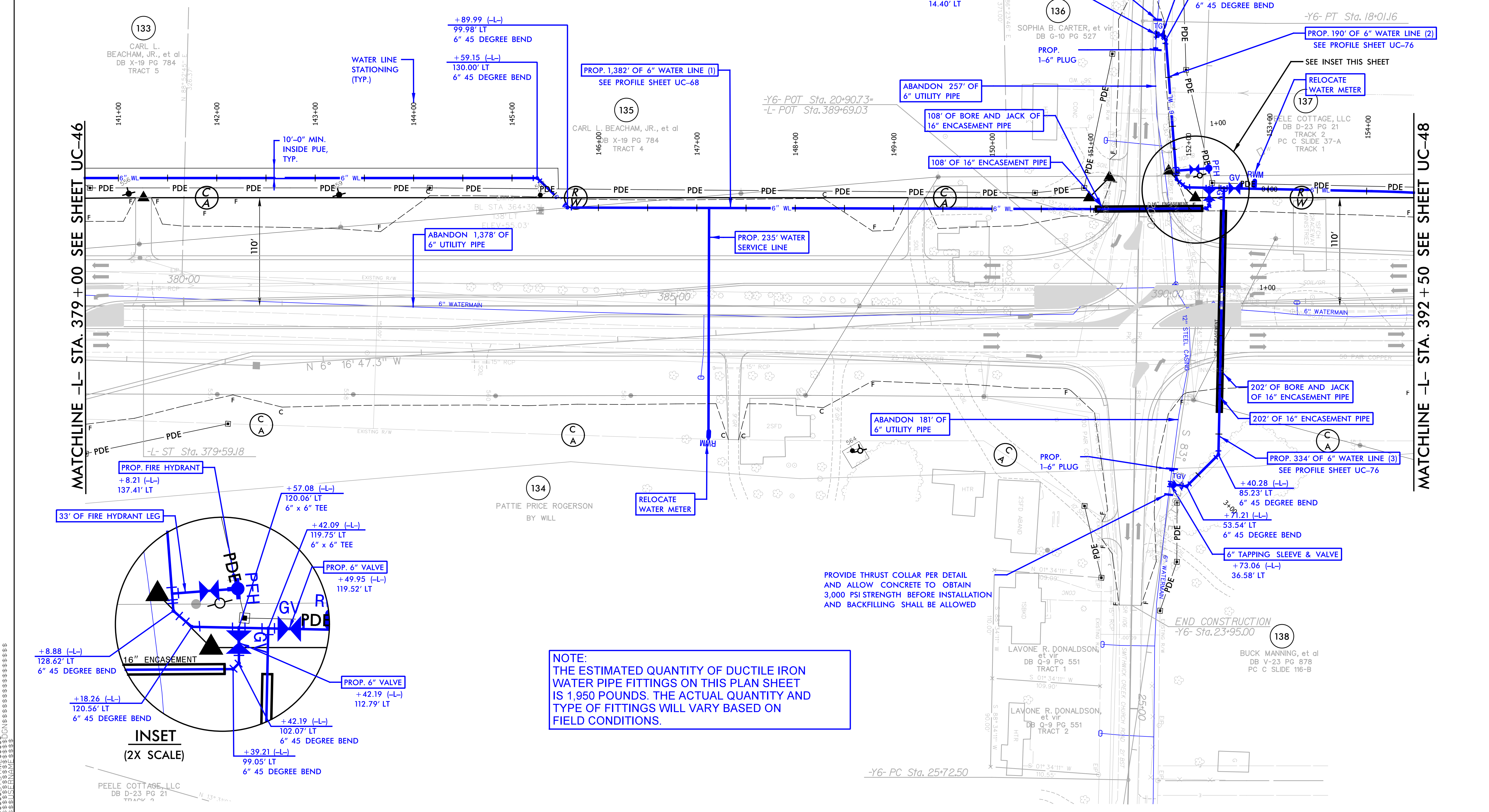
PROJECT REFERENCE NO. R-2511	SHEET NO. UC-47
DESIGNED BY: JRG	
DRAWN BY: TK	
CHECKED BY: DCS	
APPROVED BY: JRG	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151
REVISED:	

VERTICAL SCALE
0 5' 10'

HORIZONTAL SCALE
25' 0 25' 50'

WATER LINE CONSTRUCTION SHOWN ON THIS SHEET

UTILITY CONSTRUCTION



INSET
(2X SCALE)

PEELE COTTAGE, LLC
DB D-23 PG 21

PREPARED IN THE OFFICE OF:



THE WOOTEN COMPANY
120 North Roper Avenue Raleigh, NC 27603-1423
919.876.0311 Fax 919.876.3169
License Number: F-0115

PROJECT REFERENCE NO.
R-2511

SHEET NO.
UC-48

DESIGNED BY: JRG

DRAWN BY: TK

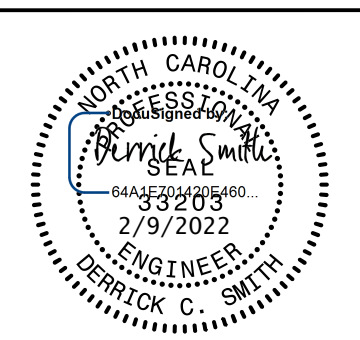
CHECKED BY: DCS

APPROVED BY: JRG

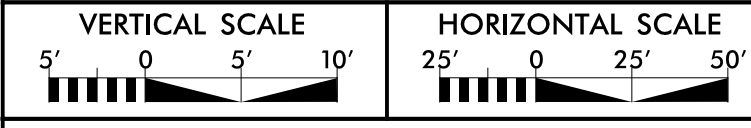
REVISED:

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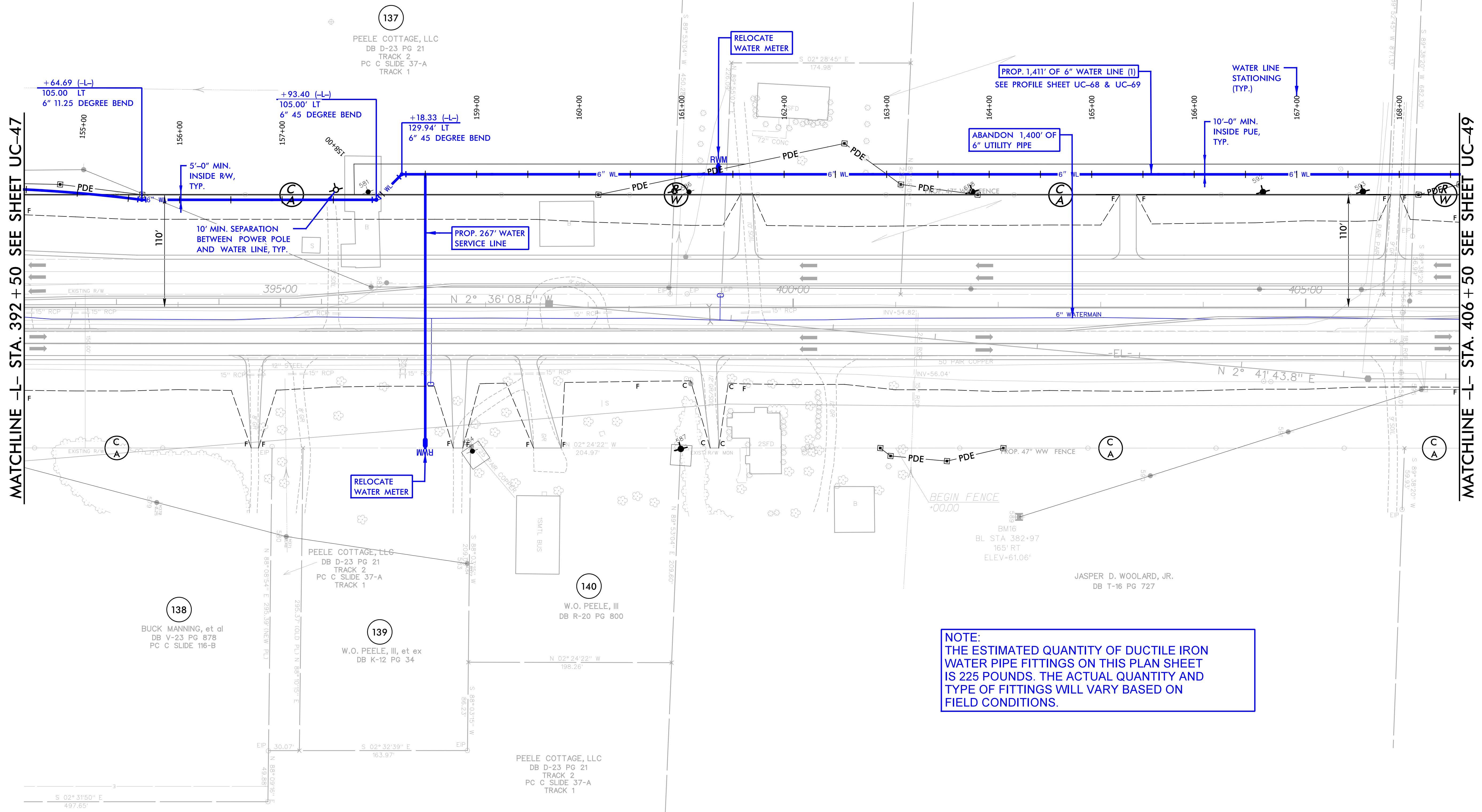


WATER LINE CONSTRUCTION
SHOWN ON THIS SHEET

NAD 83/2011

JOSEPH E. RE
JACKIE M. REVELS (MAP)
DB B-24 PG 228 (DEED OF TRUST)
PC C SLIDE 140-D

UTILITY CONSTRUCTION



MATCHLINE -L- STA. 392 + 50 SEE SHEET UC-47

MATCHLINE -L- STA. 406 + 50 SEE SHEET UC-49

NOTE:
THE ESTIMATED QUANTITY OF DUCTILE IRON
WATER PIPE FITTINGS ON THIS PLAN SHEET
IS 225 POUNDS. THE ACTUAL QUANTITY AND
TYPE OF FITTINGS WILL VARY BASED ON
FIELD CONDITIONS.

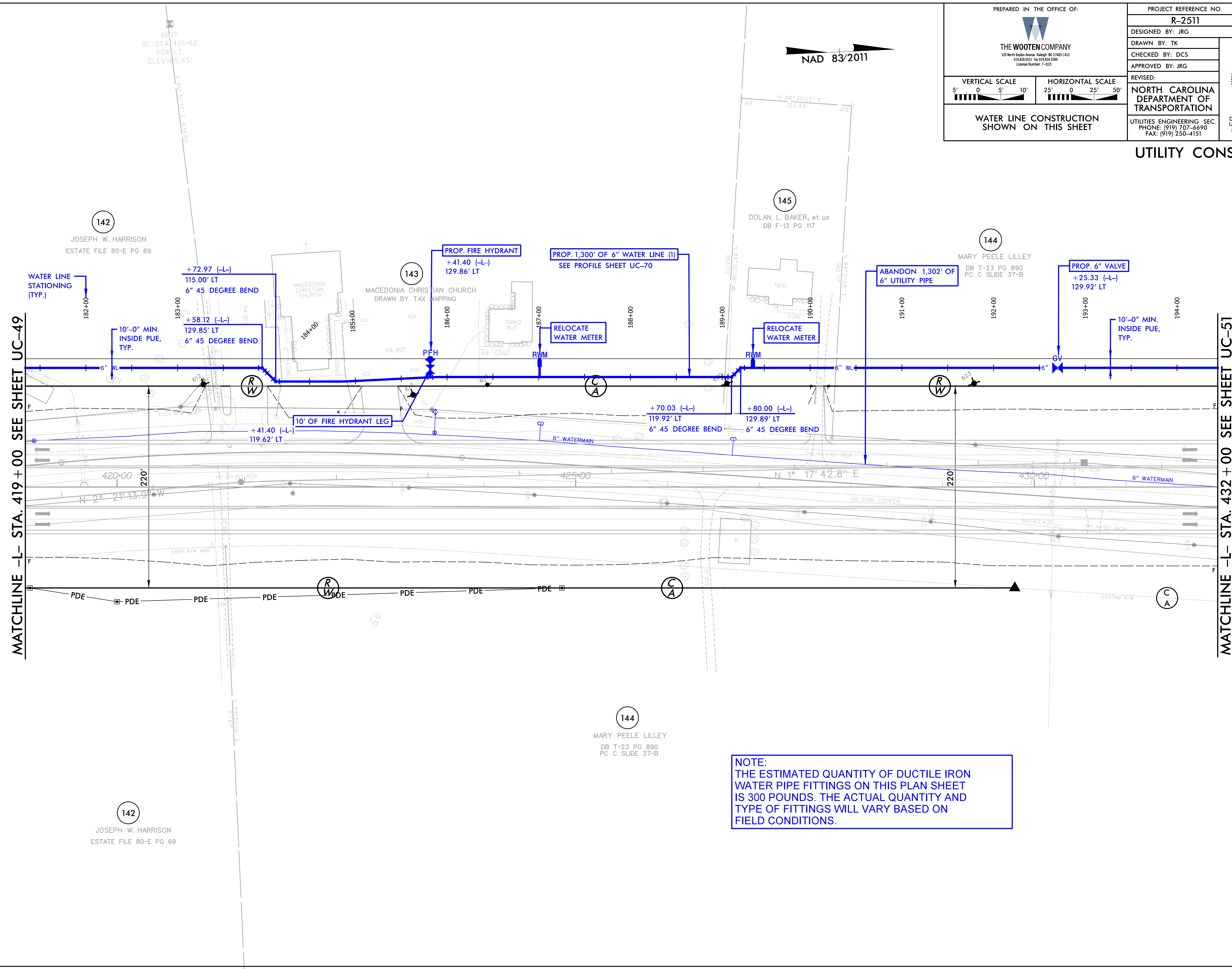
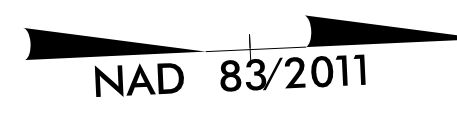
S 02° 31' 50" E
497.65'
30' MAINTENANCE EASEMENT 15' EACH SIDE OF PL.

5/14/99

5/14/99

PREPARED IN THE OFFICE OF: THE WOOTEN COMPANY <small>120 North Roper Avenue Raleigh, NC 27603-1423 919.878.0331 fax 919.878.3189 License Number: F-0115</small>	PROJECT REFERENCE NO.	SHEET NO.
	R-2511	UC-50
DESIGNED BY: JRG		
DRAWN BY: TK		
CHECKED BY: DCS		
APPROVED BY: JRG		
REVISED:	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	
WATER LINE CONSTRUCTION SHOWN ON THIS SHEET		

UTILITY CONSTRUCTION



MATCHLINE -L- STA. 419 + 00 SEE SHEET UC-49

MATCHLINE -L- STA. 432 + 00 SEE SHEET UC-51

NOTE:
 THE ESTIMATED QUANTITY OF DUCTILE IRON WATER PIPE FITTINGS ON THIS PLAN SHEET IS 300 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.

5/14/99
 142
 JOSEPH W. HARRISON
 ESTATE FILE 80-E PG 69

142
 JOSEPH W. HARRISON
 ESTATE FILE 80-E PG 69

144
 MARY PEELE LILLEY
 DB T-23 PG 890
 PC C SLIDE 37-B

5/14/2022

NAD 83/2011

PREPARED IN THE OFFICE OF:



THE WOOTEN COMPANY
120 North Roper Avenue Raleigh, NC 27603-1423
919.428.0311 Fax: 919.834.3109
License Number: F-0115

PROJECT REFERENCE NO.

R-2511

SHEET NO.

UC-51

DESIGNED BY: JRG

DRAWN BY: TK

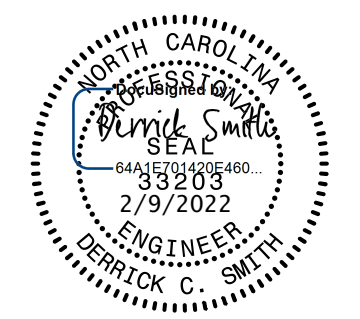
CHECKED BY: DCS

APPROVED BY: JRG

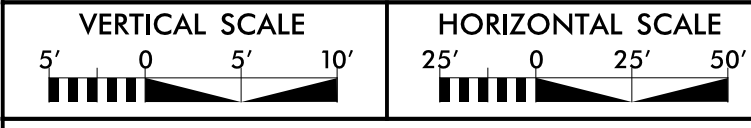
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UTILITIES ENGINEERING SEC.
PHONE: (919) 707-6690
FAX: (919) 250-4151

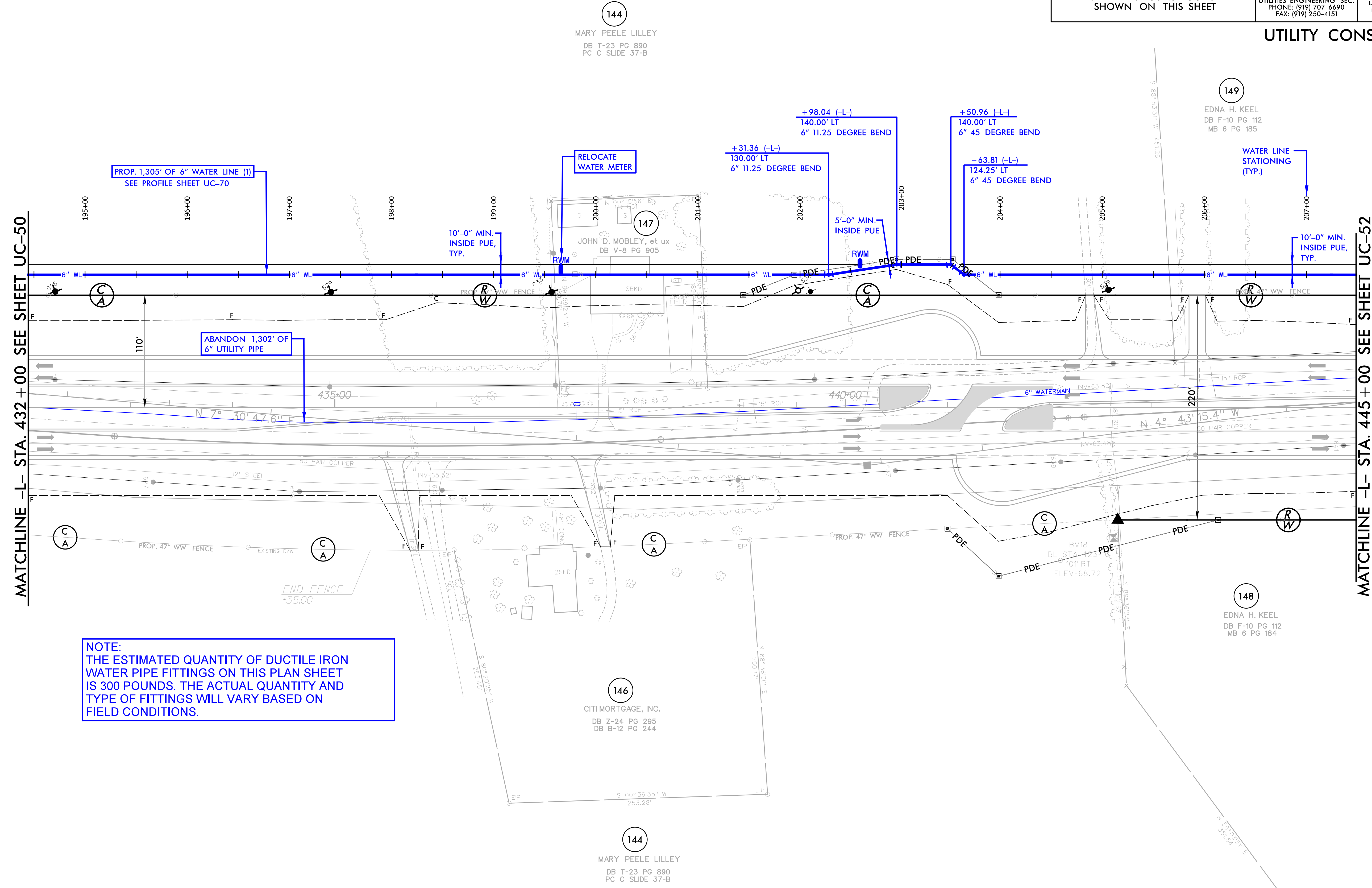


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WATER LINE CONSTRUCTION
SHOWN ON THIS SHEET

UTILITY CONSTRUCTION

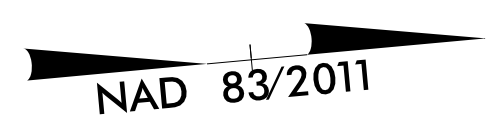


MATCHLINE -L- STA. 432 + 00 SEE SHEET UC-50

MATCHLINE -L- STA. 445 + 00 SEE SHEET UC-52

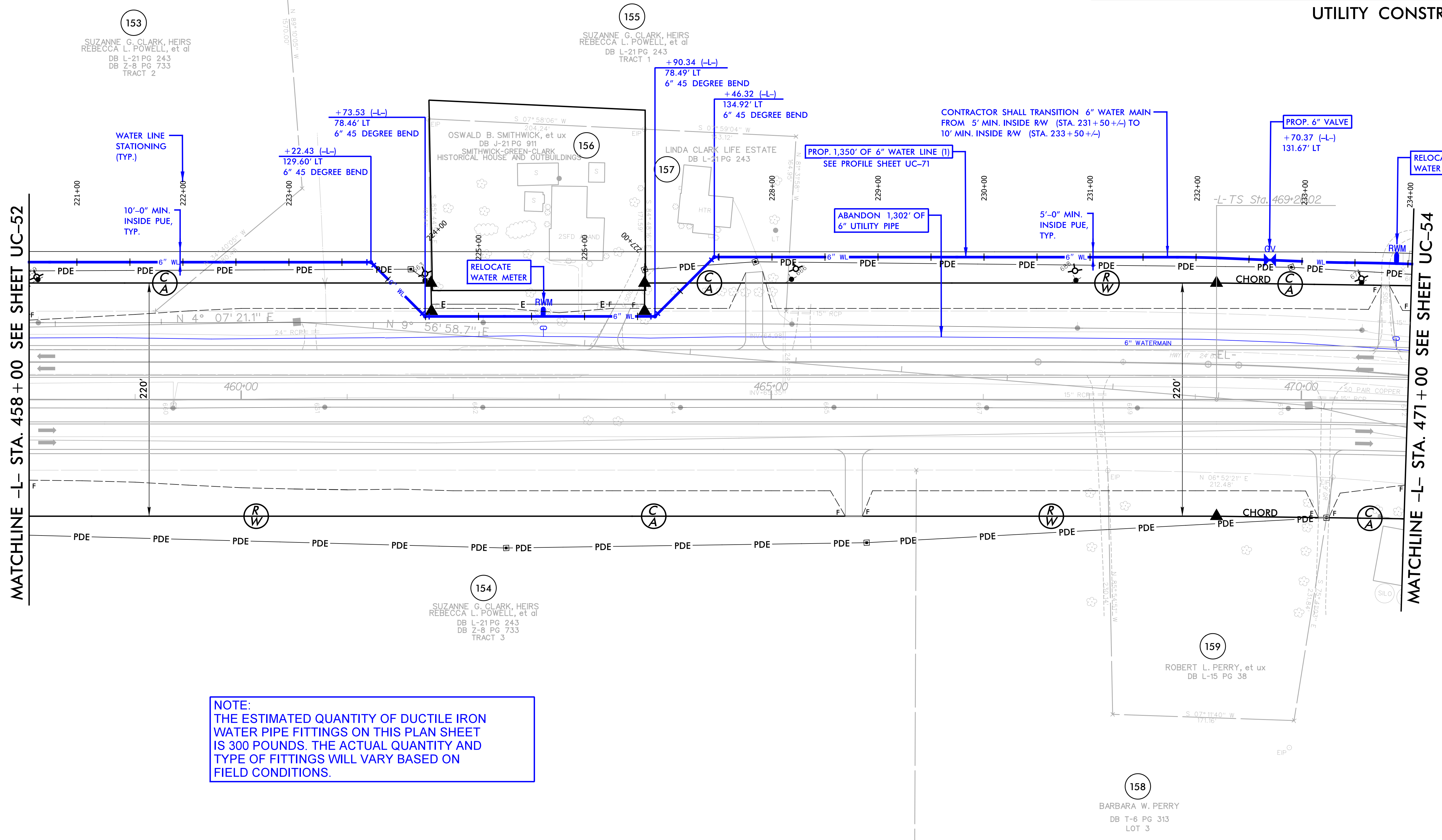
NOTE:
THE ESTIMATED QUANTITY OF DUCTILE IRON
WATER PIPE FITTINGS ON THIS PLAN SHEET
IS 300 POUNDS. THE ACTUAL QUANTITY AND
TYPE OF FITTINGS WILL VARY BASED ON
FIELD CONDITIONS.

5/14/99



PREPARED IN THE OFFICE OF: THE WOOTEN COMPANY <small>120 North Roper Avenue Raleigh, NC 27603-1423 919.876.0011 Fax 919.876.3089 License Number: F-0115</small>	PROJECT REFERENCE NO.	SHEET NO.
	R-2511	UC-53
	DESIGNED BY: JRG	
	DRAWN BY: TK	
CHECKED BY: DCS		
APPROVED BY: JRG	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	
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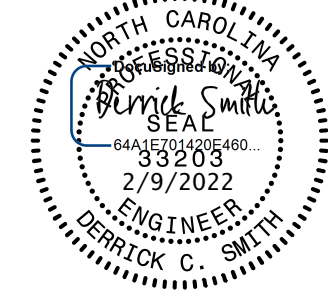
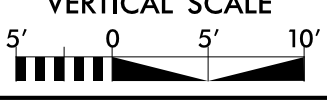
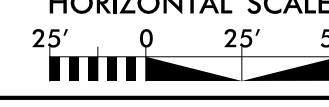
UTILITY CONSTRUCTION



MATCHLINE -L- STA. 458 + 00 SEE SHEET UC-52

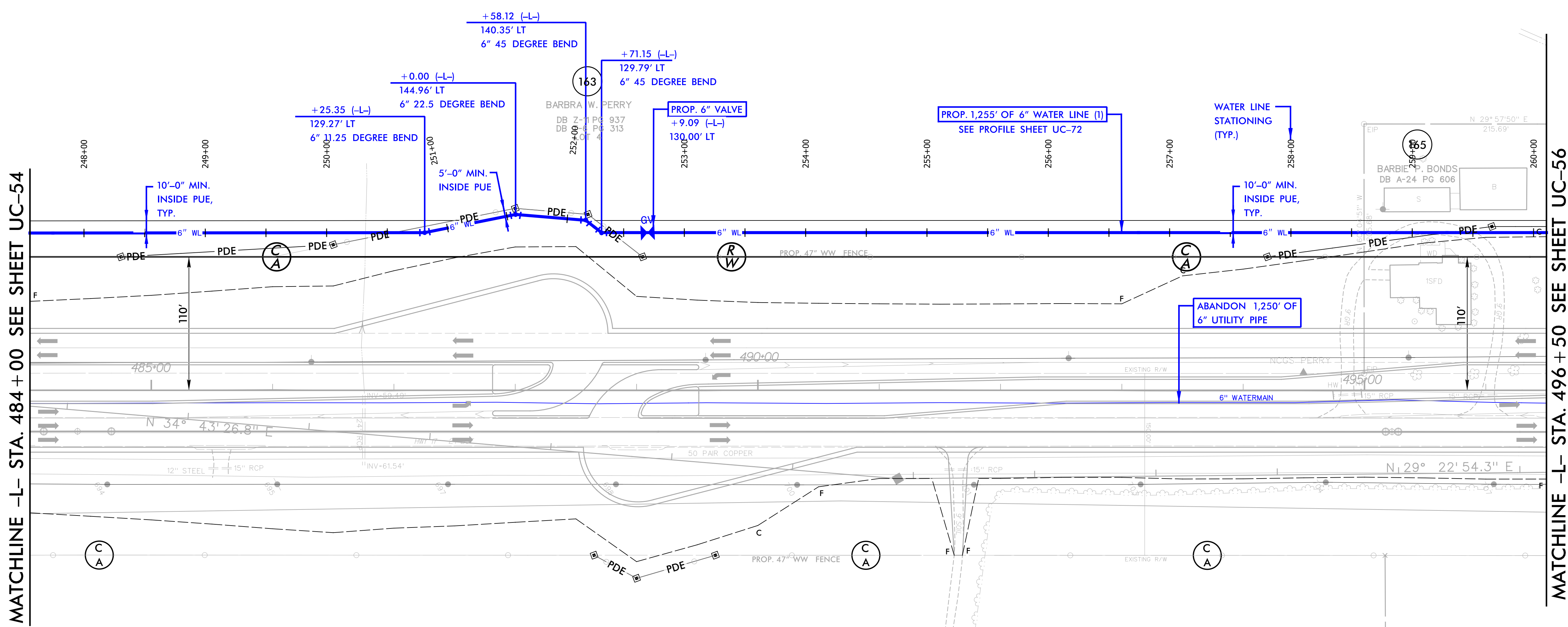
MATCHLINE -L- STA. 471 + 00 SEE SHEET UC-54

NOTE:
 THE ESTIMATED QUANTITY OF DUCTILE IRON WATER PIPE FITTINGS ON THIS PLAN SHEET IS 300 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.

PREPARED IN THE OFFICE OF:  THE WOOTEN COMPANY <small>120 North Roper Avenue Raleigh, NC 27603-1423 919.878.0331 Fax 919.878.3189 License Number: F-0115</small>	PROJECT REFERENCE NO.	SHEET NO.
	R-2511	UC-55
	DESIGNED BY: JRG	
	DRAWN BY: TK	
CHECKED BY: DCS		
APPROVED BY: JRG	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	
VERTICAL SCALE 	HORIZONTAL SCALE 	Document Not Considered Final Unless All Signatures Completed UTILITY CONSTRUCTION PLANS ONLY



UTILITY CONSTRUCTION



MATCHLINE -L- STA. 484 + 00 SEE SHEET UC-54

MATCHLINE -L- STA. 496 + 50 SEE SHEET UC-56

NOTE:
 THE ESTIMATED QUANTITY OF DUCTILE IRON WATER PIPE FITTINGS ON THIS PLAN SHEET IS 300 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.

164
 BARBRA W. PERRY
 DB B-21 PG 452
 DB T-6 PG 313
 LOT 2

166
 BARBRA W. PERRY
 DB Z-11 PG 937
 DB T-6 PG 313
 LOT 1

5/14/99

5/14/99

PREPARED IN THE OFFICE OF:



THE WOOTEN COMPANY
120 North Roper Avenue Raleigh, NC 27603-1423
919.876.0311 Fax 919.876.3169
License Number: F-0115

PROJECT REFERENCE NO.
R-2511

SHEET NO.
UC-57

DESIGNED BY: JRG

DRAWN BY: TK

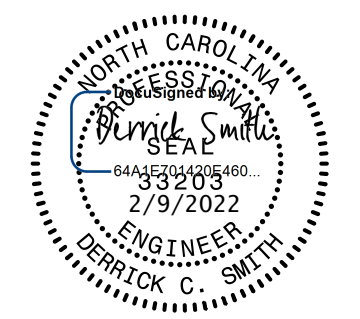
CHECKED BY: DCS

APPROVED BY: JRG

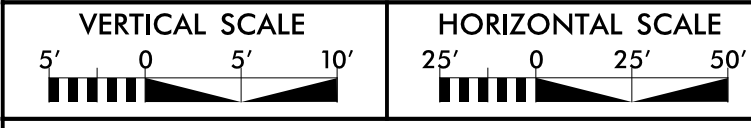
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NORTH CAROLINA
DEPARTMENT OF
TRANSPORTATION

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



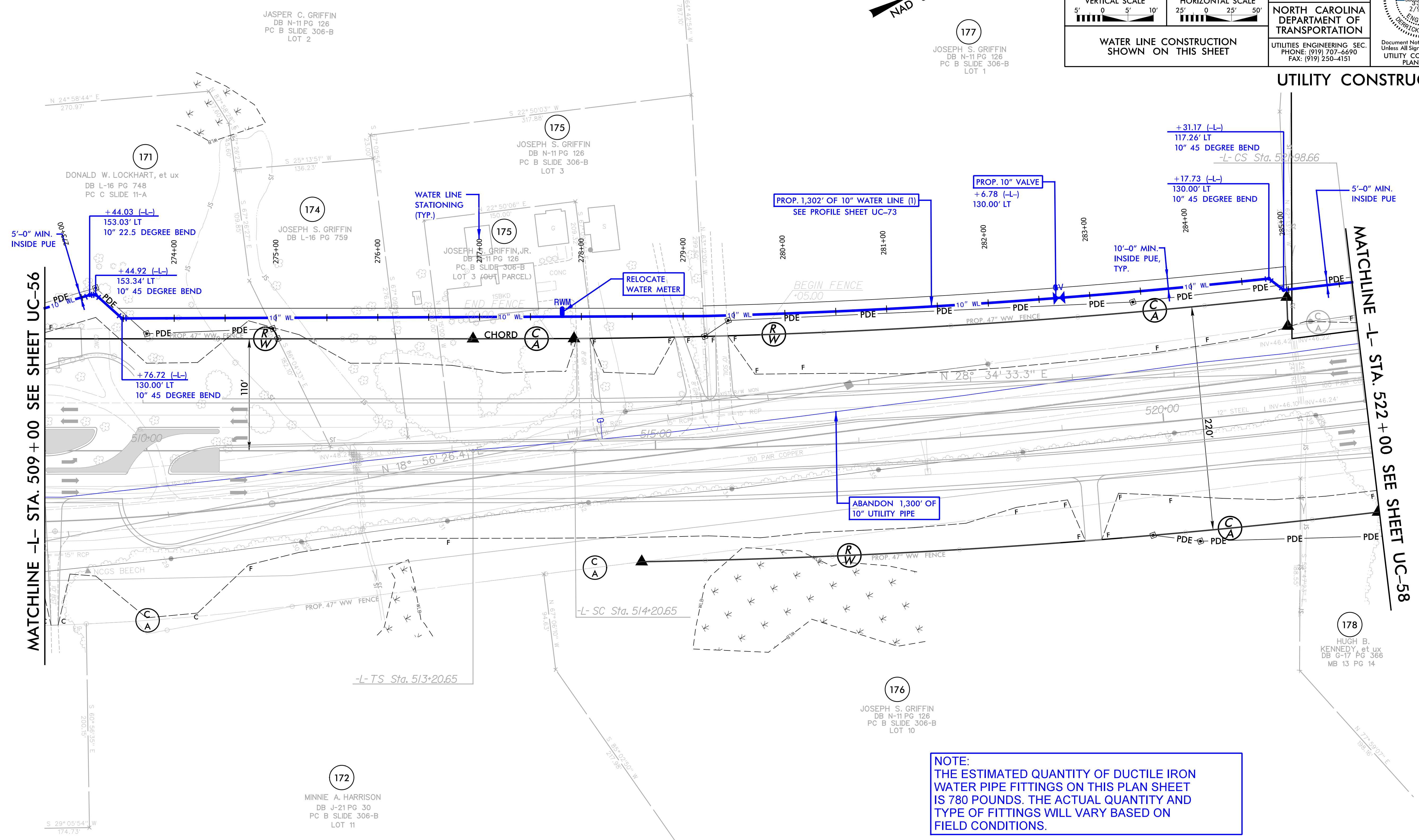
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WATER LINE CONSTRUCTION
SHOWN ON THIS SHEET



177
JOSEPH S. GRIFFIN
DB N-11 PG 126
PC B SLIDE 306-B
LOT 1



NOTE:
THE ESTIMATED QUANTITY OF DUCTILE IRON
WATER PIPE FITTINGS ON THIS PLAN SHEET
IS 780 POUNDS. THE ACTUAL QUANTITY AND
TYPE OF FITTINGS WILL VARY BASED ON
FIELD CONDITIONS.

UTILITY CONSTRUCTION

MATCHLINE -L- STA. 509+00 SEE SHEET UC-56

MATCHLINE -L- STA. 522+00 SEE SHEET UC-58

5/14/99

PREPARED IN THE OFFICE OF:



THE WOOTEN COMPANY
120 North Roper Avenue Raleigh, NC 27603-1423
919.876.0311 Fax 919.876.2109
License Number: F-0115

PROJECT REFERENCE NO.

R-2511

SHEET NO.

UC-58

DESIGNED BY: JRG

DRAWN BY: TK

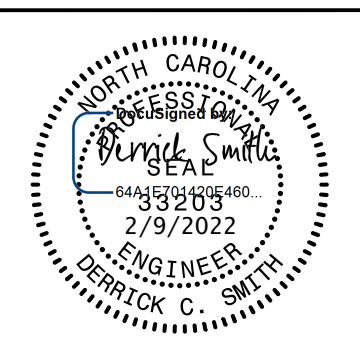
CHECKED BY: DCS

APPROVED BY: JRG

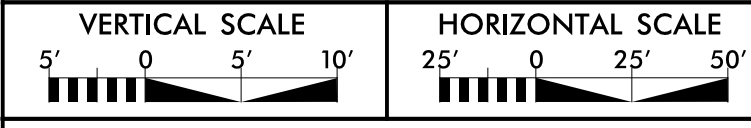
REVISED:

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

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



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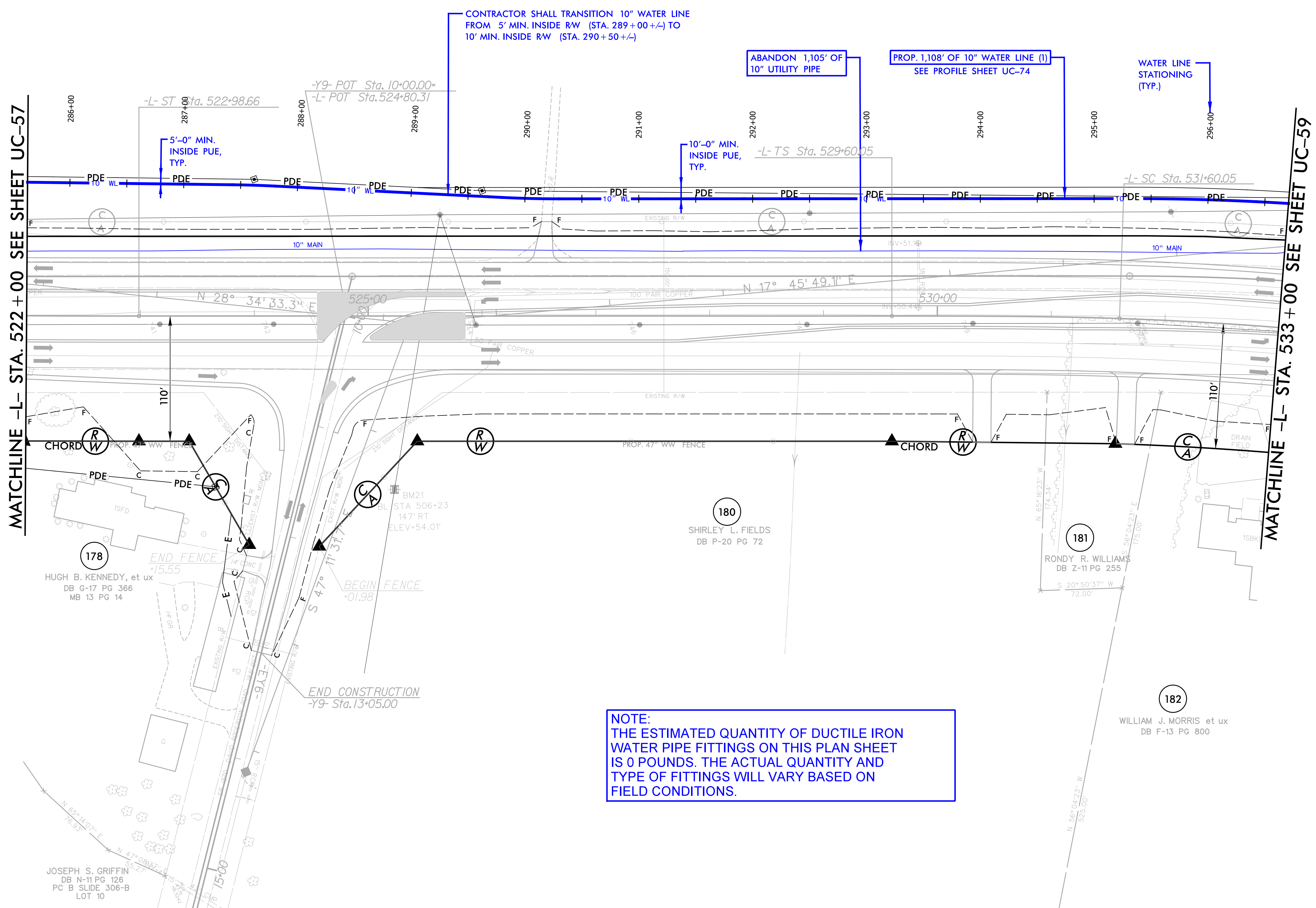
WATER LINE CONSTRUCTION
SHOWN ON THIS SHEET

UTILITY CONSTRUCTION



179

SETH & RACHEL PERRY FARMS, LLC
DB M-24 PG 284
DB T-10 PG 654
MB 13 PG 14
PARCEL 2



MATCHLINE -L- STA. 522 + 00 SEE SHEET UC-57

MATCHLINE -L- STA. 533 + 00 SEE SHEET UC-59

NOTE:
THE ESTIMATED QUANTITY OF DUCTILE IRON WATER PIPE FITTINGS ON THIS PLAN SHEET IS 0 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.

178
HUGH B. KENNEDY, et ux
DB G-17 PG 366
MB 13 PG 14

180
SHIRLEY L. FIELDS
DB P-20 PG 72

181
RONDY R. WILLIAMS
DB Z-11 PG 255

182
WILLIAM J. MORRIS et ux
DB F-13 PG 800

JOSEPH S. GRIFFIN
DB N-11 PG 128
PC B SLIDE 306-B
LOT 10

5/14/99

5/14/2022

PREPARED IN THE OFFICE OF:



THE WOOTEN COMPANY
120 North Roper Avenue Raleigh, NC 27603-1423
919.478.0311 Fax 919.478.3169
License Number: F-0115

PROJECT REFERENCE NO.

R-2511

SHEET NO.

UC-59

DESIGNED BY: JRG

DRAWN BY: TK

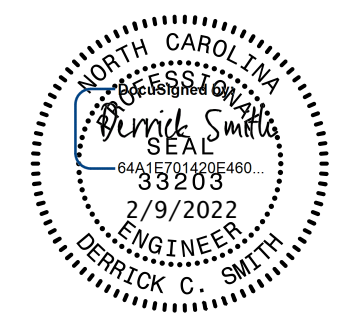
CHECKED BY: DCS

APPROVED BY: JRG

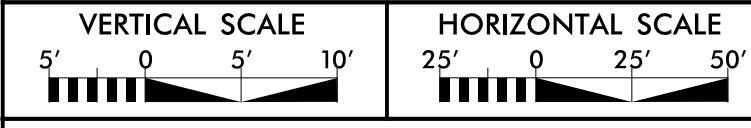
REVISED:

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

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

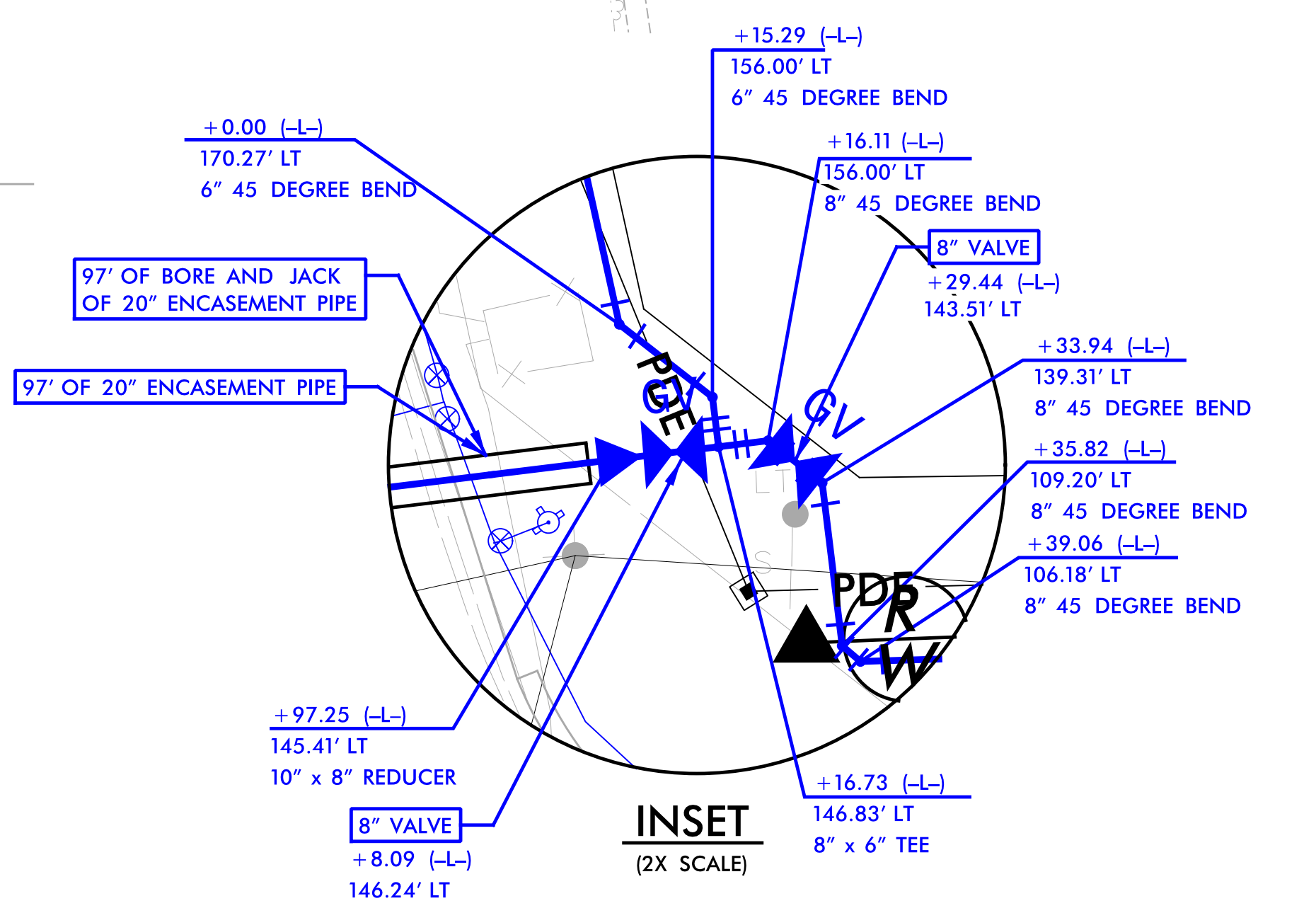
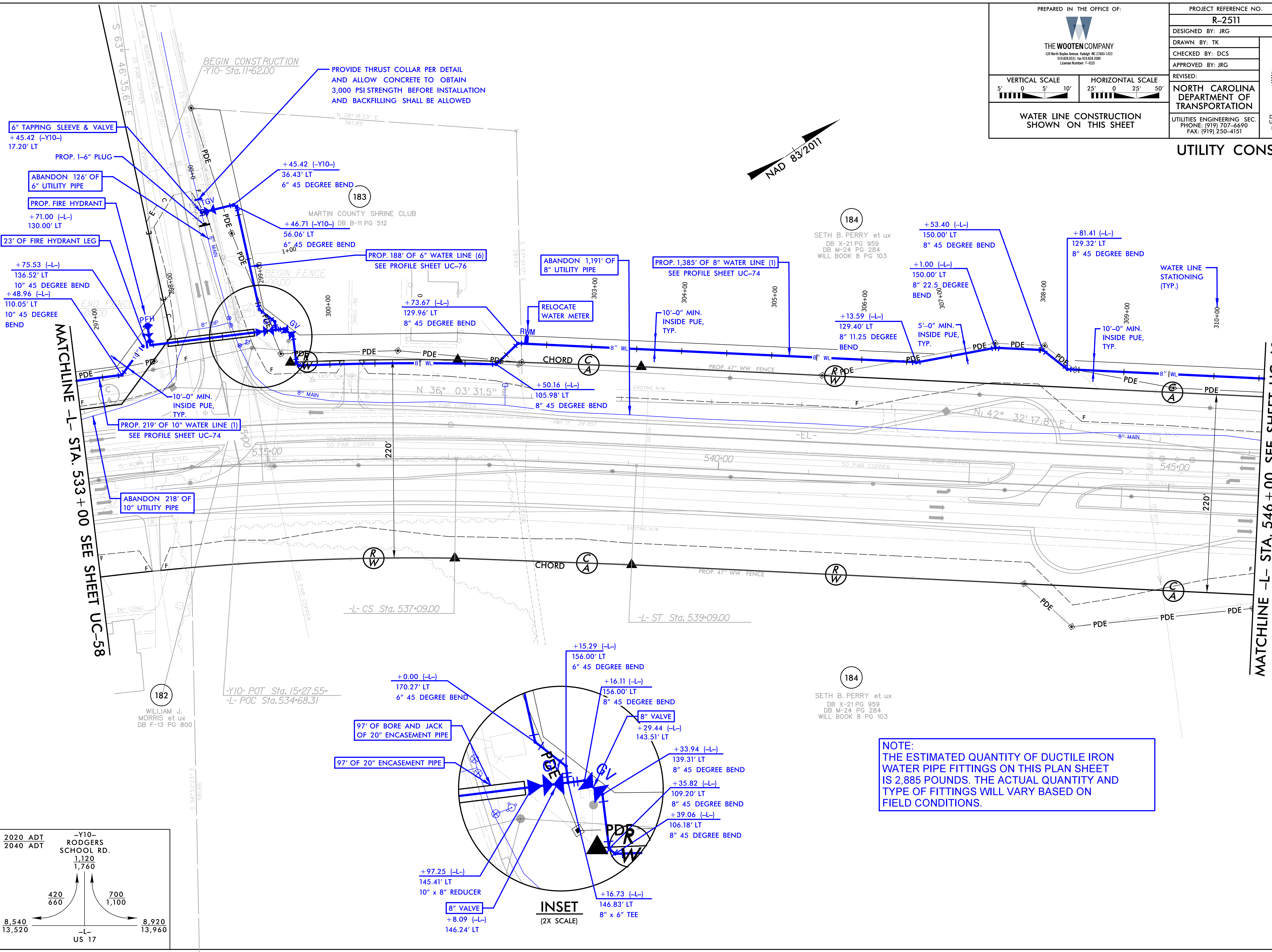


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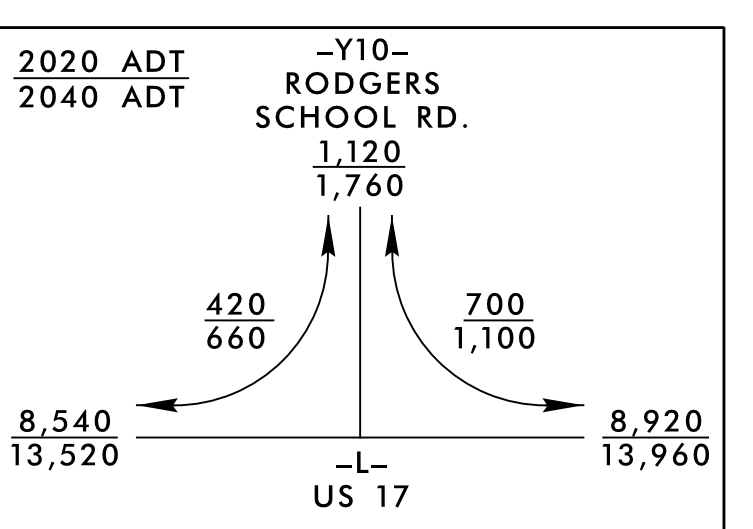


WATER LINE CONSTRUCTION
SHOWN ON THIS SHEET

UTILITY CONSTRUCTION



NOTE:
THE ESTIMATED QUANTITY OF DUCTILE IRON
WATER PIPE FITTINGS ON THIS PLAN SHEET
IS 2,885 POUNDS. THE ACTUAL QUANTITY AND
TYPE OF FITTINGS WILL VARY BASED ON
FIELD CONDITIONS.



5/14/2022

PREPARED IN THE OFFICE OF:



THE WOOTEN COMPANY
120 North Roper Avenue Raleigh, NC 27603-1423
919.478.0331 Fax 919.804.3109
License Number: F-0115

PROJECT REFERENCE NO.

R-2511

SHEET NO.

UC-61

DESIGNED BY: JRG

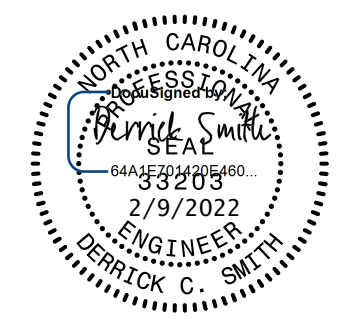
DRAWN BY: TK

CHECKED BY: DCS

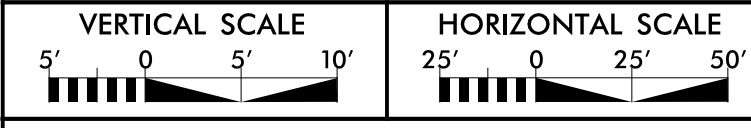
APPROVED BY: JRG

REVISED:
NORTH CAROLINA
DEPARTMENT OF
TRANSPORTATION

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

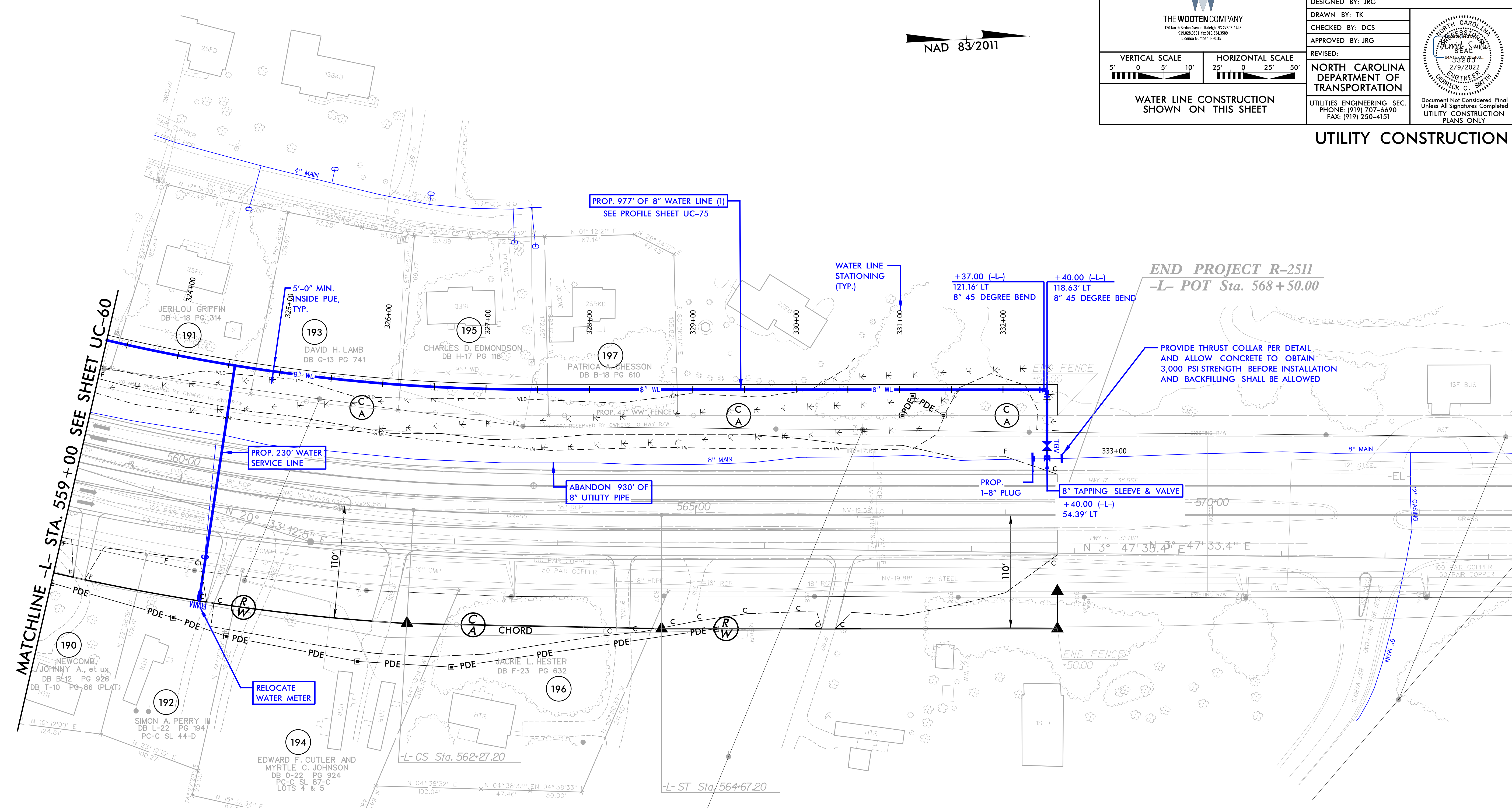
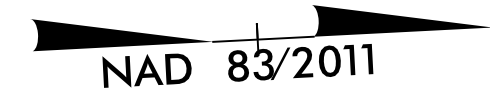


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WATER LINE CONSTRUCTION
SHOWN ON THIS SHEET

UTILITY CONSTRUCTION



MATCHLINE -L- STA. 559+00 SEE SHEET UC-60

PROP. 977' OF 8" WATER LINE (1)
SEE PROFILE SHEET UC-75

5'-0" MIN.
INSIDE PUE,
TYP.

WATER LINE
STATIONING
(TYP.)

+37.00 (-L)
121.16' LT
8" 45 DEGREE BEND

+40.00 (-L)
118.63' LT
8" 45 DEGREE BEND

END PROJECT R-2511
-L- POT Sta. 568+50.00

PROVIDE THRUST COLLAR PER DETAIL
AND ALLOW CONCRETE TO OBTAIN
3,000 PSI STRENGTH BEFORE INSTALLATION
AND BACKFILLING SHALL BE ALLOWED

PROP. 230' WATER
SERVICE LINE

ABANDON 930' OF
8" UTILITY PIPE

PROP.
1-8" PLUG

8" TAPPING SLEEVE & VALVE
+40.00 (-L)
54.39' LT

RELOCATE
WATER METER

NOTE:
THE ESTIMATED QUANTITY OF DUCTILE IRON
WATER PIPE FITTINGS ON THIS PLAN SHEET
IS 610 POUNDS. THE ACTUAL QUANTITY AND
TYPE OF FITTINGS WILL VARY BASED ON
FIELD CONDITIONS.

5/14/19

PREPARED IN THE OFFICE OF:



THE WOOTEN COMPANY
120 North Boker Avenue Raleigh, NC 27603-1423
919.876.0331 fax 919.876.2589
License Number: F-0115



WATER LINE CONSTRUCTION SHOWN ON THIS SHEET

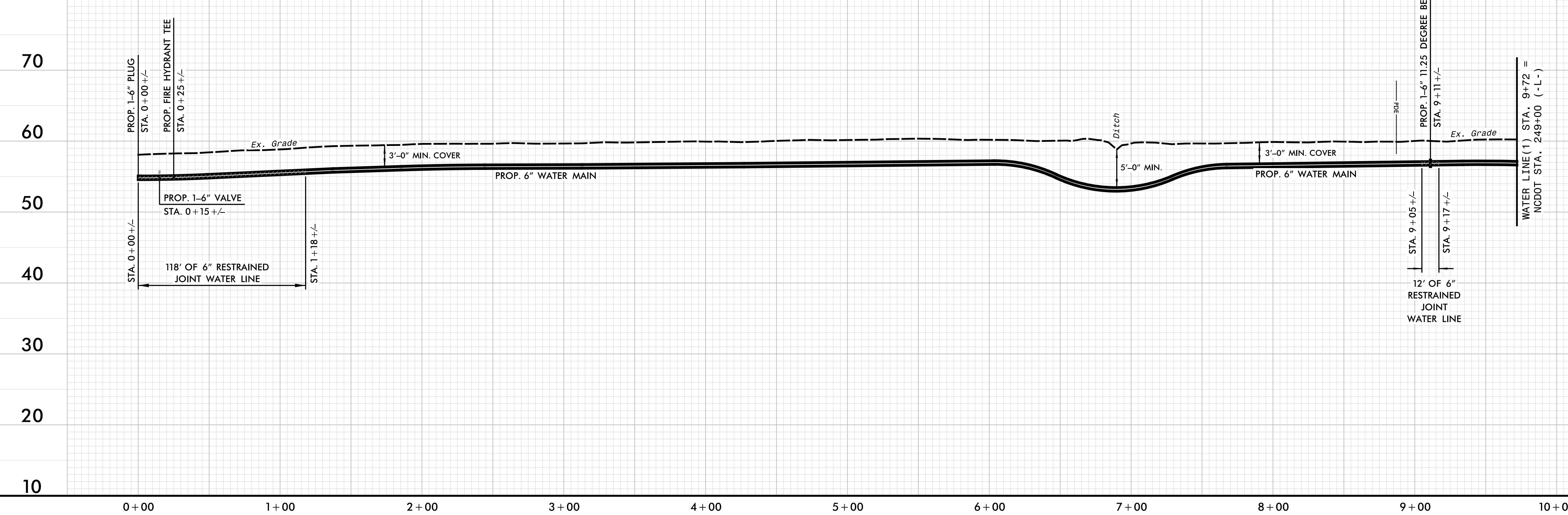
PROJECT REFERENCE NO. R-2511	SHEET NO. UC-62
DESIGNED BY: JRG	
DRAWN BY: TK	
CHECKED BY: JRG	
APPROVED BY: JRG	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151
REVISED:	

UTILITY CONSTRUCTION

70
60
50
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10

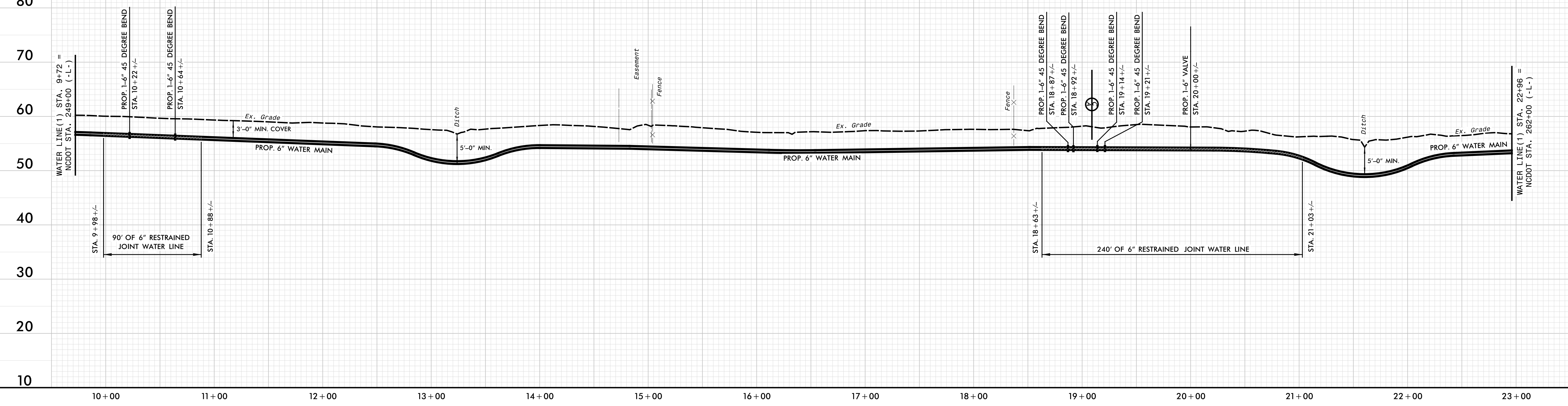
PROFILE SHOWN IS BASED ON STATIONING ALONG PROPOSED WATER LINE ALIGNMENT ALONG ROADWAY ALIGNMENT -L- (SEE SHEET UC-36)

6" Water Line (1)



PROFILE SHOWN IS BASED ON STATIONING ALONG PROPOSED WATER LINE ALIGNMENT ALONG ROADWAY ALIGNMENT -L- (SEE SHEET UC-37)

6" Water Line (1)



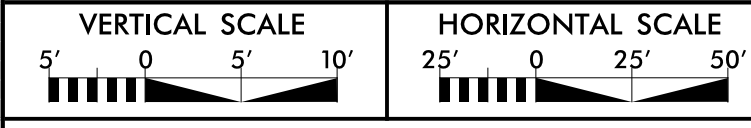
100
90
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CONSTRUCTION

PREPARED IN THE OFFICE OF:



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919.876.0521 fax 919.876.2589
License Number: F-0115

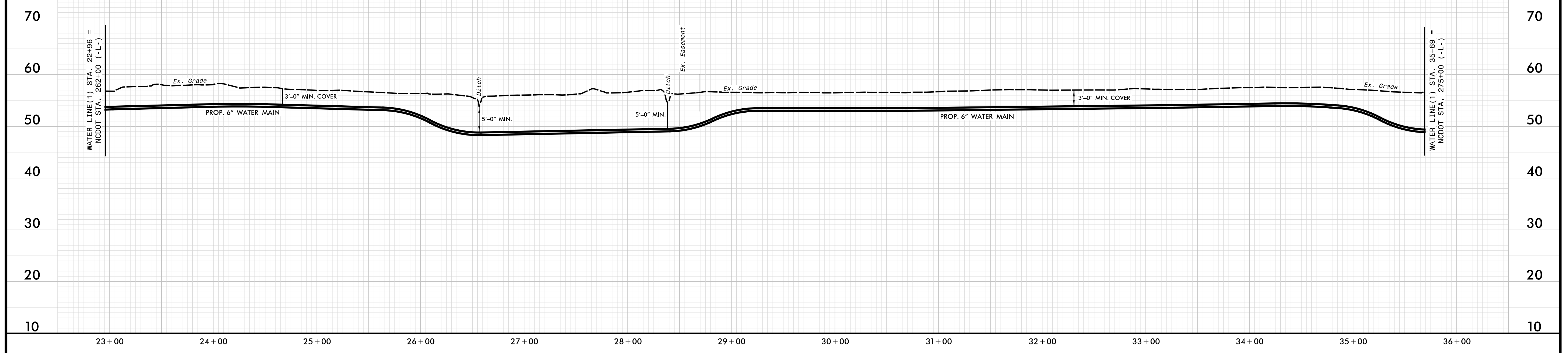


WATER LINE CONSTRUCTION SHOWN ON THIS SHEET

PROJECT REFERENCE NO. R-2511	SHEET NO. UC-63
DESIGNED BY: JRG	
DRAWN BY: TK	
CHECKED BY: JRG	
APPROVED BY: JRG	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151
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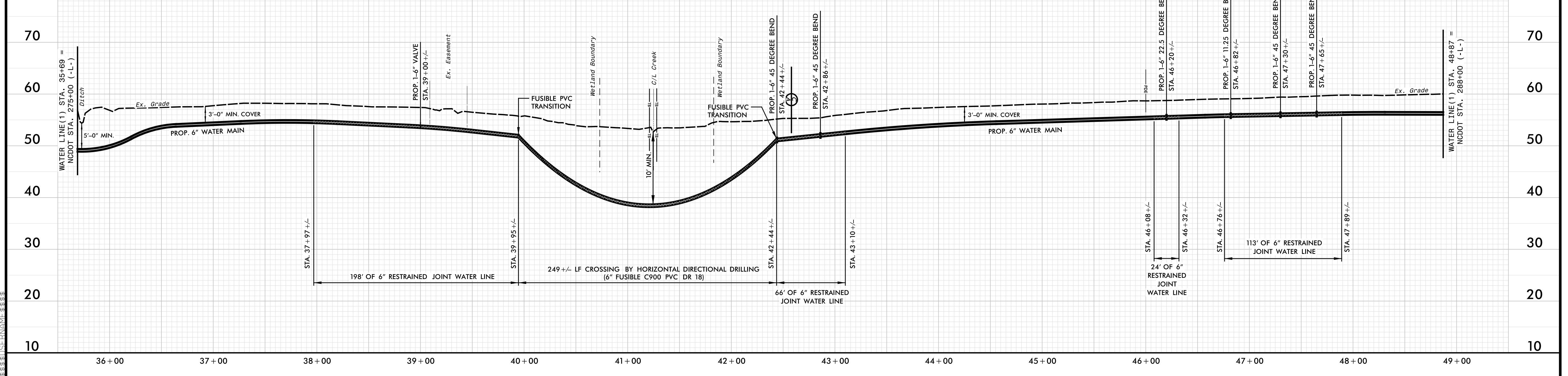
PROFILE SHOWN IS BASED ON STATIONING ALONG PROPOSED WATER LINE ALIGNMENT ALONG ROADWAY ALIGNMENT -L- (SEE SHEET UC-38)

6" Water Line (1)



PROFILE SHOWN IS BASED ON STATIONING ALONG PROPOSED WATER LINE ALIGNMENT ALONG ROADWAY ALIGNMENT -L- (SEE SHEET UC-39)

6" Water Line (1)

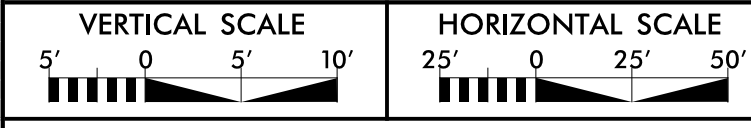


C:\Users\jrg\OneDrive\Documents\Projects\2511\UC-63.dwg

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120 North Randle Avenue Raleigh, NC 27603-1423
919.876.0531 Fax 919.876.2589
License Number: F-4115

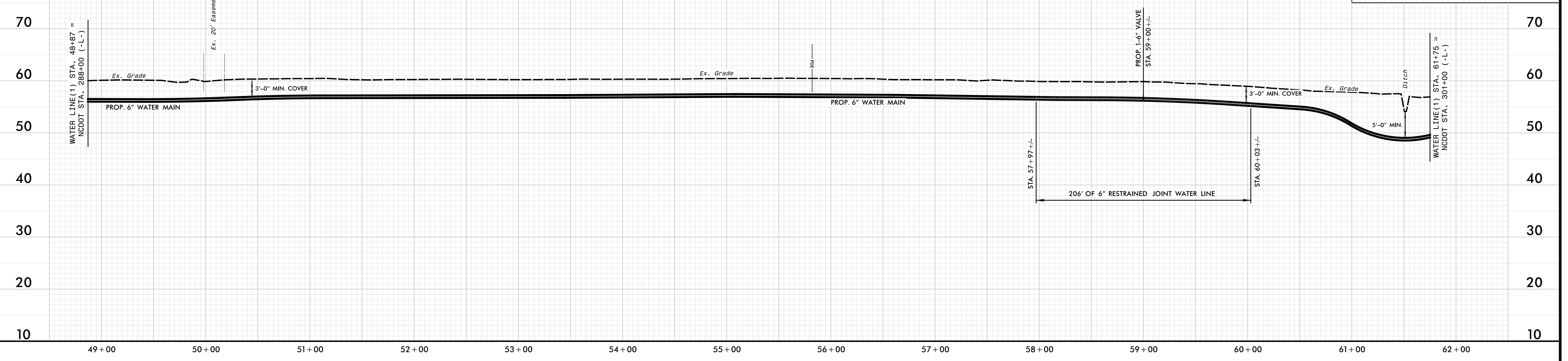


WATER LINE CONSTRUCTION SHOWN ON THIS SHEET

PROJECT REFERENCE NO. R-2511	SHEET NO. UC-64
DESIGNED BY: JRG	
DRAWN BY: TK	
CHECKED BY: JRG	
APPROVED BY: JRG	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151
REVISIONS:	

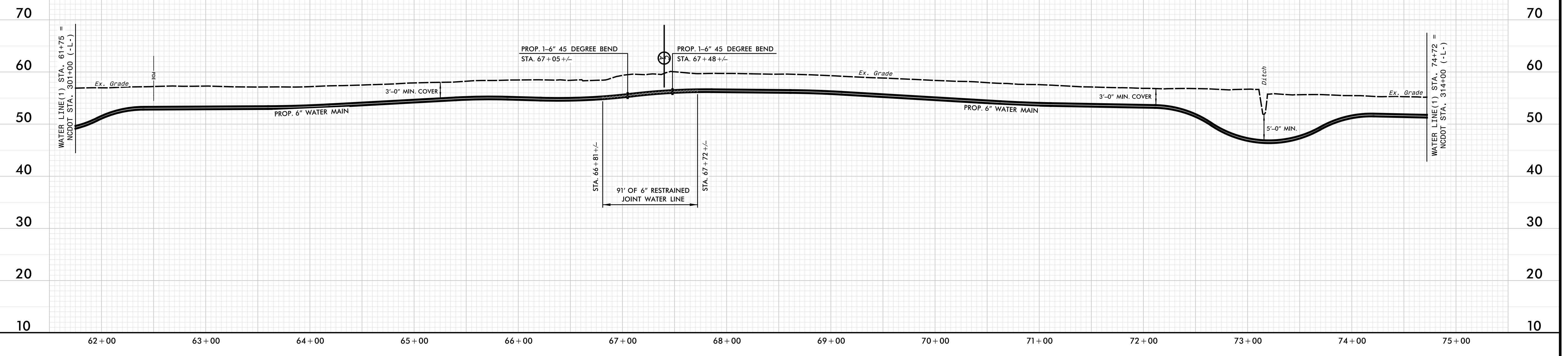
PROFILE SHOWN IS BASED ON STATIONING ALONG PROPOSED WATER LINE ALIGNMENT ALONG ROADWAY ALIGNMENT -L- (SEE SHEET UC-40)

6" Water Line (1)



PROFILE SHOWN IS BASED ON STATIONING ALONG PROPOSED WATER LINE ALIGNMENT ALONG ROADWAY ALIGNMENT -L- (SEE SHEET UC-41)

6" Water Line (1)



C:\Users\jrg\OneDrive\Documents\Projects\2511\UC-64.dwg

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120 North Boker Avenue Raleigh, NC 27603-1423
919.876.0531 Fax: 919.876.2589
License Number: F-0115

PROJECT REFERENCE NO.

R-2511

SHEET NO.

UC-65

DESIGNED BY: JRG

DRAWN BY: TK

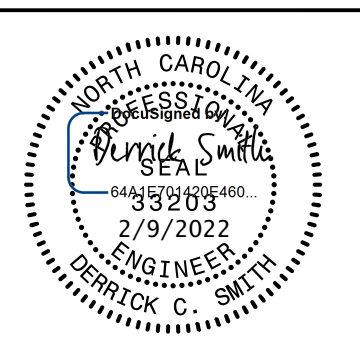
CHECKED BY: JRG

APPROVED BY: JRG

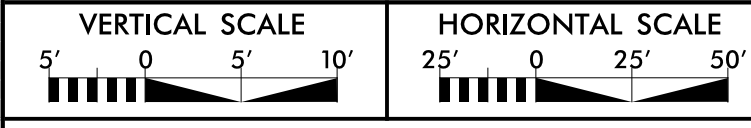
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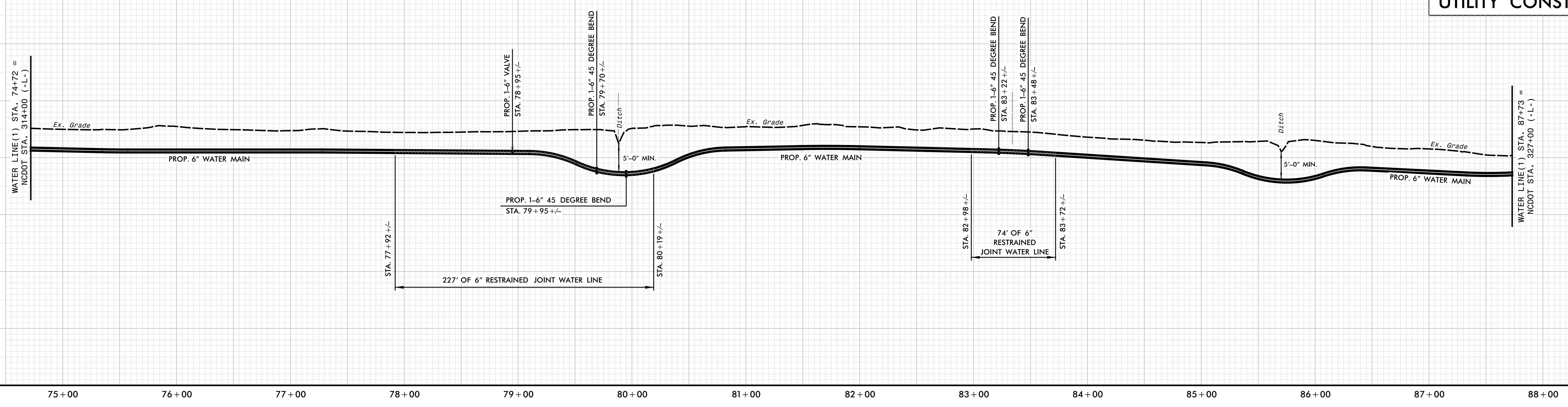
WATER LINE CONSTRUCTION
SHOWN ON THIS SHEET

UTILITY CONSTRUCTION

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PROFILE SHOWN IS BASED ON STATIONING ALONG
PROPOSED WATER LINE ALIGNMENT ALONG
ROADWAY ALIGNMENT -L-
(SEE SHEET UC-42)

6" Water Line (1)

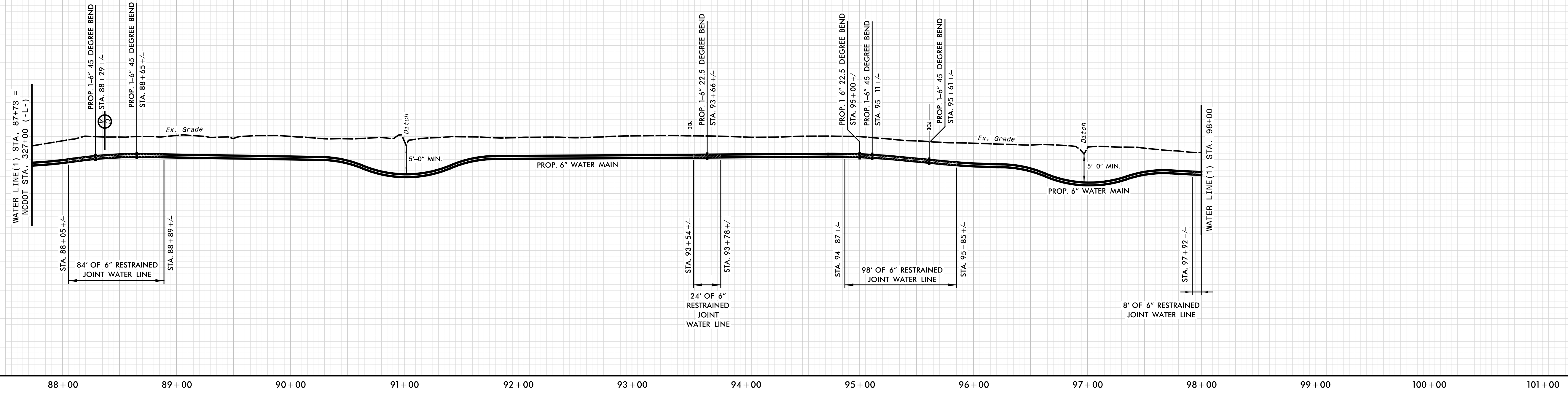


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PROFILE SHOWN IS BASED ON STATIONING ALONG
PROPOSED WATER LINE ALIGNMENT ALONG
ROADWAY ALIGNMENT -L-
(SEE SHEET UC-43)

6" Water Line (1)



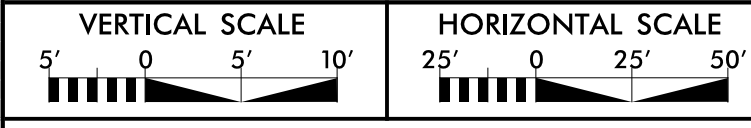
100
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UTILITY CONSTRUCTION

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THE WOOTEN COMPANY
120 North Boker Avenue Raleigh, NC 27603-1423
919.876.0531 fax 919.876.2589
License Number: F-0115



WATER LINE CONSTRUCTION SHOWN ON THIS SHEET

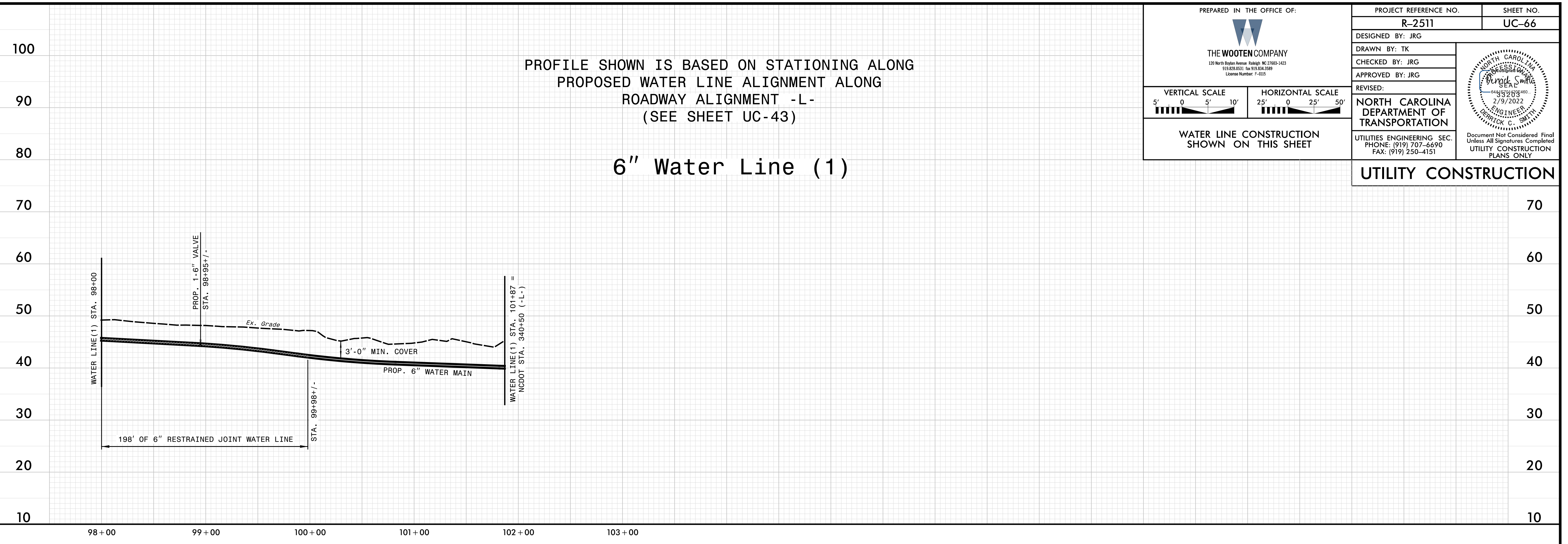
PROJECT REFERENCE NO. R-2511	SHEET NO. UC-66
DESIGNED BY: JRG	
DRAWN BY: TK	
CHECKED BY: JRG	
APPROVED BY: JRG	REVISED:
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	

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UTILITY CONSTRUCTION

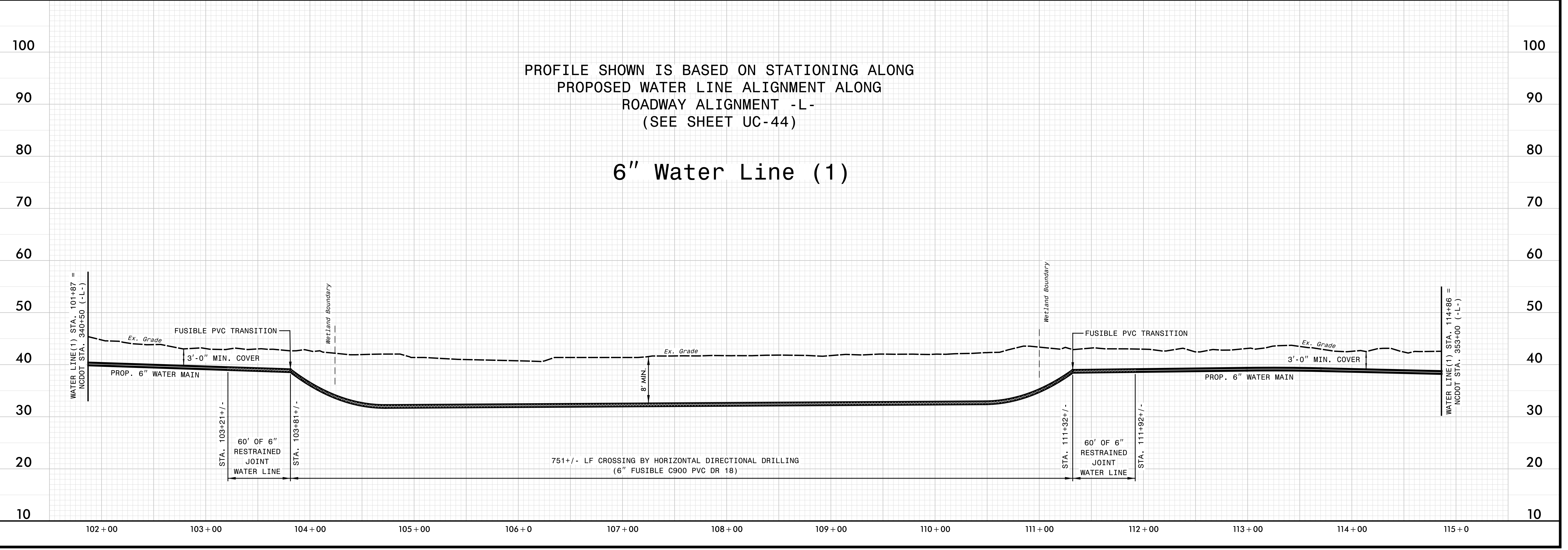
PROFILE SHOWN IS BASED ON STATIONING ALONG PROPOSED WATER LINE ALIGNMENT ALONG ROADWAY ALIGNMENT -L- (SEE SHEET UC-43)

6" Water Line (1)



PROFILE SHOWN IS BASED ON STATIONING ALONG PROPOSED WATER LINE ALIGNMENT ALONG ROADWAY ALIGNMENT -L- (SEE SHEET UC-44)

6" Water Line (1)



Vertical text on the left margin: 100 90 80 70 60 50 40 30 20 10

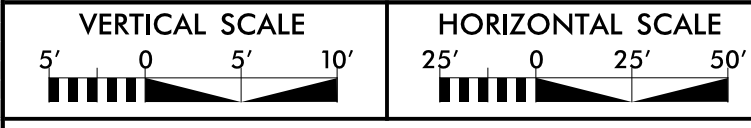
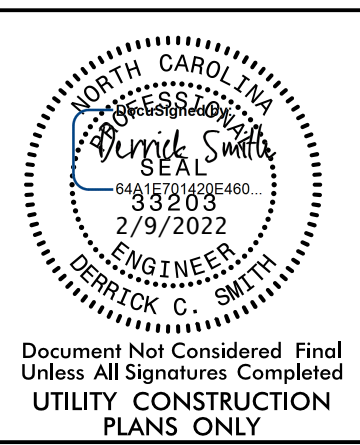
PREPARED IN THE OFFICE OF:



120 North Randle Avenue Raleigh, NC 27603-1423
919.876.0231 fax 919.876.2589
License Number: F-0115

PROJECT REFERENCE NO. R-2511 SHEET NO. UC-67

DESIGNED BY: JRG
DRAWN BY: TK
CHECKED BY: JRG
APPROVED BY: JRG
REVISED:
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
UTILITIES ENGINEERING SEC.
PHONE: (919) 707-6690
FAX: (919) 250-4151

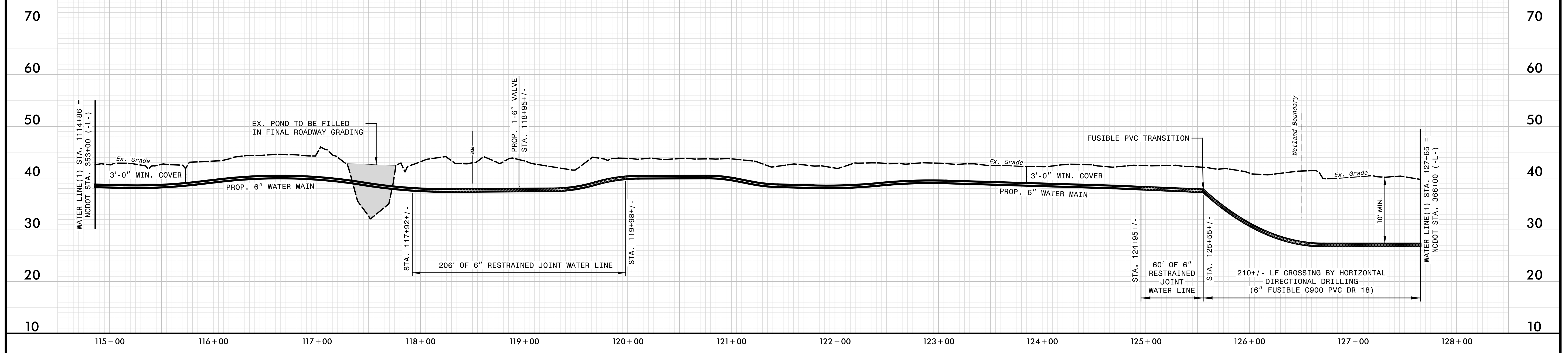


WATER LINE CONSTRUCTION SHOWN ON THIS SHEET

UTILITY CONSTRUCTION

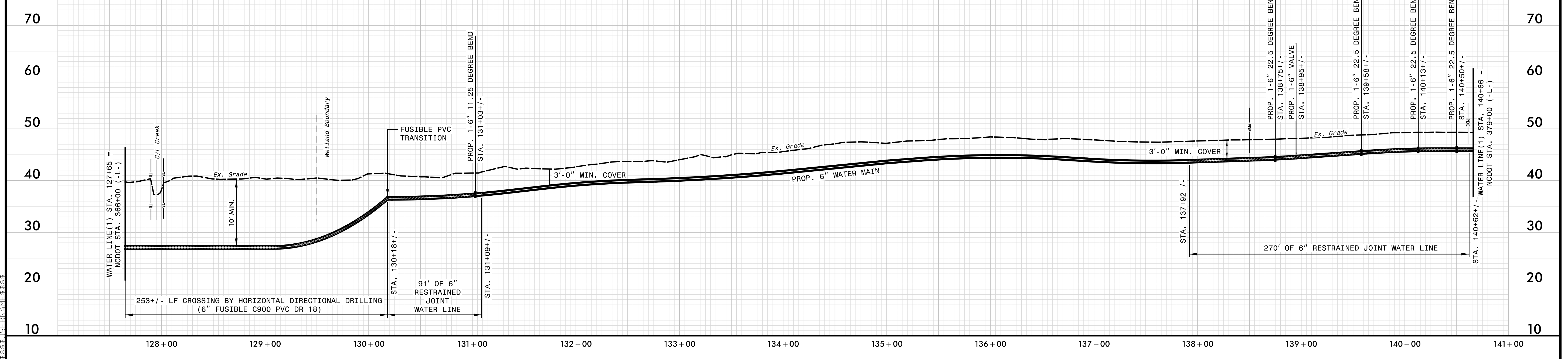
PROFILE SHOWN IS BASED ON STATIONING ALONG PROPOSED WATER LINE ALIGNMENT ALONG ROADWAY ALIGNMENT -L- (SEE SHEET UC-45)

6" Water Line (1)



PROFILE SHOWN IS BASED ON STATIONING ALONG PROPOSED WATER LINE ALIGNMENT ALONG ROADWAY ALIGNMENT -L- (SEE SHEET UC-46)

6" Water Line (1)



SECTION 115+00 TO 128+00

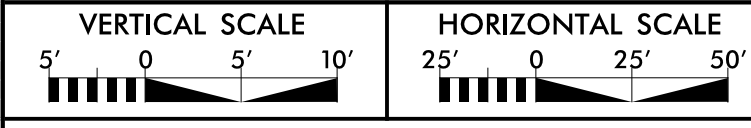
PREPARED IN THE OFFICE OF:



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License Number: F-0115

PROJECT REFERENCE NO.	SHEET NO.
R-2511	UC-68

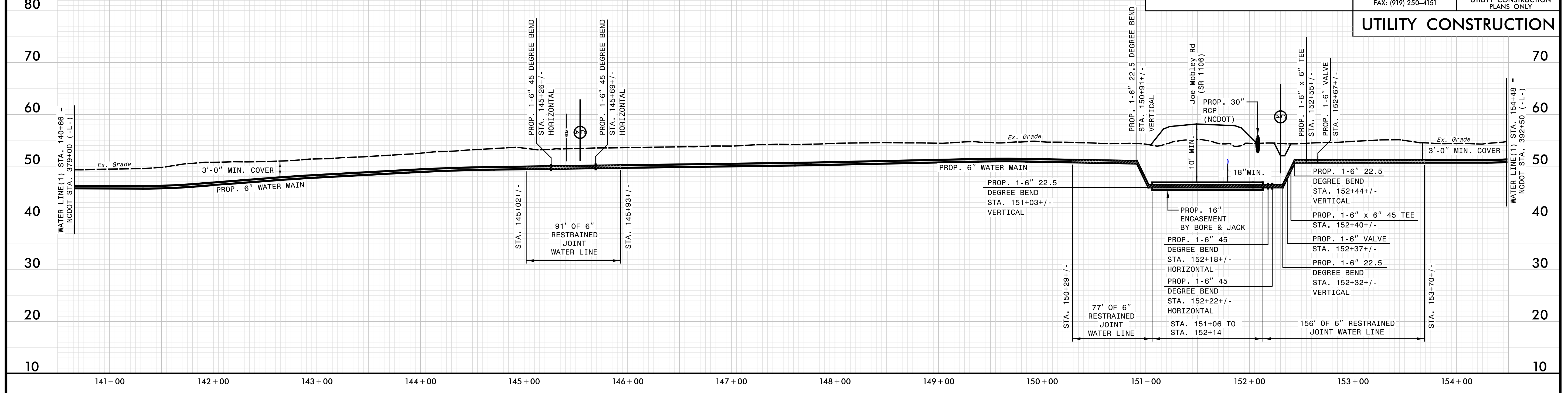
DESIGNED BY: JRG	
DRAWN BY: TK	
CHECKED BY: JRG	
APPROVED BY: JRG	
REVIS:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	
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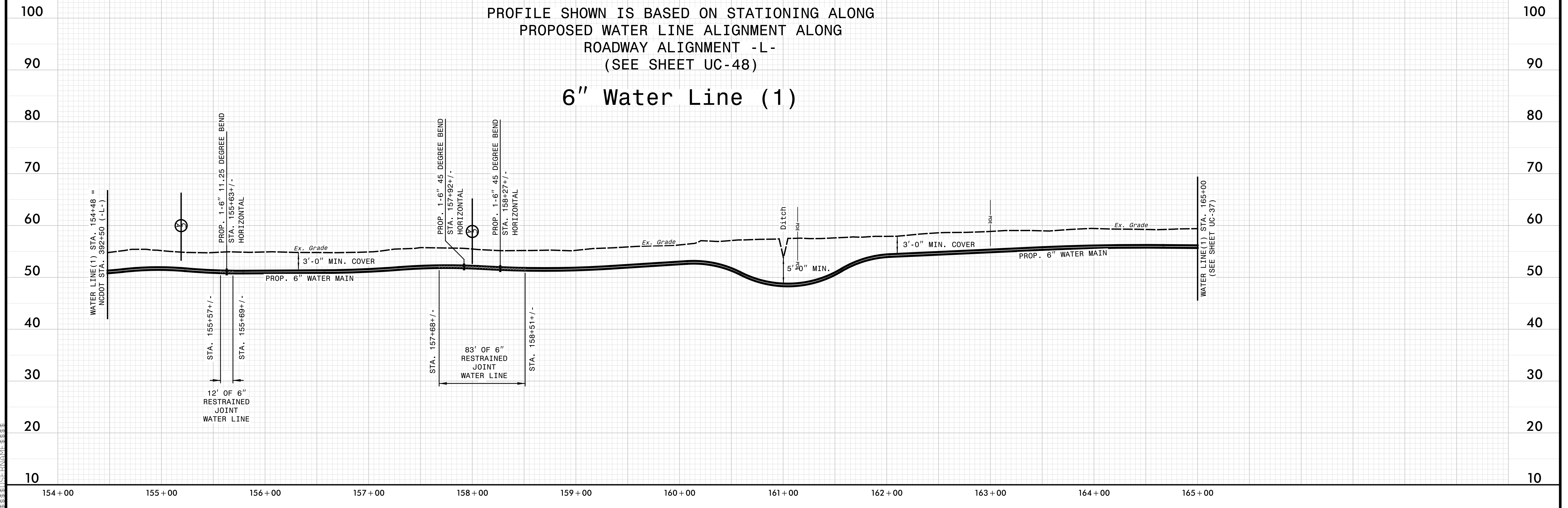
WATER LINE CONSTRUCTION SHOWN ON THIS SHEET

UTILITY CONSTRUCTION

PROFILE SHOWN IS BASED ON STATIONING ALONG
PROPOSED WATER LINE ALIGNMENT ALONG
ROADWAY ALIGNMENT -L-
(SEE SHEET UC-47)
6" Water Line (1)



PROFILE SHOWN IS BASED ON STATIONING ALONG
PROPOSED WATER LINE ALIGNMENT ALONG
ROADWAY ALIGNMENT -L-
(SEE SHEET UC-48)
6" Water Line (1)



CONSTRUCTION

PREPARED IN THE OFFICE OF:



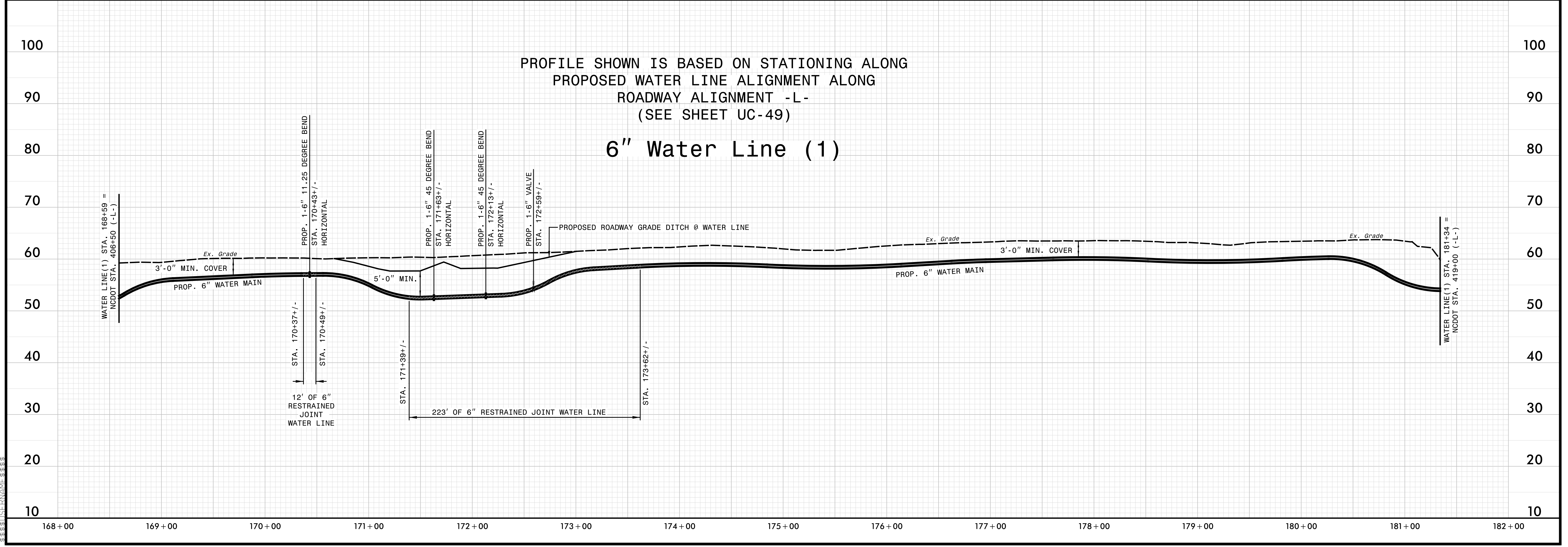
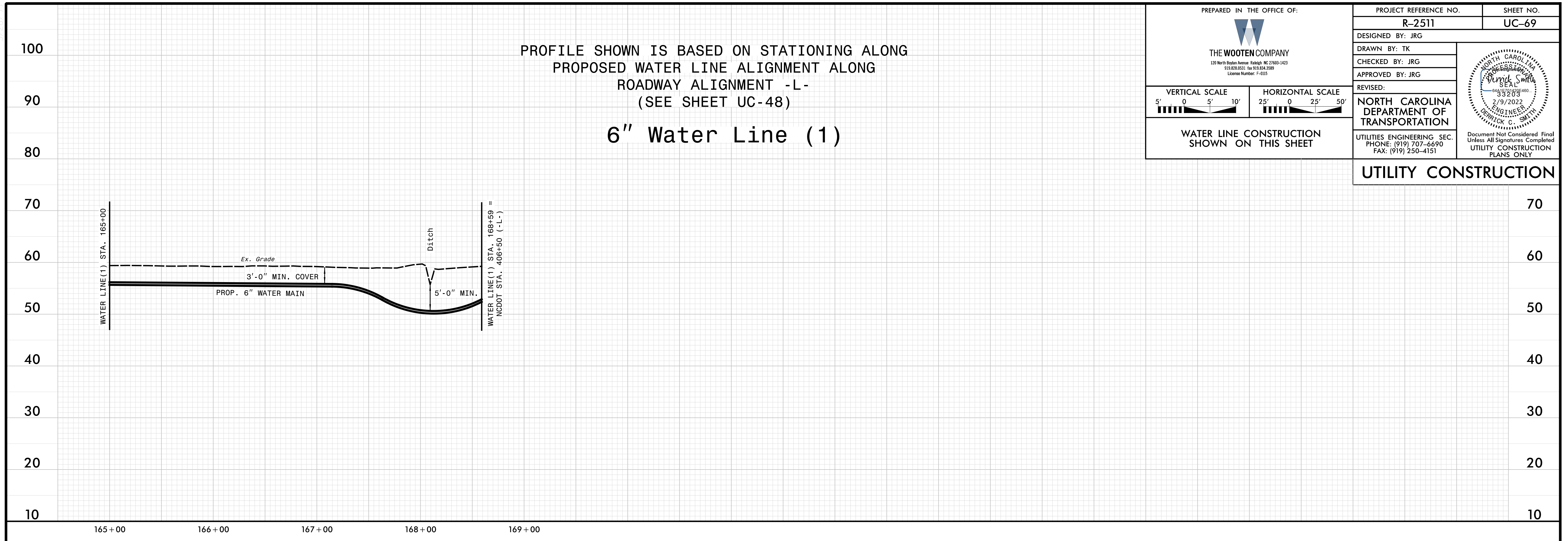
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120 North Ralston Avenue Raleigh, NC 27603-1423
919.876.0531 Fax: 919.876.2589
License Number: F-0115



WATER LINE CONSTRUCTION
SHOWN ON THIS SHEET

PROJECT REFERENCE NO. R-2511	SHEET NO. UC-69
DESIGNED BY: JRG	
DRAWN BY: TK	
CHECKED BY: JRG	
APPROVED BY: JRG	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
REVIS: _____	
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	

UTILITY CONSTRUCTION



CONSTRUCTION

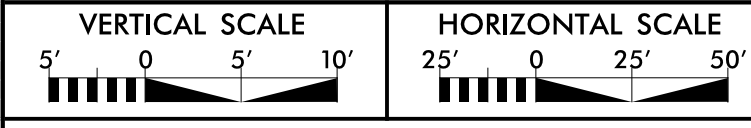
PREPARED IN THE OFFICE OF:



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120 North Boker Avenue Raleigh, NC 27603-1423
919.876.0531 Fax 919.876.2589
License Number: F-0115

PROJECT REFERENCE NO.	SHEET NO.
R-2511	UC-70

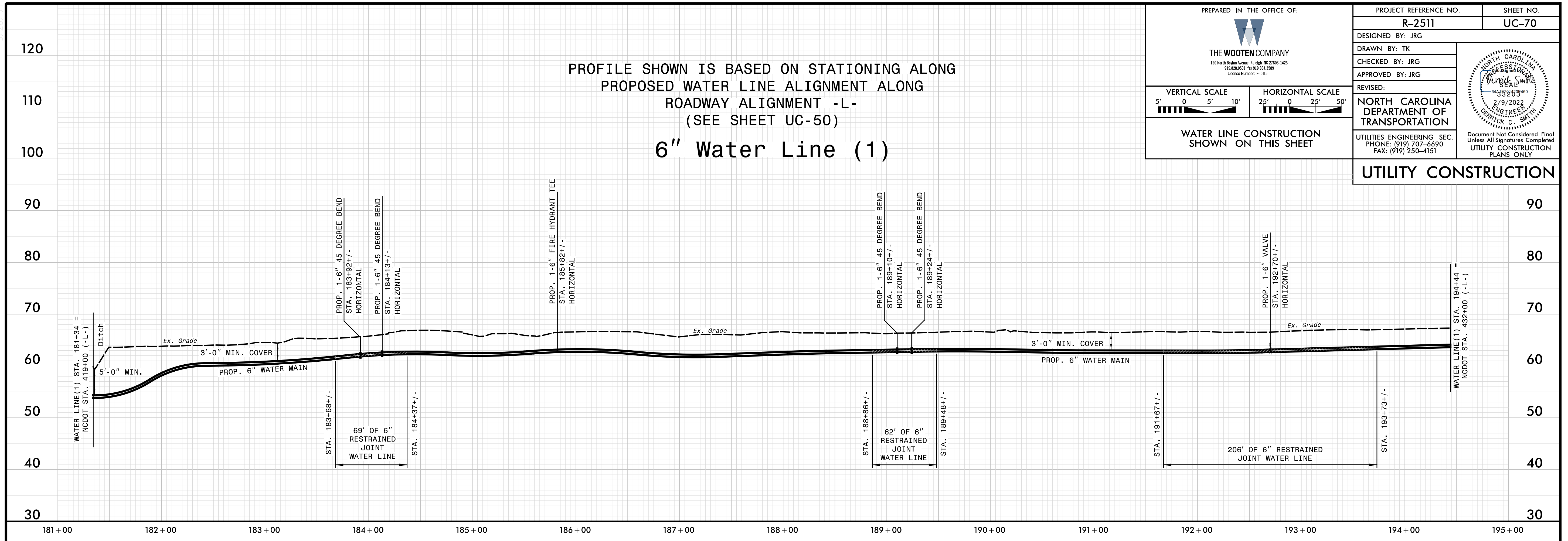
DESIGNED BY: JRG	
DRAWN BY: TK	
CHECKED BY: JRG	
APPROVED BY: JRG	
REVIS:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	
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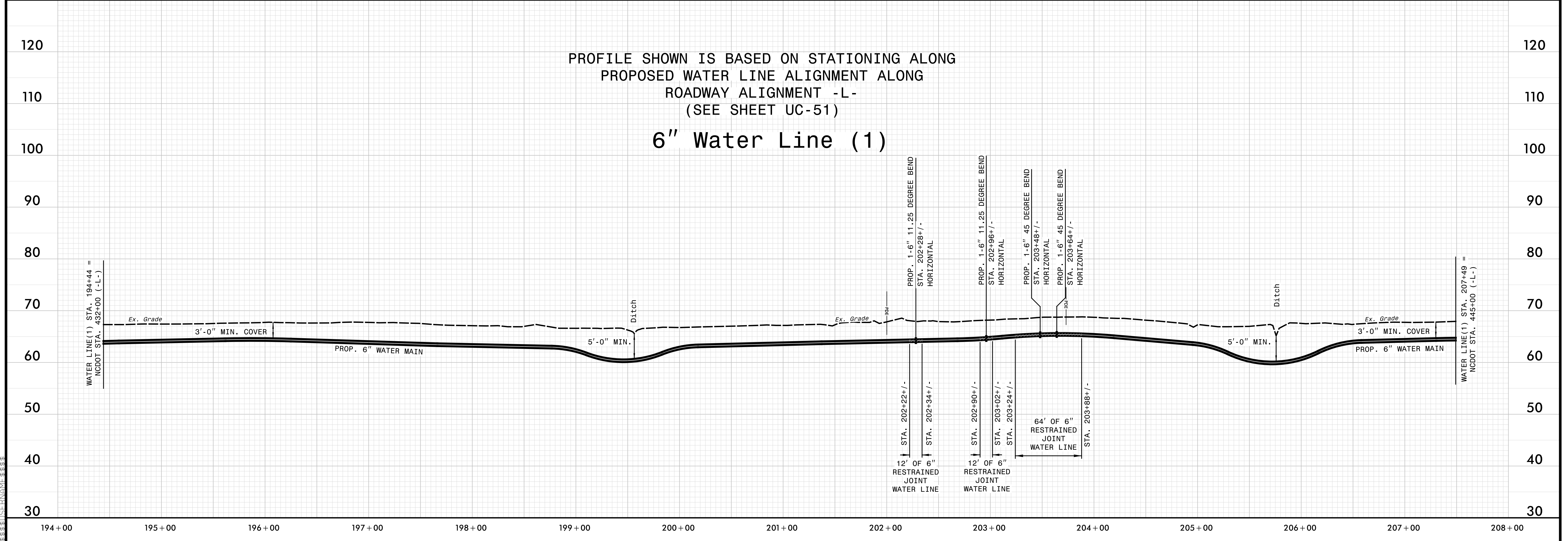
WATER LINE CONSTRUCTION SHOWN ON THIS SHEET

UTILITY CONSTRUCTION

PROFILE SHOWN IS BASED ON STATIONING ALONG
PROPOSED WATER LINE ALIGNMENT ALONG
ROADWAY ALIGNMENT -L-
(SEE SHEET UC-50)
6" Water Line (1)



PROFILE SHOWN IS BASED ON STATIONING ALONG
PROPOSED WATER LINE ALIGNMENT ALONG
ROADWAY ALIGNMENT -L-
(SEE SHEET UC-51)
6" Water Line (1)



CONSTRUCTION

PREPARED IN THE OFFICE OF:



THE WOOTEN COMPANY
120 North Boker Avenue Raleigh, NC 27603-1423
919.876.0531 fax 919.876.2589
License Number: F-0115

PROJECT REFERENCE NO.

R-2511

SHEET NO.

UC-71

DESIGNED BY: JRG

DRAWN BY: TK

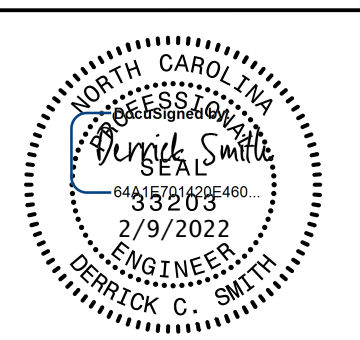
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APPROVED BY: JRG

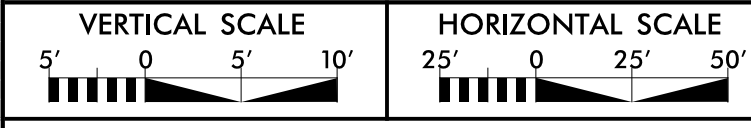
REVISED:

NORTH CAROLINA
DEPARTMENT OF
TRANSPORTATION

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



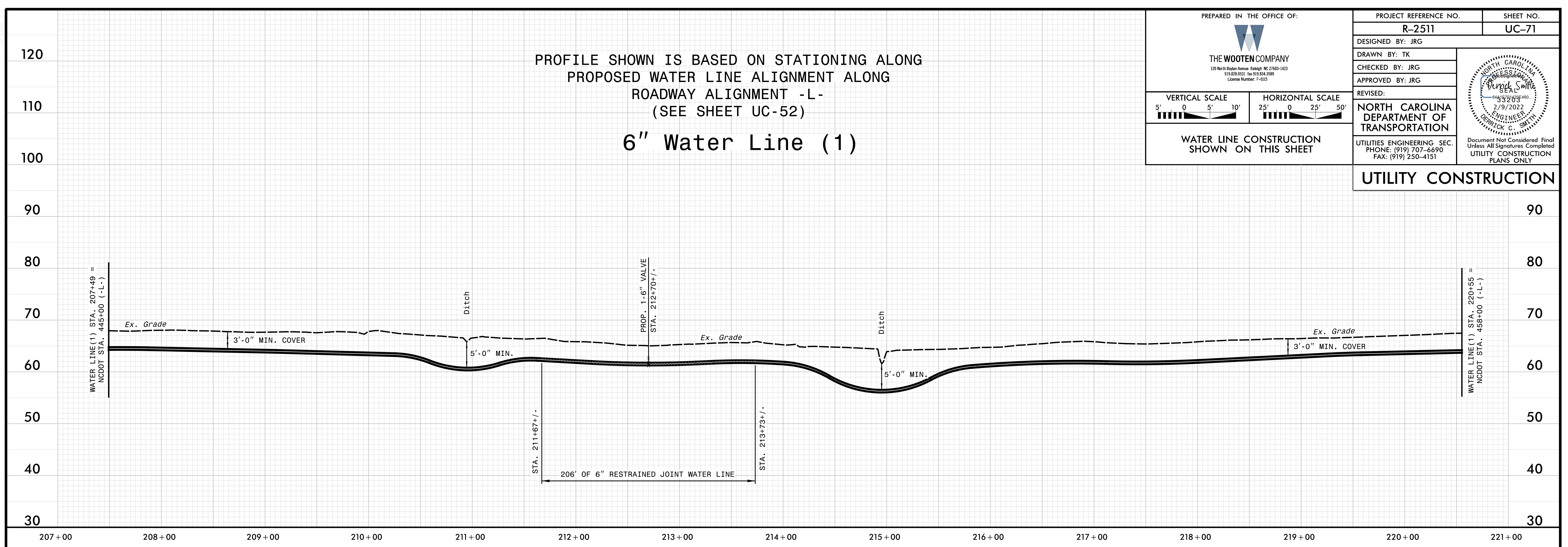
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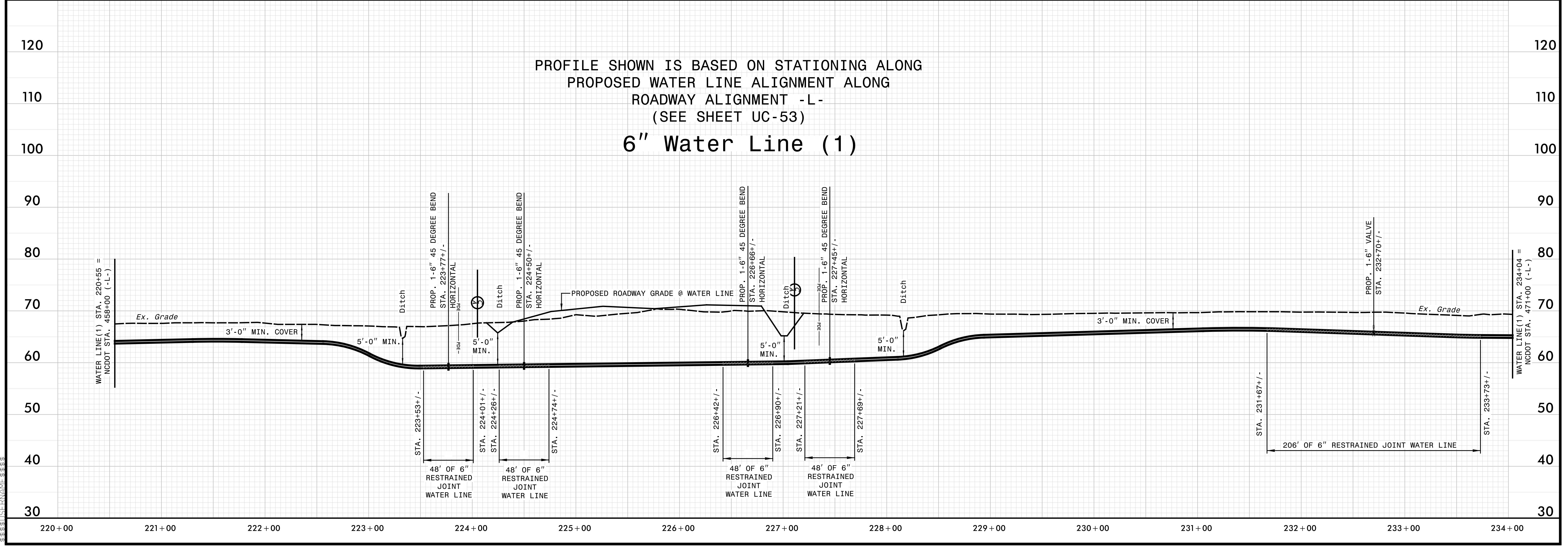
WATER LINE CONSTRUCTION
SHOWN ON THIS SHEET

UTILITY CONSTRUCTION

PROFILE SHOWN IS BASED ON STATIONING ALONG
PROPOSED WATER LINE ALIGNMENT ALONG
ROADWAY ALIGNMENT -L-
(SEE SHEET UC-52)
6" Water Line (1)



PROFILE SHOWN IS BASED ON STATIONING ALONG
PROPOSED WATER LINE ALIGNMENT ALONG
ROADWAY ALIGNMENT -L-
(SEE SHEET UC-53)
6" Water Line (1)



CONSTRUCTION