

02/08/2022

T.I.P. NO.	SHEET NO.
U-5606	UC-1

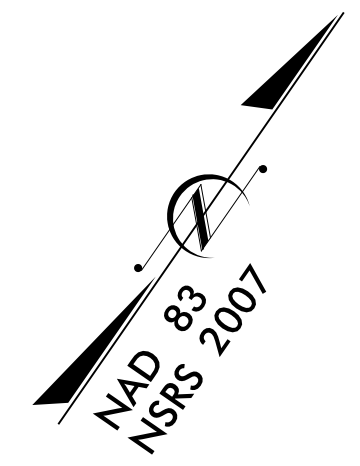
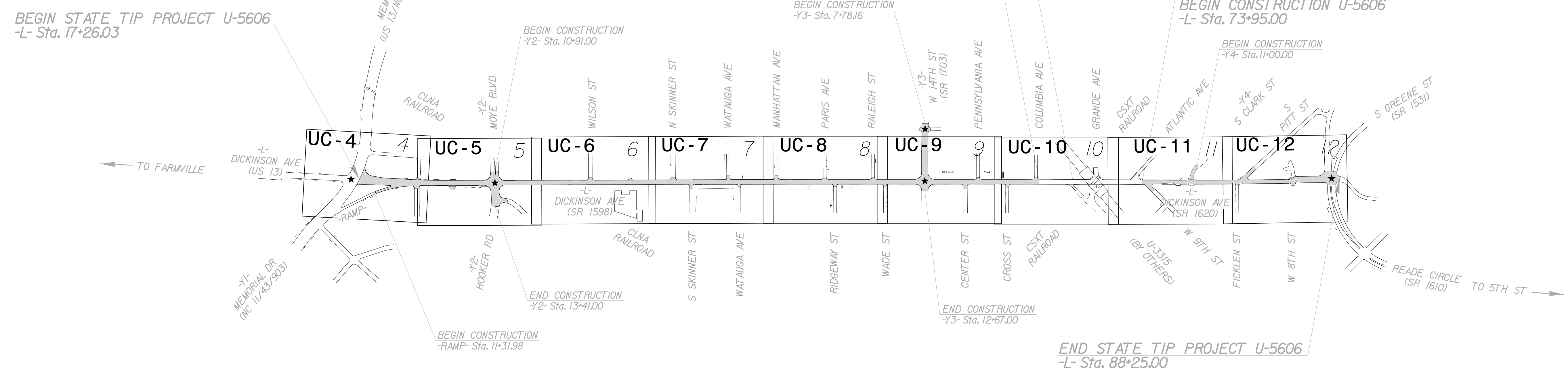
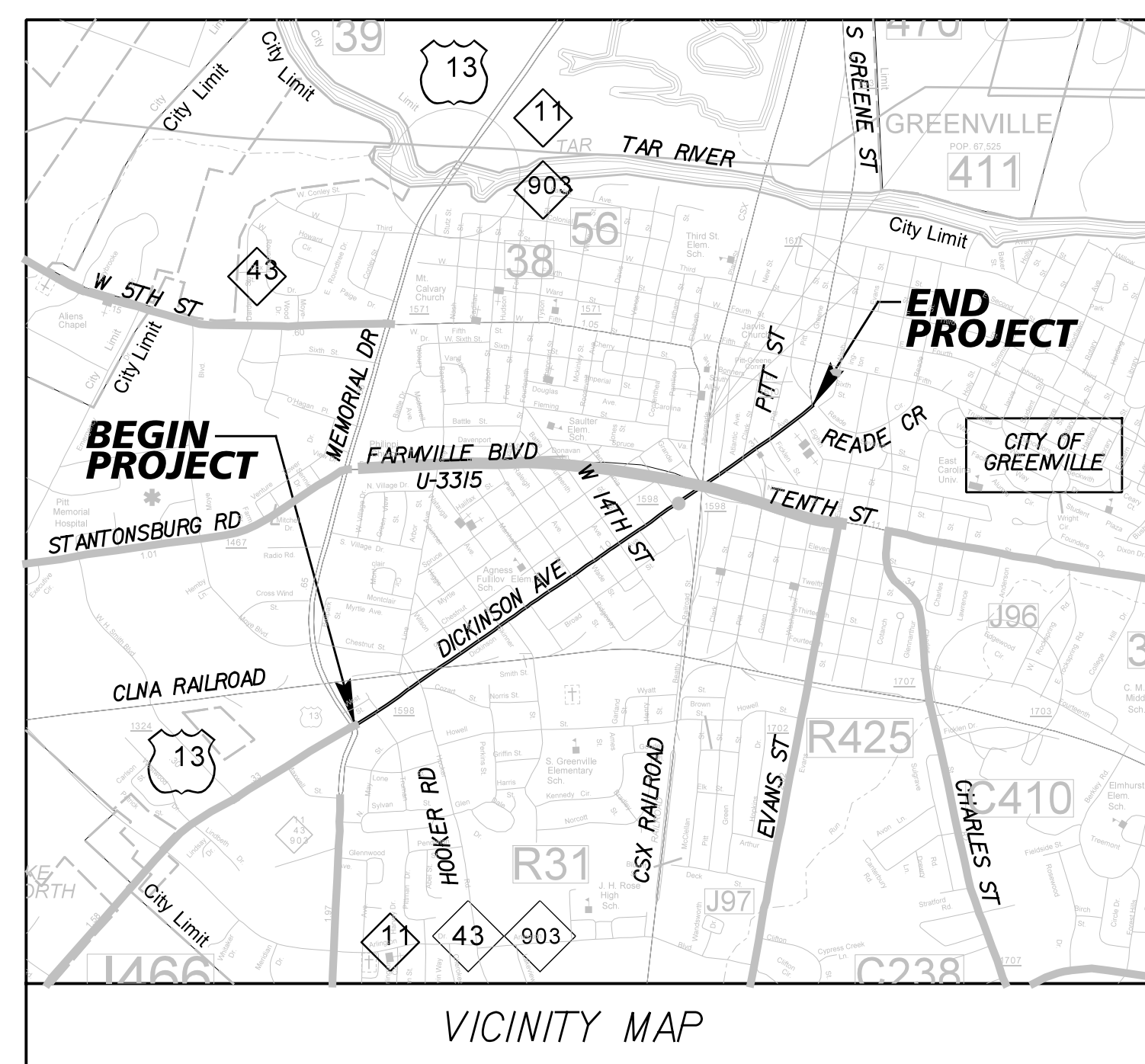
TIP PROJECT: U-5606

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

**UTILITY CONSTRUCTION PLANS
PITT COUNTY**

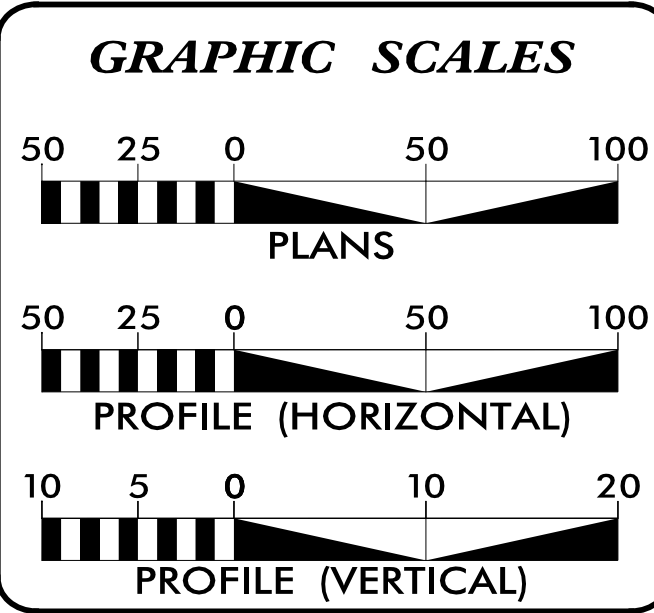
**LOCATION: SR 1598 (DICKINSON AVENUE) - FROM NC 11 (MEMORIAL DRIVE)
TO SR 1610 (READE CIRCLE)**

TYPE OF WORK: WATER LINE AND SEWER LINE CONSTRUCTION



★ TRAFFIC SIGNAL
CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III
THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDARIES OF THE CITY OF GREENVILLE

DOCUMENT NOT CONSIDERED FINAL
UNTIL ALL SIGNATURES ARE COMPLETED



INDEX OF SHEETS

SHEET NO.:	DESCRIPTION:
UC-1	TITLE SHEET
UC-2	UTILITY SYMBOLOGY
UC-3	NOTES
UC-3A THRU UC-3B	DETAILS
UC-4 THRU UC-12	UTILITY CONSTRUCTION SHEETS
UC-13 THRU UC-22	PROFILE SHEETS

WATER AND SEWER OWNERS ON PROJECT

(A) WATER (G.U.C.)
(B) SANITARY SEWER (G.U.C.)

PREPARED IN THE OFFICE OF

THE WOOTEN COMPANY
120 North Boylan Avenue Raleigh NC 27603-1423
919.828.0531 Fax 919.834.3589
License Number: F-0115

David G. Malinuaskas CONSULTANT CONTACT #1
CONSULTANT CONTACT #2
CONSULTANT CONTACT #3

SEAL

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

Nabil Hamdan UTILITIES REGIONAL ENGINEER
Bo Hemphill UTILITIES LEAD
Tanga Sampson UTILITIES AREA COORDINATOR

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	REM FH
Water Meter	
Relocate Water Meter	
Remove Water Meter	REM WM
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	

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	
Power Manhole		*Underground Water Line	
Telephone Manhole		Aboveground Water Line	
Sanitary Sewer Manhole		*Underground Gravity Sanitary Sewer Line	
Hand Hole for Cable		Aboveground Gravity Sanitary Sewer Line	
Power Transformer		*Underground SS Forced Main Line	
Telephone Pedestal		Underground Unknown Utility Line	
CATV Pedestal		SUE Test Hole	
Gas Valve		Water Meter	
Gas Meter		Water Valve	
Located Miscellaneous Utility Object		Fire Hydrant	
Abandoned According to Utility Records	AATUR	Sanitary Sewer Cleanout	
End of Information	E.O.I.		

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

Designated Utility Line (Type as Shown)

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

UTILITY CONSTRUCTION


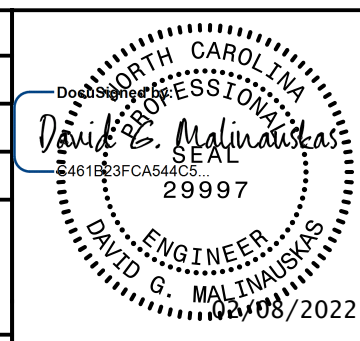
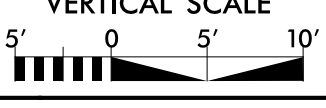
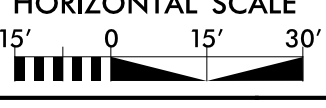
GENERAL NOTES:

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 2018.
2. THE EXISTING UTILITIES BELONG TO GREENVILLE UTILITIES COMMISSION.
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 ENVIRONMENT 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 WITHOUT ENDANGERING THE UTILITY SERVICE AND IN ACCORDANCE WITH UTILITY OWNER'S REQUIREMENTS. ALL EXISTING WATER MAINS MUST REMAIN ACTIVE AT ALL TIMES DURING CONSTRUCTION. EXISTING WATER MAINS SHALL NOT BE TAKEN OUT OF SERVICE UNTIL NEW MAINS HAVE BEEN TESTED, DISINFECTED AND CERTIFIED. ALL SEWER MAINS AND SERVICES MUST REMAIN ACTIVE DURING CONSTRUCTION. CONTRACTOR SHALL BYPASS PUMP OR UTILIZE OTHER MEANS TO ENSURE NO SANITARY SEWER OVERFLOWS OCCUR.
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 SHALL BE D.I.R.J. (DUCTILE IRON RESTRAINED JOINT) PIPE WRAPPED IN POLYETHYLENE. PIPE SHALL BE MINIMUM CLASS 250.
2. NEW WATER MAIN AND APPURTENANCES MUST BE CONSTRUCTED, TESTED, APPROVED FOR SERVICE PRIOR TO EXISTING WATER MAIN BEING TAKEN OUT OF SERVICE.
3. NEW WATER MAIN MAY BE CONSTRUCTED IN PHASES TO FACILITATE ROADWAY CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR PREPARATION OF A PHASING PLAN CLEARLY IDENTIFYING EACH PHASE AND SUBMIT FOR NCDOT AND GUC APPROVAL PRIOR TO BEGINNING CONSTRUCTION. EACH COMPLETED PHASE MUST RECEIVE NCDEQ FINAL APPROVAL PRIOR TO BEING PLACED INTO SERVICE.
4. ALL WATER AND SANITARY SEWER CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH REQUIREMENTS OF THE GREENVILLE UTILITIES COMMISSION'S MANUAL FOR THE DESIGN AND CONSTRUCTION OF WATER AND WASTEWATER SYSTEM EXTENSIONS.
5. ALL SANITARY SEWER SERVICE CONNECTIONS ARE APPROXIMATE LOCATED BY GUC. TO BE FIELD VERIFIED.
6. RETURN ALL OLD FIRE HYDRANTS TO GREENVILLE UTILITIES.
7. FOR ALL 12" AND LARGER VALVES USE HORIZONTAL WATER VALVES AND BOX VALVES.
8. FKM ELASTOMER PETROLEUM RESISTANT GASKETS MUST BE INSTALLED WITHIN AND ADJACENT TO ALL AREAS IDENTIFIED AS CONTAMINATED SOILS AND AS INDICATED ON THE DRAWINGS.
9. ALL WATER AND SEWER MAINS MUST BE WRAPPED WITH POLYETHYLENE IN ACCORDANCE WITH AWWA C105.
10. PRIOR TO CONSTRUCTION, CONTRACTOR MUST SUBMIT A COPY OF RAILROAD PROTECTIVE LIABILITY INSURANCE TO NCDOT AND ALAN BRIDGERS WITH CAROLINA COASTAL RAILWAY (252-237-8259).
11. ALL DIP SEWER MAINS SHALL HAVE AN INTERIOR CEMENT MORTAR LINING IN ACCORDANCE WITH ANSI A21.4 (AND GUC STANDARDS), THE EXTERIOR SHALL HAVE ONE (1) MIL BITUMINOUS COATING IN ACCORDANCE WITH ANSI A21.51.
12. WHEN CONNECTING SANITARY SEWER MAINS THAT ARE DIFFERENT MATERIALS, A FERNCO TRANSITION FITTING WITH SHEAR BANDS/RINGS SHALL BE USED.
13. REMOVAL OF ALL ASBESTOS CEMENT (AC) PIPE SHALL BE IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS. CONTACT JEFF DELLINGER (919-707-5950) WITH NCDHHS FOR FURTHER INFORMATION.
14. REFER TO ROADWAY PLANS FOR PHASING OF PROPOSED UTILITIES IN CONJUNCTION WITH ROADWAY CONSTRUCTION.

PREPARED IN THE OFFICE OF:  THE WOOTEN COMPANY <small>120 North Roper Avenue Raleigh, NC 27603-1423 919.878.0111 Fax 919.878.2089 License Number: F-0115</small>	PROJECT REFERENCE NO.	SHEET NO.
	U-5606	UC-3
DESIGNED BY: JRG		
DRAWN BY: TK & CB		
CHECKED BY: DGM		
APPROVED BY: DGM		
REVISED:		
VERTICAL SCALE 		HORIZONTAL SCALE 
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151		Document Not Considered Final Unless All Signatures Completed UTILITY CONSTRUCTION PLANS ONLY

UTILITY CONSTRUCTION

PROJECT TYPICAL DETAILS

PREPARED IN THE OFFICE OF:



PROJECT REFERENCE NO. U-5606

SHEET NO. UC-3A

DESIGNED BY: JRG

DRAWN BY: TK & CB

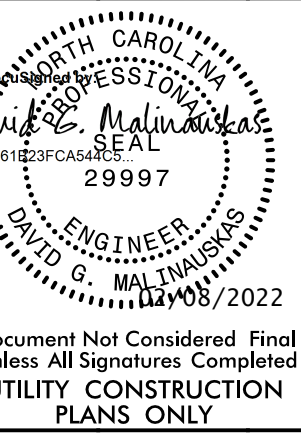
CHECKED BY: DGM

APPROVED BY: DGM

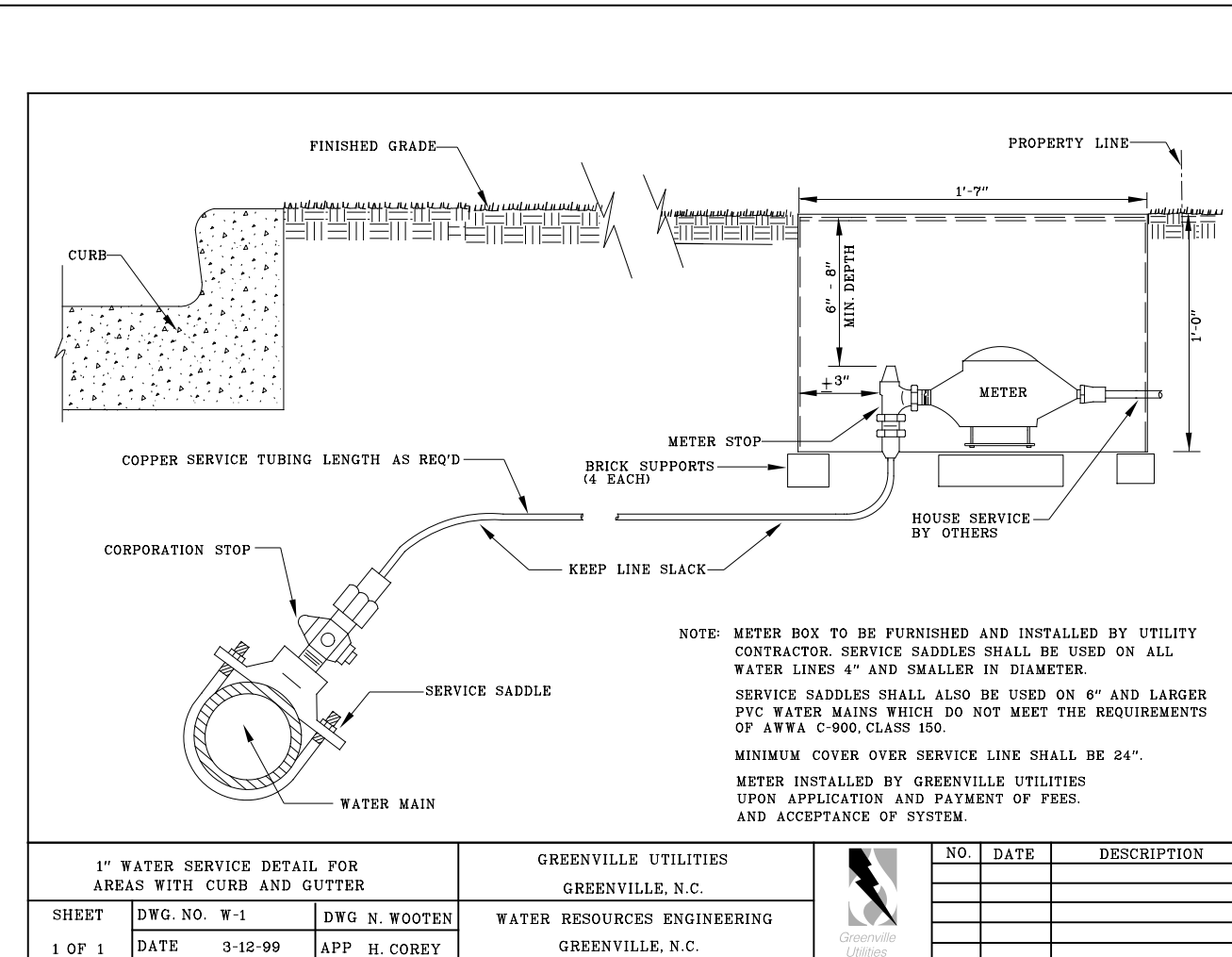
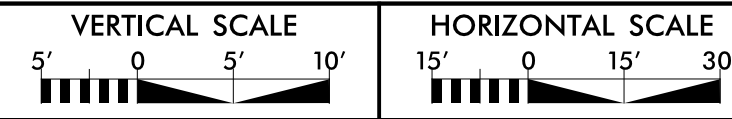
REVISED:

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

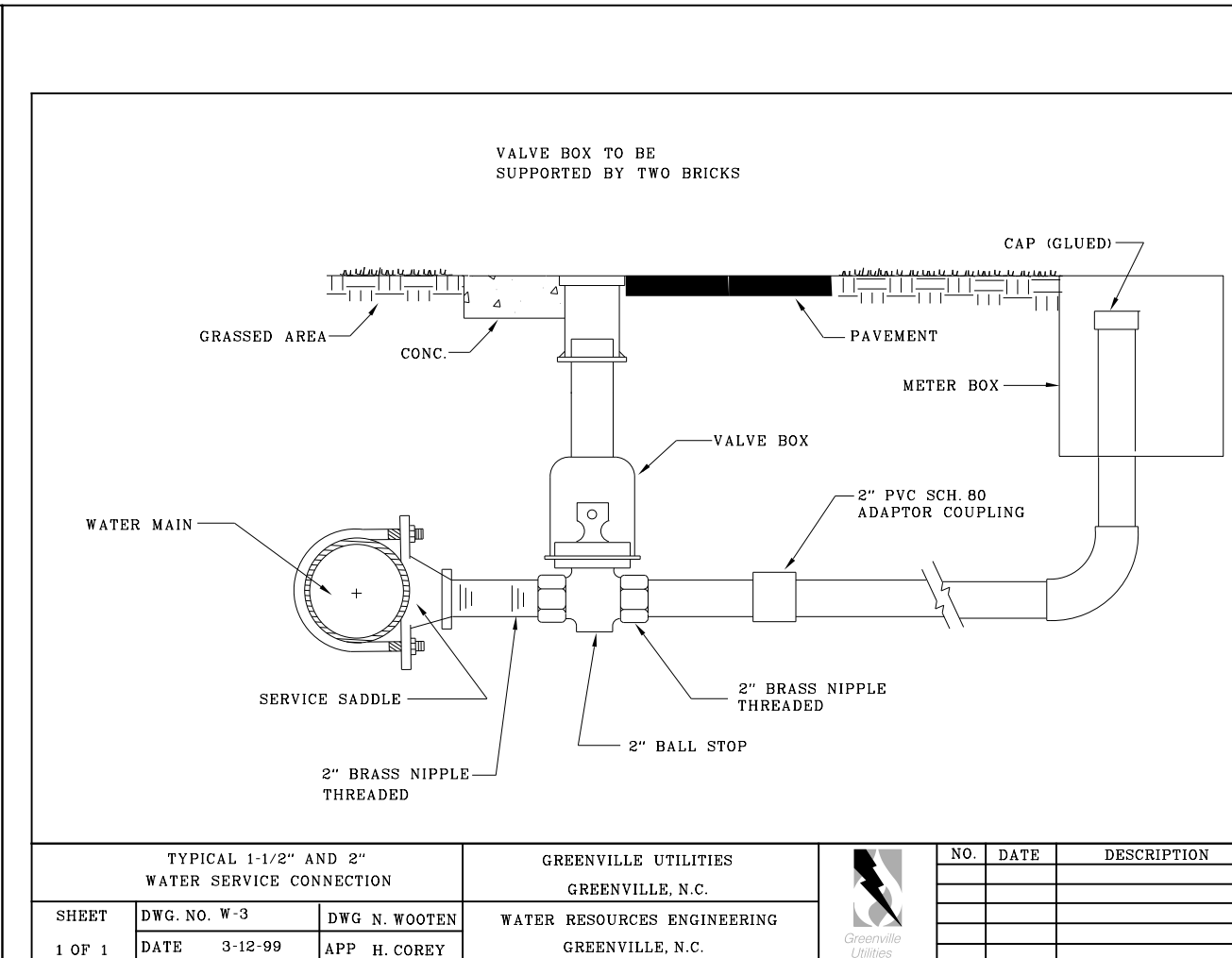
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151



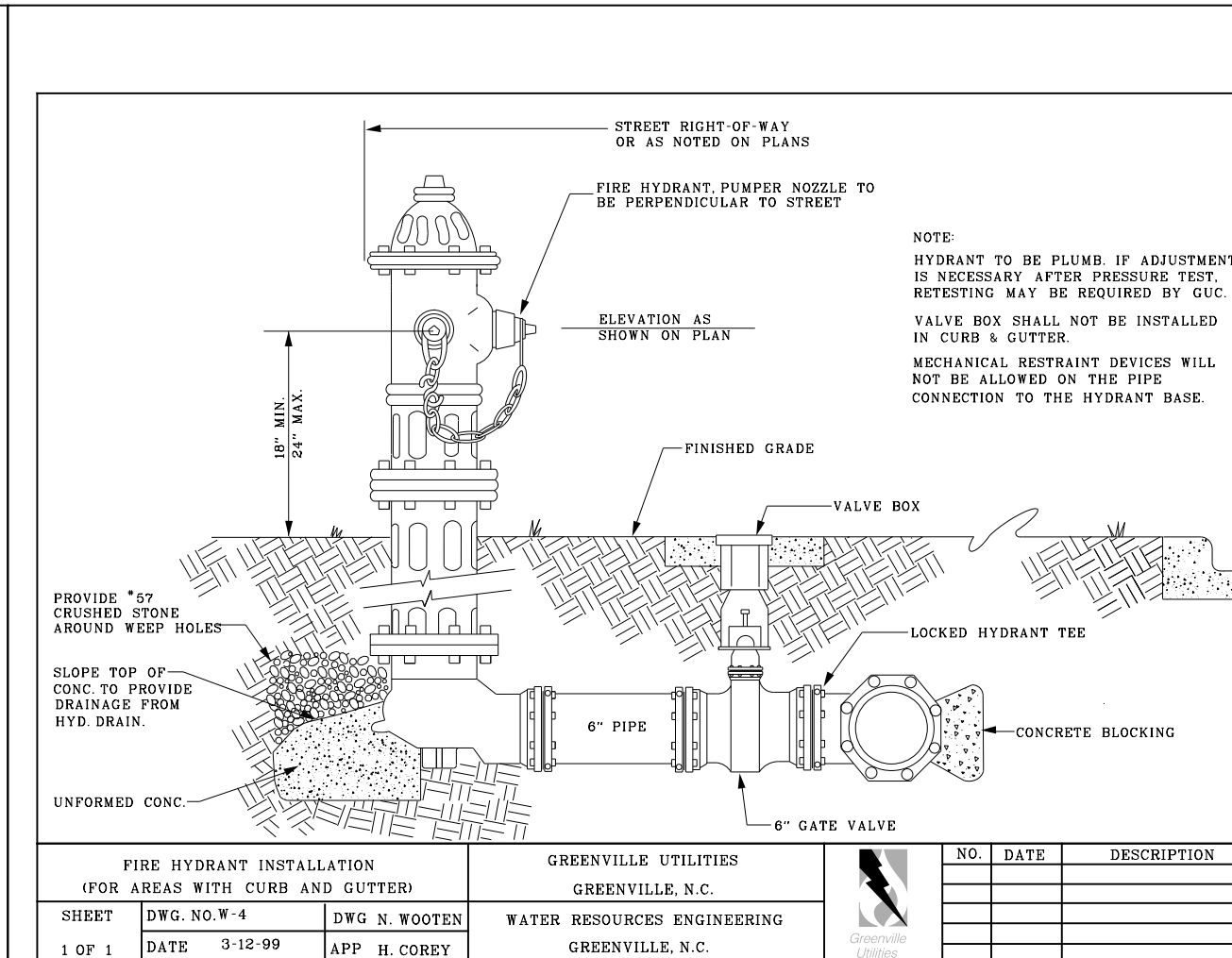
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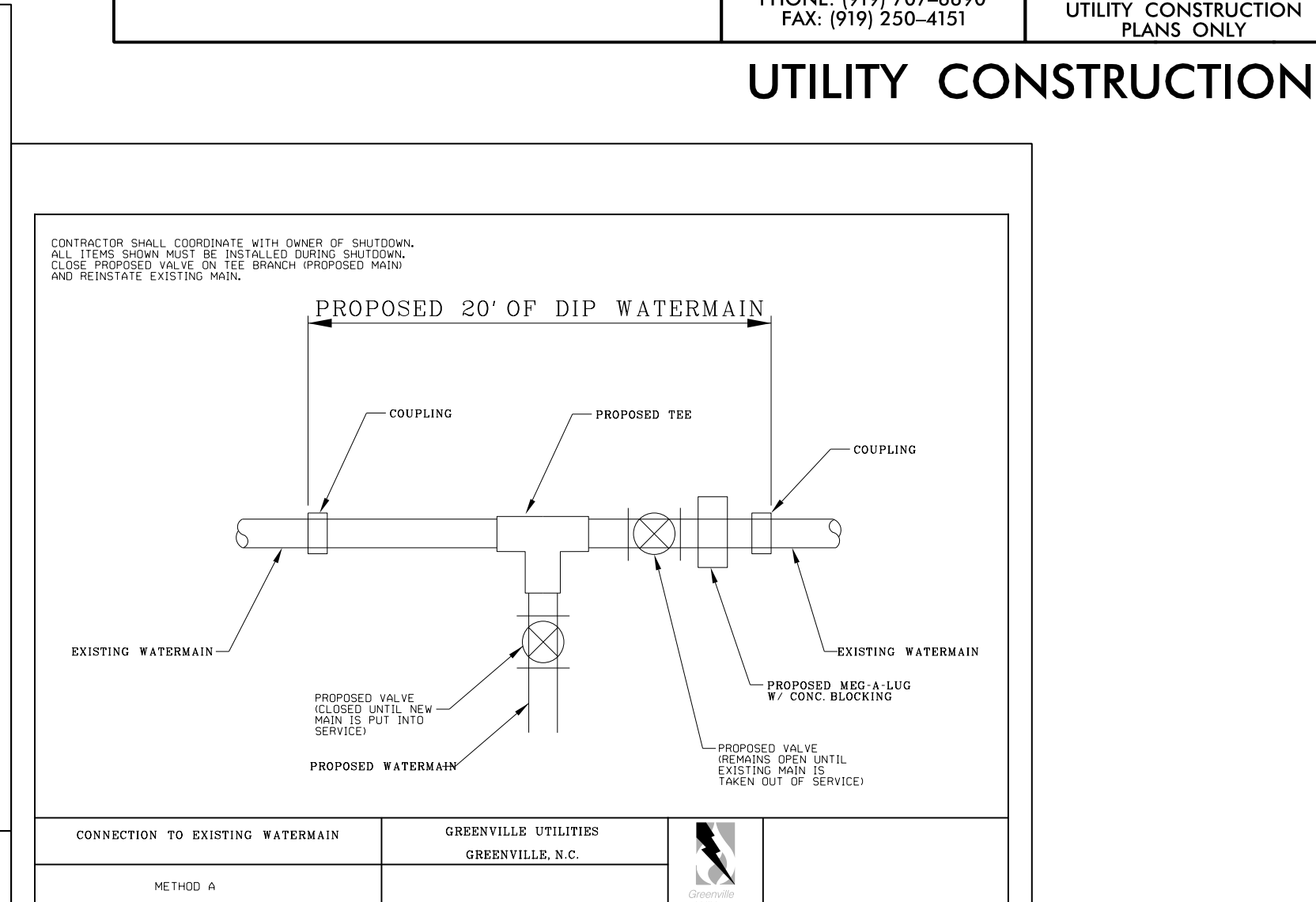
1" WATER SERVICE DETAIL FOR AREAS WITH CURB AND GUTTER		GREENVILLE UTILITIES GREENVILLE, N.C.		NO.	DATE	DESCRIPTION
SHEET	DWG. NO. W-1	DWG. N. WOOTEN	WATER RESOURCES ENGINEERING GREENVILLE, N.C.			
1 OF 1	DATE	3-12-99	APP. H. COREY			



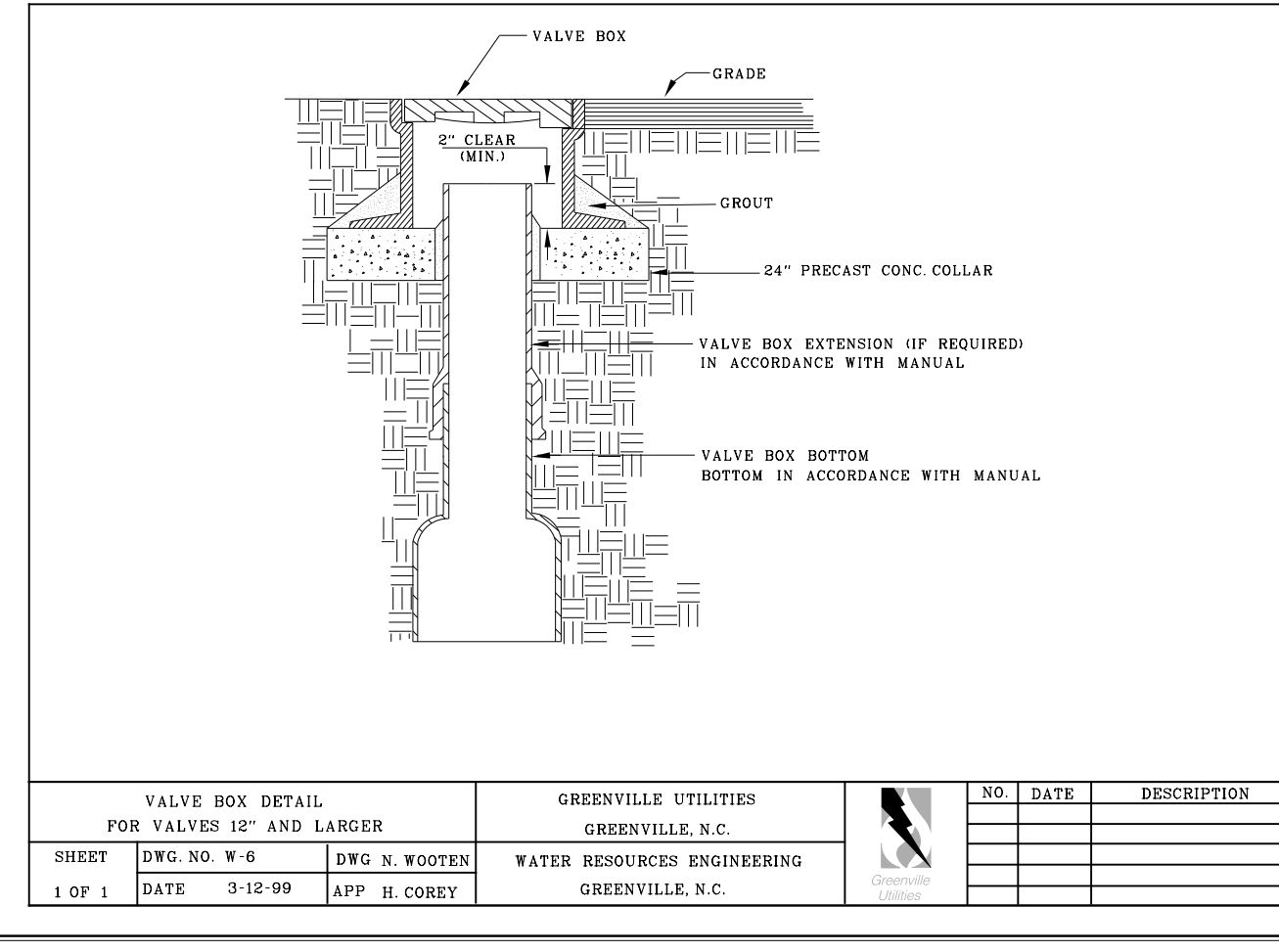
TYPICAL 1-1/2" AND 2" WATER SERVICE CONNECTION		GREENVILLE UTILITIES GREENVILLE, N.C.		NO.	DATE	DESCRIPTION
SHEET	DWG. NO. W-3	DWG. N. WOOTEN	WATER RESOURCES ENGINEERING GREENVILLE, N.C.			
1 OF 1	DATE	3-12-99	APP. H. COREY			



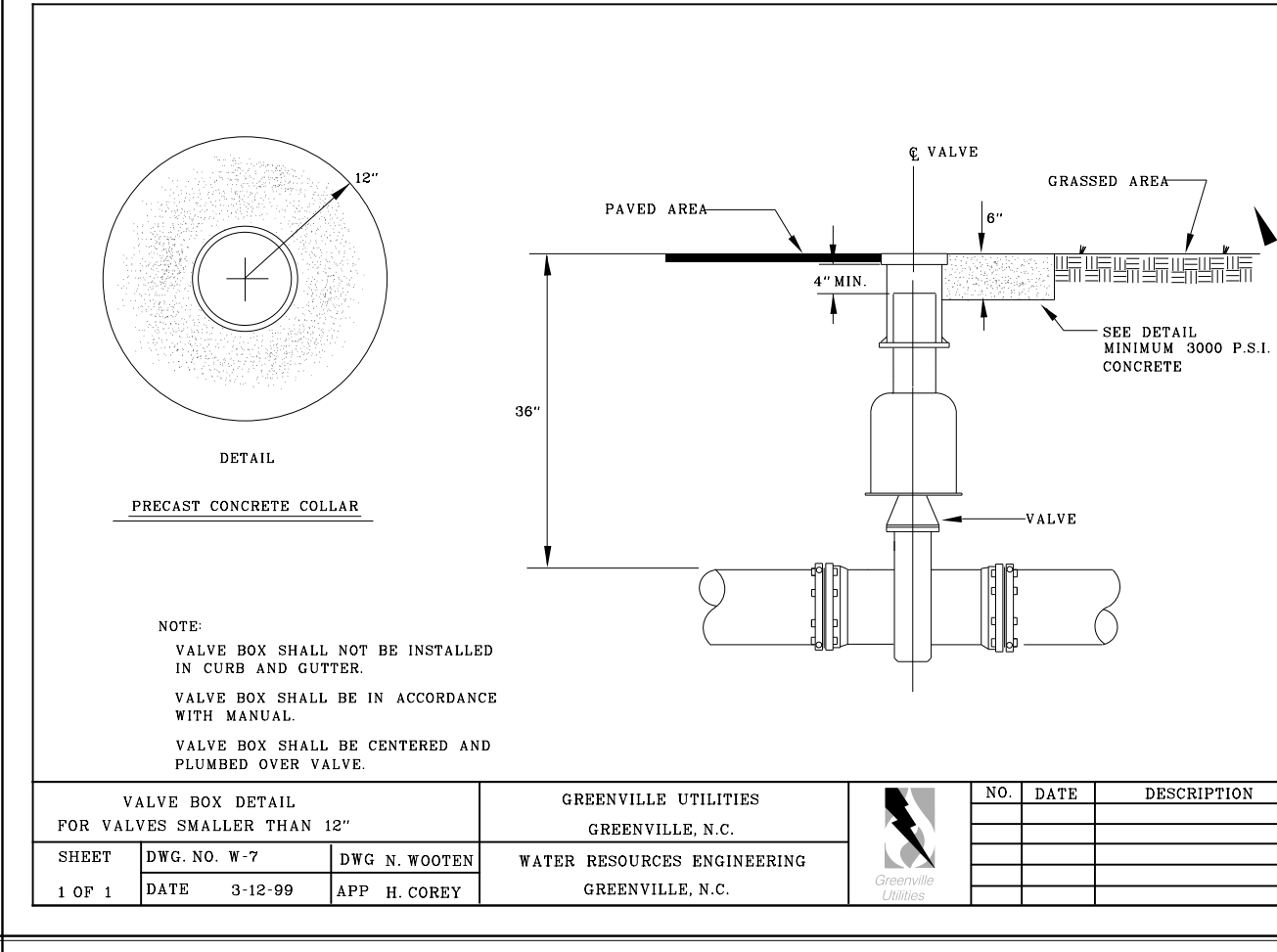
FIRE HYDRANT INSTALLATION (FOR AREAS WITH CURB AND GUTTER)		GREENVILLE UTILITIES GREENVILLE, N.C.		NO.	DATE	DESCRIPTION
SHEET	DWG. NO. W-4	DWG. N. WOOTEN	WATER RESOURCES ENGINEERING GREENVILLE, N.C.			
1 OF 1	DATE	3-12-99	APP. H. COREY			



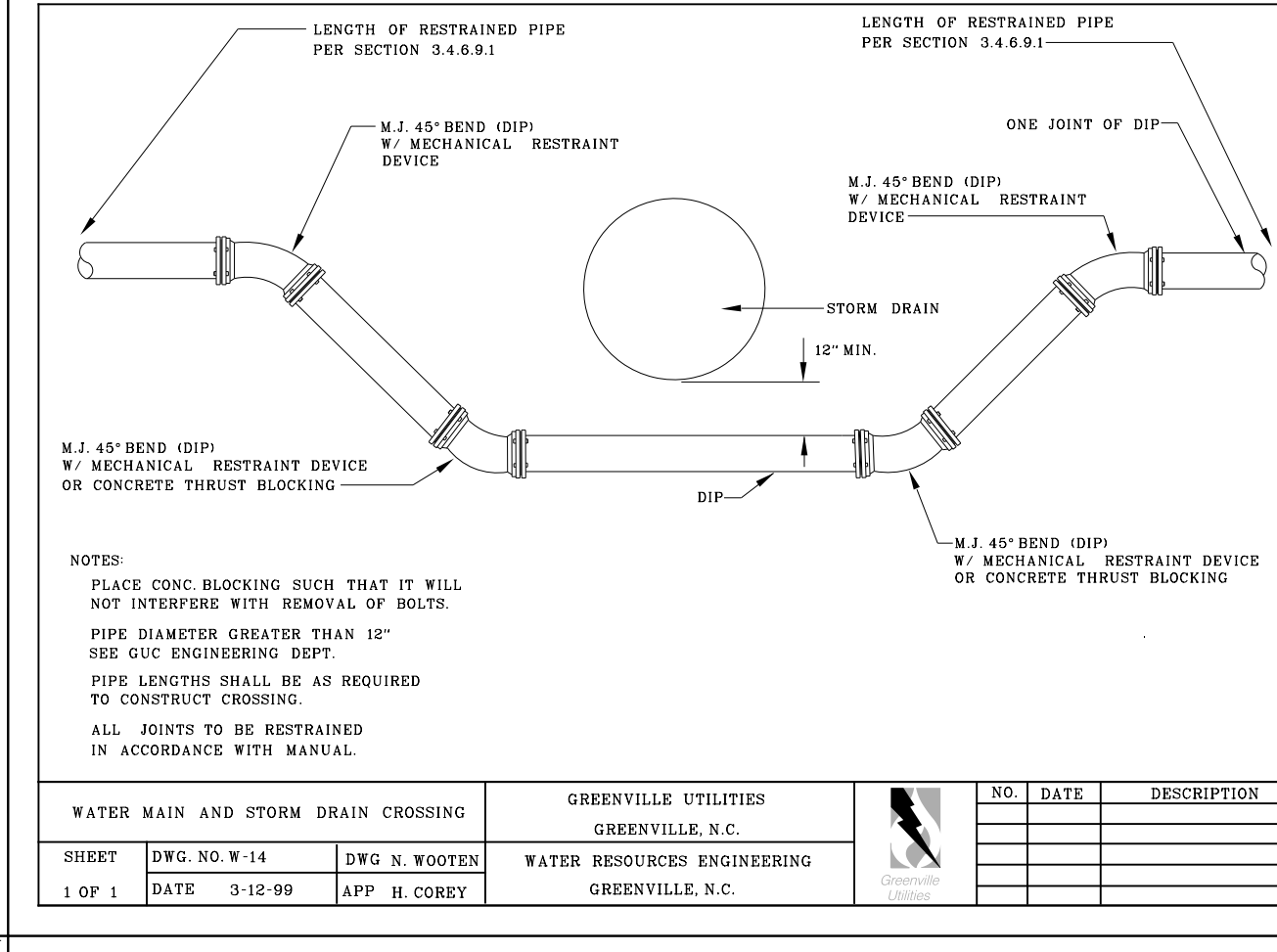
CONNECTION TO EXISTING WATERMAIN (METHOD A)		GREENVILLE UTILITIES GREENVILLE, N.C.		NO.	DATE	DESCRIPTION
SHEET	DWG. NO. W-5	DWG. N. WOOTEN	WATER RESOURCES ENGINEERING GREENVILLE, N.C.			
1 OF 1	DATE	3-12-99	APP. H. COREY			



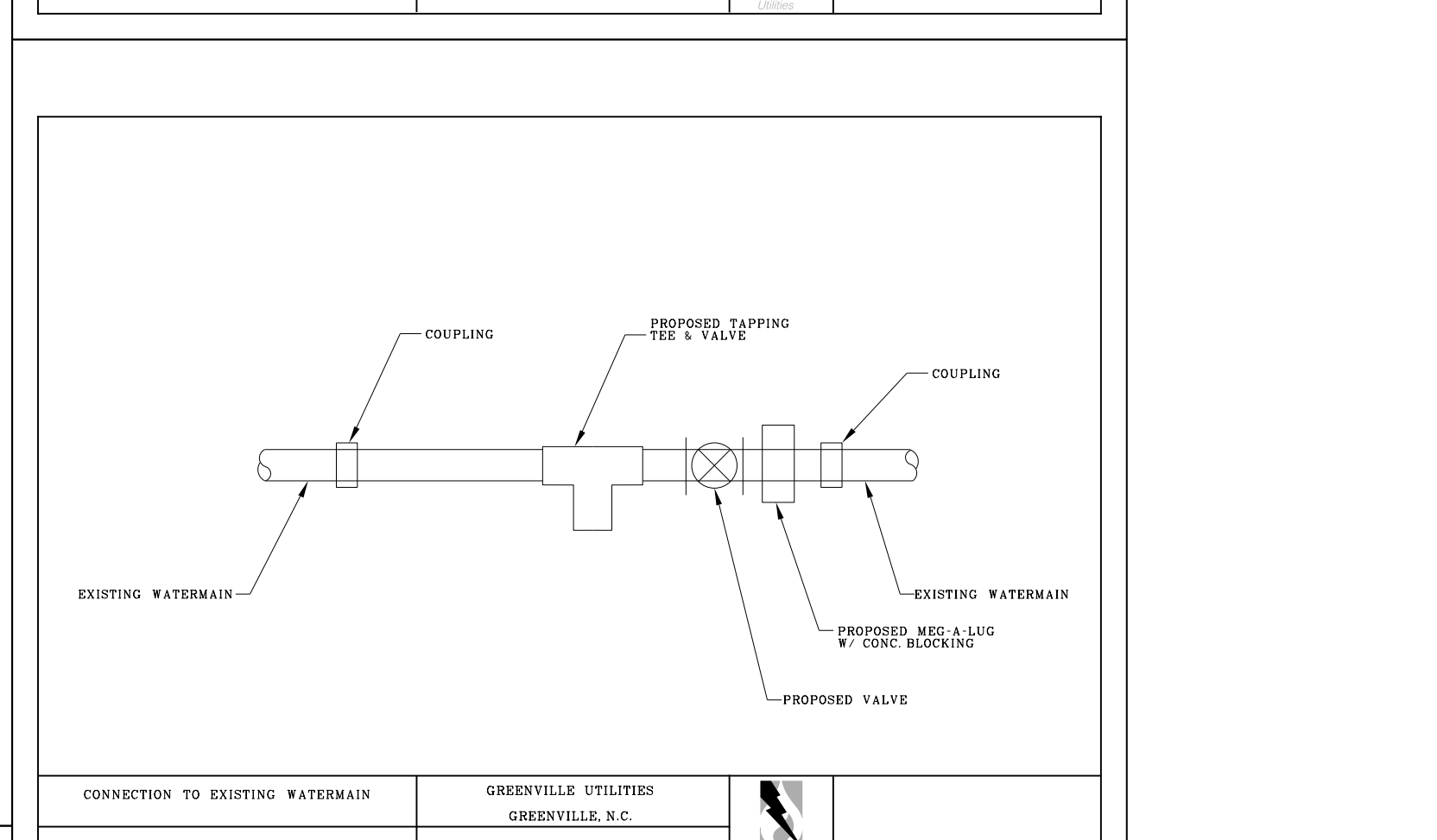
VALVE BOX DETAIL FOR VALVES 12" AND LARGER		GREENVILLE UTILITIES GREENVILLE, N.C.		NO.	DATE	DESCRIPTION
SHEET	DWG. NO. W-6	DWG. N. WOOTEN	WATER RESOURCES ENGINEERING GREENVILLE, N.C.			
1 OF 1	DATE	3-12-99	APP. H. COREY			



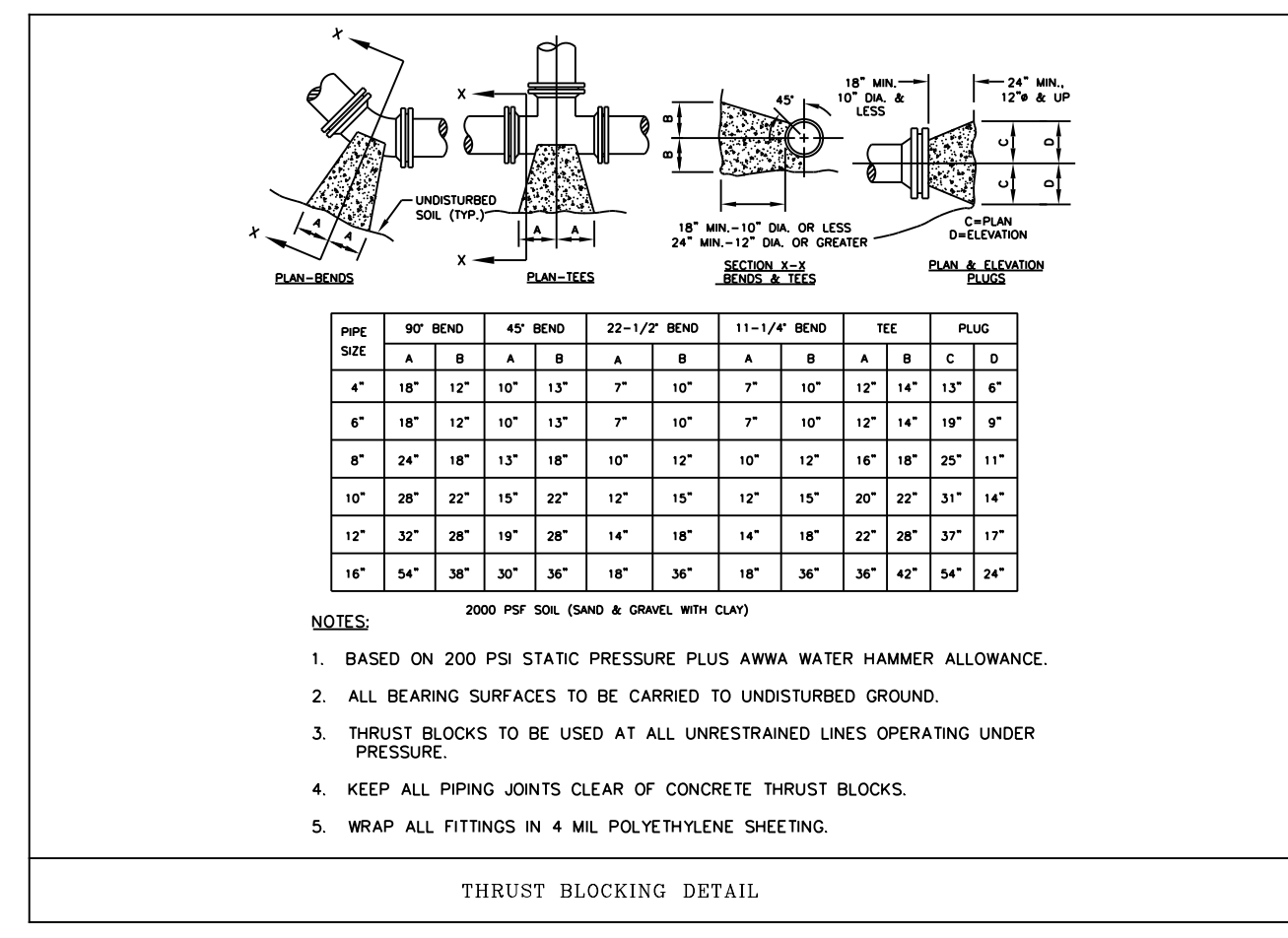
VALVE BOX DETAIL FOR VALVES SMALLER THAN 12"		GREENVILLE UTILITIES GREENVILLE, N.C.		NO.	DATE	DESCRIPTION
SHEET	DWG. NO. W-7	DWG. N. WOOTEN	WATER RESOURCES ENGINEERING GREENVILLE, N.C.			
1 OF 1	DATE	3-12-99	APP. H. COREY			



WATER MAIN AND STORM DRAIN CROSSING		GREENVILLE UTILITIES GREENVILLE, N.C.		NO.	DATE	DESCRIPTION
SHEET	DWG. NO. W-14	DWG. N. WOOTEN	WATER RESOURCES ENGINEERING GREENVILLE, N.C.			
1 OF 1	DATE	3-12-99	APP. H. COREY			

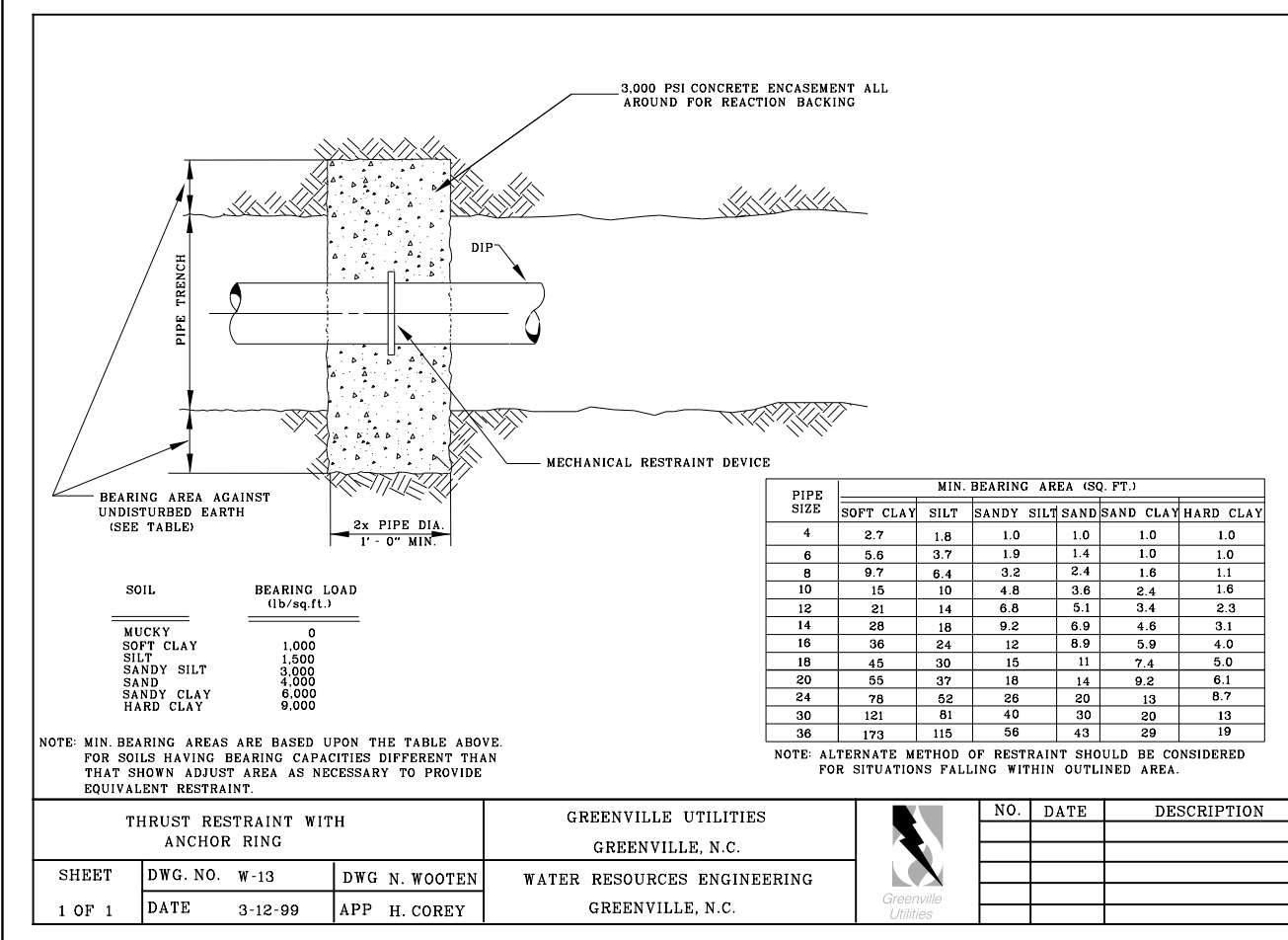


CONNECTION TO EXISTING WATERMAIN (METHOD B)		GREENVILLE UTILITIES GREENVILLE, N.C.		NO.	DATE	DESCRIPTION
SHEET	DWG. NO. W-8	DWG. N. WOOTEN	WATER RESOURCES ENGINEERING GREENVILLE, N.C.			
1 OF 1	DATE	3-12-99	APP. H. COREY			

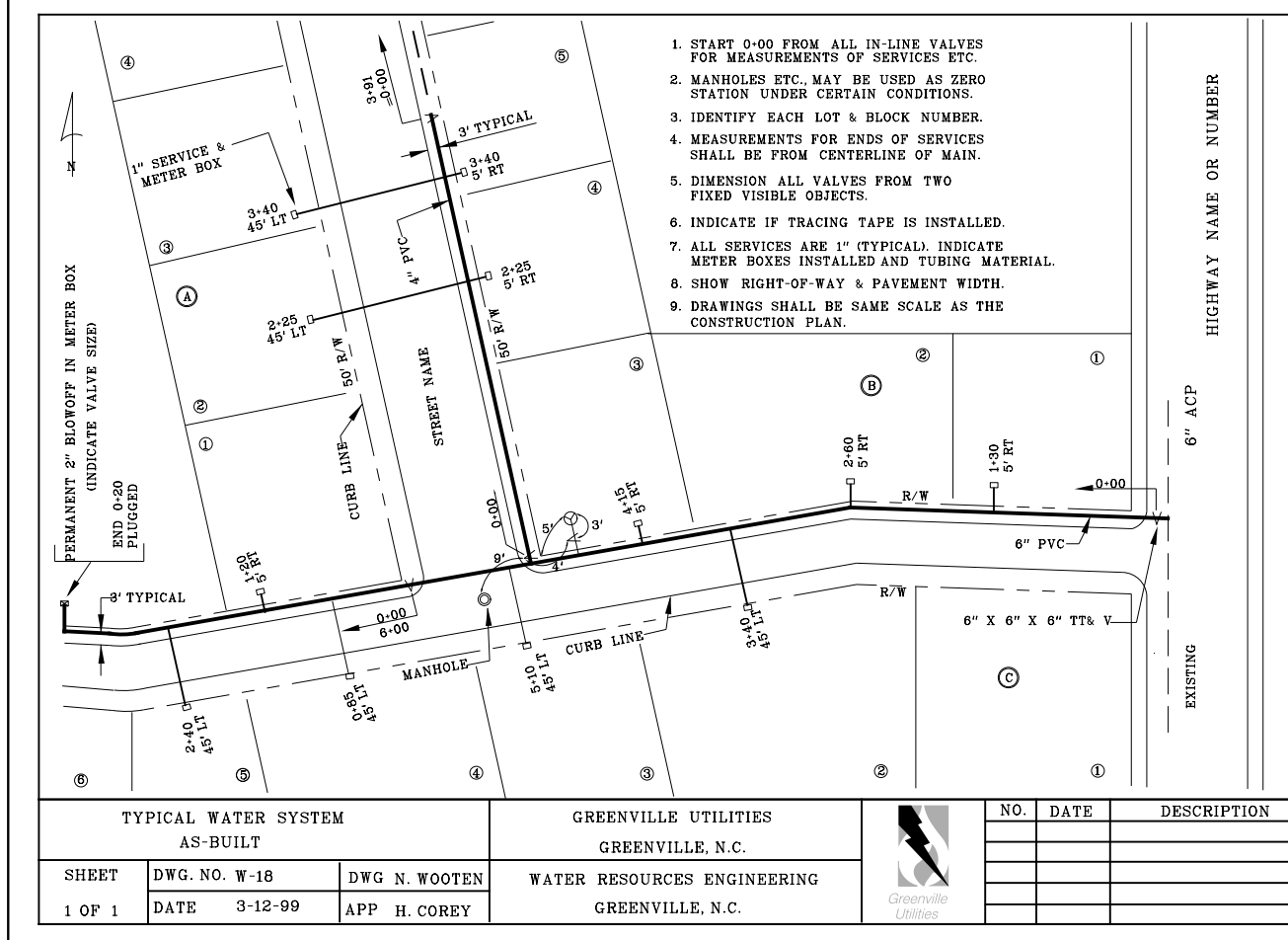


2000 PSF SOIL (SAND & GRAVEL WITH CLAY)

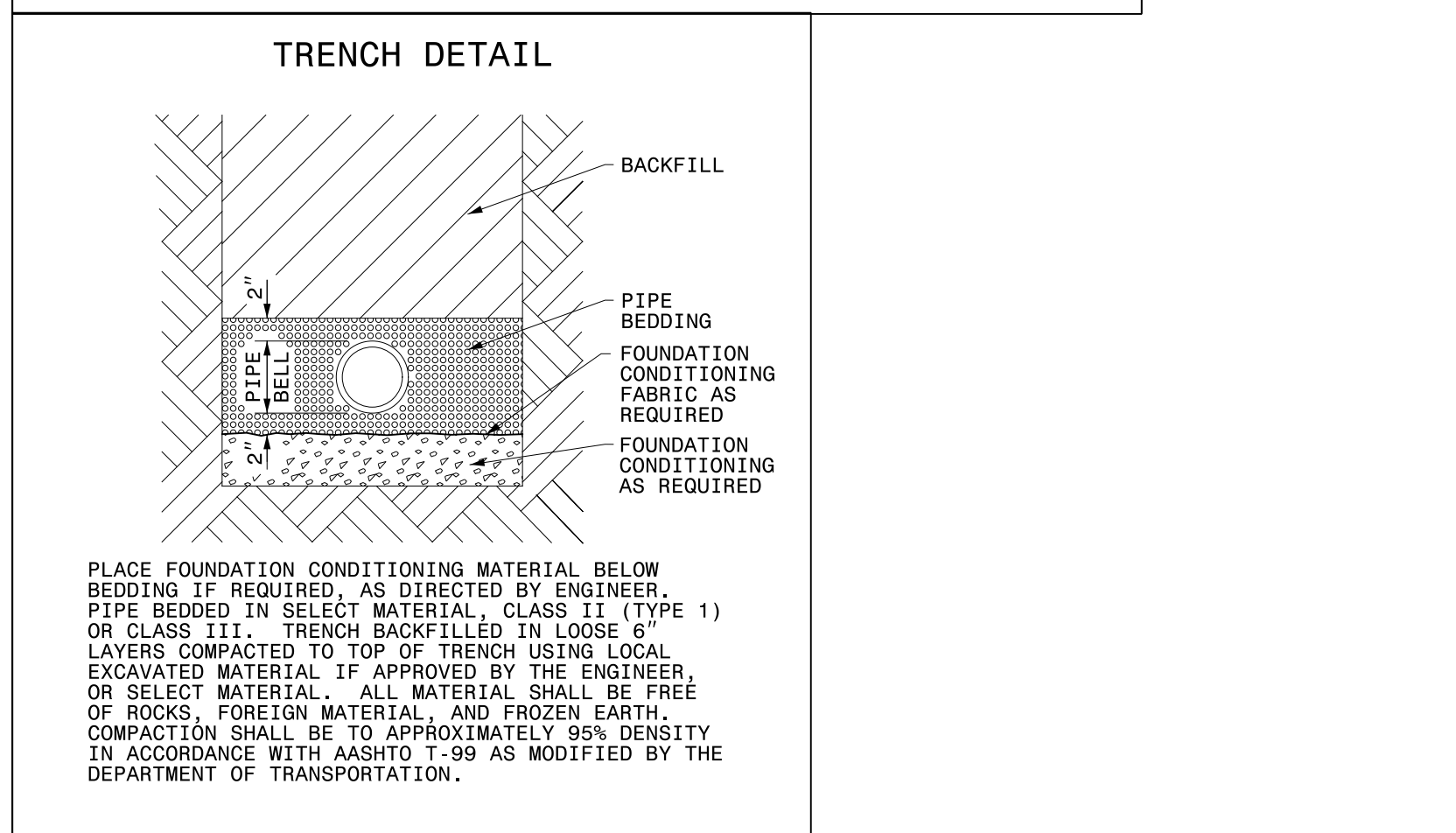
- BASED ON 200 PSI STATIC PRESSURE PLUS AWWA WATER HAMMER ALLOWANCE.
- ALL BEARING SURFACES TO BE CARRIED TO UNDISTURBED GROUND.
- THRUST BLOCKS TO BE USED AT ALL UNRESTRAINED LINES OPERATING UNDER PRESSURE.
- KEEP ALL PIPING JOINTS CLEAR OF CONCRETE THRUST BLOCKS.
- WRAP ALL FITTINGS IN 4 MIL POLYETHYLENE SHEETING.



THRUST RESTRAINT WITH ANCHOR RING		GREENVILLE UTILITIES GREENVILLE, N.C.		NO.	DATE	DESCRIPTION
SHEET	DWG. NO. W-13	DWG. N. WOOTEN	WATER RESOURCES ENGINEERING GREENVILLE, N.C.			
1 OF 1	DATE	3-12-99	APP. H. COREY			



TYPICAL WATER SYSTEM AS-BUILT		GREENVILLE UTILITIES GREENVILLE, N.C.		NO.	DATE	DESCRIPTION
SHEET	DWG. NO. W-16	DWG. N. WOOTEN	WATER RESOURCES ENGINEERING GREENVILLE, N.C.			
1 OF 1	DATE	3-12-99	APP. H. COREY			



PLACE FOUNDATION CONDITIONING MATERIAL BELOW BEDDING IF REQUIRED, AS DIRECTED BY ENGINEER. PIPE BEDDED IN SELECT MATERIAL, CLASS II (TYPE 1) OR CLASS III. TRENCH BACKFILLED IN LOOSE 6" LAYERS COMPACTED TO TOP OF TRENCH USING LOCAL EXCAVATED MATERIAL IF APPROVED BY THE ENGINEER OR SELECT MATERIAL. ALL MATERIAL SHALL BE FREE OF ROCKS, FOREIGN MATERIAL, AND FROZEN EARTH. COMPACTION SHALL BE TO APPROXIMATELY 95% DENSITY IN ACCORDANCE WITH ASTM 1-99 AS MODIFIED BY THE DEPARTMENT OF TRANSPORTATION.

NOTE: 1. ALL PROPOSED SANITARY GRAVITY SEWER PIPE WILL BE DUCTILE IRON.

2. INSTALL STORM DRAIN CONFLICT BOX IN LOCATIONS WHERE REQUIRED MINIMUM SEWER GRADE CANNOT BE MAINTAINED.

PROJECT TYPICAL DETAILS

PREPARED IN THE OFFICE OF:



PROJECT REFERENCE NO. U-5606

SHEET NO. UC-3B

DESIGNED BY: JRG

DRAWN BY: TK & CB

CHECKED BY: DGM

APPROVED BY: DGM

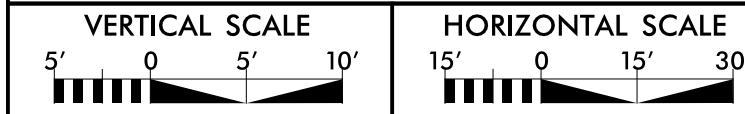
REVISED:

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

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



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UTILITY CONSTRUCTION

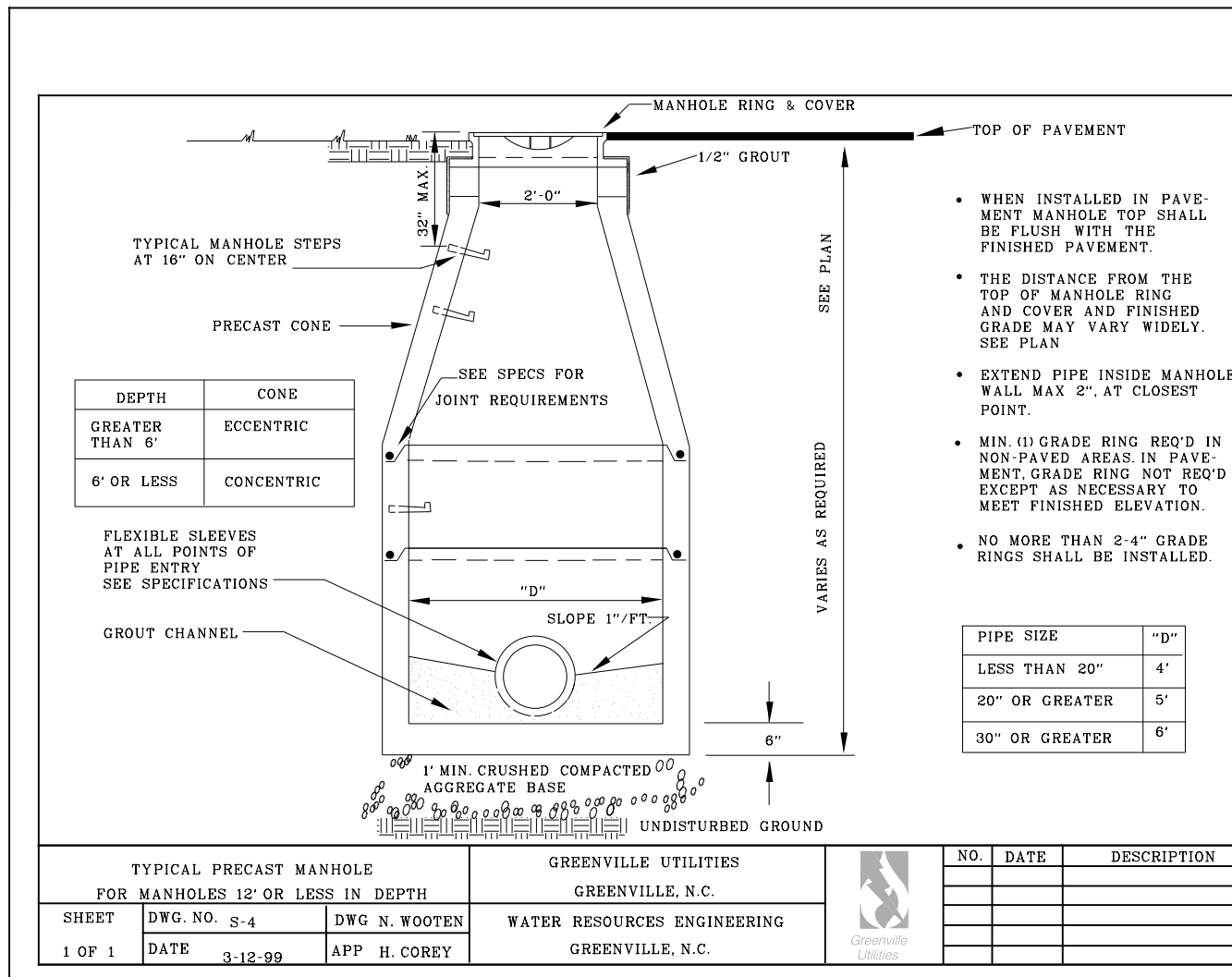


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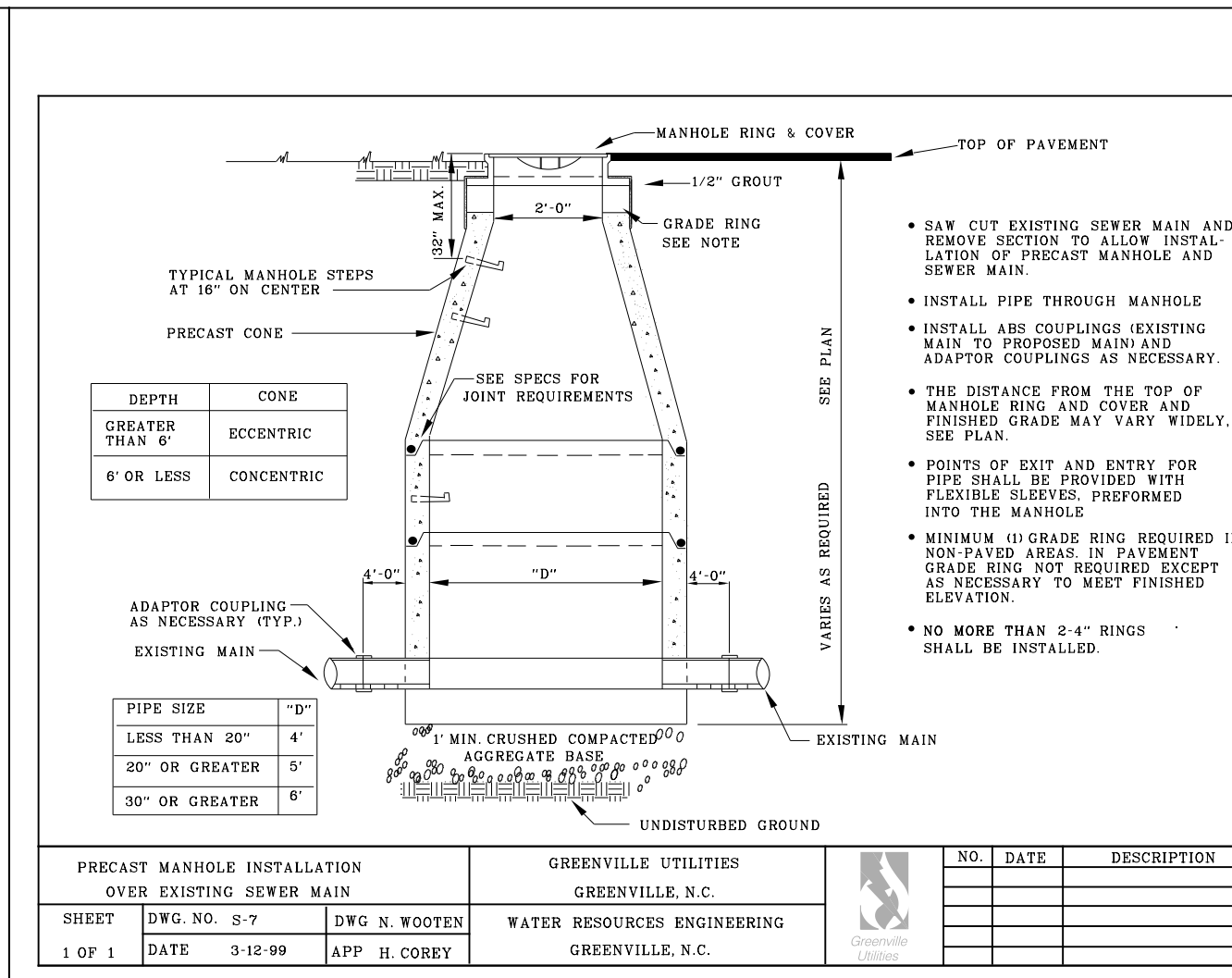


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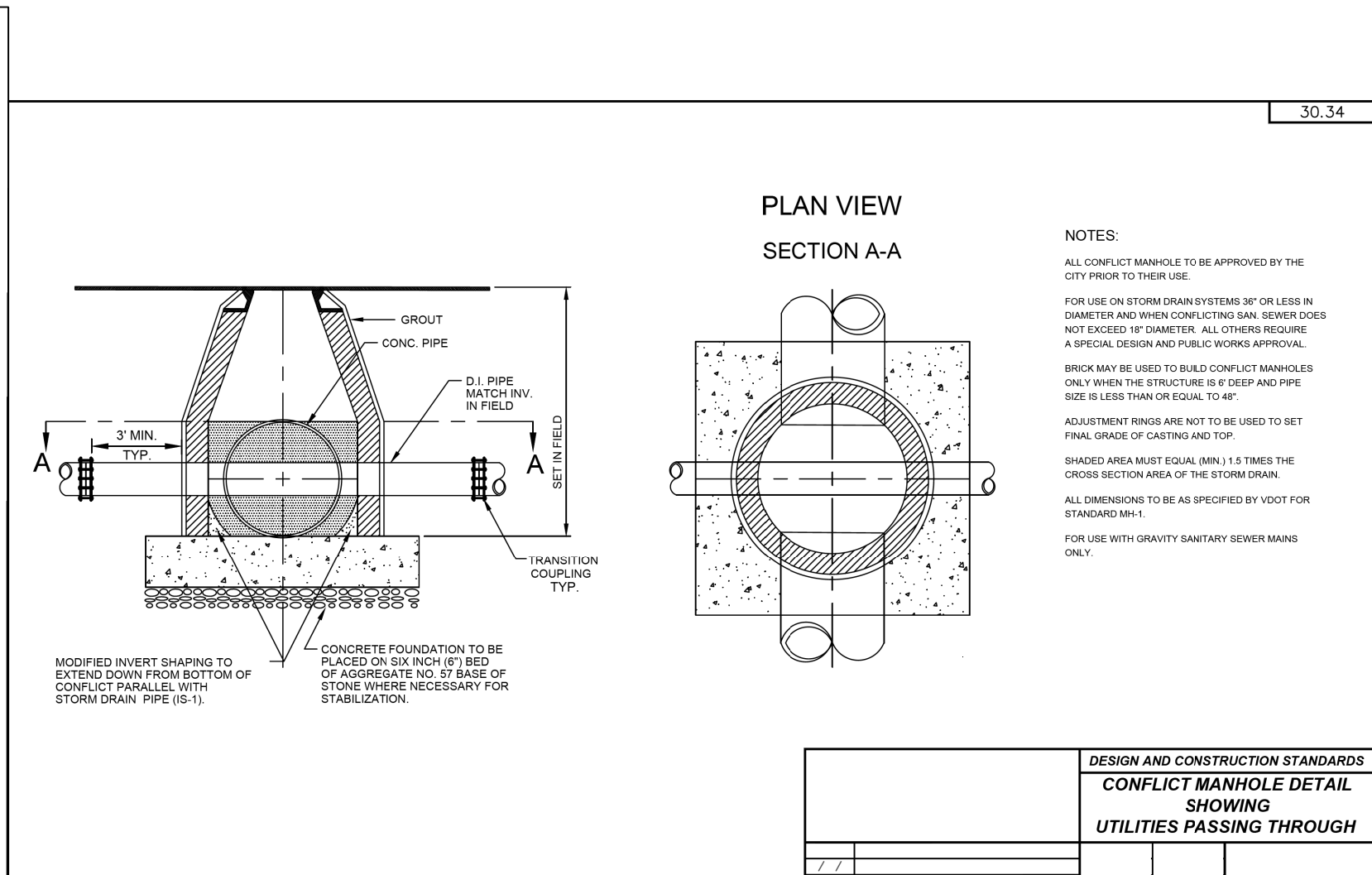


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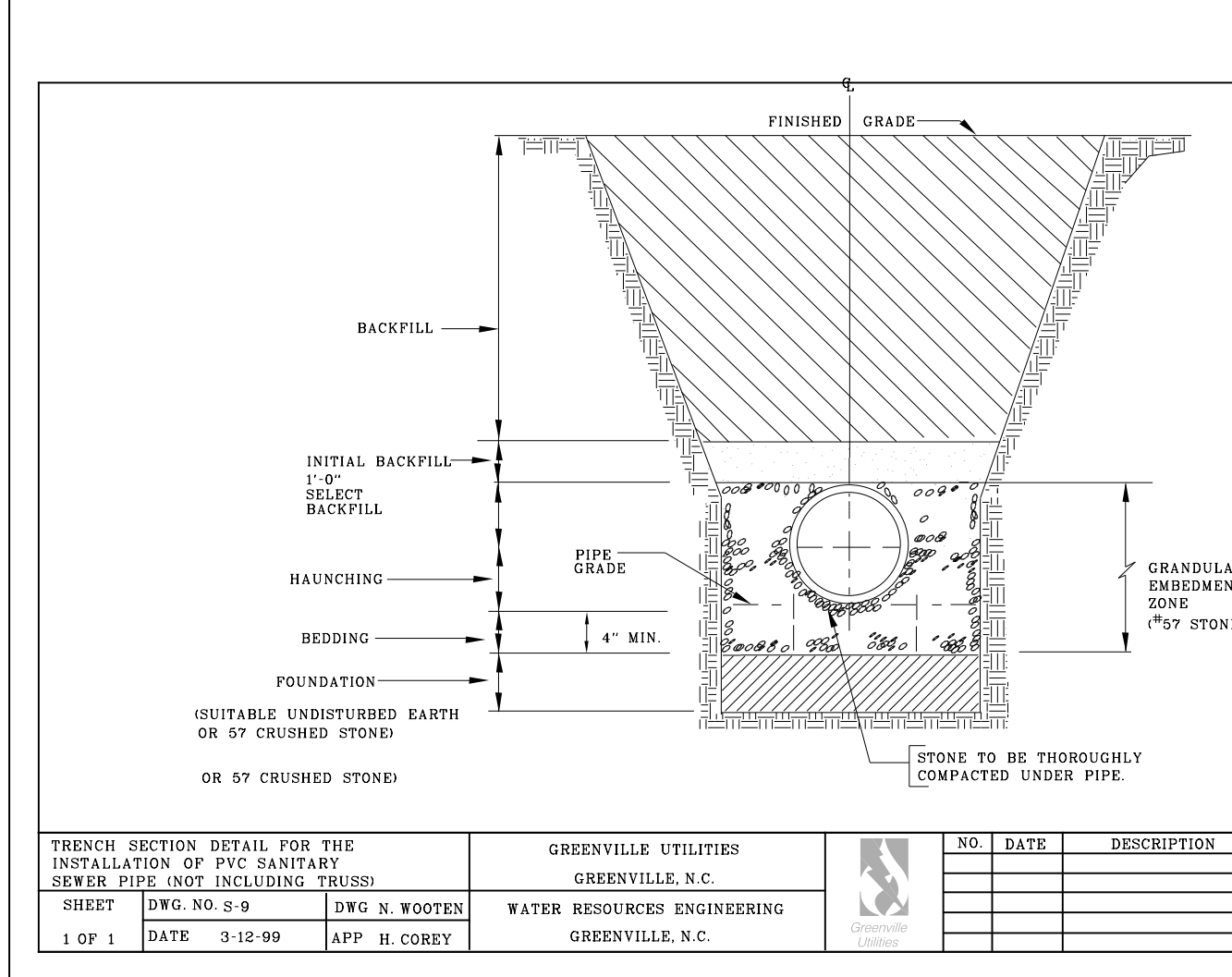


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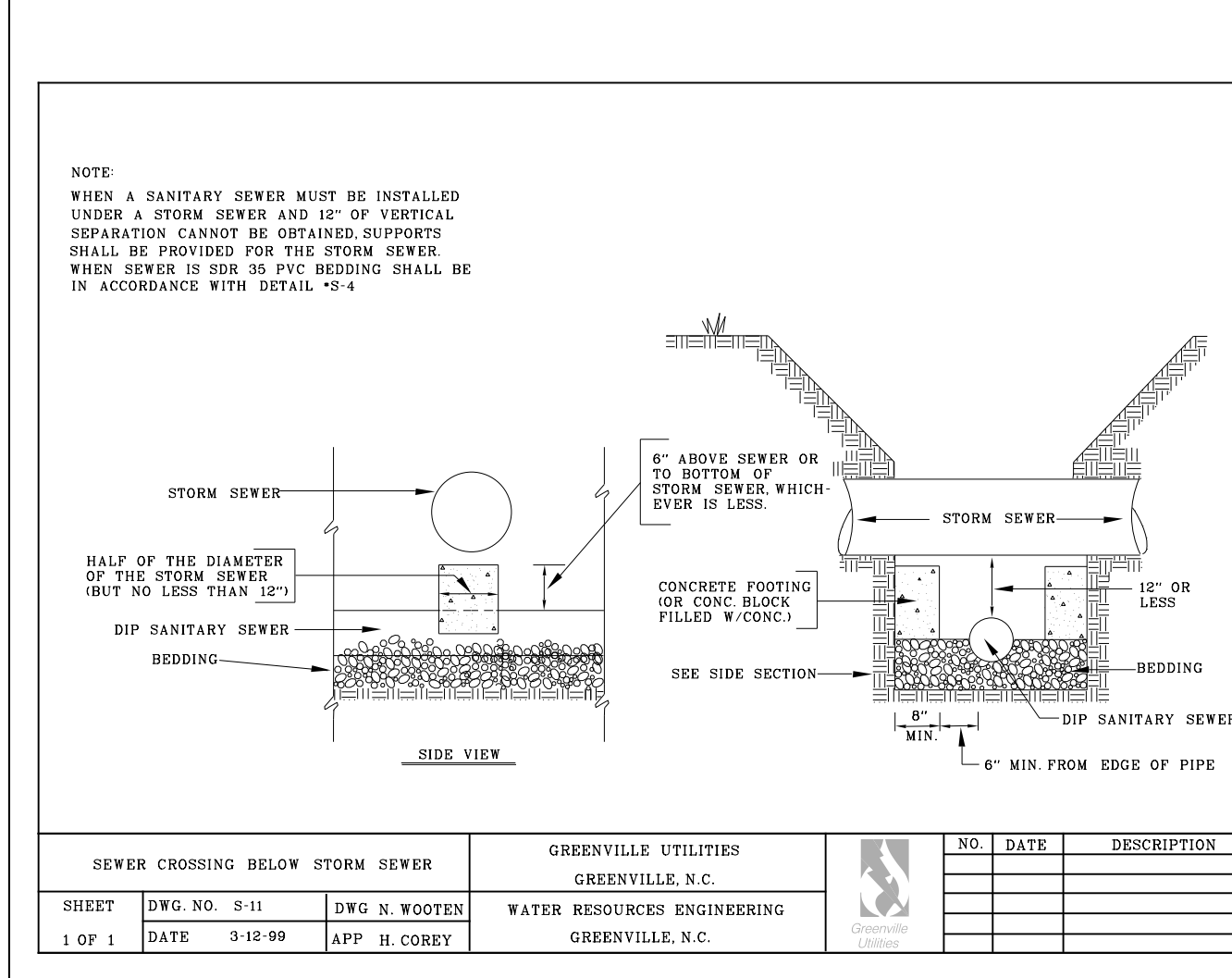


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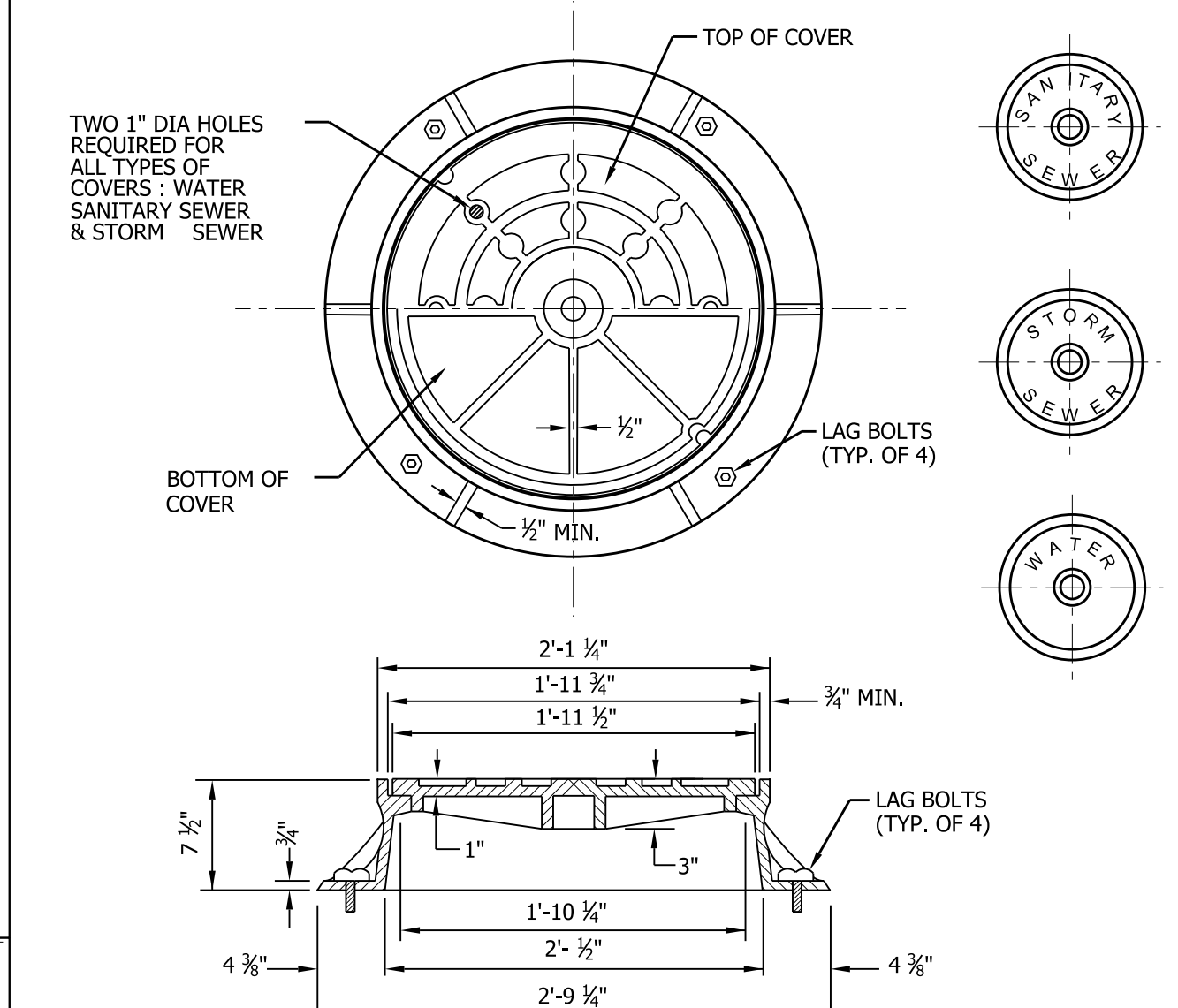


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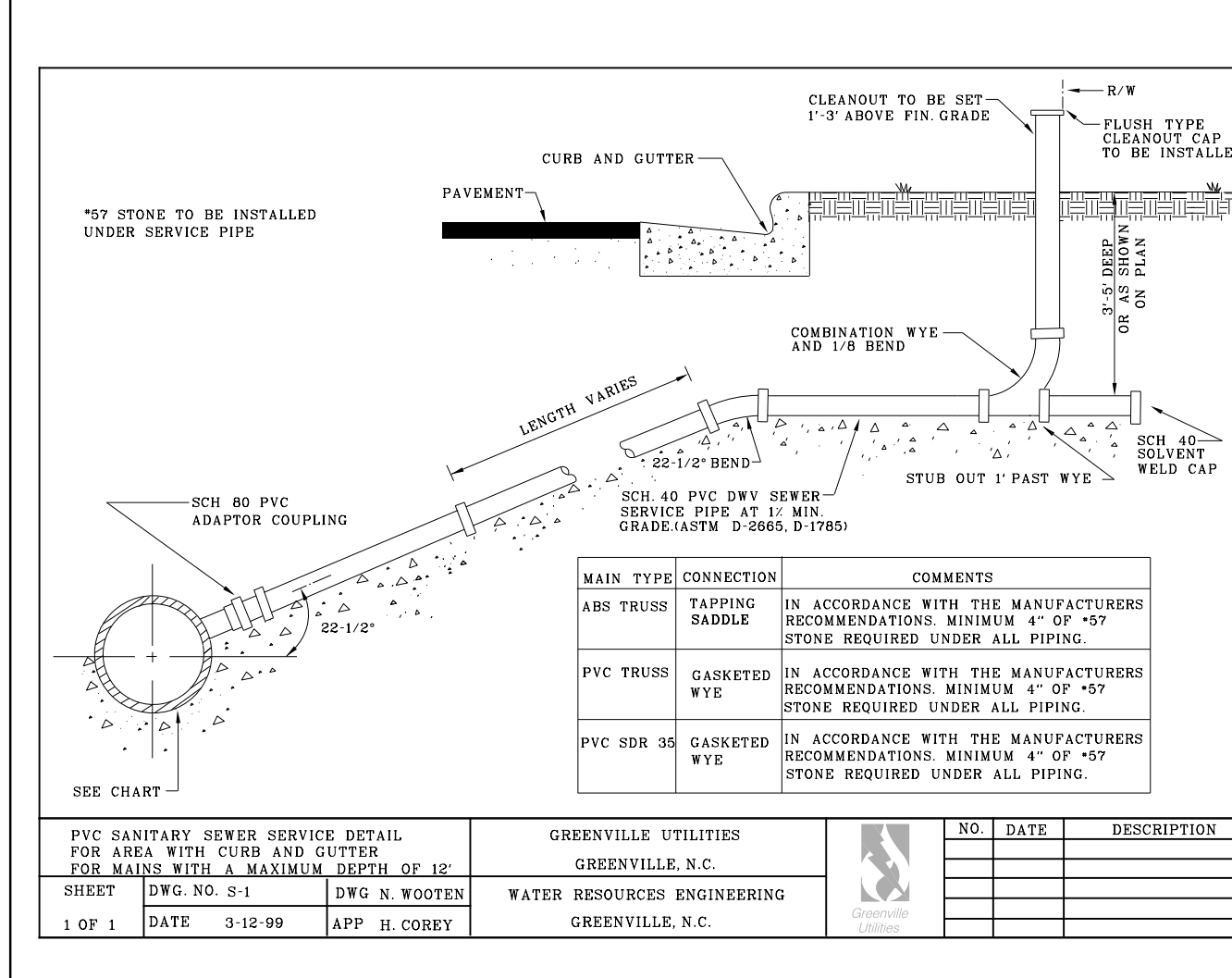


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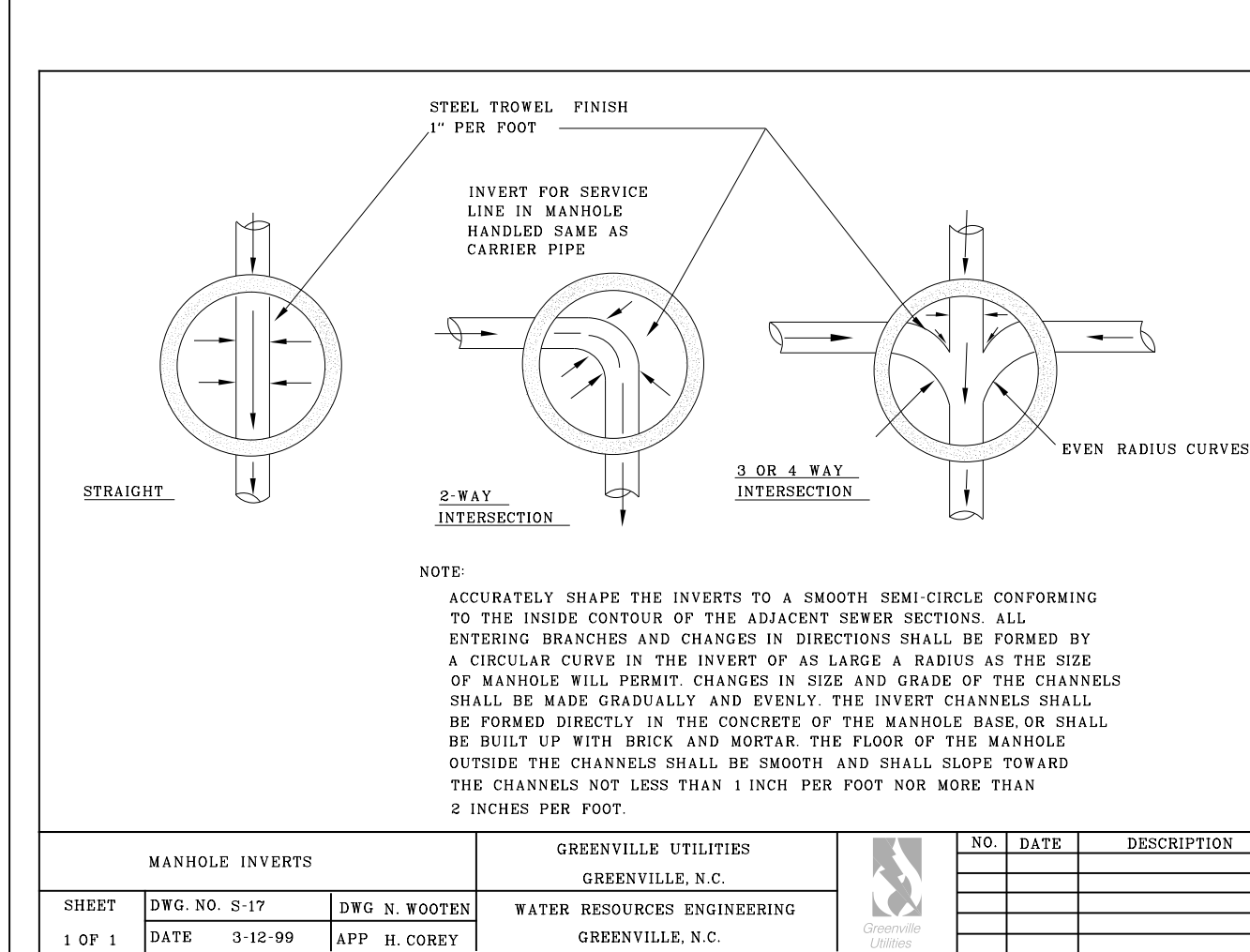


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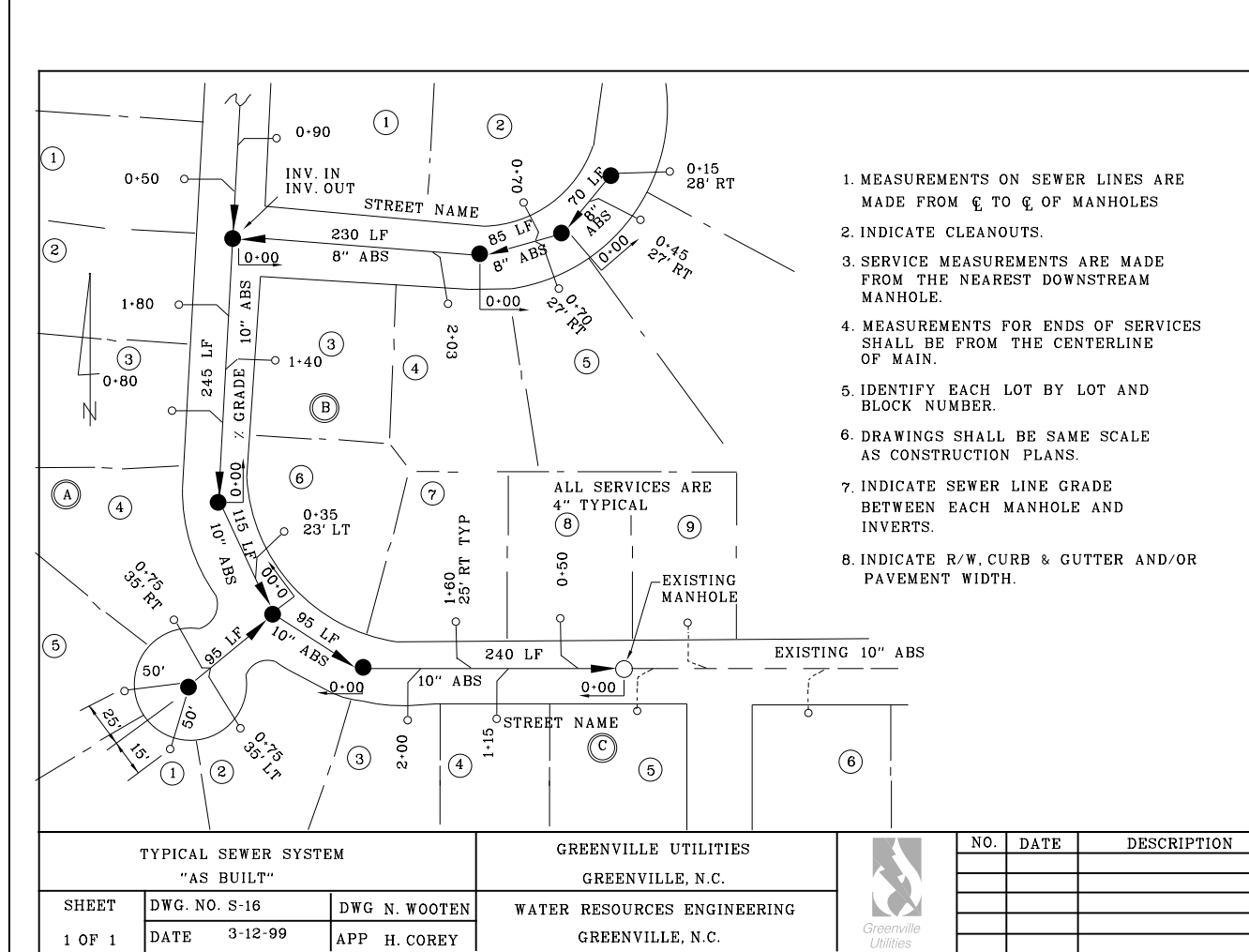


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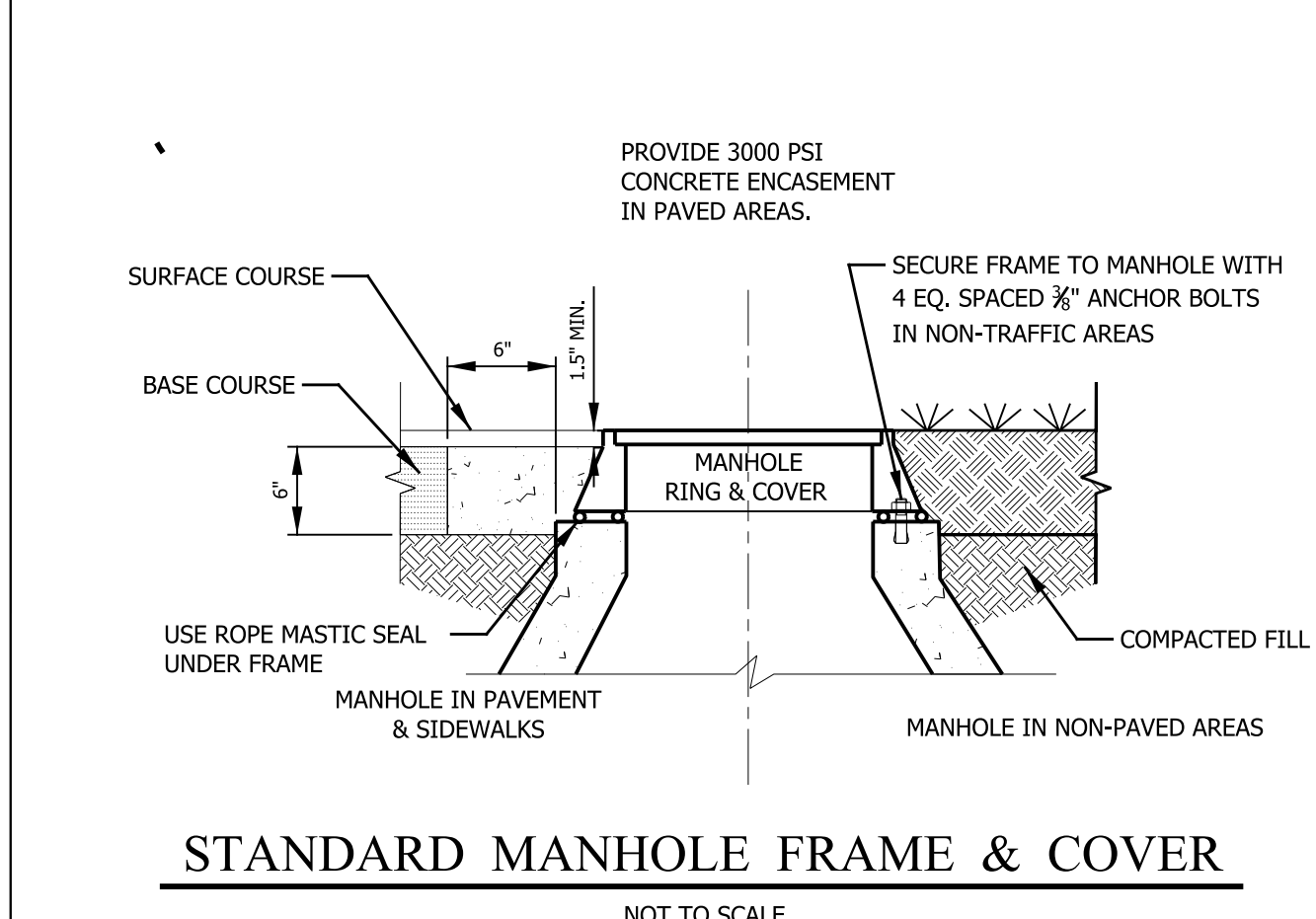


Table with columns: SHEET, DWG. NO., DATE, APP., NO., DATE, DESCRIPTION

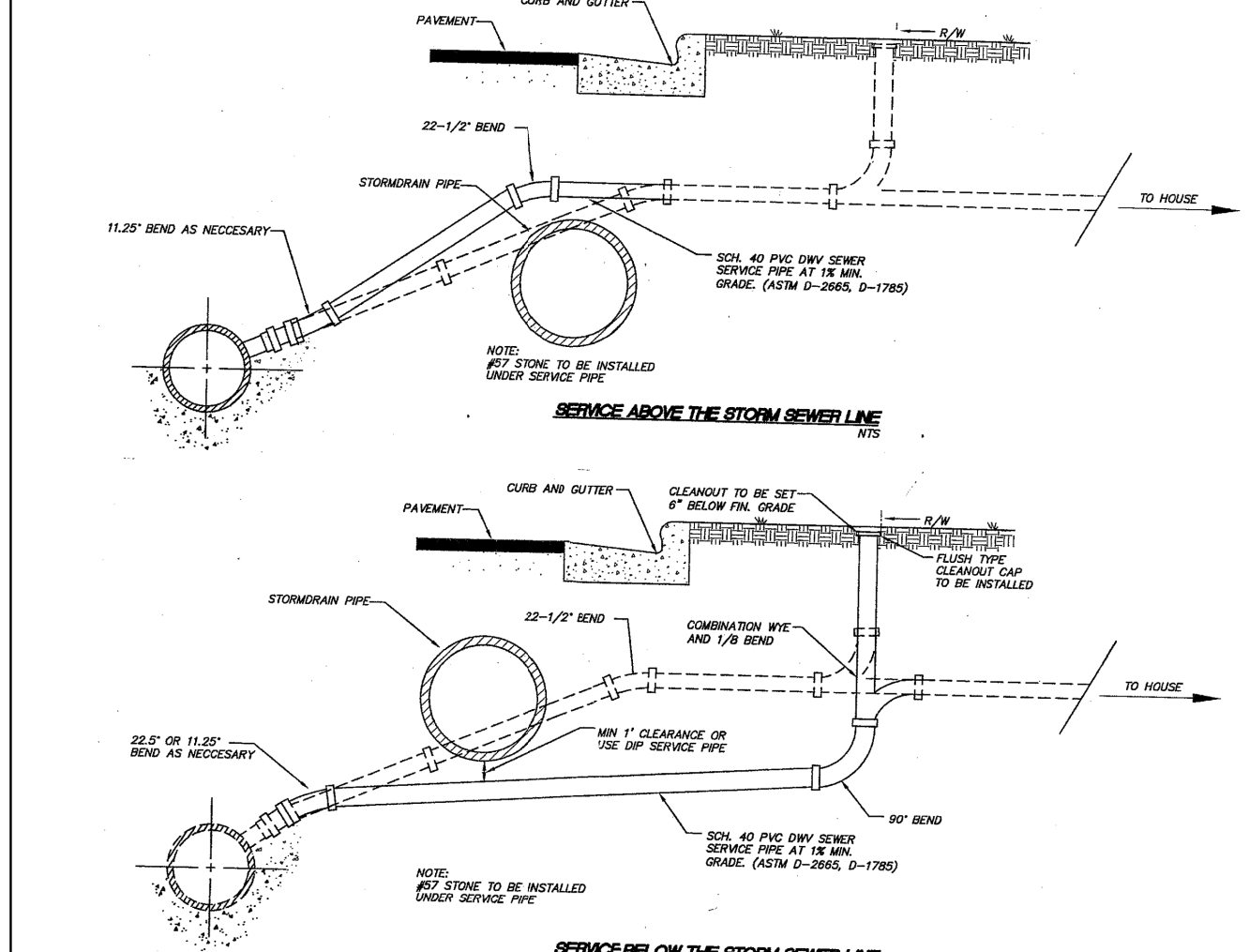


Table with columns: SHEET, DWG. NO., DATE, APP., NO., DATE, DESCRIPTION

5/14/99

5/14/99

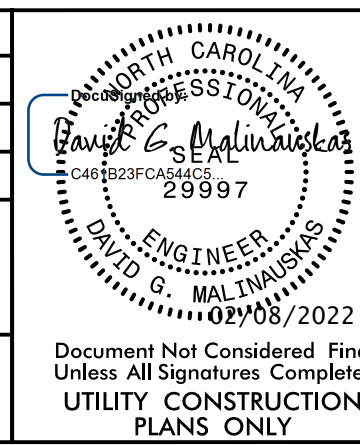
EXISTING SEWER MANHOLE INFORMATION

- MH 2002
INV:62.38
TOP:68.87
- MH 2003
INV:62.78
TOP:68.11
- MH 2004
INV:65.15
TOP:68.18
- MH 2005
INV:66.01
TOP:69.61

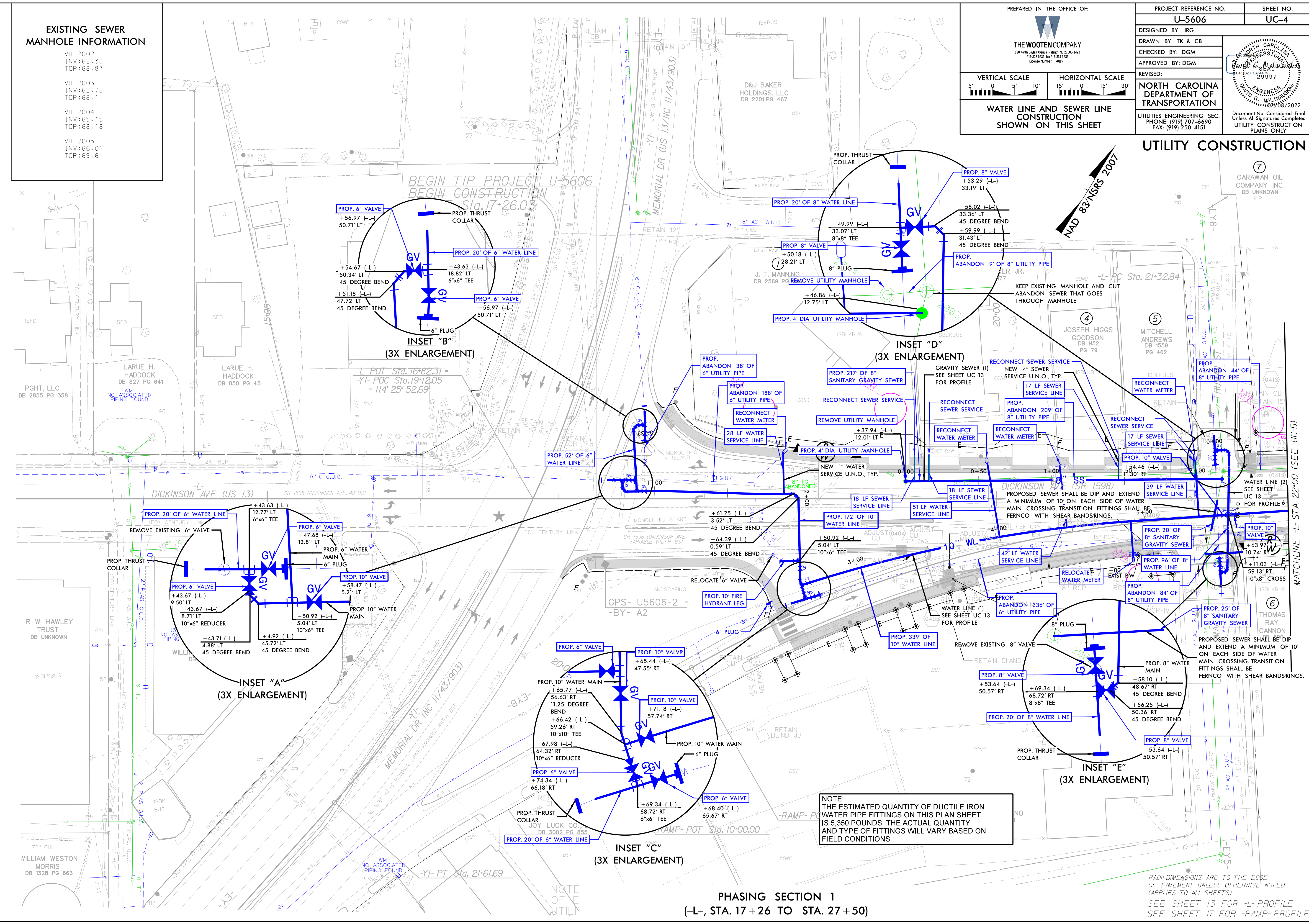
PREPARED IN THE OFFICE OF:		PROJECT REFERENCE NO.	SHEET NO.
THE WOOTEN COMPANY 120 North Baker Avenue Raleigh, NC 27603-1423 919.876.0151 Fax 919.876.3169 License Number: F-0153		U-5606	UC-4
DESIGNED BY: JRG		CHECKED BY: DGM	APPROVED BY: DGM
REVISI:		NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC.		PHONE: (919) 707-6690 FAX: (919) 250-4151	

VERTICAL SCALE 1"=5'
HORIZONTAL SCALE 1"=15'

WATER LINE AND SEWER LINE CONSTRUCTION SHOWN ON THIS SHEET



UTILITY CONSTRUCTION



NOTE:
THE ESTIMATED QUANTITY OF DUCTILE IRON WATER PIPE FITTINGS ON THIS PLAN SHEET IS 5,350 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.

PHASING SECTION 1 (-L-, STA. 17 + 26 TO STA. 27 + 50)

RADI DIMENSIONS ARE TO THE EDGE OF PAVEMENT UNLESS OTHERWISE NOTED (APPLIES TO ALL SHEETS)
SEE SHEET 13 FOR -L- PROFILE
SEE SHEET 17 FOR -RAMP- PROFILE

5/14/99

2016 ADT
2036 ADT

-Y2- MOYE BOULEVARD (SR 1139)

DH/V = 10%
DIR = 65%
TTST = 1%
DUAL = 2%

10500 600 1400 13000
11700 900 1800 14600

DICKINSON AVENUE (SR 1598)

1100 2800 3500
1500 14000

-Y2- HOOKER ROAD

DH/V = 9%
DIR = 55%
TTST = 1%
DUAL = 2%

-L-
PI Sta 22+35.26
D = 3' 21' 08.7" (LT)
D = 1' 38' 13.3"
L = 204.79'
T = 102.42'
R = 3,500.00'
SE = SEE PLANS
RO = SEE PLANS

-Y2-
PI Sta 13+76.05
D = 22' 00' 37.0" (RT)
D = 1' 27' 53.0"
L = 192.08'
T = 97.24'
R = 500.00'
SE = EXISTING
RO = EXISTING

PREPARED IN THE OFFICE OF:

THE WOOTEN COMPANY
120 North Roper Avenue Raleigh, NC 27603-1423
919.876.0311 Fax 919.876.0309
License Number: F-0115

PROJECT REFERENCE NO. **U-5606** SHEET NO. **UC-5**

DESIGNED BY: JRG
DRAWN BY: TK & CB
CHECKED BY: DGM
APPROVED BY: DGM

REVISED:
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
UTILITIES ENGINEERING SEC.
PHONE: (919) 707-6690
FAX: (919) 250-4151

Document Not Considered Final
Unless All Signatures Completed
UTILITY CONSTRUCTION PLANS ONLY

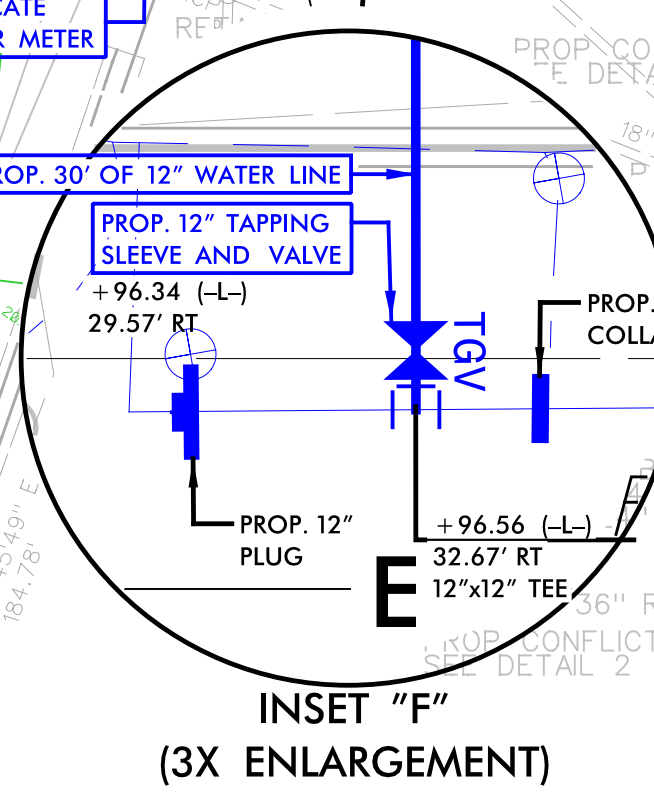
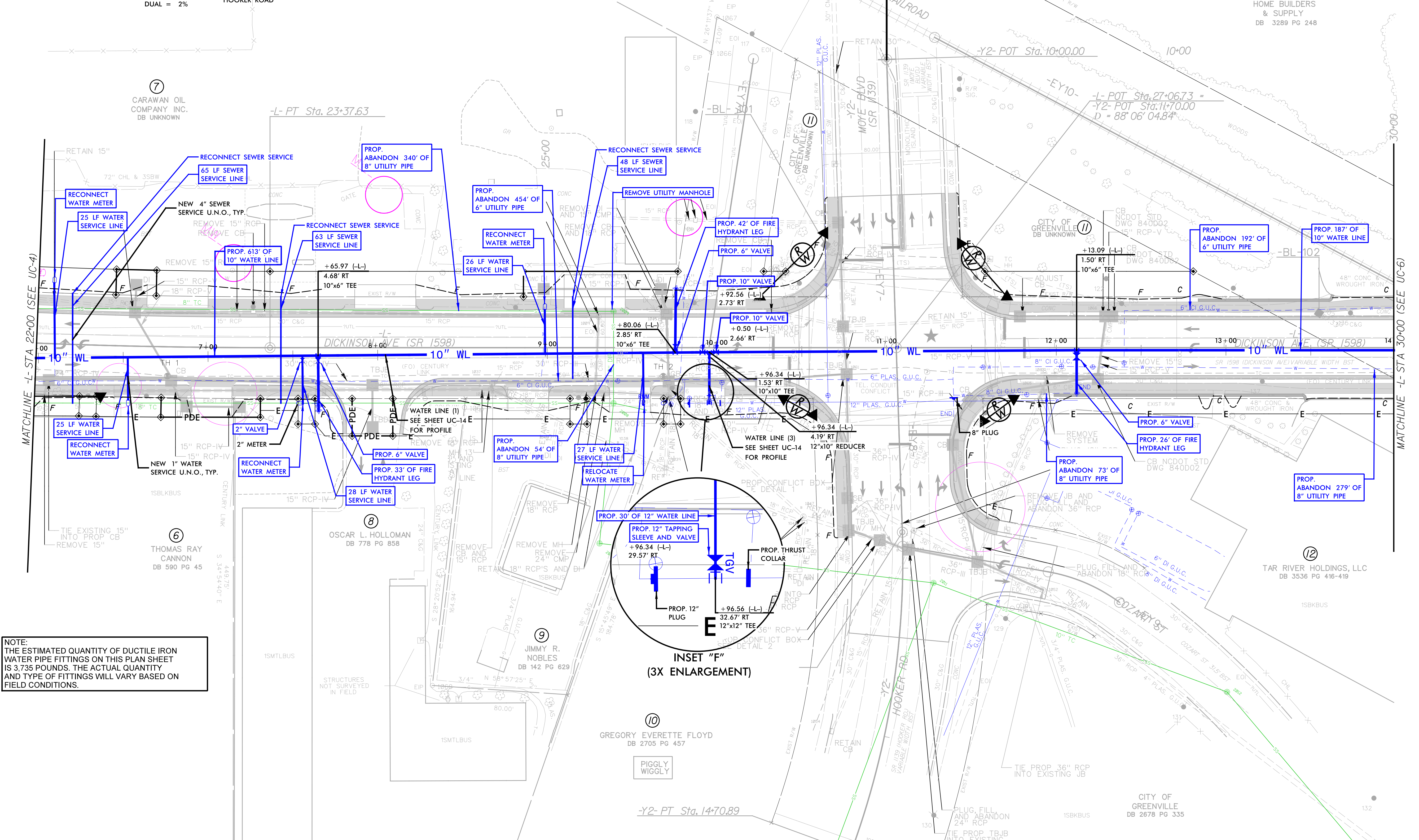
VERTICAL SCALE
0 5' 10'

HORIZONTAL SCALE
15' 0 15' 30'

WATER LINE AND SEWER LINE CONSTRUCTION SHOWN ON THIS SHEET

PHASING SECTION 1
(-L-, STA. 17+26 TO STA. 27+50)

PHASING SECTION 2
(-L-, STA. 27+50 TO STA. 32+25)



NOTE:
THE ESTIMATED QUANTITY OF DUCTILE IRON WATER PIPE FITTINGS ON THIS PLAN SHEET IS 3,735 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.

HOME BUILDERS & SUPPLY
DB 3289 PG 248

7
CARAWAN OIL COMPANY INC.
DB UNKNOWN

6
THOMAS RAY CANNON
DB 590 PG 45

8
OSCAR L. HOLLOWMAN
DB 778 PG 858

9
JIMMY R. NOBLES
DB 142 PG 629

10
GREGORY EVERETTE FLOYD
DB 2705 PG 457


12
TAR RIVER HOLDINGS, LLC
DB 3536 PG 416-419

CITY OF GREENVILLE
DB 2678 PG 335

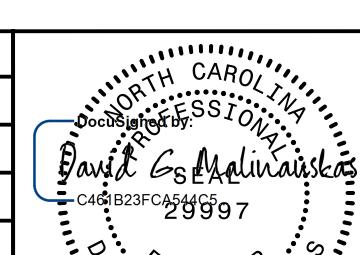
SEE SHEET 13 FOR -L- PROFILE

5/14/99

PREPARED IN THE OFFICE OF:



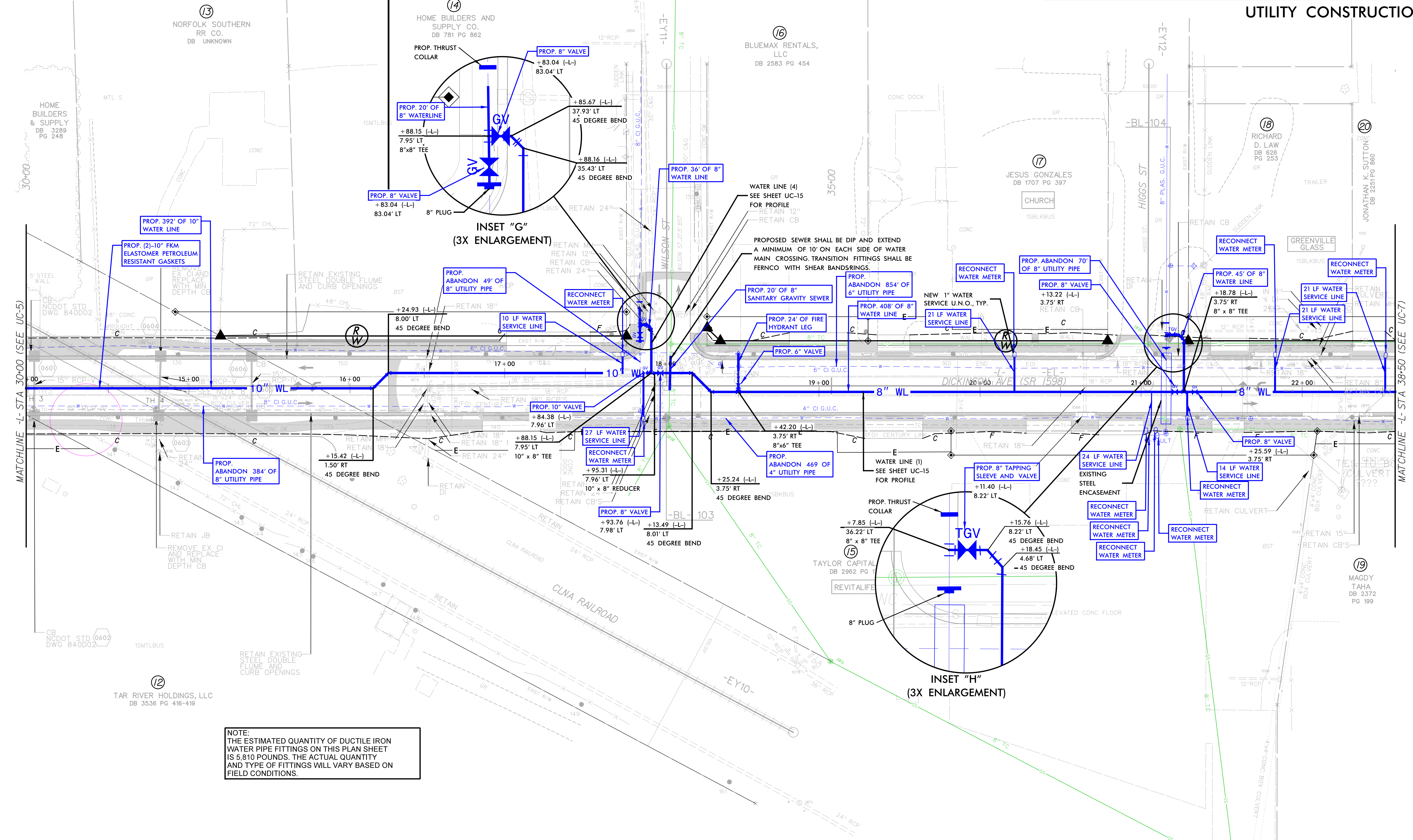
THE WOOTEN COMPANY
120 North Roper Avenue Raleigh, NC 27603-1423
919.876.0311 Fax: 919.876.3169
License Number: F-0115

PROJECT REFERENCE NO. U-5606	SHEET NO. UC-4
DESIGNED BY: JRG	 DAVID G. MALINOWSKI ENGINEER License No. 002997
DRAWN BY: TK & CB	
CHECKED BY: DGM	
APPROVED BY: DGM	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151
REVISID:	

Document Not Considered Final Unless All Signatures Completed
UTILITY CONSTRUCTION PLANS ONLY

PHASING SECTION 2
(-L-, STA. 27+50 TO STA. 32+25)

PHASING SECTION 3
(-L-, STA. 32+25 TO STA. 41+52)



MATCHLINE -L- STA 30+00 (SEE UC-5)

MATCHLINE -L- STA 38+50 (SEE UC-7)

NOTE:
THE ESTIMATED QUANTITY OF DUCTILE IRON WATER PIPE FITTINGS ON THIS PLAN SHEET IS 5,810 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.

SEE SHEET 14 FOR -L- PROFILE


5/14/99

EXISTING SEWER MANHOLE INFORMATION	
MH 2070	INV: 40.52
TOP: 47.42	
PROPOSED SEWER MANHOLE INFORMATION	
MH 5	INV: 40.95
TOP: 47.59	

PHASING SECTION 3
(-L-, STA. 32+25 TO STA. 41+52)

PHASING SECTION 4
(-L-, STA. 41+52 TO 14TH STREET)

PREPARED IN THE OFFICE OF:



THE WOOTEN COMPANY
120 North Roper Avenue Raleigh, NC 27603-1423
919.876.0111 Fax 919.876.3109
License Number: F-0115

PROJECT REFERENCE NO.	UC-7
SHEET NO.	U-5606

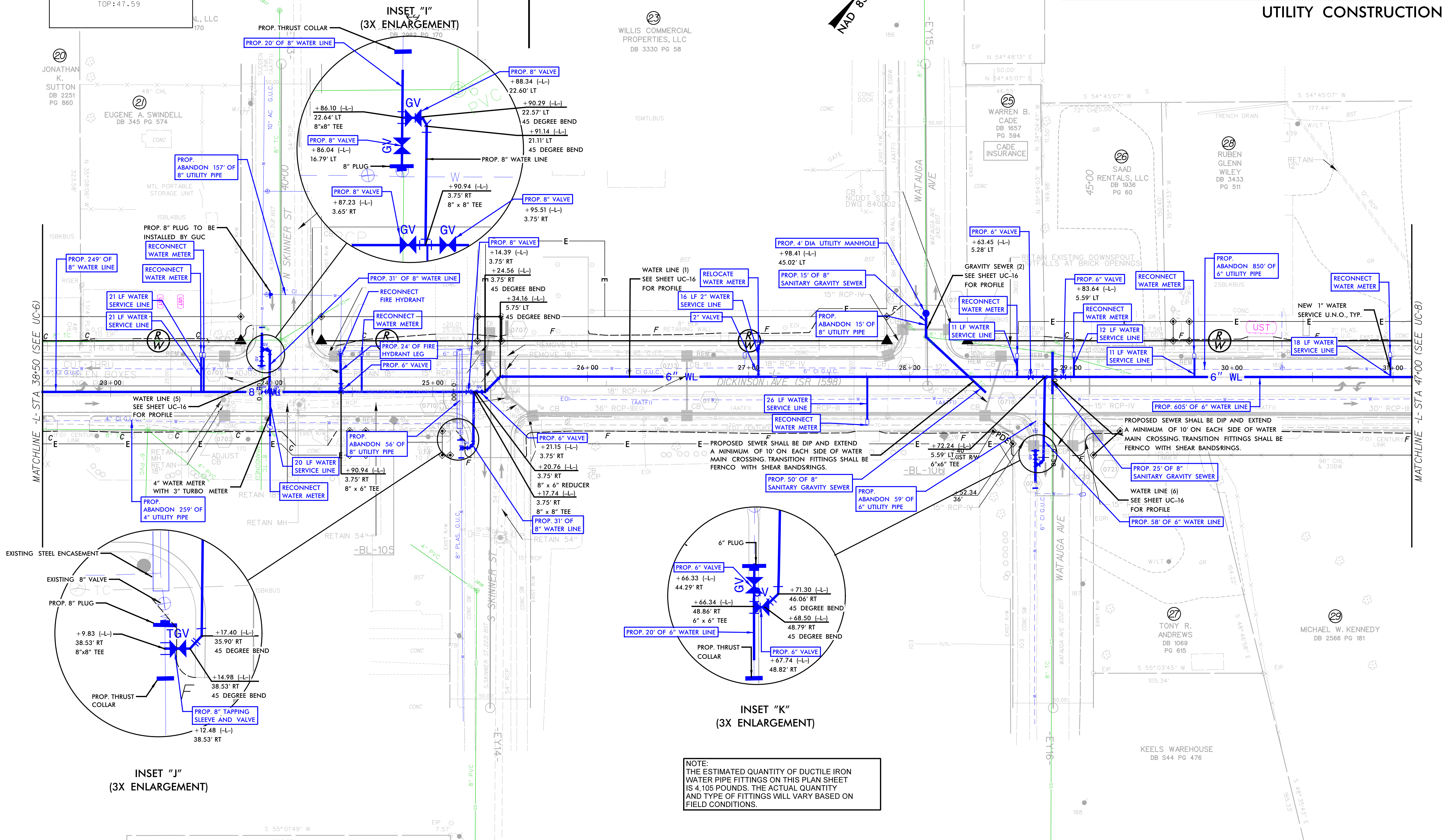
DESIGNED BY: JRG
DRAWN BY: TK & CB
CHECKED BY: DGM
APPROVED BY: DGM

REVIS: NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151

Document Not Considered Final Unless All Signatures Completed
UTILITY CONSTRUCTION PLANS ONLY

VERTICAL SCALE: 1" = 5'
HORIZONTAL SCALE: 1" = 15'

WATER LINE AND SEWER LINE CONSTRUCTION SHOWN ON THIS SHEET



NOTE:
THE ESTIMATED QUANTITY OF DUCTILE IRON WATER PIPE FITTINGS ON THIS PLAN SHEET IS 4,105 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.

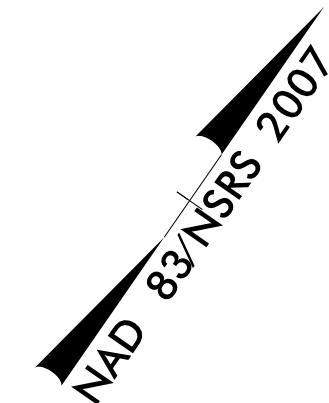
NOTE: CONTRACTOR HAS THE OPTION TO PLUG, FILL AND ABANDON SECTIONS OF EXISTING STORMWATER PIPE TO BE REMOVED WHERE REMOVAL IS HINDERED BY CONFLICTS WITH UTILITIES OR OTHER CIRCUMSTANCES. AREAS TO BE DETERMINED BY THE FIELD ENGINEER.

SEE SHEET 14 FOR -L- PROFILE

5/14/2019

PI Sta 48+77.02
D = 0' 12" 40.6" (RT)
D = 0' 22" 55.1"
L = 55.31'
T = 27.65'
R = 15,000.00'
SE = NC
RO = NONE

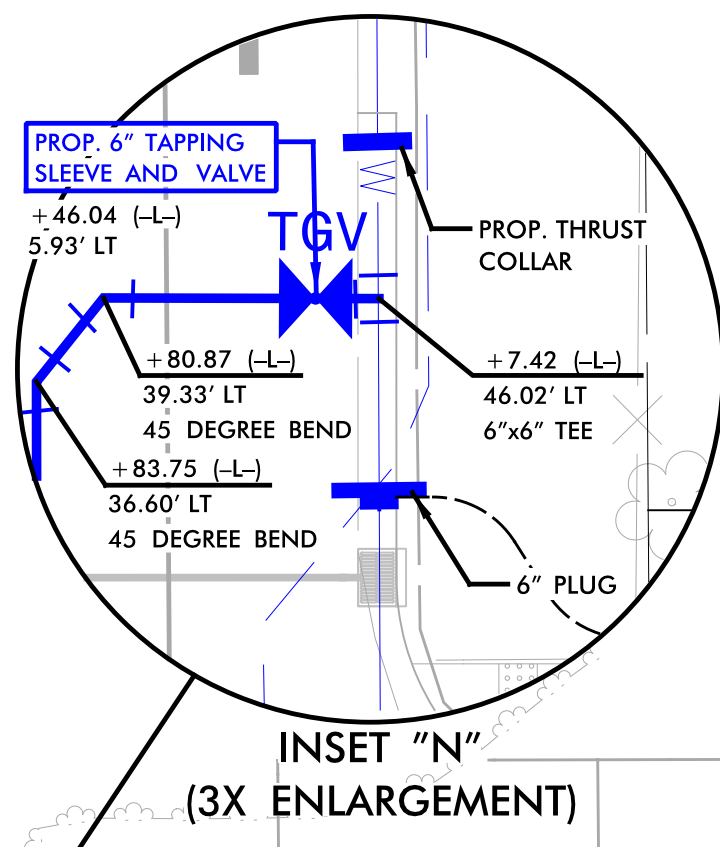
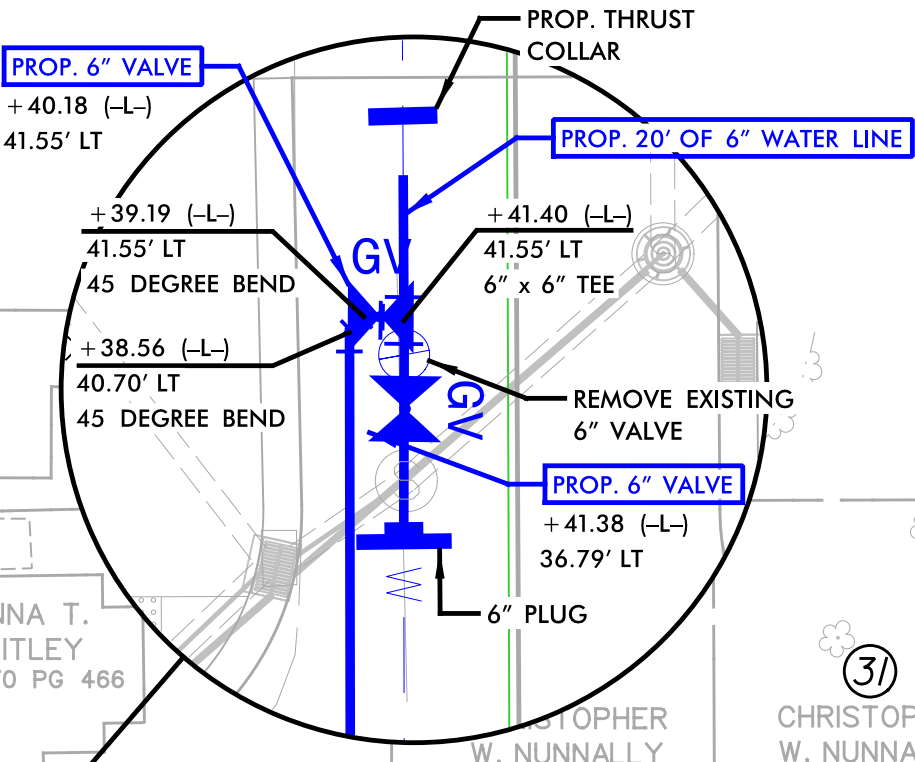
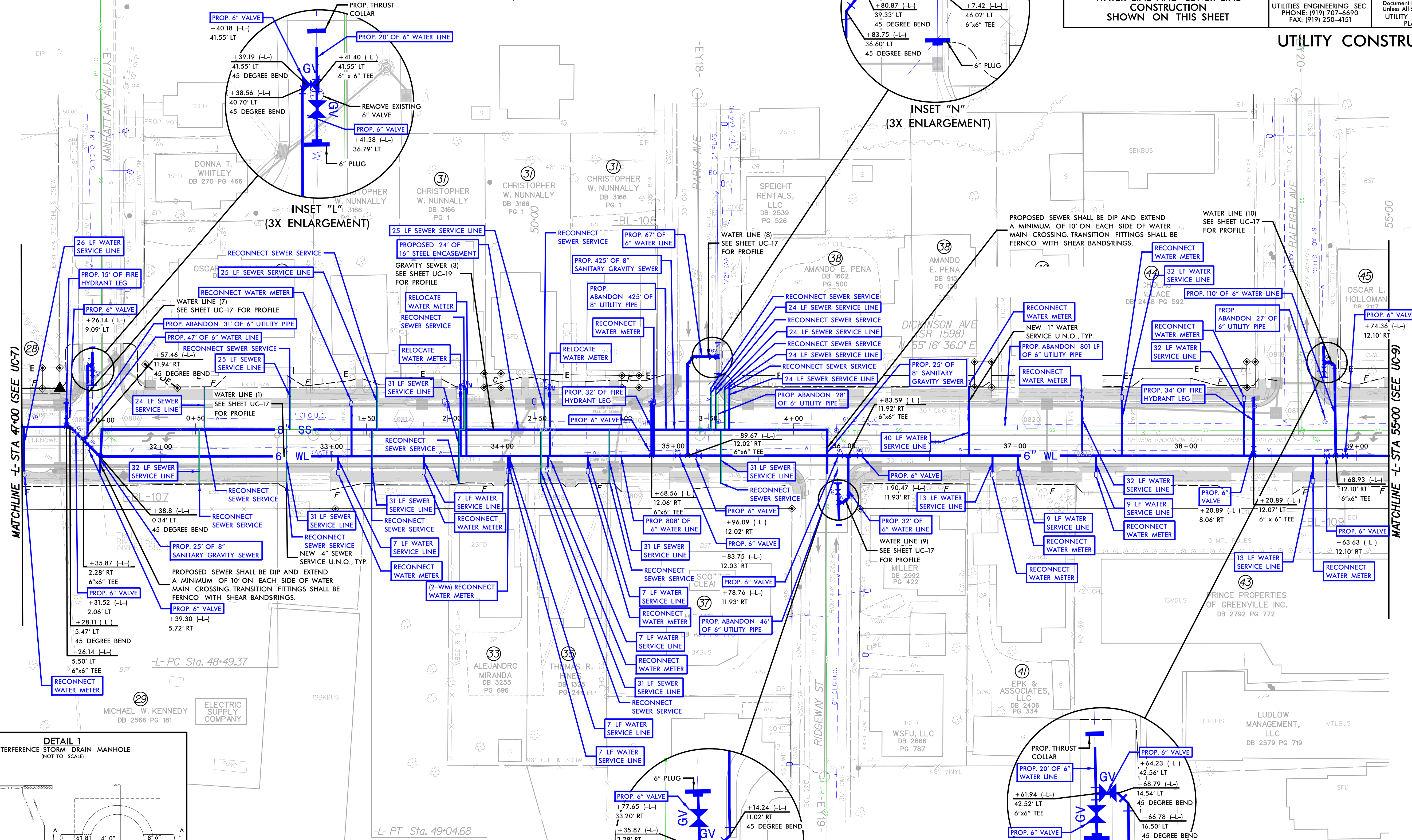
EXISTING SEWER MANHOLE INFORMATION
MH 2046
INV: 63.18
TOP: 66.67
MH 2047
INV: 62.07
TOP: 66.52



PHASING SECTION 4
(-L-, STA. 41+52 TO 14TH STREET)

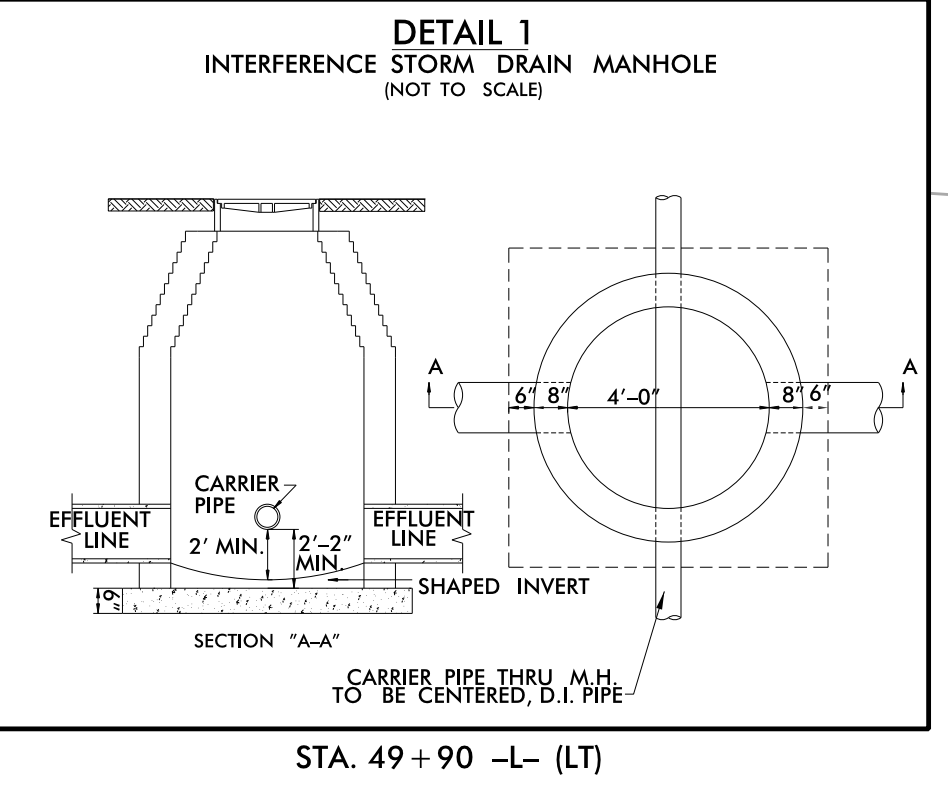
PREPARED IN THE OFFICE OF:		PROJECT REFERENCE NO.	SHEET NO.
 THE WOOTEN COMPANY 120 North Roper Avenue Raleigh, NC 27603-1423 919.876.0311 Fax 919.876.3109 License Number: F-0115		U-5606	UC-8
		DESIGNED BY: JRG	
		DRAWN BY: TK & CB	
		CHECKED BY: DGM	
		APPROVED BY: DGM	
		REVIS:	
 WATER LINE AND SEWER LINE CONSTRUCTION SHOWN ON THIS SHEET		NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	
		Document Not Considered Final Unless All Signatures Completed UTILITY CONSTRUCTION PLANS ONLY	

UTILITY CONSTRUCTION

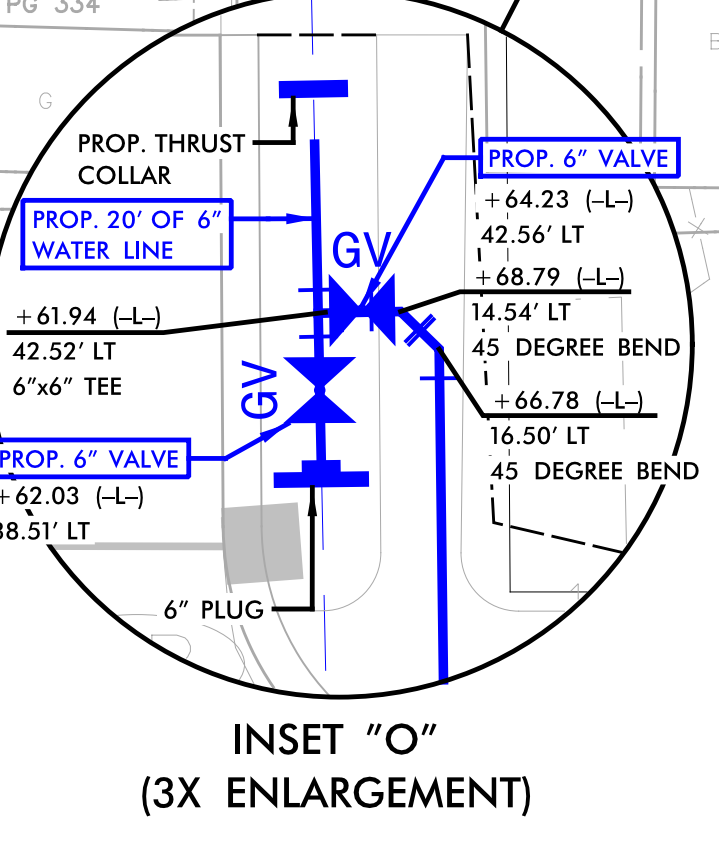
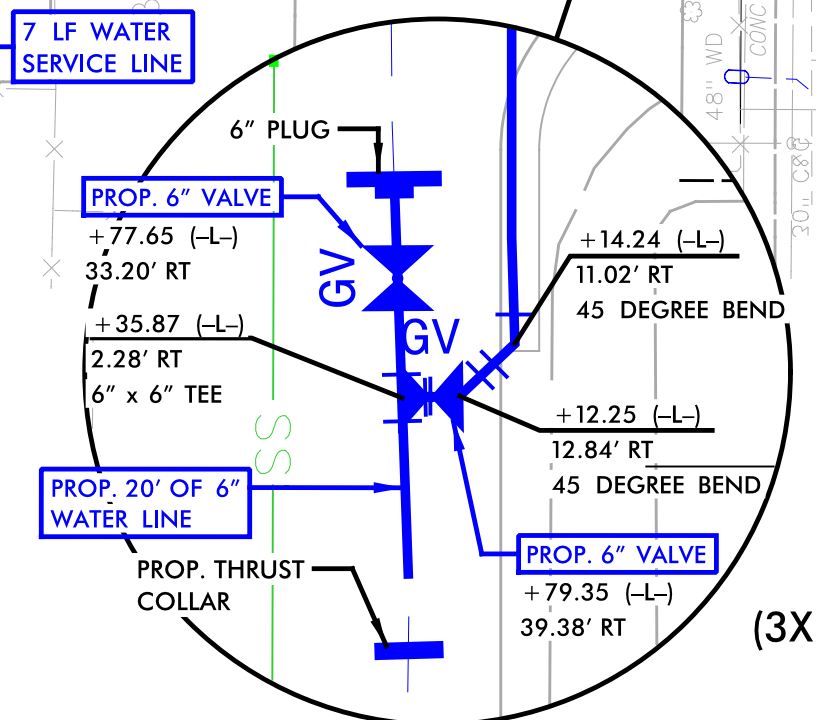


MATCHLINE -L- STA 47+00 (SEE UC-7)

MATCHLINE -L- STA 55+00 (SEE UC-9)



NOTE:
 THE ESTIMATED QUANTITY OF DUCTILE IRON WATER PIPE FITTINGS ON THIS PLAN SHEET IS 4,250 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.



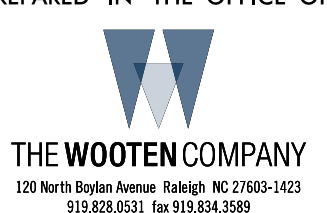
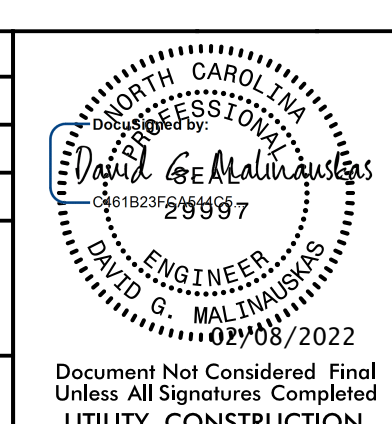


SEE SHEET 15 FOR -L- PROFILE

5/14/2009

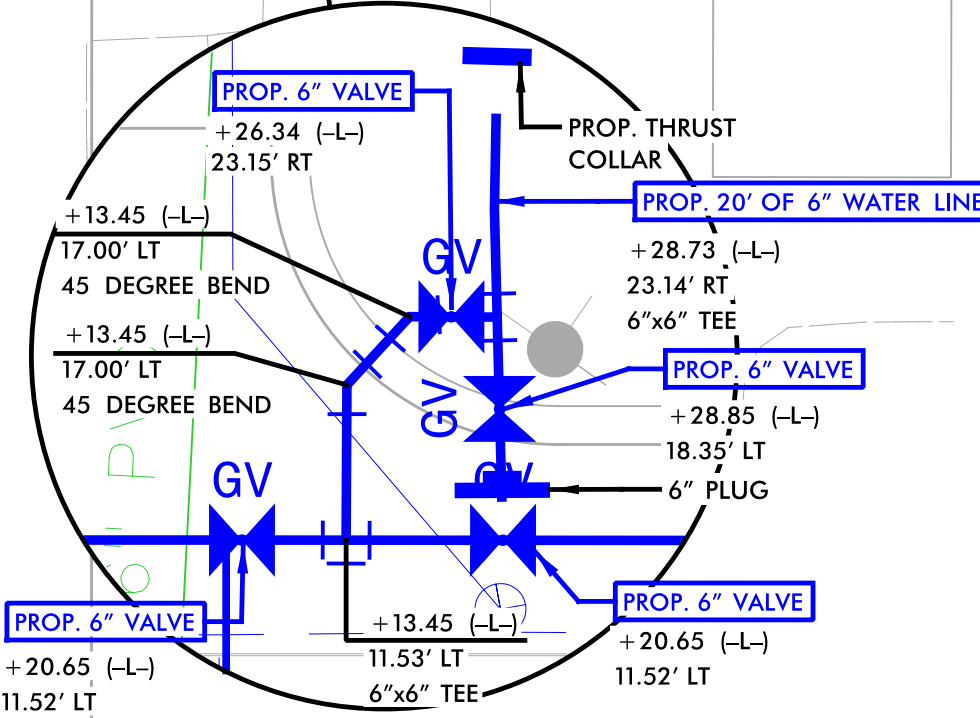
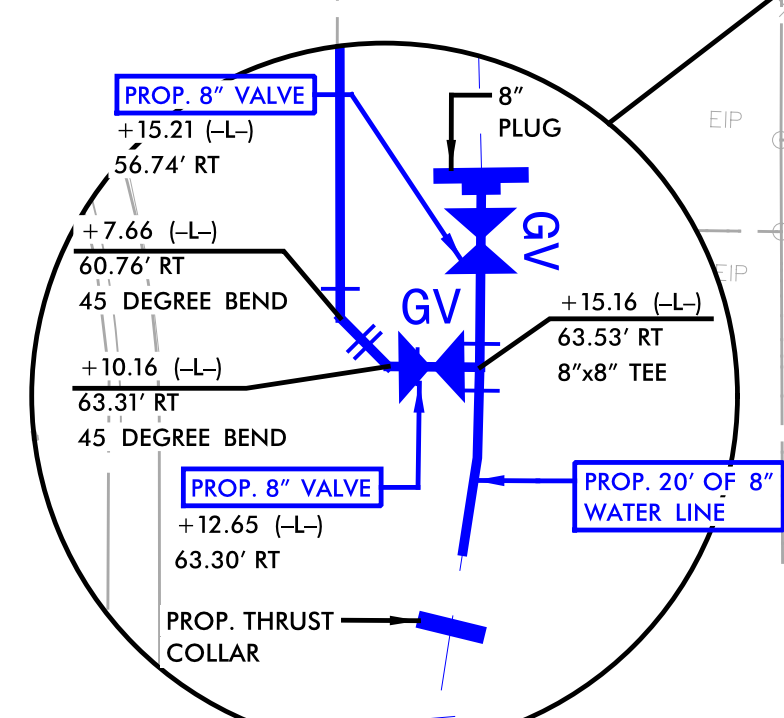
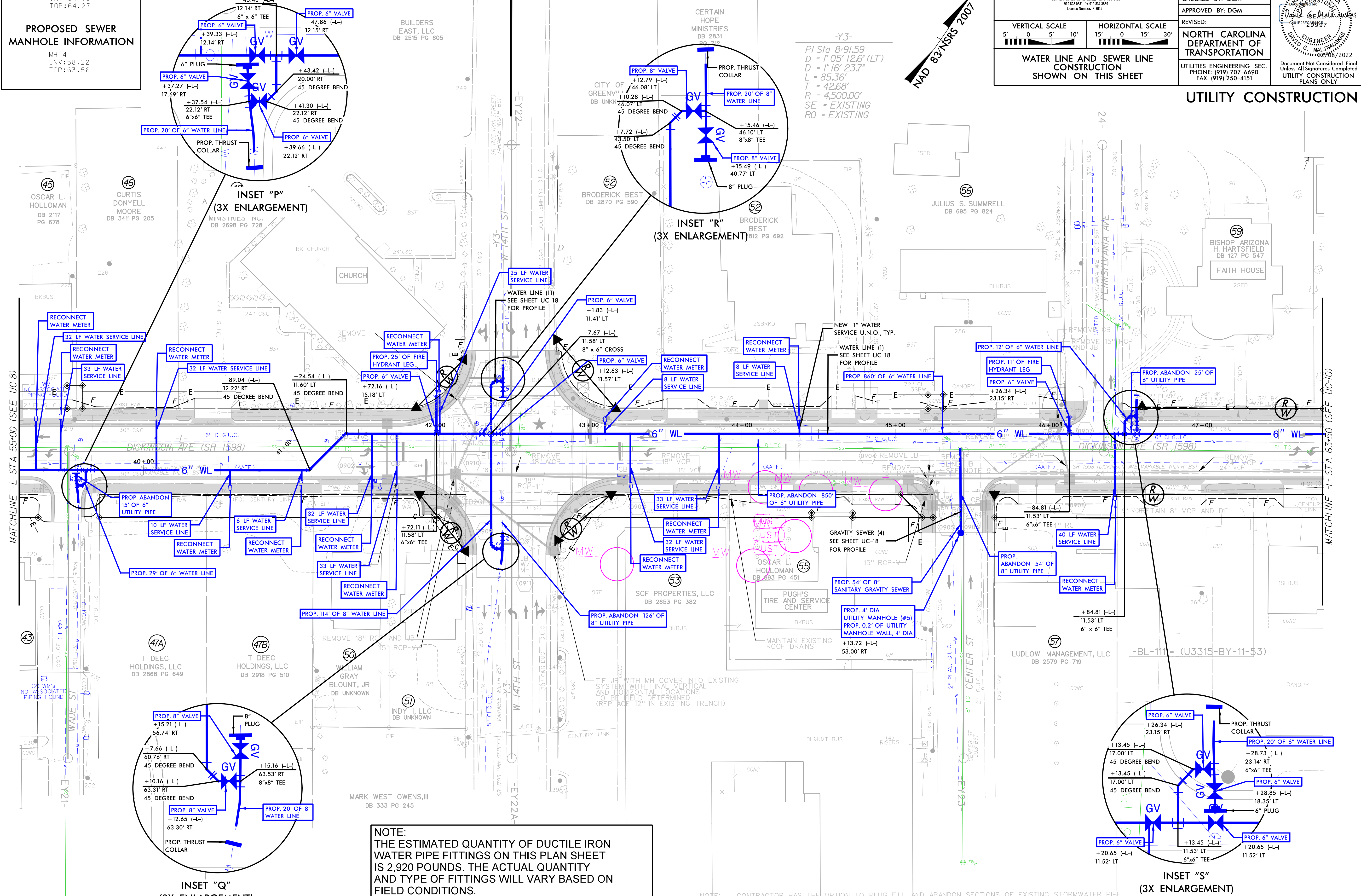
EXISTING SEWER MANHOLE INFORMATION	
MH 2057	INV: 54.73 TOP: 64.27
PROPOSED SEWER MANHOLE INFORMATION	
MH 4	INV: 58.22 TOP: 63.56

PHASING SECTION 4
(-L-, STA. 41+52 TO 14TH STREET)

PHASING SECTION 5A
(-L-, 14TH STREET TO STA. 66+00)

PREPARED IN THE OFFICE OF:		PROJECT REFERENCE NO.	SHEET NO.
 THE WOOTEN COMPANY <small>120 North Roper Avenue Raleigh, NC 27603-1423 919.876.0331 Fax 919.876.3389 License Number: F-0115</small>		U-5606	UC-9
		DESIGNED BY: JRG	
DRAWN BY: TK & CB		CHECKED BY: DGM	APPROVED BY: DGM
REVISER:		 NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	
VERTICAL SCALE 		HORIZONTAL SCALE 	
WATER LINE AND SEWER LINE CONSTRUCTION SHOWN ON THIS SHEET			

UTILITY CONSTRUCTION



NOTE:
THE ESTIMATED QUANTITY OF DUCTILE IRON WATER PIPE FITTINGS ON THIS PLAN SHEET IS 2,920 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.

NOTE: CONTRACTOR HAS THE OPTION TO PLUG, FILL, AND ABANDON SECTIONS OF EXISTING STORMWATER PIPE TO BE REMOVED WHERE REMOVAL IS HINDERED BY CONFLICTS WITH UTILITIES OR OTHER CIRCUMSTANCES. AREAS TO BE DETERMINED BY THE FIELD ENGINEER.

SEE SHEET 15 FOR -L- PROFILE

5/14/99

PHASING SECTION 5A
(-L-, 14TH STREET TO STA. 66+00)

PHASING SECTION 5B
(-L-, STA. 66+00 TO STA. 72+50)

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

DESIGNED BY: JRG
DRAWN BY: TK & CB
CHECKED BY: DGM
APPROVED BY: DGM

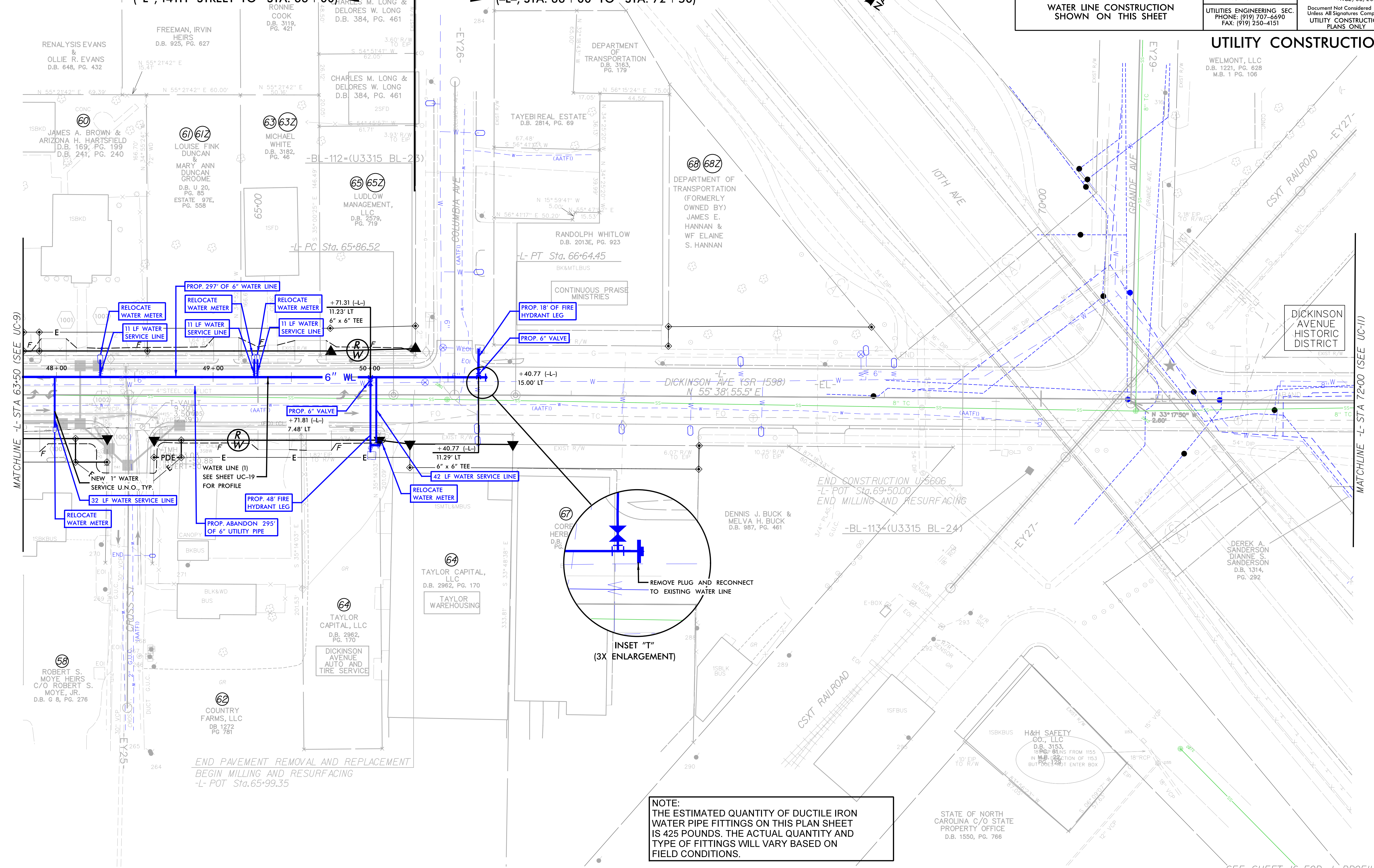
REVIS: NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
UTILITIES ENGINEERING SEC.
PHONE: (919) 707-6690
FAX: (919) 250-4151

PROJECT REFERENCE NO. U-5606
SHEET NO. UC-10

VERTICAL SCALE 0 5' 10'
HORIZONTAL SCALE 15' 0 15' 30'

WATER LINE CONSTRUCTION SHOWN ON THIS SHEET

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UTILITY CONSTRUCTION PLANS ONLY



UTILITY CONSTRUCTION
WELMONT, LLC
D.B. 1221, PG. 628
M.B. 1 PG. 106

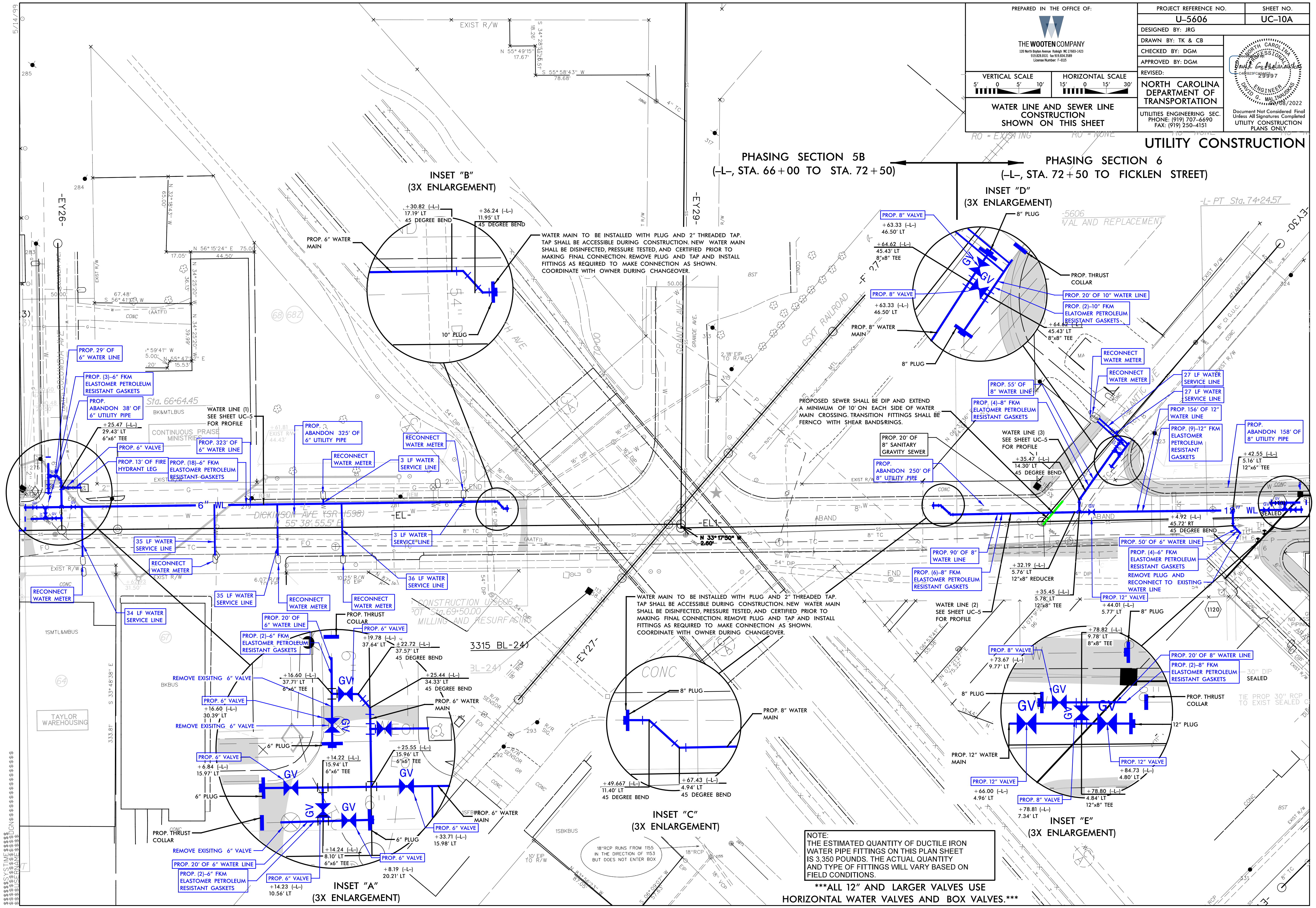
SEE SHEET 16 FOR -L- PROFILE

PREPARED IN THE OFFICE OF: THE WOOTEN COMPANY 120 North Beale Avenue Raleigh, NC 27603-1423 919.876.0111 Fax: 919.876.3109 License Number: F-0115	PROJECT REFERENCE NO.	SHEET NO.
	U-5606	UC-10A
	DESIGNED BY: JRG	
	DRAWN BY: TK & CB	
CHECKED BY: DGM		
APPROVED BY: DGM	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	

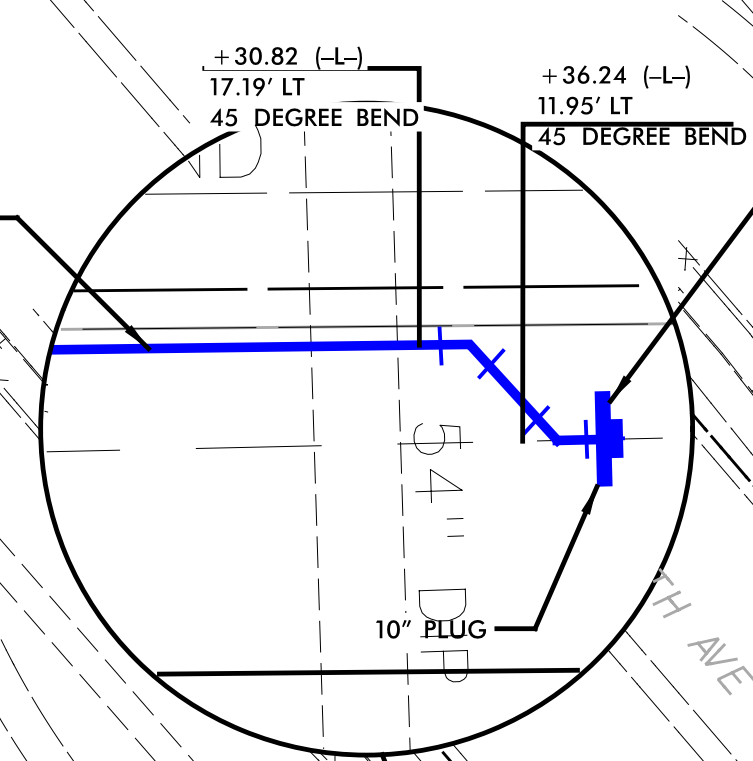
UTILITY CONSTRUCTION

PHASING SECTION 5B
(-L-, STA. 66+00 TO STA. 72+50)

PHASING SECTION 6
(-L-, STA. 72+50 TO FICKLEN STREET)

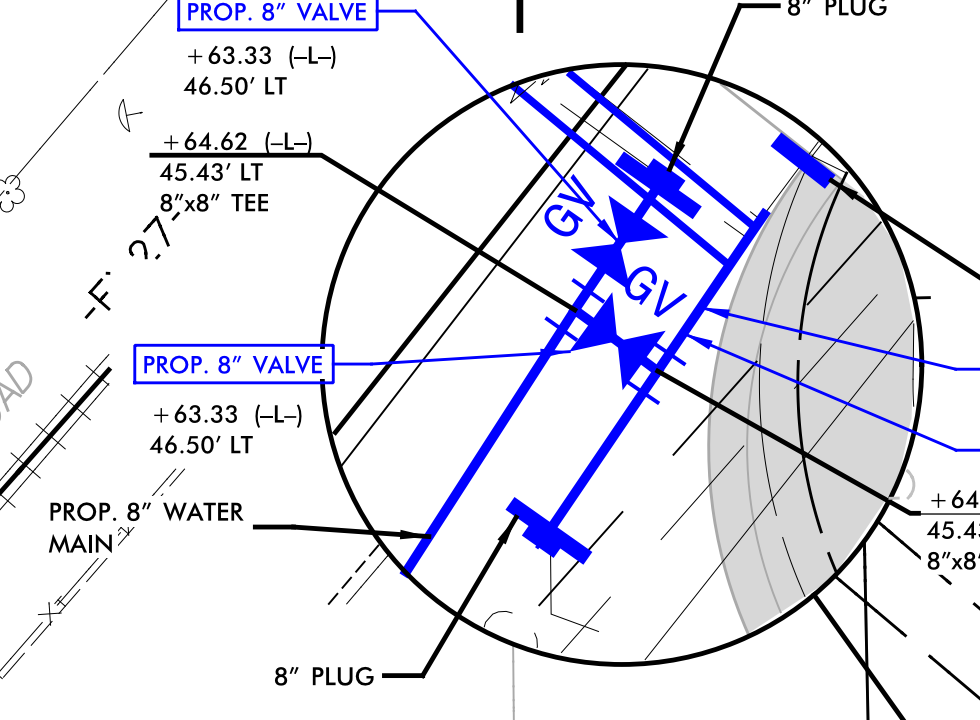


INSET "B"
(3X ENLARGEMENT)



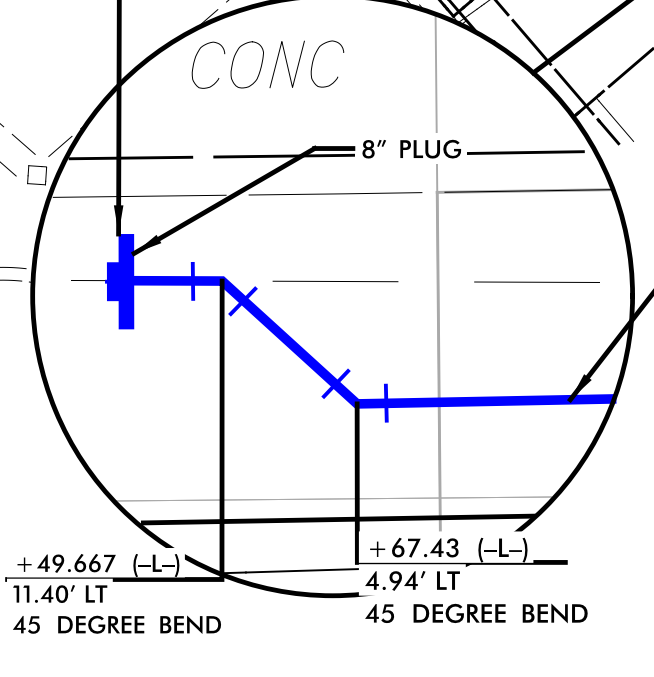
WATER MAIN TO BE INSTALLED WITH PLUG AND 2" THREADED TAP. TAP SHALL BE ACCESSIBLE DURING CONSTRUCTION. NEW WATER MAIN SHALL BE DISINFECTED, PRESSURE TESTED, AND CERTIFIED PRIOR TO MAKING FINAL CONNECTION. REMOVE PLUG AND TAP AND INSTALL FITTINGS AS REQUIRED TO MAKE CONNECTION AS SHOWN. COORDINATE WITH OWNER DURING CHANGEOVER.

INSET "D"
(3X ENLARGEMENT)



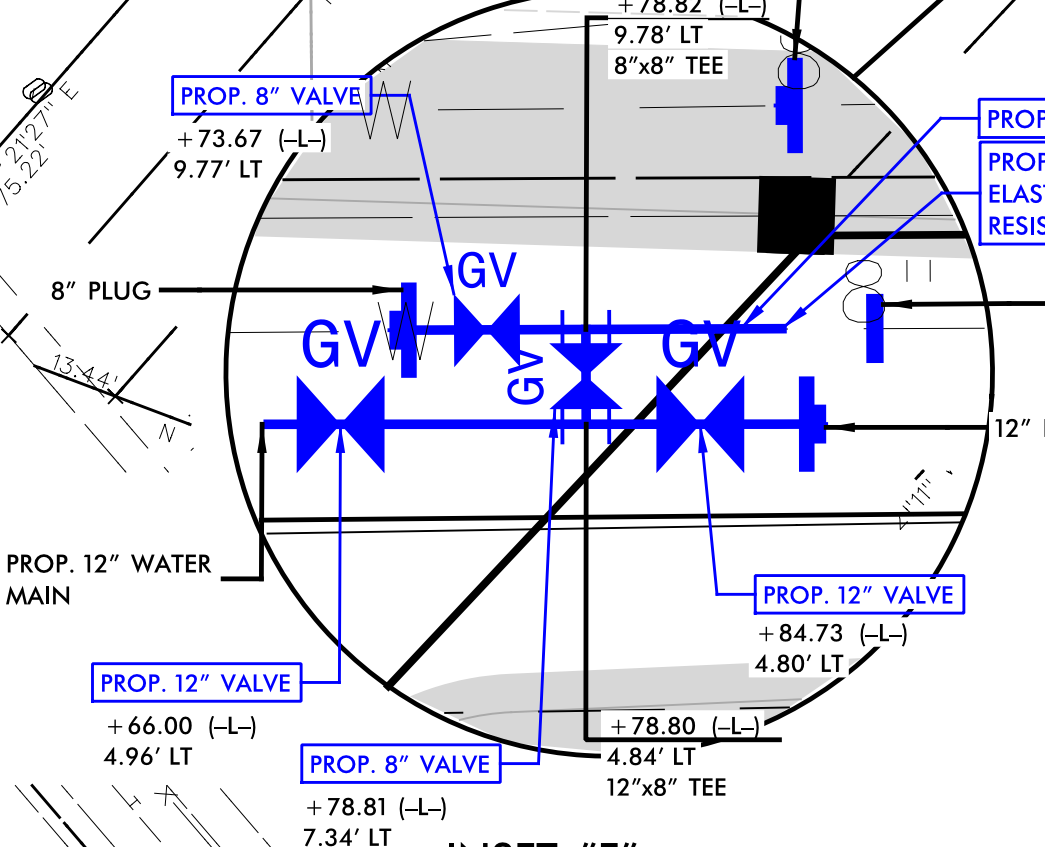
PROPOSED SEWER SHALL BE DIP AND EXTEND A MINIMUM OF 10' ON EACH SIDE OF WATER MAIN. CROSSING TRANSITION FITTINGS SHALL BE FERROCEMENT WITH SHEAR BANDS/RINGS.

INSET "C"
(3X ENLARGEMENT)

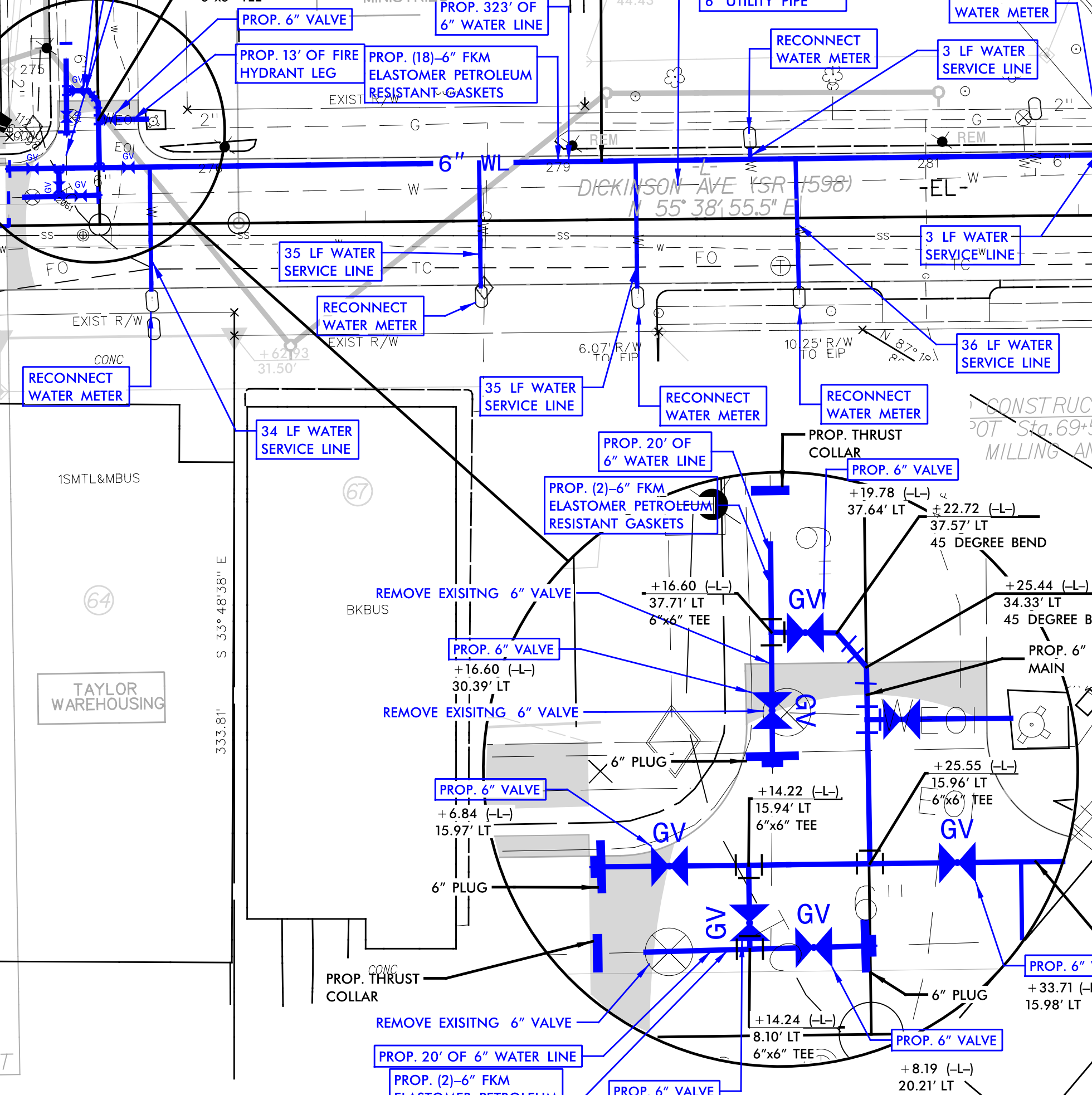


WATER MAIN TO BE INSTALLED WITH PLUG AND 2" THREADED TAP. TAP SHALL BE ACCESSIBLE DURING CONSTRUCTION. NEW WATER MAIN SHALL BE DISINFECTED, PRESSURE TESTED, AND CERTIFIED PRIOR TO MAKING FINAL CONNECTION. REMOVE PLUG AND TAP AND INSTALL FITTINGS AS REQUIRED TO MAKE CONNECTION AS SHOWN. COORDINATE WITH OWNER DURING CHANGEOVER.

INSET "E"
(3X ENLARGEMENT)



INSET "A"
(3X ENLARGEMENT)



NOTE:
THE ESTIMATED QUANTITY OF DUCTILE IRON WATER PIPE FITTINGS ON THIS PLAN SHEET IS 3,350 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.

*****ALL 12" AND LARGER VALVES USE HORIZONTAL WATER VALVES AND BOX VALVES.*****

EXISTING SEWER MANHOLE INFORMATION	
MH 2041	INV: 62.35 TOP: 66.44
PROPOSED SEWER MANHOLE INFORMATION	
MH 2	INV: 62.41 TOP: 66.64

PHASING SECTION 5B (-L-, STA. 66+00 TO STA. 72+50)		PHASING SECTION 6 (-L-, STA. 72+50 TO FICKLEN STREET)	
PI Sta 73+58.90 D = 0° 37' 37.7" (LT) L = 131.35' T = 65.68' R = 12,000.00' SE = EXISTING RO = EXISTING	PI Sta 77+62.86 D = 0° 30' 57.6" (RT) L = 90.06' T = 45.03' R = 10,000.00' SE = NC RO = NONE	PI Sta 79+26.57 D = 0° 54' 23.7" (LT) L = 237.35' T = 118.67' R = 15,000.00' SE = NC RO = NONE	PI Sta 11+54.24 D = 46° 54' 37.2" (LT) L = 102.34' T = 54.24' R = 125.00' SE = RC RO = NONE

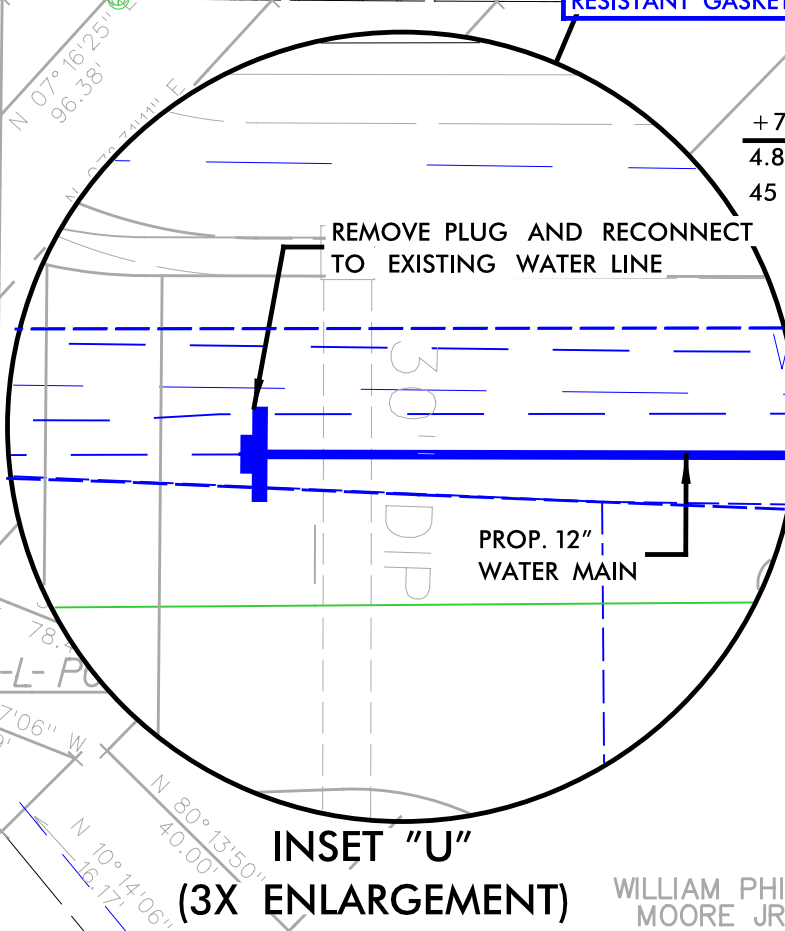
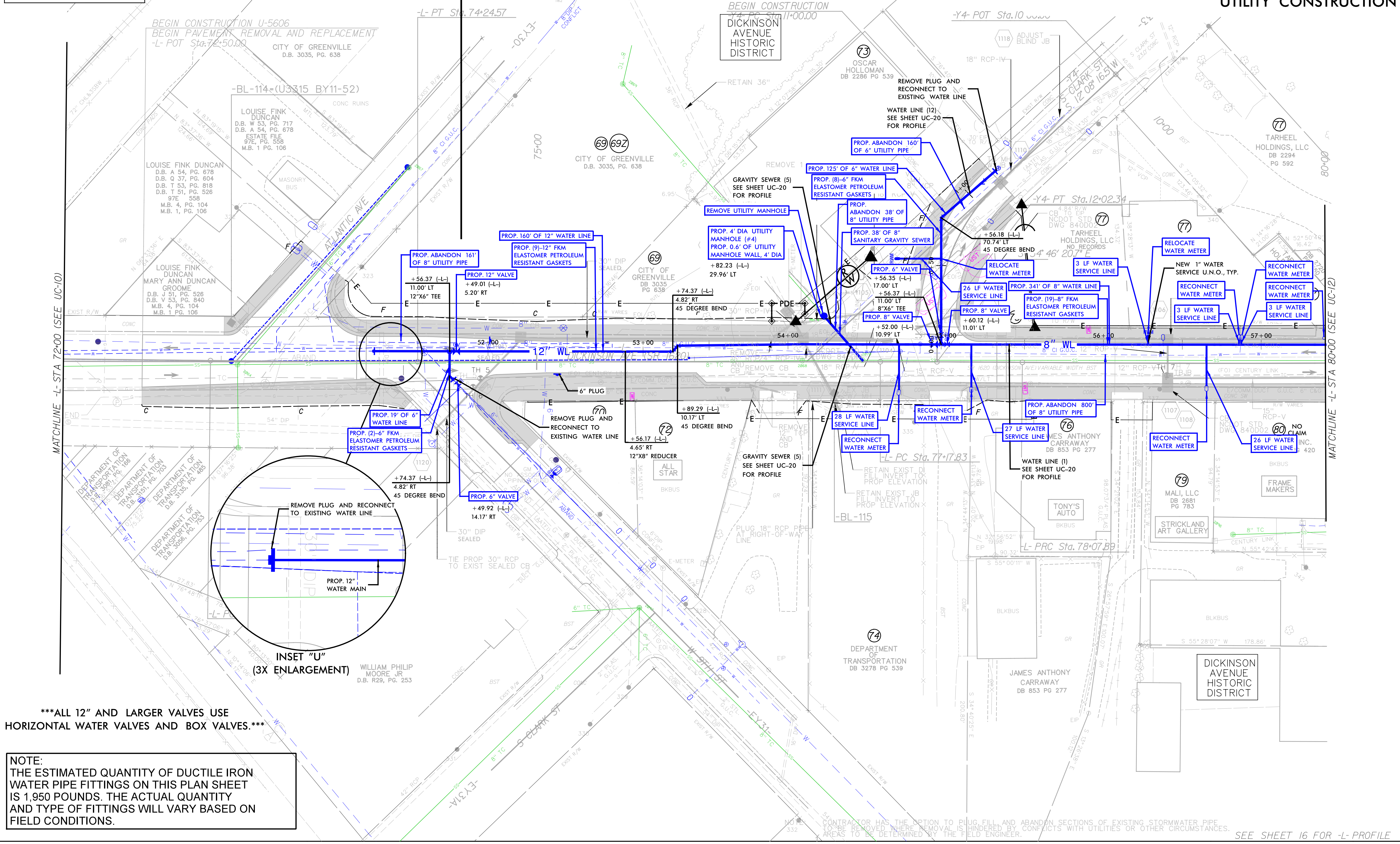
PREPARED IN THE OFFICE OF:

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. U-5606	SHEET NO. UC-11
DESIGNED BY: JRG	
DRAWN BY: TK & CB	
CHECKED BY: DGM	
APPROVED BY: DGM	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151
REVISED:	

VERTICAL SCALE: 1" = 5'
HORIZONTAL SCALE: 1" = 15'

WATER LINE AND SEWER LINE CONSTRUCTION SHOWN ON THIS SHEET



ALL 12" AND LARGER VALVES USE HORIZONTAL WATER VALVES AND BOX VALVES.

NOTE:
THE ESTIMATED QUANTITY OF DUCTILE IRON WATER PIPE FITTINGS ON THIS PLAN SHEET IS 1,950 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.

CONTRACTOR HAS THE OPTION TO PLUG, FILL AND ABANDON SECTIONS OF EXISTING STORMWATER PIPE TO BE REMOVED WHERE REMOVAL IS HINDERED BY CONFLICTS WITH UTILITIES OR OTHER CIRCUMSTANCES. AREAS TO BE DETERMINED BY THE FIELD ENGINEER.

SEE SHEET 16 FOR -L- PROFILE

5/14/99

EXISTING SEWER MANHOLE INFORMATION

MH 2078
INV: 34.64
TOP: 42.51

MH 2-U3315
INV: 35.45
TOP: 42.45

MH 2074
INV: 37.09
TOP: 44.90

MH 2008
INV: 37.39
TOP: 44.90

MH 2086
INV: 39.37
TOP: 43.36

PROPOSED SEWER MANHOLE INFORMATION

MH 2082
INV: 34.64
TOP: 42.70

MH 2083
INV: 37.19
TOP: 43.24

MH 12
INV: 37.59
TOP: 43.74

PI Sta 84+43.48
D = 12' 09" 32.2" (LT)
D = 22' 55" 05.9"
L = 53.05'
T = 26.63'
R = 250.00'
SE = NC
RO = NONE

PI Sta 84+95.90
D = 11' 52" 31.1" (RT)
D = 22' 55" 05.9"
L = 51.82'
T = 26.00'
R = 250.00'
SE = NC
RO = NONE

PI Sta 88+57.73
D = 49' 09" 48.7" (RT)
D = 57' 17" 44.8"
L = 85.81'
T = 45.75'
R = 100.00'
SE = EXISTING
RO = EXISTING

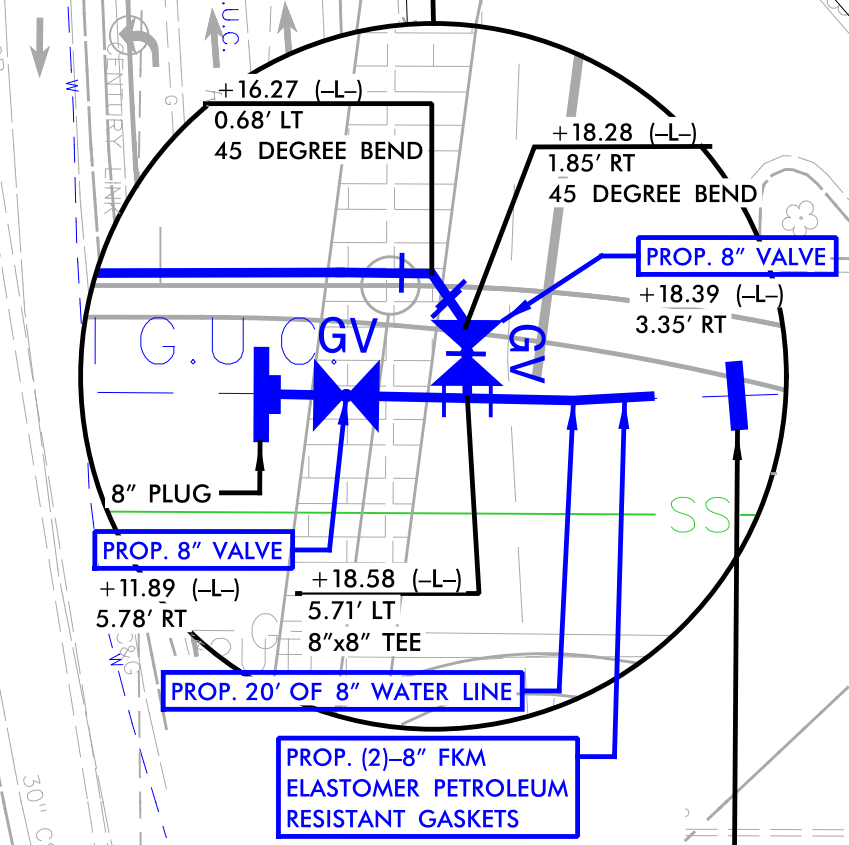
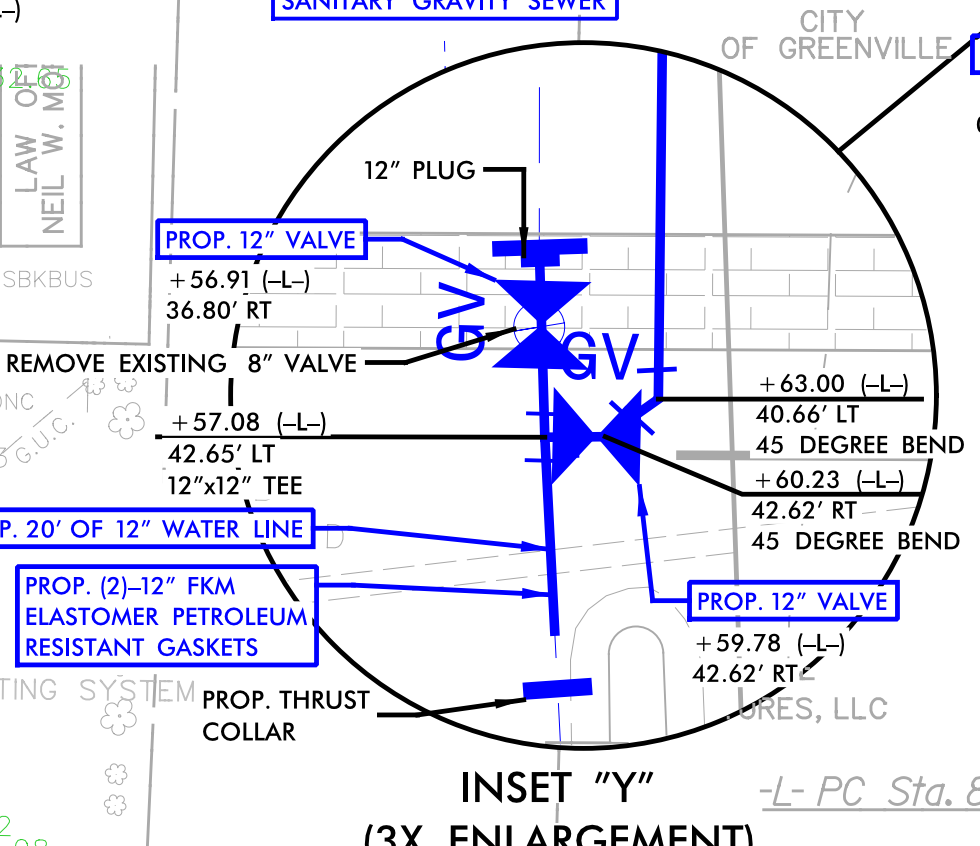
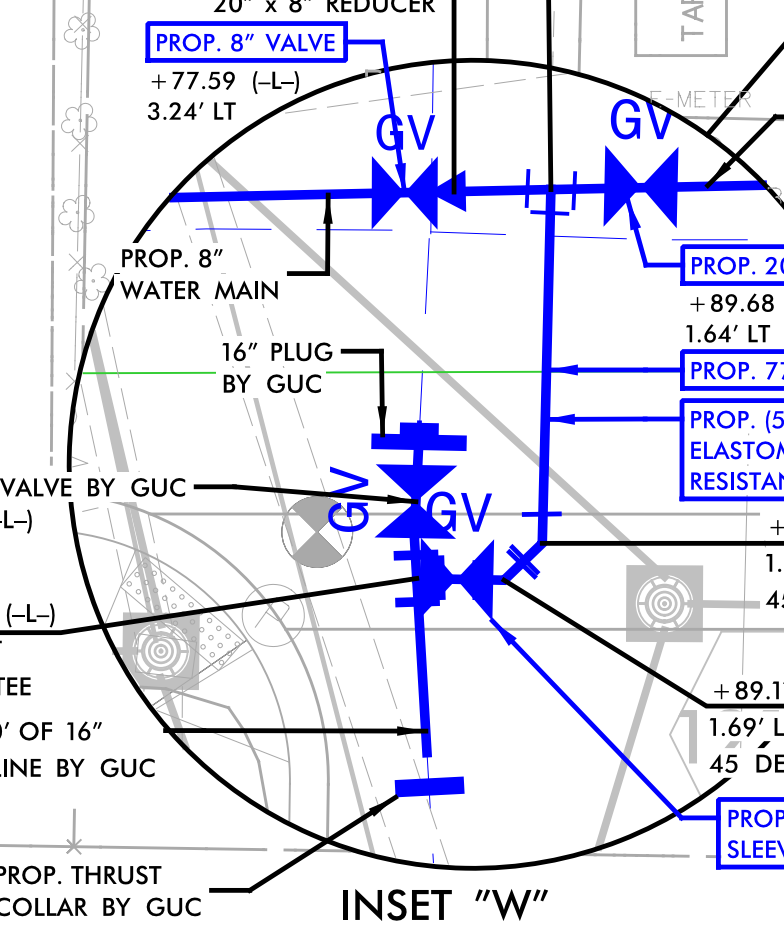
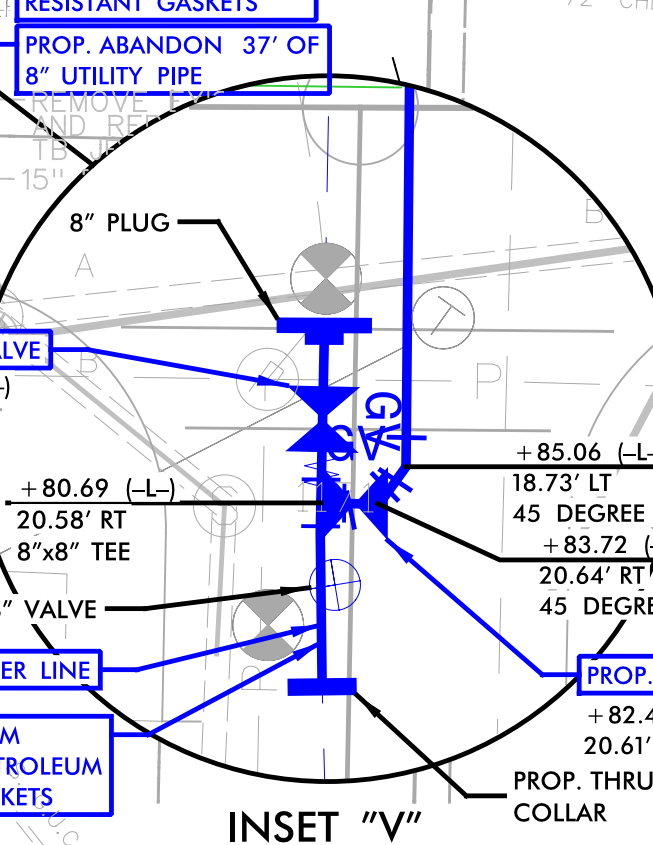
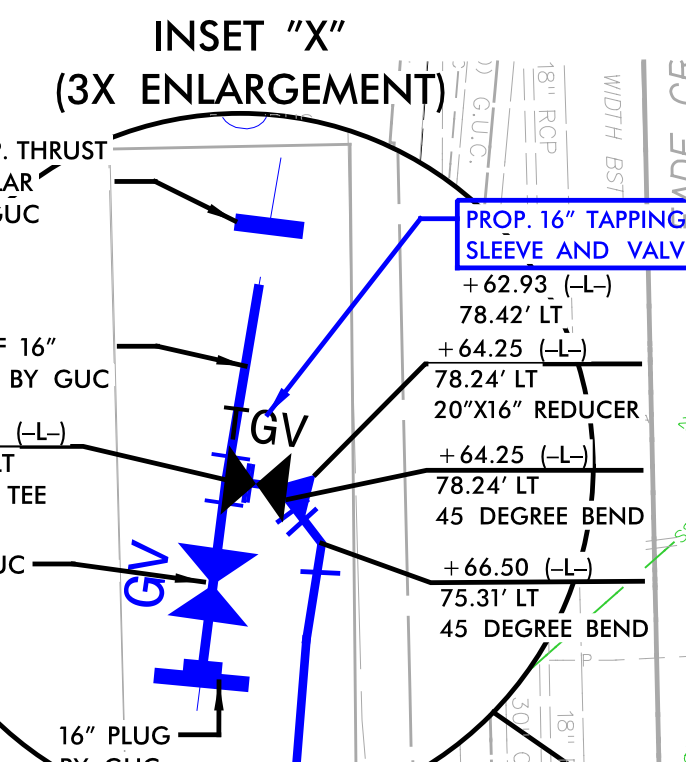
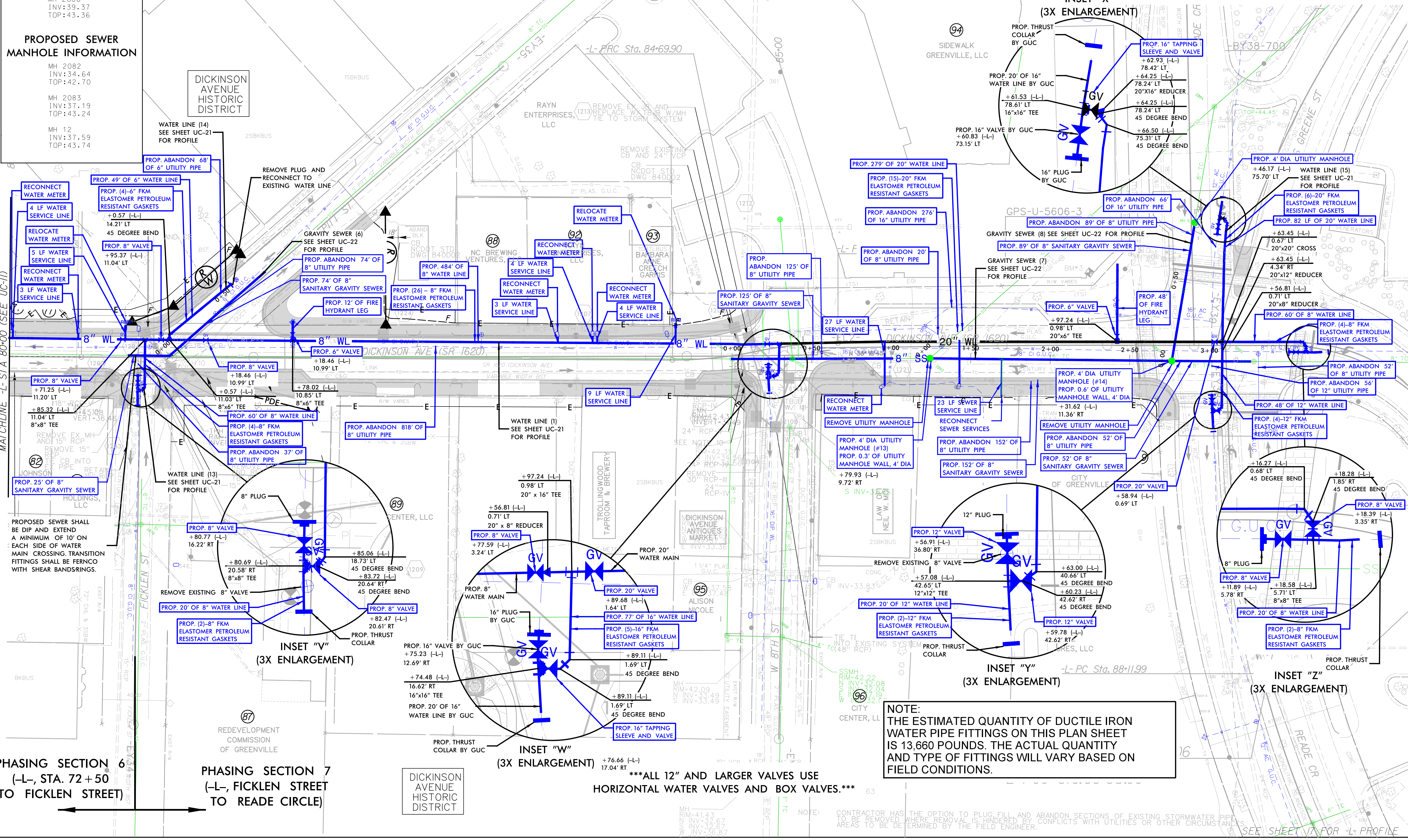
PREPARED IN THE OFFICE OF:

THE WOOTEN COMPANY
120 North Roper Avenue Raleigh, NC 27603-1423
919.876.0111 Fax 919.876.3189
License Number: F-0115

PROJECT REFERENCE NO. U-5606	SHEET NO. UC-12
DESIGNED BY: JRG	DRAWN BY: TK & CB
CHECKED BY: DGM	APPROVED BY: DGM
REVISIONS:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	

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UTILITY CONSTRUCTION



PHASING SECTION 6
(-L-, STA. 72 + 50 TO FICKLEN STREET)

PHASING SECTION 7
(-L-, FICKLEN STREET TO READE CIRCLE)

DICKINSON AVENUE HISTORIC DISTRICT

ALL 12" AND LARGER VALVES USE HORIZONTAL WATER VALVES AND BOX VALVES.

NOTE:
THE ESTIMATED QUANTITY OF DUCTILE IRON WATER PIPE FITTINGS ON THIS PLAN SHEET IS 13,660 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.

CONTRACTOR HAS THE OPTION TO PLUG, FILL AND ABANDON SECTIONS OF EXISTING STORMWATER PIPE TO BE REMOVED WHERE REMOVAL IS HINDERED BY CONFLICTS WITH UTILITIES OR OTHER CIRCUMSTANCES. AREAS TO BE DETERMINED BY THE FIELD ENGINEER.

5/28/99

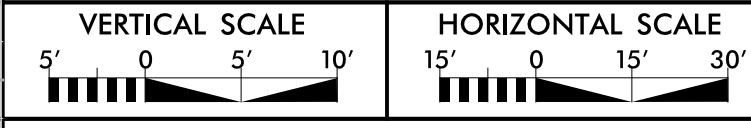
PROFILE SHOWN IS BASED ON STATIONING ALONG PROPOSED WATER LINE ALIGNMENT ALONG ROADWAY ALIGNMENT -L- (SEE SHEET UC-4)

6" & 10" Water Line (1)

PREPARED IN THE OFFICE OF:

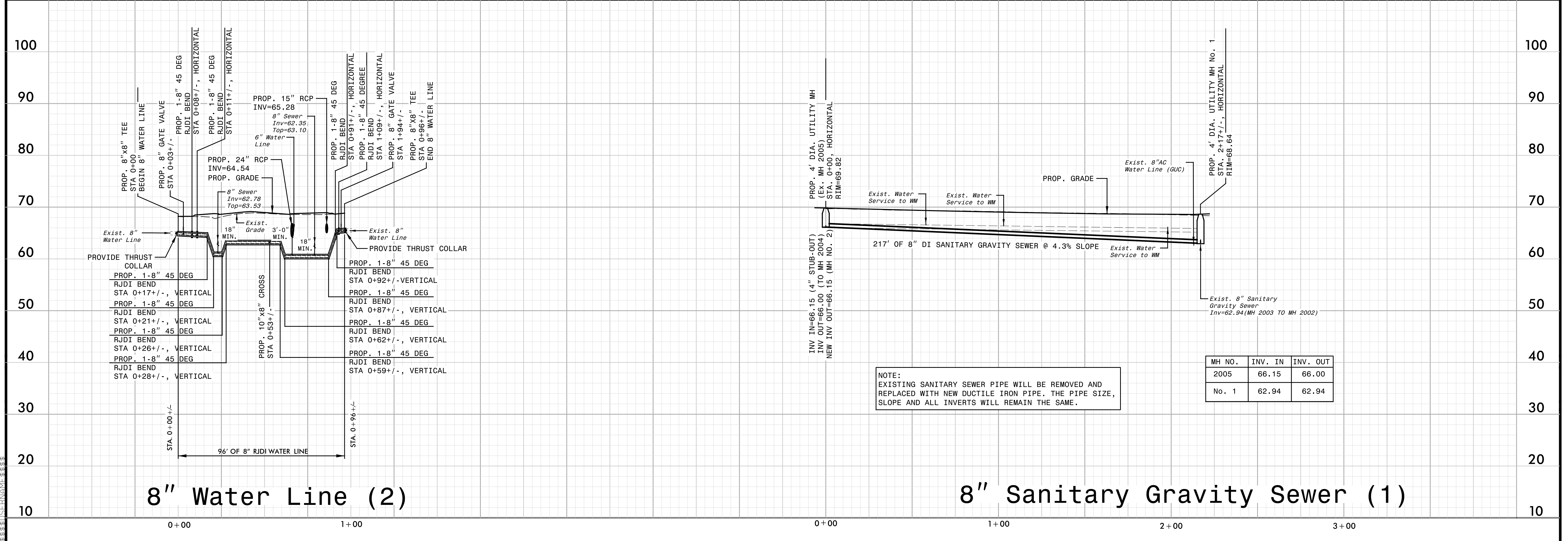
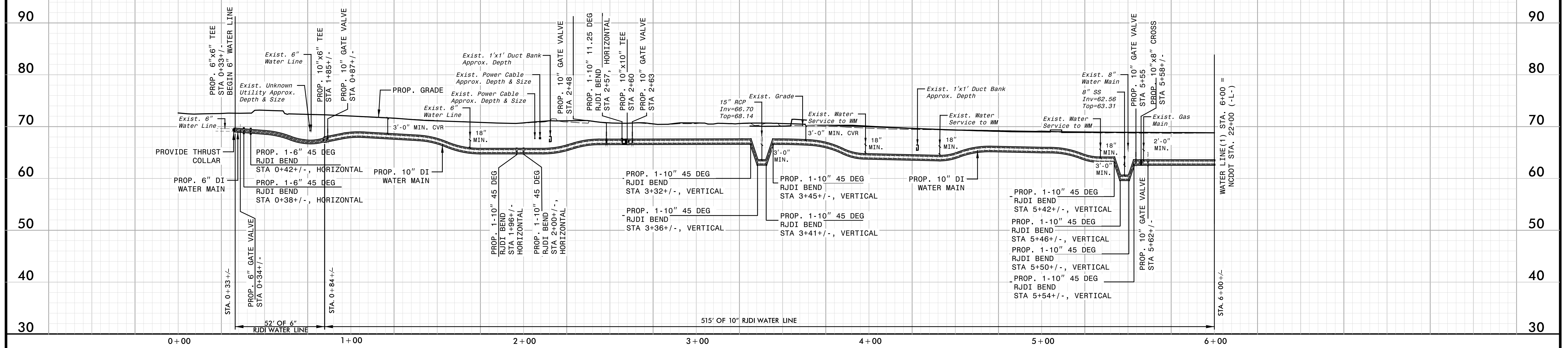


PROJECT REFERENCE NO. U-5606	SHEET NO. UC-13
DESIGNED BY: JRG	
DRAWN BY: TK & CB	
CHECKED BY: DGM	
APPROVED BY: DGM	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
REVISED:	
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	



WATER LINE AND SEWER LINE
CONSTRUCTION
SHOWN ON THIS SHEET

UTILITY CONSTRUCTION



MH NO.	INV. IN	INV. OUT
2005	66.15	66.00
No. 1	62.94	62.94

5/28/99

5/28/99

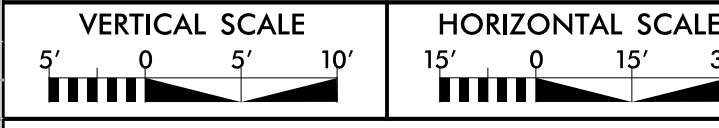
PROFILE SHOWN IS BASED ON STATIONING ALONG
PROPOSED WATER LINE ALIGNMENT ALONG
ROADWAY ALIGNMENT -L-
(SEE SHEET UC-5)

PREPARED IN THE OFFICE OF:



PROJECT REFERENCE NO. U-5606 SHEET NO. UC-14

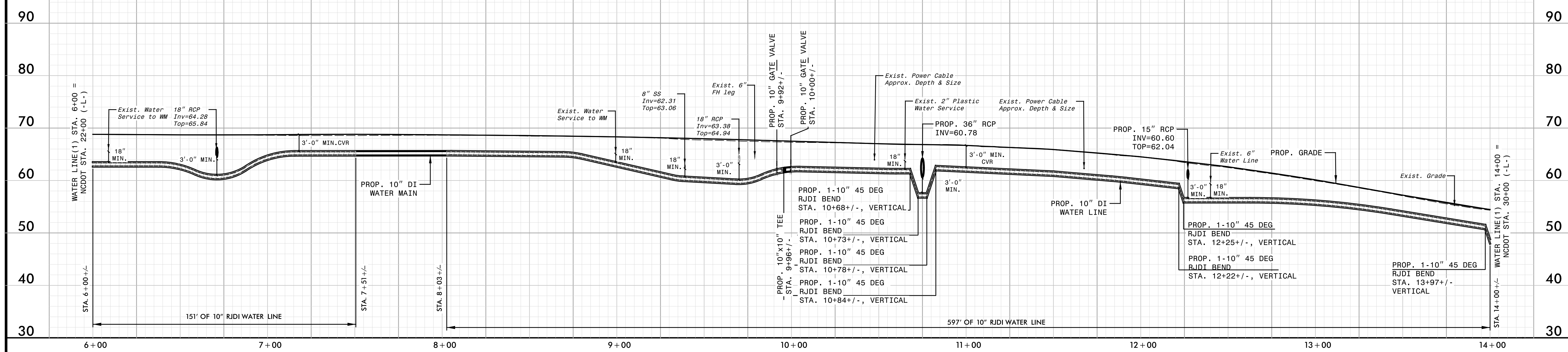
DESIGNED BY: JRG
DRAWN BY: TK & CB
CHECKED BY: DGM
APPROVED BY: DGM
REVIS:
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151
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WATER LINE AND SEWER LINE
CONSTRUCTION
SHOWN ON THIS SHEET

UTILITY CONSTRUCTION

10" Water Line (1)



12" Water Line (3)

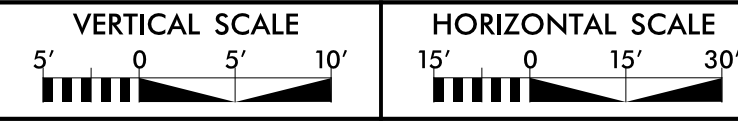
5/28/99

5/28/19

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

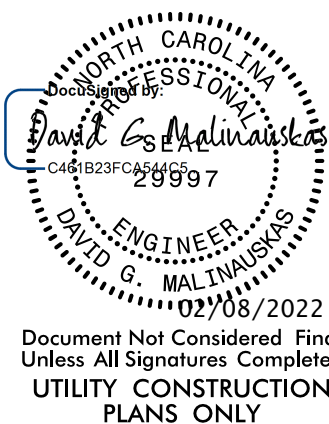
8" & 10" Water Line (1)

PREPARED IN THE OFFICE OF:

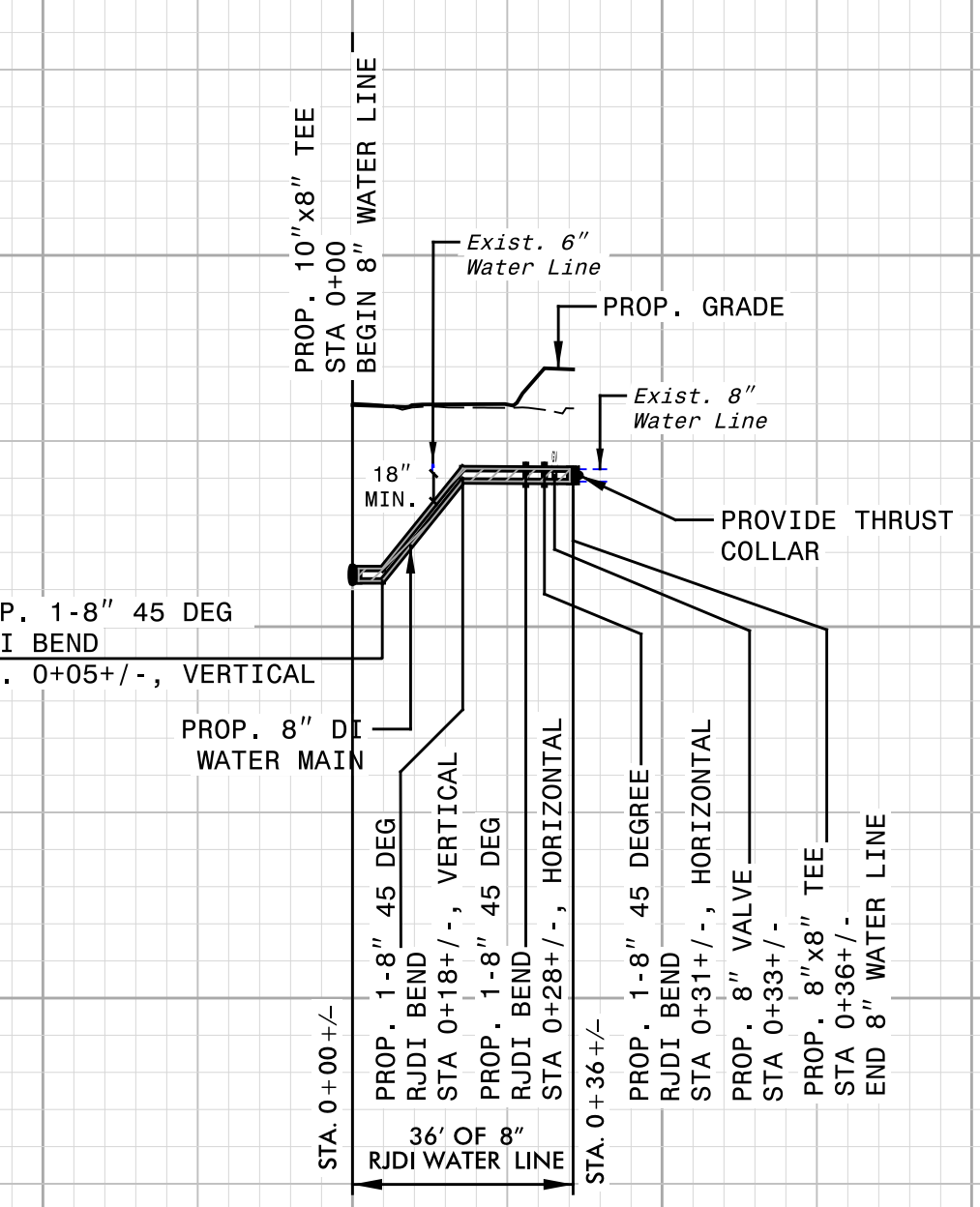
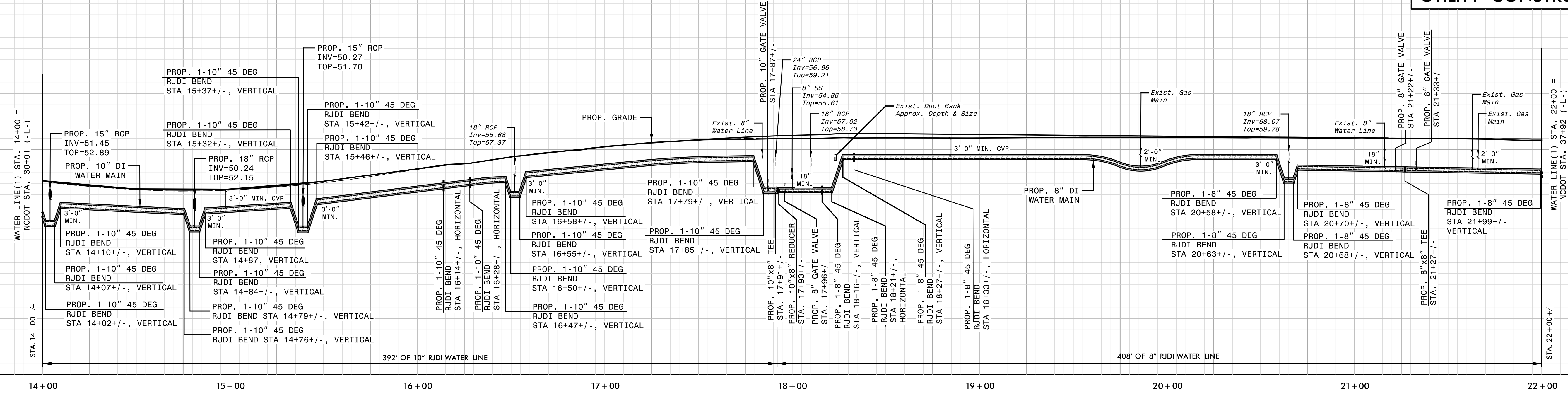


WATER LINE CONSTRUCTION
SHOWN ON THIS SHEET

PROJECT REFERENCE NO. U-5606	SHEET NO. UC-15
DESIGNED BY: JRG	
DRAWN BY: TK & CB	
CHECKED BY: DGM	
APPROVED BY: DGM	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	



UTILITY CONSTRUCTION




8" Water Line (4)

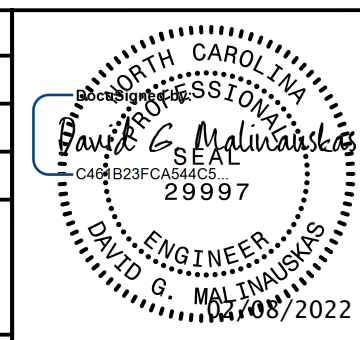
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CONSTRUCTION

5/28/99

PROFILE SHOWN IS BASED ON STATIONING ALONG
 PROPOSED WATER LINE ALIGNMENT ALONG
 ROADWAY ALIGNMENT -L-
 (SEE SHEET UC-7)
6" & 8" Water Line (1)

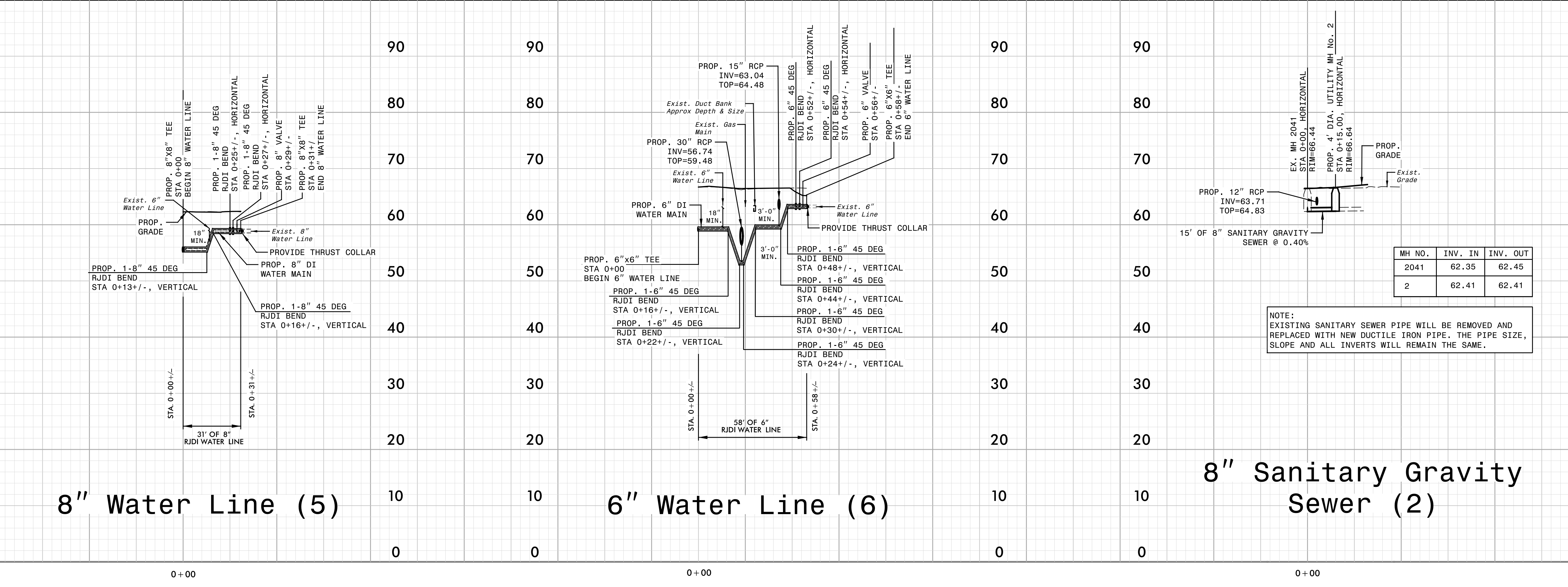
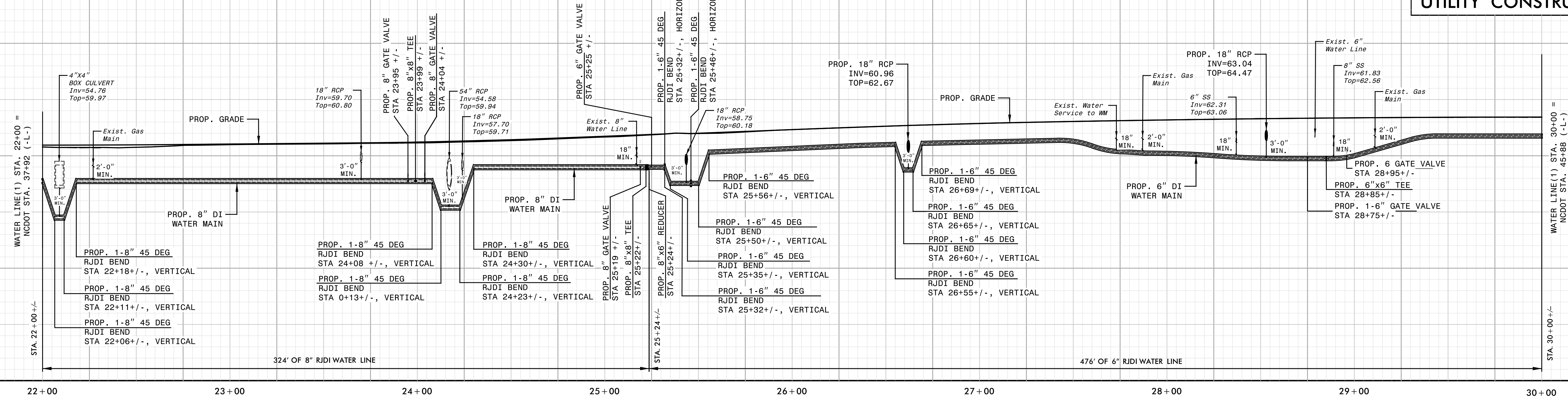
PREPARED IN THE OFFICE OF:

THE WOOTEN COMPANY
 120 North Bala Avenue Raleigh, NC 27603-1423
 919.876.0521 Fax 919.876.2589
 License Number: F-0115

PROJECT REFERENCE NO. U-5606	SHEET NO. UC-16
DESIGNED BY: JRG	 NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151
DRAWN BY: TK & CB	
CHECKED BY: DGM	
APPROVED BY: DGM	
REVIS:	

VERTICAL SCALE: 1" = 5'
 HORIZONTAL SCALE: 1" = 15'

**WATER LINE AND SEWER LINE
 CONSTRUCTION
 SHOWN ON THIS SHEET**


UTILITY CONSTRUCTION



5/28/19

PROFILE SHOWN IS BASED ON STATIONING ALONG
PROPOSED WATER LINE ALIGNMENT ALONG
ROADWAY ALIGNMENT -L-
(SEE SHEET UC-8)
6" Water Line (1)

PREPARED IN THE OFFICE OF:



THE WOOTEN COMPANY
120 North Boker Avenue Raleigh, NC 27603-1423
919.876.9321 fax 919.876.9389
License Number: F-0115

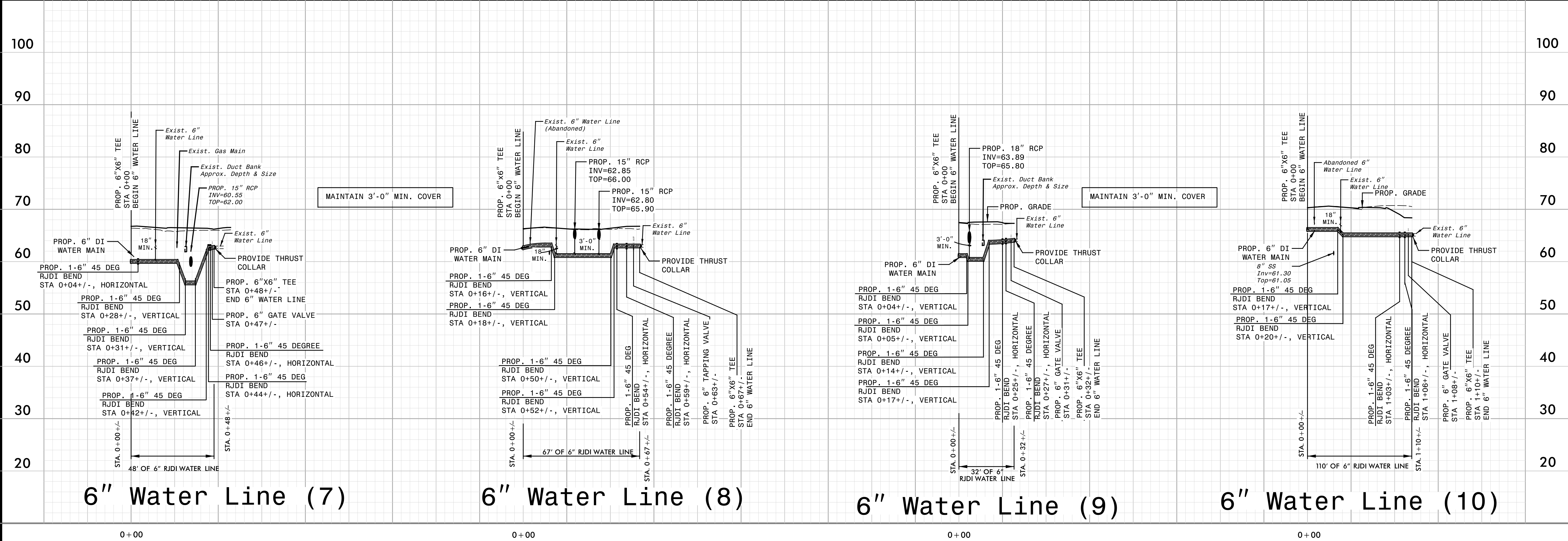
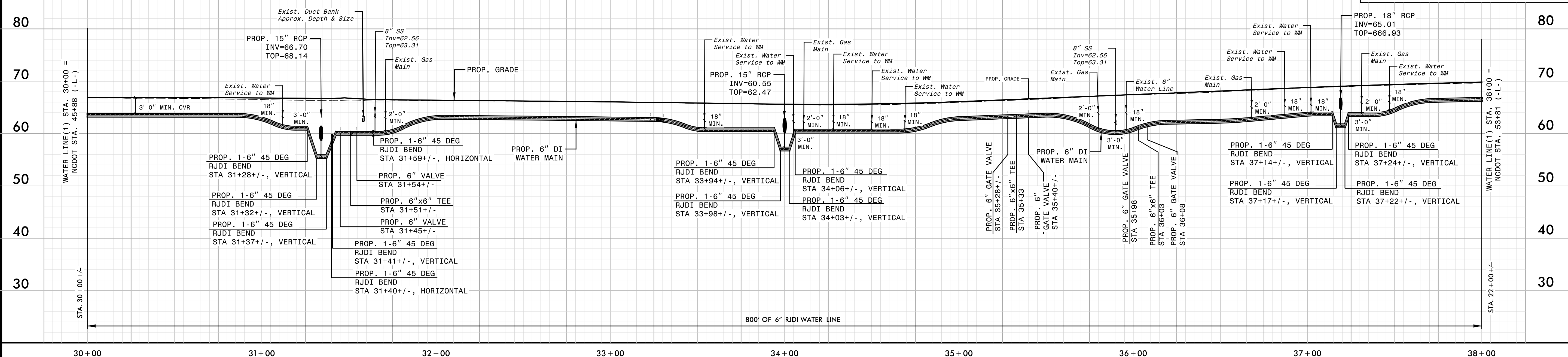
PROJECT REFERENCE NO.	U-5606	SHEET NO.	UC-17
DESIGNED BY:	JRG		
DRAWN BY:	TK & CB		
CHECKED BY:	DGM		
APPROVED BY:	DGM		
REVIS:			
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION			
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151			

VERTICAL SCALE: 5' 0 5' 10'
HORIZONTAL SCALE: 15' 0 15' 30'

WATER LINE CONSTRUCTION SHOWN ON THIS SHEET

UTILITY CONSTRUCTION


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CONSTRUCTION

5/28/99

PROFILE SHOWN IS BASED ON STATIONING ALONG
 PROPOSED WATER LINE ALIGNMENT ALONG
 ROADWAY ALIGNMENT -L-
 (SEE SHEET UC-9)
6" Water Line (1)

PREPARED IN THE OFFICE OF:

THE WOOTEN COMPANY
 120 North Belden Avenue Raleigh, NC 27603-1423
 919.876.0521 fax 919.876.2589
 License Number: F-0115

PROJECT REFERENCE NO. **U-5606** SHEET NO. **UC-18**

DESIGNED BY: JRG
 DRAWN BY: TK & CB
 CHECKED BY: DGM
 APPROVED BY: DGM
 REVISED:

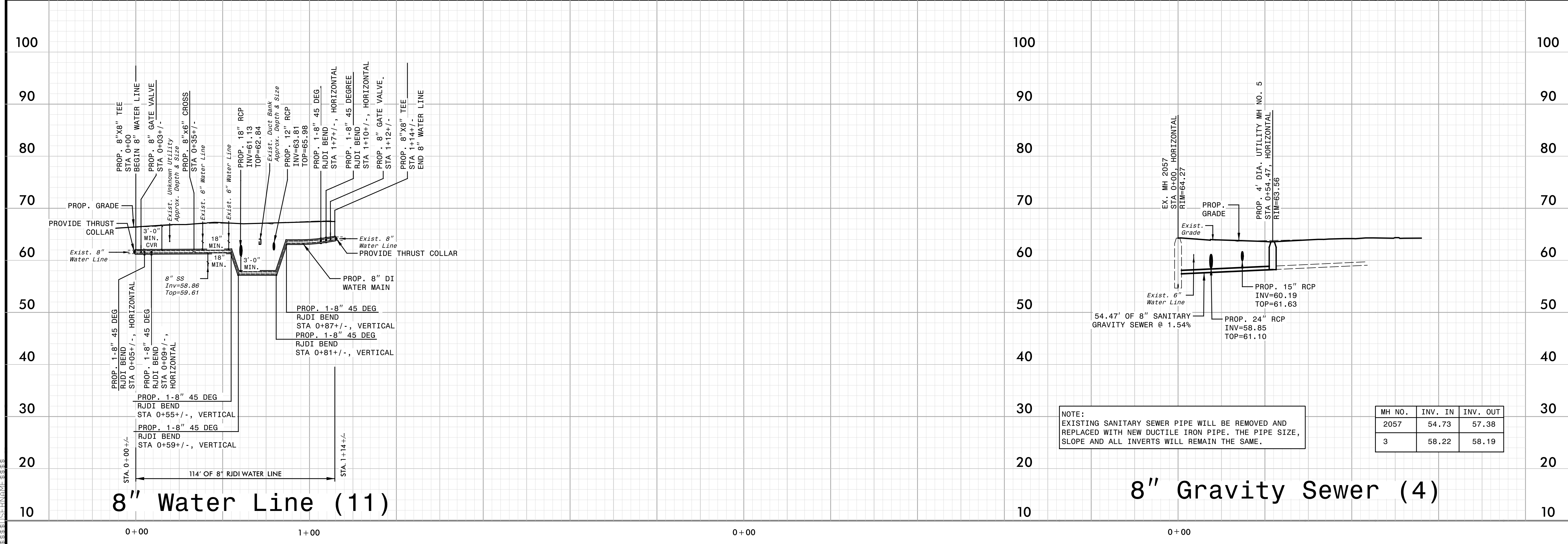
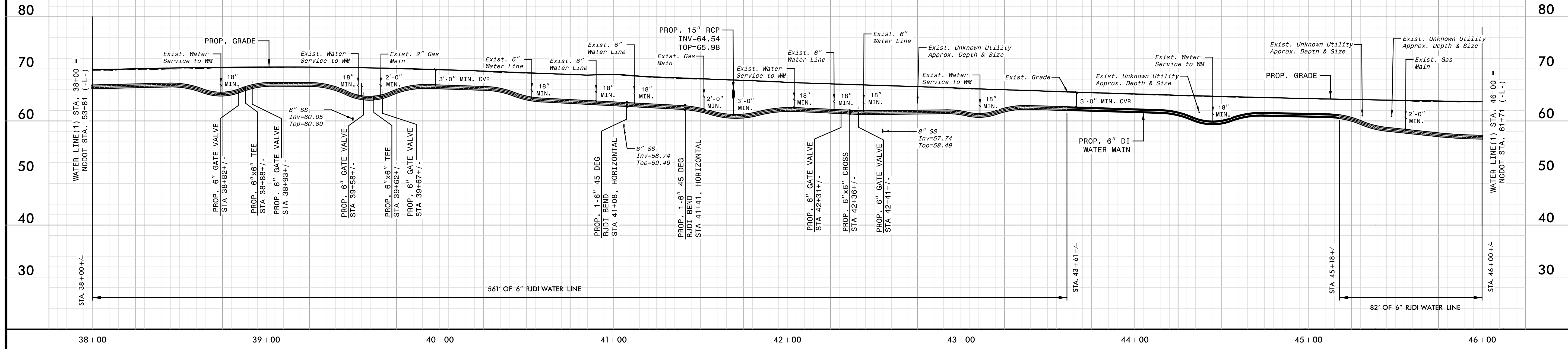
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
 UTILITIES ENGINEERING SEC.
 PHONE: (919) 707-6690
 FAX: (919) 250-4151

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 UTILITIES CONSTRUCTION
 PLANS ONLY

VERTICAL SCALE 1" = 5'
 HORIZONTAL SCALE 1" = 15'

WATER LINE AND SEWER LINE CONSTRUCTION SHOWN ON THIS SHEET

UTILITY CONSTRUCTION



NOTE:
 EXISTING SANITARY SEWER PIPE WILL BE REMOVED AND REPLACED WITH NEW DUCTILE IRON PIPE. THE PIPE SIZE, SLOPE AND ALL INVERTS WILL REMAIN THE SAME.


MH NO.	INV. IN	INV. OUT
2057	54.73	57.38
3	58.22	58.19

5/28/99

PROFILE SHOWN IS BASED ON STATIONING ALONG PROPOSED WATER LINE ALIGNMENT ALONG ROADWAY ALIGNMENT -L- (SEE SHEET UC-10)

6" Water Line (1)

PREPARED IN THE OFFICE OF:



THE WOOTEN COMPANY
120 North Ralston Avenue Raleigh, NC 27603-1423
919.876.9331 fax 919.876.2589
License Number: F-0115

PROJECT REFERENCE NO. U-5606 SHEET NO. UC-19

DESIGNED BY: JRG
DRAWN BY: TK & CB
CHECKED BY: DGM
APPROVED BY: DGM

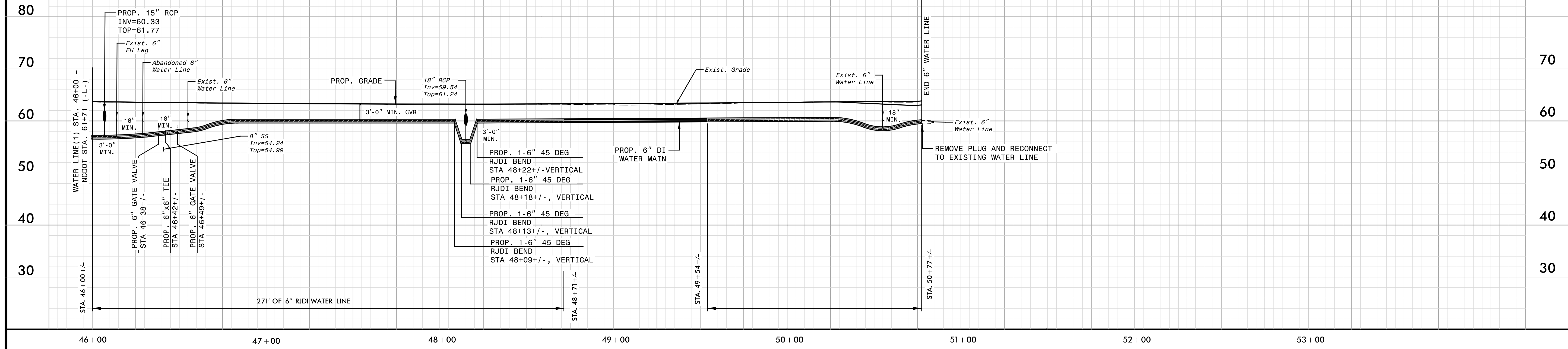
REVIS: NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151

Document Not Considered Final Unless All Signatures Completed
UTILITY CONSTRUCTION PLANS ONLY

VERTICAL SCALE 5' 0 5' 10'
HORIZONTAL SCALE 15' 0 15' 30'

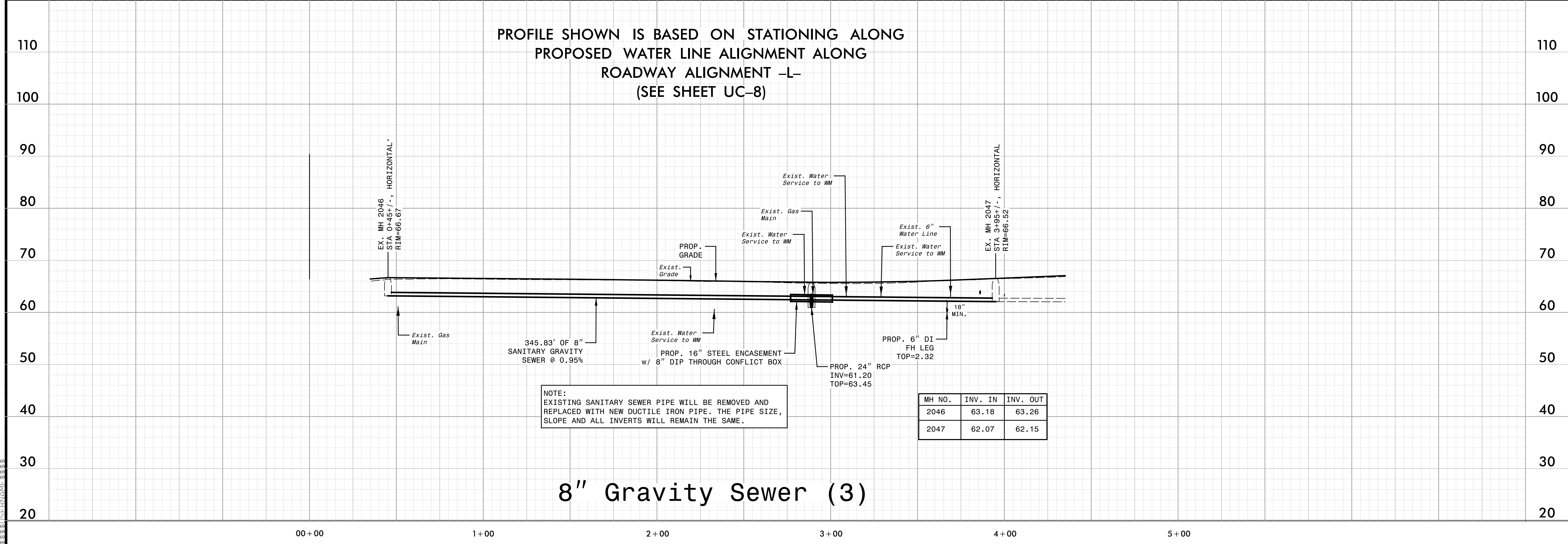
WATER LINE AND SEWER LINE CONSTRUCTION SHOWN ON THIS SHEET

UTILITY CONSTRUCTION



PROFILE SHOWN IS BASED ON STATIONING ALONG PROPOSED WATER LINE ALIGNMENT ALONG ROADWAY ALIGNMENT -L- (SEE SHEET UC-8)

8" Gravity Sewer (3)



5/28/99

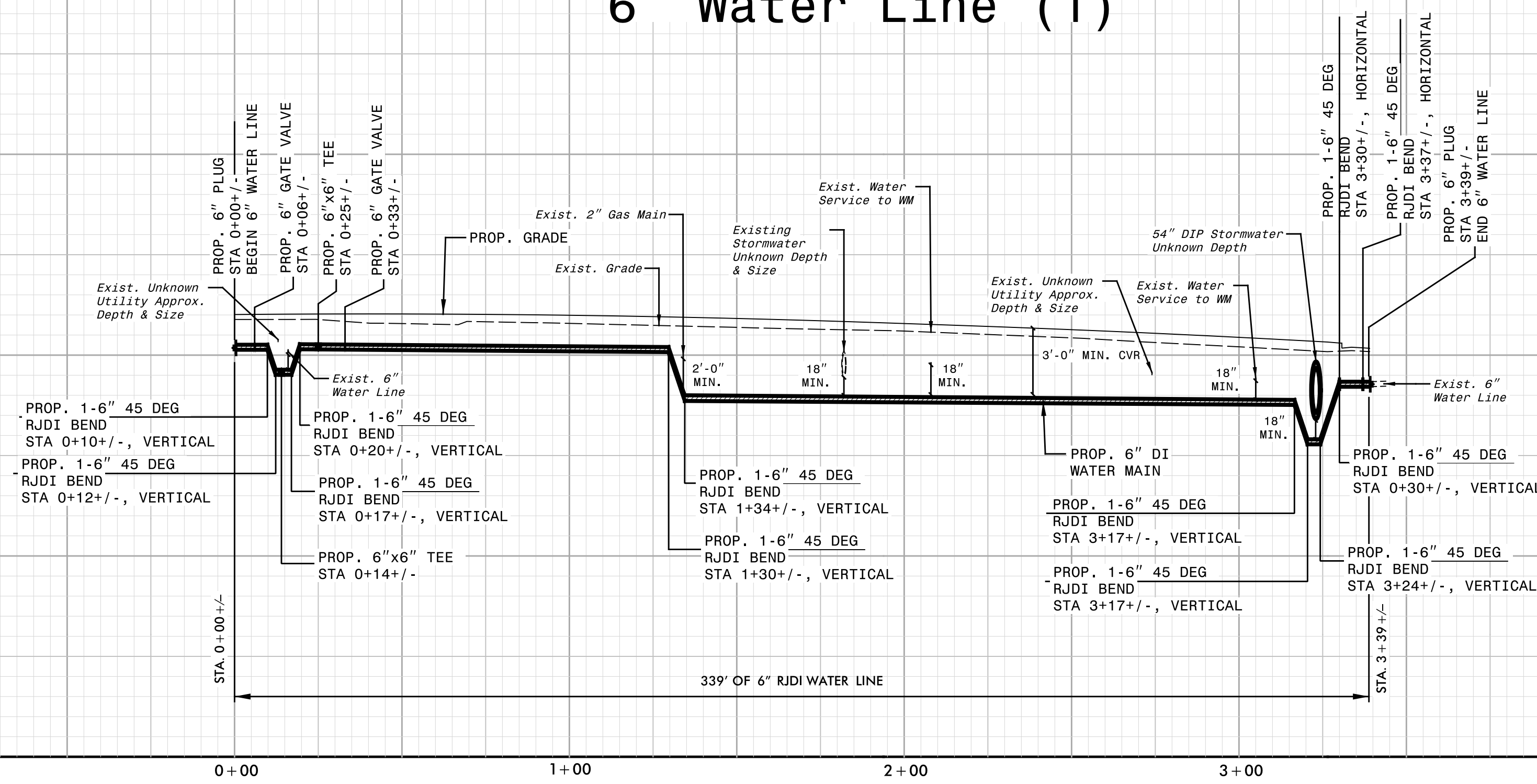
5/28/99

PROFILE SHOWN IS BASED ON STATIONING ALONG
PROPOSED WATER LINE ALIGNMENT ALONG
ROADWAY ALIGNMENT -L-
(SEE SHEET UC-4)

6" Water Line (1)

PREPARED IN THE OFFICE OF: THE WOOTEN COMPANY <small>120 North Randle Avenue Raleigh, NC 27603-1423 919.876.0321 Fax 919.876.2589 License Number: F-0115</small>	PROJECT REFERENCE NO. U-5606	SHEET NO. UC-19A
	DESIGNED BY: JRG	 DAVID C. MALWA <small>25897 ENGINEER NORTH CAROLINA LICENSE NO. 25897</small>
	DRAWN BY: CFB	
	CHECKED BY: DGM	
APPROVED BY: DGM	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	
REVISIONS: VERTICAL SCALE HORIZONTAL SCALE 	UTILITY CONSTRUCTION	

WATER LINE CONSTRUCTION SHOWN ON THIS SHEET

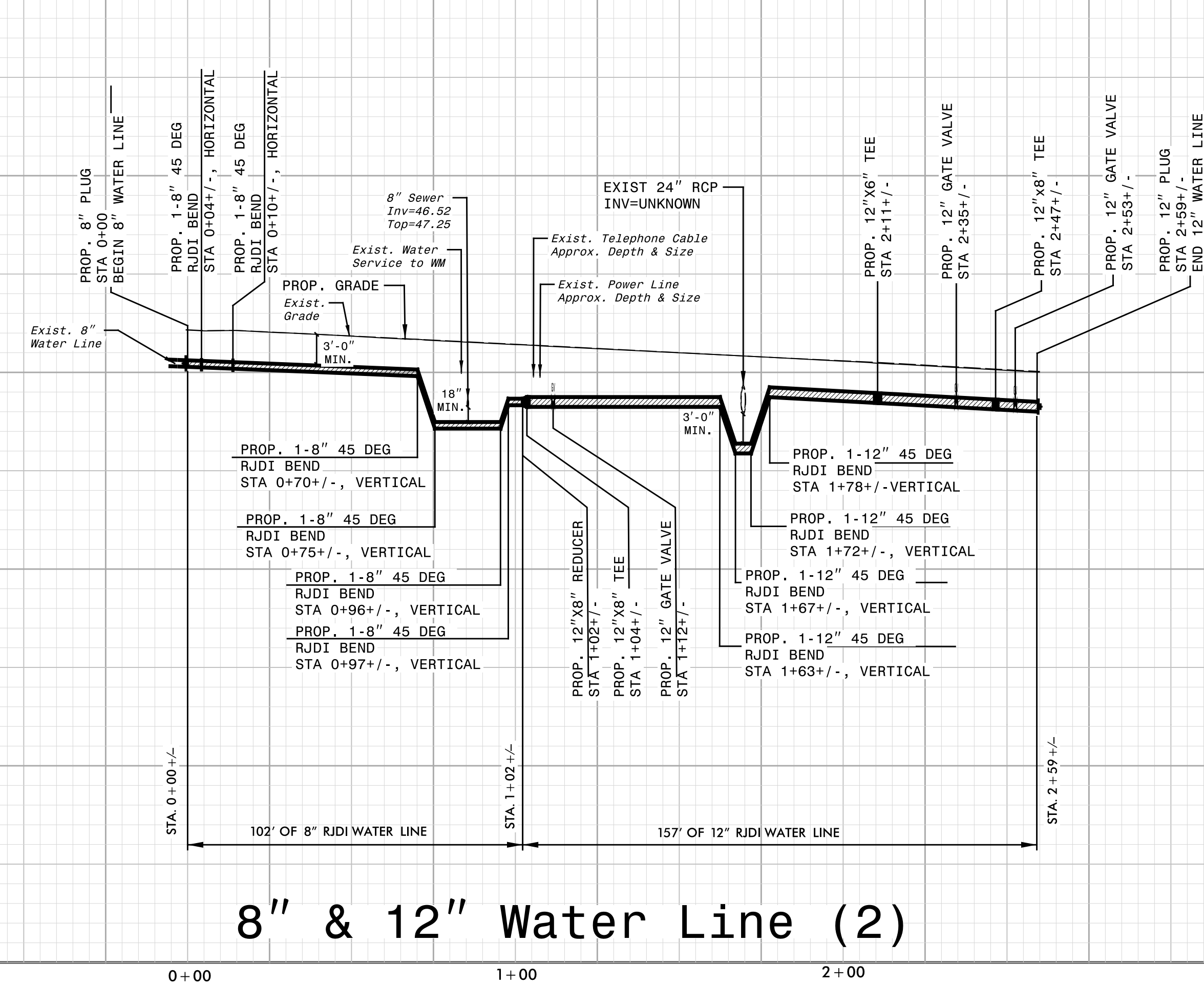


NOTE:
6" FKM ELASTOMER PETROLEUM RESISTANT GASKETS TO BE INSTALLED AFTER STATION 286+00 EVERY 20 FEET THROUGH CONTAMINATED SOILS.

NOTE:
WATER LINE MAY BE INSTALLED ABOVE STORM CULVERT IF A MINIMUM OF 3 FEET OF COVER CAN BE ACHIEVED ON THE WATERMAIN WHILE MAINTAINING A MINIMUM OF 18 INCHES OF SEPARATION WITH THE STORM CULVERT.

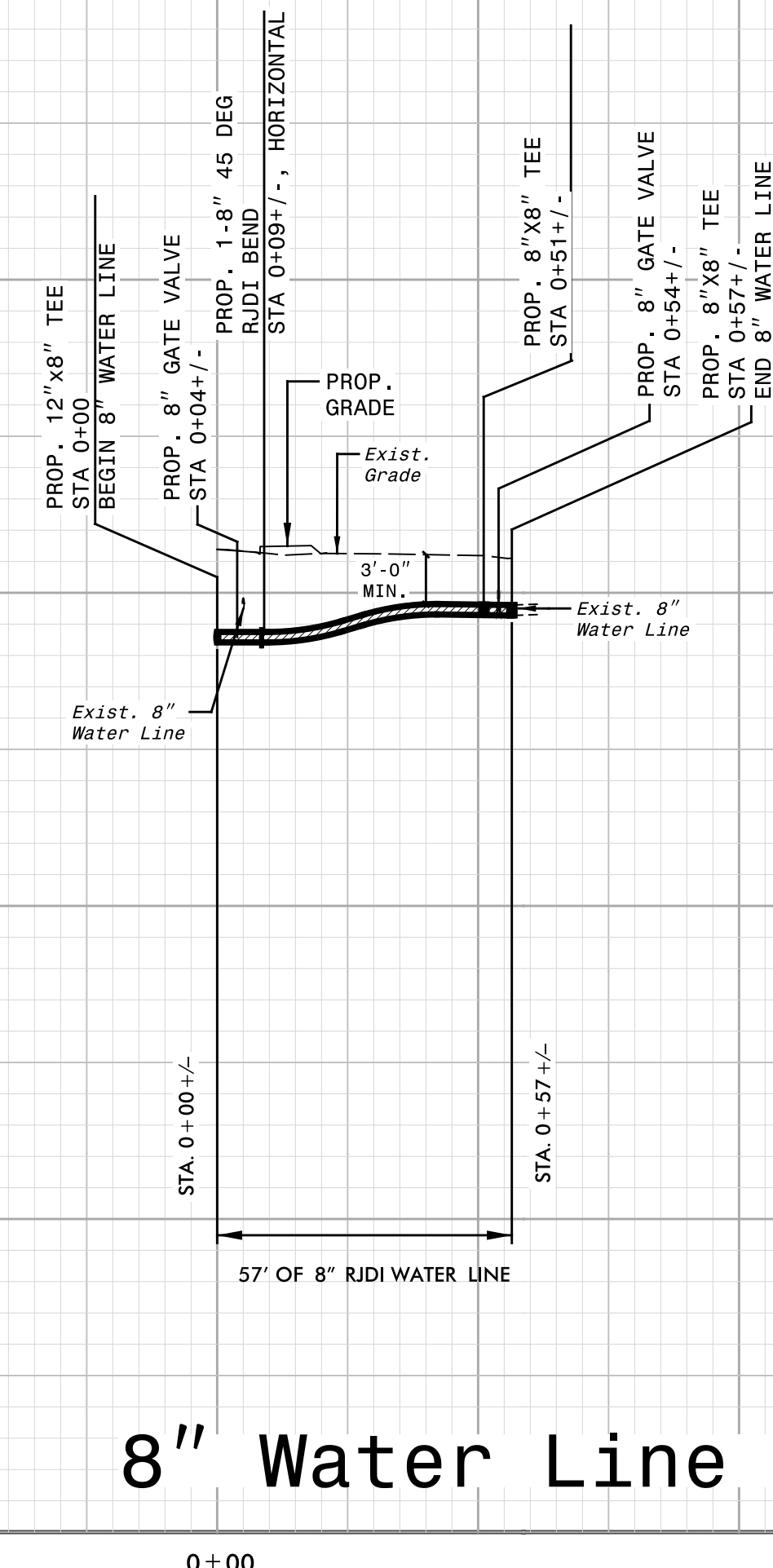
5/28/99

8" & 12" Water Line (2)



NOTE:
8" & 12" FKM ELASTOMER PETROLEUM RESISTANT GASKETS TO BE INSTALLED EVERY 20 FEET THROUGH CONTAMINATED SOILS FOR WL02 & WL03.

8" Water Line (3)




5/28/99

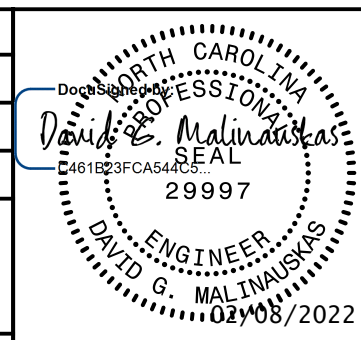
PROFILE SHOWN IS BASED ON STATIONING ALONG PROPOSED WATER LINE ALIGNMENT ALONG ROADWAY ALIGNMENT -L- (SEE SHEET UC-11)

8" & 12" Water Line (1)

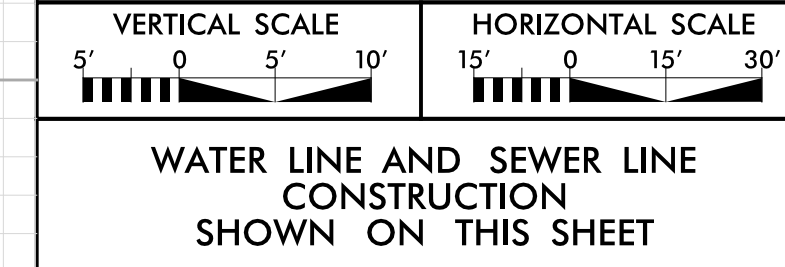
PREPARED IN THE OFFICE OF:



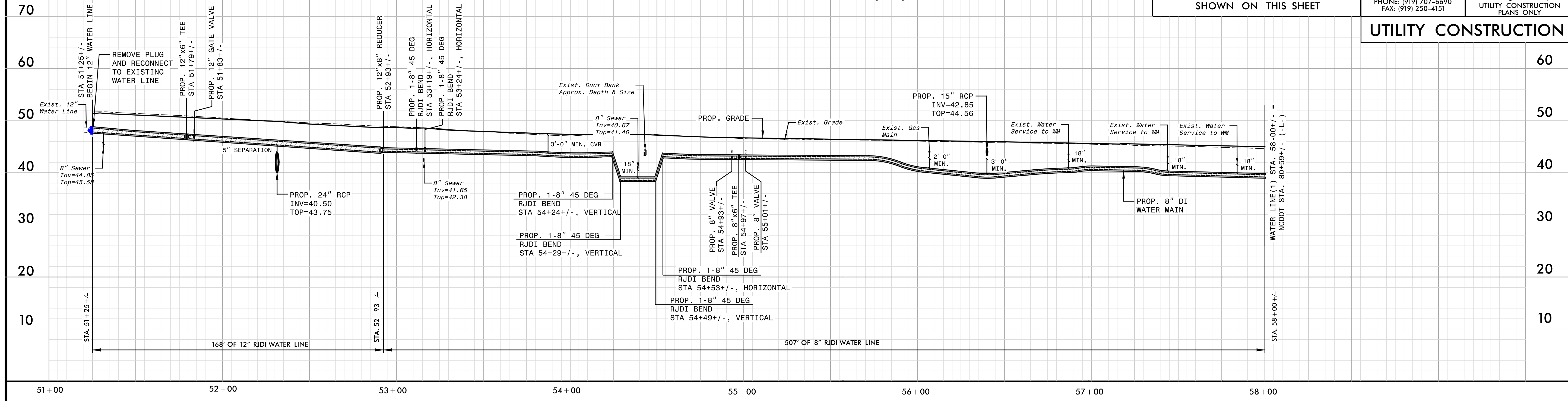
THE WOOTEN COMPANY
120 North Boker Avenue Raleigh, NC 27603-1423
919.876.9331 Fax 919.876.9399
License Number: F-0115

PROJECT REFERENCE NO.	U-5606	SHEET NO.	UC-20
DESIGNED BY:	JRG		
DRAWN BY:	TK & CB		
CHECKED BY:	DGM		
APPROVED BY:	DGM		
REVISED:			
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION			
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151			

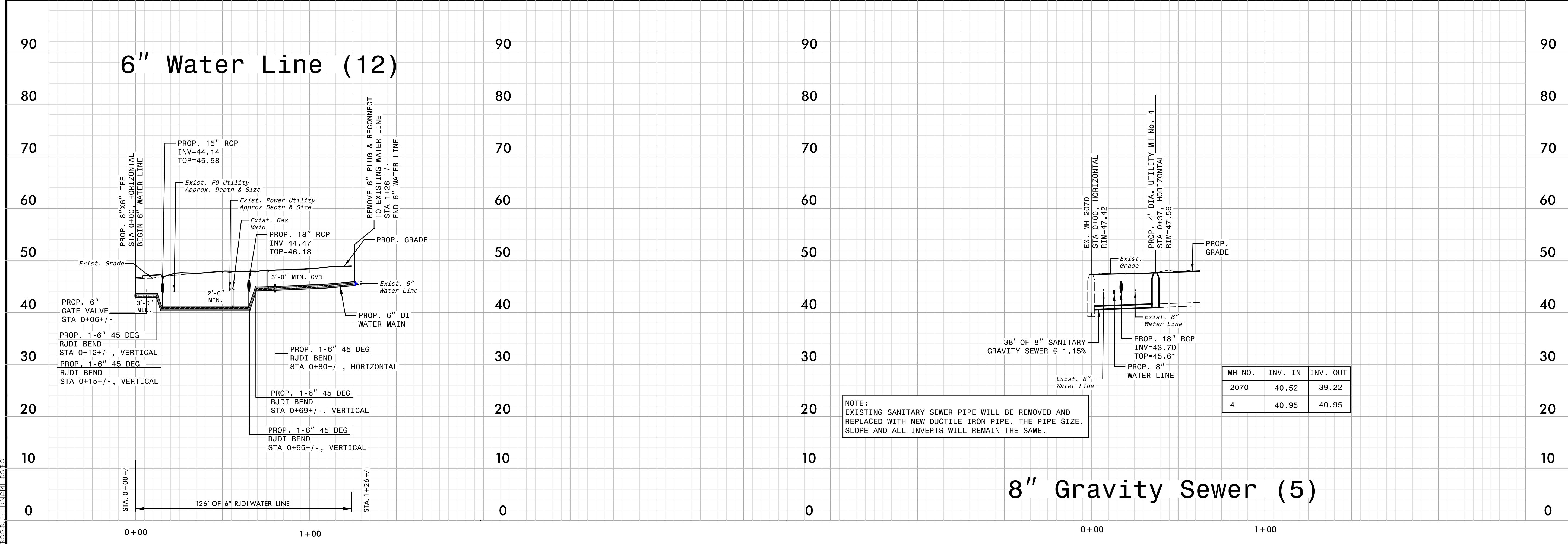
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UTILITY CONSTRUCTION PLANS ONLY



UTILITY CONSTRUCTION



6" Water Line (12)



8" Gravity Sewer (5)

CONSTRUCTION

5/28/99

PROFILE SHOWN IS BASED ON STATIONING ALONG
PROPOSED WATER LINE ALIGNMENT ALONG
ROADWAY ALIGNMENT -L-
(SEE SHEET UC-12)

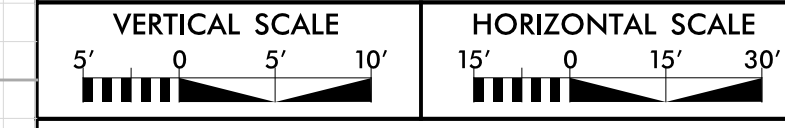
8" & 20" Water Line (1)

PREPARED IN THE OFFICE OF:

THE WOOTEN COMPANY
120 North Boston Avenue Raleigh, NC 27603-1423
919.833.0321 fax 919.833.0399
License Number: F-0115

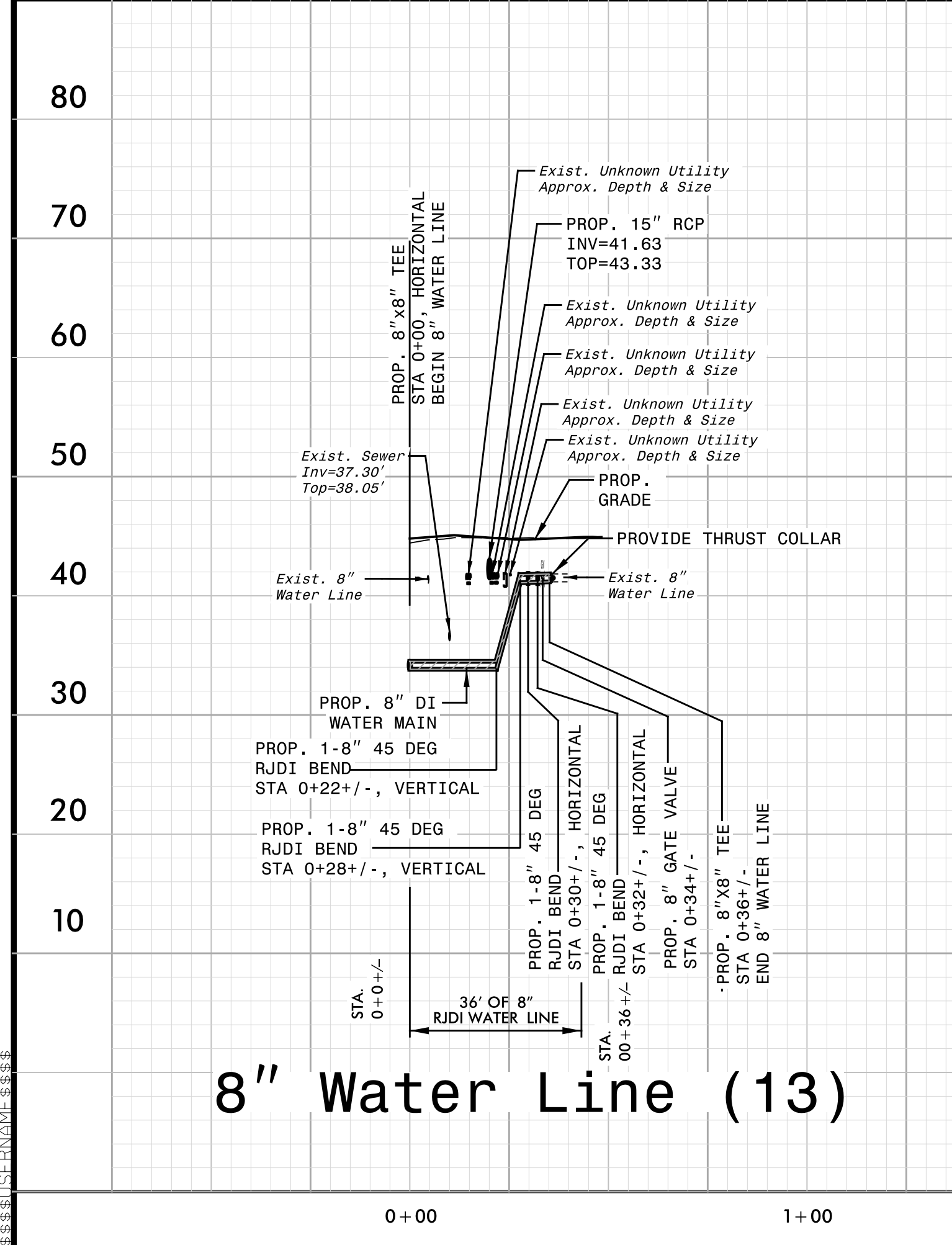
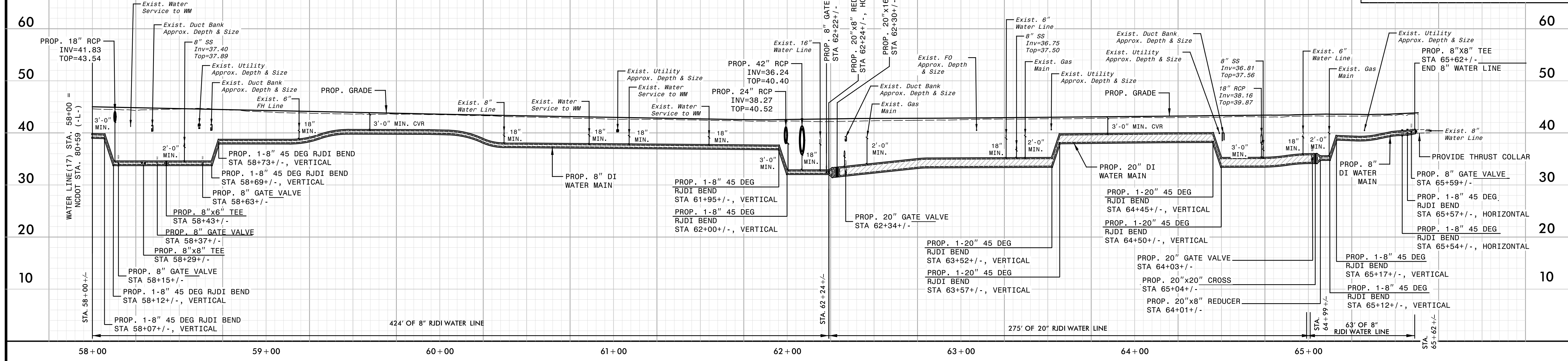
PROJECT REFERENCE NO.	U-5606	SHEET NO.	UC-21
DESIGNED BY:	JRG		
DRAWN BY:	TK & CB		
CHECKED BY:	DGM		
APPROVED BY:	DGM		
REVIS:			
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION			
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151			

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UTILITY CONSTRUCTION PLANS ONLY

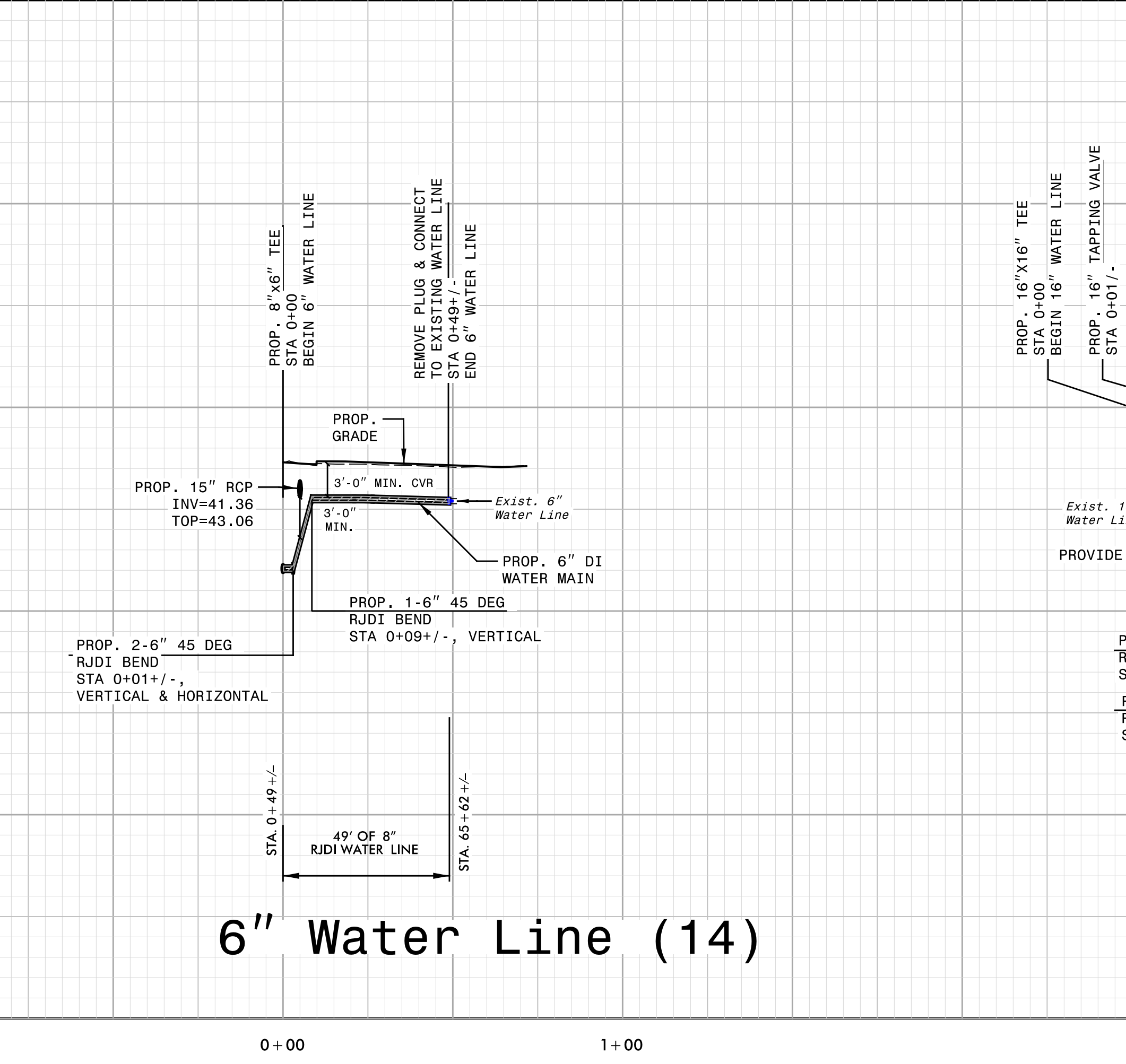


WATER LINE CONSTRUCTION SHOWN ON THIS SHEET

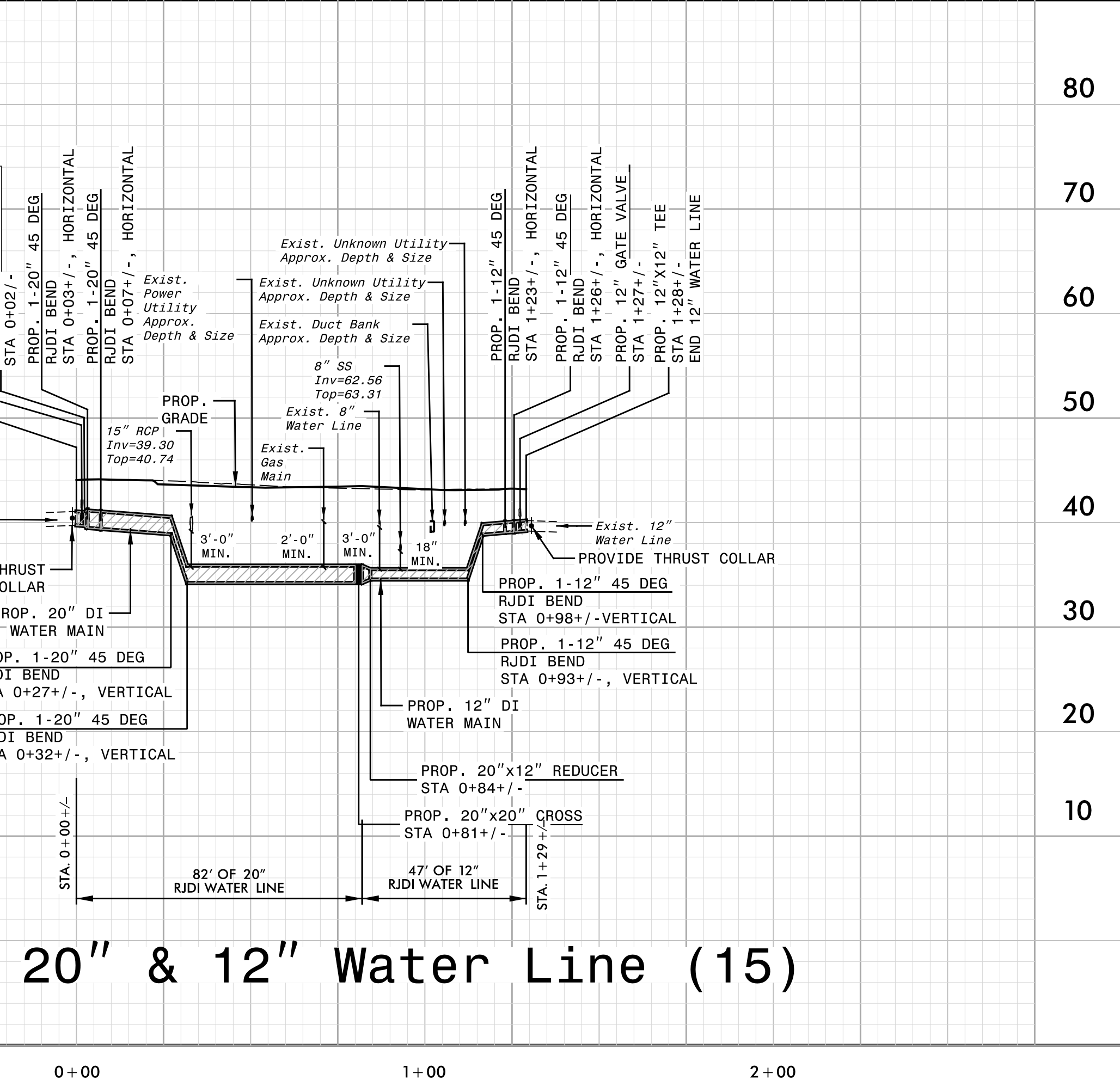
UTILITY CONSTRUCTION



8" Water Line (13)



6" Water Line (14)

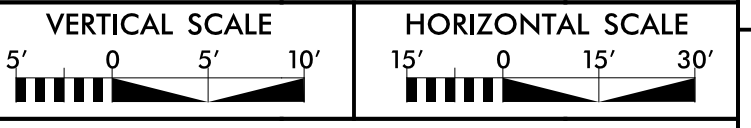
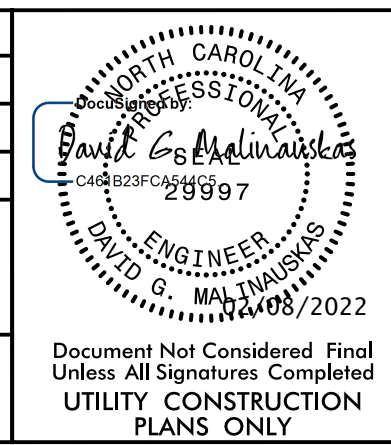


20" & 12" Water Line (15)

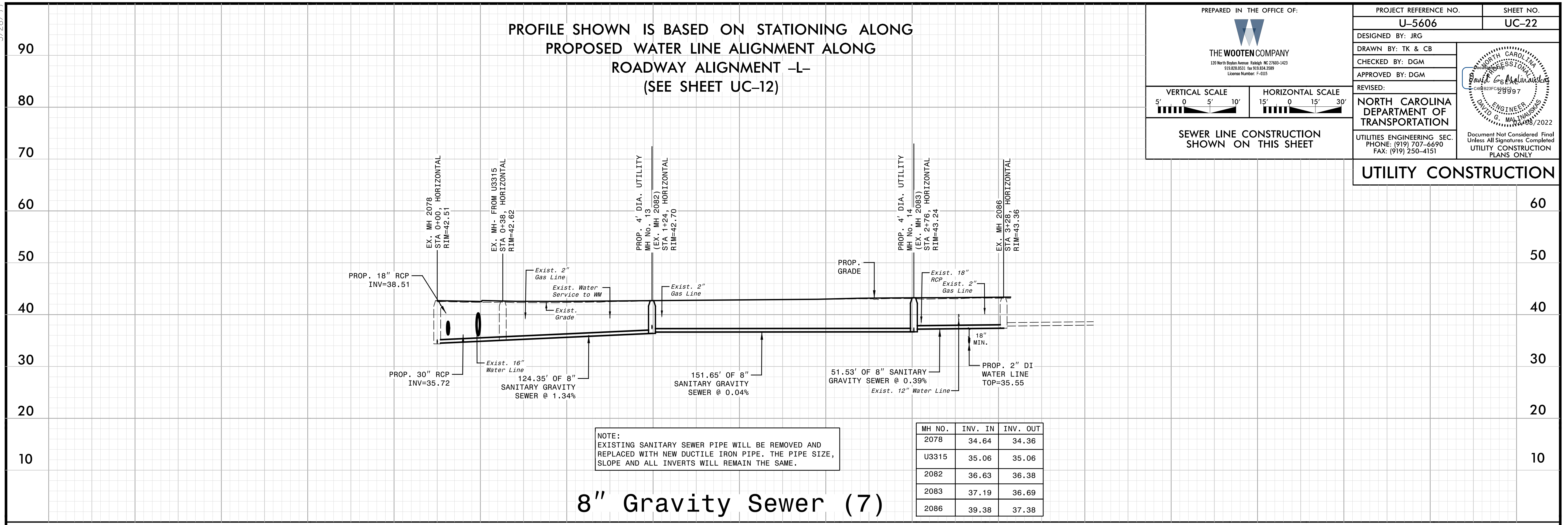
CONSTRUCTION

**PROFILE SHOWN IS BASED ON STATIONING ALONG
PROPOSED WATER LINE ALIGNMENT ALONG
ROADWAY ALIGNMENT -L-
(SEE SHEET UC-12)**

PREPARED IN THE OFFICE OF: THE WOOTEN COMPANY <small>120 North Beulah Avenue Raleigh, NC 27603-1423 919.876.9531 Fax 919.876.3599 License Number: F-0115</small>	PROJECT REFERENCE NO. U-5606	SHEET NO. UC-22
DESIGNED BY: JRG DRAWN BY: TK & CB CHECKED BY: DGM APPROVED BY: DGM		
REVISID: <div style="border: 1px solid black; padding: 2px; width: fit-content;"> NORTH CAROLINA DEPARTMENT OF TRANSPORTATION </div> UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151		
SEWER LINE CONSTRUCTION SHOWN ON THIS SHEET		

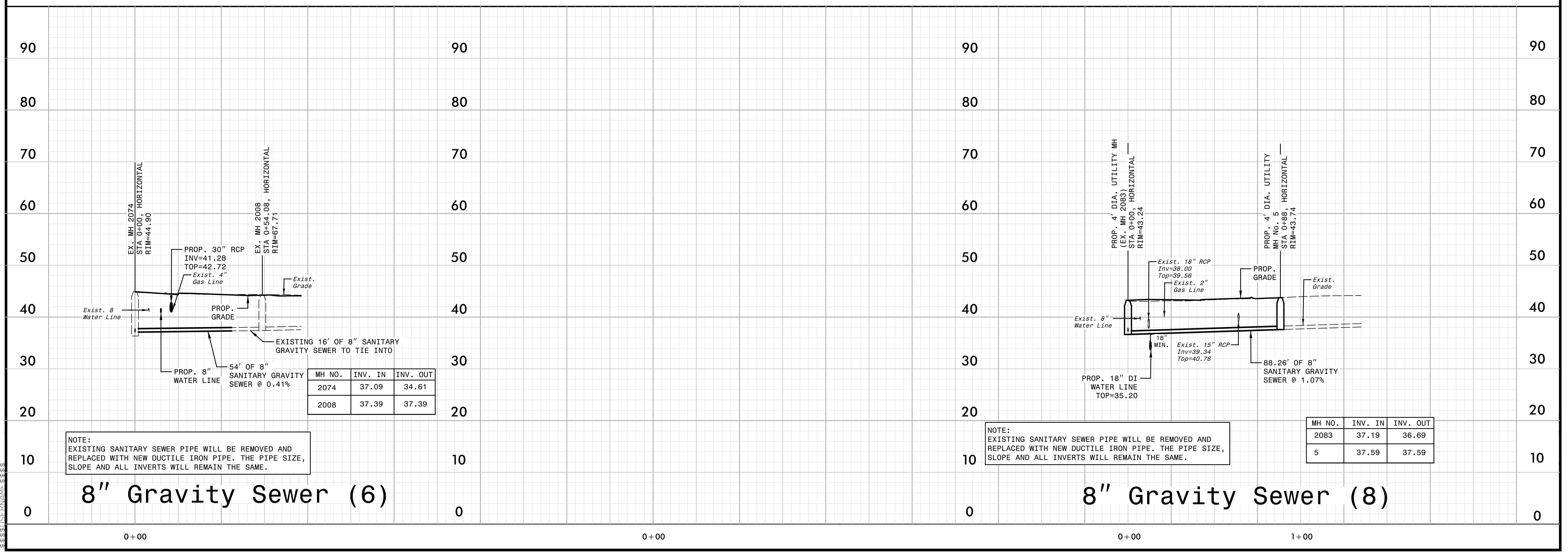


5/28/99



NOTE:
EXISTING SANITARY SEWER PIPE WILL BE REMOVED AND REPLACED WITH NEW DUCTILE IRON PIPE. THE PIPE SIZE, SLOPE AND ALL INVERTS WILL REMAIN THE SAME.

8" Gravity Sewer (7)



NOTE:
EXISTING SANITARY SEWER PIPE WILL BE REMOVED AND REPLACED WITH NEW DUCTILE IRON PIPE. THE PIPE SIZE, SLOPE AND ALL INVERTS WILL REMAIN THE SAME.

NOTE:
EXISTING SANITARY SEWER PIPE WILL BE REMOVED AND REPLACED WITH NEW DUCTILE IRON PIPE. THE PIPE SIZE, SLOPE AND ALL INVERTS WILL REMAIN THE SAME.

8" Gravity Sewer (6)

8" Gravity Sewer (8)