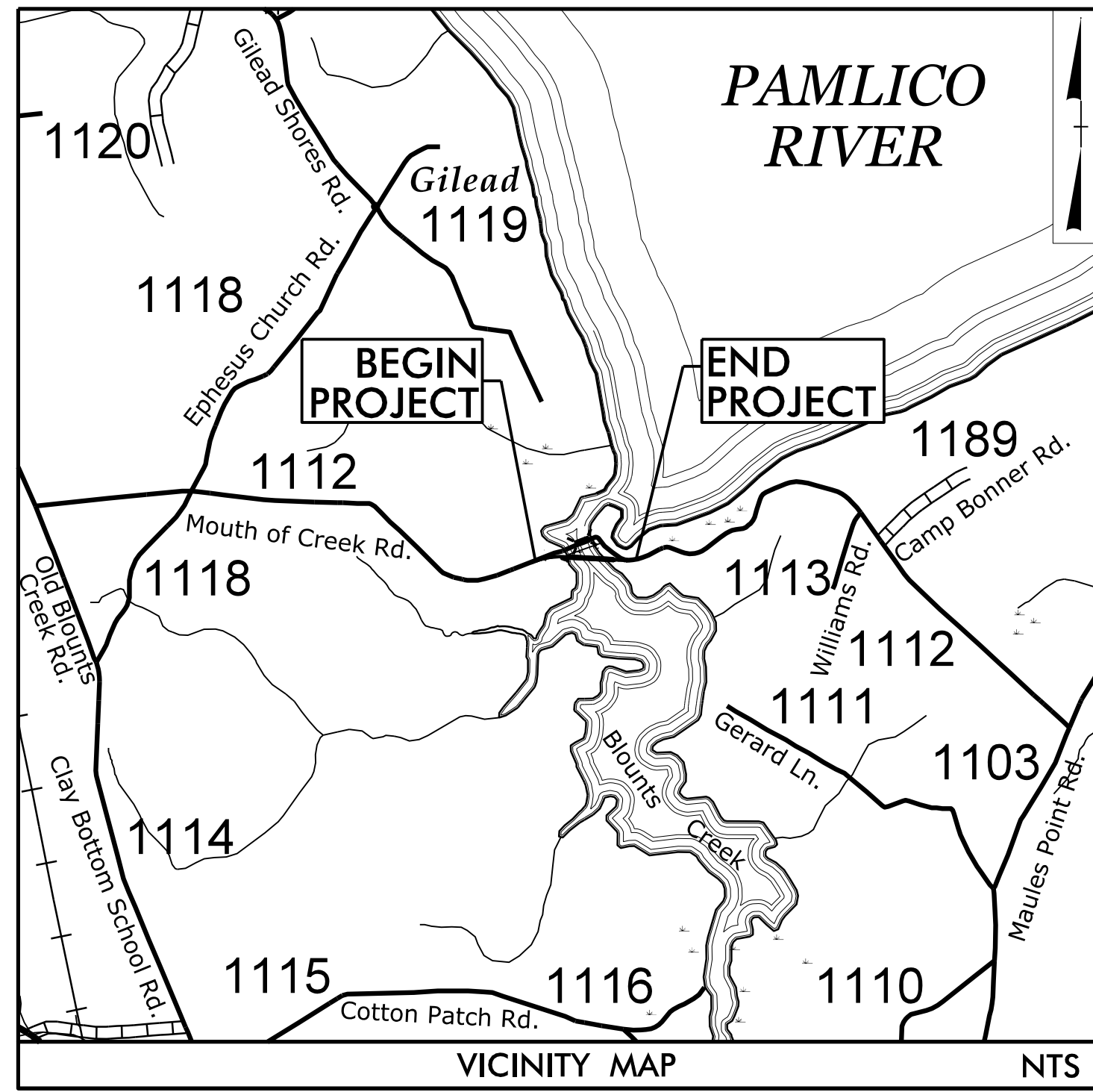


09/08/99

TIP PROJECT: B-5614



STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

UTILITY CONSTRUCTION PLANS
BEAUFORT COUNTY

LOCATION: BRIDGE #060009 OVER BLOUNTS CREEK
ON SR 1112 (MOUTH OF THE CREEK ROAD)

TYPE OF WORK: WATERLINE RELOCATION

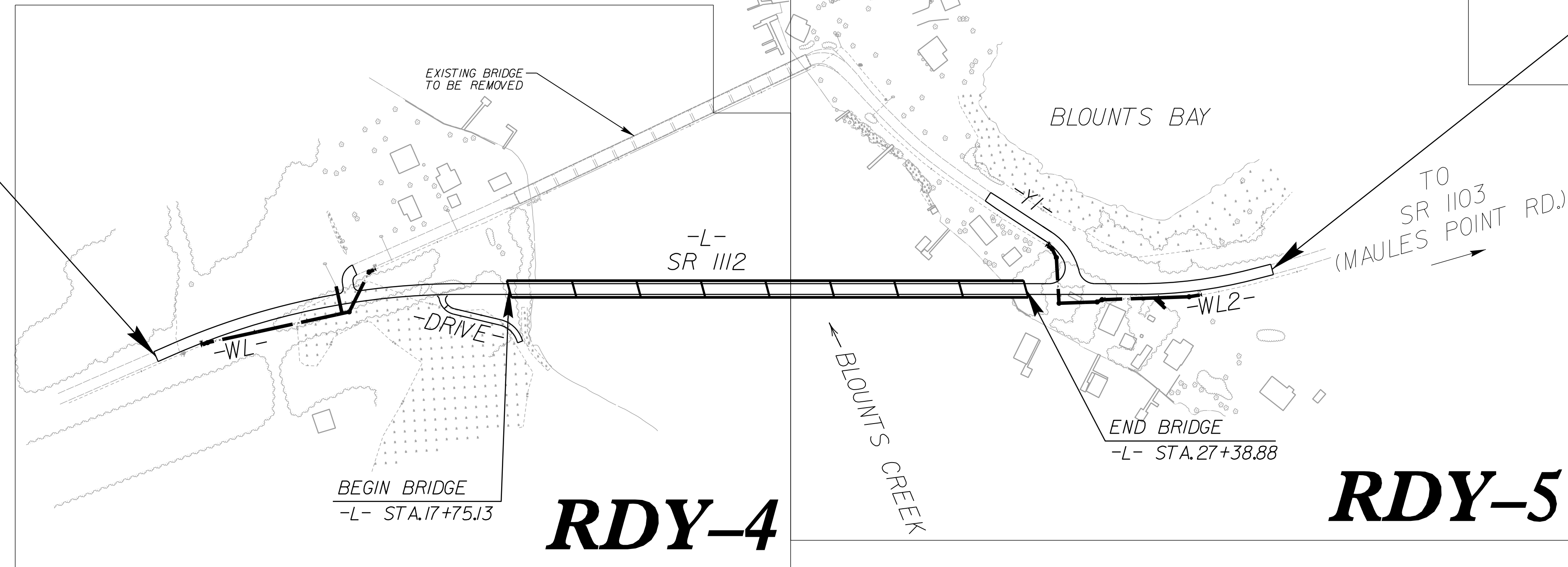
UC-4

UC-5

BEGIN TIP PROJECT B-5614
-L- STA.11+00.00

END TIP PROJECT B-5614
-L- STA.32+00.00

TO
SR 1114
(OLD BLOUNTS CREEK RD.)

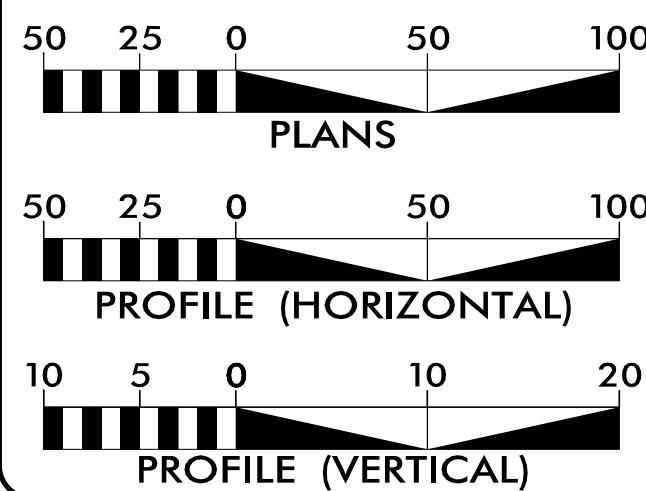


RDY-4

RDY-5

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

GRAPHIC SCALES



INDEX OF SHEETS

SHEET NO.:

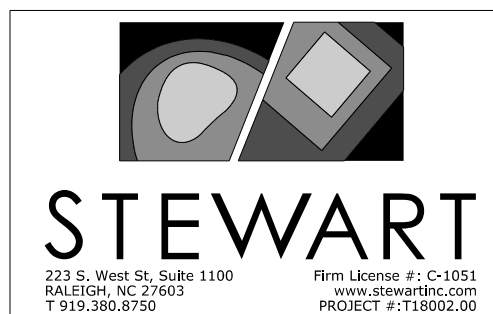
DESCRIPTION:

UC-1	TITLE SHEET
UC-2	UTILITY SYMBOLOGY
UC-3	UTILITY NOTES
UC-3A	UTILITY DETAILS
UC-4 THRU UC-5	UTILITY CONSTRUCTION SHEETS
UC-6	PROFILE SHEET

WATER AND SEWER
OWNERS ON PROJECT

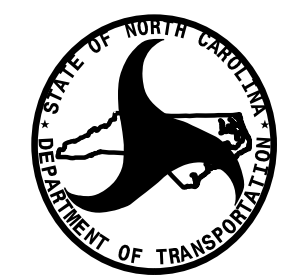
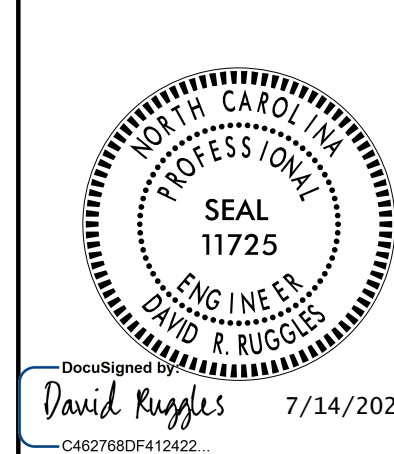
(A) WATER - BEAUFORT COUNTY

PREPARED IN THE OFFICE OF



DAVID RUGGLES, PE CONSULTANT CONTACT #1
AMJAD IBRAHIM, PE 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
TEVIN ASAMOAH UTILITIES ENGINEER
TANGA SAMPSON UTILITIES REGIONAL COORDINATOR
TYRON W. STALLINGS UTILITIES COORDINATOR

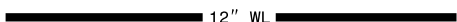

























7/13/2025
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STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PROJECT REFERENCE NO.	SHEET NO.
B-5614	UC-2

UTILITIES PLAN SHEET SYMBOLS





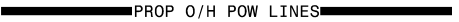



PROPOSED WATER SYMBOLS

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

PROPOSED SEWER SYMBOLS





















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



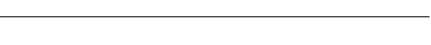
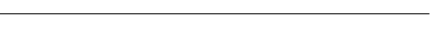
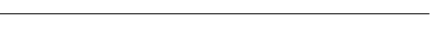


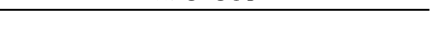

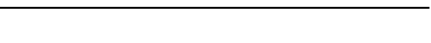
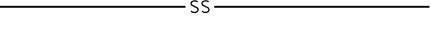

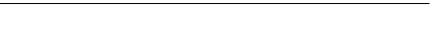
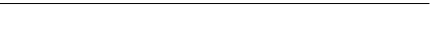





PROPOSED MISCELLANEOUS UTILITIES SYMBOLS


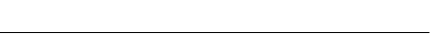
Power Pole	
Telephone Pole	
Joint Use Pole	
Telephone Pedestal	
Utility Line by Others (Type as Shown)	
Trenchless Installation	
Encasement by Open Cut	
Encasement	

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

EXISTING UTILITIES SYMBOLS

Power Pole	
Telephone Pole	
Joint Use Pole	
Utility Pole	
Utility Pole with Base	
H-Frame Pole	
Power Transmission Line Tower	
Water Manhole	
Power Manhole	
Telephone Manhole	
Sanitary Sewer Manhole	
Hand Hole for Cable	
Power Transformer	
Telephone Pedestal	
CATV Pedestal	
Gas Valve	
Gas Meter	
Located Miscellaneous Utility Object	
Abandoned According to Utility Records	
End of Information	

*Underground Power Line	
*Underground Telephone Cable	
*Underground Telephone Conduit	
*Underground Fiber Optics Telephone Cable	
*Underground TV Cable	
*Underground Fiber Optics TV Cable	
*Underground Gas Pipeline	
Aboveground Gas Pipeline	
*Underground Water Line	
Aboveground Water Line	
*Underground Gravity Sanitary Sewer Line	
Aboveground Gravity Sanitary Sewer Line	
*Underground SS Forced Main Line	
Underground Unknown Utility Line	
SUE Test Hole	
Water Meter	
Water Valve	
Fire Hydrant	
Sanitary Sewer Cleanout	

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

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 2024.

2. THE EXISTING UTILITIES BELONG TO BEAUFORT COUNTY WATER DEPARTMENT. THE UTILITY OWNER CONTACT IS:

ERICK JENNINGS
WATER SYSTEMS MANAGER
252-402-6547

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 AT TIMES MOST CONVENIENT TO THE PUBLIC, WITHOUT ENDANGERING THE UTILITY SERVICE, AND IN ACCORDANCE WITH THE UTILITY OWNER'S REQUIREMENTS. MAKE CONNECTIONS ON WEEKENDS, AT NIGHT, AND ON HOLIDAYS IF NECESSARY.

9. ALL UTILITY MATERIALS SHALL BE APPROVED PRIOR TO DELIVERY TO THE PROJECT. SEE 1500-7, " SUBMITTALS AND RECORDS" IN SECTION 1500 OF THE STANDARD SPECIFICATIONS.

LIST OF STANDARD DRAWINGS

1515.01 WATER METER

PROJECT SPECIFIC NOTES:

1. BEAUFORT COUNTY SHALL OPEN AND CLOSE ALL VALVES.

2. IN ADVANCE OF BEGINNING UTILITY WORK SOFT DIGS SHALL BE PERFORMED BY CONTRACTOR TO VERIFY ACTUAL WATER LINE DEPTH AND LOCATION AT PROPOSED TIE-IN LOCATIONS.

3. CONTRACTOR SHALL ADHERE TO SECTION 1530 "ABANDON OR REMOVE UTILITIES" FOR ABANDONMENT OF PIPE, UNLESS OTHERWISE SPECIFIED.

4. NO INTERRUPTION TO EXISTING SERVICE SHALL TAKE PLACE UNTIL ALL CUSTOMERS HAVE BEEN NOTIFIED A MINIMUM OF 24 HOURS IN ADVANCE. NOTICE OF INTERRUPTION SHALL BE PREPARED BY THE PUBLIC WORKS OFFICE ON OFFICIAL LETTERHEAD. CONTRACTOR TO CONTACT BEAUFORT COUNTY'S WATER SYSTEMS MANAGER, ERICK JENNINGS 1 MONTH IN ADVANCE OF ANY WORK TO ALLOW SUFFICIENT TIME TO PREPARE NOTICE OF INTERRUPTION TO AFFECTED CUSTOMERS. DISTRIBUTION TO EACH CUSTOMER SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR UNDER THE DIRECTION OF THE PUBLIC WORKS OFFICE.

5. CERTIFIED BACTERIOLOGICAL AND CONTAMINANT TEST SHALL BE PERFORMED BY BEAUFORT COUNTY. IF THE SAMPLE FAILS RECHLORINATE THE WATER LINE AS STATED IN THE NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES.

6. USE # 12 AWG COPPER CLAD STEEL WIRE WITH BLUE INSULATION FOR TRACER WIRE. ALLOW BEAUFORT COUNTY TO CONDUCT THE CONTINUITY TEST ONCE THE TRACER WIRES ARE INSTALLED.

7. BEAUFORT COUNTY AND THE ENGINEER OF RECORD SHALL BE PROVIDED WITH A DIGITAL CAD FILE COPY OF THE SURVEYED AS-BUILTS OF THE INSTALLED UTILITY. THE AS-BUILTS SHALL INCLUDE NOTIONS OF THE SIZE AND TYPE OF MATERIAL INSTALLED; GPS COORDINATED OF ALL FITTINGS, UTILITY CONTROLS, AND THE HORIZONTAL AND VERTICAL LOCATIONS OF THE PIPING, INCLUDING DEPTHS OF COVER. PROVIDE COLOR PHOTOGRAPHS FOR ALL TEE AND VALVE CONNECTIONS AND FIRE HYDRANT ASSEMBLIES PRIOR TO PLACING ANY BACKFILL. PHOTOGRAPHS SHALL BE NUMBERED AND KEYED TO THE APPROPRIATE LOCATION ON THE AS-BUILTS DRAWINGS. PROVIDE BORING LOGS FROM THE TRENCHLESS INSTALLATIONS.



PROJECT REFERENCE NO.		SHEET NO.
B-5614		UC-3
DESIGNED BY:	MSB	
DRAWN BY:	AC	
CHECKED BY:	DRR	
APPROVED BY:	DRR	
REVISED:		
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION		UTILITIES ENGINEERING SEC.
		PHONE: (919) 707-6690
		FAX: (919) 250-4151
		UTILITY CONSTRUCTION PLANS ONLY

UTILITY CONSTRUCTION

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

8. A 2" OR GREATER TEMPORARY BLOW OFF SHALL BE INSTALLED FOR THE PURPOSE OF DISCHARGING SUPER-CHLORINATED WATER. ALL DISCHARGE SHALL BE DECHLORINATED PRIOR TO DISPOSAL BY THE CONTRACTOR.

9. A BEAUFORT COUNTY REPRESENTATIVE SHALL BE PRESENT FOR THE PRESSURE TEST, CHLORINATION, AND FLUSHING OF ALL NEW WATER LINES.

10. ALL DUCTILE IRON FITTINGS AND GATE VALVES ARE TO BE MECHANICAL JOINT AND INSTALLED WITH GRIPPING RINGS.

11. ALL SERVICE CONNECTIONS TO BE ONE-INCH DIAMETER IPS SIDR7 UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

PROJECT TYPICAL DETAILS

PROJECT REFERENCE NO.
B-5614

SHEET NO.
UC-3A

DESIGNED BY: **DRR**

DRAWN BY: **AC**

CHECKED BY: **AI**

APPROVED BY: **DRR**

REVISED:

NORTH CAROLINA
DEPARTMENT OF
TRANSPORTATION

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

SEAL
11725

David Russell
7/14/2025

UTILITY CONSTRUCTION
PLANS ONLY

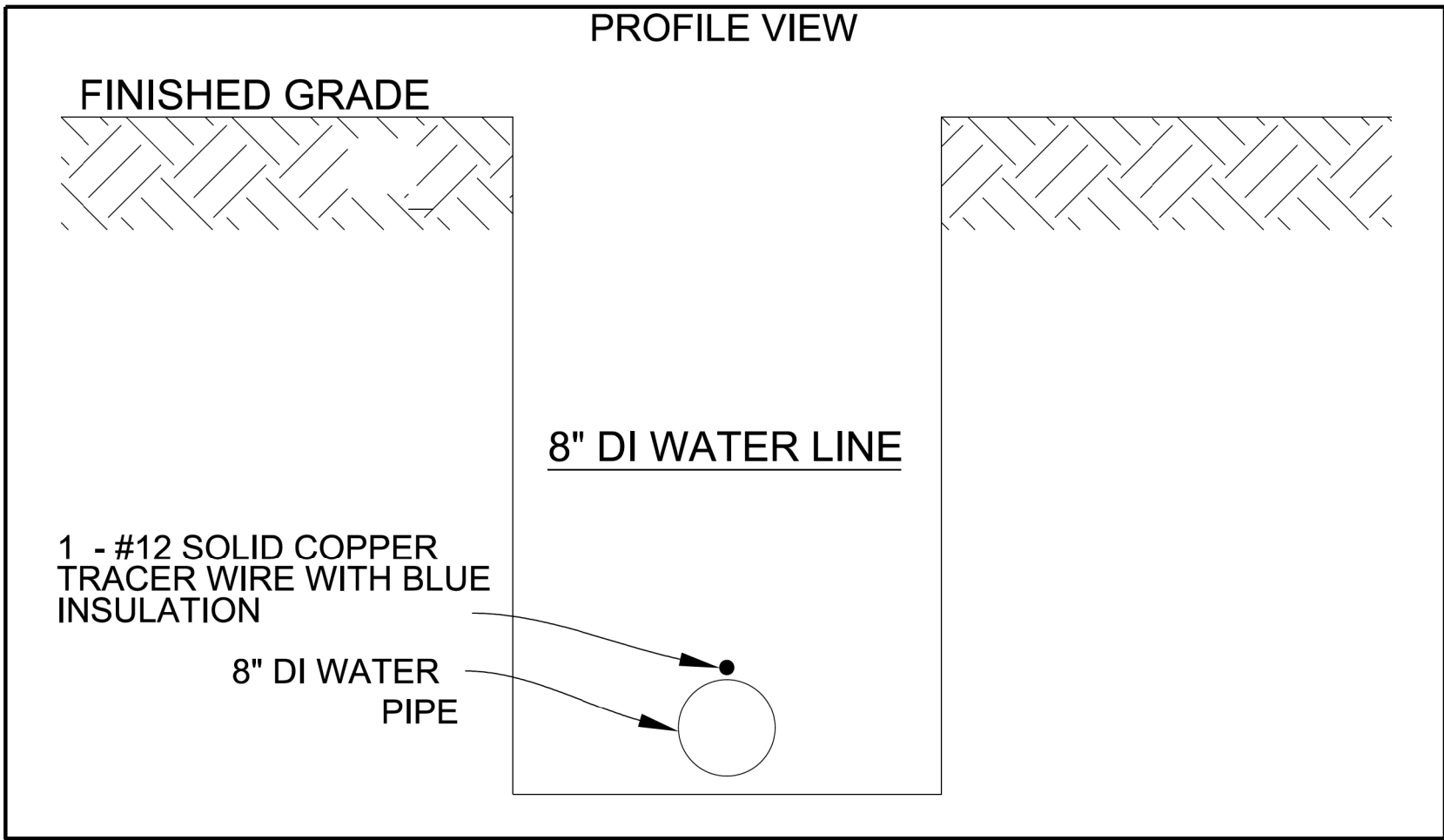


UTILITY CONSTRUCTION

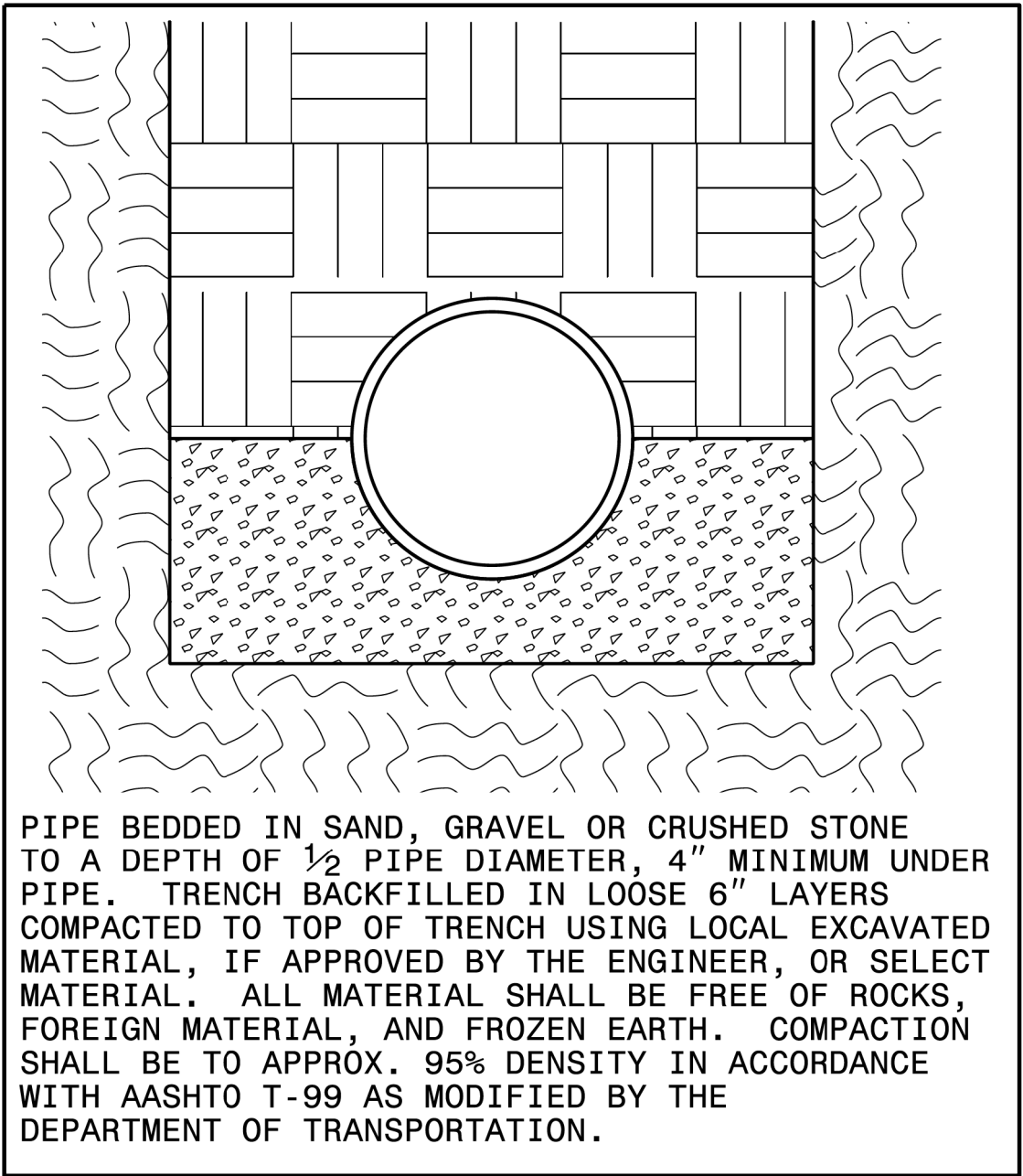
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

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

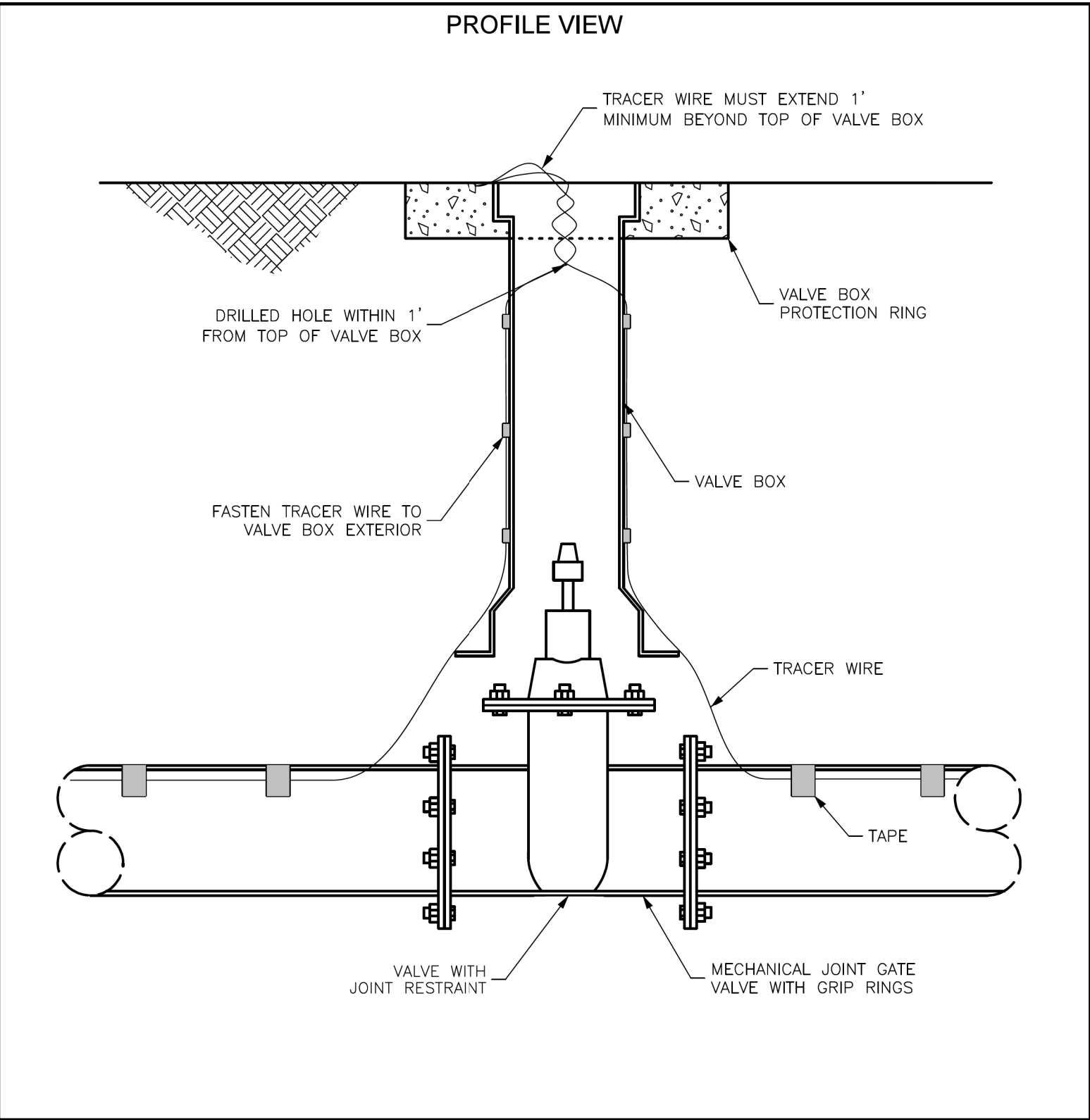
1 MAXIMUM TRENCH WIDTH
AT TOP OF PIPE



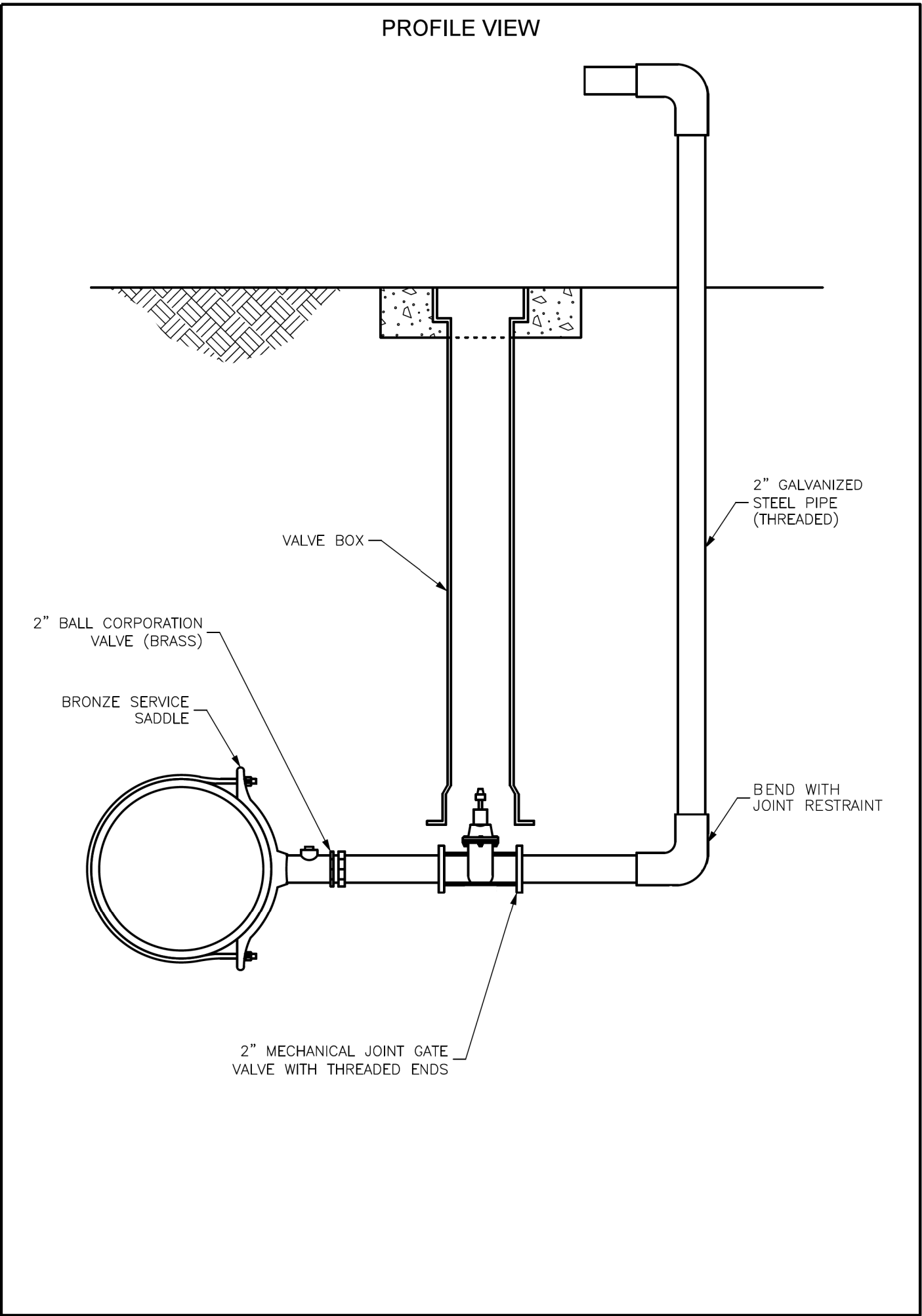
2 1-#12 COPPER CLAD STEEL TRACER
WIRE WITH BLUE INSULATION



3 PIPE BEDDING DETAIL




4 TRACER WIRE DETAIL



5 2" TEMPORARY BLOW OFF DETAIL

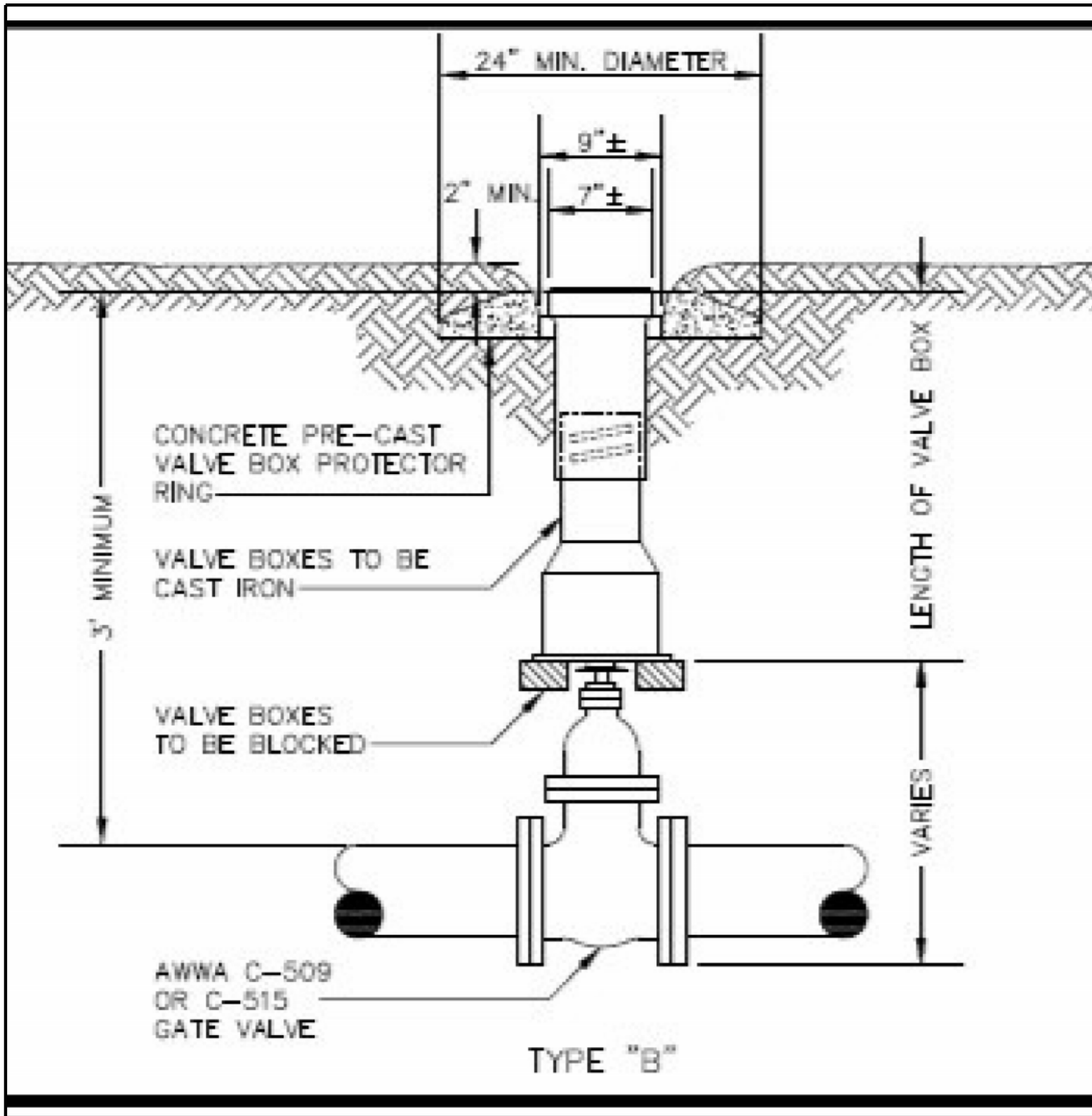
PROJECT TYPICAL DETAILS

PROJECT REFERENCE NO.		SHEET NO.	
B-5614		UC-3B	
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DRAWN BY: AC			
CHECKED BY: AI			
APPROVED BY: DRR			
REVISED:			
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION		7/16/2025	
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151		UTILITY CONSTRUCTION PLANS ONLY	

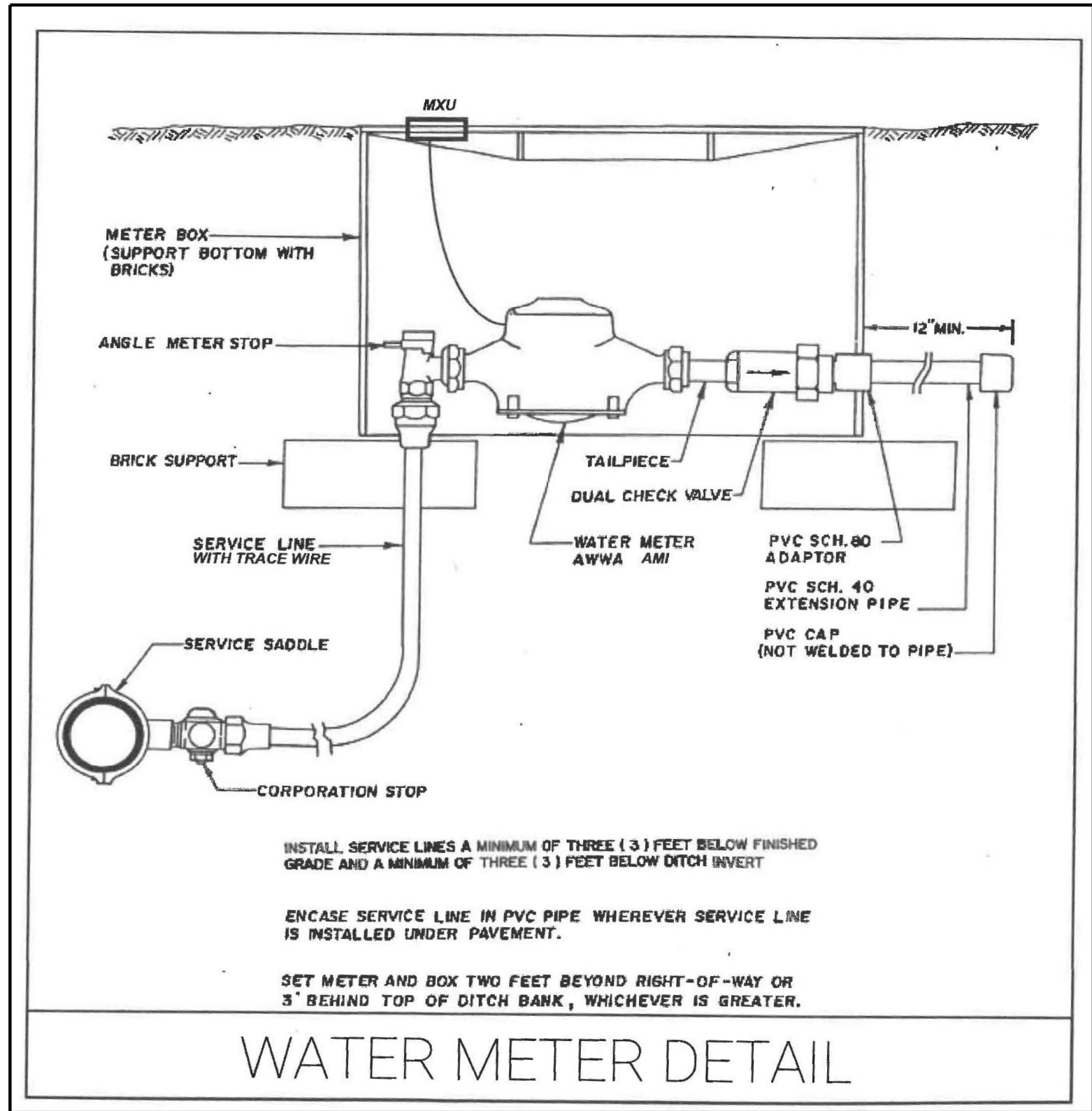


UTILITY CONSTRUCTION

DOCUMENT NOT CONSIDERED FINAL
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6 VALVE DETAIL

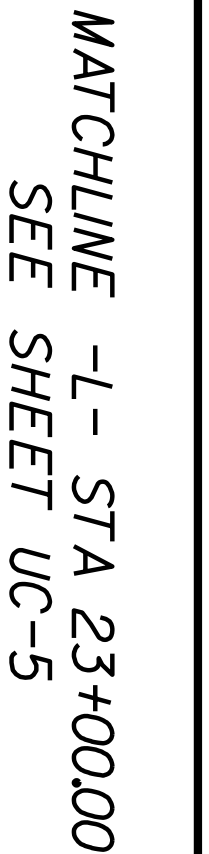


7 WATER METER DETAIL

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



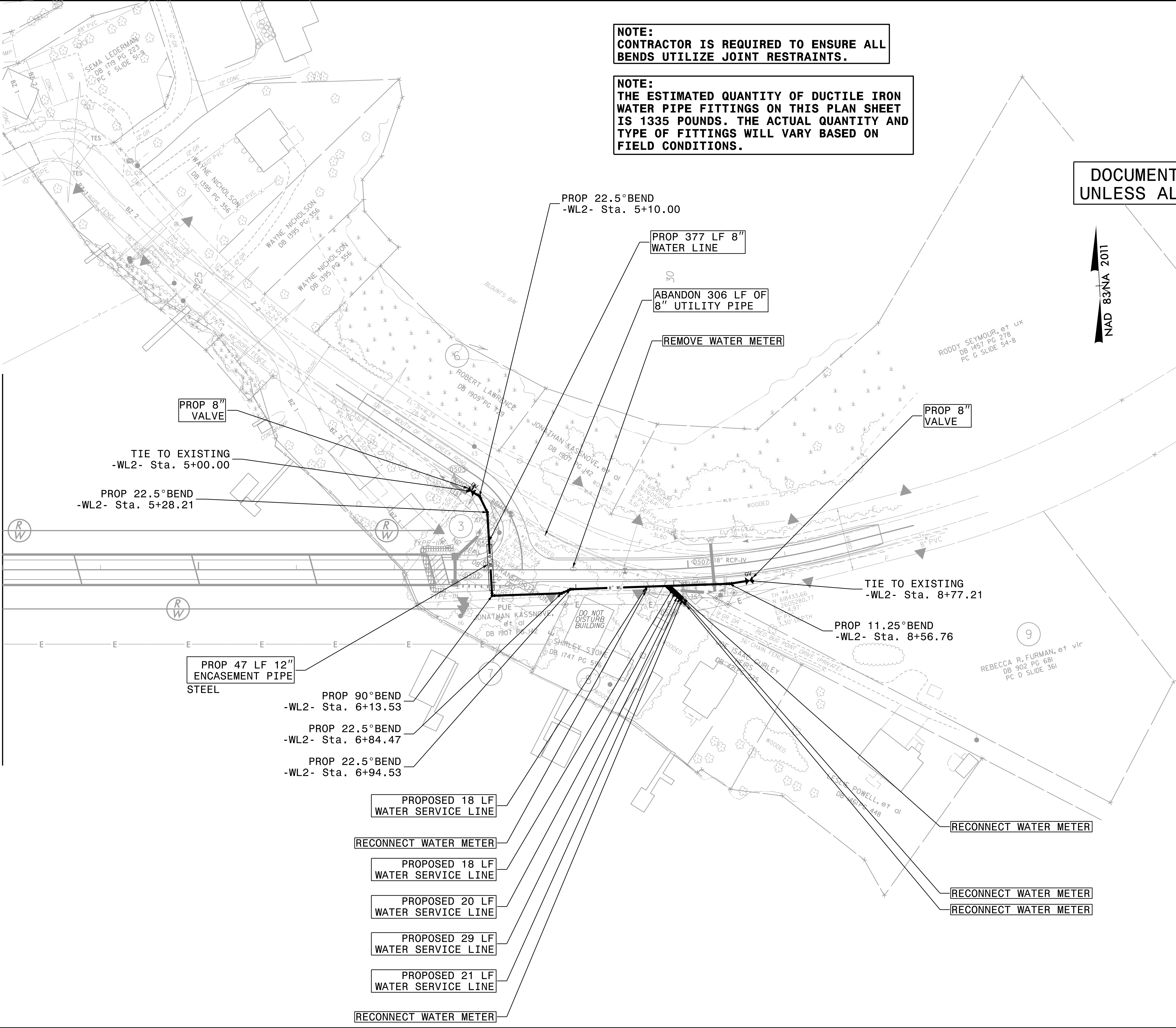
NOTE:
THE ESTIMATED QUANTITY OF DUCTILE IRON
WATER PIPE FITTINGS ON THIS PLAN SHEET
IS 990 POUNDS. THE ACTUAL QUANTITY AND
TYPE OF FITTINGS WILL VARY BASED ON
FIELD CONDITIONS.



5/14/99

7/13/2025
1356212
t_rdy5_UC05_psh.dgn
1356212

MATCHLINE -L- STA 23+00.00
SEE SHEET UC-4



NOTE:
CONTRACTOR IS REQUIRED TO ENSURE ALL
BENDS UTILIZE JOINT RESTRAINTS.

NOTE:
THE ESTIMATED QUANTITY OF DUCTILE IRON
WATER PIPE FITTINGS ON THIS PLAN SHEET
IS 1335 POUNDS. THE ACTUAL QUANTITY AND
TYPE OF FITTINGS WILL VARY BASED ON
FIELD CONDITIONS.

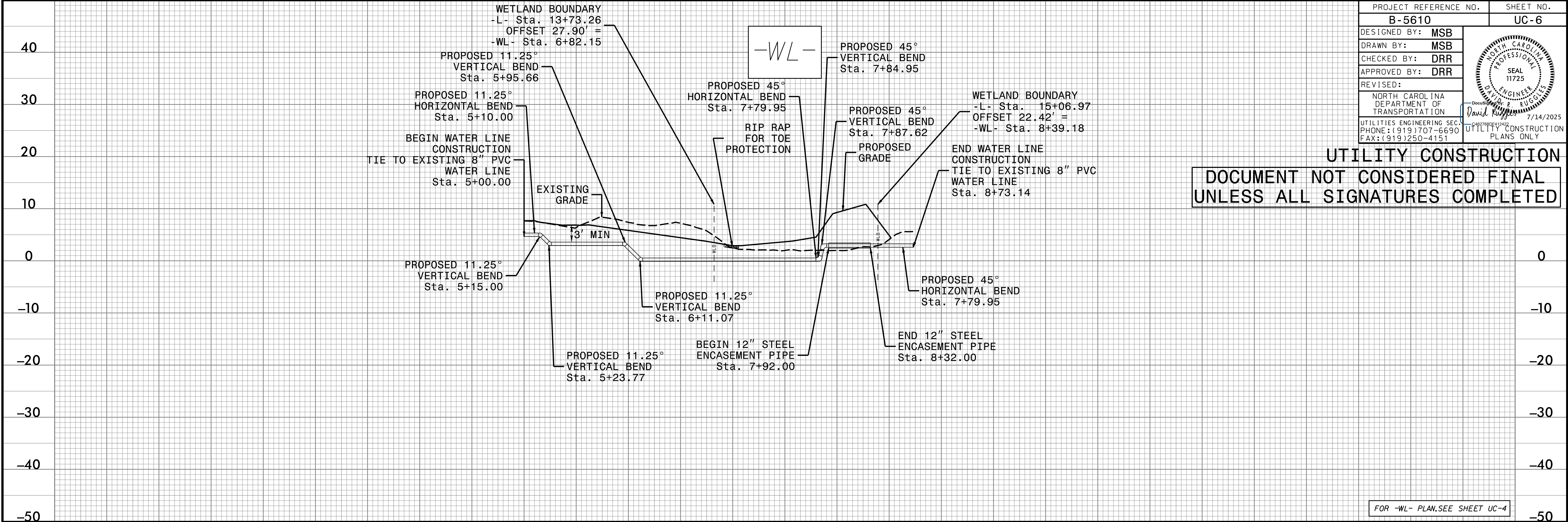
UTILITY CONSTRUCTION


DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



STEWART

5/28/99



PROJECT REFERENCE NO.		SHEET NO.
B-5610		UC-6
DESIGNED BY: MSB		
DRAWN BY: MSB		
CHECKED BY: DRR		
APPROVED BY: DRR		
REVISED:		
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION		
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151		7/14/2025

UTILITY CONSTRUCTION

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

7/13/2025
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