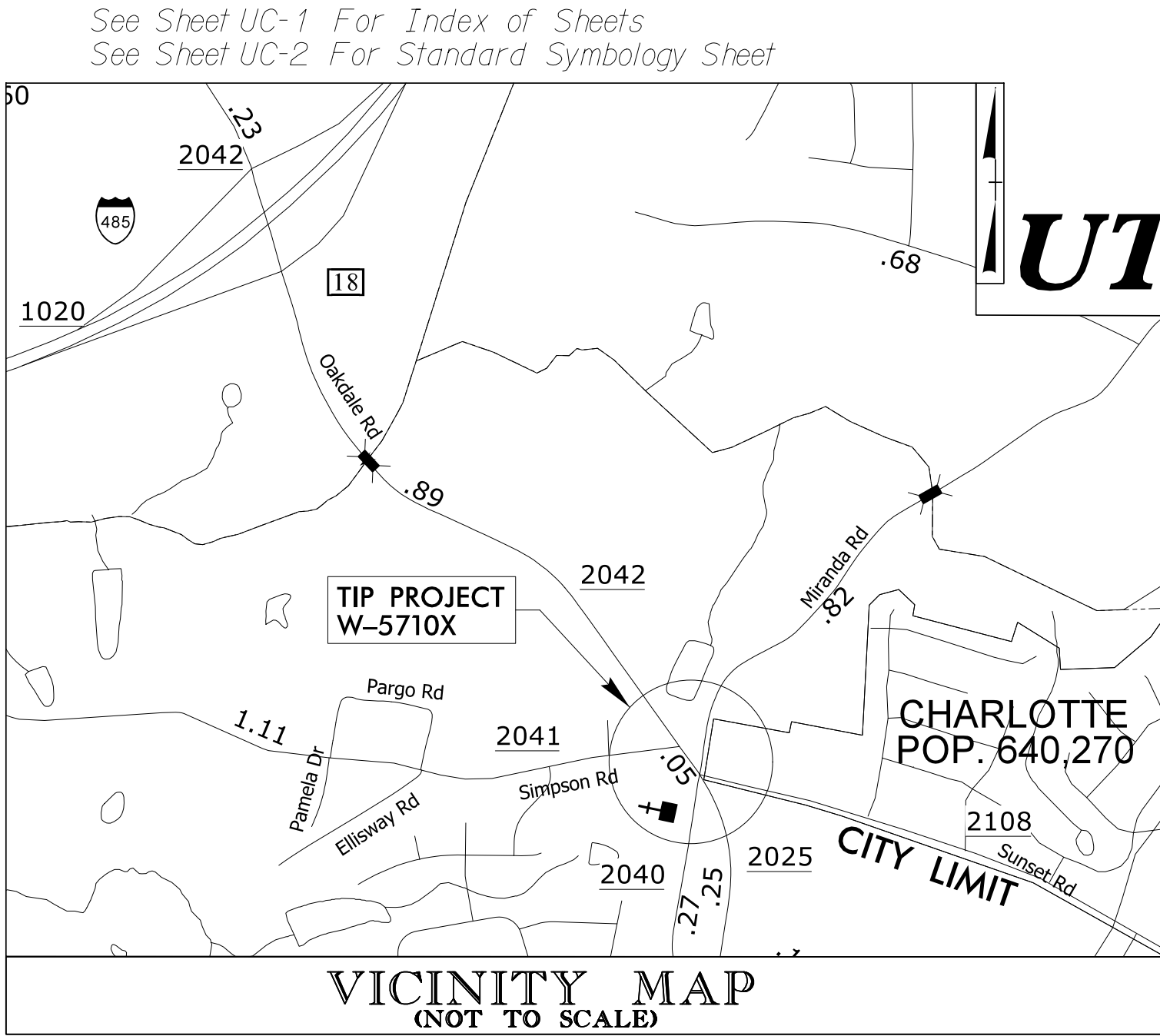


TIP PROJECT: W-5710X

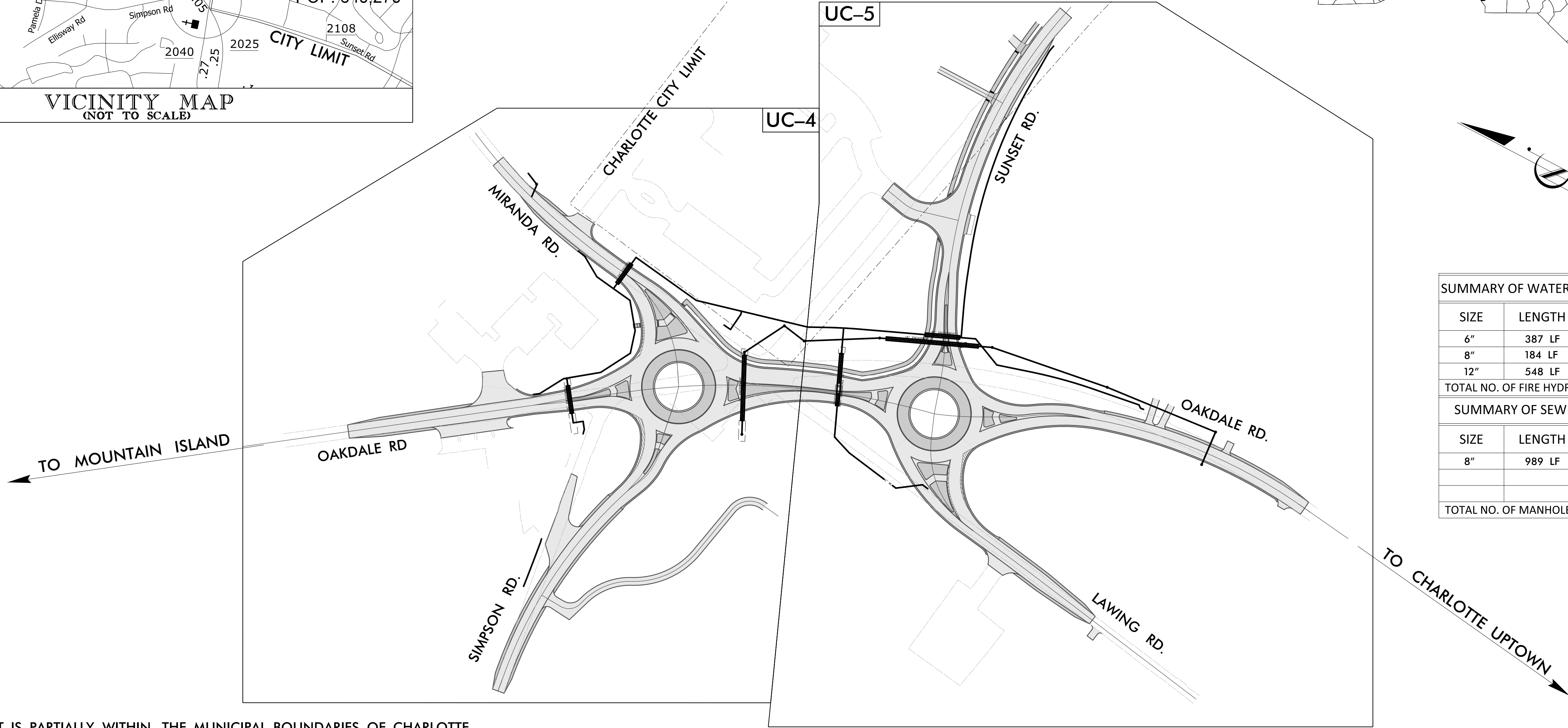


STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

UTILITY CONSTRUCTION PLANS
MECKLENBURG COUNTY

LOCATION: INTERSECTION IMPROVEMENTS AT SR 2025 AND SR 2042
(OAKDALE ROAD) FROM SR 2025 (MIRANDA ROAD) TO
SR 2108 (SUNSET ROAD)

TYPE OF WORK: WATER LINE AND SANITARY SEWER RELOCATIONS

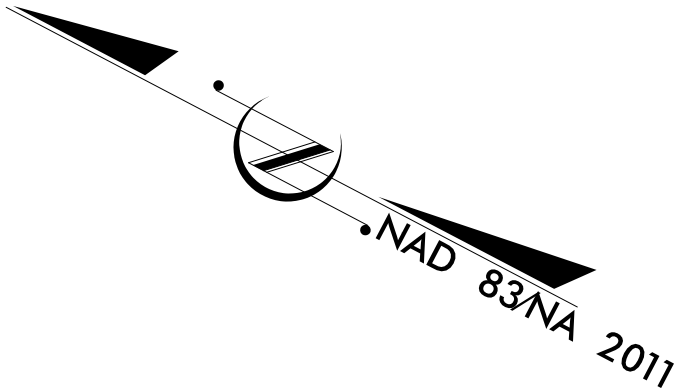
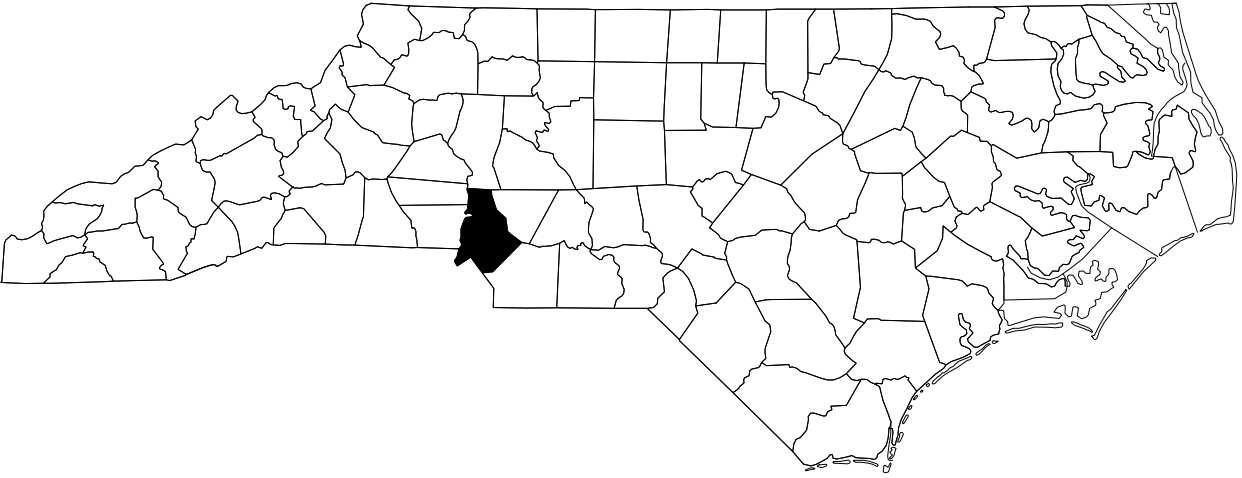


THIS PROJECT IS PARTIALLY WITHIN THE MUNICIPAL BOUNDARIES OF CHARLOTTE.
CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD II.

T.I.P. NO.	SHEET NO.
W-5710X	UC-1

TRANSYSTEMS

1 Glenwood Avenue
Raleigh, NC 27603
Tel: 919.789.9977
Fax: 919.789.9591
License: F-0453



SUMMARY OF WATER MAINS & FIRE HYDRANTS

SIZE	LENGTH	SIZE	LENGTH
6"	387 LF	16"	1,184 LF
8"	184 LF		
12"	548 LF		

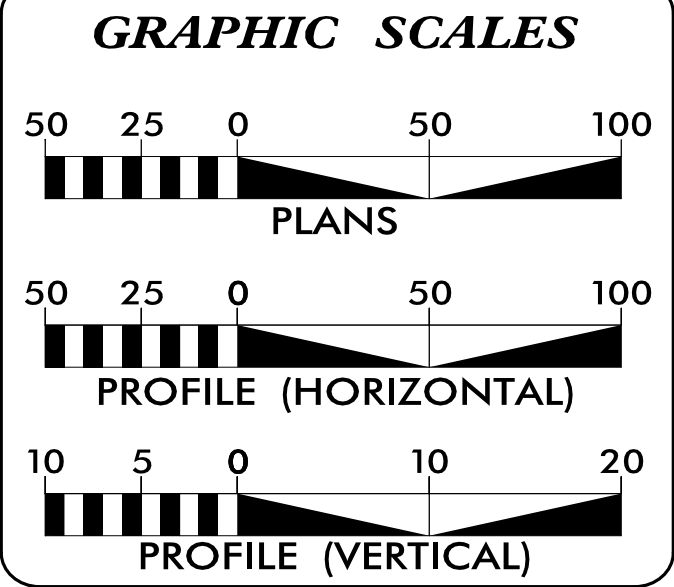
TOTAL NO. OF FIRE HYDRANTS: RELOCATE-3

SUMMARY OF SEWER MAINS & MANHOLES

SIZE	LENGTH	SIZE	LENGTH
8"	989 LF		

TOTAL NO. OF MANHOLES: 10

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



SHEET NO.:	DESCRIPTION:
UC-1	TITLE SHEET
UC-1A	PERMIT SHEET
UC-2	UTILITY SYMBOLOGY
UC-3	NOTES
UC-3A THRU UC-3J	DETAILS
UC-4 THRU UC-5	UTILITY CONSTRUCTION SHEETS
UC-6 THRU UC-7	UTILITY PROFILE SHEETS

WATER AND SEWER
OWNERS ON PROJECT

(A) WATER - CHARLOTTE WATER
(B) SANITARY SEWER - CHARLOTTE WATER

PREPARED IN THE OFFICE OF

Stantec

STANTEC CONSULTING
521 E. MOREHEAD ST
SUITE 425
CHARLOTTE, NC, 28202
(704) 329-0900 FAX: (704) 329-0905
License No.: F-0672

XIAOLIN DENG, PE	CONSULTANT CONTACT #1
TORIANNA KIRBY, PE	CONSULTANT CONTACT #2
	CONSULTANT CONTACT #3

SEAL

9/10/2025

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

DONALD HAMPTON	UTILITIES REGIONAL ENGINEER
LYNN BASINGER	UTILITIES ENGINEER
STEPHEN SEALY	UTILITIES AREA COORDINATOR
ADAM PRESLAR	UTILITIES COORDINATOR



CHARLOTTE, NORTH CAROLINA

APPLICATION FOR NON-DISCHARGE PERMIT
GRAVITY SEWER MAIN EXTENSION
CHARLOTTE WATER

PROJECT NAME INTERSECTION IMPROVEMENTS AT SR 2025 AND SR 2042 (OAKDALE RD) CREEK BASIN McDOWELL

989 LF OF 8-INCH SANITARY SEWER

CLTWater PROJECT NO.: CPM-60-26-316

PROJECT TYPE: ☐ NEW CONSTRUCTION ☒ RELOCATION ☐ MODIFICATION OF PERMIT NO. OTHER

VOLUME OF WASTEWATER GENERATED BY THIS PROJECT: * GALLONS PER DAY BASED ON 190 GAL/DAY/SINGLE FAMILY HOUSEHOLD X * HOUSEHOLDS OR

135 GAL/DAY/MULTI-FAMILY UNIT X * UNITS OR IS BASED ON :

WASTEWATER TREATMENT PLANT RECEIVING WASTEWATER:

☐ McALPINE CR. (NC0024970) ☒ IRWIN CR. (NC0024945) ☐ McDOWELL CR. (NC0036277)

☐ SUGAR CR. (NC0024937) ☐ MALLARD CR. (NC0030210) ☐ ROCKY CR. (NC0036269)

NATURE OF WASTEWATER 90 % DOMESTIC % INDUSTRIAL
10 % COMMERCIAL % OTHER

ORIGIN OF WASTEWATER ☒ SUBDIVISION ☒ COMMERCIAL
☒ SCHOOL ☐ INDUSTRIAL
☒ APARTMENTS/CONDO'S ☐ OTHER

LIST ANY PARAMETER AND ITS CONCENTRATION THAT WILL BE GREATER THAN NORMAL DOMESTIC LEVELS:

NONE

IF WASTEWATER IS NON-DOMESTIC, DESCRIBE LEVEL OF PRETREATMENT:

N/A

IF A PRETREATMENT PERMIT IS REQUIRED, HAS ONE BEEN ISSUED? ☐ YES ☐ NO

HAS ENGINEER DETERMINED THAT DOWNSTREAM SEWERS ARE CAPABLE TO HANDLE THIS FLOW? ☒ YES ☐ NO

PERMIT NO. FOR SEWERS IMMEDIATELY DOWNSTREAM *
PIPE DIAMETER OF SEWERS IMMEDIATELY DOWNSTREAM 36-INCH

HAS ENGINEER DETERMINED THAT NC DEM AND CLTWater MINIMUM DESIGN STANDARDS ARE MET BY THIS PROJECT? ☒ YES ☐ NO

COMPLETE NAME AND ADDRESS OF ENGINEERING DESIGN FIRM:

STANTEC CONSULTING SERVICES, INC.

521 E. MOREHEAD STREET, SUITE 425

CHARLOTTE, NC 28202

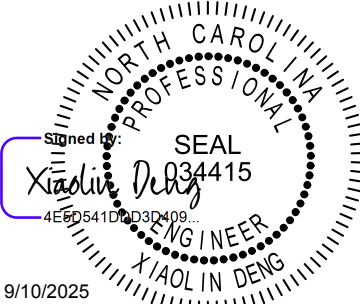
TELEPHONE 704 - 329 - 0900

PROFESSIONAL ENGINEER'S CERTIFICATION:

I, XIAOLIN DENG, PE, ATTEST THAT THIS APPLICATION FOR PROP. 8" SANITARY SEWER

RELOCATION HAS BEEN REVIEWED BY ME AND IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE. I FURTHER ATTEST THAT TO THE BEST OF MY KNOWLEDGE THE PROPOSED DESIGN HAS BEEN PREPARED IN ACCORDANCE WITH THE APPLICABLE REGULATIONS. ALTHOUGH CERTAIN PORTIONS OF THIS SUBMITTAL PACKAGE MAY HAVE BEEN DEVELOPED BY OTHER PROFESSIONALS, INCLUSION OF THESE MATERIALS UNDER MY SIGNATURE AND SEAL SIGNIFIES THAT I HAVE REVIEWED THIS MATERIAL AND HAVE JUDGED IT TO BE CONSISTENT WITH THE PROPOSED DESIGN.

NORTH CAROLINA PROFESSIONAL ENGINEER'S SEAL, SIGNATURE, AND DATE:



CLTWater PERMIT NO. ISSUED

PLANT FLOW ALLOCATION RECORDED BY:

PERMIT APPROVED BY: CHARLES M. BLISS, P.E., CHIEF ENGINEER

APPLICATION FOR PERMIT FOR WATER MAIN EXTENSION

PROJECT NAME: INTERSECTION IMPROVEMENTS AT SR 2025 AND SR 2042 (OAKDALE RD)

CLTWater PROJECT NO.: CPM-60-26-316

PROJECT DESCRIPTION: PROPOSED 1,184 LF OF 16", 548 LF OF 12", 184 LF OF 8", AND 387 LF OF 6" WATER MAIN
RELOCATIONS ALONG SR 2042 (OAKDALE RD) IN CHARLOTTE NC.

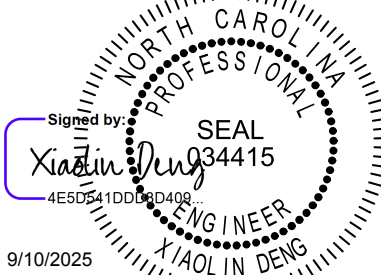
DESIGNED BY: FIRM: STANTEC CONSULTING SERVICES

ENGINEER: XIAOLIN DENG, PE

ADDRESS: 521 E. MOREHEAD STREET, SUITE 425
CHARLOTTE, NC 28202

PHONE: (704) 329-0900

THIS APPLICATION IS MADE UNDER AND IN FULL ACCORD WITH THE PROVISIONS OF CHAPTER 130A-317 OF THE NORTH CAROLINA GENERAL STATUTES, AND SUCH OTHER STATUTES AS RELATED TO PUBLIC WATER SYSTEMS. CLTWater HAS BEEN GRANTED AUTHORITY TO ISSUE PERMITS FOR EXTENSION OF WATER MAINS PURSUANT TO 15A NCAC 18C.1801. THE APPLICANT AGREES THAT NO SIGNIFICANT CHANGE OR DEVIATION FROM THE PLANS AND SPECIFICATIONS APPROVED BY CLTWater WILL BE MADE WITHOUT THE WRITTEN CONSENT AND APPROVAL OF CLTWater OR ITS AUTHORIZED REPRESENTATIVE. A PROFESSIONAL ENGINEER LICENSED TO PRACTICE IN THE STATE OF NORTH CAROLINA SHALL SUBMIT A STATEMENT REFLECTING THAT ADEQUATE OBSERVATIONS DURING AND UPON COMPLETION OF CONSTRUCTION INDICATES THAT CONSTRUCTION WAS COMPLETED IN ACCORDANCE WITH APPROVED PLANS AND SPECIFICATIONS.



PERMIT NO.

APPROVED: DATE

CHARLES M. BLISS, PE, CHIEF ENGINEER
CHARLOTTE WATER
5100 BROOKSHIRE BLVD.
CHARLOTTE, NORTH CAROLINA 28216



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www.stantec.com
License No. F-0672

PROJECT REFERENCE NO.		SHEET NO.
W-5710X		UC-1A
DESIGNED BY: TK		UTILITY CONSTRUCTION PLANS ONLY
DRAWN BY: TK		
CHECKED BY: XMD		
APPROVED BY:		
REVISED:	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	UTILITY CONSTRUCTION PLANS ONLY
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151		

UTILITY CONSTRUCTION

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5/14/99



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PROJECT REFERENCE NO.
W-5710X

SHEET NO.
UC-2



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STATE OF NORTH CAROLINA

DIVISION OF HIGHWAYS

UTILITIES PLAN SHEET SYMBOLS

PROPOSED WATER SYMBOLS

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

PROPOSED SEWER SYMBOLS

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

PROPOSED MISCELLANEOUS UTILITIES SYMBOLS

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

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

EXISTING UTILITIES SYMBOLS

Power Pole		*Underground Power Line	
Telephone Pole		*Underground Telephone Cable	
Joint Use Pole		*Underground Telephone Conduit	
Utility Pole		*Underground Fiber Optics Telephone Cable	
Utility Pole with Base		*Underground TV Cable	
H-Frame Pole		*Underground Fiber Optics TV Cable	
Power Transmission Line Tower		*Underground Gas Pipeline	
Water Manhole		Aboveground Gas Pipeline	A/G Gas
Power Manhole		*Underground Water Line	
Telephone Manhole		Aboveground Water Line	A/G Water
Sanitary Sewer Manhole		*Underground Gravity Sanitary Sewer Line	
Hand Hole for Cable		Aboveground Gravity Sanitary Sewer Line	A/G Sanitary Sewer
Power Transformer		*Underground SS Forced Main Line	
Telephone Pedestal		Underground Unknown Utility Line	
CATV Pedestal		SUE Test Hole	
Gas Valve		Water Meter	
Gas Meter		Water Valve	
Located Miscellaneous Utility Object		Fire Hydrant	
Abandoned According to Utility Records	AATUR	Sanitary Sewer Cleanout	
End of Information	E.O.I.		

*For Existing Utilities

Utility Line Drawn from Record (Type as Shown)

Designated Utility Line (Type as Shown)

UTILITY CONSTRUCTION

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 WATER AND SEWER UTILITIES BELONG TO CHARLOTTE WATER. THE CHARLOTTE WATER REPRESENTATIVE IS LOGAN HEDRICK. CONTACT LOGAN AT (980) 253-4390.
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.
- GRAVITY SEWER SEQUENCE OF CONSTRUCTION:
1. INSTALL TEMPORARY BYPASS PUMPING FROM UPSTREAM MANHOLES TO DOWNSTREAM MANHOLES.
2. PLUG EXISTING SANITARY GRAVITY SEWER LINES AT BYPASS PUMPS.
3. REMOVE EXISTING SANITARY GRAVITY SEWER AND MANHOLES AS NECESSARY.
4. INSTALL SANITARY GRAVITY SEWER AS INDICATED ON DRAWINGS WITH MANHOLES.
5. BACKFILL NEW SANITARY GRAVITY SEWERS.
6. TEST NEW SANITARY GRAVITY SEWERS IN ACCORDANCE WITH CLTWATER STANDARDS.
7. REMOVE TEMPORARY BYPASS PUMPING AND PLACE NEW GRAVITY SEWERS INTO OPERATION AFTER APPROVAL BY CLTWATER.

PROJECT SPECIFIC NOTES:

1. IF THE PROPOSED WATER AND/OR SANITARY SEWER MAIN IS INSTALLED WITHIN 12" IN ANY DIRECTION (VERTICALLY OR HORIZONTALLY) OF A GAS MAIN, THEN THE CONTRACTOR SHALL CALL PIEDMONT NATURAL GAS COMPANY AT 704-525-5585 AND INFORM THEM.
2. WATER AND SEWER LINES ARE TO REMAIN ACTIVE DURING CONSTRUCTION. IF THIS IS NOT POSSIBLE, THEN THE CONTRACTOR SHALL FOLLOW THE SPECIAL PROVISIONS REGARDING OUTAGE, TEMPORARY SERVICE, AND BYPASS PUMPING.
3. ALL PROPOSED WATER LINES SHALL BE RESTRAINED JOINT PRESSURE CLASS 350 DUCTILE IRON PIPE.
4. LAY PIPE STRAIGHT IN ALIGNMENT AND GRADIENT OR FOLLOW TRUE CURVES AS NEARLY AS POSSIBLE. DO NOT DEFLECT ANY JOINT MORE THAN HALF THE MAXIMUM DEFLECTION RECOMMENDED BY THE MANUFACTURER.
5. CONTRACTOR SHALL ADHERE TO SECTION 1530 "ABANDON OR REMOVE UTILITIES" FOR ABANDONEMENT OF EXISTING WATER AND SEWER LINES.
6. PROPOSED WATER LINES SHALL HAVE TYPE 4 BEDDING.
7. WATER VALVES ARE TO BE OPERATED BY CHARLOTTE WATER OPERATIONS STAFF.
8. ALL PROPOSED 6", 8", 12" AND 16" VALVES SHALL BE RESILIENT SEATED GATE VALVES. FOR 16" VALVES WITH VERTICAL ORIENTATION, DIRECT BURIED, WITH 20.5 INCH CLEAR OPENING VALVE BOX. FOR 16" VALVES WITH HORIZONTAL ORIENTATION, DIRECTED BURIED, SHALL HAVE OPERATOR/NUT LOCATED INSIDE A MANHOLE.



Stantec

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PROJECT REFERENCE NO.
W-5710X

SHEET NO.
UC-3

DESIGNED BY: **TK**

DRAWN BY: **TK**

CHECKED BY: **XMD**

APPROVED BY:

REVISED:

NORTH CAROLINA
DEPARTMENT OF
TRANSPORTATION

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

Seal of the Professional Engineer
NORTH CAROLINA
Professional Engineer
XMD
0834415
9/7/2025

SEAL
0834415
9/7/2025
PAOLIN DENG

UTILITY CONSTRUCTION
PLANS ONLY

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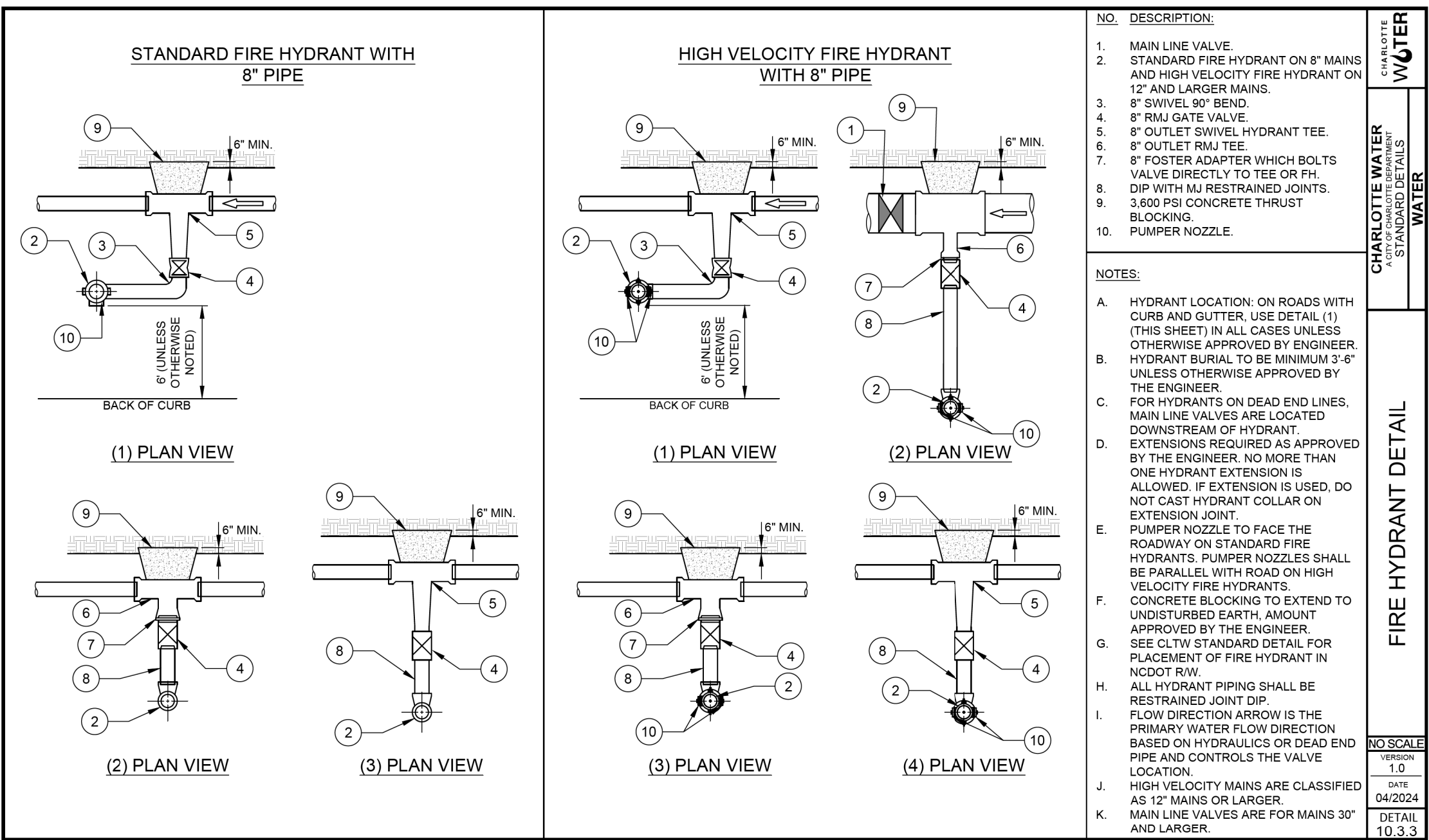
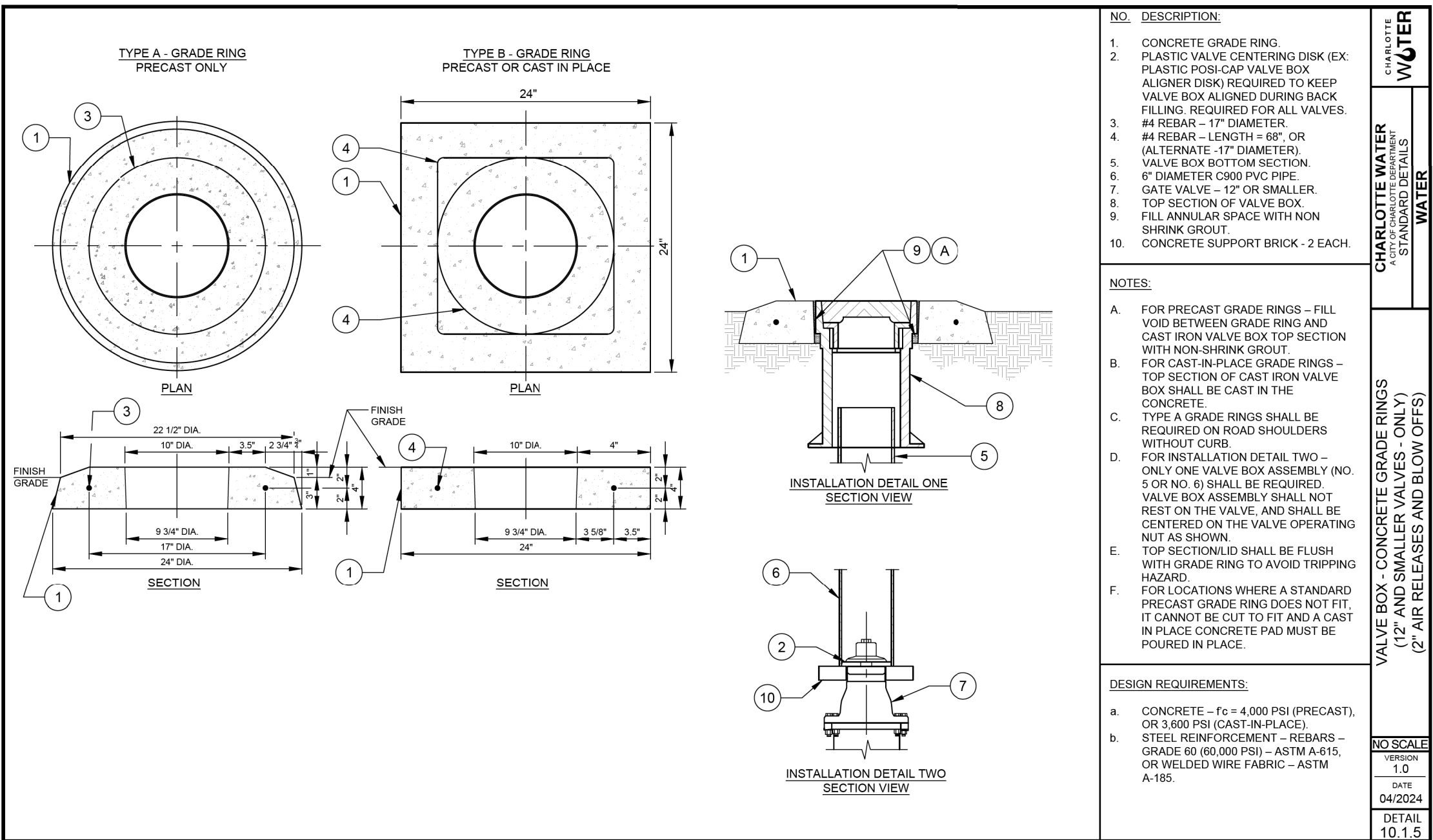


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8/7/2025
C:\900\CAD Models and Sheets\Utilities\Engineering\UC\Proj\Sheet\W-5710X_ut_UC_UC03_notes.dgn
toki+bu

	NO. DESCRIPTION: 1. CONCRETE PAD - CAST IN PLACE. 2. FINAL ASPHALT SURFACE COURSE. 3. VALVE BOX COVER. 4. TOP SECTION VALVE BOX. 5. EXTENSION STEM AS REQUIRED. 6. BOTTOM SECTION VALVE BOX. 6\"/> 7. STANDARD CONCRETE BRICK - 2 EACH. 8. GATE VALVE (OR BALL VALVE, AS APPLICABLE). 9\"/> 10\"/> 11. EXISTING OR NEW PAVEMENT. 12. COMPACTED AGGREGATE BASE COURSE (CABC). 13. COMPACTED SUBGRADE. 14. AWG #12 GAUGE SOLID COPPER HDPE TRACER WIRE WITH 30 MILS HDPE BLUE INSULATION, TERMINATE WITH 24\"/> NOTES: A. WATER VALVE ADJUSTMENTS WILL BE COMPLETED AT LEAST 36 HOURS BEFORE RESURFACING. B. 12\"/> C. DISTURBED AREAS AROUND STRUCTURE ADJUSTMENTS ARE TO BE TAMPED AND FILLED WITH 4,000 PSI \"HIGH EARLY\" PORTLAND CEMENT CONCRETE. D. ALL DAMAGED OR MISALIGNED VALVE BOXES ARE TO BE REPORTED TO INSPECTOR, OTHERWISE CONTRACTOR ASSUMES RESPONSIBILITY FOR DAMAGE OR MISALIGNMENT. E. IF THE VERTICAL ADJUSTMENT CAUSES LESS THAN ONE INCH OVERLAP BETWEEN TOP SECTION AND RISER PIPE, CONTRACTOR WILL REMOVE AND REPLACE RISER PIPE FROM BOTTOM SECTION TO TOP TO PROVIDE 3\"/> F. ALL CONCRETE SHALL BE VIBRATED IN ACCORDANCE WITH N.C. DEPARTMENT OF TRANSPORTATION SPECIFICATIONS. G. TOP & BOTTOM SECTION TO BE CENTERED OVER NUT, NOT TO BEAR ON VALVE BODY. H. PROVIDE CLEARANCE BETWEEN VALVE BOX/BRICK AND THE VALVE. I. VALVE BOX ASSEMBLY SHALL CONSIST OF NO MORE THAN 3 VERTICAL SECTIONS - 1 TOP SECTION, 1 - BOTTOM SECTION AND 1 - PIPE RISER SECTION.	SCALE: CHARLOTTE WATER WATER AS CITY & COUNTY DEPARTMENT STANDARD DETAIL VERTICAL VALVE BOX ADJUSTMENT FOR PAVEMENT RESURFACING NO SCALE VERSION 1.0 DATE 04/20/2024 DETAIL
--	--	--

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Fax:919.789.9591
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PROJECT TYPICAL DETAILS



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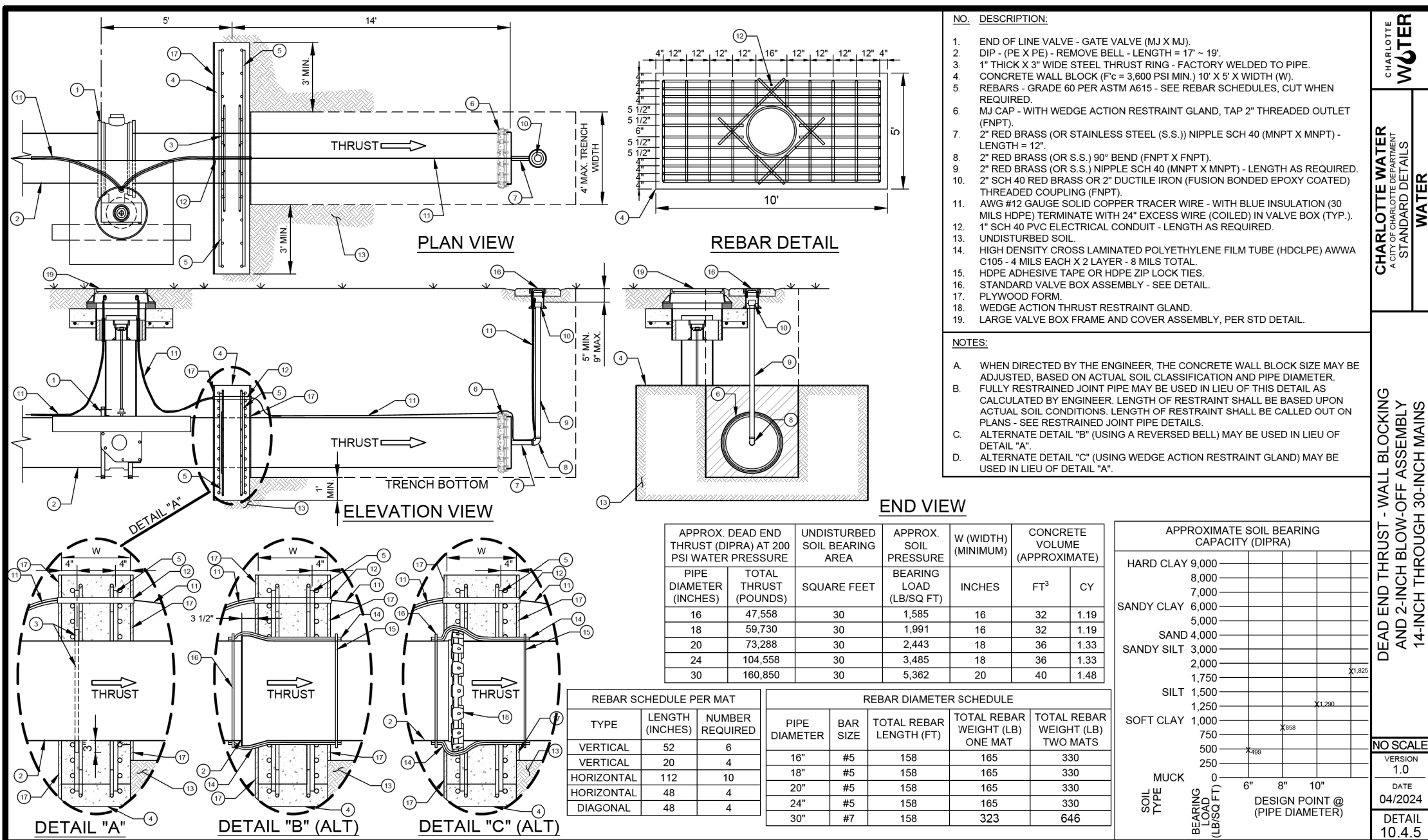
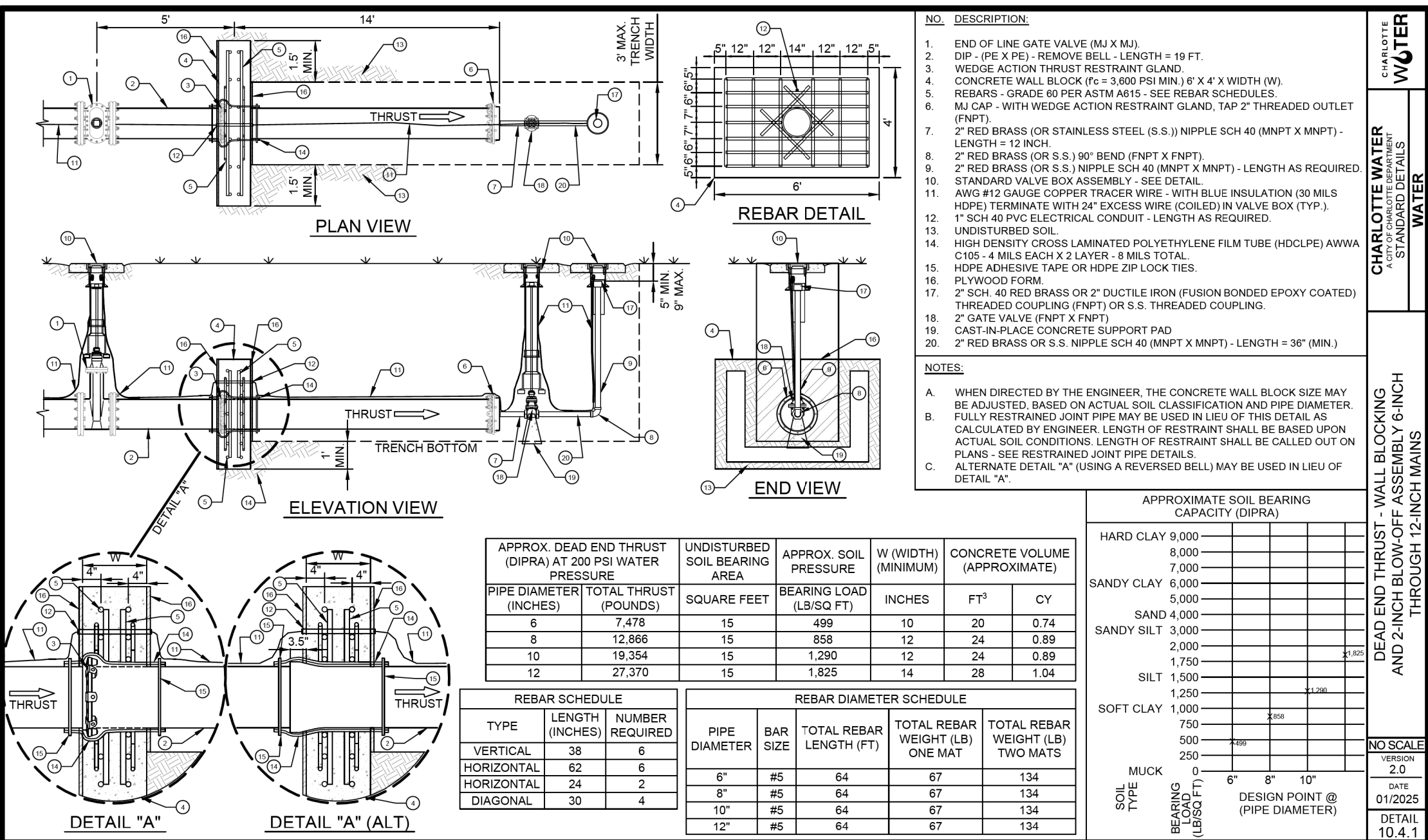
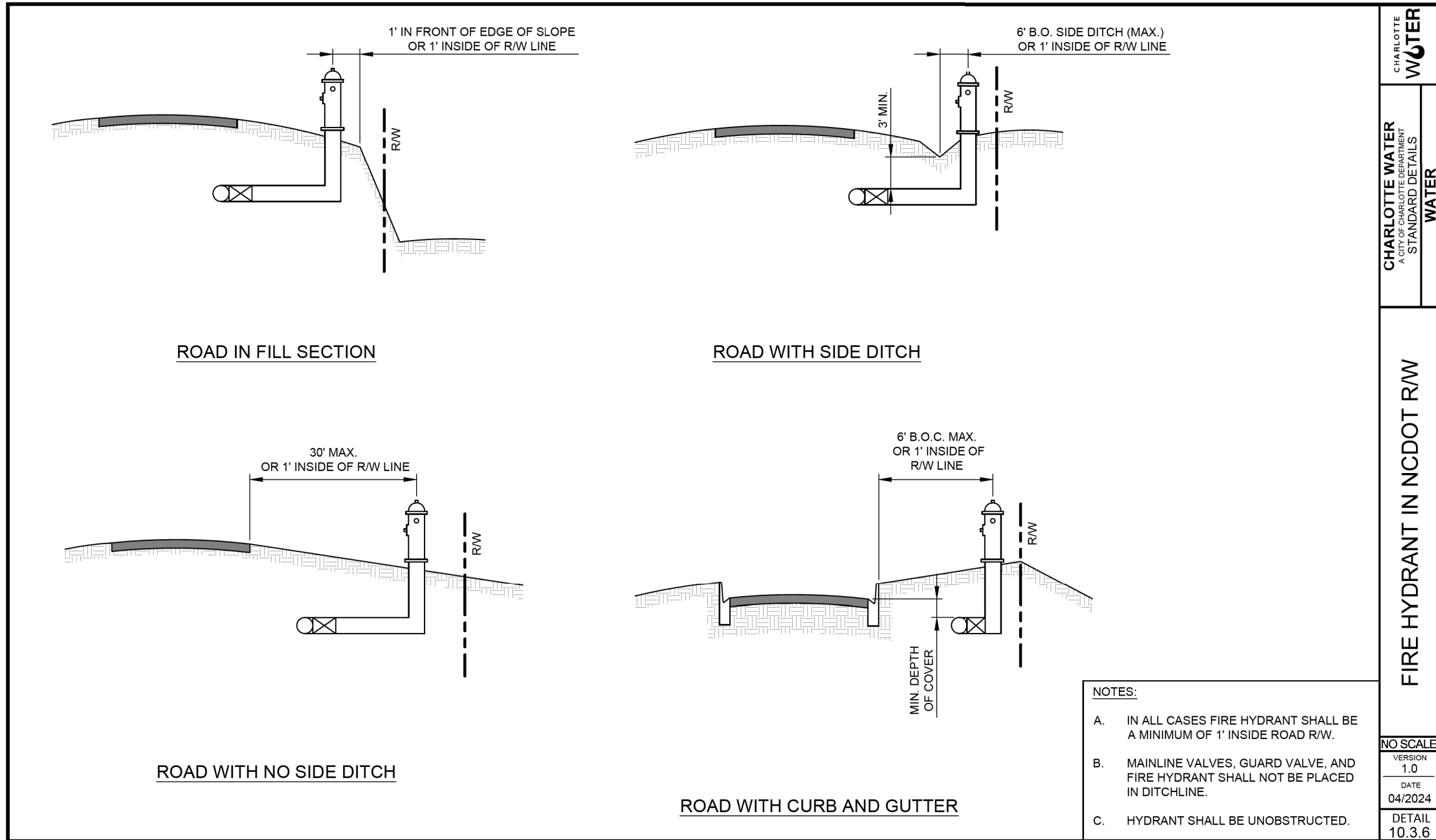
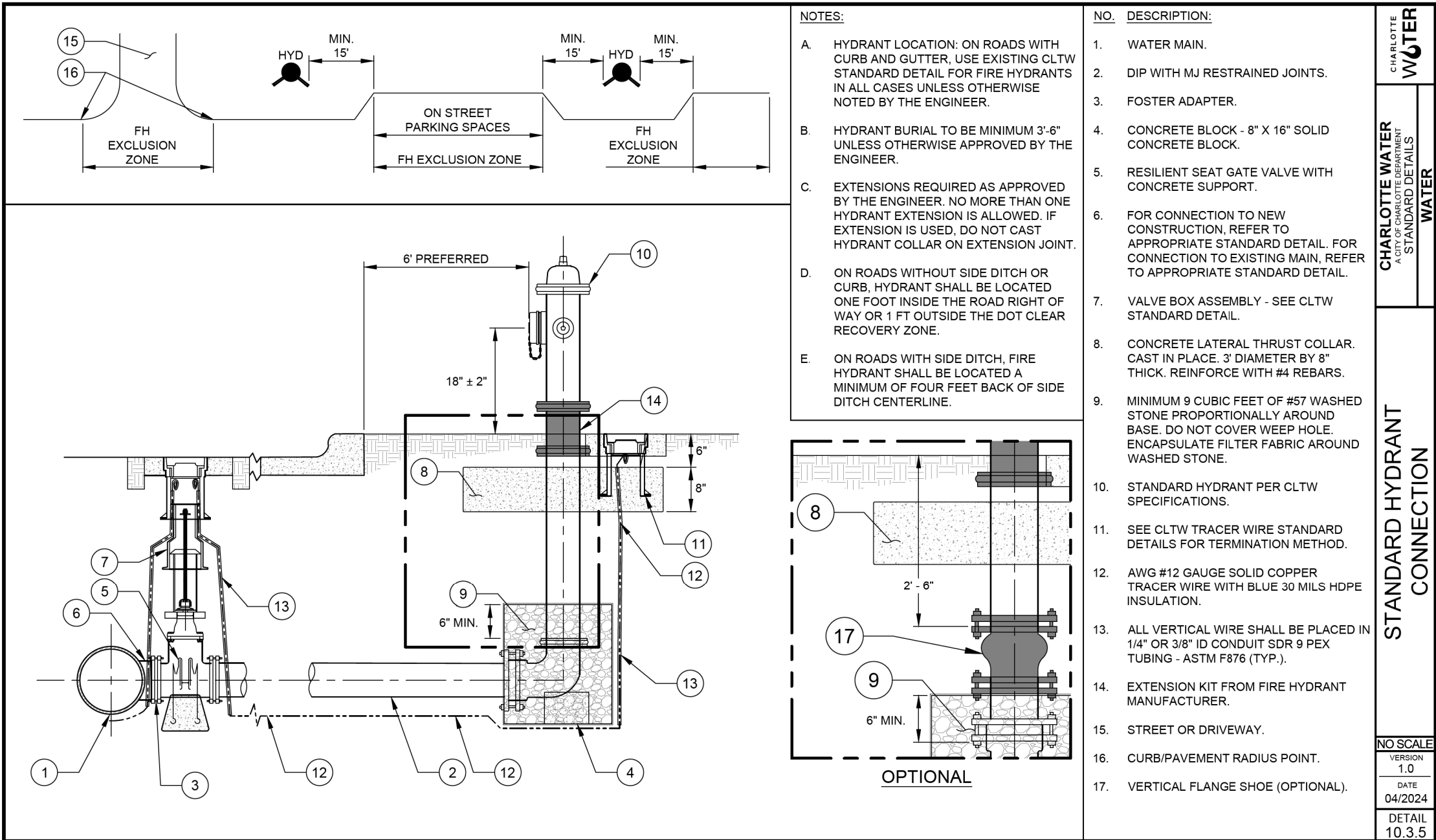
PROJECT REFERENCE NO.		SHEET NO.
W-5710X		UC-3C
DESIGNED BY:	TK	Seal Professional Engineer North Carolina License No. 0834415 9/7/2025
DRAWN BY:	TK	
CHECKED BY:	XMD	
APPROVED BY:		
REVISED:		
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION		
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151		UTILITY CONSTRUCTION PLANS ONLY

UTILITY CONSTRUCTION

DOCUMENT NOT CONSIDERED FINAL
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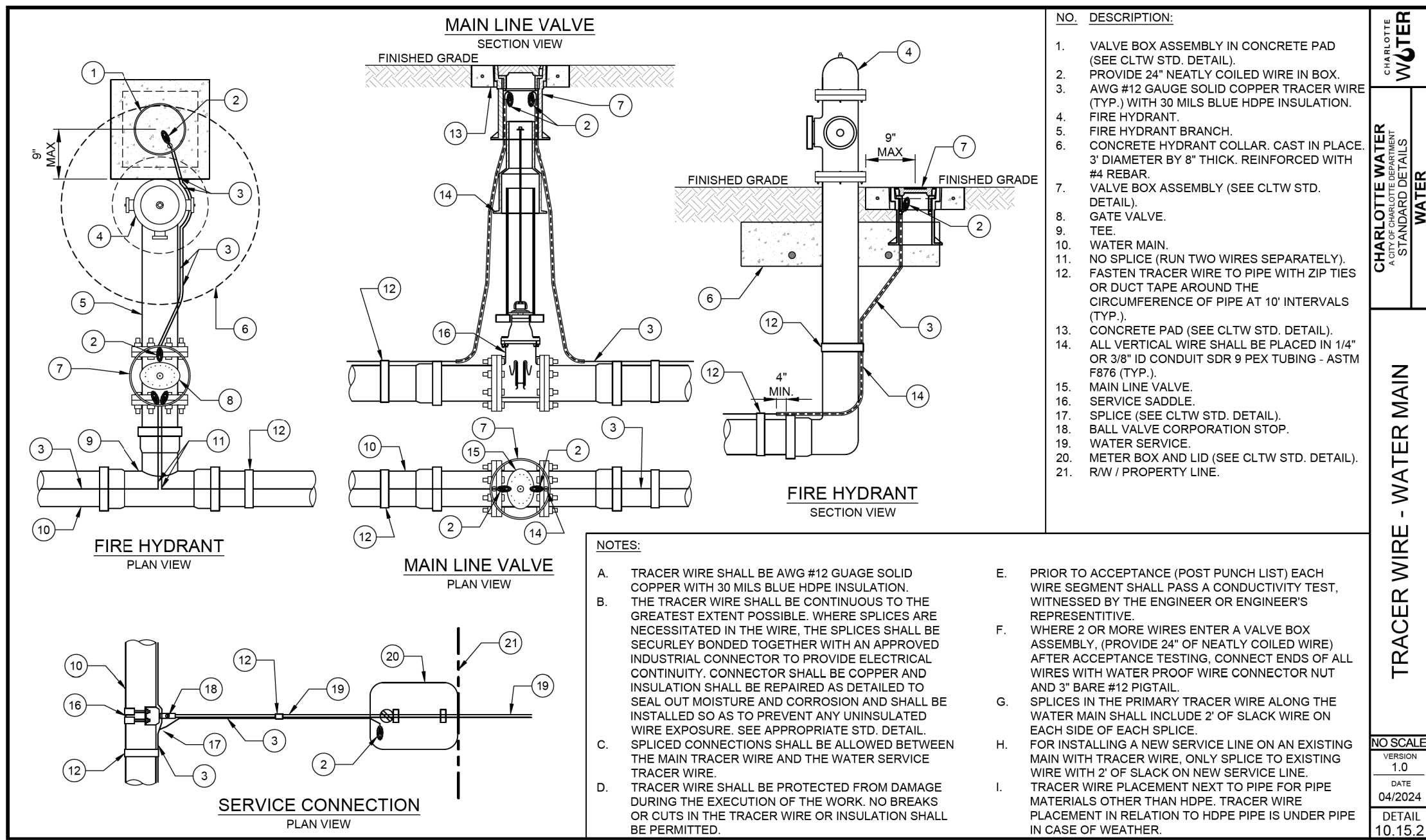
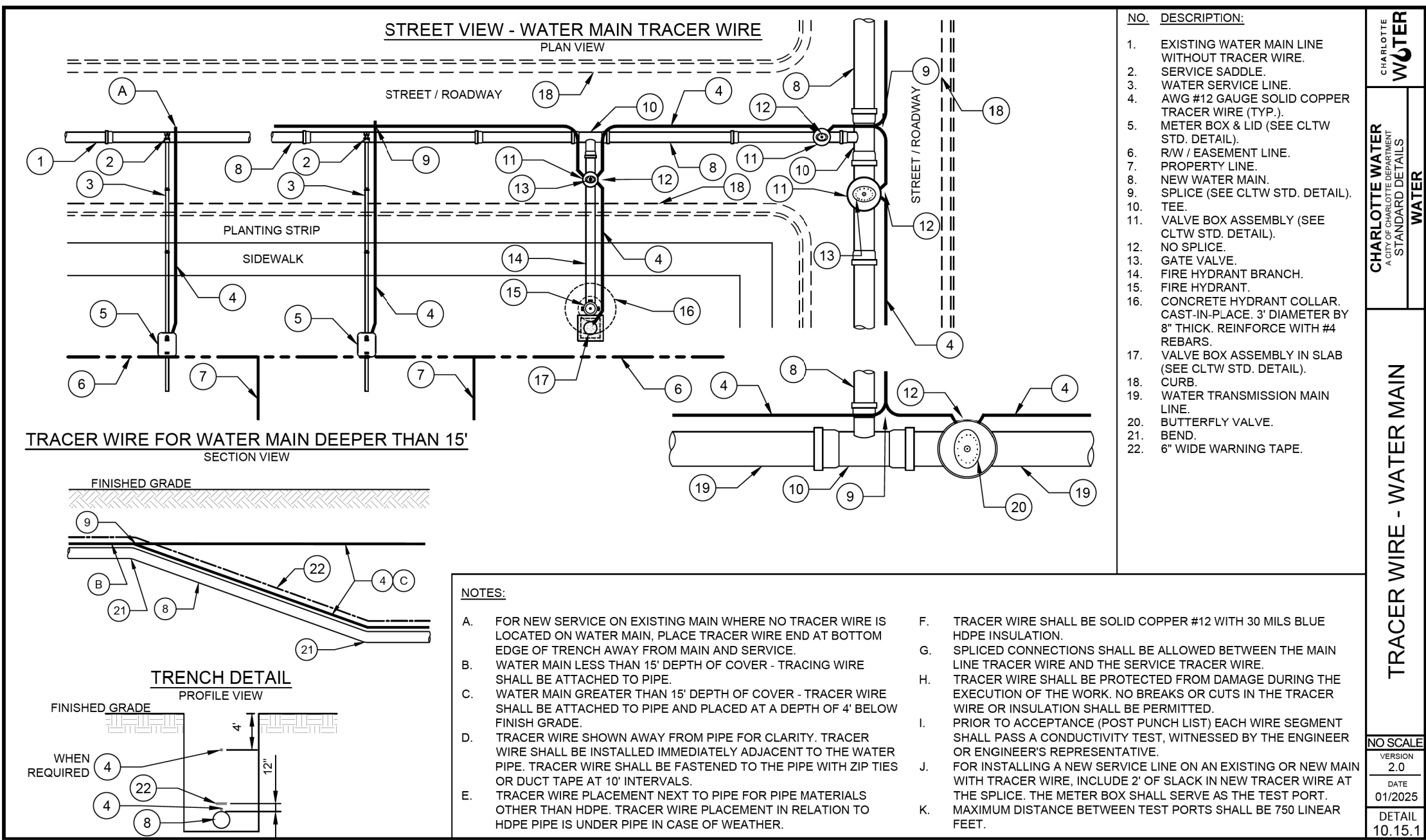
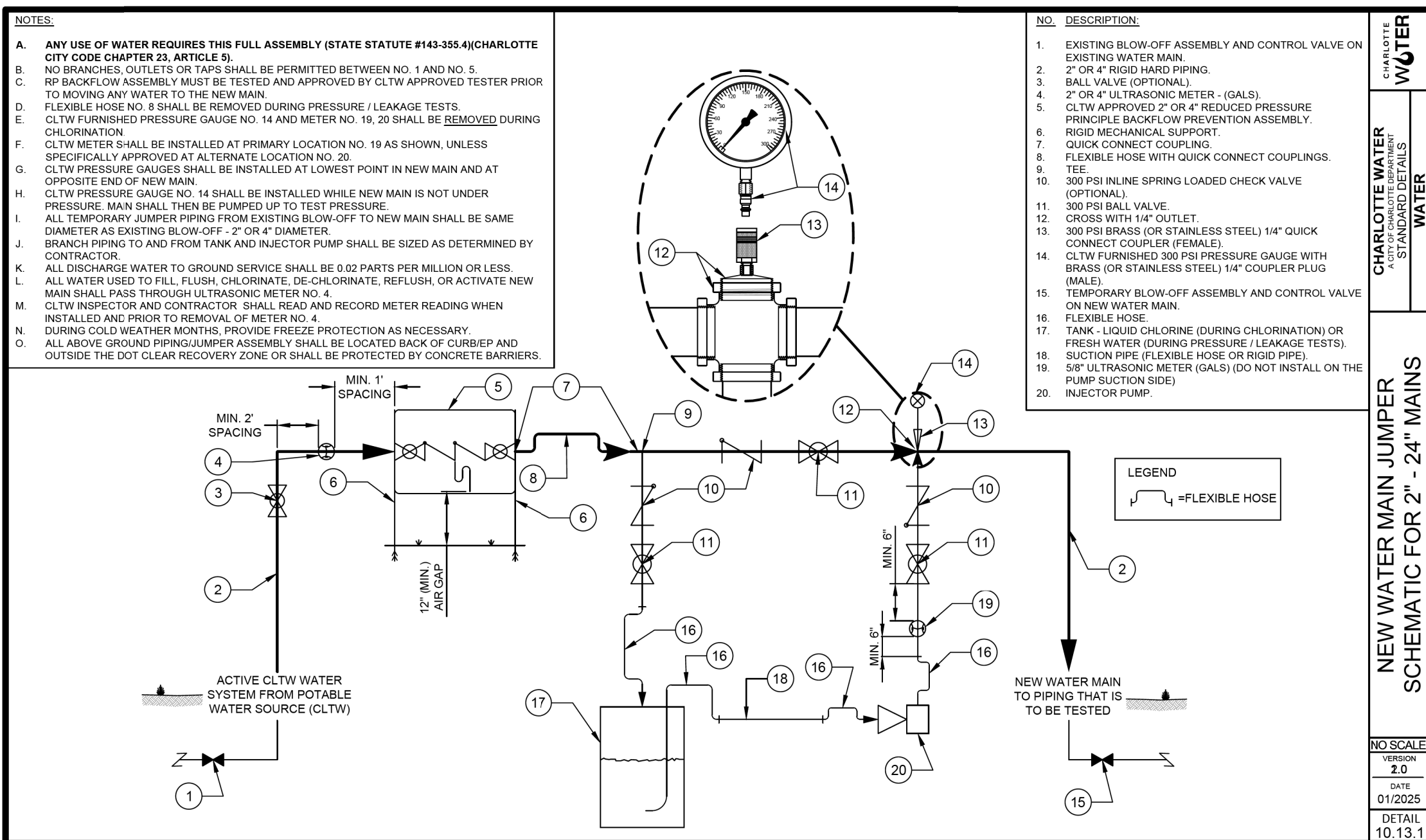
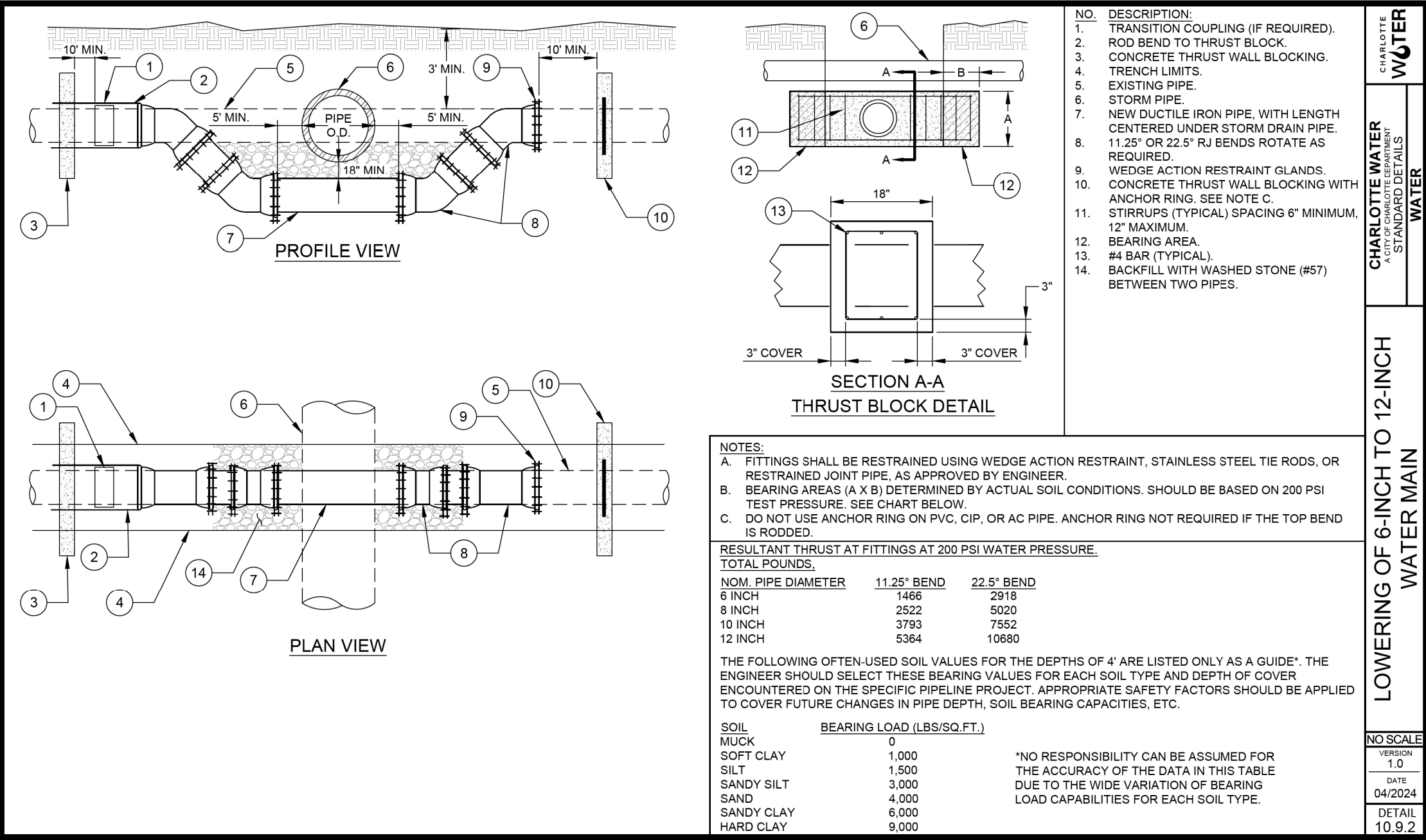
PROJECT REFERENCE NO.		SHEET NO.
W-5710X		UC-3E
DESIGNED BY:	TK	Seal Professional Engineer NORTH CAROLINA DEPARTMENT OF TRANSPORTATION 9/7/2025
DRAWN BY:	TK	
CHECKED BY:	XMD	
APPROVED BY:		
REVISED:		
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION		
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PROJECT TYPICAL DETAILS



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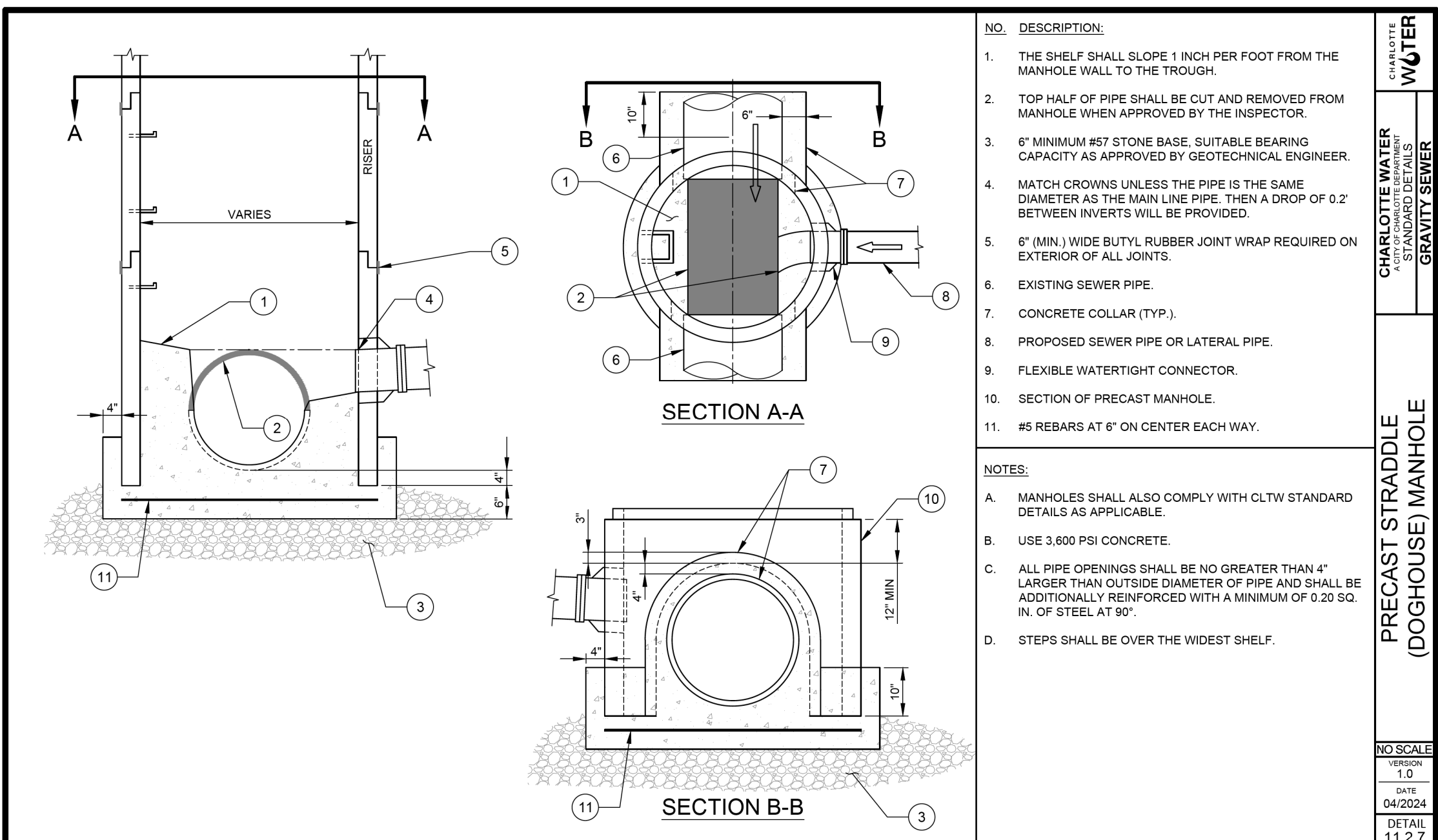
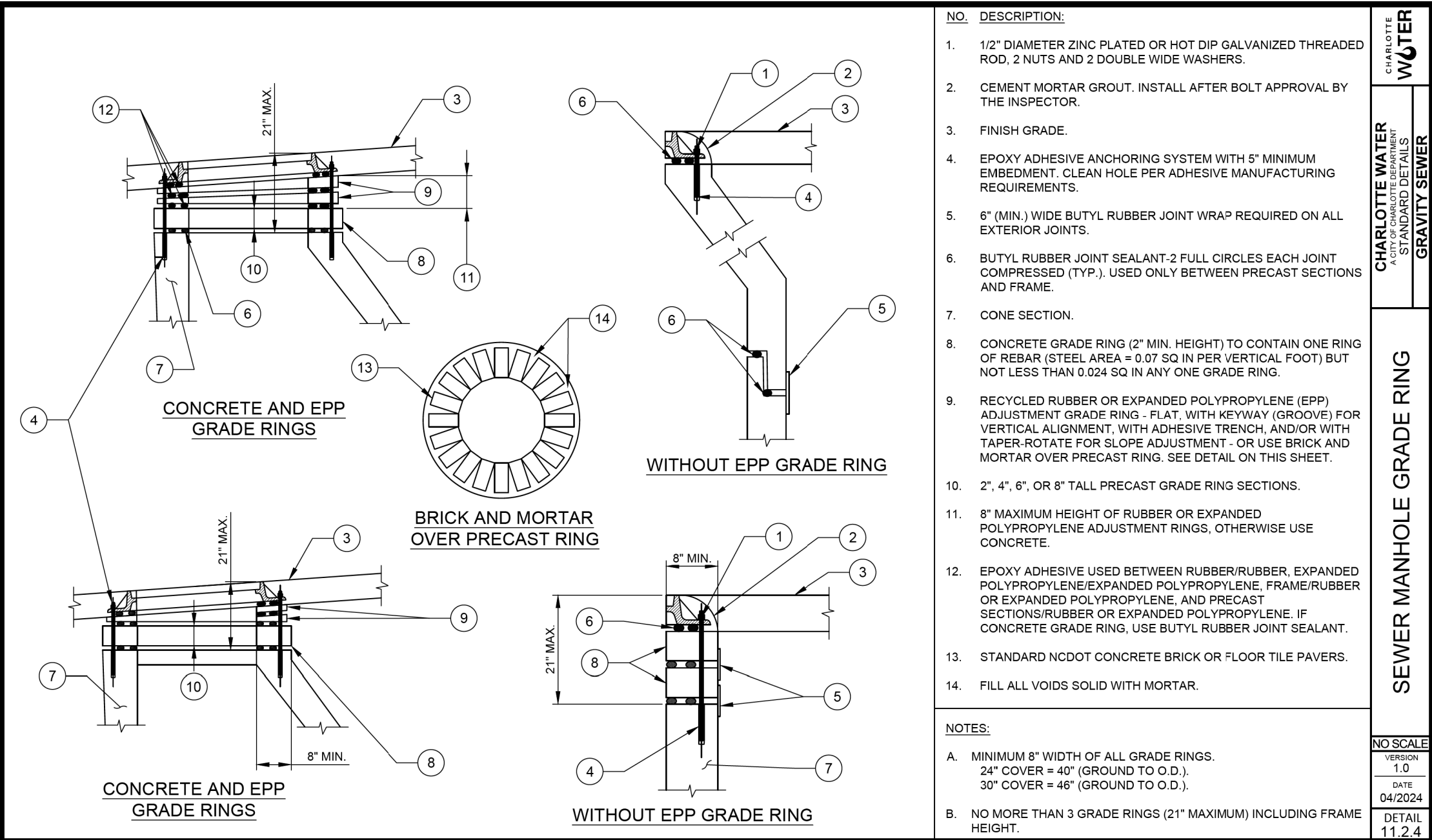
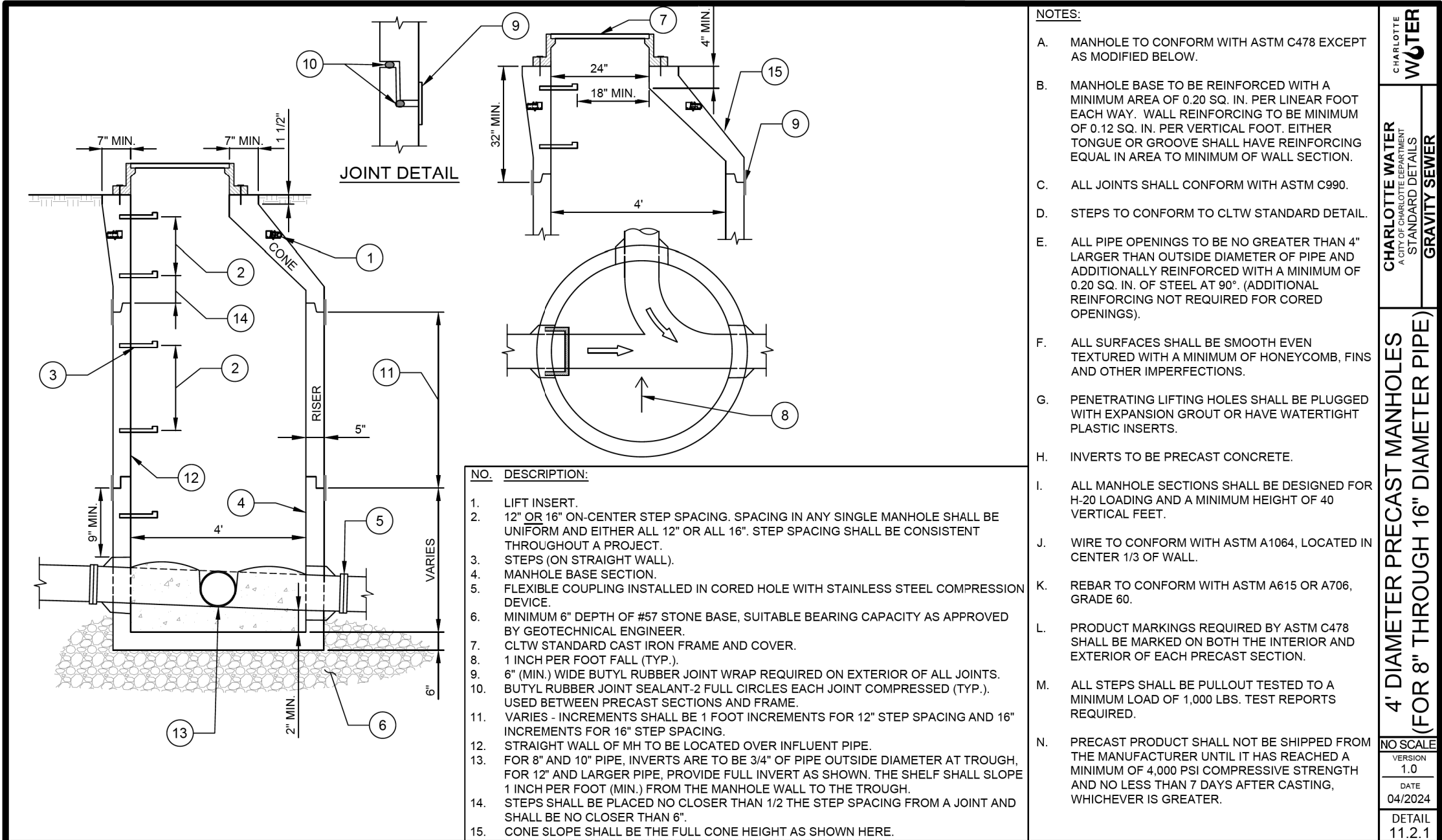
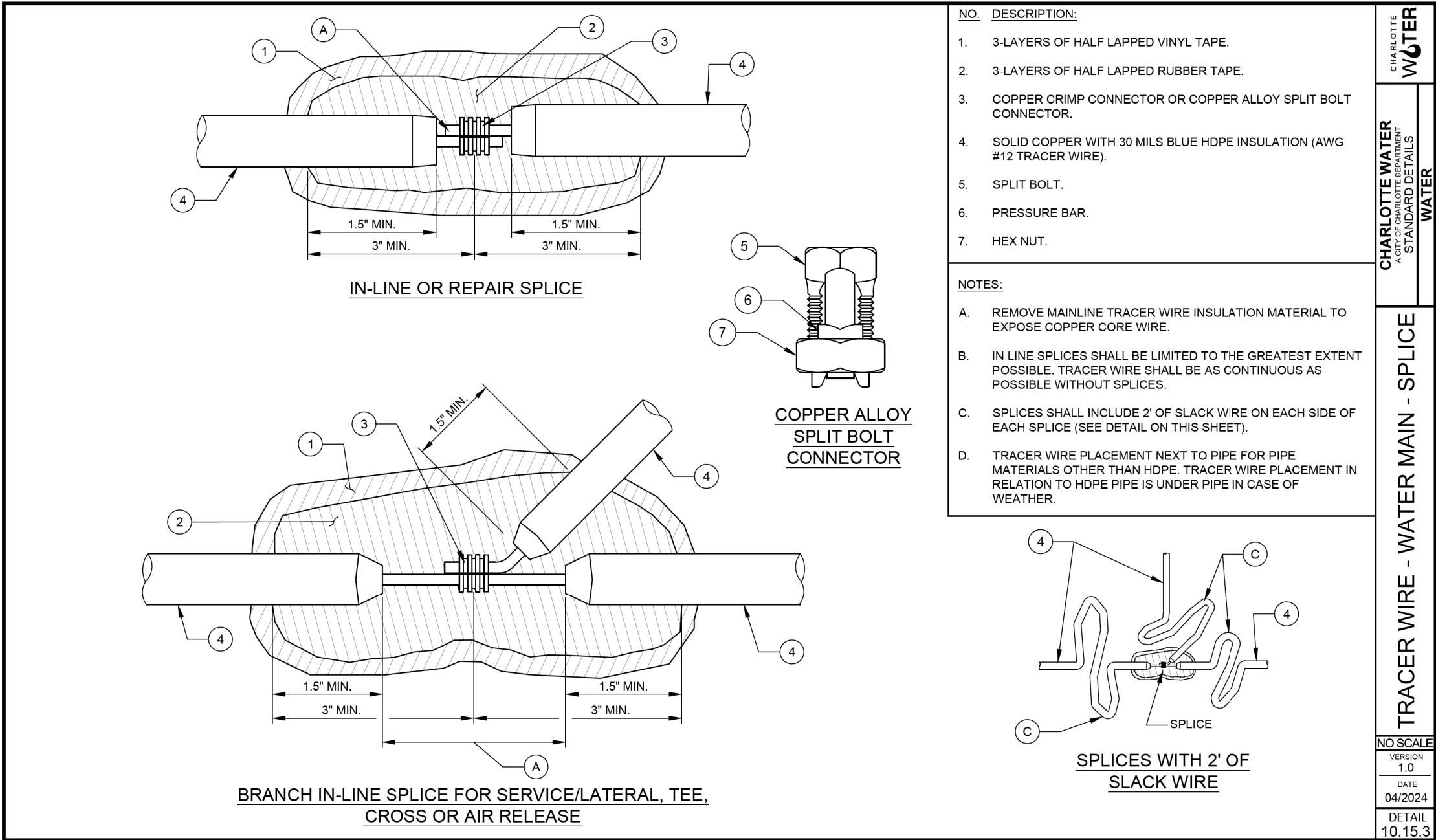
PROJECT REFERENCE NO.		SHEET NO.
W-5710X		UC-3F
DESIGNED BY: TK		
DRAWN BY: TK		
CHECKED BY: XMD		
APPROVED BY:		
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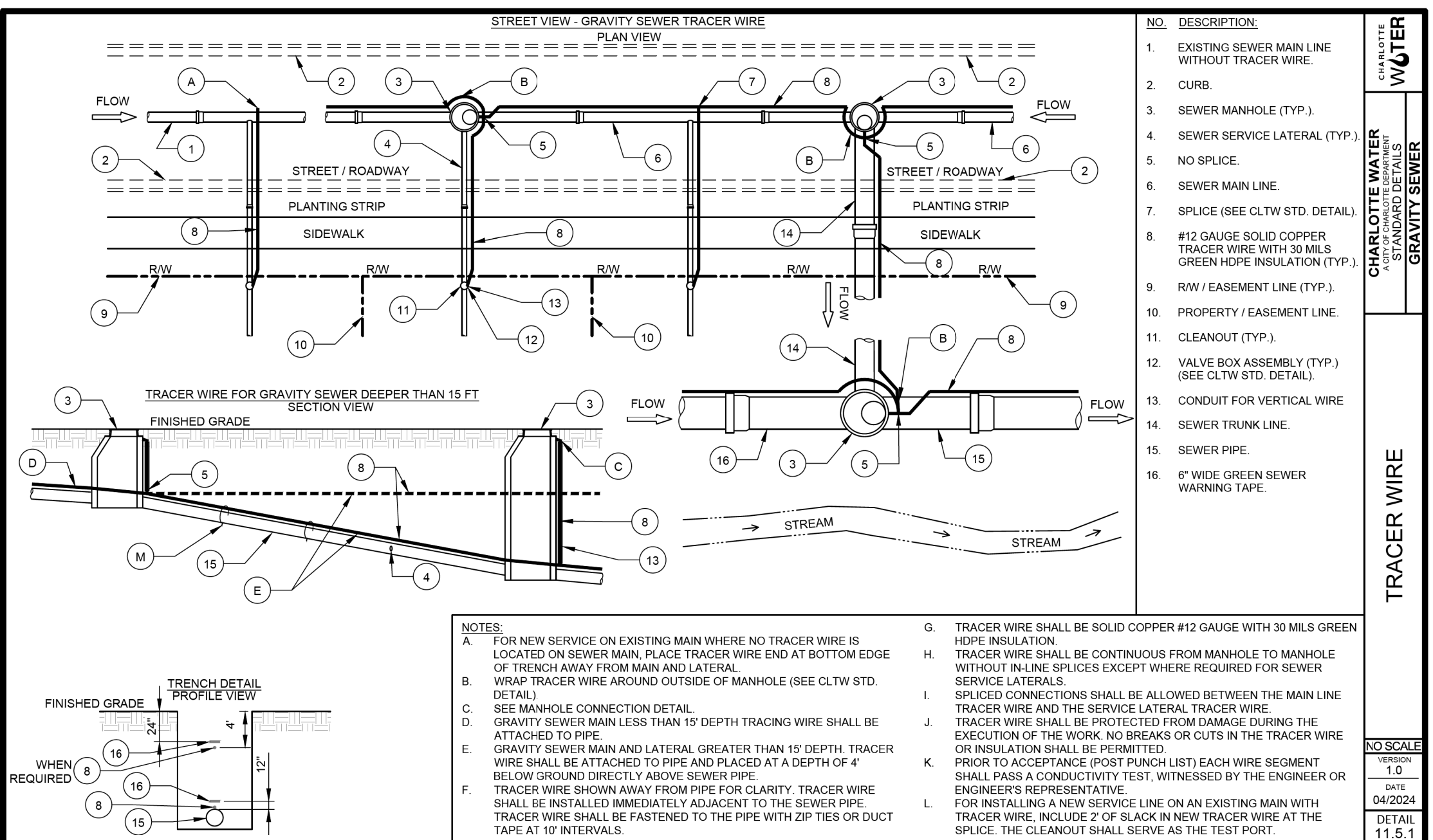
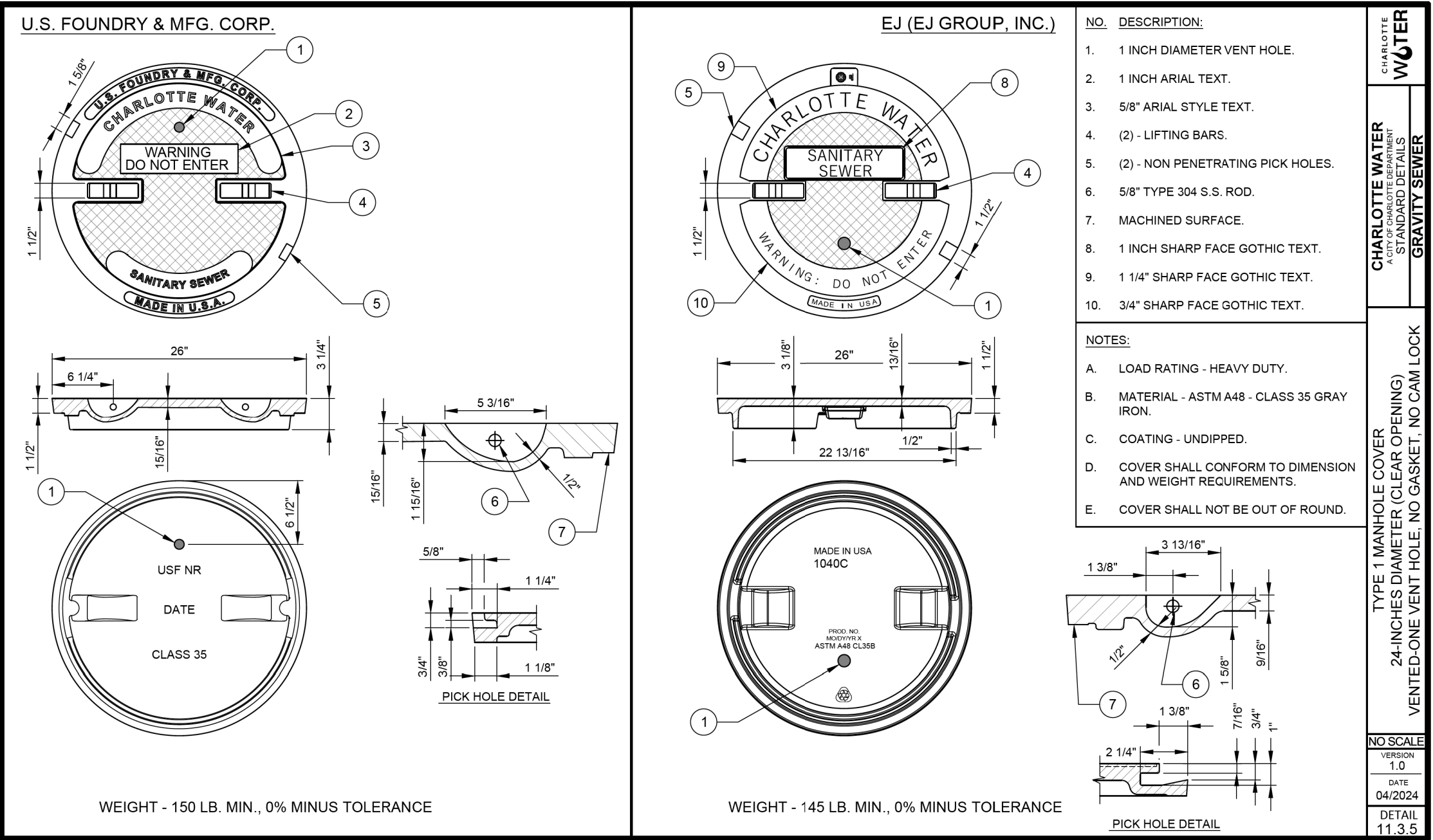
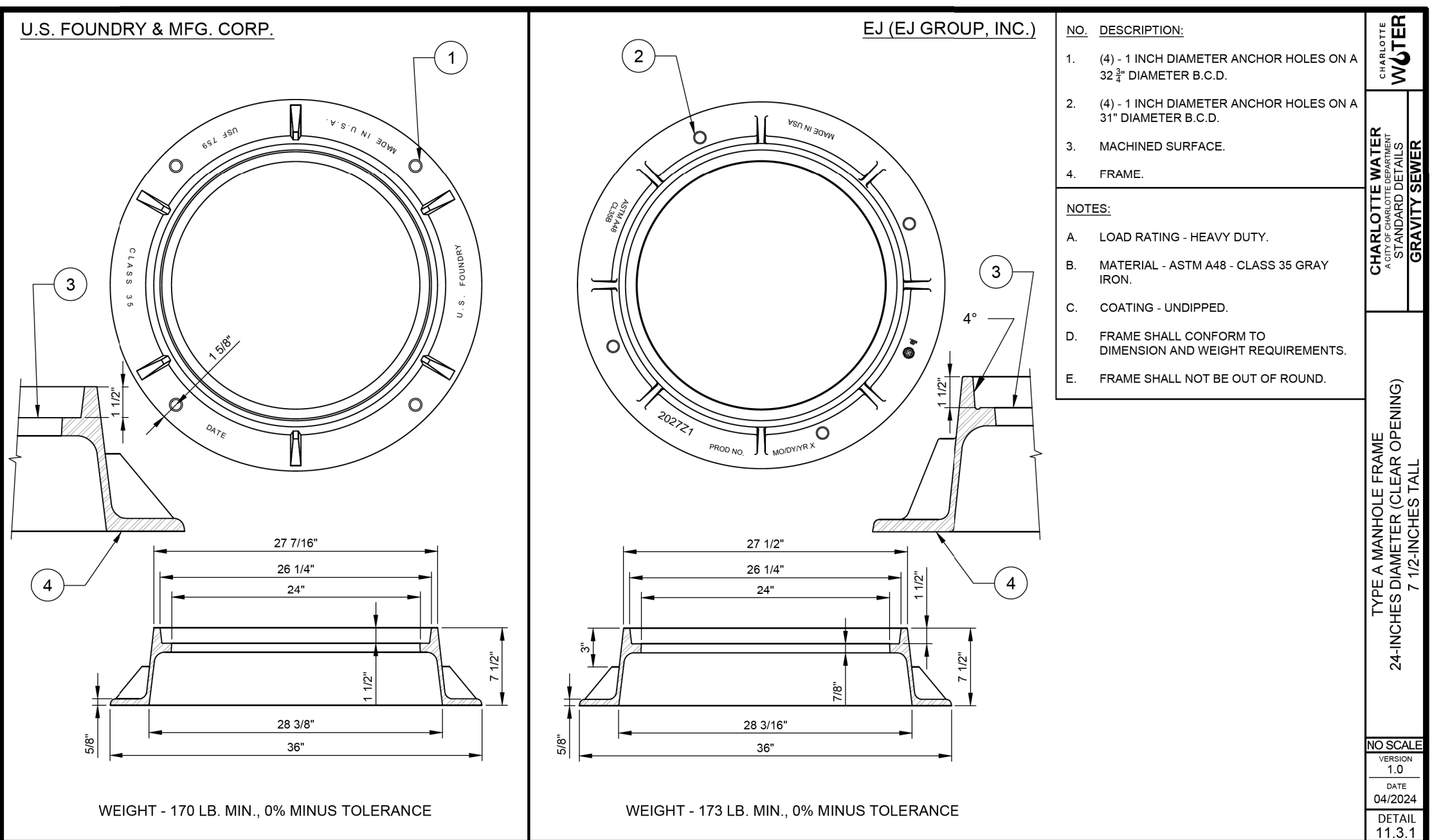
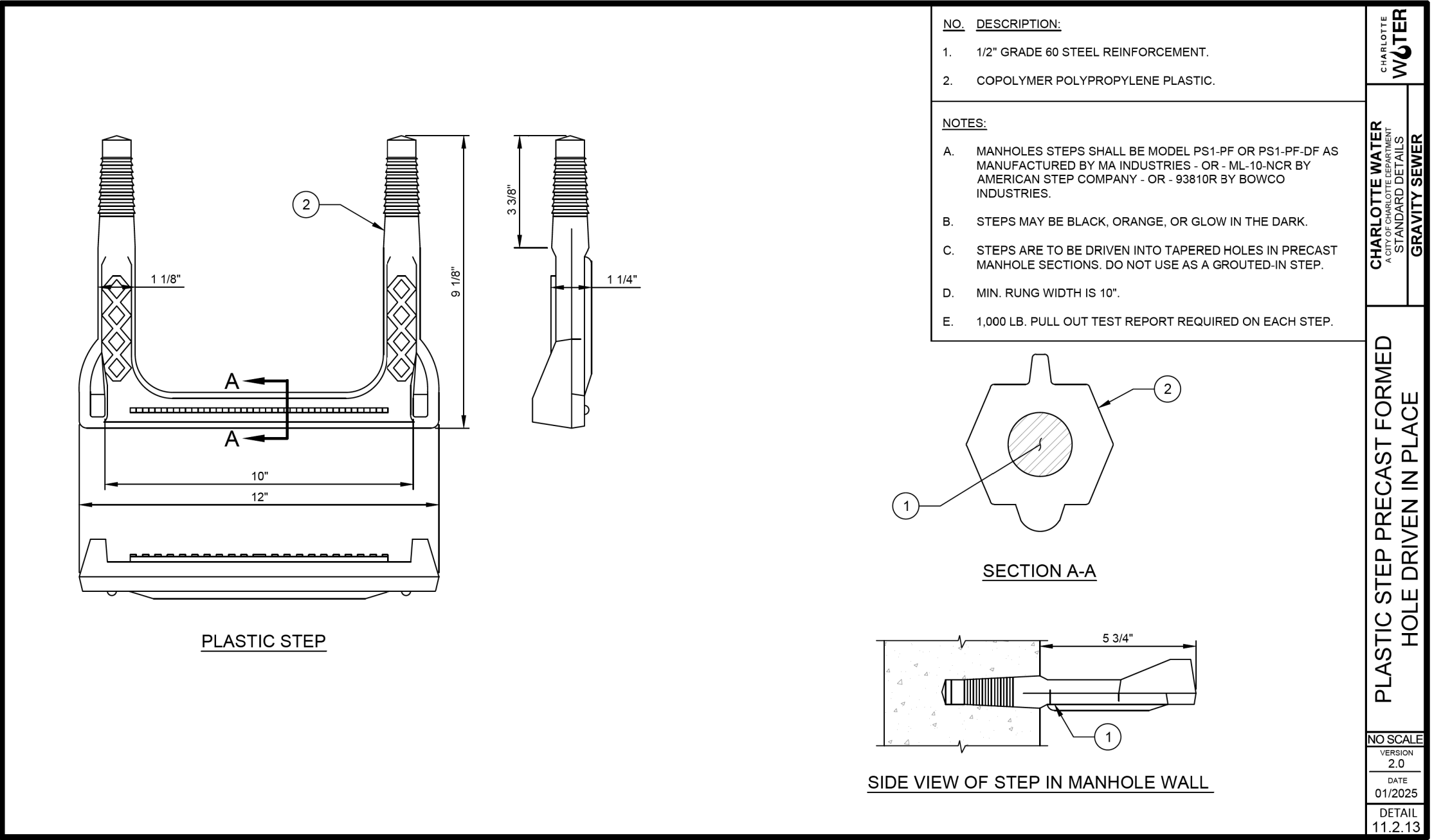
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W-5710X		UC-3G
DESIGNED BY: TK		
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Professional Engineer Seal for North Carolina, No. 034415, signed by Xiaolin Deng, dated 8/10/2025.

SHEET NO.
UC-3H

SEAL
034415

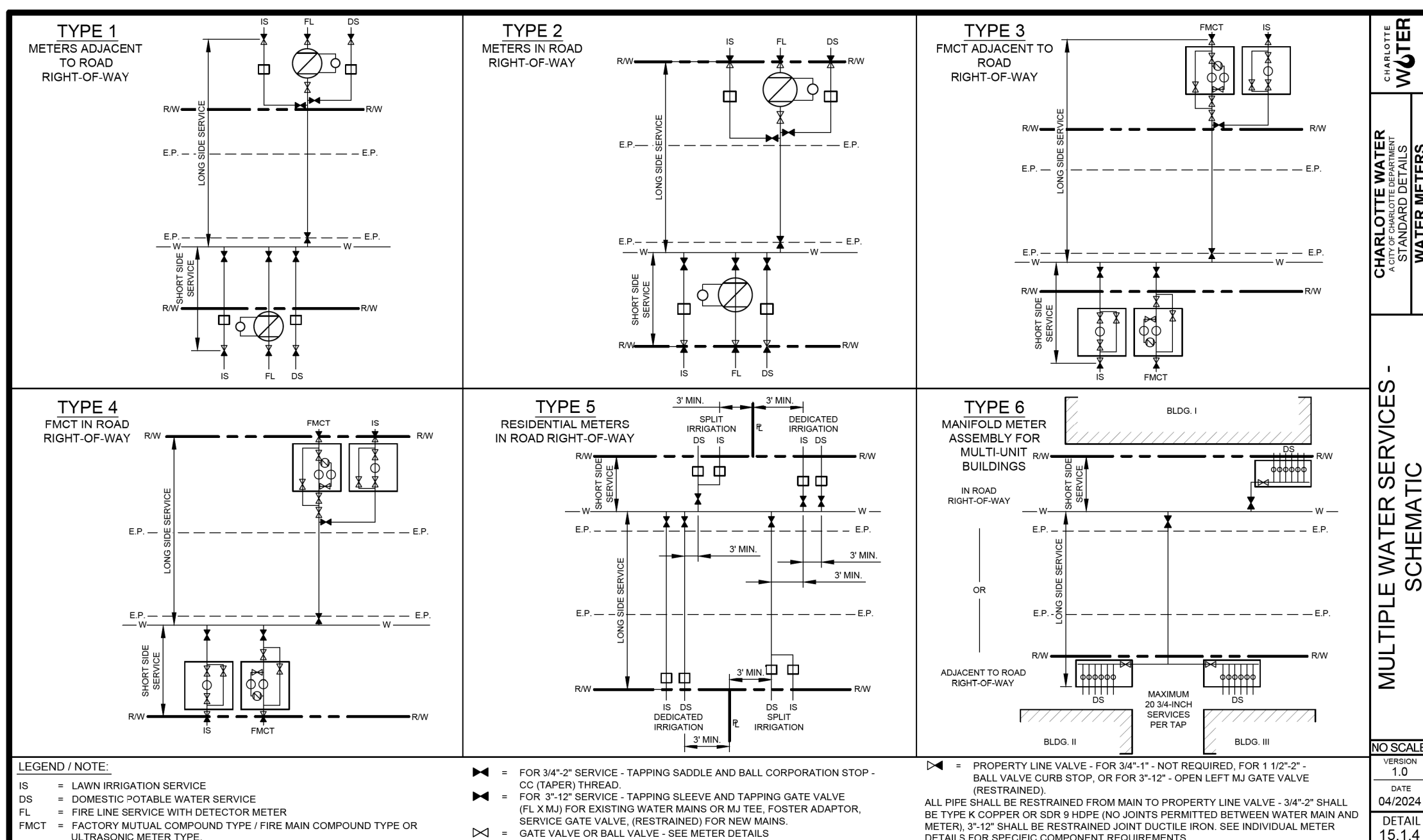
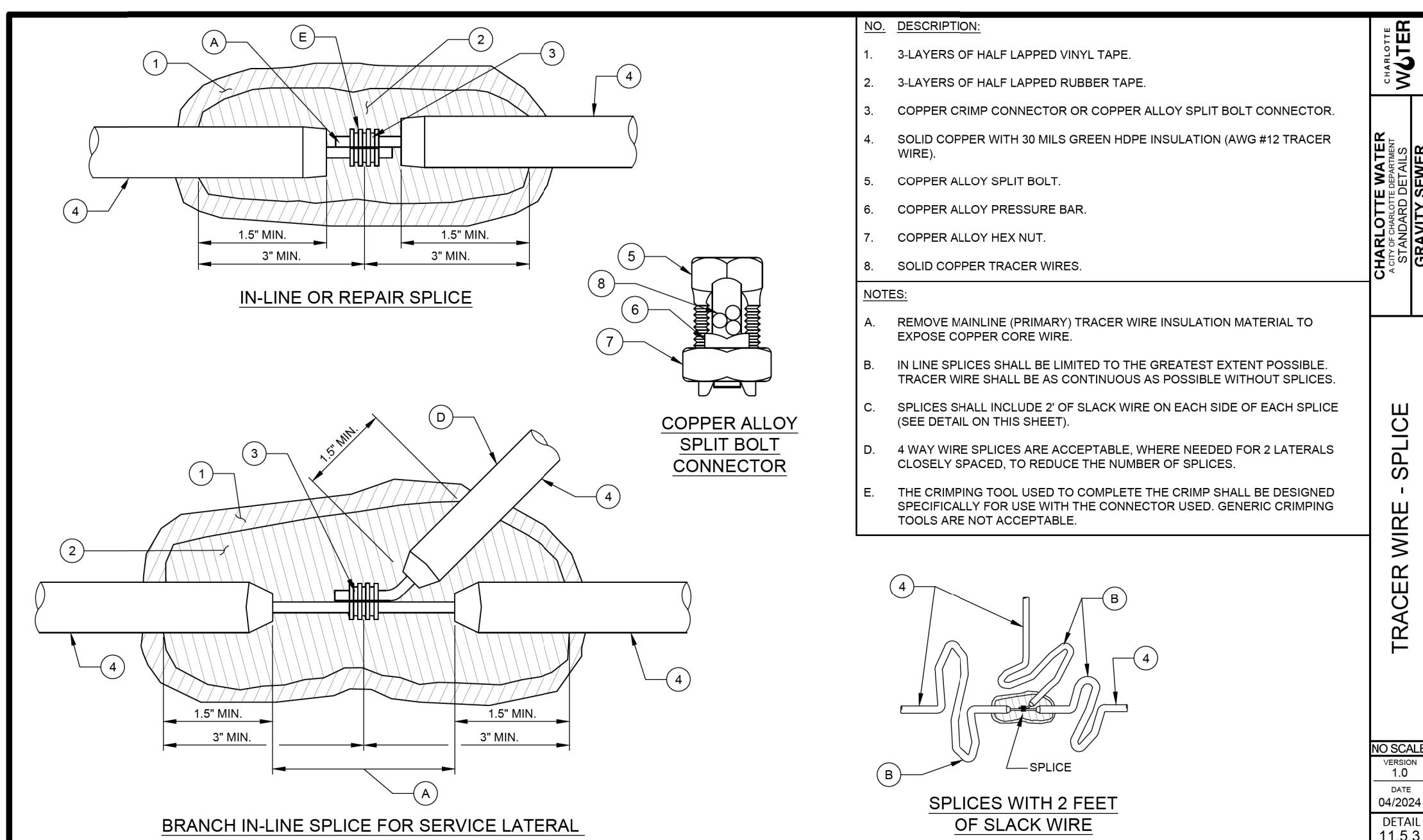
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ENGINEER
XIAOLIN DENG
9/10/2025

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W-5710X

SHEET NO.
UC-3I

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CHECKED BY: **XMD**
APPROVED BY:
REVISED:



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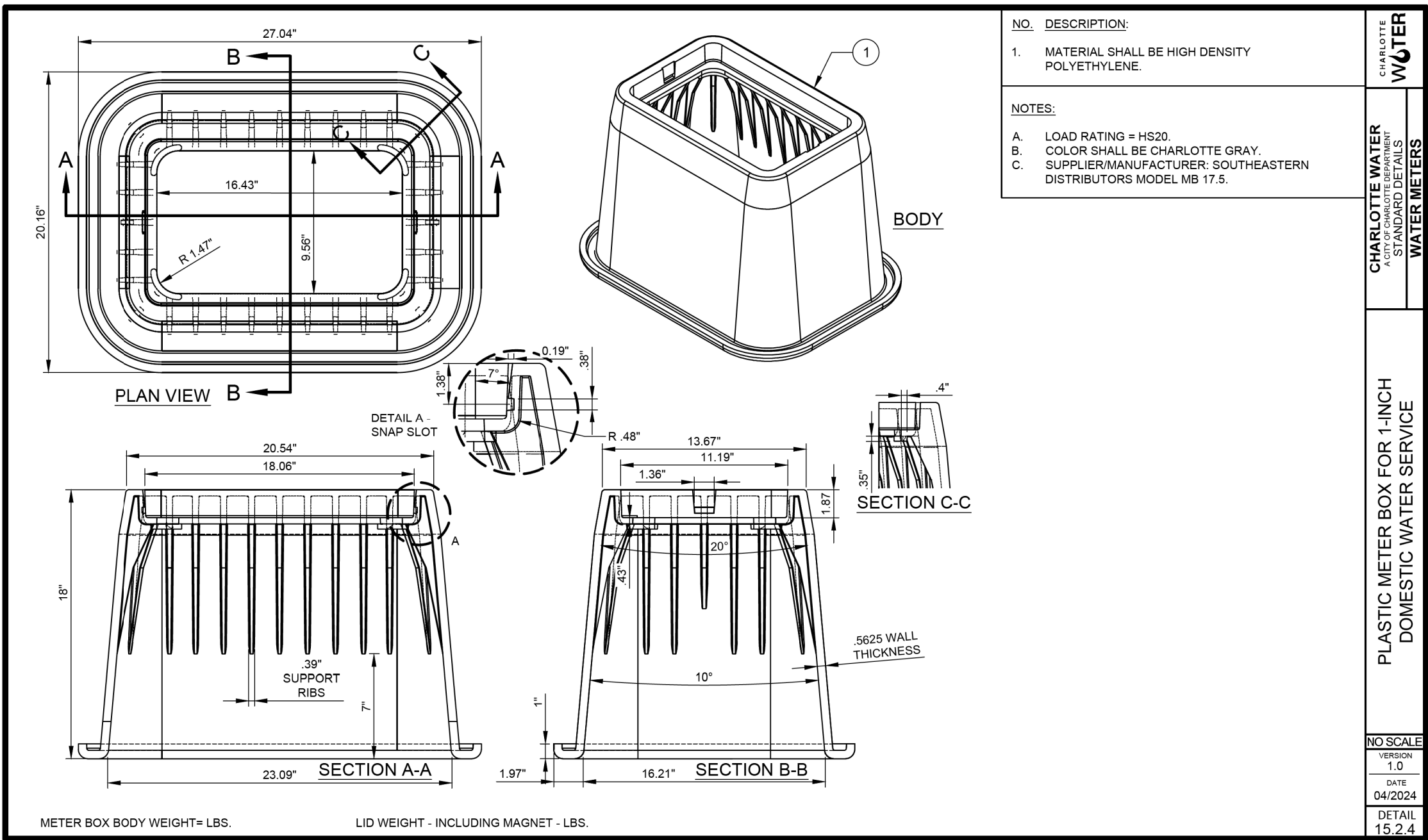
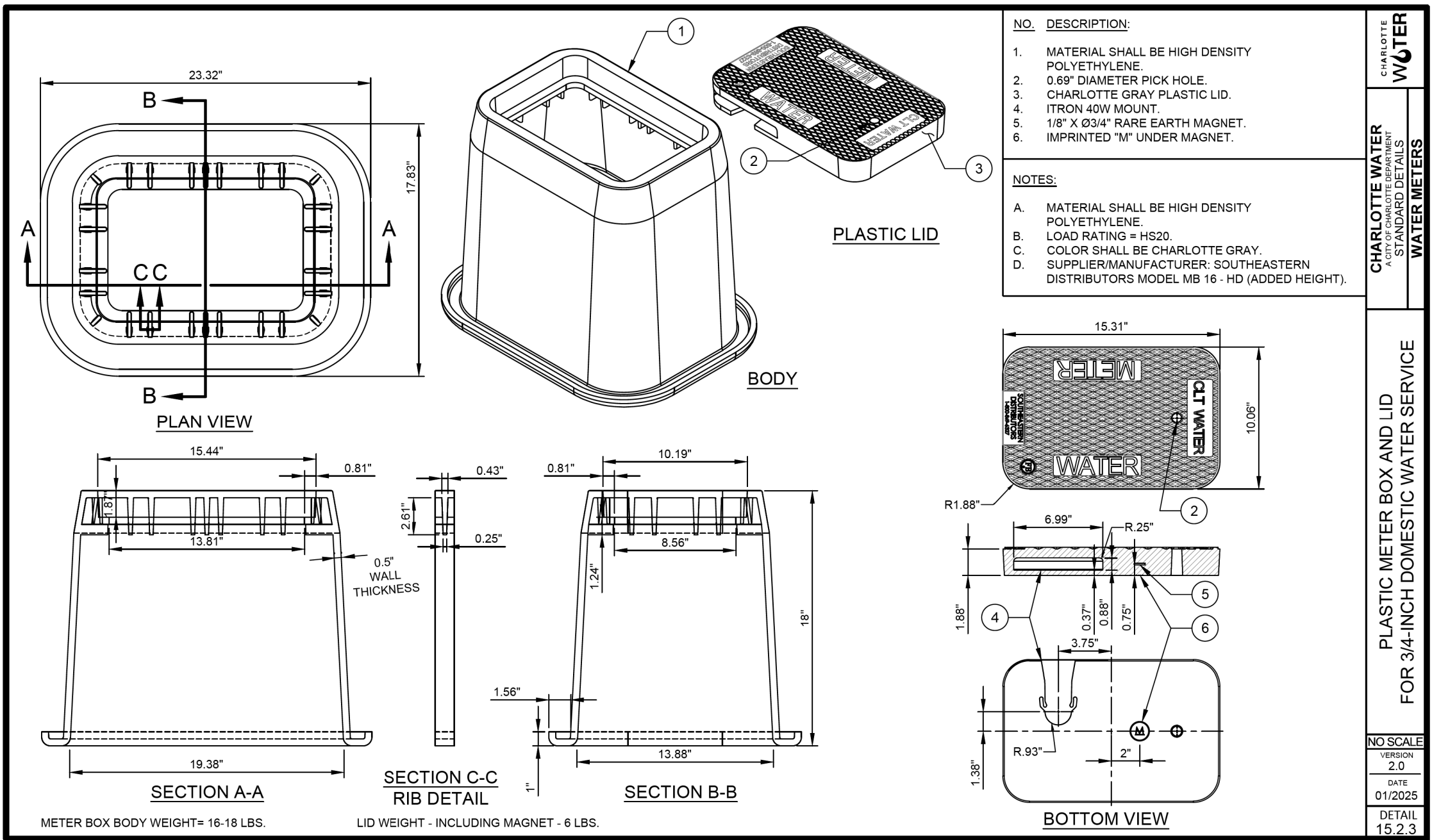
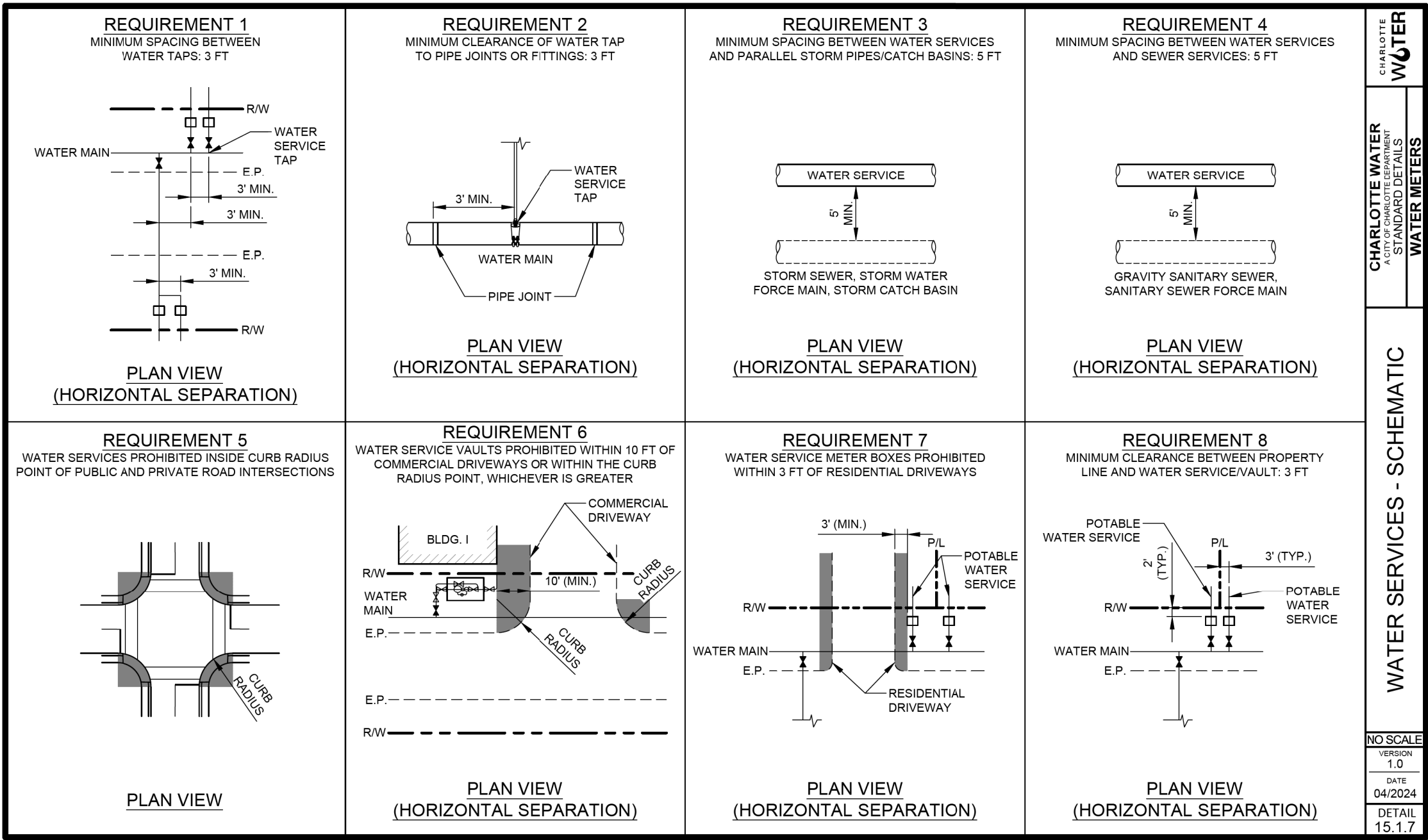
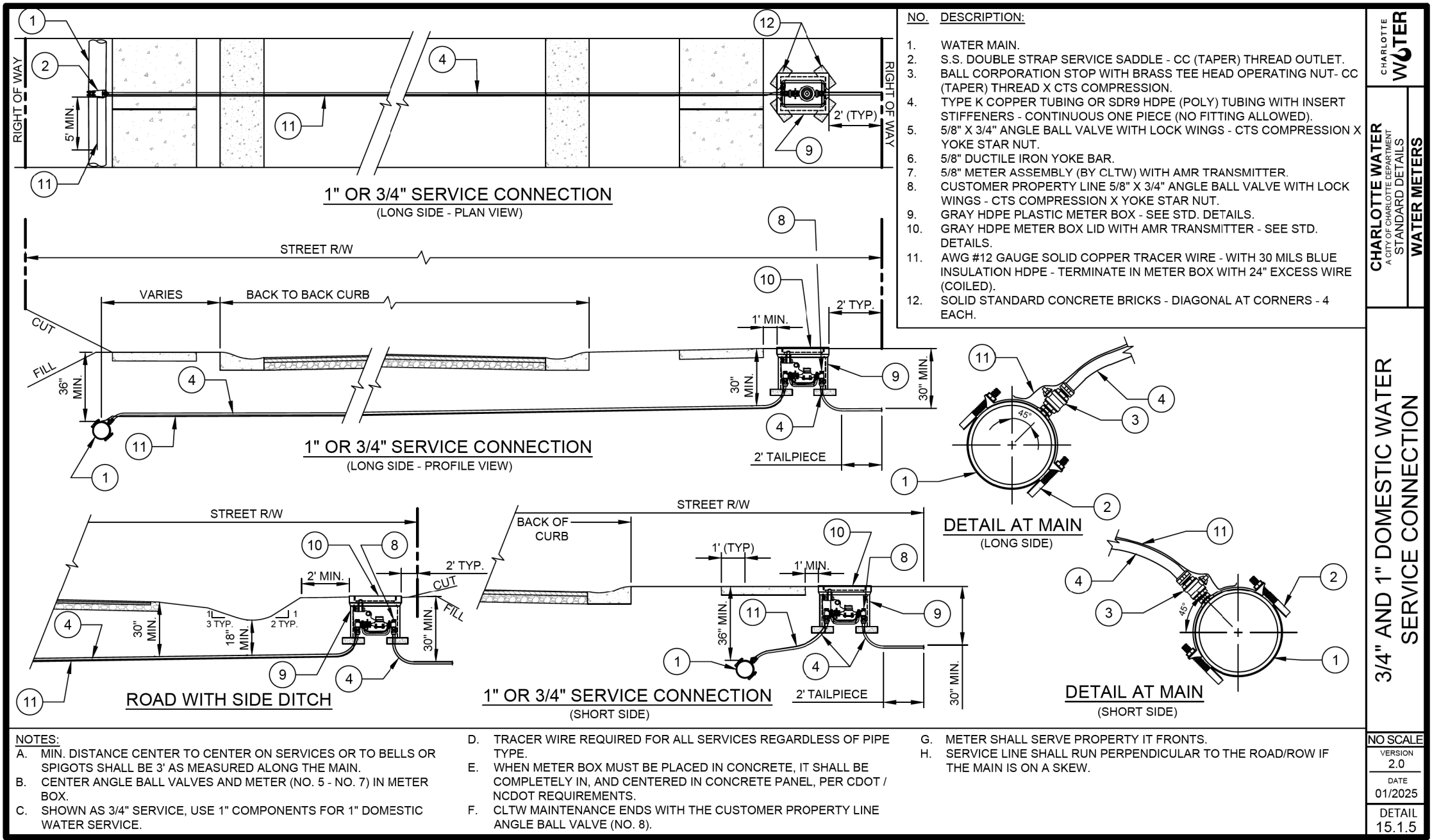
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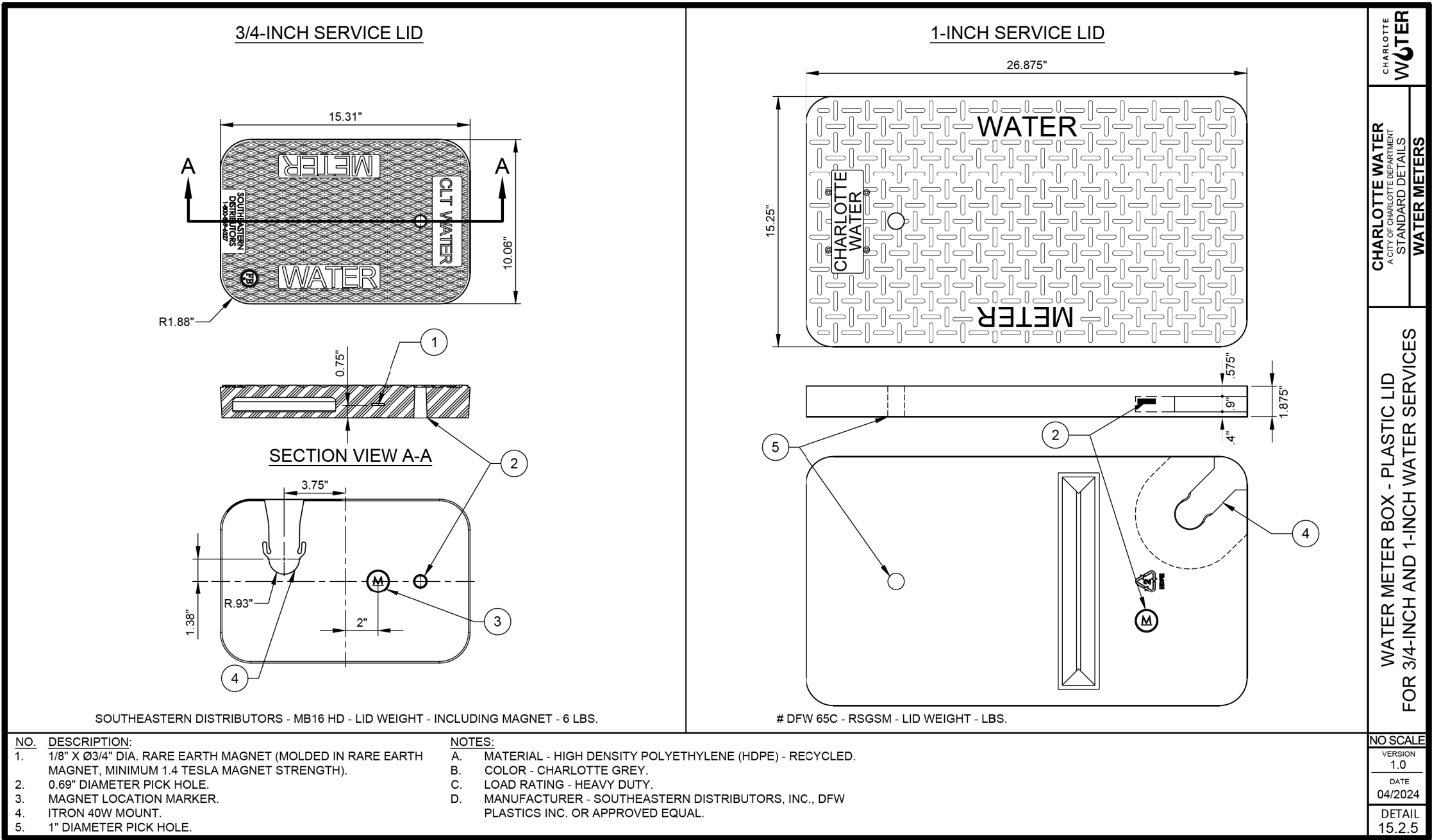
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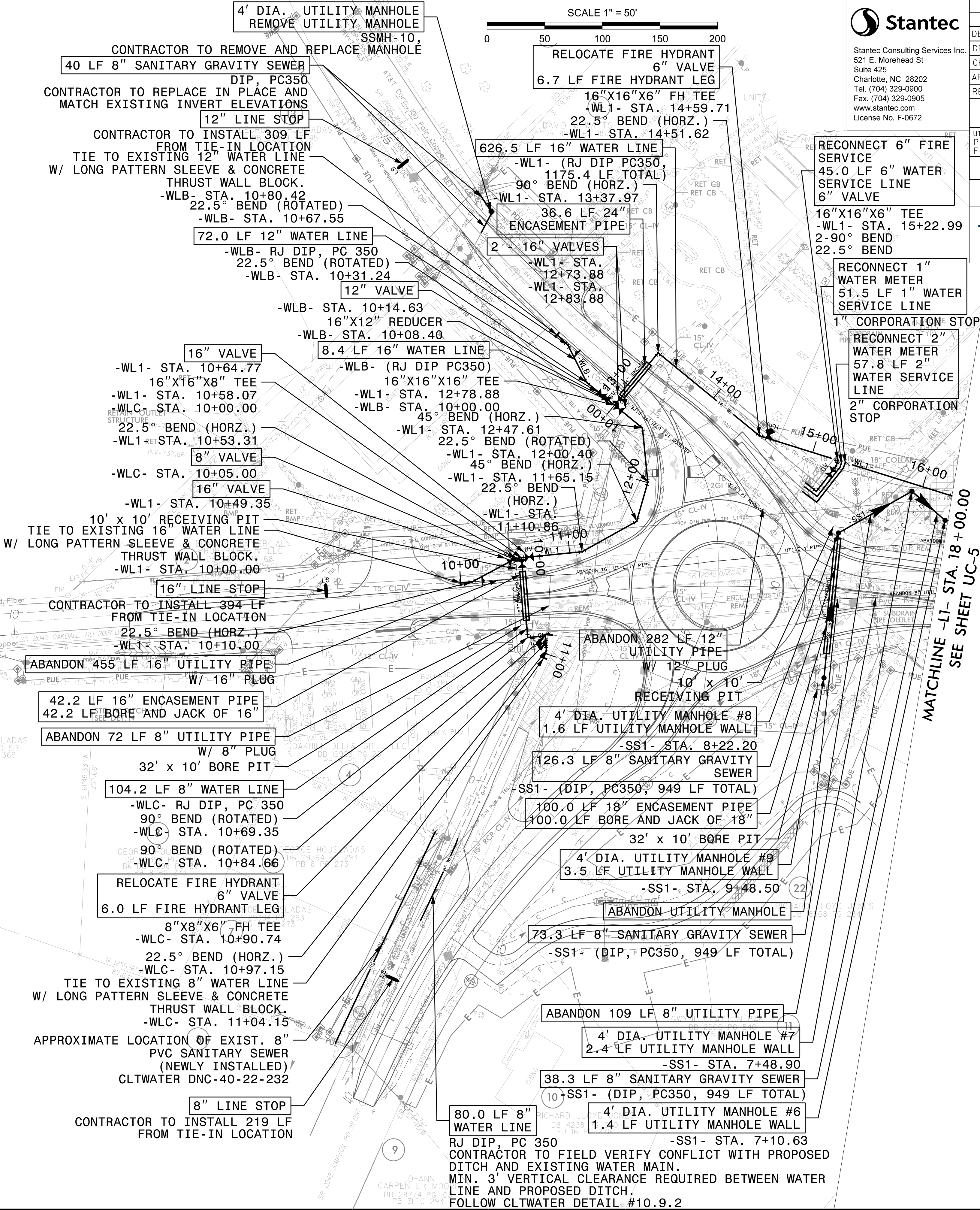
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- NOTES:
- 1.CONNECT PROPOSED DIP WATER LINE TO EXISTING WATER LINE USING NECESSARY FITTINGS AND TRANSITION COUPLINGS RECOMMENDED BY PIPE MANUFACTURER. CONTRACTOR TO SCHEDULE SHUT DOWN AND CONNECTION TO EXISTING WATER LINE WITH UTILITY OWNER. CONTRACTOR TO FIELD VERIFY EXISTING PIPE MATERIAL AND DEPTHS AT TIE-IN POINTS.
 - 2.IF NECESSARY, CONTRACTOR SHALL ROTATE BEND TO ACHIEVE HORIZONTAL AND VERTICAL ALIGNMENT.
 - 3.CONTRACTOR TO VERIFY PIPE SIZE PRIOR TO CONSTRUCTION AND PROVIDE FITTINGS AS NECESSARY TO TIE IN WATER LINE AT BOTH ENDS.
 - 4.CONTRACTOR TO COORDINATE LOCATION OF SERVICE LINE TO RELOCATE WATER METER.
 - 5.NEW WATER SERVICE TUBING TO BE TYPE "K" COPPER
 - 6.COORDINATE OPEN CUT INSTALLATION OF CASINGS ACROSS ROADWAYS WITH TRAFFIC CONTROL PLANS.

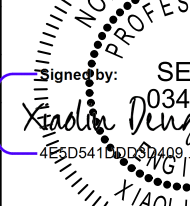
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SEE SHEET UC-6 FOR -WL1- PROFILE
SEE SHEET UC-7 FOR -WLC- PROFILE
SEE SHEET UC-7 FOR -WLB- PROFILE

THE ESTIMATED QUANTITY OF DUCTILE IRON WATER FITTINGS ON THIS PLAN SHEET IS 8415 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.



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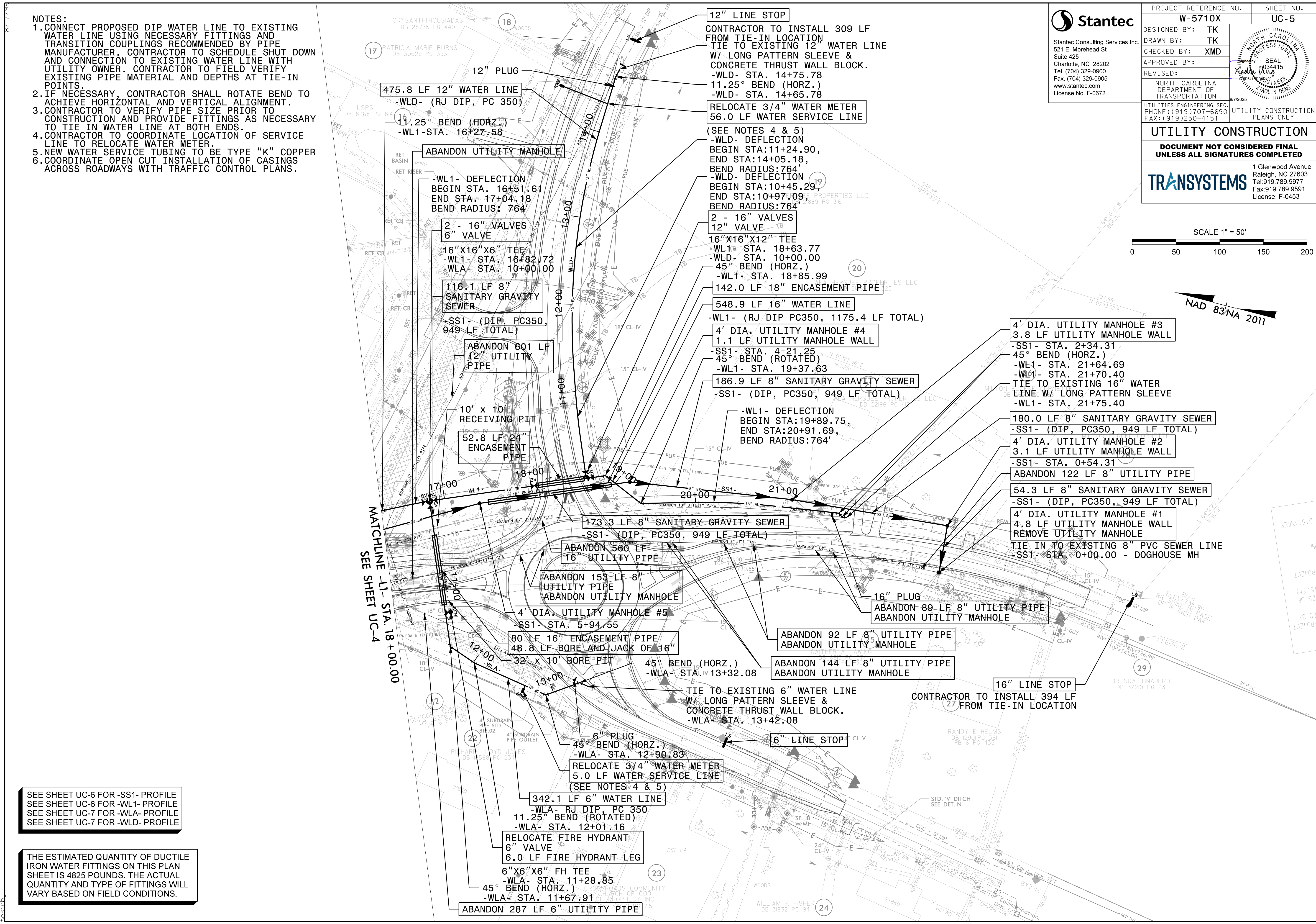
PROJECT REFERENCE NO.		SHEET NO.	
W-5710X		UC-4	
DESIGNED BY: TK			
DRAWN BY: TK			
CHECKED BY: XMD			
APPROVED BY:			
REVISED:			
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION		9/10/2025	
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- NOTES:
- 1.CONNECT PROPOSED DIP WATER LINE TO EXISTING WATER LINE USING NECESSARY FITTINGS AND TRANSITION COUPLINGS RECOMMENDED BY PIPE MANUFACTURER. CONTRACTOR TO SCHEDULE SHUT DOWN AND CONNECTION TO EXISTING WATER LINE WITH UTILITY OWNER. CONTRACTOR TO FIELD VERIFY EXISTING PIPE MATERIAL AND DEPTHS AT TIE-IN POINTS.
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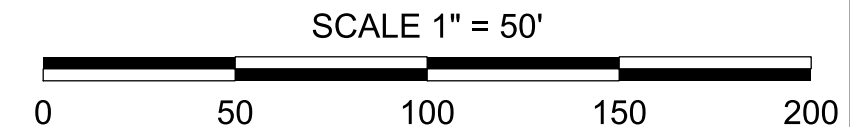
SEE SHEET UC-6 FOR -SS1- PROFILE
SEE SHEET UC-6 FOR -WL1- PROFILE
SEE SHEET UC-7 FOR -WLA- PROFILE
SEE SHEET UC-7 FOR -WLD- PROFILE

THE ESTIMATED QUANTITY OF DUCTILE IRON WATER FITTINGS ON THIS PLAN SHEET IS 4825 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.

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