

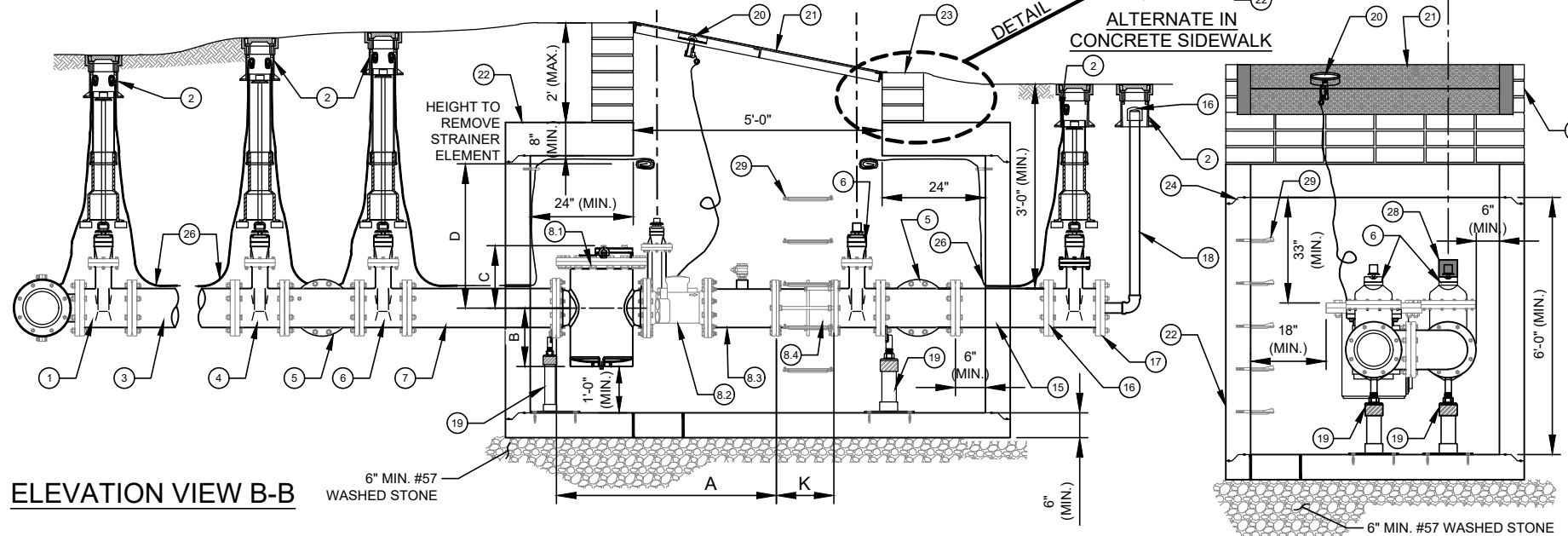
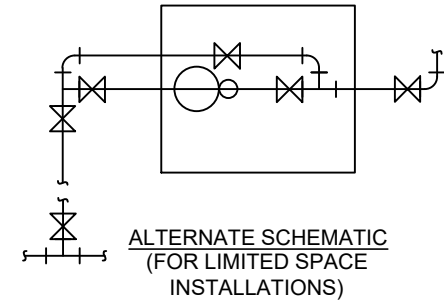
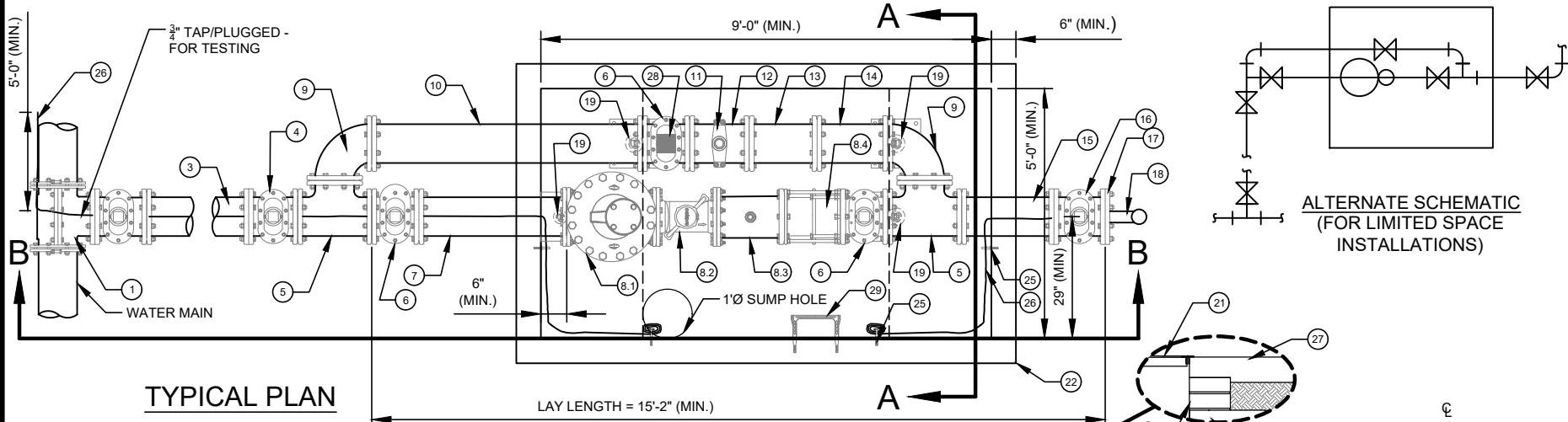
NOTES:

- A. ALL FLANGE HARDWARE (BOLT/WASHER/NUT) SHALL BE STAINLESS STEEL - TYPE 304 WITH ANTI-SEIZE COMPOUND.
- B. ALL PIPE SHALL BE RESTRAINED JOINT DUCTILE IRON FROM TAP TO PROPERTY LINE VALVE.
- C. METER CONFIGURATION AND LENGTH / WIDTH MAY VARY DUE TO BRAND - VERIFY DIMENSIONS TO DETERMINE MINIMUM VAULT SIZE.
- D. VAULT SHALL BE SIZED AS NEEDED FOR MINIMUM CLEARANCE AS SHOWN AND RATED FOR NCDOT HS-20 LOADING - SUBMIT SHOP DRAWINGS / P.E. SEALED FOR REVIEW.
- E. ALL CONCRETE SHALL BE MINIMUM 4,000 PSI COMPRESSIVE STRENGTH.
- F. DESIGN SHALL CONFORM TO ASTM C858 - SPECIFICATIONS FOR "UNDERGROUND PRECAST CONCRETE UTILITY STRUCTURE".

- G. STEEL REINFORCING DESIGN SHALL CONFORM TO ASTM C857.
- H. REBAR SHALL BE GRADE 60 PER ASTM A615.
- I. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185.
- J. DIAGONAL REINFORCING SHALL BE ADDED AT ALL OPENINGS.
- K. PIPE PENETRATIONS SHALL BE SEALED WITH FLEXIBLE CONNECTORS (MANHOLE BOOTS) OR WITH 8-INCHES OF BRICK & MORTAR (AND 1/2 INCH THICK CONSTRUCTION EXPANSION MATERIAL).
- L. FRAME TO BE FLUSH WITH GROUND OR CONCRETE SIDEWALK. GROUND SHALL SLOPE AWAY FROM VAULT.
- M. ALL JOINTS SHALL BE MADE WATERTIGHT USING 2 RINGS OF BUTYL RUBBER JOINT MASTIC.
- N. ALL VALVES SHALL BE OPEN RIGHT - CLOCKWISE, EXCEPT NO. 16.

NO. DESCRIPTION:

1. 8" OUTLET TAPPING SLEEVE AND 8" FL x MJ TAPPING VALVE ON EXISTING MAIN. 8" MECHANICAL JOINT OUTLET TEE, 8" FOSTER ADAPTOR AND 8" MJ GATE VALVE ON NEW MAIN.
2. STANDARD VALVE BOX ASSEMBLY (TYPICAL) - ALL VALVES.
3. 8" DUCTILE IRON PIPE - RESTRAINED.
4. 8" MJ x FL DUCTILE IRON ADAPTER ON SHORT SIDE SERVICE (NOT SHOWN), 8" MJ x FL GATE VALVE ON LONG SIDE SERVICE (SHOWN).
5. 8" ALL FLANGE DUCTILE IRON TEE.
6. 8" ALL FLANGE GATE VALVE.
7. 8" ALL FLANGE DUCTILE IRON PIPE SPOOL - L = 40" (MIN.) (SPECIAL CLASS 53).
8. 8" ULTRASONIC WATER METER ASSEMBLY (FLANGE x FLANGE).
- 8.1. BERMAID MODEL FP-60F-D FIRE RATED BASKET STRAINER (FL x FL). LL = 18.7 INCHES
- 8.2. MASTER METER 8-INCH OCTAVE ULTRASONIC WATER METER WITH ITRON W100 TRANSMITTER - LL = 20 INCHES.
- 8.3. 8" EPOXY COATED/LINED STEEL FLANGE x FLANGE SPOOL WITH 2" FNPT TEST OUTLET - LL = 12 INCHES (MARS CO.) AND 2" BALL CORPORATION STOP WITH T-HEAD OPERATING NUT - MNPT x FNPT.
- 8.4. ROMAC D J400 DISMANTLING JOINT - LL = 7.38 TO 9.38 INCHES, SET TO 9 INCHES OR SMITH-BLAIR MODEL 975 DISMANTLING JOINT (RESTRAINED) - LL = 8.0 TO 10.0 INCHES, SET TO 9 INCHES.
9. 8" DUCTILE IRON 90° BEND FLANGE x FLANGE.
10. 8" DUCTILE IRON PIPE - FLANGE x FLANGE SPOOL - L = 75.5" (MIN.) (SPECIAL CLASS 53).
11. 8" x 1 1/2" SERVICE SADDLE WITH 1 1/2" BALL CORPORATION STOP WITH T-HEAD OPERATING NUT - CC - TAPER THREAD x FNPT.
12. 8" DUCTILE IRON PIPE - FLANGE x PE - L = 24" (MIN.) (SPECIAL CLASS 53).
13. 8" MECHANICAL JOINT DUCTILE IRON LONG PATTERN SOLID SLEEVE WITH RESTRAINED JOINT.
14. 8" DUCTILE IRON PIPE - FLANGE x PE - L = 12" (MIN.) (SPECIAL CLASS 53).
15. 8" DUCTILE IRON PIPE - FLANGE x PE - L = 30" (MIN.) (SPECIAL CLASS 53).
16. 8" MECHANICAL JOINT (RJ) GATE VALVE - OPEN LEFT AT PROPERTY LINE.
17. 8" MECHANICAL JOINT PLUG WITH 2" TAP (FNPT).
18. 2" TEMPORARY BLOW OFF ASSEMBLY (GALV. STEEL (SCH 80) OR RED BRASS (SCH 40) - END WITH THREADED COUPLING).
19. GALV. STEEL OR S.S. ADJUSTABLE FLANGE PIPE SUPPORTS (NUMBER REQUIRED = 4) (WITH STAINLESS STEEL ADHESIVE ANCHORS).
20. AMR TRANSMITTER.
21. 5 FT x 5 FT ACCESS DOOR - SEE STD. DETAIL.
22. PRECAST REINFORCED CONCRETE VAULT - 9 FT x 5 FT x 6 FT (MIN.) (LxWxD). SEE NOTES C AND D.
23. MINIMUM OF THREE STD. SOLID CONCRETE BRICK COURSES (OR PRECAST RISER) UNDER ACCESS DOOR FRAME - MAX. 2 FT. JOINT REQUIRED AT FLAT TOP SECTION.
24. JOINT REQUIRED AT FLAT TOP SECTION.
25. 3/8" DIA. GALV. STEEL EYE BOLT (EPOXY ADHESIVE ANCHOR) - TYPICAL.
26. AWG #12 GAUGE SOLID COPPER TRACER WIRE - WITH BLUE INSULATION (30 MILS H.D.P.E.) TERMINATE WITH 24" EXCESS WIRE (COILED) AT EYE BOLT AND VALVE BOX (TYPICAL).
27. CAST IN PLACE CONCRETE SIDEWALK - BRICKWORK SHALL NOT EXTEND TO SURFACE. ACCESS DOOR FRAME SHALL REST ON SIDEWALK.
28. VALVE LOCK (FURNISHED BY CLTW) - LOCK VALVE CLOSED.
29. PLASTIC STEP - 12" O.C. VERTICAL SPACING.



ELEVATION VIEW B-B

SECTION VIEW A-A

METER SIZE	A	B	C	D	K
8"	50.7"	14.8"	12.2"	44.2"	SMITH-BLAIR = 9" ROMAC = 9"

CHARLOTTE WATER
 A CITY OF CHARLOTTE DEPARTMENT
 STANDARD DETAILS
WATER

8-INCH ULTRASONIC WATER METER (COMBINED FIRE AND DOMESTIC) SERVICE AND PRECAST CONCRETE VAULT

NO SCALE
 VERSION 1.0
 DATE 8/2021
 DETAIL GGG