

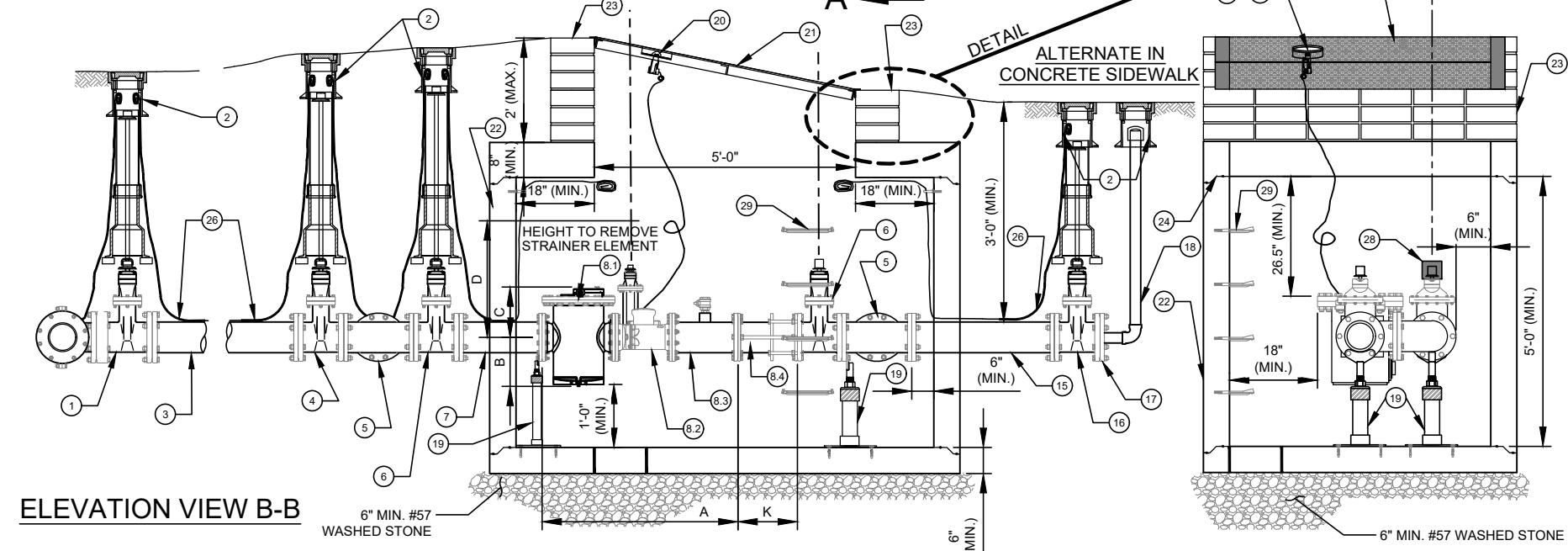
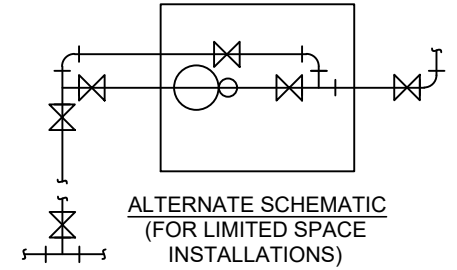
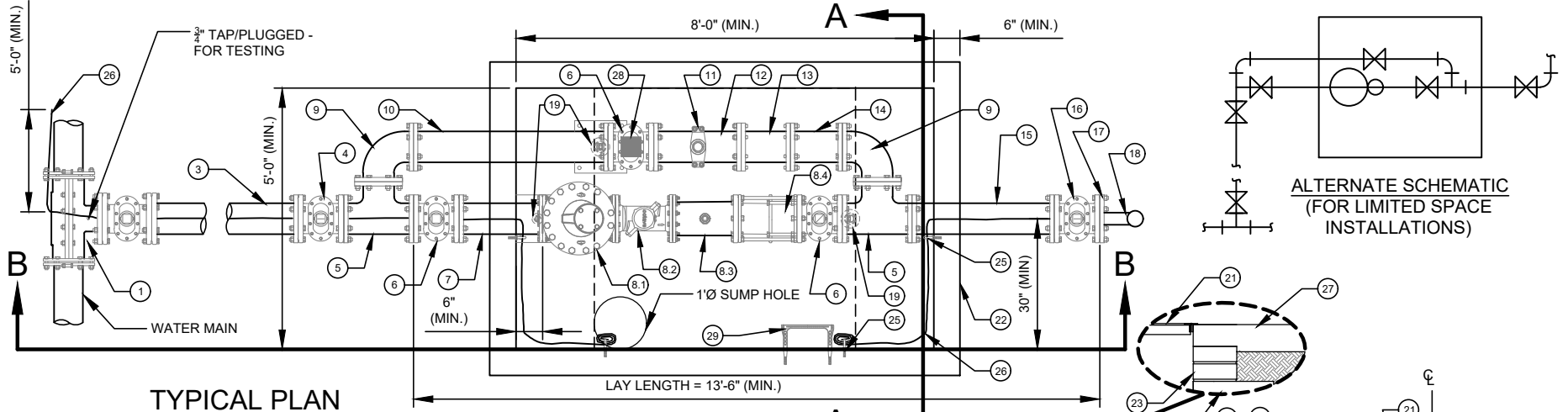
NOTES:

- 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. 6" TAPPING SLEEVE AND 6" FL x MJ TAPPING VALVE ON EXISTING MAIN. 6" MECHANICAL JOINT OUTLET TEE, 6" FOSTER ADAPTOR, (OR SWIVEL TEE) AND 6" MJ GATE VALVE ON NEW MAIN.
2. STANDARD VALVE BOX ASSEMBLY (TYPICAL) - ALL VALVES.
3. 6" DUCTILE IRON PIPE - RESTRAINED.
4. 6" MJ x FL DUCTILE IRON ADAPTER ON SHORT SIDE SERVICE (NOT SHOWN), 6" MJ x FL GATE VALVE ON LONG SIDE SERVICE (SHOWN).
5. 6" ALL FLANGE DUCTILE IRON TEE.
6. 6" ALL FLANGE GATE VALVE.
7. 6" ALL FLANGE DUCTILE IRON PIPE SPOOL - L = 30" (MIN.) (SPECIAL CLASS 53).
8. 6" ULTRASONIC WATER METER ASSEMBLY (FLANGE x FLANGE).
- 8.1. BERMAID MODEL FP-60F-D FIRE RATED BASKET STRAINER (FL x FL). LL = 14.9 INCHES
- 8.2. MASTER METER 6-INCH OCTAVE ULTRASONIC WATER METER WITH ITRON W100 TRANSMITTER - LL = 18 INCHES.
- 8.3. 6" 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. 6" DUCTILE IRON 90° BEND FLANGE x FLANGE.
10. 6" DUCTILE IRON PIPE - FLANGE x FLANGE SPOOL - L = 58.5" (MIN.) (SPECIAL CLASS 53).
11. 6" x 1 1/2" SERVICE SADDLE WITH 1 1/2" BALL CORPORATION STOP WITH T-HEAD OPERATING NUT - CC - TAPER THREAD x FNPT.
12. 6" DUCTILE IRON PIPE - FLANGE x PE - L = 24" (MIN.) (SPECIAL CLASS 53).
13. 6" MECHANICAL JOINT DUCTILE IRON LONG PATTERN SOLID SLEEVE WITH RESTRAINED JOINT.
14. 6" DUCTILE IRON PIPE - FLANGE x PE - L = 12" (MIN.) (SPECIAL CLASS 53).
15. 6" DUCTILE IRON PIPE - FLANGE x PE - L = 30" (MIN.) (SPECIAL CLASS 53).
16. 6" MECHANICAL JOINT (RJ) GATE VALVE - OPEN LEFT AT PROPERTY LINE.
17. 6" 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). GALV. STEEL OR S.S. ADJUSTABLE FLANGE PIPE SUPPORTS (NUMBER REQUIRED = 3) (WITH STAINLESS STEEL ADHESIVE ANCHORS).
19. AMR TRANSMITTER.
20. 5 FT x 5 FT ACCESS DOOR - SEE STD. DETAIL.
21. PRECAST REINFORCED CONCRETE VAULT - 8 FT x 5 FT x 5 FT (MIN.) (LxWxD). SEE NOTES C AND D.
22. MINIMUM OF THREE STD. SOLID CONCRETE BRICK COURSES (OR PRECAST RISER) UNDER ACCESS DOOR FRAME - MAX. 2 FT. JOINT REQUIRED AT FLAT TOP SECTION.
23. 3/8" DIA. GALV. STEEL EYE BOLT (EPOXY ADHESIVE ANCHOR) - TYPICAL.
24. 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).
25. CAST IN PLACE CONCRETE SIDEWALK - BRICKWORK SHALL NOT EXTEND TO SURFACE. ACCESS DOOR FRAME SHALL REST ON SIDEWALK.
26. VALVE LOCK (FURNISHED BY CLTW) - LOCK VALVE CLOSED.
27. PLASTIC STEP - 12" O.C. VERTICAL SPACING.



METER SIZE	A	B	C	D	K
6"	44.9"	10.7"	10.8"	37.3"	SMITH-BLAIR = 9" ROMAC = 9"

CHARLOTTE WATER
 A CITY OF CHARLOTTE DEPARTMENT
 STANDARD DETAILS
WATER

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

NO SCALE
 VERSION 1.0
 DATE 8/2021
 DETAIL FFF