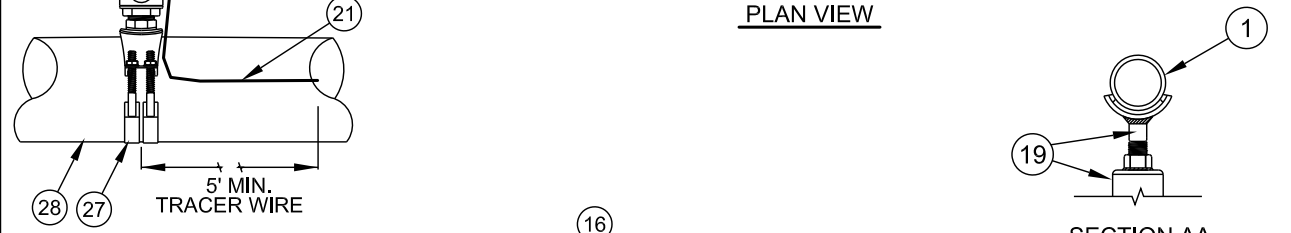
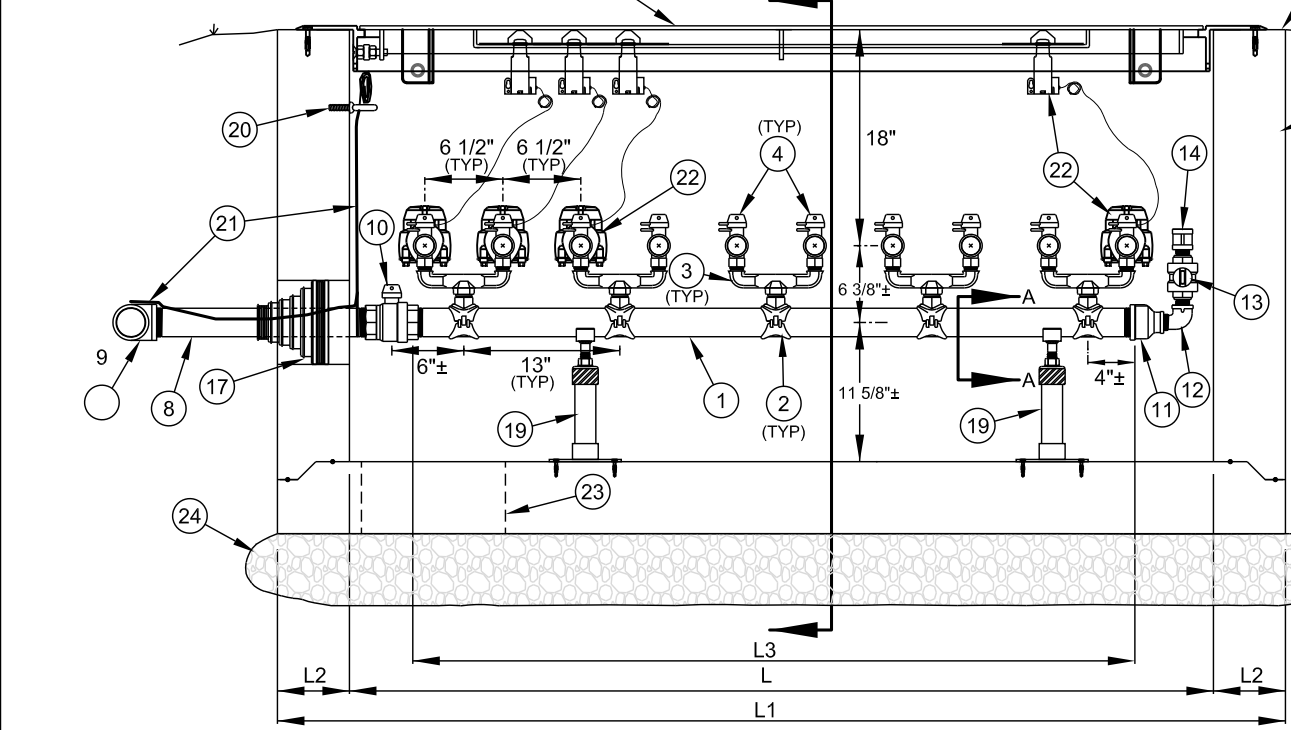


PLAN VIEW



SECTION AA



ELEVATION VIEW

**NO. ALTERNATE DESCRIPTION**

WHEN USING SDR9 HDPE (IPS) WITH STAINLESS STEEL, BRASS, OR BRONZE MNPT ENDS, USE THE FOLLOWING PRODUCTS:

9 2" - 90° BRASS BEND - FNPT x FNPT  
 25 2" SDR9 HDPE (POLY) IPS PIPE (MNPT x MPNT) - LENGTH AS REQUIRED  
 26 FOR EXISTING MAINS - 2" BALL CORPORATION STOP - CC (TAPER THREAD) x FNPT (w/ STD. VALVE BOX ASSEMBLY, OR; FOR NEW MAINS - MJ TEE, MJ PLUG - TAP - 2", 2" x 6" SCH 40 RED BRASS NIPPLE, 2" GATE VALVE (FNPT) (WITH STANDARD VALVE BOX ASSEMBLY)

**NOTES:**

A. ACCESS DOOR SHALL BE ANCHORED TO VAULT OR SIDEWALK PER ACCESS DOOR STANDARD DETAIL.  
 B. ACCESS DOOR SHALL BE FLUSH WITH GROUND OR SIDEWALK, AND GROUND SHALL SLOPE AWAY FROM VAULT.  
 C. SEE MULTIPLE WATER SERVICES - SCHEMATIC STANDARD DETAIL FOR ADDITIONAL LAYOUT REQUIREMENTS AND OPTIONS.

**NO. DESCRIPTION**

1 2" SCH. 40 RED BRASS PIPE MNPT (LENGTH=L3)  
 2 2" x 1" BRASS SERVICE SADDLE - FNPT OUTLET  
 3 1" x 3/4" x 3/4" BRASS U-BRANCH - MNPT  
 4 5/8" X 3/4" ANGLE BALL VALVE WITH LOCK WINGS - FNPT x YOKE STAR NUT  
 5 5/8" DUCTILE IRON METER YOKE BAR  
 6 5/8" STRAIGHT CONNECTOR (YOKE STAR NUT x CTS COMPRESSION)  
 7 3/4" TYPE K COPPER (L = 18")  
 8 2" SCH. 40 RED BRASS PIPE MNPT (L=24")  
 9 2" - 90° BRASS BEND - FNPT x CTS COMPRESSION  
 10 2" BALL VALVE CURB STOP - FNPT x FNPT  
 11 2" x 1" BRASS REDUCER - FNPT x FNPT  
 12 1" BRASS 90° STREET ELBOW - MNPT x FNPT  
 13 1" BALL VALVE CURB STOP - MNPT x MNPT WITH LOCK WINGS (LOCK CLOSED WITH LOCK FURNISHED BY CMUD)  
 14 1" RED BRASS THREADED COUPLING - FNPT x FNPT  
 15 PRECAST CONCRETE METER VAULT - SEE CHART FOR SIZE  
 16 MANIFOLD ALUMINUM ACCESS DOOR - SEE DETAIL  
 17 2" FLEXIBLE PIPE CONNECTOR BOOT (DO NOT MORTAR)  
 18 1 1/2"Ø - SCH 40 PVC SLEEVE (WITH RUBBER ISOLATION BUSHING AT EACH FACE OF VAULT WALL)  
 19 GALV. STEEL OR S.S. ADJUSTABLE SADDLE PIPE SUPPORT (NUMBER REQ'D = N1) WITH 1/4"± THICK NEOPRENE LINER (WITH STAINLESS STEEL ADHESIVE ANCHORS)  
 20 3/8" DIA. STAINLESS STEEL EYE BOLT (ADHESIVE ANCHOR)  
 21 AWG #12 GAUGE COPPER TRACER WIRE - WITH BLUE INSULATION (30 MILS HDPE) - TERMINATE WITH 24" EXCESS WIRE (COILED) @ EYE BOLT AND VALVE BOX (TYPICAL).  
 22 5/8" WATER METER WITH AMR ERT TRANSMITTER (FURNISHED BY CMUD)  
 23 12" DIAMETER SUMP HOLE  
 24 6" #57 OR #67 WASHED STONE  
 25 2" TYPE K COPPER  
 26 FOR EXISTING MAINS - 2" BALL CORPORATION STOP - WITH T-HEAD NUT - CC (TAPER TREAD) x CTS COMPRESSION (WITH STANDARD VALVE BOX ASSEMBLY), OR; FOR NEW MAINS - MJ TEE, MJ PLUG - TAP - 2", 2" x 6" SCH 40 RED BRASS NIPPLE, 2" GATE VALVE (FNPT) (WITH STANDARD VALVE BOX ASSEMBLY), BRASS STRAIGHT CONNECTOR (MNPT x CTS COMPRESSION) MUELLER #H-15428, FORD #C84-77GJ, McDONALD #24753T  
 27 SERVICE SADDLE - CC (TAPER THREAD) OUTLET  
 28 6" OR LARGER WATER MAIN  
 29 PRECAST CONC. RISER OR BRICKWORK MAY BE REQUIRED FOR GRADE ADJUSTMENTS

**DESIGN REQUIREMENTS**

A. VAULT SHALL BE RATED FOR NCDOT HS-20 LOADING - SUBMIT SHOP DRAWING / CALCULATIONS / P.E. SEALED FOR REVIEW.  
 B. ALL CONCRETE SHALL BE MINIMUM 4000 PSI COMPRESSIVE STRENGTH.  
 C. DESIGN SHALL CONFORM TO ASTM C858 - SPECIFICATIONS FOR "UNDERGROUND PRECAST CONCRETE UTILITY STRUCTURE"  
 D. STEEL REINFORCING DESIGN SHALL CONFORM TO ASTM C857  
 E. REBARS SHALL BE GRADE 60 PER ASTM A615  
 F. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185  
 G. PIPE PENETRATIONS SHALL BE ISOLATED FROM PIPE WITH FLEXIBLE CONNECTERS (MANHOLE BOOTS) OR WITH RUBBER ISOLATION BUSHINGS

DIMENSIONS ( INCHES )

VAULT (INSIDE)			VAULT (OVERALL-MIN.)			WALL THICKNESS (MIN.)	FLOOR THICKNESS (MIN.)	NUMBER OF METERS (MAX.)	L3 2" RED BRASS PIPE LENGTH (1)	N1 REQ'D NO. OF PIPE SUPPORTS (19)		
L	W	H	L1	W1	H1	W2 / L2	H2				L4	L5
72	36	36	84	48	42	6	6	10	60	2	6.5	7
60	36	36	72	48	42	6	6	8	48	2	7	7.5
48	36	36	60	48	42	6	6	6	36	2	7.5	8
36	36	36	44	44	40	4	4	4	24	1	8	8.5

NO SCALE

STANDARD NO.	S
VERSION DATE	07.18.2019
VERSION NO.	1.1

3/4-INCH MANIFOLD WATER METER ASSEMBLY AND PRECAST CONCRETE VAULT

CHARLOTTE WATER STANDARD DETAILS WATER

CHARLOTTE WATER