

NOTES:

- A. ALL FLANGE HARDWARE (BOLT/WASHER/NUT) SHALL BE STAINLESS STEEL - TYPE 304 WITH ANTI-SEIZE COMPOUND.
- B. ALL PIPE SHALL BE RESTRAINED FROM TAP TO PROPERTY LINE VALVE.
- C. VAULT SHALL BE RATED FOR NCDOT HS-20 LOADING - SUBMIT SHOP DRAWINGS / P.E. SEALED FOR REVIEW.
- D. ALL CONCRETE SHALL BE MINIMUM 4000 PSI COMPRESSIVE STRENGTH.
- E. DESIGN SHALL CONFORM TO ASTM C858 - SPECIFICATIONS FOR "UNDERGROUND PRECAST CONCRETE UTILITY STRUCTURE"
- F. STEEL REINFORCING DESIGN SHALL CONFORM TO ASTM C857
- G. REBARS SHALL BE GRADE 60 PER ASTM A615
- H. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185
- I. DIAGONAL REINFORCING SHALL BE ADDED AT ALL OPENINGS
- J. PIPE PENETRATIONS SHALL BE SEALED WITH FLEXIBLE CONNECTERS (MANHOLE BOOTS) OR WITH 4-INCHES OF BRICK & MORTAR (AND 1/2 INCH THICK CONSTRUCTION EXPANSION MATERIAL)

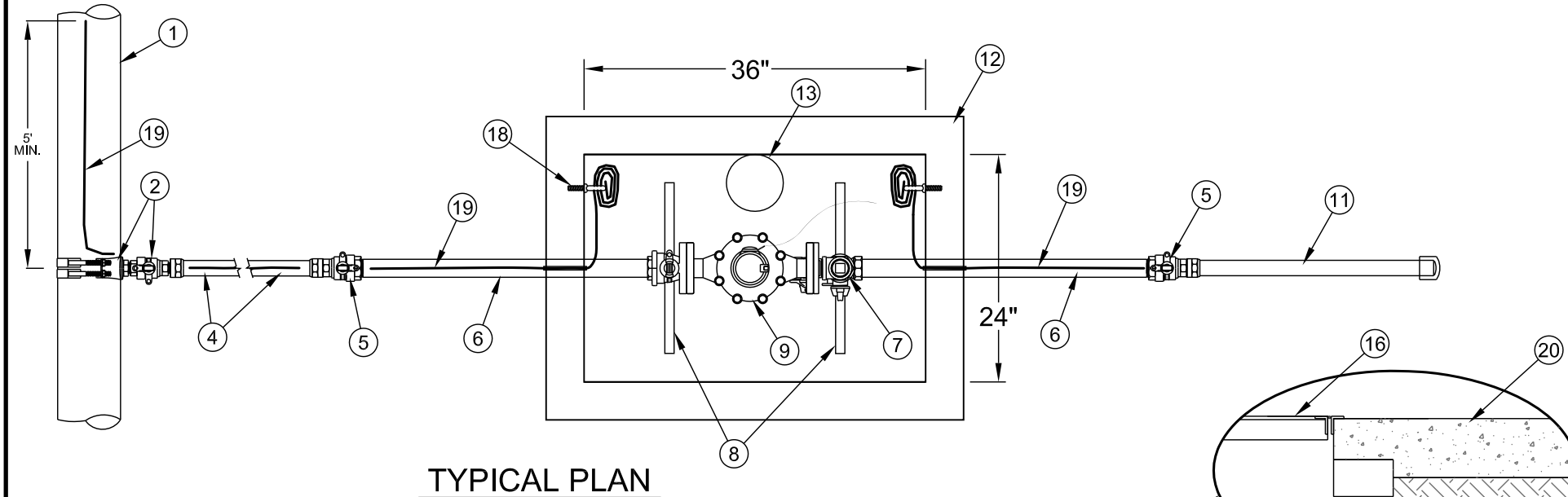
- K. FRAME TO BE FLUSH WITH GROUND OR CONCRETE SIDEWALK, GROUND SHALL SLOPE AWAY FROM VAULT.
- L. ALL JOINTS SHALL BE MADE WATERTIGHT USING 2 RINGS OF BUTYL RUBBER JOINT MASTIC.

NO. ALTERNATE DESCRIPTION

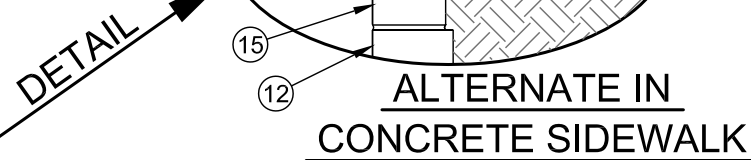
- WHEN USING SDR9 HDPE (IPS) WITH STAINLESS STEEL, BRASS, OR BRONZE MNPT ENDS, USE THE FOLLOWING PRODUCTS:
- 2 1 1/2" BALL CORPORATION STOP (CC TAPER THREAD x FNPT)
 - 4 1 1/2" SDR9 HDPE (POLY) - IPS PIPE (MNPT x MNPT)
 - 5 1 1/2" BALL VALVE (FNPT x FNPT)
 - 11 1 1/2" SDR9 HDPE (POLY) - IPS PIPE (MNPT x MNPT) - CAP END

NO. DESCRIPTION

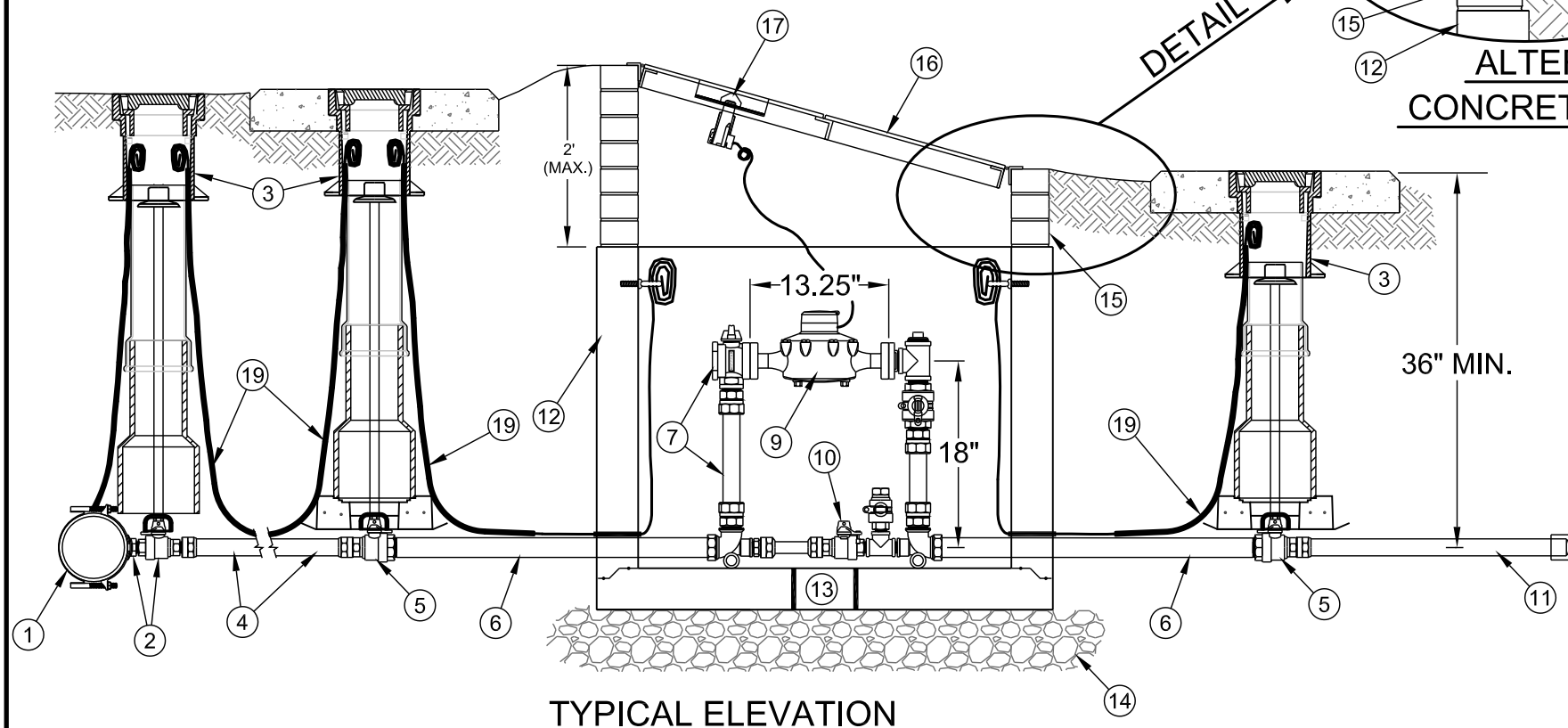
- 1 EXISTING OR PROPOSED WATER MAIN
- 2 TAPPING SADDLE AND 1 1/2" BALL CORPORATION STOP (CC TAPER THREAD x CTS COMPRESSION)
- 3 STANDARD VALVE BOX ASSEMBLY (TYP) - ALL VALVES (OMIT AT CORPORATION STOP ON SHORT SIDE SERVICE)
- 4 1 1/2" TYPE K COPPER TUBING
- 5 1 1/2" BALL VALVE (CTS COMPRESSION x FNPT)
- 6 1 1/2" RED BRASS PIPE NIPPLE (L = 30" OR 36")
- 7 1 1/2" BRASS METER SETTER ASSEMBLY - FORD #VB-76-95311-05, MUELLER #098B 242343, CAMBRIDGE #6020-718F6F6-UUBS OR MCDONALD #720B618WTF, NO SOLDER JOINTS PERMITTED
- 8 3/4" SCH 40 RED BRASS NIPPLE (L=18") x 2 EACH
- 9 1 1/2" WATER METER ASSEMBLY WITH AMR ERT TRANSMITTER (BY CONTRACTOR)
- 10 BY PASS BALL VALVE WITH LOCK WINGS - LOCK VALVE IN CLOSED POSITION (SERIAL NUMBERED STUD LOCK - FURNISHED BY CMUD)
- 11 1 1/2" TYPE K COPPER TUBING TAIL PIECE - L = 24" MIN. - CAP END
- 12 PRECAST CONCRETE SERVICE VAULT (36" x 24" x 31")
- 13 6" DIAMETER SUMP HOLE
- 14 6" COMPACTED #57 OR #67 WASHED STONE
- 15 MINIMUM OF (3) STANDARD SOLID CONCRETE BRICK COURSES UNDER ACCESS DOOR FRAME, MAXIMUM 2 FT.
- 16 24" x 36" ACCESS DOOR - SEE STANDARD DETAIL
- 17 AMR (ERT) TRANSMITTER
- 18 3/8" DIAMETER GALV. STEEL EYE BOLT (ADHESIVE ANCHOR) - TYPICAL
- 19 AWG #12 GAUGE COPPER TRACER WIRE (THWN) - WITH BLUE INSULATION TERMINATE WITH 24" EXCESS WIRE (COILED) AT EYE BOLT AND VALVE BOX (TYP)
- 20 CAST IN PLACE CONCRETE SIDEWALK - BRICK WORK SHALL NOT EXTEND TO SURFACE, ACCESS DOOR SHALL REST ON SIDEWALK



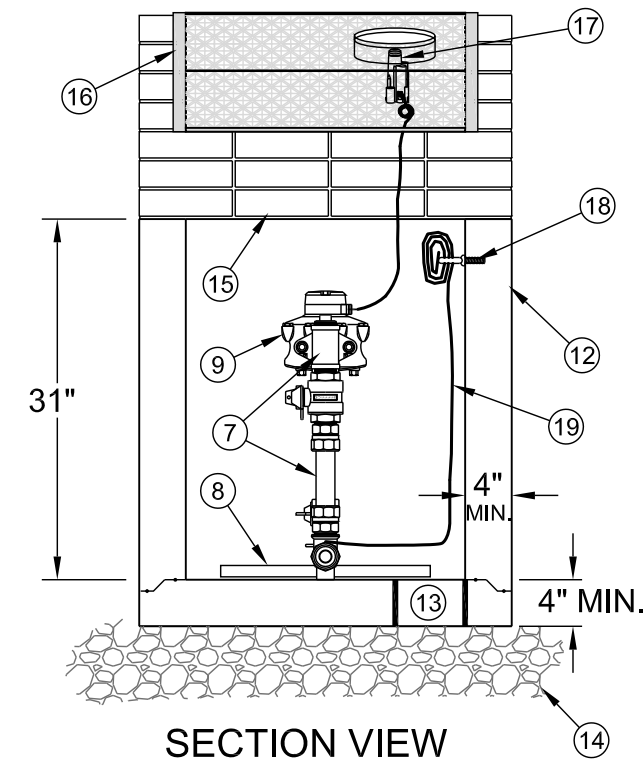
TYPICAL PLAN



ALTERNATE IN CONCRETE SIDEWALK



TYPICAL ELEVATION



SECTION VIEW

NO SCALE

STANDARD NO. M

VERSION NO. 1.0
VERSION DATE 5.05.2011

1 1/2 INCH WATER METER SERVICE CONNECTION AND VAULT

CHARLOTTE-MECKLENBURG UTILITIES
STANDARD DETAILS
WATER

