

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.

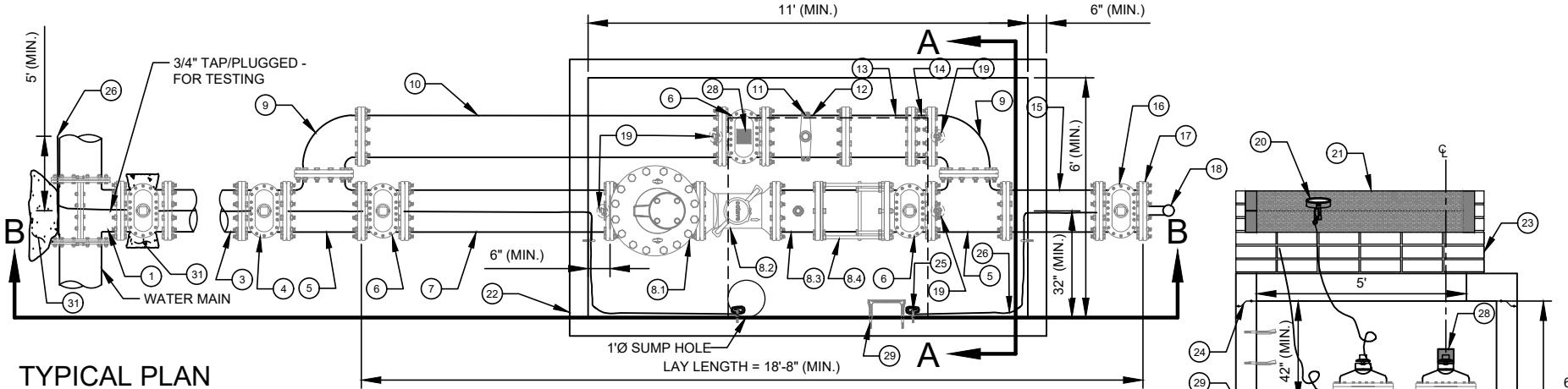
K. PIPE PENETRATIONS SHALL BE SEALED WITH FLEXIBLE CONNECTORS (MANHOLE BOOTS) OR WITH 8" OF BRICK & MORTAR (AND 1/2-INCH THICK CONSTRUCTION EXPANSION MATERIAL).

L. FRAME TO BE FLUSH WITH GROUND OR CONCRETE SIDEWALK, GROUND SHALL SLOPE AWAY FROM VAULT.

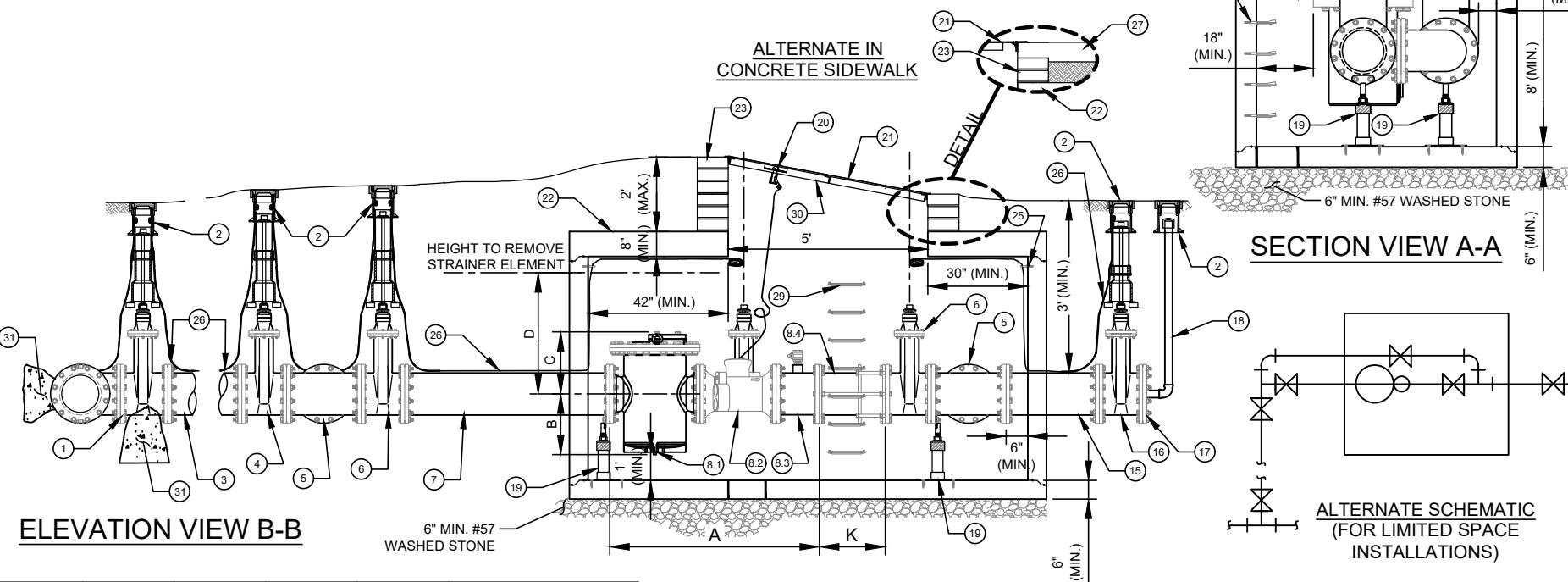
M. ALL JOINTS SHALL BE MADE WATERTIGHT USING 2 RINGS OF BUTYL RUBBER JOINT MASTIC.

N. ALL VALVES SHALL BE OPEN RIGHT - CLOCKWISE, EXCEPT NO. 16.

O. PRECAST VAULT COMPONENTS SHALL HAVE MARKINGS PER ASTM C478 REQUIREMENTS.



TYPICAL PLAN



ELEVATION VIEW B-B

METER SIZE	A	B	C	D	K
12"	58.55"	19.6"	18.1"	60.8"	SMITH-BLAIR = 10" ROMAC = 10.5"

NO. DESCRIPTION:

- 12" OUTLET TAPPING SLEEVE AND 12" FL X MJ TAPPING VALVE ON EXISTING MAIN. 12" MJ OUTLET TEE, 12" FOSTER ADAPTOR, AND 10" MJ GATE VALVE ON NEW MAIN.
- STANDARD VALVE BOX ASSEMBLY (TYPICAL) - ALL VALVES.
- 12" DUCTILE IRON PIPE - RESTRAINED.
- 12" MJ X FL DUCTILE IRON ADAPTER ON SHORT SIDE SERVICE (NOT SHOWN), 12" MJ X FL GATE VALVE ON LONG SIDE SERVICE (SHOWN).
- 12" ALL FLANGE DUCTILE IRON TEE.
- 12" ALL FLANGE GATE VALVE.
- 12" ALL FLANGE DUCTILE IRON PIPE SPOOL - L = 60" (MIN.) (SPECIAL CLASS 53).
- 12" ULTRASONIC WATER METER ASSEMBLY (FLANGE X FLANGE) BERMAD MODEL FP-60F-D FIRE RATED BASKET STRAINER (FL X FL). LL = 26.8"
- 12-INCH MASTER METER OCTAVE OR NEPTUNE MACH 10 WITH ITRON W100 TRANSMITTER - LL = 19.75".
- 12" EPOXY COATED/LINED STEEL FL X FL SPOOL WITH 2" FNPT TEST OUTLET - LL = 12" (MARS CO.) AND 2" BALL CORPORATION STOP WITH T-HEAD OPERATING NUT - MNPT X FNPT.
- ROMAC D J400 Dismantling Joint - LL = 9.5" TO 11.5", SET TO 10.5" OR SMITH-BLAIR MODEL 975 Dismantling Joint (RESTRAINED) - LL = 9" TO 11", SET TO 10". ALL HARDWARE BOLTS, NUTS AND TIE RODS SHALL BE 304 S.S.
- 12" DUCTILE IRON 90° BEND FLANGE X FLANGE.
- 12" DUCTILE IRON PIPE - FLANGE X FLANGE SPOOL - L = 107" (MIN.) (SPECIAL CLASS 53).
- 12" X 1 1/2" SERVICE SADDLE WITH 1 1/2" BALL CORPORATION STOP WITH T-HEAD OPERATING NUT - CC - TAPER THREAD X FNPT.
- 12" DUCTILE IRON PIPE - FLANGE X PE - L = 24" (MIN.) (SPECIAL CLASS 53).
- 12" MECHANICAL JOINT DUCTILE IRON LONG PATTERN SOLID SLEEVE WITH RESTRAINED JOINT.
- 12" DUCTILE IRON PIPE - FLANGE X PE - L = 12" (MIN.) (SPECIAL CLASS 53).
- 12" DUCTILE IRON PIPE - FLANGE X PE - L = 30" (MIN.) (SPECIAL CLASS 53).
- 12" MECHANICAL JOINT (RJ) GATE VALVE - OPEN LEFT AT PROPERTY LINE.
- 12" MECHANICAL JOINT PLUG WITH 2" TAP (FNPT).
- 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 SUPPORT (NUMBER REQUIRED = 4) (WITH STAINLESS STEEL ADHESIVE ANCHORS).
- AMR TRANSMITTER.
- 5' X 5' ACCESS DOOR - SEE STD. DETAIL.
- PRECAST REINFORCED CONCRETE VAULT - 11' X 6' X 8' (MIN.) (L X W X D). SEE NOTES C AND D.
- MINIMUM OF THREE STD. SOLID CONCRETE BRICK COURSES (OR PRECAST RISER) UNDER ACCESS DOOR FRAME - MAX. 2'.
- JOINT REQUIRED AT FLAT TOP SECTION.
- 3/8" DIA. GALV. STEEL EYE BOLT (EPOXY ADHESIVE ANCHOR) - TYPICAL.
- AWG #12 GAUGE SOLID COPPER TRACER WIRE - WITH BLUE INSULATION (30 MILS HDPE) TERMINATE WITH 24" EXCESS WIRE (COILED) AT EYE BOLT AND VALVE BOX (TYP.).
- CAST IN PLACE CONCRETE SIDEWALK - BRICKWORK SHALL NOT EXTEND TO SURFACE. ACCESS DOOR FRAME SHALL REST ON SIDEWALK.
- VALVE LOCK (FURNISHED BY CLTW) - LOCK VALVE CLOSED.
- PLASTIC STEP - 12" O.C. VERTICAL SPACING.
- ATTACH ENGRAVED LABEL, WITH PREMISE NUMBER, TO UNDERSIDE OF DOOR, NEAR THE LIFTING HANDLE.
- CONCRETE THRUST BLOCKING - 3,600 PSI.