

# MATERIAL LIST

## ○ INSIDE VAULT

NO.	QTY.	DESCRIPTION
1	1	JENSEN PRECAST 4686 TMWA INCIDENTAL TRAFFIC LOAD VAULT WITH 12" x 12" SUMP. EXTERIOR VAULT WALLS, BASE, AND SLAB COVER SHALL BE FACTORY WATER SEALED WITH SONNEORN HLM5000T BY JENSEN PRECAST.
1	1	4878/557 GALVANIZED COVER WITH PADLOCK HASP, 48" x 78" TORSION SPRING ASSISTED WITH INCIDENTAL TRAFFIC RATING
1	1	12"W x 66"± REMOVABLE STEEL LADDER WITH LADDER-UP DEVICE, ANCHOR/PIN LADDER TO VAULT FLOOR. TO BE SUPPLIED BY JENSEN PRECAST. FIELD VERIFY LENGTH.
1	1	13" x 13" POLYLOK® GRATE PROVIDED AND INSTALLED BY JENSEN PRECAST
2A	1	COMPOUND SERIES METER, BADGER METER CAST BRONZE (8B1-NS), 4" (DN 100 MM), NSF-61, 4" ANSI B16.1 125 FLANGES, (RET) RECORDALL ELECTRONIC TRANSMITTER (NOTE 6)
2B	1	TURBO 1000 METER WITH INTEGRAL STRAINER, BADGER METER CAST BRONZE (8B1-NS), 4" (DN 100 MM), NSF-61, 4" ANSI B16.1 125 FLANGES, W/ (RET) RECORDALL ELECTRONIC TRANSMITTER (NOTE 6)
3	1	FOR COMPOUND METER ONLY - PLATE STRAINER, BADGER METER 4" DUAL FLANGE PLATE STRAINER, CAST BRONZE (8B1-NS), NSF/ANSI STANDARD 61, 4" ANSI B16.1 125 FLANGES
4	2	4" FLG X 2" NPT, DOUBLE STRAP SERVICE SADDLE, ROMAC 202NS NYLON COATED W/ FACTORY FUSION EPOXY COATING, AWWA C-509 W/ NRS
5	2	4" DI PIPE X 2" NPT, DOUBLE STRAP SERVICE SADDLE, ROMAC 202NS NYLON COATED W/ FACTORY FUSION EPOXY COATING, AWWA C-509 W/ NRS
6	1	4" FLANGE COUPLING ADAPTER, ROMAC INDUSTRIES FUSION EPOXY STYLE "FGA501"
7	1	4" SPOOL DUCTILE IRON PIPE, FLG X PE (22" OR 28" IN LENGTH, SEE PLAN NOTE 6)
8	1	4" SPOOL DUCTILE IRON PIPE, FLG X FLG (10" IN LENGTH)
9	2	4" FLG X PE DI PIPE - FACTORY CEMENT-MORTAR LINED INTERIOR W/ ASPHALTIC COATING ON EXTERIOR, (38± IN LENGTH)
10	2	BALL VALVE, BRASS, 2" NPT X NPT, FULL PORT, 600 PSI WOG W/ LOCKABLE S.S. HANDLE NORMALLY CLOSED POSITION (NIBCO T-FP-600N)
11	4	2" NIPPLE, NPT X NPT BRONZE (4± IN LENGTH)
12	2	2" DIELECTRIC UNION, NPT X SOLDER JOINT (WATTS SERIES 3001A)
13	1	2" NIPPLE TYPE K (HARD) COPPER, SOLDER JOINT X SOLDER JOINT (4± LONG)
14	1	2" X 2" X 3/4" COPPER TEE, SOLDER JOINT X SOLDER JOINT X SOLDER JOINT
15	1	3/4" FITTING ADAPTER, SOLDER JOINT X FEMALE NPT
16	1	3/4" BRASS QUARTER-TURN HOSE BIB (NIBCO C-26)
17	1	2" TYPE K (HARD) COPPER, SOLDER JOINT X SOLDER JOINT (LENGTH AS REQUIRED)
18	1	2" TYPE K (HARD) COPPER, SOLDER JOINT X SOLDER JOINT (LENGTH AS REQUIRED)
19	2	2" 90° COPPER LONG RADIUS ELBOW, SOLDER JOINT X SOLDER JOINT
20	1	2" TYPE K (HARD) COPPER, SOLDER JOINT X SOLDER JOINT (7'-2"±)
21	3	1-5/8" ROLLED CHANNEL BRACKET W/ 2" CUSHION CLAMP (UNISTRUT NO. P2945 & 038N044), ATTACH TO WALL WITH (2) 1/2" EXPANSION ANCHOR BOLTS
22	2	2" ADJUSTABLE PIPE SUPPORT (REF. TMWA STANDARD DETAIL 10L-5)
23	2	CALPICO CSL-40-SS ASSEMBLY OF EPDM RUBBER (TOTAL OF 5 LINKS) W/ S.S. BOLTS AND COMPRESSION PLATES FOR 4" DUCTILE IRON PIPE THROUGH AN 8" VAULT BORE HOLE

## ○ OUTSIDE VAULT

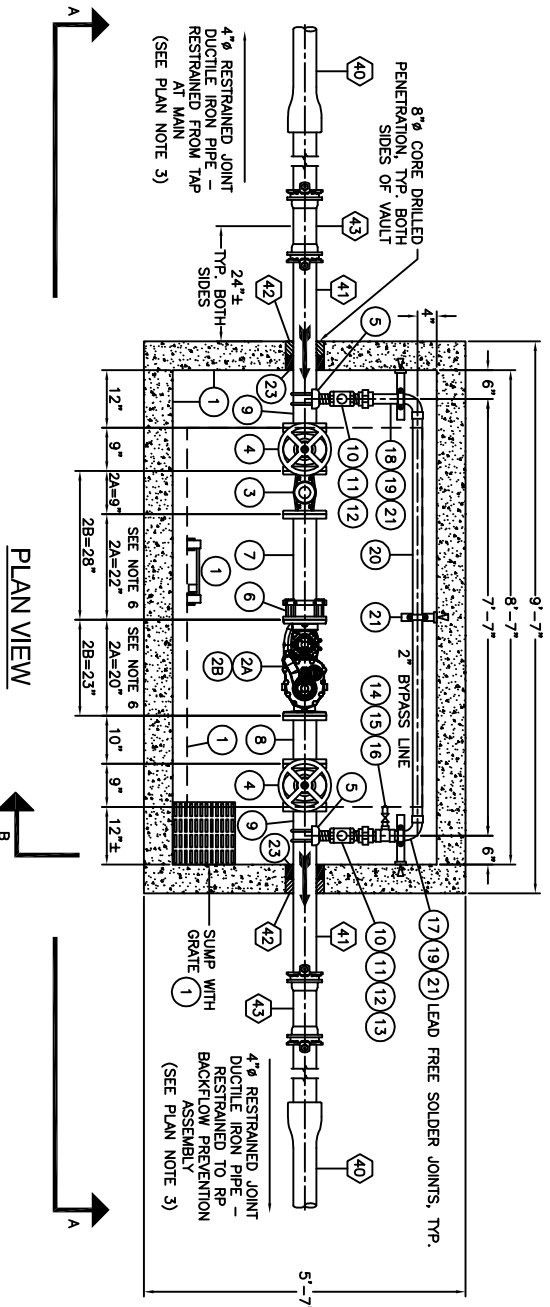
NO.	QTY.	DESCRIPTION
40	REF.	4" RESTRAINED JOINT DUCTILE IRON PIPE, BELL WITH FIELD LOK 350 GASKET, ANSI/AWWA C111/A21.11 (U.S. PIPE) - (SEE MATERIAL NOTE A AND PLAN NOTE 3).
41	2	4" DUCTILE IRON PIPE - SEE NUMBER 9 INSIDE VAULT
42	2	NON-SHRINKING GROUT - FILL ANNULAR SPACE FLUSH WITH VAULT WALL
43	2	4" MJ X MJ DUCTILE IRON SOLID SLEEVE - LONG (AWWA C110 OR C153) WITH MECHANICAL JOINT WEDGE ACTION RESTRAINT GLANDS - 2 (SEE PLAN NOTE 3)
44	60± SF	MIRAFI FILTERWEAVE 402 GEOTEXTILE FABRIC
45	27 CF	DRAIN ROCK, 3" MINUS FOR SUMP (3' x 3' x 3')
46	90± CF	CRUSHED DRAIN ROCK, 3/4" NOMINAL FOR VAULT BASE. EXTEND BASE ROCK TO 12" BEYOND VAULT FOOTPRINT

### PLAN NOTES:

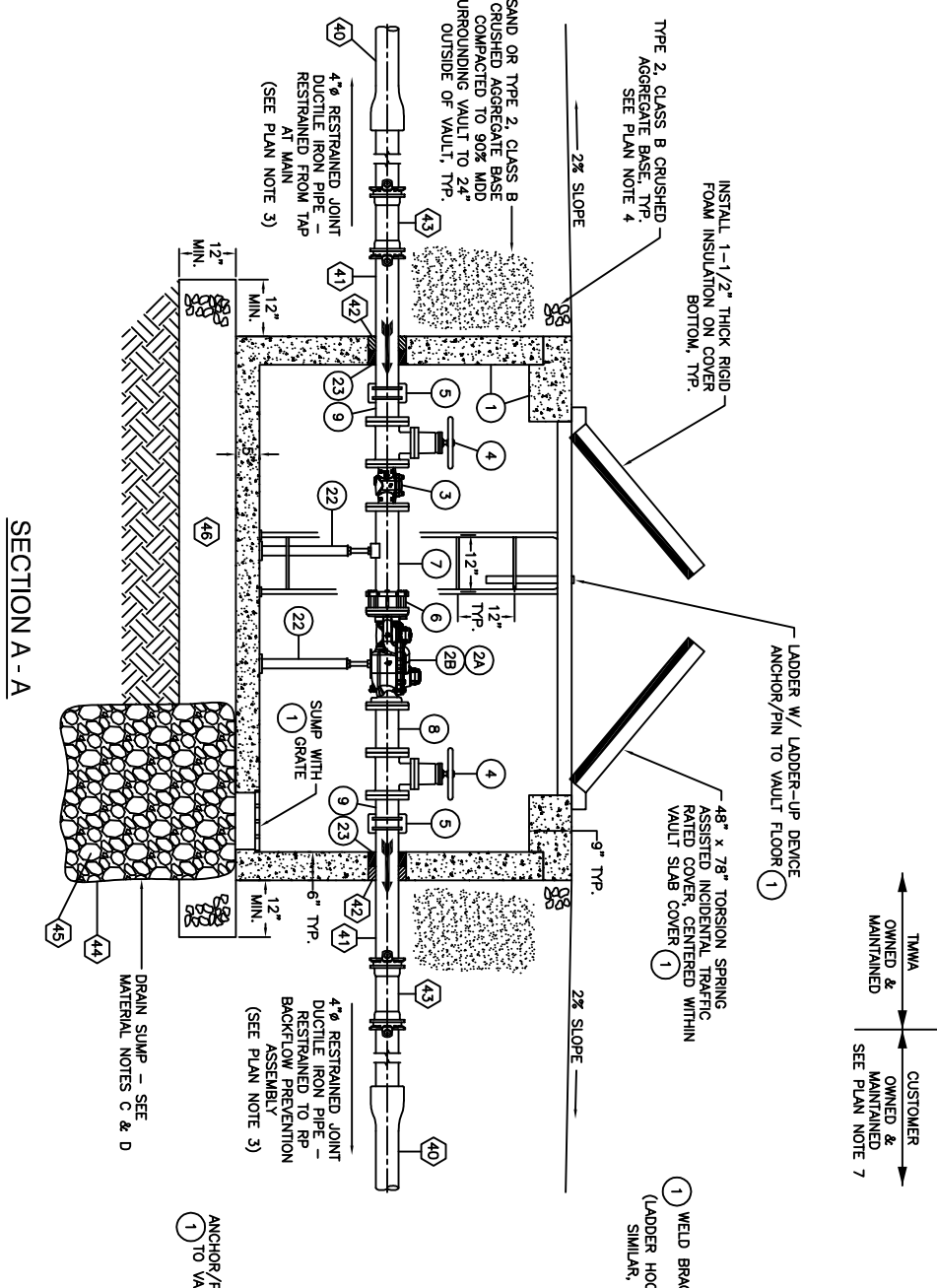
- ALL VAULT WALL PENETRATIONS SHALL BE CORE DRILLED IN THE FIELD.
- METAL COATING FINISH NOTE: APPLICABLE TO ALL METAL, SUCH AS STEEL PIPING, BRACKETS, PIPE SUPPORTS, ETC. (EXCLUDING FINISHED SURFACES), WHICH HAVE NOT BEEN COATED WITH FUSION BONDED EPOXY. USE TWO-COAT SELF-PRIMING EPOXY SYSTEM (ARABLING BOT). AN ACCEPTABLE ALTERNATE COATING SYSTEM IS SHERWIN WILLIAMS EPOXY MASTIC 898 SERIES.
- ALL RESTRAINED JOINT PIPING SHALL BE DUCTILE IRON PIPE, BELL AND SPIGOT PUSH-ON JOINTS SHALL BE RESTRAINED USING FIELD LOK 350 GASKETS AS MANUFACTURED BY U.S. PIPE OR TMWA APPROVED EQUIVALENT. RESTRAINED JOINT FITTINGS SHALL BE MECHANICAL JOINT (MJ) DUCTILE IRON WITH MECHANICAL JOINT WEDGE ACTION RESTRAINT GLANDS. MECHANICAL JOINT WEDGE ACTION RESTRAINT GLANDS SHALL BE MEGALUG SERIES 1100 AS MANUFACTURED BY EBAY IRON, INC. OR TMWA APPROVED EQUIVALENT.
- FINISH SURFACE TO CONSIST OF 6" TYPE 2, CLASS B CRUSHED AGGREGATE BASE COMPACTED TO 95% MDD EXTENDING MIN. 2 FEET BEYOND VAULT WALLS (UNLESS OTHERWISE SPECIFIED IN THE WATER IMPROVEMENT PLANS). GRADE SLOPE AWAY FROM VAULT AT 2% FINAL SITE IMPROVEMENTS TO BE APPROVED BY TMWA INSPECTOR.
- ALL DUCTILE IRON PIPE AND FITTINGS SHALL BE ENCASED IN POLYETHYLENE ENGAGEMENT CONFORMING TO AWWA C105. ENGAGEMENT SHALL EXTEND AT LEAST TWO FEET BEYOND JOINT AND SHALL BE TAPED SECURELY TO PIPE.
- SPECIFY EITHER 4" COMPOUND SERIES METER (2A) OR 4" TURBO SERIES METER (2B) IN THE WATER IMPROVEMENT PLANS. METER TO BE SUPPLIED BY TMWA.
- CUSTOMER OWNED DISCHARGE PIPING SHALL BE SIZED TO MAINTAIN MINIMUM PRESSURES PER NAC445A.

### MATERIAL NOTES:

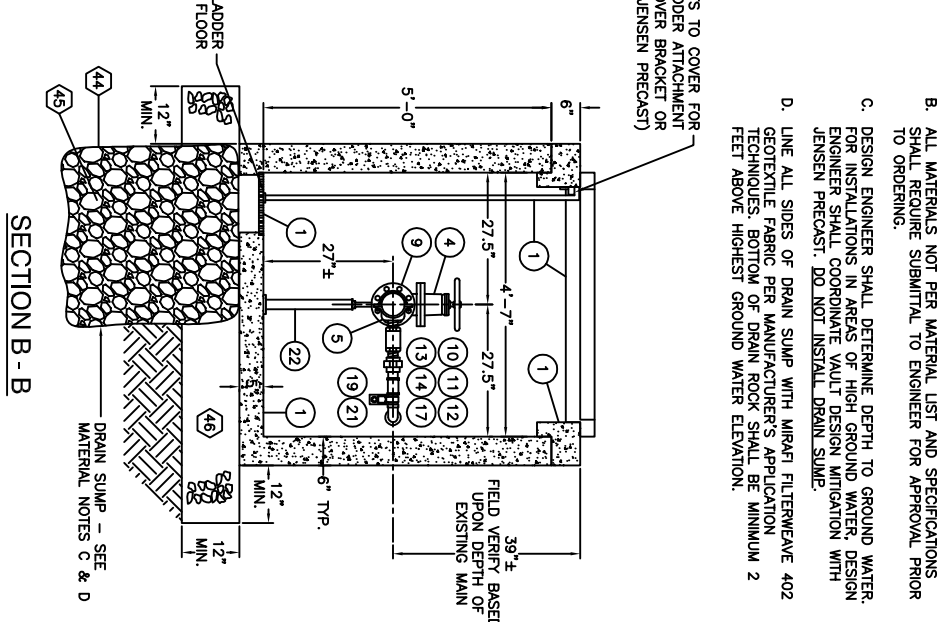
- REFERENCE WATER IMPROVEMENT PLANS FOR CONTINUATION OF MATERIAL REQUIREMENTS OUTSIDE OF VAULT.
- ALL MATERIALS NOT PER MATERIAL LIST AND SPECIFICATIONS SHALL REQUIRE SUBMITTAL TO ENGINEER FOR APPROVAL PRIOR TO ORDERING.
- DESIGN ENGINEER SHALL DETERMINE DEPTH TO GROUND WATER. FOR INSTALLATIONS IN AREAS OF HIGH GROUND WATER DESIGN ENGINEER SHALL COORDINATE VAULT DESIGN MITIGATION WITH JENSEN PRECAST. DO NOT INSTALL DRAIN SUMP.
- LINE ALL SIDES OF DRAIN SUMP WITH MIRAFI FILTERWEAVE 402 GEOTEXTILE FABRIC PER MANUFACTURER'S APPLICATION TECHNIQUES. BOTTOM OF DRAIN ROCK SHALL BE MINIMUM 2 FEET ABOVE HIGHEST GROUND WATER ELEVATION.



PLAN VIEW



SECTION A-A



SECTION B-B

DATE	2/2010
REV	