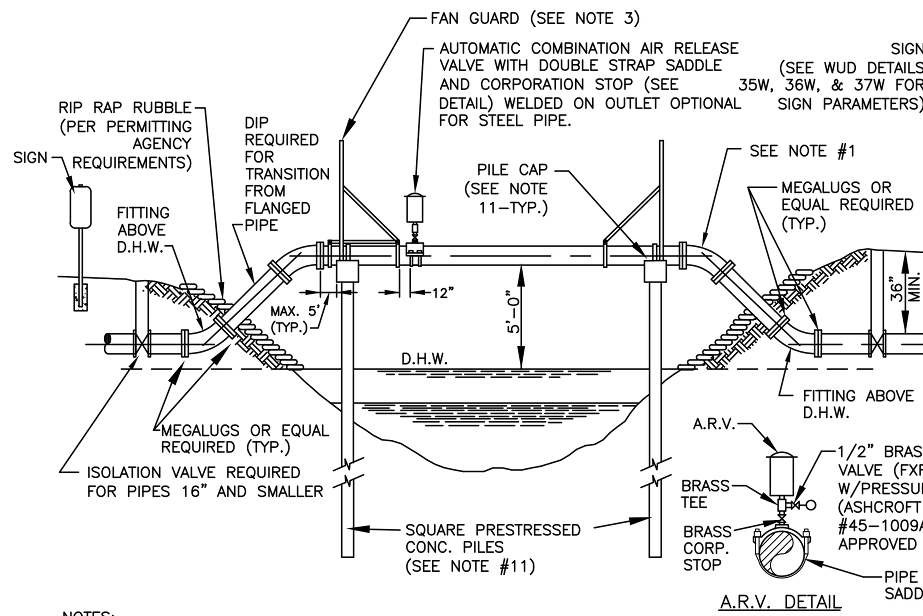
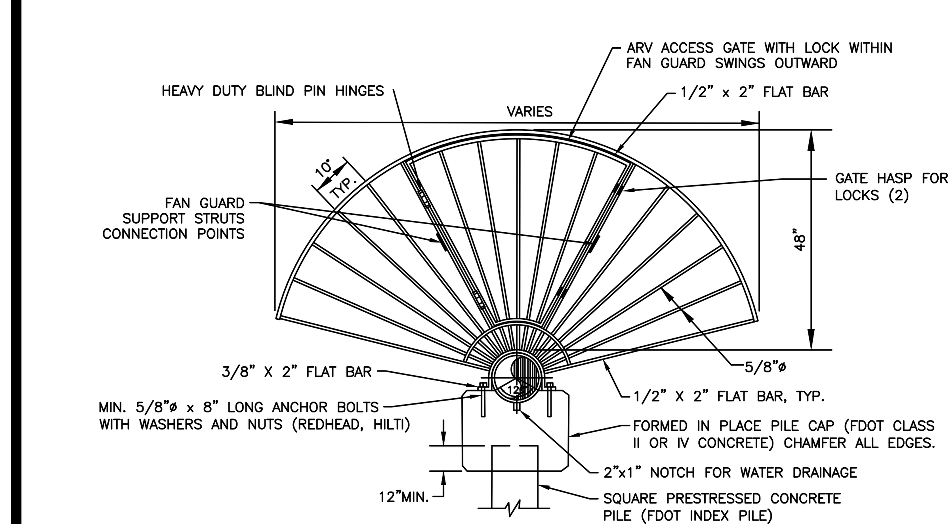
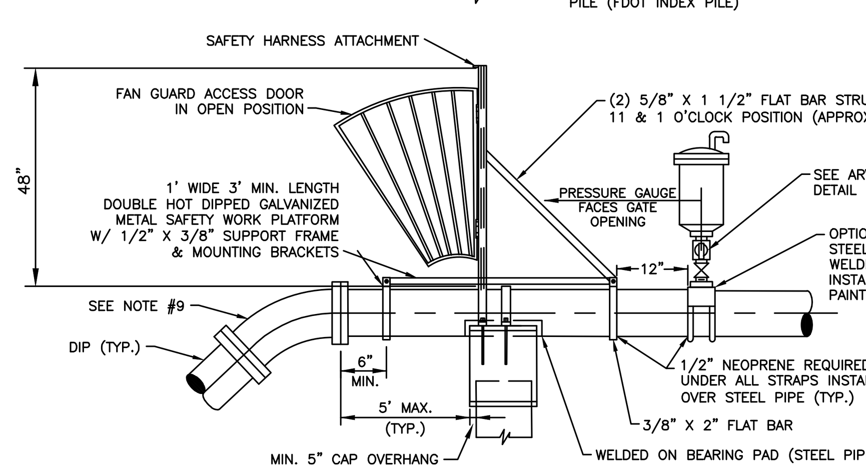


NOTES:

1. ALL EXPOSED PIPE SHALL BE DUCTILE IRON OR PREFABRICATED STEEL WITH FLANGED FITTINGS AND PROFILED GASKETS. RETAINER GLANDS AND UNIFLANGE TYPE FITTINGS ARE NOT TO BE SUBSTITUTED FOR FLANGED FITTINGS. PREFABRICATED STEEL PIPE MAY INCORPORATE WELDED ON LONG RADIUS UPPER BENDS. PREFABRICATED FLANGED PIPE SHALL BE FACTORY TESTED.
2. SPAN LENGTHS AS REQUIRED BY PERMITTING AGENCY
3. FAN GUARDS ARE REQUIRED. SEE FAN GUARD/PILE CAP DESIGN DETAIL 27W FOR ADDITIONAL REQUIREMENTS. ACCESS PLATFORM AND GATE REQUIRED ON ARV SIDE ONLY.
4. ALL STEEL PIPE SHALL HAVE WELDED ON BEARING PADS EXTENDED 1" MINIMUM BEYOND PIPE CRADLE WITH PAD INSTALLED PRIOR TO PAINTING. ALL EXPOSED STEEL PIPING SHALL BE PAINTED AS SPECIFIED IN THE APPROVED MATERIALS LIST WITH ALL HARDWARE BEING PAINTED WITH COAL-TAR EPOXY.
5. PIPE SHALL BE CRADLED ON ½" THICK NEOPRENE.(DUROMETER GRADE 50,) CURRENT FDOT STANDARDS APPLY. NEOPRENE IS REQUIRED AT ALL STRAPS INSTALLED OVER STEEL PIPE. NEOPRENE SHALL EXTEND MIN. 1" BEYOND THE EDGES OF CRADLE AND STRAPS.
6. TIE-DOWN STRAPS MUST PROPERLY FIT AND SECURE PIPE IN CRADLE.
7. PIPE CRADLE IN CAP SHALL CONTACT ⅓ CIRCUMFERENCE OF PIPE. (SEE FAN GUARD DETAIL 27W)
8. SHOW EXISTING CANAL CROSS SECTION ULTIMATE CANAL SECTION AND RELEVANT ELEVATIONS AND DISTANCES ON A TO SCALE DETAIL DRAWING.
9. PILE LIFT CABLE SHALL BE REMOVED BELOW SURFACE; HOLE SHALL BE FILLED WITH EPOXY CEMENT.
10. THREADED AREAS OF BRASS FITTINGS SHALL BE SPIRAL WRAPPED WITH TWO WRAPS OF TEFLON TAPE.
11. THE PILES AND CAP DESIGN TO BE ON DETAILED SHOP DRAWINGS. THE REQUIRED PILES SHALL BE 14"x14" MIN. – TYPE 1A PER FLORIDA DOT INDEX PILES. PILE PENETRATION BELOW CANAL BOTTOM SHALL BE 15' MINIMUM WITH EACH PILE LOAD CAPACITY BEING 20 TONS MINIMUM (FDOT STANDARDS APPLY). ALL REQUIRED AERIAL CROSSING SHOP DRAWINGS SHALL BE TO SCALE AND SIGNED AND SEALED BY A STRUCTURAL ENGINEER.
12. THE AERIAL CROSSING STRUCTURAL ENGINEER OF RECORD SHALL PROVIDE IN WRITING A SIGNED AND SEALED LETTER CERTIFYING THE AERIAL CROSSING INSTALLATION WAS COMPLETED PER HIS/HER DESIGN AND ALL APPLICABLE STANDARDS AND PERMITS.

POTABLE WATER MAIN TYPICAL AERIAL CANAL CROSSING – SINGLE PIPE (SINGLE PILES) * 26W

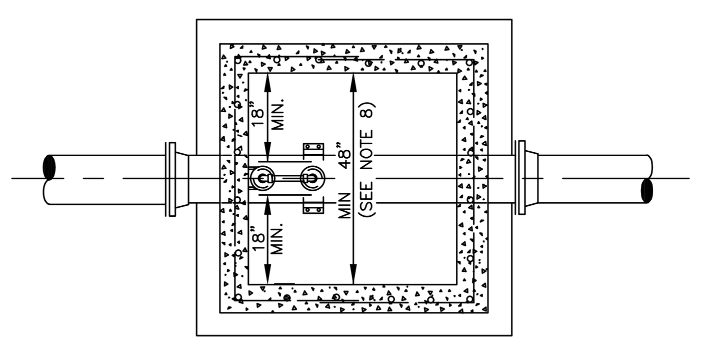


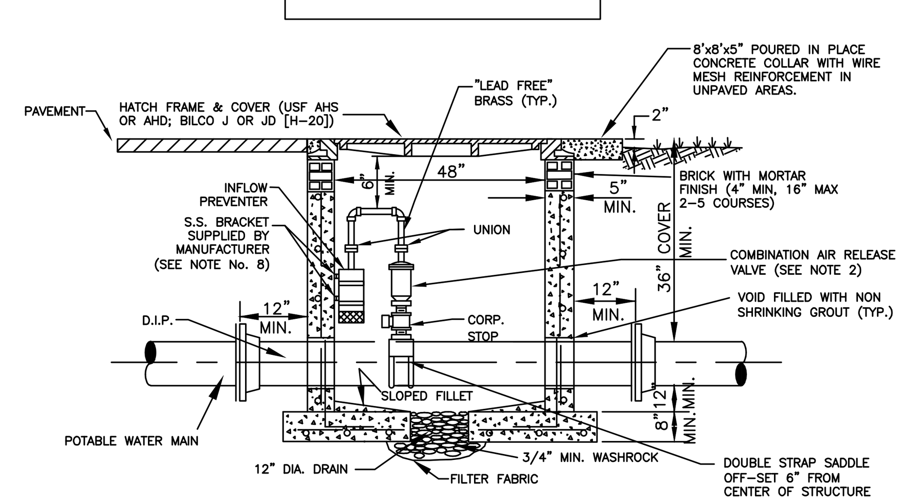


NOTES:

1. FAN GUARDS SHALL BE PLACED AT EACH END OF CANAL CROSSING.
2. FANGUARD WITH HARDWARE SHALL BE FABRICATED FROM DOUBLE HOT DIPPED GALVANIZED STEEL.
3. SHOP DRAWINGS FOR FANGUARDS, CAPS, AND PILES MUST BE SUBMITTED TO PBCWUD FOR REVIEW AND APPROVAL PRIOR TO PRE-CONSTRUCTION MEETING.
4. REINFORCING STEEL SHALL CONFORM TO ASTM A-615, GRADE 60. MIN. 2" CONCRETE COVER OVER ALL STEEL.
5. NO WELDING OF REBAR TO REBAR OR REBAR TO PILE STRANDS SHALL BE ALLOWED.
6. LONG RADIUS WELDED ON UPPER BENDS ARE ACCEPTABLE FOR STEEL PIPE.
7. THE PILE/CAP STEEL CONNECTION SHALL BE WITH A MINIMUM OF 4-#8 REINFORCEMENT BARS. THE BARS SHALL BE DRILLED AND DOWLED (EPOXIED) A MINIMUM OF 14" IN DEPTH INTO THE PILE AND TIED TO THE CAP STEEL.
8. ACCESS PLATFORM AND GATE REQUIRED ON ARV SIDE ONLY.
9. SEE TYPICAL AERIAL CROSSING DETAIL 26W FOR ADDITIONAL REQUIREMENTS.

FAN GUARD/ PILE CAP DESIGN SINGLE PIPE (SINGLE PILES) * 27W





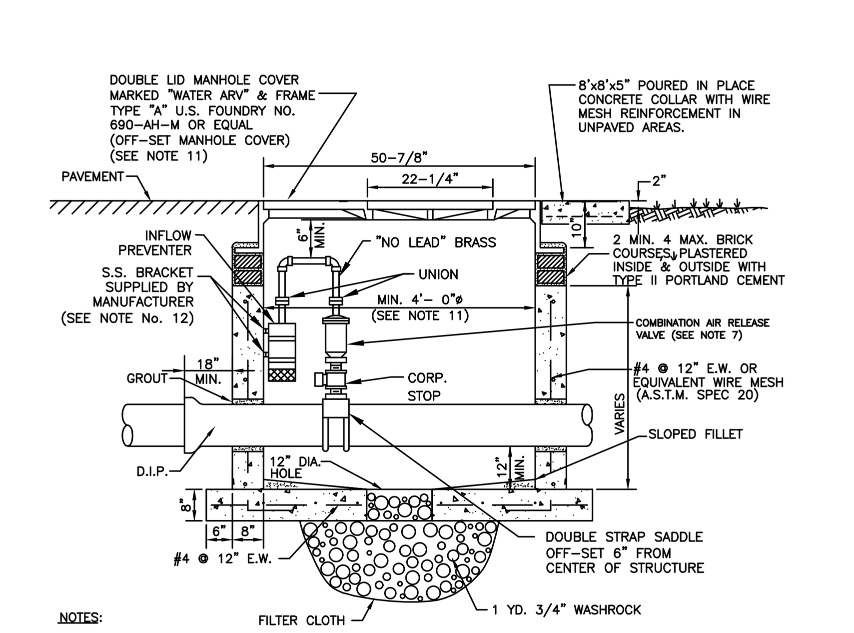
NOTES:

1. PRECAST 4000 P.S.I. TYPE II CONCRETE STRUCTURE. SHOP DRAWING IS REQUIRED TO BE APPROVED BY THE DEPARTMENT PRIOR TO VAULT CONSTRUCTION AND/OR INSTALLATION.
2. COMBINATION AIR RELEASE VALVE (ARV) SHALL BE TYPE AND SIZE APPROPRIATE FOR SERVICE INTENDED ALTHOUGH A 1" MINIMUM SIZED ARV IS REQUIRED ON POTABLE WATER MAIN INSTALLATIONS.
3. ALL OPENINGS SHALL BE SEALED WITH WATERPROOF NON-SHRINKING GROUT.
4. ALTERNATE VAULT AND COVER DESIGN MAY BE USED PROVIDED ALTERNATE VAULT AND/OR COVER SHOP DRAWINGS WERE SUBMITTED AND APPROVED BY THE DEPARTMENT PRIOR TO THE VAULT AND/OR COVER BEING INSTALLED.
5. DUCTILE IRON PIPE IS REQUIRED THROUGH THE VAULT. NO PIPE JOINTS INSIDE OR WITHIN 12" OF THE VAULT.
6. THREADED AREAS OF BRASS FITTINGS SHALL BE SPIRAL WRAPPED WITH TWO WRAPS OF TEFLON TAPE.
7. LARGER VAULTS WILL BE REQUIRED FOR PIPES LARGER THAN 12"

PIPE SIZE	MIN. VAULT SIZE
16"-24"	4'X5'
30"-42"	4'X6'

8. SHOP DRAWINGS ARE REQUIRED FOR CUSTOM MADE BRACKETS

POTABLE WATER MAIN UNDERGROUND AIR RELEASE VALVE AND VAULT IN NON-TRAFFIC AREAS OUTSIDE OF ROAD R/W 28W



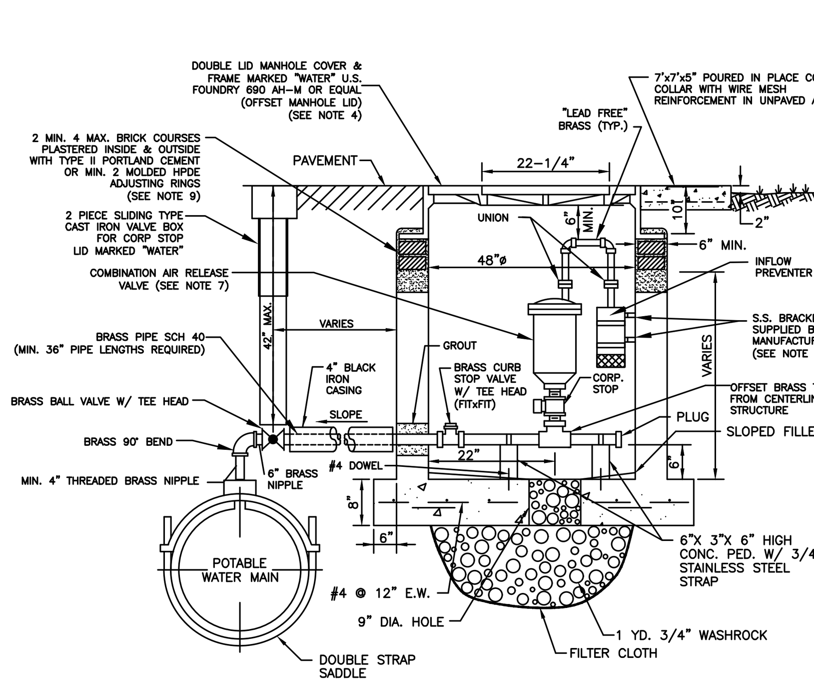
NOTES:

1. PRECAST 4000 P.S.I. TYPE II CONCRETE STRUCTURE. SHOP DRAWING IS REQUIRED TO BE APPROVED BY THE DEPARTMENT PRIOR TO VAULT CONSTRUCTION AND/OR INSTALLATION.
2. ALL OPENINGS SHALL BE SEALED WITH A WATERPROOF NON-SHRINKING GROUT.
3. LIFT HOLES ARE PERMITTED.
4. ALL PIPE HOLES SHALL BE PRECAST.
5. MANHOLE FABRICATION SHALL BE IN ACCORDANCE WITH A.S.T.M. C-478 LATEST STANDARD.
6. CONCRETE COLLAR REQUIRED WHEN MANHOLE IS OUTSIDE OF PAVEMENT, SEE DETAIL.
7. COMBINATION AIR RELEASE VALVE (ARV) SHALL BE TYPE AND SIZE APPROPRIATE FOR SERVICE INTENDED ALTHOUGH A 1" MINIMUM SIZED ARV IS REQUIRED ON POTABLE WATER MAIN INSTALLATIONS.
8. DUCTILE IRON PIPE IS REQUIRED THROUGH THE VAULT. NO PIPE JOINTS INSIDE OR WITHIN 18" OF THE MANHOLE.
9. THREADED AREAS OF BRASS FITTINGS SHALL BE SPIRAL WRAP WITH TWO WRAPS OF TEFLON TAPE.
10. POTABLE WATER MAINS 12" AND SMALLER, AN ALTERNATE VAULT AND COVER DESIGN MAY BE USED PROVIDED ALTERNATE VAULT AND/OR COVER SHOP DRAWINGS WERE SUBMITTED AND APPROVED BY THE DEPARTMENT PRIOR TO THE VAULT AND/OR COVER BEING INSTALLED.
11. LARGER MANHOLES WILL BE REQUIRED FOR PIPES LARGER THAN 12"

PIPE SIZE	MIN. MANHOLE DIAMETER
16"-24"	60"
30"-42"	72"

12. SHOP DRAWINGS ARE REQUIRED FOR CUSTOM MADE BRACKETS
13. MANHOLES IN ROADWAYS SHALL BE LOCATED OUTSIDE OF WHEEL PATHS.

POTABLE WATER MAIN AIR RELEASE MANHOLE IN PAVED AREAS AND ROAD R/W 29W



NOTES:

1. PRECAST MONOLITHIC POURED 4000 P.S.I. TYPE II CONCRETE STRUCTURE. SHOP DRAWING IS REQUIRED TO BE APPROVED BY THE DEPARTMENT PRIOR TO VAULT CONSTRUCTION AND/OR INSTALLATION.
2. ALL OPENINGS SHALL BE SEALED WITH A WATERPROOF NON-SHRINKING GROUT.
3. ALL PIPE HOLES SHALL BE PRECAST.
4. ALTERNATIVE VAULT DESIGN MAY BE USED WITH AN APPROVED 32" DIAMETER HINGED MANHOLE COVER PROVIDED ALTERNATE VAULT AND/OR COVER SHOP DRAWING WAS SUBMITTED AND APPROVED BY THE DEPARTMENT PRIOR TO THE VAULT AND/OR COVER BEING INSTALLED.
5. ARV, TAP AND PIPING TO BE TYPE AND SIZE APPROPRIATE FOR SERVICE INTENDED.
6. COMBINATION AIR RELEASE VALVE (ARV) SHALL BE TYPE AND SIZE APPROPRIATE FOR SERVICE INTENDED ALTHOUGH A 1" MINIMUM SIZED ARV IS REQUIRED ON POTABLE WATER MAIN INSTALLATIONS.
7. SHOP DRAWING IS REQUIRED FOR REVIEW AND APPROVAL.
8. THREADED AREAS OF BRASS FITTINGS AND OTHER FITTINGS SHALL BE SPIRAL WRAPPED WITH TWO WRAPS OF TEFLON TAPE.
9. IN LIEU OF BRICK WORK, APPROVED PRECAST CONCRETE ADJUSTING RINGS MAY BE USED. INSTALLATION SHALL FOLLOW MANUFACTURERS RECOMMENDATIONS.
10. SHOP DRAWINGS ARE REQUIRED FOR CUSTOM MADE BRACKETS
11. PIPE AND FITTINGS SHALL BE NO LEAD BRASS.
12. MANHOLES SHALL BE INSTALLED OUTSIDE TRAFFIC AREAS.

POTABLE WATER MAIN OFF-SET UNDERGROUND AIR RELEASE VALVE 30W

MAXIMUM QUANTITY OF WATER (GALLONS PER HOUR) THAT MAY BE SUPPLIED TO MAINTAIN PRESSURE WITHIN 5 P.S.I. OF THE SPECIFIED TEST PRESSURE

(MECHANICAL OR PUSH-ON JOINT, 18 FT. NOMINAL LENGTHS, PER 1000 FT. OF PIPE)

AVG. TEST PRESSURE PSI	PIPE DIAMETER (INCHES) 2	3	4	6	8	10	12	14	16	18	20	24	30	36	42	48
150	0.10	0.14	0.18	0.27	0.37	0.46	0.55	0.64	0.73	0.83	0.92	1.10	1.38	1.65	1.93	2.20
200	0.10	0.15	0.21	0.31	0.42	0.53	0.63	0.74	0.84	0.95	1.06	1.27	1.59	1.91	2.22	2.54

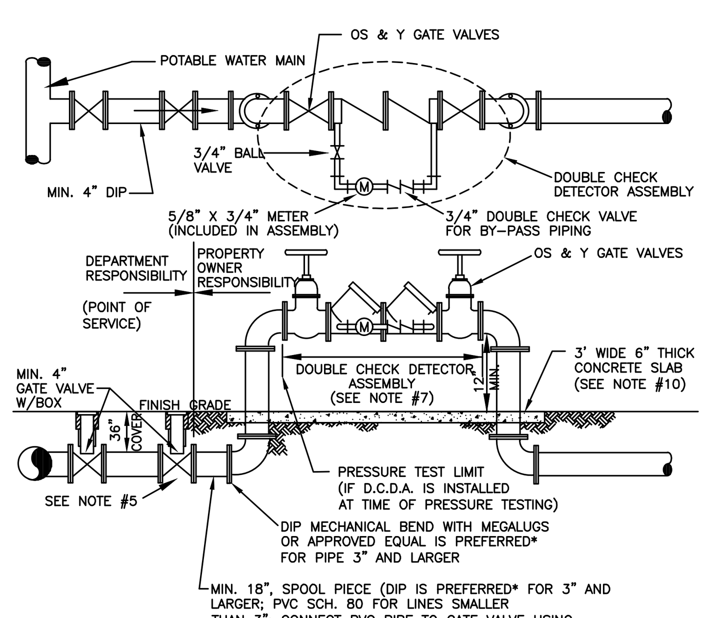
FORMULA BASIS: $L = \frac{(S) \times (D) \times (P)^{1/2}}{148{,}000} \times 1/2$

L = MAXIMUM QUANTITY OF WATER TO BE ADDED (GALLONS PER HOUR)
S = LENGTH OF PIPE TESTED (FEET)
D = DIAMETER OF PIPE (INCHES)
P = TEST PRESSURE (P.S.I.)

NOTES:

1. TO OBTAIN THE MAXIMUM QUANTITY OF WATER FOR PIPE WITH 20 FT. NOMINAL LENGTHS, MULTIPLY THE QUANTITY CALCULATED FROM THE TABLE BY 0.9
2. THE MAXIMUM QUANTITY OF ADDED WATER FOR A PIPELINE IS CALCULATED BY MULTIPLYING THE QUANTITY PER HOUR AS OBTAINED FROM THE ABOVE TABLE, BY THE DURATION OF THE TEST IN HOURS,AND BY THE TOTAL LENGTH OF THE LINE BEING TESTED DIVIDED BY 1,000. IF THE LINE UNDER TEST CONTAINS SECTIONS OF VARIOUS DIAMETERS, THE MAXIMUM QUANTITY ADDED WILL BE THE SUM OF THE COMPUTED QUANTITIES FOR EACH SIZE.
3. MAXIMUM TEST LENGTH = 2,500 FEET PER SECTION.
4. THIS STANDARD SHALL REFLECT ANY REVISION OF A.W.W.A. C-600. HOWEVER, THE MAXIMUM QUANTITY OF WATER ADDED SHALL NOT EXCEED 50% OF THE RECOMMENDED LIMIT PER APPLICABLE AWWA C-600 STANDARD.
5. STANDARD TEST PRESSURE = 150 P.S.I.; 200 P.S.I. FOR MAINS LARGER THAN 24"
6. PRESSURE TEST DURATION TO BE MIN. 2 HOURS.

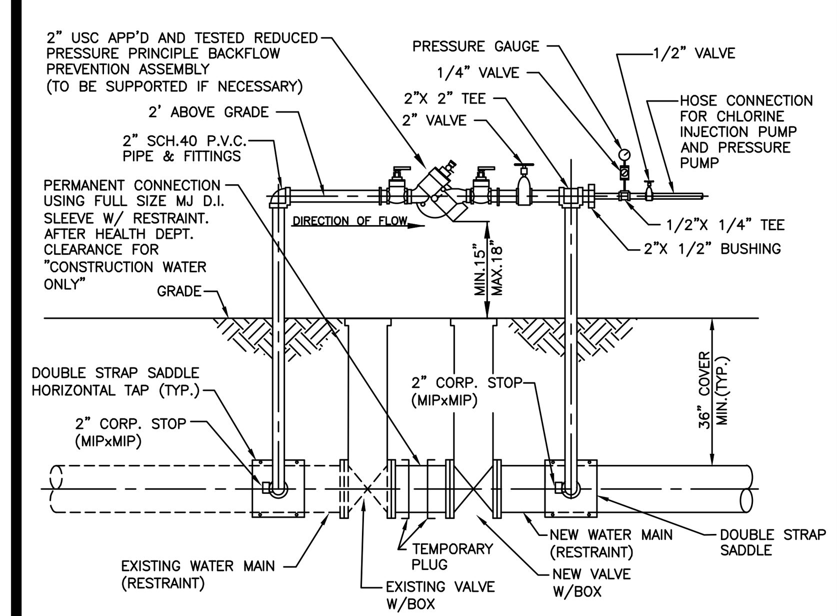
POTABLE WATER MAIN PRESSURE TEST CRITERIA 31W



NOTES:

1. ALL PIPE AND FITTINGS UP TO THE BACKFLOW PREVENTION ASSEMBLY (I.E. D.C.D.A.) POINT OF SERVICE VALVE SHALL BE DUCTILE IRON PER WUD STANDARDS.*
2. THE INITIAL TEST OF THE BACKFLOW PREVENTION ASSEMBLY SHALL BE PERFORMED BY THE DEPARTMENT PRIOR TO SERVICE ACTIVATION.
3. THE DOUBLE CHECK DETECTOR ASSEMBLY SHALL BE APPROVED BY THE UNIVERSITY OF SOUTHERN CALIFORNIA (U.S.C.) OR THE A.S.S.E. (WITH ONE YEAR FIELD TESTING).
4. THE PROPERTY OWNER SHALL BE RESPONSIBLE FOR THE PROPER OPERATION, MAINT-ENANCE AND SUBSEQUENT TESTING OF THE DOUBLE CHECK DETECTOR ASSEMBLY BY A CERTIFIED BACKFLOW TECHNICIAN.
5. WHEN FIRE LINE LENGTH IS OVER ONE PIPE LENGTH, LINE SHALL BE TERMINATED WITH A GATE VALVE (=POINT OF SERVICE). NO PIPE JOINTS / CONNECTIONS ARE PERMITTED BETWEEN POINT OF SERVICE AND VERTICAL 90° BEND
6. THE DESIGN SHALL MINIMIZE ANY POTENTIAL FOR WATER MAIN WITH NO FLOW. A FIRE HYDRANT LOCATED NEAR THE DOUBLE CHECK DETECTOR ASSEMBLY MAY BE REQUIRED FOR LONG, DEAD ENDING DEDICATED FIRE LINES.
7. AN APPROVED REDUCED PRESSURE PRINCIPLE DETECTOR ASSEMBLY SHALL BE REQUIRED FOR ALL FIRE SYSTEMS WITH STORAGE TANKS AND/OR AUXILIARY WATER SUPPLY.
8. TAMPER SWITCHES MAY BE REQUIRED BY THE FIRE MARSHAL.*
9. PIPE MATERIAL ON THE CUSTOMER SIDE OF POINT OF SERVICE VALVE SHALL COMPLY WITH FIRE MARSHAL REQUIREMENTS.*
10. 3' WIDE 6" THICK CONCRETE SLAB IS RECOMMENDED FOR ASSEMBLY SMALLER THAN 4".

DOUBLE CHECK DETECTOR ASSEMBLY * 32W



1. ENSURE PROPER RESTRAINT OF EXISTING VALVE AND EXISTING PIPE PRIOR TO NEW PIPE CONNECTION.
2. ENSURE PROPER OPERATION OF EXISTING VALVE.
3. INSTALL BY-PASS PIPING AS SHOWN. A NEARBY HYDRANT OR SERVICE TAP MAY BE USED AS A WATER SOURCE.
4. USING BY-PASS AND CHLORINE INJECTOR PUMP, DISINFECT NEW WATER MAIN (MIN. 50 CHLORINE PPM IS REQUIRED FOR DISINFECTION).
5. COMPLETE FILLING OF THE NEW WATER MAIN AND PERFORM BACTERIOLOGICAL TESTING.
6. REMOVE EXISTING BLOW OFF (IF APPLICABLE) AND EXISTING PLUG., CONNECT NEW MAIN TO EXISTING VALVE.
7. CRACK OPEN EXISTING VALVE AFTER INITIAL DISINFECTION AND FLUSH THE NEW WATER MAIN (PBCWUD PRESENCE IS REQUIRED).
8. REMOVE BY-PASS PIPING. CAP CORPORATION STOPS WITH BRASS CAPS.
9. PRESSURE TESTING IS REQUIRED AFTER SUCCESSFUL COMPLETION OF BACTERIOLOGICAL TESTING AND HEALTH DEPARTMENT RELEASE FOR "CONSTRUCTION WATER"(IF APPLICABLE). PRESSURE TEST TO BE PERFORMED AFTER BACKFILL/ ROAD BASE AND ROAD ROCK BASE INSTALLATION/ COMPACTION.
10. AN ALTERNATIVE TIE-IN PROCEDURE (PRESSURE TESTING PRIOR TO BACTERIOLOGICAL TESTING) MAY BE CONSIDERED WITH PRIOR APPROVAL (SEE SEPARATE DETAIL).
11. RECORD DRAWINGS TO SHOW DATA FOR ALL TEST TAPS.
12. ALL BRASS SHALL BE "LEAD FREE".

STANDARD POTABLE WATER MAIN TIE-IN 33W

MIN. LENGTH OF PIPE (FEET) TO BE RESTRAINED
(SOURCES: EBAA IRON RESTRAINT LENGTH CALCULATION PROGRAM FOR PVC PIPE, RELEASE 3.1, AND DIPRA THRUST RESTRAINT FOR DUCTILE IRON PIPE, RELEASE 3.2)

FITTING TYPE		PIPE SIZE 4"	6"	8"	10"	12"	16"	20"	24"	200psi 30"	36"	42"	48"
90° HORIZ. BEND		14	20	25	30	35	45	54	62	98	112	124	135
45° HORIZ. BEND		6	8	11	13	15	19	22	26	41	46	51	56
22.5° HORIZ. BEND		3	4	5	6	7	9	11	12	19	22	25	27
11.25° HORIZ. BEND		1	2	3	3	4	4	5	6	10	11	12	13
90° VERT. OFFSET	UPPER BEND	29	41	53	64	74	95	115	134	214	246	276	304
	LOWER BEND	7	10	13	16	19	25	30	35	57	66	74	83
45° VERT. OFFSET	UPPER BEND	12	19	24	29	34	39	48	56	89	102	114	126
	LOWER BEND	3	4	6	7	8	10	12	15	23	27	31	34
22.5° VERT. OFFSET	UPPER BEND	6	9	12	14	17	19	23	27	43	49	55	60
	LOWER BEND	1	2	4	4	4	5	6	7	11	13	15	16
11.25° VERT. OFFSET	UPPER BEND	3	4	6	7	8	9	11	13	21	24	27	30
	LOWER BEND	1	1	1	2	2	2	3	3	6	6	7	8
PLUG (DEAD END)		32	45	59	70	83	107	129	151	214	246	276	304
IN-LINE VALVE		32	45	45	45	45	55	65	80	110	125	140	155
TEE (BRANCH RESTRAINT)	4"X ø	23	–	–	–	–	–	–	–	–	–	–	–
	6"X ø	21	35	–	–	–	–	–	–	–	–	–	–
	8"X ø	18	34	47	–	–	–	–	–	–	–	–	–
	10"X ø	16	32	46	58	–	–	–	–	–	–	–	–
	12"X ø	13	30	44	57	69	–	–	–	–	–	–	–
	16"X ø	7	26	41	55	67	90	–	–	–	–	–	–
	20"X ø	1	21	38	52	65	88	109	–	–	–	–	–
	24"X ø	1	16	34	49	62	86	108	129	–	–	–	–
	30"X ø	1	8	28	44	58	83	106	127	208	–	–	–
	36"X ø	1	1	22	39	54	80	103	124	206	240	–	–
	42"X ø	1	1	15	33	49	77	100	122	205	239	270	–
	48"X ø	1	1	7	27	44	73	97	120	203	238	269	298
REDUCER (LARGER PIPE RESTRAINT)	6"X ø	23	–	–	–	–	–	–	–	–	–	–	–
	8"X ø	38	25	–	–	–	–	–	–	–	–	–	–
	10"X ø	57	43	24	–	–	–	–	–	–	–	–	–
	12"X ø	72	60	44	41	–	–	–	–	–	–	–	–
	16"X ø	99	90	78	75	45	–	–	–	–	–	–	–
	20"X ø	123	116	107	105	81	45	–	–	–	–	–	–
	24"X ø	146	140	132	131	111	82	45	–	–	–	–	–
200psi	30"X ø	209	204	197	188	177	153	116	75	–	–	–	–
	36"X ø	243	236	233	226	217	196	168	135	74	–	–	–
	42"X ø	273	270	265	259	252	234	211	183	133	72	–	–
	48"X ø	301	298	294	289	283	268	249	226	183	131	71	–

NOTES:

1. THE DATA IN THE ABOVE TABLE ARE BASED UPON THE FOLLOWING INSTALLATION CONDITIONS:
   SOIL TYPE-SAND; TEST PRESSURE-150 PSI/200 PSI; DEPTH OF BURY-3'
   TRENCH TYPE-3; SAFETY FACTOR- 1.5; VERTICAL OFFSET-3'
   MINIMUM PIPE LENGTH ALONG TEE RUN-5'
2. THE RESTRAINED PIPE LENGTHS APPLY TO DUCTILE IRON AND PVC PIPE.
3. ALL JOINTS BETWEEN UPPER AND LOWER BENDS SHALL BE RESTRAINED.
4. RESTRAINED PIPE LENGTHS APPLY TO PIPE ON BOTH SIDES OF VALVES AND FITTINGS.
5. MULTIPLY PIPE LENGTH BY 1.4 FOR POLYETHYLENE ENCASED PIPE.
6. RESTRAINED PIPE LENGTHS EQUAL TO AN "INLINE VALVE" CONDITION ARE REQUIRED AT EACH END OF A TRANSITION FROM HDPE PIPE TO OTHER PIPE MATERIALS.
7. DESIGN ENGINEER IS RESPONSIBLE TO PROPERLY SIZE THE RESTRAINT PIPE LENGTHS FOR THE PROJECT

MECHANICAL THRUST RESTRAINT MINIMUM PIPE LENGTHS 34W

GENERAL NOTES

DEFINITIONS

1. DEPARTMENT – THE PALM BEACH COUNTY WATER UTILITIES DEPARTMENT.
2. CONTRACTOR – UTILITY CONTRACTOR AND ALL UTILITY SUBCONTRACTORS.
3. ENGINEER – ENGINEER RESPONSIBLE FOR INSPECTION AND CERTIFICATION.

PROCEDURE

1. A PRE-CONSTRUCTION MEETING IS TO BE HELD PRIOR TO DELIVERY OF MATERIALS AND INITIATION OF ANY POTABLE WATER, RECLAIMED WATER AND/OR WASTEWATER SYSTEM CONSTRUCTION. THE MEETING SHALL BE ATTENDED BY THE DEPARTMENT, CONTRACTOR, ENGINEER AND OTHER INTERESTED PARTIES.
2. ANY REVISIONS TO THE APPROVED PLANS SHALL BE CALLED TO THE ATTENTION OF THE DEPARTMENT PRIOR TO THE PRE-CONSTRUCTION MEETING. REVISED PLANS MUST BE APPROVED PRIOR TO THE MEETING.
3. FIVE (5) COPIES OF THE CURRENT APPROVED MATERIAL LIST AND ALL NECESSARY SHOP DRAWINGS SHALL BE SUBMITTED FOR APPROVAL PRIOR TO SCHEDULING OF THE PRE-CONSTRUCTION MEETING.
4. ALL APPLICABLE PERMITS MUST BE OBTAINED PRIOR TO PRECONSTRUCTION MEETING. (DOT, HEALTH DEPARTMENT, COUNTY ENGINEER, ETC.).
5. THE CONTRACTOR SHALL MAINTAIN A CURRENT APPROVED SET OF CONSTRUCTION PLANS ON JOB SITE.
6. ALL MATERIALS SUPPLIED SHALL CONFORM TO PRODUCT LIST AND SHOP DRAWINGS AS APPROVED PRIOR TO CONSTRUCTION. SUBSTITUTE MATERIALS SHALL NOT BE APPROVED AFTER DELIVERY TO THE JOB SITE. ALL REQUESTS FOR MATERIAL SUBSTITUTION SHALL BE APPROVED PRIOR TO DELIVERY OF THESE MATERIALS TO THE JOB SITE.
7. THE LOCATIONS OF EXISTING UTILITIES SHOWN ON THE APPROVED PLANS ARE TO BE VERIFIED IN THE FIELD BY THE CONTRACTOR. APPROVAL OF DEVELOPMENT PLANS BY THE DEPARTMENT IN NO WAY IMPLIES VERIFICATION OF THE ACCURACY OF THOSE PLANS OR FEATURES DEPICTED THEREON. ANY DISCREPANCY IN OR VARIATION FROM THE APPROVED PLANS IS TO BE BROUGHT TO THE ATTENTION OF THE DEPARTMENT BY THE ENGINEER AND CONTRACTOR. THE CONTRACTOR SHALL CONFIRM AND INSTALL (IF NECESSARY) ADEQUATE MECHANICAL PIPE / JOINT RESTRAINT ON EXISTING PIPES PRIOR TO CONNECTION.
8. THE CONTRACTOR SHALL BE RESPONSIBLE AT ALL TIMES THROUGHOUT THE DURATION OF CONSTRUCTION FOR THE PROTECTION OF EXISTING AND NEWLY INSTALLED UTILITIES FROM DAMAGE OR DISRUPTION OF SERVICE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TAKING SUCH MEASURES AS NECESSARY TO PROTECT THE HEALTH, SAFETY AND WELFARE OF THOSE PERSONS HAVING ACCESS TO THE WORK SITE.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING LOCATIONS FROM ALL OTHER UTILITY FACILITIES.
10. THE CONTRACTOR OR ENGINEER SHALL SCHEDULE INSPECTIONS AND TESTS A MINIMUM OF 24-48 HOURS IN ADVANCE.
11. NO CONNECTION TO OR ANY OTHER CONSTRUCTION SHALL BE PERFORMED ON AN EXISTING DEPARTMENT OWNED OR MAINTAINED MAIN OR STRUCTURE WITHOUT THE PRESENCE OF A DEPARTMENT INSPECTOR.
12. FACILITIES PROPOSED HEREIN SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE APPROVED PLANS AND THE DEPARTMENT'S MINIMUM STANDARDS. CONFLICTS BETWEEN THE PRECEDING DOCUMENTS SHOULD BE CALLED TO THE ATTENTION OF THE DEPARTMENT FOR RESOLUTION. DEVIATIONS FROM THE APPROVED PLANS MUST BE APPROVED IN ADVANCE BY THE DEPARTMENT.
13. UPON COMPLETION OF CONSTRUCTION, A FINAL INSPECTION SHALL VERIFY PROPER ADHERENCE TO ALL FACETS OF THE PLANS AND SPECIFICATIONS.

PRESSURE PIPE NOTES

1. THERE SHALL BE 36" MINIMUM COVER FROM FINISHED GRADE TO TOP OF PIPE.
2. DUCTILE IRON PIPE (DIP) THICKNESS SHALL CONFORM TO THE DEPARTMENT'S APPROVED MATERIAL LIST. POTABLE WATER AND RECLAIMED WATER MAINS DIP SHALL BE CEMENT LINED. FORCE MAIN DIP SHALL BE CERAMIC EPOXY LINED.
3. PVC PRESSURE PIPE SHALL BE C-900, SDR-18, 150 PSI.
4. ALL FITTINGS SHALL BE DUCTILE IRON WITH MECHANICAL JOINTS AND CEMENT OR APPROVED EPOXY LINING.
5. POTABLE WATER, RECLAIMED WATER AND WASTEWATER FORCE MAIN VALVES 10 INCHES AND SMALLER SHALL BE RESILIENT SEAT GATE VALVES. TWELVE-INCH (12") OR LARGER FORCE MAIN VALVES SHALL BE RESILIENT SEAT GATE VALVES OR ECCENTRIC PLUG VALVES (IF APPROVED IN ADVANCE BY DEPARTMENT). POTABLE WATER AND RECLAIMED WATER MAIN VALVES LARGER THAN 10 INCHES SHALL BE BUTTERFLY VALVES.
6. ALL TRENCHING, PIPE-LAYING, BACKFILL, PRESSURE TESTING, AND DISINFECTION MUST COMPLY WITH ALL APPLICABLE FEDERAL, STATE, COUNTY AND HEALTH DEPARTMENT STANDARDS AND REGULATIONS.

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WUD PROJECT No. 00-000

WUD PROJECT NAME

PALM BEACH COUNTY WATER UTILITIES DEPARTMENT
P.O. BOX 16097
WEST PALM BEACH, FL 33416
(561)493-6000

NO.	DATE	REVISION / REMARKS	BY
	JUNE 2019	GENERAL REVISION	J.L.
*	JAN 2023	GENERAL REVISION	J.L.

STD DETAILS

SHEET NUMBER 0 OF 0

POTABLE WATER #4 STANDARD DETAILS

CONSULTANT:

IT'S THE LAW !
CALL 48 HOURS BEFORE YOU DIG
1-800-432-4770
SUNSHINE STATE ONE CALL OF FLORIDA, INC. UTILITIES NOTIFICATION CENTER

DESIGNED BY: WUD
DRAWN BY: M. BUCKNER
CHECKED BY: J. LAMMERT
APPROVED BY: WUD

Palm Beach County
Water Utilities Department
P.O.Box 16097
West Palm Beach, FL 33416-6097

SEAL

Mar 01, 2023