

NOTE

1. WHERE SOIL CONDITIONS CAN NOT BE MAINTAINED AS SHOWN ABOVE, PROVIDE APPROVED METHOD OF CONSTRUCTION.
2. SHEETING WILL BE REQUIRED AS DETERMINED IN THE FIELD.
3. COMPACTION PERCENTAGES SHOWN REFER TO AASHTO T-180.
4. MECHANICAL COMPACTION NOT ALLOWED BELOW THIS LEVEL.
5. SEE WATER NOTES # 14 FOR BACKFILL MATERIAL.


TRENCH DETAIL (UNPAVED AREAS)


CITY OF TAMARAC
 PUBLIC SERVICES DEPARTMENT
 ENGINEERING DIVISION
 6011 NOB HILL ROAD
 TAMARAC, FL, 33321

STANDARD DETAIL
TRENCH DETAIL - WATER
FIGURE WAT-1

REVISIONS			
No.	Date	Remarks	By

LAYING CONDITION: TYPE 4 (PIPE BEDDED IN SAND, GRAVEL, OR CRUSHED STONE TO THE DEPTH OF 1/8 PIPE DIAMETER, 4 INCHES MINIMUM. BACKFILL COMPACTED TO TOP OF PIPE).

DEPTH OF COVER: 2.5 FEET

WORKING PRESSURE: 150 P.S.I.

SOIL BEARING 2,000 P.S.F. AGAINST UNDISTURBED SOIL

PIPE DIA. (IN.)	11.25° (FT.)	22.5° (FT.)	45° (FT.)	90° (FT.)	DEAD END (FT.)	TEE (FT.)	45° VERT BEND (FT.)	22° VERT BEND (FT.)
6	5	9	16	31	60	35	20	12
8	6	11	20	42	80	50	25	14
10	7	14	24	52	100	60	26	18
12	8	16	28	63	120	65	30	20
14	10	18	32	73	130	80	35	23
16	11	20	35	84	140	90	40	26
18	12	22	39	94	150	100	45	28
20	13	24	42	105	180	120	55	32
24	14	27	49	126	220	150	65	35

NOTE THAT IN ACTUAL INSTALLATIONS, THE RESTRAINED LENGTH WILL BE IN MULTIPLES OF LENGTH OF ONE PIECE OF PIPE (NORMALLY 18 TO 20 FEET). THUS, FOR EXAMPLE, IF THE RESTRAINED LENGTH FOR 6 INCH PIPE LEADING UP TO A 90 DEGREE BEND IS 30 FEET, TWO FULL LENGTHS OF RESTRAINED PIPE WILL RESULT IN 36 TO 40 FEET OF RESTRAINT, PROVIDING AN ADDITIONAL SAFETY FACTOR. WHERE SHORT CONNECTING OR CLOSURE PIECES ARE NEEDED TO POSITION FITTINGS, THEY SHOULD, WHEN POSSIBLE, BE PLACED OUTSIDE THE RESTRAINED SECTION FOR MAXIMUM ECONOMY.

THE ABOVE SCHEDULE IS ONLY A GUIDELINE.

THE ENGINEER OF RECORD MUST VERIFY AND REVISE CALCULATIONS TO MEET INSTALLATION REQUIREMENTS.

RESTRAINED PIPE JOINT SCHEDULE

 CITY OF TAMARAC PUBLIC SERVICES DEPARTMENT ENGINEERING DIVISION 6011 NOB HILL ROAD TAMARAC, FL, 33321	STANDARD DETAIL	REVISIONS			
	RESTRAINED PIPE JOINT SCHEDULE-WATER	FIGURE WAT-3	<i>No.</i>	<i>Date</i>	<i>Remarks</i>
		<i>Drawn By:</i>	<i>Date:</i>	<i>Approved By:</i>	<i>Date:</i>

NOTE

METER INSTALLATION TO BE PERPENDICULAR TO STREET, ROAD, ETC. METER WILL BE SET BY TAMARAC UTILITIES AFTER PROPER METER BOX INSTALLATION BY PLUMBER/CONTRACTOR.

REQUIRES DUAL CHECK VALVE STRAIGHT CASCADING DUAL CHECK VALVE FORD MODEL HHS31-xxx-NL STYLE OR APPROVED EQUAL.

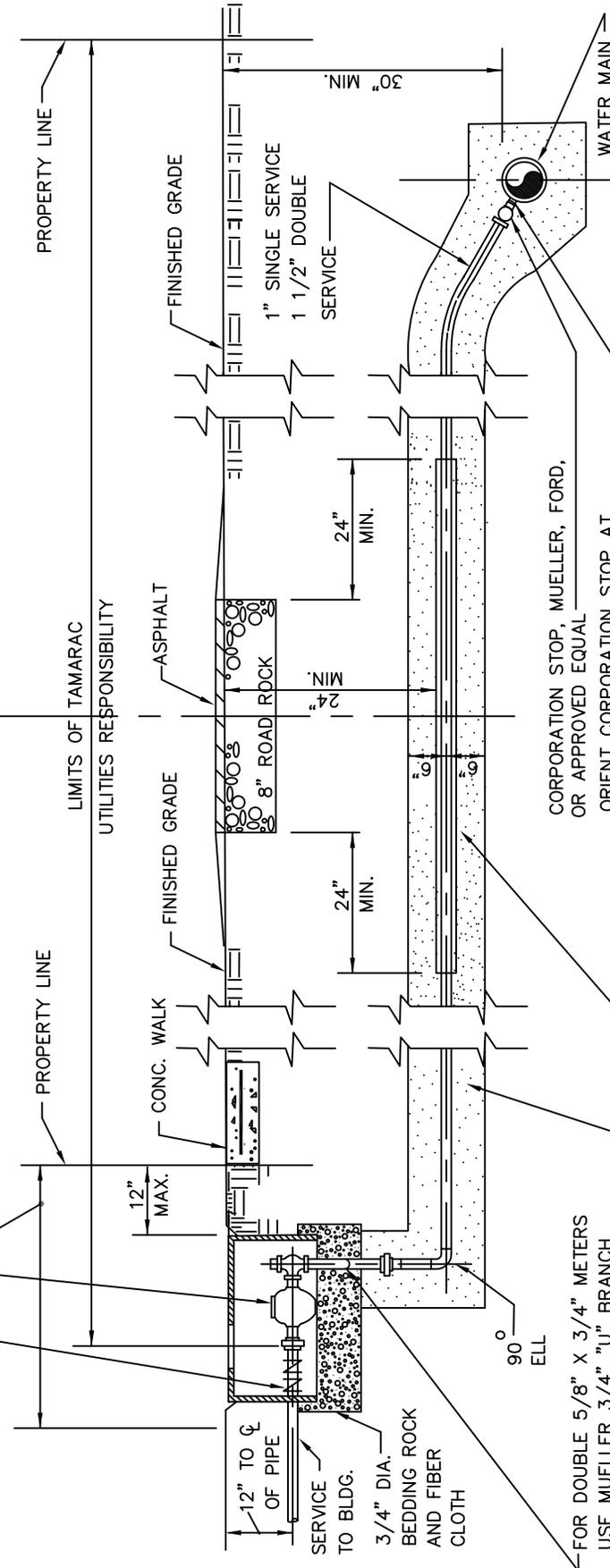
METER AND BOX FURNISHED BY CITY OF TAMARAC

TAMARAC EXCLUSIVE UTILITY EASEMENT

PROPERTY LINE

PROPERTY LINE

LIMITS OF TAMARAC UTILITIES RESPONSIBILITY



FOR DOUBLE 5/8" X 3/4" METERS USE MUELLER 3/4" "U" BRANCH # H-15365 WITH BRASS LOCK WING ANGLE METER STOPS # 14265, OR APPROVED EQUAL.

6" ABOVE AND BELOW PIPE SAND ENVELOPE - FULL TRENCH WIDTH

FORD BALL VALVE BRANCH ASSEMBLY UVB63-42N-65-NL FOR 5/8" X 3/4" METER OR APPROVED EQUAL.

CORPORATION STOP, MUELLER, FORD, OR APPROVED EQUAL ORIENT CORPORATION STOP AT 2:00 OR 10:00 POSITION AS REQUIRED

COMPRESSION FITTING (TYP.) FITTING SHALL BE MUELLER 110 CONDUCTIVE COMPRESSION CONNECTION FOR CTS O.D. TUBING OR EQUAL AS APPROVED BY CITY

HORIZ. RUN OF WATER SERVICE PIPE WHICH IS LOCATED UNDER PAVED AREA SHALL BE ENCASED IN SCHED. 40 PVC PIPE WITH MIN. 24" COVER. ENDS OF ENCASEMENT PIPE SHALL BE SEALED TO PREVENT EROSION.

EPOXY COATED SERVICE SADDLE WITH STAINLESS STEEL BAND, FORD STYLE FC 202 OR APPROVED EQUAL.

TYPICAL 1" & 1 1/2" SERVICE



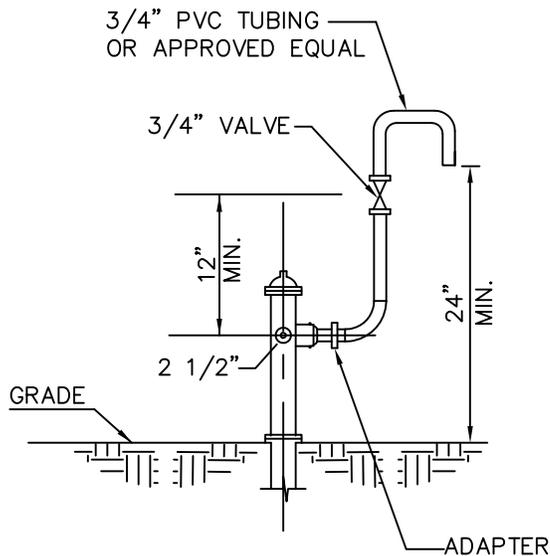
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STANDARD DETAIL

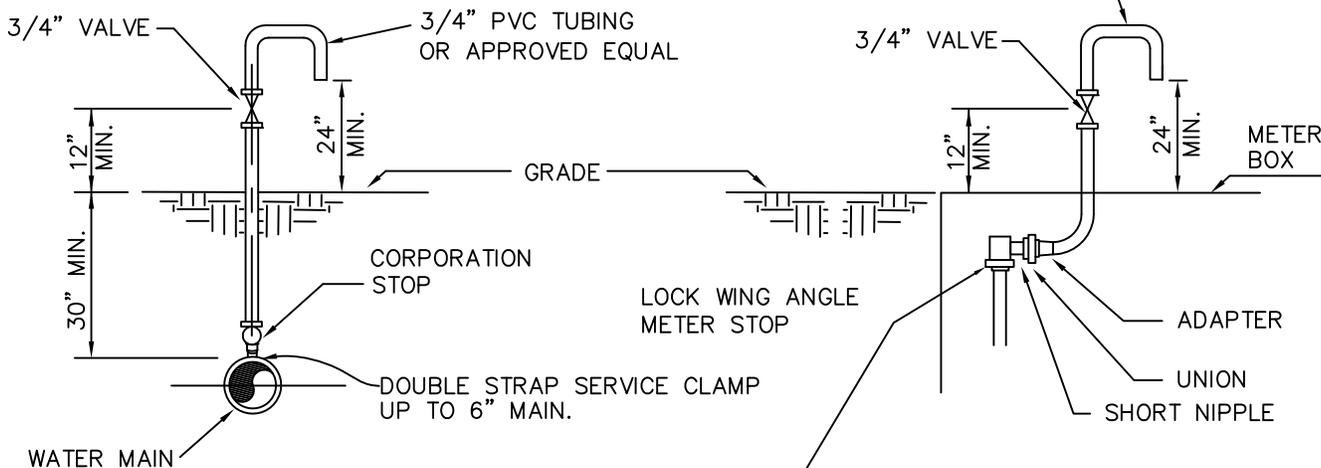
TYPICAL 1" AND 1 1/2" SERVICE - WATER
FIGURE WAT-4

REVISIONS			
No.	Date	Remarks	By

Drawn By: _____ Date: _____ Approved By: _____ Date: _____



A CORPORATION STOP SHALL BE INSTALLED WITH A LENGTH OF PVC TUBING EXTENDING ABOVE THE GROUND. THE TUBING SHALL BE INSTALLED WITH A 180° BEND.



BACTERIOLOGICAL SAMPLING POINT

NOTE

SAMPLING POINTS SHALL BE INSTALLED AND LATER REMOVED BY THE CONTRACTOR AFTER CLEARANCE OF WATER SAMPLES BY BROWARD COUNTY HEALTH DEPARTMENT.

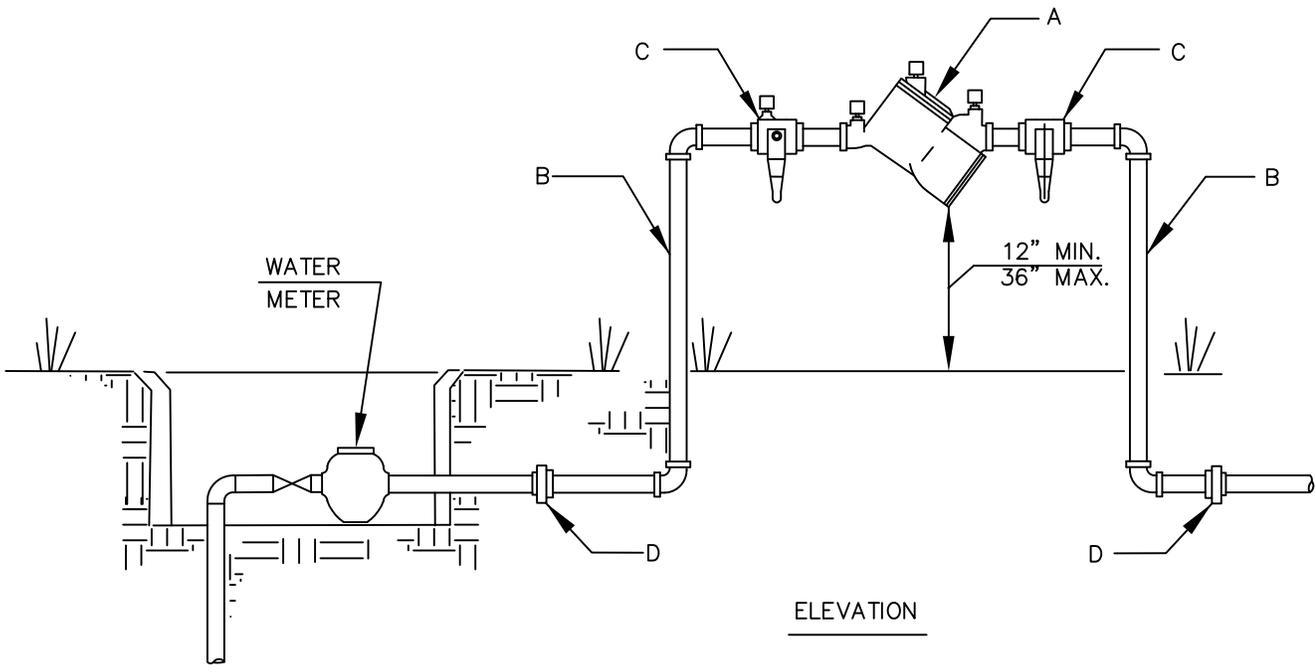


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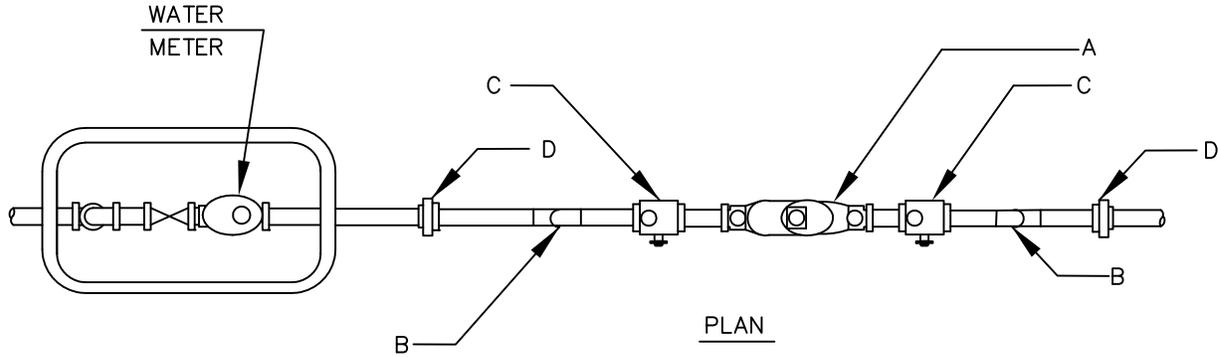
STANDARD DETAIL

BACTERIOLOGICAL SAMPLING POINT
FIGURE WAT- 9

REVISIONS			
No.	Date	Remarks	By



ELEVATION



PLAN

DOUBLE CHECK VALVE ASSEMBLY
3/4" TO 2"

- A = REDUCED PRESSURE OR DOUBLE CHECK VALVE BACKFLOW PREVENTION ASSEMBLY, WITH BALL VALVES, AS PROVIDED BY MANUFACTURERS.
- B = RISER SHALL BE COPPER PIPE, TYPE K – HARD TEMPER, OR AS APPROVED BY THE CITY PLUMBING INSPECTOR OF APPROPRIATE SIZE.
- C = SHUT-OFF VALVES
- D = COPPER RISERS SHALL BE JOINED TO THE WATER LINE ON THE HORIZONTAL RUN. IF THE WATER LINE IS OTHER THAN PVC OR COPPER, A DIELECTRIC COUPLING WILL BE USED TO PREVENT ELECTROLYSIS.

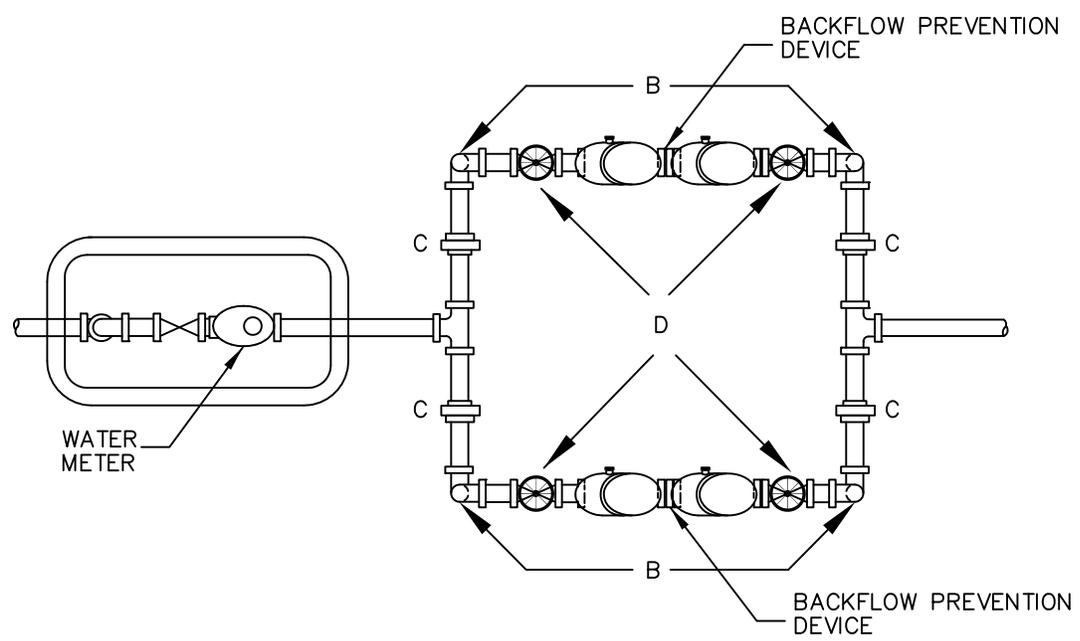
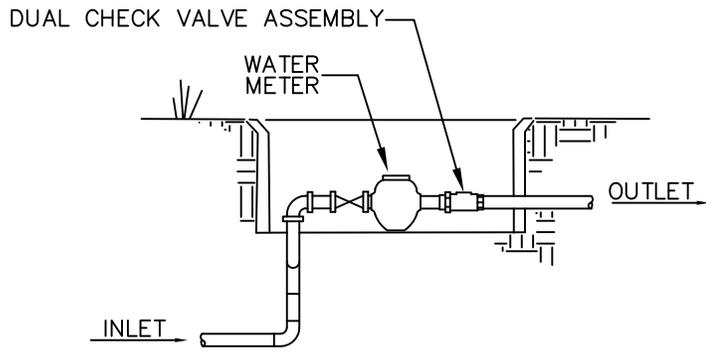
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STANDARD DETAIL

DOUBLE CHECK VALVE ASSEMBLY 3/4" TO 2"

FIGURE WAT- 14

REVISIONS			
No.	Date	Remarks	By



DUAL CHECK VALVE ASSEMBLY

DUAL BACKFLOW PREVENTION ASSEMBLIES ARE RECOMMENDED FOR THOSE ESTABLISHMENTS THAT CANNOT AFFORD TO BE WITHOUT WATER WHILE BACKFLOW PREVENTION ASSEMBLIES ARE BEING TESTED OR REPAIRED. (MEDICAL OFFICES, BEAUTY PARLORS, LAUNDROMATS, CAR WASHES, DRY CLEANERS, HOSPITALS, AND DENTAL OFFICES). DUAL BACKFLOW PREVENTION ASSEMBLIES (DC OR RP) SHALL BE COMPRISED OF DEVICES WITH THE SAME MANUFACTURER, MODEL AND SIZE.

TAMARAC
 The City For Your Life

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STANDARD DETAIL	
DUAL CHECK VALVE ASSEMBLY FIGURE WAT- 18	

REVISIONS			
No.	Date	Remarks	By

