

**LEGEND**

P.O.C.	POINT OF COMMENCEMENT	OH	EXISTING OVERHEAD WIRE
P.O.B.	POINT OF BEGINNING	—	EXISTING SIGN
P.O.T.	POINT OF TERMINATION	—	PROPOSED SIGN
B.C.R.	BROWARD COUNTY RECORDS	—	CURB INLET
P.B.	PLAT BOOK	—	CATCH BASIN
(C)	CALCULATED	—	WATER METER
⊕	CENTERLINE	—	FLORIDA POWER & LIGHT MANHOLE
R/W	RIGHT-OF-WAY	—	EXISTING PILE, TO BE REMOVED
P.B.	PLAT BOOK	—	PROPOSED PILE
ELEV.	ELEVATION	—	EXISTING DOCK, TO BE REPLACED
Δ	INCLUDED ANGLE OF CURVE	—	PROPOSED NEW DOCK
R	RADIUS OF CURVE	—	PAVEMENT RESTORATION
T	TANGENT OF CURVE	—	CONCRETE POWER POLE
L	LENGTH OF CURVE	—	GATE VALVE
⊙	SECTION CORNER	—	
⊙	SECTION 1/4 CORNER	—	
—	SEWAGE PUMP OUT-S.P.O. (SEE DETAIL ON SHEET 8)		
—	8\"/>		

- NOTES:**
- PROPOSED WATER MAIN SHALL BE DUCTILE IRON, CLASS 350 WITH 30 INCHES MIN. COVER
  - SEWER LATERAL SHALL BE PVC, SDR 35 (MAX.) 6\"/>

**E.R.C USAGE SCHEDULE**

USAGE TYPE	E.R.C
ESTIMATED POTABLE WATER AND WASTE WATER	3
ESTIMATED IRRIGATION WATER	9

**WATER AND SEWER PLAN**  
SCALE: 1"=20'

Call 48 hours before you dig in Florida  
It's the Law! 1-800-432-4770  
FP&L (305) 347-3900  
Sunshine State One Call of Florida, Inc.

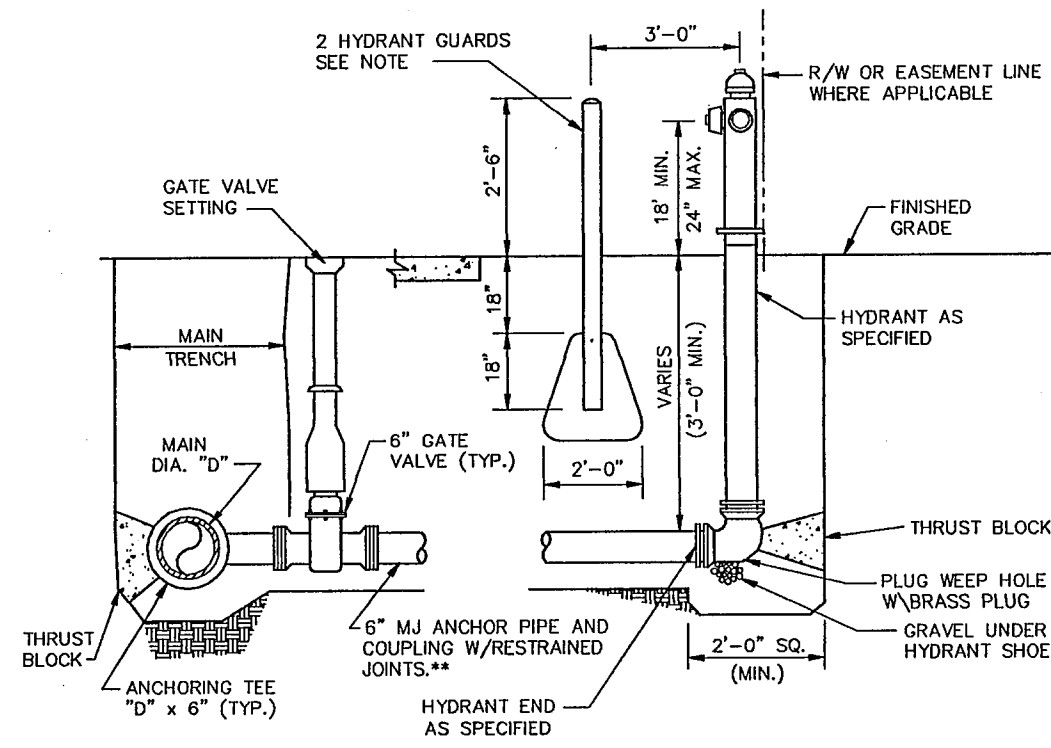
12/14/99	REVIEW COMMENTS				
03/29/00	REVIEW COMMENTS				
No.	DATE	REVISION	BY		

**WILLIAMS, HATFIELD & STONER, INC.**  
CONSULTING ENGINEERS - PLANNERS - SURVEYORS  
2101 NORTH ANDREWS AVENUE, SUITE 300, FORT LAUDERDALE, FL 33311  
PHONE: (954) 568-8341 • FAX: (954) 568-5421

**HILLSBORO INLET IMPROVEMENT WATER AND SEWER PLAN**  
PREPARED FOR:  
CITY OF POMPANO BEACH  
LOCATED IN:  
POMPANO BEACH, BROWARD COUNTY, FLORIDA

Date: 9/24/99  
Drawn: JAN  
Checked: JVD  
Manager: JVD  
Dwg Name: HILLSI.DWG

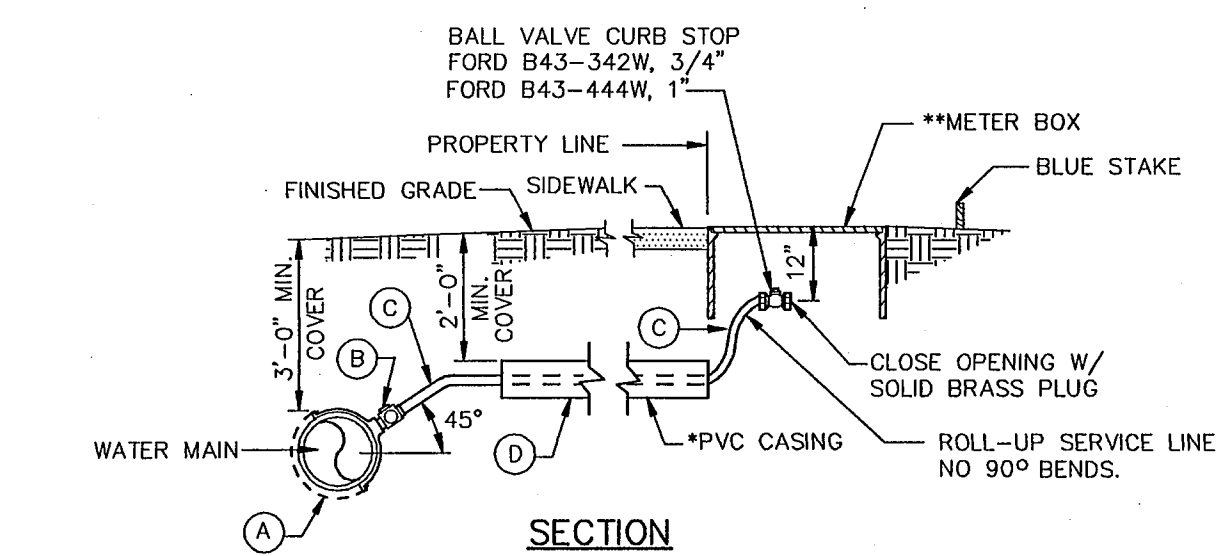
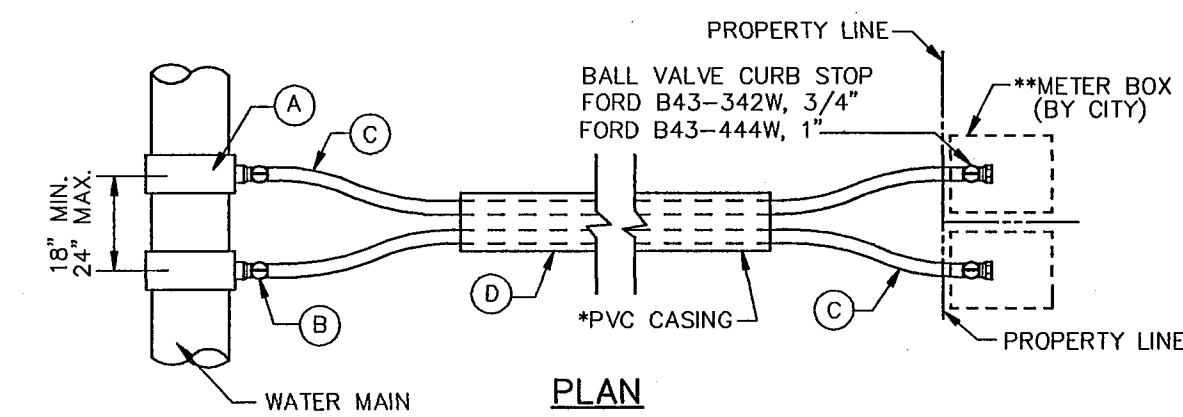
PROJECT No. 4220-30  
SHEET No. 6



NOTES:  
 HYDRANT GUARDS TO BE 6" DIAMETER GALVANIZED STEEL PIPE FILLED WITH CONCRETE. OMIT GUARDS IN LOCATIONS WHERE SIDEWALKS EXISTING.  
 \*\*USE 2-3/4" S.S. TIE RODS WHEN DISTANCE BETWEEN MAIN AND HYDRANT < 10'. TIE RODS WILL BE USED W/ RESTRAINED JOINTS.

TYPICAL FIRE HYDRANT ASSEMBLY

N.T.S.



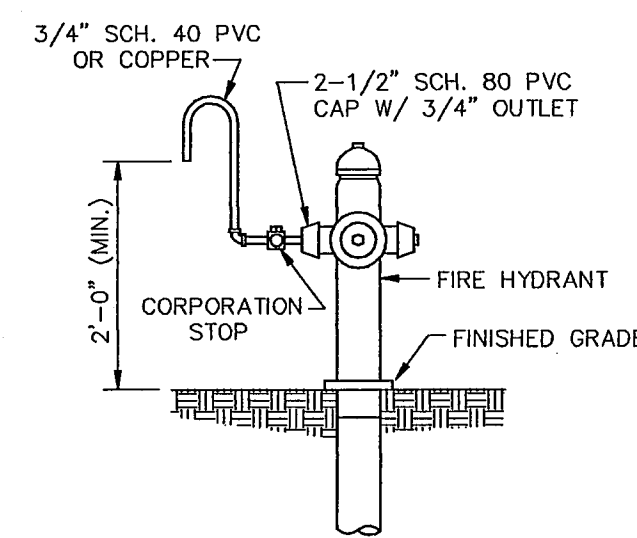
SINGLE SERVICE

DOUBLE SERVICE

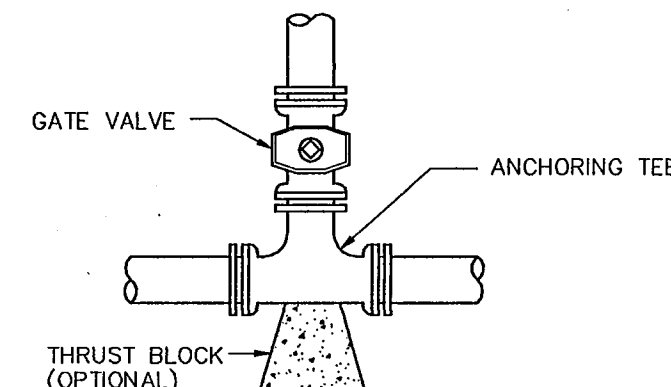
- |  |  |
|--|--|
| (A) 1" TAPPING SADDLE<br>FORD F202                                 | (A) 1" TAPPING SADDLE (2)<br>FORD F202                         |
| (B) 1" CORPORATION STOP<br>FORD TYPE F1000                         | (B) 1" CORPORATION STOP (2)<br>FORD TYPE F1000                 |
| (C) 1" POLYETHYLENE<br>DRISCO PIPE                                 | (C) 1" POLYETHYLENE (2)<br>DRISCO PIPE                         |
| (D) 1 1/2" SCH. 40 FOR 1" SERVICE<br>2 1/2" SCH. 40 FOR 2" SERVICE | (D) 2 1/2" SCH. 40 FOR 1" SERVICE<br>6" SCH. 40 FOR 2" SERVICE |

TYPICAL WATER SERVICE

N.T.S.

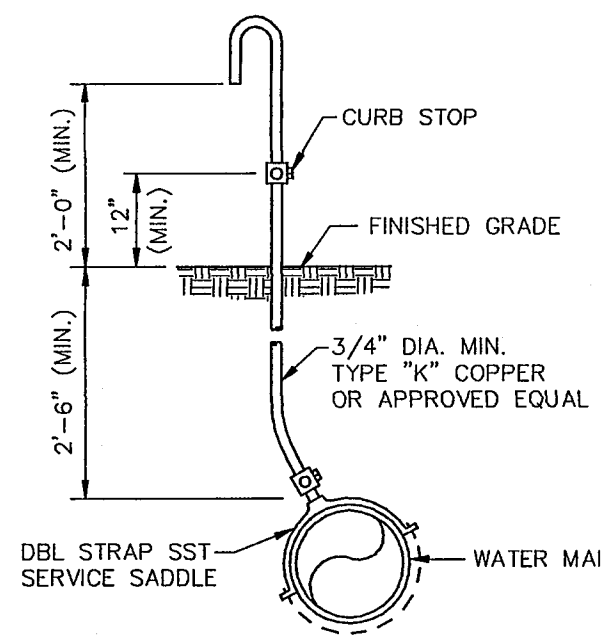


SAMPLE POINT (HYDRANT)



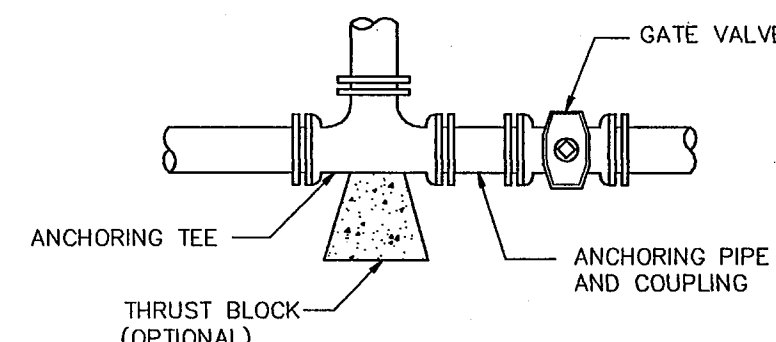
RESTRAINED VALVE AT TEE (BRANCH)

N.T.S.



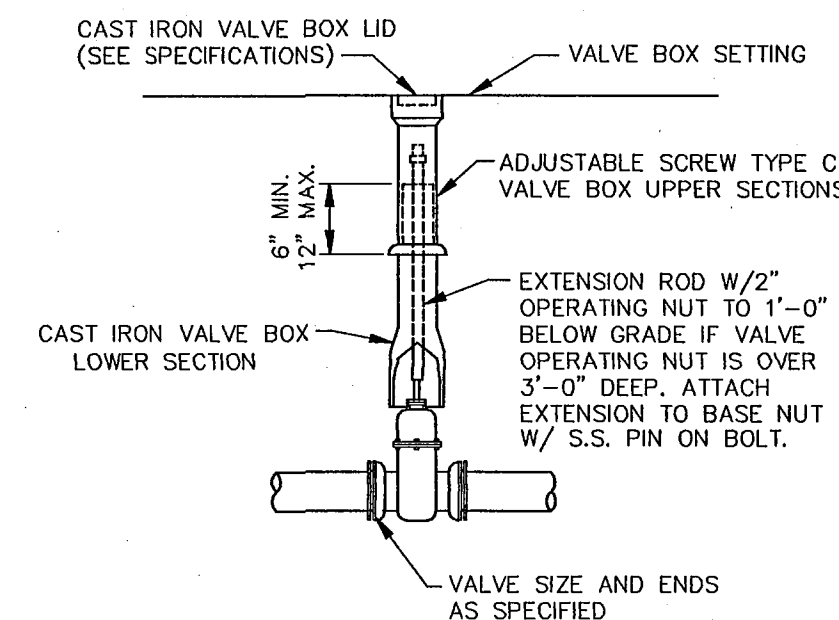
SAMPLE POINT (MAIN)

N.T.S.



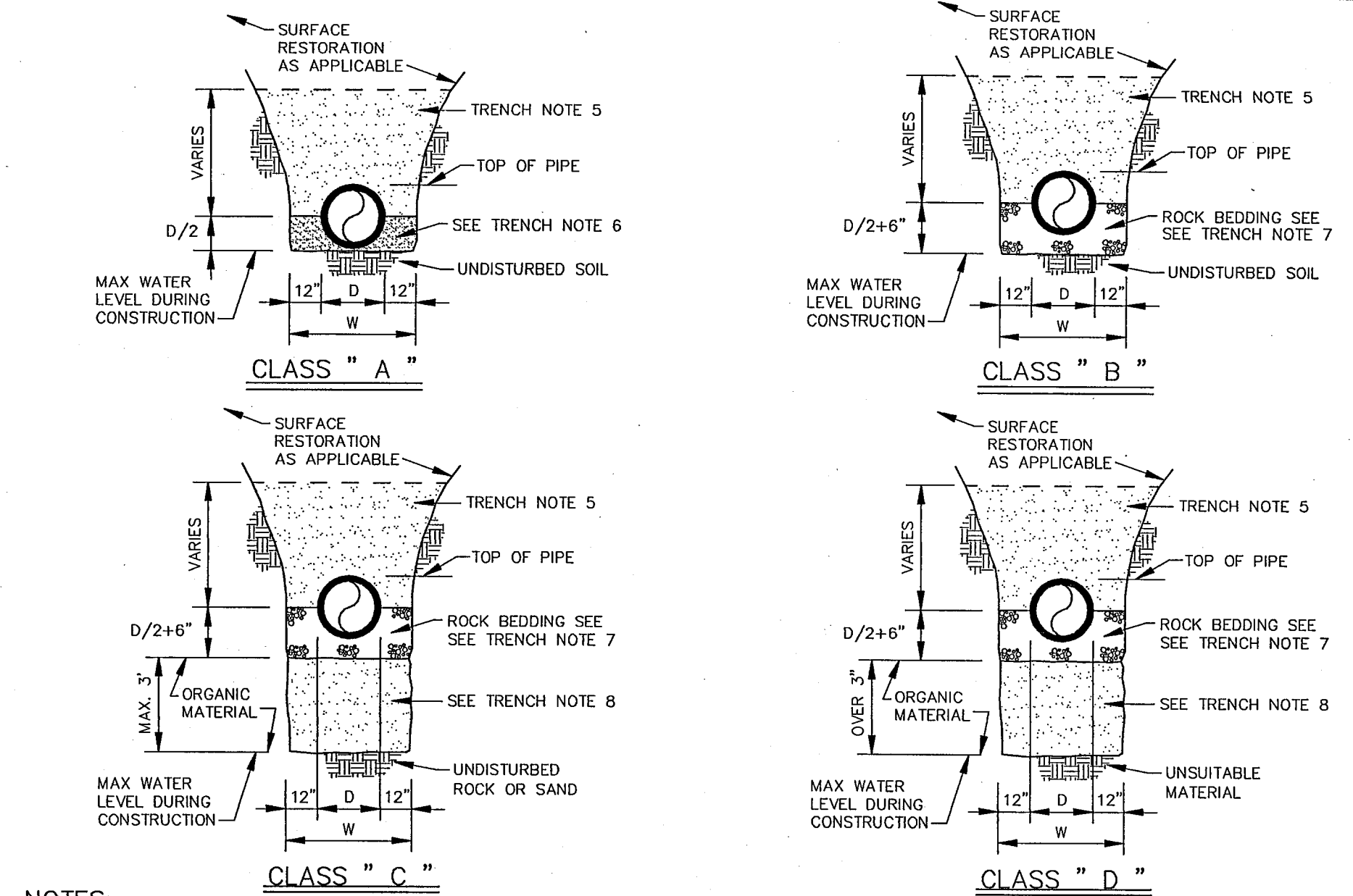
RESTRAINED VALVE AT TEE (IN-LINE)

N.T.S.



GATE OR PLUG VALVE SETTING  
(WITHOUT GEAR OPERATION)

N.T.S.



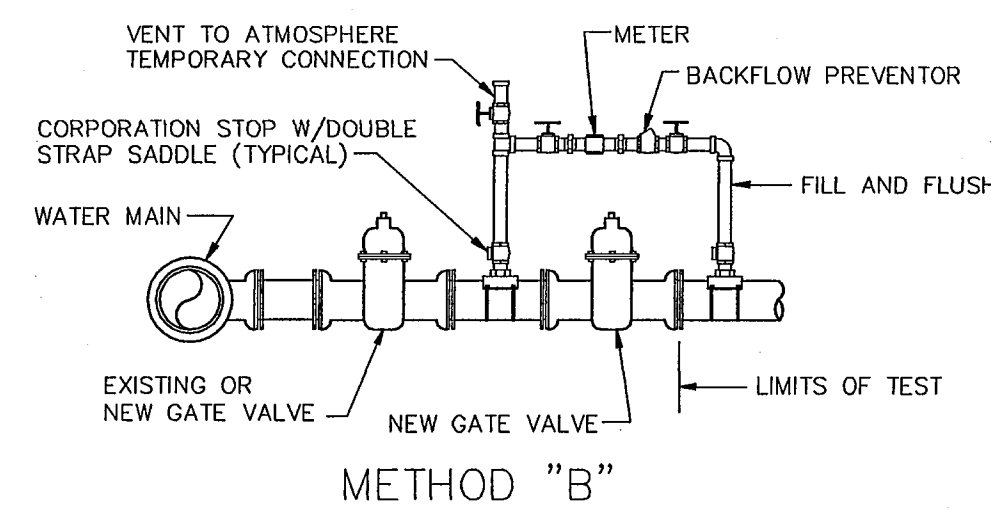
NOTES:

- OUTLINE OF TRENCH EXCAVATION IS FOR ILLUSTRATIVE PURPOSES ONLY. ACTUAL TRENCH WIDTH AND SHAPE WILL VARY WITH SOIL CONDITIONS. TRENCH EXCAVATION SHALL BE IN ACCORDANCE WITH THE "FLORIDA TRENCH SAFETY ACT" AND OSHA TRENCH SAFETY STANDARDS.
- TYPICAL TRENCH BACKFILL/BEDDING FOR WATER MAIN AND FORCE MAIN INSTALLATIONS SHALL BE CLASS "A" AS SHOWN IN DETAIL.
- TYPICAL TRENCH BACKFILL/BEDDING FOR GRAVITY SEWER INSTALLATION SHALL BE CLASS "B" AS SHOWN IN DETAIL.
- TRENCH BACKFILL/BEDDING CLASS "C" AND CLASS "D" SHALL BE USED FOR PIPE INSTALLATIONS WHERE UNSUITABLE TRENCH MATERIALS ARE ENCOUNTERED.
- TRENCH ZONE BACKFILL SHALL BE MATERIAL TYPE 1 OR TYPES A THRU H, OR ANY MIXTURE THEREOF, WHERE SURFACE RESTORATION TYPE "1" IS APPLICABLE. TRENCH ZONE BACKFILL SHALL BE PLACED IN 12" LIFTS, COMPACTED TO 90% OF THE MATERIAL'S MAXIMUM DENSITY AS DETERMINED BY ASTM D-897 (AASHTO T-99). WHERE SURFACE RESTORATION TYPES "2", "3" AND "4" ARE APPLICABLE, TRENCH BACKFILL SHALL BE PLACED IN 8" LIFTS COMPACTED TO 98% OF THE MATERIAL'S DENSITY AS DETERMINED BY ASTM D-698 (AASHTO T-99).
- BEDDING MATERIAL FOR TYPICAL WATER MAIN AND FORCE MAIN INSTALLATION SHALL BE TYPE C. BEDDING SHALL BE PLACED IN LIFTS NOT TO EXCEED 6" AND COMPACTED TO 95% OF THE MATERIAL'S MAXIMUM DENSITY AS DETERMINED BY ASTM D-1557 (AASHTO T-180).
- BEDDING MATERIAL FOR TYPICAL GRAVITY SEWER INSTALLATION AND ANY INSTALLATION WHERE UNSUITABLE TRENCH BOTTOM CONDITIONS ARE FOUND SHALL BE TYPE E. BEDDING SHALL BE PLACED IN LIFTS NOT TO EXCEED 6" AND COMPACTED TO 95% OF THE MATERIAL'S MAXIMUM DENSITY AS DETERMINED BY ASTM D-1557 (AASHTO T-180).
- UNSUITABLE MATERIAL SHALL BE REMOVED TO UNDISTURBED ROCK OR SAND OR TO DEPTH AS SPECIFIED BY ENGINEER. BACKFILL MATERIAL SHALL BE TYPE C. BACKFILL SHALL BE PLACED IN 8" LIFTS COMPACTED TO 95% OF THE MATERIAL'S MAXIMUM DENSITY AS DETERMINED BY ASTM D-1557 (AASHTO T-180).
- BEDDING TYPES - THE FOLLOWING TYPES OF SUITABLE MATERIALS ARE DESIGNATED AND DEFINED AS FOLLOWING:  
 TYPE A: CRUSHED LIMEROCK OR SAND WITH 100 PERCENT PASSING A 1 INCH SIEVE AND A SAND EQUIVALENT VALUE NOT LESS THAN 50.  
 TYPE B: CRUSHED LIMEROCK OR SAND WITH 100 PERCENT PASSING A 1/2 INCH SIEVE AND A SAND EQUIVALENT VALUE NOT LESS THAN 50.  
 TYPE C: SAND WITH 100 PERCENT PASSING A 3/8 INCH SIEVE, AT LEAST 90 PERCENT PASSING A NUMBER 4 SIEVE, AND A SAND EQUIVALENT VALUE NOT LESS THAN 30.  
 TYPE D: CRUSHED LIMEROCK WITH 100 PERCENT PASSING A 1 INCH SIEVE AND NOT MORE THAN 10 PERCENT A NUMBER 4 SIEVE.  
 TYPE E: CRUSHED LIMEROCK OR SAND WITH 100 PERCENT PASSING A 3/4 INCH SIEVE AND NOT MORE THAN 10 PERCENT A NUMBER 4 SIEVE.  
 TYPE F: CRUSHED LIMEROCK MEETING THE FOLLOWING GRADATION REQUIREMENTS.

SIEVE SIZE	PERCENTAGE PASSING
2 INCH	100
1-1/2 INCH	90-100
1 INCH	20-55
3/4 INCH	0-15
NO. 200	0-3

TRENCH BACKFILL / BEDDING

N.T.S.



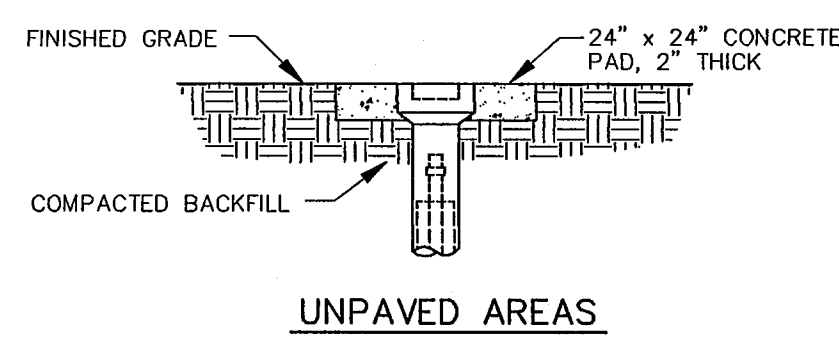
METHOD "B"

NOTES:

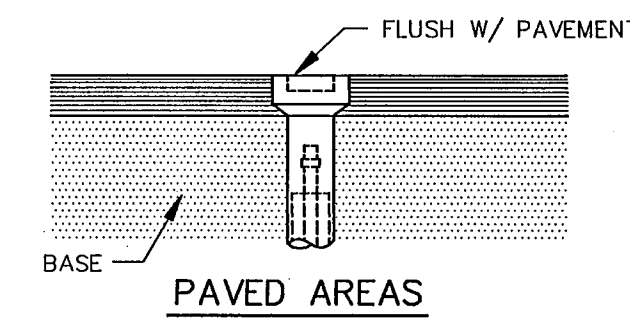
- WATER MAIN TO BE PRESSURE TESTED AND DISINFECTED ACCORDING TO BROWARD COUNTY PUBLIC HEALTH UNIT REGULATIONS, AWWA, AND MUNICIPAL SPECIFICATIONS IN EFFECT.
- BACTERIOLOGICAL TESTS ARE TO BE PERFORMED BY THE CONTRACTOR AND AN APPROVED TESTING LABORATORY.
- REMOVE TEMPORARY CONNECTION AT SADDLE ON NEW MAINS AFTER FILLING AND FLUSHING HAS BEEN COMPLETED AND REPLACE WITH BRASS PLUG
- PROVIDE ALL NECESSARY THRUST BLOCKS OR OTHER RESTRAINTS.
- FILLING AND FLUSHING LOCATIONS SHALL BE COORDINATED BY THE CONTRACTOR, ENGINEER, AND CITY.
- VENT TO ATMOSPHERE SHALL REMAIN OPEN DURING ALL PHASES OF PRESSURE TESTING.

FILLING AND FLUSHING CONNECTION

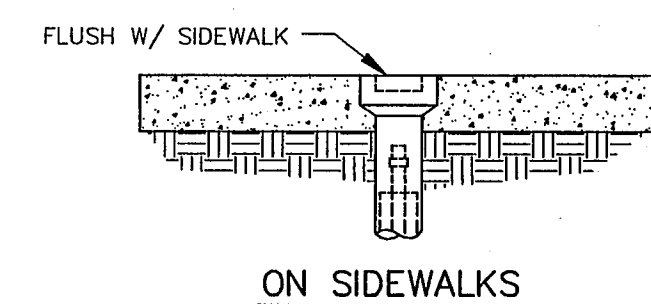
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UNPAVED AREAS



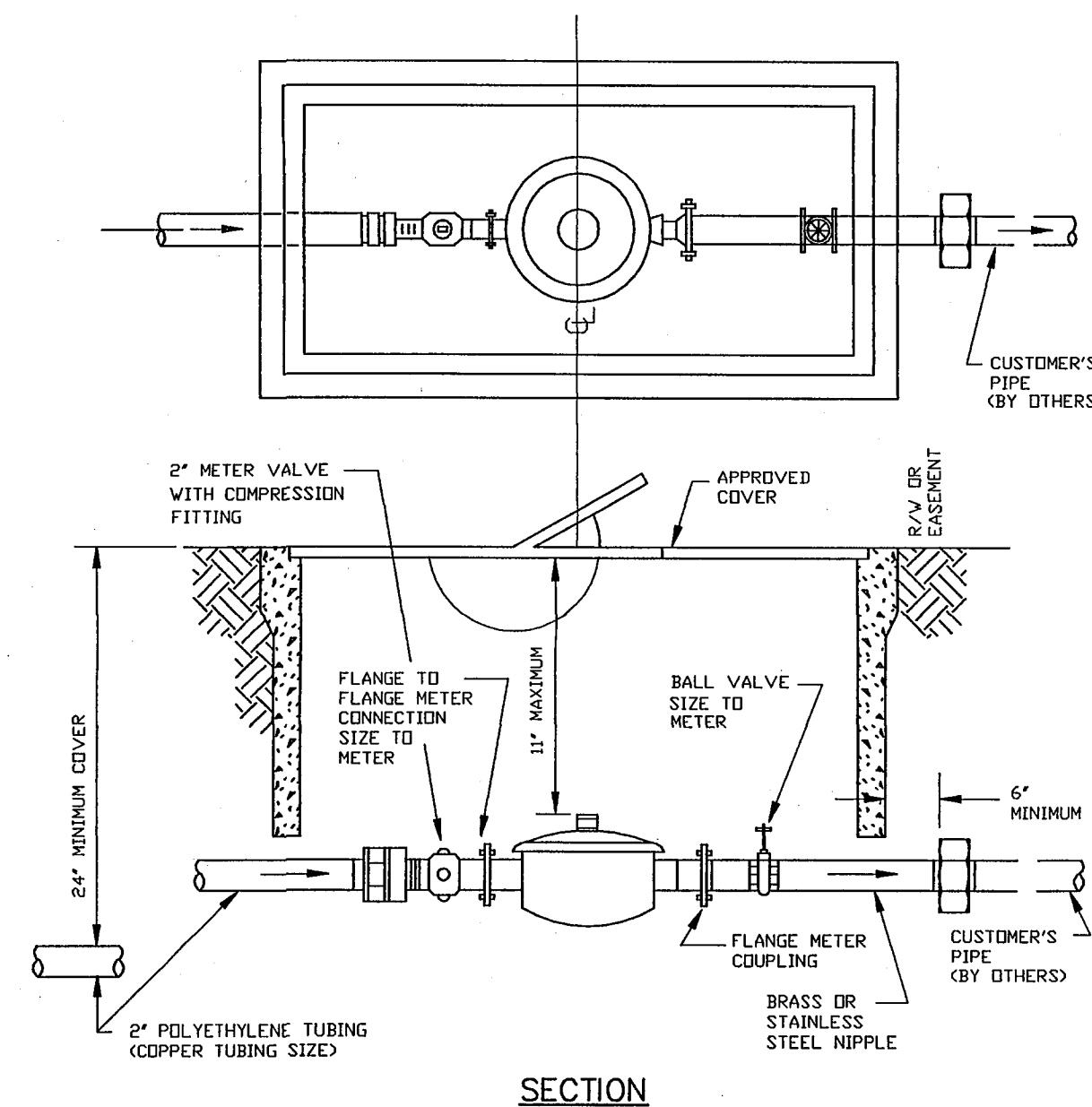
PAVED AREAS



ON SIDEWALKS

VALVE BOX SETTINGS

N.T.S.



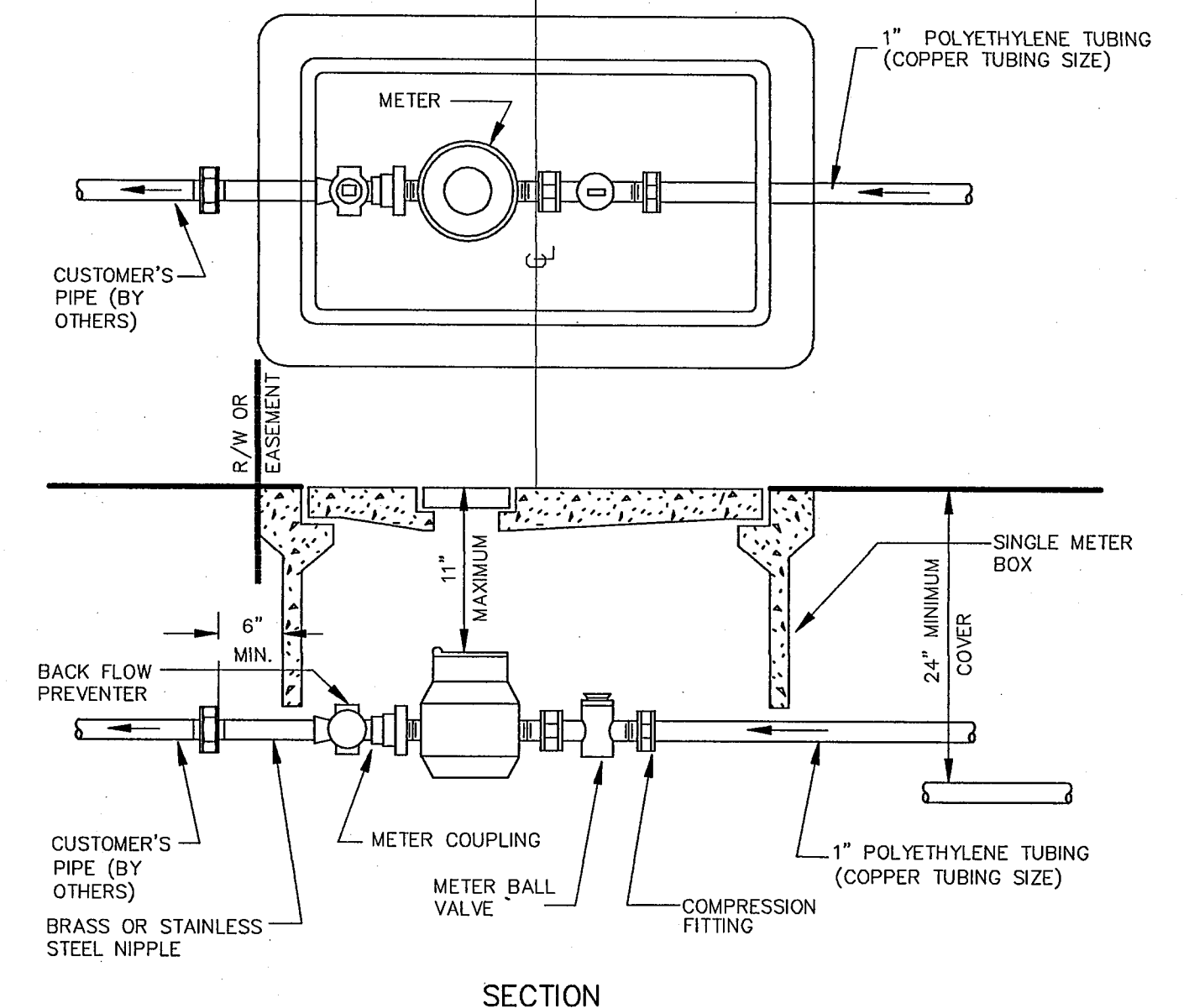
SECTION

NOTES:

- ALL STRUCTURES IN R/W TO BE TRAFFIC BEARING TYPE.
- R/W OR EASEMENT LINE IS THE CUSTOMER'S SIDE OF METER BOX.
- B.C.O.E.S. RESPONSIBILITY ENDS AT THE CUSTOMER'S SIDE OF BALL VALVE.
- CURVE IN SERVICE LINE SHALL BE AS CLOSE TO METER BOX AS PRACTICAL AND MINIMUM RADIUS SHALL BE 21" FOR 2" TUBING.
- ALL METERS WILL BE SUPPLIED AND INSTALLED BY B.C.O.E.S.
- ALL BACKFLOW PREVENTION DEVICES PER LOCAL BUILDING CODE AND SUPPLIED BY CUSTOMER.
- METER BOXES ARE TO BE DOWELED INTO SIDEWALK OR ROCK BASE USING A MINIMUM OF SIX 1/4" DIAMETER THREADED RODS EXTENDING 6" BEYOND THE METER BOX EXTERIOR.

WATER METER INSTALLATION FOR  
FOR 1 1/2" AND 2" METER

N.T.S.



SECTION

NOTES:

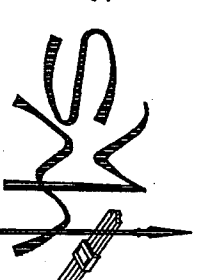
- ALL STRUCTURES IN R/W TO BE TRAFFIC BEARING TYPE.
- R/W OR EASEMENT LINE IS THE CUSTOMER'S SIDE OF METER BOX.
- B.C.O.E.S. RESPONSIBILITY ENDS AT THE CUSTOMER'S SIDE OF METER.
- CURVE IN SERVICE LINE SHALL BE AS CLOSE TO METER BOX AS PRACTICAL AND MINIMUM RADIUS SHALL BE 14" FOR 1" TUBING.
- ALL METERS WILL BE SUPPLIED AND INSTALLED BY B.C.O.E.S. METER HAS IRON PIPE THREAD MALE CONNECTION ON EACH END.
- ALL BACKFLOW PREVENTION DEVICES TO BE SUPPLIED BY THE CUSTOMER. FOR RESIDENTIAL CUSTOMERS, A STRAIGHT DUAL CHECK VALVE IS REQUIRED.
- METER BOXES ARE TO BE DOWELED INTO SIDEWALK OR ROCK BASE, USING A MINIMUM OF SIX 1/4" DIAMETER THREADED RODS EXTENDING 6" BEYOND THE METER BOX EXTERIOR.

WATER METER INSTALLATION FOR  
FOR 5/8" AND 1" METER

N.T.S.

NO.	DATE	REVISION	BY

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HILLSBORO INLET IMPROVEMENT - DETAILS  
 PREPARED FOR:  
 CITY OF POMPANO BEACH  
 LOCATED IN:  
 POMPANO BEACH, BROWARD COUNTY, FLORIDA

Date	8/27/99
Drawn	JAN
Checked	JVD
Engineer	JVD
Project No.	4220-80
Sheet No.	7

