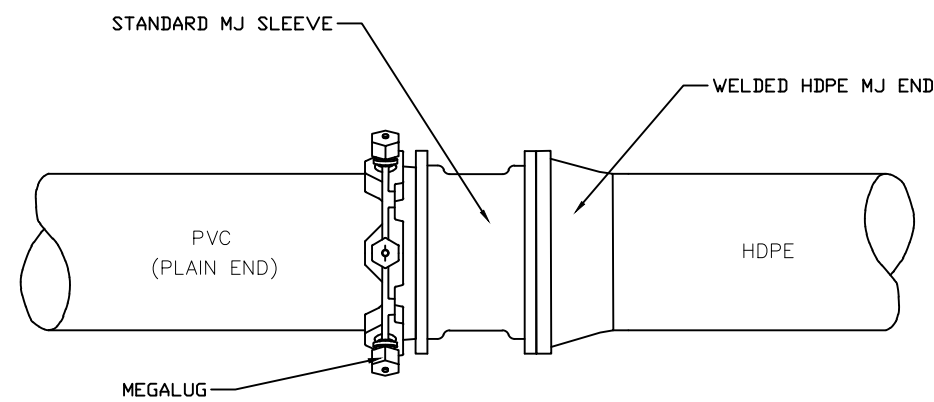
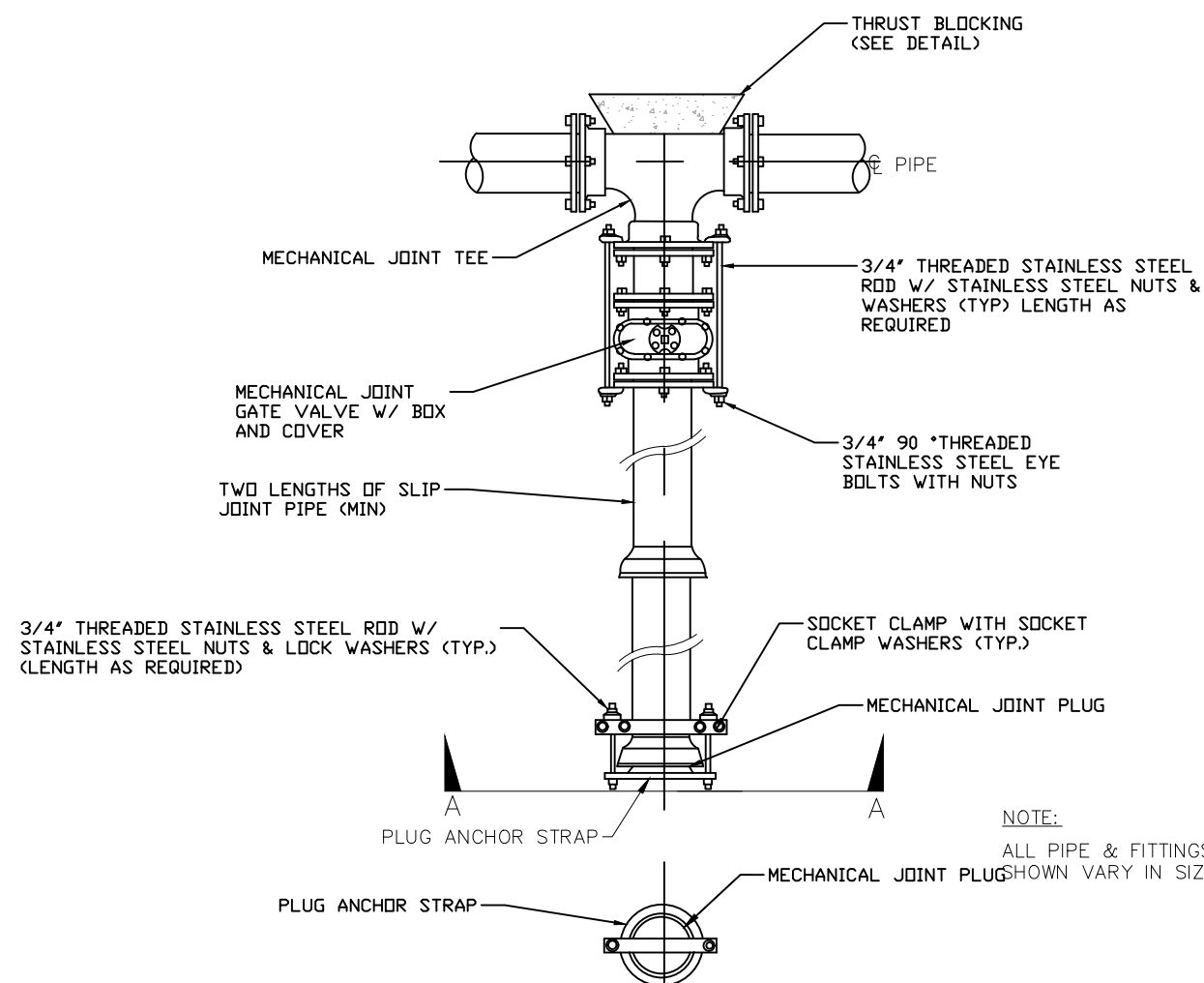


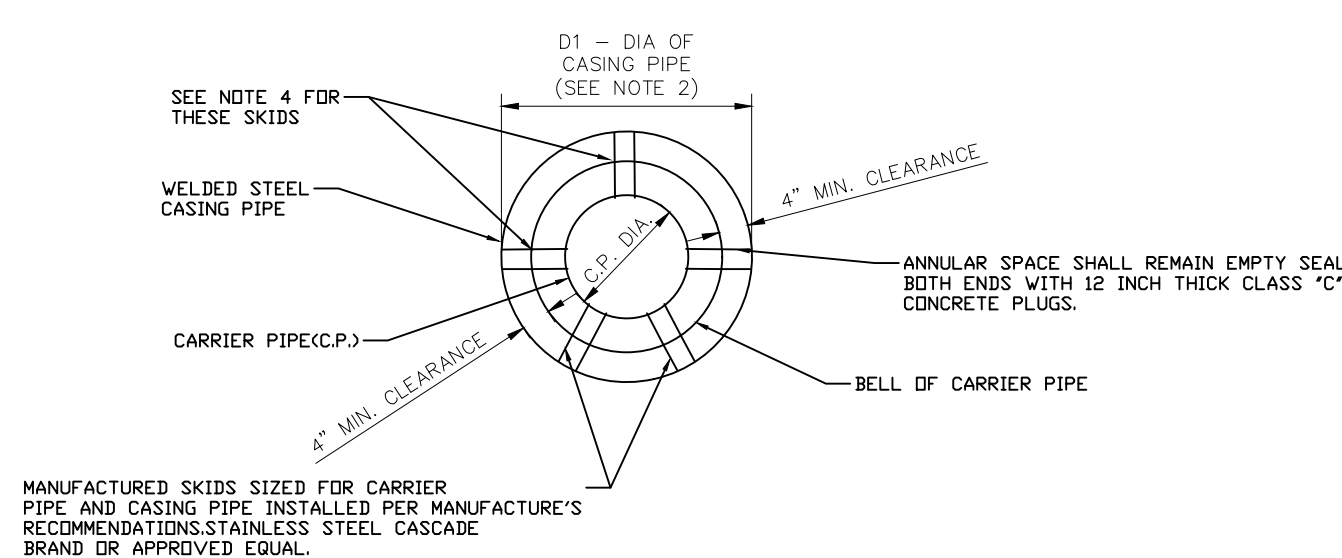
1 HDPE TO PVC TRANSITION  
(UP TO 2" DIAMETER)  
N.T.S.



2 HDPE-TO-PVC CONNECTION  
(3" PIPE AND LARGER)  
N.T.S.



7 DEAD END STUB DETAIL  
N.T.S.

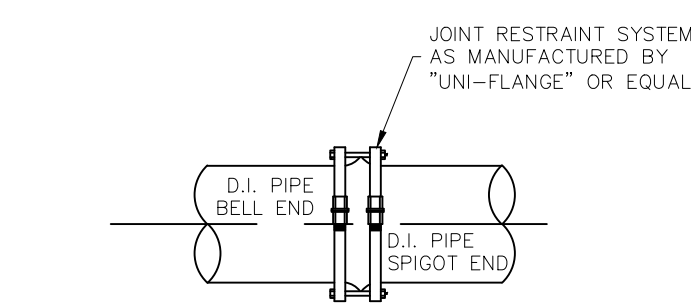


3 TYPICAL CASING DETAIL  
N.T.S.

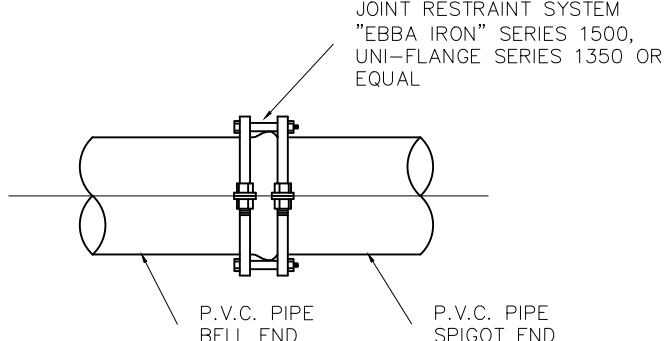
		CASING PIPE SIZES (MIN.)											
CARRIER PIPE NOM. DIA. (D2)		4"	6"	8"	10"	12"	14"	16"	18"	22"	24"	30"	36"
CASING PIPE NOM. DIA. (D1)		8"	12"	16"	22"	24"	30"	30"	30"	36"	36"	48"	60"
HWY X-ING WALL THK.-INCHES		0.188	0.188	0.188	0.188	0.188	0.188	0.188	0.188	0.188	0.250	0.375	0.500

- NOTES:
- MIN. COVER TO TOP OF CASING SHALL BE 36".
  - THE INSIDE DIAMETER OF THE CASING PIPE SHALL BE 4" GREATER THAN THE OUTSIDE DIAMETER OF THE CARRIER PIPE BELL OR COUPLING.
  - ALL JACK AND BORE CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE FLORIDA DEPARTMENT OF TRANSPORTATION UTILITY ACCOMMODATION MANUAL, LATEST EDITION.
  - SKIDS SHALL BE SECURED TO THE CARRIER PIPE AS PER MANUFACTURERS RECOMMENDATIONS. (MINIMUM OF 3 SKIDS PER PIPE JOINT.)
  - ROTATION OF CARRIER PIPE INSIDE THE CASING PIPE WILL NOT BE PERMITTED. ALL JOINTS WITHIN THE CASING SHALL HAVE JOINT RESTRAINTS INSTALLED.
  - THE CONTRACTOR SHALL SUBMIT SHOP DRAWING OF CASING AND CARRIER PIPE INSTALLATION FOR APPROVAL PRIOR TO PURCHASING MATERIALS.
  - CASING SHALL EXTEND A MINIMUM OF 8 FEET PAST EDGE OF PAVEMENT.

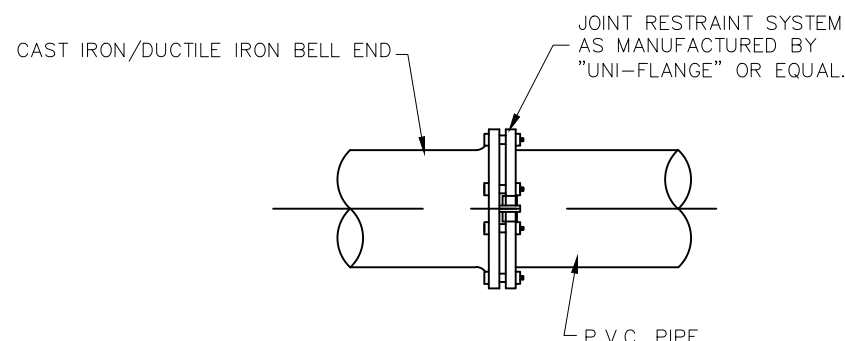
#### WATER MAIN CROSSING FOR ROADWAYS



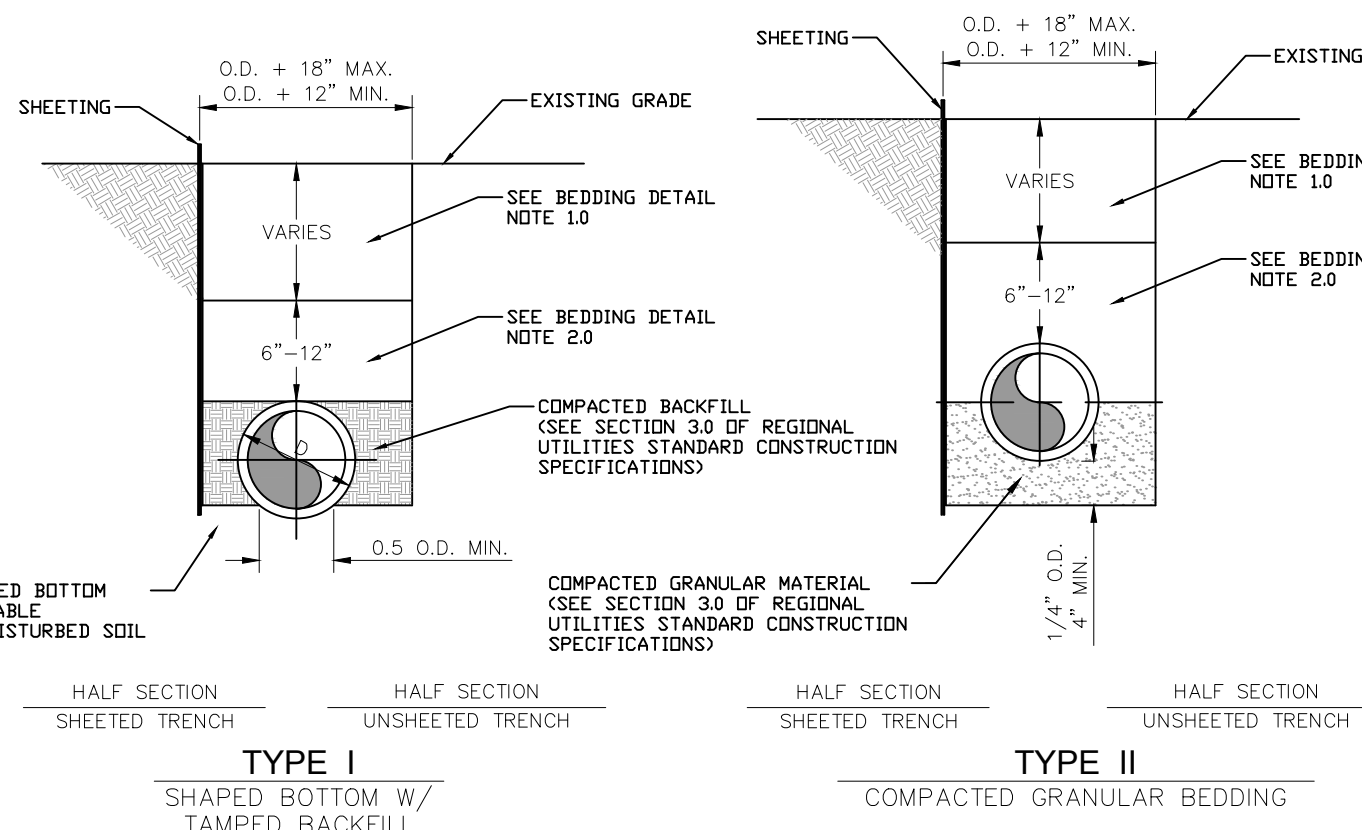
4 TYPICAL RESTRAINED  
D.I. TO D.I. JOINT  
N.T.S.



5 TYPICAL RESTRAINED  
P.V.C. JOINT  
N.T.S.



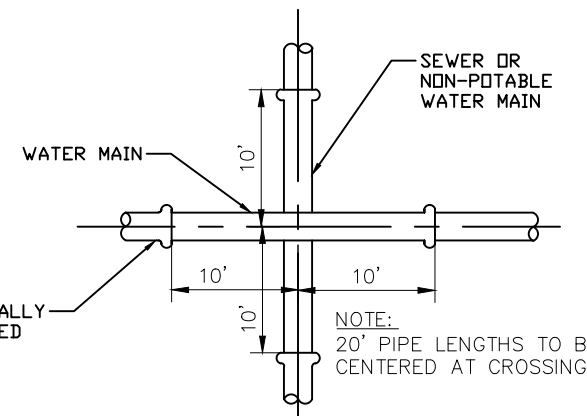
6 TYPICAL RESTRAINED  
CAST IRON/DUCTILE IRON TO P.V.C. JOINT  
N.T.S.



8 TYPICAL BEDDING DETAIL  
N.T.S.

#### BEDDING DETAIL NOTES:

- THE BACKFILL TO A POINT TWELVE (12) INCHES ABOVE THE PIPE SHALL BE PLACED BY HAND AND SHALL BE CAREFULLY SELECTED MATERIAL FREE FROM ROCKS, BOULDERS, CLODS, ORGANIC MATERIAL, OR OTHER DEBRIS AND LIGHTLY COMPACTED PRIOR TO PLACING REMAINING BACKFILL. THE BALANCE OF THE BACKFILL MAY BE PLACED IN THE DITCH BY HAND OR BY MECHANICAL EQUIPMENT. NO BACKFILL SHALL BE DROPPED DIRECTLY ONTO EXPOSED PIPE.
- CONTRACTOR SHALL EMPLOY AN EXCAVATOR-MOUNTED TRENCH ROLLER OR OTHER MECHANICAL COMPACTION EQUIPMENT TO PROVIDE BACKFILL DENSITIES OF 95% OR GREATER AT  $\pm 2\%$  OPTIMUM MOISTURE CONTENT. SURFACE FLOODING AND WATER JETTING OF BACKFILL SHALL NOT BE PERMITTED FOR BACKFILL CONSOLIDATION.
- ALL BACKFILL SHALL BE IN ACCORDANCE WITH SECTION 3.0 OF REGIONAL UTILITIES CONSTRUCTION SPECIFICATIONS.
- PIPE COVER SHALL NOT BE LESS THAN 36 INCHES, NOR GREATER THAN 48 INCHES EXCEPT WHERE SPECIFICALLY SHOWN ON THE CONSTRUCTION DRAWINGS AND APPROVED BY REGIONAL UTILITIES.

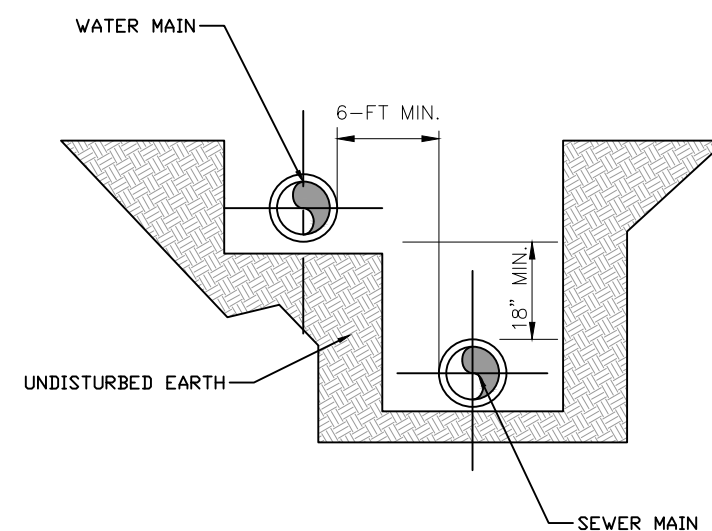


#### NOTES

- WHERE A 18 INCH VERTICAL SEPARATION DISTANCE CANNOT BE MAINTAINED BETWEEN A WATER MAIN AND A SEWER MAIN OR NON-POTABLE WATER MAIN CROSSING THEN THE WATER MAIN SHALL PASS OVER THE SEWER MAIN OR NON-POTABLE WATER MAIN WITH A MINIMUM VERTICAL CLEARANCE OF 12 INCHES. THE SEWER OR NON-POTABLE WATER MAIN SHALL BE 20 FEET OF 6" CONCRETE ENCASEMENT CENTERED ON THE POINT OF CROSSING AND THE WATER MAIN SHALL BE 20 FEET OF 6" CONCRETE ENCASEMENT CENTERED ON THE POINT OF CROSSING. CONCRETE ENCASEMENT SHALL BE POURED SEPARATELY FOR EACH PIPE.
- ANYTHING LESS THAN SHOWN MUST BE APPROVED BY THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION.

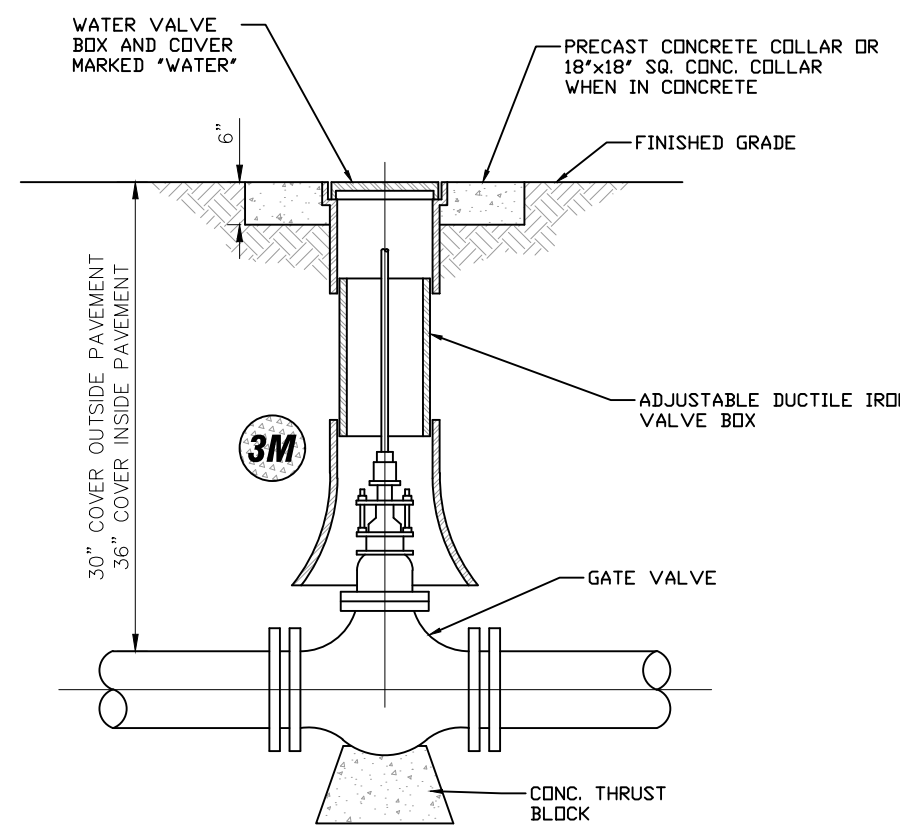
#### WATER/SEWER CROSSING AND SEPARATION DETAIL

N.T.S.



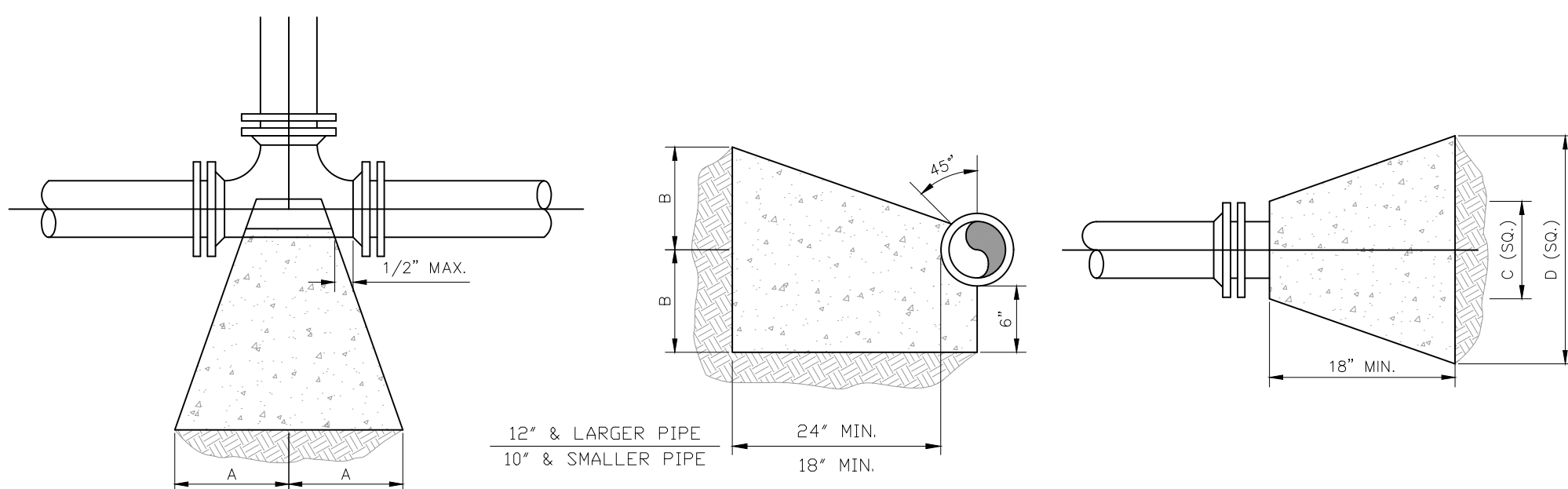
#### NOTES

- WHERE A 10 FOOT PARALLEL SEPARATION CANNOT BE MAINTAINED BETWEEN A WATER MAIN AND A SEWER MAIN OR NON-POTABLE WATER MAIN, THEN THE WATER MAIN SHALL BE LAID IN A SEPARATE TRENCH OR ON AN UNDISTURBED EARTH SHELF AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER MAIN OR NON-POTABLE WATER MAIN AND 6 FEET HORIZONTALLY FROM THE EDGE OF THE SEWER MAIN OR NON-POTABLE WATER MAIN.
- ANYTHING LESS THAN SHOWN MUST BE APPROVED BY THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION.



NOTE:  
ALL BELOW GROUND VALVES REQUIRE VALVE BOX.

10 VALVE AND BOX DETAIL  
N.T.S.



#### NOTES:

- ALL BEARING SURFACES TO BE CARRIED TO UNDISTURBED SOIL.
- THESE TABLES SHOW MINIMUM SIZE THRUST BLOCKS FOR GOOD SOIL. (A-1 THROUGH A-3, CLEAN SAND AND GRAVEL).
- POOR SOIL (A-4 THROUGH A-8, SILTY SOILS, CLAYS, MUCK AND PEAT) WILL REQUIRE LARGER THRUST BLOCKS.

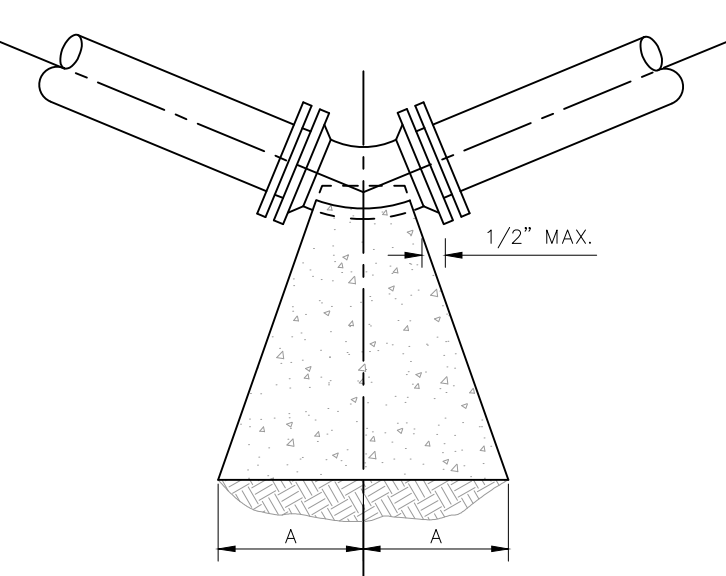
SIZE	TEE		CU. FT.
	A	B	
6"	10"	12"	3.5
8"	13"	16"	5.4
10"	16"	20"	9.4
12"	18"	24"	16.6
14"	22"	27"	23.2
16"	24"	30"	28.6
18"	26"	32"	36.2

11 THRUST BLOCK DETAIL  
N.T.S.

SIZE	PLUG		CU. FT.
	C	D	
6"	10"	21"	2.6
8"	12"	29"	4.5
10"	14"	36"	6.9
12"	16"	41"	9.0
14"	18"	48"	12.3
16"	20"	54"	15.2
18"	22"	60"	19.2

#### NOTES:

- ALL BEARING SURFACES TO BE CARRIED TO UNDISTURBED SOIL.
- THESE TABLES SHOW MINIMUM SIZE THRUST BLOCKS FOR GOOD SOIL. (A-1 THROUGH A-3, CLEAN SAND AND GRAVEL).
- POOR SOIL (A-4 THROUGH A-8, SILTY SOILS, CLAYS, MUCK AND PEAT) WILL REQUIRE LARGER THRUST BLOCKS.

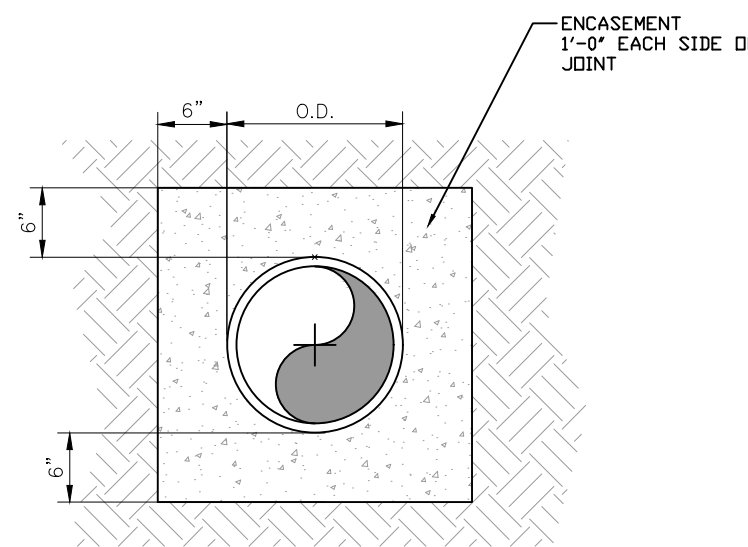


12 THRUST BLOCK DETAIL  
N.T.S.

SIZE	1/4 BENDS			1/8 BENDS			1/16 BENDS		
	A	B	CONC.	A	B	CONC.	A	B	CONC.
6"	16"	10"	3.2	9"	10"	3.0	6"	8"	1.3
8"	22"	13"	7.2	12"	13"	3.7	8"	10"	2.1
10"	26"	17"	11.5	14"	17"	5.9	10"	13"	3.6
12"	29"	21"	21.1	16"	21"	8.6	11"	16"	6.6
14"	35"	24"	29.8	19"	24"	14.9	12"	20"	8.9
16"	38"	27"	37.8	21"	27"	19.1	12"	24"	11.2
18"	42"	29"	47.8	22"	29"	24.2	13"	26"	14.2

#### CONCRETE ENCASEMENT DETAIL

N.T.S.



13

REGIONAL UTILITIES  
OPERATED BY FLORIDA COMMUNITY SERVICES  
CORPORATION OF WALTON COUNTY INC.

4432 HWY 98 E  
Santa Rosa Beach, FL 32459  
Phone: (850) 231-5114  
Fax: (850) 231-9696

POTABLE WATER  
STANDARD DETAILS

PROJECT NAME:

SEAL:

DRAWN BY: RT  
CHECKED BY: RAD  
PROJECT NO.: 000-000  
WORK ORDER: 00.0000  
DRAWING SCALE: 1"=XX'  
PLOT DATE:  
SHEET NO. X OF XX  
SHEET: W-3