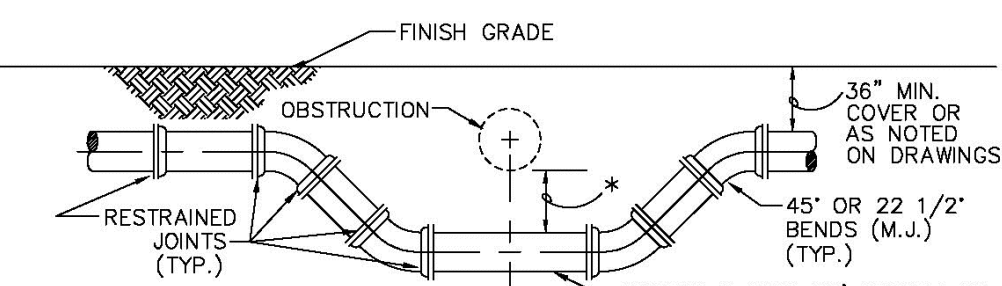


PROTECTION OF POTABLE WATER SUPPLY NOTES

- A. GENERAL
IN ADDITION TO THESE REQUIREMENTS, ALL POTABLE WATER MAINS
CONSTRUCTED IN THE VICINITY OF STORM SEWERS, SANITARY SEWERS
OR FORCE MAINS SHALL COMPLY WITH THE APPLICABLE
PROVISIONS OF FLORIDA ADMINISTRATIVE CODE CHAPTER 62-555,
GREAT LAKES-UPPER MISSISSIPPI RIVER BOARD OF STATE SANITARY
ENGINEERS (GLUMRB) "RECOMMENDED STANDARDS FOR WATER WORKS",
AND GLUMRB "RECOMMENDED STANDARDS FOR WASTEWATER FACILITIES".
- B. DEFINITIONS
FOR THE PURPOSES OF THIS SPECIFICATION, THE WORDS "OTHER PIPE" OR
"OTHER PIPES" SHALL MEAN SANITARY SEWER MAIN, SEWAGE FORCE MAIN,
STORMWATER MAIN OR ANY COMBINATION THEREOF.
- C. CROSS CONNECTIONS PROHIBITED
THERE SHALL BE NO PHYSICAL CONNECTIONS BETWEEN A PUBLIC OR
PRIVATE POTABLE WATER SUPPLY SYSTEM AND ANY OTHER PIPE OR
APPURTENANCE THEREOF WHICH WOULD PERMIT THE PASSAGE OF ANY
WASTEWATER, POLLUTED WATER, OR ANY OTHER WATER INTO THE
POTABLE SUPPLY. NO WATER PIPE SHALL PASS THROUGH OR COME
INTO CONTACT WITH ANY PART OF A SANITARY SEWER MANHOLE OR
STORMWATER MANHOLE.
- D. RELATION OF OTHER PIPES TO POTABLE WATER MAINS
1. HORIZONTAL SEPARATION
A. NEW OR RELOCATED, UNDERGROUND WATER MAINS
SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF
AT LEAST THREE FEET BETWEEN THE OUTSIDE OF THE
WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR
PROPOSED STORM WATER, STORM WATER FORCE MAIN,
OR PIPELINE CONVEYING REUSE WATER NOT REGULATED
UNDER PART III OF CHAPTER 62-610, F.A.C.
B. NEW OR RELOCATED, UNDERGROUND WATER MAINS
SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF
AT LEAST THREE FEET, AND PREFERABLY TEN FEET,
BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE
OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY-OR
PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE
MAIN, OR PIPELINE CONVEYING REUSE WATER NOT
REGULATED UNDER CHAPTER 62-610, F.A.C. THE
MINIMUM HORIZONTAL SEPARATION DISTANCE BETWEEN
WATER MAINS AND GRAVITY TYPE SEWERS SHALL BE
REDUCED TO THREE FEET WHERE THE BOTTOM OF THE
WATER IS LAID AT LEAST SIX INCHES ABOVE THE TOP OF
THE SEWER.
- C. NEW OR RELOCATED, UNDERGROUND WATER MAINS
SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF
AT LEAST SIX FEET, AND PREFERABLY TEN FEET,
BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE
OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY-OR
PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE
MAIN, OR PIPELINE CONVEYING REUSE WATER NOT
REGULATED UNDER CHAPTER 62-610, F.A.C. THE
MINIMUM HORIZONTAL SEPARATION DISTANCE BETWEEN
WATER MAINS AND GRAVITY TYPE SEWERS SHALL BE
REDUCED TO THREE FEET WHERE THE BOTTOM OF THE
WATER IS LAID AT LEAST SIX INCHES ABOVE THE TOP OF
THE SEWER.

ENGINEERING STANDARDS 2025

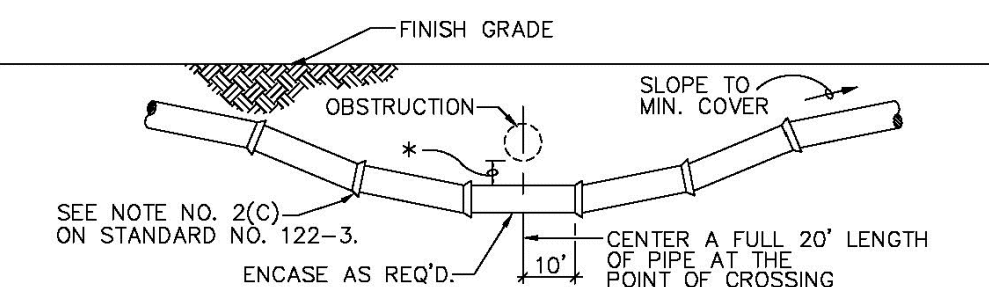
REVISIONS	ENGINEERING DIVISION	POTABLE WATER SUPPLY NOTES
BY DATE	CITY OF POMPANO BEACH	
S.S. 01/12		DATE: JAN. 2022 DWG. NO.
	SCALE: N.T.S.	122-2



SPECIAL UTILITY CROSSING – FITTING TYPE

* 12" MINIMUM CLEARANCE REQUIRED FOR PRESSURE TYPE SANITARY SEWER,
WASTEWATER OR STORMWATER FORCE MAIN OR REUSE WATER MAIN
CROSSINGS. IF MINIMUM CLEARANCE CANNOT BE OBTAINED, REFER TO
"PROTECTION OF POTABLE WATER SUPPLY" FOR WATER MAIN CROSSINGS.
SEE NOTE 2(B), ON STANDARD NO. 122-3

6" MINIMUM CLEARANCE REQUIRED FOR WATER AND STORMWATER,
SEWER MAIN CROSSINGS. SEE NOTE 2(A), ON STANDARD NO. 122-3.



STANDARD UTILITY CROSSING – DEFLECTION TYPE

- NOTES:
- THE DEFLECTION TYPE CROSSING SHALL BE USED WHEREVER
POSSIBLE. ONLY UNDER SPECIFIC ORDERS BY THE
ENGINEER SHALL THE FITTING TYPE CROSSING BE ALLOWED.
 - CONSTRUCT STANDARD CROSSING USING NO MORE THAN 75%
OF MANUFACTURERS' MAXIMUM JOINT DEFLECTION.
 - FOR POTABLE WATER MAINS, REFER TO "PROTECTION
OF POTABLE WATER SUPPLY".

UTILITY CROSSINGS

ENGINEERING STANDARDS 2025

REVISIONS	ENGINEERING DIVISION	UTILITY CROSSINGS
BY DATE	CITY OF POMPANO BEACH	
S.S. 01/12		DATE: JAN. 2022 DWG. NO.
	SCALE: N.T.S.	122-1

INLET: GASKETED BELL - SDR-35 PVC

Base Casting is ASTM A-48 Class 30 Cast Iron
(Portus Castings available to fit 6.275" ± .000" O.D. Man)

PVC Adapter is an ASTM D3034, SDR-35 Gasketed Bell

Castings and Adapter cemented permanently in place
with two-part urethane adhesive

Box of Saddle dip-coated in Waterbased
Bismuthous Coating

Strap is 24 ga. X 2.5" wide Type 304 Stainless Steel

Strap Pins are .75" dia. Type 303 Stainless Steel

T-Bolts are .375" ± .005" 16 Type 304 Stainless Steel

Nuts and Washers are Type 18-8 Stainless Steel

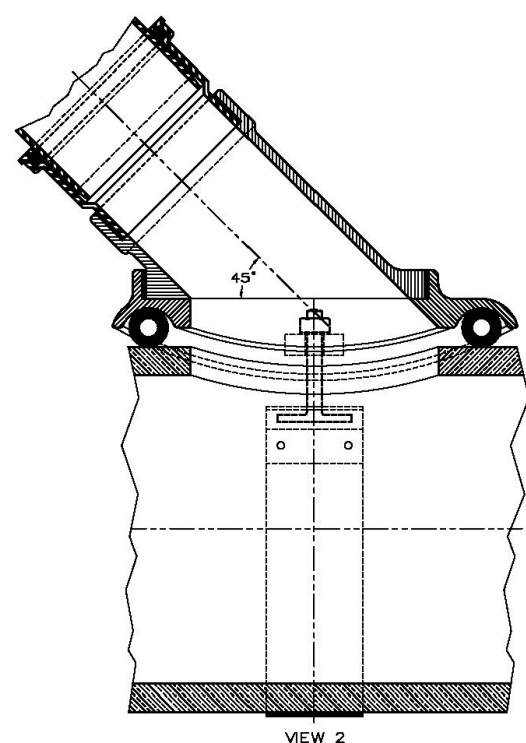
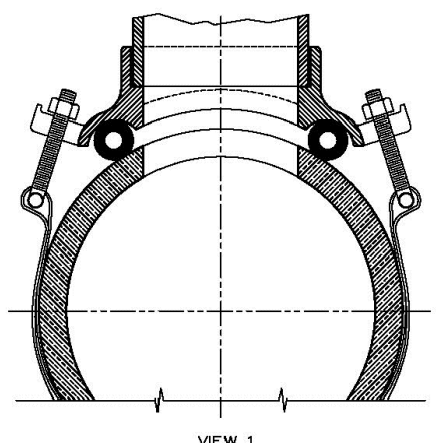
O-Ring is ASTM C-361-77 Tubular Polysoprene

4" inlet requires a 4" x 5.50" oval tap in the Sewer Main

6" inlet requires a 6" x 9.25" oval tap in the Sewer Main

(Sewer Main must be at least 6" dia.)

Note: This Dwg. supercedes Dwg. No. R-3157-01



WYE GRAVITY SEWER SADDLE

TO BE USED WHEN A SEWER MAIN HAS BEEN LINED
WITH A CURED IN PLACE MATERIAL.

ENGINEERING STANDARDS 2025

REVISIONS	ENGINEERING DIVISION	WYE GRAVITY SEWER SADDLE
BY DATE	CITY OF POMPANO BEACH	
		DATE: MAY 2022 DWG. NO.
	SCALE: N.T.S.	201-2

MIN. LENGTH OF PIPE (FEET) TO BE RESTRAINED

(SOURCES: CBAA IRON RESTRAINT LENGTH CALCULATION PROGRAM FOR PVC PIPE, RELEASE 3.1,
AND DIPRA THRUST RESTRAINT FOR DUCTILE IRON PIPE, RELEASE 3.2)

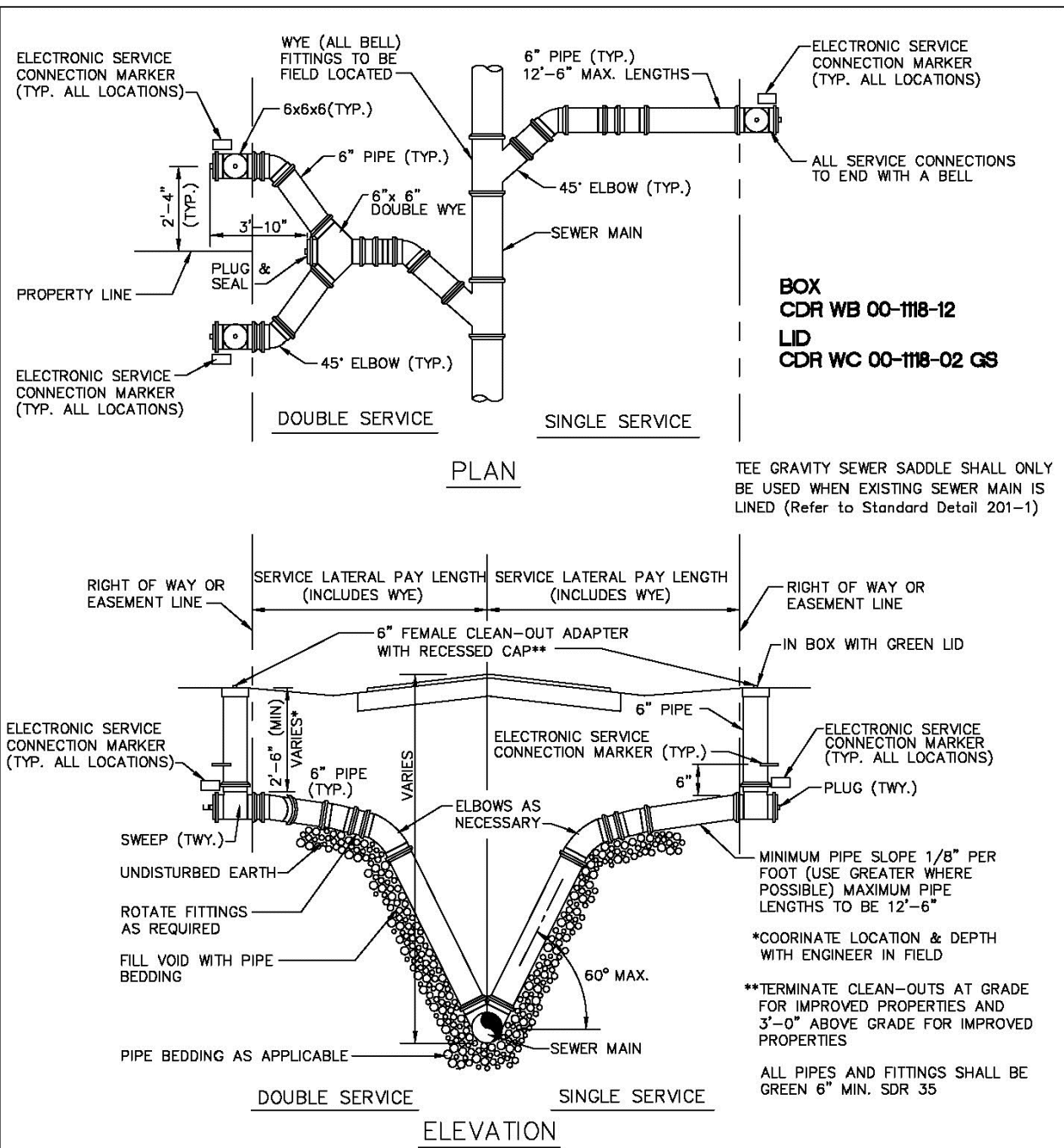
FITTING TYPE	PIPE SIZE	200psi
90° HORIZ. BEND	4" 6" 8" 10" 12" 14" 16" 18" 20" 24"	48" 112" 124" 135"
45° HORIZ. BEND	6 8 11 13 15 19 22 26 41 46 51 56	
22.5° HORIZ. BEND	3 4 5 6 7 9 11 12 19 22 25 27	
11.25° HORIZ. BEND	1 2 3 3 4 4 5 6 10 11 12 13	
UPPER LOWER	29 41 53 64 74 95 115 134 214 246 278 304	
BEND BEND	7 10 13 16 19 25 30 35 57 66 74 83	
UPPER LOWER	12 19 24 29 34 39 48 56 89 102 114 126	
BEND BEND	3 4 6 7 8 10 12 15 23 27 31 34	
UPPER LOWER	6 9 12 14 17 19 23 27 43 49 55 60	
BEND BEND	1 2 4 4 4 4 5 6 7 11 13 15 16	
UPPER LOWER	3 4 6 7 8 8 11 13 21 24 27 30	
BEND BEND	1 1 1 2 2 2 3 3 6 6 7 8	
UPPER LOWER	32 45 59 70 83 107 129 151 214 246 278 304	
BEND BEND	32 45 45 45 45 56 65 80 110 125 140 155	
PLUG (DEAD END) IN-LINE VALVE	1 1/4" Ø 33 5" Ø 21 35 6" Ø 18 34 47 8" Ø 16 32 46 58 10" Ø 13 30 44 57 63 12" Ø 7 26 41 55 67 80 14" Ø 1 21 38 52 65 88 109 16" Ø 1 18 34 49 63 86 108 129 18" Ø 1 8 28 44 58 83 105 127 208 24" Ø 1 1 22 38 54 80 103 124 208 240 42" Ø 1 1 15 33 49 77 100 122 205 239 270 48" Ø 1 1 7 27 44 73 97 163 233 238 288 298 6" Ø 23 8" Ø 38 25 10" Ø 57 43 24 12" Ø 72 80 44 14" Ø 99 80 78 75 45 20" Ø 123 116 107 105 81 45 24" Ø 146 140 132 131 111 82 30" Ø 209 204 197 188 177 153 118 75 36" Ø 243 236 233 226 217 196 168 135 74 42" Ø 273 270 265 259 252 234 211 183 133 72 48" Ø 301 295 294 289 283 268 245 226 183 131 71	

- NOTES:
- THE DATA IN THE ABOVE TABLE ARE BASED UPON THE FOLLOWING INSTALLATION CONDITIONS:
TYPE-AND BEST PRACTICE-150 PSI/200 PSI
FRENCH TYPE-3 SAFETY FACTOR-1.5
MINIMUM PIPE LENGTH ALONG TEE RUN-5'
 - THE RESTRAINED PIPE LENGTHS APPLY TO DUCTILE IRON AND PVC PIPE.
 - ALL JOINTS BETWEEN UPPER AND LOWER BENDS SHALL BE RESTRAINED.
 - RESTRAINED PIPE LENGTHS APPLY TO PIPE ON BOTH SIDES OF VALVES AND FITTINGS.

RESTRAINED JOINT INFORMATION

ENGINEERING STANDARDS 2025

REVISIONS	ENGINEERING DIVISION	RESTRAINED JOINT INFORMATION
BY DATE	CITY OF POMPANO BEACH	
		DATE: MAY 2022 DWG. NO.
	SCALE: N.T.S.	118-3



SERVICE LATERALS WITH RISERS

ENGINEERING STANDARDS 2025

REVISIONS	ENGINEERING DIVISION	SERVICE LATERALS
BY DATE	CITY OF POMPANO BEACH	
T.W. 11-2007		DATE: JUNE 2022 DWG. NO.
S.S. 01/27/12		200-1
S.S. 07/10/12		
S.S. 02/05/16	SCALE: N.T.S.	

PIPE SIZE (IN.)	RESTRAINED JOINT LENGTH L (MINIMUM DISTANCE IN FEET FROM FITTING – EACH WAY)	BENDS	CROSS WITH DEAD END TEE
6	90' 45' 22.5' 11.25'	26 11 6 3	53
8	33 14 7 4	68	
12	46 19 10 5	96	

PIPE SIZE (IN.)	RESTRAINED JOINT LENGTH L (MINIMUM DISTANCE IN FEET FROM FITTING – EACH WAY)	BENDS
6	90' 45' 22.5' 11.25'	26 11 6 3
8	33 14 7 4	68
12	46 19 10 5	96

PIPE SIZE (IN.)	RESTRAINED JOINT LENGTH L (MINIMUM DISTANCE IN FEET FROM FITTING – EACH WAY)	BENDS	CROSS WITH DEAD END TEE
12"	68 28 14 7	144	
24"	119 49 24 12	258	

PIPE SIZE (IN.)	RESTRAINED JOINT LENGTH L (MINIMUM DISTANCE IN FEET FROM FITTING – EACH WAY)	BENDS
12"	90' 45' 22.5' 11.25'	26 11 6 3
24"	119 49 24 12	258

RESTRAINED JOINT INFORMATION

ENGINEERING STANDARDS 2025

REVISIONS	ENGINEERING DIVISION	RESTRAINED JOINT INFORMATION
BY DATE	CITY OF POMPANO BEACH	
		DATE: MAY 2022 DWG. NO.
	SCALE: N.T.S.	118-2

- D. NEW OR RELOCATED, UNDERGROUND WATER MAINS
SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF
AT LEAST TEN FEET BETWEEN THE OUTSIDE OF THE
WATER MAIN AND ALL PARTS OF ANY EXISTING OR
PROPOSED "ON-SITE SEWAGE TREATMENT AND DISPOSAL
SYSTEM".
2. VERTICAL SEPARATION
A. NEW OR RELOCATED, UNDERGROUND WATER MAINS
CROSSING ANY EXISTING OR PROPOSED GRAVITY-OR
VACUUM-TYPE SANITARY SEWER, STORM SEWER
SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS
AT LEAST SIX INCHES, AND PREFERABLY 12 INCHES,
ABOVE OR AT LEAST 12 INCHES BELOW THE OUTSIDE OF
THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO
LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.
- B. NEW OR RELOCATED, UNDERGROUND WATER MAINS
CROSSING ANY EXISTING OR PROPOSED PRESSURE-TYPE
SANITARY SEWER, WASTEWATER OR STORM WATER
FORCE MAIN, OR PIPELINE CONVEYING REUSE WATER
SHALL BE LAID SO THE OUTSIDE OF THE WATER
MAIN IS AT LEAST 12 INCHES ABOVE OR BELOW THE
OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS
PREFERABLE TO LAY THE WATER MAIN ABOVE THE
OTHER PIPELINE.
- C. AT THE UTILITY CROSSINGS DESCRIBED IN PARAGRAPHS
(A) AND (B) ABOVE, ONE FULL LENGTH OF WATER MAIN
PIPE SHALL BE CENTERED ABOVE OR BELOW THE OTHER
PIPELINE SO THE WATER MAIN JOINTS WILL BE AS FAR AS
POSSIBLE FROM THE OTHER PIPELINE. ALTERNATIVELY,
AT SUCH CROSSINGS, THE PIPES SHALL BE ARRANGED SO
THAT ALL WATER MAIN JOINTS ARE AT LEAST THREE FEET
FROM ALL JOINTS IN VACUUM-TYPE SANITARY SEWERS,
STORM SEWERS, STORM WATER FORCE MAINS, OR
PIPELINES CONVEYING REUSE WATER REGULATED
UNDER PART III OF CHAPTER 62-610, F.A.C. AND AT LEAST
SIX FEET FROM ALL JOINTS IN GRAVITY-OR PRESSURE-
TYPE SANITARY SEWERS, WASTEWATER FORCE MAINS, OR
PIPELINES CONVEYING REUSE WATER NOT REGULATED
UNDER PART III OF CHAPTER 62-610, F.A.C.
- WHERE THE HORIZONTAL CAN BEING LOCATED LESS THAN THE
REQUIRED MINIMUM DISTANCES FROM JOINTS IN THE OTHER
PIPELINE OR THE HORIZONTAL IS LESS THAN THREE FEET FROM
ANOTHER PIPELINE OR THE UNDER GROUND WATER MAIN IS
CROSSING ANOTHER PIPELINE AND IS LESS THAN THE REQUIRED
MINIMUM VERTICAL DISTANCE FROM THE OTHER PIPELINE, THE
CONTRACTOR SHALL CONTACT THE ENGINEER IMMEDIATELY FOR
RECOMMENDED SOLUTIONS TO MEET THE FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION REQUIREMENTS PER CHAPTER 62-555, F.A.C.

PROTECTION OF POTABLE WATER SUPPLY NOTES

ENGINEERING STANDARDS 2025

REVISIONS	ENGINEERING DIVISION	POTABLE WATER SUPPLY NOTES
BY DATE	CITY OF POMPANO BEACH	
S.S. 01/12		DATE: JAN. 2022 DWG. NO.
	SCALE: N.T.S.	122-3