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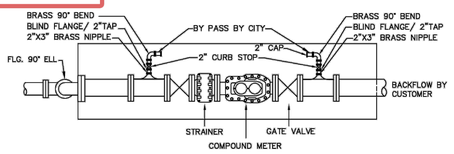
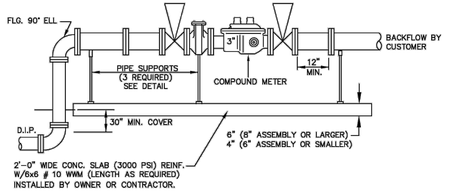
12/17/2025



PLAN



ELEVATION

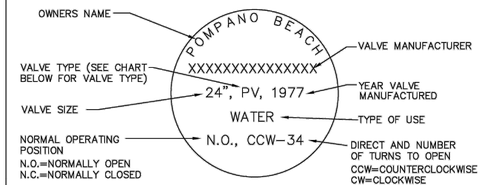
DOMESTIC SERVICE ONLY

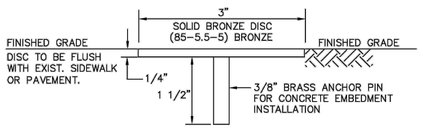
PLEASE SEE METER INSTALL DIMENSION LIST ON STANDARD NO. 106-4

USE MEGALUGS AT ALL PIPE JOINTS

ENGINEERING STANDARDS 2025

REVISIONS		ENGINEERING DIVISION CITY OF POMPANO BEACH	DOMESTIC SERVICE ONLY
BY	DATE		
TCW	04-08		
S.S.	01-2012		DATE: APRIL 2022
S.S.	11-2012		DWG. NO. 112-1
		SCALE: N.T.S.	





VALVE TYPES

BALL VALVE---BALLV
RESILIENT WEDGE GATE VALVE---RWGV
BUTTERFLY VALVE---BV
PLUG VALVE---PV

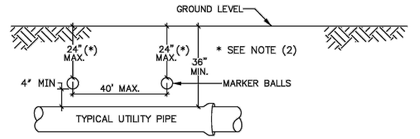
NOTES:

1. VALVE INFORMATION TO BE TRIPLE ENGRAVED INTO TOP SURFACE WITH 1/4" CAPITAL LETTERS.
2. ENTIRE MARKER TO BE COATED WITH CLEAR EPOXY TO PREVENT TARNISHING.
3. VALVE INFORMATION TO BE APPROVED BY CITY OF POMPANO BEACH UTILITIES DEPARTMENT.
4. MARKERS SHALL BE MANUFACTURED BY RG WRENCH, OR APPROVED EQUAL

UNDERGROUND VALVE IDENTIFICATION MARKER

ENGINEERING STANDARDS 2025

REVISIONS		ENGINEERING DIVISION CITY OF POMPANO BEACH	UNDERGROUND VALVE IDENTIFICATION MARKER
BY	DATE		
S.S.	JUNE 2005		
T.W.	11-2007		
T.W.	02-2008		DATE: FEB. 2022
S.S.	1-24-12		DWG. NO. 115-1
		SCALE: N.T.S.	



GENERAL NOTES:

1. ALL UTILITY PIPE SHALL BE INSTALLED WITH 4"ø MARKING BALLS PLACED EVERY 40' AND AT EVERY FITTING, FOR IDENTIFICATION AND WARNING PURPOSES, BURIED ABOVE THE PIPE AT A MAXIMUM DEPTH OF 24 INCHES OR AS APPROVED BY THE OWNER. IT SHALL BE COLOR CODED AND WORDED AS FOLLOWS:

   POTABLE WATER.
   A. COLOR: BLUE PER 62-555.320(21)(b)(3) F.A.C.
   B. LETTERING: WATER
   C. FREQUENCY OF MARKER BALLS SHALL BE 145.7 Khz.
   D. THE MARKER BALLS CAN BE BURIED IN ANY ORIENTATION.

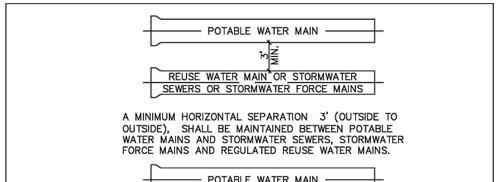
   THE MARKER BALLS SHALL BE DETECTABLE BY STANDARD METAL DETECTION EQUIPMENT AND SHALL BE MANUFACTURED BY TEMPO OR 3M LOCATOR SYSTEM OR EQUIVALENT (FREQUENCY 145.7 Khz)

2. FOR LARGE DIAMETER PIPE INSTALLED AT DEPTHS BELOW 4'-0" MARKER BALLS SHALL BE PLACED AT A MAXIMUM DEPTH OF 4'-0" BELOW GRADE *.

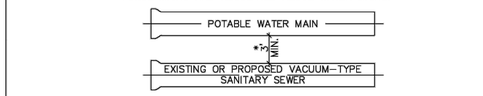
WATER PIPE IDENTIFICATION

ENGINEERING STANDARDS 2025

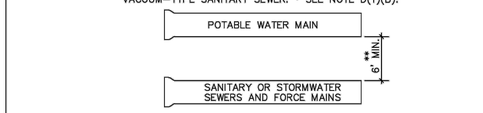
REVISIONS		ENGINEERING DIVISION CITY OF POMPANO BEACH	WATER PIPE IDENTIFICATION
BY	DATE		
S.S.	01/12		
S.S.	06/16		DATE: JAN. 2022
			DWG. NO. 119-1
		SCALE: N.T.S.	



A MINIMUM HORIZONTAL SEPARATION 3' (OUTSIDE TO OUTSIDE), SHALL BE MAINTAINED BETWEEN POTABLE WATER MAINS AND STORMWATER SEWERS, STORMWATER FORCE MAINS AND REGULATED REUSE WATER MAINS.



A MINIMUM HORIZONTAL SEPARATION 3' (OUTSIDE TO OUTSIDE), SHALL BE MAINTAINED BETWEEN EXISTING OR PROPOSED VACUUM-TYPE SANITARY SEWER. * SEE NOTE D(1)(B).



A MINIMUM HORIZONTAL SEPARATION OF 6' (OUTSIDE TO OUTSIDE), SHALL BE MAINTAINED BETWEEN POTABLE WATER MAINS AND EXISTING OR PROPOSED GRAVITY-OR PRESSURE TYPE SANITARY SEWER, WASTEWATER FORCE MAIN OR NOT REGULATED REUSE WATER MAIN. ** SEE NOTE D(1)(C).

MINIMUM HORIZONTAL SEPARATION REQUIREMENTS FOR POTABLE WATER, REUSE, STORMWATER AND SEWER LINES

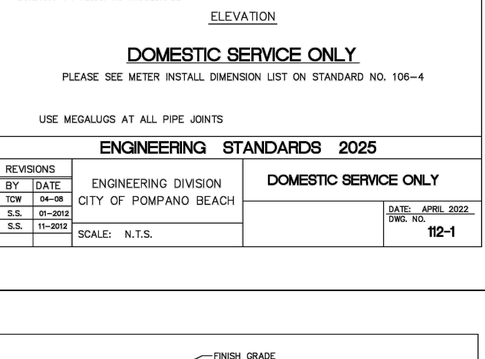
ENGINEERING STANDARDS 2025

REVISIONS		ENGINEERING DIVISION CITY OF POMPANO BEACH	MIN. HORIZONTAL SEPARATION FOR POTABLE WATER
BY	DATE		
S.S.	01/12		
			DATE: JAN. 2022
		SCALE: N.T.S.	DWG. NO. 121-1

REVISIONS		
		JJB
		JJB
09/08/25		
07/25/25		
REVISIONS		BY
REV PER CITY COMMENTS		
REV PER CITY COMMENTS		
DATE		

FILE NAME: 11181ENG.dwg

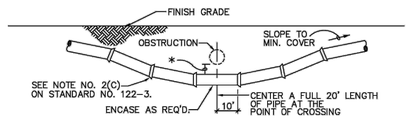
CAULFIELD & WHEELER, INC.
CIVIL ENGINEERING
LANDSCAPE ARCHITECTURE - SURVEYING
7900 GLADES ROAD - SUITE 100
BOCA RATON, FLORIDA 33434
PHONE (561)-392-1991 / FAX (561)-750-1452



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:

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

UTILITY CROSSINGS

ENGINEERING STANDARDS 2025

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

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 THERETO 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 VACUUM-TYPE SANITARY 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 CITY OF POMPANO BEACH	POTABLE WATER SUPPLY NOTES
BY	DATE		
S.S.	01/12		
			DATE: JAN. 2022
		SCALE: N.T.S.	DWG. NO. 122-2

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 OR 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 THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.

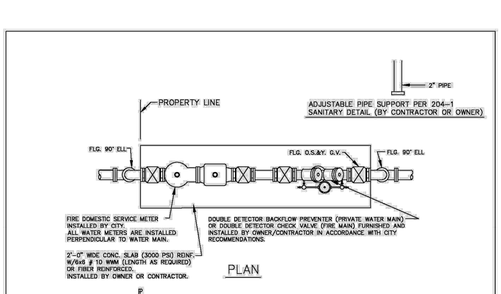
C. AT THE UTILITY CROSSINGS DESCRIBED IN PARAGRAPHS (A) AND (B) ABOVE, ONE FULL LENGTH OF WATER MAIN PIPE SHALL BE CENTERED ABOVE OR BELOW THE OTHER PIPELINE SO THE WATER MAIN JOINTS WILL BE AS FAR AS POSSIBLE FROM THE OTHER PIPELINE. ALTERNATIVELY, AT SUCH CROSSINGS, THE PIPES SHALL BE ARRANGED SO THAT 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 OR CHAPTER 62-610, F.A.C.

WHERE THE HORIZONTAL CAN BEING LOCATED LESS THAT THE REQUIRED MINIMUM DISTANCES FROM JOINTS IN THE OTHER PIPELINE OR THE HORIZONTAL IS LESS THAT 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 DF DEPARTMENT OF ENVIRONMENTAL PROTECTION REQUIREMENTS PER CHAPTER 62-555, F.A.C.

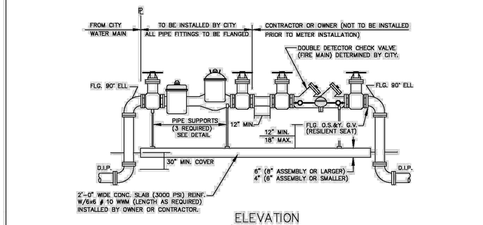
PROTECTION OF POTABLE WATER SUPPLY NOTES

ENGINEERING STANDARDS 2025

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



PLAN



ELEVATION

NOTES

1. THE BACKFLOW PREVENTOR FOR THE BY-PASS SHALL BE DDCV OR RPZ.
2. PLEASE NOTE THAT WATER METERS 3" AND LARGER ARE SUBJECT TO AN APPROXIMATE ORDER LEAD TIME OF 60 TO 75 DAYS AFTER FULL PAYMENT. PLEASE CONTACT CUSTOMER SERVICE AT 954-786-4637 TO ARRANGE FOR METER PROCUREMENT AND INSTALLATION.
3. USE MEGALUGS AT ALL PIPE JOINTS
4. PLEASE SEE METER INSTALL DIMENSION LIST ON STANDARD NO. 106-4

FIRE ONLY METER AND BACKFLOW DEVICE DETAILS

ENGINEERING STANDARDS 2025

REVISIONS		ENGINEERING DIVISION CITY OF POMPANO BEACH	FIRE ONLY METER AND BACKFLOW DEVICE
BY	DATE		
S.S.	05-2011		
S.S.	11-2012		
S.S.	12-2013		DATE: MAY 2022
S.S.	11-2016	SCALE: N.T.S.	DWG. NO. 106-3

RIVERSIDE TOWNHOMES
117 S RIVERSIDE DRIVE
WATER DISTRIBUTION & SANITARY SEWER DETAILS
POMPANO BEACH, FLORIDA

DATE	03/18/25
DRAWN BY	JJB
F.B./ PG.	----
SCALE	N/A

Digitally signed by Matthew V. Kahn
Date: 2025.09.09 09:29:52 -04'07'
Foxit PDF Version: 2024.3.0.25847

MATTHEW V. KAHN
PROFESSIONAL ENGINEER
LICENSE NO. 82227
STATE OF FLORIDA
– FOR THE FIRM –
DATE

JOB # 11181
SHT.NO.
WS-3
OF 13 SHEETS

Drawing: P:\11181-00-00-00\drawings\eng\details\11181DETAILS-#0_POMPANO.dwg\WS-DETAILS_13-#0-3