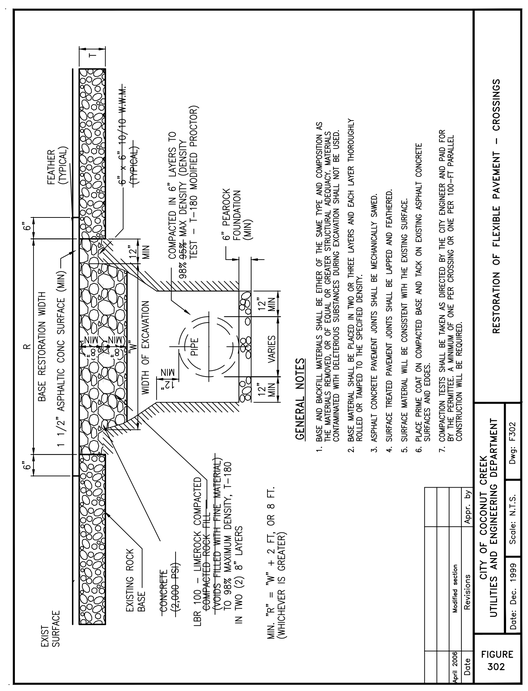


GENERAL NOTES

1. BASE AND BACKFILL MATERIALS SHALL BE EITHER OF THE SAME TYPE AND COMPOSITION AS THE MATERIALS REMOVED, OR OF EQUAL OR GREATER STRUCTURAL ADEQUACY. MATERIALS CONTAMINATED WITH DELETERIOUS SUBSTANCES DURING EXCAVATION SHALL NOT BE USED.
2. BACKFILL MATERIAL SHALL BE PLACED IN THREE LAYERS AND EACH LAYER THOROUGHLY ROLLED OR TAMPED TO THE SPECIFIED DENSITY.
3. ASPHALT CONCRETE PAVEMENT JOINTS SHALL BE MECHANICALLY SAWED.
4. SURFACE TREATED PAVEMENT JOINTS SHALL BE LAPPED AND FEATHERED.
5. SURFACE MATERIAL WILL BE CONSISTENT WITH THE EXISTING SURFACE.
6. PLACE PRIME COAT ON COMPACTED BASE AND TACK ON EXISTING ASPHALT CONCRETE SURFACES AND EDGES.
7. COMPACTION TESTS SHALL BE TAKEN AS DIRECTED BY THE CITY ENGINEER AND PAID FOR BY THE PERMITTEE. A MINIMUM OF ONE PER 100-FT PARALLEL CONSTRUCTION WILL BE REQUIRED.

Date	Revisions	Appr. by
April 2006	Modified section	
Date	Revisions	Appr. by

CITY OF COCONUT CREEK
UTILITIES AND ENGINEERING DEPARTMENT

RESTORATION OF FLEXIBLE PAVEMENT – CROSSINGS

Date: Dec. 1999 | Scale: N.T.S. | Dwg: F302

FIGURE 302

MINIMUM LENGTH (FT) TO BE RESTRAINED ON EACH SIDE OF FITTING(S). *									
	PIPE SIZE								
	6"	8"	10"	12"	16"	20"	24"	30"	36"
90° BEND	36	36	54	54					
45° BEND	18	18	24	36					
22-1/2° BEND	18	18	24	36					
11-1/4° BEND	18	18	24	36					
PLUG OR BRANCH OF TEE	36	36	54	54					

* SEE NOTE 7.

NOTES:

1. FITTINGS SHALL BE RESTRAINED JOINTS UNLESS OTHERWISE INDICATED.
2. INSTALL FULL LENGTH JOINTS WITH TOTAL LENGTH EQUAL TO OR GREATER THAN SHOWN IN THE TABLE.
3. WHERE TWO OR MORE FITTINGS ARE TOGETHER, USE FITTING WHICH YIELDS GREATEST LENGTH OF RESTRAINED PIPE.
4. IN LINE VALVES AND THROUGH RUN OF TEES OUTSIDE LIMITS OF RESTRAINED JOINTS FROM OTHER FITTINGS NEED NOT BE RESTRAINED UNLESS OTHERWISE INDICATED.
5. LENGTHS SHOWN IN THE TABLE HAVE BEEN CALCULATED IN ACCORDANCE WITH THE PROCEDURE OUTLINED IN "THRUST RESTRAINT DESIGN FOR DUCTILE IRON PIPE" AS PUBLISHED BY DIPRA, WITH THE FOLLOWING ASSUMPTIONS:

   WORKING PRESSURE: 70 P.S.I.*
   SOIL DESIGNATION: GOOD *
   LAYING CONDITIONS: TYPE 2 STANDARD

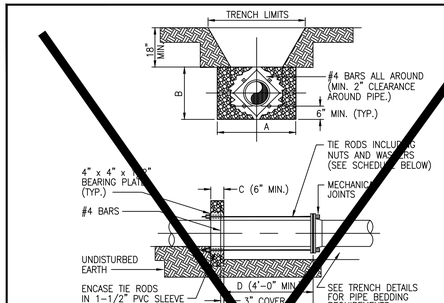
6. FOR PIPE ENCASED IN POLYETHYLENE, USE VALUES GIVEN IN PARENTHESES OR INCREASE THE GIVEN VALUE BY A FACTOR OF 1.5.
7. TO BE COMPLETED BY THE DESIGN ENGINEER.

Date	Revisions	Appr. by

CITY OF COCONUT CREEK
UTILITIES AND ENGINEERING DEPARTMENT

RESTRAINED PIPE DETAIL

Date: Nov 1999 | Scale: N.T.S. | Dwg: F108 | Fig: 108



SCHEDULE OF DIMENSIONS AND MATERIALS

PIPE SIZE (INCHES)	DIMENSIONS				TIE RODS REQ'D	
	A	B	C	D		NO.

NOTE: THRUST BLOCK AREA TO BE COMPUTED ON BASIS OF ____ LBS. PER SQ. FT. SOIL RESTRAINT BEARING. (1,500 MIN) SEE NOTE 5
* TO BE COMPLETED BY ENGINEER.

NOTES:

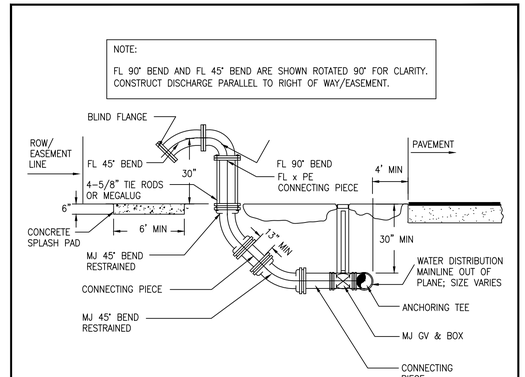
1. ADDITIONAL REINFORCEMENTS SHALL BE AS SPECIFIED BY THE ENGINEER.
2. MINIMUM COMPRESSIVE STRENGTH FOR CONCRETE SHALL BE 2500 PSI.
3. BEDDING, BACKFILL, AND COMPACTION SHALL BE AS SPECIFIED ELSEWHERE IN THE STANDARD DRAWINGS.
4. ALL FORM BOARDS SHALL BE REMOVED PRIOR TO BACKFILL.
5. NO ALLOWANCE SHALL BE MADE FOR FRICTION BETWEEN THE PIPE WALL AND THE THRUST COLLAR.
6. DESIGN PRESSURE:_____ P.S.I.*

Date	Revisions	Appr. by

CITY OF COCONUT CREEK
UTILITIES AND ENGINEERING DEPARTMENT

WATER MAIN
THRUST COLLAR DETAIL

Date: Nov 1999 | Scale: N.T.S. | Dwg: F109 | Fig: 109



NOTE:

FL 90° BEND AND FL 45° BEND ARE SHOWN ROTATED 90° FOR CLARITY. CONSTRUCT DISCHARGE PARALLEL TO RIGHT OF WAY/EASEMENT.

NTS

NOTES:

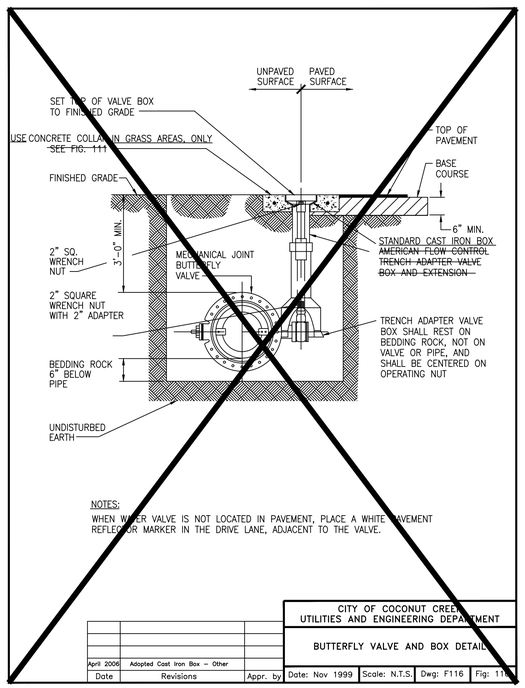
1. THIS DETAIL GRAPHICALLY REPRESENTS THE LAYOUT AND CONFIGURATION REQUIRED. THE DESIGN ENGINEER SHALL SIZE THE PIPING TO ENSURE THAT A MINIMUM VELOCITY OF 2.5 FPS IS OBTAINED IN THE PRIMARY WATER DISTRIBUTION SYSTEM MAINLINE.
2. FULL JOINT RESTRAINT IS REQUIRED; THRUST CALCULATIONS ARE NECESSARY.
3. EROSION CONTROL IS ESSENTIAL TO SATISFACTORY PERFORMANCE AND SHALL BE CONSIDERED IN THE DESIGN.
4. OTHER DESIGNS MAY BE APPROVED BY THE CITY'S UTILITIES AND ENGINEERING DIRECTOR WHO WILL HAVE SOLE DISCRETION OF APPROVAL. FIRE HYDRANTS MAY BE AN ACCEPTABLE ALTERNATIVE.

Date	Revisions	Appr. by

CITY OF COCONUT CREEK
UTILITIES AND ENGINEERING DEPARTMENT

CANON FLUSH DETAIL

Date: DEC. 1999 | Scale: N.T.S. | Dwg: F105x | Fig: 105



NOTES:

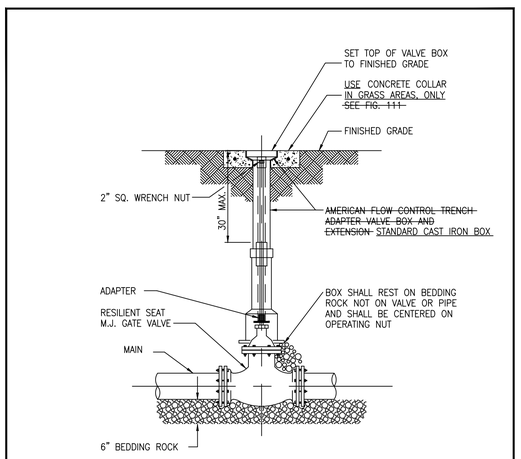
WHEN WATER VALVE IS NOT LOCATED IN PAVEMENT, PLACE A WHITE PAVEMENT REFLECTOR MARKER IN THE DRIVE LANE, ADJACENT TO THE VALVE.

Date	Revisions	Appr. by
April 2006	Adopted Cast Iron Box – Other	
Date	Revisions	Appr. by

CITY OF COCONUT CREEK
UTILITIES AND ENGINEERING DEPARTMENT

BUTTERFLY VALVE AND BOX DETAIL

Date: Nov 1999 | Scale: N.T.S. | Dwg: F116 | Fig: 116



NOTES:

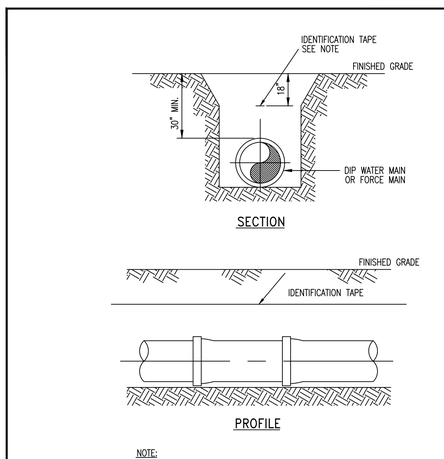
WHEN VALVE IS NOT LOCATED IN PAVEMENT, PLACE A WHITE PAVEMENT REFLECTOR MARKER IN THE DRIVE LANE, ADJACENT TO THE VALVE.

Date	Revisions	Appr. by
April 2006	Adopted Cast Iron Box – Other	
Date	Revisions	Appr. by

CITY OF COCONUT CREEK
UTILITIES AND ENGINEERING DEPARTMENT

GATE VALVE AND BOX DETAIL

Date: Nov. 1999 | Scale: N.T.S. | Dwg: F115 | Fig: 115



NOTE:

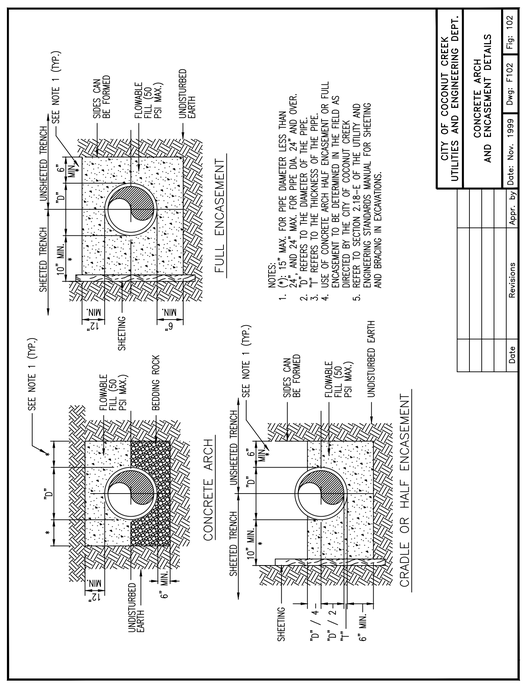
DETECTABLE IDENTIFICATION TAPE SHALL BE INSTALLED DIRECTLY OVER CENTERLINE OF THE PIPE AT 18-INCHES BELOW FINISHED GRADE.

Date	Revisions	Appr. by

CITY OF COCONUT CREEK
UTILITIES DEPARTMENT

LOCATING TAPE DETAIL

Date: Nov. 1999 | Scale: N.T.S. | Dwg: F112 | Fig: 112



CITY OF COCONUT CREEK
UTILITIES AND ENGINEERING DEPT.

CONCRETE ARCH AND ENCASEMENT DETAILS

Date: Nov. 1999 | Dwg: F102 | Fig: 102

Date	Revisions	Appr. by

Sun-Tech Engineering, Inc.
Engineers - Planners - Surveyors
Certificate of Auth. # 7097
1600 West Oakland Park Boulevard
Ft. Lauderdale, FL 33311
Phone (954)777-3123
Fax (954)777-3114
www.suntecheng.com

REVISIONS

NO.	DATE:	DESCRIPTION

MIDTOWN RESIDENCES @ COCONUT CREEK

COCONUT CREEK FLORIDA

WATER & SEWER DETAILS

DATE: Jul. 2015

SCALE: 1" = 30'

DESIGNED BY: C.R.L.

DRAWN BY: A.E.V.

JOB NUMBER 15-3715

SHEET No. C-4.13

SEAL
Clifford R. Loutan
Digitally signed by Clifford R. Loutan
DN: cn=Clifford R. Loutan, o=Sun-Tech Engineering, Inc., ou=FL PE # 56890, email=cloutan@suntecheng.com, c=US
Date: 2016.01.20 16:08:57 -05'00'
Jan 20 2016
CLIFFORD R. LOUTAN, P.E.
FL. REG. NO. 56890

FILE: K:\PROJECTS\15-xxx\15-3715\dwg\3715wsdt.dwg
PLOT DATE: 1/20/2016 4:20 PM BY: Andy Venneman
LAYOUT: [C-4.13]

K:\PROJECTS\15-xxx\15-3715\dwg\3715wsdt.dwg, C-4.13, 1/20/2016 4:20:57 PM, 1:1, Sun-Tech Engineering, Inc (AEV), Sun-Tech Engineering, Inc (AEV)