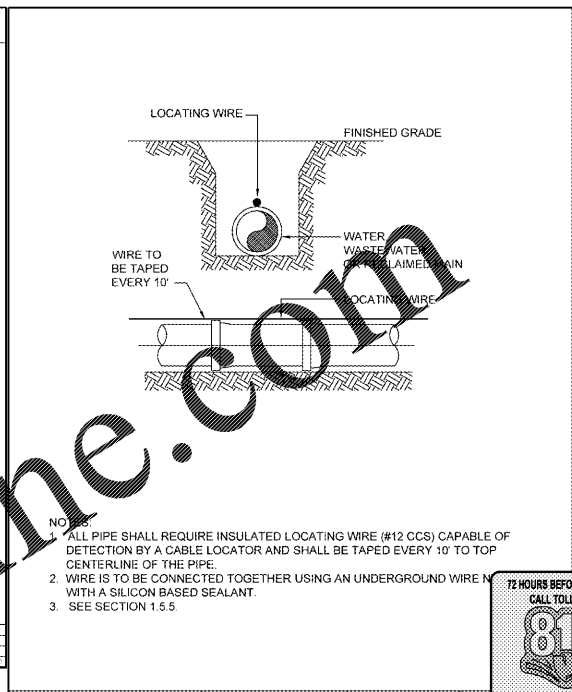


RESTRAINED PIPE TABLE
WATER AND RECLAIMED WATER MAINS

TYPE	PIPE SIZE							
	4"	6"	8"	10"	12"	16"	20"	24"
90° BEND	21	29	38	45	53	66	79	91
45° BEND	9	12	16	19	22	28	33	38
22-1/2° BEND	5	6	8	9	11	14	16	19
11-1/4° BEND	3	3	4	5	6	7	8	9
PLUG, BRANCH OF TEE, VALVE	58	82	107	128	151	193	234	273

NOTES:
1. FITTINGS SHALL BE RESTRAINED JOINTS.
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. ALL LINE VALVES AND THROUGH RUN OF TEES SHALL BE RESTRAINED.
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 DEPRRA, WITH THE FOLLOWING ASSUMPTIONS:
WORKING PRESSURE: 150 PSI
SOIL DESIGNATION: SM (SAND SILT)
LAYING CONDITIONS: 3

6. TABLE IS FOR PVC AND WRAPPED DUCTILE IRON PIPE.



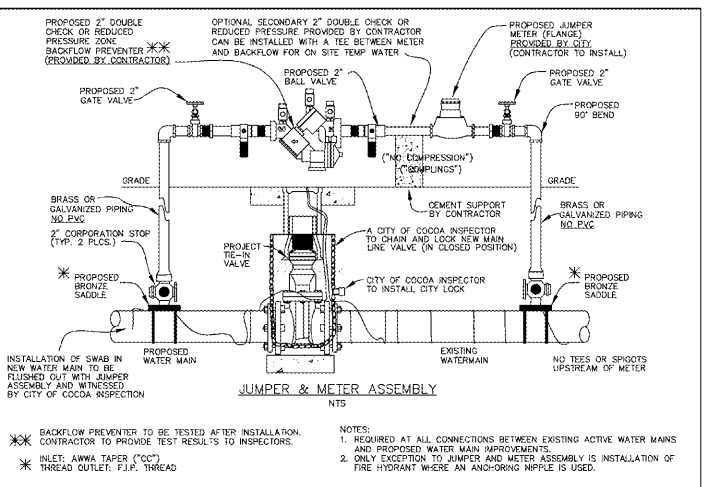
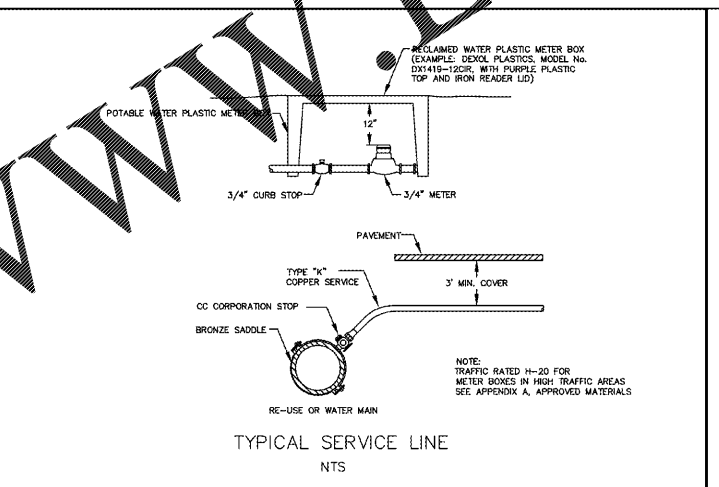
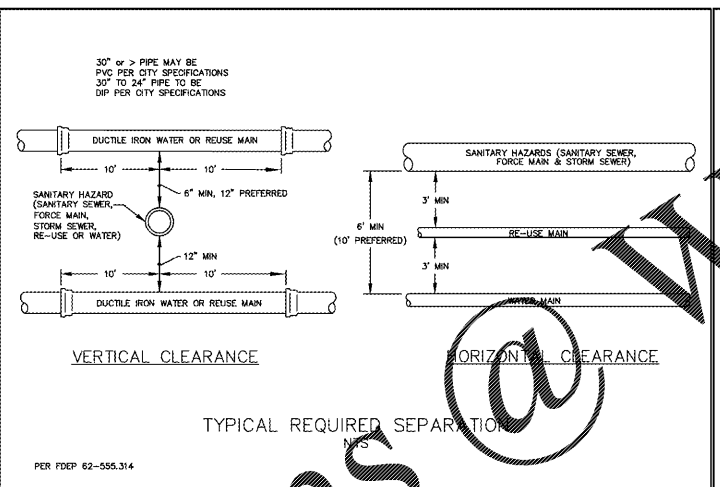
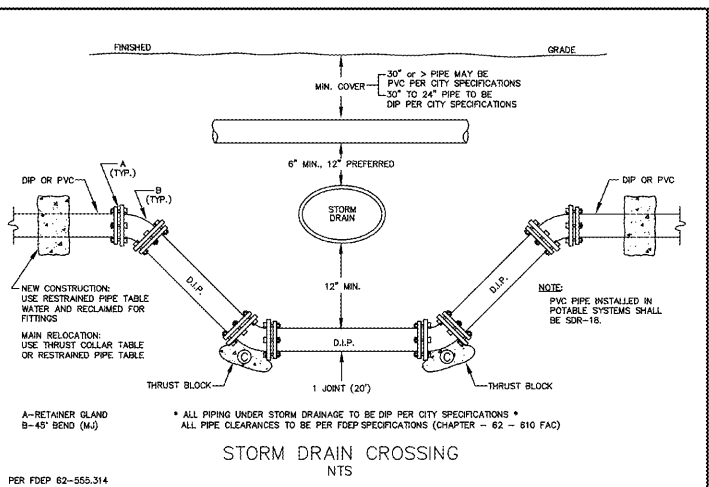
CITY OF COCOA
Brevard County, Florida
UTILITIES DEPARTMENT
ENGINEERING DIVISION
FIRE HYDRANT DETAIL
DRAWN BY: J. WILLIAMS
CHECKED BY: T. TURNER
DATE: SEPTEMBER 2013
DESIGN BY: T. TURNER
SHEET: 1 OF 1
ACAD NAME: FIRE HYDRANT DETAIL

CITY OF COCOA
Brevard County, Florida
UTILITIES DEPARTMENT
ENGINEERING DIVISION
GATE VALVE AND FITTING DETAIL
DRAWN BY: J. WILLIAMS
CHECKED BY: T. TURNER
DATE: SEPTEMBER 2013
DESIGN BY: T. TURNER
SHEET: 1 OF 1
ACAD NAME: GATE VALVE & FITTING DETAIL

CITY OF COCOA
Brevard County, Florida
UTILITIES DEPARTMENT
ENGINEERING DIVISION
GATE VALVE AND VALVE BOX DETAIL
DRAWN BY: J. WILLIAMS
CHECKED BY: T. TURNER
DATE: SEPTEMBER 2013
DESIGN BY: T. TURNER
SHEET: 1 OF 1
ACAD NAME: GATE VALVE & VALVE BOX DETAIL

CITY OF COCOA
Brevard County, Florida
UTILITIES DEPARTMENT
ENGINEERING DIVISION
RESTRAINED PIPE TABLE
DRAWN BY: J. WILLIAMS
CHECKED BY: T. TURNER
DATE: SEPTEMBER 2013
DESIGN BY: T. TURNER
SHEET: 1 OF 1
ACAD NAME: RESTRAINED PIPE TABLE

CITY OF COCOA
Brevard County, Florida
UTILITIES DEPARTMENT
ENGINEERING DIVISION
LOCATING WIRE DETAIL
DRAWN BY: J. WILLIAMS
CHECKED BY: T. TURNER
DATE: SEPTEMBER 2013
DESIGN BY: T. TURNER
SHEET: 1 OF 1
ACAD NAME: LOCATING WIRE DETAIL

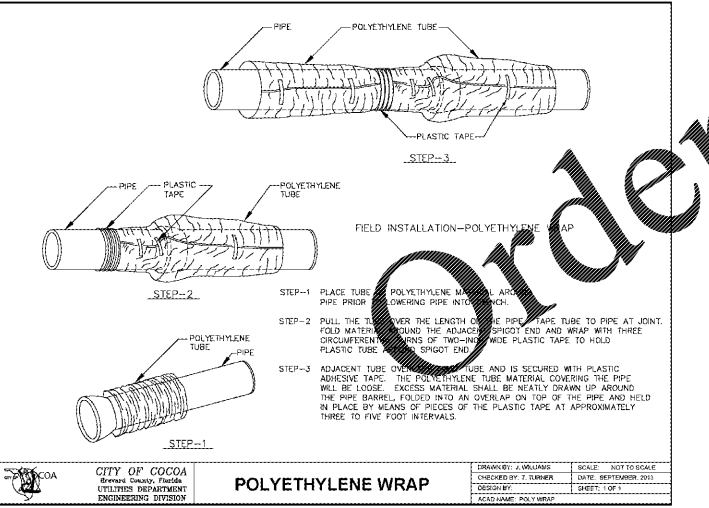


CITY OF COCOA
Brevard County, Florida
UTILITIES DEPARTMENT
ENGINEERING DIVISION
STORM DRAIN CROSSING
DRAWN BY: J. WILLIAMS
CHECKED BY: T. TURNER
DATE: SEPTEMBER 2013
DESIGN BY: T. TURNER
SHEET: 1 OF 1
ACAD NAME: STORM DRAIN CROSSING

CITY OF COCOA
Brevard County, Florida
UTILITIES DEPARTMENT
ENGINEERING DIVISION
TYPICAL REQUIRED SEPARATION
DRAWN BY: J. WILLIAMS
CHECKED BY: T. TURNER
DATE: SEPTEMBER 2013
DESIGN BY: T. TURNER
SHEET: 1 OF 1
ACAD NAME: TYPICAL REQUIRED SEPARATION

CITY OF COCOA
Brevard County, Florida
UTILITIES DEPARTMENT
ENGINEERING DIVISION
TYPICAL SERVICE LINE
DRAWN BY: J. WILLIAMS
CHECKED BY: T. TURNER
DATE: SEPTEMBER 2013
DESIGN BY: T. TURNER
SHEET: 1 OF 1
ACAD NAME: TYPICAL SERVICE LINE

CITY OF COCOA
Brevard County, Florida
UTILITIES DEPARTMENT
ENGINEERING DIVISION
JUMPER & METER ASSEMBLY
DRAWN BY: J. WILLIAMS
CHECKED BY: T. TURNER
DATE: SEPTEMBER 2013
DESIGN BY: T. TURNER
SHEET: 1 OF 1
ACAD NAME: JUMPER & METER ASSEMBLY



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UTILITY DETAILS 2

FLORIDA
BREVARD COUNTY

CHRISTIAN BROTHERS
AUTOMOTIVE REPAIRS

BRUCE A MOIA
FL P.E. #47529
DATE: 5/7/2020
SHEET

C-18

19-1045 PERMITTING SET

NO.	DATE	REVISIONS
1	5/7/2020	DATE ISSUED
2		CHECKED
3	OCTOBER 2019	BAM
4		DESIGNED
5		BID
6		BID
7		BID
8	19-1045	JOB NO.

COMMENTS: XXX-XXXX

MBV ENGINEERING, INC.
CIVIL & STRUCTURAL SURVEYING & ENVIRONMENTAL
1200 W. EAU GALLE BLVD., SUITE 110
MELBOURNE, FLORIDA 32955
P. 321-253-1510 F. 321-253-0811
VERO 772-662-0035 FT. PIERCE 772-468-8095

BRUCE A MOIA
FL P.E. #47529
DATE: 5/7/2020
SHEET

19-1045 COVER - DETAILS BRD