

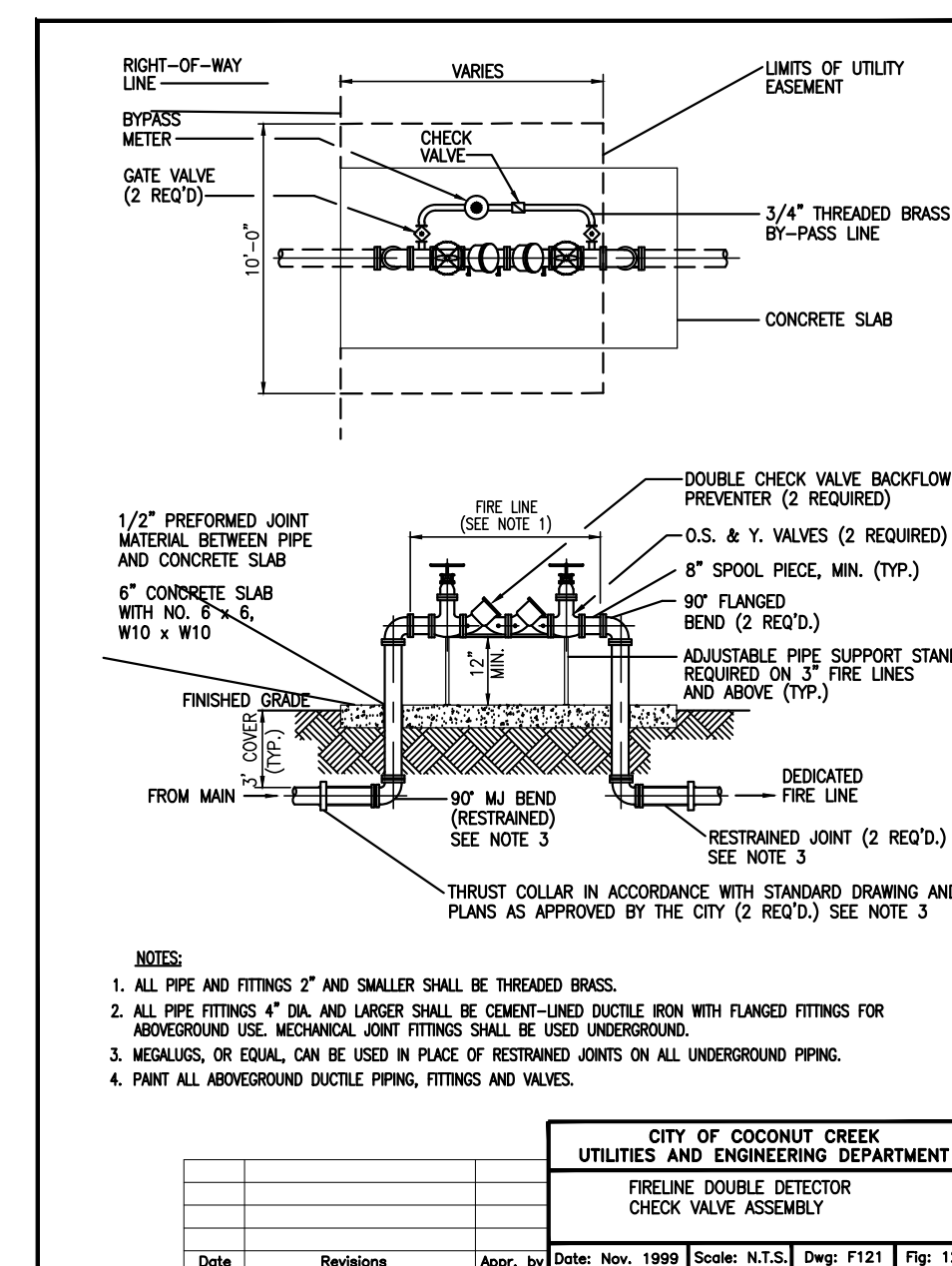
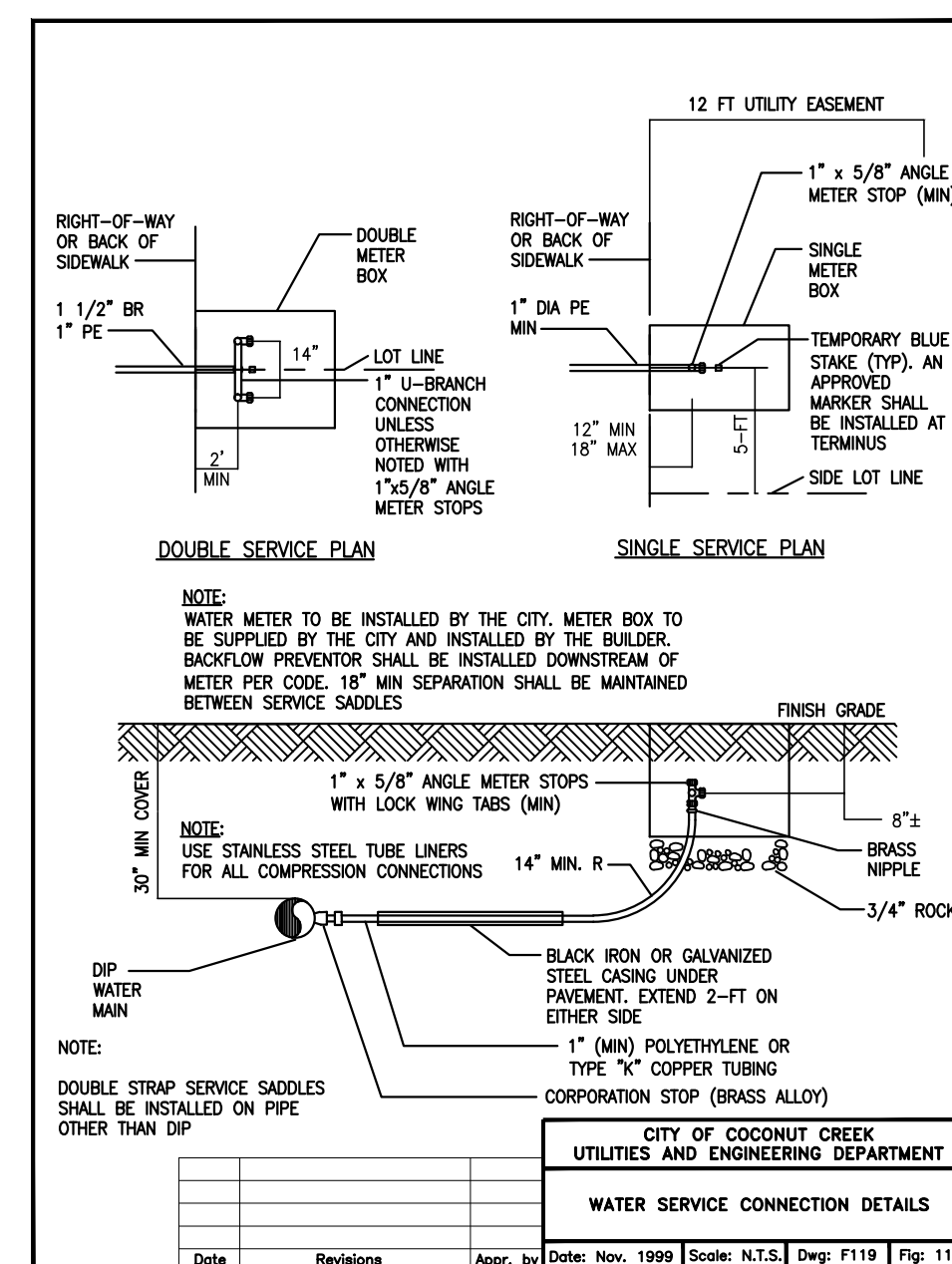
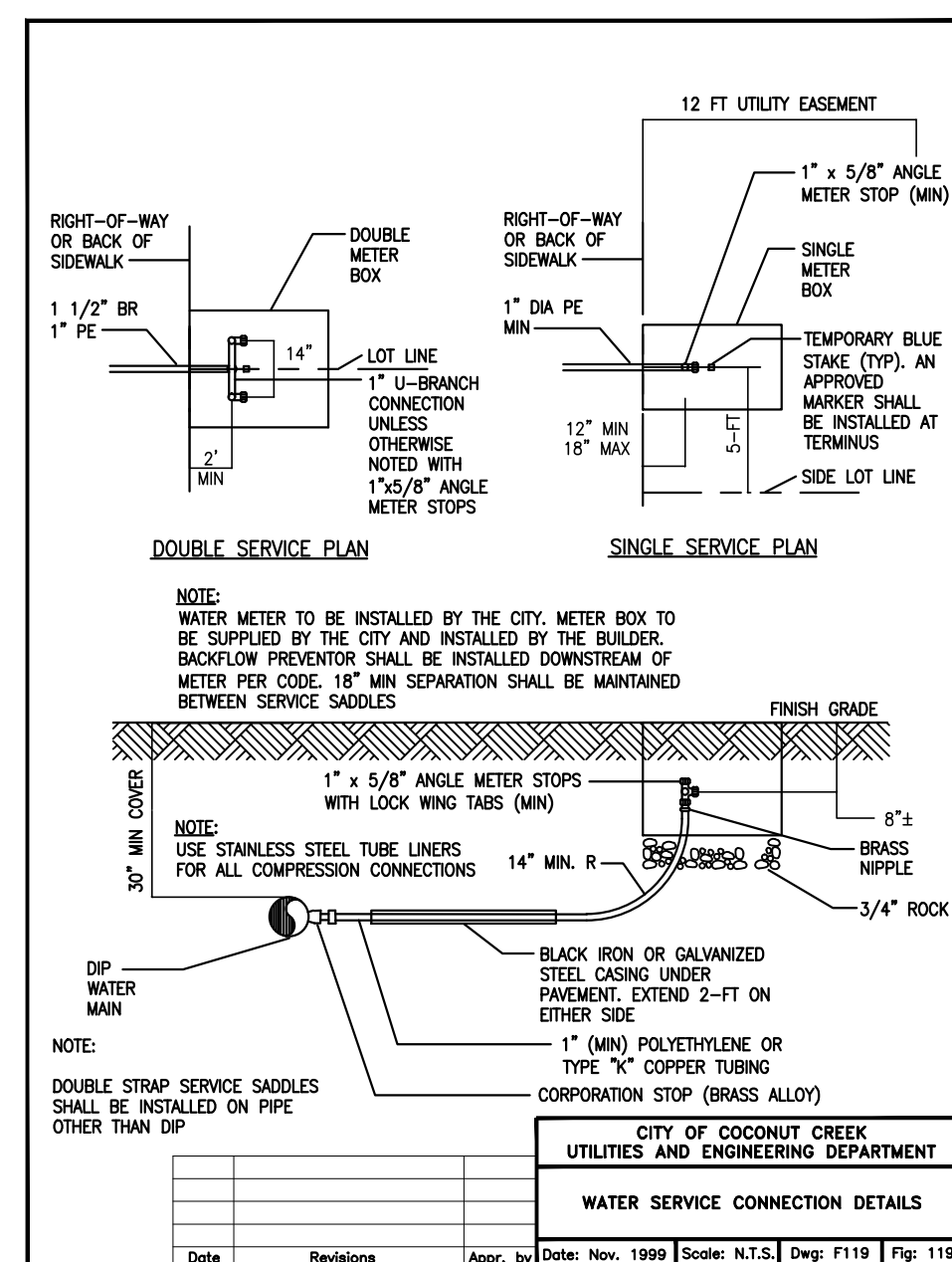
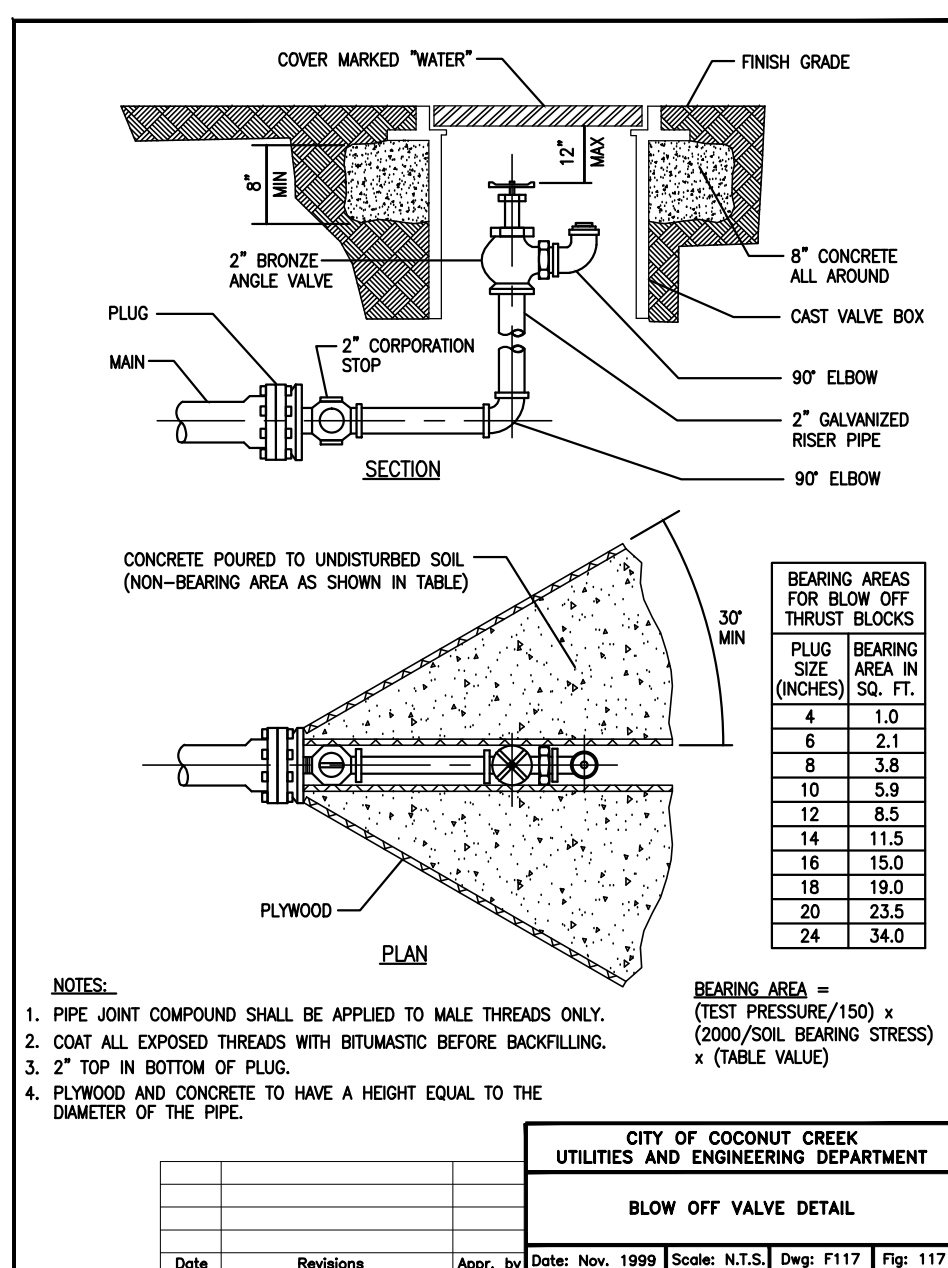
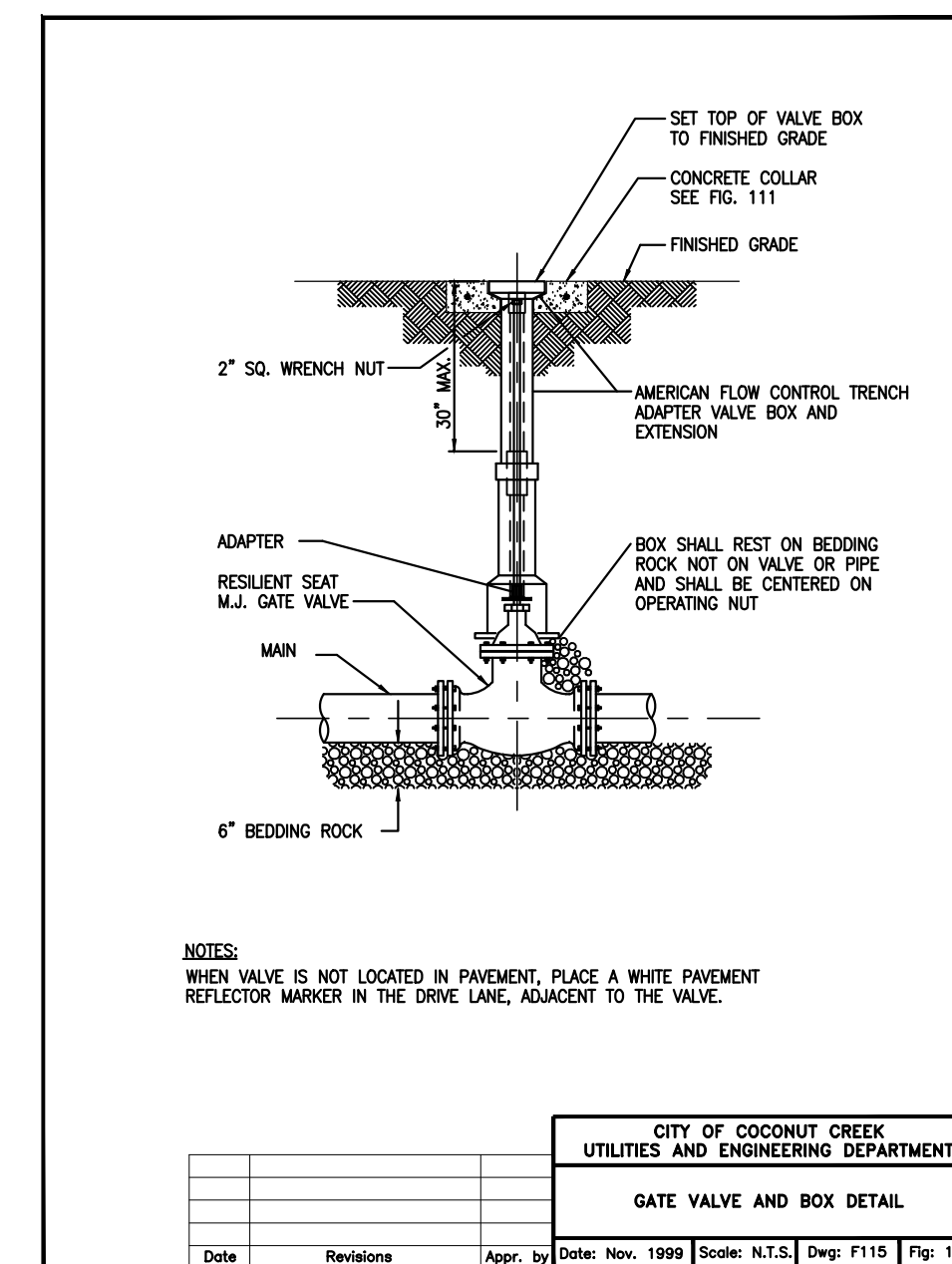
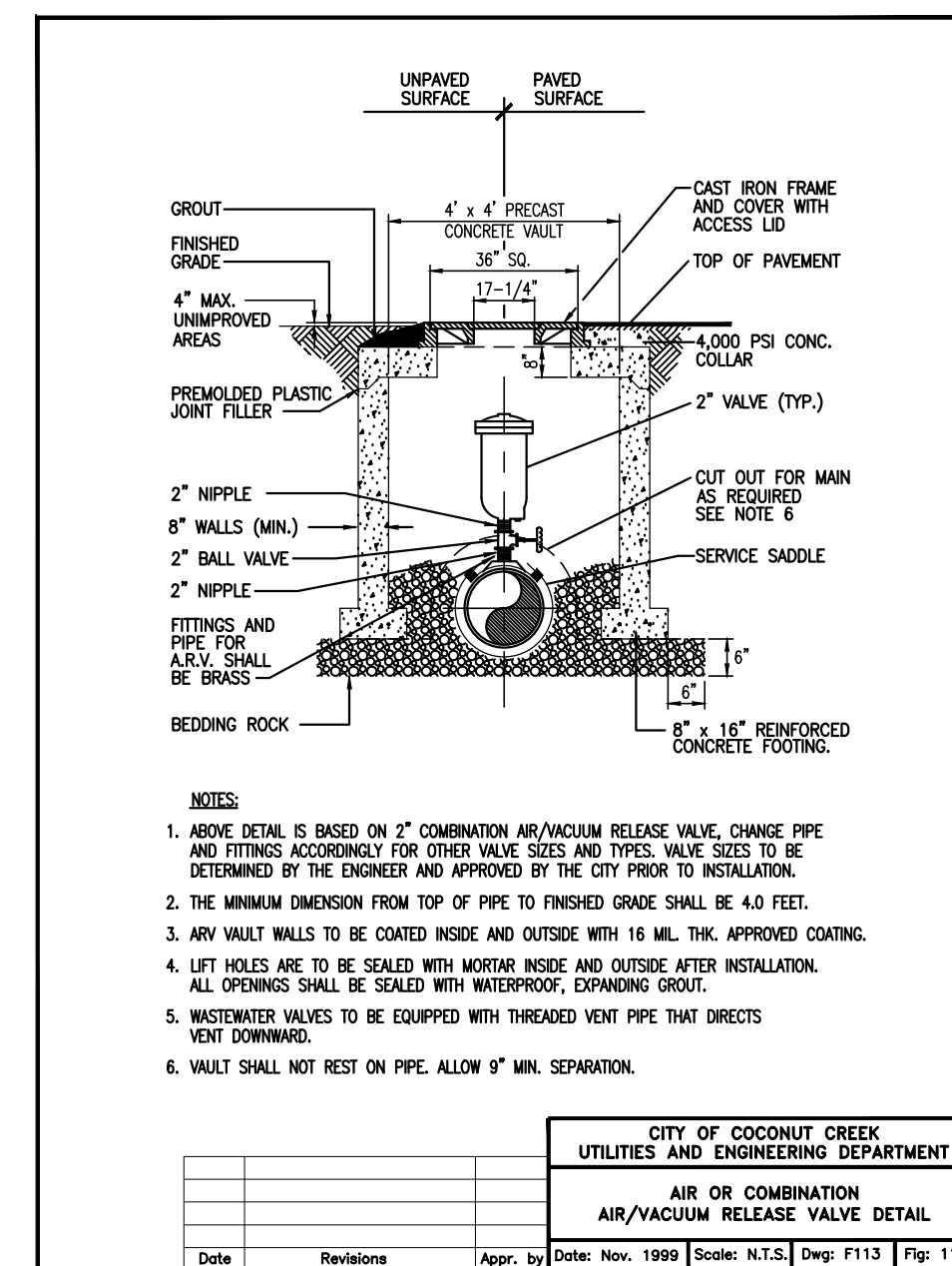
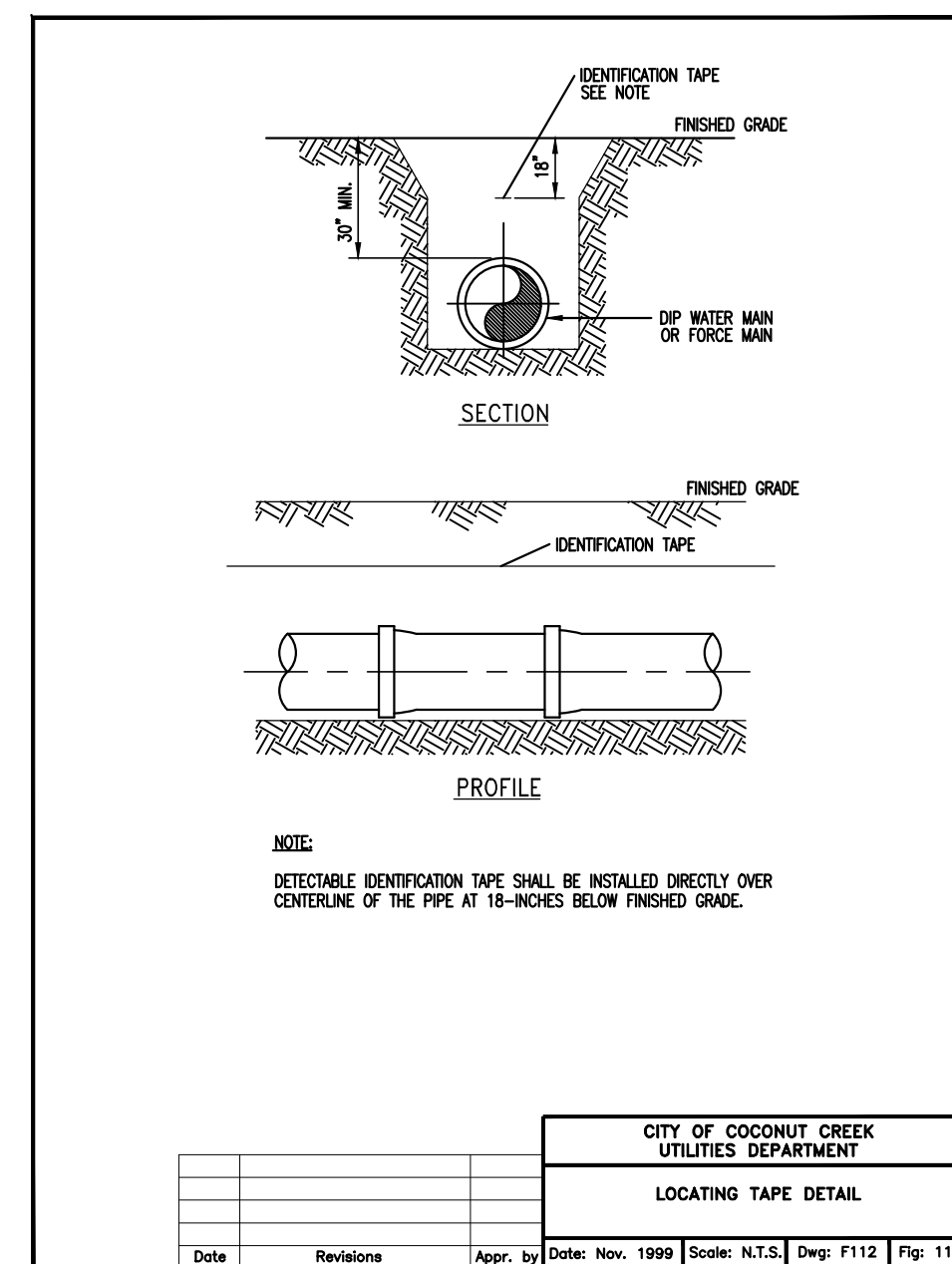
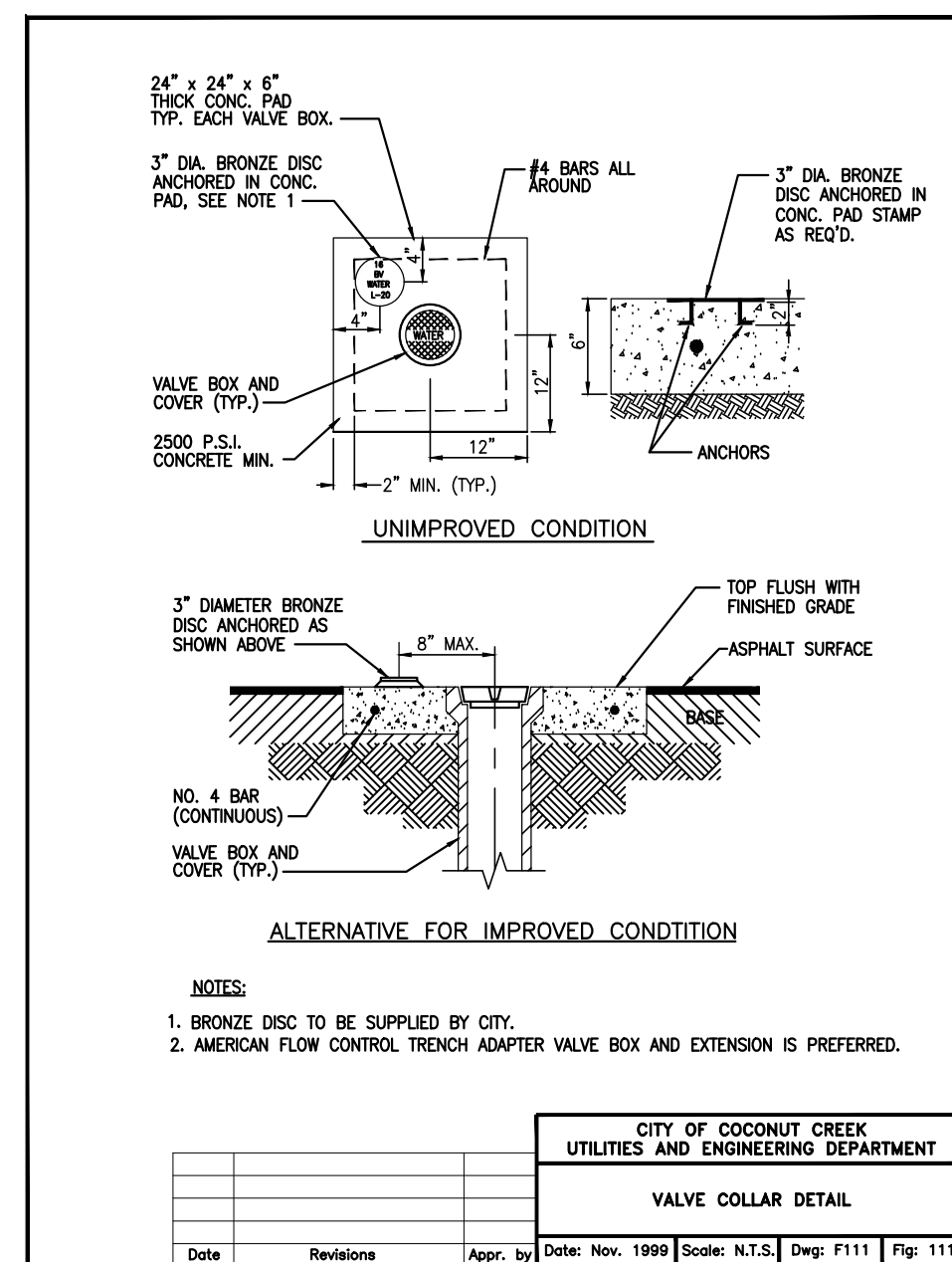
MINIMUM LENGTH (FT) TO BE RESTRAINED ON EACH SIDE OF FITTING(S) *	PIPE SIZE							
	6"	8"	10"	12"	16"	20"	24"	30"
90° BEND								
45° BEND								
22-1/2° BEND								
11-1/4° BEND								
PLUG OR BRANCH OF TEE								

\* SEE NOTE 7.

**NOTES:**

- FITTINGS SHALL BE RESTRAINED JOINTS UNLESS OTHERWISE INDICATED.
- INSTALL FULL LENGTH JOINTS WITH TOTAL LENGTH EQUAL TO OR GREATER THAN SHOWN IN THE TABLE.
- WHERE TWO OR MORE FITTINGS ARE TOGETHER, USE FITTING WHICH YIELDS GREATEST LENGTH OF RESTRAINED PIPE.
- IN LINE VALVES AND THROUGH ROOF OF TEE'S OUTSIDE LIMITS OF RESTRAINED JOINTS FROM OTHER FITTINGS NEED NOT BE RESTRAINED UNLESS OTHERWISE INDICATED.
- LENGTHS SHOWN IN THE TABLE HAVE BEEN CALCULATED IN ACCORDANCE WITH THE PROCEDURE OUTLINED IN "THRUST RESTRAINT DESIGN FOR DUCTILE IRON PIPES" AS PUBLISHED BY DIPRA, WITH THE FOLLOWING ASSUMPTIONS:  
WORKING PRESSURE: \_\_\_\_\_ P.S.I.\*  
SOIL DISSECTION: \_\_\_\_\_  
LAYING CONDITIONS: \_\_\_\_\_
- FOR PIPE ENCASED IN POLYETHYLENE, USE VALUES GIVEN IN PARENTHESES OR INCREASE THE GIVEN VALUE BY A FACTOR OF 1.5.
- TO BE COMPLETED BY THE DESIGN ENGINEER.

CITY OF COCONUT CREEK UTILITIES AND ENGINEERING DEPARTMENT  
RESTRAINED PIPE DETAIL



REVISIONS	BY
2-19-14	SITE PLAN RESUBMITTAL
4-3-14	SITE PLAN RESUBMITTAL

MIDTOWN RESIDENCES AT  
COCONUT CREEK  
FOR:  
FLORIDA CRYSTALS  
LOCATED AT:  
COCONUT CREEK, FLORIDA

MSA ARCHITECTS, INC.  
MIAMI OFFICE  
7695 SW 104TH ST.  
SUITE 100 BOCA RATON, FL 33436  
(305) 272-8911

**MSA ARCHITECTS**  
ARCHITECTURE & PLANNING

DRAWN \_\_\_\_\_  
CHECKED \_\_\_\_\_  
DATE 12/19/2013  
SCALE AS SHOWN  
JOB NO. \_\_\_\_\_  
SHEET \_\_\_\_\_

CONSULTING ENGINEERING & SCIENCE, INC.  
10700 N. KENDALL DRIVE SUITE 400  
MIAMI, FLORIDA 33178 (305) 378-5555  
EB-0003255

FOR THE FIRM:  
RICHARD B. BOCHNOVICH  
PE - 19833 (CIVIL)

C-7

CES PROJECT NO.: 13075

OF SHEETS