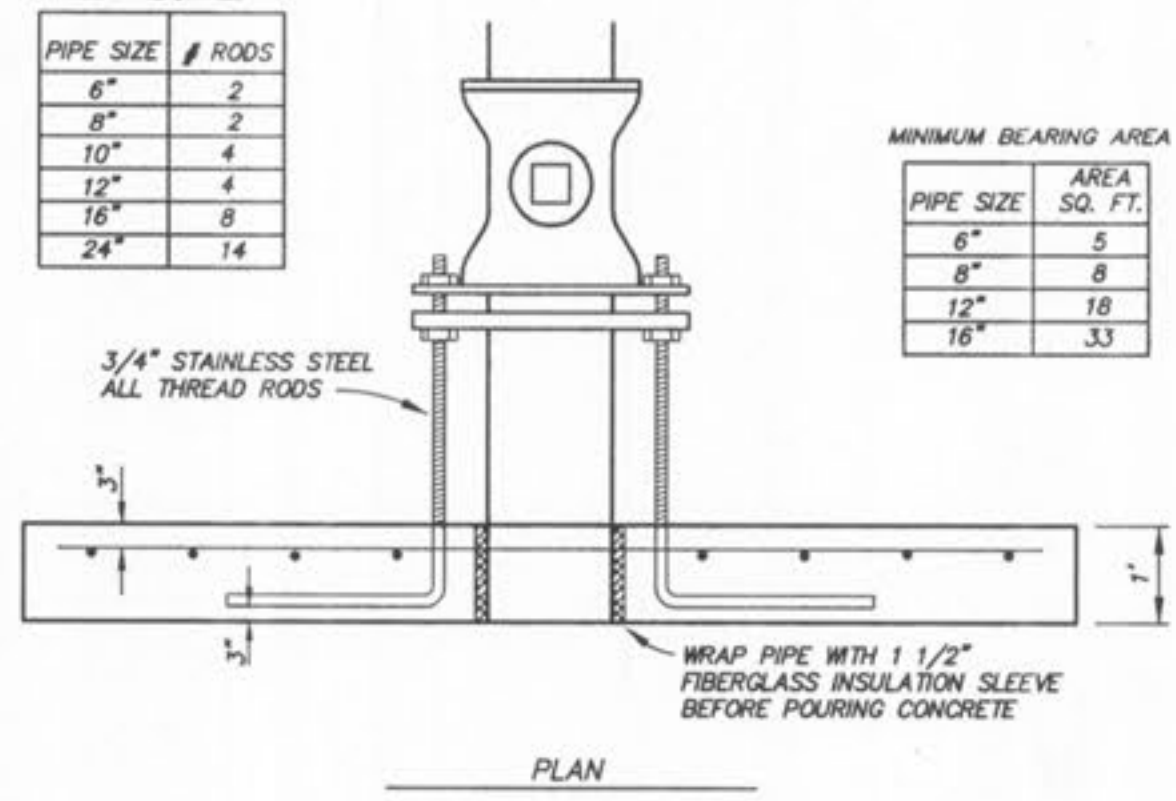


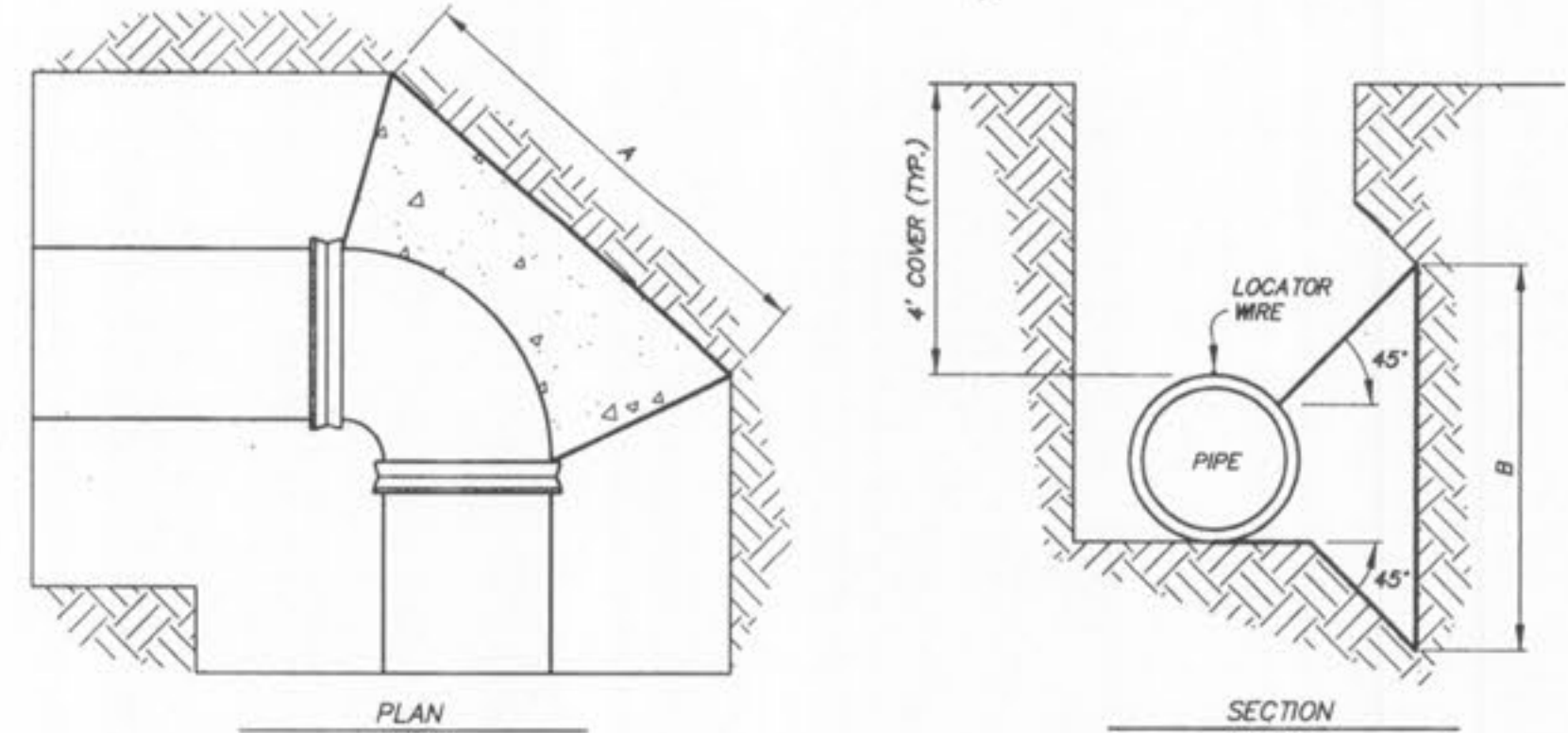
MINIMUM # OF ALL-THREAD RODS REQUIRED

PIPE SIZE	# RODS
6"	2
8"	2
10"	4
12"	4
16"	8
24"	14



NOTES:
1. THE #5 REBAR ARE NOT REQUIRED FOR 6" PIPE.

THRUST COLLAR DETAIL
NOT TO SCALE

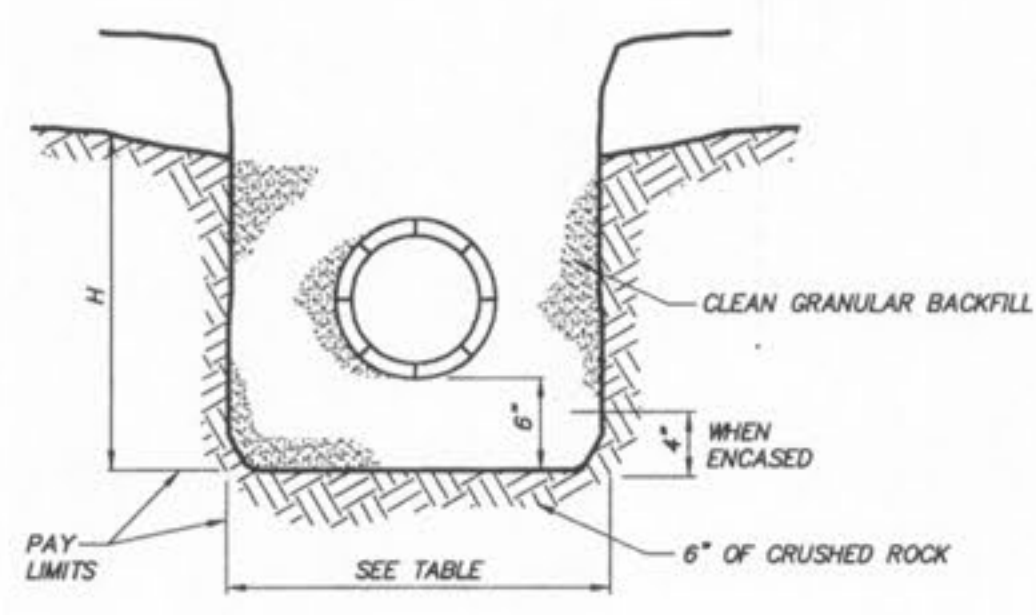


THRUST BLOCK DETAIL
NOT TO SCALE

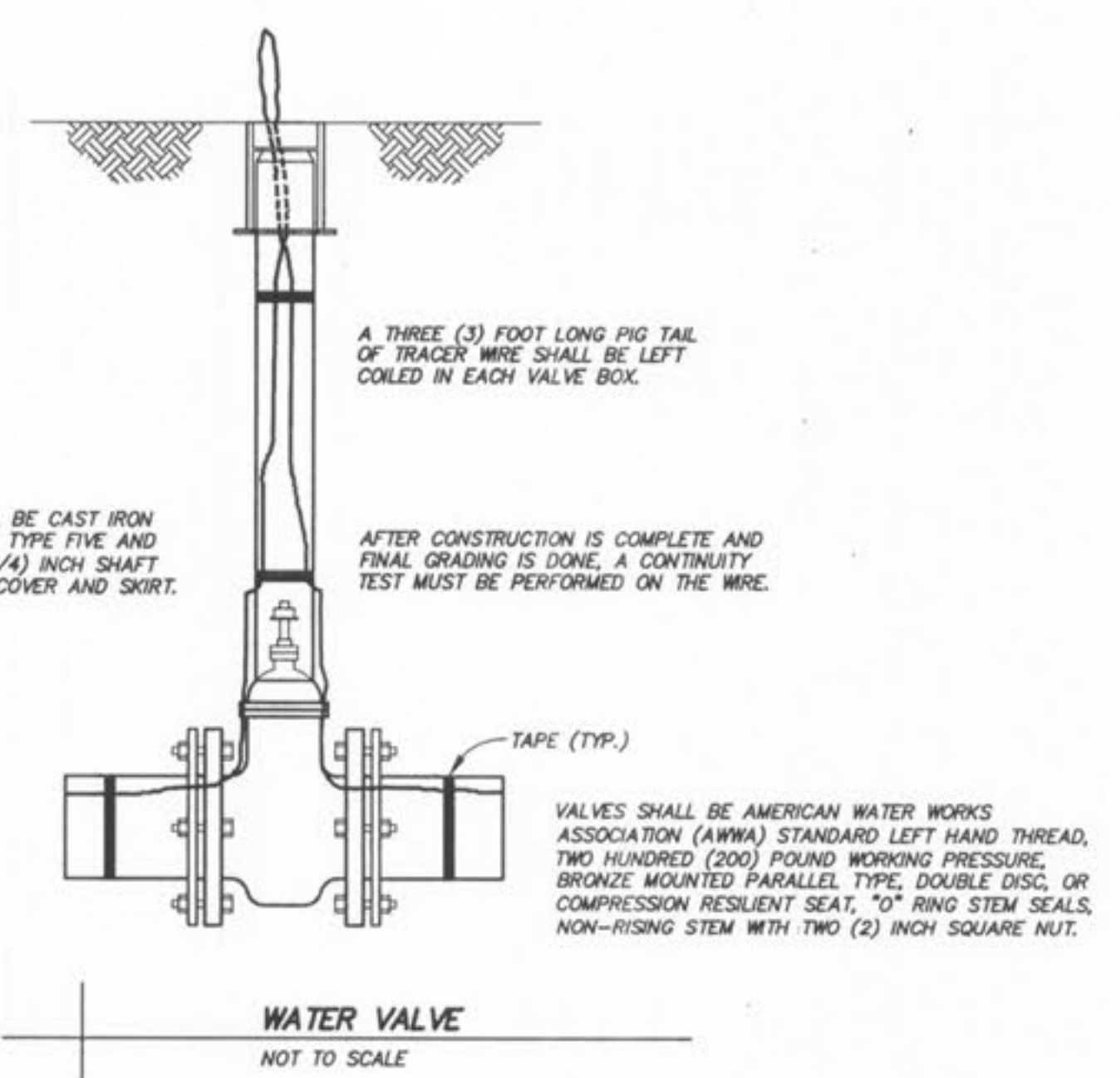
PIPE SIZE	11 1/4" BEND		22 1/2" BEND		45° BEND		90° BEND		TEE	
	A	B	A	B	A	B	A	B	A	B
4" & 6"	1'-0"	0'-6"	1'-3"	0'-9"	1'-6"	1'-0"	2'-0"	1'-6"	2'-6"	1'-9"
8"	1'-0"	0'-9"	1'-6"	1'-0"	2'-0"	1'-6"	2'-9"	2'-0"	3'-3"	2'-3"
12"	1'-6"	1'-0"	2'-3"	1'-6"	3'-0"	2'-0"	4'-0"	2'-9"	5'-0"	3'-3"
16"	2'-0"	1'-6"	3'-0"	2'-0"	4'-0"	2'-9"	5'-6"	3'-9"	6'-0"	4'-0"

THRUST BLOCK DETAIL
NOT TO SCALE

PIPE DIA.	TRENCH WIDTH PAY LIMITS
5-6"	PIPE DIA. + 18"
8"-10"	PIPE DIA. + 10"
12"-36"	PIPE DIA. + 12"



ROCK CUT
NOT TO SCALE

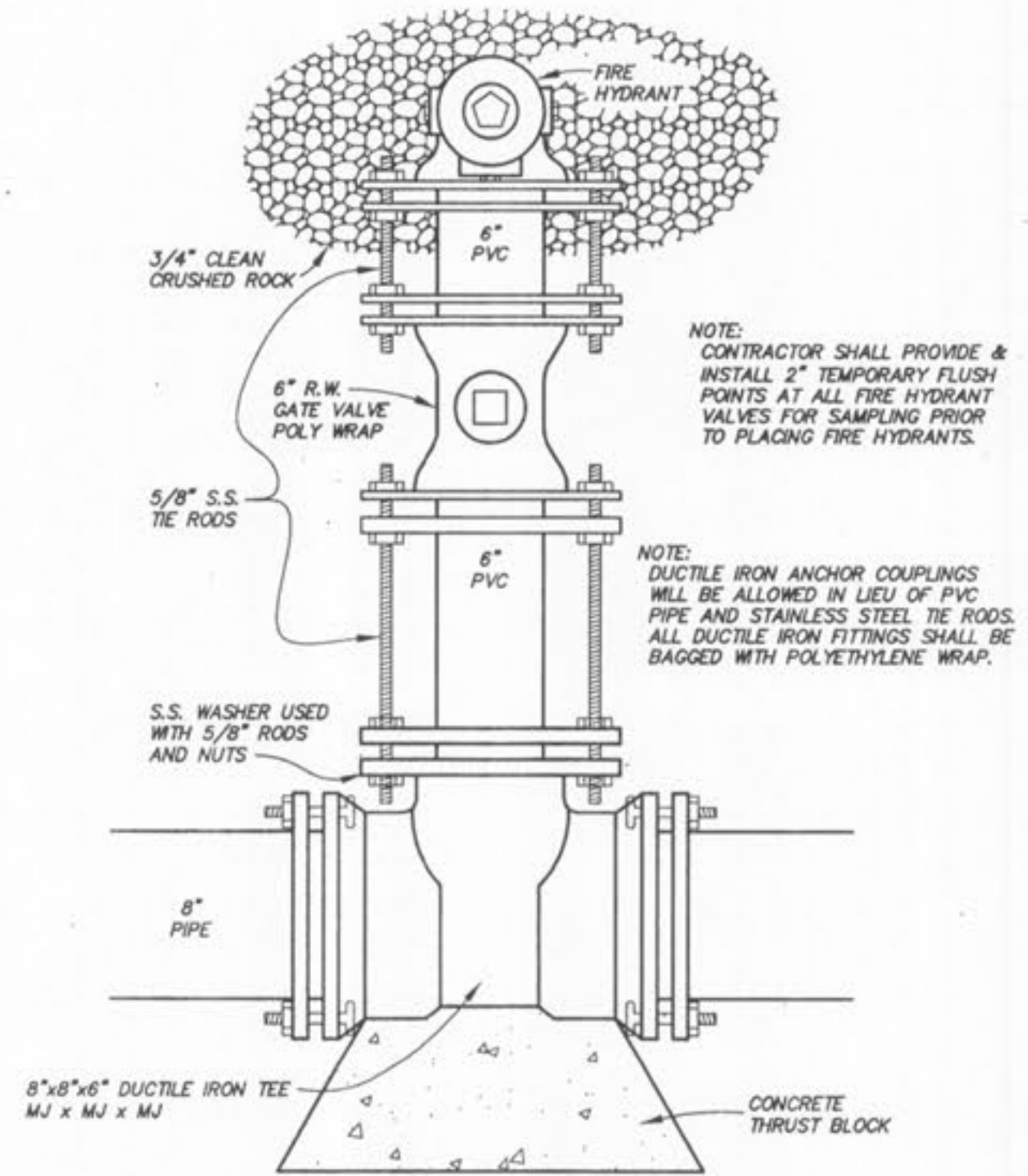


VALVE BOXES SHALL BE CAST IRON ADJUSTABLE SCREW TYPE FIVE AND ONE-QUARTER (5 1/4) INCH SHAFT WITH BASE, WATER COVER AND SKIRT.

AFTER CONSTRUCTION IS COMPLETE AND FINAL GRADING IS DONE, A CONTINUITY TEST MUST BE PERFORMED ON THE WIRE.

VALVES SHALL BE AMERICAN WATER WORKS ASSOCIATION (AWWA) STANDARD LEFT HAND THREAD, TWO HUNDRED (200) POUND WORKING PRESSURE, BRONZE MOUNTED PARALLEL TYPE, DOUBLE DISC, OR COMPRESSION RESILIENT SEAT, "O" RING STEM SEALS, NON-RISING STEM WITH TWO (2) INCH SQUARE NUT.

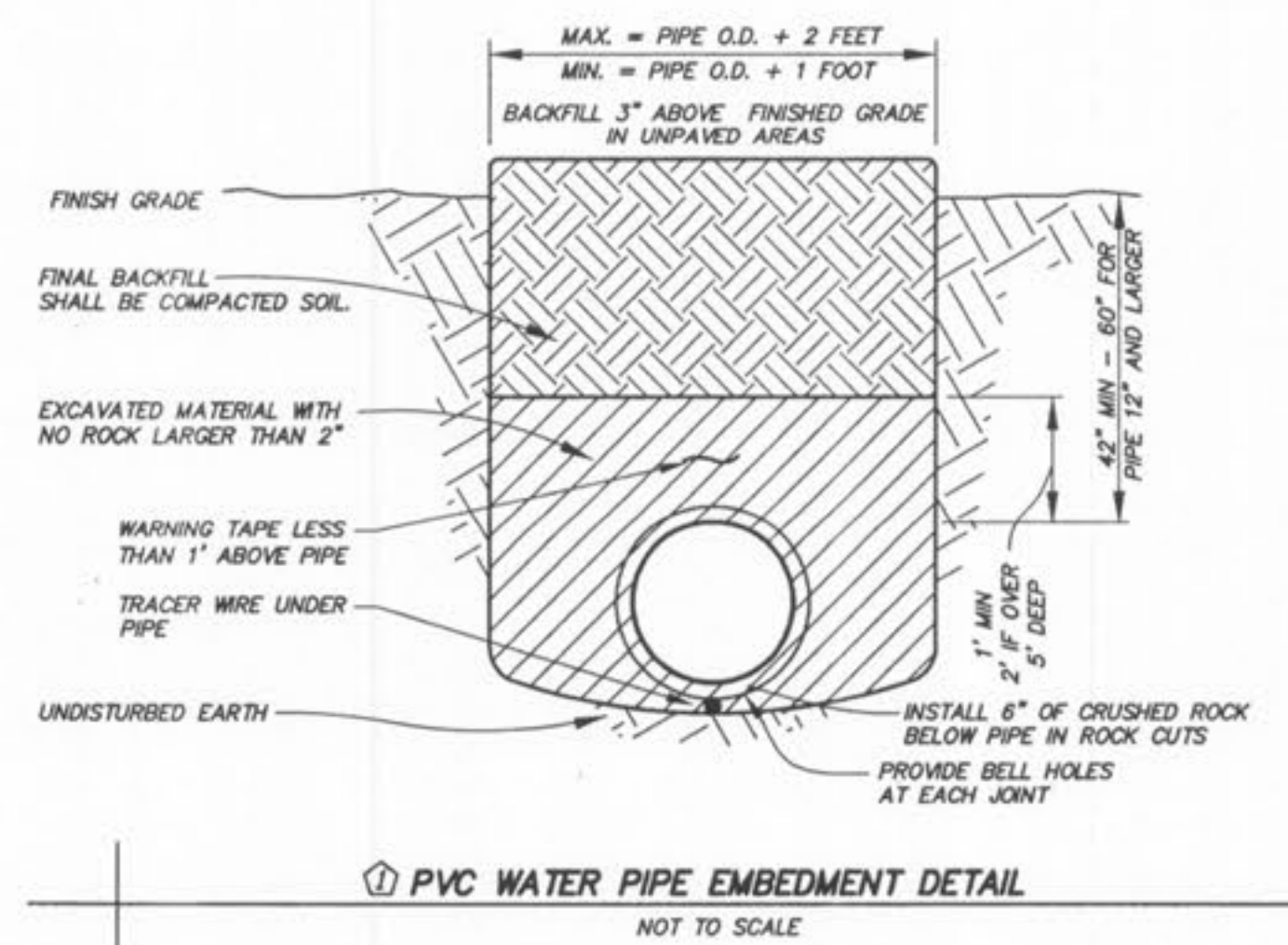
WATER VALVE
NOT TO SCALE



NOTE: CONTRACTOR SHALL PROVIDE & INSTALL 2" TEMPORARY FLUSH POINTS AT ALL FIRE HYDRANT VALVES FOR SAMPLING PRIOR TO PLACING FIRE HYDRANTS.

NOTE: DUCTILE IRON ANCHOR COUPLINGS WILL BE ALLOWED IN LIEU OF PVC PIPE AND STAINLESS STEEL TIE RODS. ALL DUCTILE IRON FITTINGS SHALL BE BAGGED WITH POLYETHYLENE WRAP.

FIRE HYDRANT DETAIL
NOT TO SCALE



PVC WATER PIPE EMBEDMENT DETAIL
NOT TO SCALE

REVISION NOTES:
1. REVISED WATER PIPE EMBEDMENT DETAIL.

PLANNING & DEVELOPMENT #1804.08 APPROVED AUGUST 6, 2009

WATERLINE DETAILS

WOODBURY PLACE

ST. CHARLES COUNTY, O'FALLON, MISSOURI

Surveyed: [] Drawn: CH Checked: TOC/MK

Scale: AS SHOWN Date: DECEMBER 7, 2009 Job: 11354 Sheet: C118

Engineering Surveys & Services
1113 Fay Street
Columbia, Missouri
573-449-2646
Missouri Engineering Corporation # 2004065018

Revised 19 JAN 2010

MATTHEW A. KRIETE
PROFESSIONAL ENGINEER
PE-2007002811

C:\CORRECTING\WORKS\ACES154\COVER & DETAILS.DWG: 1/19/2010