

NOTES:

- CONCRETE THRUST BLOCKS TO BE PLACED AGAINST UNDER-SIDE OF PIPE.
- 1/2\"/>

PIPE SIZE (IN)	MINIMUM CONC. FOR BEDDING (IN)	MINIMUM CONC. FOR BEDDING (IN)	MINIMUM CONC. FOR BEDDING (IN)	MINIMUM CONC. FOR BEDDING (IN)	MINIMUM CONC. FOR BEDDING (IN)	MINIMUM CONC. FOR BEDDING (IN)	MINIMUM CONC. FOR BEDDING (IN)	MINIMUM CONC. FOR BEDDING (IN)	MINIMUM CONC. FOR BEDDING (IN)
12	8.5	12.0	17.0	12.0	6.6	3.4	2.0		
14	11.5	16.3	23.0	16.3	8.9	4.6	2.3		
16	15.5	21.9	30.0	21.9	11.6	6.0	3.0		
18	19.0	27.0	38.0	27.0	14.0	7.6	3.8		
20	23.5	33.3	47.0	33.3	18.1	9.4	4.7		
24	34.0	48.0	66.0	48.0	26.2	13.6	6.8		

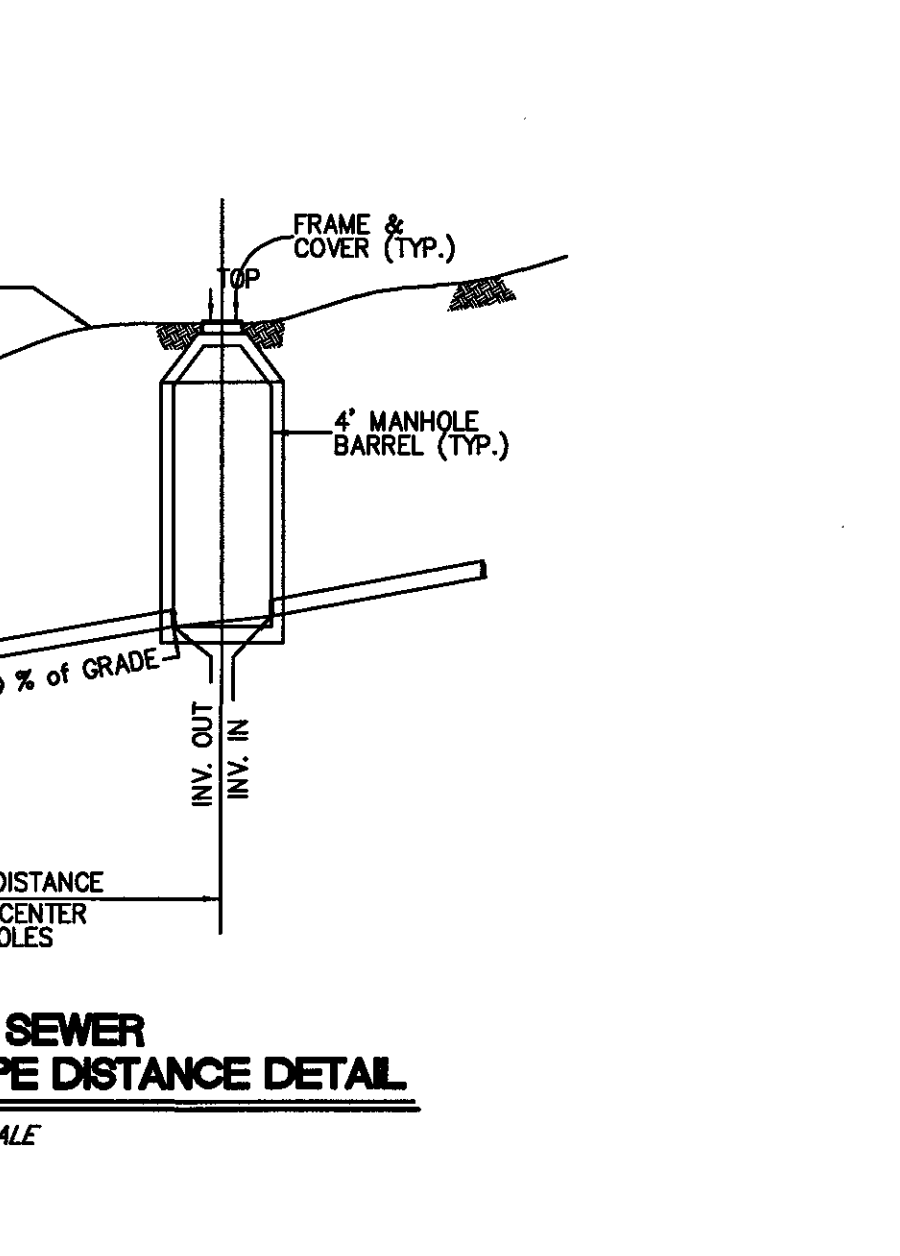
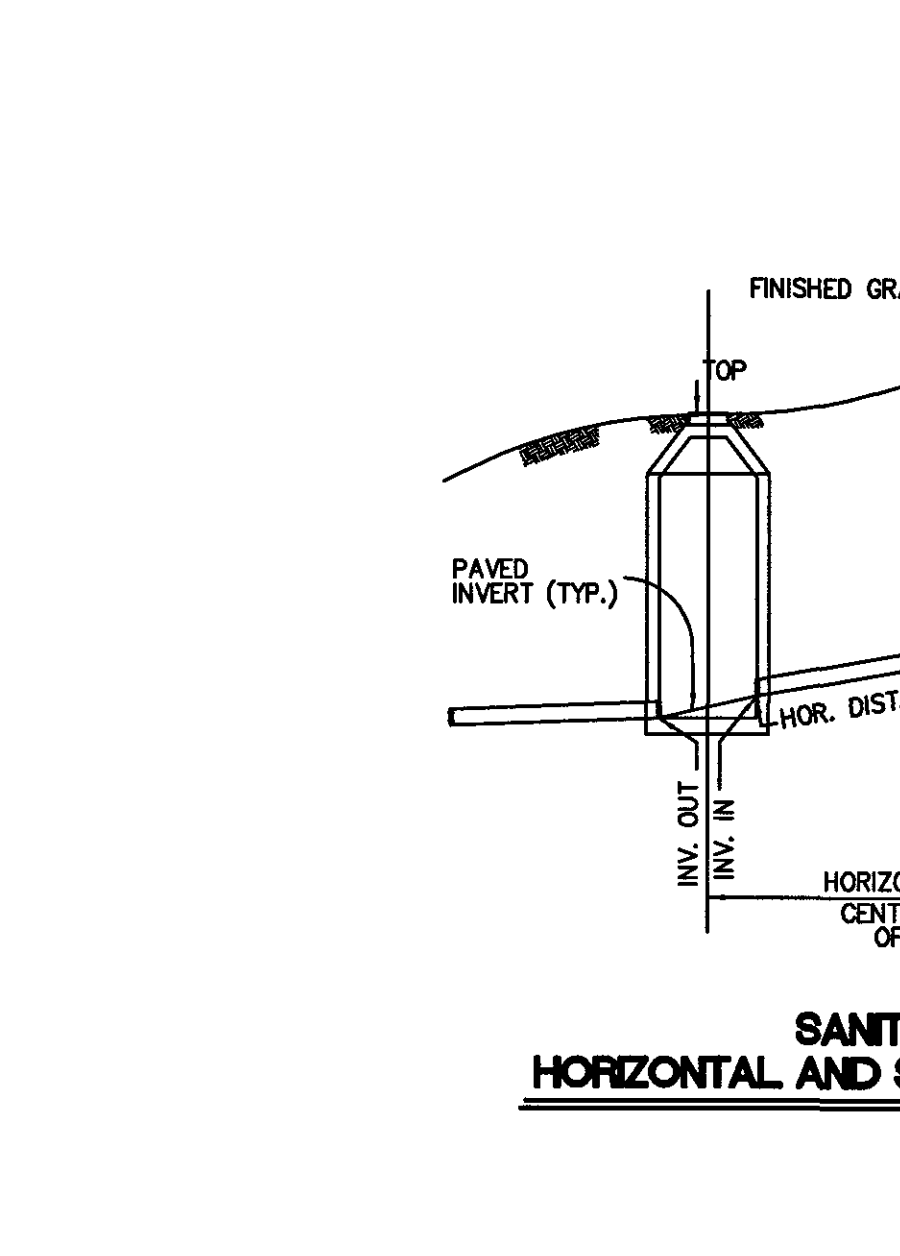
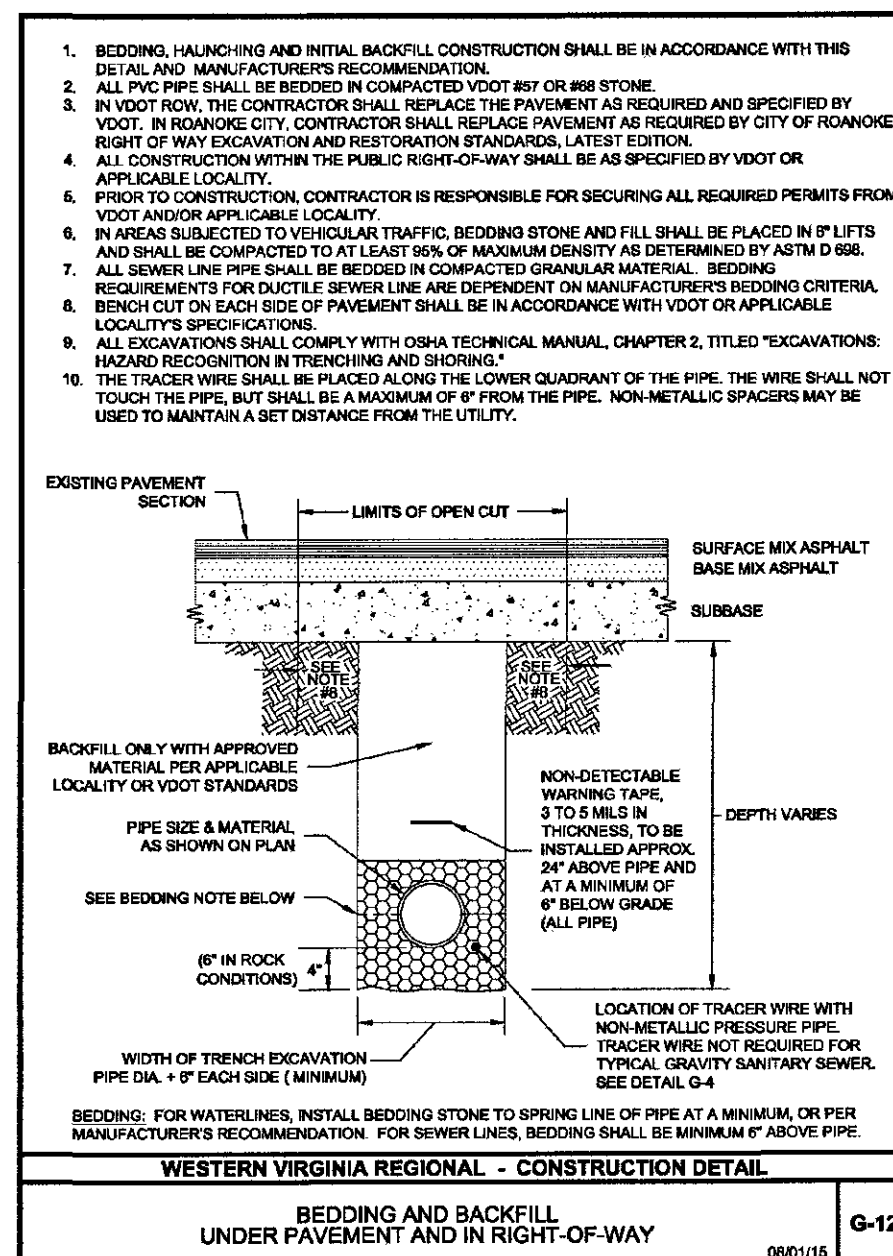
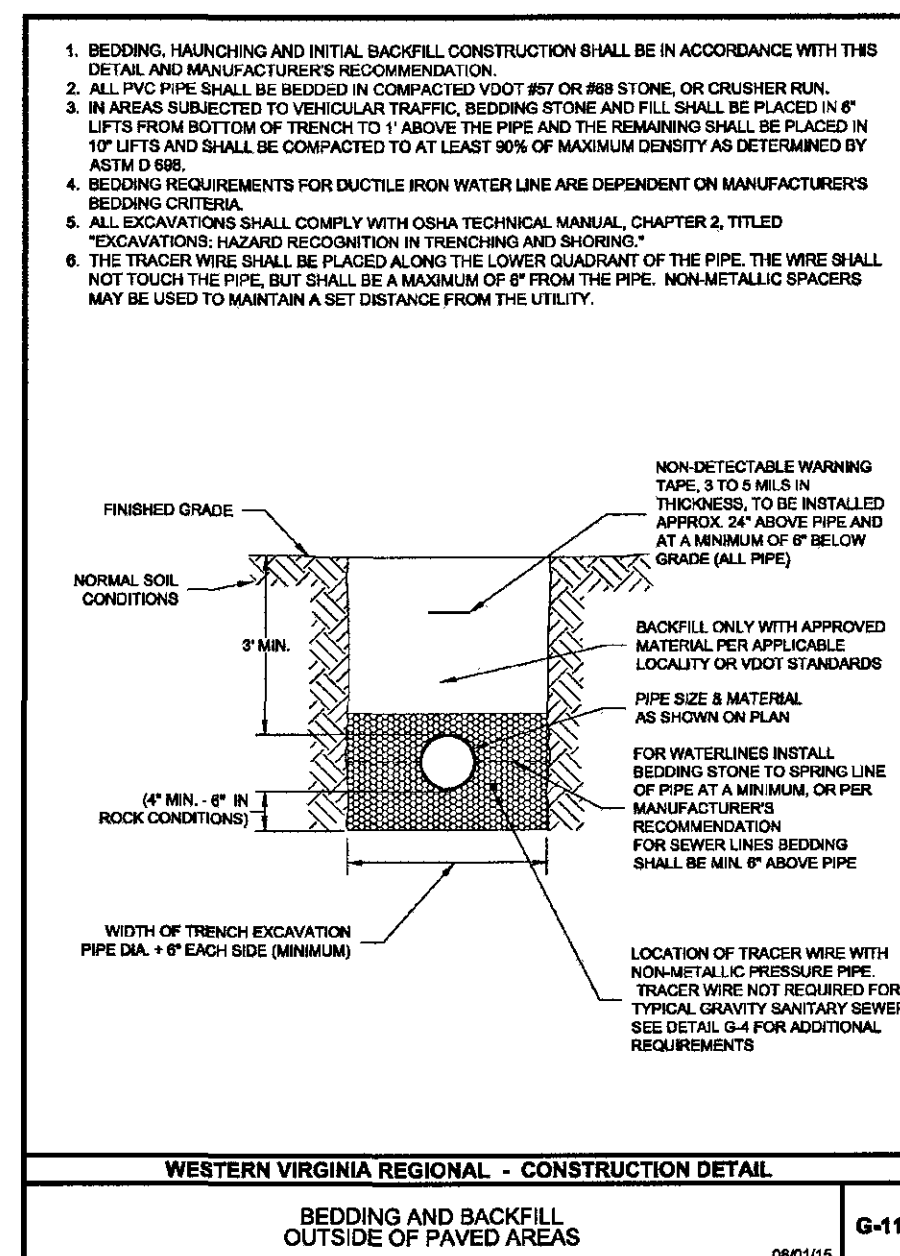
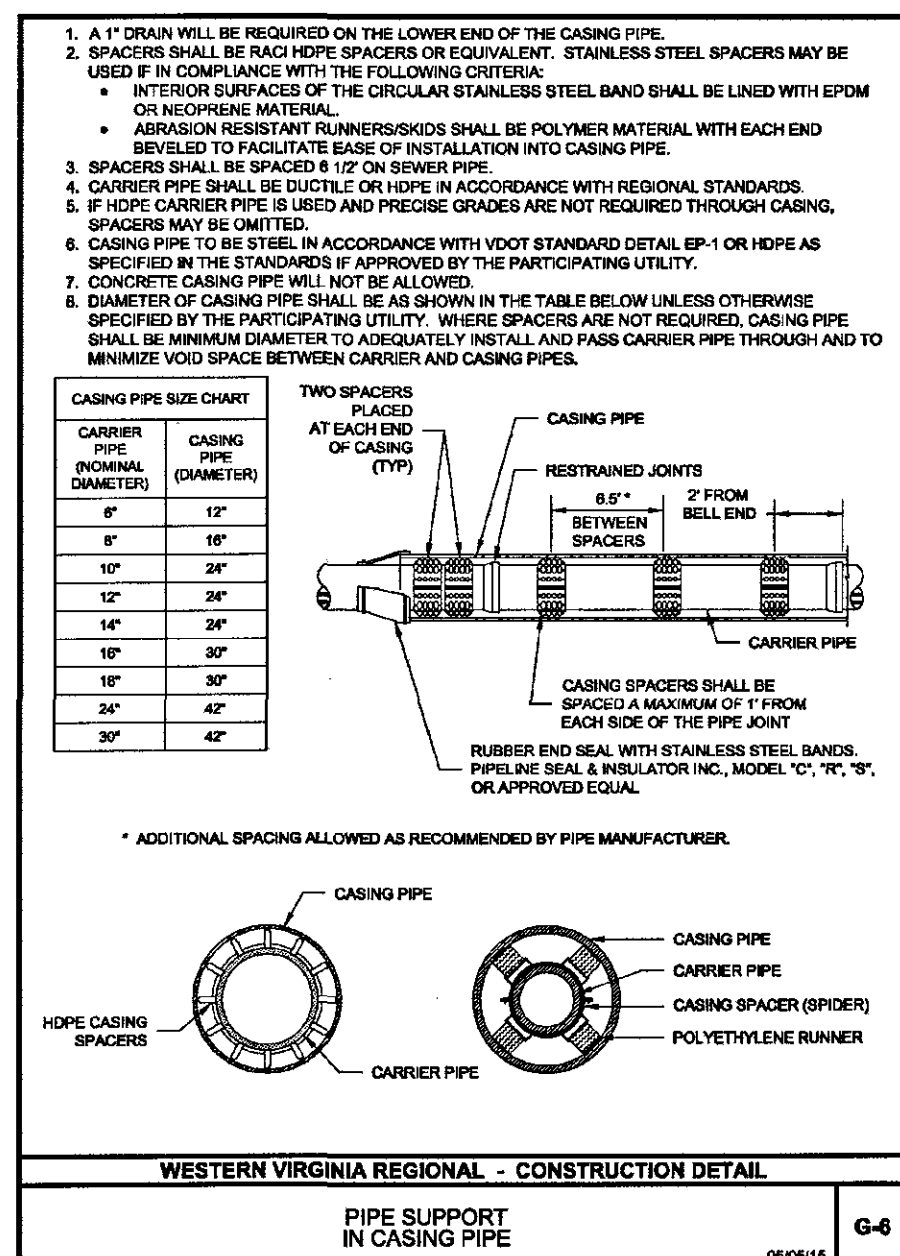
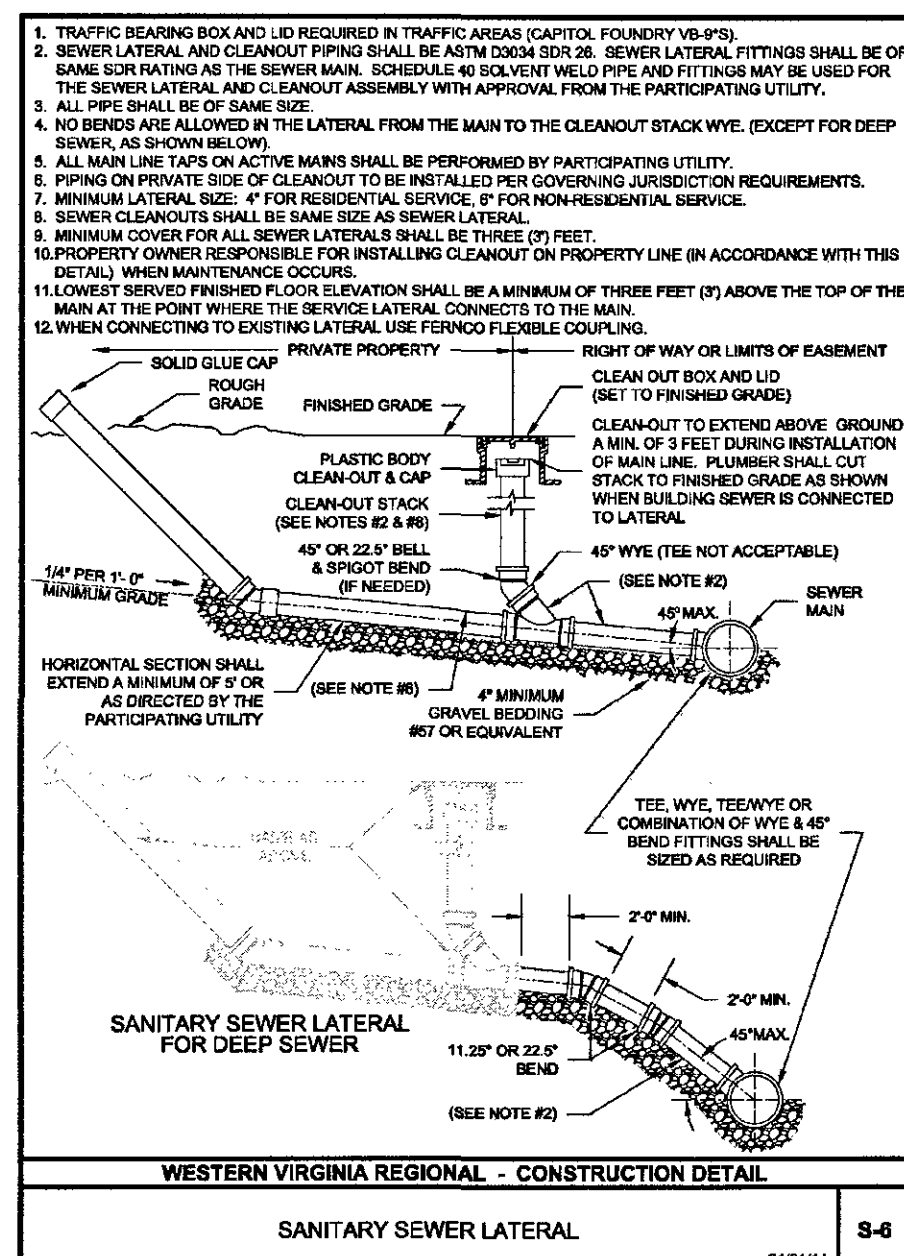
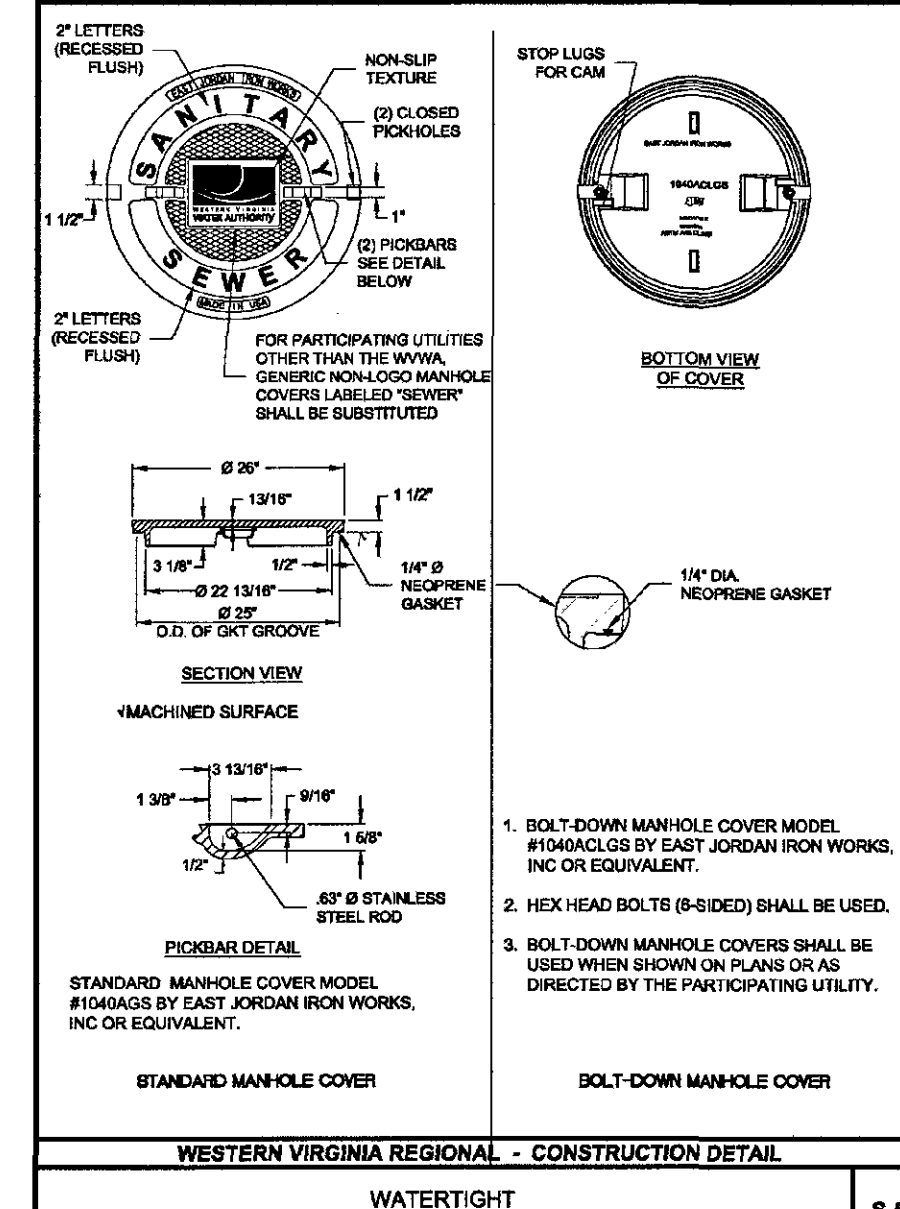
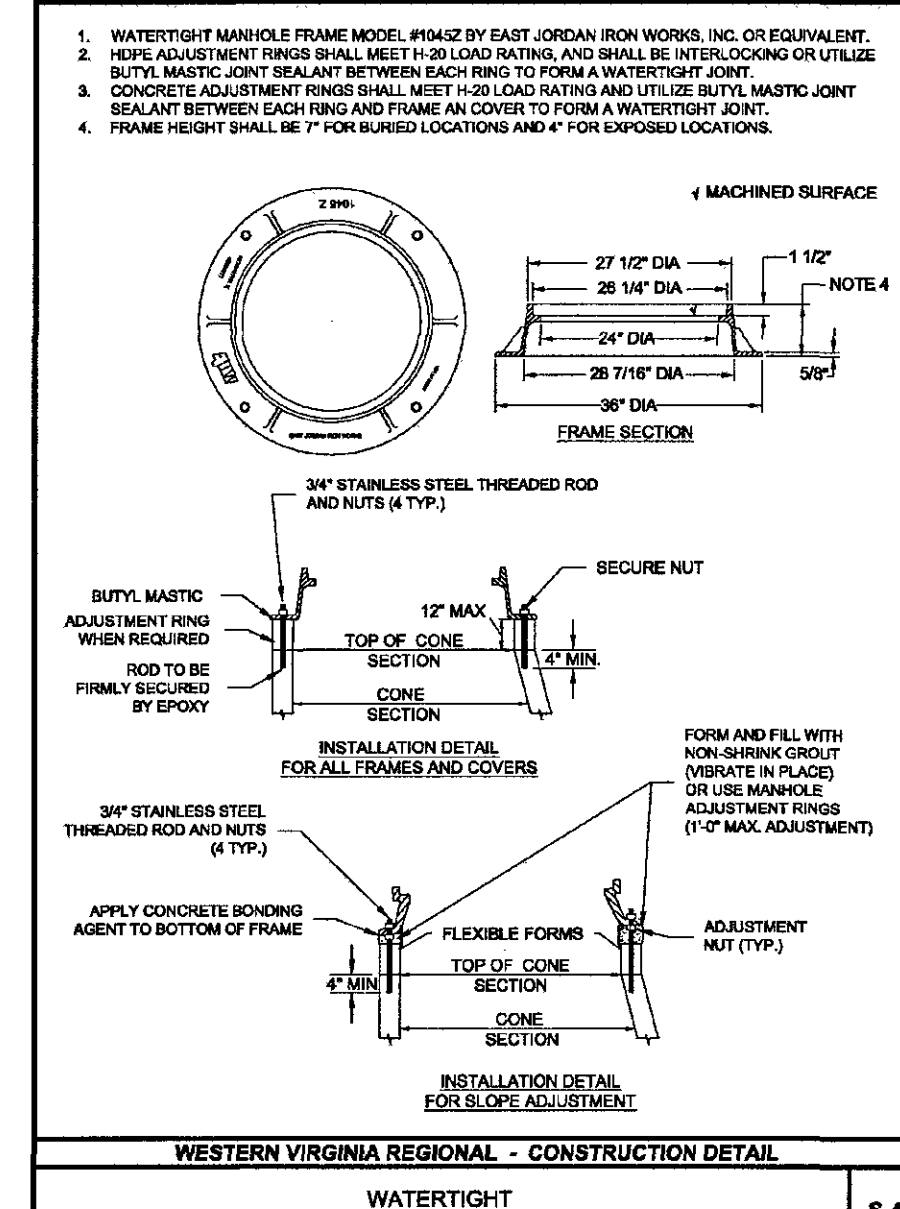
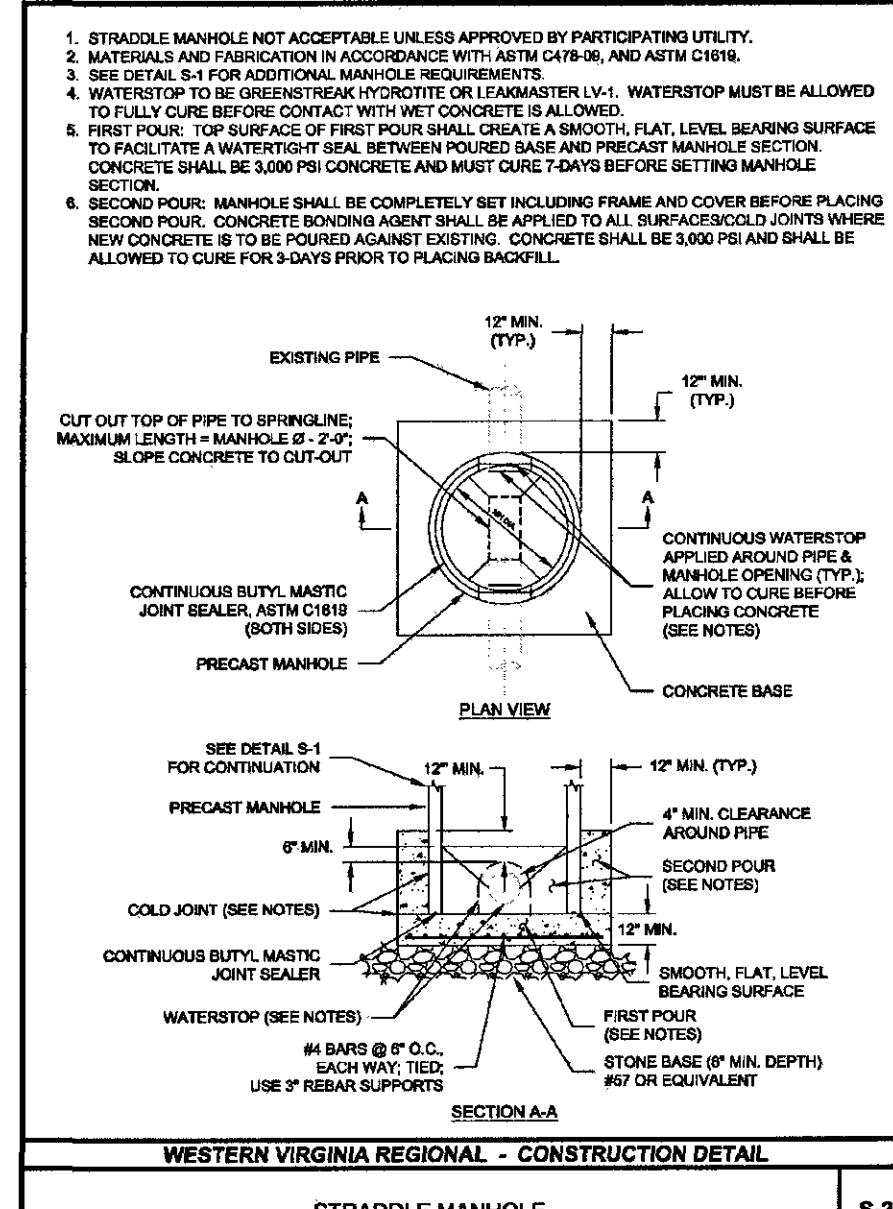
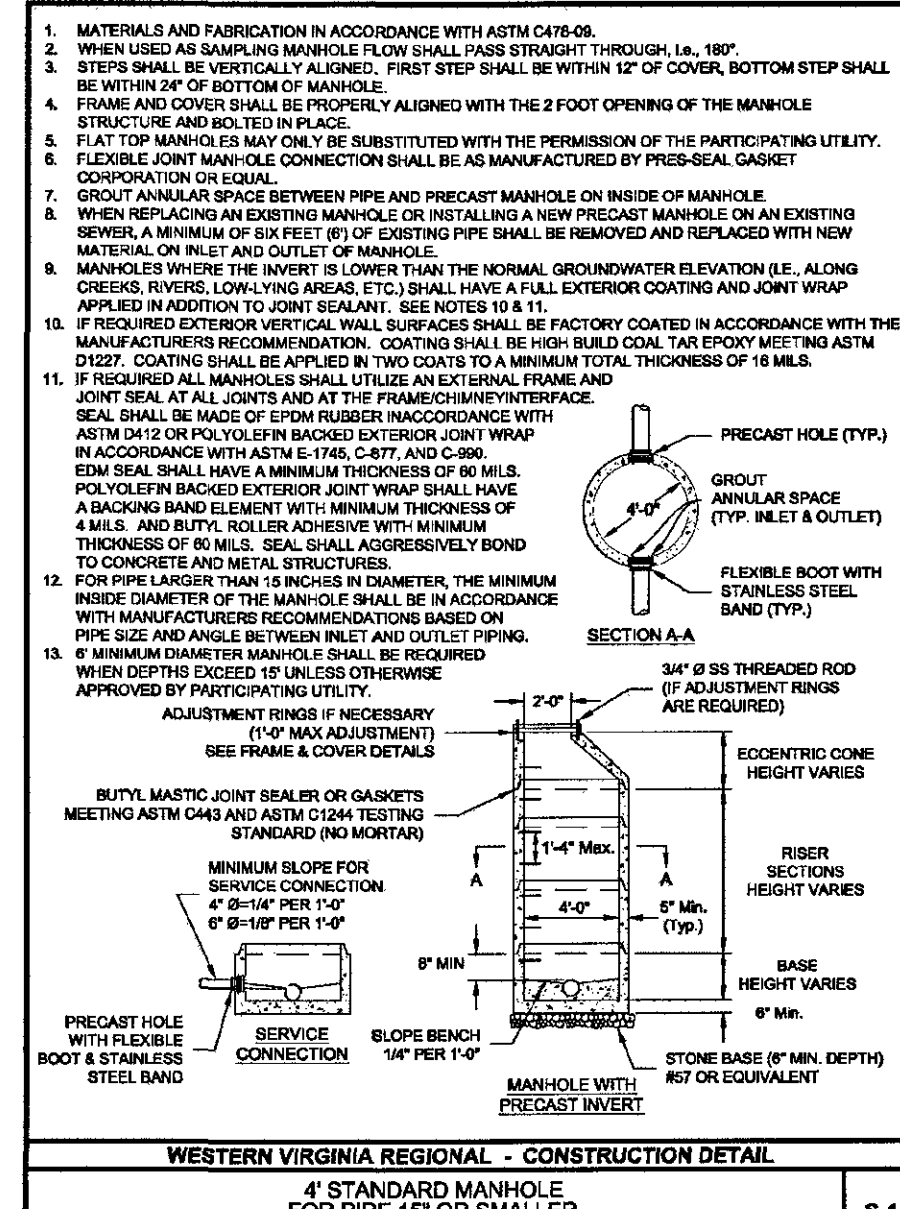
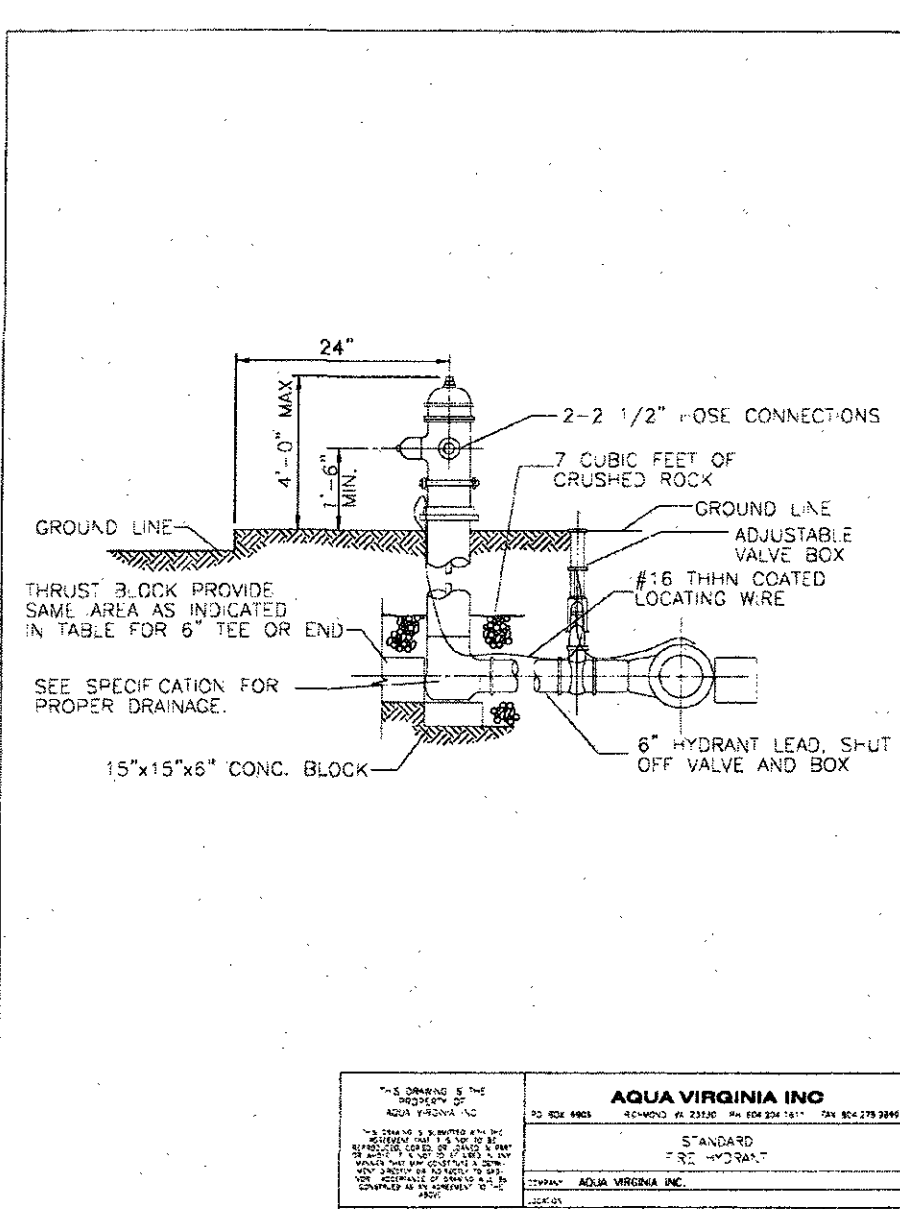
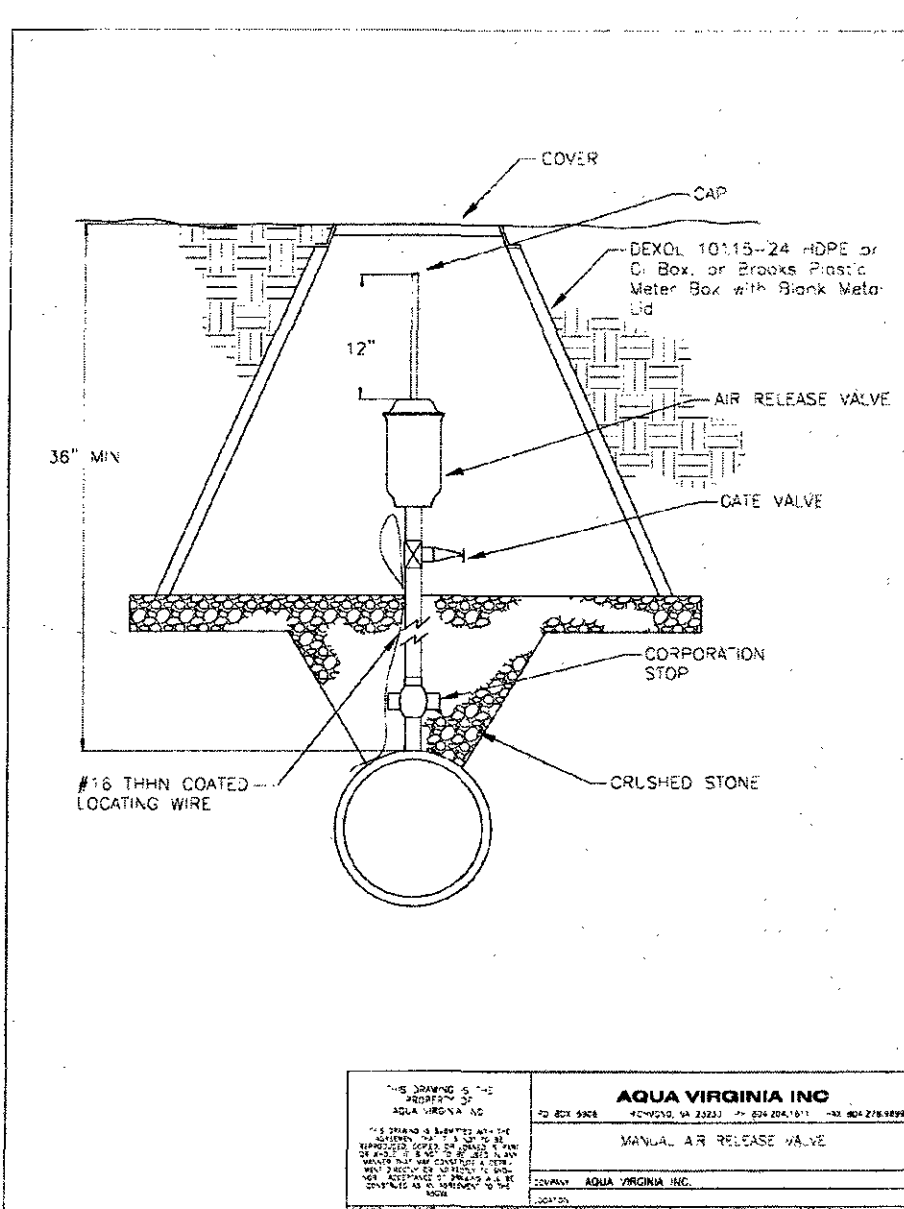
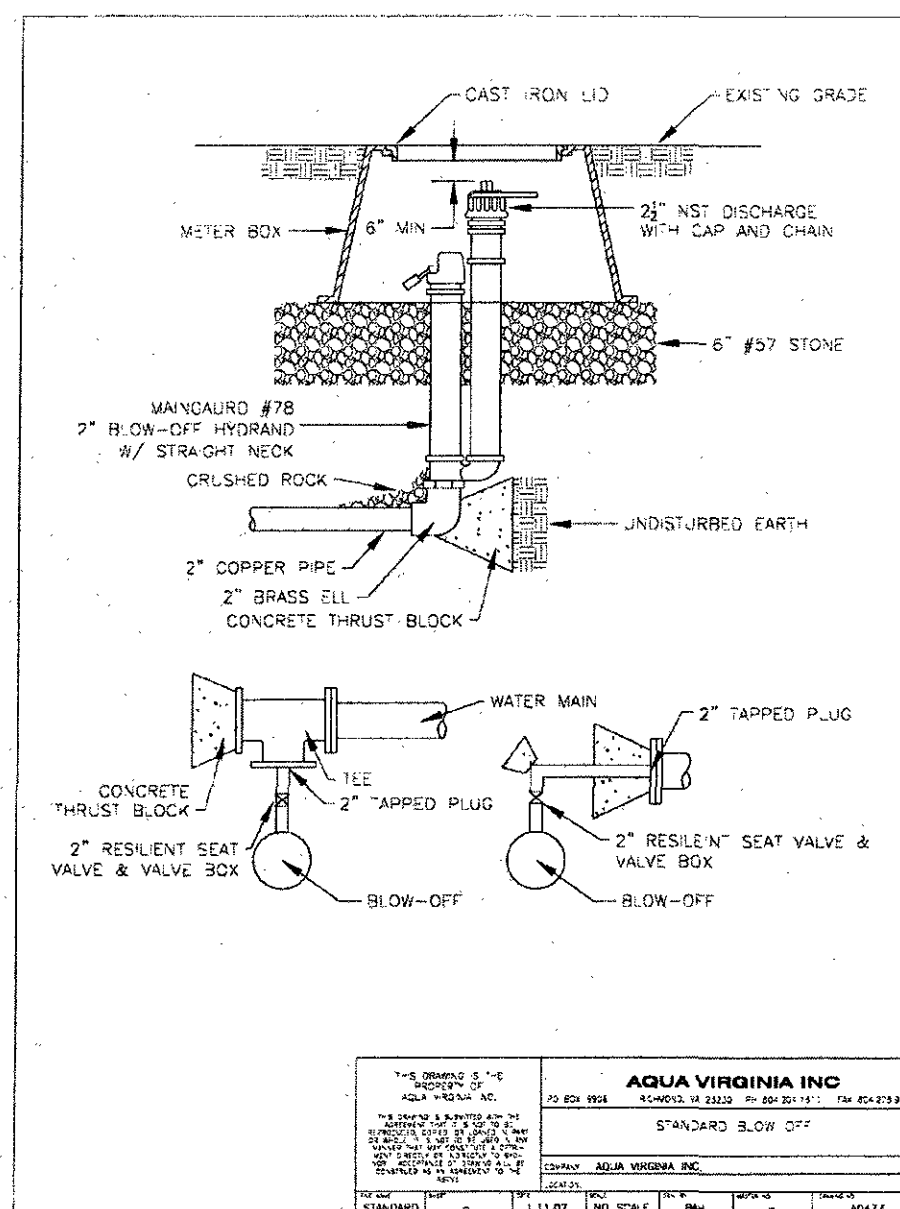
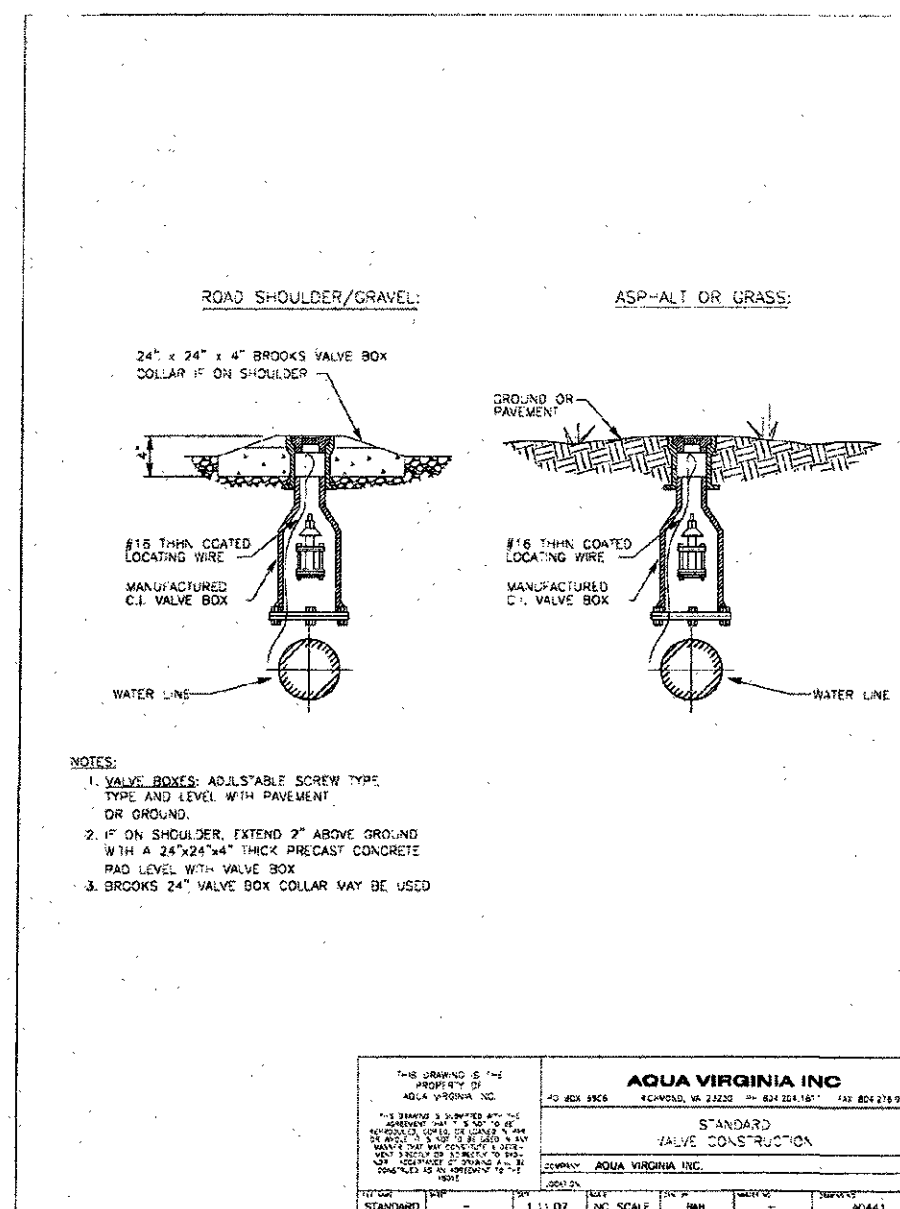
NOTES:

- ABOVE BEDDING AREAS BASED ON TEST PRESSURE OF 200 P.S.I. AND ON ALLOWABLE SOIL BEARING STRESS OF 3000 P.S.F. TO COMPACT BEARING AREAS FOR DIFFERENT TEST RESULTS AND SOIL BEARING STRESSES, USE THE FOLLOWING EQUATION:

SIZE OF FITTING (IN)	MINIMUM CONC. FOR BEDDING (IN)
12-14	2
16-24	3

CONCRETE SHALL BE 25% MINIMUM REDUCED PERCENTAGE OF ASTM C84.

AQUA VIRGINIA INC.
1200 N. 11TH ST. SUITE 100
FARMERSVILLE, VA 22434
TEL: 540-896-1111
FAX: 540-896-1112
WWW.AQUAVIRGINIA.COM



LUMSDEN ASSOCIATES, P.C.
ENGINEERS-SURVEYORS-PLANNERS
ROANOKE, VIRGINIA

4666 BRAMBLETON AVENUE
P.O. BOX 20669
ROANOKE, VIRGINIA 24018
PHONE: (540) 774-4411
FAX: (540) 773-9445
E-MAIL: MAIL@LUMSDENPC.COM

COMMONWEALTH OF VIRGINIA
THOMAS C. DALE
Lic. No. 033002
7/25/17
PROFESSIONAL ENGINEER

SANDERSON RIDGE
PREPARED FOR
HUNGATE-FIELDS, LLC
VALLEY MAGISTERIAL DISTRICT
THE COUNTY OF BOTETOURT, VIRGINIA

NO.	DATE	DESCRIPTION
1		
2		
3		
4		
5		

DATE: July 25, 2017
SCALE: AS SHOWN
COMMISSION NO: 2016-003
SHEET 12 OF 14