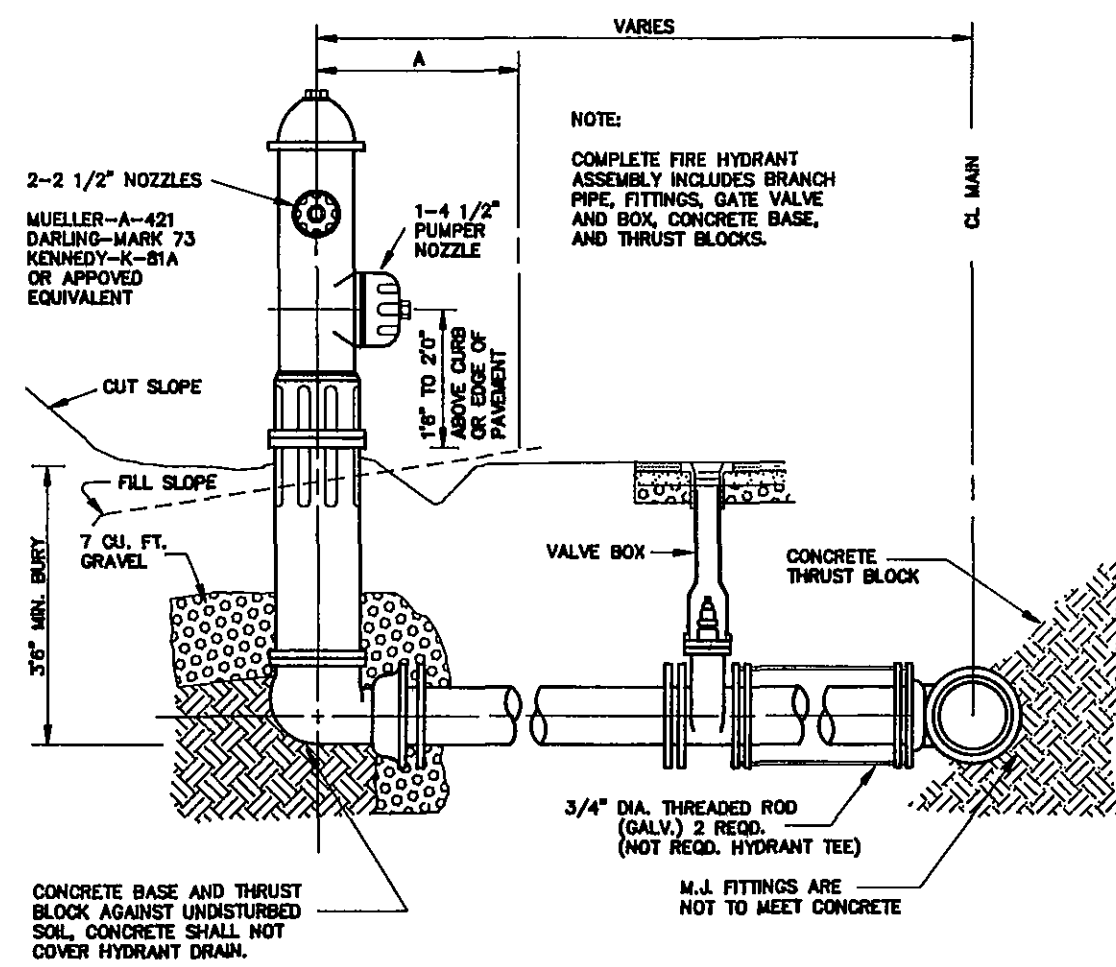
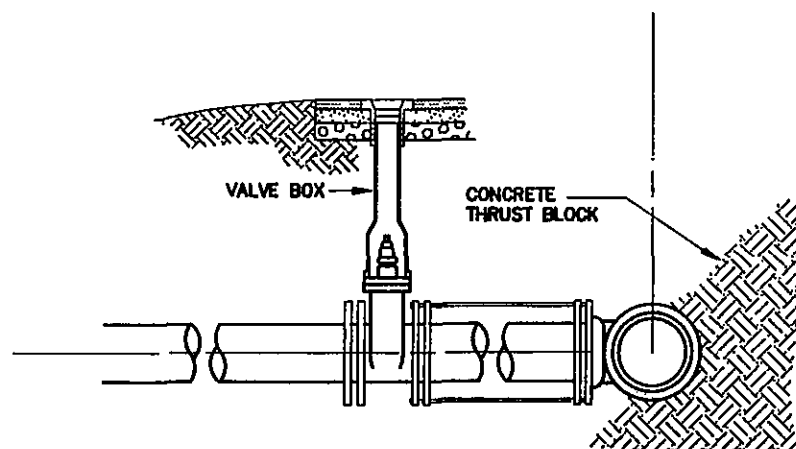


WATER DETAILS

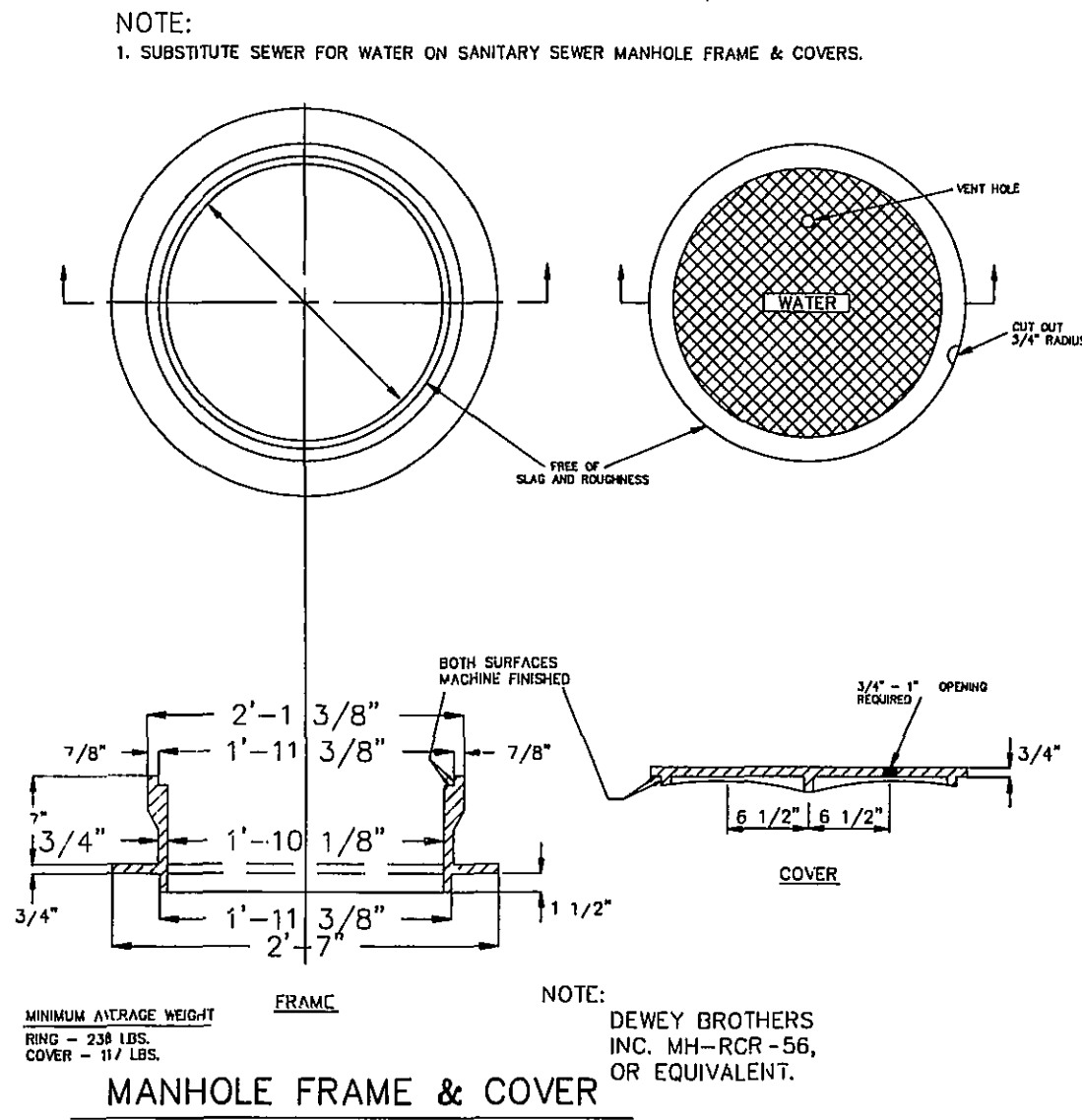
- NOTES:
- (1) MAIN BODY OF HYDRANT MUST BE SILVER AND HAVE RED CAPS AND BONNET.
 - (2) DISTANCE "A" WITH CURB AND GUTTER, 2' MIN., 4' MAX. FROM BACK OF CURB.
 - (3) DISTANCE "A" WITHOUT CURB AND GUTTER, 8' MIN., 12' MAX. FROM EDGE OF PAVEMENT.
 - (4) AREA AROUND HYDRANT AT A RADIUS OF 4' TO BE APPROXIMATELY LEVEL AND UNOBSTRUCTED FOR ROAD CONSTRUCTION.



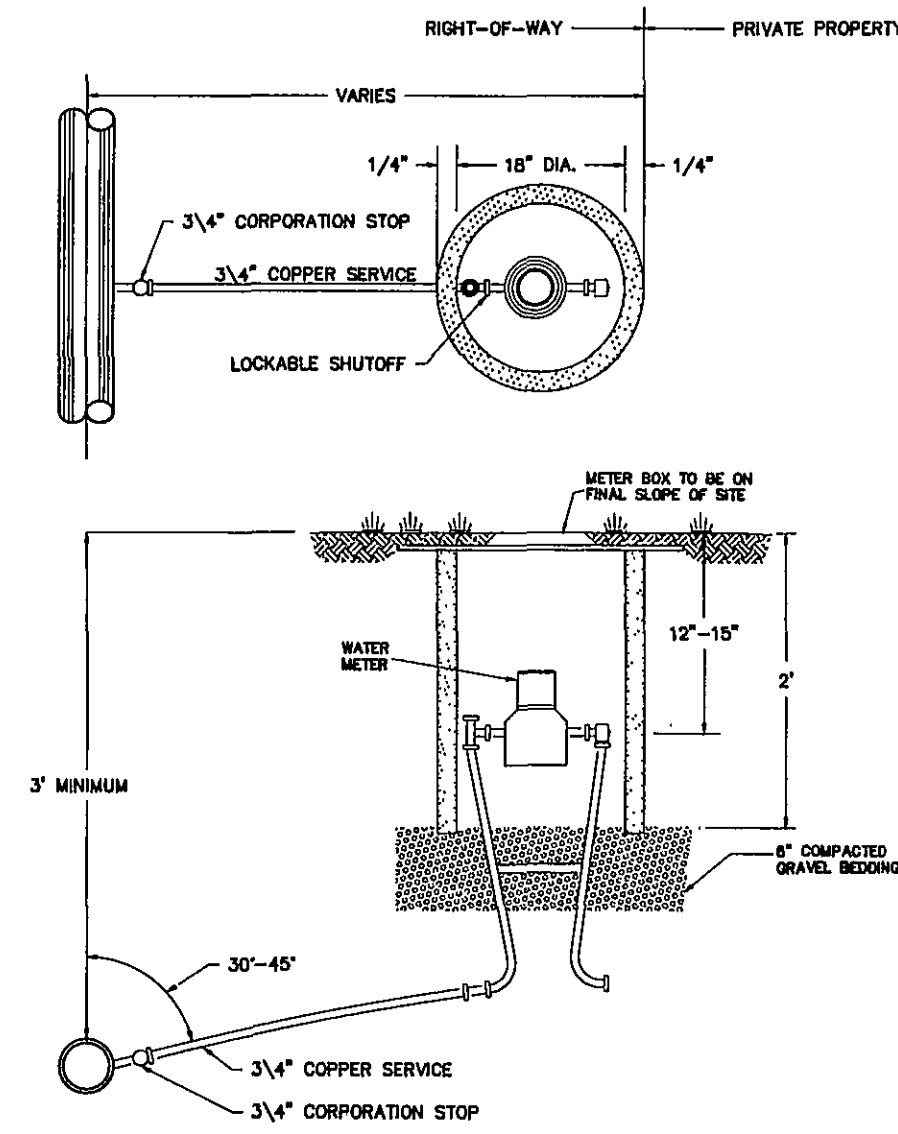
FIRE HYDRANT SETTING



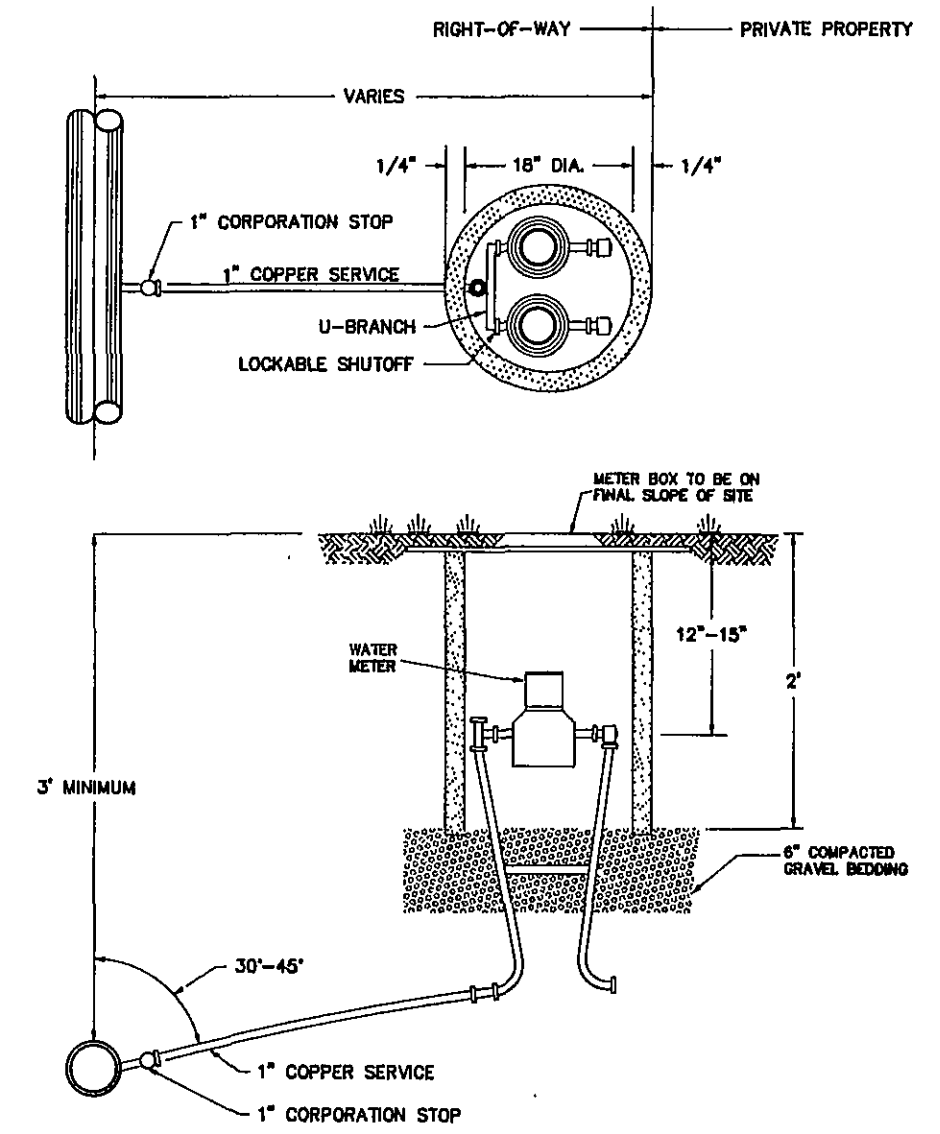
WATER LINE VALVE INSTALLATION



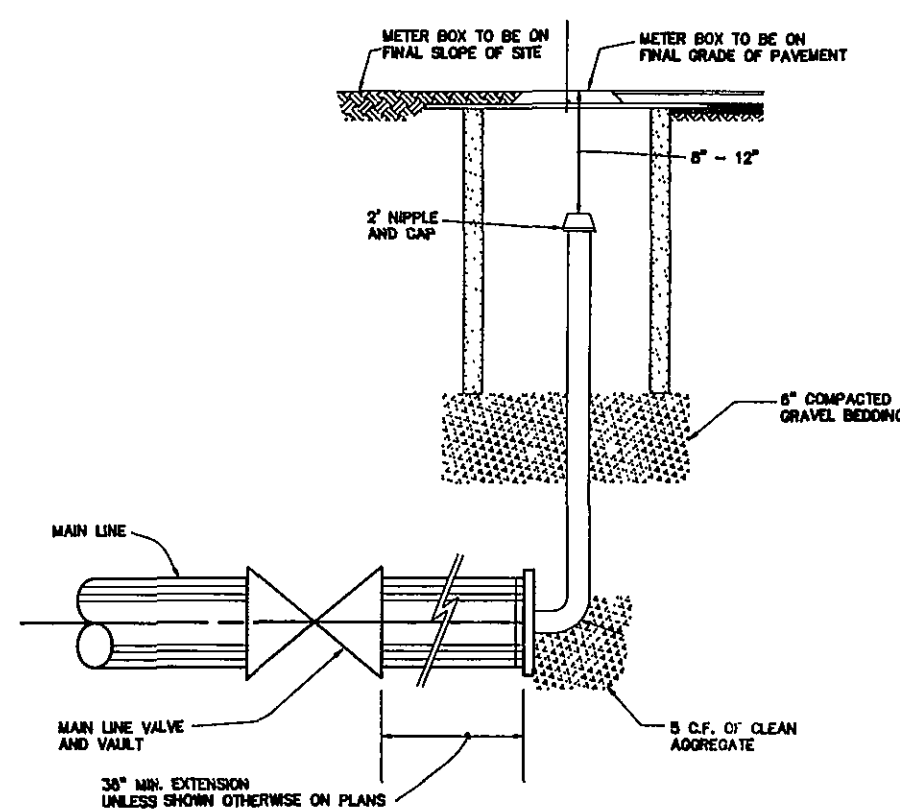
MANHOLE FRAME & COVER



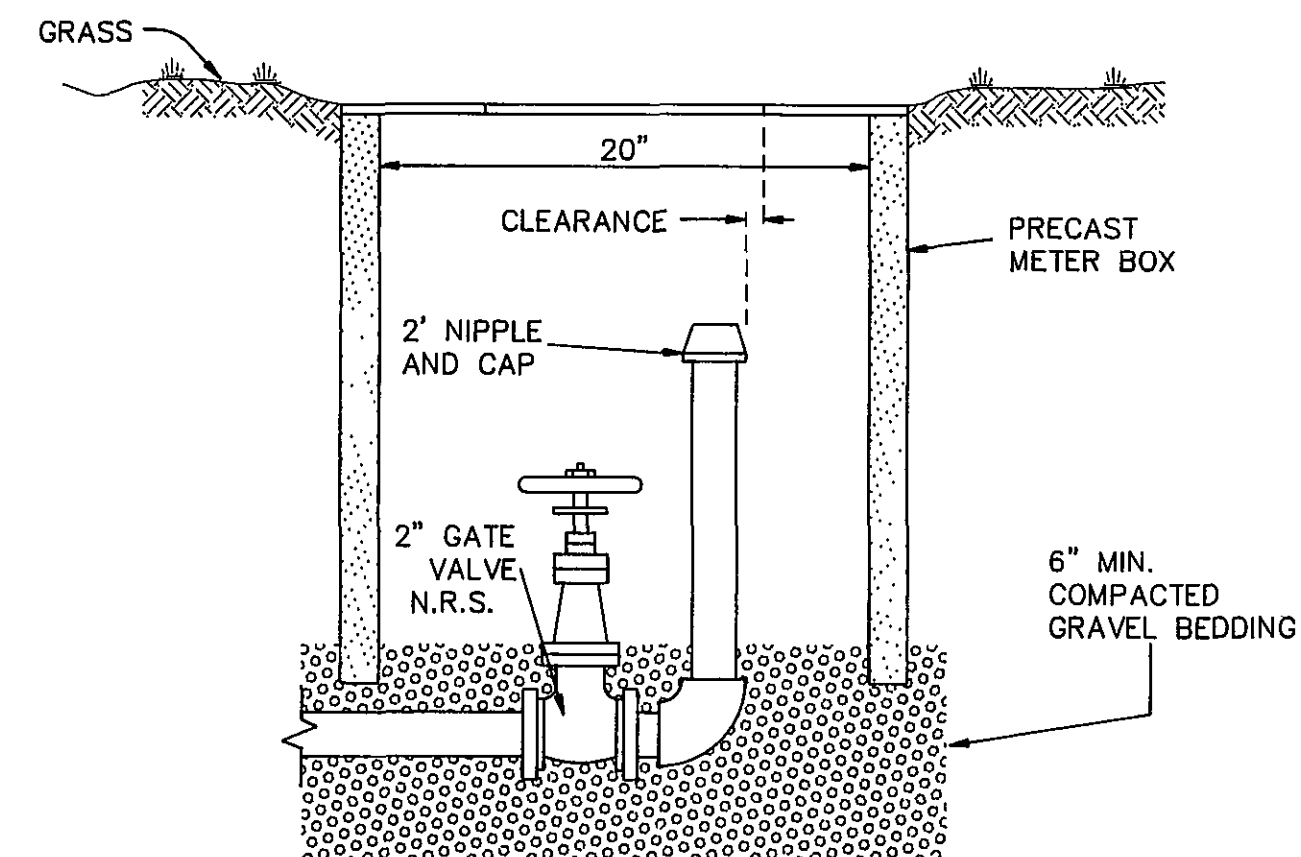
SINGLE RESIDENTIAL WATER SERVICE



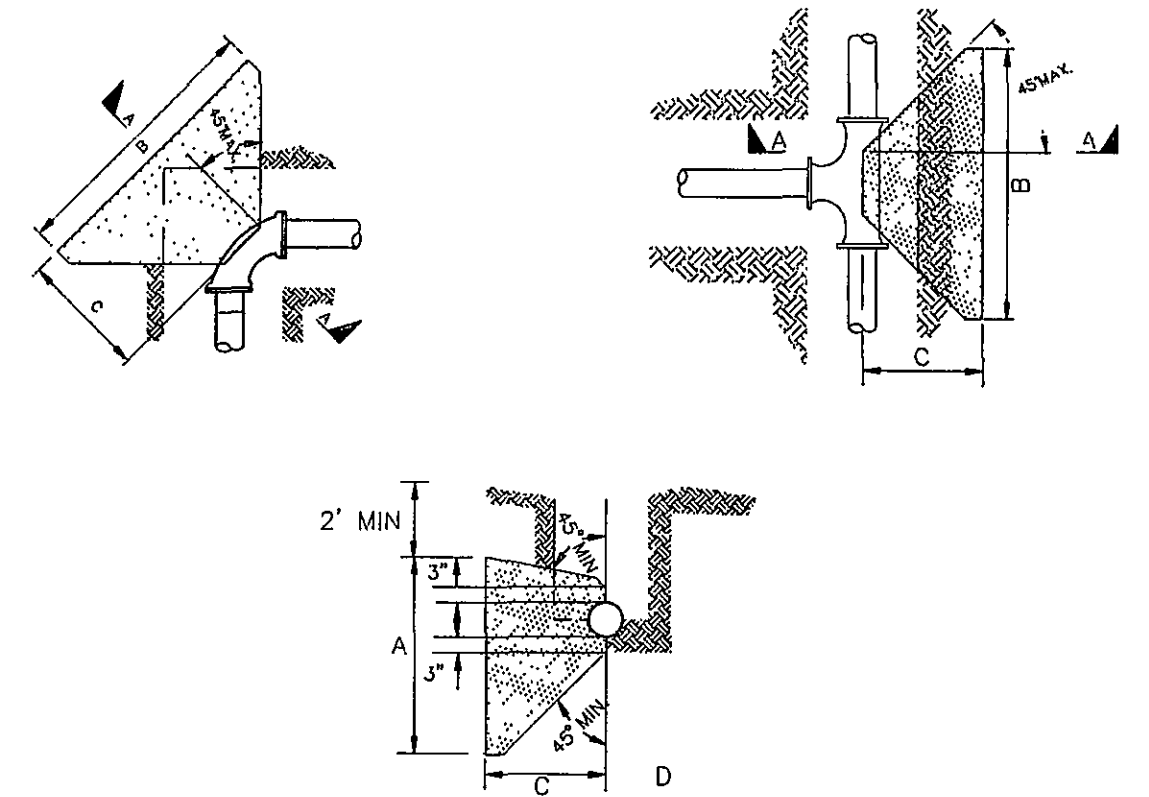
DOUBLE RESIDENTIAL WATER SERV



BLOW OFF ASSEMBLY FOR MAIN LINE
TEMPORARY TERMINATION



TYPICAL BLOW-OFF ASSEMBLY
(OUT OF PAVEMENT)

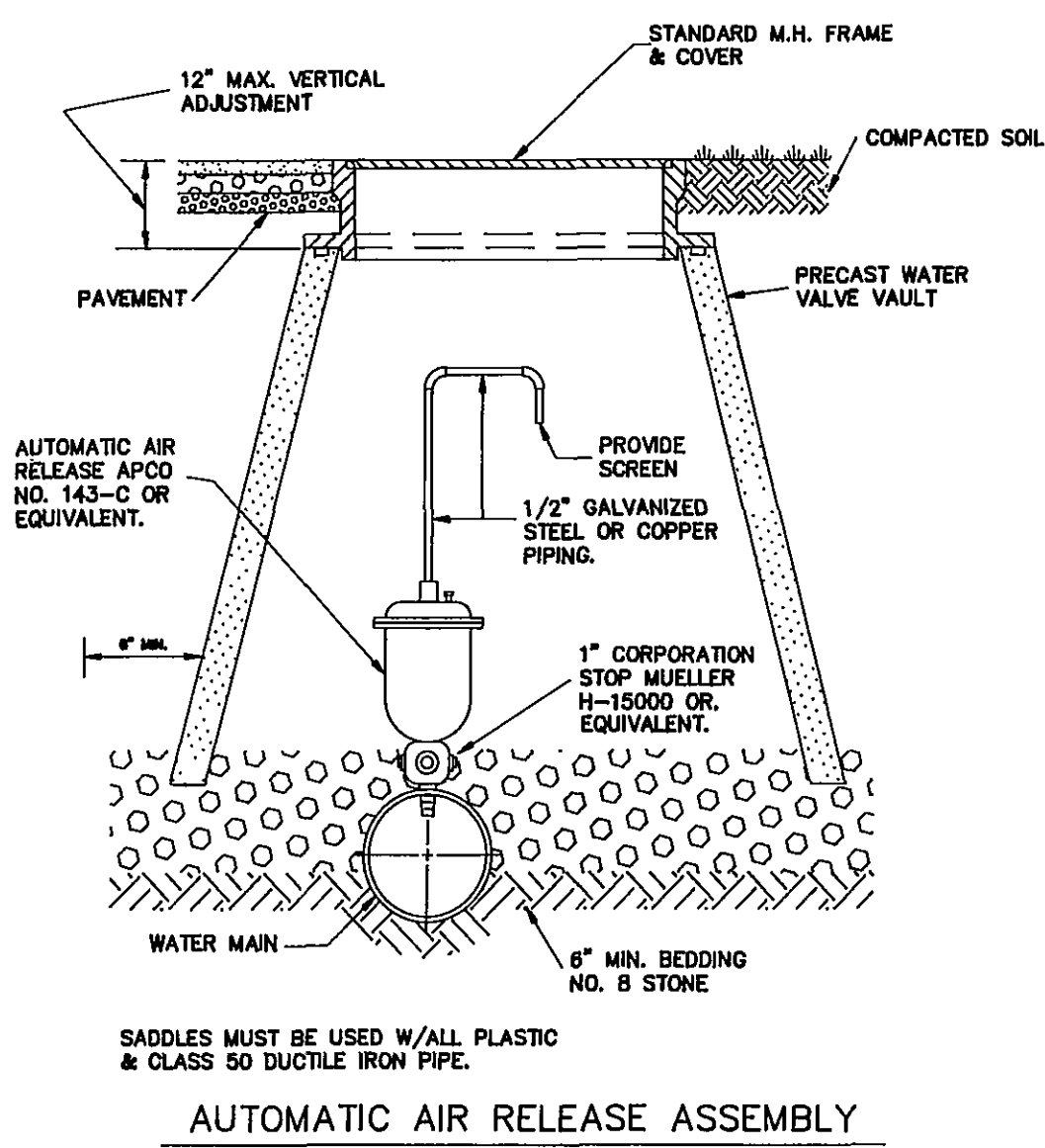


SECTION A-A

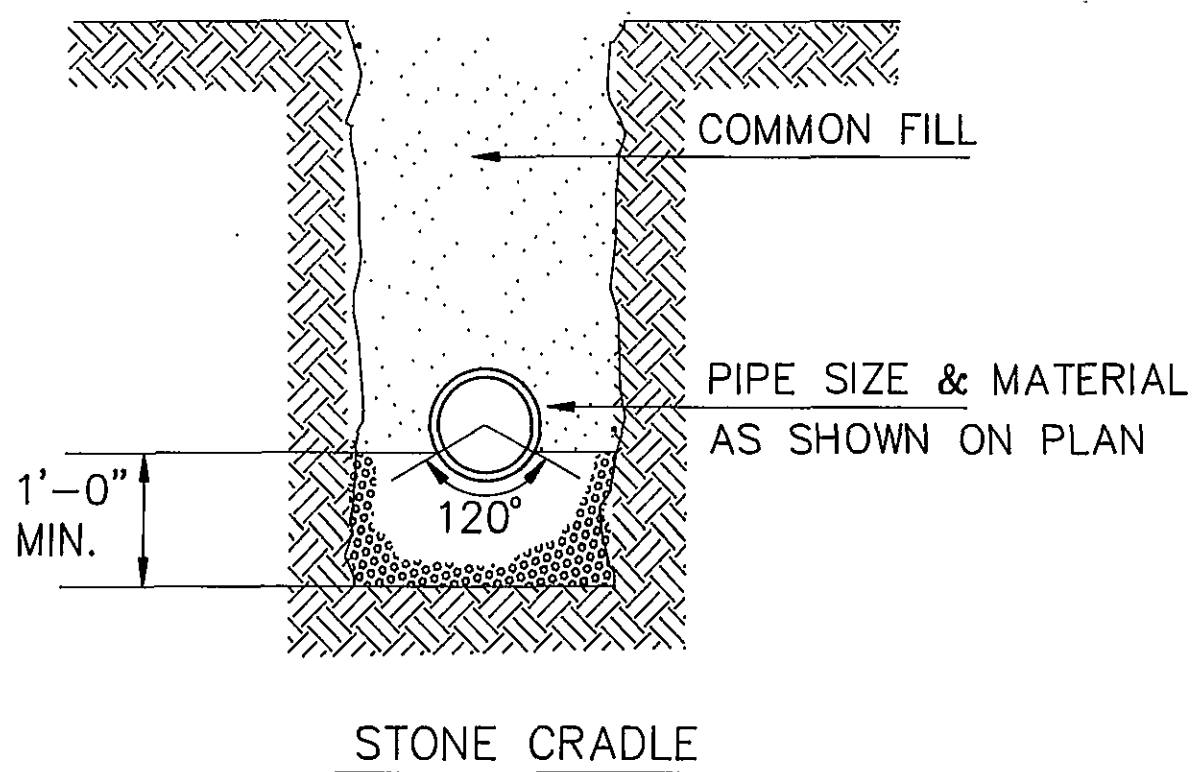
PIPE SIZE	TEE OR DEAD END			90° BEND			45° BEND			22.5° LESS BEND		
6" OR LESS	A	B	C	A	B	C	A	B	C	A	B	C
1/2"	1.2	3.0	1.0	1.5	3.3	2.0	1.2	2.3	1.0	1.2	2.0	1.0
3/4"	1.7	3.8	1.5	2.0	4.5	2.0	1.3	3.6	1.5	1.3	2.0	1.0
1"	2.0	4.9	2.0	3.0	4.7	2.0	1.7	4.5	2.5	1.5	2.6	1.5
1 1/4"	2.5	5.7	2.0	3.5	5.8	2.5	2.2	5.0	2.5	1.7	3.3	1.5
1 1/2"	3.5	7.0	3.0	4.5	8.0	3.5	3.0	6.5	3.0	2.5	4.0	2.0

- NOTES:
1. THE ABOVE NOTED DIMENSIONS ARE MINIMUM BASED ON CONCRETE ANCHOR EXTENDING TO UNDISTURBED SOIL, WATER PRESSURE NOT TO EXCEED 150 PSI AND, MINIMUM SOIL BEARING CAPACITY OF 2500 PSF; UNSATISFACTORY SOIL BEARING OR EXCESS PRESSURE WILL REQUIRE ADDITIONAL DESIGN.
 2. CONCRETE SHALL NOT BE POURED ON JOINTS OR BOLTS.
 3. CONCRETE TO BE MINIMUM 3000 PSI - 28 DAY COMPRESSIVE STRENGTH.

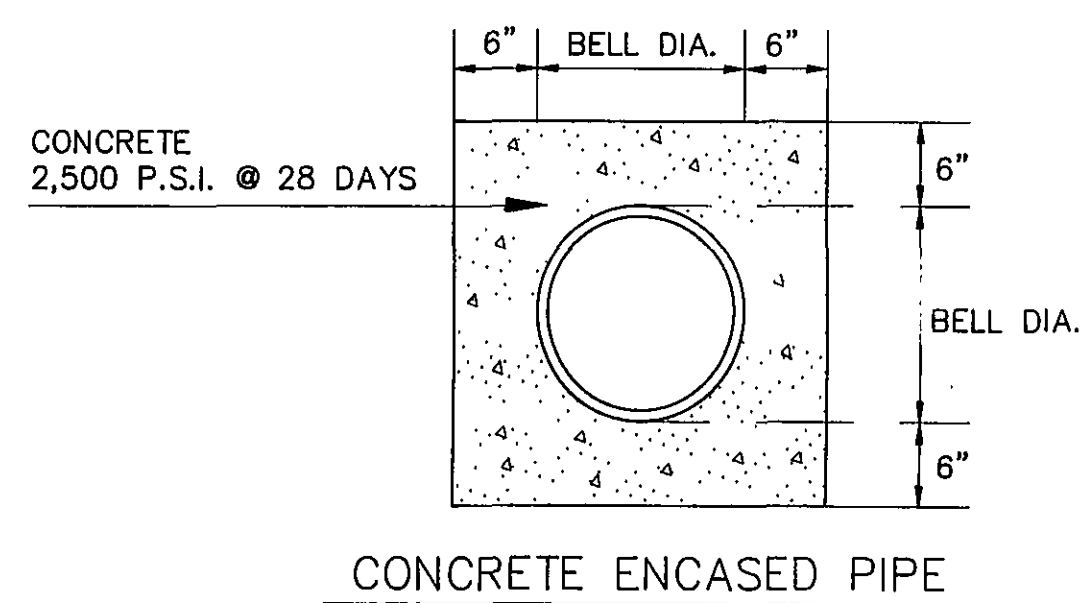
THRUST BLOCK FOR HORIZONTAL
& LOWER VERTICAL BENDS



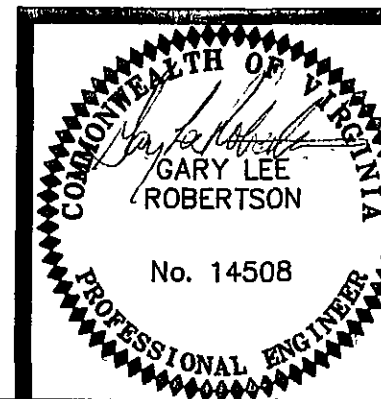
AUTOMATIC AIR RELEASE ASSEMBLY



STONE CRADLE



CONCRETE ENCASED PIPE



1		ADDED WATER SYSTEM & FORCE MAINS	
REVISION	DATE	DESCRIPTION	
DESIGNED -		WATER DETAILS FOR SECTION No. 11 "THE WATERFRONT" PREPARED FOR WATERFRONT WATER WORKS, INC. GILLS CREEK MAGISTERIAL DISTRICT FRANKLIN COUNTY, VIRGINIA	
DRAWN -			
CADD DESIGN -			
CHECKED -			
LUMSDEN ASSOCIATES, P.C. ENGINEERS-SURVEYORS-PLANNERS ROANOKE, VIRGINIA		SCALE: 1" = AS SHOWN	COMM: *B-342-0
		DATE: 29 OCT. 1992	SHEET 6 of 9