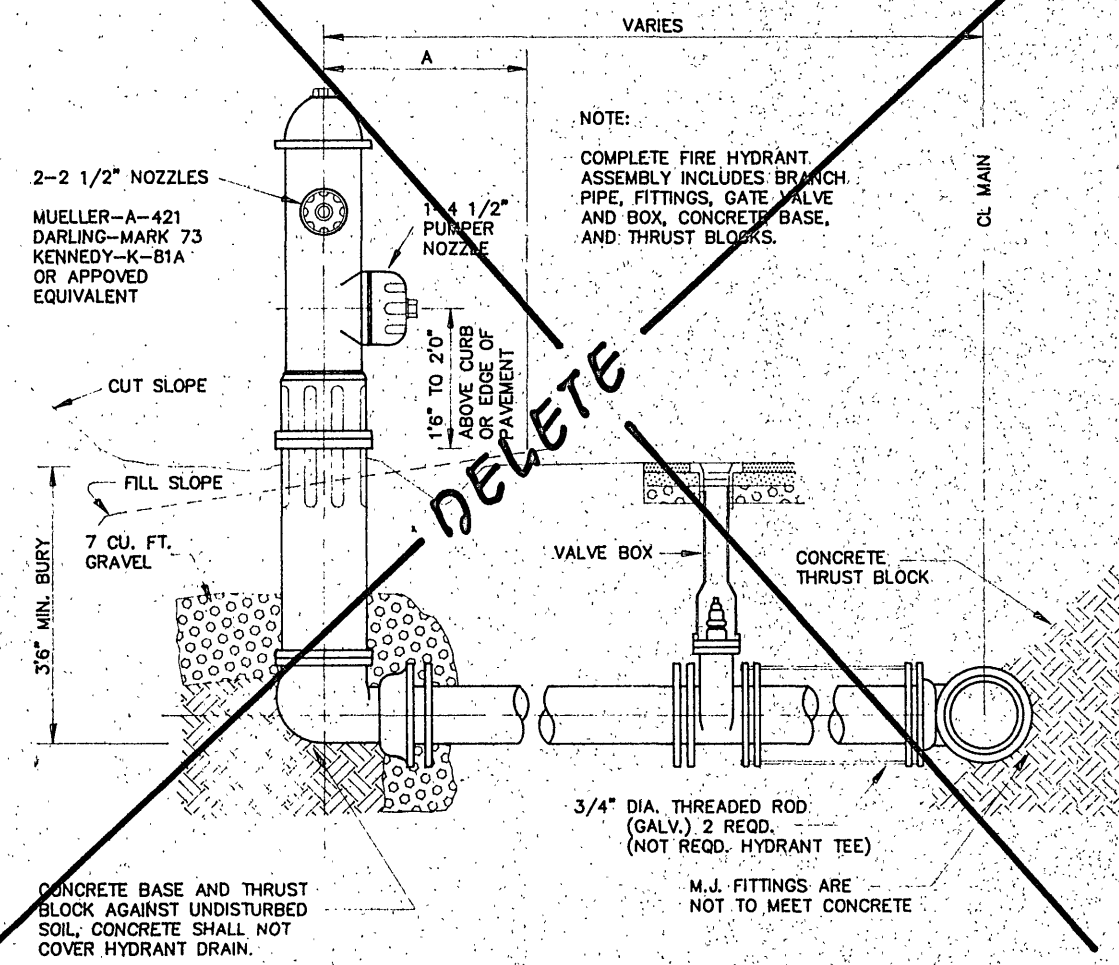


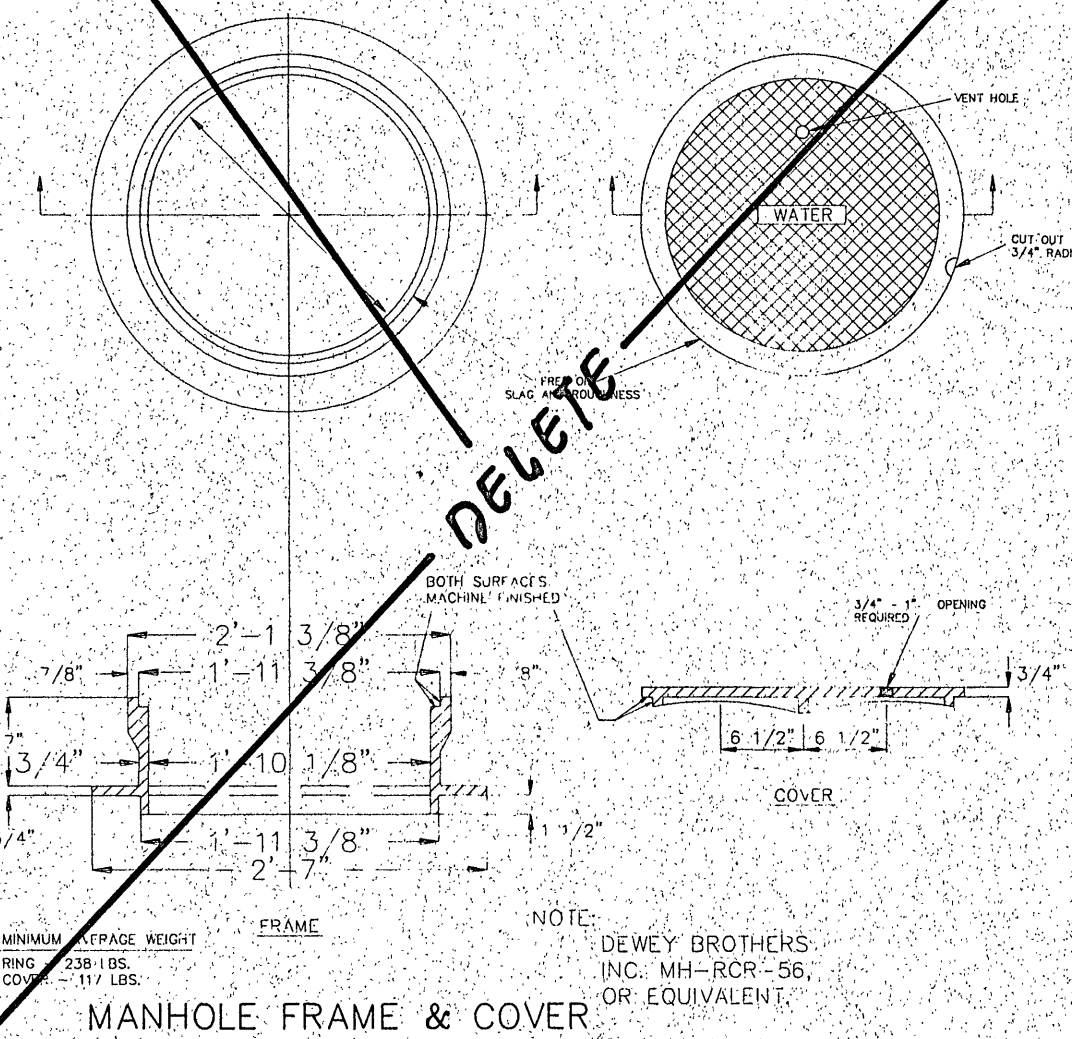
WATER DETAILS

- 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, 6" 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.

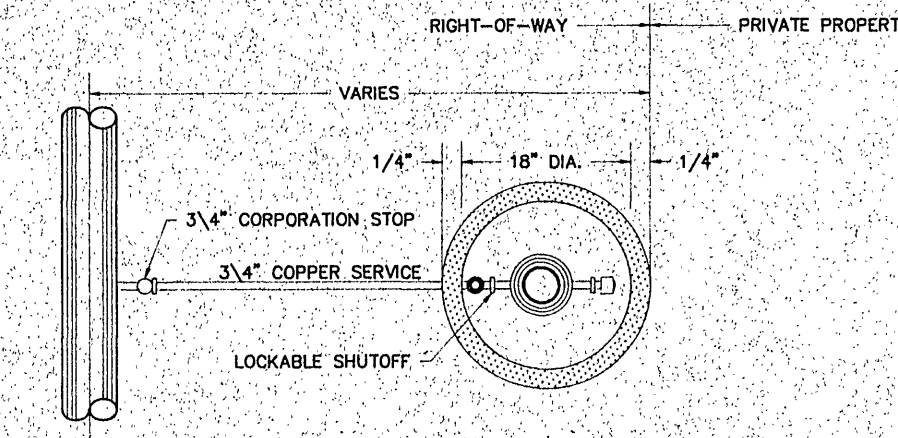


FIRE HYDRANT SETTING

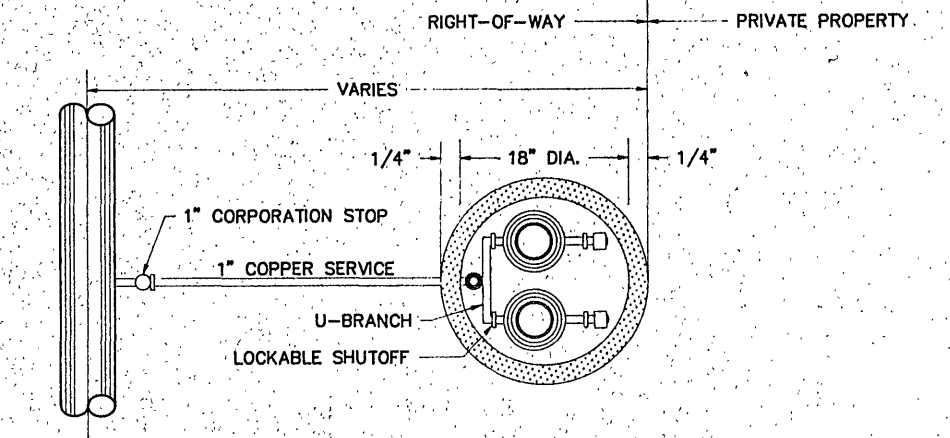
- NOTE:
- (1) SUBSTITUTE SEWER FOR WATER ON SANITARY SEWER MANHOLE FRAME & COVERS.



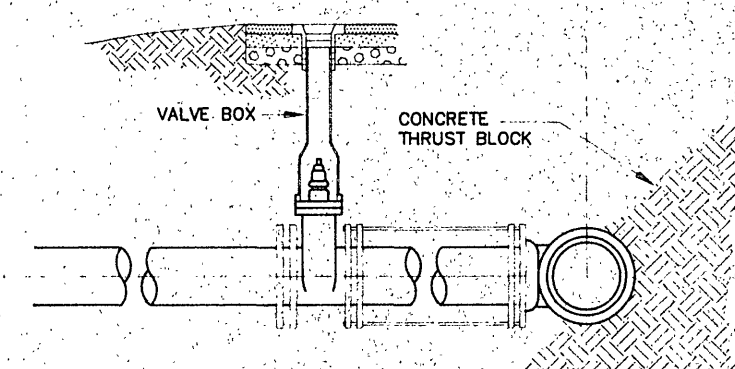
MANHOLE FRAME & COVER



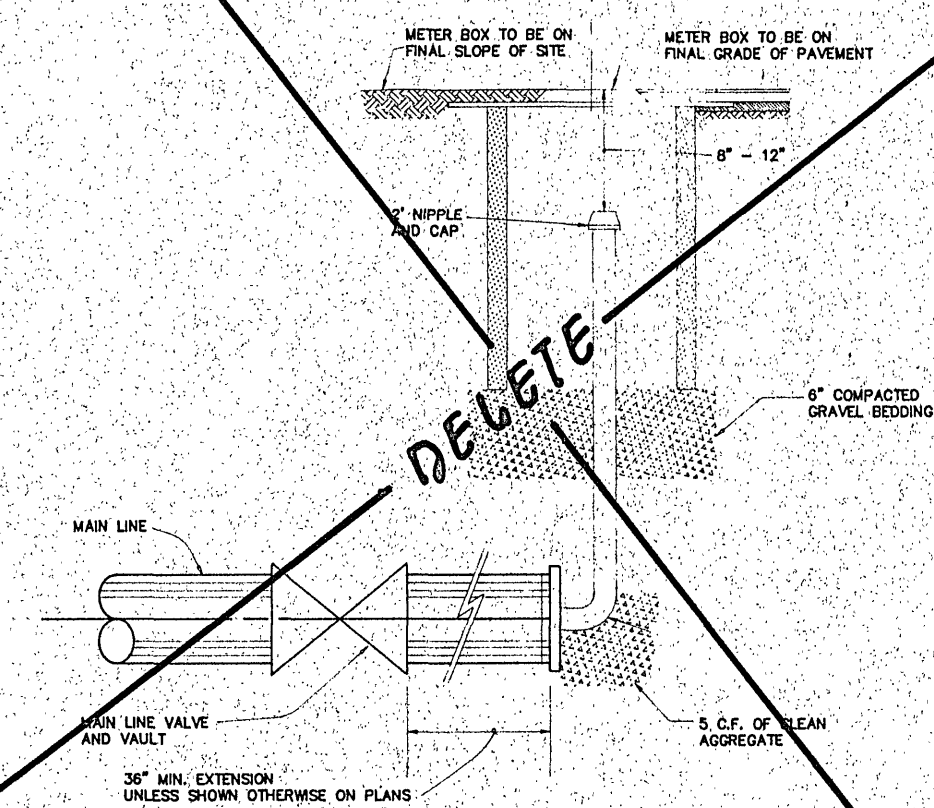
SINGLE RESIDENTIAL WATER SERVICE



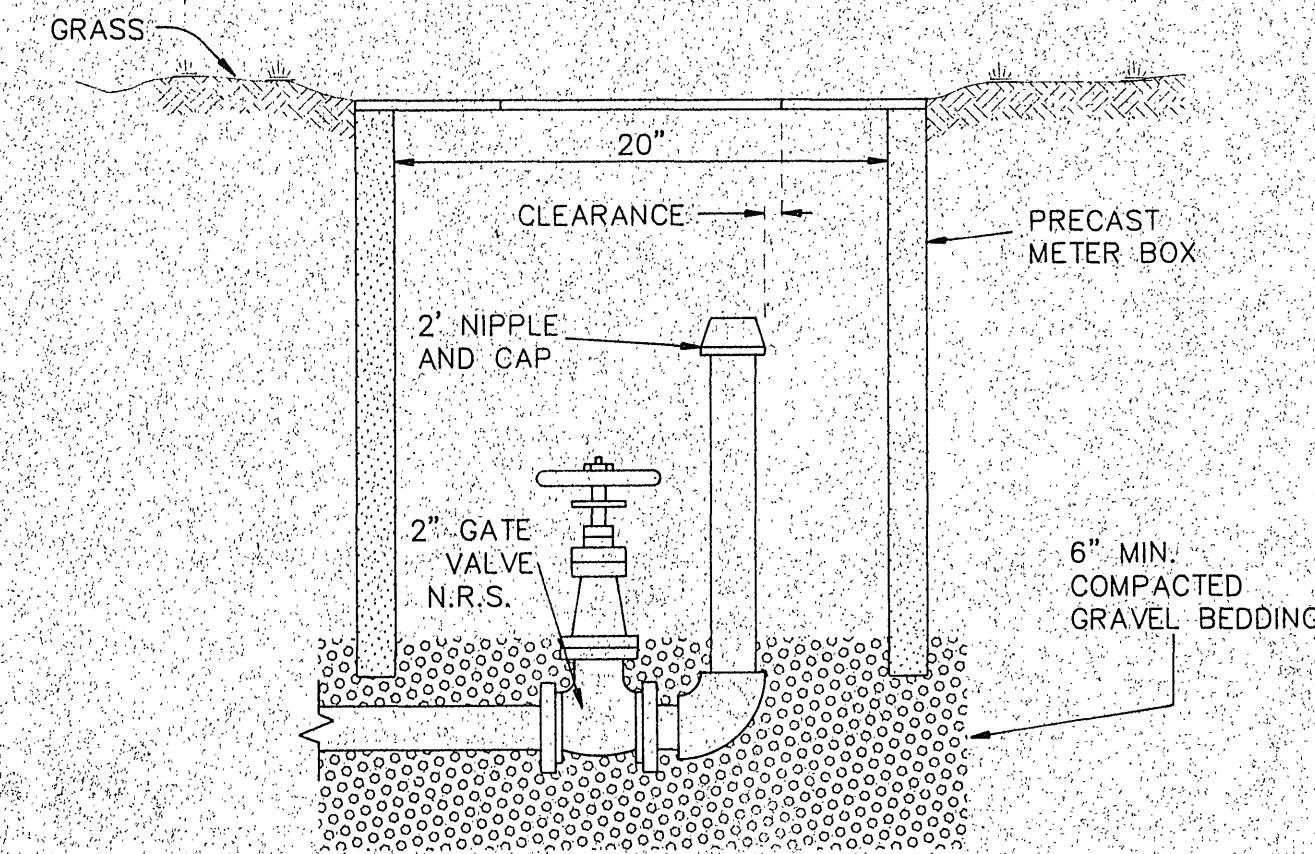
DOUBLE RESIDENTIAL WATER SERVICE



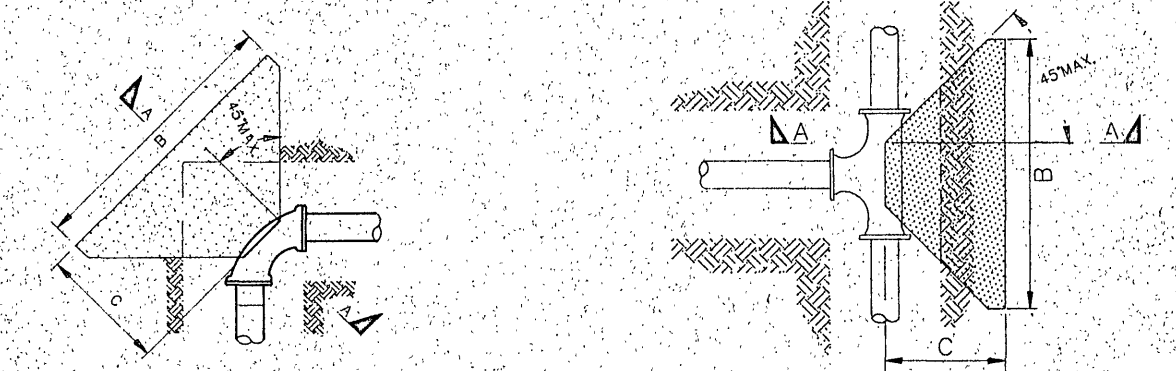
WATER LINE VALVE INSTALLATION



BLOW OFF ASSEMBLY FOR MAIN LINE TEMPORARY TERMINATION



TYPICAL BLOW-OFF ASSEMBLY (OUT OF PAVEMENT)

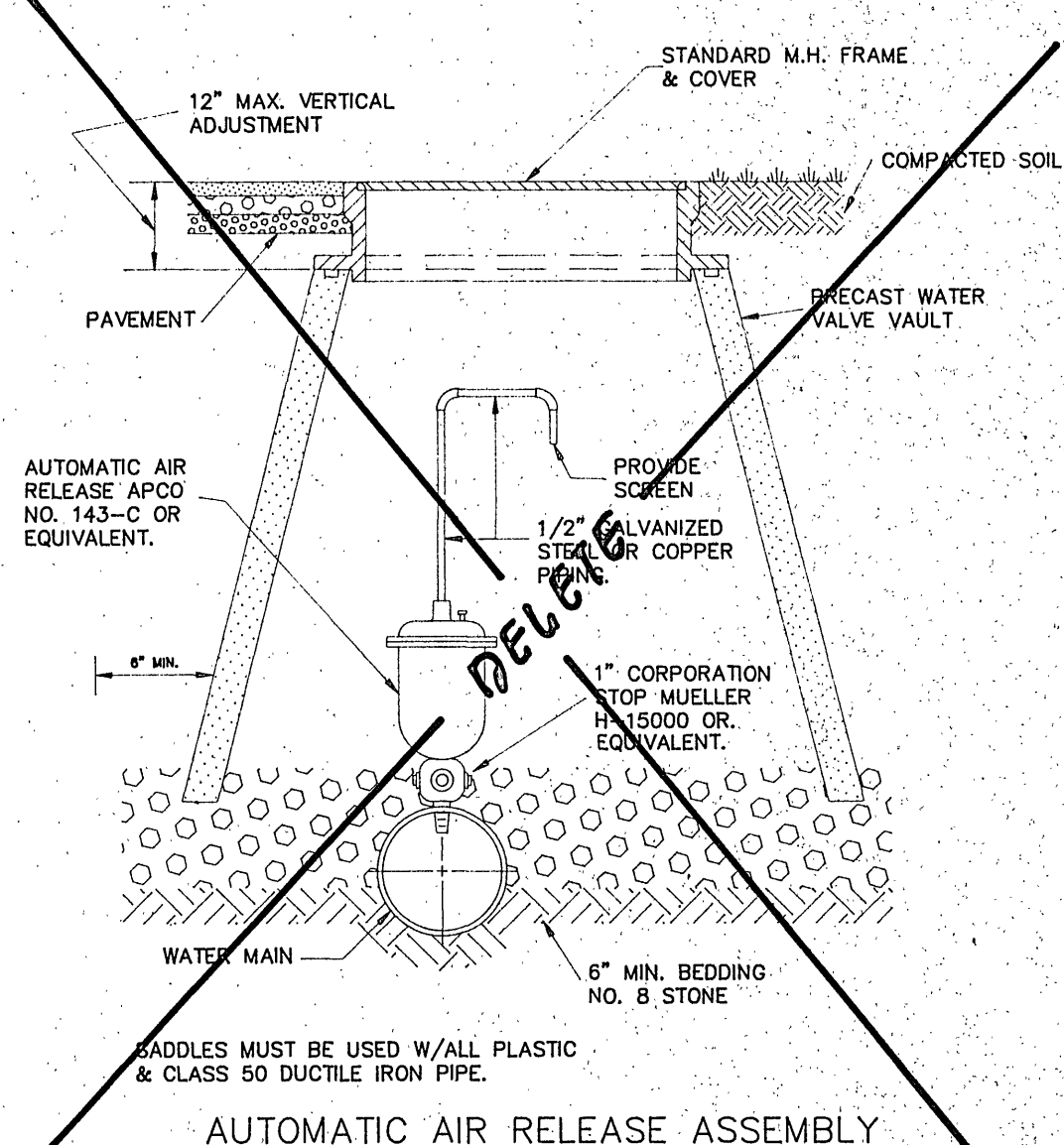


SECTION A-A

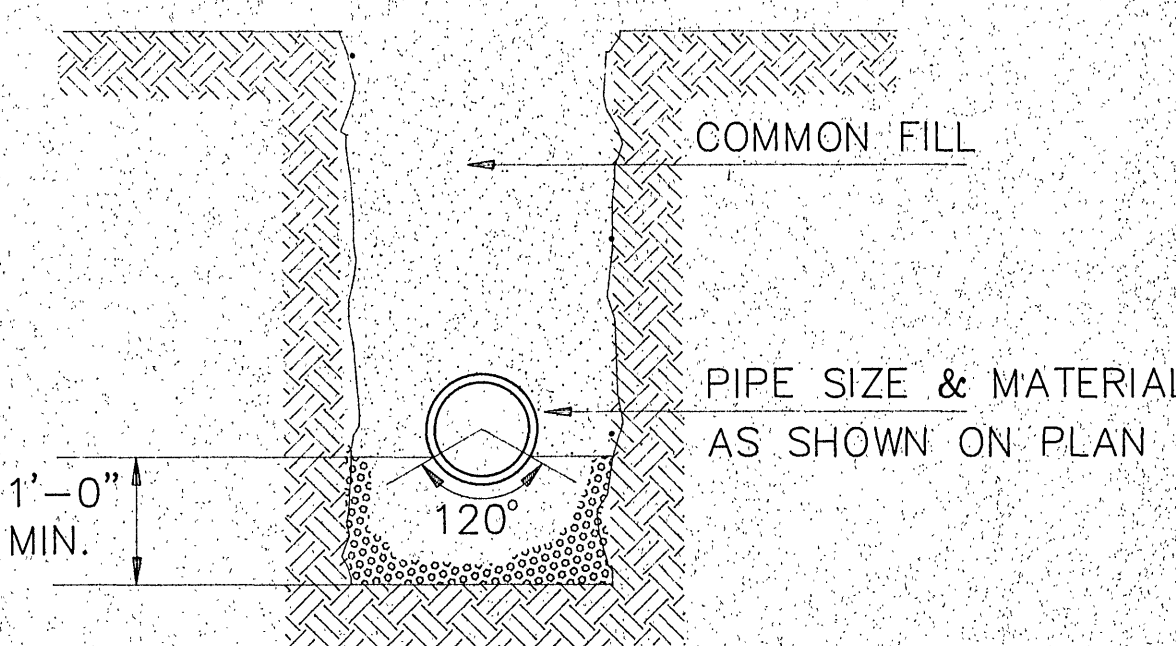
PIPE SIZE	TEE OR DEAD END			90° BEND			45° BEND			22.5° LESS BEND		
	A	B	C	A	B	C	A	B	C	A	B	C
6" OR LESS	1.2'	3.0'	1.0'	1.5'	3.3'	2.0'	1.2'	2.3'	1.0'	1.2'	2.0'	1.0'
8"	1.7'	3.8'	1.5'	2.0'	4.5'	2.0'	1.3'	3.6'	1.5'	1.3'	2.0'	1.0'
10"	2.0'	4.9'	2.0'	3.0'	4.7'	2.0'	1.7'	4.5'	2.0'	1.5'	2.6'	1.5'
12"	2.6'	5.7'	2.0'	3.5'	5.8'	2.5'	2.2'	5.0'	2.5'	1.7'	3.3'	1.5'
16"	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.

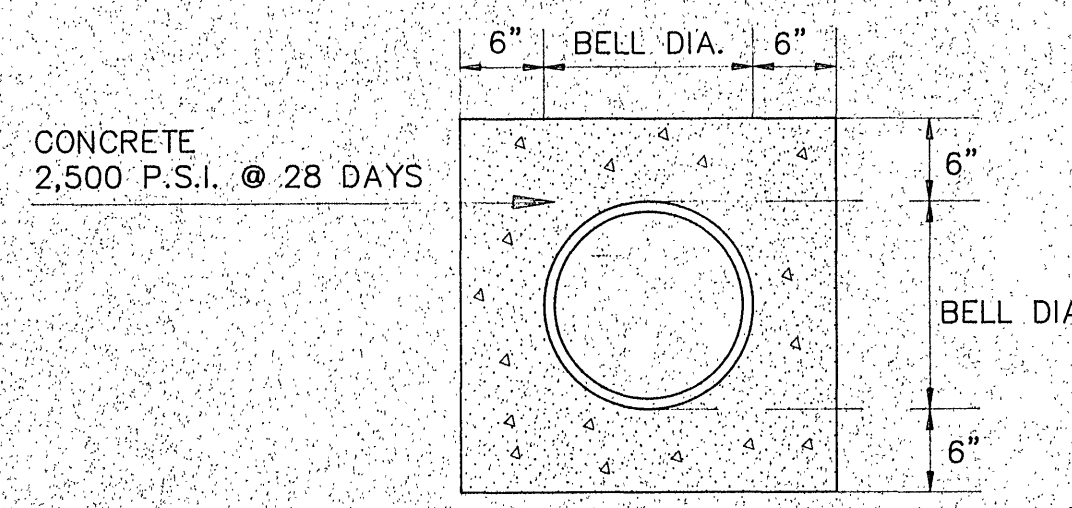
THRUST BLOCK FOR HORIZONTAL & LOWER VERTICAL BENDS



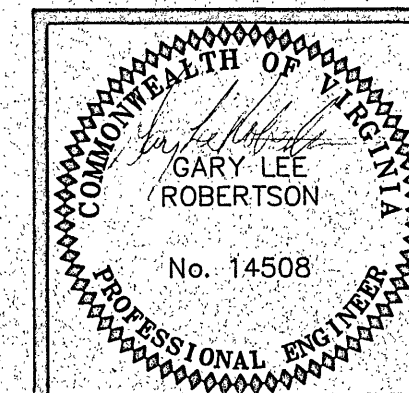
AUTOMATIC AIR RELEASE ASSEMBLY



STONE CRADLE



CONCRETE ENCASED PIPE



REVISION	DATE	DESCRIPTION
DESIGNED		
DRAWN		
CADD DESIGN		
CHECKED		

WATER DETAILS FOR "DILLONS COVE" AND "WATERFRONT", SEC. #10 PREPARED FOR WATERFRONT WATERWORKS GILLS CREEK MAGISTERIAL DISTRICT FRANKLIN COUNTY, VIRGINIA

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

SCALE: 1" = AS SHOWN DATE: 6 MAY 1991 COMM: *91-129 SHEET 4 of 4