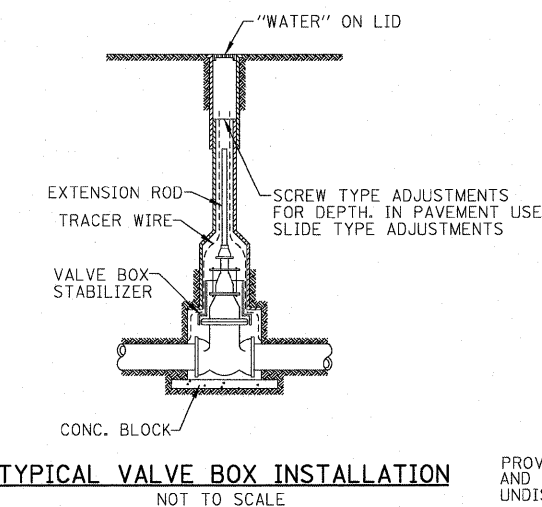


NOTE:
RETAINER GLANDS SHALL BE USED
ON ALL FITTINGS. NO ADDITIONAL
COMPENSATION ALLOWED.

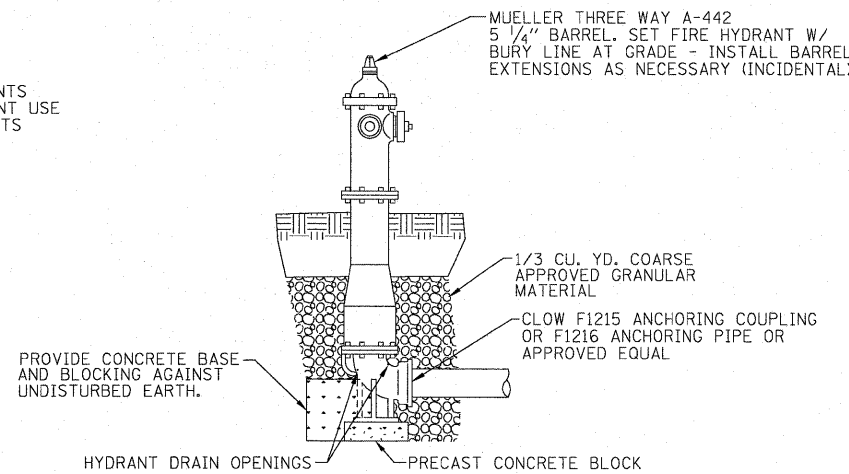
NOTE:
RETAINER GLANDS SHALL BE USED
ON ALL FITTINGS. NO ADDITIONAL
COMPENSATION ALLOWED.

TYPICAL CONCRETE BLOCKING DETAIL

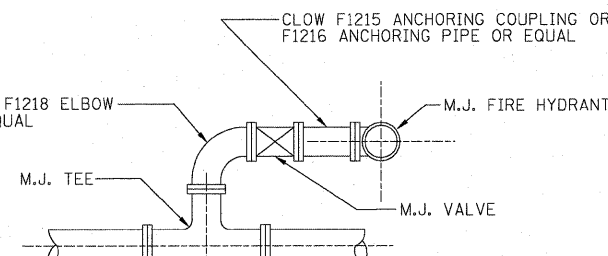
AREA OF BEARING FACE REQUIRED - SQ. FT.			
PIPE SIZE	1/4 BEND	1/8 OR 1/16 BEND	TEES & PLUGS
4, 6, 8	3	3	3
10	4	3	3
12	6	3	4
16	11	4	7
18	16	6	10
20	18	8	12



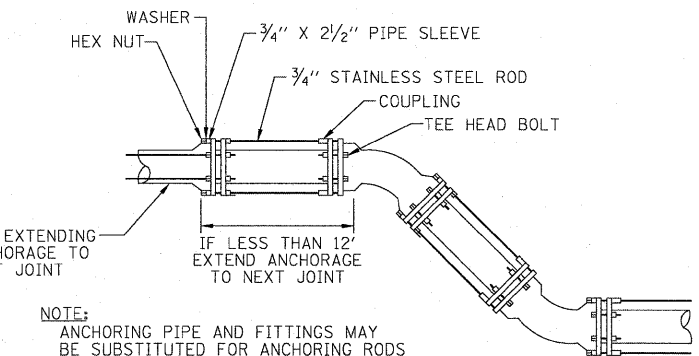
NOTE:
RETAINER GLANDS TO BE USED
ON ALL VALVES. NO ADDITIONAL
COMPENSATION ALLOWED.



HYDRANT INSTALLATION

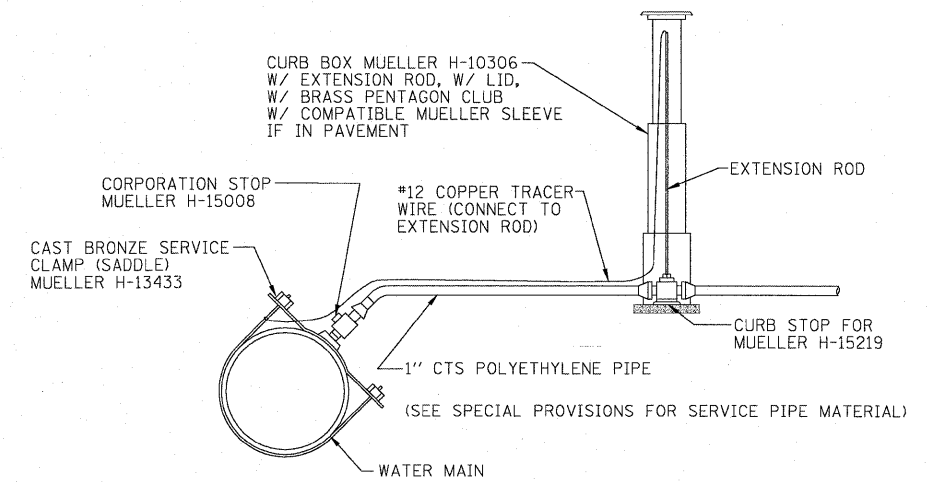


HYDRANT CONNECTION TYPE 5



ANCHORAGE OF FITTINGS LYING IN VERTICAL PLANE

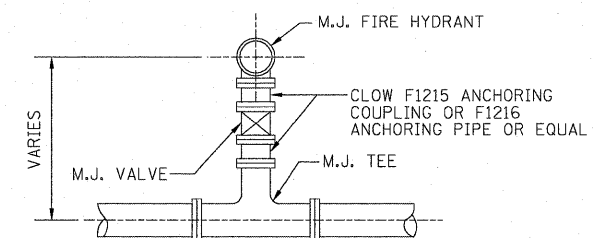
PIPE SIZE	NO. 3/4" RODS REQUIRED
12" & UNDER	2



TYPICAL WATER SERVICE 1"

FORCE MAIN AND PRESSURE RATED MINIMUM RESTRAINED JOINT FITTINGS REFERENCE LENGTH TABLE WHERE RESTRAINED LENGTHS ARE NOT INDICATED ON THE PLANS (SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS)

FITTING	PIPE SIZE AND RESTRAINED JOINT LENGTH (BOTH SIDES OF FITTING) IN L.F.					
	3"	4"	6"	8"	10"	12"
PIPE DIAMETER	3'	4'	6'	8'	10'	12'
11 1/4° TO 45° ELBOW	9'	11'	16'	21'	26'	31'
90° ELBOW	23'	28'	39'	51'	63'	74'
VERTICAL OFFSET 11 1/4° TO 45°	21'	26'	37'	48'	59'	70'
TEE (BRANCH) RUN 10FT. EACH WAY	19'	25'	38'	52'	65'	78'
REDUCER	-	10'	23'	24'	24'	25'
DEAD END	25'	31'	44'	58'	71'	85'



HYDRANT CONNECTION TYPE 3

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CITY OF HAVANA - BROADWAY STREET
WATERMAIN DETAILS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	05-00035-00-SS	MASON	36	26
CONTRACT NO. 93502				

SCALE: N.T.S. SHEET NO. OF SHEETS STA. 23+45 TO STA. 31+99.5

FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT