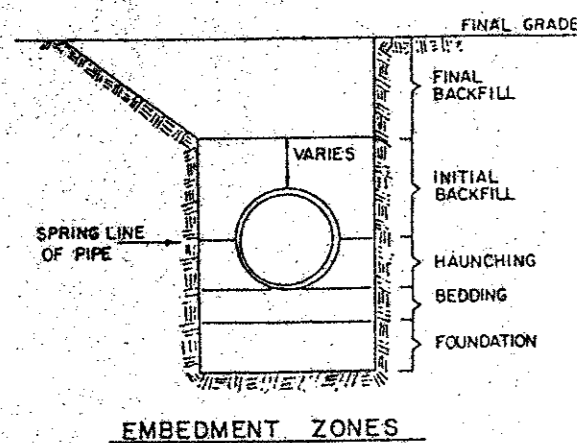


**EMBEDMENT DETAILS FOR SANITARY SEWER**

TABLE OF QUANTITIES OF 2000 PSI CONCRETE, GRAVEL OR CRUSHED STONE IN CUBIC YARDS PER 100 LINEAR FEET FOR EACH CLASS EMBEDMENT

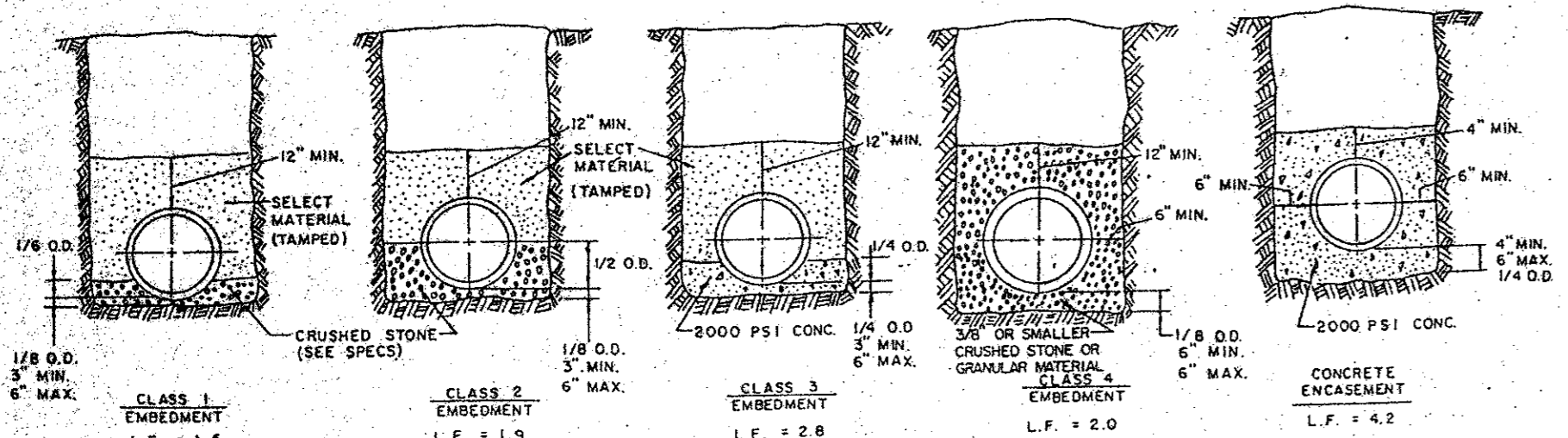
SIZE OF PIPE IN INCHES I.D.	O.D. OF PIPE IN INCHES	TRENCH WIDTH IN INCHES	TRENCH WIDTH IN FEET	CLASS 1 EMBEDMENT CRUSHED STONE	CLASS 2 EMBEDMENT CRUSHED STONE	CLASS 3 EMBEDMENT CONCRETE	CONCRETE ENCASEMENT
12	16.00	32	2.67	4.1	5.3	4.8	15.8
15	19.50	36	3.00	4.8	7.8	6.4	19.2
18	23.00	39	3.25	5.7	9.2	8.2	21.2
21	26.50	43	3.58	6.9	11.0	10.2	24.9
24	30.00	46	3.83	8.3	13.1	12.4	28.7
27	33.50	51	4.25	10.3	16.1	14.4	32.6
30	37.00	57	4.75	12.7	20.1	17.0	34.8
33	40.50	62	5.17	15.1	23.8	19.7	38.2
36	44.00	67	5.58	18.0	28.6	22.1	43.8

SIZE OF PIPE IN INCHES	O.D. OF PIPE IN INCHES	TRENCH WIDTH IN INCHES	TRENCH WIDTH IN FEET	CLASS 4 EMBEDMENT CRUSHED STONE	CONCRETE ENCASEMENT
6	6.28	24	2.00	8.0	11.7
8	8.16	24	2.00	8.7	12.4
10	10.20	26	2.18	10.2	14.2
12	12.24	28	2.33	11.7	15.9
16	15.30	31	2.61	14.0	18.8
24	24	38	3.0		
30	30	42	3.5		

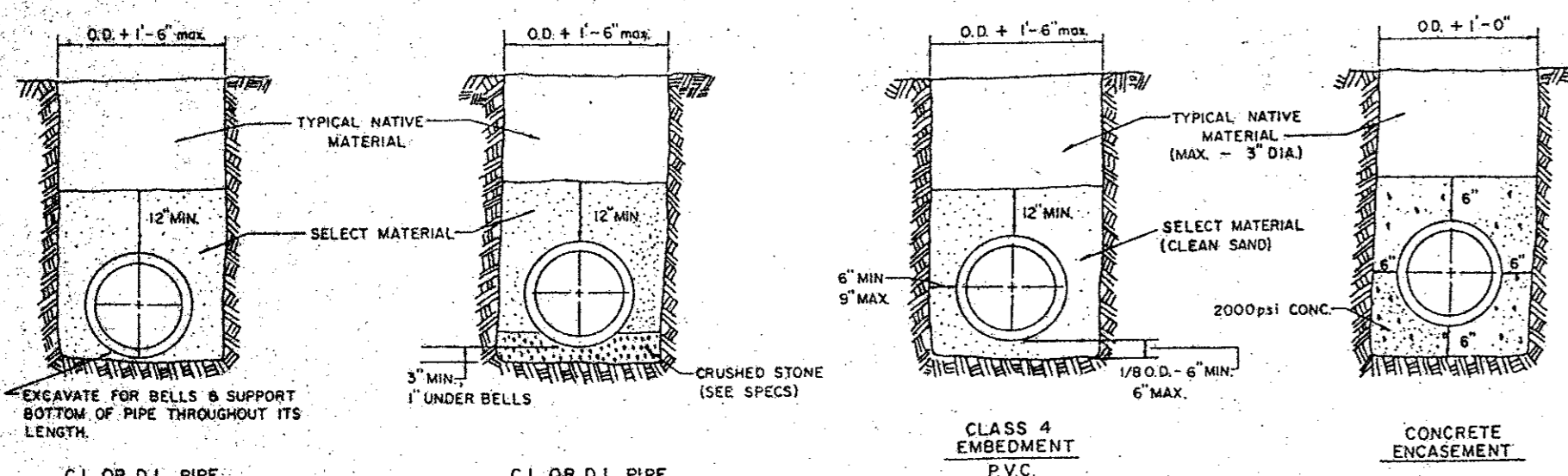


**SANITARY SEWER**

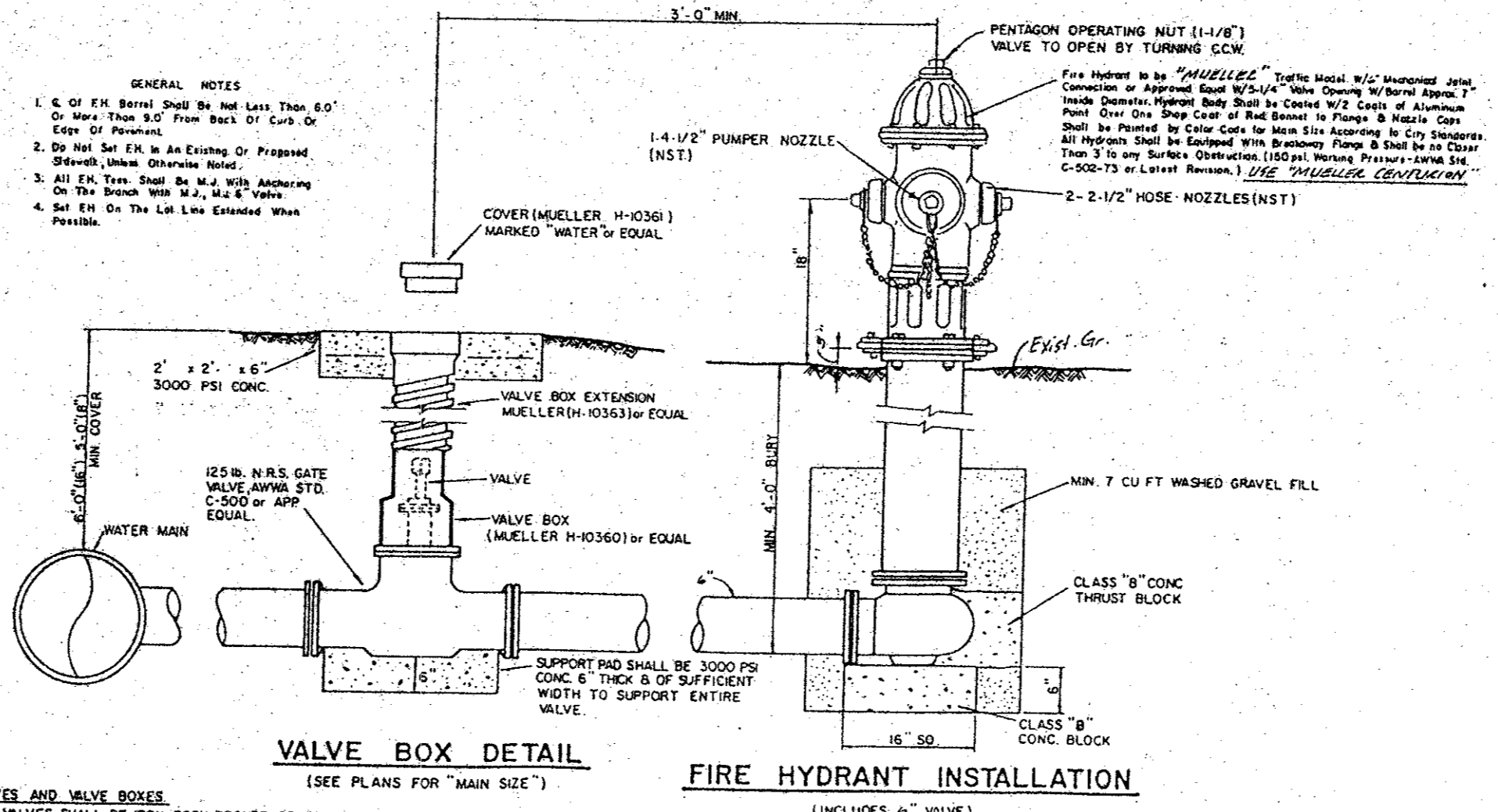
TYPICAL NATIVE MATERIAL COMPACTED TO 95% OPTIMUM MOISTURE 0 TO +3% UNDER PAVEMENT 95 TO +5% OUTSIDE CURB LINES SETTING IS NOT ALLOWED BACKFILL TO BE COMPACTED IN 6" LIFTS TYPICAL NATIVE MATERIAL (MAX. 3" DIA.)



**P.V.C. PIPE ONLY SDR 35**



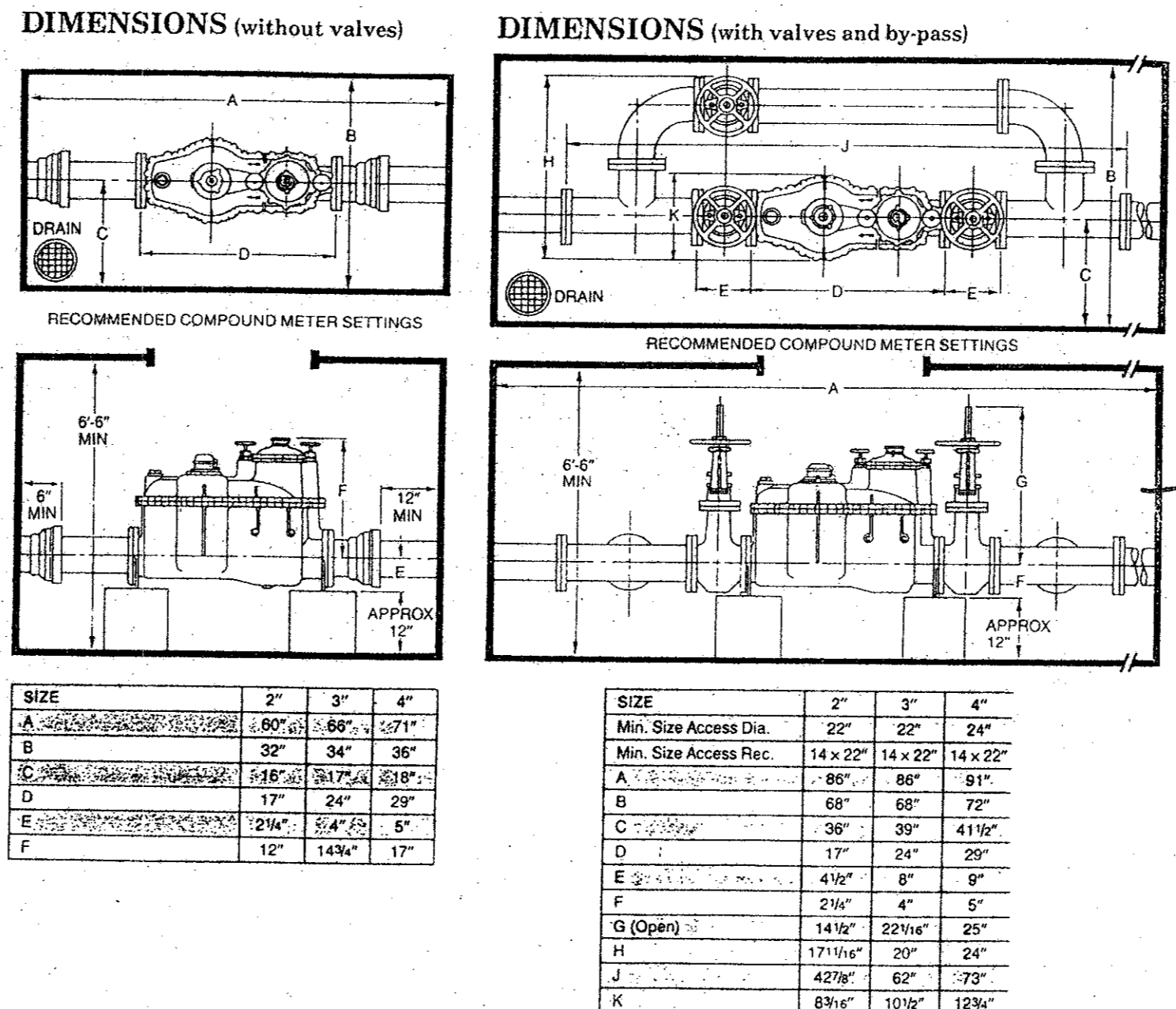
**EMBEDMENT DETAILS FOR WATER MAIN**



**VALVE BOX DETAIL**  
(SEE PLANS FOR "MAIN SIZE")  
GATE VALVES SHALL BE IRON BODY, BRONZE OR BRASS MOUNTED, NON-RISING STEM PARALLEL. SEAT TYPE VALVES SHALL BE OF EQUAL OR GREATER PRESSURE CLASS THAN THE PIPING IN WHICH THEY ARE TO BE INSTALLED.  
VALVE BOXES SHALL BE CAST IRON AND SHALL BE OF SUFFICIENT LENGTH AND DIAMETER TO OPERATE. ALL VALVES BURIED IN THE GROUND COVERS SHALL BE MARKED "WATER". THE BOXES SHALL REST ON THE VALVE AND BE ADJUSTED SO THAT THE COVER MAY BE SET FLUSH WITH THE FINISHED GRADE.

**FIRE HYDRANT INSTALLATION**  
(INCLUDES 6" VALVE)  
No Scale

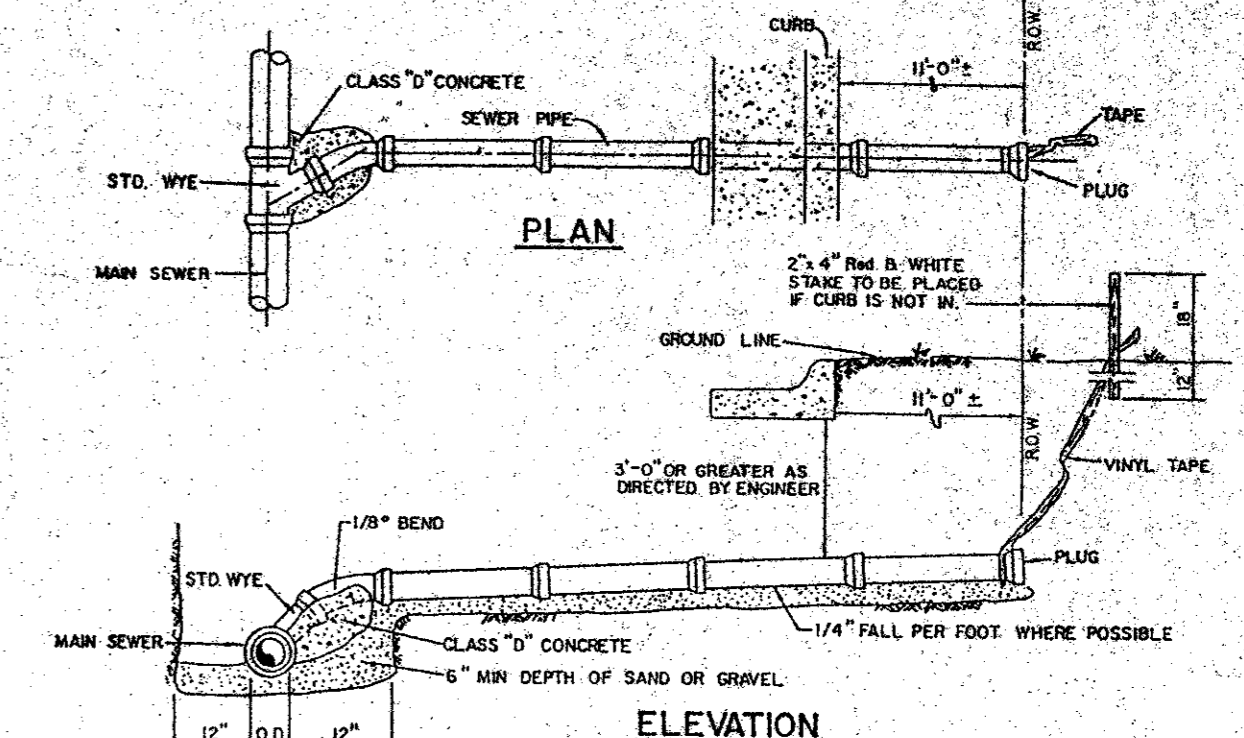
**COMPOUND METER WATER SERVICE 2", 3" & 4"**



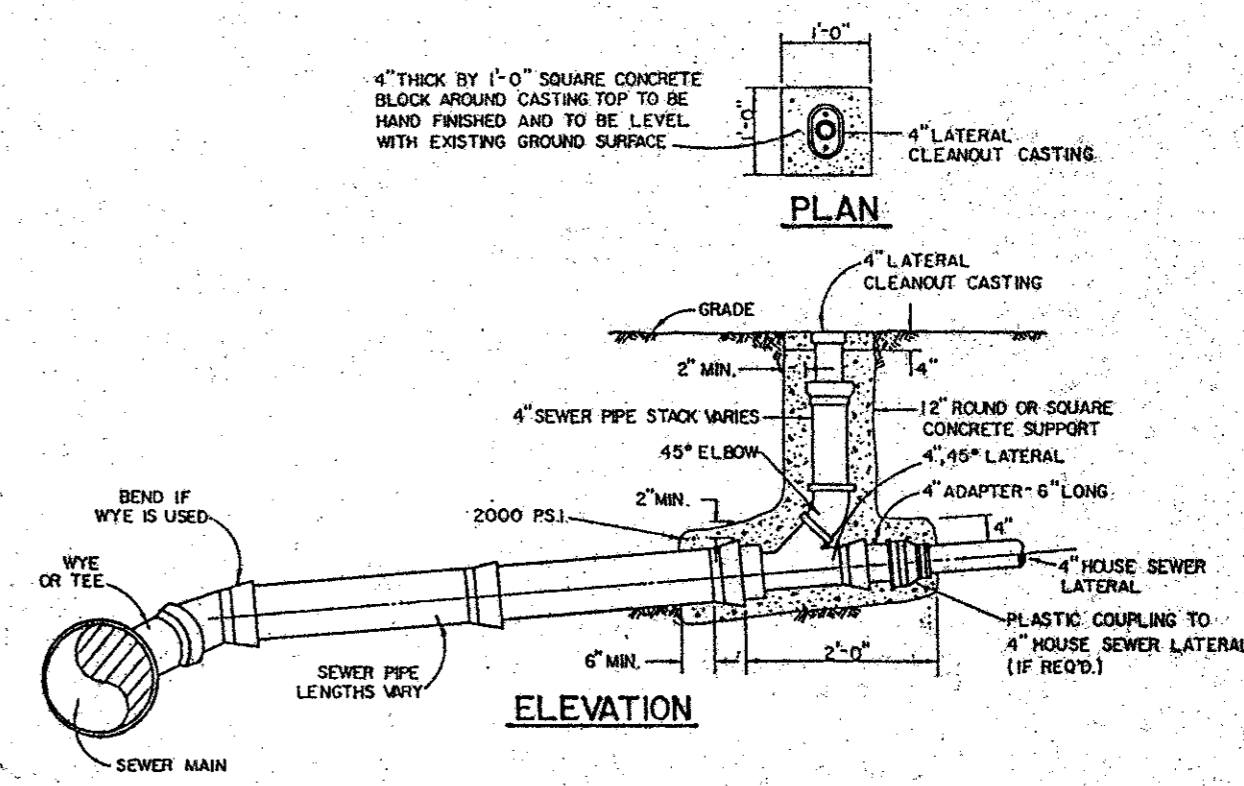
SIZE	2"	3"	4"
A	1.80"	1.80"	1.71"
B	3"	3"	3"
C	1.18"	1.17"	1.18"
D	17"	24"	29"
E	12 1/4"	5 1/4"	5"
F	12"	14 1/4"	17"

SIZE	2"	3"	4"
Min. Size Access Dia.	22"	22"	24"
Min. Size Access Rec.	14 x 22"	14 x 22"	14 x 22"
A	1.86"	1.86"	1.81"
B	6"	6"	7"
C	1.18"	1.17"	1.18"
D	17"	24"	29"
E	12 1/4"	5 1/4"	5"
F	12"	14 1/4"	17"
G (Open)	14 1/2"	22 1/2"	25"
H	17 1/2"	20"	24"
J	42 1/2"	62"	73"
K	6 1/4"	10 1/4"	12 1/4"

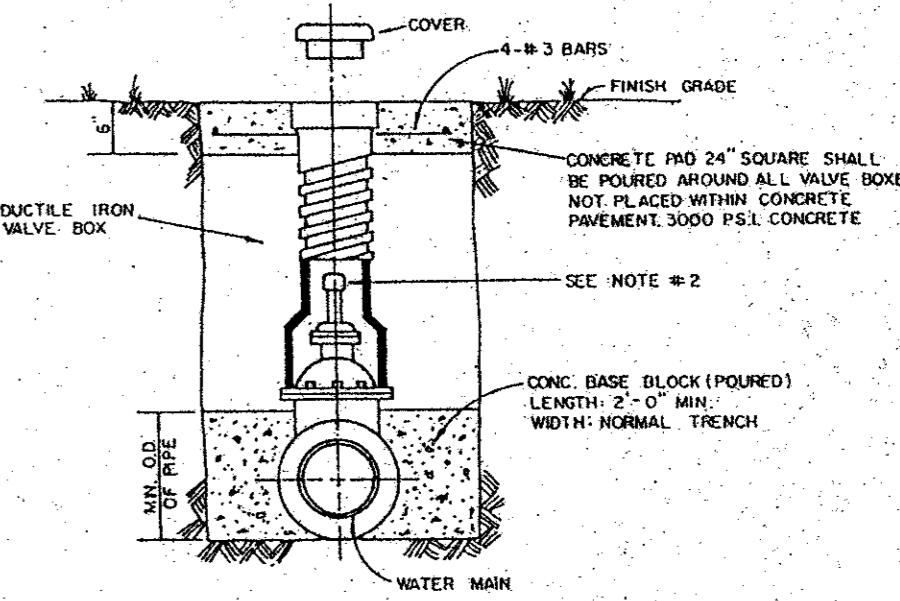
*Backflow Device per Specs. (see Attachments) Required on All Meters*



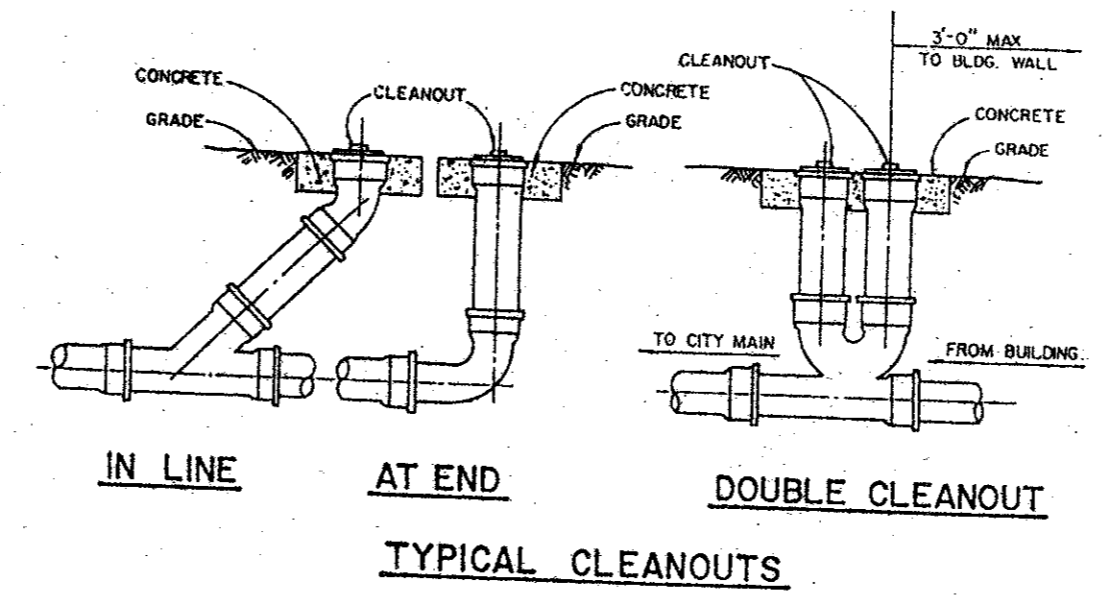
**SANITARY SEWER SERVICE CONNECTION**



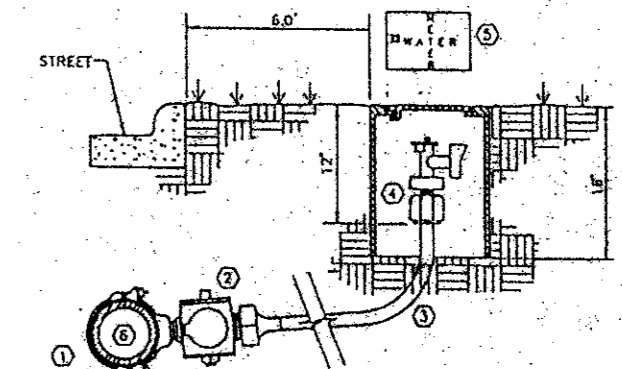
ALL P.V.C. SANITARY SEWER PIPE TO BE SDR 35 WITH INTERNAL BELL. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD LOCATE HORIZONTALLY EACH 4" SERVICE IN RELATION TO THE SANITARY SEWER STATIONING. FIELD TIES ARE TO BE INCLUDED AND RECORDED ON ALIASED SANITARY SEWER TIE. THIS TIE, GREEN DYE IN COLOR IS TO BE ATTACHED TO THE 4" SERVICE AT THE ROW LINE AND BROUGHT TO THE SURFACE TO BE USED AS A PERMANENT MARKER.



**TYPICAL VALVE SETTING AND BOX**  
NOTE:  
1. GATE VALVES SHALL BE IN ACCORDANCE WITH AWWA STANDARD C-509-80 OR LATEST THEREOF. ALL VALVES SHALL BE "MULLER" OR APPROVED EQUAL.  
2. A PERMANENTLY ATTACHED VALVE EXTENSION STEM SHALL BE REQUIRED FOR ANY VALVE THAT'S OPERATING. BUT IS LOCATED IN EXCESS OF 4 FEET BELOW THE TOP OF VALVE BOX. THIS EXTENSION SHALL BE OF SUFFICIENT LENGTH TO INSURE THAT ITS TOP IS WITHIN 4" OF VALVE BOX LID. MANUFACTURED VALVE STACK DUCTILE IRON PIPE TO BE USED FOR EXTENSION GREATER THAN 4'-0" BELL END OF STACK TO BE FITTED OVER VALVE. VALVE AND VALVE STACK IS TO BE POLY WRAPEL.  
3. VALVES SHALL BE OF DUCTILE IRON WITH RUBBER ENCAPSULATED DISK. BODY BOLTS SHALL BE STAINLESS STEEL OF SAME SIZE ON EACH VALVE.



**TYPICAL CLEANOUTS**



DOUBLE STOP W/LOCK W/CON THREADED MULLER  
CORPORATION STOP W/CON THREADED MULLER  
1-1/2" TYPE "C" SOFT COPPER W/NO SPLICERS  
ANGLE STOP W/LOCK W/NO MULLER  
1-1/2" TYPE "C" SOFT COPPER W/NO SPLICERS  
WATER METER BOX  
CONCRETE OR METAL SHELL CONSTRUCTION  
WATER MAIN  
P.V.C. MIN. CND SDR 14/18  
INTERNAL WALL BELL

**TYPICAL WATER SERVICE DETAIL**

**Bury + Pittman**  
Consulting Engineers and Surveyors  
Dallas, Texas Tel 817/961-0611 Fax 817/961-0678  
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**WATER AND WASTEWATER**  
**DETAILS**

**EXCEL TELECOMMUNICATIONS**  
**SERVICE CENTER**  
**A DEVELOPMENT OF**  
**WILCOX/CMC ADDISON, INC.**

Scale: N.T.S. Date: 11-28-95  
Drawn by: A.B.C.  
Xref: NONE  
File: 027010DET  
Approved by: D.L.V.  
Project No.: 3027-01