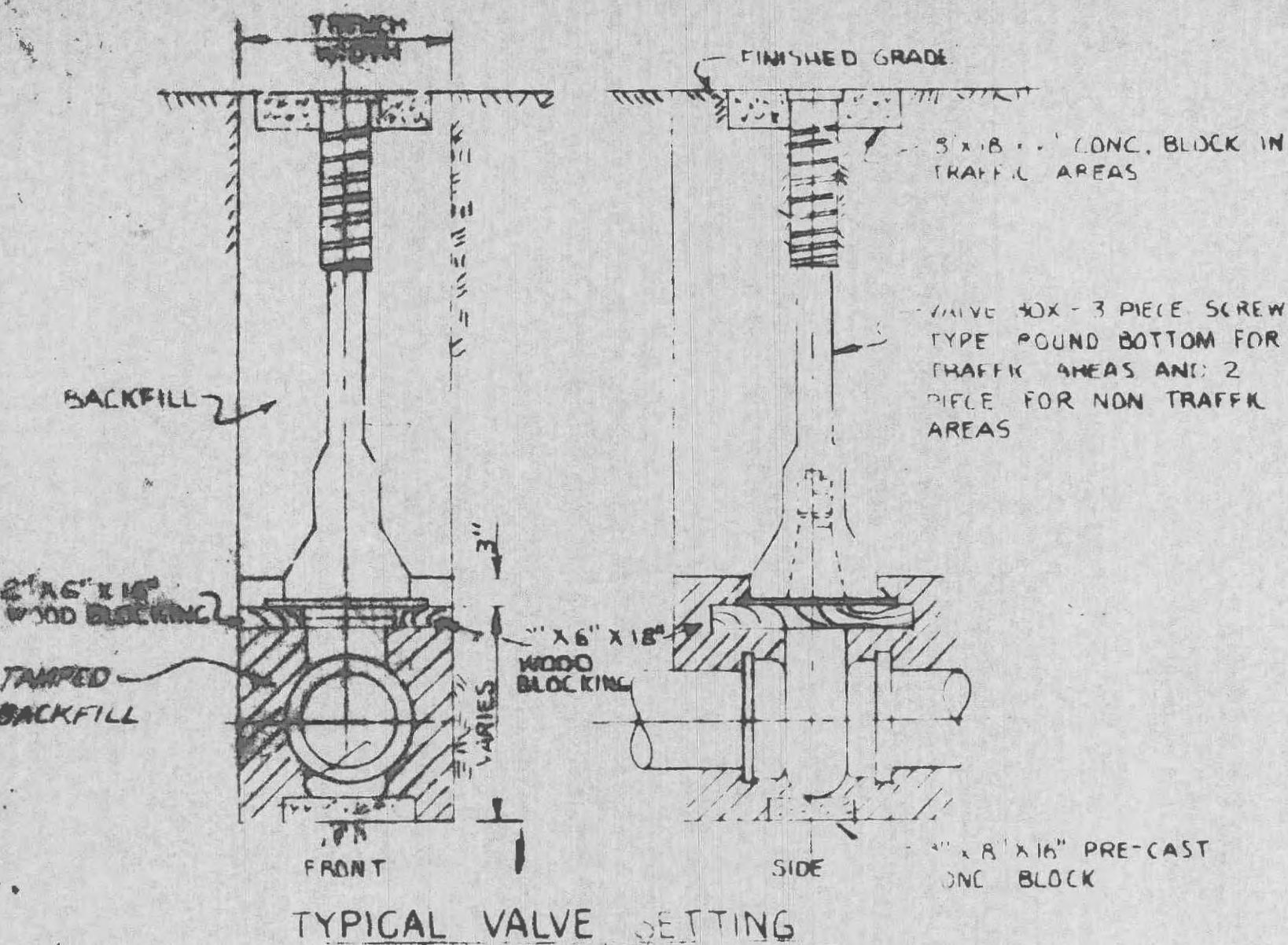


WATER MAIN CONSTRUCTION DETAILS



ALLOWABLE SAFE LATERAL BEARING OF SOILS IN P.S.F.	
MUCK & PEAT	0*
SOFT CLAY	500
AND	1000
SAND & GRAVEL	1500
SAND & GRAVEL LEMENTED W/CLAY	2,000
SHALE	3,000

*USE TIE-ROD ANCHORS, WALKING JOINT FITTINGS, FLANGED FITTINGS OR TREATED TIMBER PILES W/CONC. THRUST BLOCKS

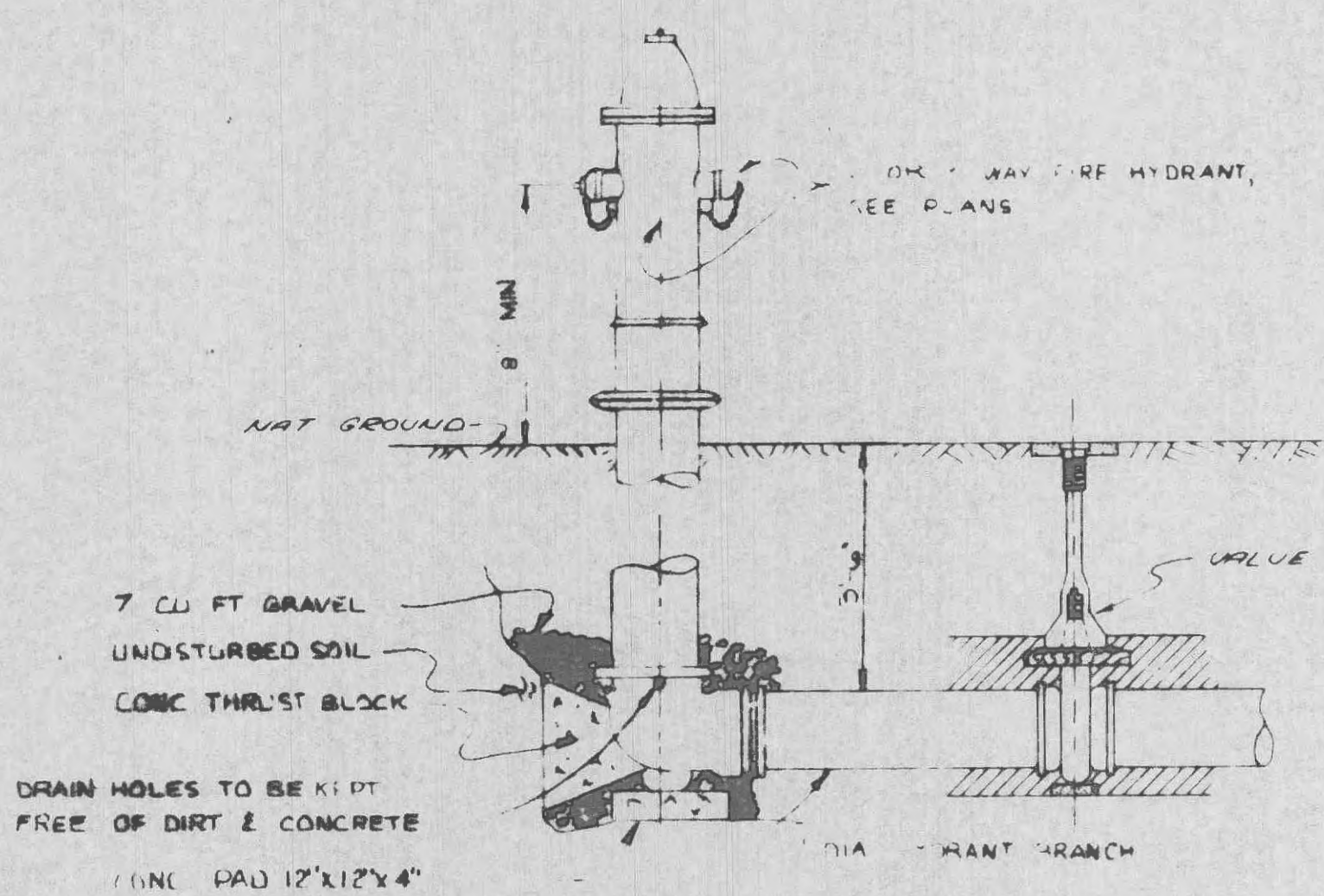
PIPE SIZE	90° BENDS			TEES & DEAD ENDS			45° BENDS			22½° BENDS			11¼° BENDS		
	TEST PR	50# TEST PR	100# TEST PR	TEST PR	50# TEST PR	100# TEST PR	TEST PR	50# TEST PR	100# TEST PR	TEST PR	50# TEST PR	100# TEST PR	TEST PR	50# TEST PR	100# TEST PR
4"	4000	3000	2000	5000	2000	1000	3000	1500	1000	1000	500	500	600	400	-
6"	9000	6000	4000	7000	4000	3000	5000	4000	2000	2000	1000	1000	1500	1000	600
8"	17000	11000	7000	11000	6000	5000	9000	5000	4000	3000	2000	2000	2000	2000	1000
10"	24000	17000	11000	15000	10000	8000	13000	8000	6000	5000	4000	3000	4000	3000	2000
12"	34000	24000	16000	21000	14000	11000	17000	11000	8000	7000	5000	5000	5000	4000	3000
14"	50000	33000	22000	34000	23000	18000	29000	19000	15000	13000	10000	10000	10000	8000	6000
16"	65000	43000	29000	45000	31000	24000	37000	25000	20000	18000	14000	14000	14000	11000	8000
18"	82000	54000	37000	57000	39000	30000	47000	32000	25000	23000	18000	18000	18000	14000	11000

NOTE: FOR AREA OF THRUST BLOCK IN SQ FT DIVIDE APPROPRIATE THRUST BY ALLOWABLE SOIL BEARING. TEST PRESSURES SHALL BE AS INDICATED IN THE SPECIFICATIONS OR SPECIAL CONDITIONS. UNDER PRESSURE TESTING OF PIPE THE CONTRACTOR SHALL BE RESPONSIBLE FOR SELECTING THRUST BLOCKS OR ANCHORAGE FOR VARIOUS PIPE SIZE AND FITTINGS ACCORDING TO APPROPRIATE SOIL BEARING AND TEST PRESSURE. COST OF THRUST ANCHORAGE SHALL BE INCLUDED IN PRICE BID FOR FITTINGS OR PIPE.

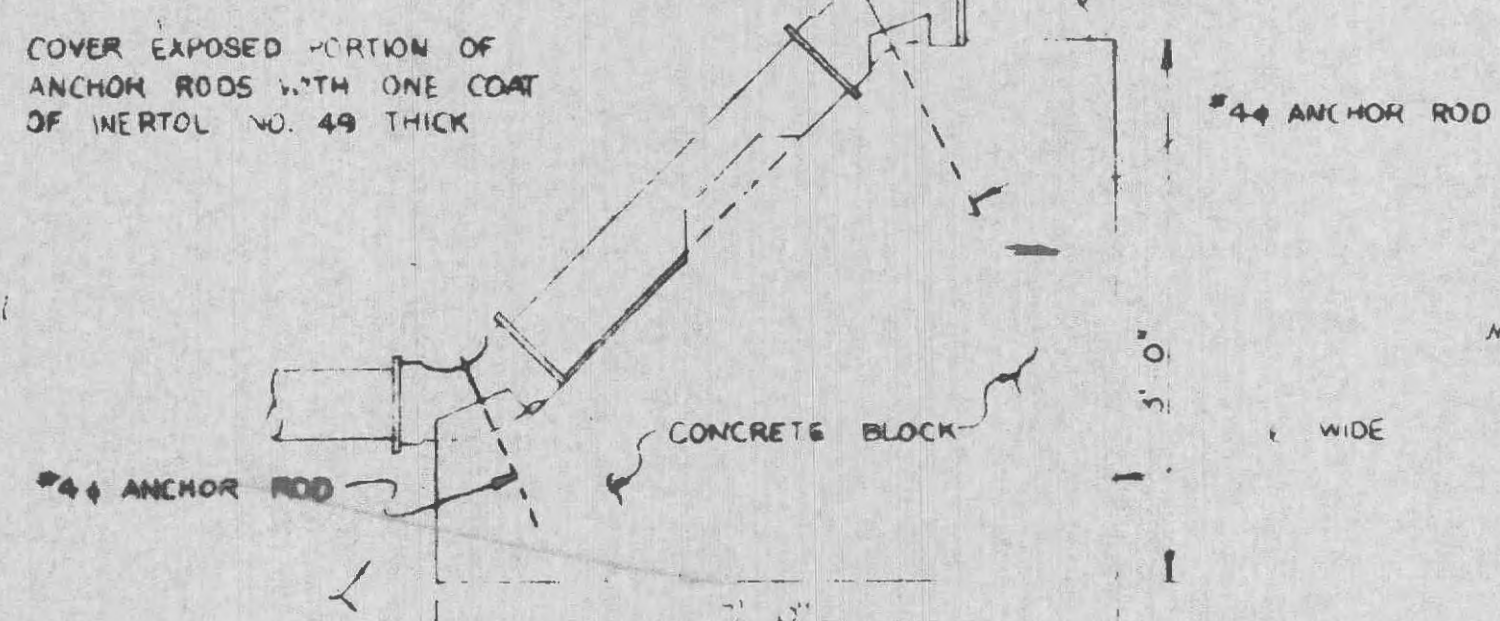
THRUST ANCHORAGE DATA

PIPE SIZE INCHES	MAXIMUM SIZE SERVICE STRAP CLAMP PERMITTED			MAXIMUM SIZE TAP PERMITTED IN CAST IRON PIPE	
	CAST IRON SIZE	ASBESTOS CEMENT SIZE	GALVANIZED SIZE	PIPE SIZE	TAP SIZE
2"	-	-	¾"	2"	½"
3"	1 ¼"	-	1"	3"	½"
4"	1 ½"	-	1 ½"	4"	¾"
6"	2"	-	-	6"	1"
8"	2 ½"	1 ½"	-	8"	1 ¼"
10"	3"	2"	-	10"	1 ½"
12"	4"	2"	-	12"	2"

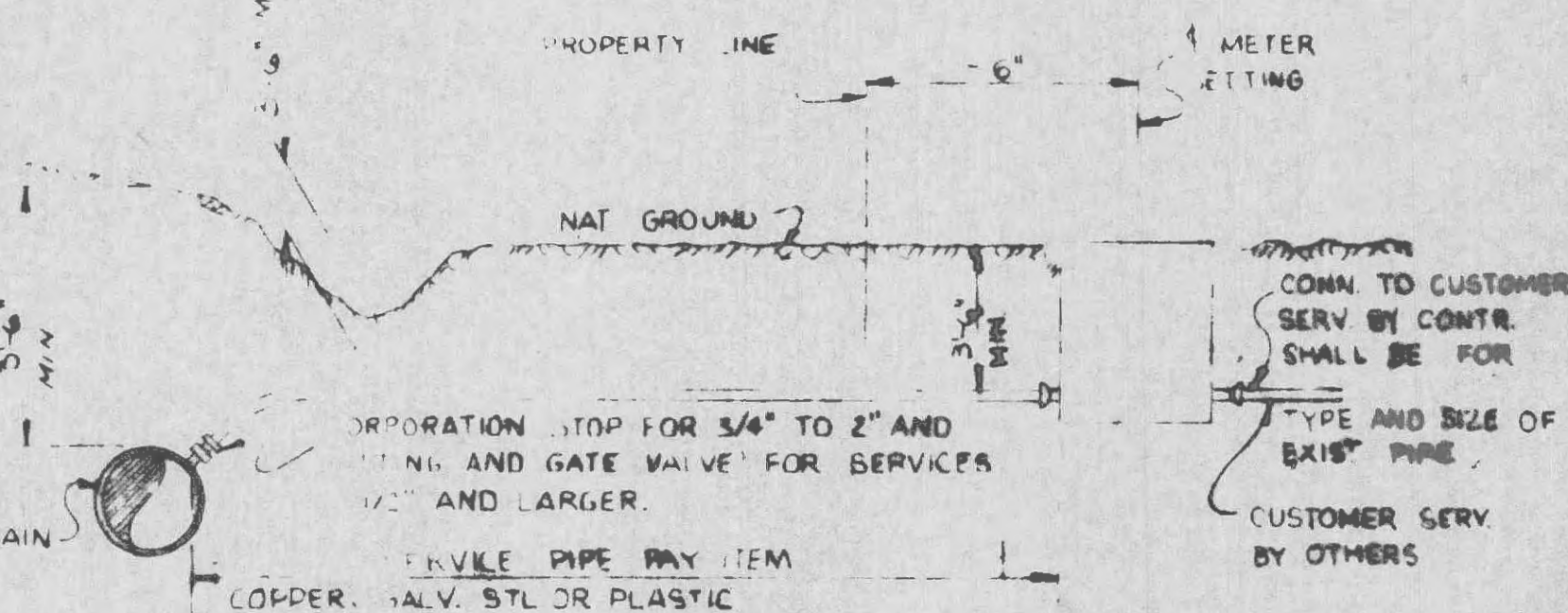
MAXIMUM TAP AND SERVICE CLAMP SIZES



TYPICAL DETAIL FOR FIRE HYDRANT INSTALLATION

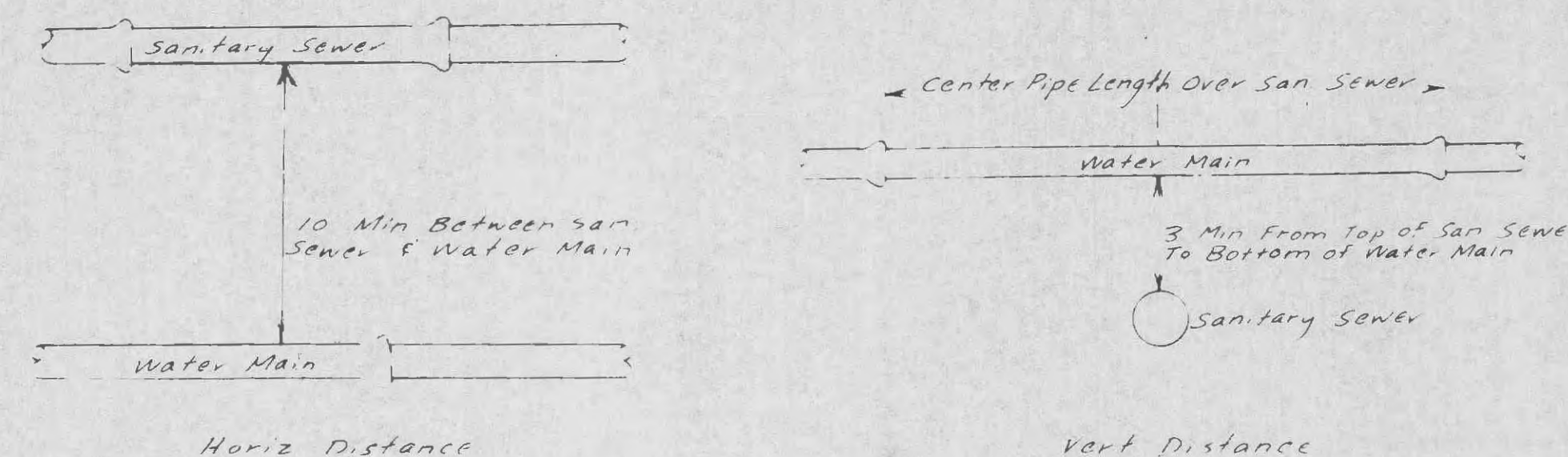


DETAIL THRUST BLOCK FOR VERTICAL OFFSETS



TYPICAL SERVICE ASSEMBLY

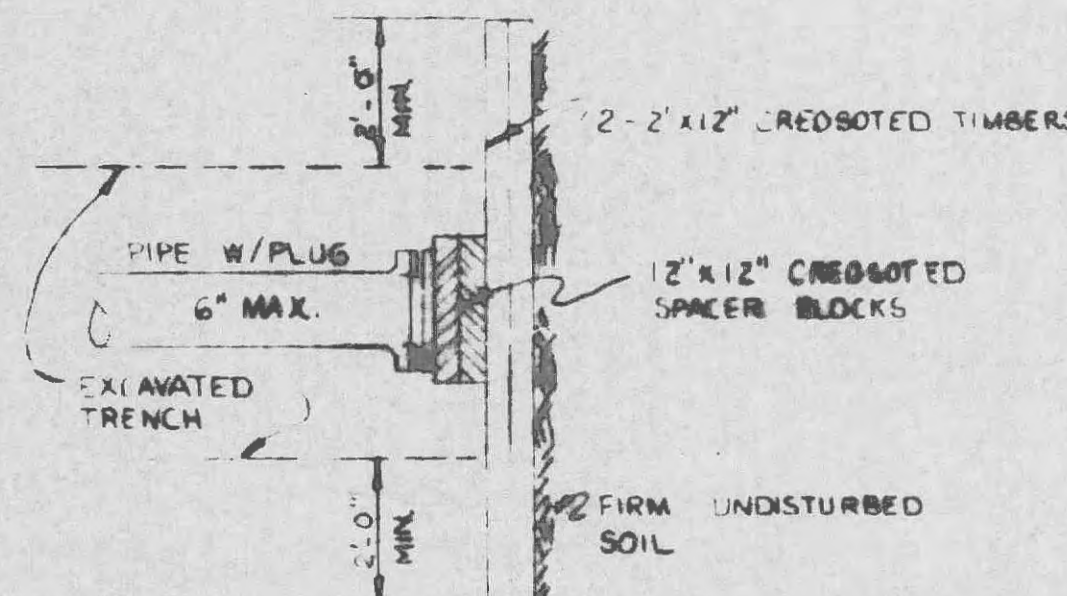
NOTE: 1/2" FLEXIBLE POLYBUTYLENE PLASTIC SERVICE TUBING (FIBRO) COMPRESSION COUPLINGS W/ INSERT SHALL BE PROVIDED FOR 5/8" X 3/4" METERS. 1 1/2" RIGID PVC, SCHEDULE 40 W/ THREADED COUPLINGS SHALL BE PROVIDED FOR 1" AND 1 1/2" METERS.



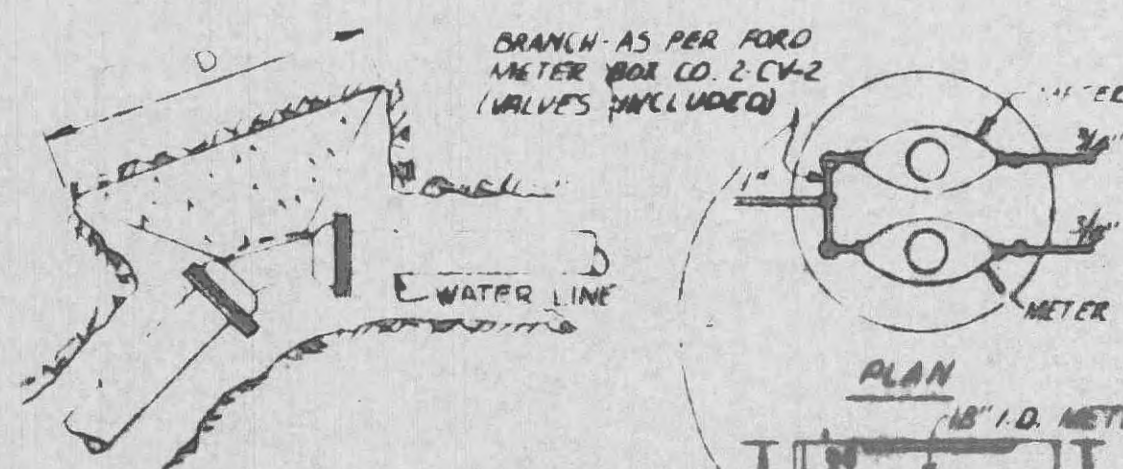
DETAIL "H-H"

TYPICAL WATER & SEWER SEPARATION
NO SCALE

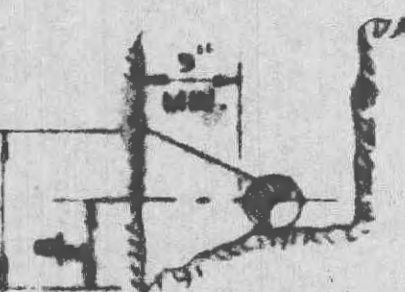
NOTE: USE TIMBER THRUST BLOCK FOR TEMPORARY PLUG ON 6" AND LESS PIPE DIA. FOR LARGER PIPE DIA USE OTHER TYPE OF ANCHORAGE.



PLAN PLUG DETAIL



PLAN



ELEVATION

DETAILS THRUST BLOCK FOR HORIZONTAL OFFSETS

- NOTES:
- SPECIAL REQ. FOR PLASTIC PIPE:**
 - FOR 6" AND 4" P.V.C. PIPE TEES & CROSSES SHALL BE MECHANICAL JOINT CAST IRON FITTINGS.
 - FOR ALL SIZES OF PVC PIPE, ALL BENDS SHALL BE LONG RADIUS PLASTIC BENDS OR MECHANICAL JOINT CAST IRON.
 - FOR ALL SIZES OF PVC PIPE, SCHEDULE 40 PLASTIC ADAPTERS SHALL BE PROVIDED FOR ALL VALVES, TEES, CROSSES & HYDRANTS.
 - FOR ALL SIZES OF PVC PIPE, ALL JOINTS SHALL BE SOLVENT WELD OR COUPLINGS W/ RUBBER GASKETS. HOWEVER, JOINTS OR FITTINGS WHICH ARE SOLVENT WELDED AT THE FACTORY ARE ACCEPTABLE.
 - SPECIAL REQUIREMENTS FOR SERVICE CONNECTIONS:**
 - DOUBLE STRAP SERVICE SADDLES, SMITH-BLAIR NO. 57 OR EQUAL, SHALL BE PROVIDED FOR ASBESTOS CEMENT AND P.V.C. PIPE THAT IS 6" OR LARGER.
 - SPECIAL PLASTIC SADDLES, SMITH-BLAIR NO. 57 OR EQUAL, SHALL BE PROVIDED FOR P.V.C. PIPE THAT IS 6" OR SMALLER.
 - SINGLE STRAP SERVICE SADDLES, SMITH-BLAIR NO. 57 OR EQUAL, SHALL BE PROVIDED FOR 1 1/2" TAPS ON CAST IRON PIPE THAT IS 6" OR LARGER.
 - CONCRETE DRIVEWAYS:**
 - WHERE CONCRETE DRIVEWAYS ARE ENCOUNTERED ON STATE MAINTAINED HIGHWAYS, JACKING & SOILING WILL BE REQUIRED.
 - OPTIONS:**
 - ASBESTOS-CEMENT COUPLINGS MAY BE UTILIZED FOR SERVICE CONNECTIONS FOR P.V.C. AND I.A.C. PIPE.
 - ALUMINUM TUBING OR RUBBER RINGS MAY BE SUBSTITUTED FOR TAPPING.