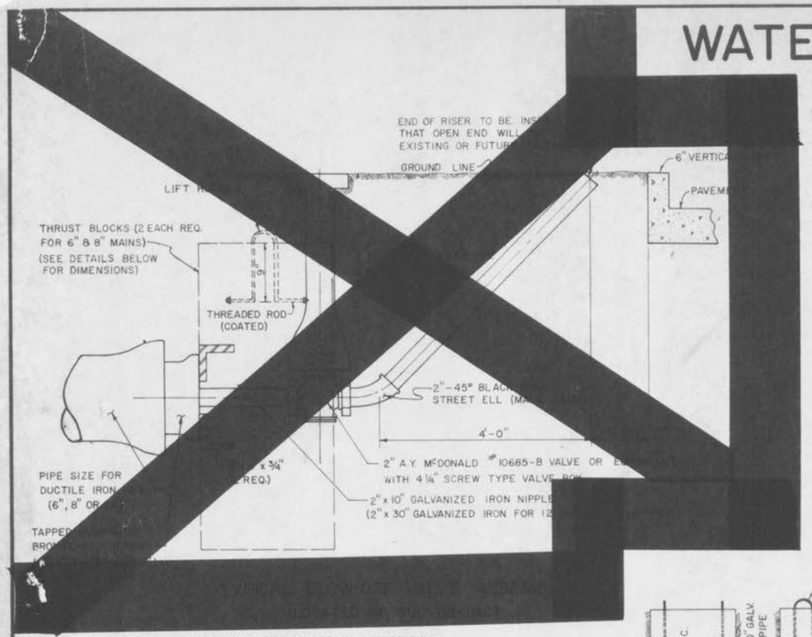
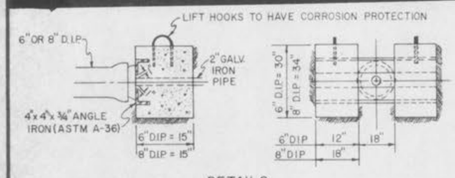
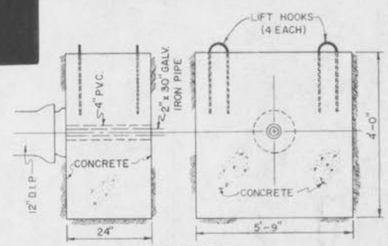
WATER MAIN CONSTRUCTION DETAILS

COPPERFIELD PHASE 2
WATER MAIN DETAILS
#82-9893 B 12/1/82
Rev 2-7-85

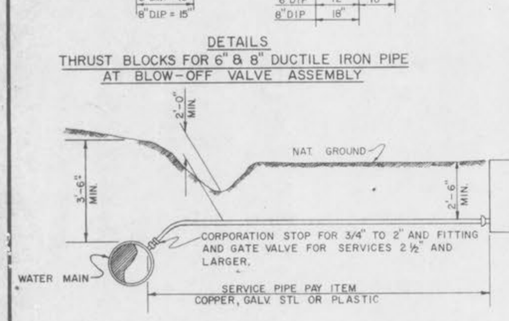




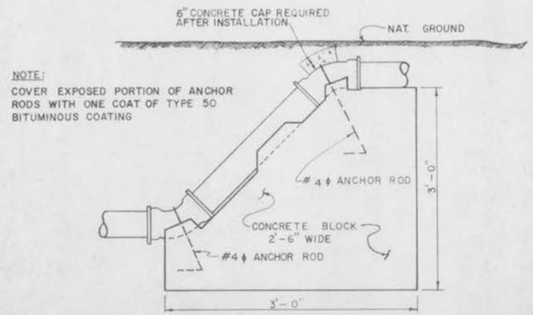
DETAILS
THRUST BLOCKS FOR 6" & 8" DUCTILE IRON PIPE
AT BLOW-OFF VALVE ASSEMBLY



DETAILS
THRUST BLOCK FOR 12" DUCTILE IRON PIPE
AT BLOW-OFF VALVE ASSEMBLY

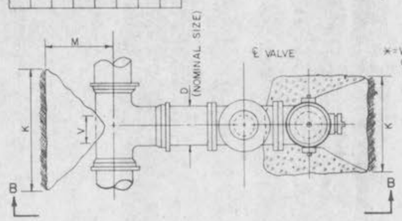


TYPICAL SERVICE ASSEMBLY

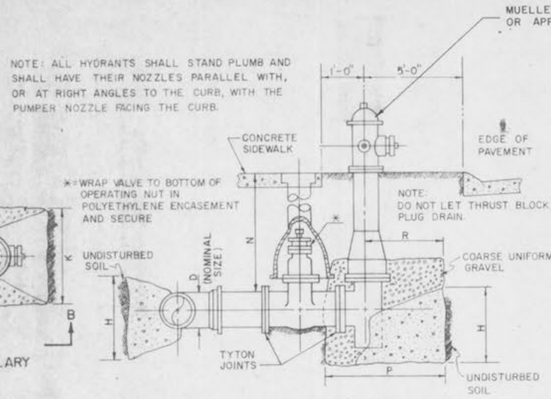


DETAIL
THRUST BLOCK FOR VERTICAL OFFSETS

FIRE HYDRANT THRUST BLOCK DIMENSIONS								
D	K	V	M	H	N	P	R	
6"	28"	6"	24"	24"	42"	36"	30"	

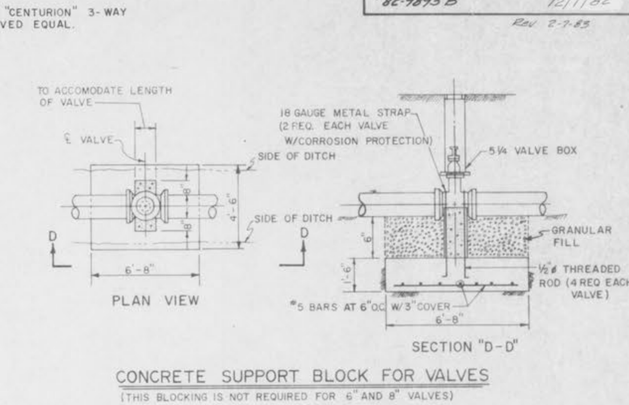


PLAN VIEW-FIRE HYDRANT, AUXILLARY
VALVE AND VALVE BOX

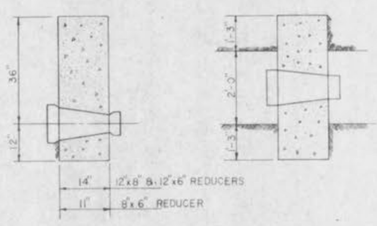


SECTION "B-B"

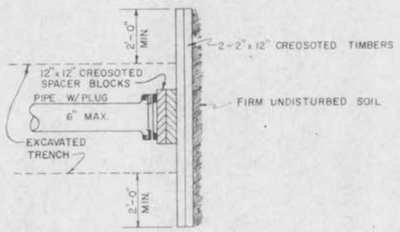
FIRE HYDRANT DETAILS

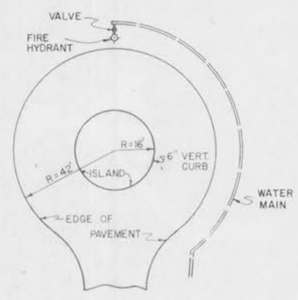


CONCRETE SUPPORT BLOCK FOR VALVES
(THIS BLOCKING IS NOT REQUIRED FOR 6" AND 8" VALVES)

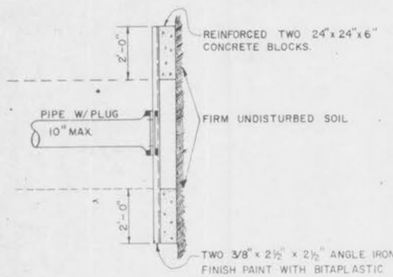


REDUCER THRUST BLOCKS

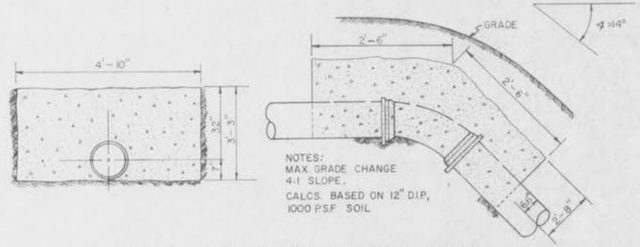




FIRE HYDRANT LOCATION
IN CUL-DE-SAC



OPTIONAL



CONCRETE ENCASEMENT-VERTICAL BEND
(USE FOR 6", 8" AND 12" DUCTILE IRON PIPE)

MAXIMUM SIZE SERVICE STRAP CLAMP PERMITTED			
PIPE SIZE INCHES	CAST IRON SIZE	ASBESTOS CEMENT SIZE	GALVANIZED SIZE
2	1"	–	3/4"
2 1/2	1 1/4"	–	1"
3	1 1/2"	–	1 1/2"
4	2"	1"	–
6	2"	1 1/2"	–
8	3"	2"	–
10	3"	2"	–
12	4"	2"	–

MAXIMUM SIZE TAP PERMITTED IN CAST IRON PIPE	
PIPE SIZE	TAP SIZE
2"	1/2"
3"	1/2"
4"	3/4"
6"	1"
8"	1 1/4"
10"	1 1/2"
12"	2"

MAXIMUM TAP AND SERVICE CLAMP SIZE

ALLOWABLE SAFE LATERAL BEARING OF SOILS IN P.S.F	
MUCK AND PEAT	0*
SOFT CLAY	500
SAND	1,000
SAND AND GRAVEL	1,500
SAND AND GRAVEL CEMENTED W/CLAY	2,000
SHALE	5,000

* USE TIE-ROD ANCHORS, LOCKING JOINT FITTINGS, FLAN
OR, TREATED TIMBER PILES W/CONC. THRUST BLOC

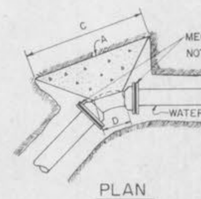
SOILS ENGINEER
BEARIN

(THRUSTS FOR VARIOUS FITTINGS AND TEST PRESSURES THF

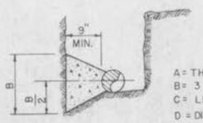
PIPE SIZE	90° BENDS			TEES & DEAD ENDS			45° BENDS			2
	300 TEST PR	150 TEST PR	100 TEST PR	300 TEST PR	150 TEST PR	100 TEST PR	300 TEST PR	150 TEST PR	100 TEST PR	300 TEST PR
2"	1,400	700	500	1,000	500	–	800	400	–	
4"	6,000	3,000	2,000	4,000	2,000	1,000	3,000	1,500	1,000	
6"	12,000	6,000	4,000	8,000	4,000	3,000	8,000	4,000	2,6	
8"	22,000	11,000	7,000	16,000	8,000	5,000	12,000	6,000		
10"	34,000	17,000	11,000	24,000	12,000	8,000	20,000	10,000		
12"	48,000	24,000	16,000	34,000	17,000	11,000	28,000	14,000		
14"	66,000	33,000	22,000	46,000	23,000	15,000	38,000	19,000		
16"	86,000	43,000	29,000	60,000	30,000	20,000	50,000	25,00		
18"	108,000	54,000	37,000	76,000	38,000	25,000	64,000	32,0		

NOTE: FOR AREA OF THRUST BLOCK IN SQ. FT. DIVIDE APPROPRIAT
TEST PRESSURES SHALL BE AS INDICATED IN THE SPEC
PRESSURE TESTING OF PIPE. THE CONTRACTOR SHAL
BLOCKS OR ANCHORAGE FOR VARIOUS PIPE SIZE AND
BEARING AND TEST PRESSURE. COST OF THRUST
FITTINGS OR PIPE.

THRUST A

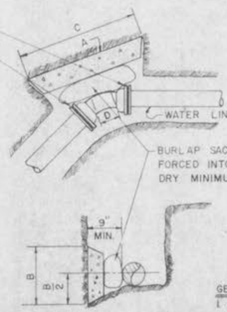


PLAN



ELEVATION

A= THRUST ANCHORAGE AREA (B x C)
B= 3 x PIPE DIA. (MIN)
C= LENGTH OF THRUST BLOCK
D = DIAMETER OF PIPE (MINIMUM)



OPTIONAL

PLAN
PLUG DETAIL

DETAILS
THRUST BLOCK FOR HORIZONTAL OFFSETS

GENERAL NOTES:
1. COVER OVER TOP OF PIPE SHALL BE 42" MINIMUM, 72" MAXIMUM.
2. THRUST BLOCKS SHALL BE BUILT AGAINST UNDISTURBED SOIL WITH ADEQUATE BACKING TO PREVENT MOVEMENT OF FITTING.
3. NO THRUST BLOCKS TO BE PLACED IN SEWER LATERAL DITCHES.
4. THRUST BLOCKING MUST FIT IN EASEMENT.