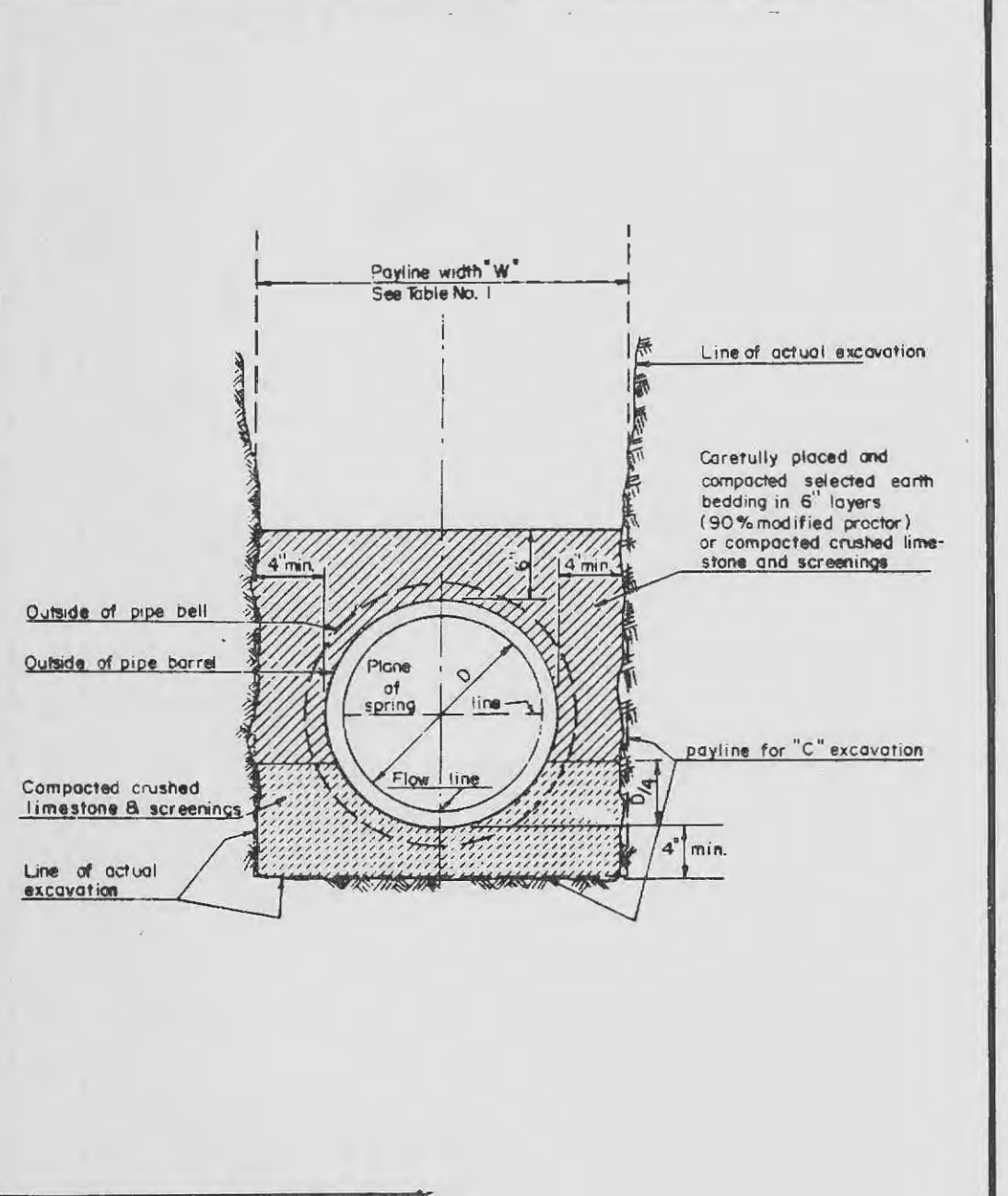
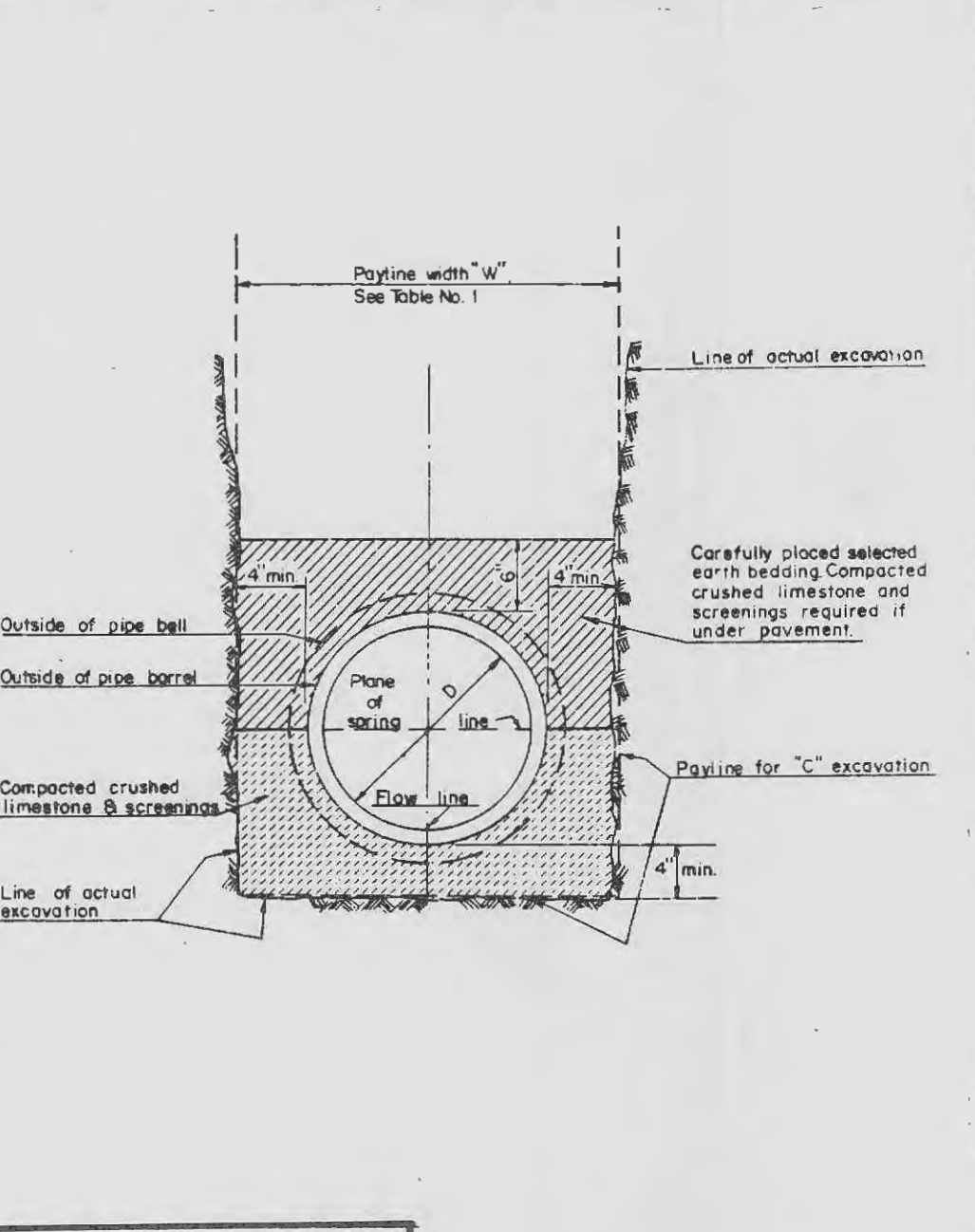


ROUND PIPE				HORIZONTAL ELLIPTICAL PIPE			
Inside Diameter of Pipe (Inches)	"w" Payline Width of Trench (Inches)	"w" Payline Width of Trench (Feet)	Pay-volumes cu. ft. per ft. of Concrete Encasement	Inside Dimensions of Pipe (Inches)	"w" Payline Width of Trench (Inches)	"w" Payline Width of Trench (Feet)	Pay-volumes cu. ft. per ft. of Concrete Encasement
4	28	2.33	3.20				
6	28	2.33	3.46				
8	28	2.33	3.70				
10	28	2.33	3.86				
12	28	2.33	3.98				
15	32	2.67	4.89				
18	35	2.92	5.63	14 x 23	41	3.42	5.94
21	39	3.25	6.61				
24	42	3.50	7.39	19 x 30	49	4.08	7.68
27	45	3.75	8.18	22 x 34	53	4.42	8.61
30	49	4.08	9.30	24 x 38	58	4.83	9.70
33	53	4.42	10.53	27 x 42	62	5.17	10.71
36	56	4.67	11.43	29 x 45	66	5.50	11.72
39	DISCONTINUED			32 x 49	71	5.92	13.14
42	63	5.25	13.38	34 x 53	75	6.25	14.05
48	70	5.83	15.67	38 x 60	83	6.92	16.18
54	77	6.42	18.15	43 x 68	92	7.67	18.81
60	84	7.00	20.73	48 x 76	101	8.42	21.59
66	91	7.58	23.45	53 x 83	109	9.08	24.35
72	98	8.17	26.37	58 x 91	118	9.83	27.45
78	105	8.75	29.39	63 x 98	126	10.50	30.50
84	112	9.33	32.57	68 x 106	135	11.25	33.91
90	119	9.92	35.90	72 x 113	143	11.92	36.99
96	126	10.50	39.37	77 x 121	152	12.67	40.69
102	133	11.08	42.99	82 x 128	160	13.33	44.45
108	140	11.67	46.75	87 x 136	168	14.00	47.79
114	147	12.25	50.66	92 x 143	176	14.67	51.70
120	154	12.83	54.72	97 x 151	185	15.42	56.01
126	161	13.42	58.92				
132	168	14.00	63.27	106 x 166	202	16.83	64.48
144	182	15.17	72.40	116 x 180	218	18.17	73.59

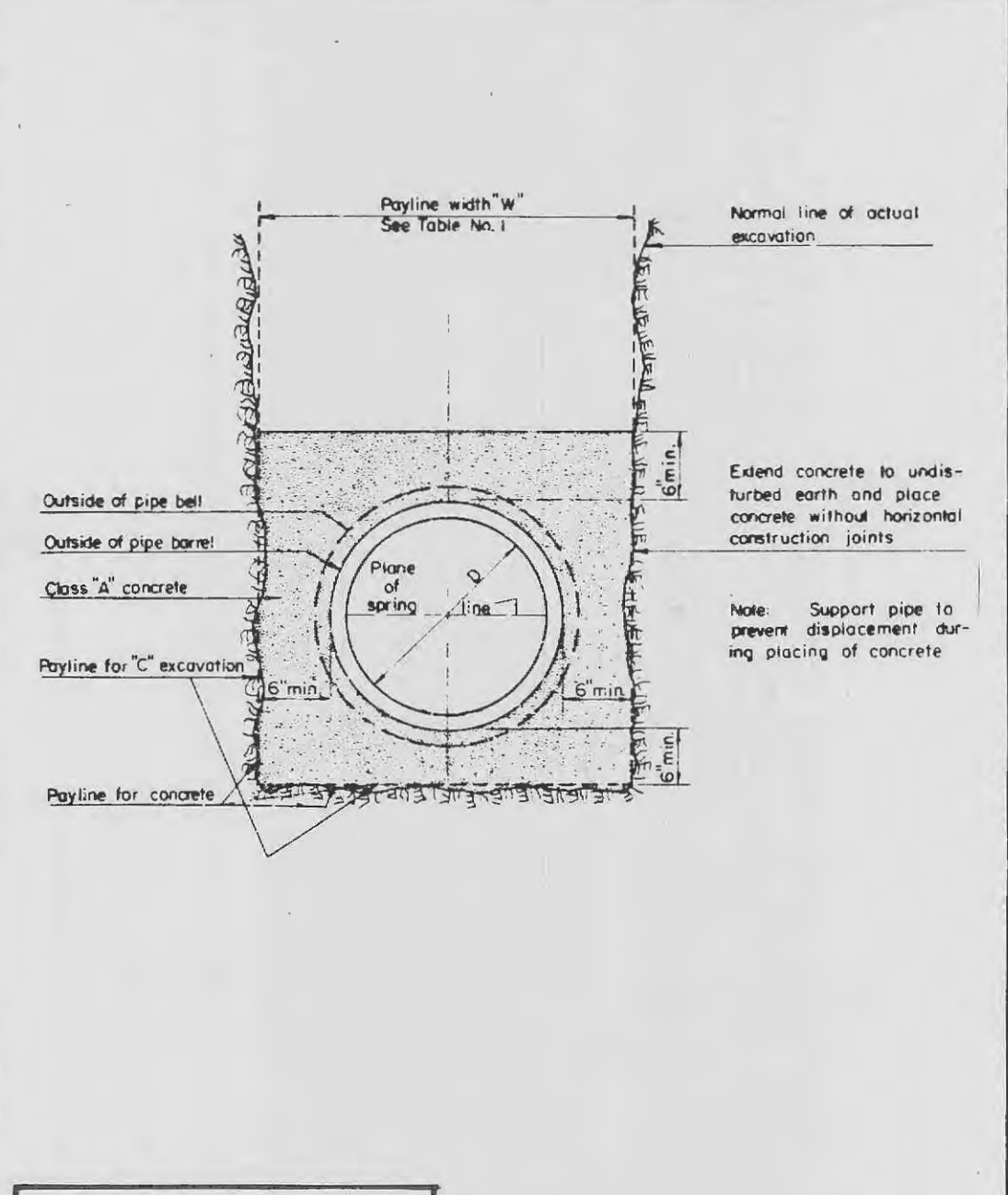
TABLE NO. 1  
PAYLINE WIDTHS OF TRENCH AND PAY-QUANTITIES OF CONCRETE  
DETAIL 1



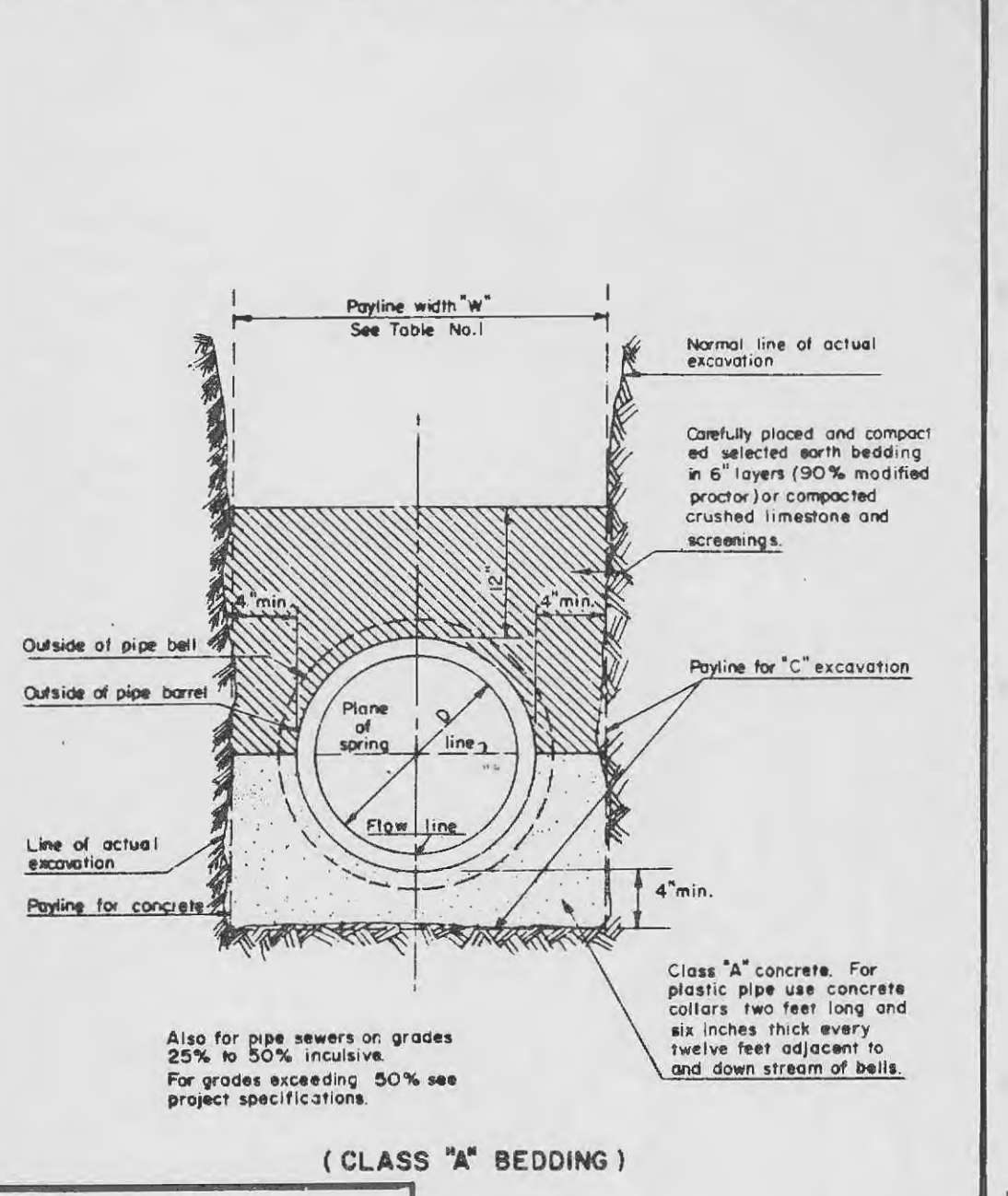
PIPE BEDDING CLASS "C"  
(FOR ALL PIPE EXCEPT REINFORCED CONCRETE PIPE)  
DETAIL 2



PIPE BEDDING CLASS "C"  
(MODIFIED FOR REINFORCED CONCRETE PIPE)  
DETAIL 3



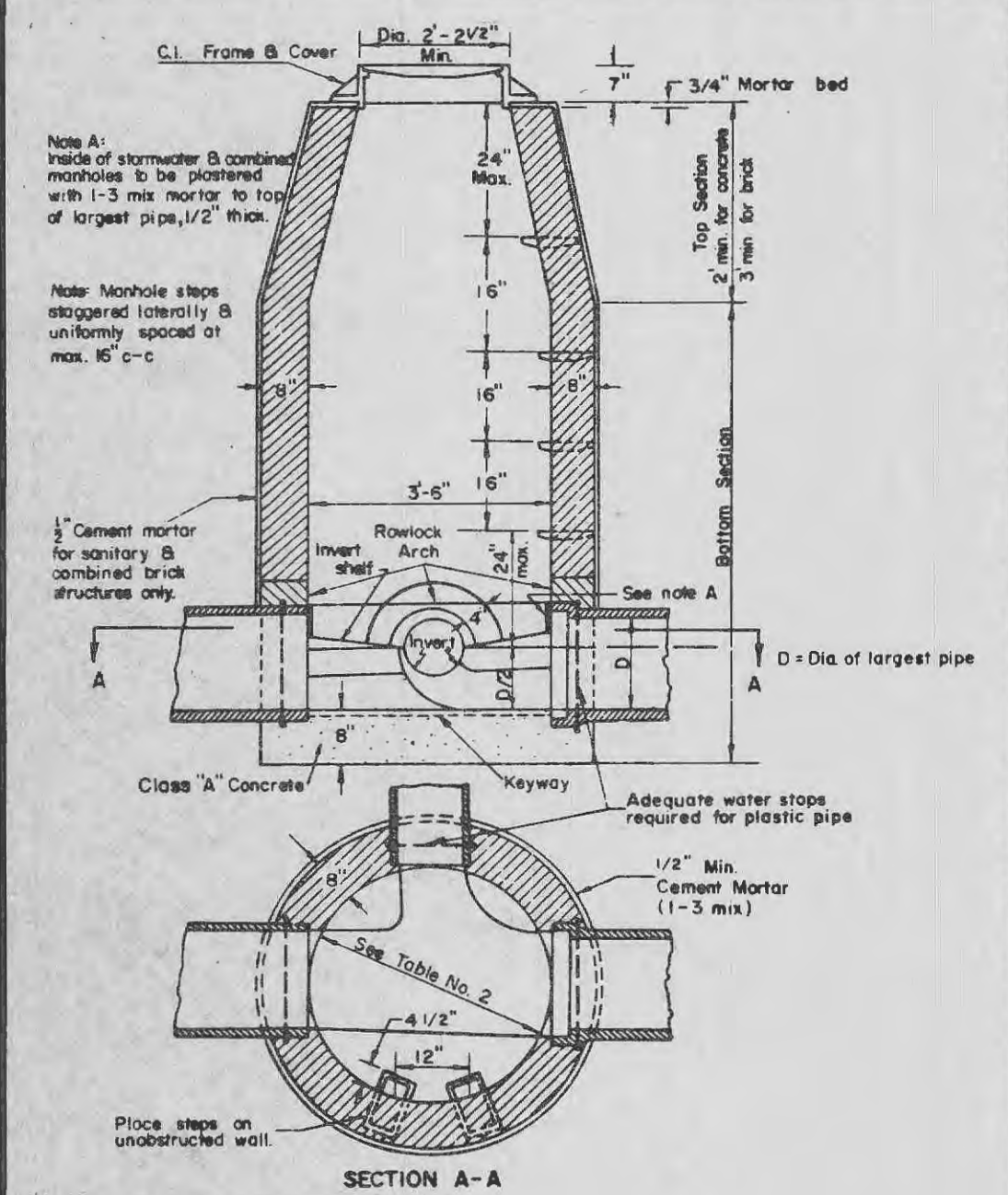
CONCRETE ENCASUREMENT  
DETAIL 4



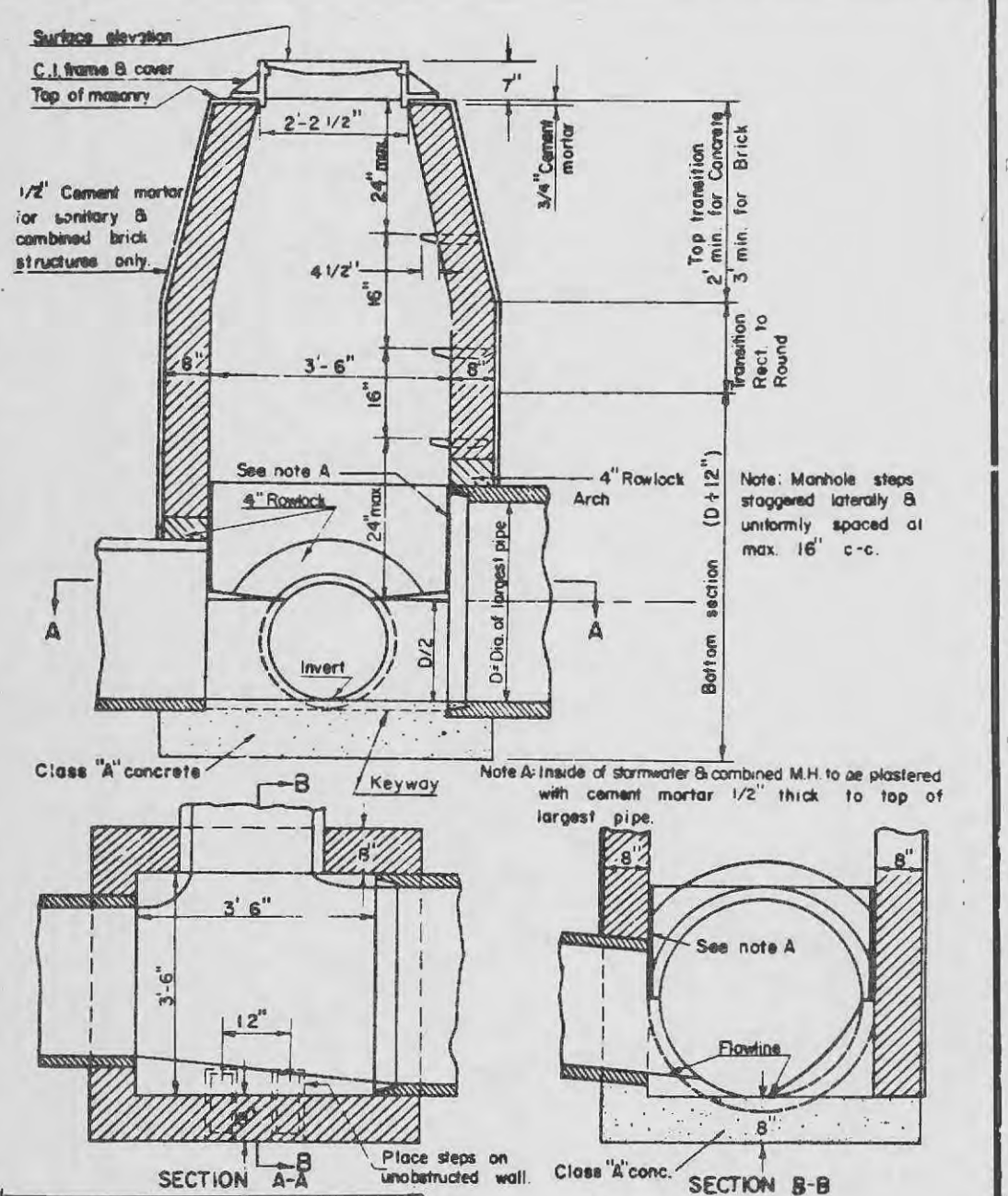
CONCRETE CRADLE  
DETAIL 5

TABLE NO. 2  
STANDARD MANHOLE DIMENSIONS  
DETAIL 6

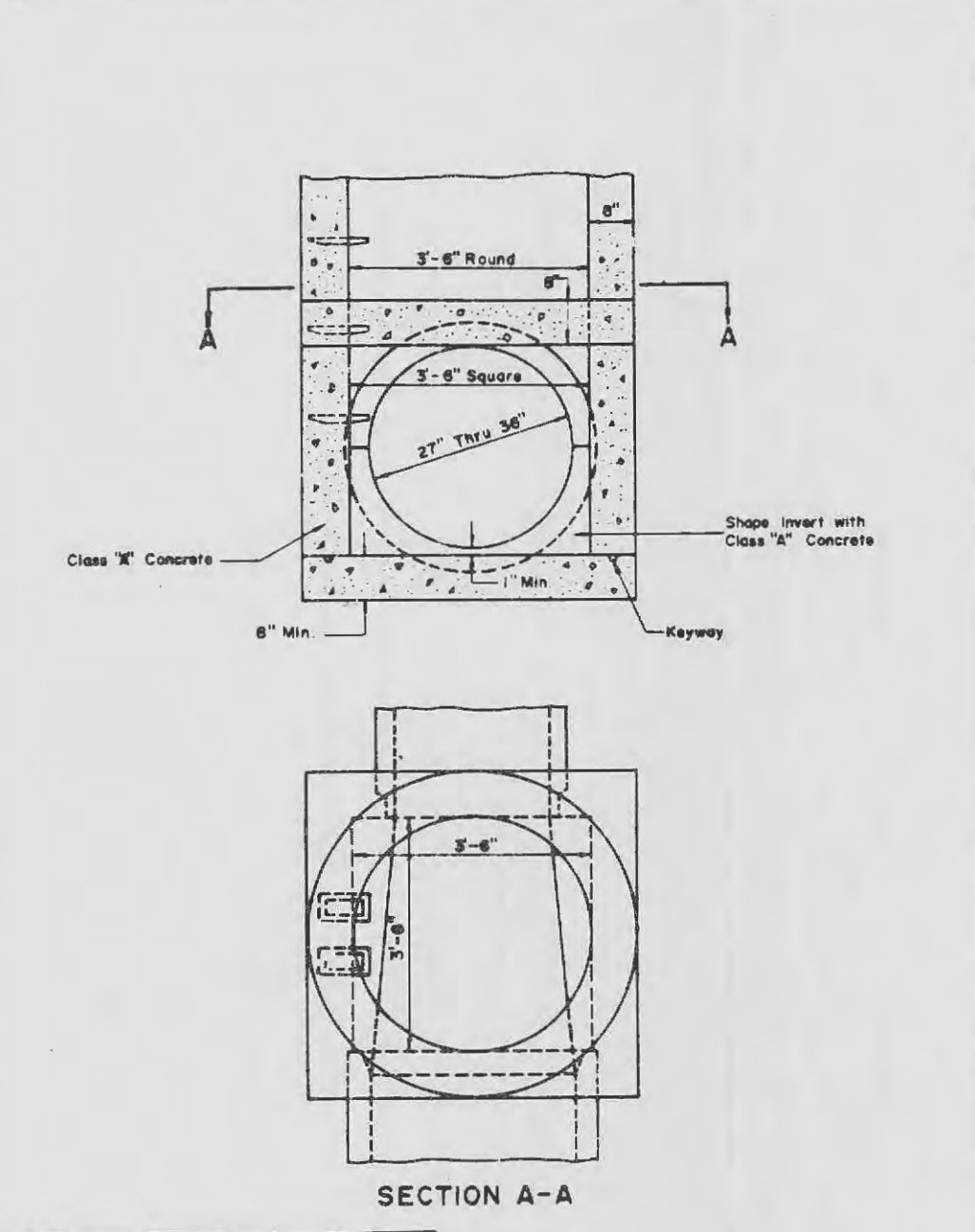
Section of Manhole	Dimension
Top Transition	Upper 2'-2 1/2" Dia. Lower 3'-6" Dia.
Bottom Section	8" thru 24" Dia. Pipe 3'-6" Dia.
Bottom Section	27" thru 36" Dia. Pipe 3'-6" Square



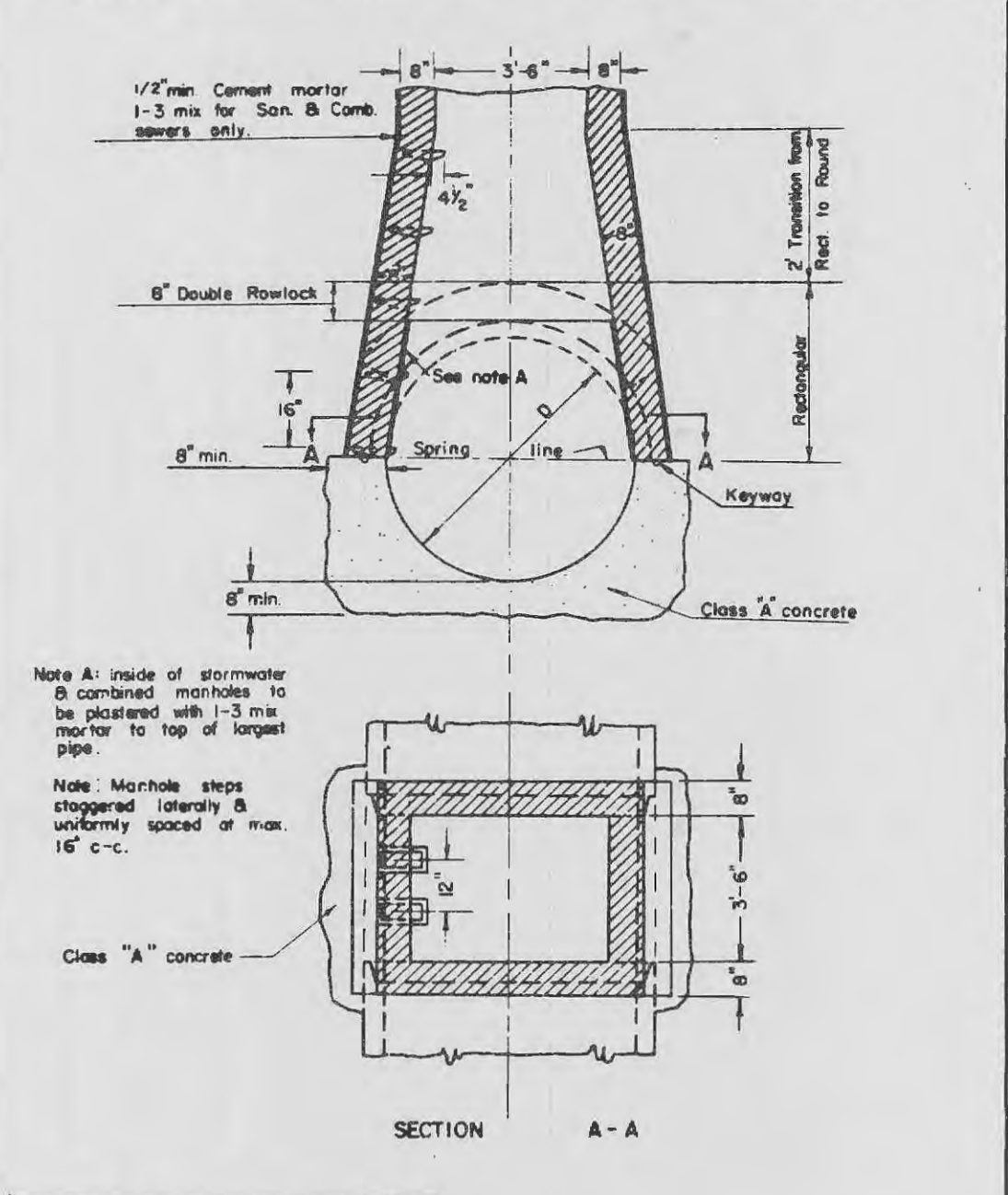
LINE MANHOLE  
PIPE SEWERS 8"-24" DIA.  
DETAIL 7



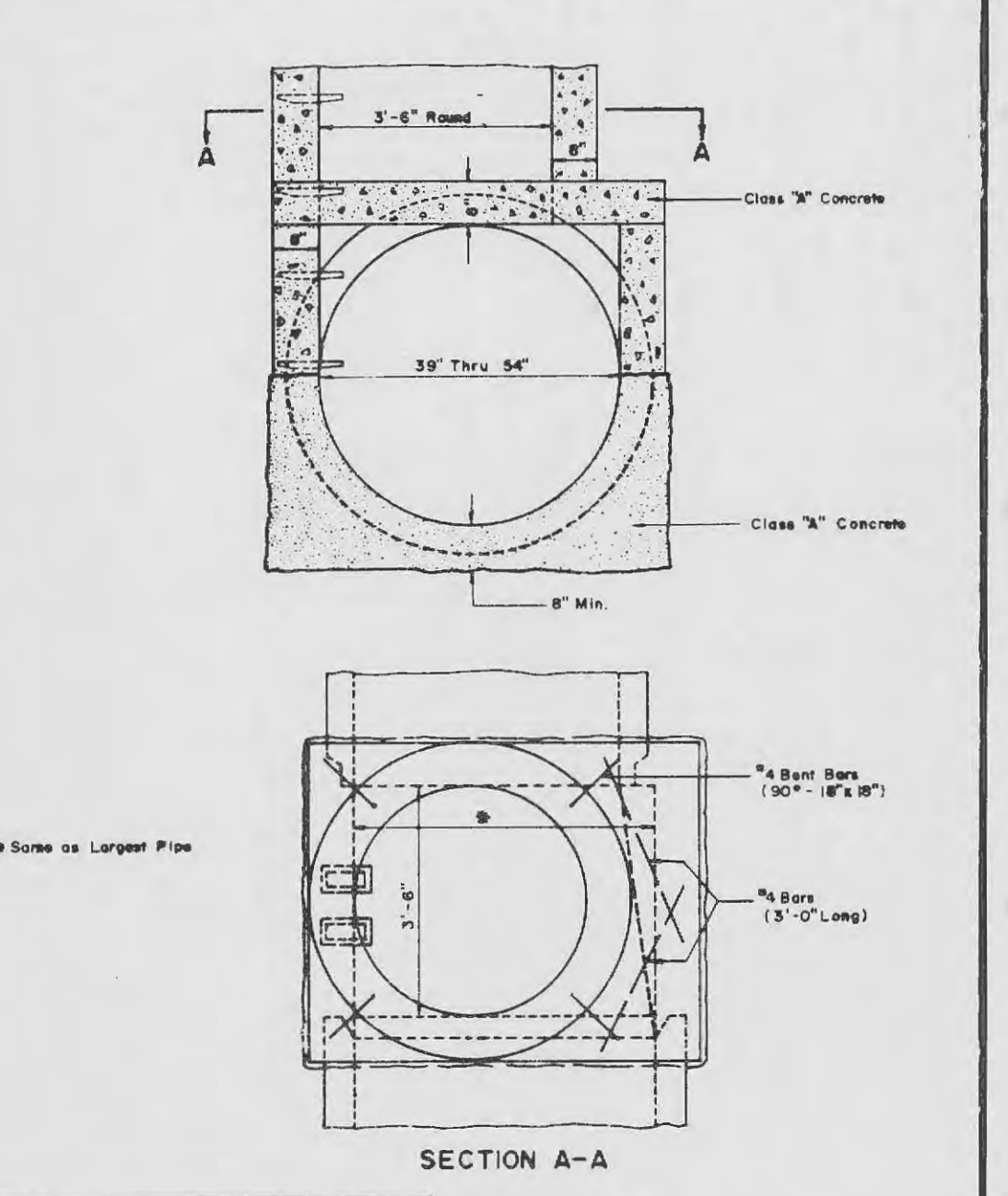
TYPICAL LINE MANHOLE  
ON PIPE SEWER 27" THRU 36" IN DIAMETER.  
DETAIL 8



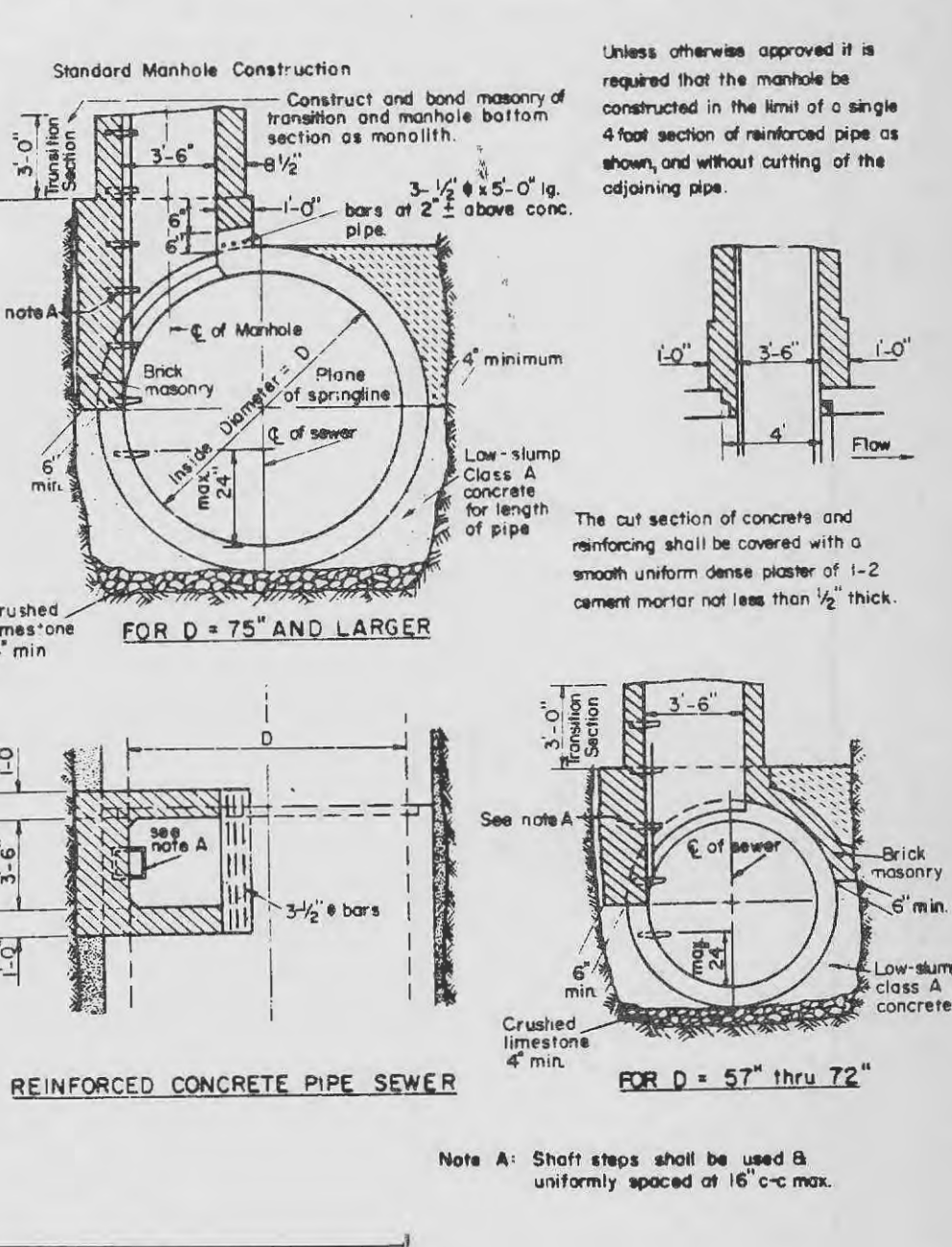
MANHOLE ON PIPE SEWER  
27" THRU 36" (ALTERNATE)  
DETAIL 9



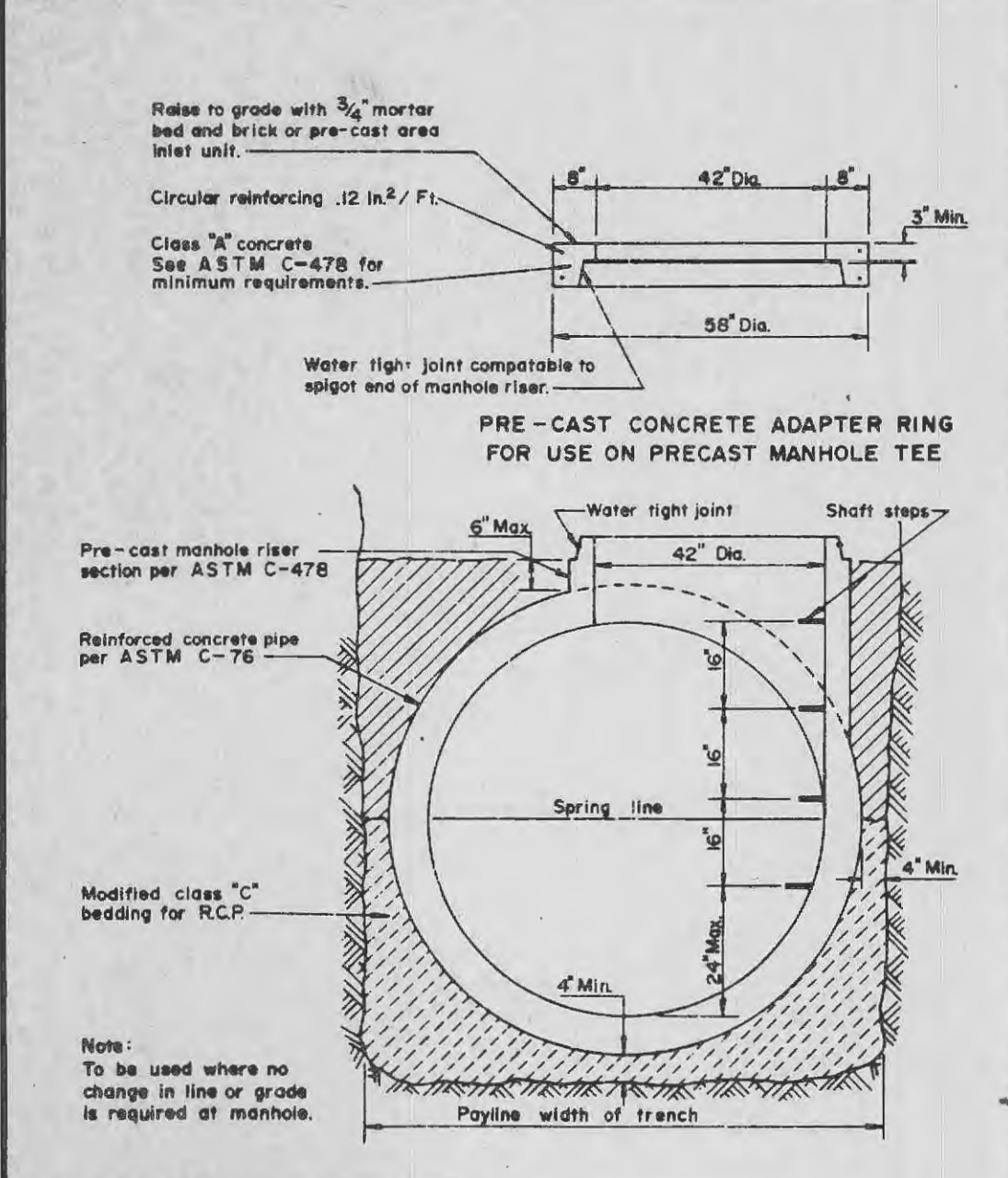
MANHOLE ON CONCRETE PIPE  
SEWERS 39" THRU 54" DIAMETER  
DETAIL 10



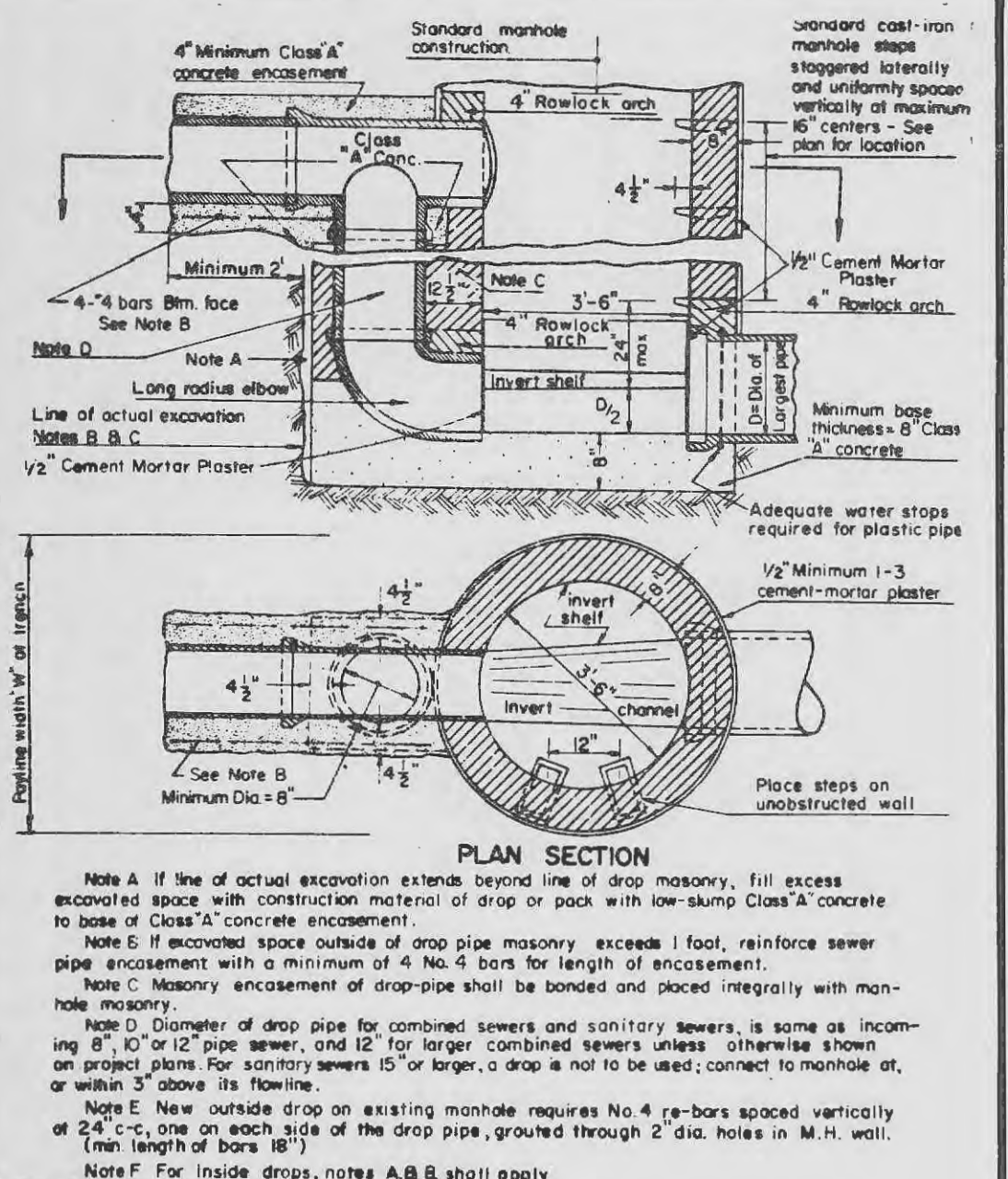
MANHOLE ON CONC. PIPE  
39" THRU 54" (ALTERNATE)  
DETAIL 11



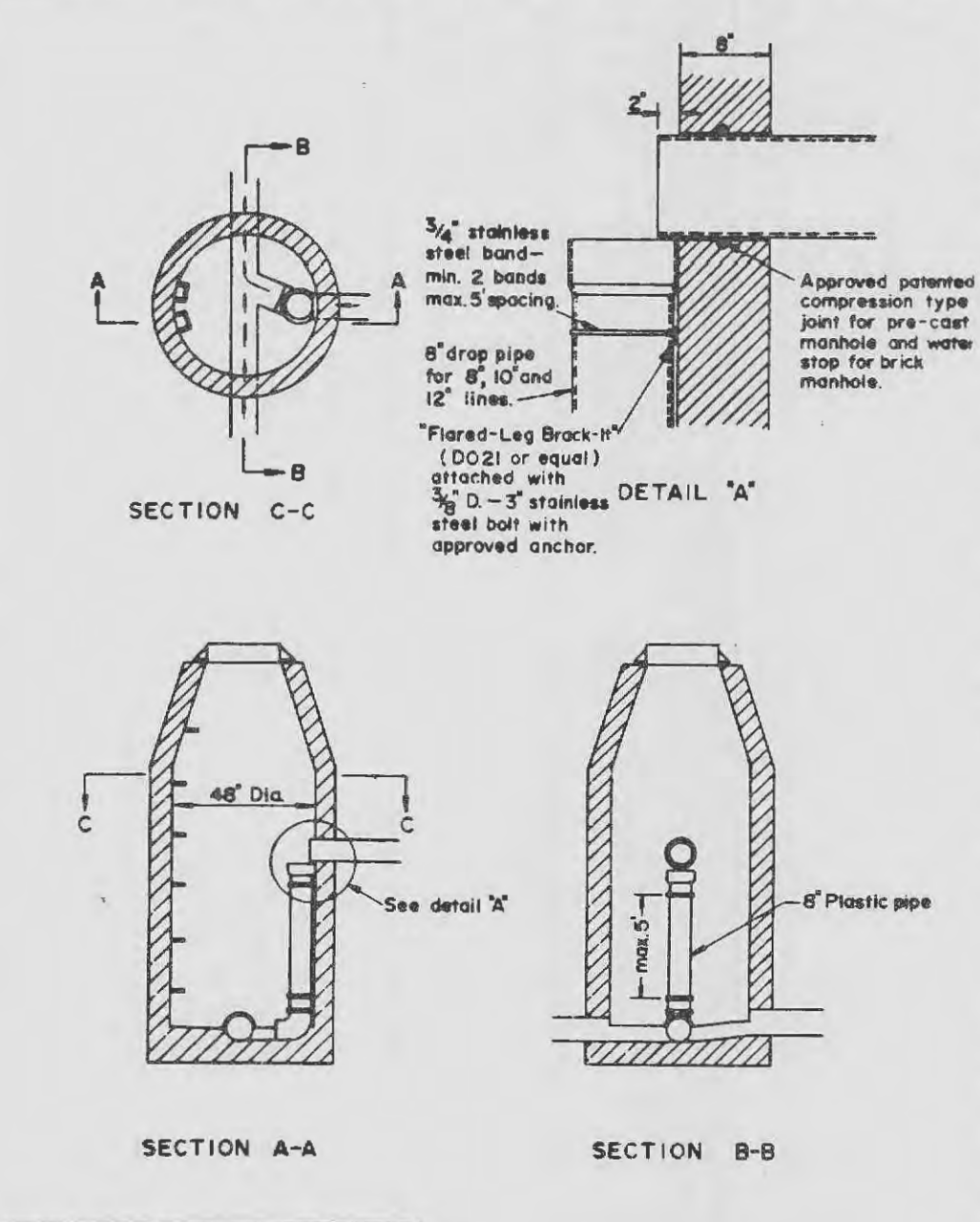
TYPICAL MANHOLE BASE  
REINFORCED CONCRETE PIPE  
SEWERS 57" AND LARGER  
IN DIAMETER  
DETAIL 12



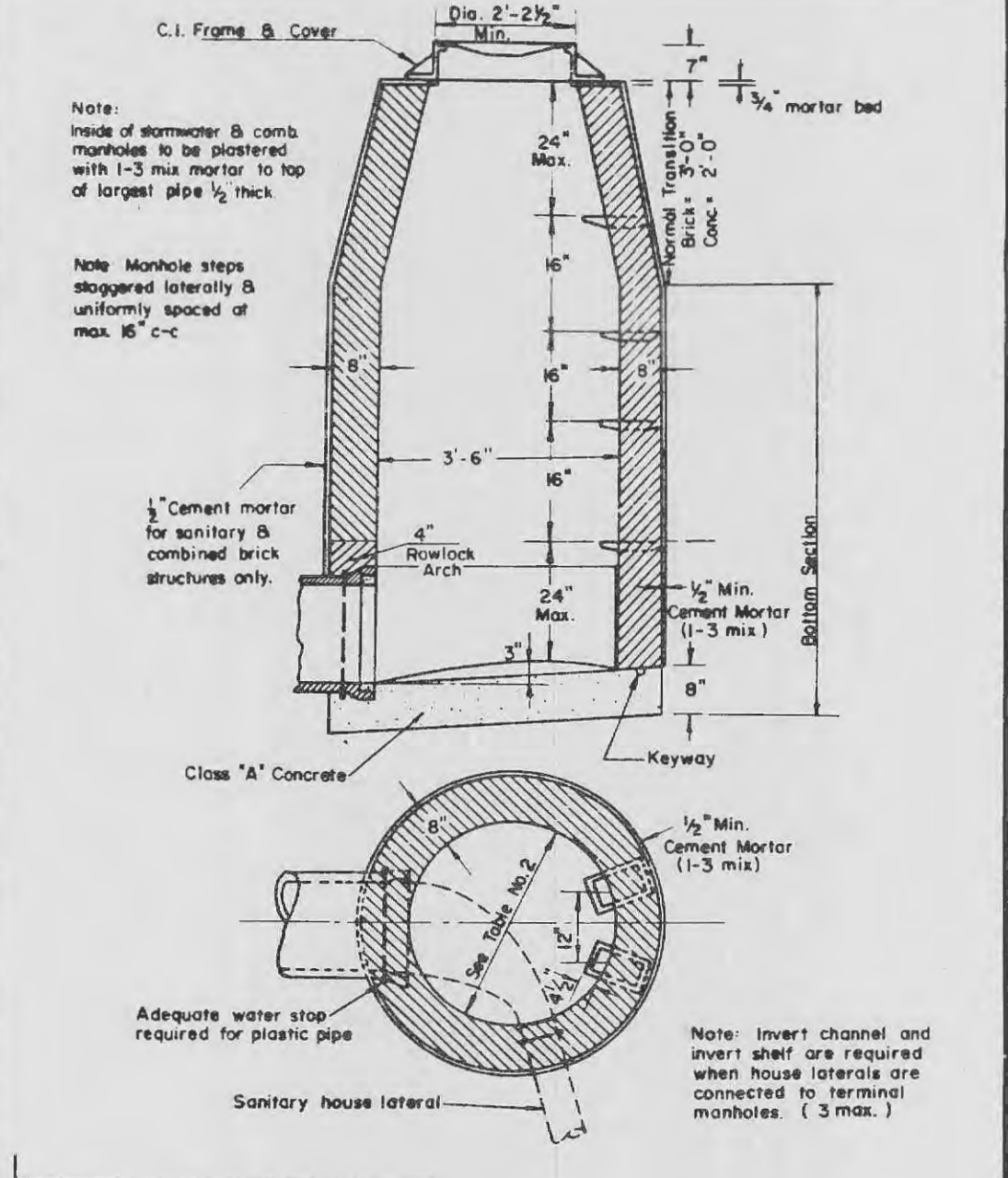
TYPICAL PRE-CAST M.H. TEE  
FOR REINFORCED CONCRETE  
PIPE SEWERS 48" AND  
LARGER IN DIAMETER  
DETAIL 13



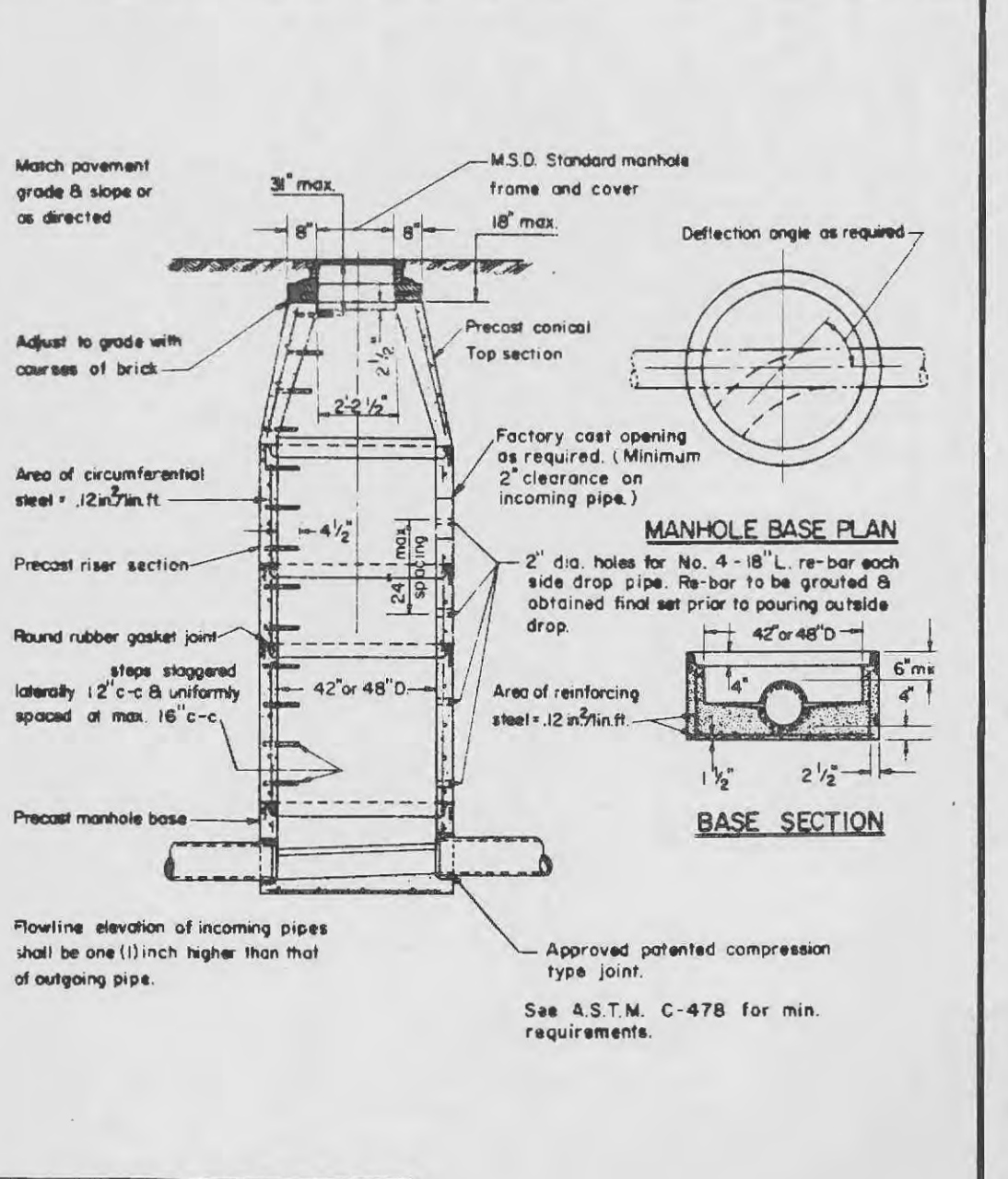
DROP MANHOLE OF BRICK MASONRY  
ON COMBINED, STORM OR  
SANITARY SEWERS  
DETAIL 14



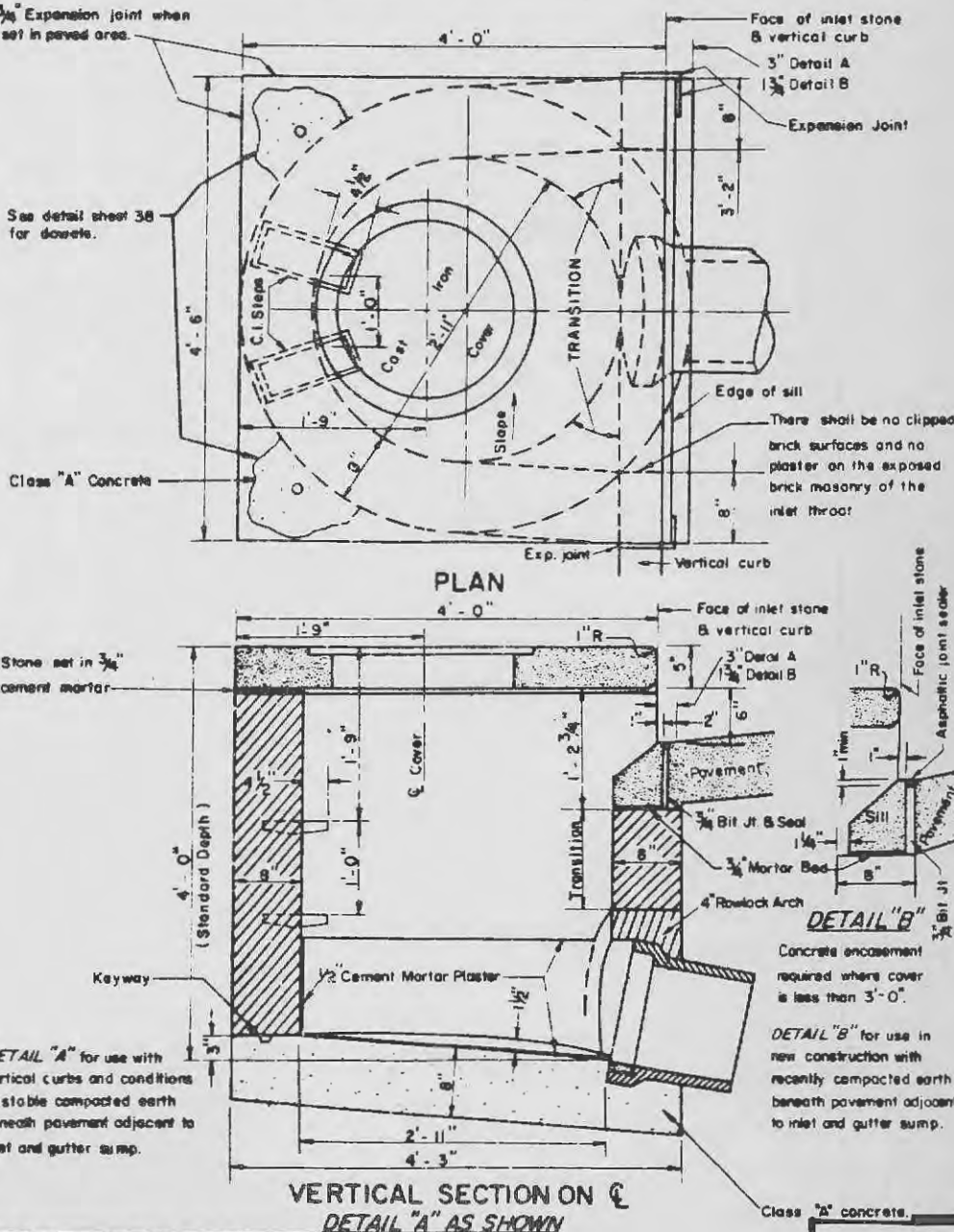
INSIDE DROP MANHOLE  
FOR PLASTIC PIPE  
DETAIL 15



TERMINAL MANHOLE  
DETAIL 16



PRE-CAST CONCRETE MANHOLE  
FOR SEWERS 8" THROUGH 12"  
DETAIL 17



UNTRAPPED STREET INLET  
BRICK CONSTRUCTION  
DETAIL 18