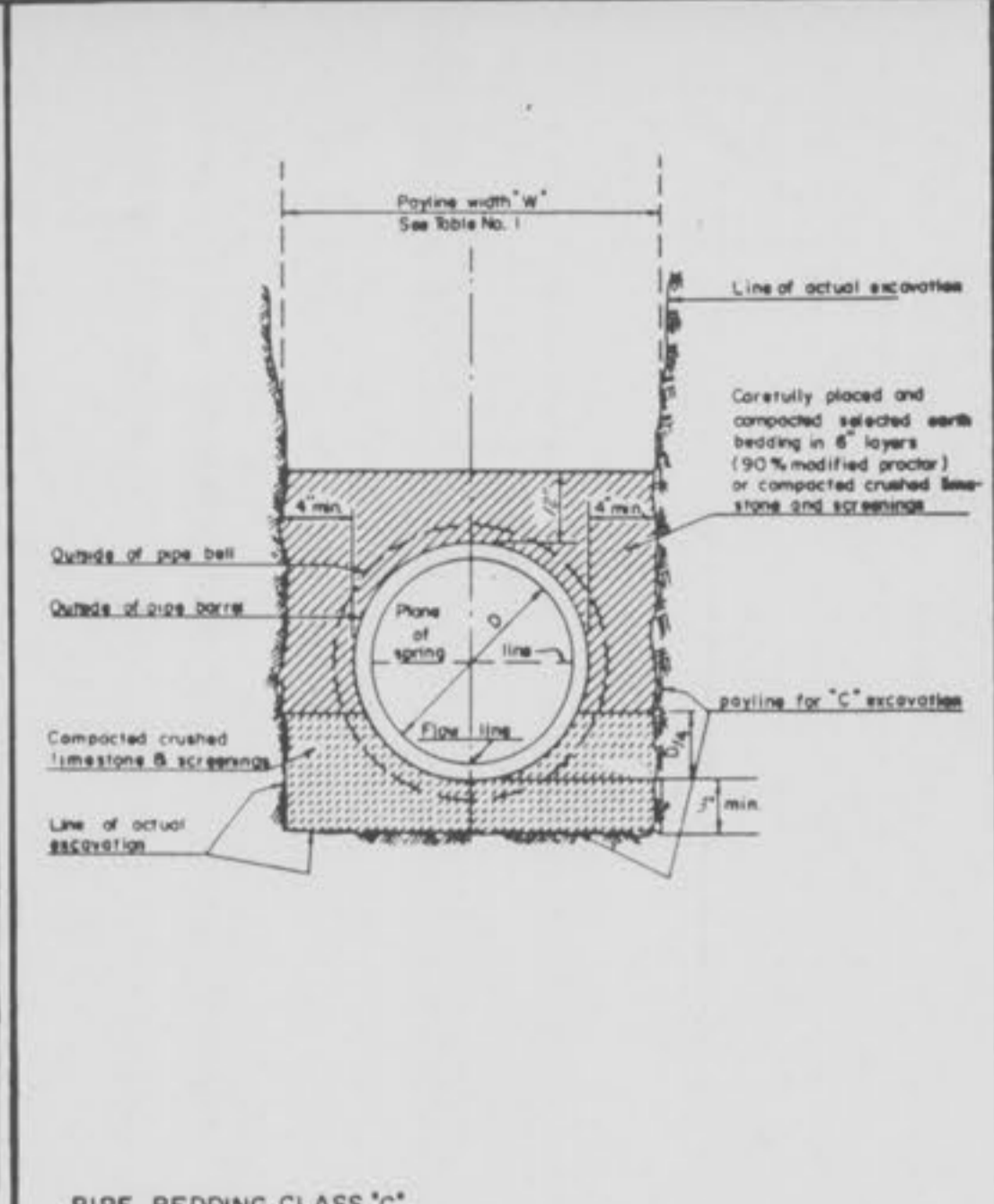


ROUND PIPE				HORIZONTAL ELLIPTICAL PIPE				
Inside Diameter of Pipe (Inches)	"w" Payline Width of Trench (Inches)	"w" Payline Width of Trench (Feet)	Pay-volume (cu. ft. per ft. of Pipe)	Inside Dimension of Pipe (Inches)	"w" Payline Width of Trench (Inches)	"w" Payline Width of Trench (Feet)	Pay-volume (cu. ft. per ft. of Pipe)	
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	5.84	
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							
42	63	5.25	13.38	34 x 53	75	6.25	14.05	
48	70	5.83	15.87	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	9.85	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	40.88	
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	47.78	
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	75.58	

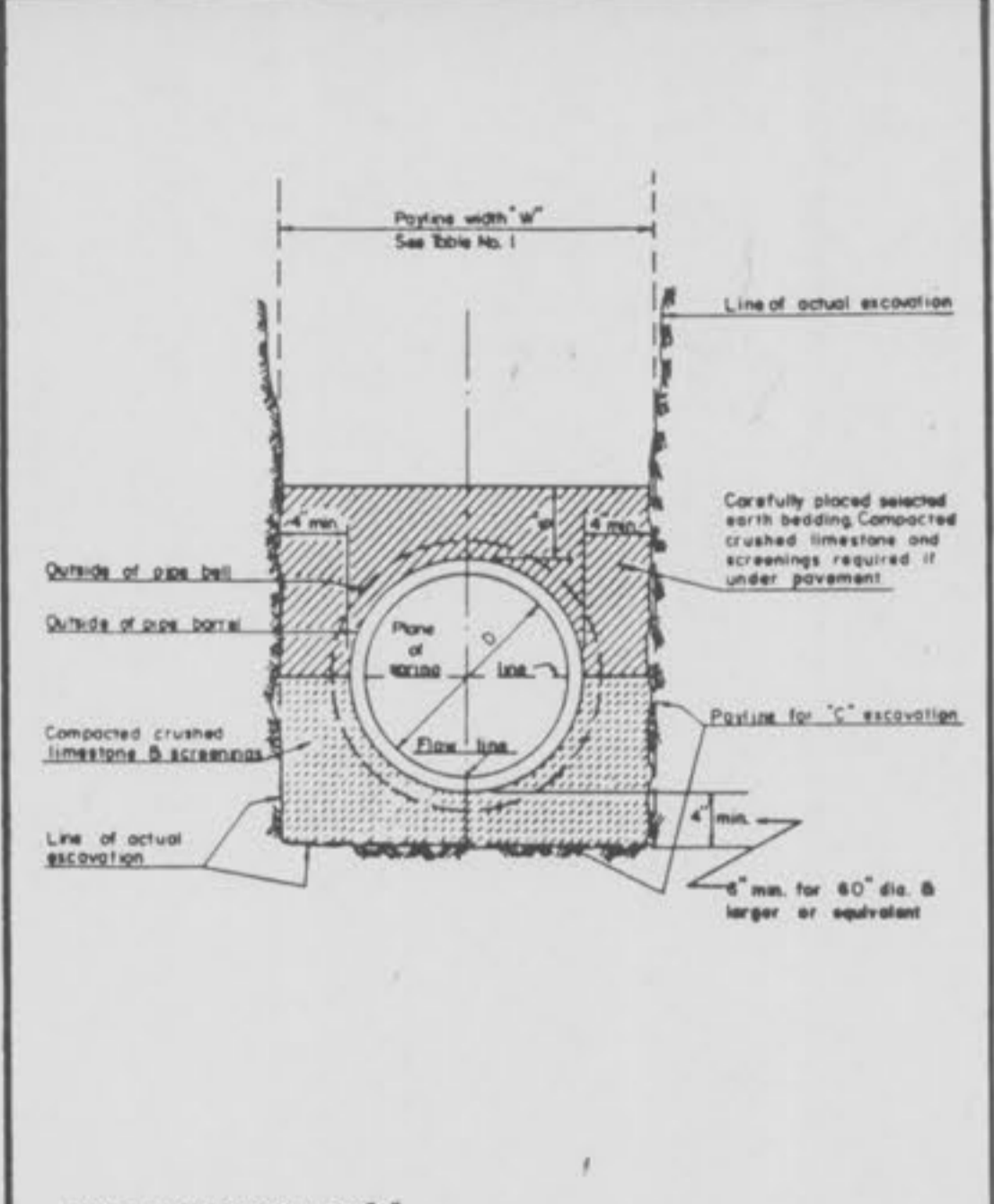
TABLE NO. 1  
PAYLINE WIDTHS OF  
TRENCH AND  
PAY-QUANTITIES OF  
CONCRETE

DETAIL 1



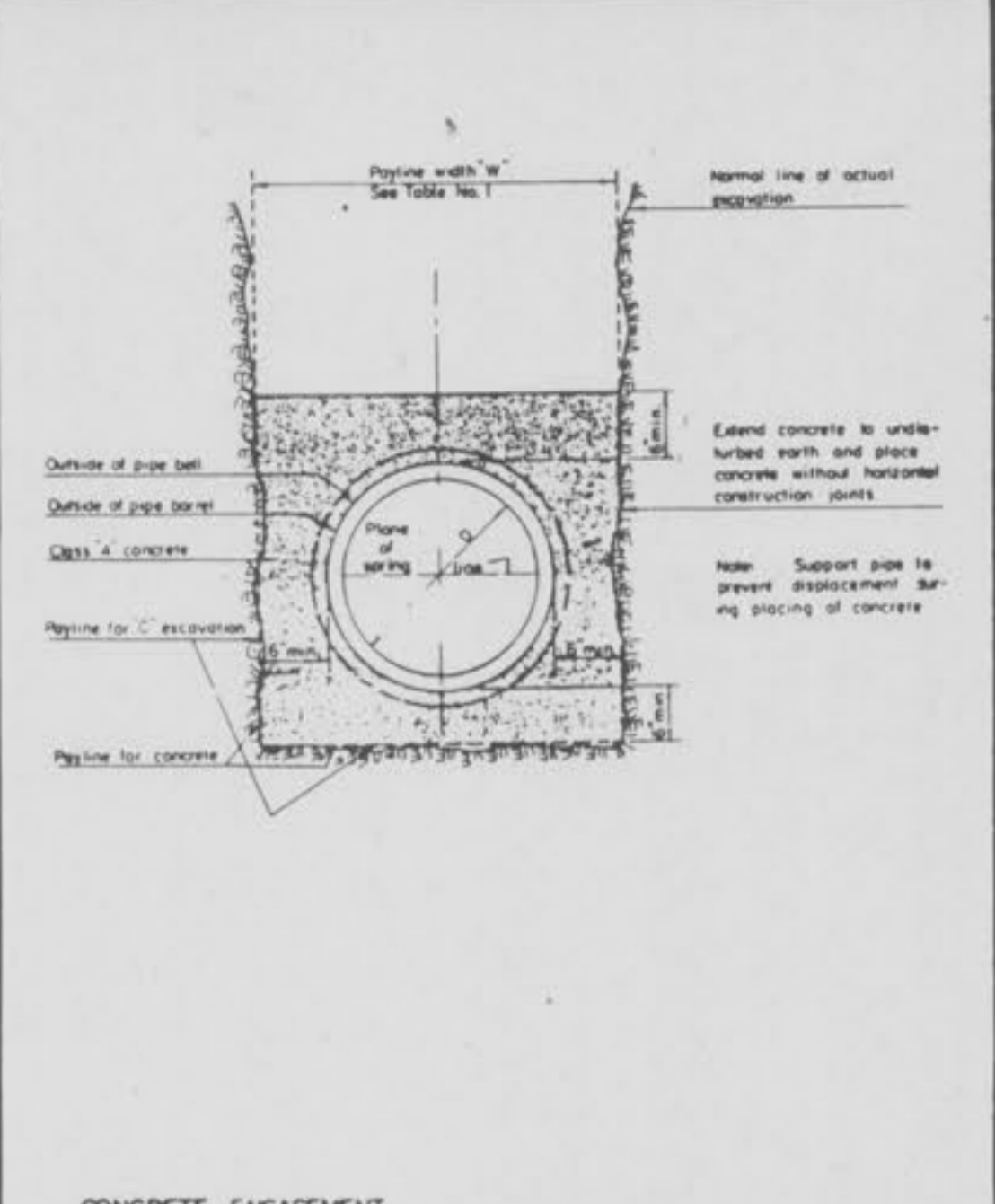
PIPE BEDDING CLASS "C"  
(FOR ALL PIPE EXCEPT  
REINFORCED CONCRETE PIPE)

DETAIL 2



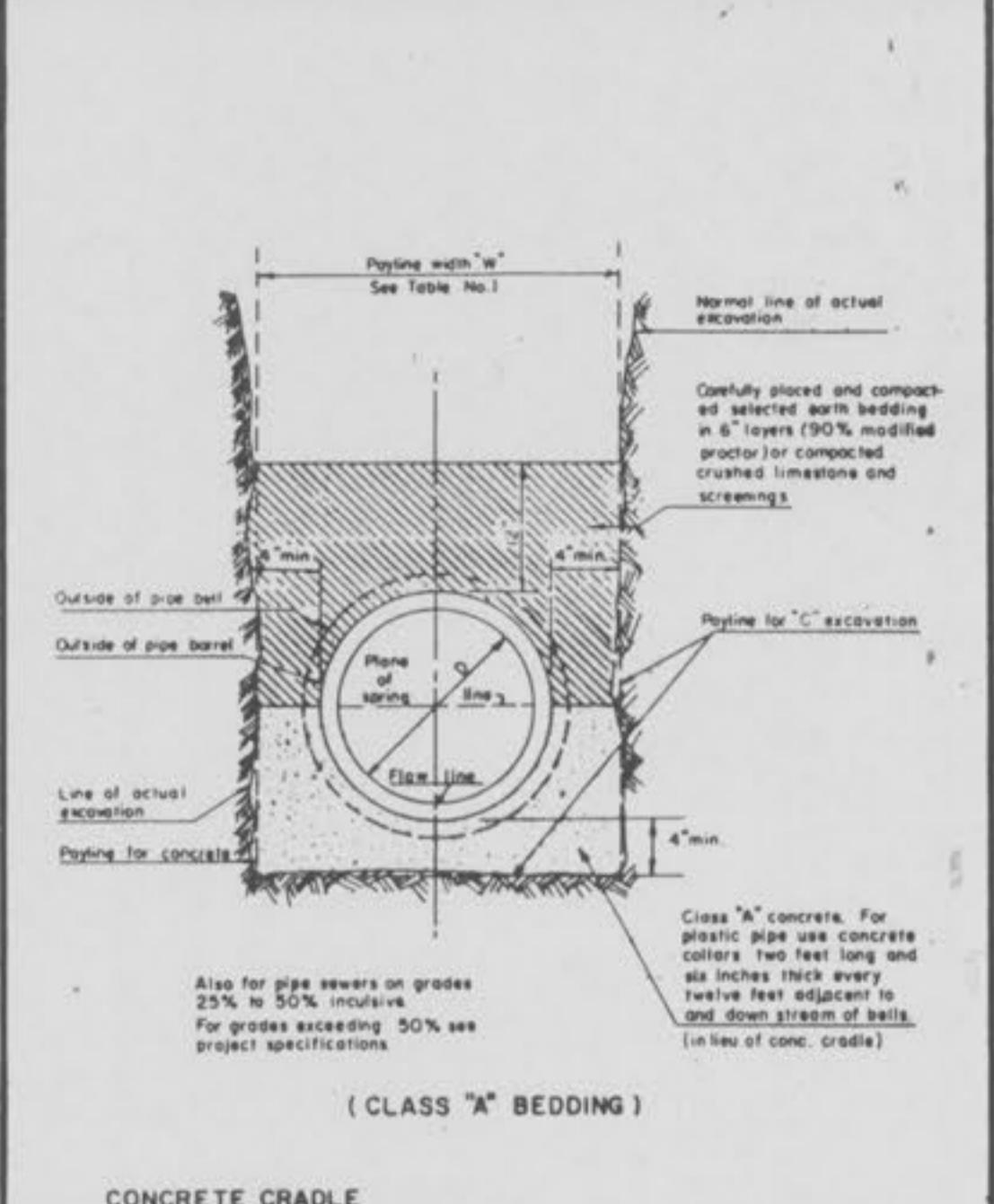
PIPE BEDDING CLASS "C"  
(MODIFIED FOR REINFORCED  
CONCRETE PIPE)

DETAIL 3



CONCRETE ENCASEMENT

DETAIL 4



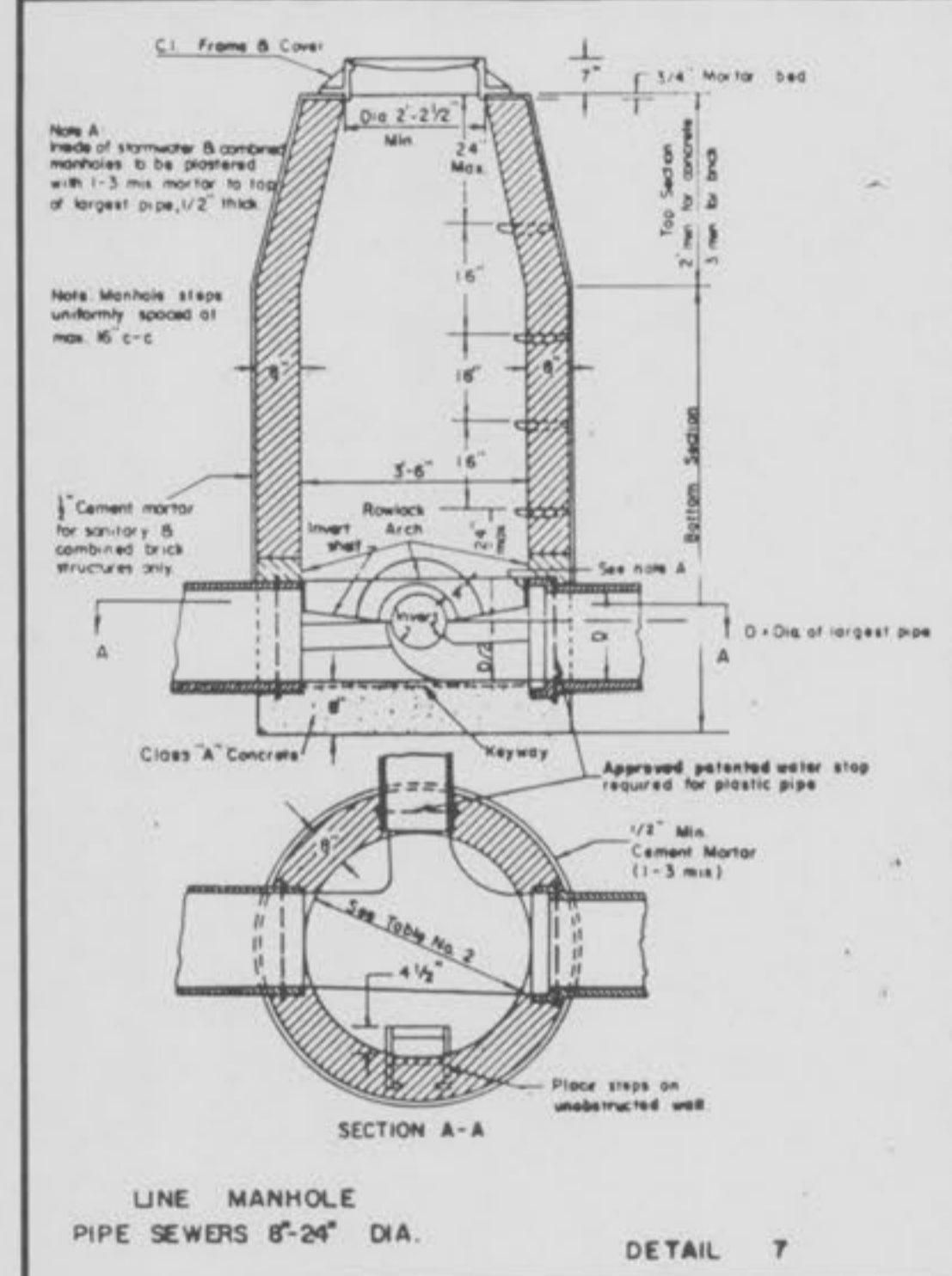
CONCRETE CRADLE

DETAIL 5

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

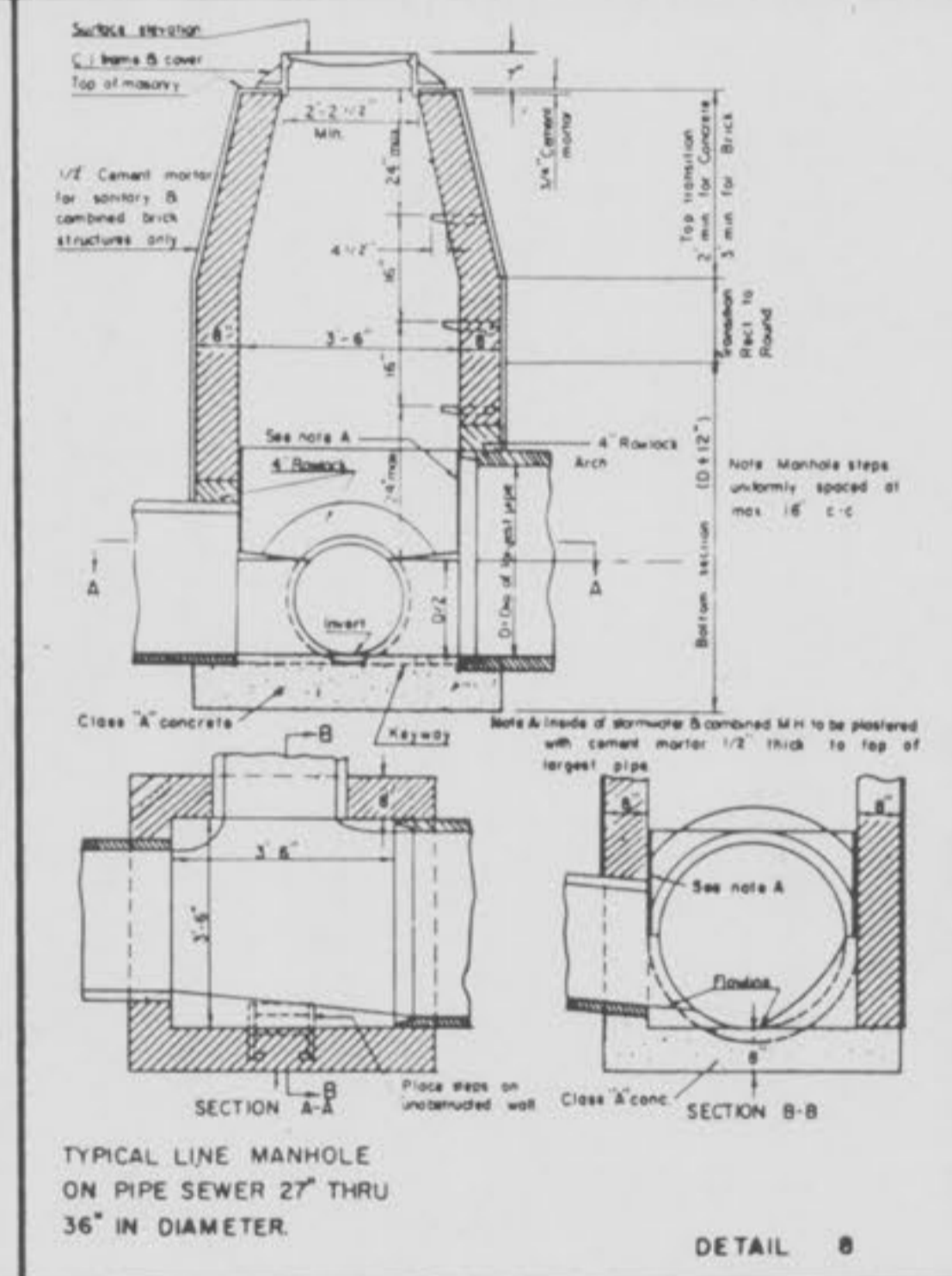
TABLE NO. 2  
STANDARD MANHOLE DIMENSIONS

DETAIL 6



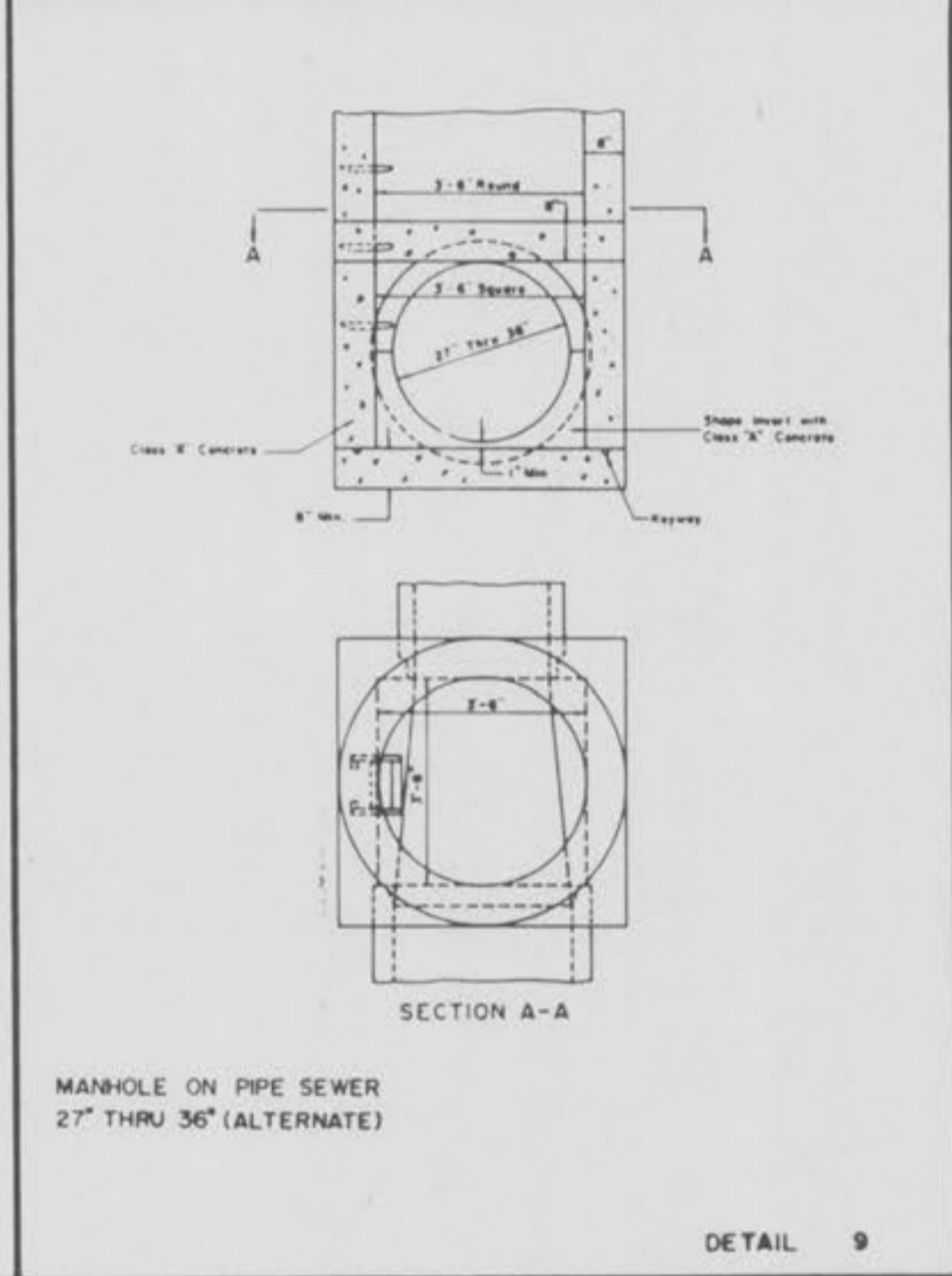
LINE MANHOLE  
PIPE SEWERS 8"-24" DIA.

DETAIL 7



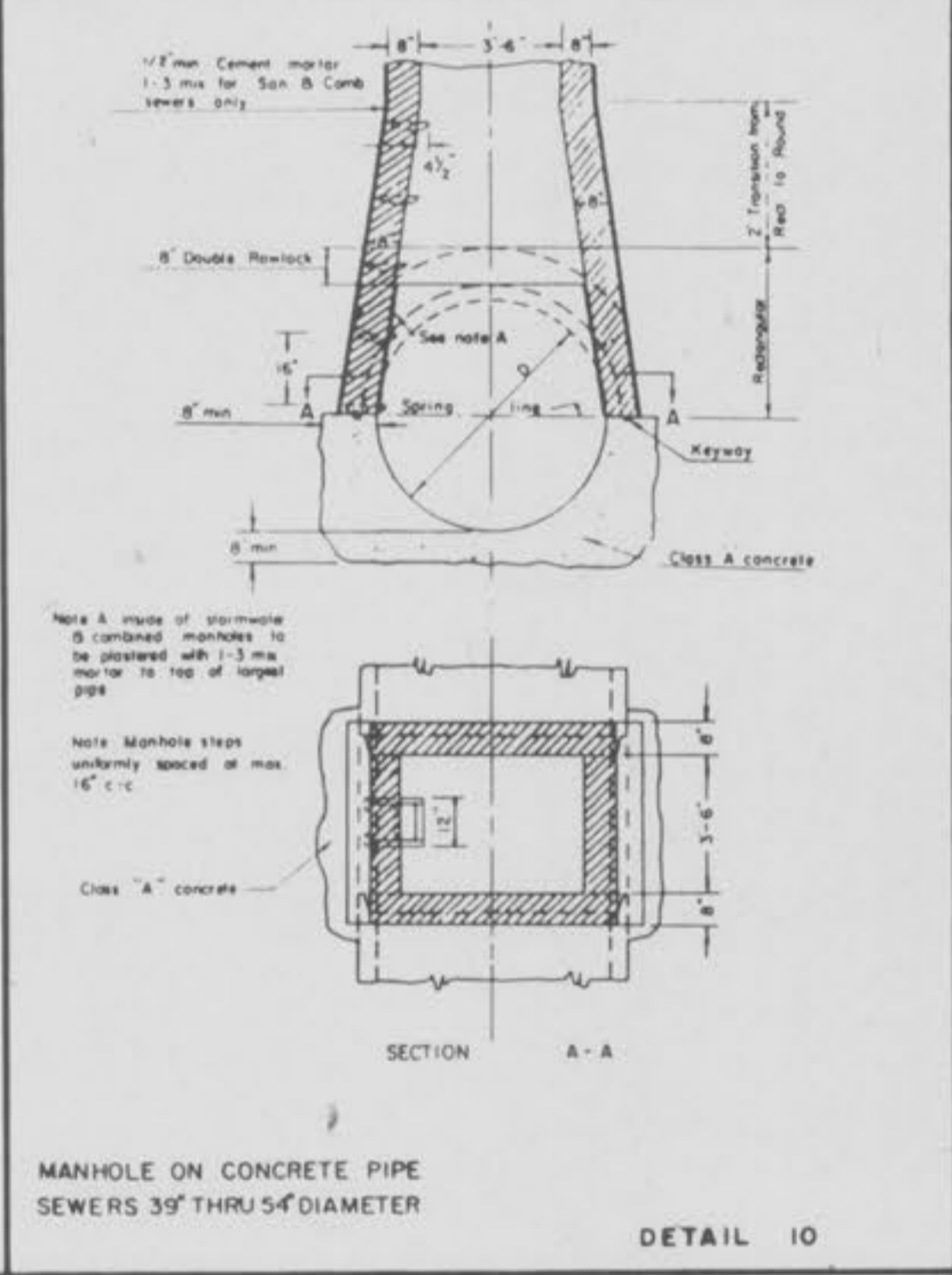
TYPICAL LINE MANHOLE  
ON PIPE SEWER 27" THRU  
36" IN DIAMETER

DETAIL 8



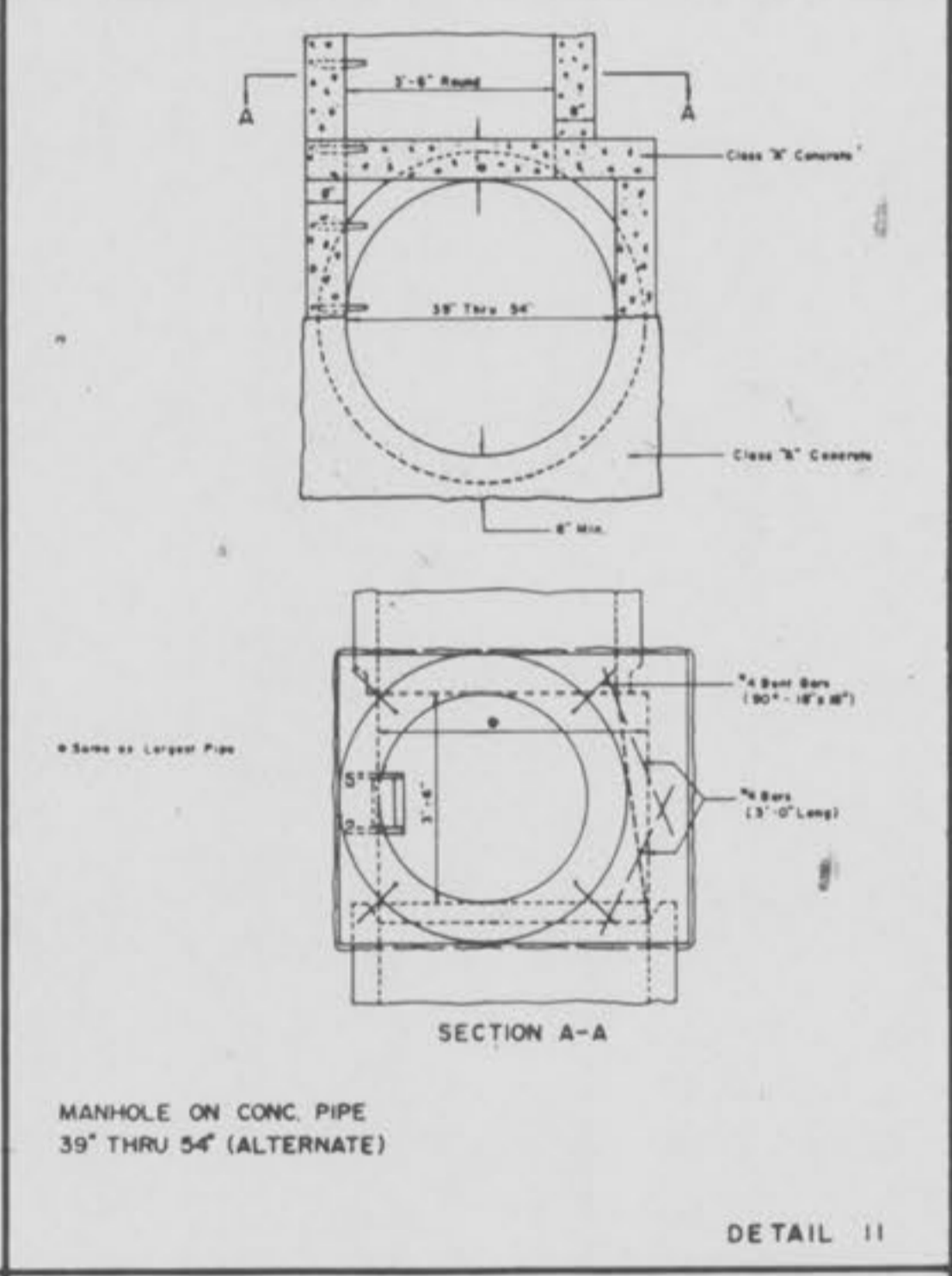
MANHOLE ON PIPE SEWER  
27" THRU 36" (ALTERNATE)

DETAIL 9



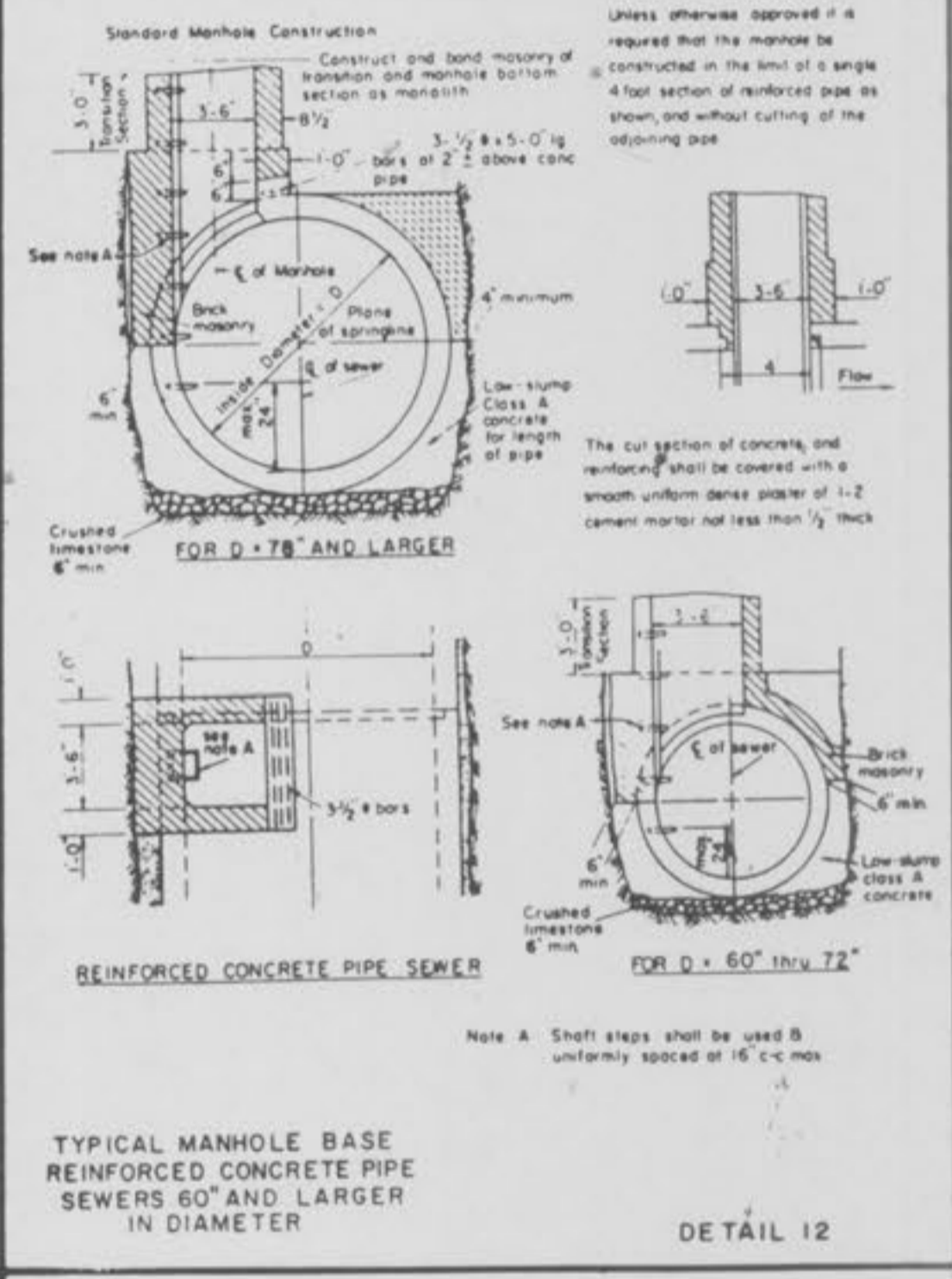
MANHOLE ON CONCRETE PIPE  
SEWERS 39" THRU 54" DIAMETER

DETAIL 10



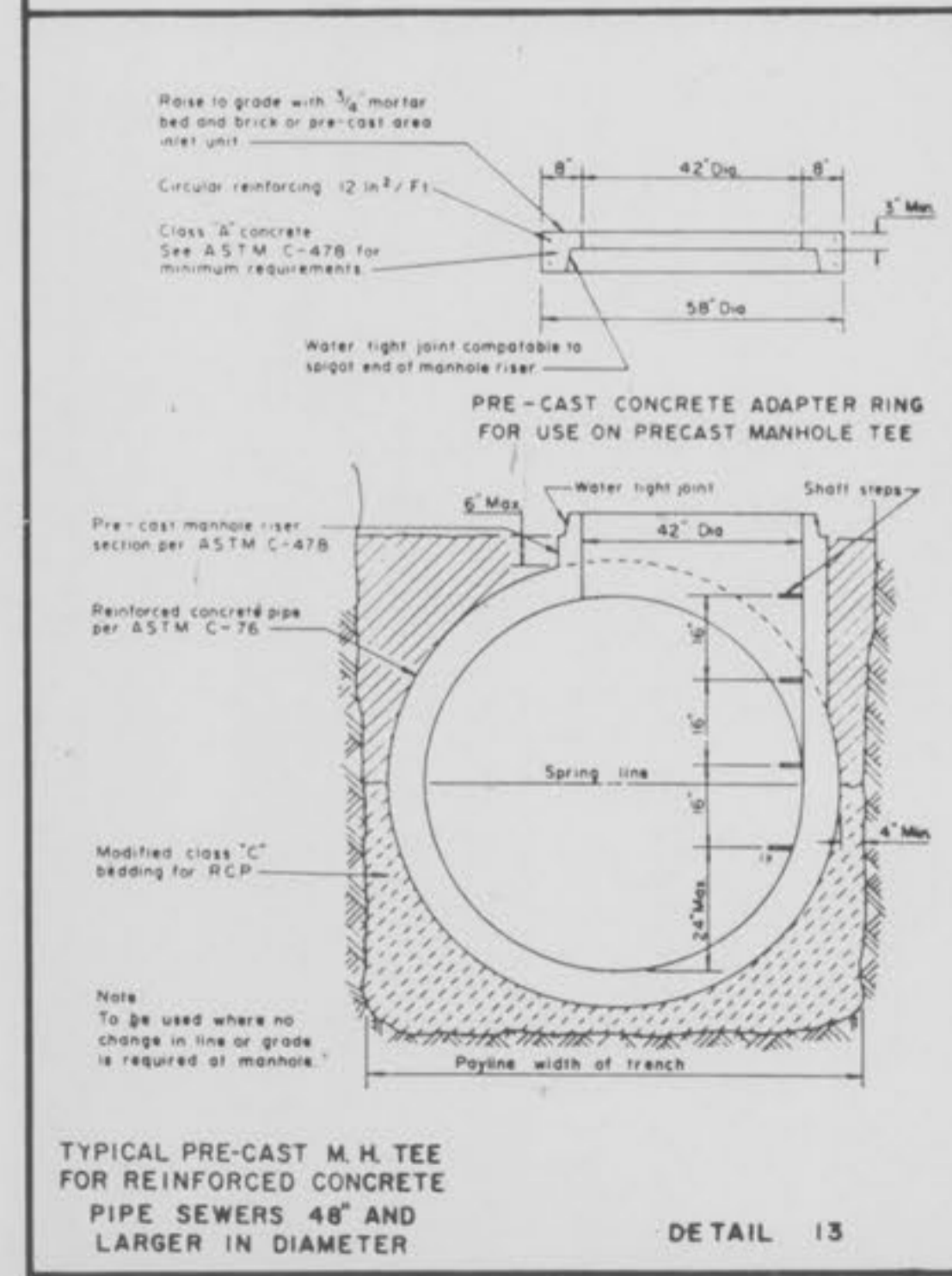
MANHOLE ON CONC. PIPE  
SEWERS 39" THRU 54" (ALTERNATE)

DETAIL 11



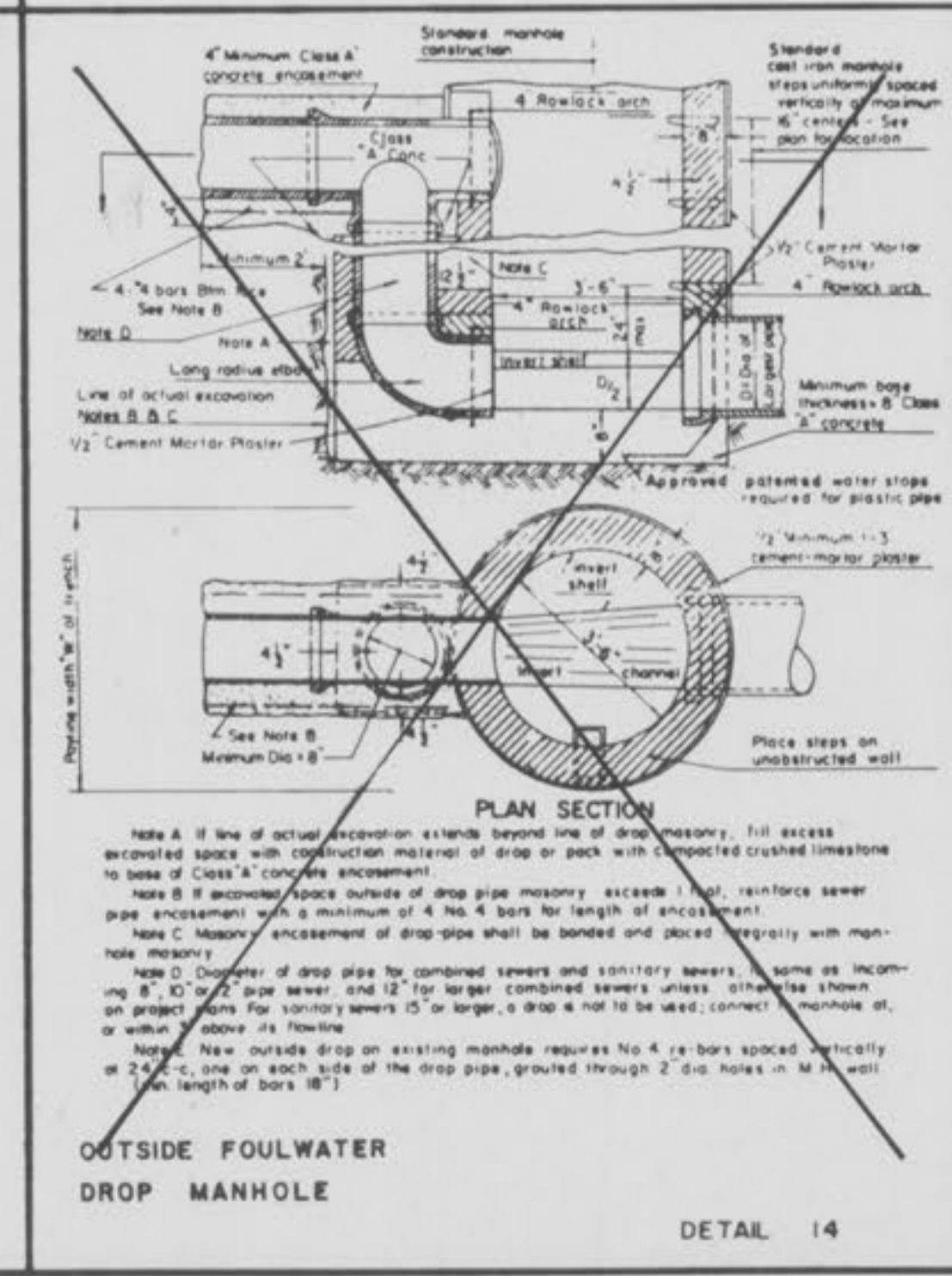
TYPICAL MANHOLE BASE  
REINFORCED CONCRETE PIPE  
SEWERS 60" AND LARGER  
IN DIAMETER

DETAIL 12



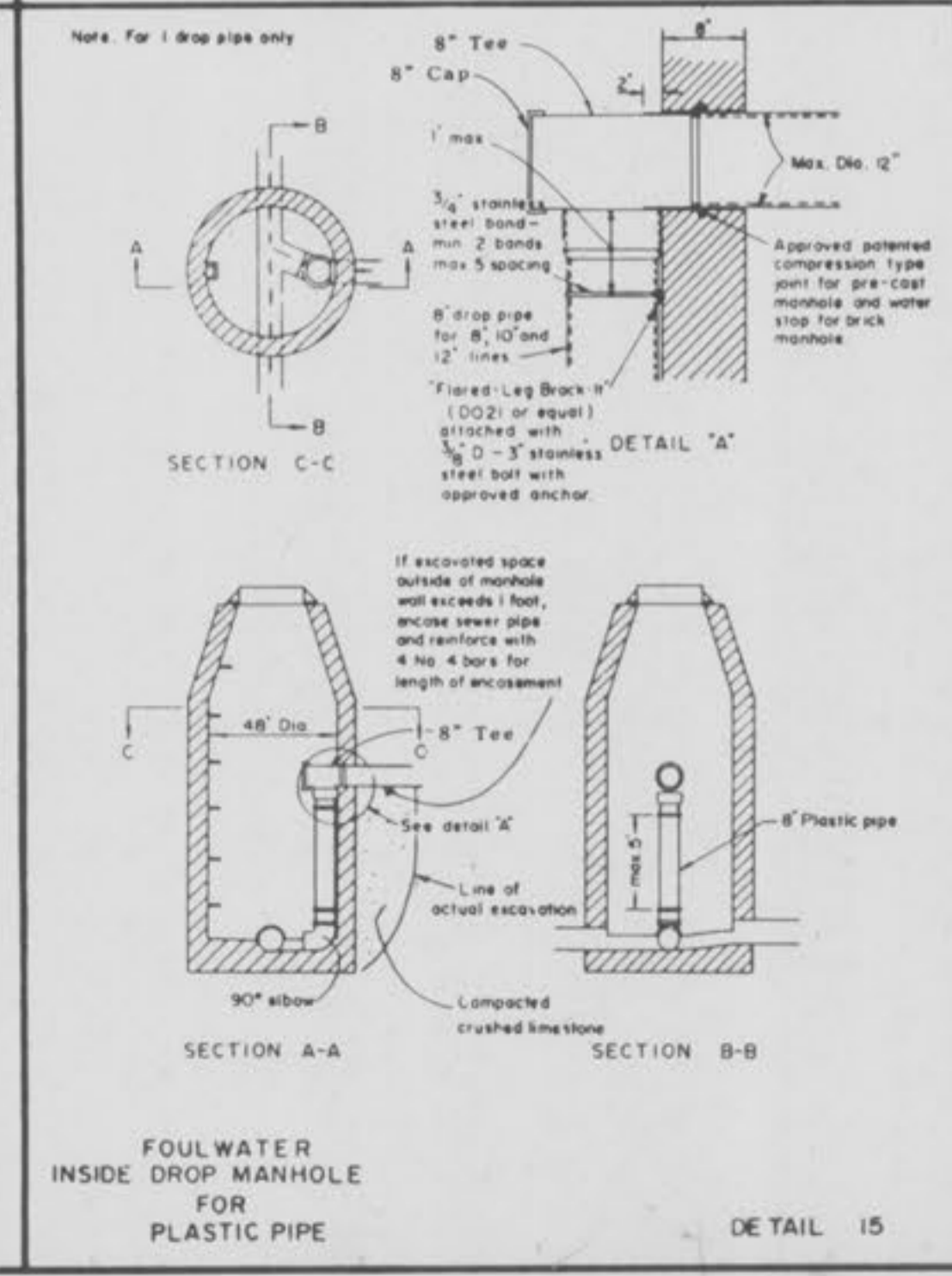
TYPICAL PRE-CAST M.H. TEE  
FOR REINFORCED CONCRETE  
PIPE SEWERS 48" AND  
LARGER IN DIAMETER

DETAIL 13



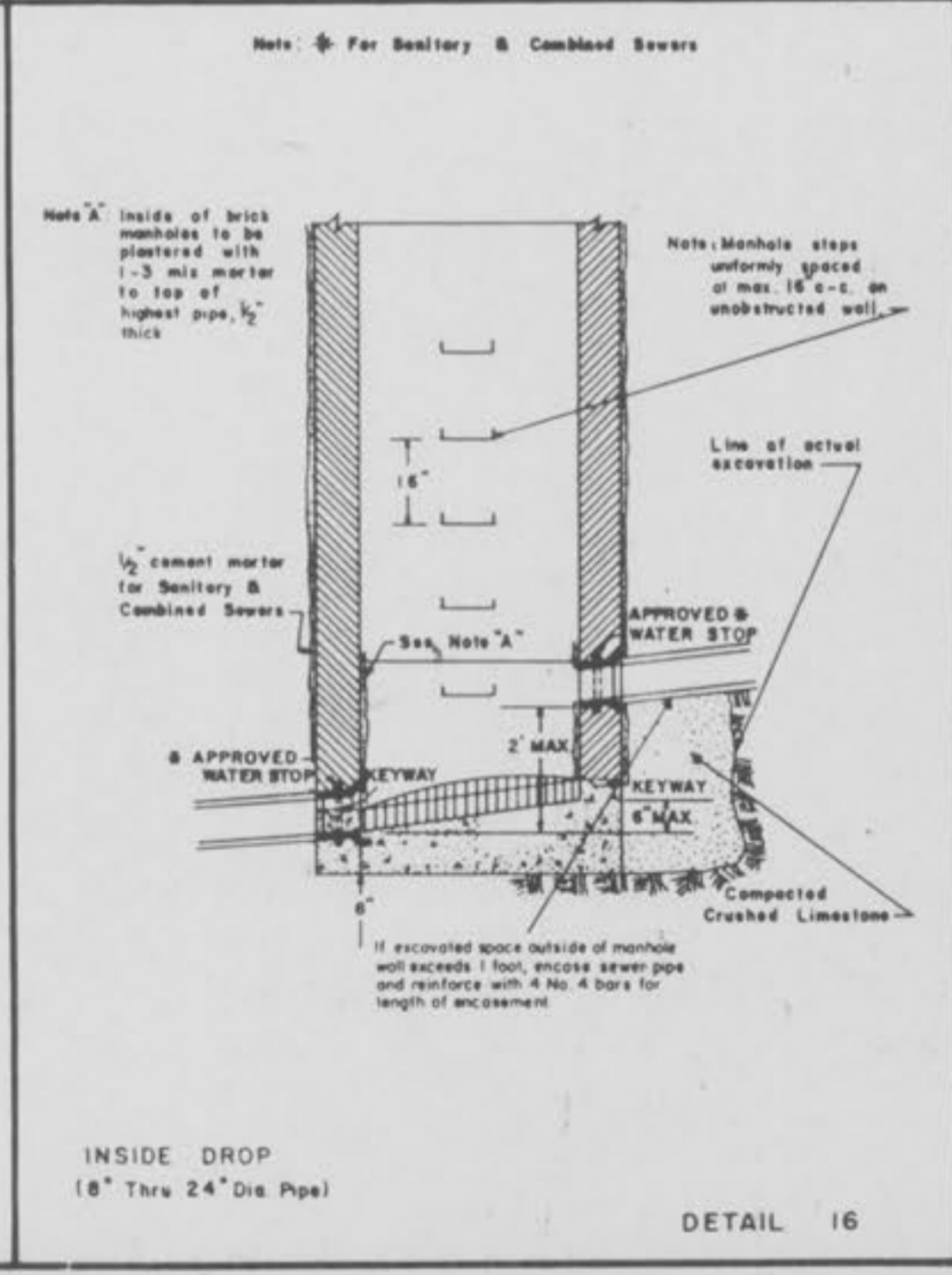
OUTSIDE FOULWATER  
DROP MANHOLE

DETAIL 14



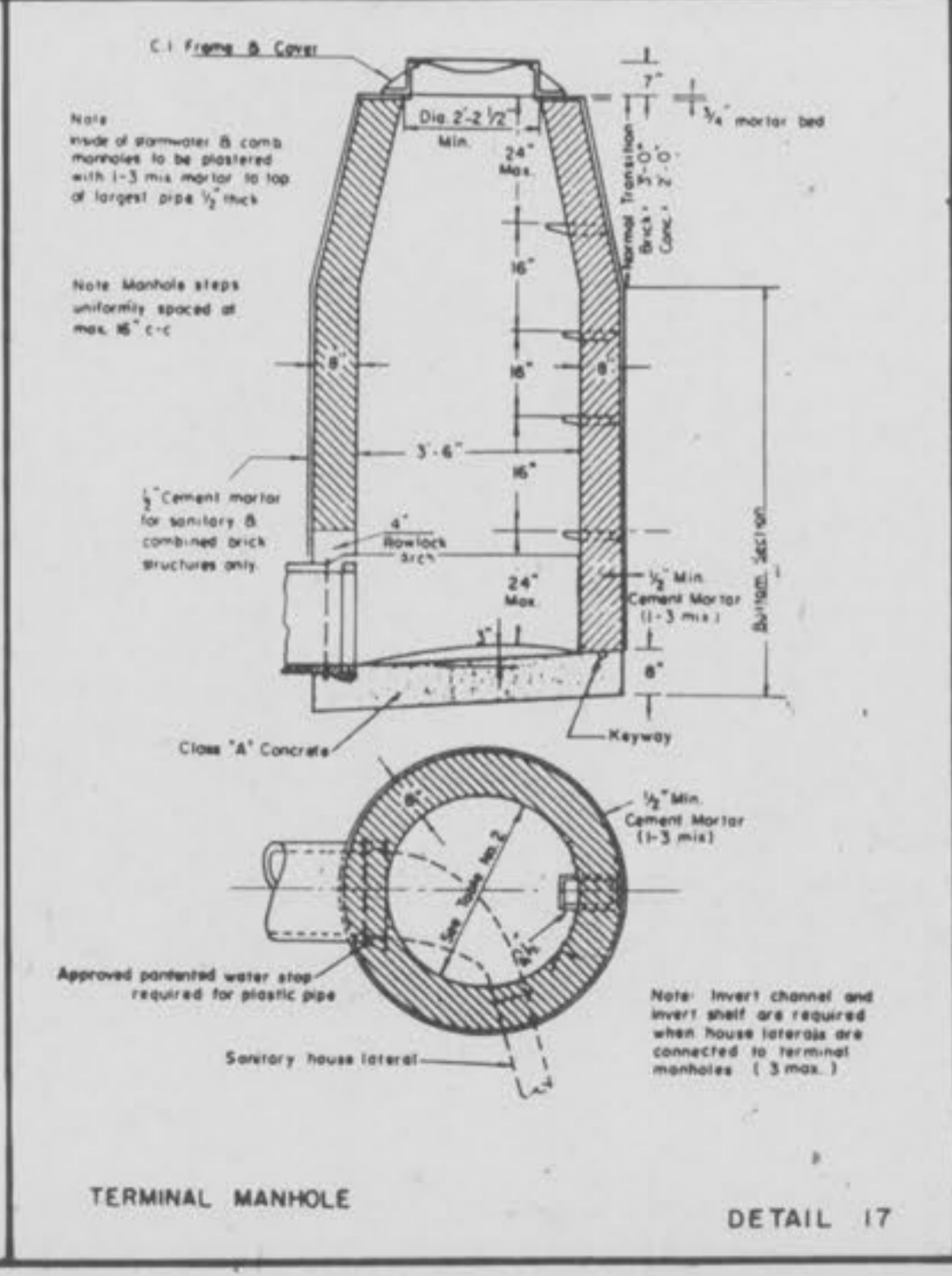
FOULWATER  
INSIDE DROP MANHOLE  
FOR PLASTIC PIPE

DETAIL 15



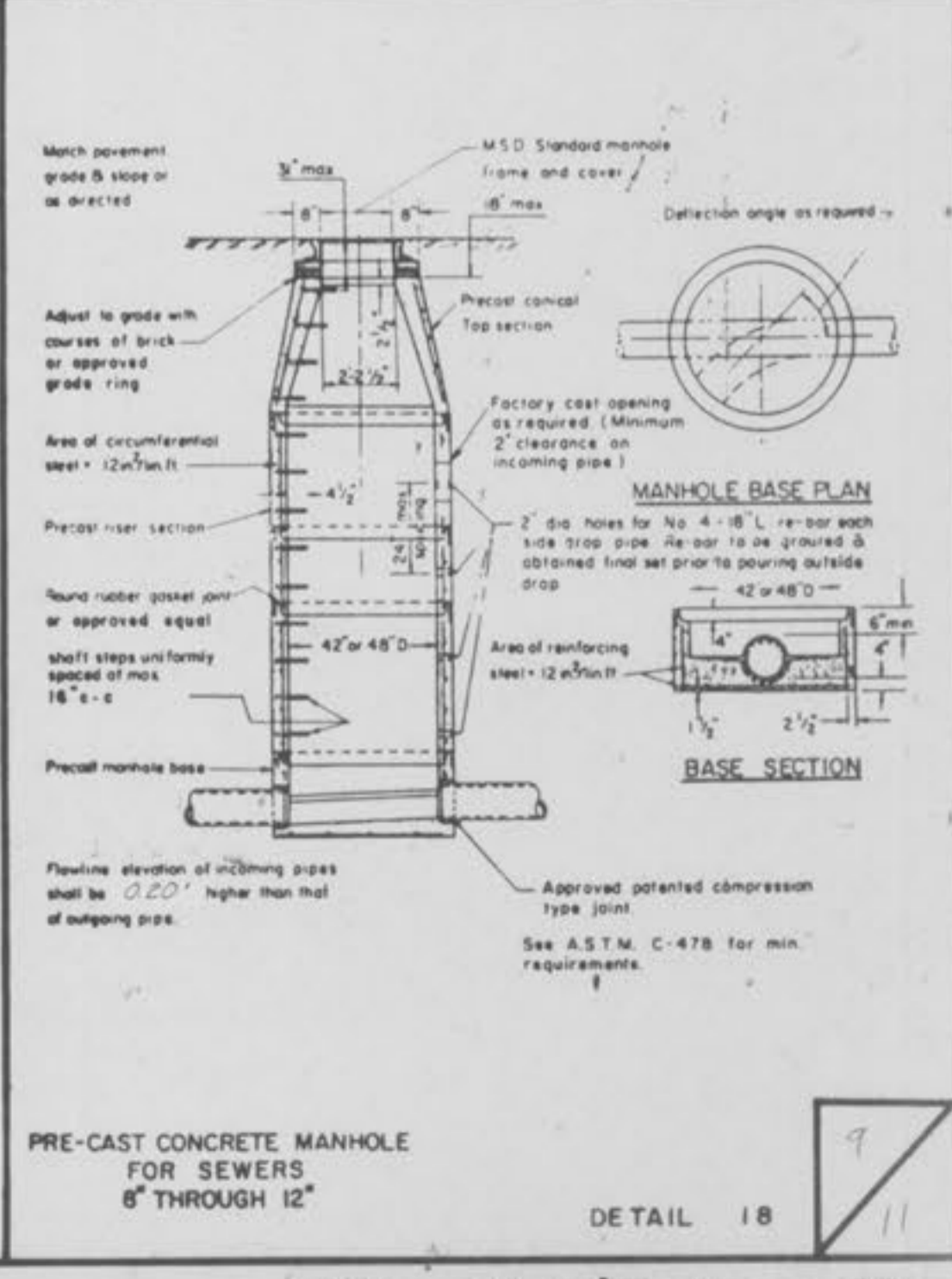
INSIDE DROP  
(18" Thru 24" Dia. Pipe)

DETAIL 16



TERMINAL MANHOLE

DETAIL 17



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

DETAIL 18