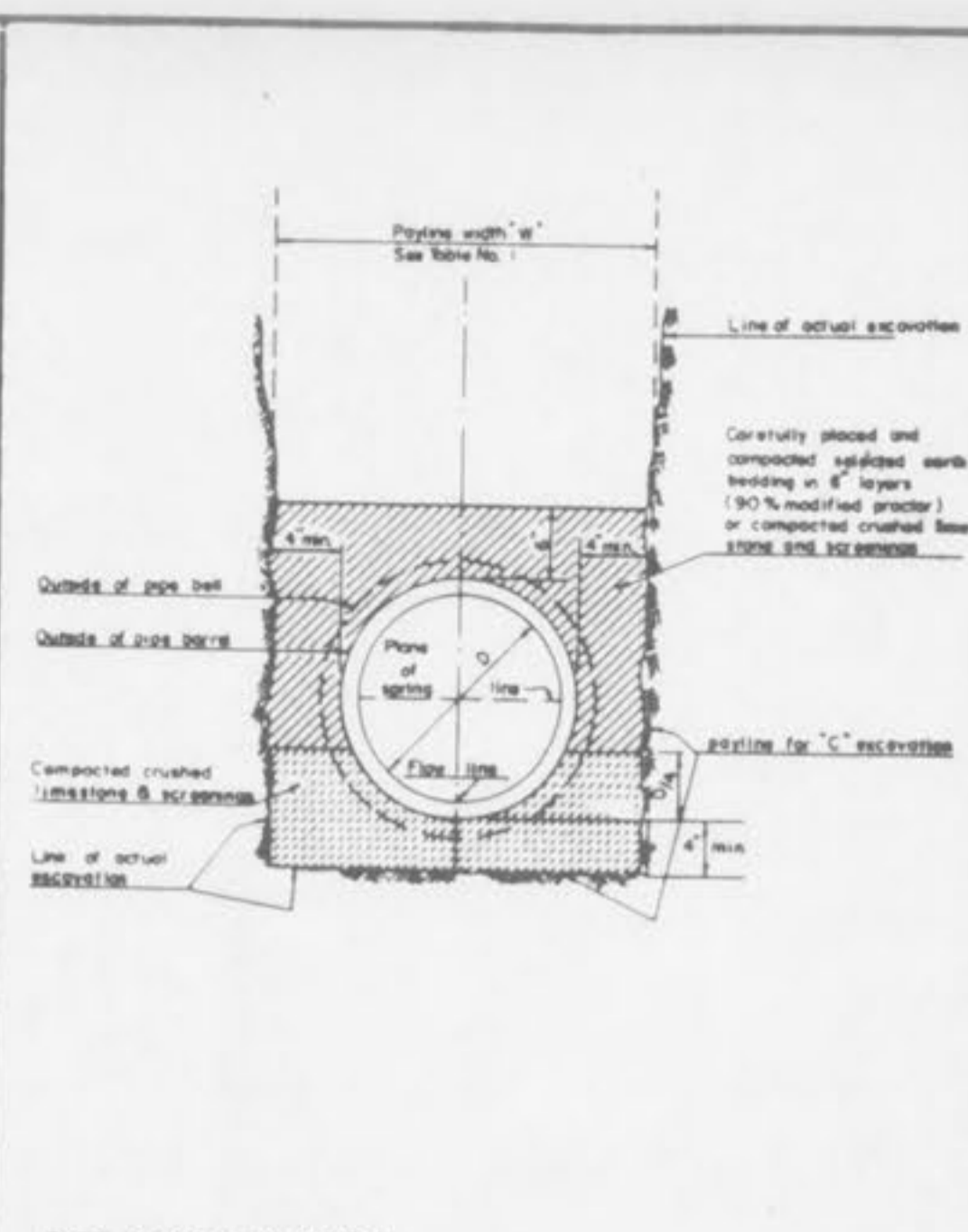
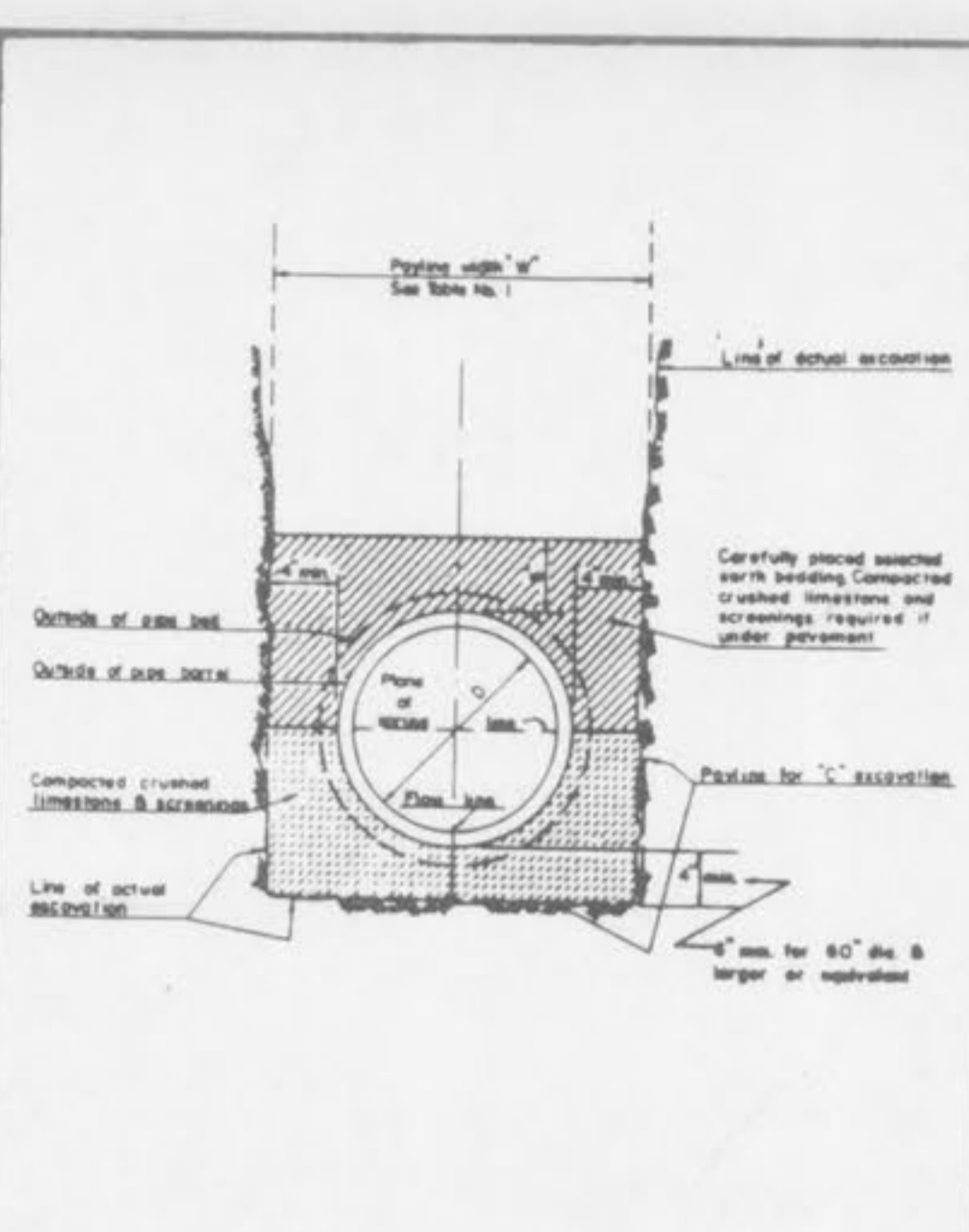


ROUND PIPE				HORIZONTAL ELLIPTICAL PIPE			
Inside Diameter of Pipe (Inches)	Payline Width of Trench (Inches)	Payline Width of Trench (Feet)	Pay-volume (cu ft per ft of Concrete Excavation)	Inside Dimensions of Pipe (Inches)	Payline Width of Trench (Inches)	Payline Width of Trench (Feet)	Pay-volume (cu ft per ft of Concrete Excavation)
4	28	2.33	3.20				
6	28	2.33	3.46				
8	28	2.33	3.70				
10	28	2.33	3.96				
12	28	2.33	3.98				
16	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	59	4.92	12.32	32 x 49	71	5.82	12.74
42	63	5.25	13.38	34 x 53	75	6.25	14.06
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	21.98
66	91	7.58	23.37	53 x 83	109	9.08	24.30
72	98	8.17	26.17	58 x 91	118	9.83	27.48
78	105	8.75	29.39	63 x 98	126	10.50	30.90
84	112	9.33	32.37	68 x 106	135	11.25	33.91
90	119	9.92	35.90	72 x 111	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	44.46
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	200	16.83	64.48
144	182	15.17	72.40	116 x 180	219	18.17	73.58

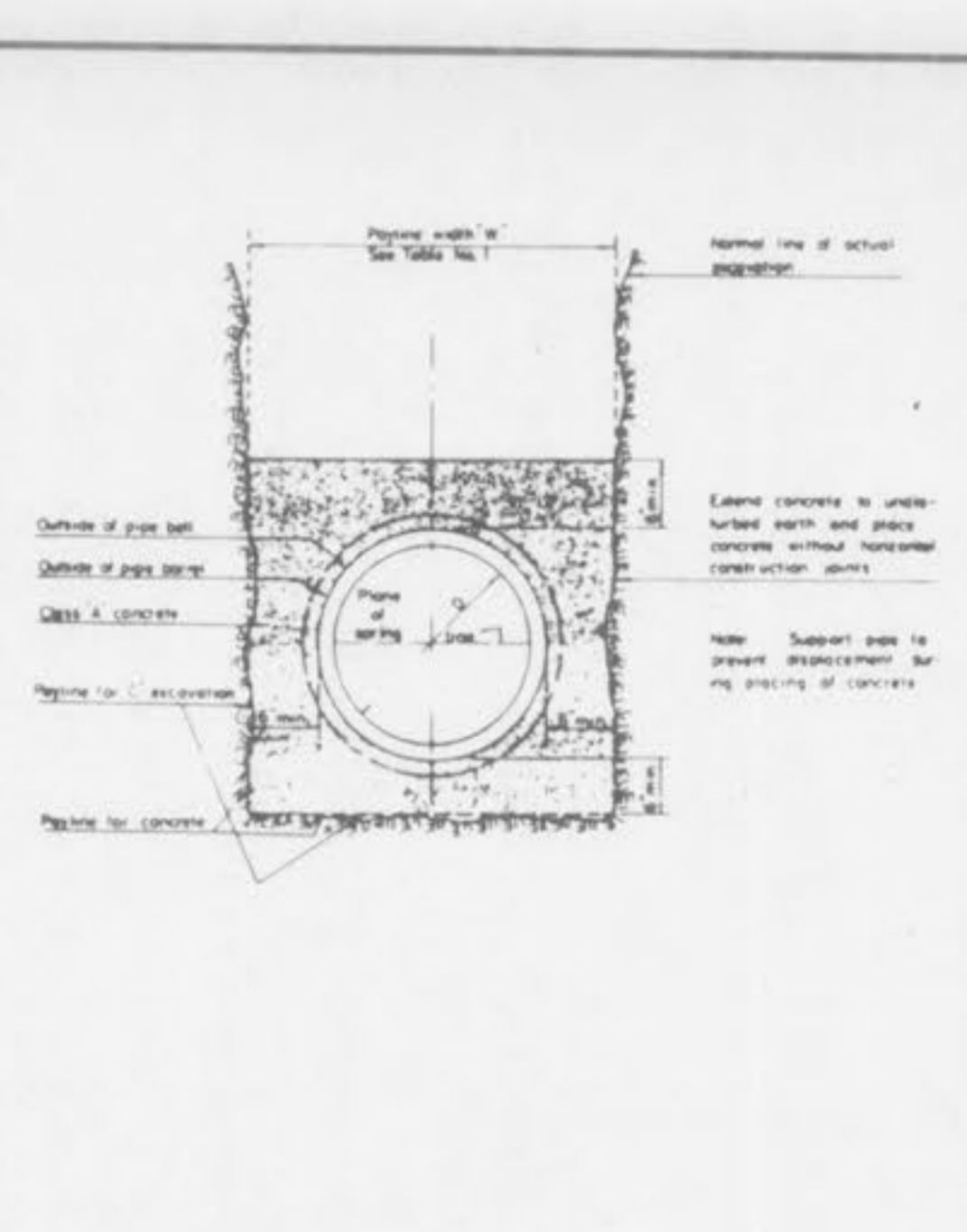
TABLE NO. 1
 PAYLINE WIDTHS OF TRENCH AND PAY-QUANTITIES OF CONCRETE



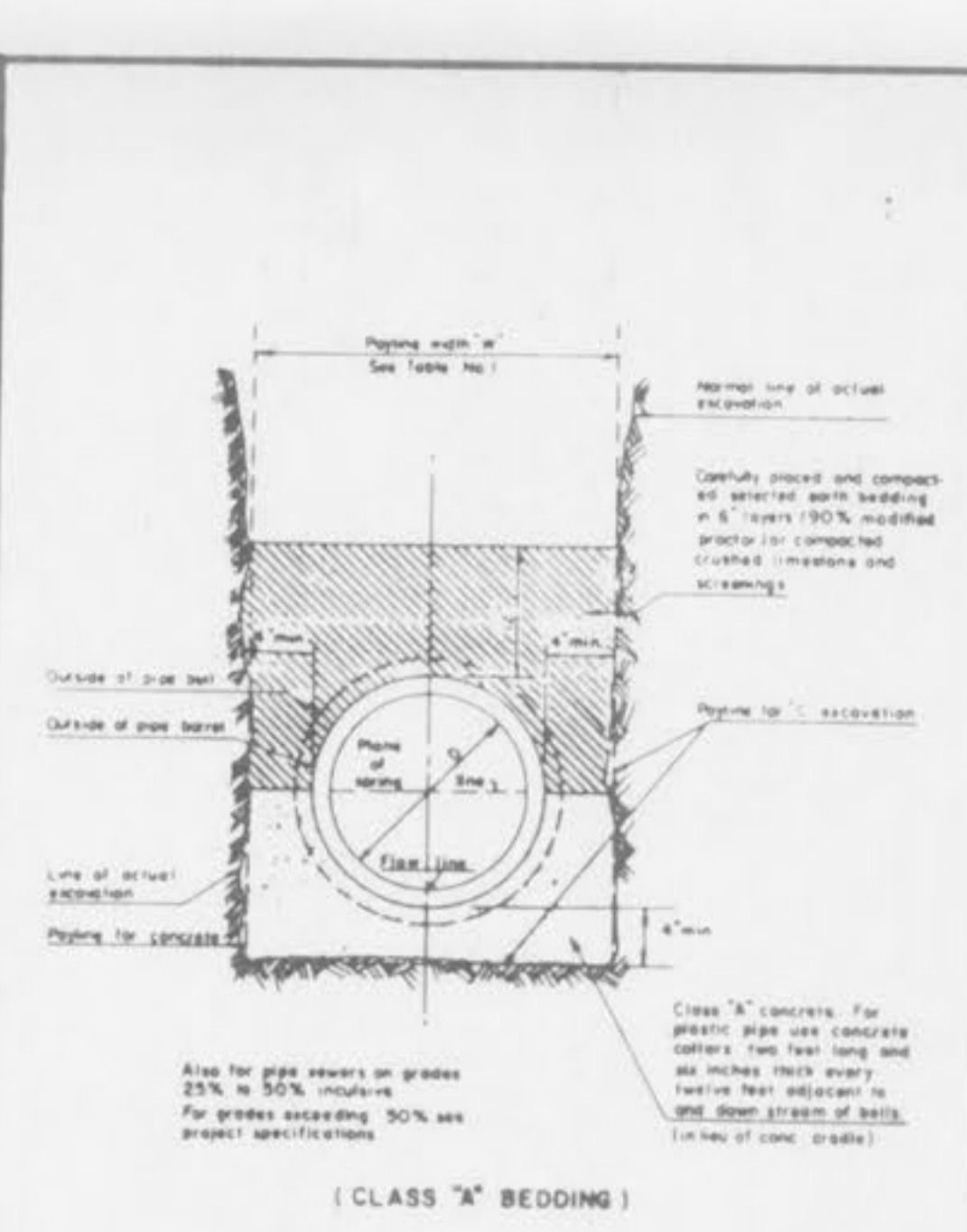
PIPE BEDDING CLASS "C"
 (FOR ALL PIPE EXCEPT REINFORCED CONCRETE PIPE)



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



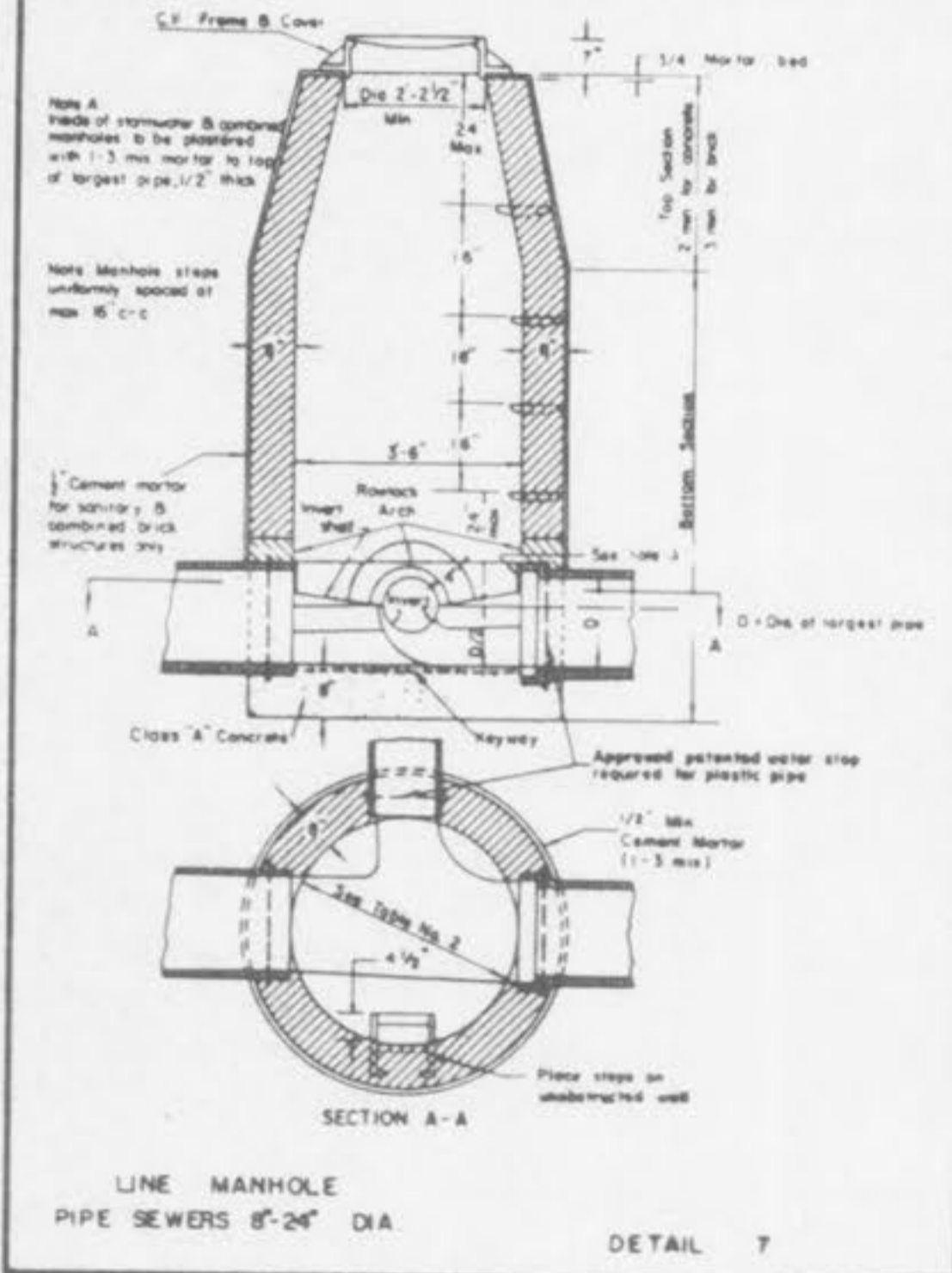
CONCRETE ENCASUREMENT



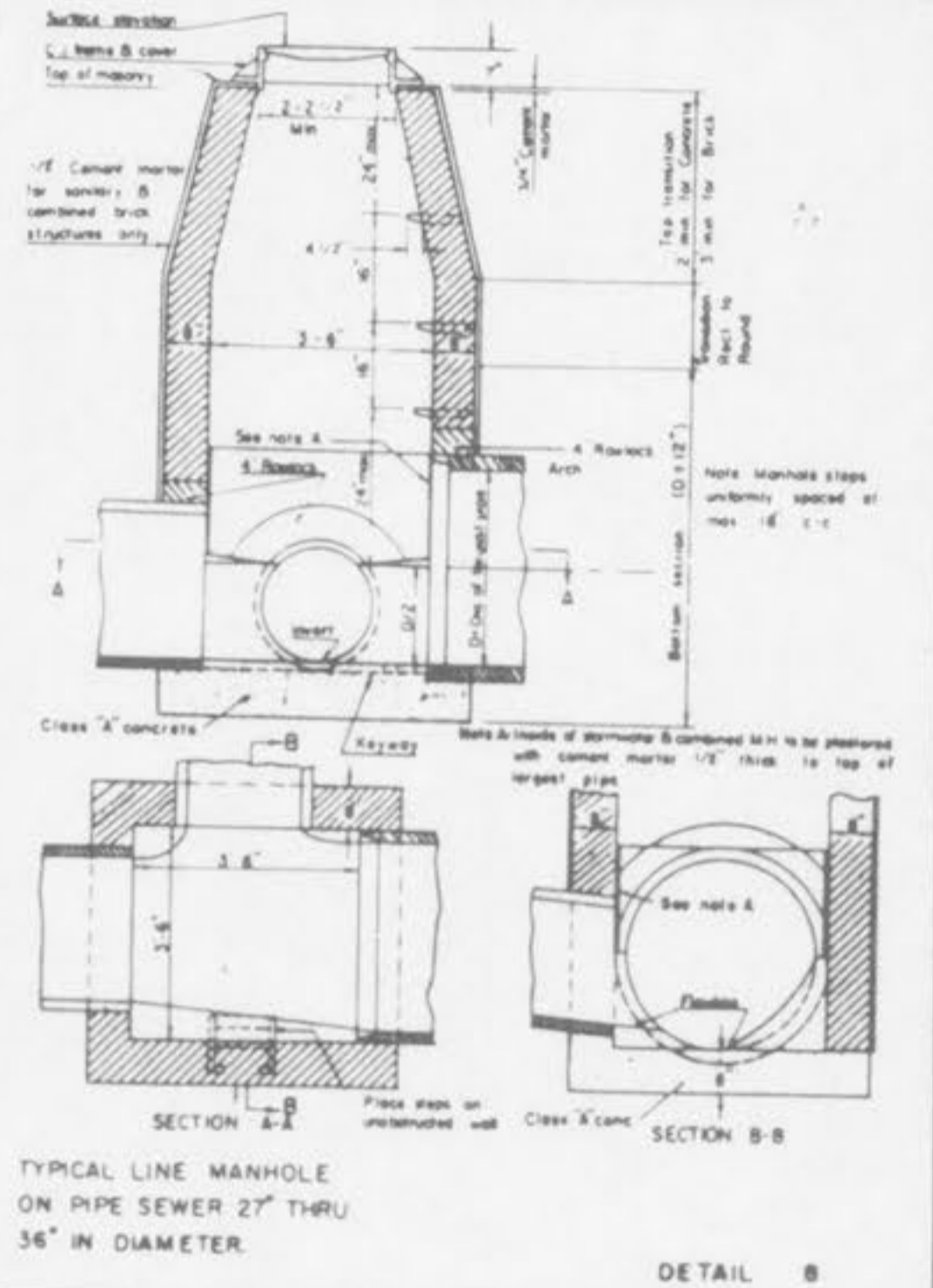
CONCRETE GRADE
 (CLASS "A" BEDDING)

TABLE NO. 2
 STANDARD MANHOLE DIMENSIONS

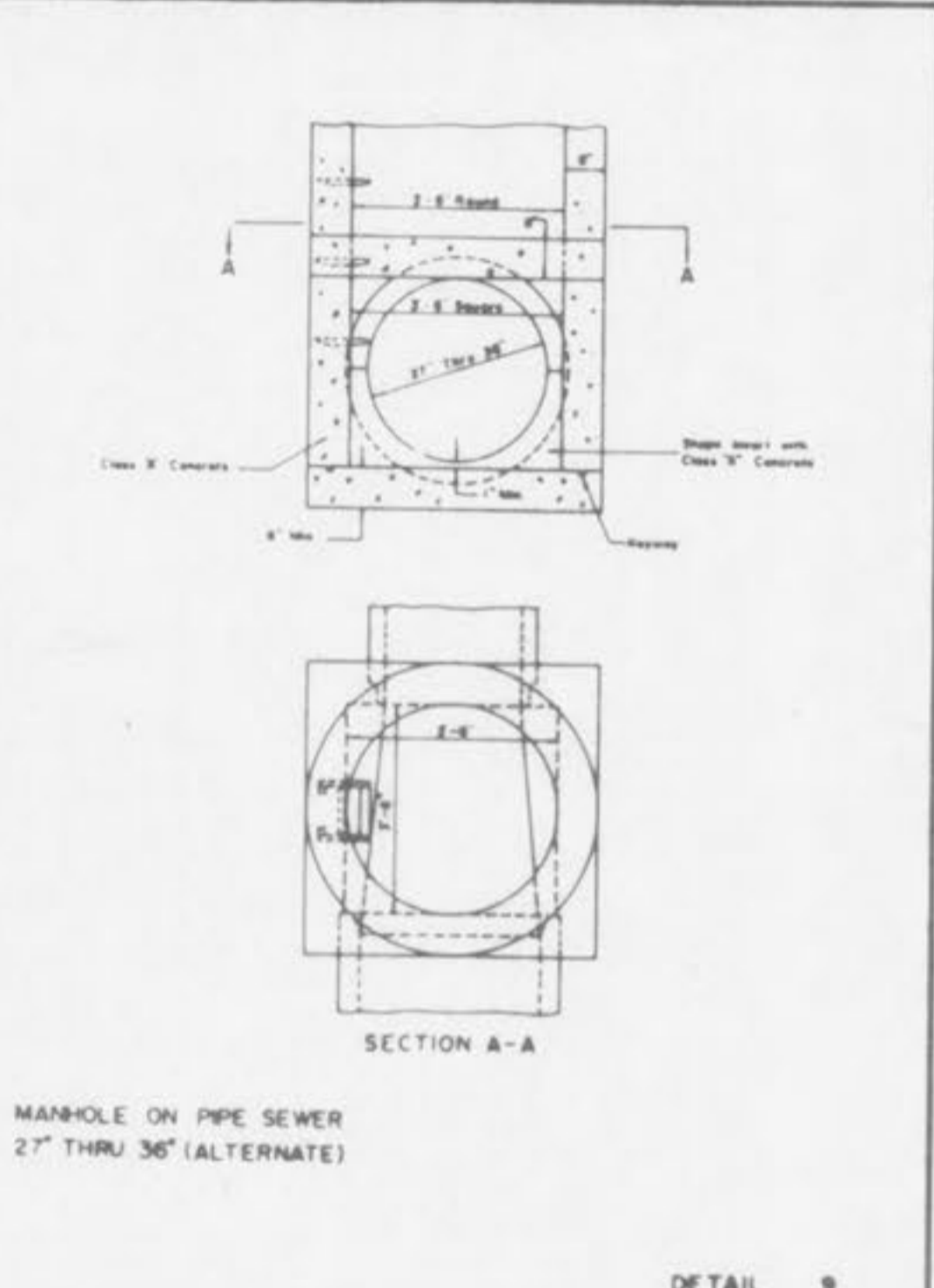
Section of Manhole		Dimension
Top Transition	Upper	2'-2 1/2" Dia
	Lower	3'-6" Dia
Bottom Section	8" thru 24" Dia Pipe	3'-6" Dia
	27" thru 36" Dia Pipe	3'-6" Square



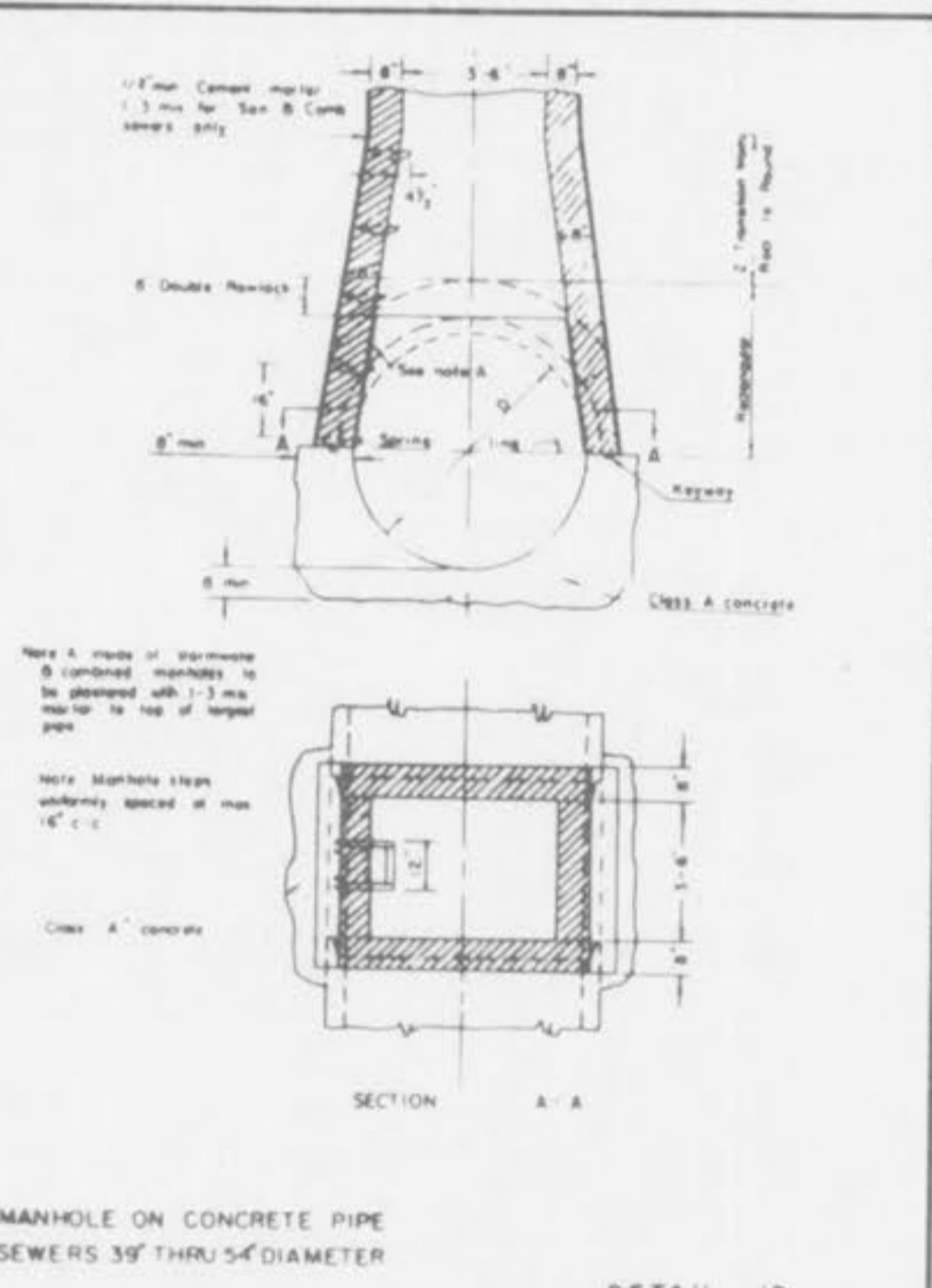
LINE MANHOLE PIPE SEWERS 8" - 24" DIA



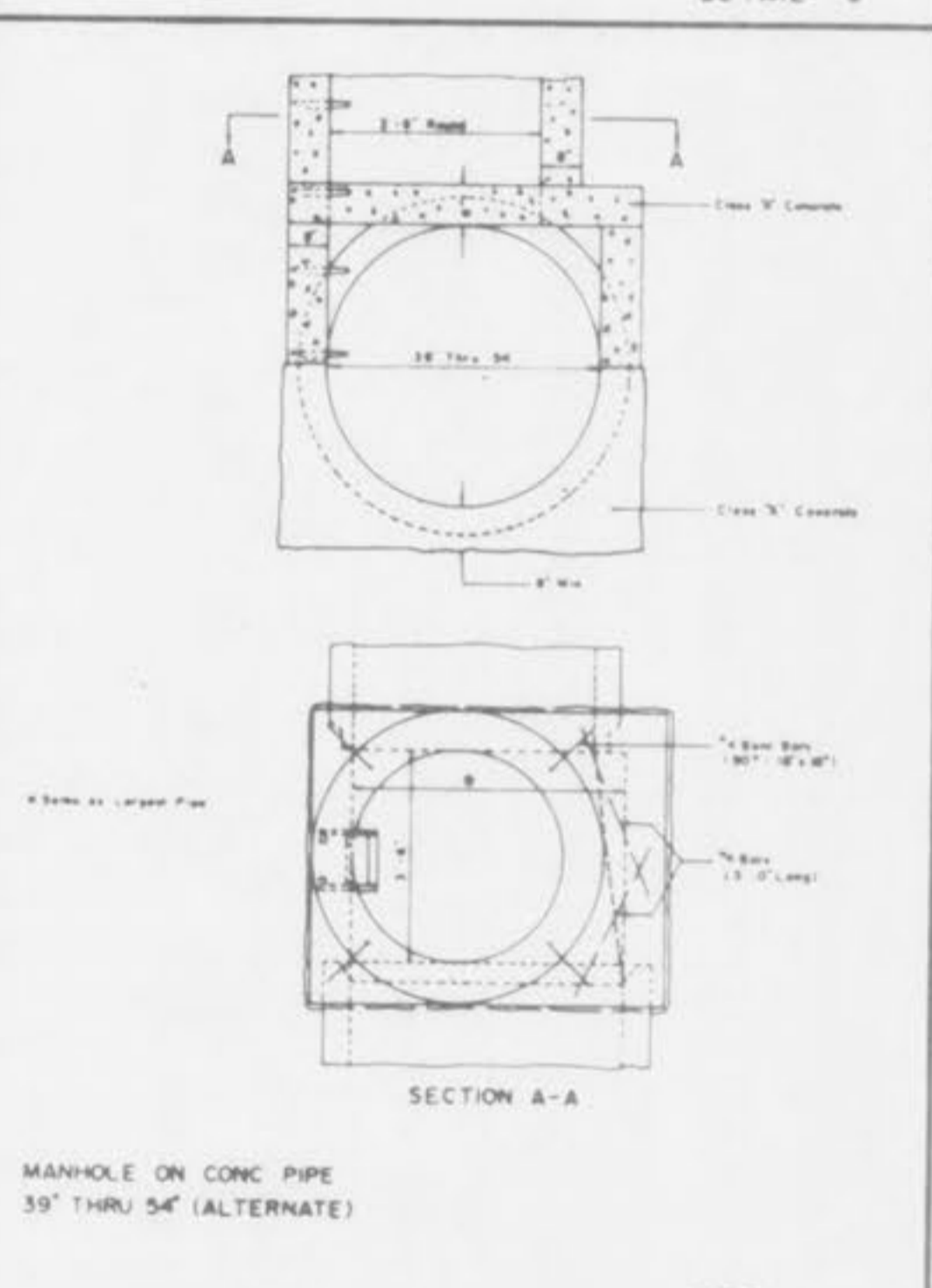
TYPICAL LINE MANHOLE ON PIPE SEWER 27" THRU 36" IN DIAMETER



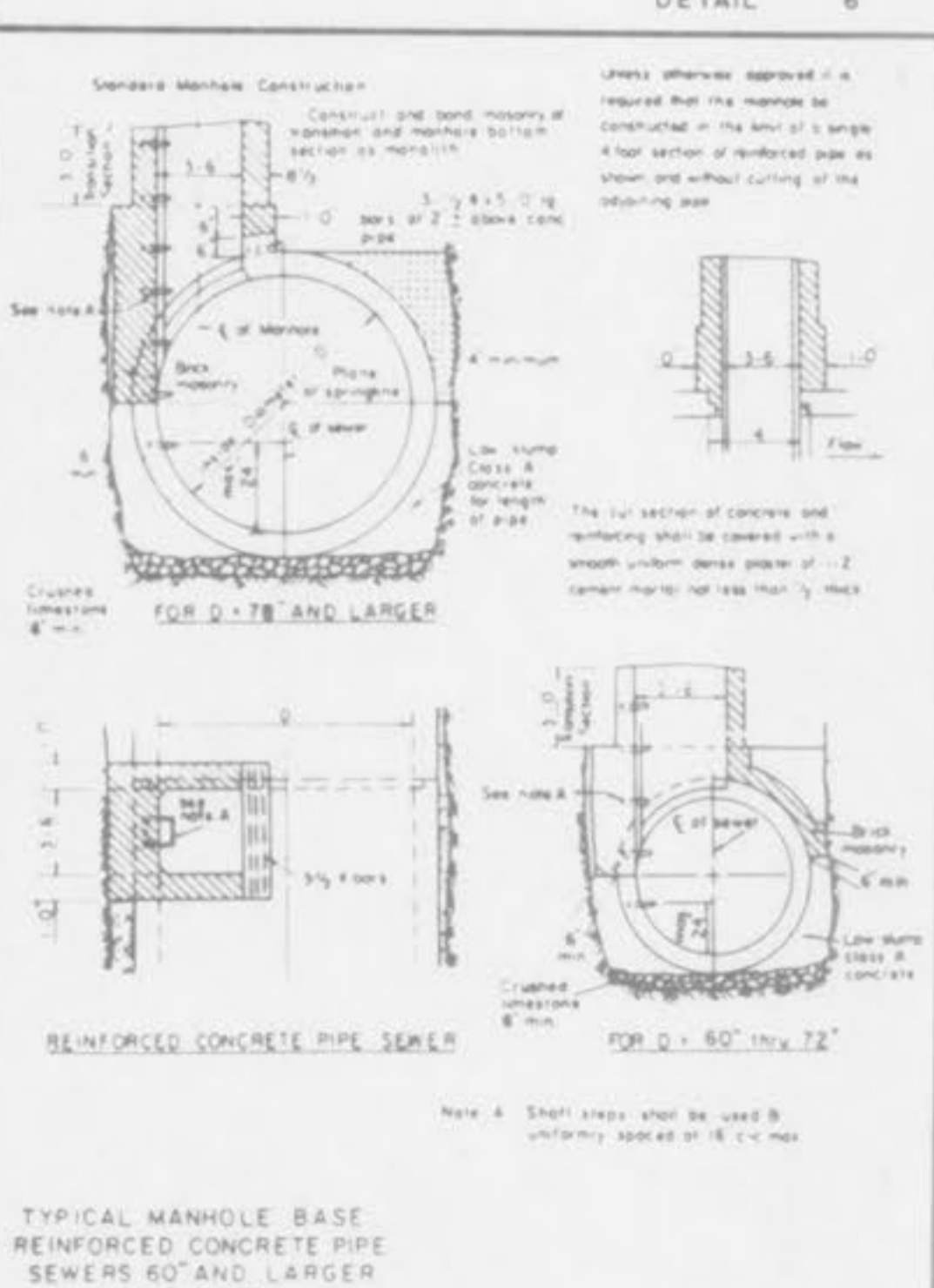
MANHOLE ON PIPE SEWER 27" THRU 36" (ALTERNATE)



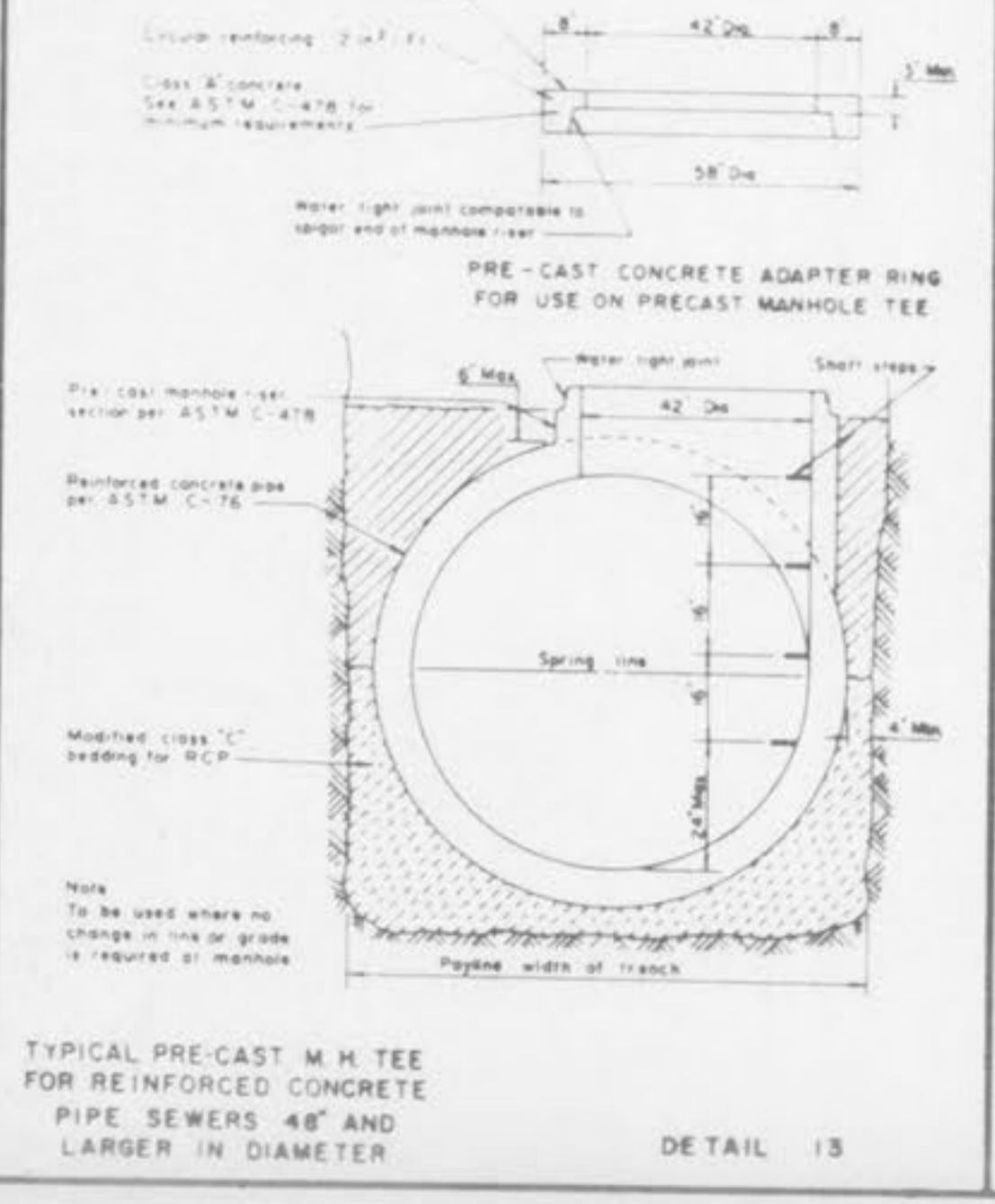
MANHOLE ON CONCRETE PIPE SEWERS 39" THRU 54" DIAMETER



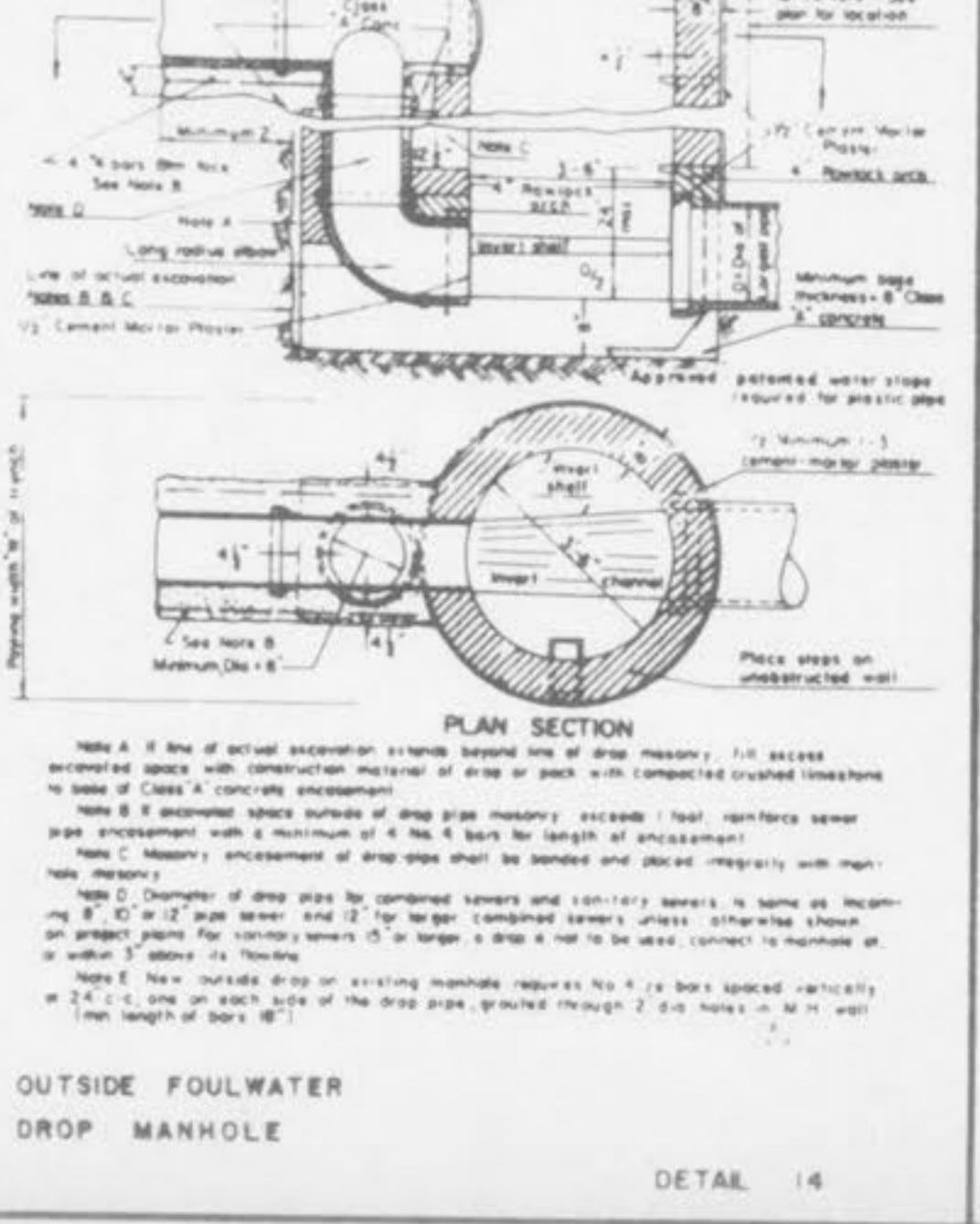
MANHOLE ON CONC PIPE 39" THRU 54" (ALTERNATE)



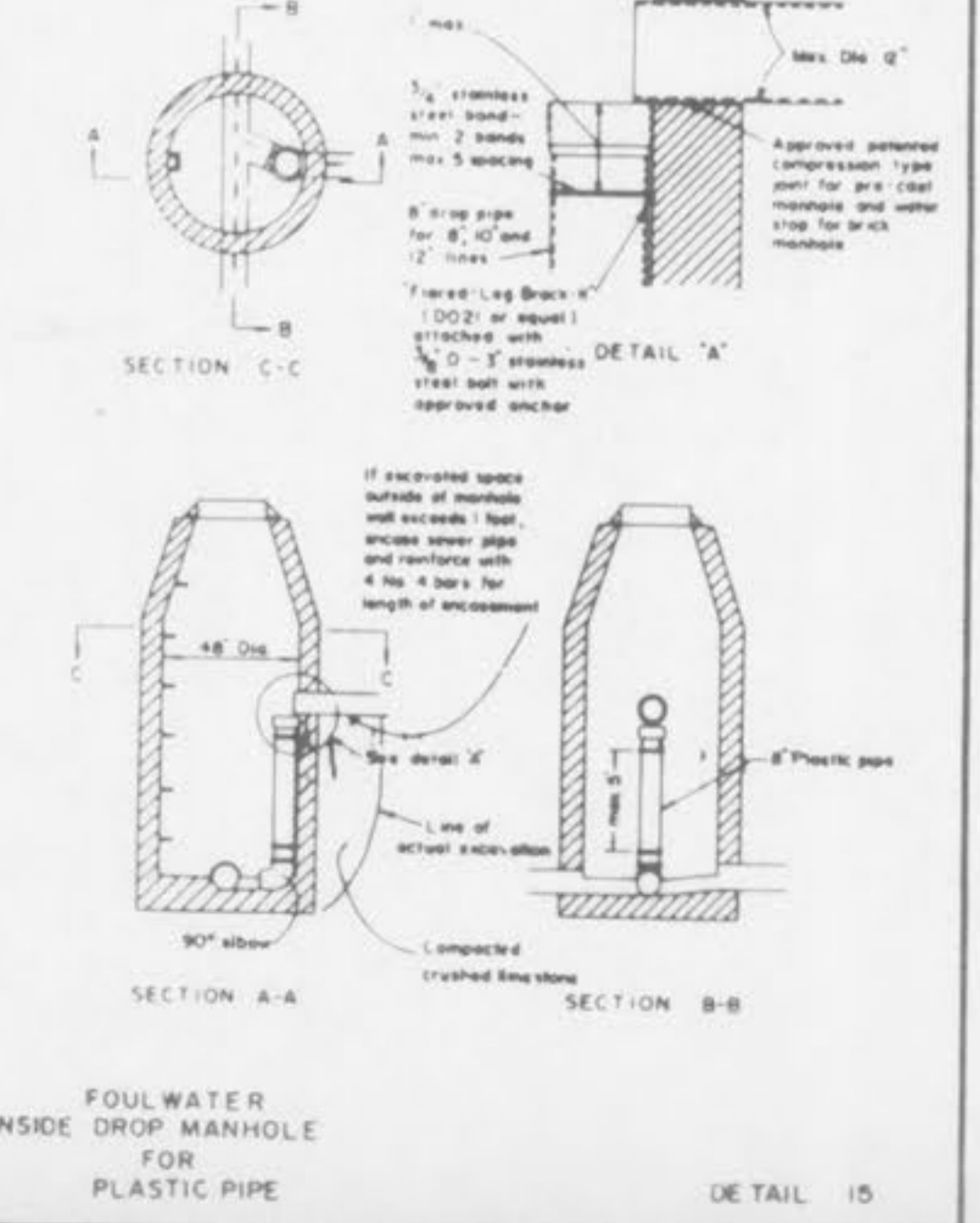
TYPICAL MANHOLE BASE REINFORCED CONCRETE PIPE SEWERS 60" AND LARGER IN DIAMETER



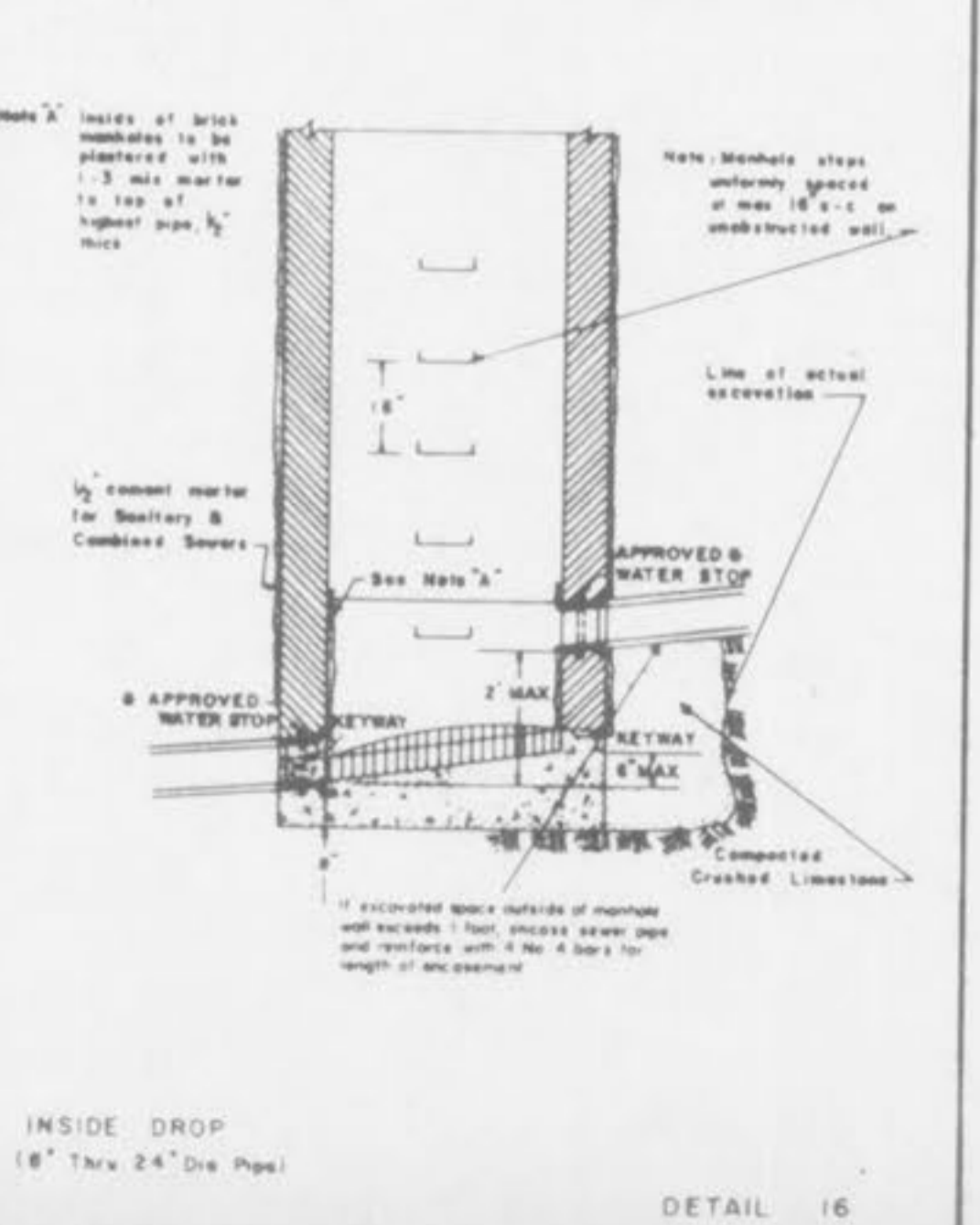
TYPICAL PRE-CAST M.H. TEE FOR REINFORCED CONCRETE PIPE SEWERS 48" AND LARGER IN DIAMETER



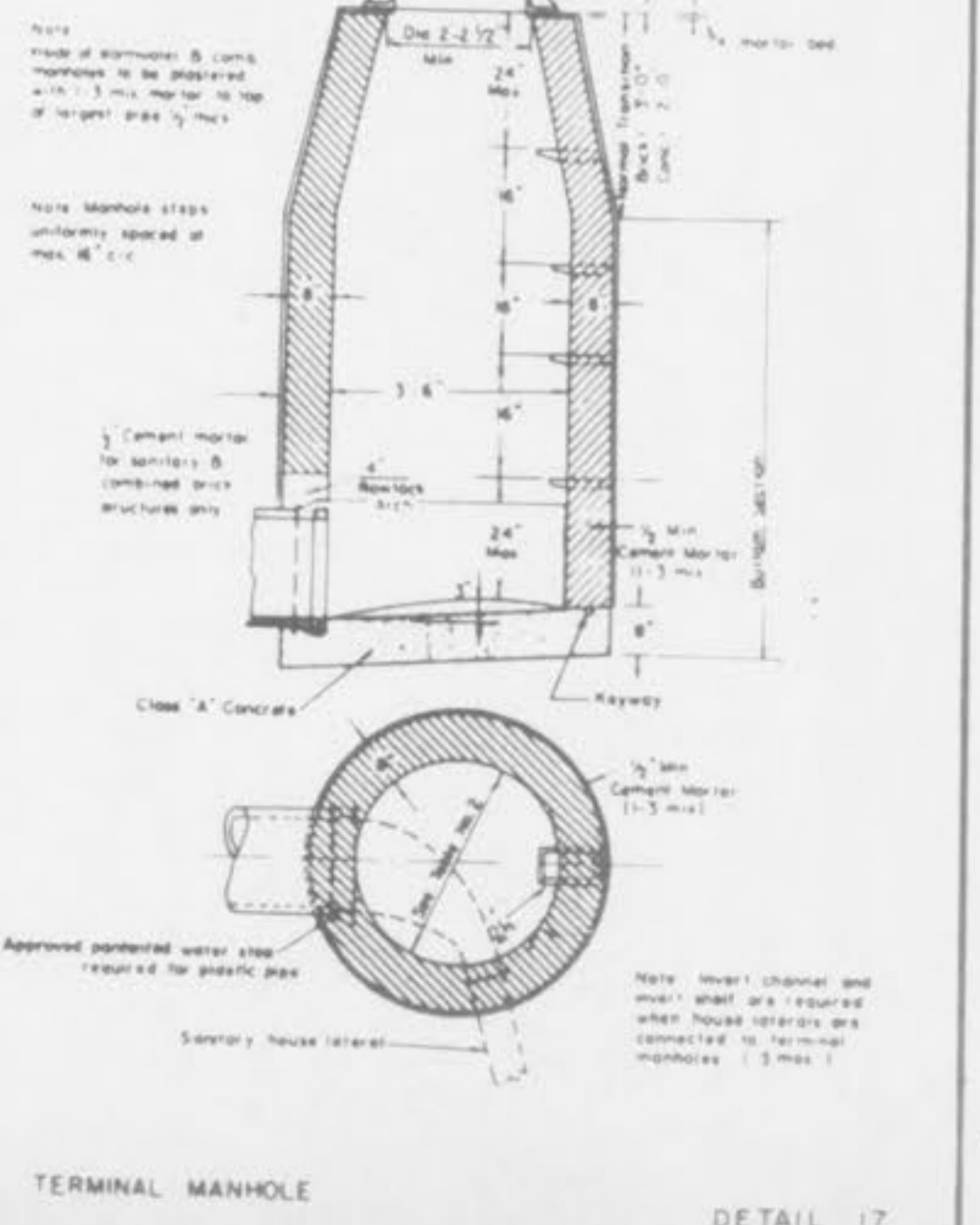
OUTSIDE FOULWATER DROP MANHOLE



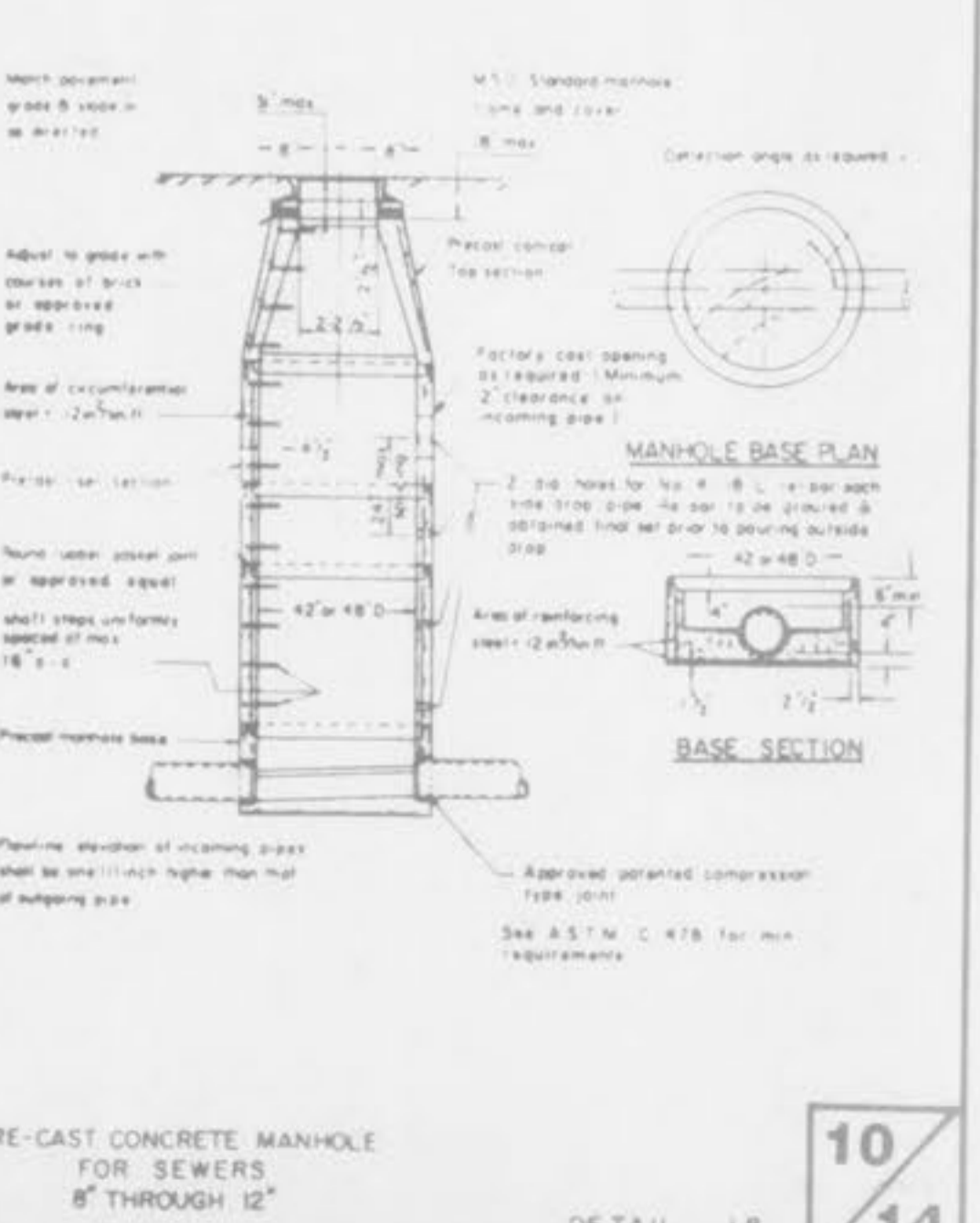
FOULWATER INSIDE DROP MANHOLE FOR PLASTIC PIPE



INSIDE DROP 18" THRU 24" DIA PIPE



TERMINAL MANHOLE



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