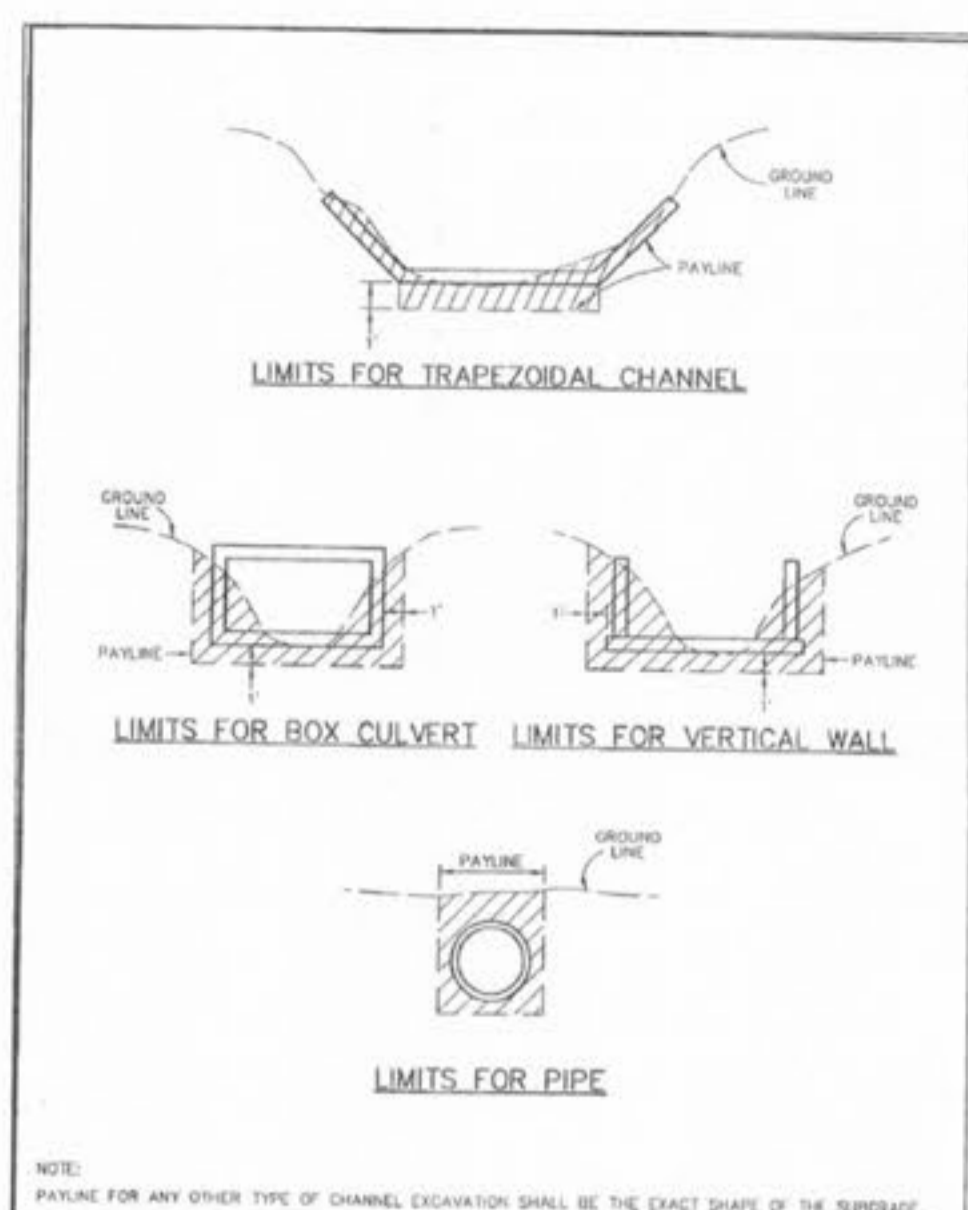
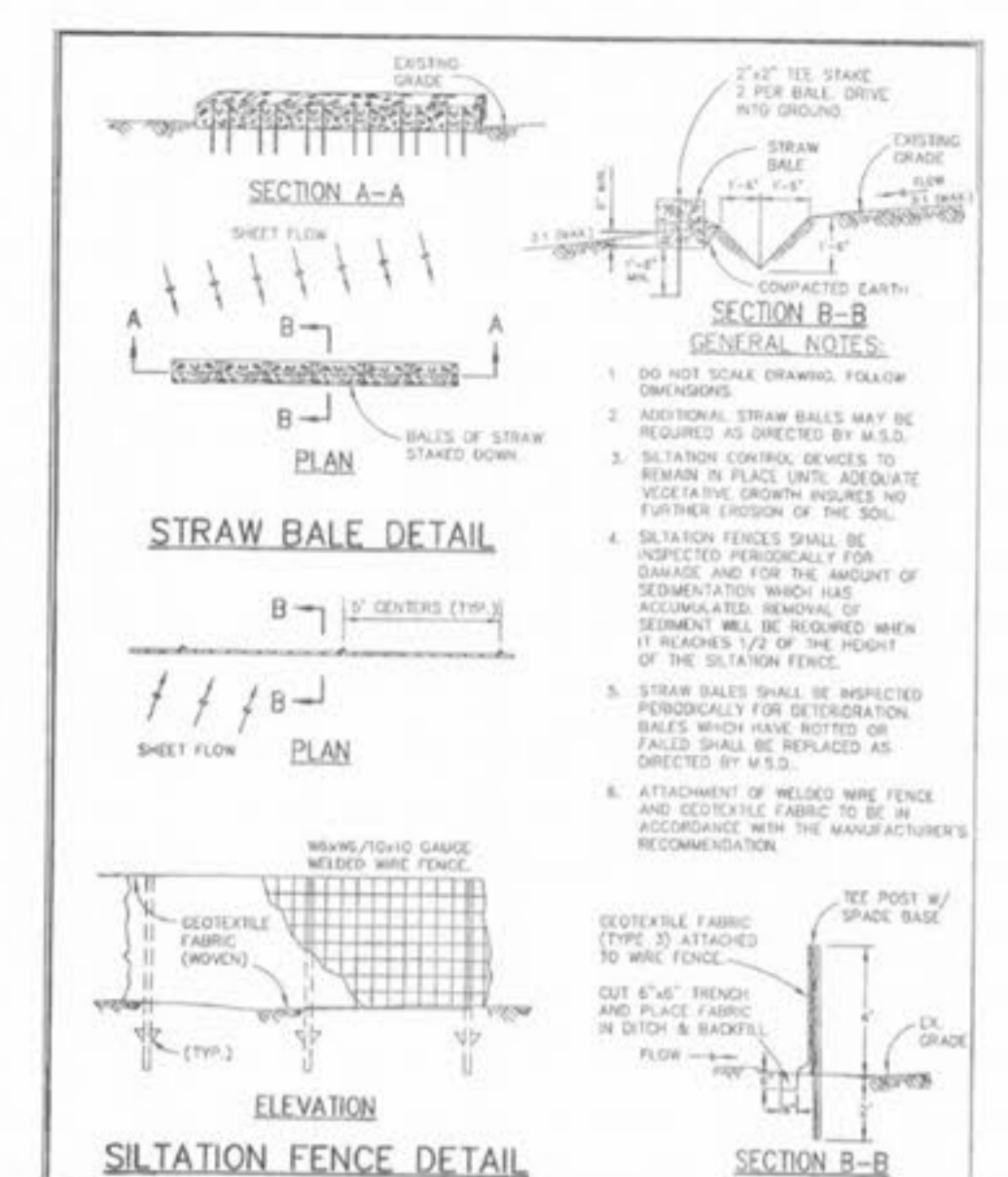


ROUND PIPE				HORIZONTAL ELLIPTICAL PIPE			
INSIDE DIAMETER OF PIPE (INCHES)	PAYLINE WIDTH OF TRENCH (INCHES)	PAYLINE WIDTH OF TRENCH (FEET)	PAY-VOLUMES OR FT. PER FT. CONCRETE ENCASUREMENT (CUBIC FEET)	INSIDE DIMENSIONS OF PIPE (INCHES)	PAYLINE WIDTH OF TRENCH (INCHES)	PAYLINE WIDTH OF TRENCH (FEET)	PAY-VOLUMES OR FT. PER FT. CONCRETE ENCASUREMENT (CUBIC FEET)
4	30	2.50	3.08				
6	30	2.50	3.58				
8	30	2.50	3.87				
10	30	2.50	4.09				
12	30	2.50	4.25				
15	30	3.00	5.05				
18	30	3.00	5.77	14 x 23	41	3.42	5.94
21	30	3.00	6.61				
24	42	3.50	7.39	19 x 30	49	4.08	7.50
27	45	3.75	8.16	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	11.42	29 x 45	66	5.50	11.72
39	59	4.92	12.30	31 x 49	71	5.92	13.14
42	63	5.25	13.28	34 x 53	75	6.25	14.05
45	70	5.83	15.43	36 x 60	83	6.83	16.12
48	77	6.42	18.15	43 x 68	92	7.67	18.01
60	84	7.00	20.73	48 x 76	101	8.42	20.25
66	91	7.58	23.45	53 x 83	109	9.08	24.25
72	98	8.17	26.27	58 x 91	118	9.83	27.45
78	105	8.75	29.29	63 x 98	126	10.50	30.56
84	112	9.33	32.57	68 x 106	135	11.28	33.91
90	119	9.92	35.90	72 x 113	143	11.92	38.99
96	126	10.50	39.37	77 x 121	152	12.67	43.89
102	132	11.08	42.99	82 x 128	160	13.35	48.45
108	140	11.67	46.75	87 x 136	168	14.00	52.78
114	147	12.25	50.66	92 x 143	176	14.67	57.20
120	154	12.83	54.72	97 x 151	185	15.42	61.01
126	161	13.42	58.92				
132	168	14.00	63.27	108 x 164	202	16.83	64.48
144	180	15.17	72.90	118 x 180	217	18.17	73.58

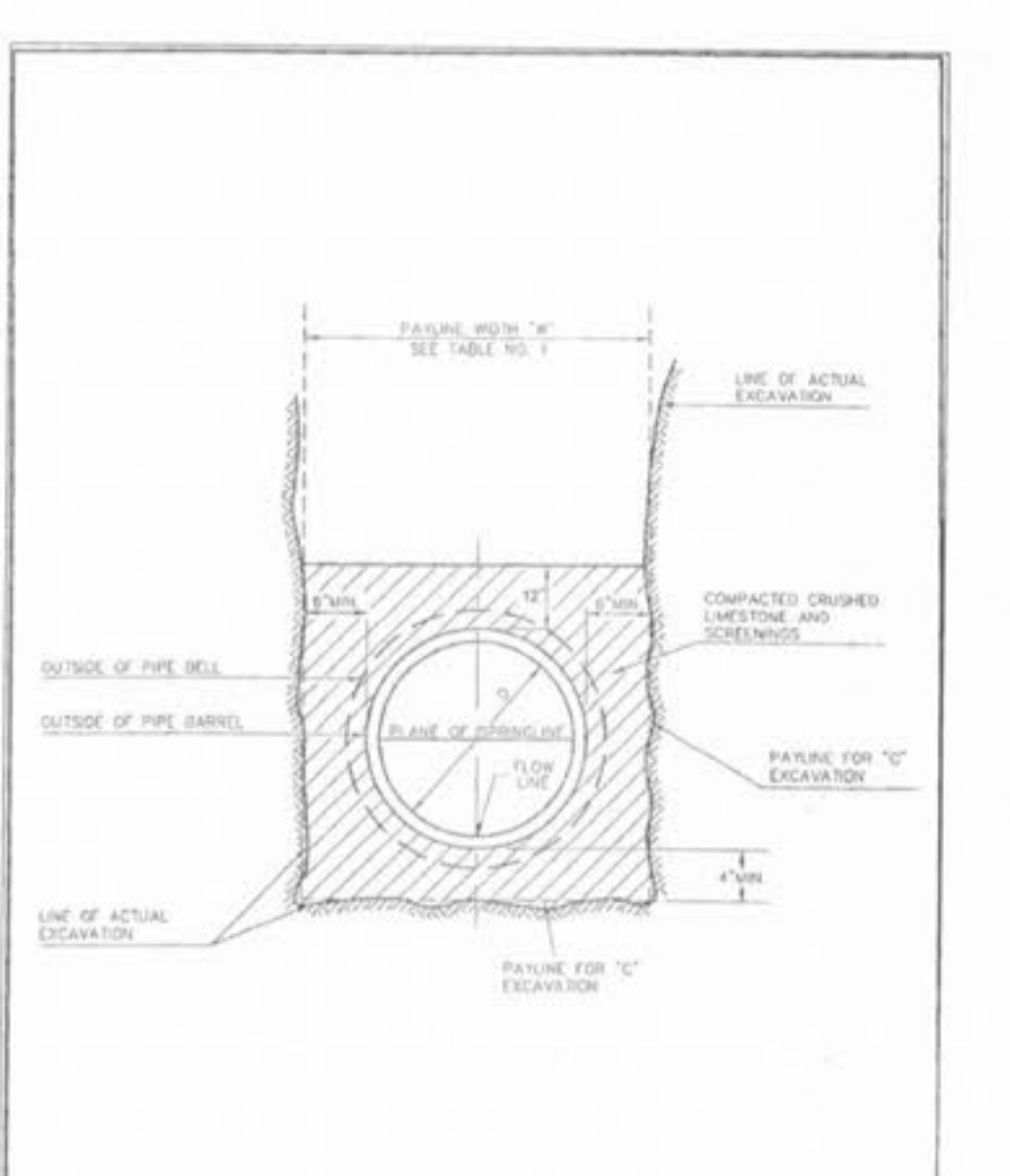
TABLE 1
PAYLINE WIDTHS OF TRENCH AND PAY-QUANTITIES OF CONCRETE
METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. D.E.B./SAM
Ch. J.C.K. 2000 SHEET 1



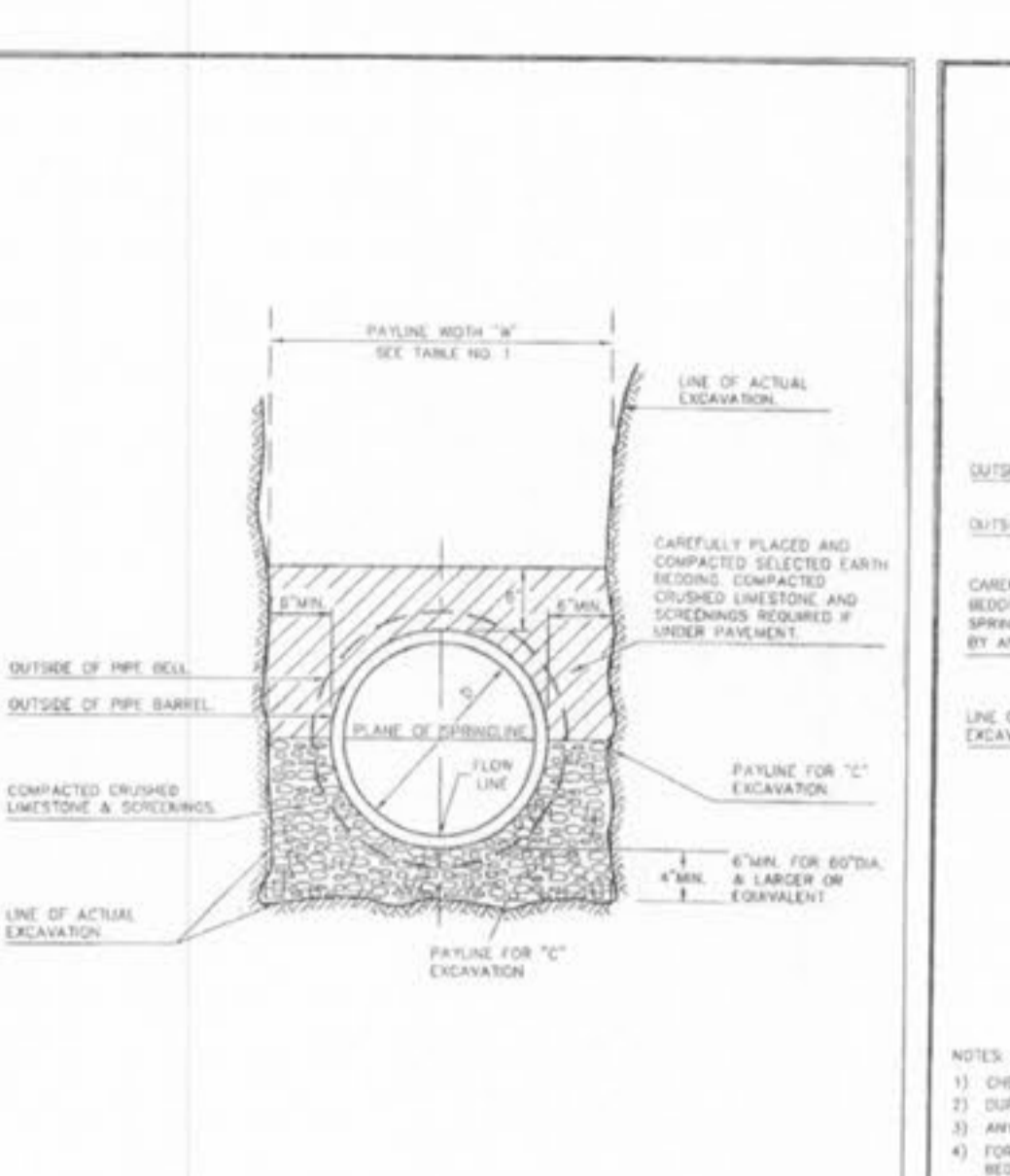
PAYLINE LIMITS FOR EXCAVATION
METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. W.S.H./SAM
Ch. J.C.K. 2000 SHEET 2



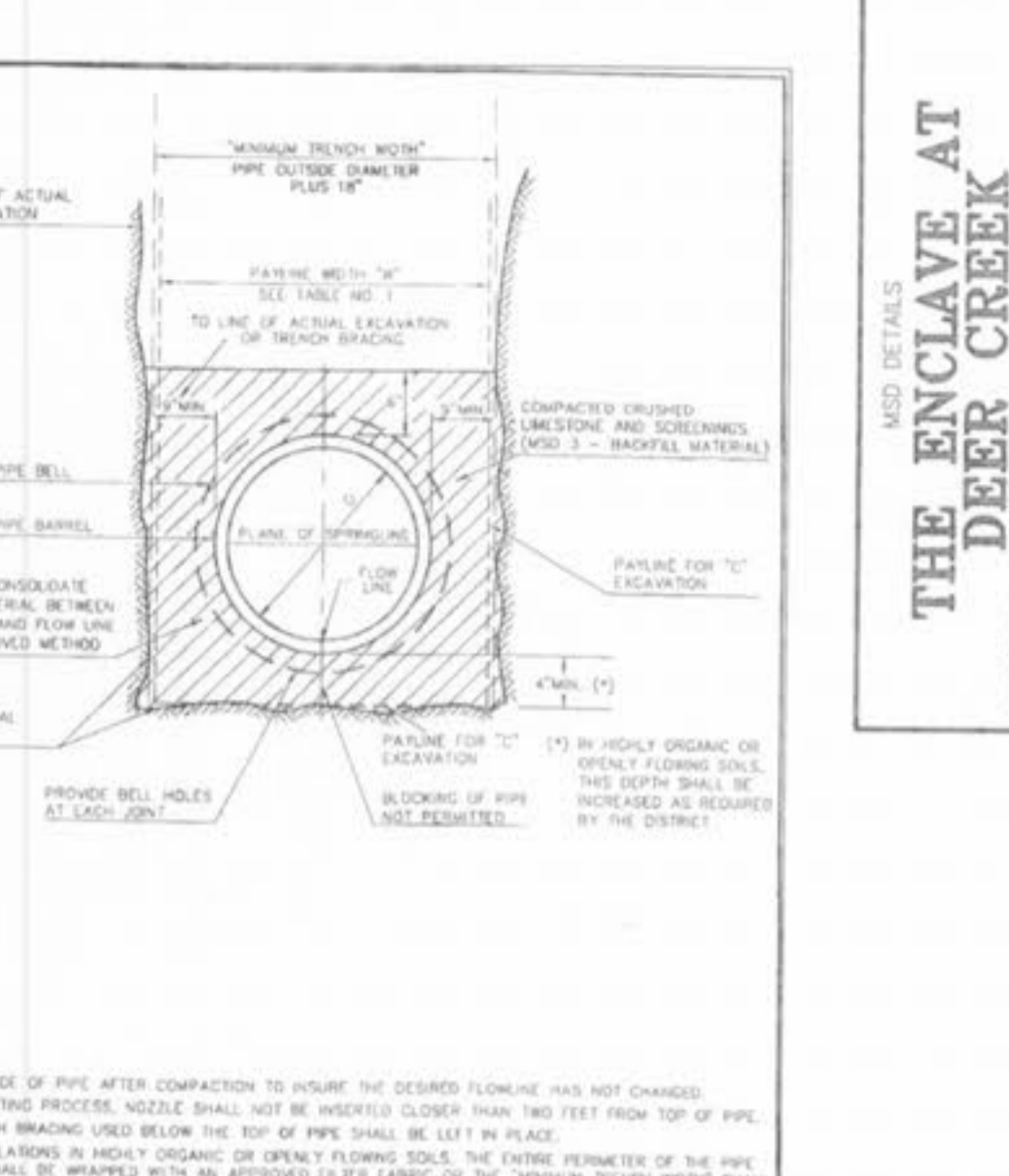
TYPICAL SILTATION CONTROL DEVICES
METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. A.E.S./SAM
Ch. P.T.K. 2000 SHEET 3



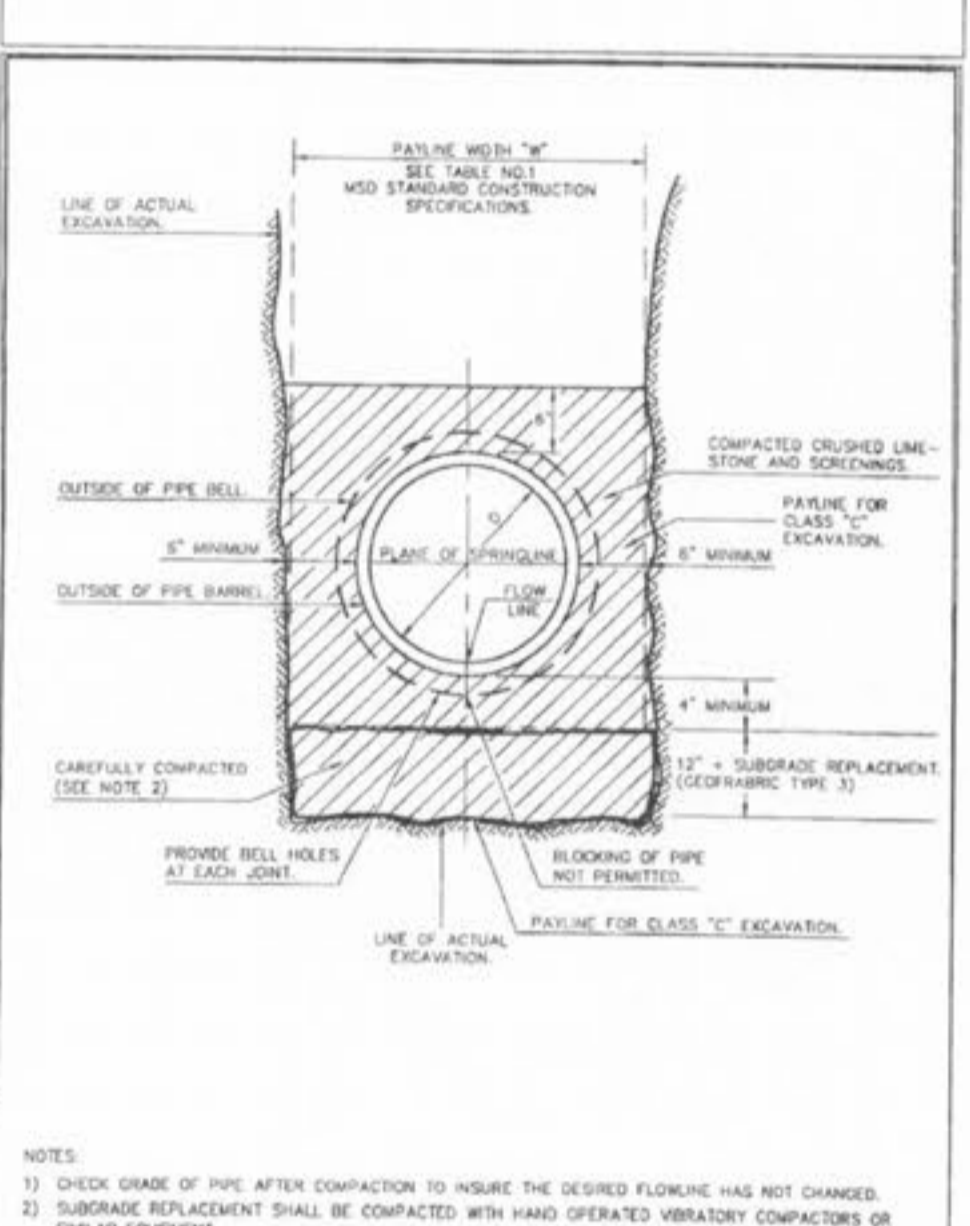
PIPE BEDDING CLASS "C" (FOR ALL PIPE EXCEPT REINFORCED CONCRETE PIPE)
METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. W.S.H./SAM
Ch. J.C.K. 2000 SHEET 4



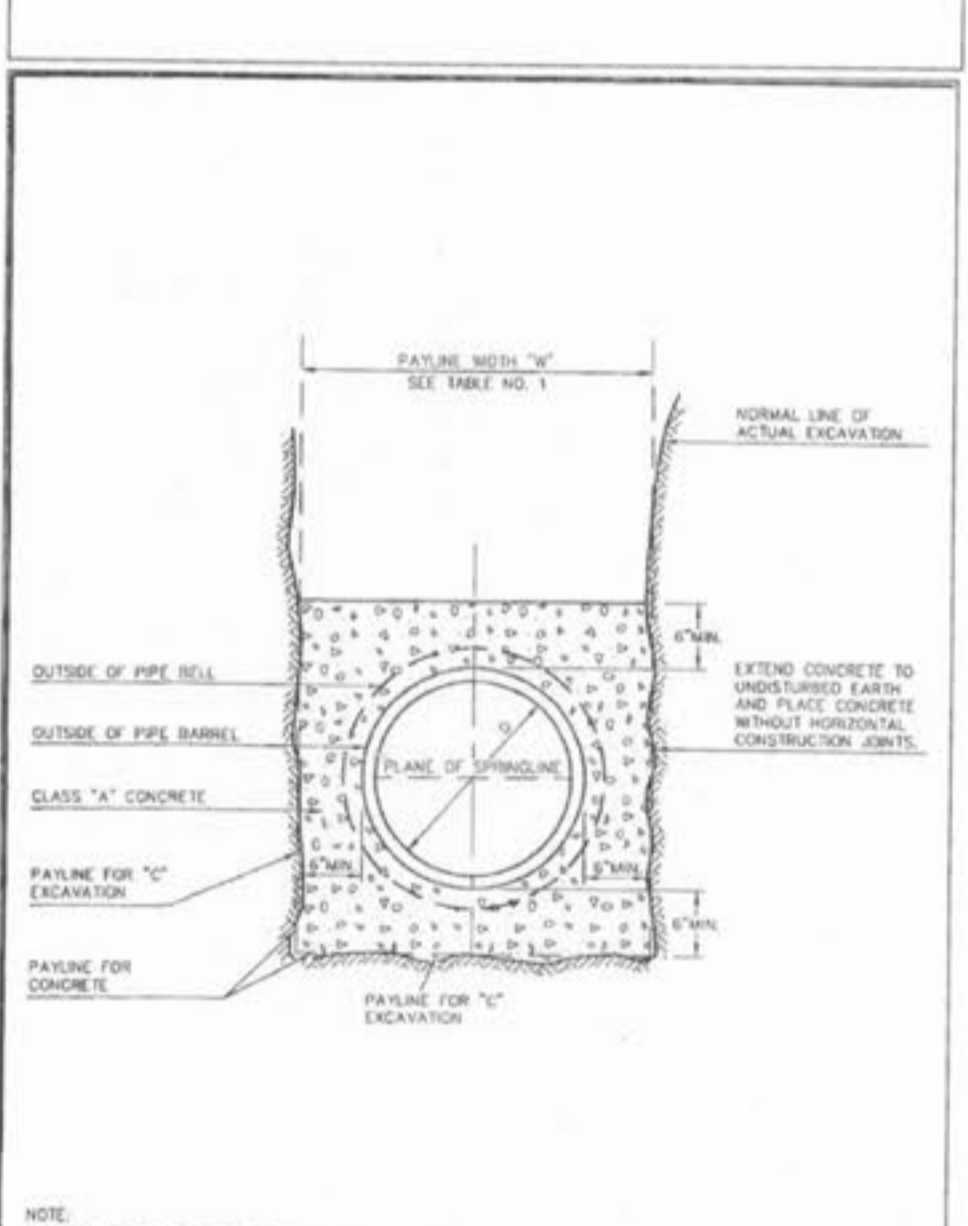
PIPE BEDDING CLASS "C" (MODIFIED FOR REINFORCED CONCRETE PIPE)
METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. W.S.H./SAM
Ch. J.C.K. 2000 SHEET 5



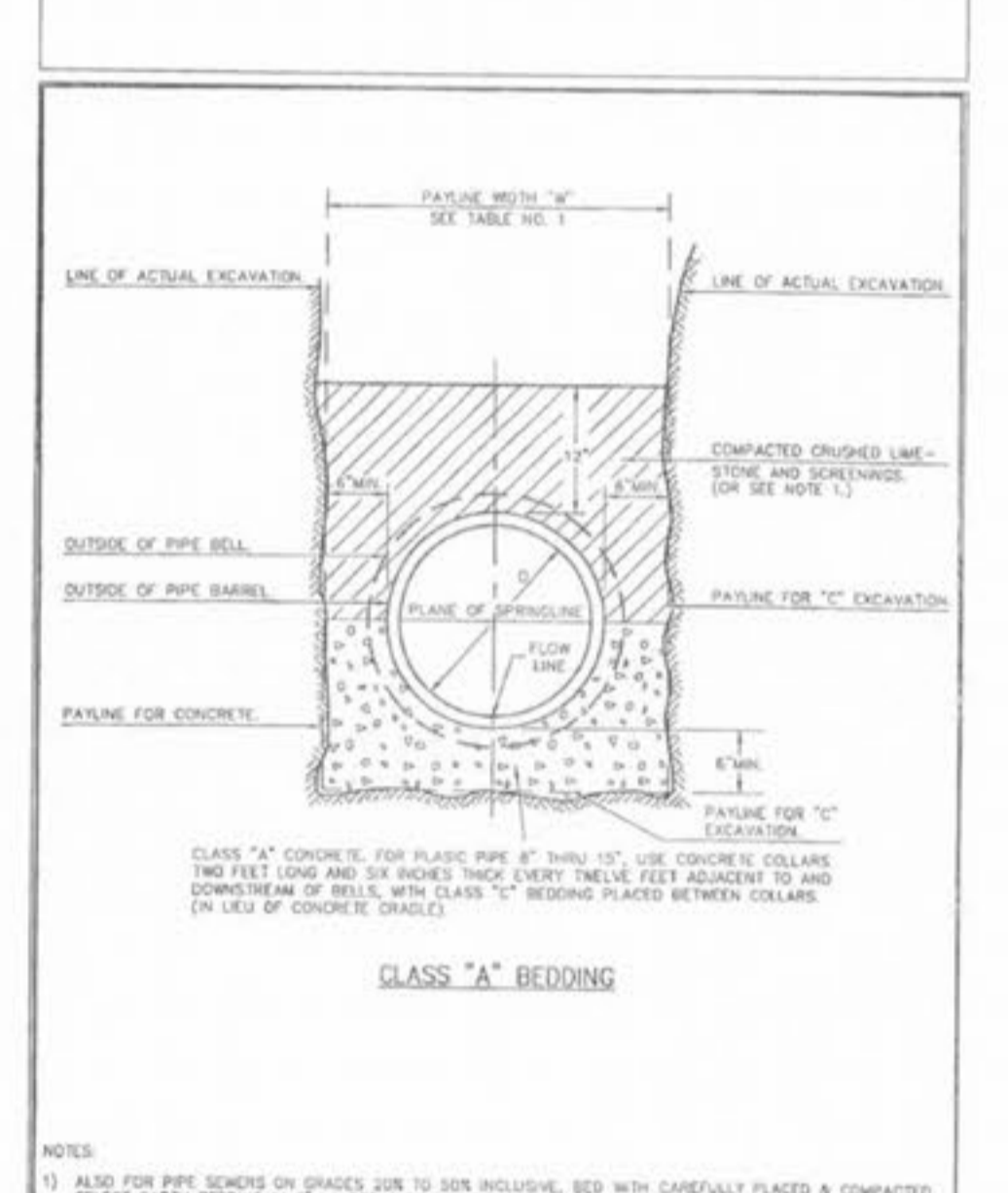
PIPE BEDDING FOR FLEXIBLE PIPE 18" - 48" DIAMETER
METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. P.T.K./SAM
Ch. D.R.M. 2000 SHEET 6



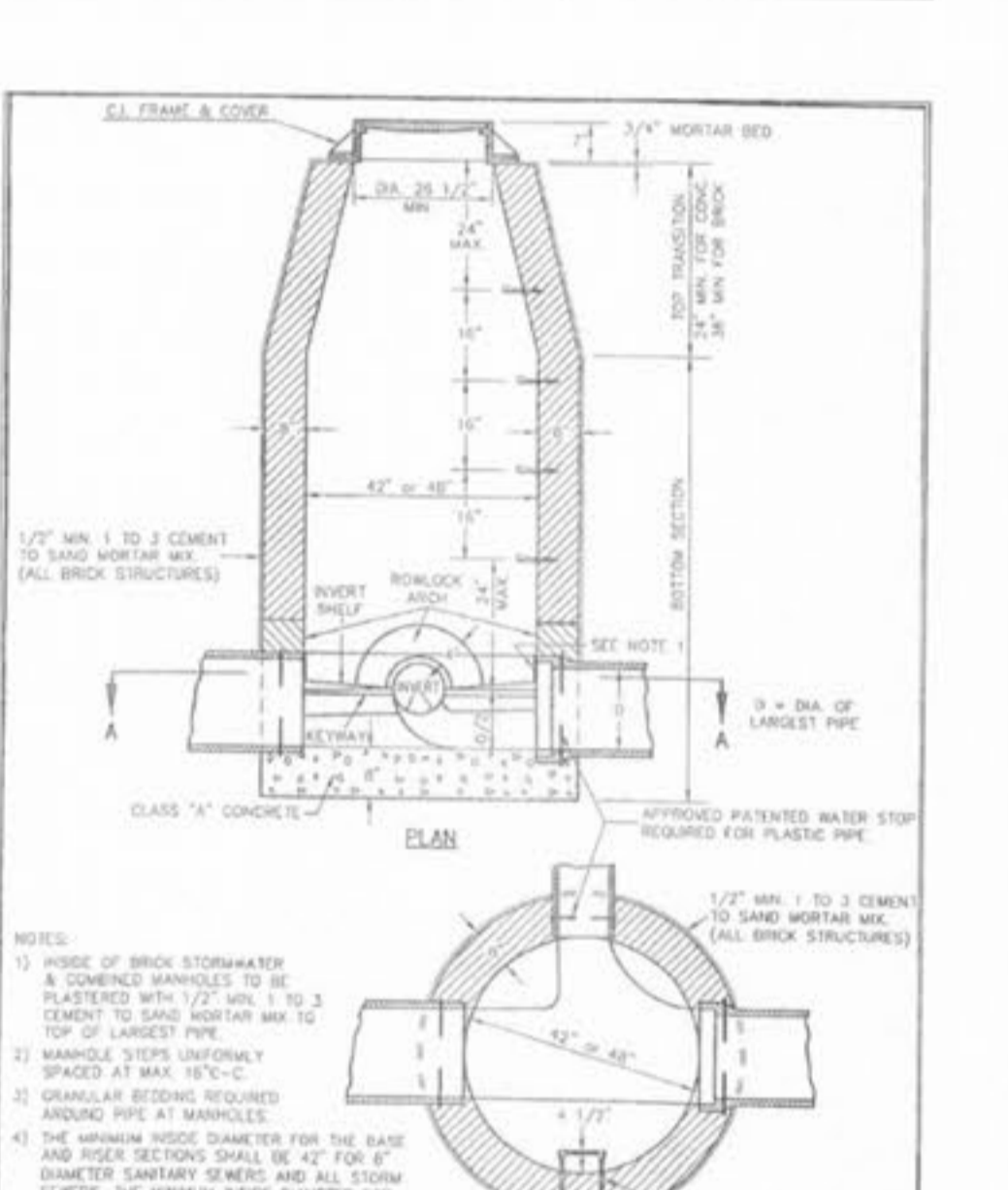
SPECIAL PIPE BEDDING DETAIL FOR SUBGRADE REPLACEMENT 12" DEPTH OR MORE
METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. S.A.M./SAM
Ch. P.W.S. 2000 SHEET 7



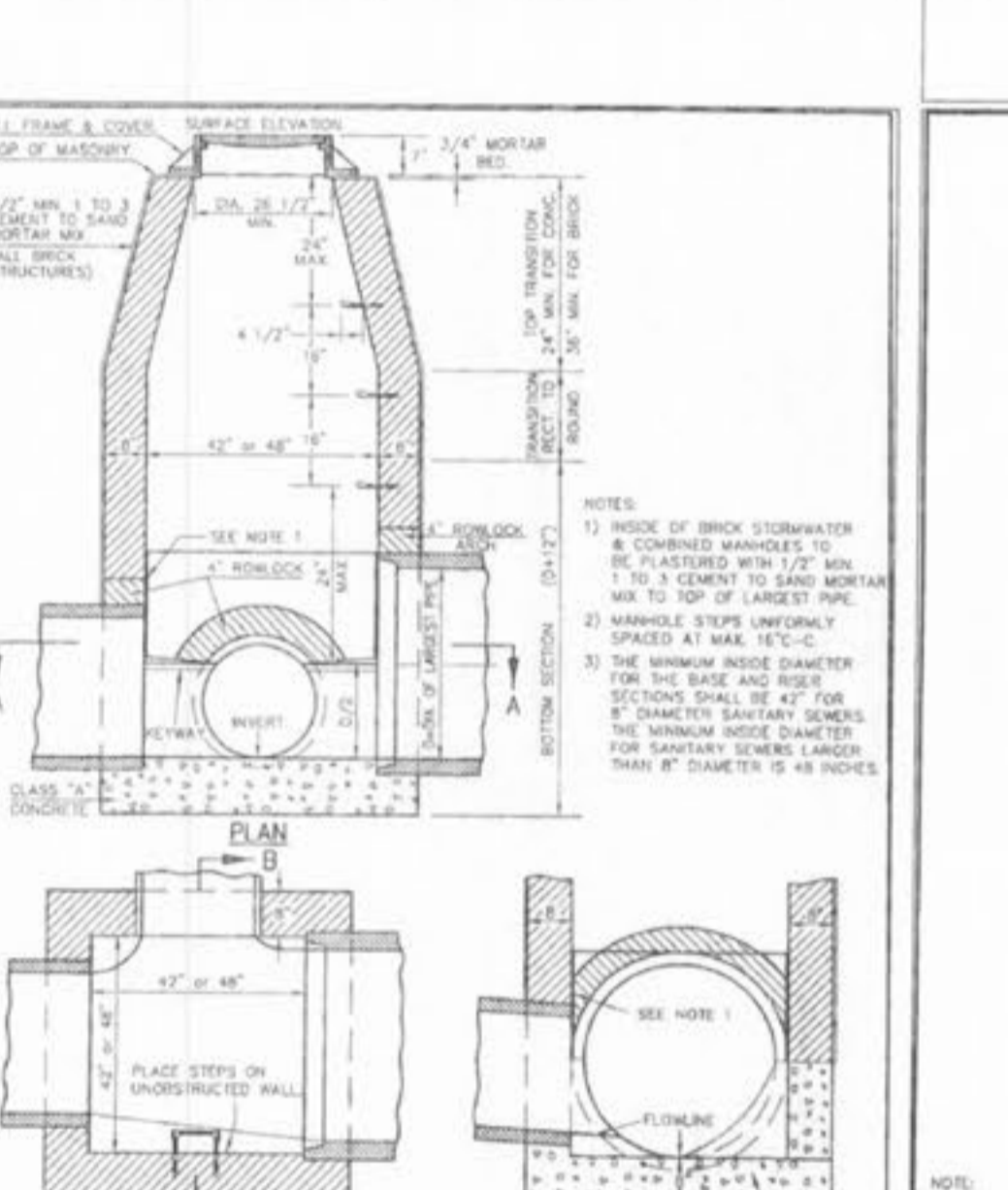
CONCRETE ENCASUREMENT
METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. W.S.H./SAM
Ch. J.C.K. 2000 SHEET 8



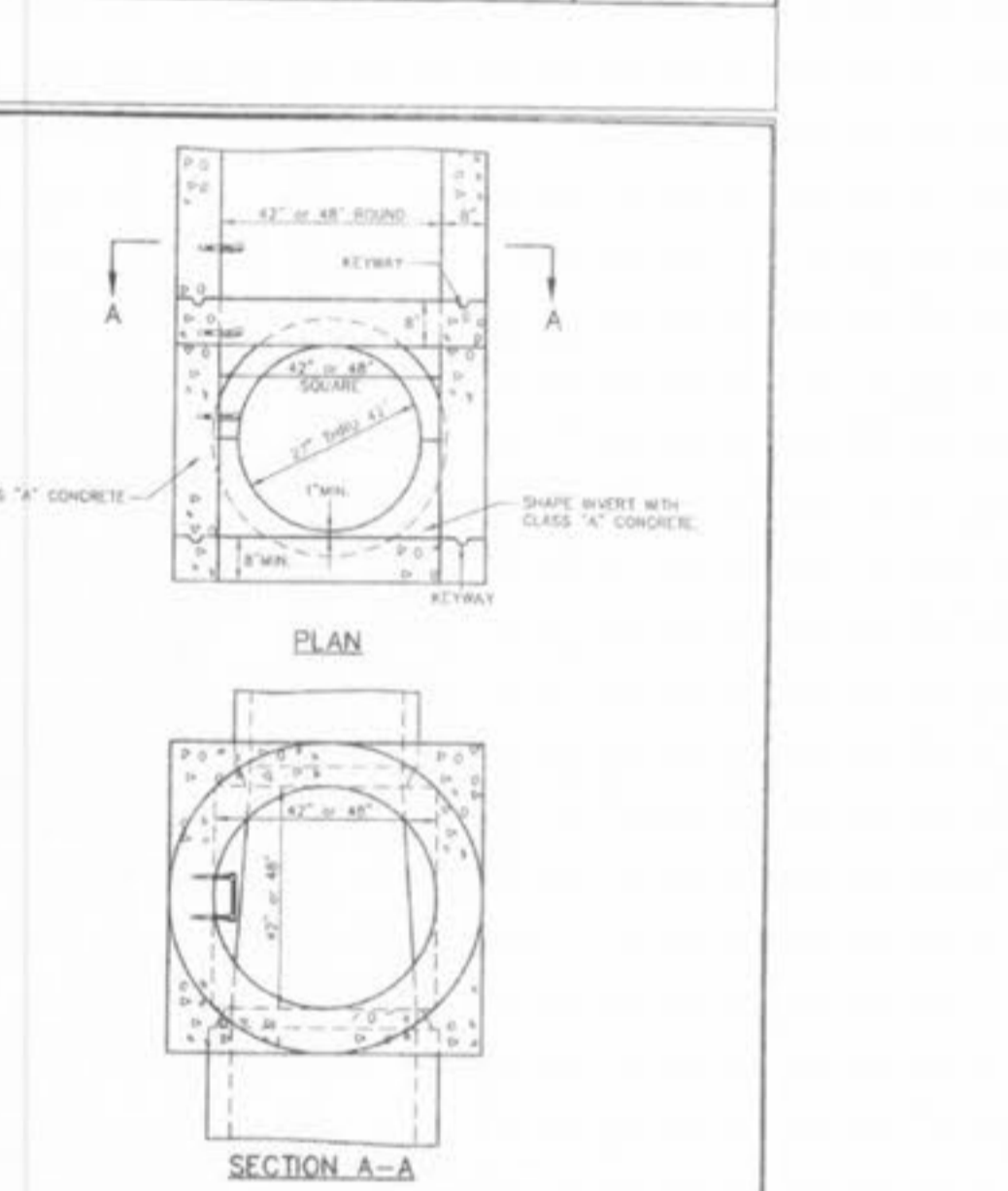
CONCRETE CRADLE
METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. W.S.H./SAM
Ch. J.C.K. 2000 SHEET 9



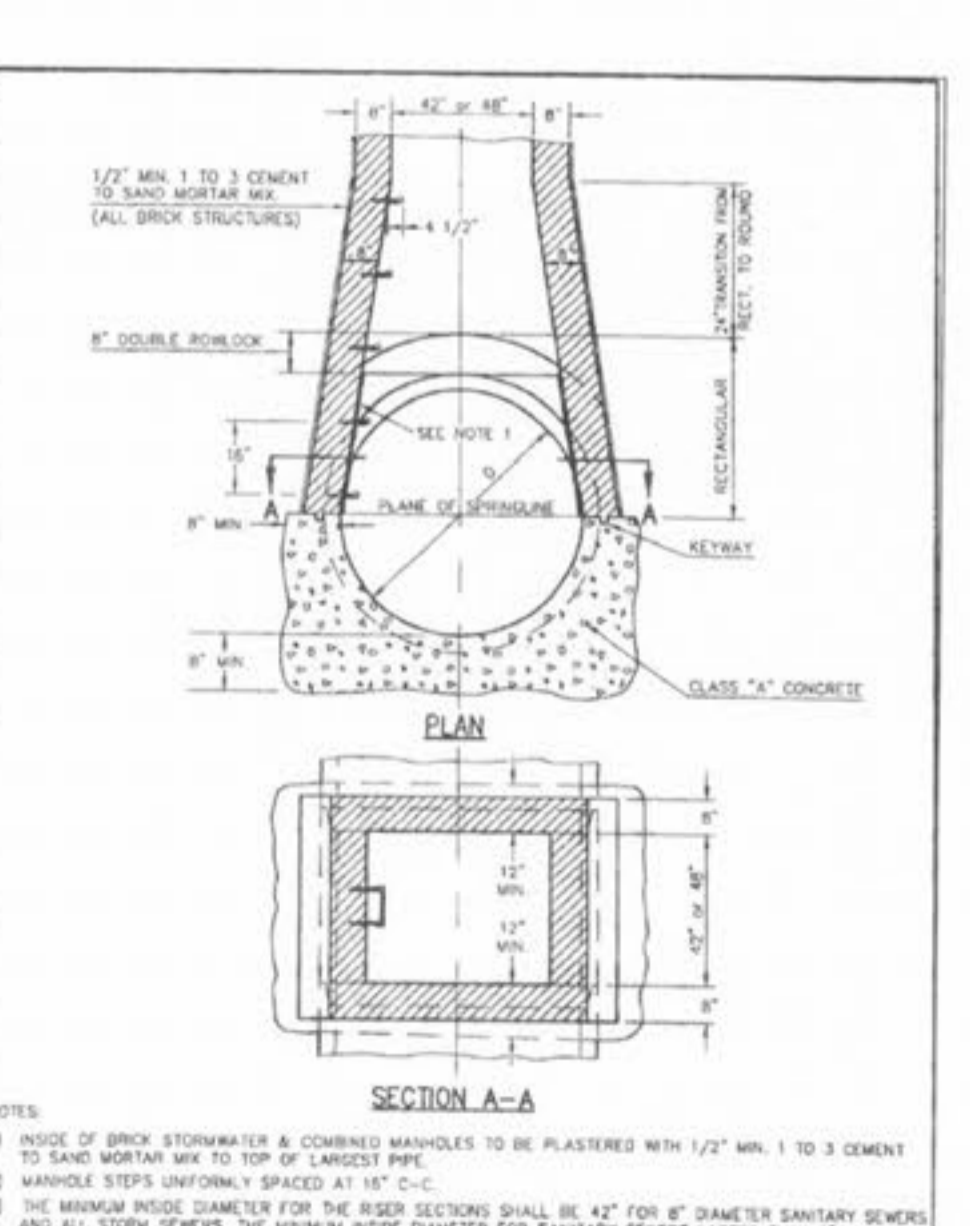
LINE MANHOLE PIPE SEWERS 8"-24" DIA.
METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. W.S.H./SAM
Ch. J.C.K. 2000 SHEET 10



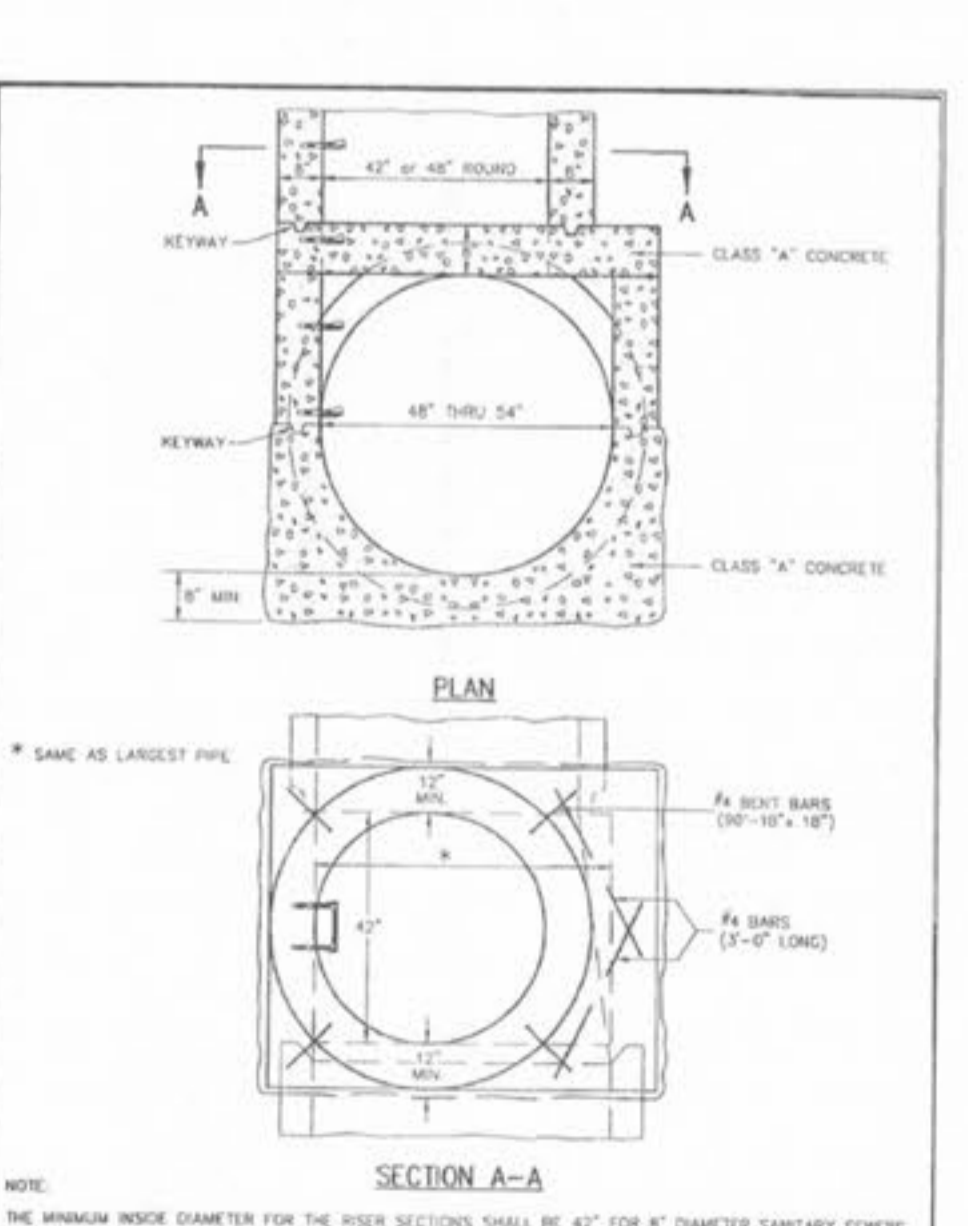
TYPICAL LINE MANHOLE ON PIPE SEWER 27" THRU 42" IN DIAMETER
METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. W.S.H./SAM
Ch. J.C.K. 2000 SHEET 11



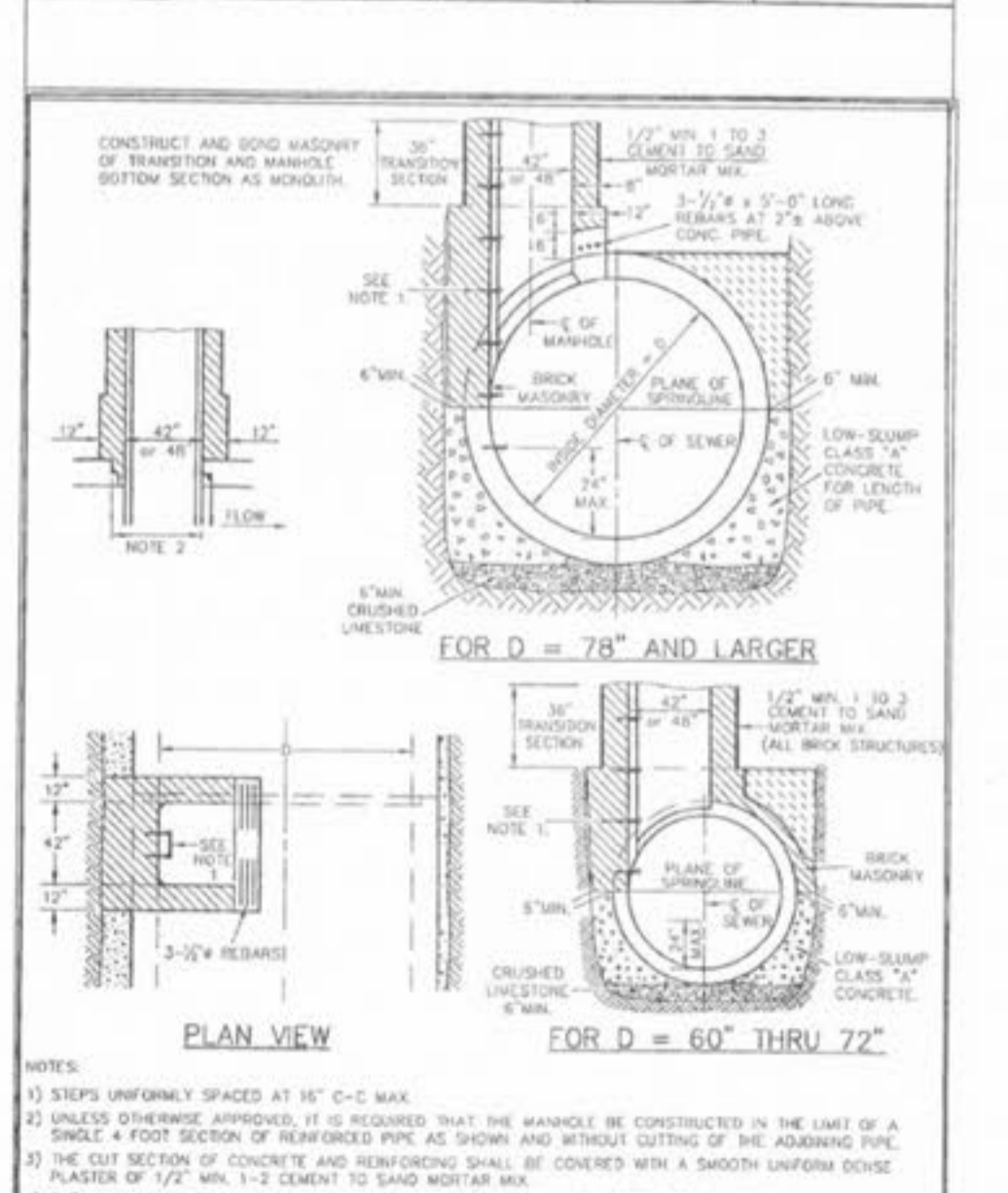
MANHOLE ON PIPE SEWER 27" THRU 42" (ALTERNATE)
METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. D.A.B./SAM
Ch. J.C.K. 2000 SHEET 12



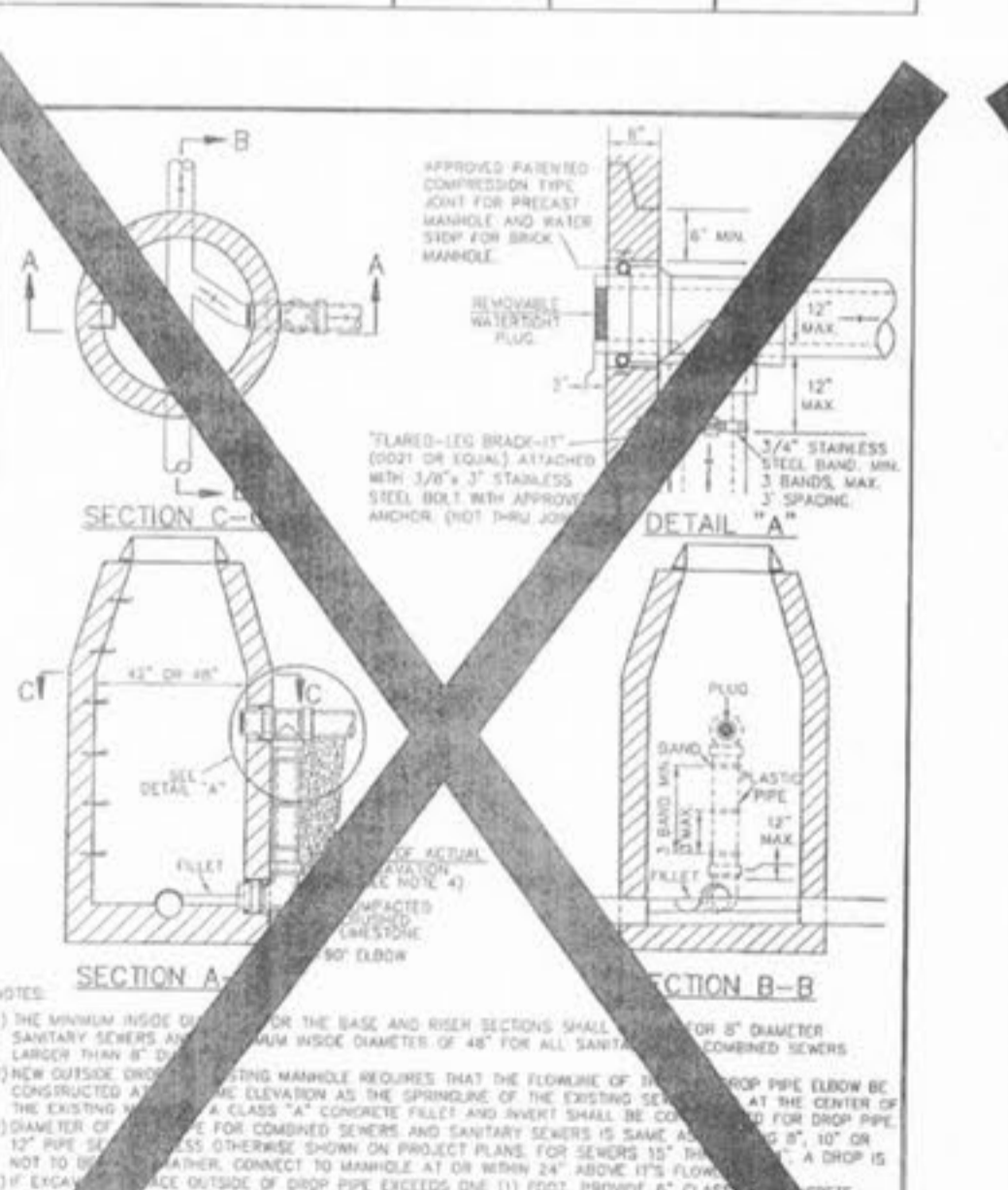
MANHOLE ON CONCRETE PIPE SEWERS 48" THRU 54" DIAMETER
METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. W.S.H./SAM
Ch. J.C.K. 2000 SHEET 13



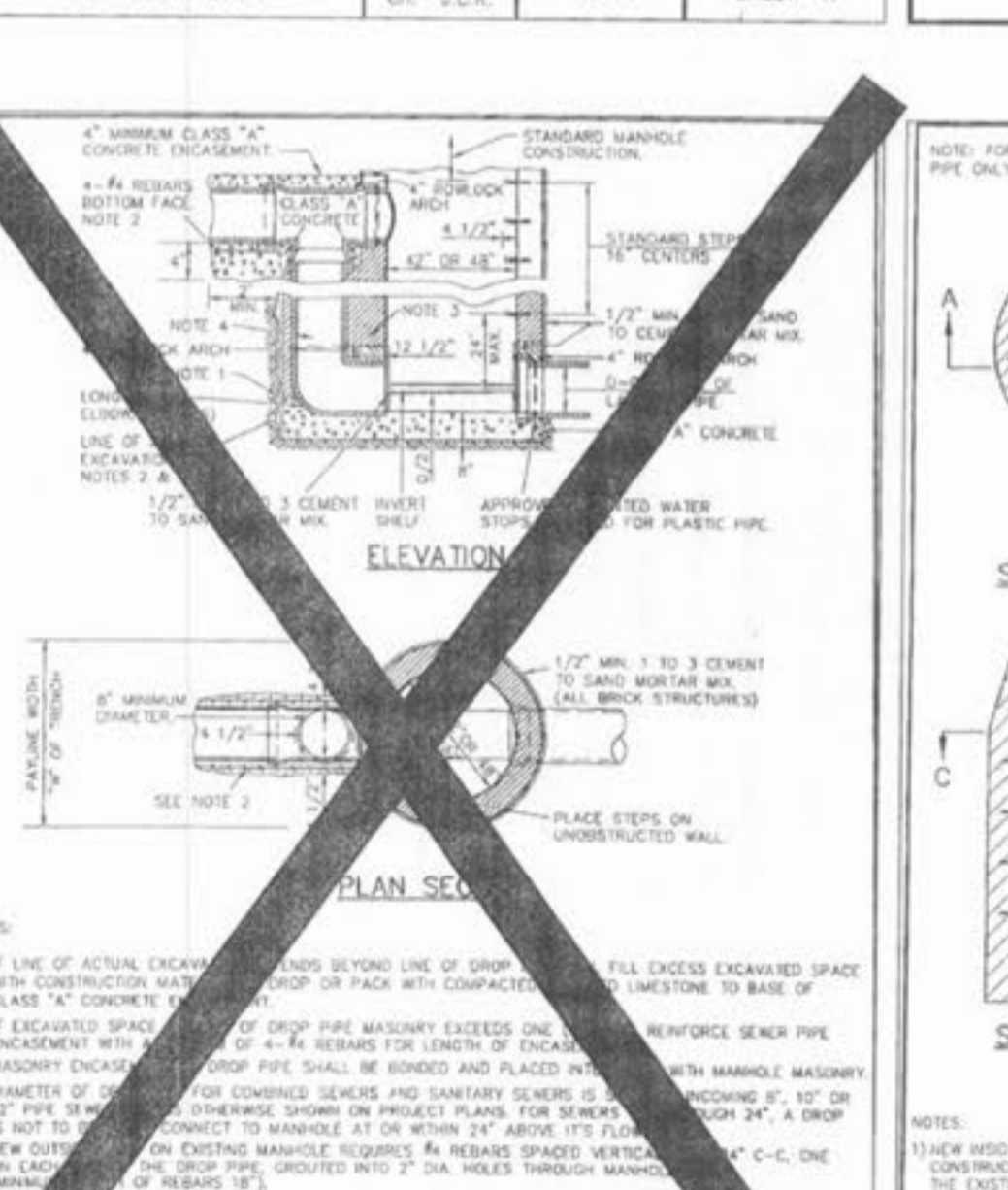
MANHOLE ON CONC. PIPE 48" THRU 54" (ALTERNATE)
METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. W.S.H./SAM
Ch. J.C.K. 2000 SHEET 14



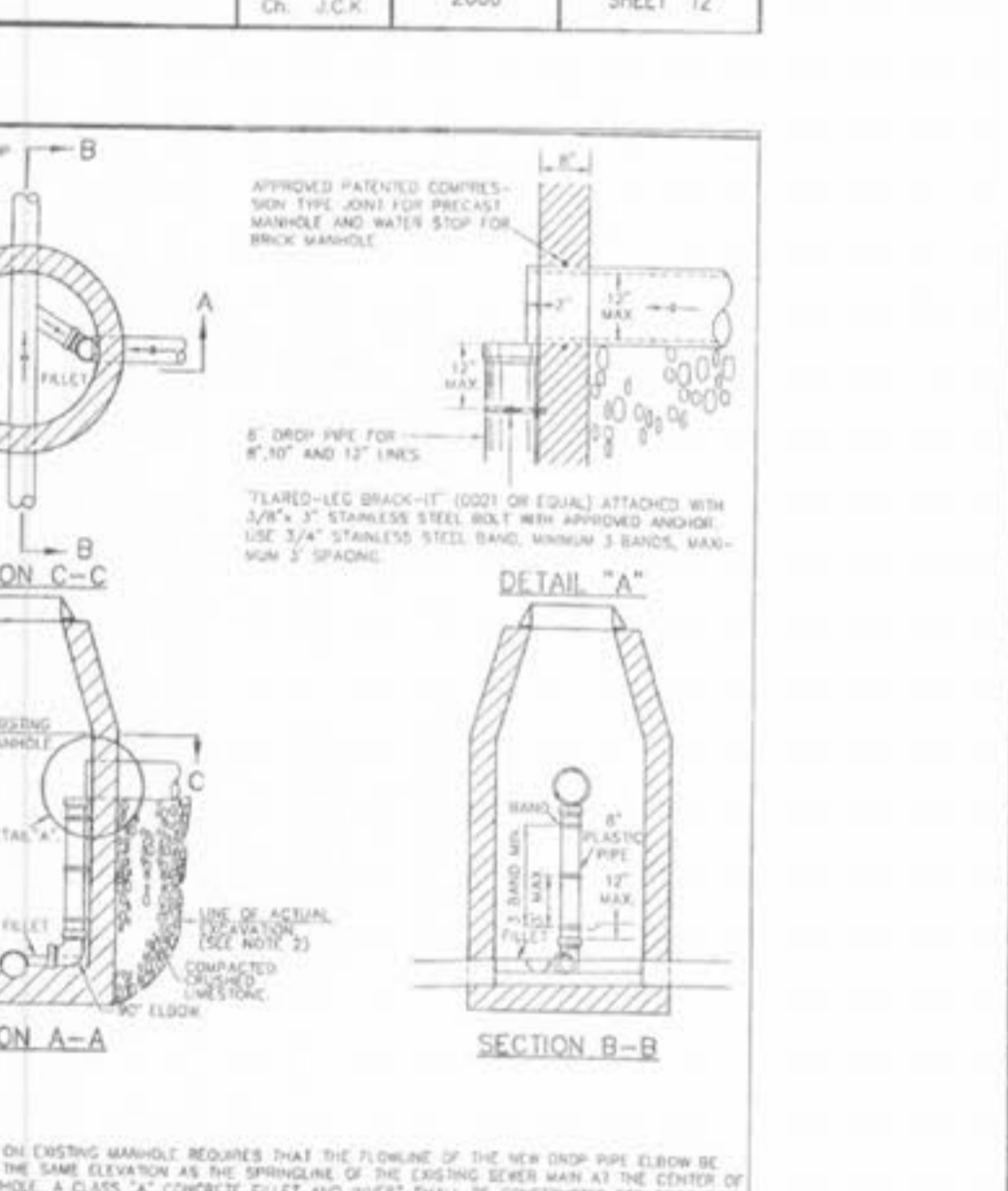
TYPICAL MANHOLE BASE REINFORCED CONCRETE PIPE SEWERS 60" AND LARGER IN DIAMETER
METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. W.S.H./SAM
Ch. J.C.K. 2000 SHEET 15



OUTSIDE FOULWATER DROP MANHOLE
METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. S.A.M./SAM
Ch. P.W.S. 2000 SHEET 16



OUTSIDE FOULWATER DROP MANHOLE (ALTERNATE)
METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. R.C.W./SAM
Ch. J.C.K. 2000 SHEET 17



NEW INSIDE DROP ON EXISTING MANHOLE
METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. W.S.H./SAM
Ch. J.C.K. 2000 SHEET 18