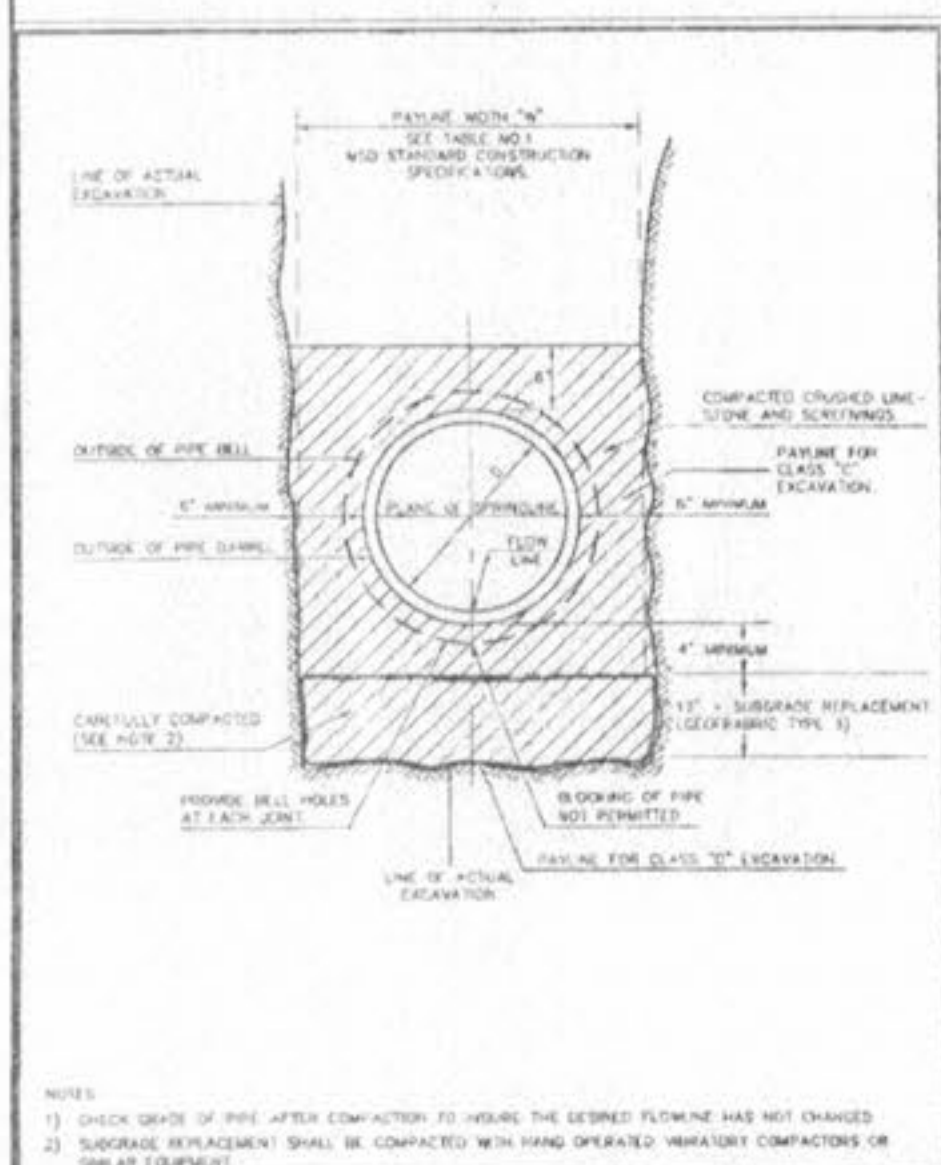
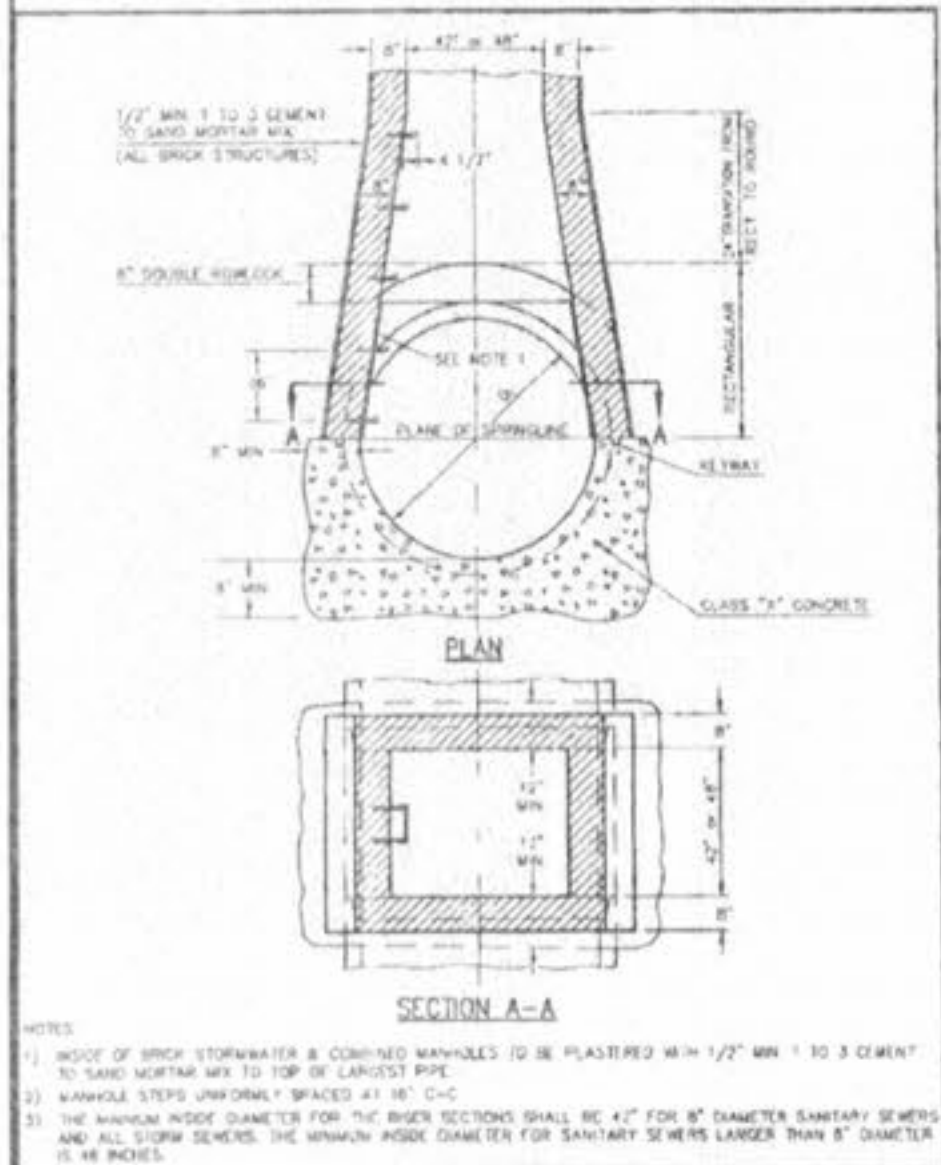


ROUND PIPE				HORIZONTAL ELLIPTICAL PIPE			
PIPE DIAMETER (INCHES)	PAYLINE WIDTHS OF TRENCH (INCHES)	PAYLINE WIDTHS OF TRENCH (FEET)	PAY-VOLUMES (CU YD PER FT)	PIPE DIAMETER (INCHES)	PAYLINE WIDTHS OF TRENCH (INCHES)	PAYLINE WIDTHS OF TRENCH (FEET)	PAY-VOLUMES (CU YD PER FT)
4	30	2.50	1.38	18	30	2.50	5.84
6	30	2.50	1.47	24	30	2.50	7.86
8	30	2.50	1.55	30	30	2.50	9.81
10	30	2.50	1.63	36	30	2.50	11.78
12	30	2.50	1.71	42	30	2.50	13.75
15	30	2.50	1.85	48	30	2.50	15.72
18	30	2.50	1.99	54	30	2.50	17.69
21	30	2.50	2.13	60	30	2.50	19.66
24	30	2.50	2.27	66	30	2.50	21.63
27	30	2.50	2.41	72	30	2.50	23.60
30	30	2.50	2.55	78	30	2.50	25.57
33	30	2.50	2.69	84	30	2.50	27.54
36	30	2.50	2.83	90	30	2.50	29.51
39	30	2.50	2.97	96	30	2.50	31.48
42	30	2.50	3.11	102	30	2.50	33.45
45	30	2.50	3.25	108	30	2.50	35.42
48	30	2.50	3.39	114	30	2.50	37.39
51	30	2.50	3.53	120	30	2.50	39.36
54	30	2.50	3.67	126	30	2.50	41.33
57	30	2.50	3.81	132	30	2.50	43.30
60	30	2.50	3.95	138	30	2.50	45.27
63	30	2.50	4.09	144	30	2.50	47.24
66	30	2.50	4.23	150	30	2.50	49.21
69	30	2.50	4.37	156	30	2.50	51.18
72	30	2.50	4.51	162	30	2.50	53.15
75	30	2.50	4.65	168	30	2.50	55.12
78	30	2.50	4.79	174	30	2.50	57.09
81	30	2.50	4.93	180	30	2.50	59.06
84	30	2.50	5.07	186	30	2.50	61.03
87	30	2.50	5.21	192	30	2.50	63.00
90	30	2.50	5.35	198	30	2.50	64.97
93	30	2.50	5.49	204	30	2.50	66.94
96	30	2.50	5.63	210	30	2.50	68.91
99	30	2.50	5.77	216	30	2.50	70.88
102	30	2.50	5.91	222	30	2.50	72.85
105	30	2.50	6.05	228	30	2.50	74.82
108	30	2.50	6.19	234	30	2.50	76.79
111	30	2.50	6.33	240	30	2.50	78.76
114	30	2.50	6.47	246	30	2.50	80.73
117	30	2.50	6.61	252	30	2.50	82.70
120	30	2.50	6.75	258	30	2.50	84.67
123	30	2.50	6.89	264	30	2.50	86.64
126	30	2.50	7.03	270	30	2.50	88.61
129	30	2.50	7.17	276	30	2.50	90.58
132	30	2.50	7.31	282	30	2.50	92.55
135	30	2.50	7.45	288	30	2.50	94.52
138	30	2.50	7.59	294	30	2.50	96.49
141	30	2.50	7.73	300	30	2.50	98.46

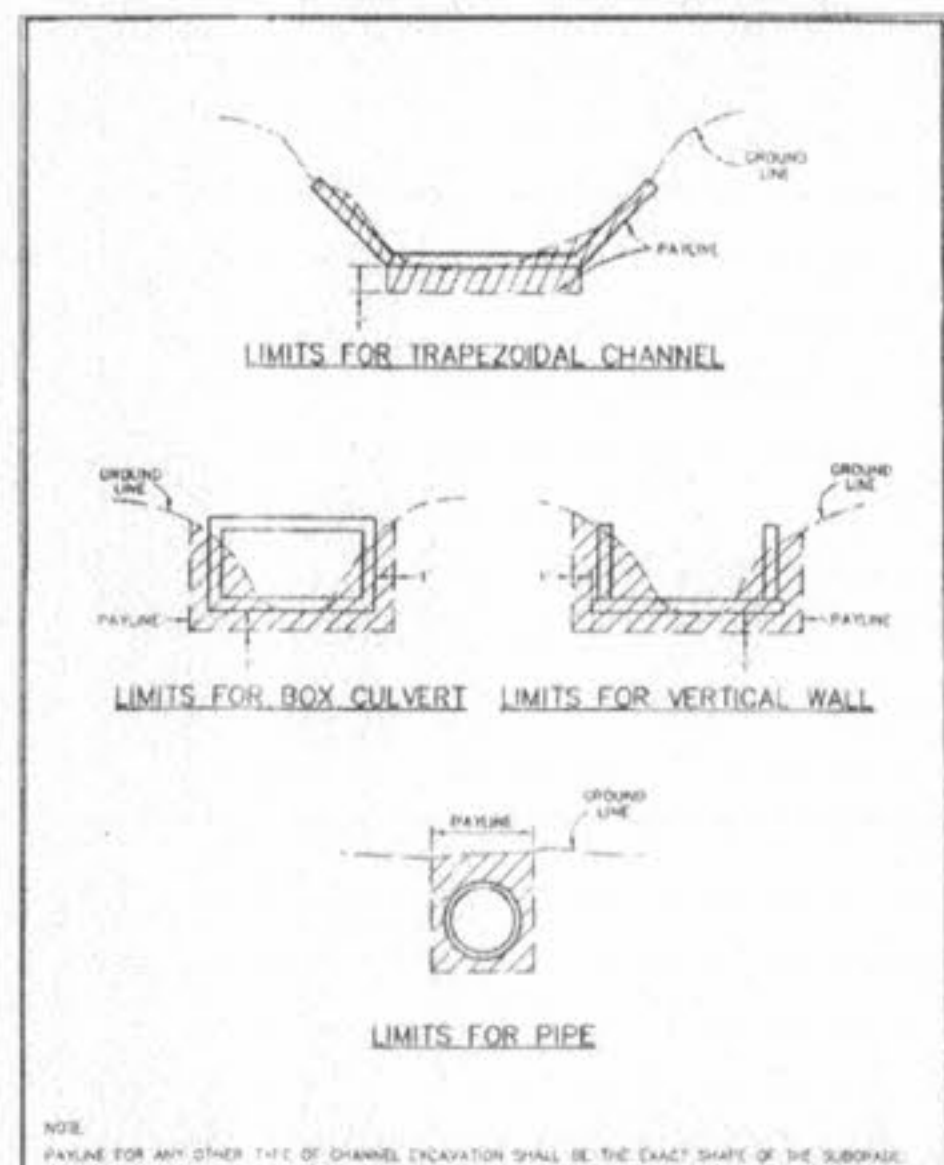
TABLE 1
PAYLINE WIDTHS OF TRENCH AND PAY-VOLUMES OF CONCRETE
METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. WSH/AM
Ch. J.C.K. 2000 SHEET 1



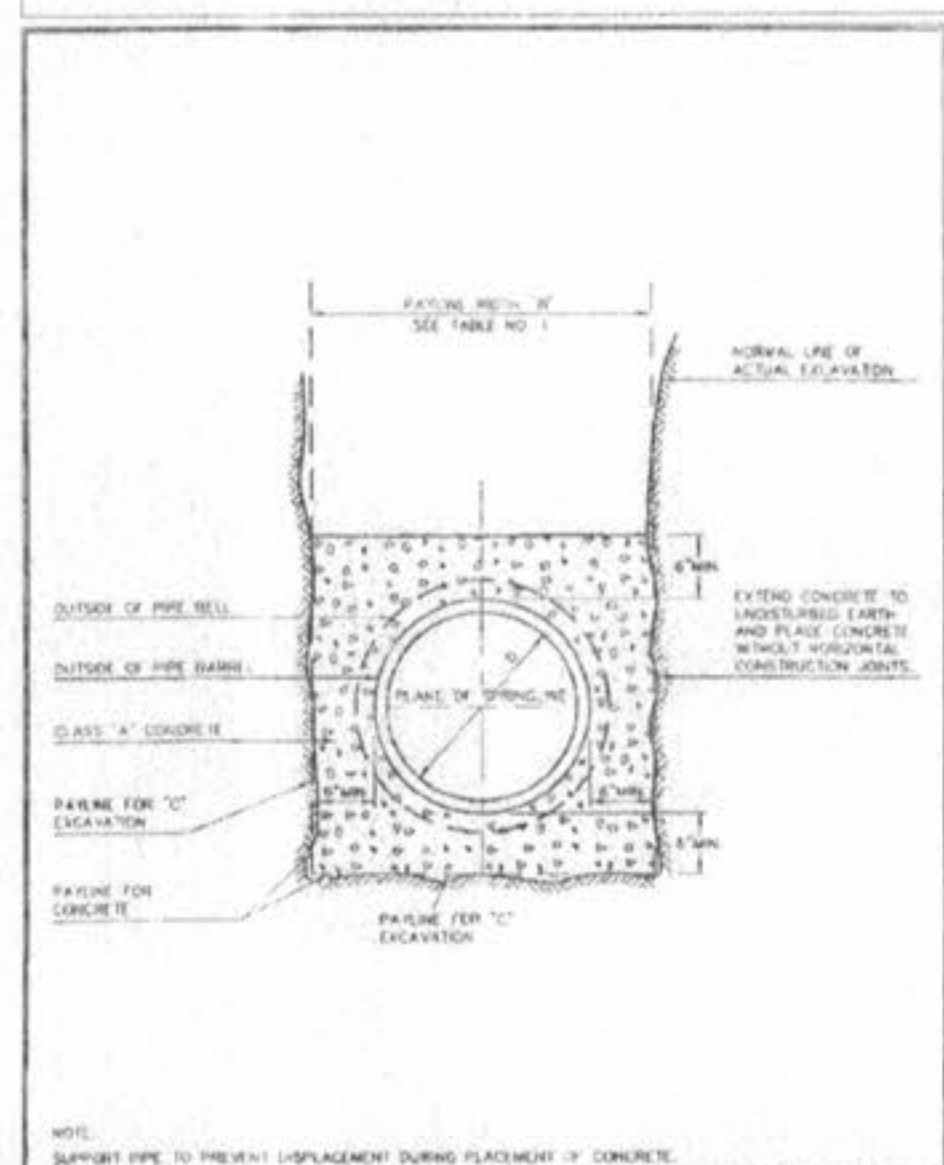
SPECIAL PIPE BEDDING DETAIL FOR SUBGRADE REPLACEMENT 12" DEPTH OR MORE
METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. S.A.M.
Ch. P.W.S. 2000 SHEET 7



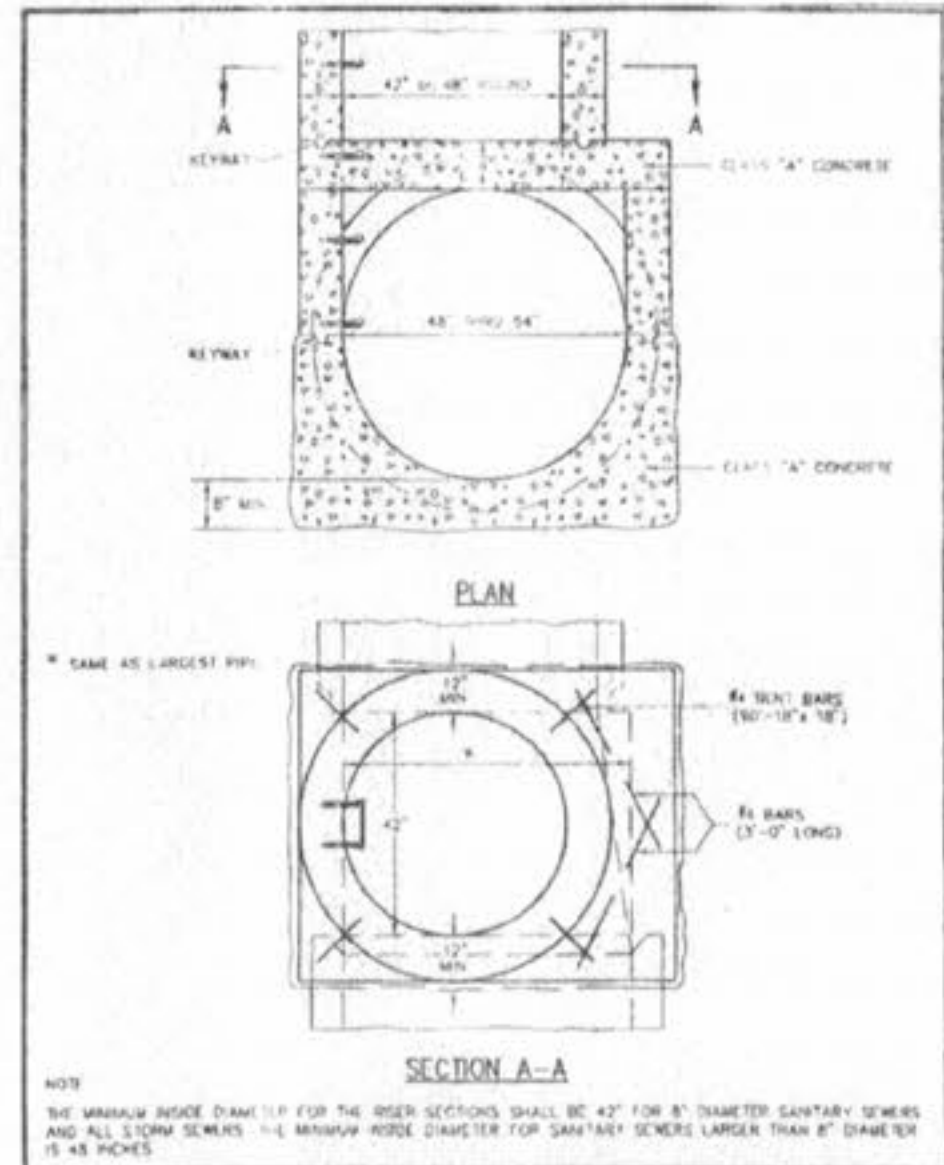
MANHOLE ON CONCRETE PIPE SEWERS 48" THRU 54" DIAMETER
METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. WSH/AM
Ch. J.C.K. 2000 SHEET 13



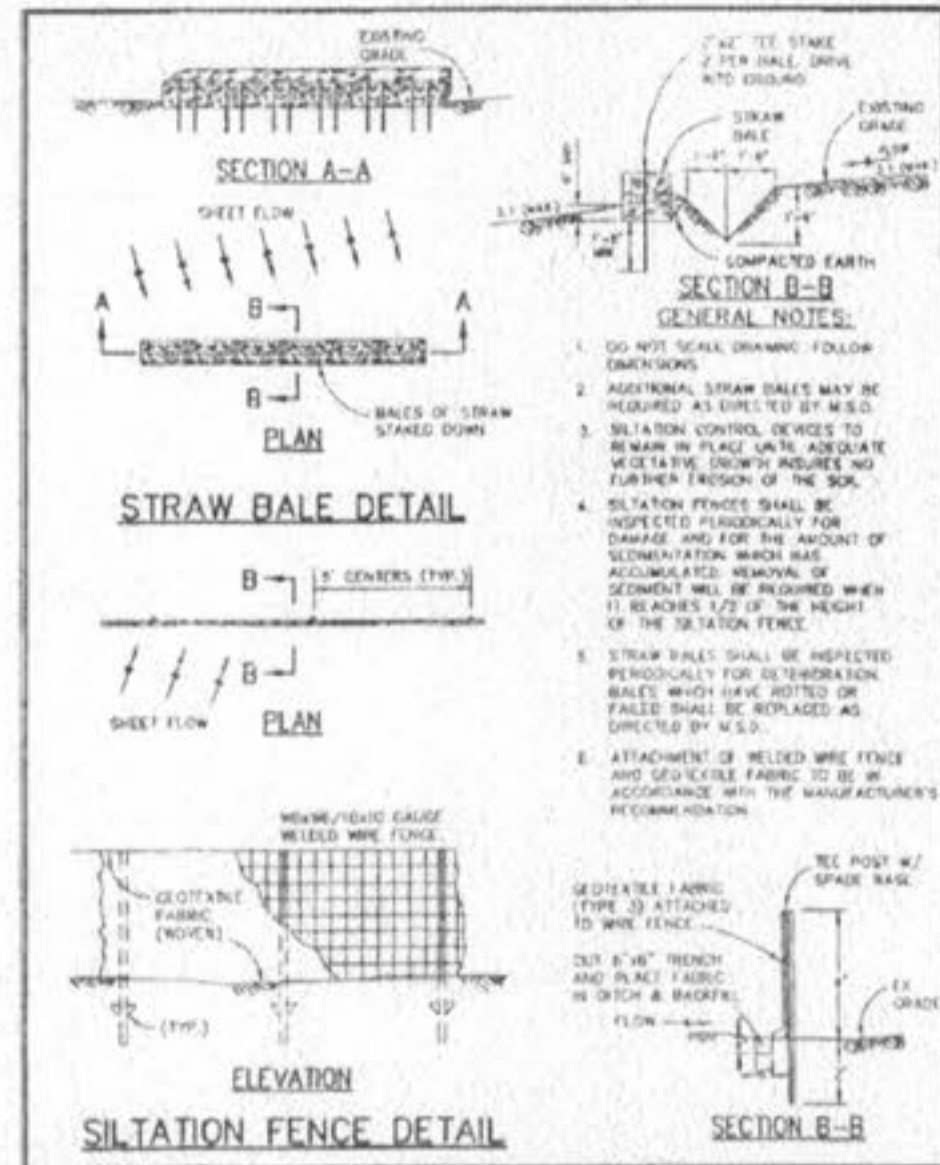
PAYLINE LIMITS FOR EXCAVATION
METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. WSH/AM
Ch. J.C.K. 2000 SHEET 2



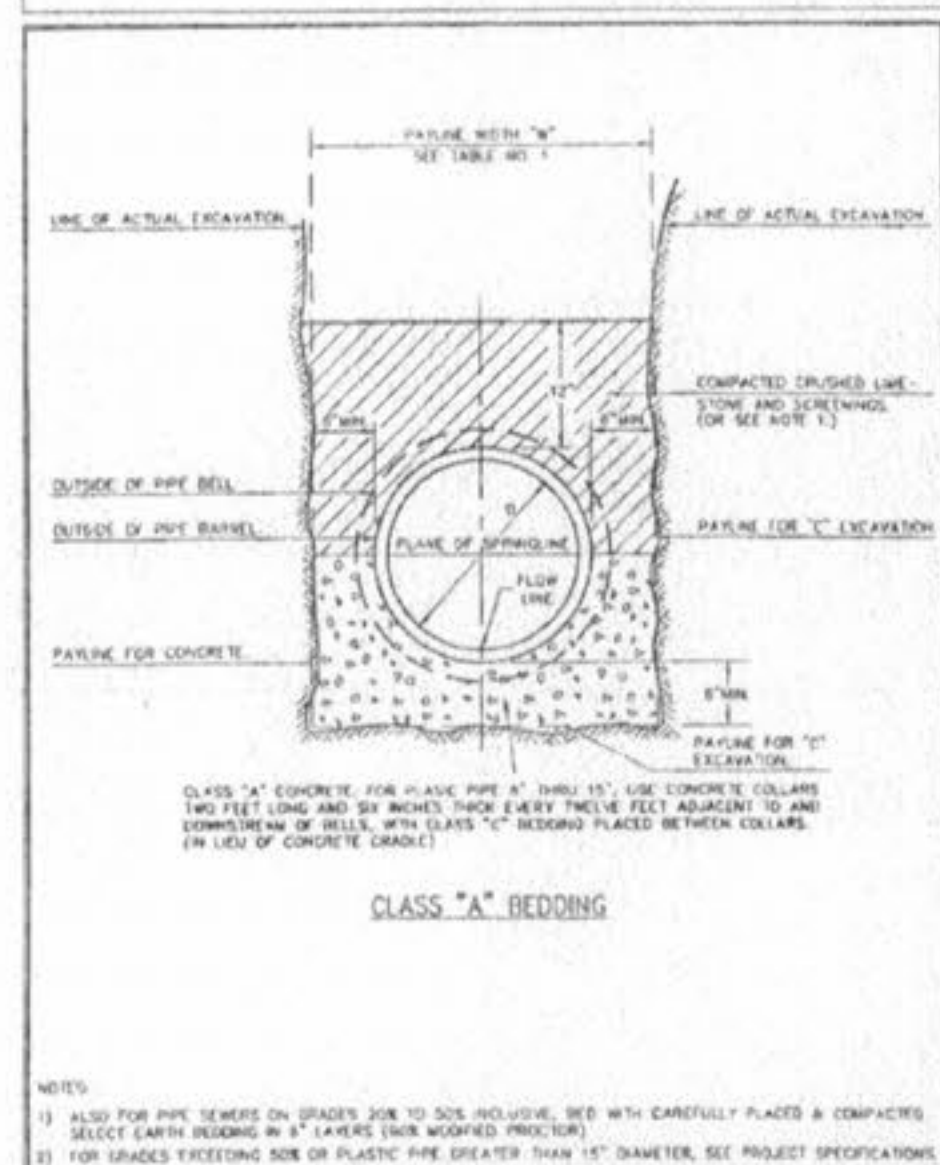
CONCRETE ENCASEMENT
METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. WSH/AM
Ch. J.C.K. 2000 SHEET 8



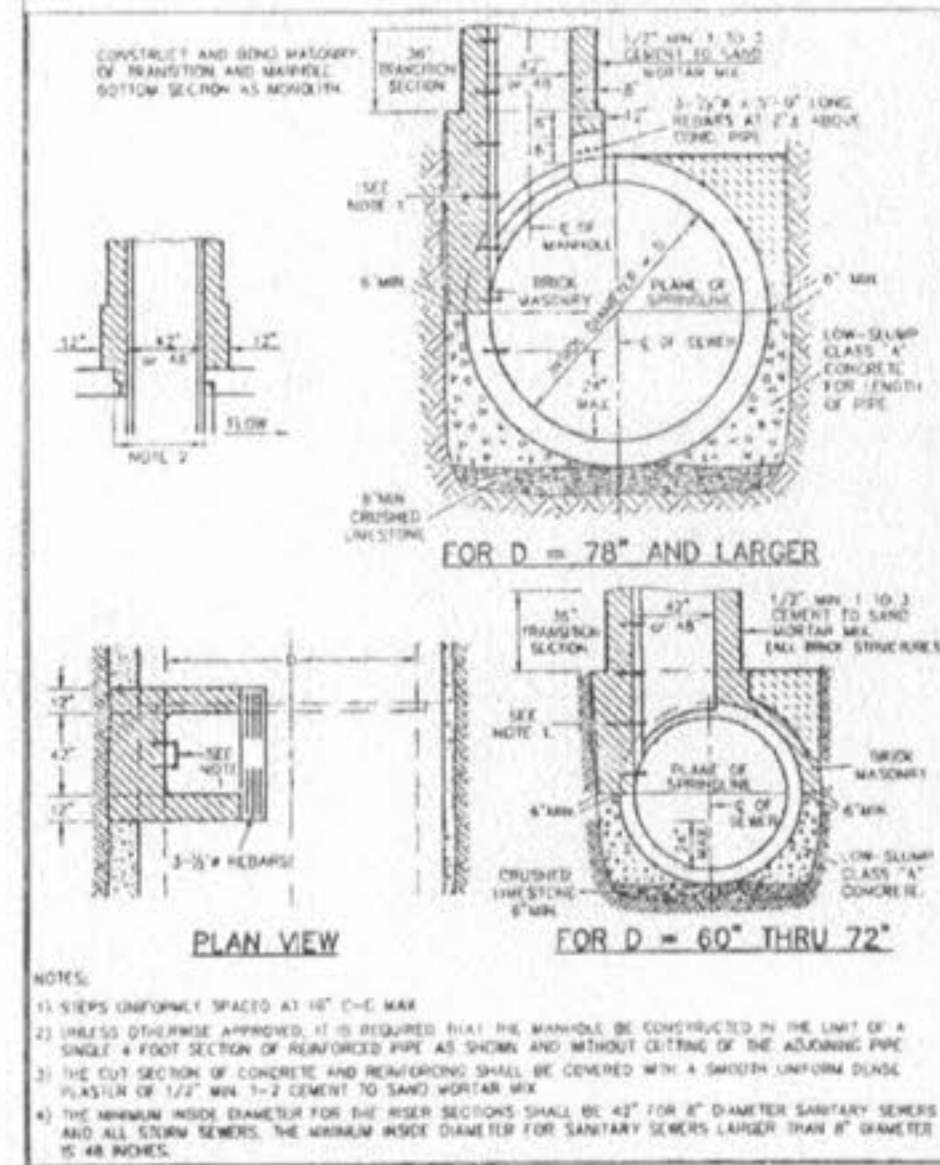
MANHOLE ON CONG. PIPE 48" THRU 54" (ALTERNATE)
METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. WSH/AM
Ch. J.C.K. 2000 SHEET 14



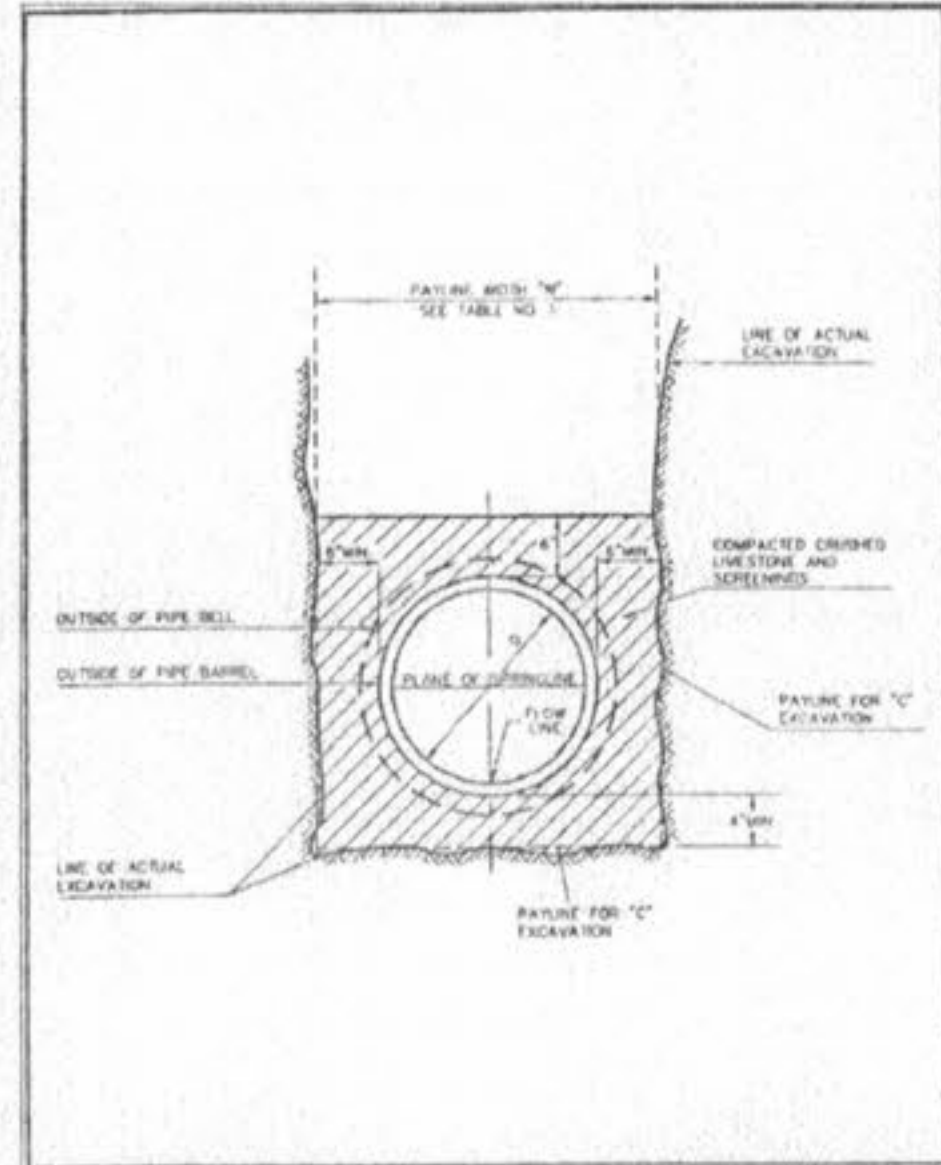
TYPICAL SILTATION CONTROL DEVICES
METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. WSH/AM
Ch. P.E.K. 2000 SHEET 3



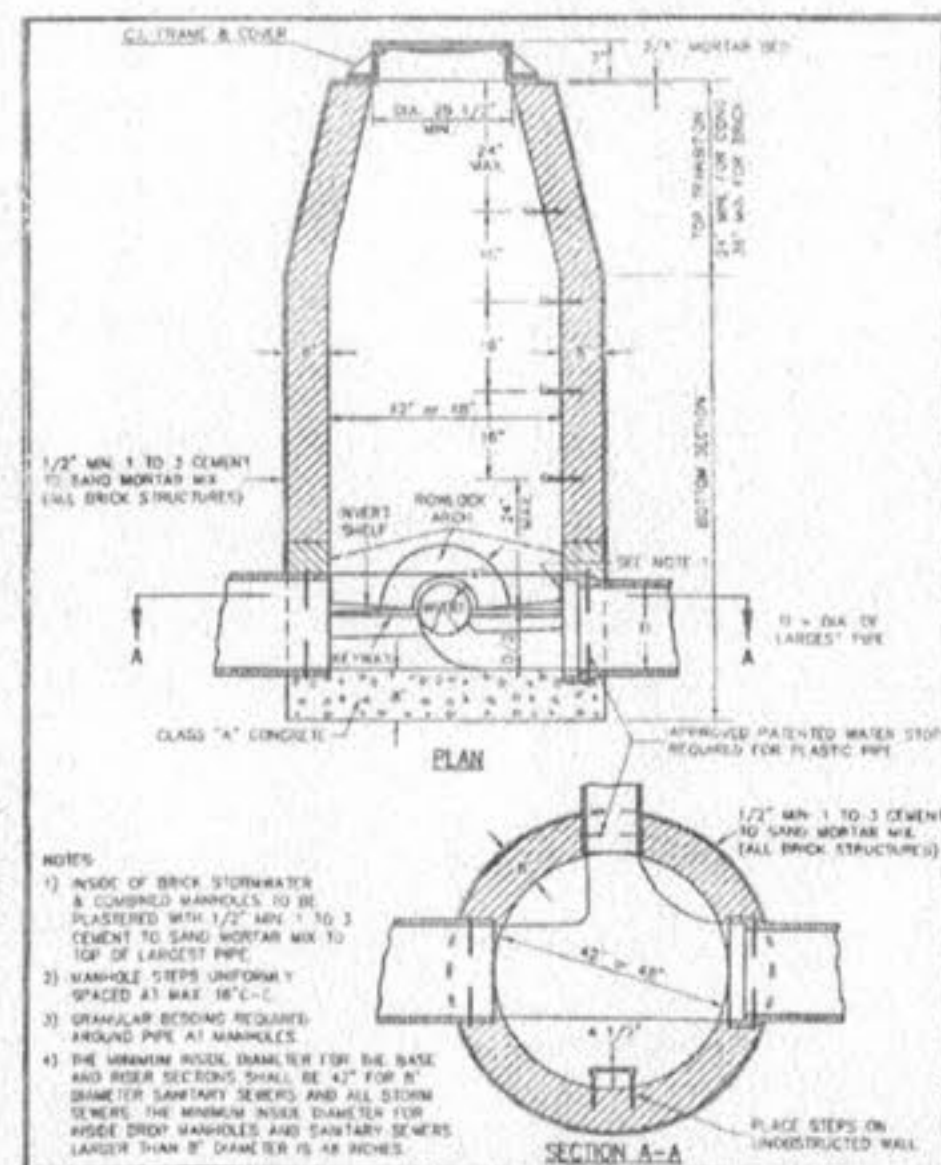
CONCRETE CRADLE
METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. WSH/AM
Ch. J.C.K. 2000 SHEET 9



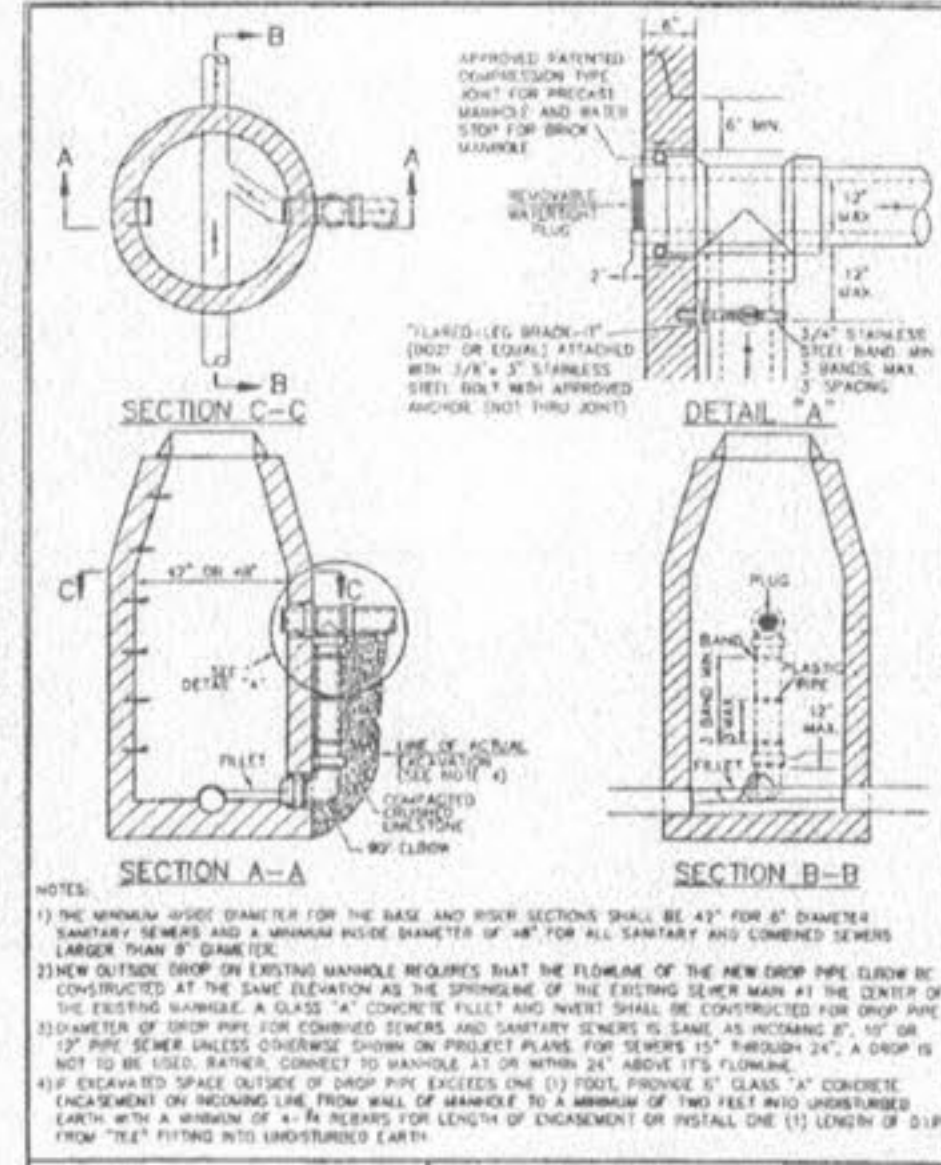
TYPICAL MANHOLE BASE REINFORCED CONCRETE PIPE SEWERS 60" AND LARGER IN DIAMETER
METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. WSH/AM
Ch. J.C.K. 2000 SHEET 15



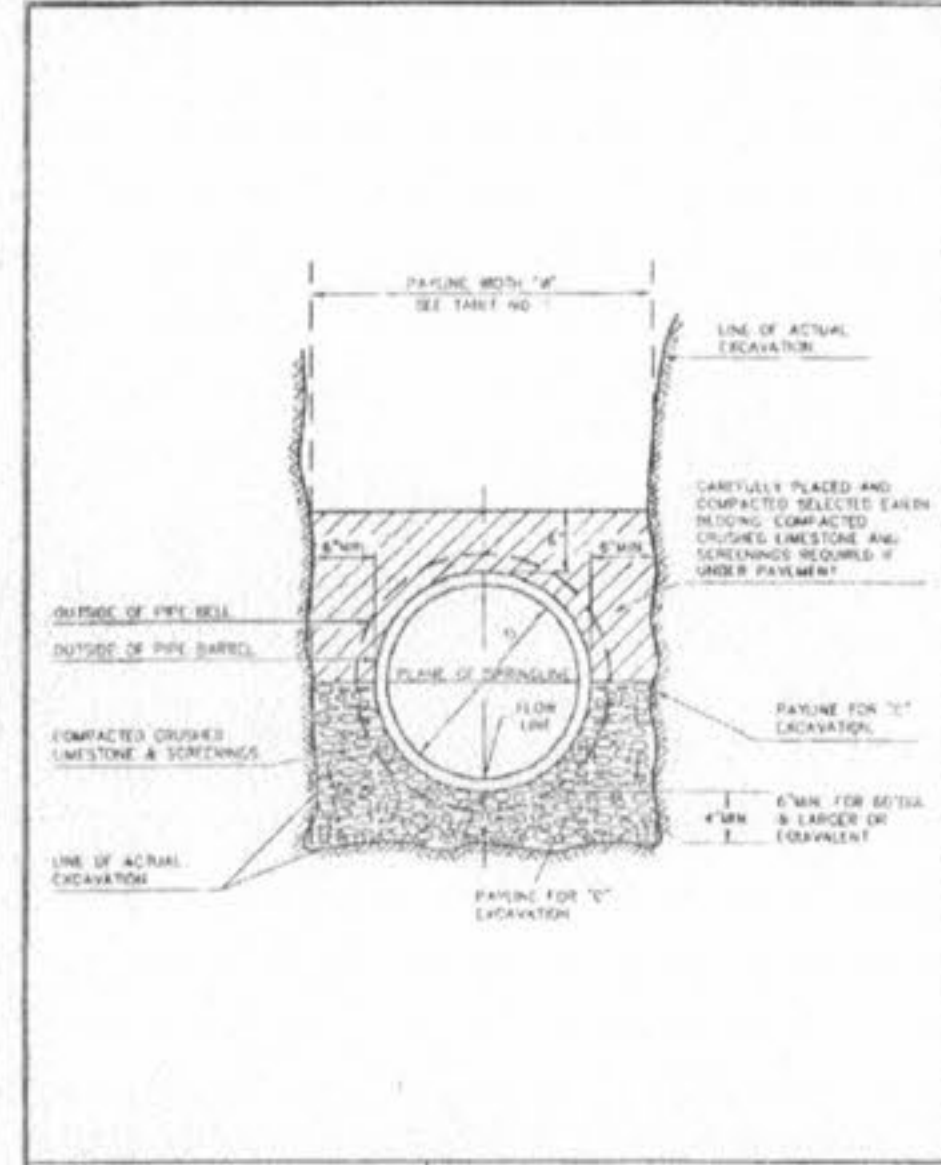
PIPE BEDDING CLASS "C" (FOR ALL PIPE EXCEPT REINFORCED CONCRETE PIPE)
METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. WSH/AM
Ch. J.C.K. 2000 SHEET 4



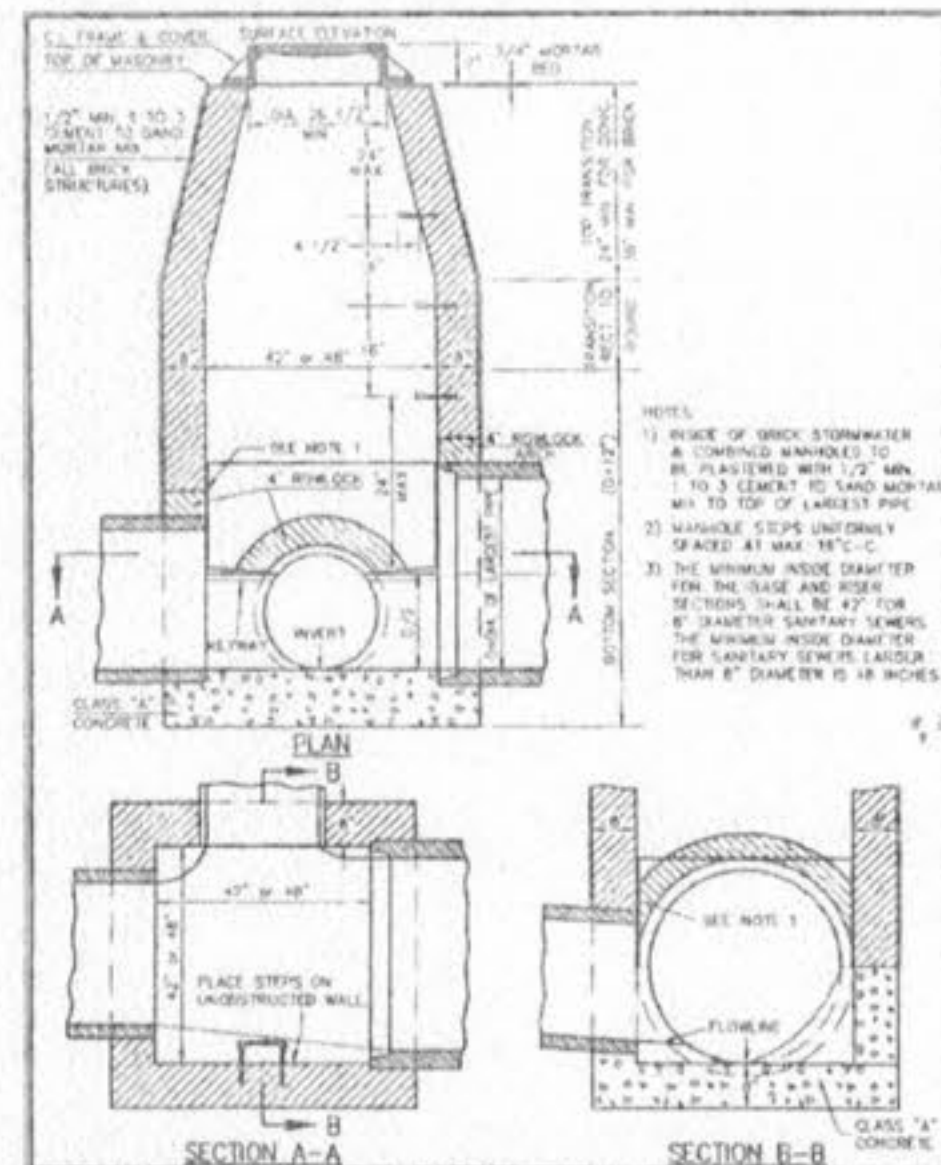
PIPE BEDDING CLASS "C" (FOR ALL PIPE EXCEPT REINFORCED CONCRETE PIPE)
METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. WSH/AM
Ch. J.C.K. 2000 SHEET 5



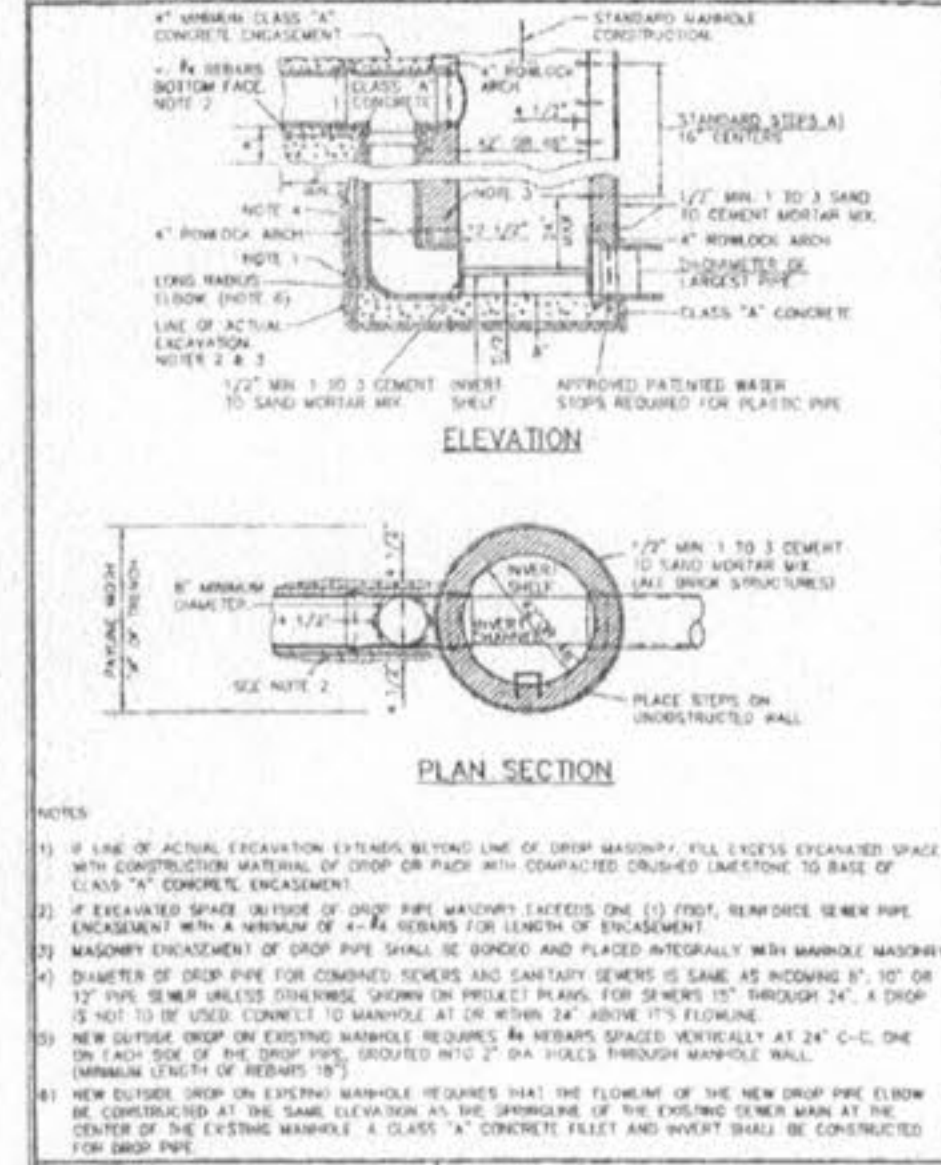
OUTSIDE FOULWATER DROP MANHOLE (ALTERNATE)
METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. S.A.M.
Ch. P.W.S. 2000 SHEET 16



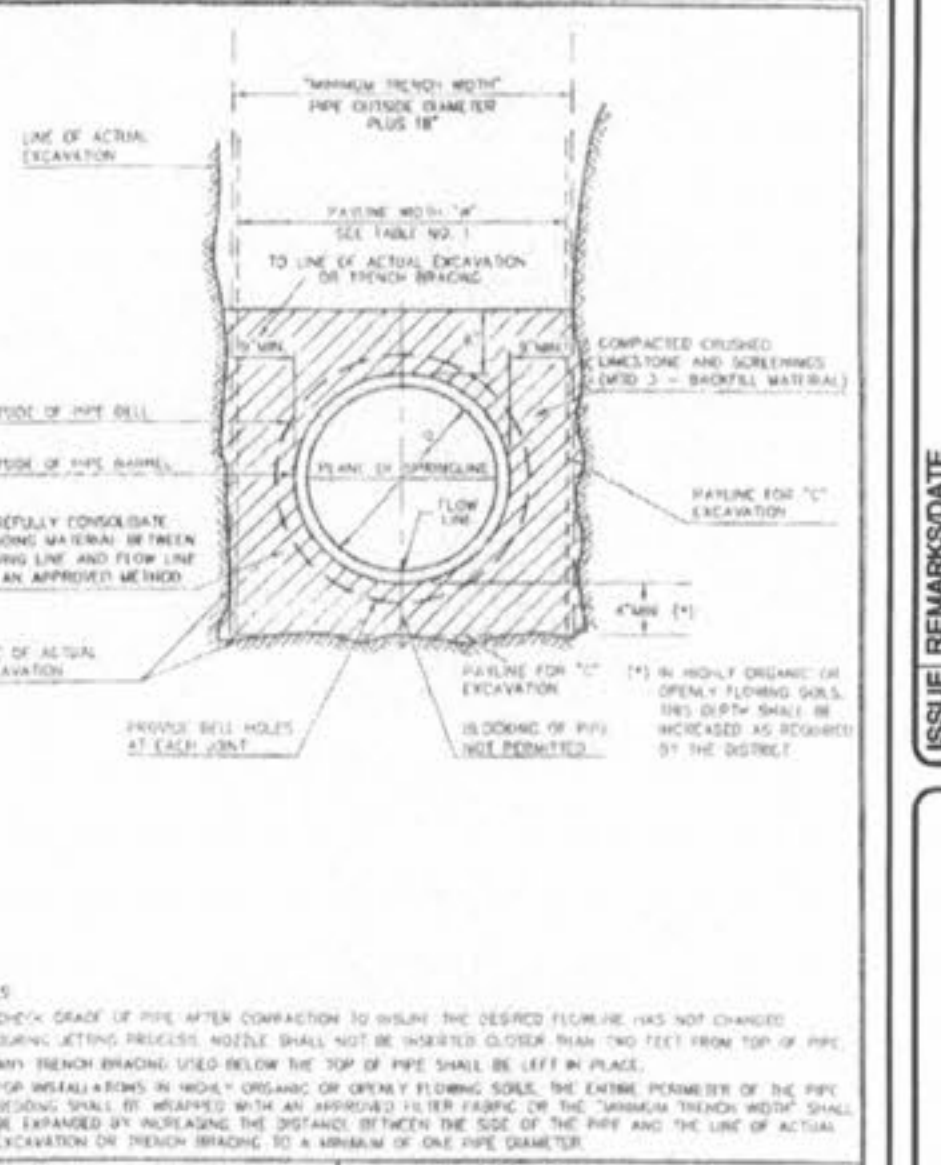
PIPE BEDDING CLASS "C" (MODIFIED FOR REINFORCED CONCRETE PIPE)
METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. WSH/AM
Ch. J.C.K. 2000 SHEET 6



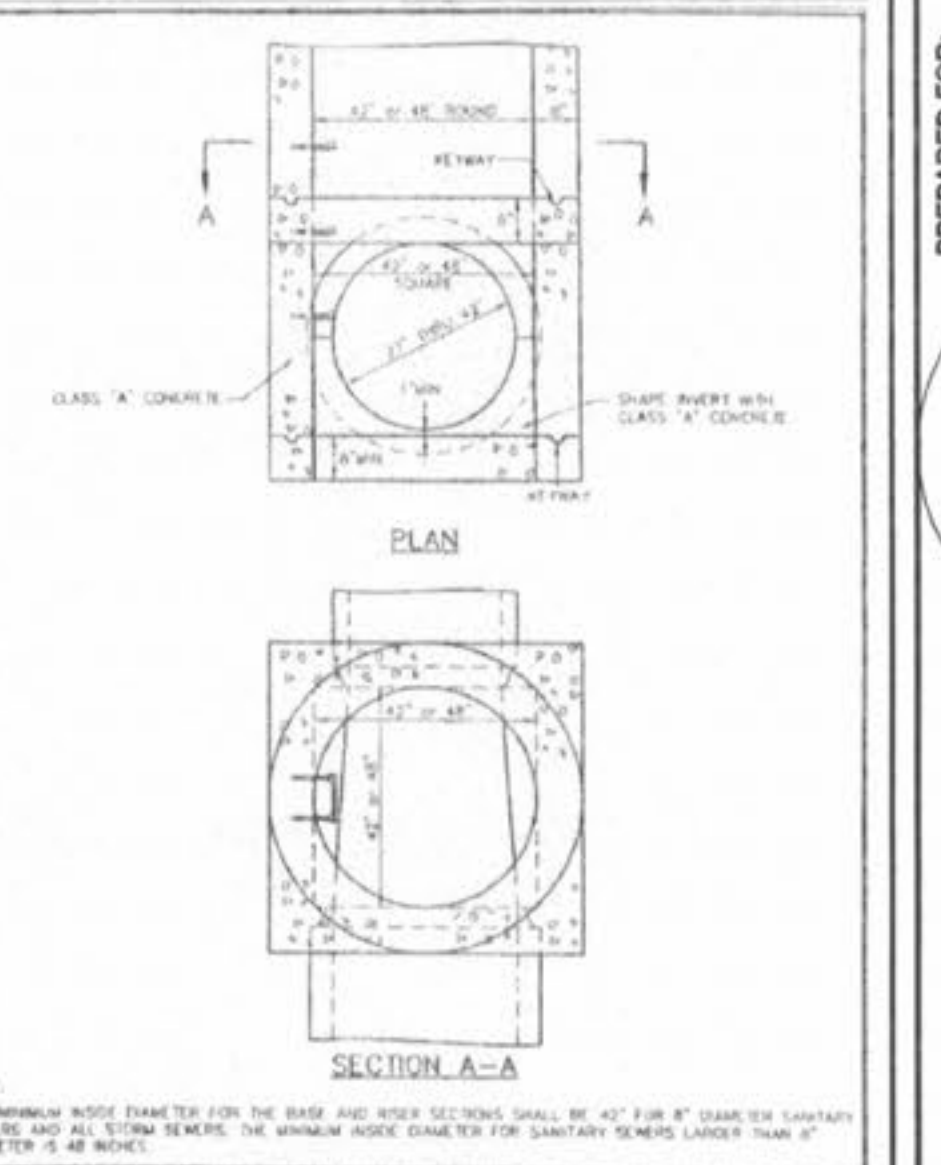
TYPICAL LINE MANHOLE ON PIPE SEWER 27" THRU 42" IN DIAMETER
METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. WSH/AM
Ch. J.C.K. 2000 SHEET 11



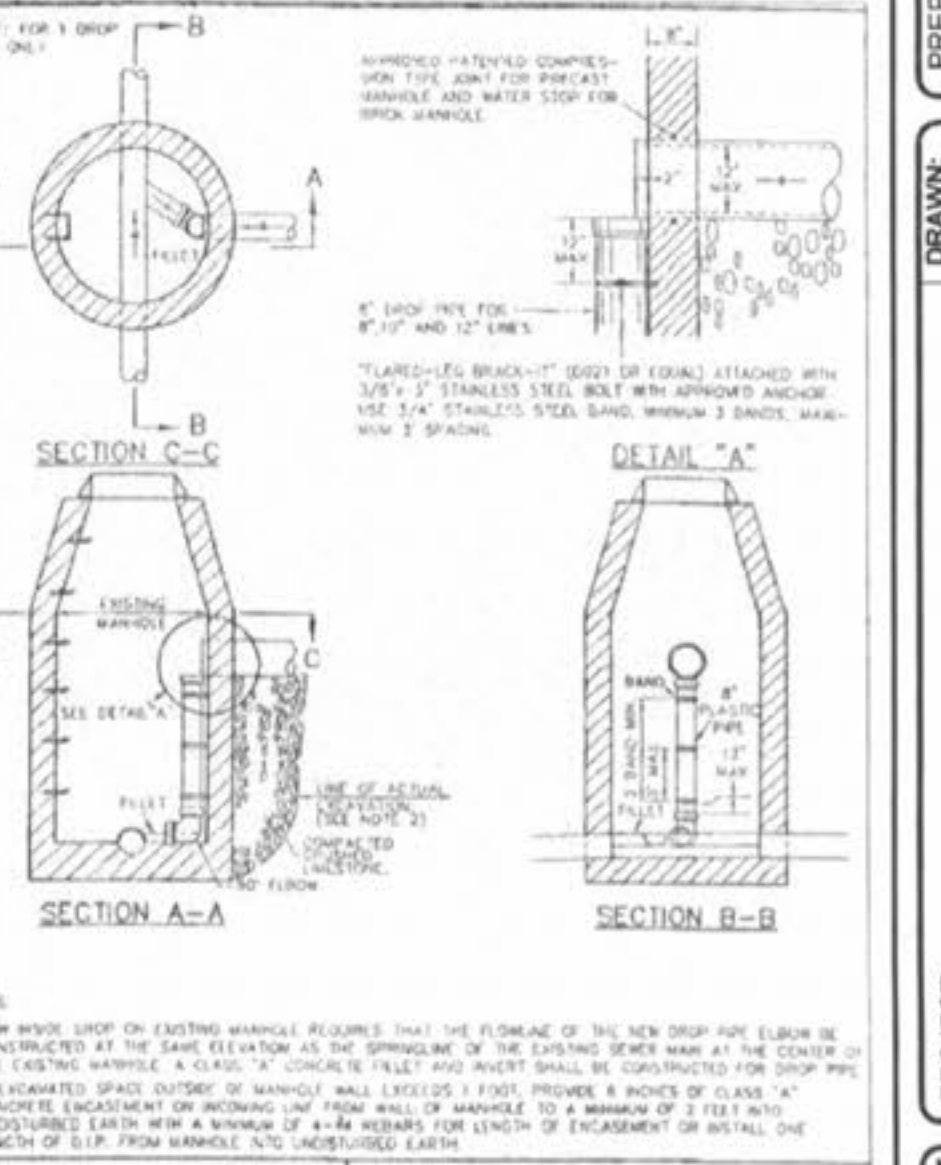
OUTSIDE FOULWATER DROP MANHOLE (ALTERNATE)
METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. WSH/AM
Ch. J.C.K. 2000 SHEET 17



PIPE BEDDING FOR FLEXIBLE PIPE 18" - 48" DIAMETER
METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. P.H.A.
Ch. T.R.M. 2000 SHEET 8



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



NEW INSIDE DROP ON EXISTING MANHOLE FOR SEWERS 8 INCH TO 12 INCH
METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. WSH/AM
Ch. J.C.K. 2000 SHEET 18

ISSUE	REVISION/DATE
1	05-14-03 1st Submittal
2	05-24-03 City of Ofallon Comments

PREPARED FOR:
McBride & Son Home, Inc.
ENGINEERS & SURVEYORS
#1 McBride & Son Center Drive
Chestertfield, Missouri 63005
(636) 537-2000

THE **STERLING** CO.
ENGINEERS & SURVEYORS
5055 NEW BAUMGARTNER ROAD
ST. LOUIS, MISSOURI 63129
(314) 487-8944
E-Mail: Sterling@stern-stl.net

PROJECT:	BRIARCHASE PHASE TWO	
DRAWN:	DESIGNED:	CHECKED:
NO.	02 03 043	SHEET
M.S.D.	CD3	OF
DIGITAL FILE LOCATION	CONSTRUCTION DETAILS	