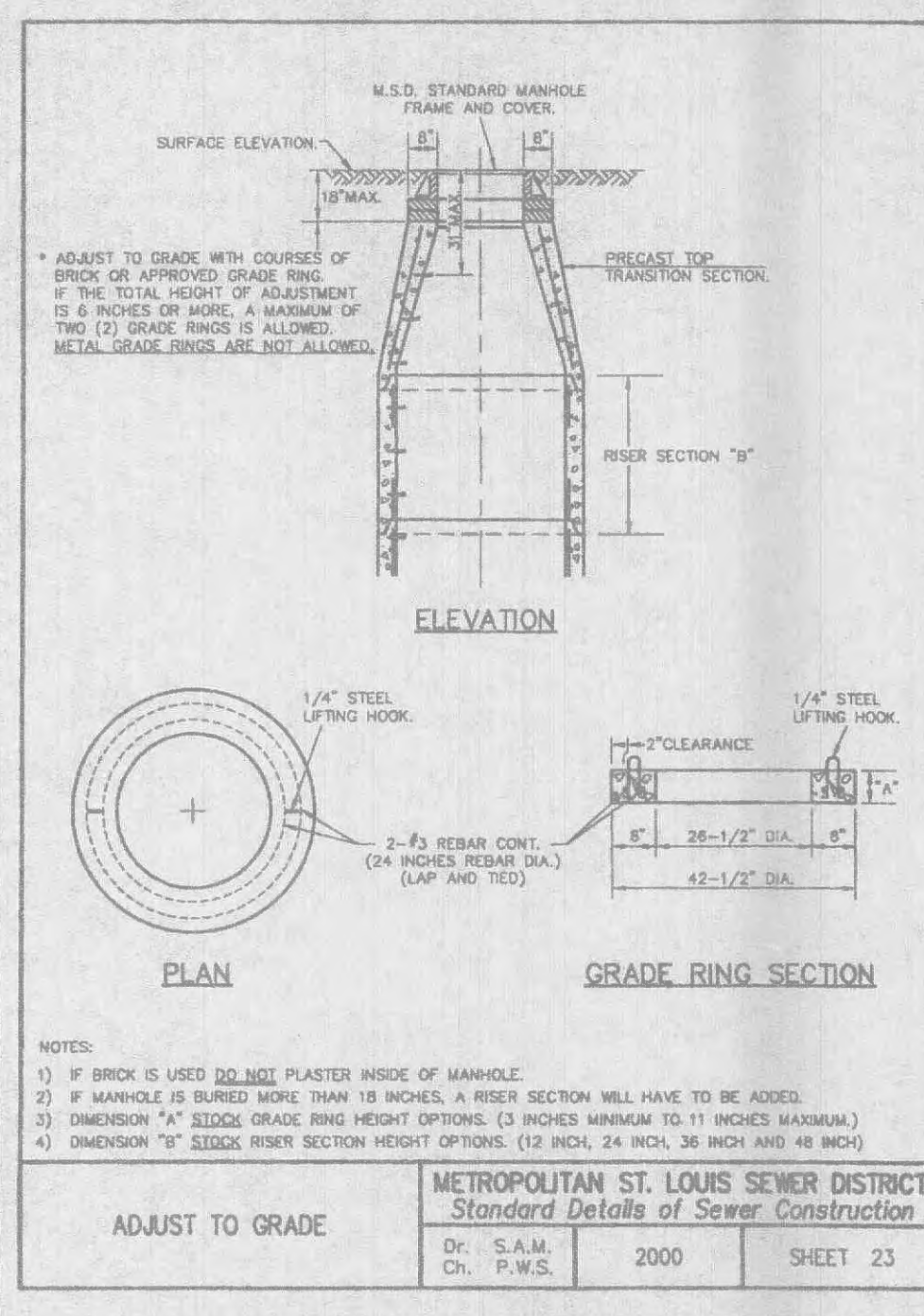
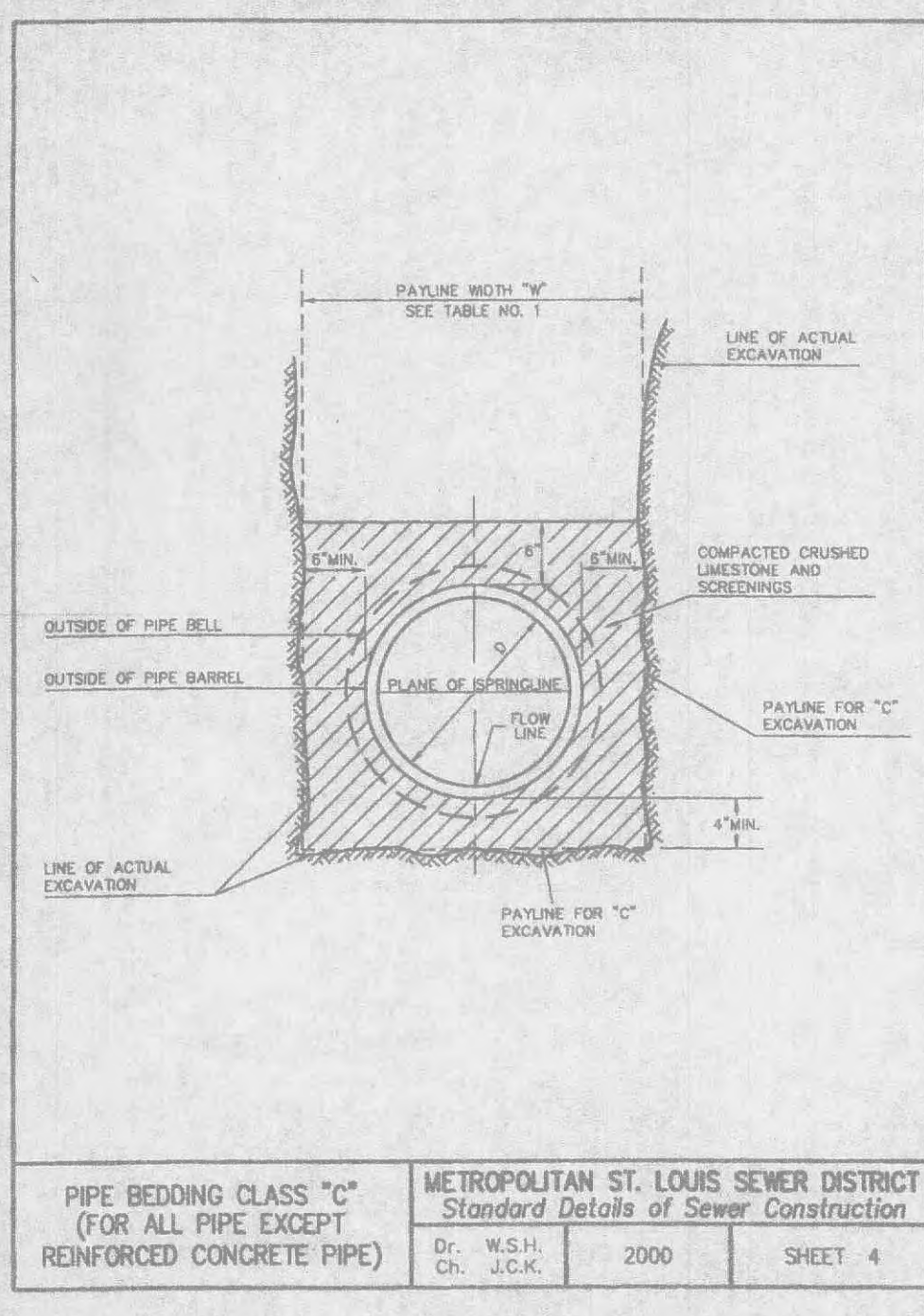


ROUND PIPE				HORIZONTAL ELLIPTICAL PIPE			
INSIDE DIAMETER OF PIPE (INCHES)	"W" PAYLINE WIDTH OF TRENCH (INCHES)	"P" PAYLINE WIDTH OF TRENCH (FEET)	PAY-VOLUME CONCRETE ENCASUREMENT (CU. FT. PER FT.)	INSIDE DIMENSIONS OF PIPE (INCHES)	"W" PAYLINE WIDTH OF TRENCH (INCHES)	"P" PAYLINE WIDTH OF TRENCH (FEET)	PAY-VOLUME CONCRETE ENCASUREMENT (CU. FT. PER FT.)
4	30	2.50	3.28				
6	30	2.50	3.59				
8	30	2.50	3.87				
10	30	2.50	4.08				
12	30	2.50	4.25				
15	36	3.00	5.55				
18	36	3.00	5.77	14 x 23	41	3.42	5.94
21	36	3.25	6.81				
24	42	3.50	7.39	19 x 30	49	4.08	7.68
27	42	3.75	8.18	22 x 34	53	4.42	8.61
30	48	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
38				32 x 48	71	5.92	12.74
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	16.16
54	77	6.42	18.15	43 x 68	92	7.67	18.61
60	84	7.00	20.73	48 x 79	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	80 x 128	160	13.33	44.45
108	140	11.67	46.75	87 x 138	169	14.00	47.79
114	147	12.25	50.66	92 x 143	178	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	108 x 166	202	16.83	64.48
144	182	15.17	72.40	118 x 180	218	18.17	73.59

TABLE 1
PAYLINE WIDTHS OF TRENCH AND PAY-QUANTITIES OF CONCRETE

METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. B.E.S. Ch. J.C.K. 2000 SHEET 1



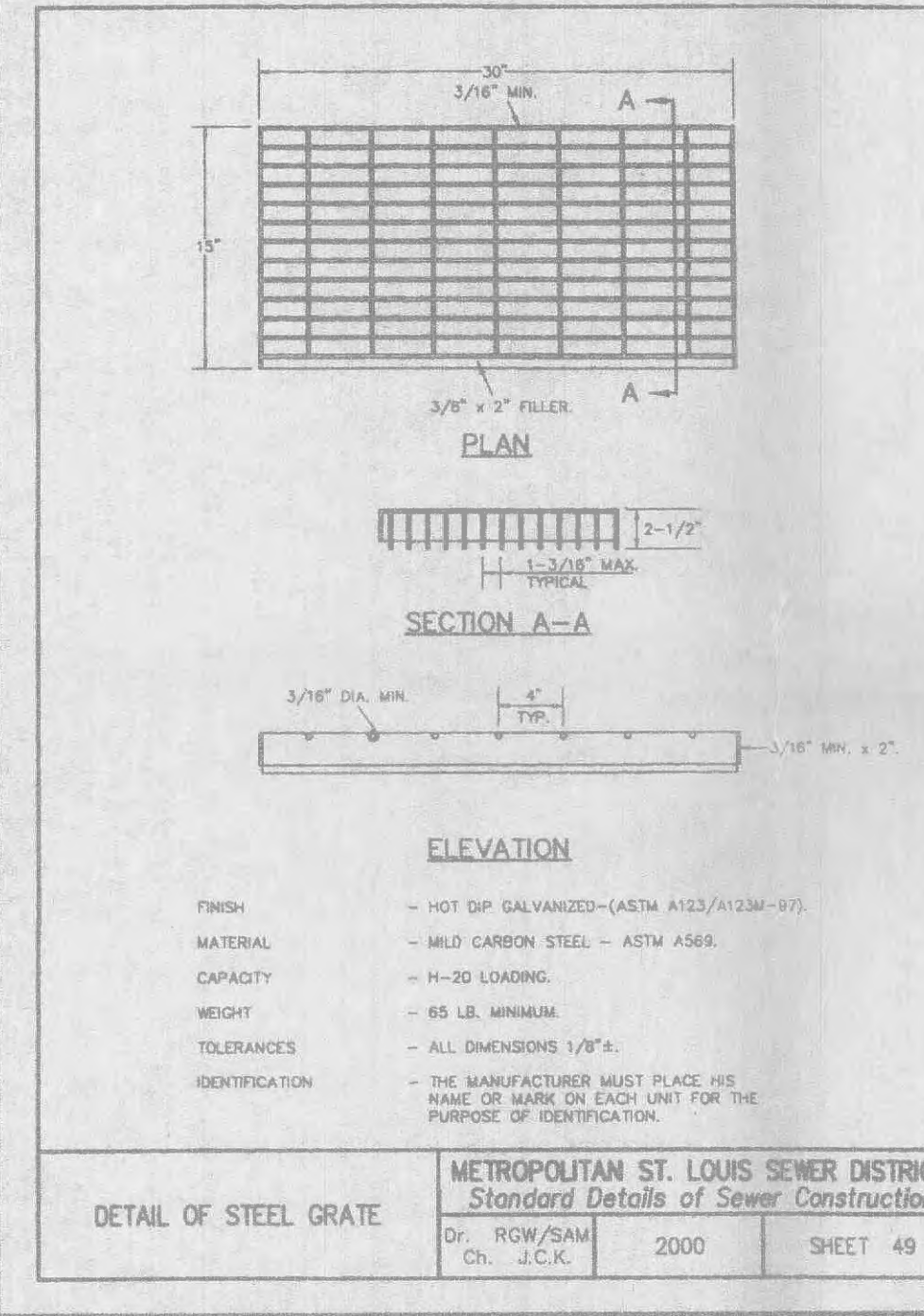
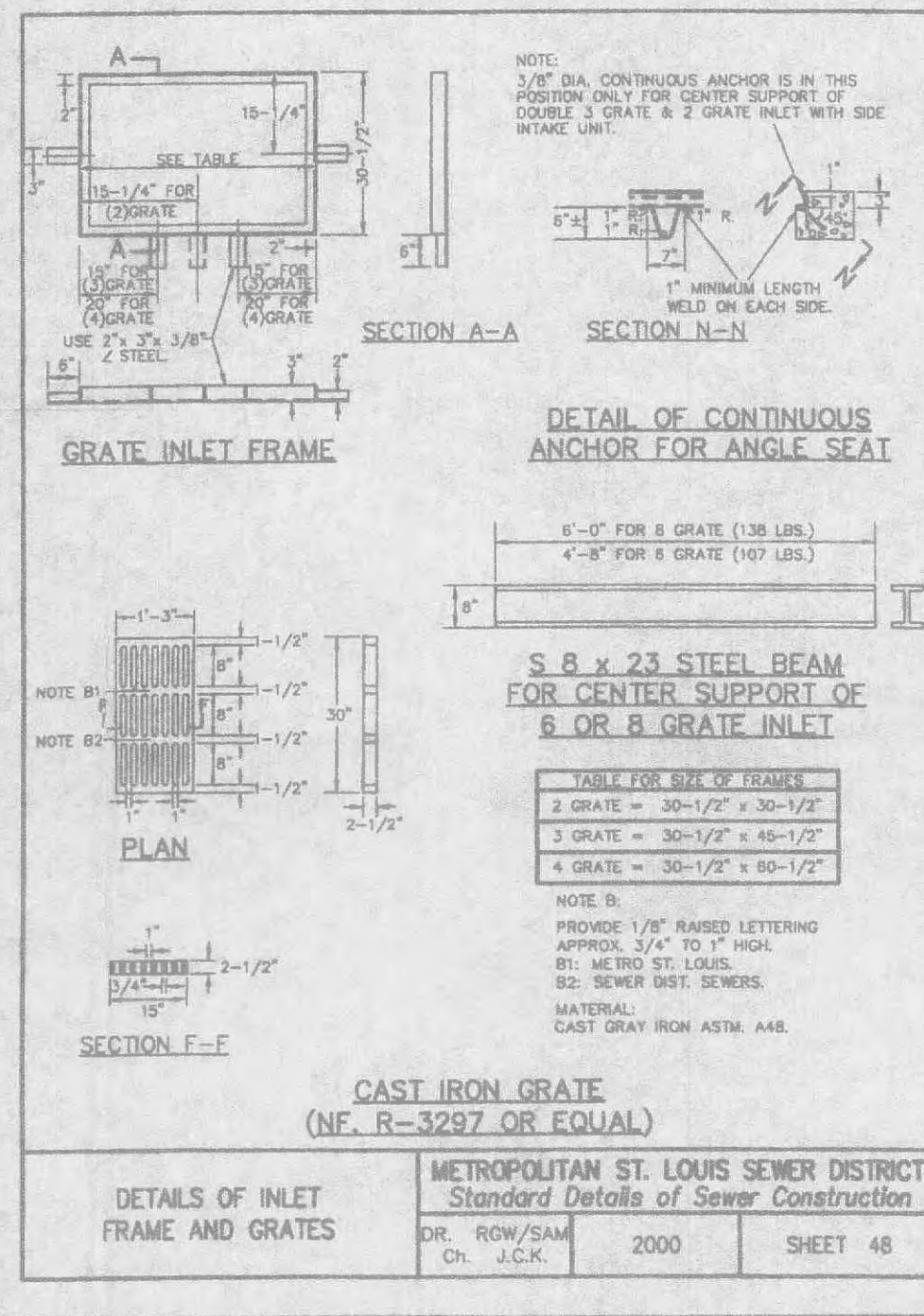
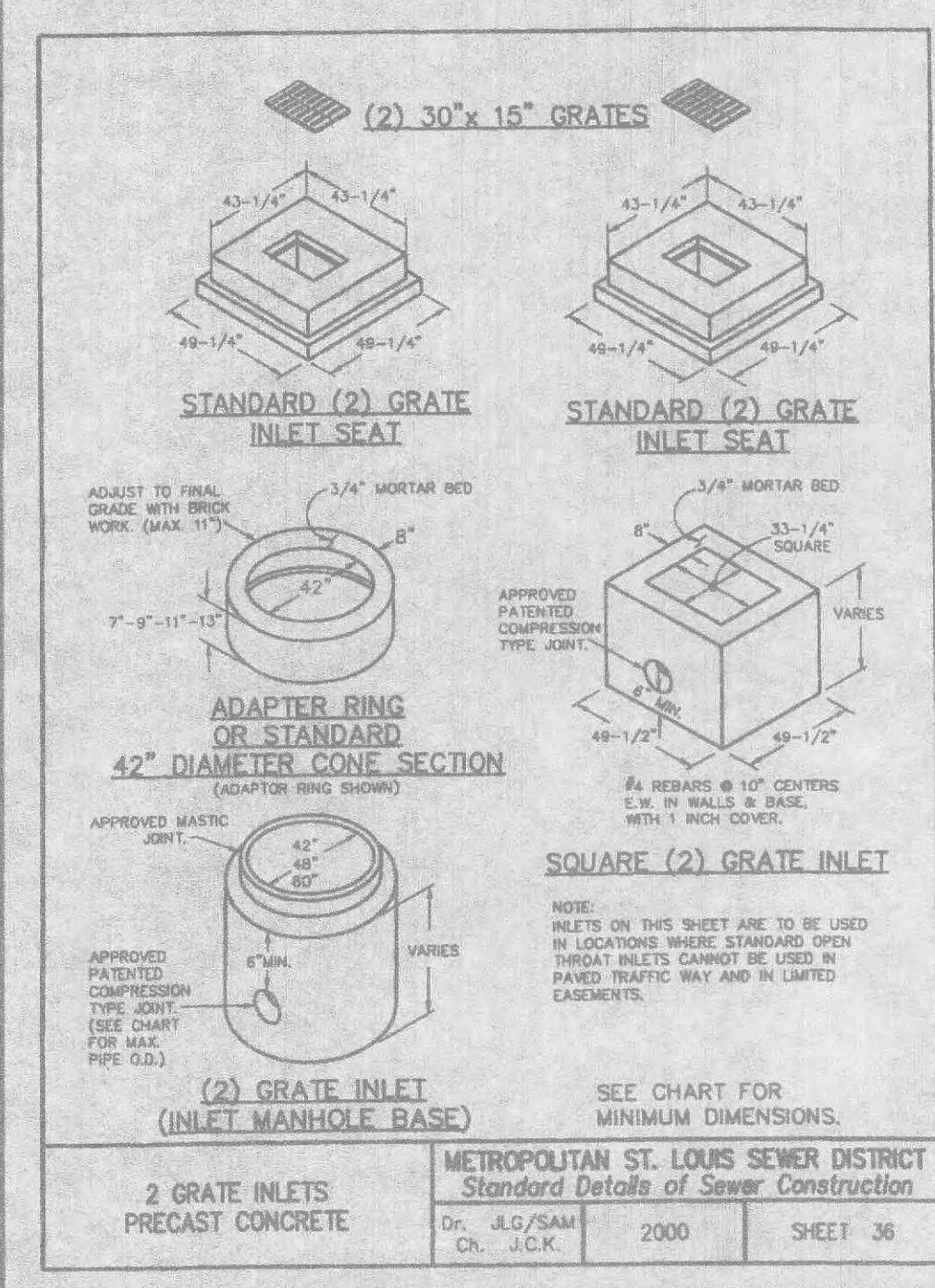
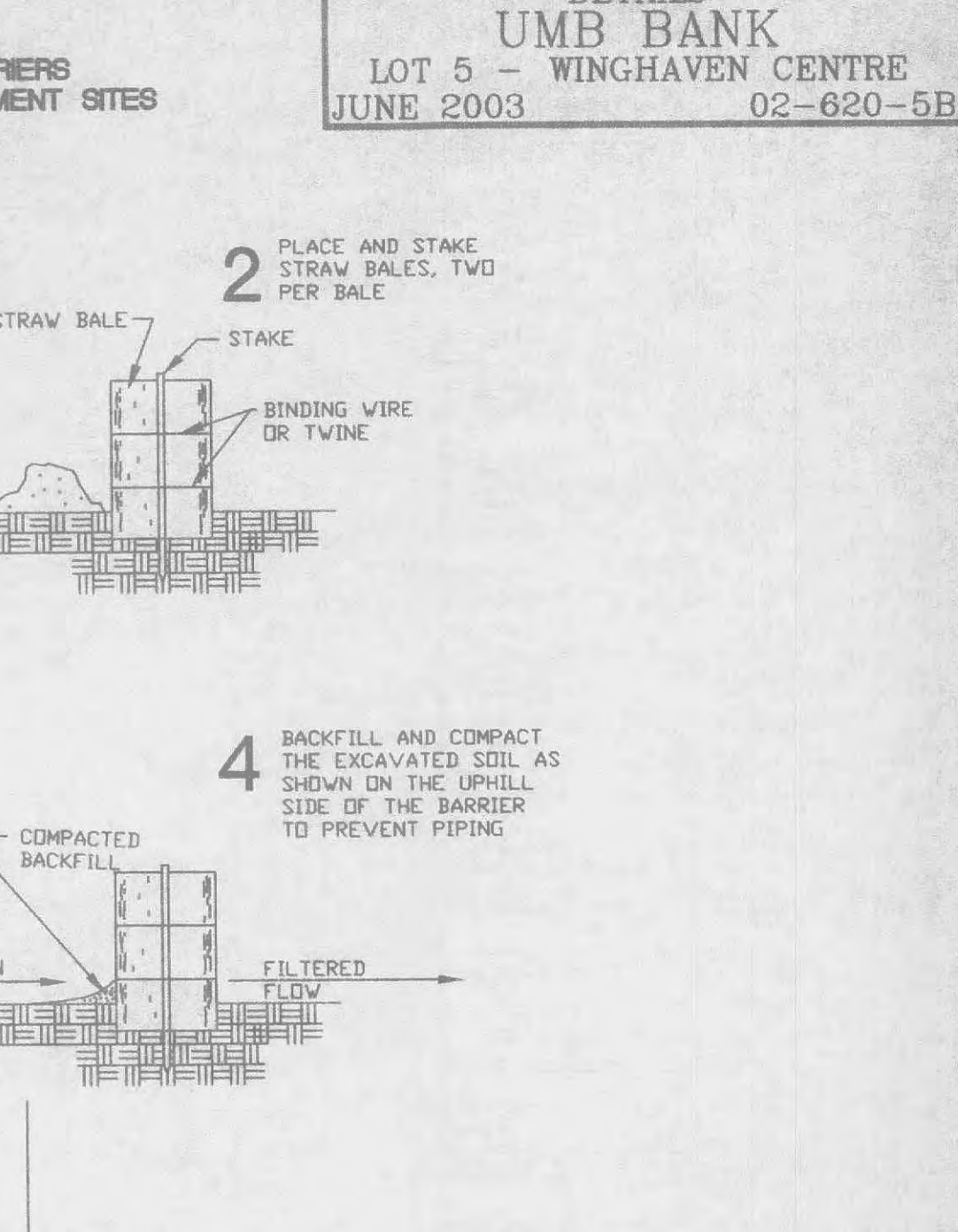
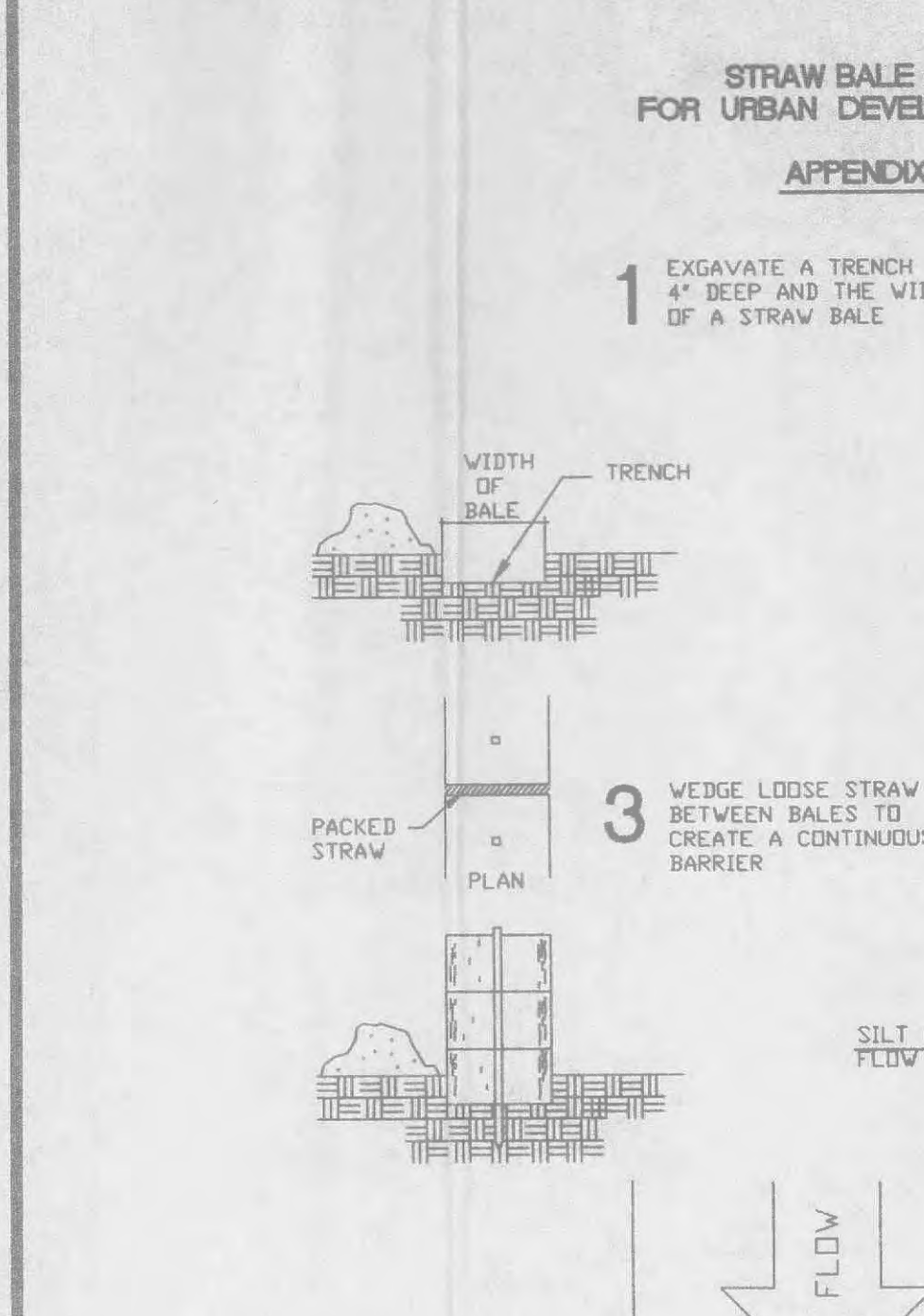
PRECAST CONCRETE STORMWATER STRUCTURES

MINIMUM DISTANCE FLOWLINE TO TOP OF STONE OR GRATE

PIPE I.D. (INCHES)	AREA INLET CIRCULAR BASE DIA. (INCHES)	(2) GRATE INLET CIRCULAR BASE DIA. (INCHES)	SINGLE STREET INLET CIRCULAR BASE DIA. (INCHES)	SINGLE STREET INLET SQUARE BASE DIA. (INCHES)
12"	45"	36"	30"	48"
15"	48"	41"	36"	51"
18"	52"	44"	39"	55"
21"	56"	47"	42"	59"
24"	60"	51"	45"	63"
27"	64"	55"	48"	67"
30"	68"	59"	51"	71"
33"	72"	63"	54"	75"

NOTES:
1) 48" DIAMETER BASE REQUIRES 7" HIGH TRANSITION SECTION TO 42" DIAMETER.
2) 60" DIAMETER BASE REQUIRES 2" HIGH CONCENTRIC REDUCER TRANSITION TO 42" DIAMETER.
3) STANDARD DEPTH = 3' PIPE DIAMETER.

PRECAST CONCRETE STORMWATER STRUCTURES
METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. J.L.C. Ch. J.C.K. 2000 SHEET 34



VEGETATIVE ESTABLISHMENT FOR URBAN DEVELOPMENT SITES

APPENDIX A

SEEDING RATES:

Permanent:
Tall Fescue - 30 lbs./ac.
Smooth Brome - 20 lbs./ac.
Combined Fescue/Brome and Brone#10 lbs./ac.

Temporary:
Wheat or Rye - 150 lbs./ac. (3.5 lbs. per 1000 sq. ft.)
Oats - 120 lbs./ac. (2.75 lbs. per 1000 sq. ft.)

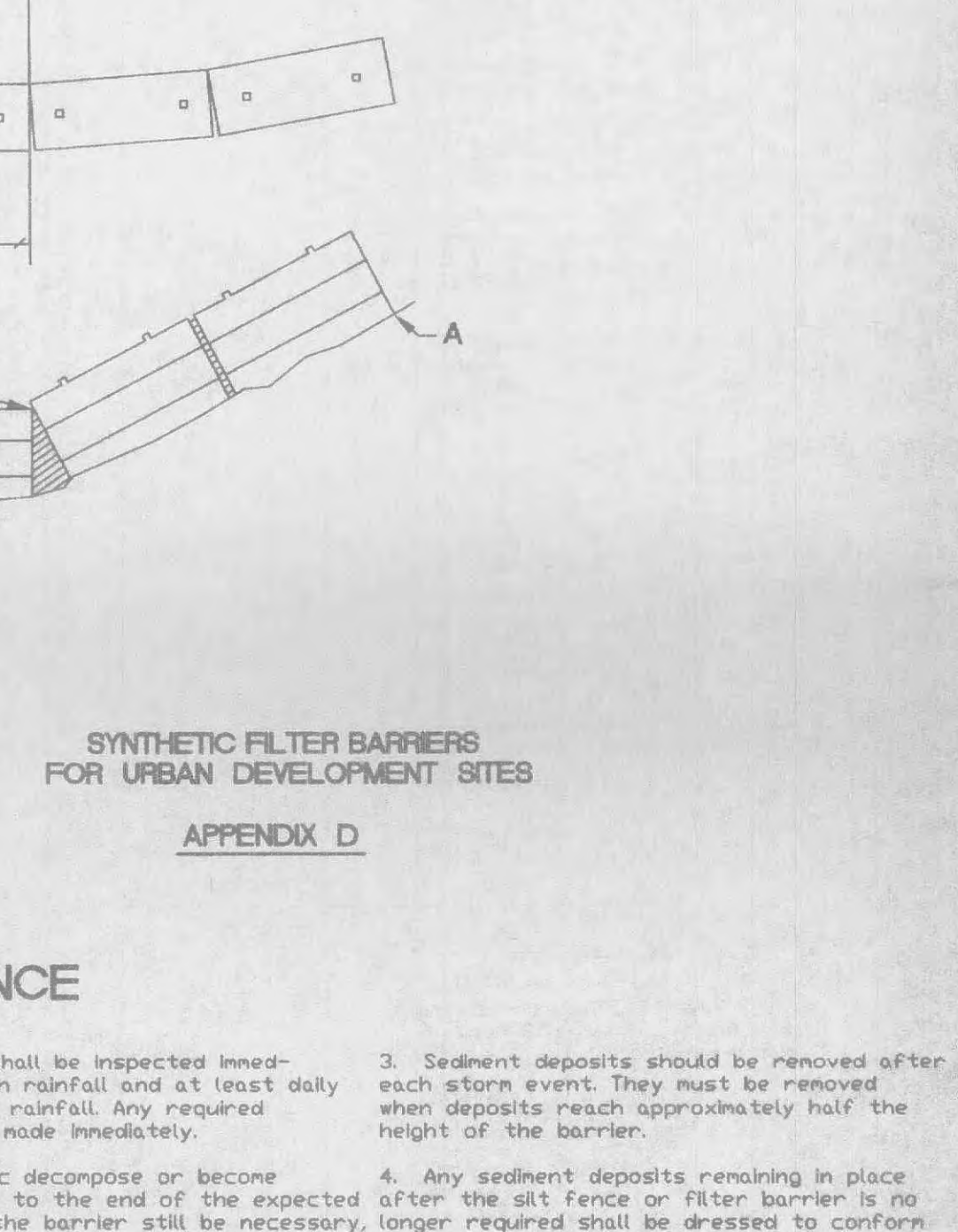
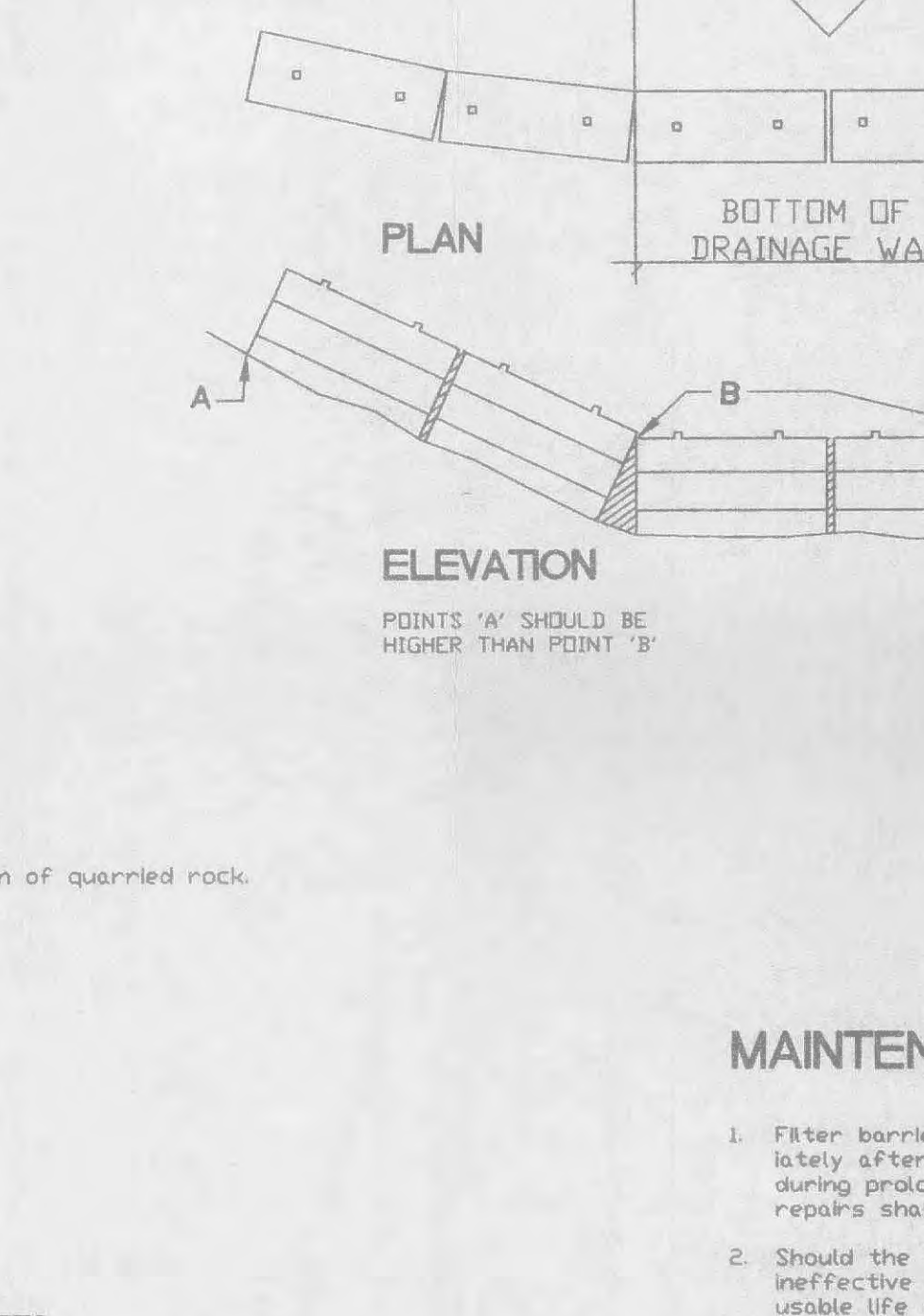
SEEDING PERIODS:
Fescue or Brome March 1 to June 1
Wheat or Rye August 1 to October 1
Oats March 15 to November 1

MULCH RATES: 100 lbs. per 1000 sq. ft. (4,356 lbs. per acre)

FERTILIZER RATES: Nitrogen 30 lbs./ac.
Phosphate 30 lbs./ac.
Potassium 30 lbs./ac.
Lime 600 lbs./ac. ENM*

*ENM = effective neutralizing material as per State evaluation of quarried rock.

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STEEL REQUIREMENTS FOR GRATE INLET SEAT

CALL	USE	Ø	STRAIGHT BARS
G-1	2, 3, OR 4 GRATE	3'-4"	
G-2	5 & 8 GRATE	5'-10"	
H-2	2 GRATE	3'-6"	
H-3	3 & 6 GRATE	4'-9"	
H-4	4 & 8 GRATE	6'-0"	

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