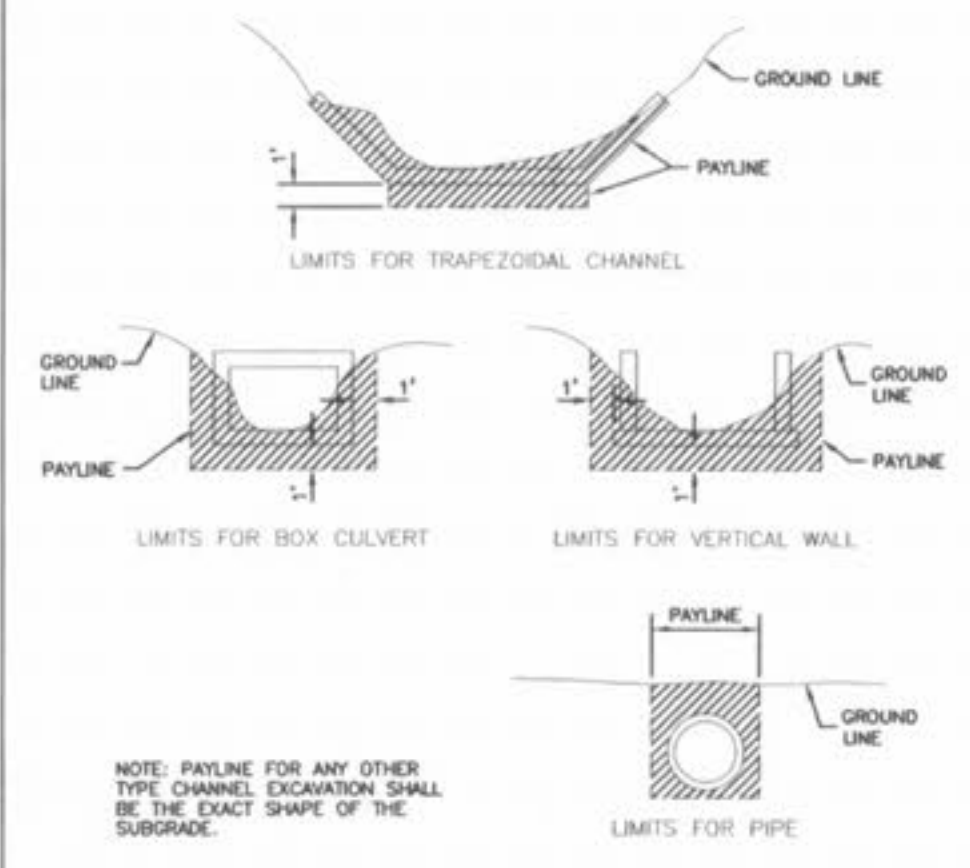


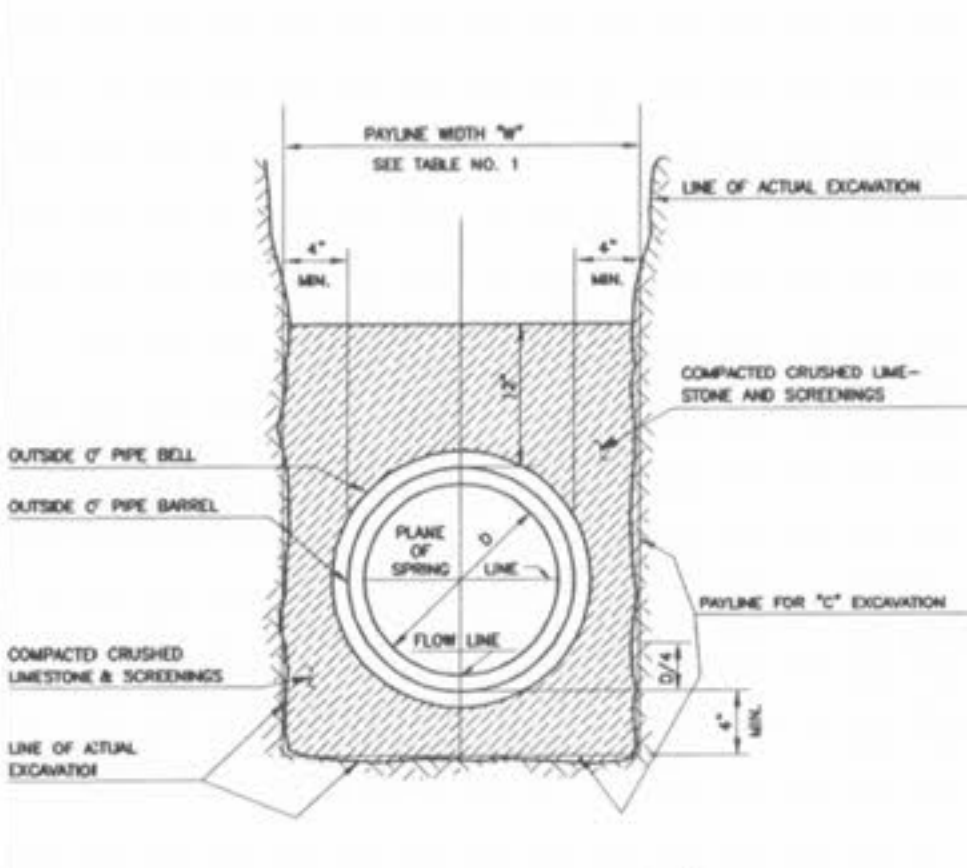
ROUND PIPE				HORIZONTAL ELLIPTICAL PIPE			
Inside Diameter of Pipe (Inches)	Payline Width of Trench (Inches)	Payline Width of Trench (Feet)	Pay-volume of Concrete Encasement	Inside Diameter of Pipe (Inches)	Payline Width of Trench (Inches)	Payline Width of Trench (Feet)	Pay-volume of Concrete Encasement
4	30	2.50	3.29				
6	30	2.50	2.99				
8	30	2.50	3.87				
10	30	2.50	4.09				
12	30	2.50	4.25				
15	36	3.00	5.05				
18	36	3.00	5.77	14 X 23	41	3.42	5.84
21	36	3.25	6.61				
24	42	3.50	7.39	18 X 30	49	4.08	7.68
27	45	3.75	8.18	22 X 34	53	4.42	8.61
30	48	4.00	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	4.87	11.43	28 X 45	66	5.50	11.72
39	60	5.25	12.36	30 X 48	71	5.92	13.14
42	63	5.25	13.26	34 X 53	75	6.25	14.05
48	70	5.83	15.67	38 X 60	83	6.92	16.18
54	77	6.42	18.15	43 X 66	92	7.67	18.81
60	84	7.00	20.73	48 X 78	101	8.42	21.58
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	27.43
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	33.81
90	118	9.92	35.90	72 X 113	143	11.92	36.99
96	126	10.50	39.37	77 X 121	152	12.67	40.89
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	47.79
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	202	16.83	64.48
144	182	15.17	72.40	116 X 180	218	18.17	73.58

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

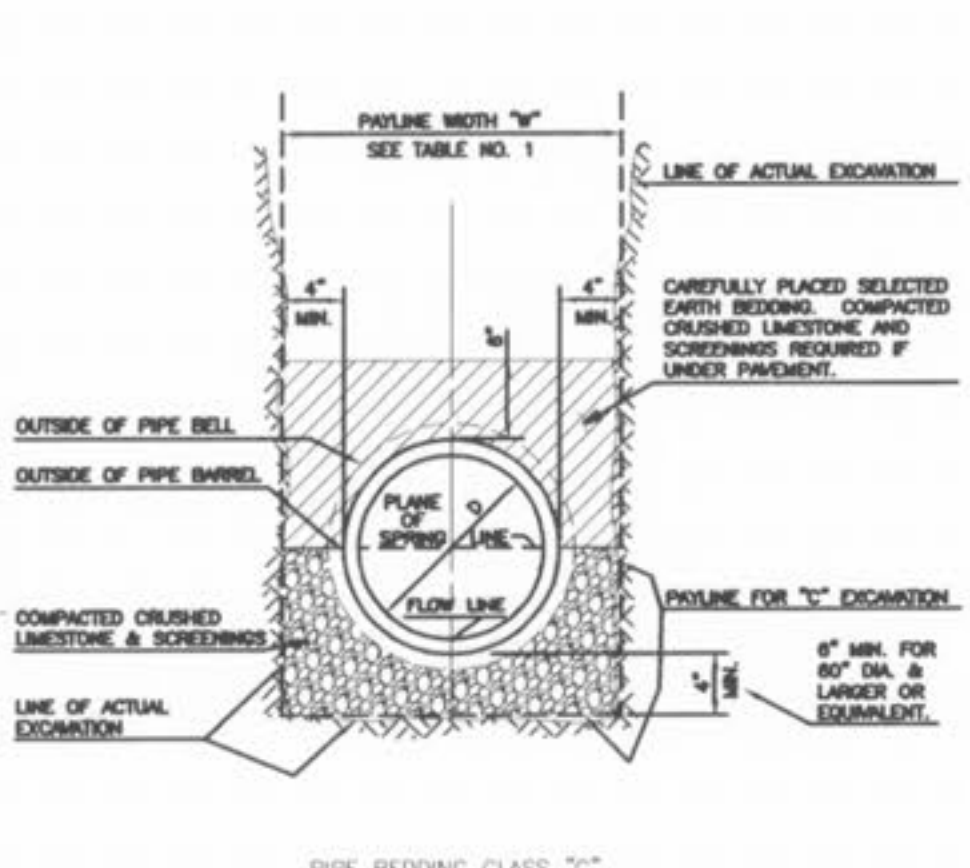


LIMITS FOR TRAPEZOIDAL CHANNEL
LIMITS FOR BOX CULVERT
LIMITS FOR VERTICAL WALL
LIMITS FOR PIPE

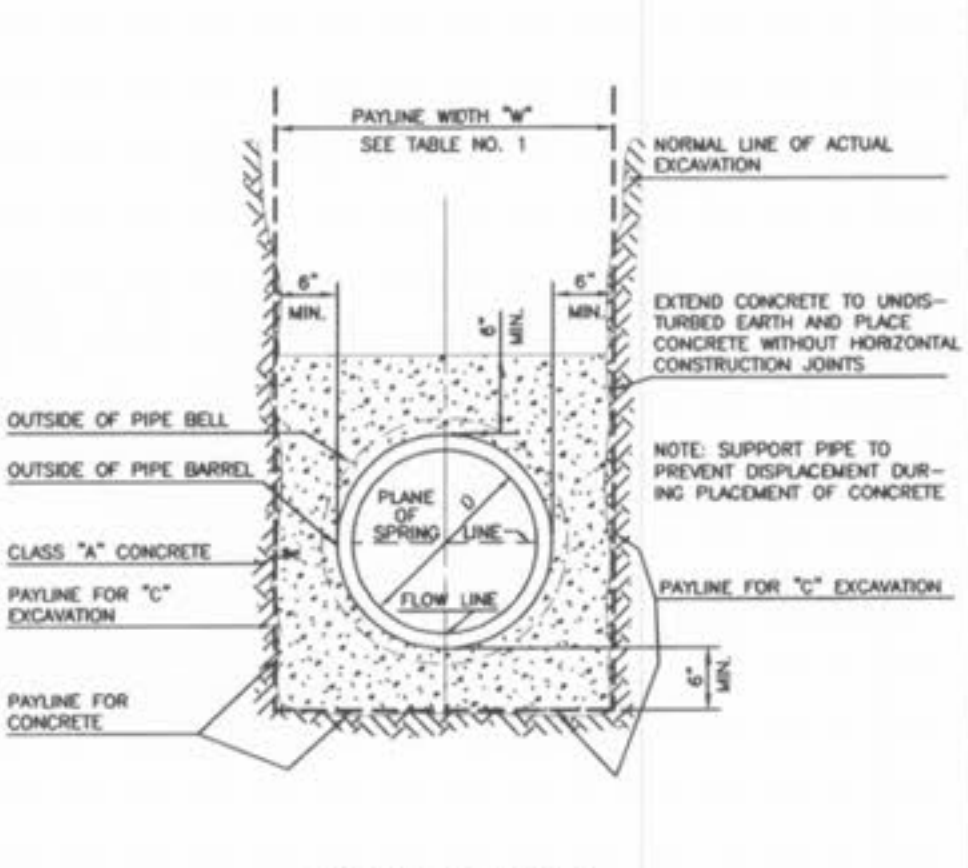
NOTE: PAYLINE FOR ANY OTHER TYPE CHANNEL EXCAVATION SHALL BE THE EXACT SHAPE OF THE SUBGRADE.
PAYLINE LIMITS FOR EXCAVATION



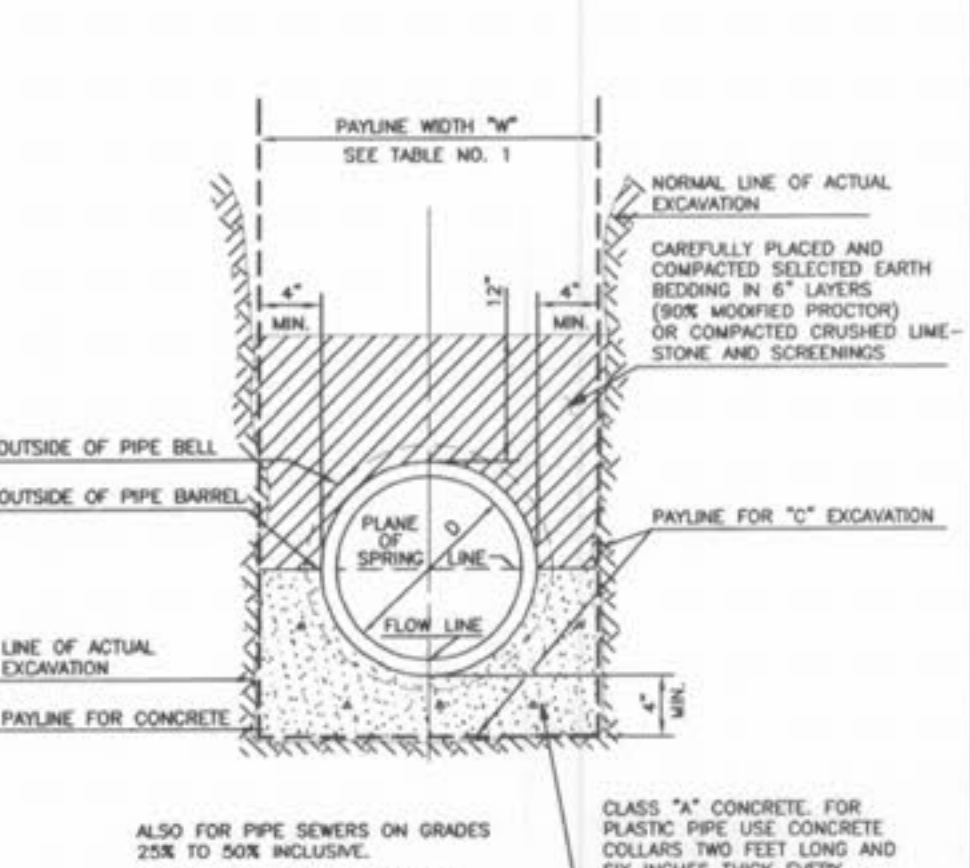
PIPE BEDDING CLASS "C"
(FOR ALL PIPE EXCEPT REINFORCED CONCRETE PIPE)



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



CONCRETE ENCASUREMENT

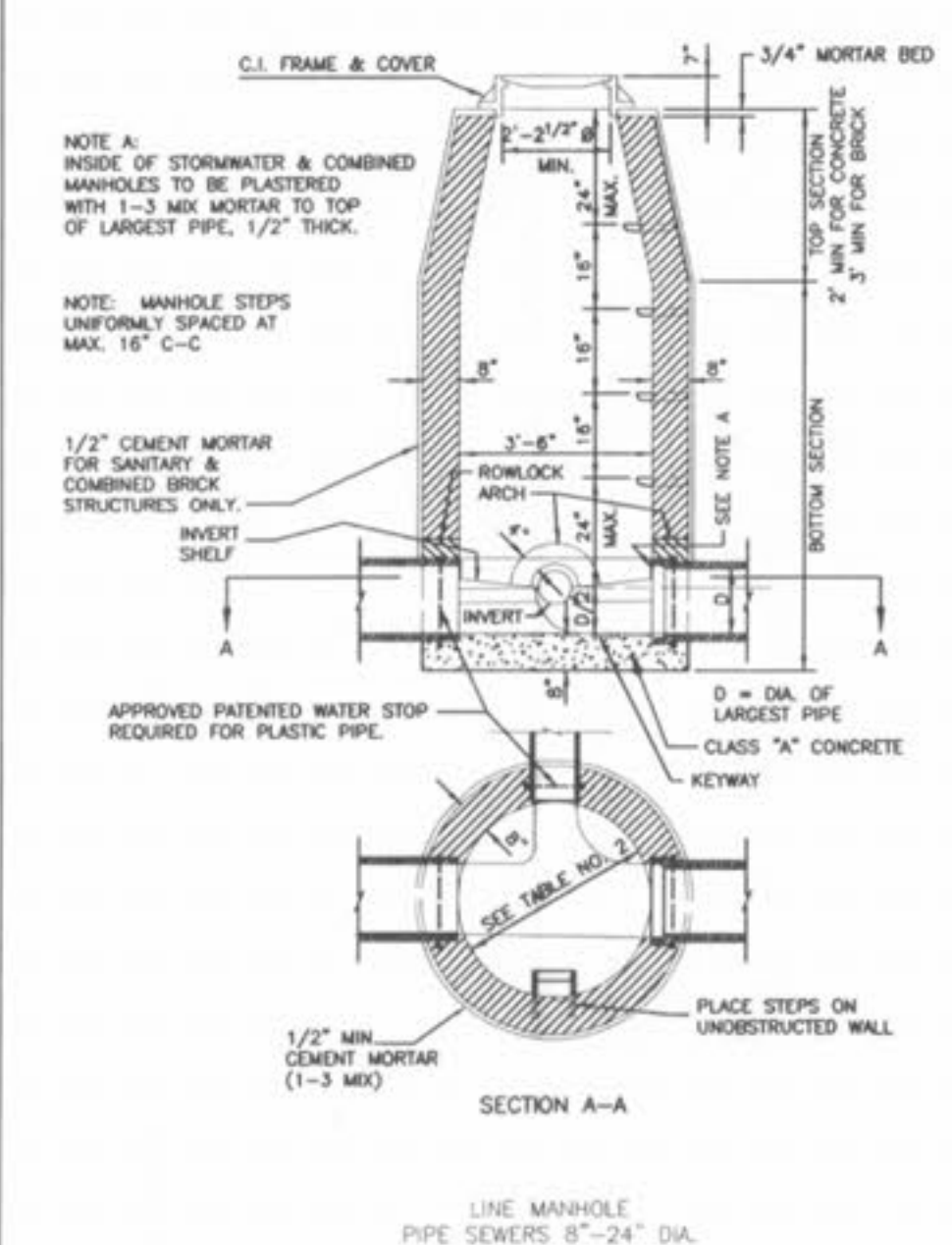


ALSO FOR PIPE SEWERS ON GRADES 25% TO 50% INCLUSIVE. FOR GRADES EXCEEDING 50% SEE PROJECT SPECIFICATIONS.
CLASS "A" CONCRETE. FOR PLASTIC PIPE USE CONCRETE COLLARS TWO FEET LONG AND SIX INCHES THICK EVERY TWELVE FEET ADJACENT TO AND DOWN STREAM OF BELLS. (IN LIEU OF CONC. CRADLE)

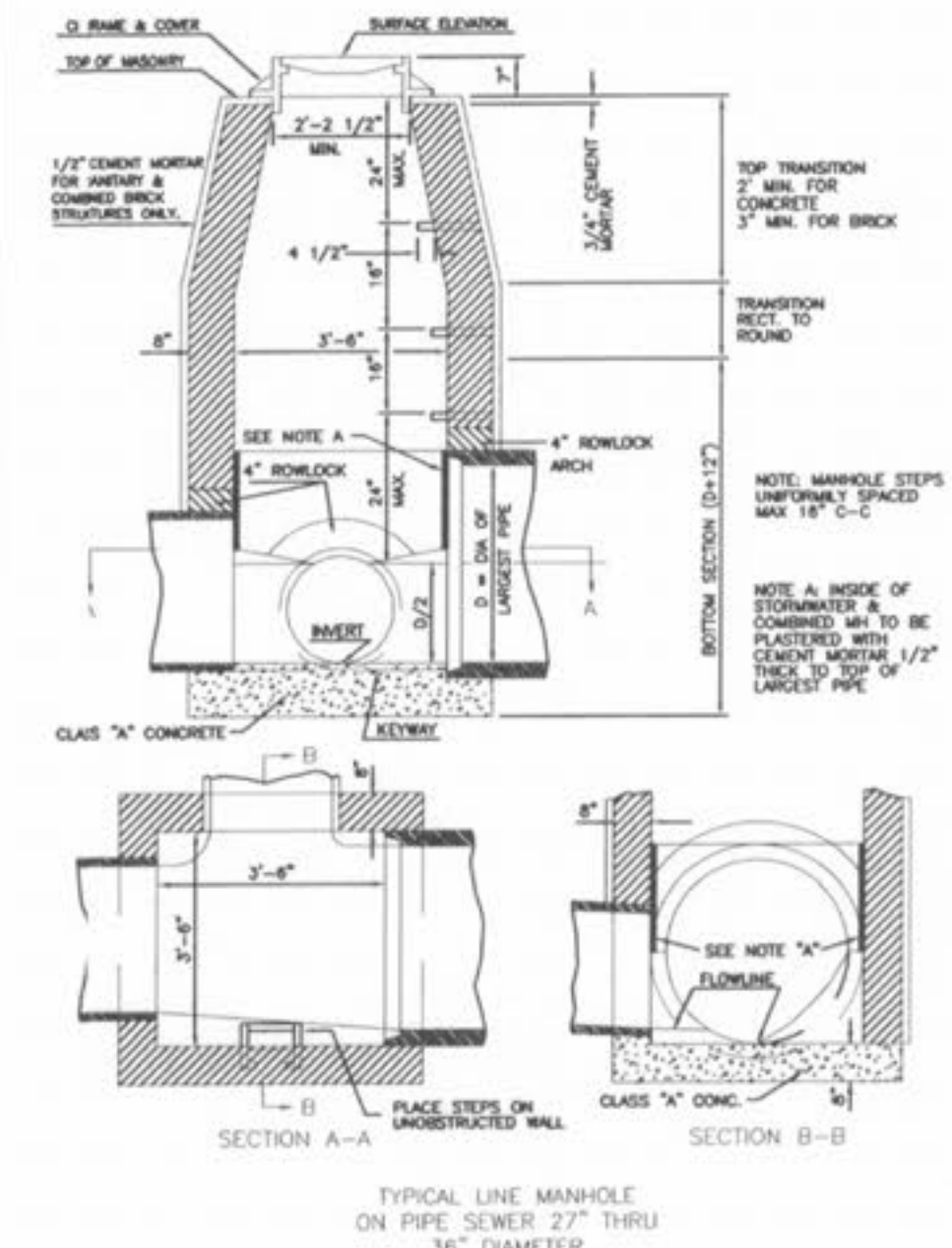
(CLASS "A" BEDDING)
CONCRETE CRADLE
NOTE: NOT FOR USE WITH HOPE PIPE

SECTION	TOP TRANSITION	UPPER	2'-2 1/2" DIA.
	LOWER	3'-6" DIA.	
	BOTTOM SECTION	8" THRU 36" DIA. PIPE	3'-6" DIA.
	BOTTOM SECTION	27" THRU 36" DIA. PIPE	3'-6" SQUARE

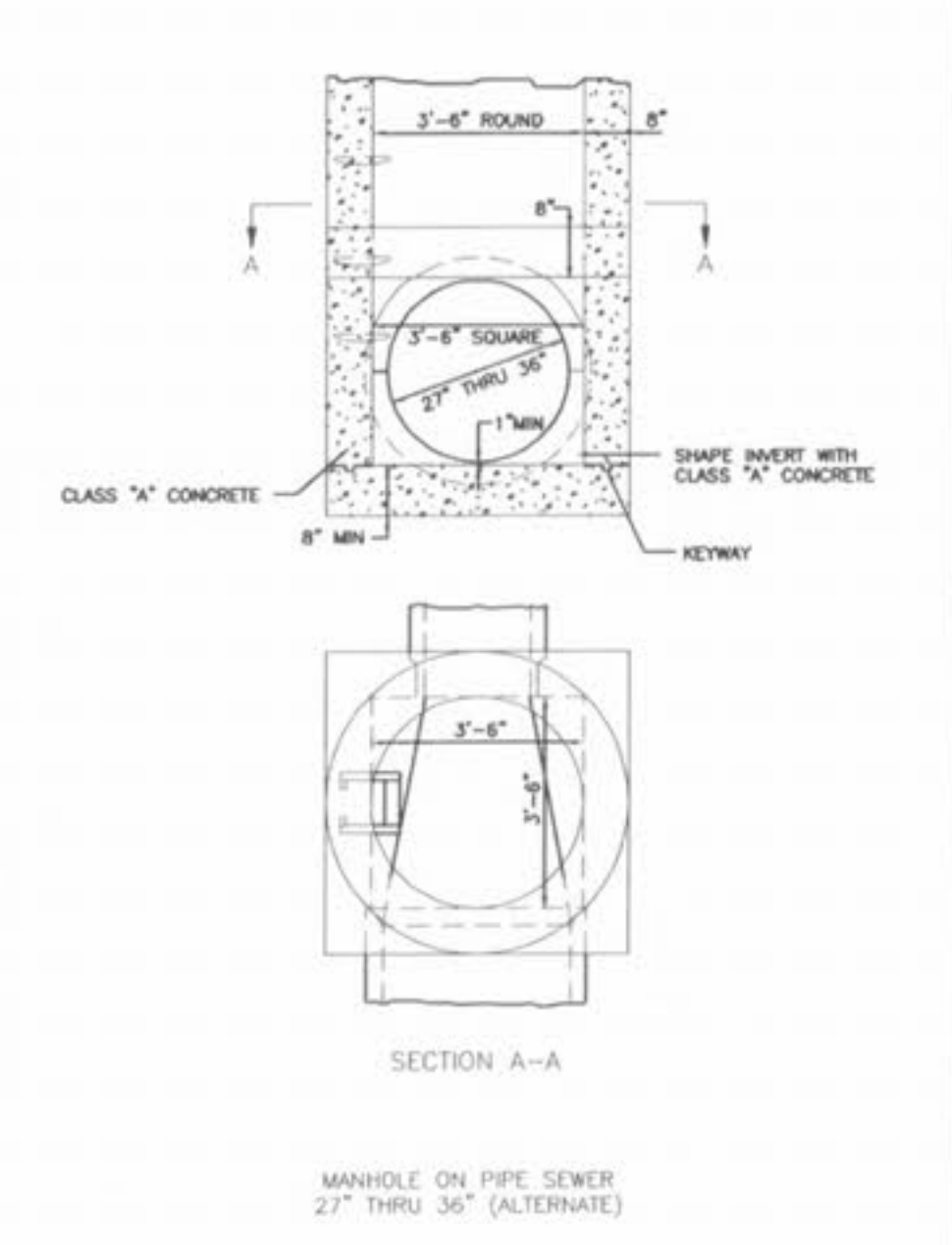
TABLE NO. 2
STANDARD MANHOLE DIMENSIONS



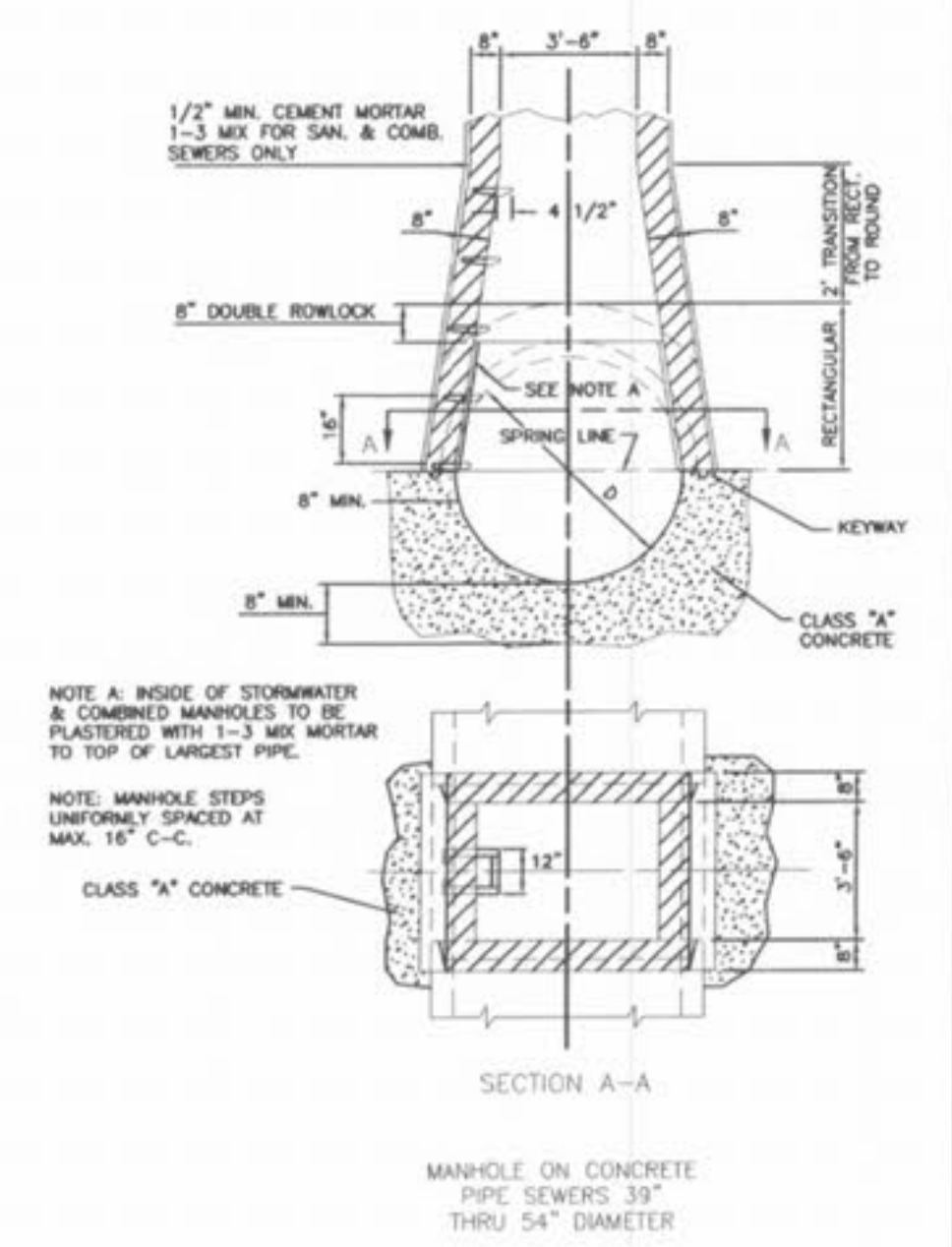
LINE MANHOLE ON PIPE SEWERS 8"-24" DIA.



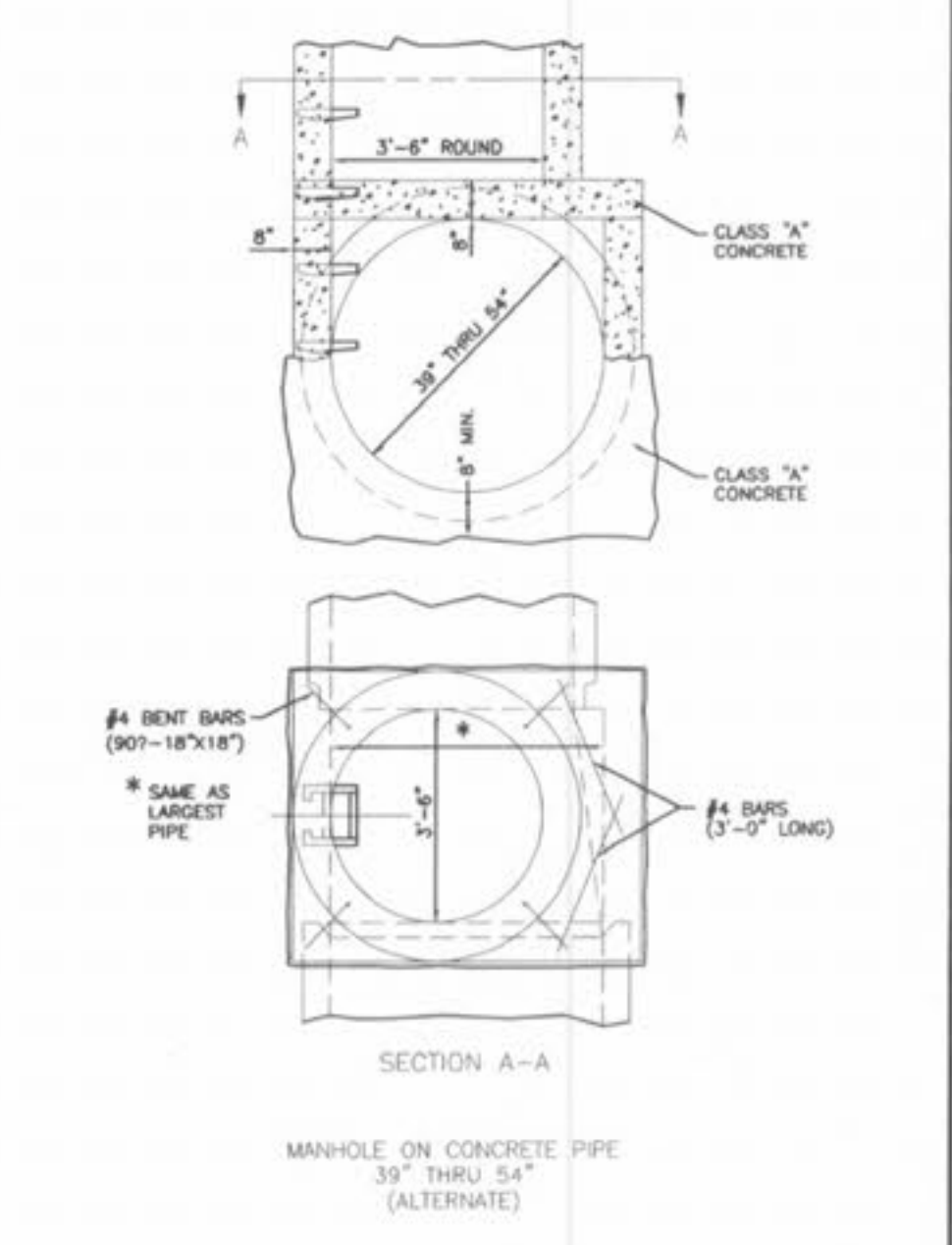
TYPICAL LINE MANHOLE ON PIPE SEWER 27" THRU 36" DIAMETER



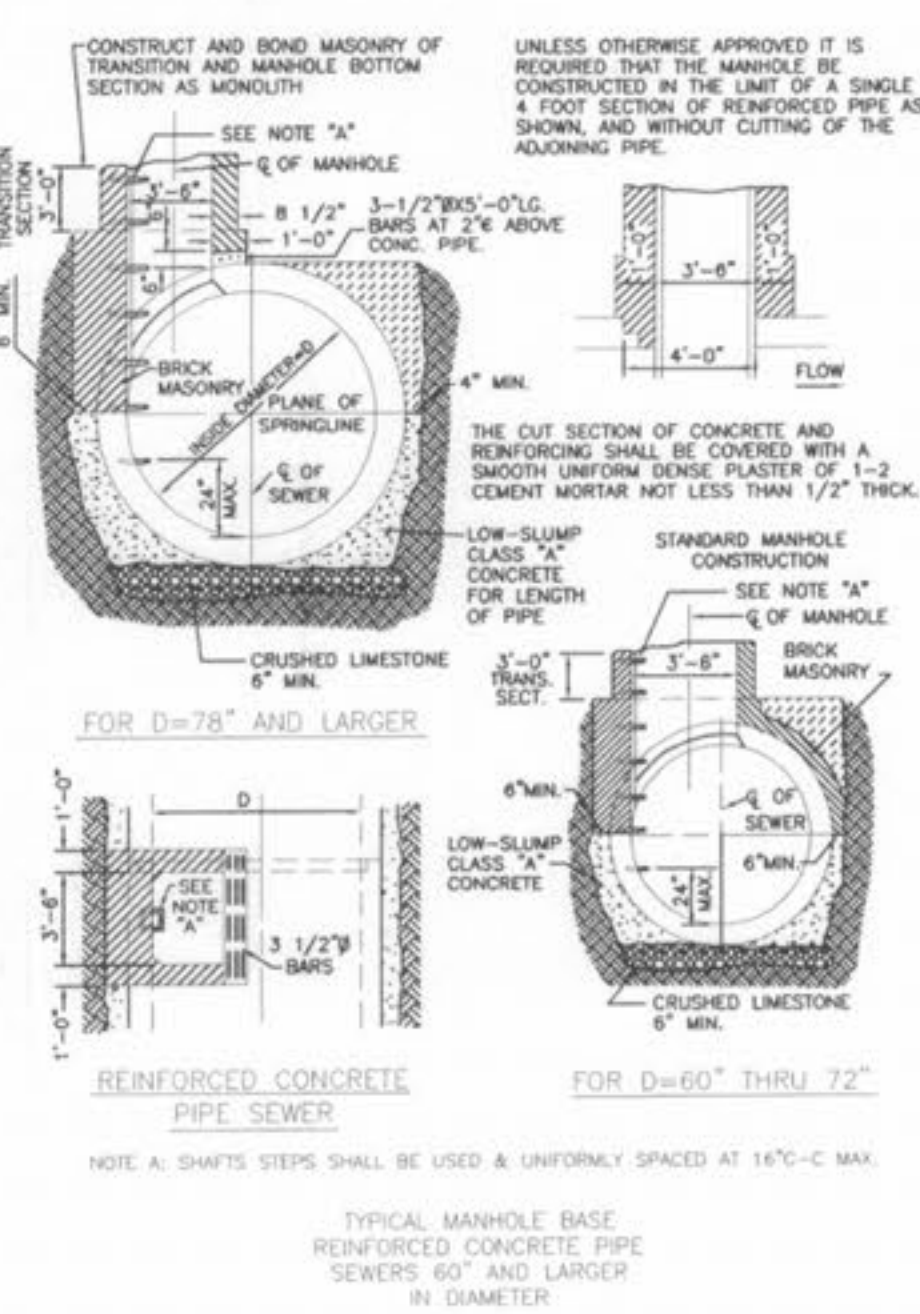
MANHOLE ON PIPE SEWER 27" THRU 36" (ALTERNATE)



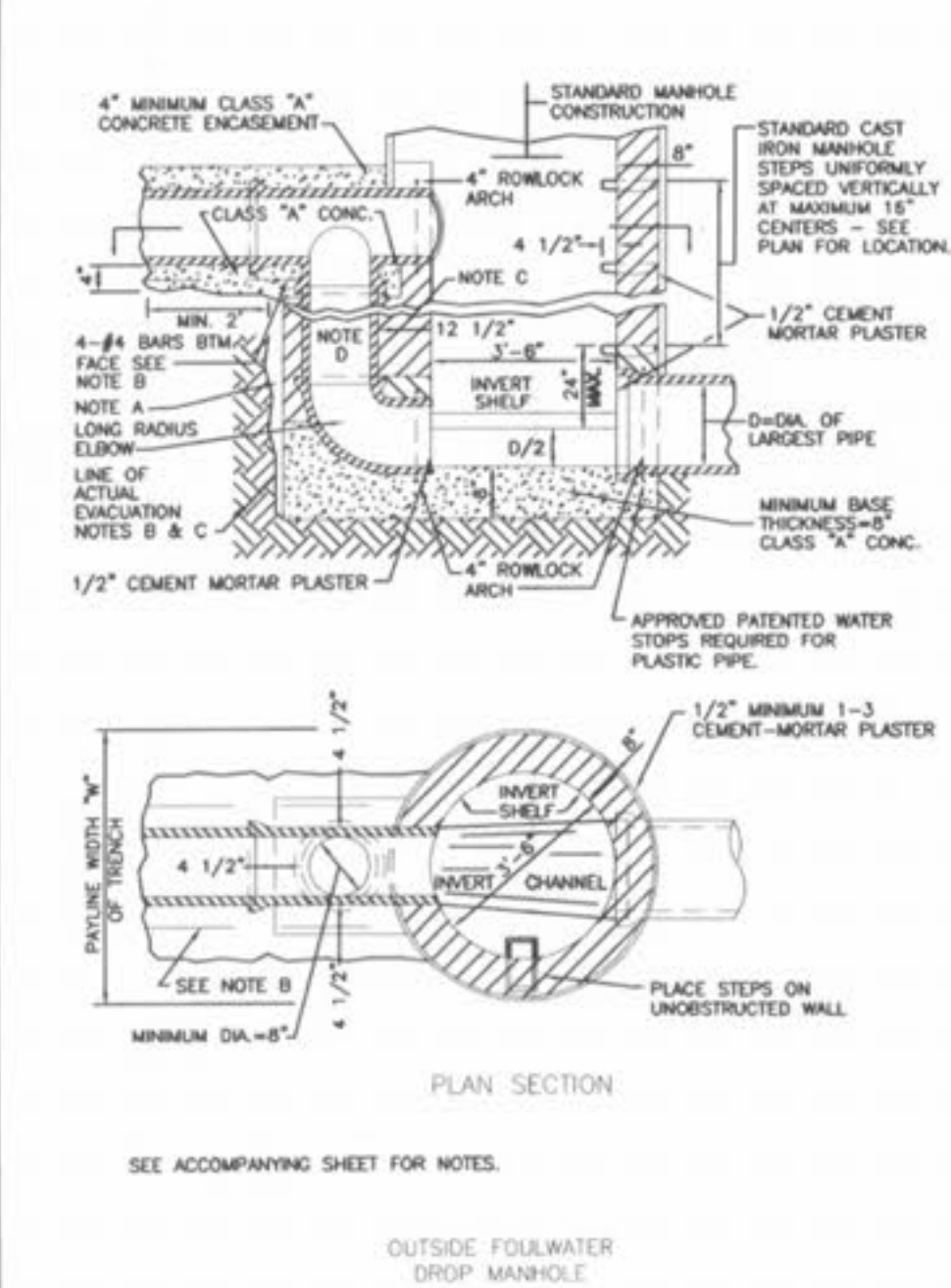
MANHOLE ON CONCRETE PIPE SEWERS 39" THRU 54" DIAMETER



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



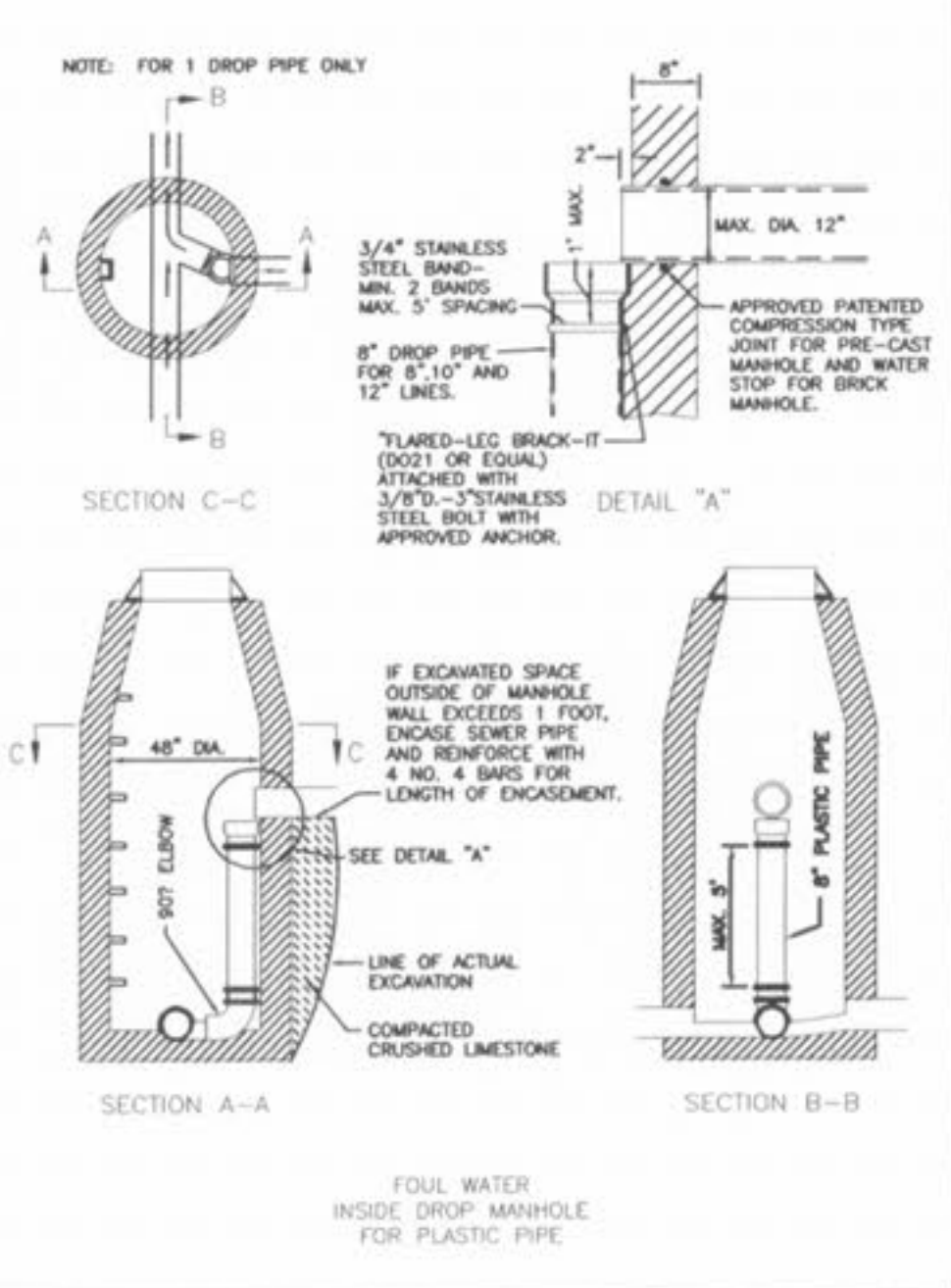
REINFORCED CONCRETE PIPE SEWER



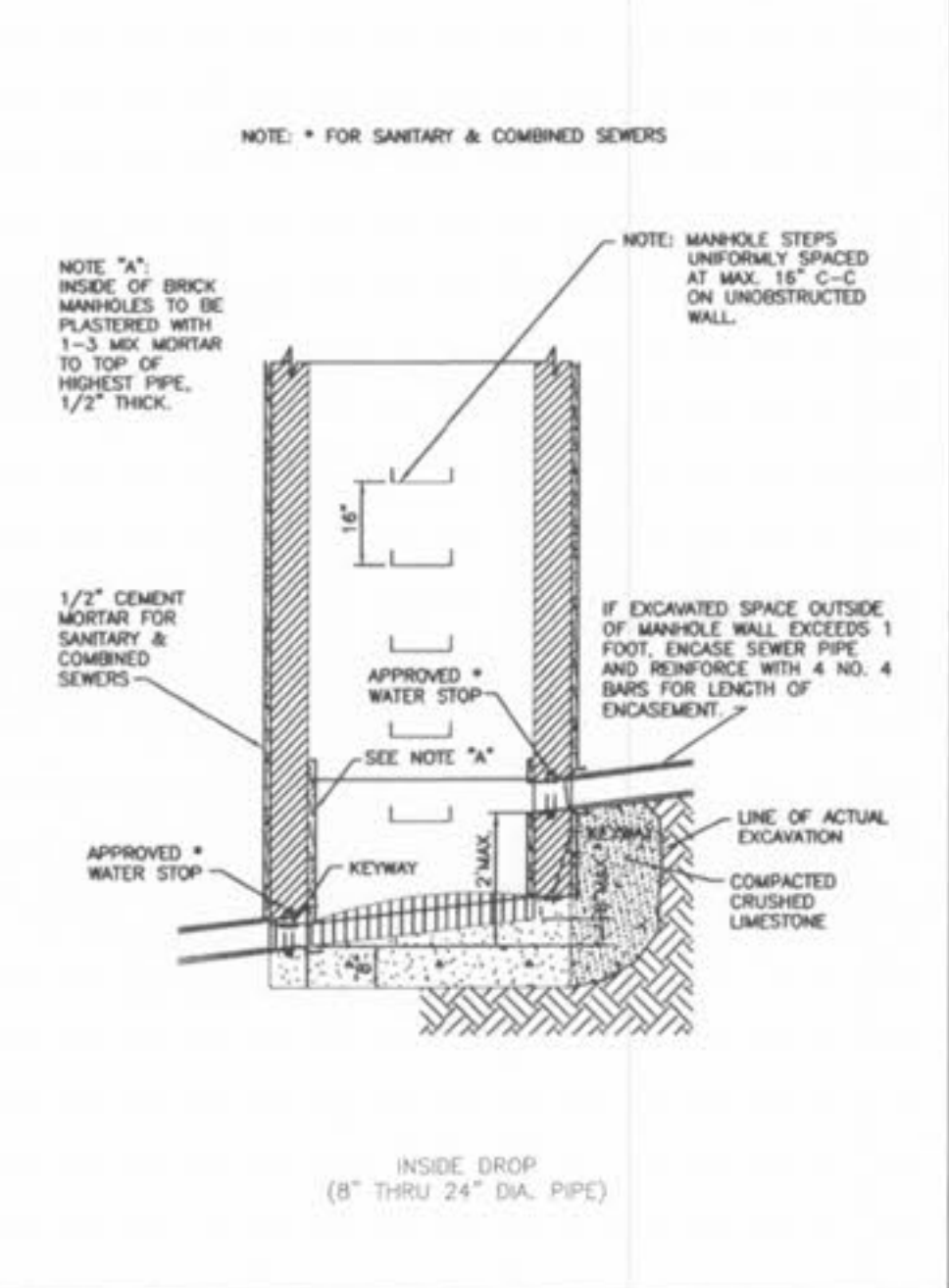
STANDARD MANHOLE CONSTRUCTION



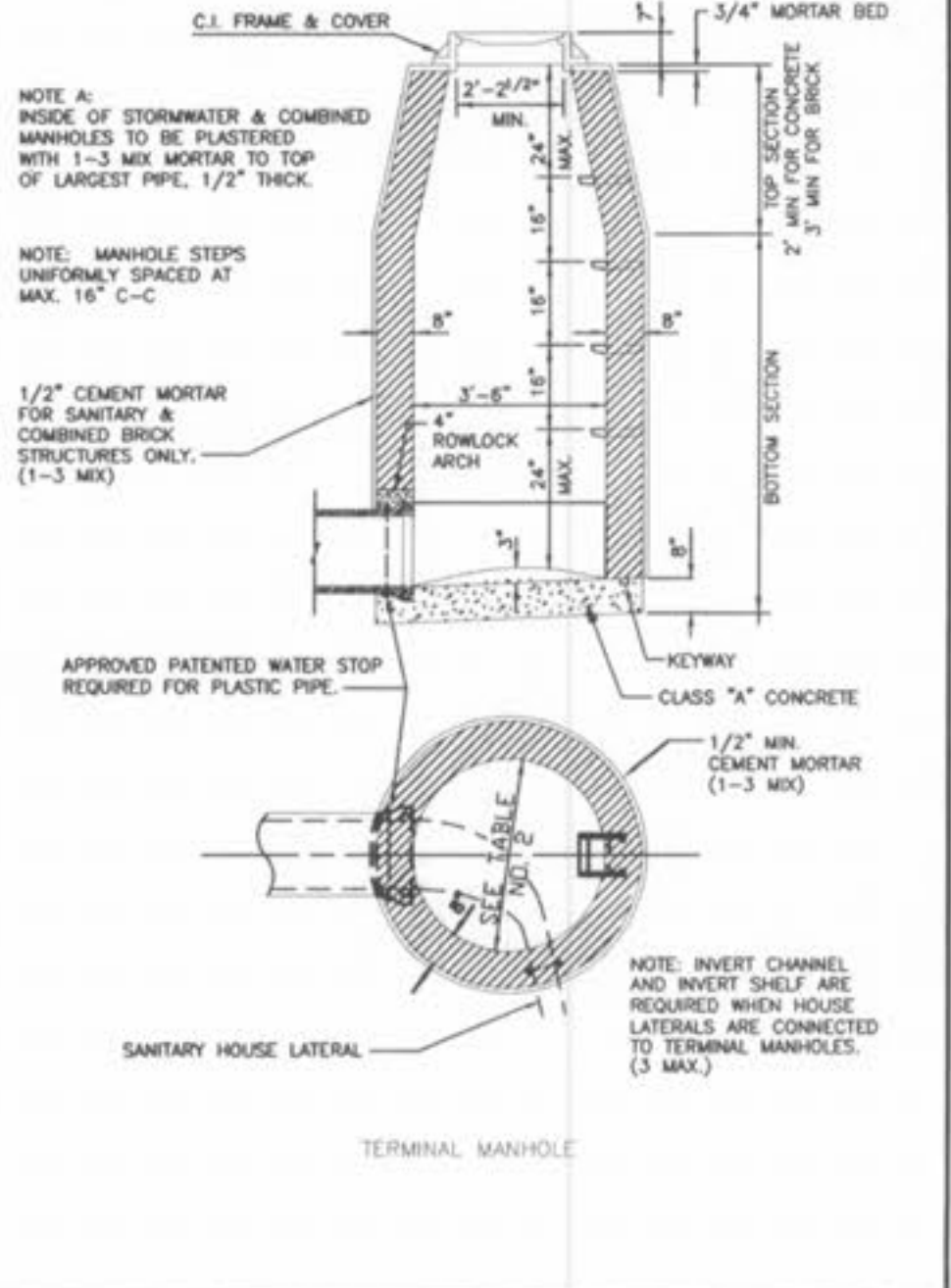
FOUL WATER INSIDE DROP MANHOLE FOR PLASTIC PIPE



FOUL WATER INSIDE DROP MANHOLE FOR PLASTIC PIPE



SANITARY HOUSE LATERAL



TERMINAL MANHOLE

NOTES:
NOTE A: IF LINE OF ACTUAL EXCAVATION EXTENDS BEYOND LINE OF DROP MASONRY, FILL EXCESS EXCAVATED SPACE WITH CONSTRUCTION MATERIAL OF DROP OR PACK WITH COMPACTED CRUSHED LIMESTONE TO BASE OF CLASS "A" CONCRETE ENCASUREMENT.
NOTE B: IF EXCAVATED SPACE OUTSIDE OF DROP PIPE MASONRY EXCEEDS 1 FOOT, REINFORCE SEWER PIPE ENCASUREMENT WITH A MINIMUM OF 4 NO. 4 BARS FOR LENGTH OF ENCASUREMENT.
NOTE C: MASONRY ENCASUREMENT OF DROP-PIPE SHALL BE BONDED AND PLACED INTERNALLY WITH MANHOLE MASONRY.
NOTE D: DIAMETER OF DROP PIPE FOR COMBINED SEWERS AND SANITARY SEWERS, IS SAME AS INCOMING 8", 10" OR 12" PIPE, SEWER, AND 12" FOR LARGER COMBINED SEWERS UNLESS OTHERWISE SHOWN ON PROJECT PLANS. FOR SANITARY SEWERS 15" OR LARGER, A DROP IS NOT TO BE USED. CONNECT TO MANHOLE AT OR WITHIN 3' ABOVE ITS FLOWLINE.
NOTE E: NEW OUTSIDE DROP ON EXISTING MANHOLE RESOURCES NO. 4 RE-BARS SPACED VERTICALLY AT 24" C-C, ONE ON EACH SIDE OF THE DROP PIPE, GROUDED THROUGH 2" DIA. HOLES IN M.H. WALL. (MIN. LENGTH OF BARS 18")

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CONSTRUCTION DETAILS
Prepared For:
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REVISIONS	NO.	DATE	REVISED PER CITY OF FALLON	REVISED PER CITY OF FALLON
	1	8/11/03		
	2	10/06/03		

ENGINEERS AUTHENTICATION
The responsibility for professional engineering liability on this project is hereby limited to the set of plans authorized by the seal, signature, and date hereunder attached. Responsibility is disclaimed for all other engineering plans involved in this project and specifically excludes revisions after this date unless reauthorized.
PICKETT, RAY & SILVER, INC.
ELMER J. SILVER
REGISTERED PROFESSIONAL ENGINEER
NUMBER: E-16146
10/6/03

DRAWN	E.J.S.	DATE	04/09/03
CHECKED	D.W.D.	DATE	04/09/03
PROJECT #	01212.SUPD.02R	TASK #	2
FIELD BOOK			