

INTERMEDIATE ANCHOR FOR PIPE (CLASS "A" CONCRETE)

DIAMETER OF PIPE IN INCHES

VOLUME IN CU. YDS. OF CLASS "A" CONC. FOR ONE ANCHOR	% GRADE	12"	15"	18"	21"	24"	27"	30"	36"	42"	48"	54"	60"	66"	72"	78"	84"
	0	0.68	0.86	1.07	1.31	1.59	1.90	2.25	3.06	5.91	7.41	9.30	11.28	14.99	18.34	22.15	25.64
10	0.72	0.91	1.13	1.38	1.68	2.01	2.38	3.24	6.23	7.83	9.70	11.79	15.77	19.27	23.24	26.88	
20	0.75	0.96	1.19	1.44	1.78	2.14	2.52	3.43	6.59	8.28	10.07	12.24	16.48	20.11	24.22	27.98	
30	0.79	1.01	1.26	1.53	1.88	2.27	2.67	3.65	6.97	8.78	10.40	12.64	17.12	20.87	25.10	28.95	
40	0.84	1.07	1.33	1.62	1.99	2.41	2.83	3.88	7.39	9.31	10.69	12.99	17.70	21.53	25.88	29.79	
50	0.88	1.13	1.41	1.72	2.11	2.56	3.01	4.12	7.83	9.87	10.95	13.30	18.22	22.13	26.55	30.51	
60	0.93	1.19	1.49	1.82	2.24	2.71	3.19	4.38	8.29	10.47	11.12	13.57	18.69	22.66	27.15	31.15	
70	0.98	1.25	1.57	1.94	2.37	2.87	3.38	4.65	8.77	11.10	11.40	13.81	19.12	23.14	27.69	31.70	
80	1.03	1.32	1.66	2.08	2.50	3.07	3.58	4.93	9.28	11.58	11.74	14.02	19.51	23.57	28.16	32.17	
90	1.08	1.39	1.75	2.19	2.64	3.25	3.79	5.22	9.79	11.75	12.41	14.21	19.79	23.87	28.46	32.42	
100	1.13	1.46	1.84	2.31	2.78	3.43	4.00	5.52	10.32	11.91	13.10	14.38	20.20	24.31	28.95	32.92	

DIMENSIONS	L	3'-4"	3'-7 $\frac{1}{2}$ "	3'-11"	4'-2 $\frac{1}{2}$ "	4'-6"	4'-9 $\frac{1}{2}$ "	5'-1"	5'-8"	6'-11"	7'-6"	8'-1"	8'-8"	9'-7"	10'-2"	10'-9"	11'-4"
	W	2'-4"	2'-7 $\frac{1}{2}$ "	2'-11"	3'-2 $\frac{1}{2}$ "	3'-6"	3'-9 $\frac{1}{2}$ "	4'-1"	4'-8"	5'-7"	6'-2"	6'-9"	7'-4"	8'-1"	8'-8"	9'-3"	9'-10"
	H	1'-8"	1'-11 $\frac{1}{4}$ "	2'-2 $\frac{1}{2}$ "	2'-5 $\frac{3}{4}$ "	2'-9"	3'-0 $\frac{1}{4}$ "	3'-3 $\frac{1}{2}$ "	3'-10"	4'-6 $\frac{1}{2}$ "	5'-1"	5'-7 $\frac{1}{2}$ "	6'-2"	6'-9 $\frac{1}{2}$ "	7'-4"	7'-10 $\frac{1}{2}$ "	8'-5"
	D	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-6"	1'-6"	1'-6"	1'-8"	1'-8"	1'-8"	2'-0"	2'-0"
	T	6"	6"	6"	6"	6"	6"	6"	6"	6"	8"	8"	8"	8"	9"	9"	9"

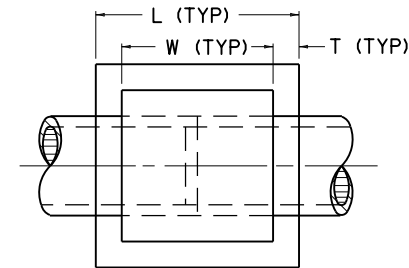
END ANCHOR FOR PIPE OUTLET (CLASS "A" CONCRETE)

DIMENSIONS	L	2'-4"	2'-8"	2'-9"	3'-3"	3'-6"	3'-10"	4'-1"	4'-0"	5'-3"	5'-10"	6'-5"	7'-0"	7'-7"	8'-2"	8'-9"	9'-4"
	H ON EARTH	1'-6"	1'-6"	1'-6"	1'-6"	1'-6"	1'-6"	1'-6"	1'-6"	2'-0"	2'-0"	2'-0"	2'-0"	2'-0"	2'-0"	2'-0"	2'-0"
	H ON ROCK	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"

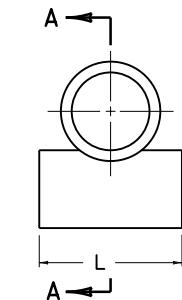
VOLUME CU. YDS.	ON EARTH	0.13	0.15	0.16	0.18	0.19	0.21	0.23	0.26	0.39	0.43	0.48	0.52	0.56	0.61	0.65	0.69
	ON ROCK	0.09	0.10	0.10	0.12	0.13	0.14	0.15	0.17	0.19	0.22	0.24	0.26	0.28	0.31	0.33	0.35

~ NOTES ~

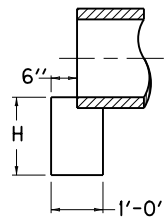
- BID ITEM AND UNIT TO BID CONCRETE-CLASS "A" CUYD
1. CIRCULAR PIPE INCLUDES SLIGHTLY ELLIPTICAL CONCRETE PIPE WITH CIRCULAR REINFORCEMENT.
 2. THE VOLUME DISPLACED BY BARREL OF PIPE HAS BEEN COMPUTED USING INSIDE DIMENSION OF PIPE.
 3. THE UNIT PRICE BID PER CU. YD. FOR CLASS "A" CONCRETE SHALL INCLUDE ALL FORMS, MATERIAL, LABOR, ETC. INCIDENTAL TO CONSTRUCTION.
 4. FOR GRADE BREAKS IN PIPE, USE AVERAGE GRADE TO CALCULATE VOLUMES.



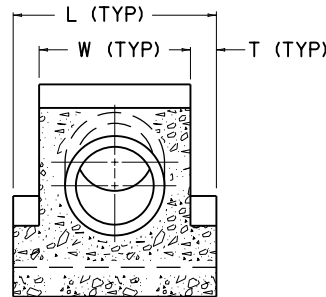
PLAN VIEW



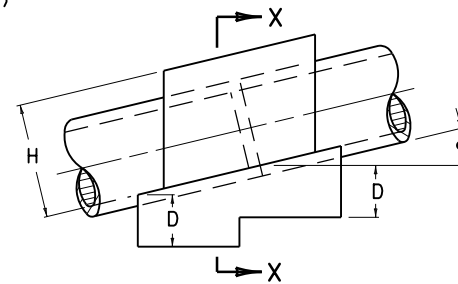
END ELEVATION



SECTION A-A



SECTION X-X



ELEVATION VIEW

END ANCHOR FOR PIPE OUTLET

INTERMEDIATE ANCHOR

KENTUCKY DEPARTMENT OF HIGHWAYS	
INTERMEDIATE AND END ANCHORS FOR CIRCULAR PIPE	
STANDARD DRAWING NO. RDX-060-04	DATE
SUBMITTED <i>William P. Galbraith</i>	12-01-15
DIRECTOR, DIVISION OF DESIGN	DATE
APPROVED <i>[Signature]</i>	12-01-15
STATE HIGHWAY ENGINEER	DATE