DIMENSIONS			QUANTITIES ONE HEADWALL	
DIAMETER	H	L	CONCRETE CU. YDS.	REINFORCING STEEL LBS.
15"	5'–2"	7'–0"	1.7	41
18"	5'–5"	8'–4"	2.2	57
21"	5'–8"	9'–8"	2.8	62
24"	5'–11"	11'–0"	3.3	69
30"	6'–5"	13'–8"	4.7	92
36"	7'–0"	16'–4"	6.5	105

L CIRCULAR SECTIONS = 5D + Rt
L ELLIPTICAL OR PIPE–ARCH = 4R + 4t +3
H CIRCULAR SECTIONS = D + t + 44"
H ELLIPTICAL OR PIPE–ARCH = R + t + 44"

D= DIAMETER OF PIPE
R= RISE OF PIPE
S= SPAN OF PIPE
T= THICKNESS OF BARREL
L= LENGTH OF HEADWALL
H= HEIGHT OF HEADWALL

NOTES

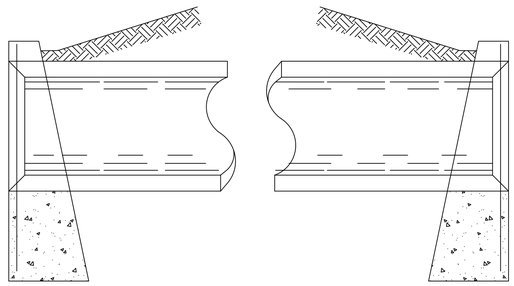
No. 1 HEADWALL Where required will be provided for nonskewed culverts having a diameter or rise of 36 inches or less.

CONCRETE shall be Class "C"

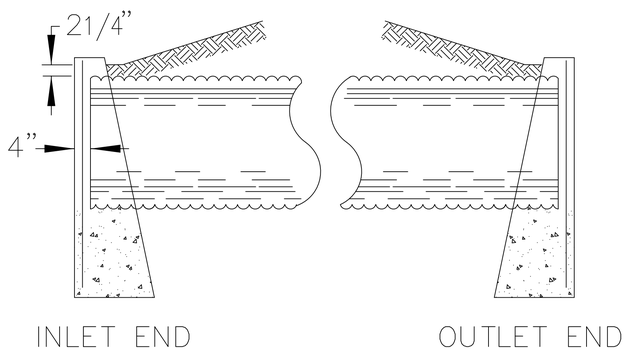
REINFORCING STEEL BARS shall be 5/8 inch round.

DIMENSIONS AND QUANTITIES are shown for circular sections only. It will be necessary to determine dimensions for the No. 1 headwall required for reinforced elliptical concrete pipe or corrugated metal pipe arches in accordance with the equations listed on this drawing. Chamfer all exposed corners 3/4 of an inch.

FOUNDATION. Where the soil borings indicate a bearing capacity of less than 2600 pounds per square foot, it will be necessary to increase the width of the base.

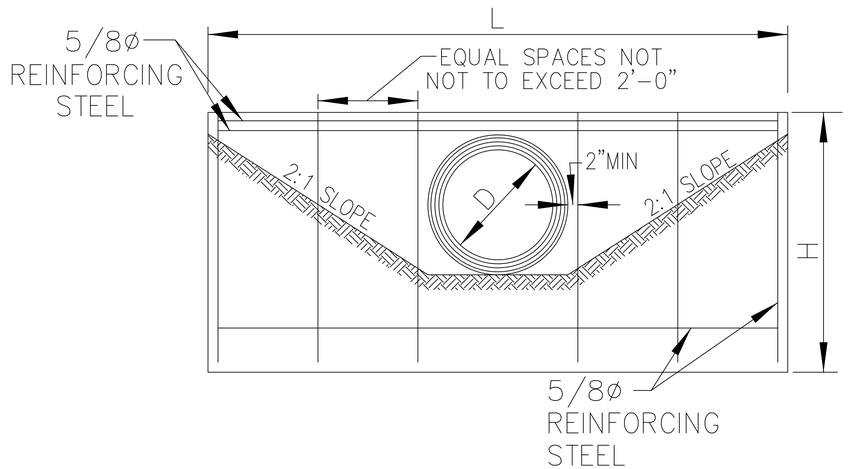


RIGID PIPE

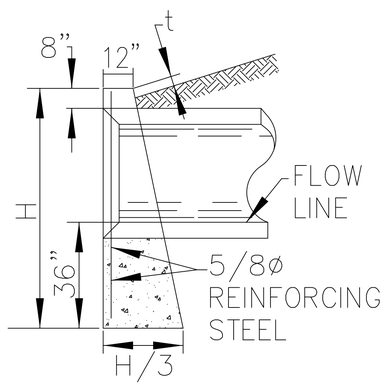


CORRUGATED PIPE

END TREATMENT AT HEADWALL



ELEVATION



SECTION A–A

STANDARD No. 1 HEADWALL