



SECTION A-A

NOTES:

- Headwall where required are for non-skewed culverts having a diameter or rise of 36" or less.
- Reinforcing Steel Bars shall be 5/8 inch round, Epoxy Coated.
- Dimensions and quantities are shown for circular sections only. It will be necessary to determine dimensions for the headwall required for reinforced elliptical concrete pipe in accordance with the equations listed on this drawing.
- Concrete shall be Class "C".
- 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. If slopes other than 2:1 are used, the Length "L", and Height "H" will require adjustments.

INLET END
GROOVE OR BELL
UPSTREAM

OUTLET END
TONGUE OR SPIGOT
DOWNSTREAM

END TREATMENT AT HEADWALL

DIMENSIONS			QUANTITIES *	
Diameter	H	L	Concrete cu. yds.	Reinforcing Steel lbs.
12"	4'-9"	5'-8"	1.3	32
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+4t
 L Elliptical = 4R+t+S
 H Circular Sections = D+t+44"
 H Elliptical = 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
 * ONE WALL

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