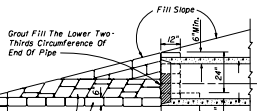
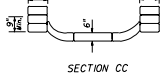
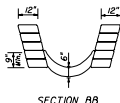
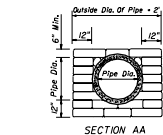


Place Plastic Filter Fabric
Type D-4 (See Index 199)
Around And Below Sand Cement
Riprap. Cost Of Fabric To
Be Included In Cost Of
Sand Cement Riprap

DETAILS FOR SINGLE METAL PIPE ARCH CULVERTS

NOTE: For multiple metal pipe arch culvert spacing between arch centers = X



Place Plastic Filter Fabric
Type D-4 (See Index 199)
Around And Below Sand Cement
Riprap. Cost Of Fabric To
Be Included In Cost Of
Sand Cement Riprap

DETAIL FOR SINGLE PIPE CULVERT

NOTE: For multiple pipe culvert spacing between pipe centers = X

DIMENSIONS AND QUANTITIES FOR METAL PIPE ARCH CULVERTS

Span/Rise	DIMENSIONS AND QUANTITIES FOR METAL PIPE ARCH CULVERTS													
	Dimensions				Quantity of Sand-Cement Riprap in Cu. Yds. for One Endwall									
	X	Y			For 1:2 Slopes		For 1:4 Slopes		For 1:6 Slopes		For 1:6 Slopes			
	1-Arch	2-Arch	3-Arch	4-Arch	1-Arch	2-Arch	3-Arch	4-Arch	1-Arch	2-Arch	3-Arch	4-Arch		
17'-15"	2'-6"	6'-6"	9'-0"	11'-6"	14'-0"	17'-7"	1.0	1.5	2.0	2.5	1.5	2.2	2.9	3.6
20'-15"	2'-10"	7'-6"	10'-4"	13'-2"	16'-0"	17'-7"	1.2	1.8	2.4	3.0	1.9	2.7	3.5	4.3
24'-15"	3'-3"	9'-3"	12'-6"	16'-1"	19'-4"	2'-0"	1.7	2.5	3.3	4.1	2.6	3.7	4.6	5.9
35'-24"	4'-0"	11'-0"	15'-0"	19'-0"	23'-0"	2'-0"	2.2	3.1	4.0	4.9	3.4	4.7	6.0	7.3
42'-25"	4'-9"	12'-9"	17'-6"	22'-3"	27'-0"	2'-0"	2.9	4.1	5.3	6.5	4.5	6.1	7.7	9.3
49'-33'-6"	5'-6"	14'-6"	19'-0"	24'-6"	3'-0"	2'-0"	3.5	4.9	6.3	7.7	5.5	7.4	9.1	11.2
57'-38'-4"	6'-4"	16'-6"	22'-0"	29'-2"	35'-6"	2'-0"	4.4	6.1	7.8	9.5	6.9	9.2	11.5	13.8
64'-43'-7"	7'-1"	18'-3"	25'-4"	32'-5"	39'-6"	2'-0"	5.1	7.0	8.9	10.8	8.1	10.7	13.3	15.9
71'-47'-7"	7'-10"	20'-0"	27'-0"	35'-8"	43'-6"	2'-0"	5.9	8.1	10.3	12.5	9.5	12.4	15.3	18.2

GENERAL NOTES

1. U-Type Sand-Cement Endwalls Are Intended For Use Outside The Clear Zone.

DIMENSIONS AND QUANTITIES FOR ROUND PIPE CULVERTS

Pipe Dia.	DIMENSIONS AND QUANTITIES FOR ROUND PIPE CULVERTS												
	Dimensions				Quantity of Sand-Cement Riprap in Cu. Yds. for One Endwall								
	X	Y			For 1:2 Slopes		For 1:4 Slopes		For 1:6 Slopes		For 1:6 Slopes		
	1-Pipe	2-Pipes	3-Pipes	4-Pipes	1-Pipe	2-Pipes	3-Pipes	4-Pipes	1-Pipe	2-Pipes	3-Pipes	4-Pipes	
15"	2'-7"	7'-0"	9'-7"	12'-2"	14'-9"	1.2	1.6	2.1	2.6	1.7	2.4	3.0	3.6
18"	2'-10"	8'-0"	10'-7"	13'-8"	16'-6"	1.4	2.0	2.6	3.1	2.1	2.9	3.7	4.4
24"	3'-5"	10'-0"	13'-5"	16'-10"	20'-3"	1.9	2.7	3.5	4.4	2.9	4.0	5.1	6.3
30"	4'-3"	12'-0"	16'-3"	20'-6"	24'-9"	2.5	3.6	4.8	5.9	3.8	5.4	7.0	8.6
36"	5'-1"	14'-0"	19'-1"	24'-2"	29'-3"	3.1	4.6	6.2	7.7	4.8	7.0	9.2	11.4
42"	6'-0"	16'-0"	22'-0"	28'-0"	34'-0"	3.8	5.6	7.7	9.7	6.0	8.8	11.7	14.5
48"	6'-9"	18'-0"	24'-0"	30'-6"	38'-1"	4.5	7.0	9.4	11.8	7.2	10.8	14.3	17.9
54"	7'-8"	20'-0"	27'-8"	35'-4"	43'-0"	5.3	8.3	11.3	14.2	8.5	12.9	17.3	21.7
60"	8'-6"	22'-0"	30'-6"	39'-0"	47'-6"	6.2	9.7	13.5	16.9	10.0	15.3	20.6	25.9

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
ROAD DESIGN

U-TYPE SAND-CEMENT ENDWALLS

Designed By	DR	2/80	Checked By	DR	2/80	Approved By	[Signature]
Drawn By	HR	03/84	Scale	AS SHOWN	Sheet No.	1 OF 1	268
Checked By	GD	03/84	Date	00	Project No.		