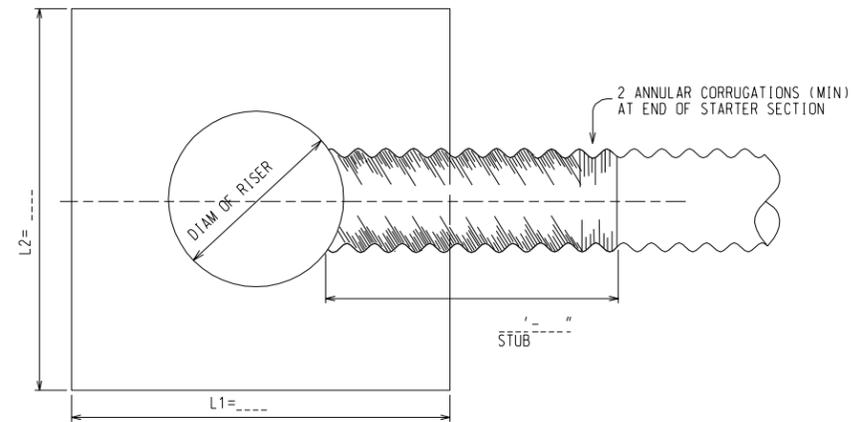
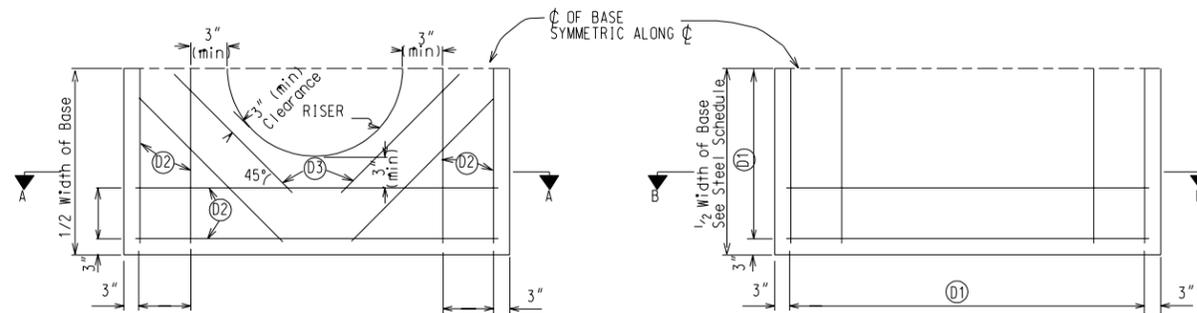


ELEVATION VIEW

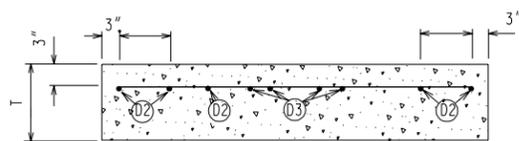


PLAN VIEW

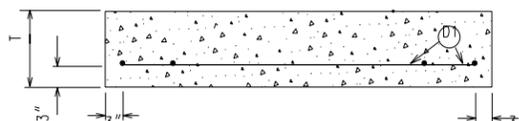


TOP FACE

BOTTOM FACE



SECTION A-A



SECTION B-B

DETAILS-REINFORCING STEEL
(See Schedule For Quantities)

CORRUGATED METAL RISER AND BASE - STRUCTURAL DETAILS

STANDARD DWG. NO. FL-410C1
DATE 12/02 SHEET OF

STEEL SCHEDULE AND CONCRETE QUANTITY

All Steel, Size 4, Straight Bars

Riser Diam., Ft.	Base Dimensions	No.	Qty.	Length Feet	Total Length Feet	Spacing inches	Wt. lbs.	Concrete Cu. Yds.
	L1= _____ Ft.	D-1						
		D-2						
	L2= _____ Ft.	D-3						
		Total						

RISER BASE CALCULATIONS

B-Buoyant Force of Riser, _____ Lbs./Ft.
W-Weight Of Riser, _____ Lbs./Ft.
h-Height Of Riser, _____ Ft.
γ Sub.-Submerged Weight of Soil, 2*
_____ Lbs./Ft³.
T-Thickness Of Concrete Base, _____ Ft.
H-Height Of Soil Above Riser Base,
_____ Ft.

D-Riser Diam. _____ Ft.
SF-Safety Factor, _____
Use 1.2 On Bases with out earth Load.
Use 1.5 On Bases with earth Load.
L₁-Dimension Of Base _____ Ft.
L₂-Dimension Of Base _____ Ft.

Without Earth Load

$$\text{Required Area Of Footing} = \frac{(B-W)(h)(SF)}{(87.6)(T)} = \text{_____ Ft}^2 \leq L_1 \times L_2$$

With Earth Load

$$(0.57\gamma_{\text{Sub.}})(\pi D)H + \left[(L_1)(L_2) - \frac{\pi D^2}{4} \right] (H)(\gamma_{\text{Sub.}}) + (L_1)(L_2)(T)(87.6) \geq (B-W)(h)(SF)$$

_____ Lbs. ≥ _____ Lbs.

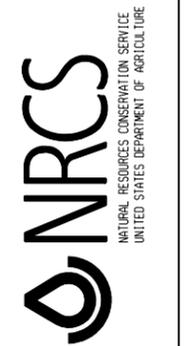
2* In Absence Of Specific Soils Data, Use The Sub For the Following Soil Types.

SP, SC, SW, SM ----- γ Sub = 65 Lbs./Ft³
CH, MH ----- γ Sub = 50 Lbs./Ft³

NOTES

- Corrugated steel pipe and aluminum pipe shall be in conformance with ASTM A742, A760, A761, A762, A849, A875, A885, and A929 for the specified type, class, fabrication of pipe and coating.
- Weld a minimum 4'-0" section of principal spillway conduit into the inlet as indicated for a starter section. This starter section shall have the same grade as the conduit except that when the grade of the conduit is less than 5% (5.0 ft/100 ft) a perpendicular connection may be made. Weld starter section to inlet on inside and outside then cut inside for a smooth connection. After cutting and welding damaged coatings shall be repaired as recommended by the manufacturer. Shop fabrication required. No field welding is allowed.
- Portland cement concrete (type II recommended) for the inlet base shall have a minimum cement content of 6 bags per cubic yard, a maximum net water content of 6 gallons per bag of cement, a slump of between 2 and 5 inches, and a maximum aggregate size of 2-1/2". Materials used shall be acceptable to the NRCS representative. Recognized good concreting practices shall be used in mixing and placing the concrete.
- Where corrugated aluminum pipe is used, all areas where the pipe is to be in contact with concrete shall be painted with a black bituminous enamel paint.

Date _____
Designed _____
Drawn _____
Checked _____
Approved _____



File No. _____
Drawing No. _____
Sheet of _____

REVISIONS		
DATE	APPROVED	TITLE