



____ Inlet UGOs required
 D₁ = ____ inches
 D₂ = ____ inches
 D₃ = ____ inches

NOTES:

1. Relief outlet, underground outlets, underground inlets and trash guards will meet or exceed requirements of Missouri Material Specification 620 for underground outlet inlet. Materials for the vertical relief outlet may be smooth steel, corrugated metal pipe, PVC or corrugated polyethylene tubing with a smooth inside lining.
2. Gravel or fine rock will be used around the vertical relief outlet and as a base.
3. Perforated base plate will be made of the same material as riser. Perforations shall be 5/16 inch diameter. Hole spacing shall be on a grid approximately 3 inches center to center in either direction. Perforations are only required inside vertical relief outlet.
4. Inlet and outlet stubs will extend at least 2 feet from riser before joining UGO's.
5. Relief riser will be covered with suitable trash guard or grate as approved by NRCS.
6. If needed for support, vertical relief outlet shall be wired to steel post with corrosion resistant wire. For vertical relief outlets that are flush with the ground and have a grate type trash rack, the steel post marker is not required.
7. The vertical relief outlet extending above the ground may be perforated with Dx5 number of 1" diameter holes per foot exposed.
8. The size of the vertical relief outlet shall be equal to the next pipe size larger for single inlets and a minimum of 1 1/2 times the area of all UGO's for multiple inlets.

$$D(\text{Multiple inlet}) = [1.5(D_1^2 + D_2^2 + D_3^2 + \dots)]^{1/2} = \text{____} = \text{____}$$

"use ____"

$$D(\text{Single inlet}) = \text{____}$$

DRAFT

NOT FOR
CONSTRUCTION

Date	
Designed	
Drawn	
Checked	
Approved	

UGO VERTICAL RELIEF OUTLET
WITH OUTLET PIPE



File Name

Drawing Name
29-L-82A

Sheet of