



Pipe diameter for all pipes shown above will be:

All pipe installed under the trough shall be constructed of the following material:

Supply and Overflow pipelines will be constructed of the following material:

Heavy Use Area Pad shall be constructed of the following material:

*Note:
Schedule 80 PVC pipe or Galvanized Steel pipe is required under the trough. Sch 40 PVC may be used with granular backfill.

Construction Notes

1. The ground under and around the trough location shall be cleared of all material not suited for the subgrade, including sod. All loose surface soil shall be removed to undisturbed material.
2. A valve shall be installed in the supply pipeline to regulate flow to the trough. The valve should be installed in a housing that is frost proof, well drained, readily accessible and protected from livestock. A means of draining the supply pipeline between the valve and the trough shall be provided.
3. All backfill for pipelines under the trough shall be compacted to the degree required to prevent caving after construction. Backfill under the trough may be select compacted earthfill or granular fill such as VDOT #21 or crusher run.
4. The trough site shall be free draining.

5. A protective surface shall be placed around the trough. At the minimum, install geotextile fabric around the trough and then place VDOT #57, VDOT #21A or crusher run around the trough, four inches deep (minimum). Other types of stone may be installed with approval of the designer. The gravel pad shall extend at least 8 feet from each side of the trough.
6. An overflow/drain line from the trough will be installed. The inlet for the overflow pipe shall be protected from blockage by algae or floating debris. The outlet shall be protected from livestock.
7. Geotextile shall meet the Class I requirements for nonwoven geotextile in Virginia Construction Specification Geotextiles (VA-795). Class II may be used with engineers approval.
8. Seed all disturbed areas at the rates given in Virginia Construction Specification Seeding (VA-706).

* If seeding is done outside recommended seeding dates, a nurse crop is to be used.

VIRGINIA ENGINEERING STANDARD DRAWING			
Amanda Pennington, PE, DCR Ag. BMP Engineer		Standard Drawings shall NOT be altered without DCR Agricultural BMP Engineer Approval	
STANDARD DWG NO.		VA-SO-903, Concrete Trough	
DATE	03/11	SHEET	05 1

Revisions			
Version	Date	Approved by	Title

Date	
Designed	
Drawn	
Checked	
Approved	

Concrete Trough Detail for Pressure Systems



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adapted from
NRCS Standard
Drawing
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Drawing Name	
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