

NATURAL RESOURCES CONSERVATION SERVICE CONSTRUCTION SPECIFICATION

PIPELINE

SCOPE

This item shall consist of the installation of the pipeline. Construction shall be carried out in such a manner that erosion, water, air, and noise pollution will be minimized and held within legal limits as established by state regulations. The construction operations shall be performed in a workmanlike manner and the job site shall have a neat appearance when finished.

LOCATION

The tank or trough shall be installed at the location shown on the drawings, or at the location designated by the NRCS technicians.

PLACEMENT

Pipelines shall be placed so that they are protected against hazards imposed by traffic, farm operations, freezing temperatures, or soil cracking. Other means of protection must be provided if the depth required for protection is impracticable because of shallow soils over rock or for other reasons. Abrupt changes in grade must be avoided to prevent rupture of the pipe.

The minimum depth for freeze protection shall be 18 inches.

Trenches for plastic pipelines shall be free of rocks and other sharp-edged materials, and the pipe shall be carefully placed to prevent damage.

Plastic pipelines may be placed by plow-in equipment if soils are suitable and rocks and boulders will not damage the pipe.

TESTING

Pipelines shall be pressure tested by one of the following methods:

1. Before backfilling, fill the pipe with water and test at the design working head or at a head of 10 feet whichever is greater. All leaks must be repaired, and the test must be repeated before backfilling.

2. Pressure test at the working pressure for 2 hours. The allowable leakage shall not be greater than one gallon per diameter inch per mile. If leakage exceeds this rate, the defect must be repaired, until retest show that the leakage is within the allowable limits, but all visible leaks must be repaired.

BACKFILLING

All backfilling shall be completed before the line is placed in service. For plastic or copper pipe, the initial backfill shall be of selected material that is free of rocks or other sharp-edged material that can damage the pipe. Deformation or displacement of the pipe must not occur during backfilling.

Plastic pipelines installed by the plow-in method require surface compaction and shaping in addition to the normal plow-in operations.

Provisions shall be made for stabilizing disturbed areas and controlling erosion.

INSTALLATION

The foundation area shall be cleared of all material not suitable for subgrade and be leveled to allow the trough or tank to be placed on firm ground. The area surrounding the trough or tank shall be smoothed and graded to permit free drainage of surface water away from it, yet allow access by the animals for which it is being installed. All backfill for underground pipes shall be compacted to the degree required to prevent caving after construction is completed.

HEAVY USE AREA

The trough or tank shall be located so that a dry surface is maintained around the base, extending 10 feet from all sides of the trough or tank. The minimum gravel mat thickness shall be 6 inches.