

**NATURAL RESOURCES CONSERVATION SERVICE
CONSTRUCTION SPECIFICATIONS**

SURFACE DRAIN, MAIN OR LATERAL

1. Scope

The work shall consist of all excavation and earthfill required for the installation of the drainage main or lateral and any needed structural measures. It will also include the spreading of any excess spoil material as specified on the construction plans.

2. Location

The planned location of the drainage mains and laterals shall be as shown on the plans or as staked in the field. Any change to the planned location must be approved by the designer and landowner and/or operator.

3. Site Preparation

All areas to be excavated and areas to be occupied by earthfill materials shall be cleared of trees, brush, or other debris. Materials from the clearing operations shall be disposed of as specified on the drawings.

4. Excavation

All channels shall be constructed to the dimensions and grades as shown on the construction plans or as staked in the field. The finished earth section shall be smoothed as needed to provide an adequate seedbed for the planned vegetation.

Construction activities shall be carried out in a manner that will not restrict flow from upstream channels. Care must be taken to reduce and prevent sediment pollution of water.

5. Spoil

Excavated earth materials shall be used to construct any required earthfill structures. Excess material shall be considered spoil and be spread and graded as shown on the drawings or as staked in the field.

6. Related Structures and Ditch Protection

All structures and other ditch protection measures shall be installed as the work progresses to permit proper functioning of the ditch and to prevent environmental damage during the installation period.

7. Vegetation

A protective cover of vegetation shall be established on all exposed channel surfaces. Seedbed preparation will consist of lightly disking compacted or polished soil surfaces to a depth of 3 inches and smoothing with a cultipacker. Seeding will be accomplished by hand seeding methods as detailed in Section 9 or with a grass drill equipped with double disc or coulter furrow openers with depth bands and press wheels spaced not more than 12 inches apart. All constructed embankments and excavated slopes shall be mulched after seeding. Mulch shall consist of native hay or clean straw and be applied at the rate of 2 tons per acre. It will be anchored by hand methods or specialized equipment using straight blades to punch the mulch into the soil. The mulch can be applied at the rate of 1 ton per acre if it is

anchored by an asphalt emulsion at the rate of 300 gallons per acre. The seeding mix will be as shown on the drawings or in Section 9.

8. Measurement

The measurement for volume of excavation will be based on the cross sectional area computed from the natural ground line to the designed excavated depth for the measured length of the completed mains or laterals using actual stakeout notes or computer drafting software as described in Section 9. The volume of excavation will be computed to the nearest cubic yard for each main or lateral.

9. Construction Detail