

**NATURAL RESOURCES CONSERVATION SERVICE
CONSTRUCTION SPECIFICATIONS**

TRAILS AND WALKWAYS

1. Scope

The work shall consist of all construction operations and the furnishing of all materials as required by the drawings and specifications for the complete installation of the trail.

2. Location

The location of the work shall be as shown on the drawings or as staked in the field.

3. Site Preparation

Clearing—The limits of the areas to be cleared will be marked by means of stakes, flags, tree markings, or other suitable means. Trees outside this area will be left standing and uninjured. Trees and other woody vegetation will be cut off no higher than 4 inches above the ground surface, unless otherwise specified in the "Construction Details" section.

Areas designated for embankment, concrete, or metal drainage structures or paved areas will have all stumps, root clusters, and roots larger than 1 inch in diameter grubbed to a depth of at least 1 foot below the subgrade elevation, unless otherwise specified in the "Construction Details" section.

Stripping—Undesirable material (such as large stones, rubbish, and soil high in organic matter) shall be removed from the tread area of the trail; any area to be surfaced with sand, gravel, or pavement; or any area upon which embankment is to be placed.

Waste material shall be placed, spread, leveled, or shaped as shown on the drawings or as specified in the "Construction Details" section.

Disposal—All materials removed from cleared or grubbed areas shall be burned, buried, or piled at locations shown on the drawings or as directed by the inspector. Burning shall comply with all state and local policies pertaining to open burning.

4. Excavation

All excavations shall conform to the lines, grades, and elevations shown on the drawings or as staked in the field.

5. Structures

The materials and installation of bridges, stairways, signs, barriers, concrete or asphalt pavement, and retaining walls shall be as shown on the drawings and as specified in the "Construction Details" section.

6. Culverts

The materials and manufacture of the pipe and appurtenances shall be as shown on the drawings and shall conform to the appropriate federal or American Society for Testing and Materials (ASTM) specifications suitable for the intended purpose.

The pipe shall be laid to the line and grade shown on the drawings, be placed in original earth or properly compacted earthfill, and be uniformly bedded to the depth and in the manner specified.

Selected impervious backfill material shall be placed around the conduit in layers not more than 4 inches thick before compaction; and each layer shall be thoroughly compacted by hand tamping, manually directed power tampers, or plate vibrators to the density of the surrounding material.

The height of backfill shall be increased at approximately the same rate on all sides of the structure. Heavy equipment shall not operate within 2 feet of any culvert.

7. Earthfill

Foundations for earthfill shall be stripped to remove vegetation and other unsuitable materials. Fill materials shall be obtained from required excavations and/or designated borrow areas. Fill materials shall contain no sod, brush, roots, or other perishable materials. Rock particles larger than the maximum size specified shall be removed prior to compaction of the fill.

Fill shall be placed in approximately horizontal layers. The thickness of each layer before compaction shall not exceed the minimum thickness specified.

The moisture content of the fill material shall be such that the required compaction can be obtained. Material that is too wet shall be dried to meet this requirement, and material that is too dry shall have water added and mixed. Moisture requirements will be as shown on the drawings or as specified in the "Construction Details" section.

Compaction requirements will be as shown on the drawings or as specified in the "Construction Details" section. The construction equipment shall be operated over the areas of each lift of earthfill in a way that will result in the required compaction. Special equipment will be used when the required compaction cannot be obtained without it.

The completed work shall conform to the lines, grades, and elevations shown on the drawings or as staked in the field.

8. Aggregate Surfacing

The subgrade surfaces on which sand or gravel are to be placed shall be cut or filled and graded to the lines and grades shown on the drawings or as staked in the field.

The surfacing material shall be obtained from designated sources or meet the gradation and durability requirements shown on the drawings or in the "Construction Details" section.

The aggregate materials shall be uniformly spread to the specified thickness.

9. Subsurface Drains

Drains will be placed to the line and grade shown on the drawings. Gradation requirements for drainfill and filter material and material requirements for pipe will be as shown on the drawings or as specified in the "Construction Details" section.

10. Vegetation

A protective cover of vegetation shall be established on all exposed surfaces or earthfill and excavated areas. Seedbed preparation, seeding, fertilizing, mulching, or other vegetation shall be as specified in the "Construction Details" section.

11. Measurement

The measurement will be as shown on the drawings or as specified in the "Construction Details" section.

12. Construction Details