

# CONSTRUCTION SPECIFICATION

## NATURAL RESOURCES CONSERVATION SERVICE

### DIKE

#### 1. Scope

This item shall consist of the clearing, excavation, backfill, other appurtenances, and the disposal of all cleared and excavated materials required in the construction of the embankment for dikes. Construction shall be carried out in such a manner that erosion and water, air, and noise pollution will be minimized and held within legal limits as established by local, state, or federal regulations.

#### 2. Foundation preparation

The foundation area shall be cleared of all trees, stumps, roots, brush, boulders, sod, and debris before construction begins. All cleared material shall be disposed of by burning, burying, or otherwise removing from the site and stacked. All burning shall conform to all federal, state, and local laws and regulations.

All channel banks and sharp breaks shall be sloped to the requirements in the plan. Topsoil which is high in organic material shall be removed. The surface of the foundation area will be thoroughly scarified before placement of the embankment material.

The cutoff trench, where used, shall be excavated to lines and grades as shown on the plans. It shall be backfilled with suitable material in a manner as specified for earth embankment. The necessary degree of compaction shall be obtained by using equipment adapted to site conditions. The trench should, if feasible, be kept free of standing water during backfill operations. The material from cutoff trench excavation may be placed within the dike section if suitable.

#### 3. Conduit Installation

All conduits through a dike shall be placed on a firm foundation to the lines and grades shown on the plans. Selected backfill material shall be placed in layers around the conduits and their component parts and each successive layer shall be thoroughly compacted.

#### 4. Embankment Construction

The embankment material may be obtained from a selected borrow area or from channel excavation. In the construction of borrow trenches on the waterside of the dike, an unexcavated plug at least 25-ft. wide shall be left at intervals not to exceed 1,320 feet.

The fill material shall be free of organic matter and other objectionable material. Placing and spreading of fill shall begin on the lowest part of the working area and continue in horizontal layers of approximate uniform thickness, not exceeding 9 inches before compaction. Where the borrow yields materials of varying texture and gradation, the more impervious material shall be placed toward the waterside of the dike. The construction equipment shall be operated over the area of each layer in a manner to break up large clods and obtain compaction.

#### 5. Vegetation

Vegetative treatment will be applied as shown on the plans and in the specifications. Vegetation will include seedbed preparation, liming, fertilizing, seeding, and either mulching or netting when needed.

A maintenance program will be established to maintain the dike capacity, storage, embankment height, and the outlets. Dike embankments can be hazardous to farming equipment, and such hazards should be brought to the attention of the responsible land user. All woody vegetation will be controlled by the use of chemicals, mowing, burning, or other mechanical means.