

**NATURAL RESOURCES CONSERVATION SERVICE
CONSTRUCTION SPECIFICATION**

IA-9 DRAINAGE TILE INVESTIGATION AND REMOVAL

1. SCOPE

This work will consist of the investigation, location, and removal of drainage tile near new or existing animal waste storage or wetland restoration, enhancement, or creation facilities.

2. INVESTIGATION AND LOCATION

An inspection trench at least 10 inches wide shall be dug at the location shown on the drawings or as directed by the engineer. The trench shall be at least 6 feet deep measured from the original ground line. The engineer shall examine the trench and excavated material to locate tile lines. Backfilling shall not be started without approval of the engineer. After inspection all trenches shall be backfilled in 12 inch layers and compacted with similar soil to obtain a density of not less than the adjacent natural soils.

Any additional subsurface drains located during construction shall be brought to the attention of the landowner and the Natural Resources Conservation Service.

3. TILE REMOVAL

All tile lines located within the area bounded by the investigation trench shall be removed as shown on the plans. All envelope filter material or other flow enhancing material shall also be removed. Drainage tiles found upgrade from the facilities shall be rerouted as directed by the engineer so the capacity of the upstream drainage system is maintained.

On existing animal waste facilities the owner shall contact the Iowa Department of Natural Resources (IDNR) for permission to remove the drainage tile under the structure. The structure shall be emptied of waste or lowered to a point below the tile prior to its removal. The structure must be retested for percolation and the results submitted to IDNR and approval received prior to reusing the structure. An alternative to removing tile on existing facilities is to grout the entire length of tile with concrete or Portland cement grout.

4. SPECIAL SPECIFICATIONS