

DELAWARE CONSTRUCTION SPECIFICATION

DRAINS FOR LAND DRAINAGE CS 48 **(CORRUGATED POLYETHYLENE TUBING)**

1. SCOPE

The work shall consist of furnishing and installing tubing and the necessary fittings and appurtenances.

2. MATERIALS

Tubing and fittings shall conform to Delaware Material Specification DE-212.

3. EXCAVATION

Unless otherwise specified, excavation for and subsequent installation of each drain line shall begin at the outlet end and progress upstream.

The trench or excavation for the tubing shall be constructed to the line, depths, cross sections, and grade shown on the drawings or as directed by the NRCS Technician.

Trench shields, shoring and bracing, or other methods, necessary to safeguard the workmen and work, and to prevent damage to the existing improvements shall be furnished, placed, and subsequently removed by the Contractor.

4. PREPARING THE TUBING BED

Unless otherwise specified, no filter or envelope is required. The bottom of the trench shall be shaped to form a semicircular groove in its center. This groove shall conform to the full width of the tubing and shall have a depth equal to one-half its diameter.

5. FILTER OR ENVELOPE MATERIAL

When a filter or envelope is specified, the shape of the bottom of the trench, gradation and the thickness of the filter or envelope material to be placed around the tubing will be as shown on the drawings. The filter or envelope material shall be placed in the bottom of the trench just prior to the laying of

the tubing. The tubing shall then be laid and the filter and envelope material placed over the tubing.

6. **PLACEMENT AND JOINT CONNECTIONS**

All drains shall be laid to grade.

After placement of the tubing in the trench and after blinding but prior to backfilling, sufficient time shall elapse to allow the tubing to conform to the temperature of the trench.

All split fittings shall be securely tied with nylon cord before any backfill is placed.

7. **BLINDING**

After the tubing is placed in the excavated groove, friable material from the sides of the trench shall be placed around the tubing, completely filling the trench to a depth of not less than three inches over the top of the tubing. For material to be suitable it must not contain hard clods, rocks, frozen soil, or fine material which will cause a silting hazard to the drain. Tubing placed during any day shall be blinded by the end of the day's work.

8. **BACKFILLING**

The backfilling of the trench shall be completed as rapidly as consistent with the soil conditions.

Automatic backfilling machines may be used only when approved by the NRCS Technician. Backfill shall extend above the ground surface and be well rounded over the trench.