**TILE REMOVAL TRENCH (TYPICAL)**

**NOT TO SCALE**

**TRENCH WIDTH VARIES DEPENDING UPON TILE SIZE & CONSTRUCTION EQUIPMENT**

- **CONCRETE PLUG**
  - REMOVE ENTIRE LENGTH UNDER EMBANKMENT (LENGTH VARIES)
  - APPROX. 50' UNLESS OTHERWISE SPECIFIED

- **MIN. 25'**
  - REMOVE ENTIRE LENGTH UNDER DITCH BANK (LENGTH VARIES)

**CONSTRUCTION REQUIREMENTS**

**TILE REMOVAL (EXCAVATION):**
- The work shall include all labor, materials, and equipment required to complete the excavation and removal of all identified tile drainage systems.
- Identified drain tile shall be excavated and removed as required by the drawings, as staked, or as otherwise specified by the engineer.
- Unless otherwise specified, all fragments of the drain tile shall be removed from the excavated trench and associated backfill material.
- Each end of the exposed drain tile in the excavated trench shall be plugged with concrete (MIN. 2' in length). Plugs shall be watertight.
- Backfill and tamp by hand a minimum distance of two feet around each sealed tile end with suitable soil material. Backfill the remaining trench with the most suitable material available and compact to a density equal to or greater than that of the surrounding undisturbed soil.

**TILE PLUGGING:**
- The work shall include all labor, materials, and equipment required to complete the plugging of all identified tile drainage systems.
- Identified drain tile shall be plugged as required by the drawings, as staked, or as otherwise specified by the engineer.
- Means to access the tile drainage system to construct appropriate plugs shall be approved by the engineer.
- Constructed plugs shall be made permanent and watertight. Methods to plug the tile system include using sand slurry mixes, concrete grout, or certain expanding polyurethane foams. If plugging method is not specified, the method proposed requires engineer's approval.
- Areas that are excavated to access the tile system shall be carefully backfilled and compacted in lifts with suitable soil material. Backfill shall be compacted to a density equal to surrounding undisturbed soil.

**TILE BLOCK DESIGN TABLE**

<table>
<thead>
<tr>
<th>TYPE OF TILE BLOCK</th>
<th>LENGTH OF TILE TO BE BLOCKED (FT PER LOCATION)</th>
<th>NUMBER OF TILE BLOCKS (#)</th>
<th>TOTAL (LN. FT.)</th>
</tr>
</thead>
</table>

**TILE BLOCK DETAILS**

- **TYPE A**
  - CONCRETE PLUG
  - EXISTING GROUND
  - EX. TILE
  - REMOVE ENTIRE LENGTH
  - CONCRETE PLUG

- **TYPE B**
  - CONCRETE PLUG
  - EXISTING GROUND
  - EX. TILE
  - REMOVE ENTIRE LENGTH UNDER EMBANKMENT (LENGTH VARIES)
  - MIN. 25’
  - CONCRETE PLUG

- **TYPE C**
  - DITCH BANK
  - EXISTING GROUND
  - EX. TILE
  - REMOVE ENTIRE LENGTH UNDER DITCH BANK (LENGTH VARIES)
  - MIN. 25’
  - CONCRETE PLUG

- **TYPE D**
  - CONCRETE PLUG
  - EXISTING GROUND
  - EX. TILE
  - PLUG ENTIRE LENGTH
  - CONCRETE PLUG

- **TYPE E**
  - CONCRETE PLUG
  - EXISTING GROUND
  - EX. TILE
  - PLUG ENTIRE LENGTH UNDER DITCH BANK (LENGTH VARIES)
  - MIN. 25’
  - CONCRETE PLUG

- **TYPE F**
  - CONCRETE PLUG
  - EXISTING GROUND
  - EX. DITCH
  - PLUG ENTIRE LENGTH UNDER DITCH BANK (LENGTH VARIES)
  - MIN. 25’
  - CONCRETE PLUG

**WETLAND RESTORATION PLAN**

**BWSR**

**TILE BLOCK DETAIL SHEET**

**PROJECT #:**

**SHEET NO.**

**LIC. NO.**

**DATE:**

**PRINT NAME / SIGNATURE**