

## WHY I SHOULD FENCE MY LAGOON

Drowning is the second leading cause of accidental death of children. Fencing of lagoons is essential to protect children, pets and other animals. An on-site lagoon receives all liquid waste from the house of the property it serves. This waste included toilet, sink and bathtub and laundry waste. The lagoon allows the solids in the liquid waste to settle and promotes the growth of bacteria necessary to decompose the solids. If introduced into the lagoon by a family member or visitor, diseases such as infectious hepatitis, typhoid fever and dysentery can exist until decomposition occurs.

A fence for the lagoon is necessary for the following reasons:

1. Prevent access of the lagoon to children and pets who may come in contact with and possibly spread any diseases which may be in the lagoon.
2. Prevent access of the lagoon to children for whom the water in the lagoon may provide a drowning hazard.
3. Prevent access of the lagoon to grazing animals who can destroy the berm surrounding the lagoon.

A fence placed on top of the berm should be placed in the middle of the berm to make mowing the embankment and slopes easier. A large (at least 4 ft wide) gate should be provided to allow easy access. If livestock will be around the lagoon, the fence should be at or beyond the outside toe of the embankment slope. This keeps livestock off the embankment thus preventing erosion and damage.

Fence openings should be no larger than about 8 square inches (2 x 4 or 2 $\frac{3}{4}$  x 2 $\frac{3}{4}$  inches). The material should be strong enough to stand up to children, wildlife and livestock if present. The kind and size of animals must be considered in selecting fence material. The fence should be at least 4 ft tall but might need to be taller. One barb wire strand should also be placed at the bottom edge of the fence to discourage animals from going under. One or two barbed wire strands must also top the fence when livestock are around the lagoon.

6) **Fence for human and animal safety.** These lagoons contain raw sewage that can easily spread disease. If unfenced, they can create both a hazard and liability, especially with drowning, which is the second leading cause of accidental death in children. State and county codes require all wastewater lagoons be fenced. Fencing should preferably be located 3 feet outside the berm toe. A 4-foot-wide, rigid-frame hinged gate can allow easy access to mowing equipment. Gating must provide the same degree of resistance to entry as fencing and requires a padlock. Fencing diagrams are located in Figures IX-1, IX-2, IX-3, IX-4, and IX-5.

Specifications for lagoon fence

- a) Height: **4 feet minimum.** If fence will also be accessible to livestock, a double strand of barbed wire placed above the fence top or an electrical fence placed outside the inner fence may also be installed.
- b) Size: **12.5-gauge wire.**
- c) **Open space: 8 square inches or smaller; example 2" x 4."**
- d) **Warning signs:** A sign stating "WASTEWATER TREATMENT LAGOON" or "RAW SEWAGE, KEEP OUT," shall be posted on the gate or fence adjacent to the gate.

9) **Fencing installation.** Fencing must be completed as soon as possible for public safety. Posts need to be placed  $2\frac{1}{2}$  to 3 feet deep and backfilled with tightly compacted soil. Placing cemented posts at a  $2\frac{1}{2}$ -foot depth is an alternative option. Wire needs to be stretched tightly using a come-along (wire stretcher), tractor, or other method. Figures IX-1 through IX-5 illustrate gate and fencing specifications.

**Figure IX-1. Lagoon Design**

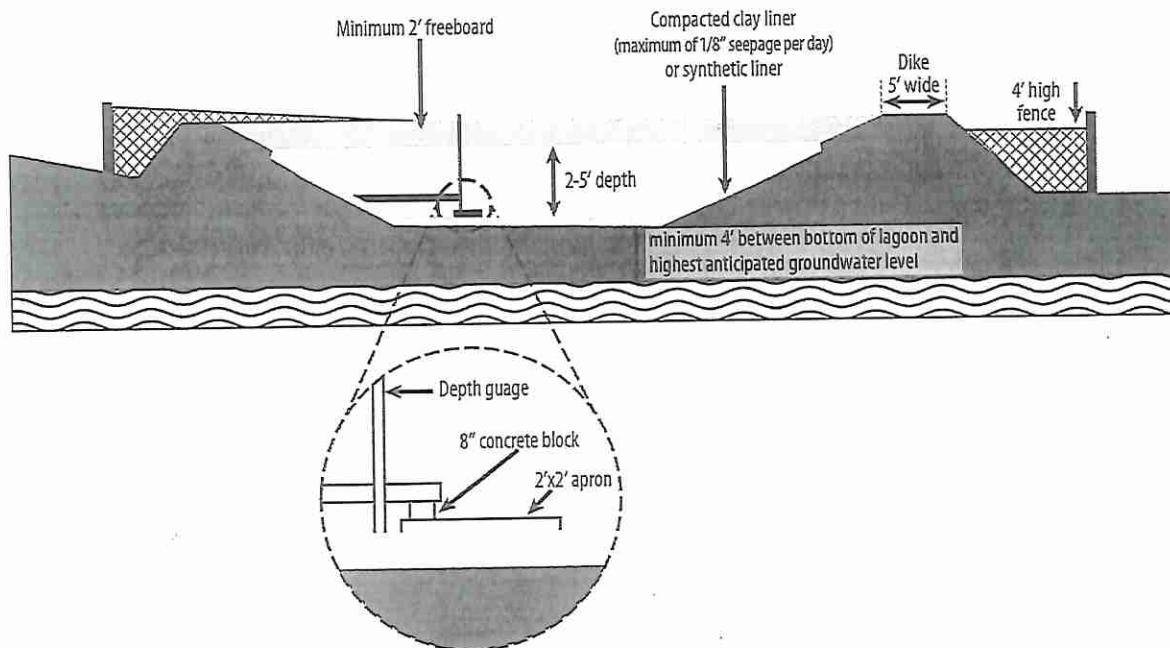
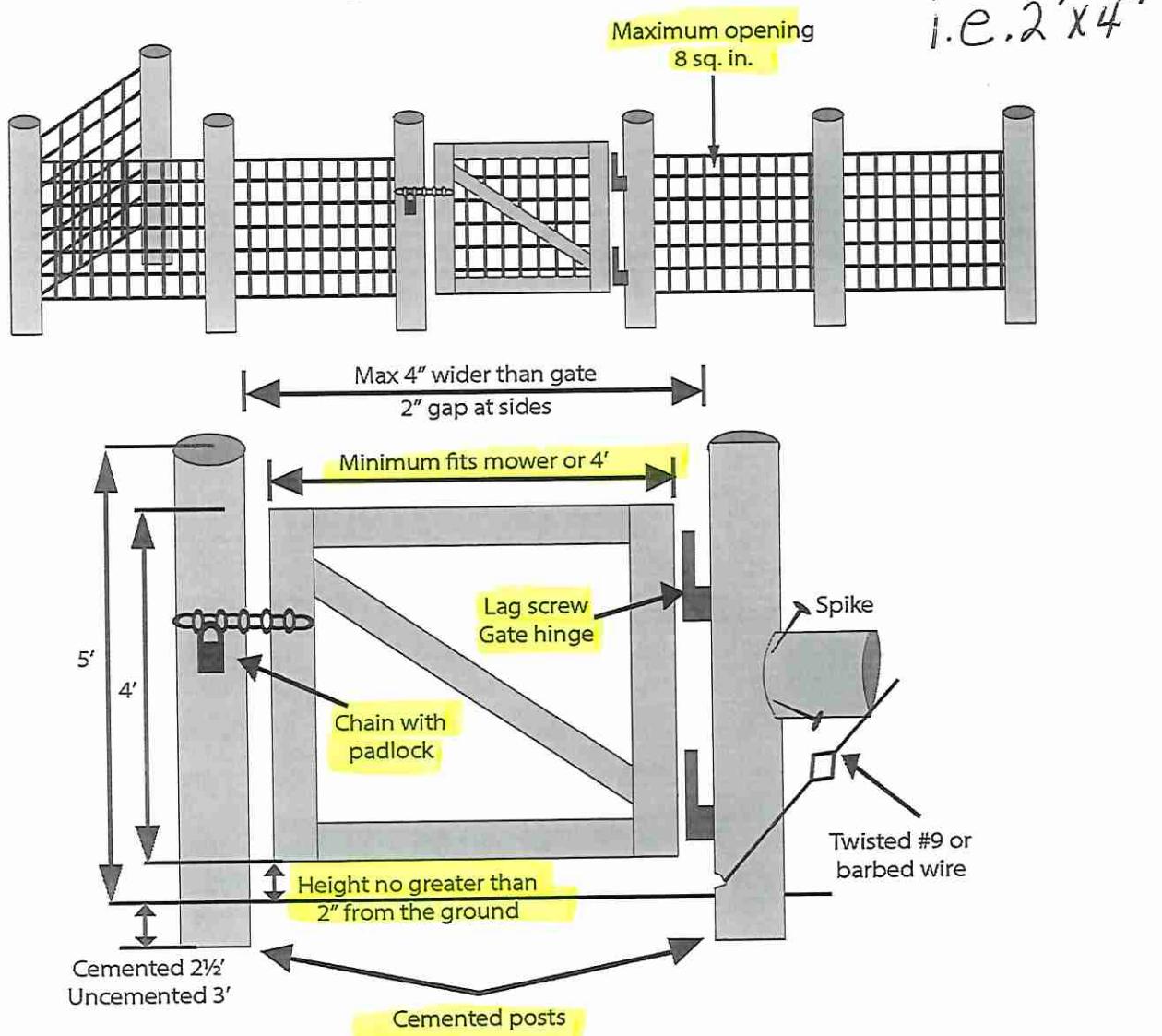
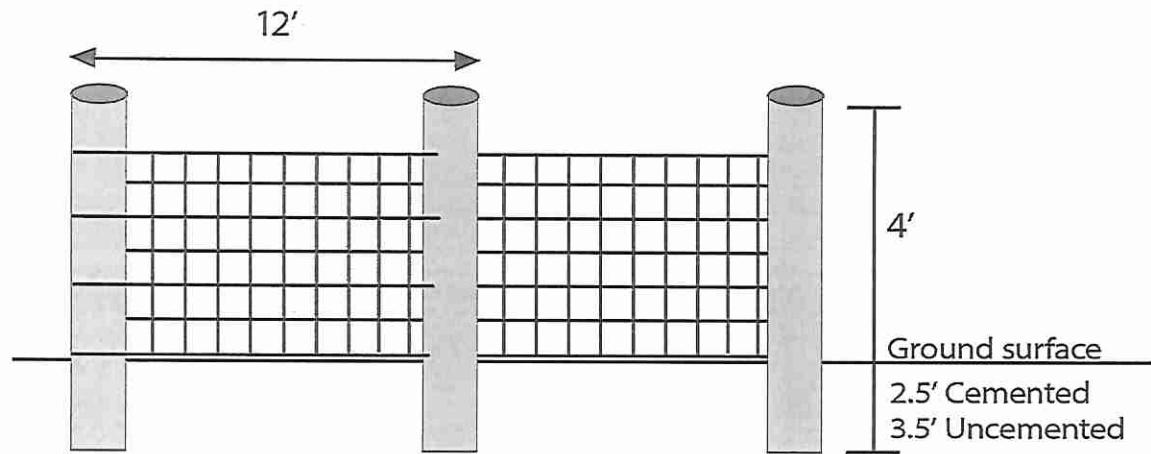


Figure IX-2. Gate and Fencing



**Figure IX-3. Fencing: The Standard Fence**

Avoid driving staple in too far to prevent damage to wire.

Staple on slant to prevent post from splitting.

Staple top, bottom, and every 12 inches along post.

12½ gauge

2"x4" Welded wire or chain link fencing

Line post material: pressure-treated wood or standard steel fence posts

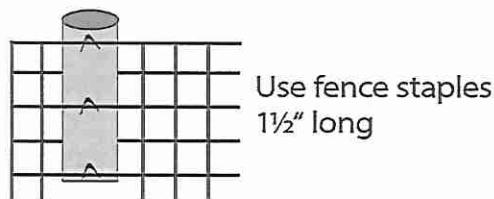
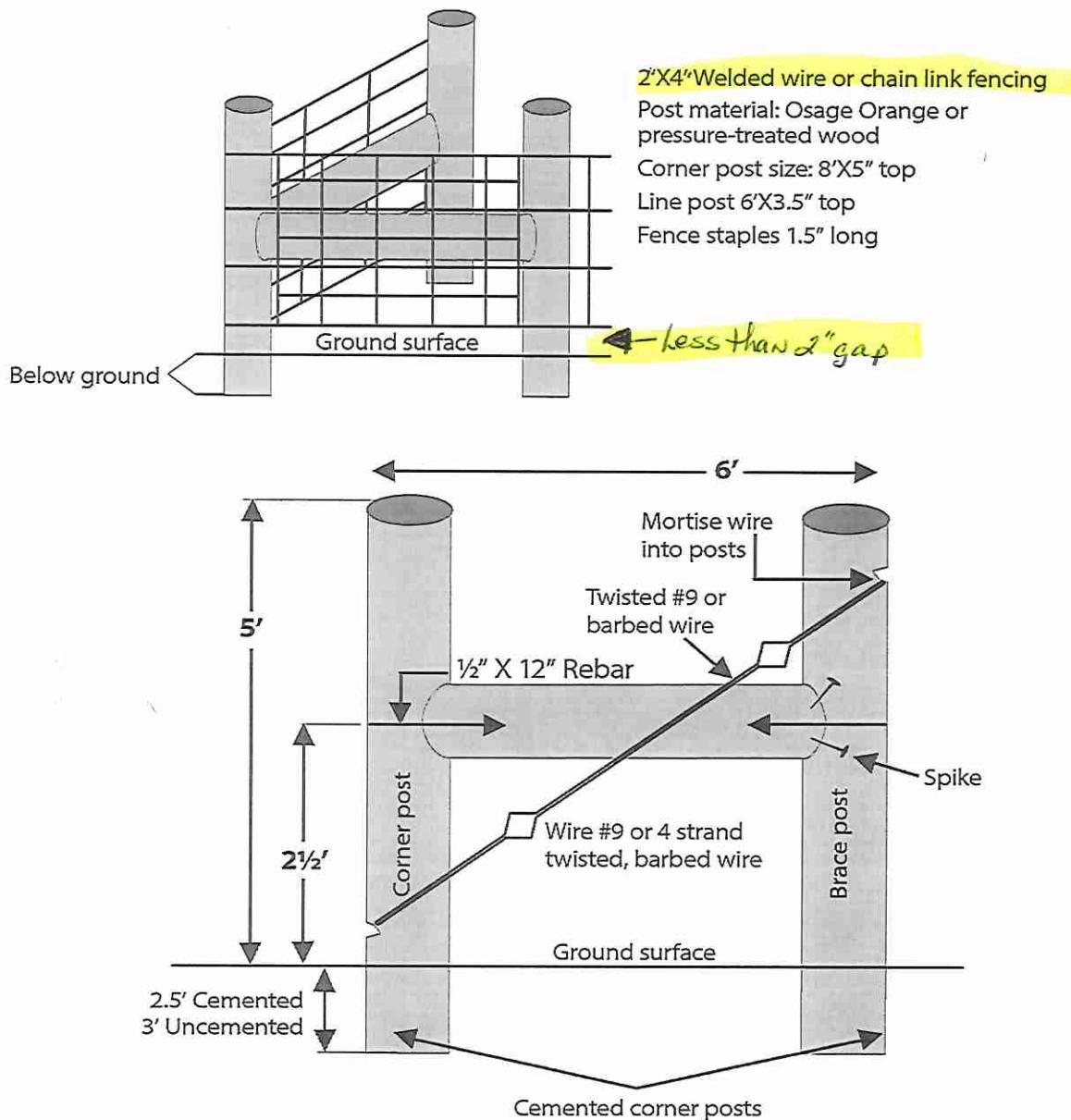


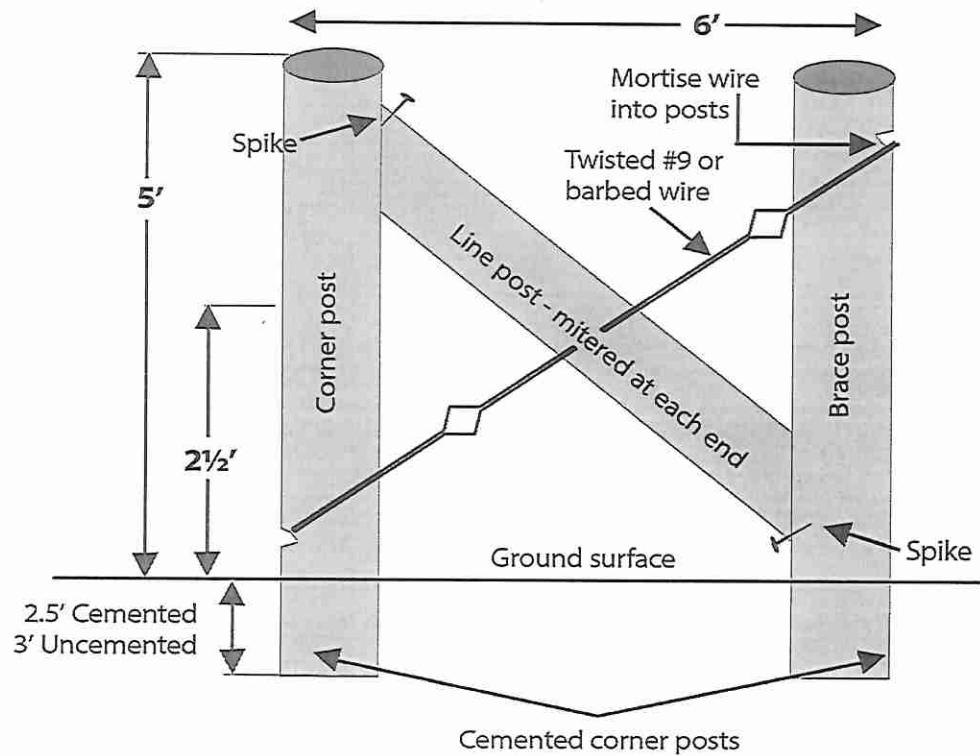
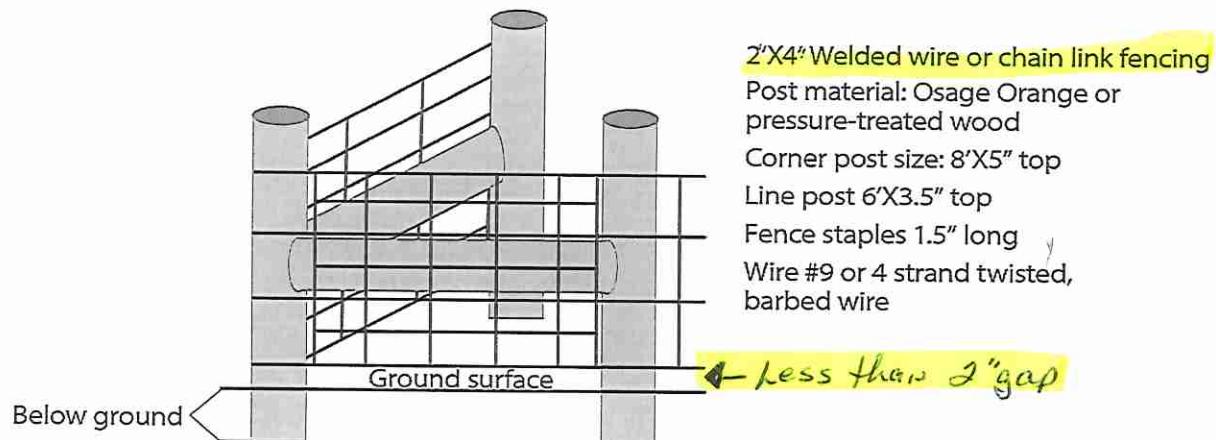
Figure IX-4. Fencing: "H" Style Corner Brace

Standard Bracing for Corners "H"-Style

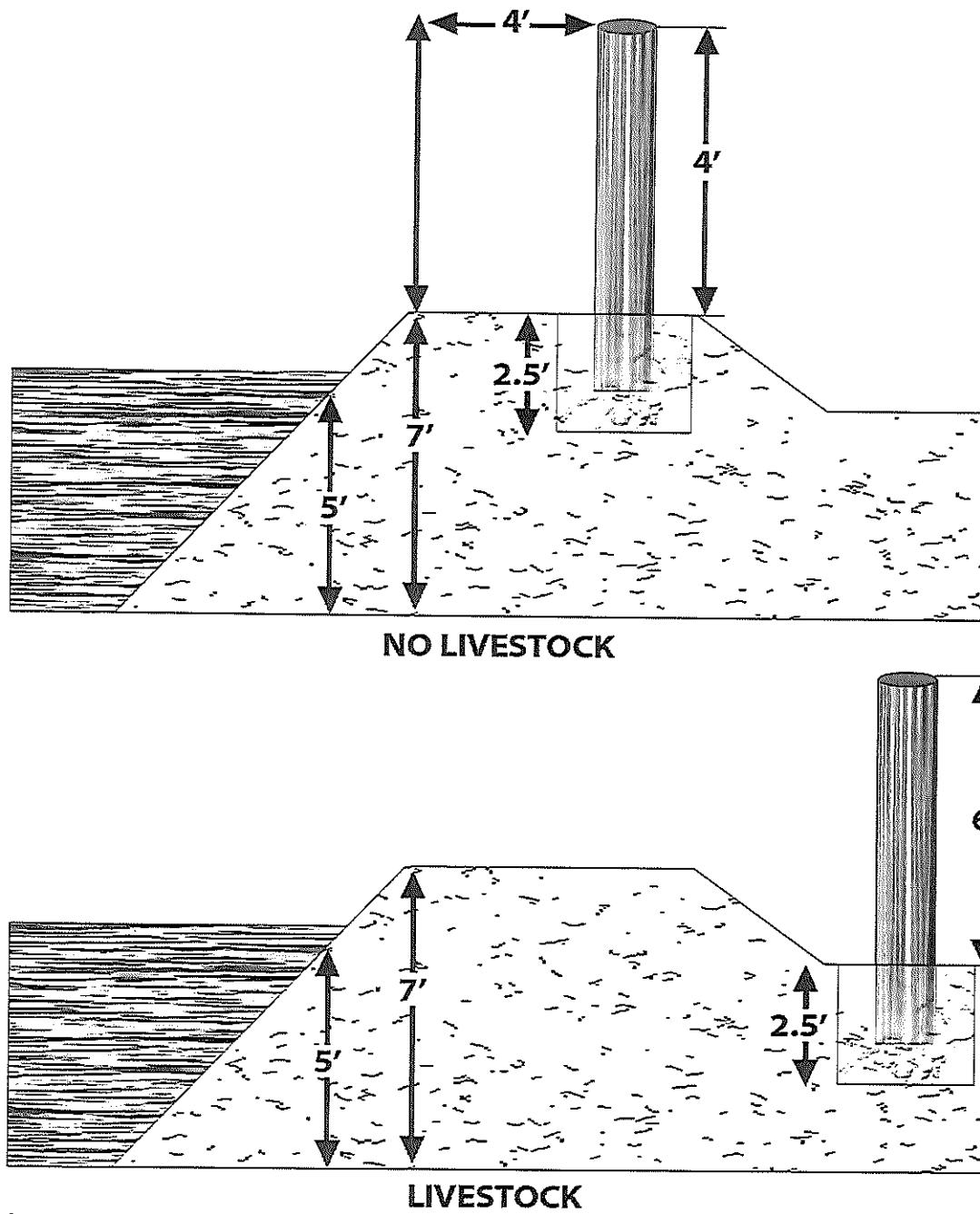


**Figure IX-5. Fencing: "N" Style Corner Brace**

### Standard Bracing for Corners "N"-Style



**Figure IX-6. Fencing: Placement**



Drawing: Chris McVey