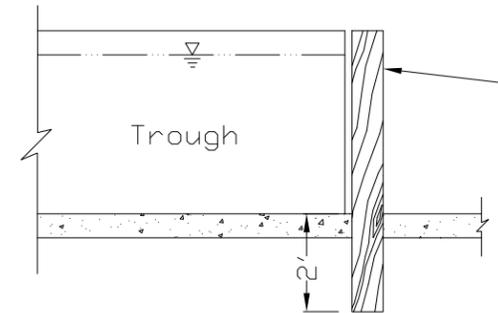
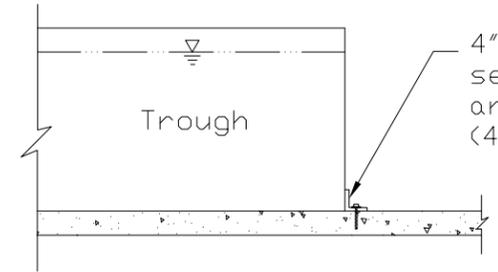


NOTES:

1. Locate troughs on sites having an existing ground slope of 4% or flatter.
2. Concrete slab shall be 4" thick min. Concrete shall meet the requirements in the construction specification for Conservation Practice Standard 561 - Heavy Use Area Protection. Slab shall have formed or sawn contraction joints. The joint depth shall be 3/4" minimum. Joint spacing shall not exceed 10 feet in any direction.
3. Seed and mulch all disturbed areas according to Conservation Practice Standard 342 - Critical Area Planting.
4. Fountain-type waterers (ball waterers) are to be secured to the concrete pad according to the manufacturer's recommendations.
5. Troughs smaller than 500 gallon capacity (exclusive of concrete troughs or ball waterers) will be secured on at least four sides by using treated posts embedded at least 2 ft. through the concrete pad or by using 4"x4"x1/4" angle irons (4" long min.) secured to the concrete pad with stainless steel anchor bolts and washers (see typical).
6. See AL-ENG-614-01 or AL-ENG-614-02 for details of freeze-proof water supply installation.
7. On soils having high shrink/swell properties (CH, MH), excavate at least one foot below the bottom of the concrete slab and backfill with compact sand, gravel or SC material.



Min. 4x4 treated posts (4 sides).
 Extend posts no higher than top of trough and at least 12" above slab. Can be part of a fence system if trough is located on a fence line.



4"x4"x1/4" angle iron secured with 1/2" min. dia. S.S. anchor bolt and S.S. washer (4 sides).

TYPICAL METHODS TO SECURE OPEN-TOP TROUGH

Date	9/12
Designed	Alabama NRCS
Drawn	
Checked	
Approved	

CONCRETE HEAVY USE AREA PROTECTION FOR WATERING FACILITY
 LANDOWNER/FARM
 COUNTY, ALABAMA



Rev. 1/16

Drawing No. AL-ENG-561-01

Sheet of

(Details this sheet are not to scale)