

### Conservation Practice Job Sheet

Name \_\_\_\_\_ County \_\_\_\_\_ Acres \_\_\_\_\_  
 Field ID(s) \_\_\_\_\_ Feet of Planned Fence \_\_\_\_\_

Permanent high-tensile electric woven wire or 4 strands of 12 ½ gauge smooth high-tensile (170,000 psi or stronger) electric fence are effective options for small ruminant cross-fencing. Use new materials (with the exception of steel pipe and utility poles in excellent condition). Trees, stumps, in-service utility poles, cross-ties or landscape timbers are not allowed. Wooden posts will be Osage Orange, red cedar, black locust or commercially treated.

H-braces or welded angle or floating braces are required. Single H-brace or angle brace assemblies are sufficient at gates and for pull assemblies every 660 feet for woven wire, and 2640 feet for high tensile electric wire. Double H-brace or angle brace assemblies must be used with any 20 degree change in direction and slope changes in excess of 8 percent. The horizontal brace shall be 6-10 feet long and either 3 inch diameter wood or 1 7/8 inch diameter steel pipe. Corner, gate, end and pull post uprights will be either 5 inch diameter wood or 2 3/8 inch diameter steel pipe. Capping of steel pipe is required and painting recommended. Posts will be driven or set 36 inches where possible or 24 inches with concrete 6 inches around the post when not feasible. A tension wire of two complete loops of 12 1/2 gauge or stronger wire with a twitch stick or inline wire tightener required for wood brace assemblies. Line posts recommended every 10 feet with woven wire fences and every 60 feet with multi-wire high-tensile. Self-insulating composite or fiberglass line posts are most practical since each T-post would need 4-11 insulators that could short out the fence if any failed.

Permanent electric woven wire is constructed entirely of 12 ½ gauge wire with fixed knots and can be 36 or 42 inches high. Verticals spaced 12” or wider allow horned animals to free themselves. If trapped by closer spacing, stress could be fatal. Install woven wire about 7 inches above ground level and run one uncharged, preferably grounded, 12 ½ gauge high-tensile wire below the woven wire.

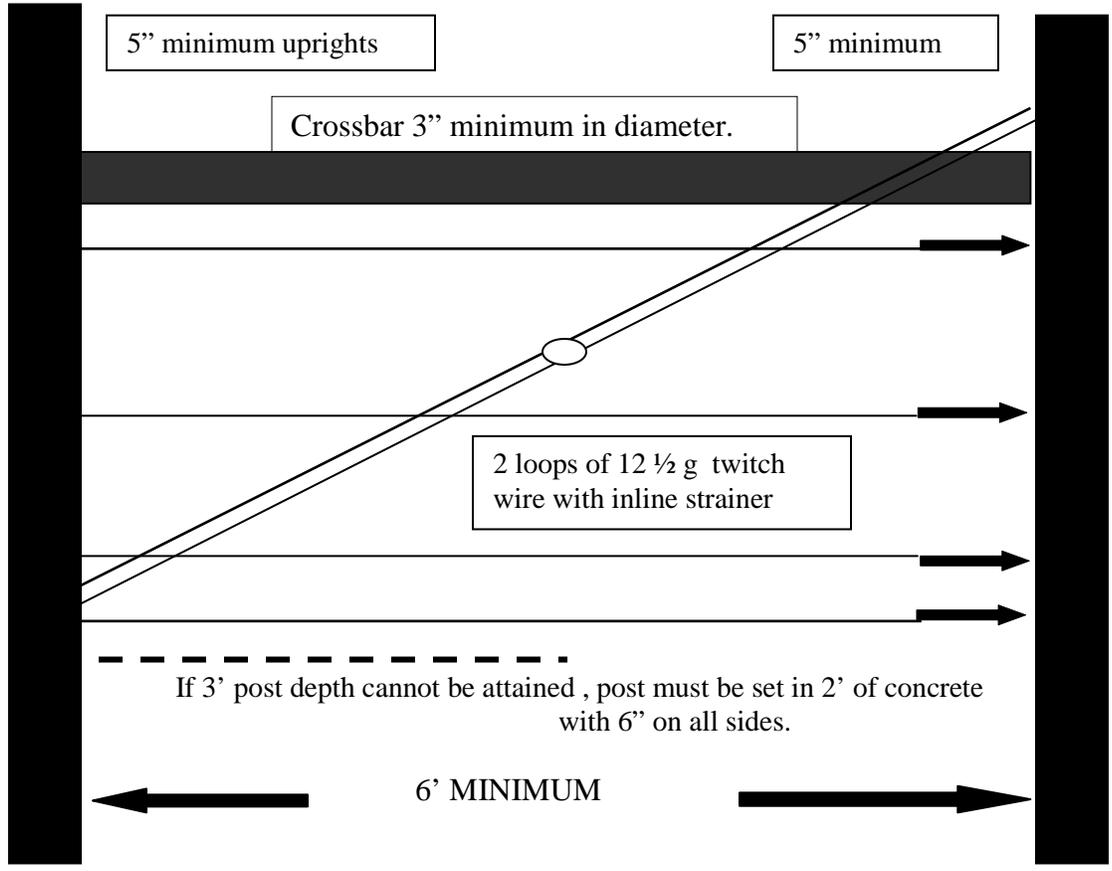
For 4 strand smooth high-tensile fence the bottom wire should be at 6-8 inches and can be grounded to avoid voltage drawdown by wet vegetation. The 3 wires above are placed at 6-10” intervals with one at average face height of livestock.

Fence chargers must be high voltage/low impedance, short pulse units which can produce a minimum of 5000 volts output, necessitating higher joule chargers for multi-wire fence. For 7 joules or higher chargers, install an additional 3 feet of ground rod per joule (above the minimum of 3 rods) 10 feet apart. The ½ inch x 6 ft rods will be connected with one continuous wire back to the charger terminal. Do not mix dissimilar materials. The rods should be at least 6 feet long and located in moist, deep soil. Keep ground rods 25 feet from other grounding systems. All insulators must be UV stabilized high-density polyethylene or porcelain with a 10 year warranty. All underground wire installations must be double insulated, molded, high tensile strength 12 1/2 gauge wire. Placing the wire in buried non-metal conduit is recommended. Gates can be made of 4 strands of smooth high tensile wire, springs, cable, polytape, polywire, polybraid or polyrope. Monitor fence voltage with a digital volt meter. Install a surge protector at 110 volt connections to provide protection from lightning. Cutoff switches are recommended at each secondary fence feeding off the main line to assist in tracing shorts. Electric fence warning signs should be posted where the public has access to the fence.

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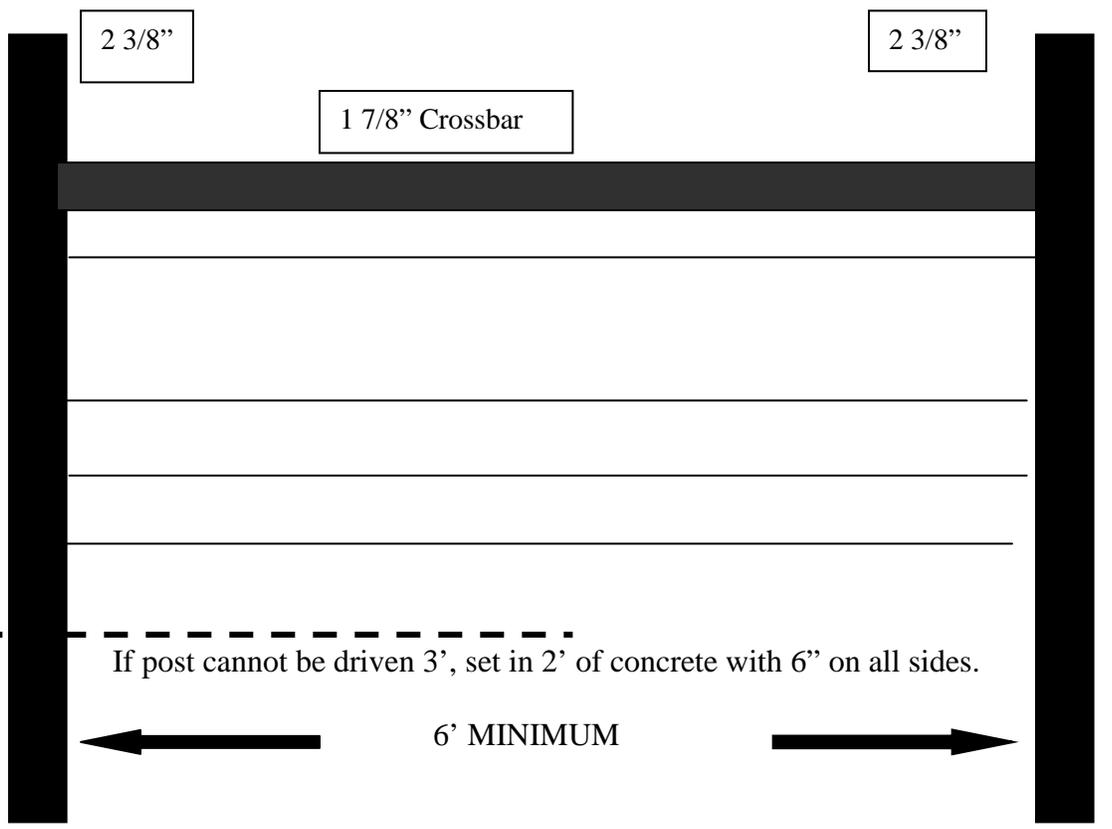
### Single Wooden H-Brace Assembly

Wires must be tied off at the corner post as this is a pull post. The twitch wire goes from the lower part of the pull post to the top of the line post. **DO NOT USE TWO** diagonal twitch wires as the other wire pulls against the top of the pull post, defeating the purpose of the twitch wire. However, an H-brace in the middle of a fence would need two twitch wires.



### Single Welded H Brace Assembly

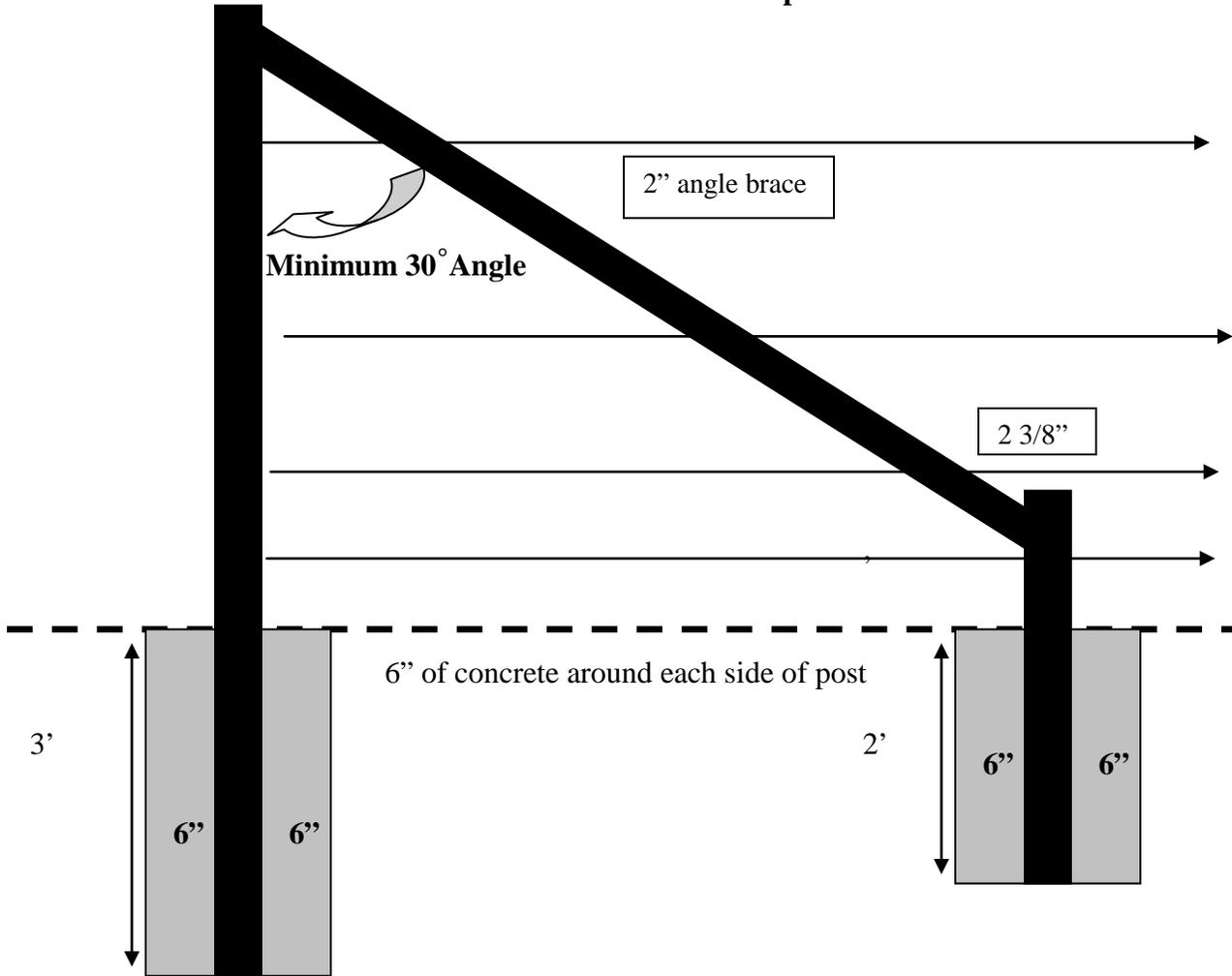
Wires must be tied off at the corner post as this is a pull post.



# Single Welded Angle Brace Assembly

2 3/8" upright

Arrows show direction of pull



## Floating Wood Brace Assembly

