

# **Penn State Forestland Management Office Multi-Strand High-Tensile Wire Fence Specifications**

## **1. FENCE REQUIREMENTS**

- **Hazard Trees**

All hazard trees, which are within tree length of the fence, must be felled before the fence is erected. Hazard trees are defined as dead and dying trees, split trees, heavily leaning trees, and/or root sprung trees that are in a position to fall across the fence. A Forestland Management Office representative will consult with the vendor to identify hazard trees.

Any hazard trees determined by the Forestland Management Office to be merchantable may be required to be skidded to a landing area assigned by a Forestland Management Office representative.

- **Clearing Fence Area**

It is the responsibility of the contractor to clear and level a path between 6 and 8 feet wide of all brush, stumps, rocks, or other obstructions. Obstructions that cause undue construction or maintenance costs may be left in place at the discretion of a Forestland Management Office representative.

The path will lie on the outside edge of the fence and will serve as the access corridor for equipment during construction, a level location for the fence installation, and as a maintenance corridor. In those areas of the fence perimeter where the ground is level and free of stumps and/or rocks, no path clearing is required.

The contractor will be responsible for, and may be charged for, damage to standing trees outside the cleared corridor. Values of damaged trees will be calculated from the Timber Market Report, using average values for the region and species. The stumpage value will then be singled or tripled depending on the severity and/or amount of contractor negligence. A Forestland Management Office representative will determine the severity of negligence, and The Pennsylvania State University reserves the right to having determination in all damage disputes.

- **Erosion and Sedimentation Control**

Equipment will not be operated when ground conditions may result in excessive soil disturbance, as determined by a Forestland Management Office representative. The contractor will be required to repair areas that become heavily rutted and install water bars in areas of sufficient slope as

to present an erosion hazard. Small intermittent or perennial streams, adjacent stream banks, and seeps that are unavoidable will be cleared by hand. The Forestland Management Office representative reserves the right to determine which areas are to be cleared by hand.

- **9-Strand Wire Fence Material and Installation Specifications**

- ✓ NOTE: The project has no fence trees marked with four vertical blue slashes indicating that they will not be harvested and can be used as fence trees. The desired fence path is indicated with pink flagging. Trees marked with blue paint (rings or three slashes) will not be cut. If a blue tree is located within 5 feet of the pink flagged line that blue tree may be used as a fence tree. If no blue trees are available then a post must be utilized. If it will greatly reduce the bid price we will be willing to meet with the contractor on site and identify fence trees. *All trees must be protected by having a 2 foot by 4 foot board of sufficient length attached to the tree with duplex (double-head) nails. The fence will be attached to the board. The Forestland Management Office reserves the right to waive the use of attachment boards in instances where tree damage is not a concern.* Please note that the timbersale boundary and the fence are not identical. There are instances where the desired fence path may be outside the cut area.
- ✓ a maximum distance of 50 feet between posts,
- ✓ pressure-treated posts, 4–5 feet diameter, of sufficient length will be used to prevent posts from being pulled out (contractor will be liable for repairing any post pull-outs for one month from installation)
- ✓ heavy duty fiberglass “T” or non-conductive wooden-spacer posts may be used as fillers to keep wires off the ground; the base of the posts must be rested on some flat object to prevent it from sinking into the ground
- ✓ “w” type insulators of 10-year durable plastic will be used; they will be nailed to posts using 1 ½ inch galvanized steel roofing nails,
- ✓ wire spacing from the ground level up is as follows: the first seven wires are 6 feet apart, wires seven to eight are 8 feet apart and wires eight to nine are 10 feet apart,
- ✓ three sets of in-line strainers (daisy wheels) made of galvanized steel of the type that accept a square peg for tightening will be used at the end of each run
- ✓ two sets of nine, heavy duty type galvanized tension springs, notched to indicate wire tension will be used at the location of each set of in-line strainers

- ✓ a solar panel/battery/energizer (with a surge protector) power system will be used that can maintain a minimum of 5,000 volts
- ✓ the battery/energizer/surge protector should be sufficiently protected from weather and vandalism by a galvanized metal box with a lock hasp installed, hinged lid, water-resistant construction, and sized to hold battery, energizer, wires, regulator, and allow room to service the equipment
- ✓ grounding rods will be 8 feet long, 5/8 feet diameter, galvanized or copper clad, including ground rod connector clamp to fit 5/8 inch rod, three rods are required per energizer, one additional rod is required for the lightening protection system, grounding system will be installed a minimum of 25 feet from the energizer
- ✓ a UL-approved lightning arrester will be used
- ✓ split bolt line type (zinc) for electrical connection to galvanized wire will be used
- ✓ kencove model C12 or equivalent crimp sleeves, two per connection will be used
- ✓ battery used will be a deep cycle, marine type, wet cell, and minimum 60 amp hours
- ✓ minimum 14-gauge, noninsulated wire, HT class 3 galvanized minimum 1,000 lbs. breaking strength

**No wires (except the bottom wire) may be raised prior to voltage being applied to the fence; the same day the wires go up the fence must be closed and hot.**

- **Access**

No walk-through gates will need to be installed on this fence.

- **Operating Area**

The contractor may operate vehicles on the cleared fence path. Vehicles may not cross the area to be fenced without prior approval.

- **Debris and Garbage**

The contractor will remove all trash generated during the completion of this contract. This is to include all materials generated from the construction of the fence and items from contractor's employees.

- **Work Schedule**

The contractor will notify the Forestland Management Office 3 days prior to the start of construction. The contractor may work at times other than the schedule of the Forestland Management Office representative. The contractor may be present at final inspection.

- **Deer Drive**

The contractor must drive all deer from the fenced area prior to closing the fence. The contractor will notify the Forestland Management Office 2 days prior to conducting the deer drive. The fence will be closed the same day that the deer drive takes place.

## **2. SITE INSPECTION**

No formal site inspection will be conducted. Contact this office to arrange a site tour.

## **3. CONTRACT REQUIREMENTS**

- Operator agrees to furnish the University with a Certificate of Insurance to verify having Workers' Compensation Insurance or an exemption form from the State Department of Labor and Industry.
- Contractor must include with the bid proposal evidence of General Liability Insurance for \$1 million per occurrence, in force, for all operators, agents, and subcontractors to be working on the site.
- The operator is responsible for insuring that all subcontractors comply with the terms of this contract. This includes a Certificate of Insurance to verify having Workers' Compensation Insurance or an exemption form from the State Department of Labor and Industry, and verification of general liability insurance for \$1 million per occurrence.
- The laws of Pennsylvania will govern all activities. Venue for all legal actions in regard to the erecting of the deer fence shall be the courts of Huntingdon County.

## **4. PERFORMANCE AND COMPLETION BOND:**

- In order to secure the faithful performance of the conditions of the contract, the lowest responsible bidder must deliver a performance guarantee in the amount of \$1,500.00. This must be in the form of a certified check, cashier's check, letter of credit, or official check from a bank or savings institution,

insurance bond, surety performance bond, or other negotiable security. This performance guarantee must be presented before fence construction may commence. This guarantee will be held until the contract is complete.

## **5. CONTRACT TERM**

- The term shall commence upon execution of the contract and completion of the timber harvest and terminate May 1, 2004.
- The contract may be extended at the discretion of the Forestland Management Office representative.

## **6. PAYMENT TERMS**

- Payment will be made following the satisfactory completion of the fence. Payment will be for the total length in feet actually installed if the above specifications are met. If any of the specifications are not met, the following schedule may be used to reduce the final payment for services rendered. The payment reduction may be the full amount of each item of group listed below or a fraction of each percentage as determined by the Forestland Management Office for incomplete or inadequate work.

A payment schedule based on percentages for a single item or grouping of items dealing with the above specifications has been established. Below is a list of items or groupings and the assigned percentage of contract value:

- Hazard Trees: 5%
- Clearing Fence Area: 5%
- Erosion and Sedimentation Control: 5%
- Fence supports, materials, stretching, fasteners, securing fence bottom: 70%
- Operating area, debris and garbage, and work schedule: 5%
- Deer drive: 10%

## **7. BID AWARD:**

- The bidder shall complete and return the signed bid form for awarding of the bid. Bids must be received by 3:00 p.m. on Friday, September 20, 2002, at the Forestland Management Office.

The Forestland Management Office reserves the right to request references upon opening of the bids. The contract quantities herein are estimated only and may increase or decrease depending on the needs of the Forestland

Management Office. The contractor shall be paid at the unit price for actual work performed. Bidding will be on a per-foot basis. Fence will be awarded on a total sum.

THE PENNSYLVANIA STATE UNIVERSITY

School of Forest Resources

BID FORM

I \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(print or type)

bid an amount of \$\_\_\_\_\_ per lineal foot for the construction of approximately 1,895 lineal feet high-tensile 9-strand solar powered deer fence on the Standing Stone West # 20 (Powerline Shelterwood Sale), of the Stone Valley Forest, Huntingdon County, Pennsylvania, under the terms of the sample agreement given to me.

**The Pennsylvania State University reserves the right to reject any or all bids.**

\_\_\_\_\_  
(Signature) (Date)

(Phone number) \_\_\_\_\_