Statement of Work, Specifications/Scope of Work

C.1. Introduction, Location, and Background

The Finger Lakes National Forest has a requirement to remove old non-functioning barbed wire fence and install new barbed wire fence in one pasture on the Finger Lakes National Forest (FLNF). The areas are located on the Finger Lakes National Forest in Schuyler and Seneca counties NY. The Finger Lakes National Forest grazes approximately 1500 head of cattle across approximately 4500 acres. Cattle are present from May 15th to October 31st each year and may be present during interior fence removal and construction operations. Period of Performance is from September 30th 2026 until May 15th 2027. October 20th being the earliest cows would be off with Ocober 31st being the latest cows could be on. Contingent on other project funding outcomes lengths of fence removal and replacement may vary year to year.

All sites are accessible by wheeled or tracked vehicles. Access should be limited to necessary vehicles and may be difficult due to wet ground conditions in pasture, and 4x4 may be required. Approval of access is at the discretion of COR to protect seasonally fragile resource conditions. Project maps depict access points into the pasture to access the work sites.

C.2. Scope of Work

This contract includes the removal of varying lengths of barbed wire fence in varying states of disrepair and dysfunction. All wire, fence posts, stays, clips, and associated materials are to be removed and disposed of off government property. Location of fence removal is at same location of old fence construction. There are several local scrapyards that may accept this type of material.

Install varying lengths of four strand barbed wire fence and up to one access gate according to the specifications further outlined in section C. (**SEE Diagrams).** Fence construction is to occur at exact location on the ground of fencing removed. Minor adjustment of location may be made at discretion of COR. Exact location of gates will be at COR discretion and utilize materials specified below, which are identical to materials used for barbed wire fence construction**.**

Payment is based on individual bid item total, not total Linear Feet installed. Distances provided in the schedule represent a relatively accurate estimate of total distance as measured from Geographic Information System software. Distance of fencing installed should not exceed estimate amount.

Performance Period: Work is to be completed between September 30th 2026 - May 15th 2027

C.3 General Specifications

The following specifications provides guidance to the fencing that will take place on the pasture under this contract according to Forest Service policy, the Finger Lakes Forest Plan (and decision documents) and project specific design criteria. All fence removal and fence construction is expected to meet the specifications outlined below.

Fencing

1. Units for fencing will be listed in the schedule of items
2. Exact location of fencing to be constructed is at current fence location. Deviations may be laid out with flagging by FS personnel ahead of time.
3. Fence removal should take place prior to new fence construction at all applicable sites, as new fence construction should utilize existing fence locations. In the case cattle may be present (October 20th-31st) fence removal and construction activities should maintain a functioning closed perimeter to prevent cattle escape.
4. All materials and construction shall conform to the U.S. Department of Transportation, Federal Highway Administration, Standard Specifications for Construction of roads and Bridges on Federal Highway Projects, FP-03, U.S. Customary Units.
5. All dimensions are horizontal or vertical, and are given at 68 degrees Fahrenheit, unless noted otherwise.
6. The contractor shall review and understand all applicable environmental permits and ensure that all construction conditions are met.
7. The contractor shall be responsible for repairing any damage to public or private property outside the limits of construction caused by the contractor, at the sole cost of the contractor.
8. All waste material shall become the property of the contractor and be disposed of in commercial sources off U.S. Government land.
9. All machinery and equipment shall be cleaned of all debris and residual plant vegetation prior to entering each individual site in order to limit the spread of non-native invasive plants. Equipment may not enter work site until inspected by COR.

Material

Section 710. — Fence

All wire shall be new and consist of 2 twisted strands of 12.5 or 12 ¾ gauge steel wire with class1 or class 3 galvanizing. Barbs shall be 4 point on 5 inch centers.

Wood Posts. All wooden posts and brace members shall be straight Southern Yellow pine, pressure treated. Pressure treated posts shall be treated with a minimum of 0.60 lbs per cubic foot of alkaline copper quat (ACQ)
preservative by a method to ensure that complete penetration of the sap wood is obtained. Quality of treated wood shall provide sufficient strength and last the expected life of the fence. All bark shall be removed. At least half of the diameter of the post shall be heartwood.
All corner, end, pull and gate assembly posts shall be wooden with a minimum diameter of 6 inches. Assembly post shall be a minimum of 7 feet long for single H-brace assemblies.

Steel. Steel line post shall have the standard “T” section, nominal dimensions of 1-3/8” x 1-3/8” x 1/8” with anchor plate. The post shall weigh at least 1.25 pounds per foot and painted with weather resistant paint. The post shall be studded to aid in wire attachment. Steel line posts shall be a minimum length of 6 feet.

725.22 Grout:
Sanded Hydraulic Cement Grout for Miscellaneous Applications: 1 part hydraulic cement and 3 parts sand. Thoroughly mix with water to produce a thick, creamy consistency.

601 Concrete.

Utilize the following recommended concrete composition when possible:

Property	Specification
Cement content	611 pounds per cubic yard minimum
Water/cement ratio	0.49 maximum
Slump	5 inches maximum
Air content	4 % minimum
Size of coarse aggregate	AASHTO M 43 with 100% passing the 1½-inch sieve
28-day compressive strength	3,000 pounds per square inch minimum

Let concrete cure according to manufacturer recommendations.

710.12 Fasteners

Fasteners Staples shall be of 9 gauge class 3 galvanized steel or heavier with a minimum length of 1-3/4 inches for soft wood post or 1 inch for close grain hardwood posts. Manufacturer's clips or 14 gauge class 3 galvanized wire may be used to fasten wires to steel posts.

710.13 Metal Fence Stays

Fence stays shall consist of galvanized metal and be manufactured for this purpose. Metal woven stays will be attached to each strand of barbed-wire. Two (2) stays will be placed between each post at intervals of 1/3 span between posts (Maximum interval 6'-8").

Construction Requirements

619.03 Fences and Gates.

(a) General. Clear along the fence line. Remove and dispose of trees, brush, logs, upturned stumps, roots of downed trees, rubbish, and debris on site adjacent to fence construction on outside of pasture. Clearing shall be completed a minimum of 6 feet either side of the fence.

Walk through gates and panel gates will be provided by the US Forest Service.

Grubbing is not required except where short and abrupt changes in the ground contour require removal of stumps to properly grade the fence line. Remove or close cut stumps within the clearing limits.

Perform clearing and leveling with minimum disturbance to the terrain outside the fence line.

Schedule the fence installation, provide temporary fence, or other adequate means to prevent livestock from entering the project right-of-way, easements, or adjoining properties.

At bridges, cattle underpasses, and culverts, connect new fence to structure to permit free passage of livestock under or through the structure.

619.03 (c) Wire fences and gates.

(1) Post Installation

Excavate holes for posts and anchors as shown in attached diagrams. Measure post spacing interval parallel to the existing ground slope. Set posts in a vertical position. Backfill post holes in 6-inch lifts. Tamp and compact each lift with steel tamping bar or equivalent.

Wood and metal posts may be driven in place if the method of driving does not damage the post.

Where solid rock is encountered without overburden, drill line post holes at least 14 inches deep and end, corner, gate, and pull posts at least 20 inches deep in the solid rock. Make the hole width or diameter at least 1 inch greater than the post width or diameter. Cut the post to the required length before installation or drill the hole deep enough to set the post at the required height. Set and plumb the post and fill the hole with grout. Thoroughly work the grout into the hole to eliminate voids. Crown the grout to drain water away from the post. Metal posts set in this manner do not require anchor plates and concrete footings.

Where solid rock is covered with soil or loose rock overburden, set posts to the plan depth or to the minimum depth into the solid rock as specified above, whichever is less. When the depth of overburden is greater than 12 inches, use an anchor plate on steel line posts and backfill steel end, corner, gate, and pull posts with concrete from the solid rock to top of the ground. When the depth of overburden is 12 inches or less, anchor plates and concrete backfill are not required. Grout the portion of the post in solid rock.

Install corner posts at changes in alignment of 30 degrees or more. Where new fence joins an existing fence, set end or corner posts, as necessary, and attach in a manner satisfactory to the CO.

(2) **Braces**.
Limit fence runs to no more than 650 feet between adjacent corner braces, gate braces, end braces, or line braces. Install line braces at uniform intervals so the distance between any two braces is 650 feet or less. Construct braces before placing the fence fabric and wires on posts.

(a) **Metal braces**. Provide corner posts and pull posts with two braces, one each direction from the post in the main fence line. Provide end posts and gate posts with one brace in the line of the fence. Attach metal braces to the metal end, corner, pull, and gate posts and set in concrete as shown.

(b) **Wood braces**. Tap the posts to receive the braces. Anchor the brace to the post with three 16d nails or a 3/8 by 4-inch dowel. Install brace wires as shown and twist together until the entire assembly is taut and firm. Lightly notch the posts to position the brace wire. Drive three staples at each notch to secure wire. The standard metal post should be at least 7-feet long. Posts should be driven into the ground 2 ½ feet except when extreme circumstances do not allow. The use of live trees as posts will be avoided except in extreme cases that are pre-approved by the assigned contract officer representative.

(3) Barbed wire and woven wire.
Place barbed wire and woven wire on the side of the post facing away from the highway or to the inside of the pasture. On curved alignment, place the barbed wire and the woven wire on the post face on the outside of the curve. Tightly stretch and fasten barbed wire and woven wire to the posts.

Apply tension according to the manufacturer's recommendations using a mechanical stretcher or other device designed for such use. Evenly distribute the pull over the longitudinal wires in the woven wire so not more than 50 percent of the original depth of the tension curves is removed. Do not use a motor vehicle to stretch the wire.

Splicing of barbed wire and woven wire between posts is permitted provided not more than two splices, spaced a minimum of 50 feet apart, occur in any one run of fence. Use wrap or telephone type splices for the longitudinal woven wire and barbed wire with each end wrapped around the other wire for not less than six complete turns.

Supplement
Metal posts will be spaced no greater than 20 feet apart and sunk a minimum of 2 feet with a minimum of 4 feet above ground.

(4) Fastening barbed wire and woven wire.
Terminate the woven wire and barbed wire at each end, corner, gate, and pull post. Wrap each line of barbed wire and each longitudinal wire of the woven wire around the post and then itself with at least four turns. Where wood posts are used, staple the wires tightly to the posts.

At line posts, fasten the woven wire to the post at top and bottom and at intermediate points not exceeding 12 inches apart. Fasten each strand of barbed wire to each line post. Use wire ties or clamps to fasten the wires to metal posts. Securely splice tie wires to the fence on both sides of the post so there are two loops behind the post and one loop in front. On wood line posts, drive U-shaped staples diagonally across the wood grain so that both points do not enter between the same grain. In depressions where wire uplift occurs, drive staples with points slightly upward. On level ground and over knolls, slope the points slightly downward. Drive the staples just short of actual contact with the wires to permit free longitudinal movement of those lines and to prevent damage to the protective coating.

At grade depressions, alignment angles, and other locations where stresses tending to pull posts from the ground or out of alignment are created, snub or guy the wire fence. Attach the guy wire to each strand of barbed wire and to the top and bottom wires of woven wire in a manner to maintain the entire fence in its normal shape. Attach the guy wire to a deadman anchor buried not less than 24 inches in the ground or to an approved anchor at a point that best serves to resist the pull of the wire fence. If necessary to guy the fence in solid rock, grout the guy wire in a hole 2 inches in diameter and 10 inches deep. Deadman may also be fastened to posts. Place the deadman anchors at locations as directed.

Where required, install vertical cinch stays as shown. Twist the wire to permit weaving into the horizontal fence wires to provide rigid spacing. Weave barbed wires and the top, middle, and bottom wire of the woven wire, as applicable, into the cinch stay.

Where existing fence intersects the new fence, cut the existing fence materials or, splice in kind, new material as necessary, and fasten each longitudinal wire of the woven wire and each strand of the barbed wire to a new end post in line with or immediately adjacent to the new fence line.

(5) Gate installation.
(a) Wire gates. Construct wire gates of the same material as the fence and as shown. Provide a taut and well-aligned closure of the opening, capable of being readily opened and closed by hand.

Install wire gates to provide an opening of 16 feet. Gate locations located on map.

Section 203 – Removal of Structures and Obstructions

203.01
This work consists of salvaging, removing, and disposing of buildings, fences, structures, pavements, culverts, utilities, curbs, sidewalks, and other obstructions.

203.02 Conform to the following Section and Subsection:
704.03 Backfill material.
Backfill all fence post holes greater than 3 inches diameter with native soil.

203.04 – Removing Materials. All material will be removed from the site. When posts are set in concrete remove post and concrete when possible and backfill to the above sited section 704.03 specification.

203.05 Disposing of Materials. Recycle or dispose of material legally off Government Property. Examples may include recycling steel posts, wire, etc. at a local commercial scrap recycler. It is recommended to provide recycling opportunity in Green Plan.

C.6 Equipment Cleanliness All soil moving equipment shall be thoroughly cleaned to make it free of soil, noxious weed seeds, vegetative matter or other debris that could contain or hold seeds prior to being delivered to the project site. Equipment shall be considered free of soil, noxious weed seeds and other such debris when a visual inspection by the C.O.R., prior to the equipment being delivered to the site, does not disclose such material present. Disassembly of equipment components is not required. The Contractor shall notify the Forest Service at least five (5) working days prior to moving each piece of soil moving equipment onto the project site, unless otherwise agreed.

The Contractor shall thoroughly clean all soil moving equipment prior to moving them off a project site or between work areas on a project site that are known to be infested with noxious weed species of concern and other work areas, if any, that are free of noxious weed species of concern. Areas known to be infested with specific noxious weed species of concern to the Forest Service shall be noted in the Schedule of Work. The Contractor and the Forest Service shall agree on the methods of cleaning, location for the cleaning and control of off-site impacts, if any.

When new areas of infestation of noxious weeds of concern to the Forest Service are identified on the project site by either the Forest Service or Contractor they shall be promptly reported to the other party

C.7 Inspections

Inspection will be required after first day of work initiation. Interim and continuous inspections may be required at the discretion of the Contracting Officers Representative (COR.)

C.8 Invoicing

Invoicing is tied to successful inspection of work. The Contractor may only invoice after the COR has inspected the line item(s) work and the work is determined to have met the contract specifications. This applies to both interim and final payments. Payment is based on individual bid item totals, NOT total Linear Feet of fencing installed. Distance of fence installed should not exceed estimated distance.

C.9 Safety Plan

The Contractor will provide a written safety plan that demonstrates how the contractor will ensure a safe work environment for themselves, their employees and the public at large prior to beginning work on a TO.

C.10 Definitions:

1. Contracting Officer: A Forest Service employee with the authority to: enter into, administer, and terminate contracts, as well as issue determinations regarding such matters as claims.

2. Contracting Officer's Representative (COR): A Forest Service employee that is appointed and officially designated by the Contracting Officer to assist the Contracting Officer with the technical matters related to contract administration. The COR will assist the Contracting Officer with surveillance of contractor performance.

3. Forest Service Inspector: A Forest Service employee designated by the Contracting Officer or COR to perform surveillance of contractor performance.

4. Quality Control: Those actions taken by a Contractor to control the performance of services so that they meet the specified requirements.

C.12. Biobased & Recycled Content Products

Although there are no products being supplied by this contract, the Forest Service encourages the use of biobased and recycled content products in contractor operations.

For more information regarding the Department of Agriculture Biobased Affirmative Procurement Program go to
http://www.biopreferred.gov/bioPreferredCatalog/faces/jsp/catalogLanding.jsp.

For more information regarding Environmental Protection Agency list of designate products to
http://www.epa.gov/epawaste/conserve/tools/cpg/products/index.htm