

ITEM 556

FOUR STRAND BARBED WIRE FENCE

556.1 Description. This item shall govern for constructing one line of 48-inch, four strand barbed wire fence in accordance with the details and at the locations shown on the plans.

556.2 Barbed wire shall be fine coated (galvanized) steel, meeting the requirements of ASTM A121, "Specification for Metallic-Coated Carbon Steel Barbed Wire", No. 12-1/2, W & M gauge wires, 2-point barbs of 14-gauge wire at 5-inch maximum spacing. Zinc coating shall be to Class 2 requirements.

Staples shall be of 9-gauge galvanized hard wire. All staples shall be 1 1/12-inches long. Staples shall be driven diagonally with the wood grain to avoid splitting. Space should be left between the staple and the post, to permit movement of wire.

Treated wood posts and braces shall be pine, or fir timber, meeting the requirements of AWPA Standard U1, suitable for Use Category 4A. Line posts shall have a maximum spacing of 12-feet and have 3-inch to 4-inch tops. Line posts shall be a minimum of 6-feet long and shall be set 24-inches in the ground.

All corner, pull and gate posts shall be 7-feet long and a minimum of 6-inches round and be set in the ground 36-inches.

The timber shall be sound and free from all decay, shakes, splits or any other defects which would weaken the posts or braces or otherwise make them structurally unsuitable for the purposes intended.

The posts and braces shall be round; square or sawed rectangular shape. The slope of grain in sawed, square or rectangular posts for the full length shall not exceed one in ten and the knots shall be sound, tight, well spaced, and shall not exceed one-third of the small diameter or least dimension of the post. A line drawn from the center of each end of the post shall not fall outside the center of the post at any point more than 2-inches. All posts and braces shall be penta-treated and shall have pentachlorophenol wood treatment of a minimum of 8 pounds per cubic foot of 5-percent penta solution.

Posts shall be inspected at time of treatment. Round posts and braces shall be peeled to remove all outer bark and all inner cambium bark, except that occasional strips of bark may remain if not over 1/2-inch wide or over 3-inches long. All Knots shall be trimmed flush the sides, spurs and splinters removed and the ends cut square. The allowable taper from end to end of round posts and braces shall not exceed 1-1/2 inches.

Contractor shall provide and install gates at the locations shown on the plans. Gates shall be 14' wide, and the same dimension as the height of the fence, Hog Gate by Farmaster or approved equal, installed as per manufacturer's recommendations.

556.3

Construction Methods. Fence posts shall be spaced at the intervals required by this specification. Posts shall be set in a vertical position. Corner and pull posts shall be braced in two directions. End and gateposts shall be braced in one direction. Where alignment changes 30-degrees or more, a corner post shall be installed. At alignment angles varying from 15 to less than 30-degrees, the angle post shall be braced to adjacent line posts by diagonal tension wires. The spacing of pull post assemblies shall be approximately 500-feet, unless otherwise shown on the plans. All posts shall be placed the minimum depth below ground as shown on the attached drawings or as required by these specifications. Posts shall be set plumb and firm to the lines and grades shown on the plans. Backfilling shall be thoroughly tamped in 4-inch layers. The timber post braces shall be notched as shown on the plans.

The corner, end or angle post assembly shall be installed before stretching the wire between line posts. The barbed wire shall be installed inside (cattle side) of the posts. At all grade depressions where stresses tend to pull the posts out of the ground, the fencing shall be snubbed or guyed at the critical points by means of a 12 1/2-gauge galvanized wire connected to each horizontal line of barbed wire and then to a deadman, or screw type anchor, buried in the ground as shown on the attached drawings. The fencing shall be stretched before being snubbed and guyed. Existing cross-fences shall be connected to the new fences and corner posts with braces which shall be placed at junctions with existing fences. The barbed wire shall be drawn taut and fastened to posts with staples.

556.4

Submittal Required. All shipments shall include certification from the appropriate wood treatments plant. This certificate shall also state that all samples representing each lot have been tested and inspected in accordance with American Wood Preservers' Association Standard M2, "Inspection of Treated Products" and have been found to meet the requirements of applicable American Wood Preservers' Association standards for wood treatment for its intended use.

The Contractor shall submit manufacturer's certification that materials meet the requirements of this specification.

- 556.5 Measurement. Fencing will be measured by the linear foot, in-place, including gates. When noted in the bid documents, gates may be measured separately.
- 556.6 Payment. The work performed and the material furnished as prescribed by this item and measured as provided under measurement will be paid for at the contract unit price bid for "Four Strand Barbed Wire Fence", which prices shall be full compensation for furnishing and installing all fence material, including gates; for all preparation, hauling and installing of same; and for all labor, tools, equipment and incidentals necessary to complete the work, including excavation, back filling and disposal of surplus material. When noted in the bid documents, gates may be paid for separately.

There are line code(s), description(s) and unit(s) for this item.

Note: This specification requires drawings that shall be incorporated into the proposed standard construction drawings.

Note: This specification requires other standard specifications.

Item 421, Structural Concrete  
Item 457, Timber Preservative and Treatment  
Item 550, Fence Removal  
Item 551, Clearing, Grubbing and Fencing

END OF ITEM 556