

Airways Division

SPECIFICATION FOR 51 FT., 62 FT., AND 75 FT., FOUR POST BEACON TOWERS,

September 27, 1927:

Requirement - It is required that there be fabricated and delivered f.o.b. bidder's factory or warehouse, 51 ft., 62 ft., and 75 ft. galvanized steel skeleton towers in accordance with these specifications and attached drawings Nos. 502 (9-23-27) 503 (9-23-27) and 501 (6-16-27).

Corner Posts - The splices for the top 30 ft. shall be made with at least a 6" lap with three bolts in each leg of the angle (6 bolts). The splices on the remainder of the tower shall be made with at least an 8" lap and four bolts on each leg of the angle (8 bolts). The corner posts shall be securely fastened at the top with gusset plates as shown on drawings Nos. 501 and 502.

Girts - Girt "A" shall be placed with the back of the angle up and girt "B" with the back down in order to provide for attaching switch cabinet. Legs shall be punched so that girt "B" may be attached to any face of the tower. Braces - All braces shall be flattened and punched for bolting to each other at intersections and also shall be flattened and punched for bolting to intermediate girts at crossing points. All braces shall be cut, flattened, and punched for bolting to corner posts with one bolt at each connection so as to form a rigid symmetrical structure from top to bottom. Braces shall be so arranged as to prevent so far as possible a pocketing of water.

Anchor Posts and Plates - Anchor plates shall be provided with two 1" diameter holes for use where it becomes necessary to anchor the tower legs to rock. All metal to be placed below ground level shall be given one coat of black asphalt paint.

Galvanizing - All steel parts, including bolts and nuts, shall be galvanized after fabricating, and shall meet the provisions specified by the National Electric Light Association, for galvanizing.

Bolts - All bolts shall be of the diameter shown on the drawings and shall be of the proper length to permit of peening after the nut has been tightened to prevent loosening. An excess of at least 10 percent of bolts shall be supplied in order to provide for loss and replacements.

Ladder - The ladder rails shall extend below the ground level in order to fasten into the concrete foundation. The ladder rungs shall be of an oval pipe type and spaced 15" c/c. The ladder shall be assembled and shipped in convenient lengths for handling.

Platform - A platform 6 ft. square shall be provided 2 ft. below the top of the tower with galvanized 2" angle supports, railing and braces as shown. The platform shall be of 1 1/2" x 6" Louisiana Gulf red cypress No. 1, common S 4 S, not less than 1 1/4 finished thickness, planks laid with 1/2" space between adjacent planks and shall be bolted to the angle iron frame with 1/4" galvanized bolts. The platform shall be provided with a trap door about 18" by 22" furnished with extra heavy galvanized 5" T hinges and galvanized 4 1/2" safety hasps. Both hinges and hasps shall be provided with brass pins. All woodwork shall be given one coat of chrome yellow paint equal in color to No. 4 specifications 3-1, Q.M.C., U.S.A.

Wind Cone Bracket - A galvanized wind cone bracket as shown on the blueprint No. 501 shall be furnished with each tower. Horizontal brace arms shall be connected to the tower by a hinge joint. The upper end of the suspension iron shall be detachable from the tower. The 1" pipe flange shall be furnished. (The wind cone will not be furnished under this contract.)

75 Ft. Extension - The 51 ft. towers shall provide for an extension to 75 ft. by adding two lower panels, anchors and anchor posts, as show on drawing No. 503. Where the extension for 75 ft. tower is required the anchors and anchor posts shown on Drawing No. 502 will be omitted. Bidders will quote a unit price for furnishing the complete material required to extend the tower to 75 ft. and the Government reserves the right to order not less than five nor more than fifteen such extensions at the unit price quoted.

62 Ft. Extension - The 51 ft. towers shall provide for an extension to 62 ft. by adding the upper or 11 ft. panel together with girt "B", anchor posts, and anchors shown on Drawing No. 503. Where the extension for 62 ft. tower is required the anchors and anchor posts shown on Drawing No. 502 will be omitted. Bidders will quote a unit price for furnishing the complete material required to extend the tower to 62 ft. and the Government reserves the right to order not exceeding five 62 ft. such extensions at the unit price quoted.

Inspection and Payments - Inspection will be made by a representative of the Bureau of Lighthouses. Towers will be inspected at the contractors works and the contractor, if so directed, shall assemble and erect one tower at his works for inspection. A progress report of 75 per cent based on the unit prices quoted will be paid upon completion, inspection and acceptance of each lot of twenty-five towers. Final payment will be made upon receipt in the Office of the Bureau of Lighthouses of Government bills of lading duly receipted by common carrier, showing complete shipment.

Shipping - Towers will shipped on Government bills of lading which will be furnished from time to time together with shipping instruction. Platform shall be assembled and the trap doors secured by wooden cleats nailed to the under sides of the platform; ladders shall be assembled and shipped in convenient lengths for handling; anchor plates shall also be assembled but otherwise the towers shall be shipped disassembled. All bundles shall be made up in such a manner as to assure the number of pieces in each bundle. As a rule only one tower will be shipped to one destination. All members shall be appropriately numbered or otherwise marked for convenience of erection and twenty-five copies of erection diagram furnished.