

SECTION 661 - METAL ROOFING

661.01 DESCRIPTION. This work shall consist of furnishing, assembling, and erecting a standing seam metal roof to ensure a watertight installation, including all associated hardware and incidentals, in accordance with the manufacturer's recommendations and the Contract Documents.

661.02 MATERIALS. Materials shall meet the requirements of the following Subsection:

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661.03 DELIVERY AND STORAGE. Delivery of materials shall be made only when suitable facilities for storage and protection are made available. Materials shall be protected from damage during transit and at the project site. Storage should be in a dry environment to prevent water damage.

661.04 SUBMITTALS. Prior to beginning the work, the Contractor shall prepare and submit to the Engineer for approval field erection drawings showing complete roofing layout and all details including trim, flashing, ridge cap, and fastening and anchoring methods, and provide the Engineer with copies of all manufacturers' recommendations.

661.05 QUALIFICATIONS. The installer shall have a minimum two (2) years of experience applying this type of roofing, including the successful completion of projects of similar scope. The installer shall provide a list of all such projects, with a contact person and phone number, if requested by the Engineer.

661.06 INSTALLATION. The installer shall examine all substrates on which the roof and accessories are to be applied and notify the Engineer of any perceived deficiencies.

One (1) layer of an approved 30# asphalt roofing felt paper shall be provided under the metal roof. All seams shall be sealed with an approved sealant.

Asphalt roofing felt shall be installed over the roof boards in accordance with the manufacturer's recommendations. The felt shall be tight with no sagging between supports. Joints shall be lapped a minimum of 300 mm (12 inches). Roofing panels shall be installed in accordance with the manufacturer's recommendations. The entire installation shall be erected straight and true in accordance with standard construction procedures. All surfaces of the work shall be left in a clean condition to the satisfaction of the Engineer.

Roof panels shall be fastened to every other roof board with hold down clips. The roof panels shall be fully interlocked for their entire lengths with adjacent panels and installed with no transverse seams. The panels shall not come in contact with any dissimilar metals that will cause a harmful reaction between metals.

Care shall be taken during handling of panels to prevent bending, twisting, abrasion, scratching, denting, etc. Minor defects, as determined by the Engineer, shall be touched-up in the field to the satisfaction of the Engineer.

661.07 METHOD OF MEASUREMENT. The quantity of Metal Roofing to be measured for payment will be the number of square meters (square feet) of the specified type of roofing installed in the complete and accepted work. Roofing dimensions will be measured along the slope of the roof.

661.08 BASIS OF PAYMENT. The accepted quantity of Metal Roofing will be paid for at the Contract unit price per square meter (square foot). Payment will be full compensation for furnishing, transporting, handling, and placing the materials specified, including fasteners; for erection and removal of any necessary falsework; and for furnishing all labor, tools, equipment, and incidentals necessary to complete the work.

New roofing that is damaged by the Contractor's operations shall be replaced to the satisfaction of the Engineer at no additional cost to the Agency.

Payment will be made under:

| <u>Pay Item</u> | <u>Pay Unit</u> |
|----------------------|-------------------------------|
| 661.10 Metal Roofing | Square Meter (Square Yard) |