

## ITEM 10615.0810 M - STEEL & WOOD RAIL BENCH - BACKLESS

**DESCRIPTION:** The Contractor shall furnish and place benches as shown on the plans or as directed by the Engineer.

**MATERIALS:** Unless otherwise approved, the following shall apply:  
Lumber. Lumber shall be in accordance with Section 712-13. Surface dried redwood, red cedar, white cedar or cypress may be used untreated. Other lumber shall be pressure treated in accordance with Section 708-31, Wood Preservative-Water Borne. Bituminous and oil-borne preservative treatments will not be permitted.

Unless otherwise specified on the plans, lumber for benches shall be 2 x 4, dressed on four sides and slightly rounded on all edges. When a color other than the color of the wood is specified, it shall be obtained by the application of an approved stain to the satisfaction of the Engineer.

Steel straps shall be die formed hot-dip galvanized. Steel tubing for legs shall be Schedule 40, and be hot-dipped galvanized.

Fasteners for legs shall be zinc chromate plated carriage bolts and tamper resistant screws.

Fasteners for rails shall be zinc chromate plated carriage bolts and hex nuts.  
Fasteners for straps shall be galvanized screws.

Concrete for the footers shall be Class "A" concrete.

**CONSTRUCTION DETAILS:** When a stain is required, all wood rails shall be cut to the proper length, bolt holes drilled, rough areas sanded and all dust and dirt removed prior to the application of the stain. The rail shall be fastened to the metal straps with corrosion resistant, tamper proof mechanical fasteners. The benches shall be fabricated in accordance with approved shop drawings, which have been submitted to the Engineer. The benches shall be installed in the positions and manner shown on the plans and as directed by the Engineer.

**METHOD OF MEASUREMENT:** Steel and wood rail benches will be measured by the number of benches installed as shown on the plans or directed by the Engineer.

**BASIS OF PAYMENT:** The unit price bid for each bench shall include the cost all labor, materials, and equipment necessary to furnish and install the benches including the excavation, the concrete footings and all incidental expenses necessary to complete the work in accordance with the plans and specifications to the satisfaction of the Engineer.