

709 - STEEL PERMANENT DECK FORMS

SECTION 709

STEEL PERMANENT DECK FORMS

709.1 DESCRIPTION

If designated in the Contract Documents, the use of steel permanent deck forms (for forming the roadway slab between the exterior beams or girders) in lieu of conventional removable forms is the Contractor's option. Do not use steel permanent deck forms where longitudinal deck construction joints are located between stringers, or on the overhang.

709.2 MATERIALS

Provide steel permanent deck forms that comply with **DIVISION 1600**.

709.3 CONSTRUCTION REQUIREMENTS

Submit shop drawings for the steel permanent deck forms to the Engineer for approval according to **SECTION 105**. Shop drawings must include the material, dimension details and the Contractor's erection procedures.

Form support hangers must be the non-welded support system. Make no welds to the structural steel, or welds that induce local heat spots on the structural steel. Field variations shall require the support angle to be field welded to the continuous edge angle and to the support strap across the structural steel flange. If steel permanent deck forms are to be used on concrete girder bridges, the method of attachment must be approved by the Engineer prior to fabrication of the girders.

Install the steel permanent deck forms according to the manufacturer's instructions.

Do not locate screed supports directly on the form sheets, form supports or reinforcing steel.

Locate transverse deck slab construction joints at the bottom of a flute, and field drill 1/4-inch weep holes at 12-inch centers along the line of the joint.

Fabricate the corrugated metal sheets for the placement sequence used, with the joints between the sections of sheets overlapped or securely fastened to eliminate differential deflections between the sections. Close the ends of each piece. Pre-closed (tapered) ends or separate end closures may be used.

Provide care and protection for the metal form sheets, supports and accessory items during handling, shipping and storage. Do not damage ends, corners and edges of the form sheets, supports and accessory items during loading, hoisting and unloading operations. If the form units and accessories are to be stored prior to installation, do not place metal form sheets, supports, and accessories in contact with the ground. Cover and protect the material.

Repair damaged galvanized coating on any form metal that will be permanently exposed, by cleaning and wire brushing the damaged area, followed by painting with 2 coats of zinc rich paint as specified in **DIVISION 1800**, no color added. Minor heat discoloration in areas of welds need not be touched up. Before placing concrete, remove and replace any sheets damaged after setting.

All reinforcement must have the minimum specified concrete cover. Center bars in the bottom layer of the main reinforcement over the valleys of the form to achieve the minimum concrete cover. The distance from the top of the deck slab to the bottom layer of deck slab reinforcement may not be less than that shown in the Contract Documents. Do not leave loose sheets or miscellaneous hardware on the deck forms at the end of the working day.

The Engineer will spot check the underside for soundness. At the Engineer's discretion, form removal may be required to perform a visual inspection for soundness or surface irregularities.

709.4 MEASUREMENT AND PAYMENT

The Engineer will not measure the steel permanent deck forms for payment.