MISSOURI STANDARD SPECIFICATION FOR HIGHWAY CONSTRUCTION

2016

Missouri Highway and Transportation Commission

SECTION 706
REINFORCING STEEL FOR CONCRETE STRUCTURES

706.1 Description. This work shall consist of furnishing and placing reinforcing steel of the designated shape, size and grade as shown on the plans.

706.2 Material.

706.2.1 All material shall be in accordance with Division 1000, Material Details, and specifically as follows:

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706.2.2 Reinforcing steel shall be accurately cut and bent to the dimensions and shapes shown on the plans. Cutting and bending tolerances for reinforcing steel shall be in accordance with the Concrete Reinforcing Steel Institute's Manual of Standard Practice. Flame-cutting of uncoated reinforcing steel will be permitted.

706.3 Construction Requirements.

706.3.1 Reinforcing steel shall be protected from damage at all times. When placed in the work and before concrete is placed, reinforcing steel shall be free from dirt, oil, paint, grease, loose mill scale, thick rust, any dried mortar and other foreign substances. A thin layer of powdery rust may remain. All reinforcing steel required for superstructure concrete, such as slabs, girders and beams and top slabs of culverts with more than a 4-foot span, shall be held securely in correct position with approved metal or plastic bar supports and ties. Reinforcing bars shall be positively secured against displacement. For bridge decks and top slabs of culverts, bars in the top mat shall be tied at all intersections except where spacing is less than or equal to 12 inches in each direction, in which case alternate intersections shall be tied. At other locations, the bars shall be firmly tied at alternate crossings or closer. The steel shall be tied in the correct position with proper clearance maintained between the forms and the reinforcement. The contractor shall construct the unit as shown on the plans. Measurements to reinforcing steel will be made to the centerline of bar, except where the clear distance from face of concrete is shown on the plans.

706.3.2 Bars shall not be spliced, except as shown on the plans or as directed by the engineer.

706.3.3 Mechanical bar splice systems, as shown on the plans, shall be capable of developing 125 percent of the specified yield strength of the bar being spliced and shall be installed in accordance with the manufacturer's recommendations and as modified herein.

706.3.3.1 The contractor shall furnish to the engineer a manufacturer's certification stating that the mechanical bar splice systems are in accordance with this specification. The certification shall include or have attached specific results of tests showing yield and ultimate tensile load capacities.

706.3.3.2 The splicing system may attach directly to the bars being coupled or may be of a type that provides reinforcing bars of like size that lap with the bars being joined. A threaded-type splice system will be required where clearance considerations require the splicing device to be placed flush to the face of the construction joint for the initial concrete placement.

706.3.3.3 Regardless of the type of splicing system that will be used, the total bar lengths for bars indicated in the bill of reinforcing steel are determined based on the end of the bars being located flush to the face of the construction joint. No additional payment will be made for any