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ENGINEERING INSTRUCTION

NEW YORK STATE DEPARTMENT OF TRANSPORTATION

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Deputy Chief Engineer (Structures)

The attached page is a revision to Standard Details for Highway Bridges.

Page

97 Article 25.6 - First paragraph corrected due to error in text.

98 No change.

25.5 - SPLICING VERTICAL REINFORCEMENT IN WALLS

For bar sizes 5, 6, and 7, splices between main vertical reinforcement and the reinforcement emerging from the footing may be made directly over the footing. In some cases, it may be practical to eliminate splices by extending the bars emerging from the footing to the top of wall. No. 8 and larger bars emerging from the footing shall be extended to a distance above the footing where bars of smaller diameter may be spliced to them. The lap length required for such splices shall be based on the smaller bar.

25.6 - MARKING OF BARS

Bars should be marked consecutively, beginning with the number one (1), throughout each concrete subdivision. For example, abutment footing bars might be marked 5AFT1 through 7AFV9, while stem bars in the same abutment would be marked 5ASV1 through 5ASH10. Similarly, backwall and header bars would also each have a bar marked...(1). Generally, the rule will be to change the mark numbering back to (1) when the second letter of the bar mark changes.

It should be noted that if a subdivision is divided into several pours (e.g. an abutment stem), the bars should continue in numerical sequence through the several pours.

All subdivision numbering is repeated when the structural unit is changed (e.g. North Abutment, South Abutment, Pier 1, etc.). A note should be placed in the plans indicating that all bar marks shall be prefixed with marks a structure unit identification.

When a bar is embedded in two or more subdivisions (such as a dowel) the bar mark shall be controlled by the subdivision in which it is initially embedded.

In applying the bar marks where two or more structure units are involved, such as two or more similar abutments, piers, spans, etc., it is desirable that the same bar marks be applied to bars in similar locations in the structure unit. The fact that two bars lying in different structure units may have the same bar mark but have different lengths, or they may have the same length but have different sizes, or any combination of these factors will not be confusing to the fabricator due to our practice of providing a separate bar list, properly titled, for each structure unit.

Any deviation from the above system of marking bars must have the approval of the Deputy Chief Engineer (Structures).

For varying length bars, give minimum, maximum and average lengths and number of sets of bars.

25.7 - TIED COLUMNS

1. Longitudinal Reinforcement: The longitudinal reinforcement shall consist of at least four bars and, when only four bars are used, they shall be placed at the corners of the section. Bars shall be placed at each intersection of column faces. The bars shall be not less than No. 5 bars.
2. Hoops and Lateral Ties: Continuous hoops shall surround the longitudinal reinforcement. They shall be not less than No. 4 bars and shall be spaced not more than 12 inches apart except that this spacing may be increased in the case of pier shafts or columns having a larger cross section than required by conditions of loading. Adequate auxiliary ties shall be provided to support intermediate longitudinal bars whose distance from any tied bar exceeds 2 feet.