August 7, 2017

CONSTRUCTION MEMORANDUM
17-13

TO: District Deputy Commissioners
        District Construction Directors
        District Technical Services Directors
        District Area Engineers
        District Project Management Director
        Project Management Director
        District Traffic Engineers
        District Testing Engineers
        District LPA Coordinators
        Project Engineers/Supervisors
        Field Engineers
        Office of Material Management

FROM: John Leckie, Director
        Division of Construction Management and District Support

SUBJECT: Permanent Deck Form Angles

Recurring Special Provision 702-B-304 Permanent Deck Form Angles became effective for contracts let on or after September 1, 2017. The revision to 702.13(e) includes the new requirement that:

"The vertical leg of angles used as form supports shall not extend higher than the top of the permanent metal form."

Stay-in-place (SIP) forms for concrete bridge decks can cause bridge deck cracking when not installed properly. Deck cracking has become a concern at locations where the vertical leg of the support has been allowed to extend upwards, past the top of the SIP form line.

Corrective action by the contractor shall occur if the vertical leg of the support angle extends above the SIP deck line.

An attached copy of RSP 702-B-304 and the following two figures should be referenced to help clarify the issue.

It should be noted that SIP form details may be shown on the plans. Details shown on the plans regarding the orientation of the form angle and maximum projection above the top flange should not be followed. The special provision will govern. Details relative to welding the form angle in the tension or reversal zone for structure steel members continue to be applicable.

Questions should be directed to your Construction Management Field Engineer.

JL/GGP
The Standard Specifications are revised as follows:

SECTION 702, BEGIN LINE 631, INSERT AS FOLLOWS:

Form sheets shall not rest directly on the top of the beam flanges. Sheets shall be securely fastened to the form supports and shall have a minimum bearing length of 1 in. at each end. All attachments shall be made by welds, bolts, clips, or other approved means. Except as amended by these specifications, welding and welds shall be in accordance with the requirements of 711.32 pertaining to fillet welds. However, 1/8 in. fillet welds will be allowed. The vertical leg of angles used as form supports shall not extend higher than the top of the permanent metal form.
Both figures indicate correct SIP angle support placement in relation to the top of the SIP deck form line. The vertical leg of the support angle does not protrude above the SIP deck form line.