Permanent Steel Deck Forms for Precast Concrete and Steel Superstructures

Effective immediately, all superstructures in Climate Areas I and II consisting of precast concrete or steel girders that are over vehicular or rail traffic shall be designed to include an allowance for 10 percent additional deck dead load between girders to compensate for the use of permanent steel deck forms.

Permanent steel deck forms are not allowed in Climate Area III because of possible corrosion problems.

Case A

For structures and portions of long structures where vehicular or rail traffic is assumed to remain underneath during deck form removal, the “Typical Section” sheet will be detailed to 1) identify the locations where “permanent steel deck forms” are required, and 2) show the slab theoretical thickness (from the charts) as a minimum. Do not require permanent steel deck forms in bays with longitudinal expansion joints.

Case B

For structures and portions of long structures where vehicular or rail traffic will not remain underneath during deck form removal, no special details are required, but the design of the superstructure will still include the 10 percent allowance for additional deck dead load. The special provisions will allow the contractor the option of removing the forms or using permanent steel deck forms.

It will not be necessary to calculate quantities for the permanent steel deck forms because they will be paid for as a part of structural concrete (bridge).

The structural concrete quantity for the deck slab (between girders only) for structures conforming to the requirements for Case A only will be increased by a factor of 10 percent.

New Memo
The general notes for those structures (or portions of structures) affected by this memo, should state:

"The deck dead load between the girders has been increased by a factor of 10 percent to allow for the use of steel deck forms."

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RFB:jh