

4000507 CONCRETE STRUCTURES – STAY-IN-PLACE METAL FORMS
COMMENTS FROM INDUSTRY REVIEW

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Comments:

Should the second sentence of 400-5.7.3.1 be 'Do not use metal forms that have less than 0.03 inch uncoated thickness'? You have limited the metal forms to steel in the first sentence.

Response: Point well taken but steel is metal and the properties of the steel/metal are described.

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Comments:

Inspection - The coated SIP forms are very slick. How much bonding is going to occur between the deck concrete and the coated SIP form? Also there is no differentiation between forms with/without styrofoam. When the flutes are filled with styrofoam the form will sound hollow. It seems pretty subjective for the Engineer to have the contractor remove additional panels. If FDOT had to pay the contractor for removing panels when there was no problem encountered, this should minimize this activity. Part of the reason for using these forms is because of the lack of access underneath the bridge. This could make it difficult to get underneath the bridge two days after pour.
EXISTING SPEC: After the deck concrete has been in place for a minimum period of two days, test for soundness and bonding of the metal forms by sounding with a hammer as directed by the Engineer.

Additional comments received from Steve Plotkin:

EXISTING SPEC: After the deck concrete has been in place for a minimum period of two days, test for soundness and bonding of the metal forms by sounding with a hammer as directed by the Engineer.

PROPOSED CHANGE: If, in the Engineer's judgment, inspection is needed to check for defects in the bottom of a deck or to verify soundness and bonding of the metal forms, sound the forms with ng the deck to check for doubtful soundness.

We have been using these forms with good success at Jewfish Creek.

Response to all: No bonding is needed and none is anticipated. This portion has been revised to include JC's comment and additional comments from Steve Plotkin. The word, "bonding" has

been removed from Steve's suggested wording. (See Sec 500-5.7.1, second paragraph, first sentence)

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Comments:

Just curious – since the entire spec is in English units, why do we need a single solitary reference to metric system?

400-5.7.4 Construction: Install all forms in accordance with approved fabrication and erection plans.

Do not rest form sheets directly on the top of the stringer of floor beam flanges. Fasten sheets securely to form supports, and maintain a minimum bearing length of 1 1 inch **[25 mm]** at each end for *metal* forms.

Response: Agree. Metric removed. (Old habits die hard)

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Comments:

1. Last sentence in first paragraph – suggested replacement in large black font:
“...Replace all damaged polystyrene foam in accordance with the engineer’s requirement(s).”

400-5.7 Stay-In-Place Metal Forms:

400-5.7.1 General:

“...*Replace all damaged polystyrene foam to the satisfaction of the engineer.*”

2. Same suggestion as #1 above for this section in the middle of the paragraph:

400-5.7.3.2 Polymer Sheeting:

“...*Ensure that the polymer sheeting adheres to galvanized*

metal sufficient to prevent undercutting at penetrations made through the polymer sheeting or metal forms to the satisfaction of the Engineer...”

Response: In both instances, the existing wording is familiar terminology whereas the suggested wording implies that some very specific criteria exist. There is no need for bold fonts. However, I defer to Specification Office experts.
