



SOUTH CAROLINA  
DEPARTMENT OF HIGHWAYS AND PUBLIC TRANSPORTATION  
P.O. BOX 191  
COLUMBIA, S.C. 29202

DM0491

April 17, 1991

**MEMORANDUM TO DESIGN GROUP LEADERS & CONSULTANTS**

Subject: Stay-In-Place Bridge Deck Forms

Due to continuing construction difficulties and durability concerns associated with the use of precast concrete deck panels, their use will be discontinued effective with projects scheduled for letting in June, 1991 or later. Bridge standard drawing 700-1 will be revised to reflect this change.

Steel stay-in-place forms will continue to be allowed on all projects having beams or girders. The design loads should continue to include 16 psf for the metal forms and 15 psf for future wearing surface. Field welding to steel beam or girder flanges continues to be prohibited.

This memorandum supersedes the previous design memorandum dated June 26, 1985.

B.A. Meetze, Jr.  
Bridge Design Engineer

CC:  
FHWA, Mr. Schroeder  
Bridge Construction Engineer  
Design Group Leaders  
Consultants  
Wayne Rush  
Rocque Kneece  
Eddie Laboone

BAM/RLK/slb



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MEMORANDUM

TO: DIRECTOR OF PRECONSTRUCTION

FROM: DIRECTOR OF CONSTRUCTION

DATE: APRIL 10, 1991

SUBJECT: STAY IN PLACE PRESTRESSED CONCRETE DECK PANELS

*7/28/91 Discussed w/ Tolson*

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The Bridge Construction Engineer has advised me of numerous constructability problems that contractors are having concerning the subject panels. They are listed below:

1. Camber in prestressed concrete girders usually causes grading difficulties in maintaining concrete and rebar clearances.
2. Finish of tops of prestressed concrete girders are not providing adequate tolerance for minimum clearances with panels.
3. Bearing strips used for panel grading compress in a short time frame causing minimum clearance problems.
4. Shear reinforcing steel in top of panels sometimes conflict with top mat of reinforcing steel.
5. Panels are easily damaged during shipment and handling.
6. Problems are compounded on sag vertical curves and skewed bents.
7. Reflective cracks in top portion of deck occurs at numerous panel joints causing concern for long term durability.

In summary, the Bridge Construction Engineer believes that the Department should consider eliminating these panels as an option in bridge decks. I concur in his recommendation. He will be glad to discuss this matter with you or your assistants if necessary.

*W.A. Keller, III*  
W. A. Keller, III