Memorandum

To: DES DEPUTIES  
Division of Engineering Services

From: Barton Newton  
Deputy Division Chief  
Structure Policy and Innovation  
DIVISION OF ENGINEERING SERVICES,

Date: September 26, 2012

Subject: Update to Memos to Designers 11-34 Hinge Curl

Memos to Designer (MTD) 11-34, "Hinge Curl", dated August 2012, is effective immediately. The update incorporates revised methodology for calculating hinge curl, improved commentary on the derivation of equations, additional figures to facilitate better understanding of the structural behavior, and a revision to how the predictions of hinge curl are shown on the contract documents.

Results from parameter studies show that the effects of hinge curl are often negligible in bridge configurations with hinges located near span inflection points. As such, this memo introduces a criterion that, if satisfied, waives the need to include a time dependent camber table. Details of this study may be obtained from the Post-Tensioned Concrete Committee upon request.

The updated MTD 11-34 must be used on all multi-frame structures type-selected on or after the date of this implementation memo. Bridge projects past Type Selection may use the new prediction method at the discretion of the designer. The MTD is recommended for projects in construction only if alignment of the short and long cantilevers appears to be in question.

Consultants and Local Agencies who have questions or concerns on the application of MTD 11-34 should contact the Oversight Engineer or Structure Local Assistance, respectively. Caltrans staff may contact Technical Committee Specialist, Don Nguyen-Tan, at 227-5802.

Attachment:

cc: Terry Abbott - Division of Design  
Denix Anbiah - Division of Local Assistance  
Dolores Valls - Structure Maintenance and Investigation  
Karla Sutiff - Division of Engineering Services  
Marc Frieheim - Technical Committee Chair  
Don Nguyen-Tan - Technical Specialist  
Susan Hida - Technical Manager

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