

Memorandum

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To: DES DEPUTIES
Division of Engineering Services

Date: September 26, 2012

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



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 Sutliff - Division of Engineering Services
Marc Frieheim - Technical Committee Chair
Don Nguyen-Tan - Technical Specialist
Susan Hida - Technical Manager