

# ICC TRI-CHAPTER UNIFORM CODE COMMITTEE (TUCC)



**AMENDMENT NUMBER:** Structural 1

**APPROVAL DATE:** June 10, 2010

**SUBJECT:** Proposed amendment to the stability coefficient ( $\theta$ )  
equation in evaluating P-delta effects

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*This amendment is developed by the Tri-chapter Uniform Code Committee and is intended to enhance regional consistency in application and enforcement of the Building Code. Please verify acceptance of this amendment with your local building department prior to its application.*

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## **CODE REFERENCE(S):**

2010 CBC Section 1613.8, ASCE 7-05 Section 12.8.7

## **ISSUE(S):**

Section 1613.8 is added to 2010 CBC Section 1613 to read as follows:

**1613.8 ASCE 7, Section 12.8.7.** Modify ASCE 7, Section 12.8.7 by amending Equation 12.8-16 as follows:

$$\theta = \frac{P_x \Delta I}{V_x h_{sx} C_d} \quad (12.8-16)$$

## **RATIONALE:**

The importance factor, I, was omitted from Equation 12.8-16 by mistake while transcribing it from the 2003 NEHRP Recommended Provisions (FEMA 450) Equation 5.2-16. For buildings with importance factor, I, higher than 1.0, the stability coefficient should include the importance factor. The proposed modification is consistent with the provisions adopted by DSA-SS and OSHPD as reflected in Section 1615.10.7 of the 2010 California Building Code. It is also consistent with ASCE 7-10 Equation 12.8-16 that will be adopted in the next code cycle. TUCC had supported the proposed modification during the 2007 code adoption process. This proposed amendment is a continuation of an amendment adopted during the previous code adoption cycle.