Recommended Practice for Design, Manufacture and Installation of Prestressed Concrete Piling, PCI Committee on Prestressed Concrete Piling (1993).

Equation 14.2-1, originally from ACI 318, has always been intended to be a lower-bound spiral reinforcement ratio for larger diameter columns. It is independent of the member section properties and can therefore be applied to large or small diameter piles. For cast-in-place concrete piles and precast prestressed concrete piles, the resulting spiral reinforcing ratios from this formula are considered to be sufficient to provide moderate ductility capacities (Fanous et al. 2007).

Full confinement per Eq. 14.2-1 is required for the upper 20 ft of the pile length where curvatures are large. The amount is relaxed by 50 percent outside of that length in view of lower curvatures and in consideration of confinement provided by the soil.

C14.2.3.2.3 Reinforcement for Uncased Concrete Piles (SDC D through F) The reinforcement requirements for uncased concrete piles are taken from current building code requirements and are intended to provide ductility in the potential plastic hinge zones (Fanous et al. 2007).

C14.2.3.2.5 Reinforcement for Precast Concrete Piles (SDC D through F) The transverse reinforcement requirements for precast nonprestressed concrete piles are taken from the IBC (2006) requirements and should be adequate to provide ductility in the potential plastic hinge zones (Fanous et al. 2007).

C14.2.3.2.6 Reinforcement for Precast Prestressed Piles (SDC D through F) The reduced amounts of transverse reinforcement specified in this provision compared to those required for column members in ACI 318 are justified by the results of the study by Fanous et al. (2007). The last paragraph provides minimum transverse reinforcement outside of the zone of prescribed ductile reinforcing.

C14.4 MASONRY

This section adopts by reference and then makes modifications to TMS 402/ACI 530/ASCE 5 and TMS 602/ACI 530.1/ASCE 6, which are commonly referred to as the "MSJC Standards (Code and Specification)" after the Masonry Standards Joint Committee, which is charged with development and maintenance of these standards. In past editions of ASCE 7, modifications to these referenced standards were made. During the development of the 2008 edition of the MSJC standards, each of these modifications were considered by the MSJC. Some were incorporated directly into the MSJC standards. These modifications have accordingly been removed from the modifications in ASCE 7-10. Work is ongoing to better coordinate the provisions of the two documents (MSJC and ASCE 7) such that the provisions in Section 14.4 will be significantly reduced or eliminated in future editions.

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