

# Anchorage to Concrete

ONE DAY, 7.5 HOURS

Design structural connections to concrete and use the anchor design provisions of ACI 318.

## Program Content:

### Basic ACI Design Framework for Anchorage to Concrete

- Designing cast-in and post-installed mechanical and adhesive anchors by ACI 318, Chapter 17
- Automatic qualification of most cast-in mechanical anchors
- Qualification of post-installed mechanical and adhesive anchors by ACI 355.2 and 355.4
- Adhesive anchor provisions under development

### Background of ACI 318, Chapter 17

- Behavior of anchors in tension and shear (yield and fracture, concrete breakout, pullout, pryout)
- Influence of adjacent edges and anchors
- Influence of cracking
- Behavior of anchors under combinations of tension and shear
- Behavior of complex connections (determination of anchor forces) seminar topics

### Example Problems by ACI 318, Chapter 17

- Single anchors in tension
- Effects on tensile anchors of edge distance, adjacent anchors, and cracking
- Single anchors in shear
- Effects on shear anchors of edge distance, adjacent anchors, and cracking
- Single anchors under combined tension and shear
- Designing and detailing

### Background of ACI 355.2 (Qualification of Post-Installed Mechanical Anchors in Concrete) and ACI 355.4 (Qualification of Post-Installed Adhesive Anchors in Concrete)

## Who should attend:

Engineers, architects, specifiers, and building officials.

## Instructors:

Neal S. Anderson, Ronald A. Cook, Robert R. McGlohn, Donald F. Meinheit, and Khaled Nahlwi.

## Seminar handouts:

Qualification of Post-Installed Mechanical Anchors in Concrete and Commentary (ACI 355.2)

Qualification of Post-Installed Adhesive Anchors in Concrete and Commentary (ACI 355.4)

Excerpts from ACI 318-14: Chapters 2 and 17

Special handouts with notes and design examples from Reinforced Concrete Design Handbook, SP-17(14)



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