ANCHORAGE TO CONCRETE
ACI ONE DAY SEMINAR

Seminar Topics

- Basic terminology and nomenclature associated with anchorage to concrete.
- Basic ACI design framework for anchorage to concrete.
  - Designing cast-in, post-installed mechanical and post-installed adhesive anchors by ACI 318-11.
  - Appendix D—automatic qualification of most cast-in anchors.
  - Appendix D—qualification of post-installed mechanical anchors required by ACI 355.2.
  - Appendix D—qualification of post-installed mechanical adhesive anchors required by ACI 355.4.
- Background of ACI 318-11 Appendix D.
  - Behavior of anchors in tension (steel, concrete breakout, pullout, adhesive bond).
  - Behavior of anchors in shear (steel, concrete breakout, pryout).
  - Influence of adjacent edges and other anchors on tension and shear.
  - Influence of cracking.
  - Behavior of anchors under combinations of tension and shear.
  - Behavior of complex connections (determination of anchor forces).
- Design Example Problems by ACI 318-11 Appendix D.
  - 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.
  - Multiple-anchor connections under eccentric shear.
- Background of ACI 355.2-07 (Qualification of Post-Installed Mechanical Anchors).
- Background of ACI 355.4-11 (Qualification of Post-Installed Adhesive Anchors).
- Detailing, installation, certification, inspection.
  - Adhesive anchor installer certification.
  - Proof testing.