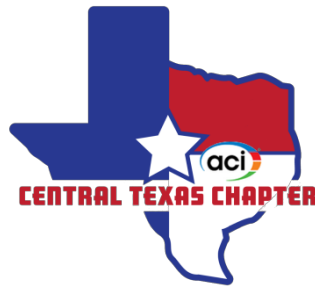




Chapter Technical Talks



LOW COMPRESSIVE STRENGTH TEST RESULTS? WHAT THEY MEAN AND NEXT STEPS...

Compressive strength tests are used for concrete acceptance based on criteria defined in ACI 318 and ACI 301. Tests results not meeting these criteria are referred to as low strengths. This presentation covers the “low strengths” topic in detail and provides answers to questions such as: what is considered a strength test and what is not, what the minimum frequency of testing is, what the acceptance criteria for strength tests are, and how to investigate strength tests not meeting the acceptance requirements. In addition, steps needed by a concrete supplier, in case acceptance criteria are not met, will also be discussed. To better understand discussed concepts, the presentation will use statistical concepts and numerical examples. A list of reading resources will be provided for those interested to study it in more detail. Topics covered in this presentation include:

- Definitions related to strength testing
- Methods of sampling, fabrication, handling, and curing strength test specimens
- Acceptance criteria for strength tests
- Interpretation of strength test results not meeting acceptance requirements
- Investigation of non-compliant concrete
- Addressing low strength concrete issues in production

Date: January 12, 2023

Time: 11:30 AM

**Location: Casa Chapala
9041 Research Blvd Suite 100
Austin, TX 78759**



Trey Hamilton, PE, PhD, FACI is a Senior Engineer at the American Concrete Institute. His role is to provide technical and administrative support to ACI's technical committees and to assist with the development of technical resources, educational programs, and the adoption of its consensus-based standards. He has 37 years of experience in structural engineering research, practice, and teaching. For the past 30 years he has been conducting applied research and teaching with a focus on structural concrete and masonry. Prior to entering academe, he was in private practice as a design engineer for 7 years designing commercial and institutional buildings as well as municipal and industrial facilities. Hamilton is past chair of ACI Technical Activities Committee and ACI Committee 423 Prestressed Concrete. He was elected to fellow of both the American Concrete Institute and Post-Tensioning Institute. He is a registered professional engineer in Florida and Wyoming and is Professor Emeritus at the University of Florida.