

## NOVEMBER 2015 MEETING

Wednesday, November 11, 2015 (1.0 PDH)

### TECHNICAL PROGRAM

#### The New Construction and Maintenance Manual and the New Specification for Post-Tensioned Slab-on-Ground Foundations

**Speaker:** [Dan Buck, P.E., Suncoast Post Tension](#), 509 N. Sam Houston Pkwy. E. Suite 400, Houston, TX 77060.  
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Darren (Dan) Buck is Vice President of Engineering and Construction Services with Suncoast Post-Tension in Houston, where his responsibilities include managing the technical engineering support for the high-rise building group, engineering manager for slab-on-ground and manager of field services for both the high-rise and slab-on-ground construction groups. Mr. Buck earned a BSCE degree from the University of Texas at Austin, May 1997. He joined Suncoast after graduation. Darren is a licensed PE in thirteen states, including Texas and has held a Florida Contractors' License since 2012. He is a member of the Post-Tensioning Institute's Slab-on-Ground Committee and Structural Subcommittee

### PRESENTATION SUMMARY

Dan Buck, PE of Suncoast Post-Tension gave a presentation regarding construction and maintenance of post-tension slab-on-ground foundations to an audience of about 55 attendees. He began his presentation by listing the benefits of post tensioning for foundation reinforcement. He cited performance, economics, and ease and speed of installation as reasons to use post tensioning. He then discussed site requirements, including the need for an accurate soil report, historical information, trees on the site, and unusual site conditions.

Mr. Buck then discussed site preparation considerations including site drainage, proper form bracing, checking the form layout, and inspecting the plumbing and electrical work. He discussed methods of repairing plumbing and electrical lines after concrete placement. He also listed specific items to check proper to concrete placement.

Mr. Buck referred the audience to a new publication by the Post tensioning Institute: [Specification for Unbonded Single Strand Tendons Used for Slab-on-Ground Construction \(PTI M10.6-15\)](#). He stated that this document describes requirements for materials, handling, storage, installation, and cable stressing. He provided the PTI website: [www.post-tensioning.org](http://www.post-tensioning.org).

Mr. Buck then discussed post-tension cable anchorages and proper cable installation. He described typical cable installation details and addressed specific conditions including drops, corners, and tub and shower boxes. He also addressed stressing and cutting and grouting cable ends after concrete placement.

Mr. Buck described homeowner maintenance issues and the need to educate homeowners regarding the need for proper maintenance for foundation performance. He discussed the need for good drainage as well as the need for a moisture maintenance program by the owner.

There was a discussion of the use of post-tensioning for very long foundations.



Dan ended the program by referring the audience to: [Construction and Maintenance Procedures Manual for Post-Tensioned Slab-on-Ground Construction.](#)

To download a copy of Dan Buck's slide presentation, [click here.](#)