

Structural Engineering: This Engineer's Look into the Future



**Charles H. Thornton,
PhD, PE, NAE, Hon. ASCE, Hon. AIA**

Founding Principal–Thornton Tomasetti
Chairman–STRAAM LLC.

Chairman–Charles H. Thornton
and Company, LLC

Chairman–Thornton Termohlen Group, Inc.



There have been many obstacles to progress in the practice of structural engineering in the construction industry. Constraints resulting from stifling building codes, fear of litigation and certain contractual clauses relating to responsibility have limited innovation and creativity. Contractual clauses in Architect-Engineer-Constructor contracts relating to responsibility for means, methods and sequences have resulted in a total disconnect between the designers and constructors with respect to constructability.

Building Information Modeling (BIM), Performance Based Engineering code revisions, Integrated Project Delivery and Computer Numerical Controlled fabrication (CNC) are changing and improving the practice of structural engineering. No longer is the wall between designer and constructor going to stifle the design and construction process. Time to construct and cost to construct are positively impacted. The leadership role of the structural engineer in the process will improve substantially. Dimensional control, structural quality control and clash detection aspects of these new approaches are completely changing the value of the services provided by structural engineers. Paperless and seamless projects are a reality!

Through examples like Supertall skyscrapers–Petronas Towers and Taipei 101, Sports Facilities like Washington National DC Baseball and many other examples, Thornton will show how positive changes are happening in Structural Engineering.

WEDNESDAY, FEBRUARY 24, 2010

12:00 PM - 1:00 PM

CEE Conference Room (1179 Glenn L. Martin Hall)

