

Symposium Enlightens South Florida Engineers on How Today's Global Megatrends are Influencing Florida's Concrete Future to Support Sustainable Building During South Florida Construction Upsurge

Innovation-Focused Presentations by Titan Concrete, BASF Construction Chemicals, and Florida International University (FIU) Demonstrate Need for Early Stage Design/Build Collaboration

MIAMI--(BUSINESS WIRE)-- A cross-section of accomplished South Florida engineers who are leading new and renovated design/builds of commercial and residential projects in high density cities throughout Florida, U.S and the globe were briefed on the current and future challenges in the "next chapter" of quality sustainable building and the related need for early-stage collaboration at an innovation symposium at Florida International University (FIU) College of Engineering and Computing. Hosted by building industry leaders Titan Concrete, BASF Construction Chemicals and FIU, the "Tomorrow's Building Solutions...Today" program featured expert presenters from each organization sharing the evolving global construction demands, regulatory challenges, and weather/wind and energy impact design essentials for new signature Green Sensesm approaches applied in the building of some of the tallest iconic buildings in the world. Supertall (984 feet) and megatall (1,968 feet) buildings showcased throughout the program included the World Trade Center in Manhattan, Trump Tower and Aqua in Chicago, Devon Tower in Oklahoma City, The Shard in the UK, Infinity Tower in Dubai, and the Shanghai Tower.

"This symposium provided an excellent opportunity to have an impressive group of engineers together in one room to learn critical information about the dynamic quality sustainability advances that are being achieved as science teams up with concrete technologists to manipulate nanostructures to positively impact not just the microstructure, but also the building that is being raised," reflected Dr. Andreas Tselebidis, BASF Director for Sustainable Concrete Technology responsible for all signature BASF projects worldwide.

Agreeing with Tselebidis, <u>Dr. Cesar Constantino</u>, Titan America's Senior Director of Process and Quality noted that "it was of great benefit that all three presenters demonstrated where the key triggering points are that need to be addressed with care by engineers and architects long before building design, rather than at the end of the process. Symposium participants saw that the customizing of concrete solutions for a project with locally available materials, such as <u>Greencrete®</u> available through Titan Concrete in South Florida, has to

take place in tandem while other engineering activities – such as wind design – are taking place so that needs are effectively and coherently addressed.

"With concrete clearly becoming the preferred 'material of choice' for the tallest buildings as mass and damping play critical roles in performance of the structure to control vibration and motions, the concrete producer can no longer be seen as a mere product supplier, but rather an expert research and resource partner in developing design solutions that are sustainable, cost-effective and long-lasting."

As an example, when Greencrete is specified, "it brings Titan Concrete's innovation to the integrative project planning and design process which in turn supports a USGBC credit category in LEED v4," continued Constantino who serves on behalf of Titan Concrete as the Task Group Chair for the Concrete Science Platform of the Massachusetts Institute of Technology Concrete Sustainability Hub and works closely with local academia at UM and FIU on research and development initiatives.

Tselebidis reinforced how important it is for "engineers, architects, owners and developers to dig into and embrace the new research levels and science out there and allow the science to come into reality in their buildings, both for the short-term processes and the future, long-lasting maintenance processes on the operational side. By focusing on blending these aspects into concrete and building materials as a whole, we make entire structures successful economically as well as ecologically."

"The long-standing strong bond of BASF and Titan reinforced by FIU's advisory and state-of-the-art testing facility services is game-changing for South Florida," noted <u>Dr. Peter A. Irwin</u>, FIU, College of Engineering and Computing who presented on the impacts of structural and wind engineering, insights into wind design considerations in tall concrete buildings and efficient structure designs that reduce environmental impacts through accurate knowledge of wind loading and imaginative structural engineering. "We at FIU, with our concrete lab sponsored by Titan, Wall of Wind and solar house testing platforms at our disposal, look forward to partnering with Titan and BASF on future projects in Florida."

Following presentations and interactive Q&A session, attendees toured their choice of <u>FIU's</u> <u>Titan America Structures and Construction Testing Laboratory</u>, <u>Wall of Wind</u> and <u>Solar</u> House.

For more information on the symposium and future symposium and continuing education programming, contact Mark Wachtel of Titan Concrete at (954) 553-3870 or mwachtel@titanamerica.com.

About Titan Concrete, a Titan America Business

Titan America is a leading environmentally and socially-progressive heavy building materials company located in the eastern United States. In operation since 1902, Titan remains a family-led business with a values-oriented, people-focused culture.

About BASF Construction Chemicals

BASF provides admixture products and concrete technologies to help building owners, design professionals, concrete producers, and contractors build structures that perform to the highest standards while minimizing environmental impact.

About FIU, Engineering and Computing

As an educational leader in a changing economic, technological, and social environment, the FIU College of Engineering and Computing is committed to excellence, quality, sustained growth and access while offering our students an outstanding and rigorous education in an environment that supports intellectual growth.

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