



JOSÉ C. BUSQUETS, EI
Project Engineer

Education:

B.S.M.E. Mechanical Engineering: University of South Florida

Professional Registrations & Certifications:

FE 1100010343 / FL [Engineer Intern Registration: State of Florida]

Professional Affiliations:

American Society of Civil Engineers: [West Coast Branch] – Member

American Society of Testing Materials – Participating Member

Florida Association of Sinkhole Stabilization Specialist (FAS3) – Participating Member

Urban Search and Rescue Qualifications:

FEMA Urban Search and Rescue – FEMA-USACE Certified StS1, ICS Level 1 Certified

Florida Urban Search and Rescue – Florida Task Force 3 Structures Specialist (StS)

Hillsborough County – Hillsborough County Fire Rescue/Special Operations, StS

Bracken Engineering [Engineering Response Team] – Member

Summary of Experience:

Mr. Busquets training, experience and practice include structural engineering and forensic investigations. Mr. Busquets is also a structures specialist qualified in urban search and rescue.

Within the structural engineering arena, Mr. Busquets has overseen and performed design, analysis and evaluation of concrete, masonry, wood, steel and aluminum structures. His design responsibilities have included reinforced foundation design, retaining structures, retrofitting existing roof systems and foundation stabilization and restoration.

Within the forensic arena, Mr. Busquets has participated in and directed field data acquisition and information management in support of forensic investigations and construction monitoring. He has also designed and overseen construction of a load versus deflection testing apparatus, which was used to conduct testing in support of expert witness testimony.

Research:

In conjunction with Bracken Engineering, Mr. Busquets has participated in the development of industry standard protocols and procedures in the development of horizontal surface topographic mapping. Horizontal surface topographic mapping is a diagnostic tool used in a non-destructive nature when assessing structures that have been affected by differential displacement. This method is valuable when determining the nature of structural damages and deficiencies.



Research: (cont.)

Through Bracken Engineering, Inc., Mr. Busquets lead the development of an interior mini pile bracket that is currently being patented. This research consisted of the design and development of this bracket so as to meet construction industry practices for use with micro piles for foundation stabilization and restoration.

Publications:

Busquets, José C, Timothy A Roda and William C Bracken. **"Design Considerations for Underpinning of Structures Affected by Karst Using Hydraulically Driven Piles."** Sinkholes and the Engineering Impacts of Karst. Tallahassee: American Society of Civil Engineers, 2008. 602-611.

Busquets, José C. **"Non-Destructive Testing and Evaluation Concrete Slabs Affected by Differential Displacement."** Forensic Engineering: Proceedings of the Third Forensic Congress. Eds. Paul A. Bosela, Norbert J. Delatte, Kevin L. Rens. Sacramento, CA: American Society of Civil Engineers, 2003. 341-349.

Presentations:

"Structural Collapse Technician Course," Department of Homeland Security Federal Emergency Management Agency (FEMA) – December 2, 2009, Tampa, FL

"Design Considerations for Underpinning of Structures Affected by Karst Using Hydraulically Driven Piles" 11th Multidisciplinary Conference on Sinkholes and the Engineering and Environmental Impacts of Karst – Tallahassee, FL, September 2008

"Foundation Failure: Structural Assessment & Restoration" Grip Tite Dealers – Orlando, FL, February 2008

"Foundation Remediation; Assessment & Restoration" Tennessee Building Officials – Winchester, TN, August 2007

"Urban Search and Rescue-The logistic Analysis of the Barrier Islands." National Hurricane Conference - March 2005

"Structural Damage due to Sinkholes," Nationwide Insurance Company-2005, Tampa, FL

"Sinkhole Affects on Structures," National Windstorm Conference – panel member-February 2005, Tampa, FL

"Building Systems," Nationwide Insurance, Educational Series – March 2003, Tampa, FL

"Non-Destructive Testing and Evaluation of Concrete Slabs Affected by Differential Displacement," ASCE Third Forensic Congress – 2003, New Orleans, LA

"Non-Destructive Testing and Evaluation of Concrete Slabs Affected by Differential Displacement," Paul Davis Systems, Educational Series – October 2003, Tampa, FL



Seminars Attended:

“2008 BOAF Training on the Building Code,” International Code Council, June 2008, Ocala, FL

“Steel Pile Installation, Design and Application,” Certified Foundations Inc., April 2008, Sarasota, FL

“Building Bridges” Florida Fire & Emergency Services, January 2008, Jacksonville, FL

“Masonry Construction & Inspection,” Florida Concrete & Products Association, Inc., April 2006, Tampa, FL

“Structural Renovation of Buildings,” American Society of Civil Engineers, March 2005, New Orleans, LA

“Structural Condition Assessment,” American Society of Civil Engineers- February 2005, Charleston, SC

“Design of Shallow Foundations,” American Society of Civil Engineers- February 2005, Orlando, FL.

“Windstorm Insurance Conference” - February 2005, Tampa, FL

“Helical Foundations & Tiebacks,” Deep Foundations Institute – November 2004, Tampa, FL

“Deep Foundation: Design, Construction & Quality Control,” American Society of Civil Engineers - November 2004, Tampa, FL

“Risk Management, Inspection of Hardware, Slings & their Capacities, the Rigging Triangle, Application of Hardware, Load Control,” The Crosby Group, Inc. in cooperation with Army Corps of Engineers – May 2004

“Lesson Learned from the Attack on the World Trade Center,” Florida Engineering Society - December 2003, Tampa, FL

“Methods for Identifying Soils & Determining Seasonal High Ground Water Table Depth,” Florida Engineering Society, November 2003, Tampa, FL

“ChlorEP Seminar,” The Chlorine Institute – November 2003, Tampa, FL

“14th Annual Tampa Bay Transportation Supersession,” American Society of Civil Engineers – September 2003, Tampa, FL

Litigation Experience

Lisa E. Westfall v. USAA Casualty Insurance Company #0605518CI-021

Judiciary: 6th Judicial Circuit in and for Pinellas County
Client: Defendant’s Attorney
Activity: Conducted and compiled a Structure Condition Assessment Report; Deposed



Litigation Experience: (cont.)

Craig E. Hollis and Suzanne D. Hollis v. Florida Farm Bureau Casualty Insurance Company #2005-CA-2632-ES

Judiciary: 6th Judicial Court for Pasco County
Client: Defendant
Activity: Conducted and Compiled a Condition Assessment Report; Deposed

Emir Abreu and Katherine Abreu v. Nationwide Insurance Company of Florida #51-2008-CA-4761-WS

Judiciary: 6th Judicial Circuit in and for Pasco County
Client: Defendant
Activity: Deposed

Project Experience:

Conley Residence, St. Petersburg, Florida – Responsible for overseeing the lifting and releveling of the elevated floor system of this residential home with the use of a screw jack piercing system. Portions of the stem wall foundation were restored after the lifting of the structure.

Total Tape, Tampa, Florida – Responsible for the design and production of a load versus deflection testing apparatus, which was used in support of expert witness testimony. The under applied loads. The apparatus was instrumented with calibrated measuring devices to measure deflection to 1/16".

Green Dolphin Villas, Tarpon Springs, Florida – Project Engineer responsible for the foundation restoration design of the structure. Pre-construction and post construction of subsurface support mechanisms were used to restore the foundation of the structure as well as for the design of a structural slab. Mr. Busquets was responsible for overseeing the installation and the construction of the foundation restoration.

Kelpsa Residence, Winter Haven, Florida – Responsible for overseeing the emergency installation of the subsurface support mechanisms on the subject structure. The structure had experienced extensive vertical displacement and the need for emergency underpinning was deemed necessary. Involved in the design of the restoration method for the structure.

Harvey Residence, Tarpon Springs, Florida – Responsible for the design of a residential foundation that incorporated the use of preconstruction helical piles with integrated reinforced lintels. The foundation also included a 6' foot stemwall acting as a retaining wall to accommodate flood level zoning. The foundation was designed to eliminate excessive displacement as a result of unstable soils at the construction site.

White Residence, Odessa, Florida – Responsible for the design and implementation of the foundation restoration design due to excessive differential displacement of the structure. Responsible for the overseeing of the monitoring and lifting of the subject structure. The subject structure was successfully lifted over 10.5 inches while limiting collateral damages.



Urban Search and Rescue Training:

Professional Rescuer CPR, American Red Cross - March 2003, St. Petersburg, FL, 8 hours

Confined Space Training, Hillsborough County Fire Rescue - June 2003, Tampa, FL, 24 hours

Hazard Material Training, Hillsborough County Fire Rescue - June 2003, Lutz, FL, 12 hours

Heavy Lifting, Hillsborough County Fire Rescue – June 6, 2003, Tampa, FL, 8 hours

Rapid Intervention Team, Hillsborough County Fire Rescue – August 8, 2003, Brandon, FL, 8 hours

Incident Command System Training, FEMA on-line training - September 2003, Tampa, FL, 8 hours

Self Contained Breathing Apparatus, Hillsborough County Fire Rescue – September 2003, Tampa, FL, 4 hours

ChlorEP Seminar, The Chlorine Institute – November 2003, Tampa, FL, 12 hours

Trench Rescue Training, Hillsborough County Fire Rescue – January 2004, Tampa, FL, 24 hours

STS 1, Structure Specialist Training Course, USAR, U.S. Army Corp of Engineers- May 2004