STRUCTURĂL ENGINEER

# Tall Buildings and Braced Excavations in Houston and The Foundation Engineering Disconnect

Braced excavation and foundation systems of tall buildings in the Houston Area are presented through a case study of the recently completed B G Group Place, Houston's tallest building to start the 21st millennium. The building is considered one of the tallest soil-supported buildings in the world at 48 stories from basement to top when compared to the 75 story Chase Tower. The presentation is expanded by performance information from other local braced excavation projects (Ulrich, 1989) in the Texas Gulf Coast to capture the broad character of excavation behavior. Properly designed and built Houston Area excavations enjoy behavior characteristics unique to those reported in other locations.

Success prevails with foundation engineering which is a solid collaboration between the Structural and Geotechnical Engineer or the Foundation Engineer serves as master of the collaboration.

Ed Ulrich graduated from Georgia Tech in 1969 with a Bachelor of Civil Engineering with concentrations in George Sowers Foundations, structures, and surveying, but he began his career in 1967 as a part time field engineer in Atlanta foundation projects to pay future wedding bills. After one year as a Construction Engineer he entered the University of Illinois at Urbana-Champaign in 1970 to study under Ralph Peck. Upon graduating with an MSCE, he returned to Atlanta for another year, and then crossed the Sabine in 1972 to join McClelland Engineers. By 1980 he became chief engineer for tall buildings and braced excavations and started Ulrich Engineers in 1984.

Mr. Ulrich's experience extends over four continents offshore and onshore. He served as the Committee Chair of ACI's Foundation Committee for almost 15 years leading industry experts in modernizing foundation standards and has produced nearly 100 written and oral presentations. ASCE has awarded Mr. Ulrich the Thomas A. Middlebrooks Award, Harry S Schnabel Award. ADSC gave Mr. Ulrich the President's Award and named his paper "Drilled Piers Succeed with the Deepest Excavation in the Texas Medical Center" their 2011 May Feature Article. He has given invitational lectures to the Illinois and Louisiana Section ASCE State meetings.

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MEETING INFO					
WHEN:	WHERE:	COST:	RSVP:	UPCOMING MEETINGS	
February 19, 2015	HESS Engineering	Members:	<u>Click Here</u> to		
6:00 pm Social	and Scientific	\$25.00	register online.	March 19, 2015	
6:30 pm Dinner	Society	Non-members:	The deadline is	TBD	
7:00 pm Program	5430 Westheimer	\$35.00	12:00pm, the		
	Houston, TX 77056	Student members &	Tuesday before	April 16, 2015	
	713.627.2283	Non dinner guests		TBD	
		\$10.00			
<b>CLICK HERE</b> TO REGISTER FOR THIS MEETING					

# President's Corner Al Bustamante, PE

There is a saying in sports "it's not how you start what matters; it's how you finish". In other words, the outcome of the competitive event is what matters. For our chapter, it's not the start or the finish alone; the start the middle and the finish matters. We got off to an excellent start to the year with a great attendance to our January meeting despite terrible weather and even worse traffic the date of our meeting. We strive to provide quality programs and sponsors for our members and non-members every month and we will continue to do that for every single meeting.

It was great to see how many members showed interest in helping with the efforts in connection with the organization of the 2015 State Conference to be held in Houston, Texas October 22 and 23, 2015 at the Houston Hilton North located within ten miles of George Bush International Airport. Our past president Steve Wilkerson is leading the efforts in connection with the State Conference. Please reach out to Steve at swilkerson@ apexstrucengg.com to offer your assistance.



We also welcome your suggestions regarding programs for the State Conference or any other business of our chapter. I have received several questions regarding how to apply for membership and membership benefits.

Please contact Glen Smith at Glen.Smith@ptcforensics. com for any questions regarding membership.

I also want to take this opportunity to inform you that in addition to our monthly meetings, we are planning special sponsored presentations/education programs to be held during the lunch hour. These events are typically free to our members and a free meal (as well as continued education) are provided. We want to provide our members different options for continued education through our chapter. Additional information regarding upcoming special education programs will be announced during our monthly meetings – stay tuned.

If you are interested in volunteering, please feel free to contact any of the officers listed at the end of the newsletter.

Al Bustamante, PE houston@seaot.org al.bustamante@walkerrestoration.com





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# Secretary's Corner **Rick Miles, PE**

2015 is underway and promises to be a busy year for the SEAoT Houston/Gulf Coast Chapter. As host chapter for the SEAoT State Conference this year, there are plenty of volunteer roles that will need to be filled. Mark your calendars for October 22-23, 2015 and plan on attending - and please consider helping out with the numerous tasks required to make the event a success.

Also, the 84th Texas Legislature is underway and we are keeping tabs on several items of interest to structural engineers, including licensure issues. Coming to the meetings is the best way to stay on top of these and other topics.

We kicked off the year with our January 22 meeting. We were pleased to be joined by a large group from the Texas A&M Student Chapter. The meeting sponsor was Walker Restoration Consultants and its parent company Walker Parking Consultants.

Our Chapter president Al Bustamante now heads the Houston Walker Restoration team and provided a brief summary of Walker Restoration's service options, including assessment and investigation of existing structures, repair design, and asset management.

Al was joined by James Brooks, PE, LEED AP of Walker Parking Consultants, who provided an overview of their services including functional parking studies, parking design, and management systems. You can learn more about Walker Restoration and Walker Parking by visiting walkerrestoration.com and walkerparking.com

Al was also our speaker for the meeting, presenting on the topic of "Tackling Travertine Cladding Repairs". It was an interesting case study of two local projects; Jones Hall and Capitol One Plaza. An overview of basic material properties, design considerations, and investigative techniques was complemented with insight into the various failure conditions that were encountered, the restoration approach, and implementation of repairs. Thank you, Al, for providing another interesting and informative presentation.

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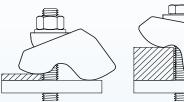
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## SEAoT Houston Gulf Coast Chapter Newsletter

### February 19, 2015 Page 5

# Secretary's Corner (Continued) **Rick Miles, PE**

We already have some excellent speakers and interesting topics lined up this year. Following the venerable Ed Ulrich this month, we are planning on an Ethics presentation in March (just in time for you March renewals) and a presentation on expansive soils / carton forms in April. We are always open to suggestions for topics and speakers; feel free to contact a board member.

Thanks for your participation and see you at the February meeting! **Rick Miles** 



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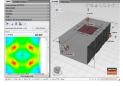
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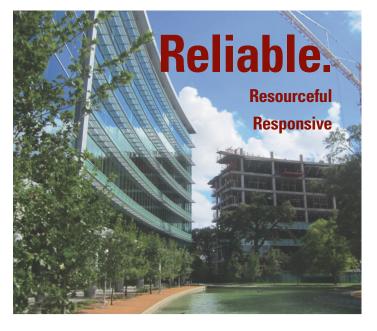
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Alternate State Director	Joe Kallaby	281.584.9300	osi-jk@swbell.net		
2015 Committee Chaimeana					

# 2015 Committee Chairpersons

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