

Elie Homs: Inventive Alumnus Understands the Value of Passing on Experience

Graduate Elie Homs (BSCE 1986) is quick to credit the engineering staff and construction professionals he is surrounded by for his accomplished career. As Senior Vice President for Flatiron Construction Corporation, he oversees the engineering activities of the company for design build, P3, and high tech projects.

Over the last few years, Flatiron has built many award-winning and record-breaking bridge structures: suspension, cable stay, segmental, launched, girder, and movable. The firm's engineering group focuses on the construction engineering, methods engineering and design coordination of large scale civil projects ranging from a few million dollars to \$2.4 billion. In a nutshell, Flatiron designs the temporary structures (trestles, shoring, support of excavation, cofferdams, formwork, erection equipment, etc.) and methods (erection procedures, floating tub foundations, lowered tub foundations, critical crane picks, etc.) needed for the construction of these infrastructure projects.

A milestone was recently reached for Homs when he conceived a patented idea of a pile-driving launching gantry system. His brainchild was implemented for the first time on a \$192-million contract to build the Washington Bypass, a six-mile alternative route to Highway 17 in North Carolina. This innovative approach minimized the construction footprint in environmentally sensitive areas such as wetlands and simultaneously accelerated the construction schedule.

In the beginning stages of the pile-driving truss concept, he evaluated the idea with other engineers, estimators, superintendents, foremen, draftsmen and other construction professionals. "No one is smarter than the group. I might be in charge but I do not have all the answers," says Homs. "It is very important for me to surround myself by individuals who are smarter than me and to also empower them to grow and take on more challenges."

His successful career at Flatiron, can be traced back to the many doors that opened for him at UT's Department of Civil, Architectural and Environmental Engineering. While enrolled in a Dual Degree Program at the Lebanese American University (BUC), he learned that UT was one of the top ranked universities for civil engineering in the U.S. This drew him in and was the beginning of his lifelong relationship with the department.

One of his proudest moments as an undergraduate was having the opportunity to work at Ferguson Lab with Dr. Breen, Dr. Kreger and Bob McGregor on a segmental bridge research project. At the time, it was considered a cutting edge research project and also led him to find his niche within the segmental bridge industry.

The research project consisted of building and testing a ¼ scale model of the San Antonio Y Project, which required a great deal of engineering, planning and quality control. Homs was assigned to develop and optimize the construction methods and to build three spans of the structure. He enjoyed designing the forms, finding the most effective methods of construction and actually building the bridge.

It was during a discussion with Bob McGregor that he had a defining moment: Homs realized that he enjoyed the technical construction aspect of bridge building more than just designing the structure. That monumental discussion is what led him to make the decision to work for a general contractor rather than for a designer after graduation.

Based on his personal experiences in the workplace, Homsni earnestly advises students to choose a job that they can be passionate about, a job they can look forward to every day. He advises graduating students to not follow the money at the start of one's career but rather choose a job that excites them and drive them to excel. He says, "The money will follow once you shine and succeed in your job."

Homsni's passion for his work also involves giving back. He feels that teaching, volunteering and being active on professional committees are great ways for civil engineers to pass on their experiences and to help improve the profession and industry. He enjoys lecturing at professional seminars on the latest advancements in technology and is a guest lecturer at UT. He also visits local high schools in Colorado, sharing his fondness for construction engineering and innovation to get them excited about a career in engineering.

Additionally, Homsni is involved with Bridges to Prosperity, a volunteer-based charity that seeks to empower underprivileged African, Asian, and South American rural communities through footbridge building. The program thereby advances personal responsibility, economic prosperity, and improves access to schools, clinics, jobs and markets. Flatiron is also currently sponsoring two suspension bridges in Guatemala where we they will finance, design, and send engineers and construction professionals to teach the community to build these bridges.

Elie Homsni was recognized as an "ENR Top 25 Newsmaker 2008" and also received the ASBI Excellence in Leadership Award, The 2009 NOVA Award For innovation and the Federal Highway Administration 2009 Environmental Excellence Award. His wife, Claudia Elena (Diaz) is also a successful graduate of the department – BSCE 1988.



Homsni stands near construction of the Washington Bypass on US17 in Washington, NC.



On the Dallas High Five project, Homsni helped develop a new method to minimize impact on the travelling public.