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CIVIL TALK

CIVIL ENGINEERING ♦ SURVEYING

STRUCTURAL ENGINEERING ♦ GRANT WRITING

A NEWSLETTER FROM HENEGHAN & ASSOCIATES, P.C.

Celebrating Our 23rd Year in Business

July 2009

The Life of a Structural Engineer



Pedestrian Bridge

There are many different kinds of engineers; civil (Heneghan and Associates), mechanical, industrial, computer, bio-medical, architectural, and structural. All

engineers are important to the world we live in and are valued for the individual contributions they make to society on a daily basis.

Last month Heneghan and Associates hired its first-ever structural engineer (SE), Mr. Larry Thompson. You can read about Larry in the “Meet & Greet” feature on the back of this newsletter.

An SE works with other engineers, as well as urban planners and architects on projects that might be as simple as a small bridge over a wading creek, as complicated as the San Francisco Bridge, or as delicate as the new glass overlook known as “The Ledge” - a recent addition to the Sears Tower in Chicago. The Ledge lets viewers look 103 stories straight down to the ground. Think about it—if you visit the Sears Tower and stand on the new overlook, there is comfort in knowing the new addition is built to hold the weight of the people who visit to enjoy the skyscraper view of Chicago. While standing on The Ledge, or on the 26th floor of a hotel room, or while driving through a parking garage, or riding a roller coaster at an entertainment park, we don’t usually think about all the engineering it takes to make sure the floors of the structures will hold the weight of people, vehicles, or property such as library books and heavy equipment. Thanks to the knowledge and detailed work of SE’s, we confidently assume the structures we utilize or visit are safe and secure. In fact, this is the primary duty of an SE is to ensure public safety by designing the components of a structure to ensure it will support the weight.

The SE does this while making sure to abide by the appropriate standards and legal codes.

An SE can be asked to perform different tasks including the design of highway, railroad, or pedestrian bridges, buildings, retaining walls, and culverts. The SE also performs structural inspections which includes underwater inspections on bridges. Unless the engineer is a diver, this means collaborating with a certified diver to inspect underwater bridge appurtenances.

For bridges, SE’s design the deck surface, girders or stringer and piers. Materials considered for bridge construction include steel, concrete, wood, masonry and aluminum. For buildings, SE’s design roof framing (beams, rafters, joints, and trusses), floor framing (floor decks, joists, beams, trusses, girders), arches, columns, braces, frames, foundations, and walls.



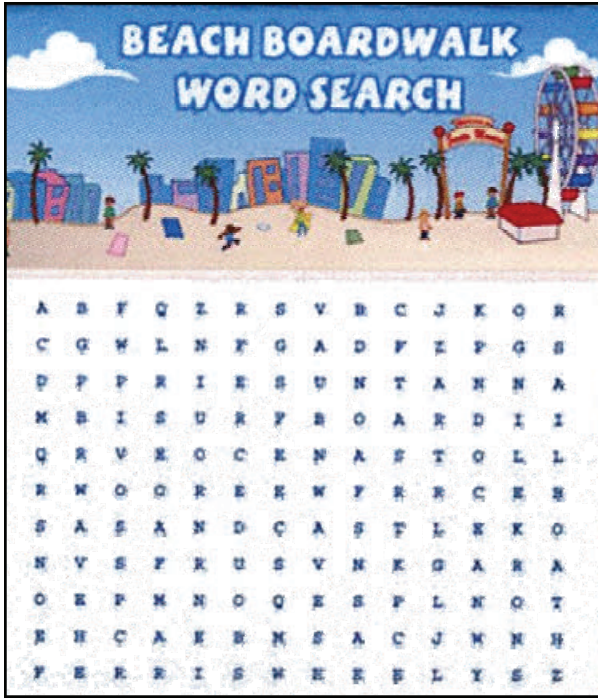
Mannheim Road over the I-190—one of Thompson’s biggest design jobs in the Chicago area.

“Being a structural engineer is challenging and rewarding,” Thompson said. “I am excited about the opportunity to develop a structural engineering department for Heneghan and Associates. It’s especially rewarding when I am able to drive or walk over a finished product that I have played a key role in.”

Thompson and other SE’s complete structural designs by performing a complex series of calculations and by utilizing computer programs. The results are produced on a set of plans which are then used by contractors to price and build the desired structures. For SE information, Thompson can be contacted at 888-291-7615.

Funding & Grant Writing

As most of you are aware, there are many different funding revenues and programs available to public entities for infrastructure, parks, and public facilities. Between the capital bill that was recently approved, the recently announced Illinois Jobs Now program, grants and low interest loans available through DCEO, IDNR, IEPA, IDOT, USDARD, and IFA, it is sometimes hard if not almost impossible to get your arms around the big funding picture. Heneghan and Associates is proficient at helping you to decide what funding source to use and administering the



Ocean Waves Snorkeling Sail Boat Surf Board Ferris Wheel Pier Sand Castle Beach Sun Tan

MEET & GREET

Larry Thompson, S.E., P.E.

This month's "Meet & Greet" person is Mr. Larry Thompson. Larry is one of the newest staff members at Heneghan and Associates. He comes to HA from the Chicago area with 27 years of engineering experience including 22 years as a licensed professional engineer and 12 years as a licensed structural engineer. Thompson has worked on many significant projects, with one of the largest projects being the I-190 and Manheim Interchange in Chicago. He is HA's first ever structural engineer and is looking forward to the challenge of developing and growing the structural engineering department. Thompson is originally from Fairbury, Illinois and graduated from the University of Illinois in Champaign in 1982 with a bachelor of science degree in civil engineering. He then went on to receive his structural engineering license in 1997. He is experienced in all phases of structural engineering including bridge, retaining wall, culvert, building, and industrial designs, as well as inspections for all of those areas. When he is not busy designing or inspecting bridges, you might find Larry running several miles through the town of Jerseyville where he now resides. He has been a distance runner for some time and enjoys staying fit and active.



CIVIL TALK is published by Heneghan & Associates P.C.
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"If everyone is thinking alike, someone isn't thinking." General George Patton

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