



STRUCTURAL ENGINEERS OF NEW HAMPSHIRE

Granite Columns

President's Letter



First of all, I would like to congratulate **Alex Azodi, PE** on his achievement of being chosen by his peers as the **Engineer of the Year in New Hampshire**. As many of you know, Alex has served for many years, not only as an engineer, but also as an ambassador for structural engineers throughout our state and beyond. On behalf of SENH, Thank you Alex!

Support. A word that we often use in our profession. We all know that if there is not enough support to carry the loads, then failure will be sure to follow. This winter has brought this discussion of structural support outside of the realm of engineers to anybody that owns a business or home. There seems to be an article in the paper every other day discussing the concerns over snow loading on

structures throughout the state. When I met with the Governor for Engineer's Week, snow loading was at the forefront of her mind, especially with the recent collapses and school closings due to increased snow loads. I know that those of you that have been putting in hours evaluating the structural integrity of New Hampshire structures has been greatly appreciated.

I, along with many of you, attended the 64th Engineering Week Banquet. Support was a major topic of the night. Not in the sense of structural support, but in the support of those around us. Both Alex and Jason, the Young Engineer of the Year, expressed gratitude to those that have supported them over the years. They showed appreciation for their parents, colleagues, managers and most importantly their wives. It was obvious that they have had support throughout their careers which has enabled them to reach as far as they have in their professions.

Randy Peirce, the keynote speaker at this event, discussed how important his support staff was during his speech. Randy has accomplished many goals in his life such as climbing all of the 4,000 ft peaks in New Hampshire... twice... in the winter...all within 37 months!! Incredible!! Even more incredible is the fact that he did this all as a blind man. While his accomplishments are truly amazing, he gave high praise to his friends and colleagues, not least of which his faithful guide dog. He spoke about not being able to do all that he does without support.

I challenge all of us to think about the support that we have received over the years and not only be thankful for what we have received, but to be cognizant of who may need that extra bit of support around us. We know that proper support is essential to carry load.

Thank you to all that currently support and volunteer for SENH! If you are interested in becoming more involved or have any questions or concerns, feel free to contact me at president@senh.org or (603) 647-2012

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Special Points of Interest/ Reminders:

- *Alex Azodi is Engineer of the Year! See inside to learn more about Alex.*
- *The next meeting is March .24th See inside for details.*

SENH Young Members Group

The SENH Young Members Group (YMG) had a successful February meeting at the Redhook Brewery in Portsmouth with 17 attendees! The meeting encouraged networking between young professionals and UNH students in a casual environment. Many attendees decided to come early for a tour of the brewery and stay late for some general merriment.

We also participated in an NCSEA Member Organization (MO) YMG collaboration conference call. This call was organized by the NCSEA Young Member Support Committee for recently formed MO YMG's to discuss ideas, obstacles and tools. The good news is, we are on the right track and now we have some additional information to help us improve!

The YMG is planning future events. We have a potential summer sports outing (kickball, softball, etc.) hopefully against our rivals the ASCE Younger Members Section, if they are up to the challenge. More details about our events are to follow. Please email Chris Fournier (cfournier@hebengineers.com) to join our email list or to express interest or provide suggestions you may have. Thanks!

Christopher R. Fournier
SENH YMG Chair

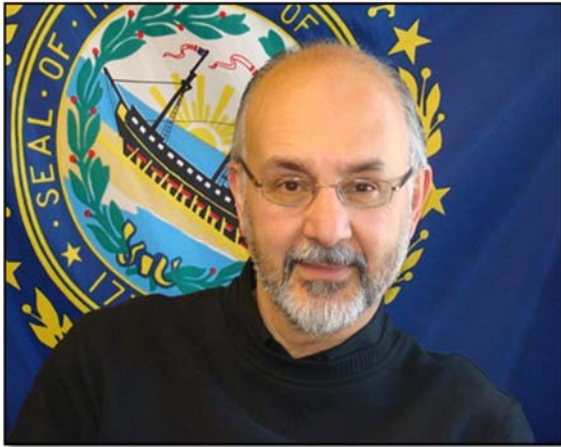
2015 Dues Renewal

It's not to late! If you have not renewed your dues please do so. A renewal form is included in this newsletter for your convenience.

Corporate Advertisements

SENH is still accepting corporate advertisements! The cost of the advertisements will be on an annual calendar year basis and will be included in our 5 newsletters as well as links on our web site. The advertising artwork must be in the form of a 1.3" x 2.3" business card. Please see the "Corporate Advertising Form" in this newsletter for more details.

Alex Azodi, P.E. Named New Hampshire's 2015 Engineer of the Year



The SENH Board of Directors is pleased and proud to announce that SENH Member **Alex Azodi, P.E.**, was selected by a jury of his peers from New Hampshire's Joint Engineering Societies for the **2015 New Hampshire Engineer of the Year Award**. This distinguished award was presented to Alex on February 26th at the annual Engineers' Week Awards and Celebration Banquet in Bedford, NH.

The SENH Board nominated Alex for this award based on his long record of professional accomplishments, service to the profession, promotion of engineering, community service, dedication to SENH and dedication to his family.

Alex is a graduate of California State University at Fresno (BS 1984) and the University of California at Berkeley (MS 1985). His professional career began in California then Washington State before moving to New Hampshire in 1994 where he practiced structural engineering while employed by local firms.

In 2004 Alex founded Omega Structural Engineers, PLLC which he leads with an insightful understanding of structural design elements to support and enhance architectural design, coordinating human resources and innovative solutions for complex projects.

Alex has always given back to the profession throughout his career. As a member of SENH he worked with the Special Inspections Committee, was elected to the Board of Directors, served a number of roles including President from 2008-2009, and continues as our representative to the Code Advisory Committee of NCSEA, and as our representative to SEI.

In 2013 Alex was appointed to the State of New Hampshire Board of Professional Engineers. Alex has given his time to his community in a number of ways. He has served as an Alternate for the Newbury Zoning Board of Adjustment since 2004. He has provided pro bono structural services to his home town on several building projects.

Alex lives in Newbury with his wife Susan. Together they have raised two adult sons, Adrian and Alexander.

SENH MARCH MEETING ANNOUNCEMENT

- NEXT MEETING:** Tuesday, March 24, 2015
- PRESENTATION:** **How New Trends in Wood Construction Comply with the Building Code** - An overview of a variety of current and new wood products and techniques will be presented. The speaker will discuss how they may be applied to your future building designs and how they are being used in projects across the nation today to comply with the International Building Code (IBC). Included in this presentation is information on the application and advantages of: **Advanced Framing, Panelized Walls, Mid-ply Shear Walls, Structural Insulated Panels (SIPs), Composite Floor Systems and Cross-Laminated Timber (CLT).**
- SPEAKER:** **John Showalter, P.E.**, Vice President, American Wood Council (AWC). Mr. Showalter joined the AWC staff in 1992 and currently serves as Vice President of Technology Transfer. His responsibilities at AWC include oversight of publications, website, helpdesk, education, and other technical media. He is also a member of the Editorial Boards for *Wood Design Focus*, published by the Forest Products Society, and *STRUCTURE* magazine, published jointly by NCSEA, ASCE/SEI, and CASE. Prior to joining AWC, Showalter was Technical Director of the Truss Plate Institute. He is a graduate of Virginia Tech.
- PLACE:** University of New Hampshire – Parsons Hall
Room N108 - McDaniel Drive - Durham, NH 03824
- DIRECTIONS:** From the West: Take Rt. 101 to Rt. 125 North. At the Lee traffic circle, take Rt. 4 East to Exit for 155A (Main St.) Go right on 155A (Main St.), pass UNH Field House, take next Right onto College Rd. Veer left onto College Rd. Parsons Hall is third large building on the left. Park in the visitor section of Lot H (before 6:00 pm it's \$1/hour, and then after 6:00 pm most lots are available for free, unless they are designated as permit only). See attached parking map.
- From the East: Take Rt. 16 North to Rt. 4 East towards Durham. Exit Rt. 4 onto Main Street and follow directions from above.
- AGENDA:** 5:30 pm – 5:45 pm Registration
5:45 pm – 6:30 pm Dinner and Social Hour
6:30 pm – 6:40 pm Business Meeting
6:40 pm – 7:00 pm Steel Bridge and Concrete Canoe Competitions
7:00 pm – 9:00 pm Main Presentation by John Showalter, P.E.
- DINNER:** Pizza, Assorted Sodas and Water.
- COST:** Member: \$20.00 - Non-Member: \$25.00 - “No-shows” will be billed at full amount.
Student: FREE
- RSVP:** by Tuesday, March 17, 2015. There will be a \$5.00 late fee for anyone wishing to RSVP past this date.
- Please send check payable to “Structural Engineers of New Hampshire” with list of attendees to:
Hoyle, Tanner & Associates, Inc.
Attn. Deb Coon
150 Dow Street
Manchester, NH 03101
- Contact: Deb Coon, Administrative Assistant dcoon@hoyletanner.com
- NOTE:** 2.0 PDHs have been assigned for attendance to this program. Attendees are responsible for ensuring their check-in on the attendance list upon arrival at the meeting.

January Attendance List & Meeting Minutes

NHDOT Bridge Program Update & The I91 Brattleboro Bridge Grappone Conference Center, Concord, NH (2.0 PDH's) January 15, 2015

Name		Organization	Name		Organization
Kim	Armstrong, PE	Greenman-Pedersen, Inc.	William	Johnson, P.E.	FIGG Engineering Group
Shannon	Beaumont, P.E.	CLD Consulting Engineers, Inc.	Thomas T.	Kendrick, P.E.	McFarland-Johnson, Inc.
Josif	Bicja, P.E.	Hoyle, Tanner & Assoc., Inc.	David M.	Kull, P.E.	McFarland Johnson, Inc.
Jay H.	Brown, P.E.	Structural Systems, Inc.	Bob	Landry, Jr.	NHDOT Bridge Design
Robert S.	Busby, P.E.	Kalwall Corporation	Stephen	Langevin, P.E.	Greenman-Pedersen, Inc.
John	Byatt, P.E.	CLD Consulting Engineers, Inc.	Michael	Larson	HEB Engineers, Inc.
Nick	Caron, P.E.	CLD Consulting Engineers, Inc.	Thomas	Levins, P.E.	GM2 Associates, Inc.
Robert	Champagne, P.E., LEED	Summit Engineering, PLLC	Matthew J.	Low, P.E.	Hoyle, Tanner & Assoc., Inc.
Gregory	Clauson	Hoyle, Tanner & Assoc., Inc.	Josh	Lund, P.E., SECB	McFarland Johnson, Inc.
Normand G.	Cote, P.E., SECB	NGC Structural, LLC	Dan	Martel	McFarland Johnson, Inc.
Edward F.	Decelle	Structural Systems, Inc.	Eric	Ohanian, E.I.T.	Dubois & King, Inc.
Steven F.	Delia, E.I.T.	McFarland Johnson, Inc.	Joshua D.	Reilly	Structural Systems, Inc.
G. Keith	Donington, P.E.	Parsons Brinckerhoff	Mark	Richardson, P.E.	NHDOT Bridge Design Administrator
Robert H.	Durfee, P.E., SECB	Dubois & King, Inc.	Joe	Ripley, E.I.T	Hoyle, Tanner & Assoc., Inc.
Christopher R.	Fournier, P.E.	HEB Engineers, Inc.	Jillian	Semprini, P.E.	Hoyle, Tanner & Assoc., Inc.
Thomas A.	French, P.E.	French Engineering, LLC	Adam M.	Stockin, P.E.	Parsons Brinckerhoff
Rebekah	Gaudreau, P.E.	Parsons Brinckerhoff	John G.	Stockton, P.E.	Fay, Spofford & Thorndike
Roger W.	Gayer, P.E.	Structures Unlimited, Inc.	Jody P.	Trunfio, P.E.	TEC Inc.
Anna	Giraldi, P.E.	CLD Consulting Engineers, Inc.	Edward	Weingartner, P.E.	Hoyle, Tanner & Assoc., Inc.
Timothy L.	Grant, P.E.	TLG Eng. Consulting	Samuel I.	White	McFarland Johnson, Inc.
Scott	Hartford, P.E.	Kalwall Corporation	Ross	Wood, P.E.	CHA Companies
Sean	James, P.E.	Hoyle, Tanner & Assoc., Inc.	Sean	Brown	Parsons Brinckerhoff

Business Portion of the Meeting

- SENH President Adam Stockin opened the SENH Business Portion of the meeting.
- He announced that the nomination committee has formed regarding the two board positions that are expiring. He encouraged those who are interested to contact him, especially those in building engineering so that the board might be more balanced between bridges and building engineers.
- He also reminded the members that SENH is still searching for volunteers to be appointed into open positions on the QBS Coalition and the Joint Engineering Society. Additionally, he mentioned that the Professional Development Committee (PDC) could always use volunteers.
- Bob Champagne gave a brief budget update stating that the finances ended the year in good standing (in-the-black).
- Adam mentioned that Engineers Week was February 15th through the 21st and that the traditional banquet would be held on February 26 in Bedford.
- Josif Bicja, PDC Chair, discussed the upcoming UNH meeting in March and stated that there are still opportunities for member presentations. Interested members should contact the PDC.

Presentation

NHDOT Bridge Program Update – “New Hampshire Bridges – A Status Update”. Presented by Mark Richardson, NHDOT Administrator of the Bureau of Bridge Design. Mr. Richardson began with a review of the preliminary bridge data including a statement that the State Red List has increased from 148 to 152 and the Municipal Red List has decreased from 359 to 347. He demonstrated similar data based on square footage of deck which serves as a more accurate representation of the cost of those bridges. He reviewed that 40% of the state bridges are more than 50 years old with 30% more than 75 years old. This past year we all celebrated the passage of SB 367 the 4.2 cent road toll, which funds transportation projects, however it does not add to the NHDOT operating budget. Mr. Richardson went on to discuss the Sarah Long Bridge Replacement and the recent repairs needed to keep it open until the replacement is finished. He also showed photos of a vessel strike at the Memorial Bridge. He discussed the I-93 widening and the challenges to come along with the long history of efforts to date. Mr. Richardson was pleased to announce that sections of the new Bridge Design Manual were finished and would be released within a few days. To finish off, he announced that this would be his last presentation to SENH as he will be retiring this June.

Technical Presentation – “Balanced Cantilever Segmental Bridge Construction – I-91 Brattleboro Bridge Improvement Project”. Presented by William Johnson, IV, P.E. of FIGG Engineering Group

The team of FIGG Bridge Engineers and PCL Civil Constructors were best value selected by VTrans for this \$60 million design/build project. The major portion of the project is Bridge 9 which will be a new three-span, 1,036-foot arching concrete bridge over the West River built utilizing balanced cantilever construction. He presented several photos of construction including the challenges associated with the drilled shaft construction, the massive reinforcing cages associated with the construction of Pier 1. The theme of the project is “A Bridge to Nature”, which is indicative of the curving cathedral piers, viewing platforms, and railings that complement the natural landscape. He discussed that the PCL+FIGG Team will conduct a Trail Walk construction update for the public on the first Saturday of each month during construction. He stated that FIGG will be providing Bridge Boxes that contain education tools for use by school children to inspire and teach them about science and engineering. Construction began in the fall of 2013 and the new structures will be opened in the spring of 2016.

On behalf of the membership the SENH Board of Directors would like to thank Mr. Richardson for the many presentations he has volunteered his time to give. Additionally, we would like to congratulate Mr. Richardson on his successful career at NHDOT and thank him for his efforts at NHDOT, his comradery, and mentorship through the years. We would also like to thank Mr. Johnson for his in-depth and informative presentation regarding the impressive project.

Respectfully submitted by Christopher Fournier, PE, SENH Board of Directors Secretary.

The University of New Hampshire Steel Bridge Team is excited to compete in this year's New England Regional Competition at Merrimack College from April 10-11. The team spent all of the fall semester using GT Strudl and SAP 2000 to design a bridge to fit the guidelines set by the national committee (rules can be accessed here: <https://www.aisc.org/WorkArea/showcontent.aspx?id=21576>)

This year's seniors have been working hard to incorporate every member of the team in the design process. All underclassman were encouraged to design their own members and connections. Seniors mentored underclassmen and taught them how connections and members are designed for construction speed and strength so the underclassmen can design future bridges!

Like teams in the past, this year's steel bridge team is welding their own bridge. Many teams from around the country send their designs out to be professionally fabricated. It is a point of pride that the UNH Steel Bridge Team fabricates their own bridge. Underclassmen are taught how to use bandsaws, chop saws, grinders and the best way to file down an edge for welding. They are introduced to shop safety and welding, along with many other important aspects of working with steel.

The UNH Steel Bridge Team is always accepting donations! We work hard to minimize the cost of being part of a team, and part of that includes raising our own funds. If you would like to donate to the UNH Steel Bridge Team please contact Robert Langlands by email at rbc9@wildcats.unh.edu. If a company or person donates over \$150 or more their company logo or name will be featured on the back of the team t-shirts!

2015 Steel Bridge Team Members		
Seniors	Underclassmen	
Robert Langlands- Captain	Lindsey Adams	Sean Chamberlin
Ewen Mackinnon	Melinda Kline	Lindsey Rago
Joshua Mele	David Agan	Matthew Coleman
Nicholas Bateman	David Latham	Ryan VanderHeijden
Patrick Bogle	Angela Beaulieu	Tristen Corey
Nathaniel Colp	Trent Lofaro	Kimberly Vigneau
	Celia Belletete	Russell Fink
	Adam Murphy	Courtney Waterman
	Benjamin Brock	Connor Golden
	Jessica Paskoski	Tanner Kent



Last years team after competing at the Regionals Competition at Umass Lowell.

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Employment Opportunities

Structural/Bridge Design Engineers (Lawrence, MA)

TEC, Inc., *The Engineering Corp.*, is a growing consulting engineering firm in the Boston Metro North area, and is seeking entry level Structural/Bridge Design Engineers to deliver quality products for our clients. These opportunities require significant and progressive aptitudes in the following areas:

Preparation of bridge and/or building construction documents including plans, specifications, and estimates for multiple concurrent projects

Assistance in project and client management duties

Field inspection of work and implementation of construction documents

To be successful in these full time positions, candidates should be fully dedicated to the tasks, hardworking, a self-starter, and responsive to project schedule demands. The firm provides structural engineering services to both private development and public transportation improvement projects. Interested candidates should have demonstrated interest in bridge design, bridge inspection, bridge load rating and analysis, building design, structural modeling and analysis, construction engineering and detailing, and cost estimating. AutoCAD experience is desirable and BSCE degree (structural emphasis) is required.

Experienced Structural/Bridge Design Engineers (Lawrence, MA)

TEC, Inc., *The Engineering Corp.*, is a growing consulting engineering firm in the Boston Metro North area, and is seeking experienced Structural/Bridge Design Engineers to manage project assignments and staff; and deliver quality products for our clients. These opportunities require significant and progressive experience in the following areas:

Preparation of bridge and/or building construction documents including plans, specifications, and estimates for multiple concurrent projects

Assistance in project and client management duties

Field inspection of work and implementation of construction documents

Mentoring of junior staff on structural engineering topics

Participation in business development opportunities for the firm

To be successful in these full time positions, candidates should be fully dedicated to the tasks, hardworking, a self-starter, and responsive to project schedule demands. The firm will require a minimum of 4-12 years of related experience in both private development and public transportation improvement projects. Interested candidates should possess skills in bridge design, bridge inspection, bridge load rating and analysis, building design, structural modeling and analysis, construction engineering and detailing, and cost estimating. A firm understanding of current design codes for both horizontal and vertical construction and familiarity with IBC, MassDOT and NHDOT design development processes. AutoCAD experience is desirable. A BSCE degree (structural emphasis) and ability to obtain a PE licenses in MA and NH is required.

How to apply:

Email submission is strongly preferred.

Please send resume and cover letter to rdizoglio@theengineeringcorp.com

Or by mail: TEC, Inc.
65 Glenn Street
Lawrence, MA 01844

*You may also visit our website at www.theengineeringcorp.com and fill out our online application.





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