



President's Letter



First of all, I would like to wish you all a very Merry Christmas and a Happy New Year! I would also like to thank every member for contributing to a successful 2015. So many of you put in the extra hours and effort on top of your busy work and family schedules and that is greatly appreciated.

I am excited about the opportunities for growth and development that are coming in this New Year. As I mentioned at the December meeting, we have had some great feedback from over 54 participants to date in the SENH Survey. I promise, that unlike those political phone surveys, this will really only take a few minutes to fill out, and it will provide the BOD with insight as to how to proceed forward. The survey will

be closed January 8th. We will be compiling the results and I will include them in the next newsletter. The BOD will perform similar surveys in the future to gauge where everyone is at. I appreciate everyone who has already contributed.

One of the survey questions has brought to light the desire to have more training opportunities. We have a half day course set up with Simpson-Strong Tie for April 6, 2016. We have also approached NHDOT about hosting the Fracture Critical Inspection and/or the refresher course for In-depth bridge inspection this year. This is at the very earliest stages, but I wanted to let you know that we are listening and trying to provide more training opportunities. If you are aware of any training that you think would be beneficial to the membership please let us know.

I believe that gaining knowledge is powerful and it increases our opportunities for success. I also can't help but quote the cartoon *G.I Joe* after every episode, "Now you know, and knowing is half the battle." We, as structural engineers, are entrusted to use our knowledge coupled with accountability and judgment to provide safe solutions for the public in life and death situations. We have a great responsibility and the BOD is committed to providing as many training opportunities as possible.

Thank you again to all that currently volunteer! 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:

- *The next meeting is February 3rd. See inside for details.*
- *Call for Project Presentations—See page 2 for details.*

SENH Young Members Group.

PE/SE Licensing Discussion

The SENH YMG recently hosted a discussion based on PE / SE licensing at the offices of WSP/Parsons Brinkerhoff in Manchester. Chris Fournier, PE and Ross Wood, PE presented on the topic and fielded many questions. Topics included: Engineering Licensure in NH, PE vs. SE – which is best for you, the application process, exam preparation, exam tips and tricks, and what to do after the exam. The presentation slides are available in pdf format at the following link. <http://www.senh.org/wp-content/uploads/2015/11/SENH-YMG-PE-SE-Session-11-17-15.pdf>

Any follow-up questions can be directed to Chris Fournier at ymg@senh.org. We hope to hold this session every couple of years.

2016 Dues Renewal

It's that time of year again. This year SENH is proud to announce that there is no increase in dues and remains at \$55.00 for Members and Associate Members. Also, for any current FULL TIME Student Member the renewal fee of \$15.00 is being waived. Simply fill out the renewal form and mail it in to the address provided. A renewal form is included in this newsletter and can also be found at the SENH website. **Please note when filling out your renewal form please be sure to update your certifications.**

Corporate Advertisements

SENH is currently accepting corporate advertisements starting with the March 2016 newsletter. 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.

Call for Project Presentations

Overview

The SENH annual March meeting will be held at the University of New Hampshire (UNH) in Durham, NH. In planning our bi-monthly meetings, the Professional Development Committee (PDC) focuses on the number one reason that attracts participants – the education program. The SENH members will be allowed again to present projects at the upcoming annual March meeting.

Individuals who are interested in presenting and sharing their knowledge with the structural engineering profession are encouraged to **submit a proposal by Friday, January 22, 2016.**

Instructions for Submitting

Please submit the following information for the project presentation you wish to be considered:

- Short speaker bios
- Project presentation title
- A 200 word or less description of the project
- Completed project photographs, if available

Project Presentations Program Format

Presenters should plan to conduct 15 minutes of presentation followed by 5 minutes of Q&A (total time of 20 minutes), with no more than **two** presenters. Every effort shall be made to make the presentations educational without presenting any marketing material.

Submission Evaluation and Selection

The PDC will review, evaluate, and select submissions using the following criteria:

- Relevance to the profession of structural engineering
- Timeliness of the topic
- Subject matter appeal
- Speaker qualifications

Note: PDC will keep records of all presentations and presenters and will make every effort to not select the same member firm without first giving the opportunity to other member firms.

Please send submissions to PDC Chair, Josif Bicja (jbicja@hoyletanner.com).

Qualifications Based Selection (QBS) for Design Professionals: What is QBS and Why Owners Should Use It.

Design and construction projects can be complicated. Public and private owners make significant investments in projects of all types: buildings; site developments; utilities; transportation infrastructure and others. Maximizing value while maintaining project goals is often an owner's prime objective.

Most projects require design professionals to evaluate and conceptualize alternatives, prepare preliminary and final designs, procure contractors for construction, and represent the owner during construction. Among design professionals can be engineers, architects, surveyors, and landscape architects. Selection of the most effective and advantageous team of design professionals can be a critical part of a successful project. The team should have experience and background needed for the project, and have good ideas and approaches to project development and completion. They should also have the ability to establish effective working relationships with the owner and other project participants, and to work in an atmosphere of mutual trust and respect.

What is the best way to engage a design team that will best serve the owner's interests throughout a project, and assure the best value from a total project perspective? For many projects it's called Qualifications Based Selection, or QBS.

The QBS process focuses on the professional capabilities, experience, project design approach, schedule, and responsiveness to the owner's needs. Based on these attributes, the owner ranks firms and identifies the most preferred firm. With the preferred firm, the owner participates fully in the development of the alternatives to the approach for the design project's scope of work, schedules, and other aspects of the project. When there is a common understanding of the design scope and process, the design firm develops costs for these services, which are negotiated. The QBS process can best balance design costs with design objectives and scopes, recognizing that the cost of design is usually a small fraction of total project and life cycle costs. If an acceptable final contract cannot be established in the owner's interest and opinion, negotiation with the first firm ends and the owner negotiates with the next ranked firm.

A prime advantage for owners using the QBS process is that the owner maintains maximum control over the design process of the project, and the costs for design services. The costs for services are developed jointly between the owner and designer. When QBS is not used, and selection is made primarily on initial proposed costs (bids), there is often a disconnect between an owner's expectations and the services actually received, as designers are essentially encouraged to propose the least possible design effort, and not maximizing value over the entire project life. Again, design costs are often a small fraction of total project costs.

Key steps of the QBS process typically include:

- Issuance by the owner of a Request for Qualifications (RFQ) for professional design services. The RFQ will present the project, project requirements and objectives, requirements for responses, and an outline of criteria for selection;
- Submittal of qualifications packages by design teams of experience, capabilities, personnel, project understanding and approach;
- Interviews with most favorable firms (typically 3-4);
- Ranking of firms; and
- Negotiation of project elements, scope, costs, and contracts with the selected firm.

Central to the QBS approach are the interests of the owner. With this process, owners are best assured that they are provided with the right capabilities and project approach, responsiveness, good communication, mutual trust, management, quality control, and design excellence.

A common comparison to the selection of design professionals is how doctors or lawyers are chosen. If someone required major surgery, or had an important legal problem, would they send out for bids from doctors or lawyers, or would they seek a professional relationship based on capabilities, experience, and trust? Few would accept "low-bid surgery".

The QBS process is required for many projects by federal agencies, and for many state programs that use federal funding. This is because these governmental agencies understand that QBS of design professionals results in the most favorable overall project outcomes.

In New Hampshire, organizations of design professionals participate in the NH QBS Coalition, whose mission it is to promote the use of qualifications based selection, and to educate owners, funding and regulatory agencies on the advantages of the QBS process. Visit the NH QBS Coalition website at www.NHQBS.org. The member organizations of the coalition include the American Council of Engineering Companies-NH (ACEC-NH), the American Institute of Architects –NH (AIA-NH), Granite State Landscape Architects (GSLA), the NH Section of the American Society of Civil Engineers (NH-ASCE), the NH Society of Professional Engineers (NHSPE), Structural Engineers of NH (SENH), and the NH Land Surveyors Association (NHLSA).

William Straub, P.E., P.G. (wstraub@cmaengineers.com)
Jonathan Halle, AIA, ASLA (jh@warrenstreet.coop)
Co-Chairs, NH QBS Coalition

SENH FEBRUARY MEETING ANNOUNCEMENT

NEXT MEETING: Wednesday, February 3, 2016

PRESENTATIONS: **Longfellow Bridge Rehabilitation**, by *Mark Ennis, PE*



The Longfellow Bridge is considered to be one of the most historic bridge structures in New England. The Longfellow, also known as the “Salt and Pepper Bridge”, opened in 1906, and carries both roadway and MBTA Redline rail over the Charles River between Boston and Cambridge, Massachusetts. The presentation will provide an overview of the design and the construction performed to date on this \$255 million rehabilitation project. The work is being performed under a Design-Build Contract between MassDOT and a joint venture of White-Skanska-

Consigli (WSC). STV is the lead designer on the WSC team. The presentation will address the efforts made to preserve the historic character of the bridge, seismic upgrades being implemented to meet current Code, and the accelerated techniques being employed.

Longfellow Pedestrian Bridge, by *Marian Barth, PE*

As part of the Longfellow Rehabilitation Contract, WSC is also tasked with designing and constructing a new signature pedestrian bridge immediately adjacent to the Longfellow. The new pedestrian bridge will provide access over Storrow Drive to the Esplanade, where many summertime events are held, including the Boston July 4th fireworks celebration. A presentation will be provided to explain some of the unique structural features and design challenges of the Pedestrian Bridge, and how the structural team worked to realize the vision of the bridge architect.



SPEAKERS: **Mark Ennis, PE** – Vice President, STV Group Inc.

Mark has more than 20 years of experience with STV in working on structural and transportation engineering projects. Mark is a Professional Engineer (NH, MA) in structural engineering. He has a Bachelor of Science degree in Civil Engineering from University College Dublin and a Masters in Civil Engineering Degree from Old Dominion University. Mark leads the structural group in STV’s Boston office, and has managed several large transportation design projects including the Fore River Bridge Replacement Project and the Long Island Bridge Replacement Project. Mark is the Design Manager for the Longfellow Rehabilitation Project.

Marian Barth, PE – Senior Structural Engineer, STV Group Inc.

Marian has more than 20 years of experience with STV in working on structural and transportation engineering projects. Marian is a Professional Engineer (MA) in structural engineering. She has a Bachelor of Science Degree in Civil Engineering from Northeastern University and has a Master of Business Administration Degree from Babson College. Marian has been the lead design engineer on several large transportation projects, including the Di Tommasso Cable Stayed Bridge and the Westfield Great River Bridge projects. Marian is the Design Manager for the Longfellow Pedestrian Bridge.

SENH FEBRUARY MEETING ANNOUNCEMENT

- PLACE:** Grappone Conference Center
70 Constitution Ave. Concord, NH 03301
- DIRECTIONS:** Take I-93 to Exit 15W onto I-393 West. In ¼ mile, turn right onto Commercial St. Turn right to stay on Commercial St. Constitution Ave. and the Grappone Conference Center is 250 yards ahead on the right.
- AGENDA:** 5:30 pm – 6:30 pm Registration/Social Hour
6:30 pm – 7:15 pm Dinner
7:15 pm – 7:30 pm Business Meeting
7:30 pm – 8:30 pm Presentations
- DINNER:** Buffet with choice of Salmon with Lemon Caper Sauce or English Cut Prime Rib.
- COST:** SENH Member: \$50.00 Non-Member: \$55.00 Full Time Student: \$15.00 - 'no-shows' will be billed at full amount.
- RSVP:** by Wednesday, January 27, 2016. 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.

December Attendance List & Meeting Minutes

One World Trade Center
Manchester Country Club, Manchester, NH (2.0 PDH's)
December 17, 2015

Name		Name		Name	
Grigoriy	Androsov	Bob	Durfee	Ryan	McMullen
Alex	Azodi	Kyle	D'Urso	Linda	McNair-Perry
Eric	Baron	Lawrence	Dwyer	Michael	Mozer
Shannon	Beaumont, P. E.	Ryan	Dyer	Matt	Mullen
Cameron	Bellisle	Fred	Emanuel	John	Nadeau
Lily	Beyer	Joel	Fisher	Matthew	OBrien
Josif	Bicja, P. E.	Kimberly	Forance	William	O'Donnell
Charlotte	Bouvier	Christopher	Fournier	Eric	Ohanian
Stephen	Boyington	Thomas	French	John	O'Hearn
Theodore	Brackett	Jaime	French, P. E.	Theresa	O'Riorden
Ronald	Breton	Rebekah	Gaudreau	Robert	Perry
Jay	Brown	Roger	Gayer	Eric	Picard
Sean	Brown	Ian	Gervais	Chad	Poland
Wade	Brown	Derek	Gilbert	Marshall	Ramini
Robert	Busby	Anna	Giraldi, P. E.	Joshua	Reilly
John	Byatt, P. E.	Nevin	Gomez	Steve	Richard
Tim	Cady	Marc	Grenier	Mark	Richardson
Catherine	Carney	Scott	Hartford	Joseph	Ripley, E. I. T.
Nicholas	Caron, P. E.	Cris	Hawk-Farrin	Rich	Roberts
Robert	Champagne	Jeffrey	Karam	Paul	Sbacchi
Lauren	Chervincky	Roger	Keilig	Hugh	Scott
Gregory	Clauson, E. I. T.	Tom	Kilrain	Kimberly	Smith
Geoff	Conway	Ken	Koornneef	Rick	Stewart
Ethan	Cote	Aaron	Lachance, P. E.	Adam	Stockin
Lou	Cote	Tom	Lamb	John	Stockton
Nate	Cote	Michael	Larson	Jay	Sweet, P. E.
Scott	Coulombe	Paul	Lefebvre	Carter	Terry
Edward	Decelle	Josh	Lund	Thalia	Valkanos
Edward	Decelle	James	Macpherson	Drew	Vardakis
Steve	Delia	Brittany	Marshall	Katelyn	Welch
Tyler	Demers	Heidi	Marshall	Dan	White
Tom	Densford	James	Marshall	Sam	White
Marisa	DiBiaso	Ken	Marshall	Steve	Wolf
Keith	Donington	Sean	McDowell	Ross	Wood, P. E.

December Attendance List & Meeting Minutes

One World Trade Center
Manchester Country Club, Manchester, NH (2.0 PDH's)
December 17, 2015

Business Portion of the Meeting

- SENH President Adam Stockin opened the SENH business portion of the meeting.
- Adam quickly reported that SENH was in good financial standing.
- Adam reminded the members to participate in the distributed survey so the Board may receive feedback. Approximately 50 responses had already been received.
- Chris Fournier provided an update on the SENH Young Member Group.
 - ◇ The September kickball game between the SENH and ASCE YMGs went well, with SENH the victor by a score of 4 -2.
 - ◇ The SENH YMG held a PE/SE licensure discussion in preparation for the upcoming application deadline.
- Adam introduced the technical presentation.

Presentation

One World Trade Center, by Yoram Eilon, P.E.

The presentation began with some background on the tall building which WSP/Parsons Brinckerhoff have designed in the past and are currently working on. Photos of Ground Zero from 2001 were shared to provide some context for the presentation. The main part of the presentation discussed the design and construction of One World Trade Center (1WTC), which is the tallest of the four buildings planned as part of the Ground Zero reconstruction master plan for lower Manhattan. A brief review of the wind tunnel testing was provided as well as a review of the considerations for adjacent buildings in various states of design. The composition of the building structure was described including a concrete core with exterior steel moment frames. The challenges of the systems were reviewed including complex moment frame nodal elements and connections and concrete mix design control and considerations. Several questions were received from the audience and answered.

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Fred Emanuel, P.E.
President

Employment Opportunities

WSP | PARSONS BRINCKERHOFF

Senior Supervising Structural Engineer
Eliot, Maine

WSP and Parsons Brinckerhoff have combined and are now one of the world's leading engineering professional services consulting firms. We are based in more than 500 offices across 39 countries worldwide.

Parsons Brinckerhoff is seeking a Sr. Supervising Structural Engineer to work in our Eliot, ME Office. The candidate will be responsible for overseeing the structural design of bridge project assignments in Maine; coordinating with the Manchester, NH office to assist on projects in NH, VT, and MA, as well as developing new business and serving as a Client Manager for major Maine clients. A minimum of 15 years of experience is required.

This is an exciting opportunity to assist in the growth of Maine and NE operations, and assist in major New England project work for one of the largest engineering and design consulting firms in the country!

For a more detailed job description, please visit www.pbworld.com and visit our Career Center.

Please reference Job ID **28335**.

EOE - Minority / Female / Veteran / Disability / Sexual Orientation / Gender Identity



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