



# President's Letter



I would like to begin by introducing myself and this year's Officers. My name is Sean James and I am a structural engineer with Hoyle, Tanner & Associates, Inc. in Manchester. I've been fortunate to have had a variety of design challenges during my career to date including building design, treatment plant structures and parking garage rehabilitation, however my focus has been largely on bridge design and rehabilitation; covered bridges in particular. I have been a member of SENH since 1996, have been involved with a number of committees and now serve on the Board of Directors.

The SENH Board of Directors met in July and elected the following officers: President, Sean James, P.E., SECB—Vice-President, Ed Bergeron, P.E.—Treasurer, Kyle Roy, P.E.—Secretary, Norm Cote, P.E., SECB & Director at Large, Tony Coviello, P.E., S.E. You will note there have been some changes with past president Tony Coviello transitioning to the Director-at-Large position. I would like to take this opportunity to thank Tony for his leadership and look forward to working with him and the rest of the Board over the next year.

As I sat down to write this month's president's letter on a hot July day, several questions occurred to me; what should I write about?, who reads this letter - and why? I have, over the years, probably read a hundred or more of these types of columns, which is quite a bit different than having to write them yourself. The last two questions seemed the most important to me. My assumption is that our members read this letter to stay informed on what are seen as the important issues in our profession and in particular with Structural Engineers of New Hampshire.

One of the most important issues I see facing our organization is the need for volunteers. If you are new to SENH or unfamiliar with the organization, you may not realize that in addition to the Board of Directors, there are four committees and six positions that serve as liaisons to other groups. Volunteers serves all these roles.

SENH was built on a solid foundation of volunteerism and is the organization it is today because of it. The current Board has discussed strengthening existing commitments and expanding services to our members. This cannot be done by the same small group of volunteers time after time. The last few calls for volunteers have gone unanswered; not 1 volunteer out of a group of 170+.

### Inside this issue:

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### Special Points of Interest/ Reminders:

- *The next SENH Meeting is a joint meeting with ASCE. See inside for details.*
- *SENH has a limited number of mugs for sale for \$5 each. These white coffee mugs include a blue SENH logo.*

## Presidents Letter *continued from Page 1*

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In the next few months we will be asking for volunteers to assist in a variety of ways. People are needed to assist with existing committees, the web site, scholarship fund and to help strengthen ties with NHTI and UNH to name a few. No special skills are needed, just a desire to make a great organization stronger. I urge you to get involved, and you may be surprised at how little time it actually takes and how much you can receive in return. If you are willing to volunteer, please contact me by email at [sjames@hoyletanner.com](mailto:sjames@hoyletanner.com), by phone at (603) 669-5555 or feel free to contact any Board member. I look forward to working with you all during the upcoming year.



*Engineering is a great profession. There is the satisfaction of watching a figment of the imagination emerge through the aid of science to a plan on paper. Then it moves to realization in stone or metal or energy. Then it brings homes to men or women. Then it elevates the standard of living and adds to the comforts of life. This is the engineer's high privilege" - Herbert Hoover (1874-1964)*

## NCSEA 18th Annual Conference *Submitted by Robert H. Durfee, P.E.,*

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The National Council of Structural Engineer Associations (NCSEA) will be holding their 18<sup>th</sup> Annual Conference from Thursday, September 30 to Saturday, October 2<sup>nd</sup>, 2010. This year, the conference is being hosted by the New York member organization (SEA of NY), and will be held at the Hyatt Regency Hotel and Conference Center in Jersey City, New Jersey. The three (3) day conference will cover a variety of structural topics and technical sessions. Visit the NCSEA website ([www.ncsea.com](http://www.ncsea.com)) for conference agenda, registration and hotel information.

The SENH delegates to NCSEA, Bob Durfee and Alex Azodi, will be attending this years conference. Please contact Bob or Alex if you have any questions about the conference or questions about NCSEA.

## NCSEA Webinars *Submitted by Robert H. Durfee, P.E., SECB*

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The next Webinar to be offered by NCSEA is on Load Testing of Existing Structures, and will be held on Tuesday, August 17<sup>th</sup>. NCSEA webinars are a great way to obtain necessary training and expertise in many structural fields. Webinars are interactive, allowing participant to ask questions and receive real time responses. Visit the NCSEA website ([www.ncsea.com](http://www.ncsea.com)) for a complete listing of all the webinars scheduled for this year, and registration information.

## NCSEA Advocacy Committee *Submitted by Robert H. Durfee, P.E., SECB*

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The NCSEA Advocacy Committee is the largest, and most active of all the committees under the direction of the Board of Directors. There are five subcommittees within Advocacy:

- Clients & Prospects
- General Public & Media
- Regulators
- Students & Educators
- Website Development

Bob Durfee is Co-Chair of the Advocacy Committee and chairs the Regulators, Student & Educators and Website Development Subcommittees. Sarah McClendon (SEA of Ohio) co-chairs the Committee and the Clients & Prospect, and General Public & Media Subcommittees.

The Advocacy Committee is currently re-populating all six subcommittees. If you have an interest in working with any of these subcommittees, contact Bob Durfee.

# SENH SEPTEMBER MEETING ANNOUNCEMENT

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## SEPTEMBER MEETING ANNOUNCEMENT

### JOINT MEETING WITH STRUCTURAL ENGINEERS OF NEW HAMPSHIRE

ASCE Committee on Sustainability: Engineering for a Sustainable World

Date: September 21, 2010

Times & Events: 5:30 pm, Social Hour at the Puritan Backroom  
6:30 pm, Dinner at the Puritan Backroom  
7:00 pm, ASCE Committee on Sustainability: Engineering for a Sustainable World

Location: The Puritan Backroom  
245 Hooksett Road  
Manchester, NH 03104

Presenter: TBD from ASCE National's Committee on Sustainability

Synopsis: Presentation of the Sustainability certification of civil engineering projects and professionals being developed by ASCE's Committee on Sustainability. The ASCE Task Committee on Sustainable Design (TCSD), with the guidance and support of the ASCE leadership, recognizes that any well-planned and implemented civil engineering project in the near term will most likely include planning and design considerations for project sustainability and has worked to develop a new certification program for civil engineering projects similar to what LEED has done for building projects.

Meal & Cost: Buffet at the Puritan Backroom - \$45 ASCE/SENH members, \$45 Non-Members, and \$15 Student Members. No-shows will be invoiced for the cost of the dinner.

Reservations: Email preferred to [Jeffrey.Bjrz@lebcity.com](mailto:Jeffrey.Bjrz@lebcity.com) or by phone at 603-442-6147.

Reservation Deadline is **September 14, 2010**. Please send checks made payable to NH-ASCE by mail to:

Jeff Bjrz, P.E.  
City of Lebanon Public Works  
193 Dartmouth College Highway  
Lebanon, NH 03766

Directions: Puritan Backroom is located on the south side of Route 28/Highway 3/Hooksett Road approximately 1.3 miles southwest of I-93.

**Earn up to 2.0 Professional Development Hours (PDH)**

# SENH May 2010 Meeting Minutes

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## Business Portion of the Meeting

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1. SENH President Tony Coviello started the formal presentations with the business portion of the meeting.
2. SENH would like to provide a booth at the upcoming NH TechFest at Pinkerton Academy. The event is held in the fall and is geared towards high school students with an interest in math and science. In its inaugural year last year, the event drew over 700 visitors.
3. The PDC is finalizing two upcoming seminars. The first will be an update on the 2009 IBC code and the second is tentatively a bridge topic.
4. Tickets for an upcoming Fisher Cats game, donated by SFC Engineering Partnership, were raffled off to benefit the SENH Scholarship fund.

## Modeling, Analysis and Design of a Mixed Lateral System for Multistory Buildings, *by David Eckrote, P.E., Bentley*

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A brief summary of the presentation follows:

1. Davide Ecrote, P.E., Regional Engineer for Bentley presented Modeling, Analysis, Design of a Mixed Lateral System for Multistory Buildings.
2. Mr. Ecrote presented the RAM Structural System and RAM Elements.
3. He discussed the use of Integrated Structural Models in building projects and presented a demonstration of a previously completed model. The model was a building system that combined steel and masonry construction. the model was completed in Ram Frame and then imported.
4. The Integrated Structural Models utilize Open API service platform so that there is interoperability between competing programs.
5. The presentation was followed by a Q&A session.

**2.0 PDH's for the technical presentation was earned by attendees.** Respectfully submitted by Sean T. James, P.E., SECB, Secretary, SENH

# Attendance List

Modeling, Analysis and Design of a Mixed Lateral System for Multistory Buildings  
Sheraton Portsmouth Harborside Hotel  
(2.0 PDH's)  
May 12, 2010

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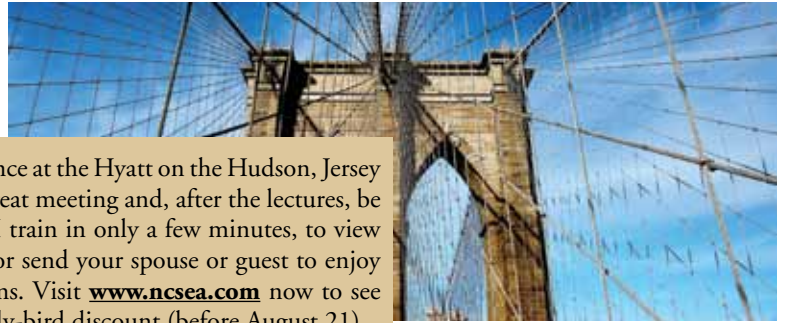
Name	Organization	Name	Organization
Matthew Allen, P.E.	JSN Associates, Inc.	Tom Kilrain, P.E.	Hoyle, Tanner & Assoc., Inc.
Josiah, H. Bartlett	Boise Structural Solutions	Paul Kirby, P.E.	The Louis Berger Group, Inc.
Jay H. Brown, P.E.	Structural Systems, Inc.	Stephen Kiss, P.E.	SAK Engineering
Robert S. Busby, P.E.	Kalwall Corporation	Aaron M. LaChance, P.E.	Stantec Consulting
Robert R. Bussiere, P.E.		Thomas E. Lamb	TFMoran, Inc.
Robert Champagne, P.E., SECB	Summit Engineering	Stephen R. Langevin, P.E.	TEC, Inc.
Geoffrey Conway, P.E.	Foley Buhl Roberts & Associates, Inc.	Josh Lund, P.E., SECB	Stantec
Tony Coviello, P.E.	Summit Engineering, PLLC	Nathan Maher, P.E.	JSN Associates, Inc.
Cheryl W. Coviello, P.E.	Vine Associates	Kenneth G. Marshall, P.E.	Foley Buhl Roberts & Associ- ates, Inc.
Edward F. Decelle	Structural Systems, Inc.	Jeffrey S. Nawrocki, P.E.	JSN Associates, Inc.
Sarah Desiderio, P.E.	JSN Associates, Inc.	Laurence J. Obrien, P.E.	Gelinas Structural Engineering, LLC
David Eckrote, P.E.	Bentley	Stephen Richard	Steffensen Engineering Assoc., Inc.
Roger W. Gayer, P.E.	Structures Unlimited, Inc.	Kyle Roy, P.E., SECB	TFMoran, Inc.
Dan L. Gelinas, P.E., SECB	Gelinas Structural Engineering, LLC	Hossein Salehkhrou, P.E.	JSN Associates, Inc.
Derek J. Gilbert, P.E.	Microdesk	Paul Sbacchi, P.E.	TFMoran, Inc.
Robert S. Hartford, P.E.	Kalwall Corporation	Peter Steffensen, P.E., SECB	Steffensen Engineering Assoc., Inc.
Sean James, P.E., SECB	Hoyle, Tanner & Assoc., Inc.	Jeffrey L. Tirey, P.E., SECB	Tirey & Associates, P.C.
Jeffery R. Karam, P.E.	Summit Engineering, PLLC	Andrew D. White, P.E., SECB	CCS Constructors, LLC

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# National Council of Structural Engineers Associations Eighteenth Annual Conference

September 30 – October 2, 2010  
Hyatt Regency on the Hudson  
Jersey City, New Jersey



Courtesy of Sarah McGee Photography.

Plan your fall to include the NCSEA Annual Conference at the Hyatt on the Hudson, Jersey City, NJ, September 30 – October 2, 2010. Enjoy a great meeting and, after the lectures, be able to cross the Hudson River via ferry or the PATH train in only a few minutes, to view construction at the site of One World Trade Center, or send your spouse or guest to enjoy sightseeing and mid-town shops, theatre and museums. Visit [www.ncsea.com](http://www.ncsea.com) now to see the full program and register in time to obtain the early-bird discount (before August 21).

## Don't Miss the Saturday Afternoon Plenary Session on NCSEA's 2011 – 2015 Strategic Plan

Discuss NCSEA Goals for the Future with the NCSEA Board

1. *Promote the Practice*
  - a. Promote to the Media and General Public
  - b. Promote to Structural Engineers
  - c. Promote to Students
  - d. Promote to Allied Professionals and Potential Clients
  - e. Promote to Regulators
  - f. Promote to Elected Officials
2. *Represent the Profession*
  - a. Increase our representation and effectiveness in influencing Building Codes and Standards
  - b. Strengthen our SEER Committee and its work
  - c. Strengthen the additional (other than CE) Membership Services and Programs provided
  - d. Provide effective Continuing Education programs
  - e. Broaden and strengthen our liaisons with related organizations
3. *Improve the Profession*
  - a. Obtain separate structural engineering licensure in all 50 states
  - b. Establish a structural engineering degree program in at least one University
  - c. Increase Member Organization Involvement in all states
  - d. Raise the Quality of Practice
  - e. Establish or regain qualification-based selection in 5 states
4. *Enhance Communication with the Member Organizations*
  - a. Annually determine MO's at-risk and develop an action plan to provide them with additional attention
  - b. Enhance MO communication thru semi-annual conference calls and Board Member liaison annual (or semi-annual) visits
  - c. Enhance communication thru NCSEA website improvements, the "MO Delegate Handbook", and monthly e-newsletters sent to all MO members
5. *Energize Committee Activity*
  - a. Write, or review and re-write, Committee charges and post on website
  - b. Select Effective Committee Chair for each Committee
  - c. Select Effective Committee Members
  - d. Improve Committee Operation Effectiveness
  - e. Increase Committee Communication
  - f. Increase Interaction Between BOD/Committees/Parallel MO Committees
  - g. Perform Committee Evaluation
6. *Ensure Financial Security*

## Exhibitors

- |  |                               |
|--|-------------------------------|
| American Institute of Steel Construction | LINDAPTER North America, Inc. |
| Azz Galvanizing Services                 | Singer Nelson Charlmers       |
| CMC Steel Products                       | Powers Fasteners              |
| Construction Tie Products                | QuakeWrap, Inc.               |
| ConXtech, Inc.                           | RedBuilt, LLC                 |
| CSC Inc                                  | RISA Technologies, LLC        |
| DESIGN DATA                              | SidePlate Systems, Inc.       |
| Fabreeka International Inc.              | Simpson Strong-Tie            |
| Fenner & Esler Professional Liability    | Steel Cast Connections LLC    |
| FYFE Company, LLC                        | Tekla, Inc.                   |
| Grace Construction Products              | TurnaSure LLC                 |
| Hardy Frames, Inc.                       | USP Structural Connectors     |
| Hilti                                    | Valmont Industries            |
| ITW Red Head                             | Vector Corrosion Technologies |
|  | Voight & Schweitzer, Inc.     |
|  | Wheeling Corrugating          |

## Sponsors

- |                              |                          |
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| Girder-Slab Technologies LLC | Friday Breakfast Sponsor |
| Steel Institute of New York  | Friday Lunch Sponsor     |

### PLATINUM

Steel Institute of New York

### GOLD

ACEC – New York  
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USP Structural Connectors

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Concrete Industry Board, Inc.  
ITW Red Head  
Nicholson & Galloway Inc.  
Powers Fasteners  
SE Solutions, LLC  
Skyline Steel  
West NY Restoration of CT  
Wheeling Corrugating  
Bentley Systems, Inc.

To become a sponsor of this event, please contact Erica Fischer ([ericacfisher@gmail.com](mailto:ericacfisher@gmail.com)) or Melissa ([Melissa@ncsea.com](mailto:Melissa@ncsea.com)).

# Next NCSEA Webinar August 17

Load Testing of Existing Structures – Presented by F. Dirk Heidbrink

This webinar will describe the current static load test procedure contained in Chapter 20 of ACI 318, provide information on the proposed quasi-static load test procedure to be included in the ACI 437 specification, and present a few load test case studies.

Load testing of an existing structure typically occurs when a building official calls into question the serviceability of a structure, a change in building usage occurs, or major modifications to the structural system are made. Procedures for conducting a static load test typically follow the requirements set forth in Chapter 20 of the American Concrete Institute ACI 318 – *Building Code Requirements for Structural Concrete and Commentary*. A new ACI code is currently in the development stages for repair of existing structures (ACI 562 – *Evaluation, Repair, and Rehabilitation of Concrete Buildings*). ACI Committee 437 – *Strength Evaluation of Existing Concrete Structures* is preparing a load test specification that is planned to be referenced in the new ACI 562 code. In addition to including the current 24-hour static

load test procedure, this new specification would also include an optional quasi-static load test wherein a series of increasing load increments are applied and removed to the structure using hydraulics in order to better understand its elastic and inelastic behavior.

The webinar will be presented by F. Dirk Heidbrink, Associate Principal with Wiss, Janney, Elstner Associates, Inc. (WJE) in Northbrook, Illinois. During his 30-year tenure at WJE, Mr. Heidbrink has conducted numerous load tests on existing structures. He is a licensed Professional Engineer in many states. Mr. Heidbrink has written articles and given presentations on load testing at ACI, ASCE, and International Structural Engineering and Construction conferences. He is an active member of ACI Committee 437 and a member of the subcommittee currently developing the load test specification.



## Upcoming NCSEA Webinars

<b>September 9, 2010:</b>	Wind Design for Storm Shelters and Critical Facilities – <i>Bill Coulbourne</i>
<b>September 14, 2010:</b>	Wood and Cold Formed Steel Trusses – <i>Ed Huston</i>
<b>October 19, 2010:</b>	ATC-58 – <i>Ron Hamburger</i>
<b>October 28, 2010:</b>	Design Considerations for Ponding Loads on Roofs – <i>Tom Wallace</i>
<b>November 9, 2010:</b>	Geometric Axis and Principal Axis Bending of Single Angles – <i>Whitney McNulty</i>
<b>November 4 &amp; 11, December 2 &amp; 9:</b>	Practical Design of Structures for Blast Effects – <i>Jon Schmidt</i>
<b>November 4, 2010:</b>	Design Criteria
<b>November 11, 2010:</b>	Design Methods 1
<b>December 2, 2010:</b>	Design Methods 2
<b>December 9, 2010:</b>	Progressive Collapse

## NCSEA has published a new design guide...

Purchase it from ICC's website today. Attend the course and receive the book onsite!

*Guide to the Design of Out-of-Plane Wall Anchorage:*  
Based on the 2006/2009 IBC and ASCE/SEI 7-05

**Course Instructor:** Timothy Wayne Mays, Ph.D., P.E. is President of SE/ES and an Associate Professor of Civil Engineering at The Citadel in Charleston, SC. Dr. Mays currently serves as Chairman of the Structural Technical Group for ASCE SC Section and NCSEA Publications Committee Chairman. He is a prolific speaker who sits on several code writing committees. His areas of expertise are code applications, structural design, seismic design, steel connections, structural dynamics, and civil engineering aspects of antiterrorism.

**Course Description:** The 2006/2009 *International Building Code (IBC)* and *ASCE/SEI 7-05* contain detailed design requirements for wall anchorage systems to resist out-of-plane wind and seismic load effects. However, the provisions are scattered throughout the code and/or referenced standards, are material specific, and are often challenging for practicing structural engineers to apply for many practical building configurations. Using concept oriented instruction, Dr. Mays breaks down the analysis and detailing requirements separately for seismic and wind anchorage. Structural walls, nonstructural walls, parapets, and cladding are each considered separately as related to governing

### Courses Scheduled For August 2010:

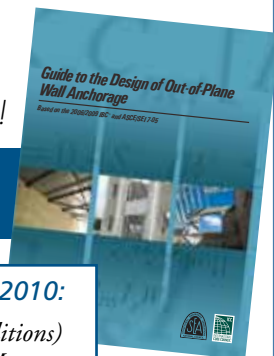
(Visit [www.ncsea.com](http://www.ncsea.com) for recent additions)

August 2, 2010 – Albuquerque, NM

August 5, 2010 – Little Rock, AR

August 9, 2010 – Atlanta, GA

provisions. Solutions for high wind areas, Seismic Design Category (SDC) B, and SDC D are provided for each problem presented in the course. Example anchorage problems for connecting concrete, masonry, timber, and precast walls/panels to diaphragms composed of various materials are presented. Special provisions for subdiaphragms, continuous ties/struts, pilasters, straps, eccentric connections, and wood ledgers are included. A detailing example for economical tilt up wall anchorage using just metal decking is presented. Comprehensive examples are provided for subdiaphragms composed of wood structural panel sheathing on wood framing and metal decking on steel joists. **If your member organization would like to schedule this 8 hour course, please contact Dr. Mays directly at [timothymays@bellsouth.net](mailto:timothymays@bellsouth.net).**





# SAVE THE DATE!

## Thursday, October 7<sup>th</sup> 2010

### *Mid August Registrations*

The NH Joint Engineering Societies  
Presents the 4<sup>th</sup> Annual Joint  
Engineering Societies Conference

The Executive Court Banquet Facility  
At the Yard  
Manchester, New Hampshire

#### Sponsored by:

American Council of Engineering Companies (ACEC-NH)  
American Society of Civil Engineers – NH Section (ASCE-NH)  
IEEE – New Hampshire Section (IEEE)  
New Hampshire Society of Professional Engineers (NHSPE)  
Society of Women Engineers, (SWE) and  
Structural Engineers of New Hampshire (SENH)

### *Forensics in Engineering – CSI of our Profession* (Tentative Schedule)

8:00-8:20 Registration / Sign in  
8:20-8:30 Welcome  
8:30-10:00 Session 1- J. Derald Morgan, PhD, PE “Introduction / Basics of Forensics - Utility Cases” (1.25 PDH)

10:00-10:15 **BREAK**  
10:15-11:45 Session 2- Scott Grainger, PE Grainger Consulting, Inc. “Fire Investigations” (1.25 PDH)  
11:45-1:15 Luncheon Speaker - Kathy Wheeler, PhD Independent Archeology Consulting, LLC  
“Archeology in Civil Engineering - Civil War Comes to the Spaulding” (1.00 PDH)

#### **TRACK A**

1:30-2:45 Session 3A – Paul Rizzo, PE – Rizzo Associates, Inc. “Dam Failure Investigations” (1.25 PDH)  
2:45-3:00 **BREAK**  
3:00-4:15 Session 4A - Mark Chauvin/Jeffrey Caldwell – WJE Assoc., Inc. “Failure Investigation Assessment Strategies used for the I-35, Bonner & Queen Isabella Bridge Collapse Investigations” (1.25 PDH)

#### **TRACK B**

1:30-2:45 Session 3B-Dennis Mullen, PE - PSNH “Utility Power Grid Failure” (1.25 PDH)  
2:45-3:00 **BREAK**  
3:00-4:15 Session 4B-“Timothy J. Pifer-NH State Police Forensic Laboratory Director  
“Technology, Case Studies & Challenges at NH’s Nationally Accredited Crime Laboratory” (1.25 PDH)

*(Total of 6 Professional Development Hours)*

**Corporate Sponsorships are available**  
**For more information**  
**E-Mail [programs@nhspe.org](mailto:programs@nhspe.org)**

**Or visit**  
**[www.nhjes.org](http://www.nhjes.org)**





**P.O. BOX 226  
MANCHESTER, NH 03105-0226**

**WWW.SENH.ORG**



Member of

**Mark Your Calendars for the  
Upcoming Dates of Future SENH  
Meetings:**

*Tuesday, September 21, 2010*

*Tuesday, November 16, 2010*

*Thursday, January 13, 2011*

*Tuesday, March 8, 2011*

*Tuesday, May 17, 2010*

**Board of Directors**

President	Sean James, P.E., SECB
Vice President	H. Edmond Bergeron, P.E.
Secretary	Normand Cote, P.E., SECB
Treasurer	Kyle Roy, P.E.
Director at Large	Tony Coviello, P.E.