

## Government Affairs and Professional Practice Committee

by AnaCristina Fragoso, Geotechnical Engineer, WSP and Government Affairs & Professional Practice Committee Chair

The BSCES Government Affairs and Professional Practice Committee (GA&PP) serves to extend the reach of our professional engineering expertise to those who develop and administer public policy affecting the built environment. Our goal is to educate and inform individuals in the public policy realm about issues that are important to our membership, to our communities, and to our Commonwealth. Toward that end, the GA&PP Committee participates in a number of activities throughout the year to engage state and federal legislative officials, as well as officials in the executive departments.

One of our key activities during the year is to participate in Engineers and Land Surveyors' Day, which will occur on May 15, 2018. This event provides the membership of BSCES with an opportunity to speak with their state legislators and/or their staff in a structured environment, with well-prepared materials explaining issues of interest to our profession. For those of our members who have participated, you are aware how important this event is for BSCES and the engineering community as a whole. For those of

you who have not participated, we strongly encourage you to take this rare opportunity to make sure your voice is heard as the Massachusetts House and Senate deliberate important legislation affecting our lives and livelihoods.

Another of our key events is participation in a similar event at the federal level. The American Society of Civil Engineers (ASCE) hosts an event where members from across the country participate in the Fly-In in Washington, DC. This year it was held on March 13 and 14. Participants attended small group briefings with the staffs of their members of House and the Senate. Like Engineers and Land Surveyors Day at the state level, meetings are scheduled for the participants. Briefing materials and position papers are provided by ASCE and an entire day is dedicated to presentations on the issues before Congress concerning the civil engineering industry.

The GA&PP Committee also provides an interface between the BSCES Legislative Fellow and the membership-at-large. This year, our Legislative Fellow is Byron Clemence, who has

*continued on page 2*

## President's Report

by Malek A. Al-Khatib, PE, Vice President, Louis Berger



Please mark your calendar and participate in the statewide representation of engineers and land surveyors at the Massachusetts State House. We are fortunate to have the Engineers and Land Surveyors Day at the State House on Tuesday, May 15, 2018. There is no financial cost to participate and a lot to gain.

You will join your colleagues and together meet with your state senator, state representative and/or their aides to discuss issues related to your profession and your community. Your elected

politicians are very interested in learning from you as their constituent and as a professional. Their aides will be interested in going through the details of issues you bring to them and they can benefit considerably from your technical capabilities, as well learning about the local issues that are of importance to you. These meetings will be arranged for you and your colleagues by The Engineering Center Education Trust (TECET).

Engineers and Land Surveyors Day at the State House is a free event BSCES has been involved with and sponsored for many years. On this day,

## UPCOMING EVENTS

*Southeastern MA Committee Workshop* May 4, 2018

*BSCES Program Committee Sponsored NHI Training* May 7-11, 2018

*SEI Boston Chapter Lectures (New Dates)* May 8 & 9, 2018

*Engineers and Land Surveyors Day at the State House* May 15, 2018

*GI Boston Chapter Dinner Meeting* May 16, 2018

*Younger Member Group/EWRI Boston Chapter Tour* May 22, 2018

*SEI Boston Chapter Dinner Meeting* May 23, 2018

*Younger Member Group Red Sox Outing* May 29, 2018

*2018 Joseph C. Lawler Lecture* May 30, 2018

*ASCE and BSCES Sponsored Seminar* Thursday - Friday, June 7-8, 2018

*BSCES Program Committee Sponsored NHI Training* December 10-21, 2018

*Further Details Inside*



## 2017-18 Society Sponsors:



Louis Berger



members of BSCES, the American Council of Engineering Companies of Massachusetts (ACEC/MA), and the Massachusetts Association of Land Surveyors and Civil Engineers (MALSCE), gather at the Massachusetts State House along with leaders from other engineering and design-related associations to advocate for engineering related laws and issues. In addition to BSCES, ACEC/MA, and MALSCE, the following organizations co-sponsor this event;

- Massachusetts Highway Association
- MMA Policy Committee on Public Works, Transportation and Public Utilities

*continued on page 5*

## 2017–18 BSCES Board of Government

President: Malek A. Al-Khatib, PE

President-Elect: Geoffrey B. Schwartz, PE

Secretary: Shallen C. Fitzgerald, PE

Treasurer: Robert L. Leger, PE

Assistant Treasurer: Gregory L. Mirliss

Senior Vice Presidents: Richard D. Maher, PE;  
Bruce L. Jacobs, PhD, PE

Vice Presidents: Christopher "Topher" Smith, PE;  
Charles W. Roberts, PE

Past President: Brian A. Morgan, Esq.

Western MA Branch Vice President: Vacant

### Institute Chapter & Technical Group Chairs

COPRI Boston Chapter: Ryan M. McCoy, PE

Construction Institute Boston Chapter: Hans T. Kuebler, EIT

Engineering Management Group: Jason R. Coy, PE

EWRI Boston Chapter: Ronald K. Burns, PE

Geo-Institute Boston Chapter: David W. Finocchio, PE

SEI Boston Chapter: Shahvir M. Vimadala, PE

T&DI Boston Chapter: Bryan Zimolka, PE

Younger Member Group: Jessica Wala, PE

### BSCES Newsletter Editorial Board

Malek A. Al-Khatib, [President@BSCES.org](mailto:President@BSCES.org)

Bonnie Ashworth, [bmcash@aol.com](mailto:bmcash@aol.com)

Ronald K. Burns, PE, LSP, [rburns@arcadia-tec.com](mailto:rburns@arcadia-tec.com)

John C. Cavanaro, PE, [JCavanaro@cavanaroconsulting.com](mailto:JCavanaro@cavanaroconsulting.com)

Annahid Dastgheib-Beheshti, EIT, [annahiddb@gmail.com](mailto:annahiddb@gmail.com)

Jessica DeBellis, PE, [jdebells@geiconsultants.com](mailto:jdebells@geiconsultants.com)

Michael R. Cunningham, PE, [MCunningham@kleinfelder.com](mailto:MCunningham@kleinfelder.com)

Shallen C. Fitzgerald, PE, [Secretary@BSCES.org](mailto:Secretary@BSCES.org)

Christopher P. Hersey, [christopher.hersey@skanska.com](mailto:christopher.hersey@skanska.com)

Richard F. Keenan, [rkeenan@engineers.org](mailto:rkeenan@engineers.org)

David M. Manugian, PE, [dmanugian@bedfordma.gov](mailto:dmanugian@bedfordma.gov)

Angus J. O'Leary, PE, [GOleary@kleinfelder.com](mailto:GOleary@kleinfelder.com)

Matthew I. Shuman, PE, [mshuman@watertown-ma.gov](mailto:mshuman@watertown-ma.gov)



### Boston Society of Civil Engineers Section/ASCE

The Engineering Center, One Walnut Street, Boston, MA 02108

Phone: 617/227-5551, Fax: 617/227-6783

Email: [bsces@engineers.org](mailto:bsces@engineers.org), Website: [www.bsces.org](http://www.bsces.org)

BSCES' newsletter, *BSCESNews*, is designed to provide information and opinion in regard to the subject matter covered. BSCES and its Board assume no responsibility for statements made or opinions expressed in this publication. It is published with the understanding that the Board and the authors are not engaged in rendering legal, accounting or other professional services. If assistance is required, the services of a competent professional should be sought. The Newsletter Editorial Board encourages reproduction of *BSCESNews* with appropriate acknowledgment. © 2018 BSCESNews.



Boston Society of Civil Engineers



## Government Affairs and Professional Practice Committee

*continued from page 1*

served in this role since March 28, 2017. Once the Legislative Fellow begins serving as a technical resource for the Joint Committee on Transportation, he or she is invited to participate in GA&PP meetings, providing insight on the current state of affairs on Beacon Hill. Of course, the Legislative Fellow is bound by confidentiality requirements, so their input must be limited to information that is not confidential in nature. Bryon will serve in this role through August 2018 and his monthly legislative updates may be read in this newsletter.

We have also begun to represent the voice of BSCES at the Regional Transportation Advisory Council, which is an independent body that brings public viewpoints and advice on transportation planning to the Boston Region MPO. Its membership includes municipalities, professional organizations, transportation advocacy groups, neighboring MPOs, and state agencies.

The primary focus of the GA&PP Committee has always been and continues to be the legislative and regulatory process of government. Throughout the year, the GA&PP Committee tracks legislative and regulatory initiatives, reviewing new proposals to determine their impact on the civil engineering profession and the built environment. Currently, the committee is tracking several initiatives including funding for water resources infrastructure, sustainability and resiliency, and public-private partnerships (P3) initiatives in the water resources domain.

Toward that end, on February 2nd GA&PP Committee also sponsored a breakfast meeting on Innovative Infrastructure Financing at the Harborside Room in the Federal Reserve Plaza. Joseph Aiello, partner & board member, Meridian Infrastructure, was our keynote speaker on the role of Public Private Partnerships used in Maryland's Purple Line Project. Sol Carbonell, Federal Reserve Bank, assistant vice

president, community development outreach, gave an enlightening presentation on the work done by the Federal Reserve Bank and for our communities. William Lyons, president & CEO, Fort Hill Companies, LLC, led a panel including Joe Aiello, Stephen Fitzroy and Tim McManus, with commentary from Grant Hauber, senior director of commuter rail strategy, MBTA.

Joe Aiello has been involved in numerous mega-projects in the public transportation sector in North America, including Boston's South Station Transportation Center. His presentation included a review of the Purple Line project, a highly complex project which was built through a public-private partnership (P3) that includes the design, build, finance, operation and maintenance. It is a 35-year concession agreement between the Maryland Department of Transportation and Maryland Transit Administration with Meridian, Fluor and Star America. Joe also provided an overview of the factors required for a successful procurement highlighting political will, risk, flexibility in innovative technical solutions, and implementing a supply contract and maintenance of the project.

During his comments, Stephen Fitzroy, executive vice president of EDR Group, and leader of the firm's highway and multi-modal transportation planning practice, discussed the economics that are involved in the decision to take on a project. Tim McManus, vice president of major projects, McKinsey & Company, covered long range capital investment programs requirements for government and private sector companies that plan, develop, and implement major infrastructure projects.

If any of our activities sound interesting to you, we would welcome your participation! The GA&PP Committee is always looking for new members. Anyone interested can contact me at [ac.fragoso@wsp.com](mailto:ac.fragoso@wsp.com) or at 617/459-8513.

### The Aldrich Center—where history and technology meet on Beacon Hill...



Two blocks from the State House and overlooking Boston Common, the Aldrich Center is the perfect venue for your next event. This historic building accommodates private functions and business meetings. BSCES members receive a 20% discount off our room rental rates.

Visit [www.aldrichcenter.org](http://www.aldrichcenter.org)  
for more information.

**Aldrich Center**  
ONE WALNUT STREET  
Beacon Hill Boston, MA

## License and Registration Please: Historic Trends in Massachusetts Professional Licensure

by Mike Cunningham, PE, Program Manager, Kleinfelder

The Engineering Center Education Trust (TECET) tracks engineering and surveying licensure in the state of Massachusetts. The data is provided by the state Division of Professional Licensure, Board of Registration of Professional Engineers and Land Surveyors. TECET compiles the data as a listing of the number of active licenses by year for 33 types of professional engineer licenses, for professional land surveyor licenses, and for naval architecture licenses (which is a booming field in recent years according to the data).

TECET has been tracking licensure annually in this format since 2003, and with its most recent update, now has fifteen years of licensure data. (Note that TECET was still verifying the 2017 data at the time its database was provided to the author). The following is a summary of interesting trends according to the data:

### Total Licensed Professional Engineers and Land Surveyors in Massachusetts

- The total number of licenses in 2017 was 16,678 versus 16,581 in 2003.
- The total has remained relatively constant since 2003 with a low of 15,229 in 2014 and a high of 17,144 in 2004. You will see in the individual statistics below that 2004 was a high year for most types of licenses.

These trends indicate that overall, professionals continue to become licensed at a rate that is replacing expiring licenses.

### Highest Number of Licenses

The following types of licenses have the highest numbers:

- **Civil engineer:** 6,874. This is the highest it has been since 2003 and represents an increase of 25 percent since then.

- **Mechanical engineer:** 2,580. This license reached a peak of 3,024 in 2004 and has been relatively constant since 2013.
- **Structural engineer:** 2,434. This license has been quite consistent since 2003, with very small fluctuations over the past 15 years.
- **Electrical engineer:** 2,021. This license reached a peak of 2,306 in 2004. The number in 2017 is the highest it has been since 2013.

These trends reveal the most common types of engineers, which is not surprising to most professionals in the industry. However, it is interesting to note that civil engineers outnumber the next largest type by over 2½ times!

### Upward Trends

Besides civil engineers, the following other licenses with smaller total numbers have increased since 2003:

- Architectural engineers, controls systems engineers, environmental engineers (203 in 2003 to 382 in 2017), and fire protection engineers.

### Downward Trends

- Sanitary engineers have decreased from 485 in 2004 to 277 in 2017, a 43-percent reduction since 2004.
- Chemical engineers have decreased from 435 in 2004 to 281 in 2017, a 35 percent reduction.
- Land surveyors have decreased from 1,173 in 2004 to 869 in 2017, the lowest total in the past 15 years. This is a 26 percent decrease since 2004.
- Many specialty types of licenses have seen significant decreases in the past 15 years relative to their low total number. These include: Aeronautical engineer, ceramic engineer, construction engineer, electronic

engineer (different from electrical engineer), highway engineer, heating and ventilation engineer, industrial engineer, marine engineer, metallurgical engineer, manufacturing engineer, nuclear engineer, plumbing engineer, quality engineer, safety engineer, traffic engineer, and transportation engineer.

The downward trends with respect to the engineering licenses could be from several different factors. It might be that the number of jobs in Massachusetts for these types of engineers has decreased in the past 15 years due to relocating industry or a lesser demand in this geography. It could also be that young professionals prefer licensure in a broader category under which they can still gain specialized expertise.

The downward trend in professional land surveyors is concerning as this professional service is integral to our industry, particularly during times of economic strength such as now. We are seeing increasing numbers of civil engineers, the category that works most with surveyors to execute projects.

### The Singles

The following license types only have one individual currently registered in Massachusetts:

- Architectural marine engineer, astronautical engineer, ceramic engineer, engineering physics engineer, highway engineer, quality engineer, and systems engineer.

### Go Figure

- The architectural marine engineer category has remained at one licensee since 2003.
- The naval architecture category, a seemingly similar sounding license, had just one license from 2003 to 2010, but then underwent a boom between 2011 and 2017. It increased from three to nine licensees in just five years!

**Career-focused.  
Success-driven.**

**MERRIMACK COLLEGE**



## MASTER OF SCIENCE IN ENGINEERING MANAGEMENT

- Evening classes
- Scholarships
- One year or part time
- Test scores optional

[merrimack.edu/engmgmt](http://merrimack.edu/engmgmt)  
[graduate@merrimack.edu](mailto:graduate@merrimack.edu)



## BSCES Legislative Fellow Update from Beacon Hill—190th Massachusetts Legislative Session

by Bryon S. Clemence, PE, 2017–2018 BSCES Legislative Fellow



This is a busy time at the State House. However, it can be hard to get up-to-date information on proposed legislation. The available information is often out of date.

I was told that H. 2777, the Governor's bill for state delegation of EPA's NPDES permit program, has been "sent to study," indicating it is effectively "dead." As I noted last month, the Joint Committee on Environment, Natural Resources and Agriculture reported favorably on H. 2139, and referred it to the House Committee on Ways and Means. Some see this as an alternative to H. 2777. It would require a study of the state's water pollution programs, including the NPDES permit program. The Legislature has until July to act on it.

The following bills also appear to be moving forward.

The House Committee on Bonding, Capital Expenditures and State Assets recommended that H. 4237 pass, with an amendment, and referred it to the House Committee on Ways and Means. Governor Baker filed this bill in February. It would authorize the Commonwealth to borrow \$200 million to fund improvements to municipally-owned roads and bridges through MGL Chapter 90 grants.

Governor Baker filed a bill last month regarding climate change adaptation, environmental and natural resource protection, and recreational assets (H. 4318). This legislation would codify the key principles of his Executive Order No. 569 for establishing an Integrated Climate Change Strategy for Massachusetts. It would provide over \$1.4 billion in in bond authorizations for infrastructure, integrated state hazard and climate adaptation planning

and municipal vulnerability assessment, a climate change science and data program, the Complete Streets Program, and natural resource protection. The Joint Committee on Environment, Natural Resources and Agriculture had scheduled a hearing for April.

The Legislature had considered other climate legislation last year. S. 2196 (originally S. 472) would require the Secretary of Energy and Environmental Affairs and the Secretary of Public Safety and Security to develop and adopt a Comprehensive Adaptation Management Plan to Address Climate Change and to revise it every five years. The Senate had passed this bill in November of 2017 and referred it to the House Committee on Ways and Means.

Governor Baker also filed an economic development bill last month that includes over \$610 million in bond authorizations (H. 4297). Of interest to civil engineers are \$50 million to partner with coastal communities to address saltwater dredging needs and \$50 million to stimulate economic development in the maritime economy sector and protect coastal assets vital to achieving those aims. The legislation would also authorize the Department of Conservation and Recreation to lease the state piers in New Bedford and Fall River to MassDevelopment to realize the potential of this coastal infrastructure. The Joint Committee on Economic Development and Emerging Technologies had scheduled a hearing for March 27.

The Joint Committee on Transportation is considering a bill that would require developers to design or install measures such as bollards to promote pedestrian safety in commercial developments (H. 3531).

The Joint Committee on Public Health reported favorably last month on a bill that would establish a study of health and noise impacts of

airplane flights on communities represented by the Massport Community Advisory Committee and referred it to the Senate Committee on Ways and Means (S. 1275). This bill covers the greater-Boston area and the city of Worcester.

The Massachusetts AV Working Group for autonomous vehicles has again rescheduled its next meeting to Thursday, May 3, from 10 AM to 12 Noon. It will hold the meeting in the State Transportation Building, in the 2nd floor boardroom, rather than the State House where it held previous meetings. A likely topic will be the pedestrian death that occurred last month during AV testing being conducted in Arizona.

Further information on specific bills is available on the [Legislature's website](#). There are links to legislators, bills, hearings, and session laws. You may contact me, as well, at [bclemence@verizon.net](mailto:bclemence@verizon.net).

### Become a BSCESNews Contributor

Would you like to contribute to the newsletter of the oldest civil engineering society in the country? The BSCES Newsletter Editorial Board is seeking members who are willing to write articles for publication in *BSCESNews* or to join the Editorial Board.

Typically 300 to 700 words, *BSCESNews* featured articles are about technical topics or professional matters of interest to civil engineers. The June 2018 issue of the newsletter for example, will highlight the ASCE Coasts, Oceans, ports and Rivers Institute Boston Chapter and feature one or more articles on the theme of Emergency Preparedness.

Editorial Board members meet monthly via conference call to plan upcoming issues of the newsletter. They also solicit, write and/or review newsletter articles.

For more information on how you can become a *BSCESNews* contributor contact BSCES Association Manager Rich Keenan at [rkeen@engineers.org](mailto:rkeen@engineers.org) or at 617/305-4110.

## Creating a Better Tomorrow

AECOM is a premier, fully integrated infrastructure firm, providing services to a broad range of markets, including transportation, facilities, environmental, energy, water, and government.

[www.aecom.com](http://www.aecom.com)

**AECOM**

## President's Report

*continued from page 1*

- MMA Policy Committee on Energy and the Environment
- Massachusetts Water Works Association (MWWA)
- Massachusetts Water Pollution Control Association (MWPCA)

This is an important and unique opportunity you will have to network with fellow engineers of other professional organizations, exchange information, and gain knowledge about issues that impact our profession, the Commonwealth's infrastructure, and the variables that determine how projects are planned, financed, moved forward, or deferred. This may be one of your best opportunities as a BSCES member.

- 1) You will join BSCE members and professionals at meetings in person with your state representatives and state senators based on where you vote.
- 2) You will learn so much from the politicians, your colleagues, and members of other organizations that it will support your everyday work and give you an important political perspective that will help form your professional and local decisions.
- 3) You will learn about BSCES's positions and support that advocacy.
- 4) You can share your local concerns as a citizen and as a professional. Elected officials receive hundreds of emails and petitions every day. However, social media and emails can never be a substitute for a face-to-face meeting with elected officials.
- 5) Your state senator and state representative or their staff will acknowledge your visit and address your concerns. More importantly, they know you in person and you will subsequently benefit from having direct access to them and their staff.
- 6) You will learn about your elected leaders' position on issues impacting your community and where they may need your support.
- 7) Network with other professional and expand your professional network, especially those who live in your community.

Please take the time to learn about those advocacy positions in advance by participating one of three planned briefing sessions. You will discuss the advocacy issues that are important to you and your profession and how to make the most of your May 15 meetings. The sessions are optional and free. You can attend a session which is being held at The Engineering Center,

One Walnut Street, Boston, 02108, or participate in the discussion via conference call. The sessions are scheduled for:

Thursday, May 10, 3:00 – 4:00 PM

Friday, May 11, 10:30 – 11:30 AM

Monday, May 14, 1:00 – 2:00 PM

Register early for Engineers and Land Surveyors Day at the State House to allow ample time for the scheduling of your meetings with your legislators. If you are new to this event and want to partner with others who have done this before, you will be paired up with engineers and land surveyors and join them for their legislative appointments. For group appointment with legislators, you and your fellow engineers will select speakers to lead the discussion with the elected officials while everybody supports each other in a very productive meeting discussing the issues.

Your vote is very important to your state legislators whose winning margins are sometimes less than one hundred votes. It is urgent that you become involved because:

- Your participation will make the difference how our infrastructure is financed, sustained, and improved.
- Your opinion and views will make the difference how your community needs; water, schools, parks, and services are addressed.
- Your involvement will determine whether there will be work for you and your fellow engineers in the future.
- Your representation and views will determine your salary in the coming years.

Please remember that;

- Local, state, and federal funds are always limited.
- There will always be projects and programs that will be deferred, if not eliminated, due to lack of funding.
- Other organizations and special interest groups are at full force at the state house lobbying for their programs and projects.
- Special interests are now casting doubts on projects and programs that are essential to your community and your state to divert funds to their interest.
- Your silence is a vote supporting the special interest groups.
- Your silence is a vote to freeze your salary, if not eliminating your job whether now or in the future.
- Your silence could be a vote supporting pollution in your community or more deterioration to your community schools.

Your family, your community, and your profession need you. We all need your opinion, your voice, and your action. Your vote and opinion are valuable, and you worked hard to deserve your credentials. Use it for the benefit of your family, your community, and your profession.

You can register for Engineers and Land Surveyors Day at the State House online. For more information contact TECET at 617/227-5551 or [tecet@engineers.org](mailto:tecet@engineers.org).

I mentioned last month that advancing in your career is not dependent on your technical knowledge and capabilities. Your political, environmental, and legal knowledge and understanding have more influence on your career than purely your technical capability. BSCES is providing the opportunity prepare our members for the legal, ethical, and business issues that are impacting our profession. We are enhancing your capabilities, technically, professionally, politically, and legally to be successful. Our members are advancing themselves and the industry with experience, knowledge and strategic influence. Becoming active in BSCES, active in your local community, and active on state or national professional committees related to your field of expertise is now an integral part of doing your job.

It is not a coincidence that the featured group for the newsletter is the BSCES Government Affairs & Professional Practice (GA&PP) Committee. This group is chaired by AnaCristina Fragoso from WSP. AnaCristina represents BSCES on the Regional Transportation Advisory Council and has advance in the council to be elected as the vice chair. Please be sure to read AnaCristina's report on the GA&PP Committee activities, which can be found on page 1.

BSCES will also ask you to vote in the coming 2018–2019 BSCES Board of Government and Nominating Committee elections. An email containing a hyperlink to an online ballot will be sent to subscribing members who are eligible to vote in the election of new leaders for the next year. Your vote as a member of BSCES is very important to us and we thank you for that.

Donations and sponsorship are lifelines for our organization. Our programs and activities remain viable with this important financial support. I'd like to once again thank our Society Sponsors and program sponsors for their commitment to our programming. In particular, I would like to thank AECOM, which is a Society Sponsor and the sponsor of this issue of *BSCESNews*. To simplify the donation process, please use the [Donate to BSCES](#) hyperlink on our website where you can donate any amount. Your individual donation is appreciated and, on behalf of the BSCE, I thank you for your support.



## BSCES Member Profile: Jessica Wala, PE, LEED AP ND, ENV SP

by Bonnie Ashworth, Quincy, MA

Congratulations to Jessica Wala who received the Younger Member Award at the 169th BSCES Annual Awards Dinner held on December 12, 2017. The award recognizes a member under 35 years old who has made an outstanding contribution to the BSCES. As cited in the awards program, Jessica has been a member of the Younger Member Group (YMG) since 2013 and has made many contributions to the group, BSCES, and the engineering community. Laurie Strickland, who nominated her for the YMG award, noted that: "Jessica's involvement in the YMG, her enthusiasm for the engineering profession, and commitment to learning make her a great candidate for the Younger Member Award."

Although Jessica comes from a family of engineers, she never felt pushed to pursue engineering. Her parents, both mechanical engineers in Boston today, and grandfather, studied and practiced engineering in Russia. She recalls sitting with her grandfather, who volunteered as an engineer in the Soviet Army during WWII, learning math well beyond what she was being taught in elementary school. Success in math early on directed her toward a STEM major, and she decided on civil engineering because of her interest in "the environment and what people can do to help curb the negative impact of human development."

Jessica earned her BS in Civil Engineering from Syracuse University in 2012 and got her Massachusetts PE license in civil engineering in 2016. She has achieved a number of certifications in her field that support her work and interests. She is a Leadership Energy and Environmental Design Accredited Professional (LEED AP) in Neighborhood Development (2013) and an Envision Sustainable Professional of the Institute for Sustainable Infrastructure (ISI ENV SP, 2014). She is OSHA certified and a Mass DEP Approved Soil Evaluator (2015).

Nitsch Engineering hired Jessica after her graduation from college, and she's now a project engineer. She works directly with clients and project managers to design site and infrastructure improvements for a wide range of public and private projects. Inter-



Jessica Wala is an impressive young woman that the BSCES is pleased to recognize with the 2017 YMG Award.

*"I have an interest in engaging young females in engineering through outreach activities. I hope that positive examples of females in leadership positions will inspire young females to learn more about the field of engineering, and to move away from common perceptions of who engineers are and what an engineer does day-to-day. My goal is to express the community, regional, and global impacts that a civil engineer can have throughout a career." —Jess Wala*

modal infrastructure improvements, which incorporate low-impact development approaches as well as stormwater best management practices for sustainable sites and green infrastructure, are the kinds of projects she's been involved with.

The term "stormwater" pops up frequently in the list of Jessica's key projects, and she enjoys "working on projects that offer an opportunity for innovative stormwater management approaches." One such project is the recently constructed public safety complex on a formerly tree-covered site in Scituate, a particularly challenging and rewarding project. The greatly expanded impervious area called for a "robust" stormwater management system. As she

explained, the site required designing: "gravel wetland systems and bioretention basins to mitigate for the increased runoff rates and to remove pollutants from the effluent stormwater, while mimicking the natural hydrology of the land."

Civil engineering services associated with other projects have included site layout design and grading; stormwater management design, including surface and subsurface infiltration systems, and low impact strategies; utility improvements; permitting and layout design of pedestrian areas, sidewalks, handicap access ramps, bike paths, and parking lots. Projects that Jessica has worked on requiring these various design services include reduction of pollution in the Rock Creek Sewershed in Washington, DC; a new charter school in Mattapan in Boston; two new buildings for the Coppersmith affordable housing development in East Boston; dormitory renovations at Babson College; a new town hall in Dracut; a mixed-used building on Mission Hill in Boston; a new technology and learning center at Bristol Community College; and urban gardens in Boston (see coauthored article, "Rainwater and the Fowler Clark Farm," published in the October 2017 BSCESNews).

Jessica has also been an extraordinarily active volunteer. She's been a member of ASCE since college and a member of BSCES since 2013, and a list of past and current professional affiliations includes the BSCES Student Chapter Committee, YMG, MIT liaison, and social media coordinator. Jessica is also a resident tutor at Harvard University's Lowell House where she serves as a sophomore academic advisor, resident tutor, arts tutor, and consent advocate and relationship educator (CARE) tutor. At Syracuse University, Jessica was affiliated with the National Society of Collegiate Scholars and Chi Epsilon civil engineering honors fraternity. In addition, she attends conferences and BSCES technical group events; has co-authored and presented technical papers; and managed the 2014 Introduce a Girl to Engineering Day hosted by Nitsch Engineering, which she continues to participate in, just to touch the surface of her commitment.

*continued on page 7*



**Simpson Gumpertz & Heger Inc. (SGH)** is a national engineering firm that designs, investigates, and rehabilitates structures and building enclosures. We are always looking for talented engineering candidates for all of our offices.

SGH is an equal opportunity employer and values diversity in our work force. We are committed to providing equal opportunities to all job applicants and employees. We consider all qualified applicants, and encourage individuals with disabilities and protected veterans to apply.

[www.sgh.com](http://www.sgh.com)

**SIMPSON GUMPERTZ & HEGER**

Engineering of Structures  
and Building Enclosures

Boston | Chicago | Houston | New York | San Francisco | Southern California | Washington, DC

## BSCES Member Profile: Jessica Wala *(continued from page 6)*

A perusal of Jessica's resume shows a young woman who is a hard worker both in her profession and volunteer activities. When asked how she fits everything into her day, she credits her employer, Nitsch Engineering, with offering valuable support and flexibility for her work and commitments to BSCES and other outside organizations. She's also learning to curb her natural tendency to say "yes" to every new opportunity that presents itself and to dedicate time to herself, husband, and friends, which can be a delicate balancing act at times. Jessica sought out a mentor at Nitsch, Jenn Johnson, because she was struck by Jenn's ability to balance complicated work projects, family, and involvement

in professional societies. Jessica has found her input and independent and reliable voice invaluable. Jessica feels it's important for young engineers to pay it forward. Her goal is to help K-12 students see the potential and excitement of a career in engineering. She was a guest on Civil Engineering Today and she and Reed Brockman discussed reaching out to the community, K-12 students, and college students to create a community of young civil engineers.

Jessica's proud that her work contributes to "observable improvements in our built and natural environment." She takes a broad view of the profession and offers her perspective: "As engi-

neers, we take a holistic view of a project design, budget, impact on the environment, impact on the community, and the region. Soft skills like communicating with, presenting to, and understanding clients and the community members are essential for an engineer to perform her job. As engineers we get to build out the infrastructure that people interact with and rely on daily."

Jessica's work with the YMG and dedication to so many other volunteer activities, her commitment to and enthusiasm for her career in civil engineering, and her worldview mark her as an outstanding young professional. The BSCES is proud to name her the recipient of the 2017 YMG Award.

## Stormwater Compliance & Climate Resiliency Workshop

by John C. Cavanaro, PE, Managing Principal, Cavanaro Consulting

One of today's most pressing issues for civil engineers is the management of nature's forces from the sky and sea. With that in mind, the Southeastern Massachusetts Committee (SEMAC) of BSCES will hold their 7th technical breakfast workshop event on Friday May 4, 2018 from 7:00 AM to 11:45 AM at the Municipal Office Building in Bridgewater, MA to learn more about the latest stormwater management design and regulatory compliance policies, as well as current trends in floodplain management and climate resiliency. Our featured guest speakers will include Danielle Spicer, PE, LEED AP, ENV SP, and Peter A. Richardson, PE, LEED AP, ENV SP, CFM, both of Green International Affiliates, Inc.

The presentation will focus on the methods/techniques for stormwater treatment and detention; site constraints that affect design, such as wetlands, endangered species, and protected habitat; low impact development design; and the latest update on regulatory compliance. Additionally, the talk will cover a review of the current trends and updates regarding floodplain management as it relates to

local, state and federal guidelines, as well as, the latest strategies to achieve climate resiliency.

In addition to periodic workshops, SEMAC holds monthly lunch meetings on the third Friday of the month on the South Shore and extends an open invitation to all interested parties. Please contact any of the folks below for additional information on becoming active in the SEMAC.

Gregory Driscoll, PE, Committee Chair  
[gdriscoll@jacobsdriscoll.com](mailto:gdriscoll@jacobsdriscoll.com)

Charles Gross, PE, Committee Vice Chair  
[chgpelc@me.com](mailto:chgpelc@me.com)

John Cavanaro, PE, Committee Clerk/Secretary  
[jcavanaro@cavanaroconsulting.com](mailto:jcavanaro@cavanaroconsulting.com)

Azu Etoniru, SE, PE, PLS, Past Chair  
[aetoniru@etengineering.com](mailto:aetoniru@etengineering.com)

Northeastern University



### Department of Civil and Environmental Engineering

Study Urban Engineering at Northeastern University

#### Full-time and Part-time Graduate Programs in:

- Construction Management
- Environmental and Water Systems
- Environmental Engineering
- Geotechnical Engineering
- Structural Engineering
- Sustainable Building Systems
- Transportation Engineering
- Engineering and Public Policy

**Interdisciplinary research and education thrusts include:**

**Civil Infrastructure Security**

**Environmental Health**

**Sustainable Resource Engineering**

*For more information, contact*

Northeastern University Department of  
Civil and Environmental Engineering

617-373-2444 | [civilinfo@coe.neu.edu](mailto:civilinfo@coe.neu.edu) | [www.civ.neu.edu](http://www.civ.neu.edu)

## Recent News and Updates

### Renew Your BSCES Membership for 2018!

If you haven't done so already, please renew your BSCES membership. Thank you!

### BSCES Welcomes its New Members

The BSCES Board of Government is pleased to welcome the following new members who joined BSCES in February and March 2018:

#### Affiliates

Brian Cullinan, BSC Group

Marc Gabriel, Nitsch Engineering

#### Associates

Courtney Bekwith, EIT, Medfield, MA

Kate England, Boston Water and Sewer Commission

Sean McAuliffe, Boylston, MA

Zachary Joseph Miles, EIT, BSC Group

John Simkus, EIT, North Oxford, MA

#### Members

Jenna N. Diamond, PE, Kleinfelder

Robert Forbes, PE, Zenith Consulting Engineers, LLC

Brian Mellen, PE, Norfolk, MA

Sabine Quinn, PE, WSP

Stephan P. Shea, PE, Kleinfelder

Jonathan Smith, PE, Jacobs Engineering Group

#### Students

Mounzer Abdallah, Merrimack College

Sanjana Alex, Northeastern University

Alwalid A. Aljohani, Wentworth Institute of Technology

Andrew L. Allain, University of Massachusetts Dartmouth

Cole Q. Armstrong, Western New England University

Nayana A. Bob, University of Massachusetts Lowell

Meshkat Botshekan, University of Massachusetts Dartmouth

Brendan Briggs, Wentworth Institute of Technology

Cody Buckman, University of New Hampshire

Hugh J. Calice, Merrimack College

Matthew R. Carrier, University of Massachusetts Amherst

Keyu Chen, Northeastern University

Stephanie Chin, Massachusetts Institute of Technology

Enri Cobani, Wentworth Institute of Technology

Demetri Dorceus, Rensselaer Polytechnic Institute

Ekaterina Drizik, Institute of Architecture and Civil Engineering of Volgograd

Adrianna M. Early, University of Massachusetts Amherst

Lee F. Faraca, California Polytechnic State University, San Luis Obispo

Robert F. Feltes, University of Massachusetts Lowell

Christopher Fontaine, University of Massachusetts Amherst

Joshua Fournier, Wentworth Institute of Technology

Timothy D. Griffin, University of Rhode Island

Januka Gyawali, University of Massachusetts Amherst

Antoine Harris, Worcester Polytechnic Institute

Christopher M. Hartford, Worcester Polytechnic Institute

Patrick Kennes, University of Massachusetts Amherst

Julia King, University of New Hampshire

Timmy K. Lewis, Northeastern University

Benjamin T. Lilly, University of Rhode Island

Joshua Loomis, Western New England University

Justin M. Lopilato, Northeastern University

Philip McHenry, University of New Hampshire

Naomi Meiselman, Johns Hopkins University

Bridget H. Murphy, University of Massachusetts Amherst

Adam Nabulsi, Suffolk University & Law School

Hai T. Nguyen, Middlesex Community College

Nicole R. O'Connor, Bucknell University

Brennan J. O'Neil, University of Vermont

Shreyas M. Ovalekar Western New England University

Brandon V. Palermo, University of Vermont

Grace E. Perry, University of Massachusetts Dartmouth

Aidan Q. Provost, University of Massachusetts Amherst

Chelsie Raleigh, Western New England University

Michelle M. Rame, Western New England University

Sofia Reyes, Worcester Polytechnic Institute

Venkata Sai Tarun Uppala, Northeastern University

Anthony F. Sanfilippo, University of Massachusetts Amherst

Alejandra Santos, Worcester Polytechnic Institute  
Joseph T. Santos, Springfield Technical Community College

Elal Segev, Northeastern University

Aakash Shah, Northeastern University

Shaival Shah, Northeastern University

Marina Schmid, Wentworth Institute of Technology

Joshua Soper, University of Massachusetts Amherst

Evan A. Springer, Purdue University

Rory Stimpson, University of Massachusetts Lowell

Megan E., Taylor, Rensselaer Polytechnic Institute

Travis Van Brewer, Tufts University

Jacob Wagner, University of Massachusetts Amherst

Samantha Wile, Worcester Polytechnic Institute

Kristophe N. Zephyrin, Worcester Polytechnic Institute

### Peter Richardson Testifies before Boston City Council

Peter Richardson, executive vice president at Green International Affiliates, Inc. and past-president of the Boston Society of Civil Engineers Section/ASCE (BSCES) provided testimony as part of an expert panel invited to attend the Boston City Council's



BSCES Past President Peter Richardson (second from left) testifies at the Boston City Council hearing on recent flooding and climate change.

hearing on recent flooding and climate change on March 26th. Peter testified on behalf of BSCES and discussed ASCE's 2017 Infrastructure Report Card and his February 2018 *BSCESNews* article about the significant benefits associated with flood mitigation investment.

### 2018 ASCE Election Ballot Released

ASCE has released their 2018 election ballot to members at the beginning of March. Online voting opens May 1 and closes June 1. Members at the grade of Associate and above in good standing as of April 1 will be eligible to vote. The online ballot will display the contests members are eligible to vote for, based on the region they live in, and in the case of technical region director if they are members of an ASCE Institute. For more information or to view the online ballot, [click here](#).

### Dream Big

ASCE, with support from the United Engineering Foundation, has set the ambitious goal of putting a copy of the Dream Big movie and toolkit in every public school in the US. They received a grant already to cover costs for every high school in the US, but they are now trying to get the DVD into elementary and middle schools. Individuals can help with this initiative. Give \$5 to the public school of your choice and a toolkit will be sent with the following:

1. A DVD of the full-length feature film in English, French, Spanish and closed captioned, licensed for educational screenings only
2. The complete teacher's guide
3. All companion videos
4. Downloadable files for classroom use

[Click here](#) for more information and to search for your school! *[continued on page 9](#)*

**SEND US YOUR NEWS!** Looking to strengthen the community that is BSCES, the BSCES Executive Committee and Newsletter Editorial Board has decided to expand the content of this *BSCESNews* Recent News and Updates column by including more member news. Have you recently been recognized for a professional accomplishment, passed the Professional Engineer Exam, received a promotion, or changed employers? If so, send your news items to BSCES Association Manager, Rich Keenan, [rkeenan@bsces.org](mailto:rkeenan@bsces.org).



## Recent News and Updates *(continued from page 8)*

### Giving Back to the Community

Have you been looking for a way to give back to your community? If so, consider donating your services through the Community Engineering Corps! CE Corps was started in 2014 as an alliance between ASCE, the American Water Works Association, and Engineers Without Borders USA, as a means of connecting volunteer expert engineers with underserved communities around the country needing help with their infrastructure projects. There are several ongoing CE Corps projects in the United States. ASCE members can volunteer independently or take part through an initiative of their Section, Branch, or Student Chapter. As a leader, why not have your group join forces with a [CE Corps project](#)?

### When Members Recruit New Members, We All Win

ASCE's mission is to provide essential value to its members and partners, advance civil engineering,

and serve the public good. Expanding the world's largest professional civil engineering network helps sustain the mission. The Member Get a Member referral program provides members with rewards for recruiting new members. Encourage your peers who are not already members to join ASCE today. [Click here](#) to learn more about this program and the member referral rewards.

### Buyukozturk Wins ASCE Housner Medal

Dr. Oral Buyukozturk, PhD, a professor at MIT, was been selected by the ASCE Engineering Mechanics Institute to receive the 2018 George W. Housner Structural Control and Monitoring Medal for "Pioneering and transformative developments in video-based structural sensing and identification, interferometry-based data analytics, high-efficiency generic wireless networks, and their integration with groundbreaking engineering mechanics research and practice for enhancing civil

infrastructural resilience and sustainability." Established in 2011 and named after ASCE member and California Institute of Technology Professor George W. Housner, the Housner Medal is awarded annually to one individual in recognition of outstanding research contributions to the broad field of structural control and health monitoring. Congratulations Oral!

### Peterman Wins ASCE Norman Medal

Dr. Kara D. Peterman, PhD, EIT, an assistant professor at the University of Massachusetts Amherst, was selected by the ASCE Society Awards Committee to receive the 2018 Norman Medal for the paper "Experimental Seismic Response of a Full-Scale Cold-Formed Steel-Framed Building. 1: System-Level Response," published in the *Journal of Structural Engineering*, December 2016. Endowed in 1892 by ASCE member George H. Norman, the Norman Medal recognizes a paper that contributes to either practical or research aspects of engineering disciplines. Congratulations Kara!

## Upcoming Events

For more information and to register for events, please visit [www.bsces.org](http://www.bsces.org)

To register online for an event at the BSCES member rate you must login using your BSCES assigned username and password. If you do not know your BSCES member login information, call 617/227-5551.

### Southeastern Massachusetts Committee Workshop

**Friday, May 4, 2018**

Bridgewater Municipal Building  
Bridgewater, MA

Registration & Breakfast 7:00 – 7:45 AM  
Presentation 7:45 – 11:45 AM

### Stormwater & Floodplain Management Workshop

Danielle Spicer, PE, LEED AP, ENV SP, Senior Project Manager, Green International Affiliates, Inc.  
Peter A. Richardson, PE, LEED AP, ENV SP, CFM, Executive Vice President, Green International Affiliates, Inc.

This workshop was developed for engineers, land surveyors, project managers, and planners who are involved in stormwater and floodplain management for both private property development and public infrastructure design, development, operation and maintenance.

Presentation topics include an overview of design considerations, applications, methods/techniques for treatment & detention; wetlands impact and regulatory considerations; floodplain assessment, strategies, elevation certificates, and FEMA oversight.

*Please see the Insert at the end of this month's newsletter for further details.*

### BSCES Program Committee Sponsored NHI Training

**Monday – Friday, May 7 – 11, 2018**

Hilton Garden Inn Worcester  
35 Major Taylor Boulevard, Worcester, MA  
8:00 AM – 4:30 PM

### FHWA-NHI-130110 Tunnel Safety Inspection

This five-day course is highly interactive and builds upon participants' prior knowledge of tunnel and/or bridge inspection. The course

covers the entire breadth of knowledge necessary to manage or execute a successful tunnel inspection based on the National Tunnel Inspection Standards (NTIS), Tunnel Operations, Maintenance, Inspection and Evaluation (TOMIE) Manual and Specifications for the National Tunnel Inventory (SNTI). During the course, the instructor will lead participants through a series of case studies and a virtual tunnel inspection. Please note that to take this course, participants must show that they have passed one of the following prerequisite courses: FHWA-NHI-130054, Engineering Concepts for Bridge Inspectors; FHWA-NHI-130101, Introduction to Safety Inspection of In-Service Bridges; or FHWA-NHI-130101A, Prerequisite Assessment for Safety Inspection of In-Service Bridges.

*Please see the Insert at the end of this month's newsletter for further details.*

*continued on page 10*

### 2017–2018 BSCES Program Sponsors

Alfred Benesch & Co. | BSC Group | Childs Engineering Corporation | Cianbro Corporation | GEI Consultants, Inc.  
Green International Affiliates, Inc. | Haley & Aldrich, Inc. | Hayward Baker | Helical Drilling | Howard Stein Hudson | Hoyle, Tanner & Associates  
Massport | McMillen Jacobs Associates | Nitsch Engineering | Department of Civil and Environmental Engineering, Northeastern University  
Skanska Civil | Tufts University | VHB | Weston & Sampson Engineers, Inc.

## Upcoming Events *(continued from page 9)*

### SEI Boston Chapter Lectures (New Dates)

#### Steel Bridge Coatings Lectures

Tuesday & Wednesday, May 8 – 9, 2018

AECOM, Boston, MA

#### Day 1: Tuesday, May 8, 2018

Kenneth A. Trimmer, President, KTA-Tator, Inc.

##### Session 1:

Corrosion Control Using Protective Coatings

##### Session 2:

Bridge Coating Maintenance Strategies

##### Session 3:

Coating System Selection for Steel Bridges

#### Day 2: Tuesday, May 9, 2018

William D. Corbett, Chief Operating Officer, KTA-Tator, Inc.

Michael Hewins, Coatings Engineer, Massachusetts Department of Transportation

##### Session 4:

Surface Preparation Methods & Standards

##### Session 5:

Quality Assurance & Quality Control

##### Session 6:

Coating Specifications & MassDOT's Approach to Protection of Steel Structures

*Please see the Insert at the end of this month's newsletter for further details.*

### Government Affairs & Professional Practice Committee Supported Event—Engineers and Land Surveyors Day at the State House

#### Tuesday, May 15, 2018

Massachusetts State House, Boston, MA

Engineers, land surveyors, public works professionals and other design professionals will meet with Massachusetts state legislators at the State House May 15, 2018. This is a chance for you to meet with your state representative and state senator to discuss issues pertinent to our industry, to you as an individual professional, and to you as a citizen.

*Click here for further details, or to register for Engineers and Land Surveyors Day at the State*

### GI Boston Chapter Dinner Meeting

#### Wednesday, May 16, 2018

Tufts University, Medford, MA

5:30-9:30 PM

#### Crossrail

Chris Dulake, FEng, Former Chief Engineer, Crossrail London; Currently Major Projects Portfolio Director, Mott MacDonald

Crossrail, the largest infrastructure project in Europe, is rapidly nearing completion. This £15 billion (\$20 billion) railway has been constructed under the most expensive property in Europe, minimizing disruption to London and placing public safety at the forefront of planning, design and delivery of the project. This presentation will present the journey for the delivery of the civil engineering and tunneling works and some of the lessons learned through the design and construction phase.

*Please see the Insert at the end of this month's newsletter for further details*

### Younger Member Group/EWRI Boston Chapter USS Constitution Tour

#### Tuesday, May 22, 2018

Charlestown Navy Yard, Chalestown, MA

5:30 PM, Followed by a social at Ironside Grill

A national icon for more than 200 years, the USS Constitution has had a long and illustrious career. Explore her service from the beginning to the present day- and everything in between! This tour will have a particular engineering focus, special for our group.

*Please see the Insert at the end of this month's newsletter for further details*

### SEI Boston Chapter Dinner Meeting

#### Wednesday, May 23, 2018

Wyndham Boston Beacon Hill  
5 Blossom Street, Boston, MA

6:00 PM

#### Doing Business with Massport

Sam Sleiman, PE CCM, Director, Capital Programs & Environmental Affairs, Massachusetts Port Authority

Join the Structural Engineering Institute Boston Chapter at its May dinner meeting featuring the presentation Doing Business with Massport. The presentation will provide an overview of current and upcoming Massport strategic projects, their consultant and construction selection process, make-up of their typical

design and engineering teams, and Massport's major initiatives, procedures, and expectations for the delivery of a successful project.

*Please see the Insert at the end of this month's newsletter for further details*

### Younger Member Group Red Sox Game & Social

#### Tuesday, May 29, 2018

Fenway Park, Boston, MA

Pregame social 6:00 PM

Game 7:10 PM

Join the Younger Member Group Boston Chapter to watch the Boston Red Sox play the Toronto Blue Jays! Details for the pregame social will be emailed to the group two weeks prior to the game. Food will be included at the social.

*Please see the Insert at the end of this month's newsletter for further details.*

*continued on page 11*

## Register Today!

### Monday, June 18, 2018

#### Golf Tournament to Benefit The Engineering Center Education Trust

Shaker Hills Country Club, Harvard, MA

9:30 AM Registration

11:00 AM Shotgun Start

4:30 PM Reception

5:30 PM Dinner & Awards

All proceeds benefit The Engineering Center Education Trust and our mission to support engineering through professional development, student outreach, and public awareness.

*Click here to register for this event.*

## ASCE Webinars

ASCE WEBINARS

### SUPPORT OUR SECTION

Use WEBBOSSEC to have  
**20% of your purchase**  
donated to our Section.

ASCE | CONTINUING EDUCATION

Are you planning to take an ASCE webinar? Sign up with the code WEBBOSSEC and 20% of your registration fee will be donated to the Boston Society of Civil Engineers Section/ASCE.

*For a full listing of ASCE Webinars, [click here](#).*

## Upcoming Events *(continued from page 10)*

### 2018 Joseph C. Lawler Lecture— Engineering Management Group Special Fund Event

**Wednesday, May 30, 2018**

The Fairmont Copley Plaza, Boston, MA

6:00 PM Social/Registration

6:45 PM Meal; Presentation to Follow

#### Megaprojects and Risk

*John Reilly, PE, CPEng, BE, MS, President, John Reilly Associates International*

The 2018 Lawler Lecture will address what we have learned from 50 years of megaprojects, focusing on processes and tools necessary for success. These include strategies, stakeholder management, team-alignment and partnering, alternative contracting and delivery methods, cost validation, probabilistic risk-based cost estimating and advanced risk management.

*Please see the Insert at the end of this month's newsletter for further details.*

### ASCE and BSCES Sponsored Seminar

**Thursday – Friday, June 7-8, 2016**

Embassy Suites By Hilton Boston  
at Logan Airport, Boston, MA

8:00 AM – 5:00 PM

#### Construction Administration for Engineers

*Wayne D. Reynolds, P.E., M.ASCE*

This seminar gives practical guidance on construction project administration, field management, and claims avoidance. In two intensive days, you will follow the construction process from the preconstruction phase through project closeout, learning procedures, contract provisions, and rules of conduct that will help minimize and resolve claims and disputes. Information technology tools that can be used to assure a smooth flowing project will also be discussed.

*Please register for this event online.*

### BSCES Program Committee Sponsored NHI Training

**Monday – Friday, December 10 – 21, 2018**

Hilton Garden Inn Worcester

35 Major Taylor Boulevard, Worcester, MA

8:00 AM – 4:30 PM

#### FHWA-NHI-130055 Safety Inspection of In-Service Bridges

This two-week course is based on the 2012 FHWA "Bridge Inspector's Reference Manual" (BIRM) and provides training on the safety inspection of in-service highway bridges. Satisfactory completion of this course will fulfill the training requirements of the National Bridge Inspection Standards (NBIS) for a comprehensive training course. This course is not geared towards fracture critical, underwater, or complex structures. All participants must show that they passed either of the following pre-requisite courses: FHWA-NHI-130101, Introduction to Safety Inspection of In-Service Bridges or FHWA-NHI-130054 Engineering Concepts for Bridge Inspectors.

*Please see the Insert at the end of this month's newsletter for further details.*

## Classifieds



Entry level **STAFF ENGINEER** wanted for Horsley Witten Group Boston office with Bachelors' degree in civil engineering; Engineer in Training (EIT) certification or ability to obtain within 12 months; proficiency in AutoCAD, including AutoCAD Civil 3D; Knowledge of hydrology, hydraulics and related modeling software (e.g., HydroCAD, EPA SWMM, HEC-HSM or other software); Experience with ArcGIS; field work; good written and verbal communication skills;

**Email résumés and cover letters to [hwinfo@horsleywitten.com](mailto:hwinfo@horsleywitten.com).**

*Horsley Witten Group, Inc. is an Equal Opportunity Employer. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, veteran status or disability.*



The Town of Needham is looking for an experienced professional to assume the position of **SENIOR PROJECT MANAGER** in its Building Design and Construction Department.

Salary range for this position is \$ 91,581 to \$ 113,561 commensurate with experience.

**For further information please visit the town's website: [www.needhamma.gov/jobs.aspx](http://www.needhamma.gov/jobs.aspx) under Employment.**

Applications to be mailed to Human Resources, Town of Needham, 1471 Highland Ave, Needham, MA 02492.

**The deadline for application is 5 PM, May 18, 2018.**



2017-2018  
Society Sponsors

AECOM  
CDM Smith  
EarthSoft  
GZA  
Louis Berger  
Robinson + Cole LLP

2017-2018  
Program Sponsors  
Alfred Benesch & Co.  
BSC Group  
Childs Engineering Corporation  
GEI Consultants, Inc.  
Green International Affiliates, Inc.  
Haley & Aldrich, Inc.  
Hayward Baker  
Helical Drilling  
Howard Stein Hudson  
Hoyle, Tanner & Associates, Inc.  
McMillen Jacobs Associates  
Nitsch Engineering  
Department of Civil and Environmental Engineering, Northeastern University  
Skanska Civil  
Tufts University  
VHB  
Weston & Sampson

## Stormwater & Floodplain Management

**Danielle Spicer, P.E., LEED AP, ENV SP**

*Senior Project Manager at Green International Affiliates, Inc.*

**Peter A. Richardson, P.E., LEED AP, ENV SP, CFM**

*Executive Vice President at Green International Affiliates, Inc.*

**Friday, May 4, 2018**

**Bridgewater Municipal Office Building, 66 Central Square, Bridgewater, MA 02324**

**Registration & Breakfast 7:00 AM – 7:45 AM; Presentation 7:45 AM - 11:45 AM**

This event will benefit engineers, land surveyors, project managers, and planners who are involved in stormwater and floodplain management for both private property development and public infrastructure design, development, operation and maintenance. Overview of design considerations, applications, methods/techniques for treatment & detention; wetlands impact and regulatory considerations; floodplain assessment, strategies, elevation certificates, and FEMA oversight.

**Danielle Spicer** is a registered Professional Engineer in both Massachusetts and Rhode Island, with over 20 years of engineering experience and practice that encompasses a wide range of civil/site projects for federal, state and municipal clients. Her engineering background features extensive experience in drainage design, stormwater management and hydrology, incorporating resilient and low impact development techniques into site design. She is a Past-President of BSCES/ASCE and is currently serving as Region 1 Governor for the American Society of Civil Engineers.

**Peter Richardson** is a registered Professional Engineer in Massachusetts, New Hampshire, Vermont, Maine, Connecticut and New York, with a professional engineering experience and practice that spans more than three decades. He is a Certified Floodplain Manager (CFM) and has supervised numerous flood mapping projects throughout New England as a Study Contractor for FEMA. He is a Past-President of BSCES/ASCE.

**Registration Deadline: Wednesday, May 2, 2018**

**\$60 Members, \$70 Non-Members**

**\$50 Public Sector Members, \$65 Public Sector Non-Members**

**\$45 Senior Members (65+) and Students**

### Registration Information

Register to attend this meeting and pay by credit card online at <http://bit.ly/2qHdqEA>. To register online at the member rate you must login using your BSCES assigned username and password. If you do not know your login information, call 617/227-5551. To register by mail or email, complete a [BSCES Event Registration Form](#) and follow the submission instructions. Cancellations received after Wednesday, May 2, 2018 and no-shows will be billed.

2017-2018  
Society Sponsors

AECOM

CDM Smith

EarthSoft

GZA

Louis Berger

Robinson + Cole LLP

2017-2018  
Program Sponsors

Alfred Benesch & Co.

BSC Group

Cianbro Corporation

Childs Engineering  
Corporation

GEI Consultants, Inc.

Green International  
Affiliates, Inc.

Haley & Aldrich, Inc.

Hayward Baker

Helical Drilling

Howard Stein Hudson

Hoyle, Tanner  
& Associates, Inc.

Massport

McMillen Jacobs  
Associates

Nitsch Engineering

Department of Civil  
and Environmental  
Engineering,  
Northeastern  
University

Skanska Civil

Tufts University

VHB

Weston & Sampson

## FHWA-NHI-130110

### Tunnel Safety Inspection

**Monday, May 7, 2018 – Friday, May 11, 2018**

**Hilton Garden Inn Worcester, 35 Major Taylor Boulevard, Worcester, MA**

**Monday through Friday, 8:00AM – 4:30PM**

This five-day course is highly interactive and builds upon participants' prior knowledge of tunnel and/or bridge inspection. The course covers the entire breadth of knowledge necessary to manage or execute a successful tunnel inspection based on the National Tunnel Inspection Standards (NTIS), Tunnel Operations, Maintenance, Inspection and Evaluation (TOMIE) Manual and Specifications for the National Tunnel Inventory (SNTI). During the course, the instructor will lead participants through a series of case studies, concluding with a virtual tunnel inspection that takes place in a computer-simulated, 3D environment.

Please note: To take this course, participants must show that they have passed one of the following pre-requisite courses: FHWA-NHI-130054, *Engineering Concepts for Bridge Inspectors*; FHWA-NHI-130055, *Safety Inspection of In-service Bridges*, FHWA-NHI-130101, *Introduction to Safety Inspection of In-Service Bridges*; or FHWA-NHI-130101A, *Prerequisite Assessment for Safety Inspection of In-Service Bridges*. A FHWA/NHI certification of completion with the participant name on it will be required to be presented to BSCES preferably at time of registration or no later than Friday, March 30, 2018. Please forward your prerequisite certificate in the form of a PDF document to [bscesreg@engineers.org](mailto:bscesreg@engineers.org). Please visit the NHI website at [www.nhi.fhwa.dot.gov](http://www.nhi.fhwa.dot.gov) or contact them at 703/235-0500 for additional information on the prerequisite course requirements.

### Registration Deadline Extended Until Friday, April 27, 2018

**Registration Fees: \$2,100 Members, \$2,500 Non-Members**

**Registration fee includes course materials, continental breakfast, breaks, and lunch.**

### Information/Registration:

**Attendance for this program is limited to 30 participants. Individuals who attempt to register after the course is closed will be added to a waiting list.**

Reservations will be accepted on a first-come first-serve paid reservation basis. Payment must be received with registration to secure a slot. Register to attend this course and pay by credit card online at <http://bit.ly/NHITunnelSafety05072018>. To register online for an event at the BSCES member rate you must login using your BSCES assigned username and password. If you do not know your login information, call 617/227-5551. You can also register for this event by mail or email. To do so, download and complete a [BSCES Event Registration Form](#) and follow the submission instructions. Cancellations or no shows after Friday, April 10, 2018 will be billed, including those that do so due to failure to take one of the prerequisite courses.

2017-2018

Society Sponsors

AECOM

CDM Smith

EarthSoft

GZA

Louis Berger

Robinson + Cole LLP

2017-2018

Program Sponsors

Alfred Benesch & Co.

BSC Group

Cianbro Corporation

Childs Engineering  
Corporation

GEI Consultants, Inc.

Green International  
Affiliates, Inc.

Haley & Aldrich, Inc.

Hayward Baker

Helical Drilling

Howard Stein Hudson

Hoyle, Tanner

& Associates, Inc.

Massport

McMillen Jacobs  
Associates

Nitsch Engineering

Department of Civil  
and Environmental  
Engineering,  
Northeastern  
University

Skanska Civil

Tufts University

VHB

Weston & Sampson

# Steel Bridge Coatings Lectures

## Tuesday, May 8 & Wednesday, May 9, 2018

AECOM, 1 Federal Street, 8th Floor, Boston, MA

8:00 AM Registration, 8:15 AM Start, 12:15-1:00 PM Lunch, 4:30 PM Adjourn

### Day 1 – Tuesday, May 8, 2018

#### Sessions 1 – 3

**Kenneth A. Trimber, President, KTA-Tator, Inc.**

#### *Session 1 – Corrosion Control Using Protective Coatings*



Corrosion is a process where metals (e.g., steel) give up energy and return to their natural state. There are significant costs and consequences associated with corrosion; the National Association of Corrosion Engineers estimates that the cost of corrosion approaches \$300 billion annually. While corrosion cannot be completely halted, it can be slowed. The most widely used method to prevent/slow the onset of corrosion today, particularly on carbon steel, is the application of high performance coating systems. Session One includes the definition of corrosion, explains the

corrosion process and the elements of a corrosion cell, describes various types of corrosion present on bridge structures, and highlights design configurations that are conducive to corrosion. The role of high-performance coatings in corrosion prevention is explained, including the various protective properties of coatings: barrier, inhibitive and galvanic. Session one is worth 1.5 PDH credits.

#### *Session 2 - Bridge Coating Maintenance Strategies*



While properly installed coating systems can protect steel bridges for 25 years or more, they require interim maintenance to control corrosion and minimize surface preparation requirements. Cost-effective maintenance requires scheduling the repair of coatings before deterioration progresses to the point that the only option is total removal and replacement of the coating system. However, prior to selecting a maintenance strategy, the condition of the existing coating system must be carefully assessed. This session will emphasize the importance of steel bridge coating system maintenance and will explain the impact on

installation costs and life-cycle costs. The importance of assessing the condition of the existing coating system will also be described, as well as how the results of the coating condition assessment are used to determine whether maintenance painting is warranted, and which strategies are likely to provide adequate preservation of the structure. There are five maintenance painting strategies that may be selected for any given painted steel bridge. These include: do nothing, spot repair, spot repair and overcoat, removal and replacement in zones, and removal and replacement of the existing system for the entire structure. The advantages and limitations of each will be explored. Session two is worth 2.5 PDH credits.



### ***Session 3 – Coating System Selection for Steel Bridges***



There are a variety of coatings and coating systems that can be used to protect steel bridges; selection is based on the prevailing service environment, the maintenance strategy, available funding and other factors. The advantages, limitations and curing mechanisms of common steel bridge coating systems will be described in Session Three, along with the function of the various coating layers, the importance of coating thickness and when selection of two coat systems may be justified over traditional three-coat systems. The impact of Volatile Organic Compound (VOC) regulations on coating system selection will also be explained. The use of duplex coatings systems (hot-dip galvanizing with liquid or powder coating finishes) and thermal spray coatings (and the associated industry guides/standards) will be discussed, as well as when and where the use of weathering steel may be justified.

Most steel bridges contain connections that are slip-critical. When the EOR elects to coat faying surfaces, the coatings (i.e., primers) are required to demonstrate resistance to slip once the bolts are tensioned. Session Three will include an explanation of how coatings are tested and classified according to the requirements of Appendix A of the RCSC Specification for Structural Joints Using High-Strength Bolts.

Because not all generic coatings systems are created equally, many transportation agencies will create an Approved Products List (APL) or Qualified Products List (QPL) based on laboratory testing of candidate coating systems and/or successful track records. Session Three will conclude with an overview of the National Transportation Product Evaluation Program (NTPEP) for Structural Steel Coatings, as well as how the Northeast Protective Coatings Committee (NEPCOAT), a consortium of ten northeastern states, including Massachusetts uses NTPEP-generated data to generate an APL. Session three is worth 2.5 PDH credits.

### **Day 2 – Wednesday May 9, 2018**

#### **Sessions 4 – 6**

**William D. Corbett, Chief Operating Officer, KTA-Tator, Inc.**

**Michael Hewins, Coatings Engineer, Massachusetts Department of Transportation**

### ***Session 4 – Surface Preparation Methods & Standards***



Preparation of steel surfaces for coating application is typically regarded as the most important step, as it effectively lays the foundation for the coating system. Session Four begins a discussion of pre-surface preparation concerns that may need to be addressed in coating specifications (e.g., edges, weld spatter, laminations, section loss, grease/oil, chemical contaminants, etc.). Various methods of surface preparation will be described, including advantages and limitations of each, and which are appropriate for shop work versus field preparation. Subsequently, factors associated with selection of surface preparation method(s) for inclusion in coating specifications (e.g., maintenance strategy, coating system requirements, access and worker/environmental concerns) will be discussed. Session Four will conclude with a discussion of the industry

standards for surface preparation published by organizations such as ASTM International, SSPC: The Society for Protective Coatings, and NACE International that can be used in the preparation of project specifications. Session four is worth 2.5 PDH credits.

### ***Session 5 – Quality Assurance & Quality Control***



Verification of quality is a shared responsibility of the facility owner and contractor. The roles and responsibilities of quality assurance (QA) and quality control (QC) personnel and the associated reporting relationships will be explored in Session Five. The inspection requirements that may be invoked by project specifications related to pre-surface preparation, surface preparation and coating application for both existing and new steel bridges will be described. Session Five will conclude with a discussion of the inspection instruments, visual guides and test kits that are used to verify quality at each step of the surface preparation and coating application process. Session five is worth 2.5 PDH credits.

### **Session 6, Part 1 – Coating Specifications**



The first part will focus on the purpose and content of coating specifications, including common formats. The instructor will compare coating specification content for new steel bridge structures, (including the advantages and limitations of total shop painting), and coating specifications for maintenance painting of existing structures (including sequencing and impact of the maintenance strategy on specification content). Part one will conclude with a discussion of specification preparation, including common submittal requirements. Session six, part one is worth 1.5 PDH credits.

### **Session 6, Part 2 – MassDOT's Approach to Protection of Steel Structures**



The second part of Session Six will be led by Michael Hewins, Bridge Coatings Engineer, who will describe Mass Highway's approach to protecting steel bridge structures from corrosion using protective coatings. Mike will describe the maintenance strategies employed by the Agency; the coating systems used; surface preparation methods specified; contractor certification requirements; and management of quality assurance inspection. Mike will also share some of the challenges his Agency encounters related to corrosion control of steel bridges in Massachusetts. Session six, part two is worth 1 PDH credit.

## **SPEAKERS**

### **Kenneth A. Trimber, President, KTA-Tator, Inc.**

Ken Trimber is the President of KTA-Tator, Inc. (KTA) in Pittsburgh, Pennsylvania, where he has been employed since his graduation from Indiana University of Pennsylvania in 1974. With nearly 45 years of experience in the industrial painting field, he oversees the technical delivery of KTA's products and services, acts as a senior coatings consultant and client liaison on multi-disciplinary and DB/P3 projects, and serves as a principal specification writer/reviewer. Ken is a NACE Level 3 Certified Coatings Inspector, an SSPC Certified Protective Coatings Specialist, and an SSPC C-3 Supervisor/Competent Person for the Deleading of Industrial Structures. He is a Past President of the SSPC, Chairman of the Commercial Coatings Committee, Chairman of the Committee on Surface Preparation, Chairman of the Visual Standards Committee, Chairman of the Task Group on Containment, and is a member of the Standards Review Committee. He is also Past Chairman of ASTM D1 on Paints and Related Coatings, Materials, and Applications. Mr. Trimber authored The Industrial Lead Paint Removal Handbook and co-authored Volume 2 of the Handbook: Project Design. He has been formally recognized by industry associations/publications on numerous occasions including being selected by the Journal of Protective Coatings and Linings (JPCL) in 2004, 2009, and 2012 as one of the Top Leaders and Thinkers in the Coatings & Linings Industry. He was named the SSPC Honorary Life Member in 2015.

### **William D. Corbett, Chief Operations Officer, KTA-Tator, Inc.**

Bill Corbett is the Chief Operations Officer for KTA-Tator Inc. (KTA) in Pittsburgh, Pennsylvania, where he has been employed for 39 years. He holds an AD in Business Administration from Robert Morris University. He is an SSPC Certified Protective Coating Specialist, an SSPC Level 3 Certified Protective Coatings Inspector, an SSPC Level 2 Certified Bridge Coatings Inspector, as well as a NACE Level 3 Certified Coatings Inspector. He is an approved training course instructor for both SSPC and KTA. Bill authored the first, second and third editions of the KTA publication, *Using Coatings Inspection Instruments*. He received SSPC's Coating Education Award in 2006, the SSPC John D. Keane Award of Merit in 2011, an ASTM Committee D01 Award of Appreciation in 2016, and the SSPC President's Lecture Series Award in 2017. He is the Chair of the SSPC Dry Film Thickness Committee and Chair of the SSPC Education and Certification Committee. He is also a member of ASTM Subcommittees D01.23 and D01.46.

### **Michael Hewins, Coatings Engineer, Massachusetts Department of Transportation**

Michael Hewins is the Coatings Engineer for MassDOT – Highway. Michael started with MassDOT in 1997 and is responsible for the administration and oversight of consultant contracts providing 3rd party coating inspection services for both the field and shop. He also provides technical assistance for various aspects of the maintenance coating of bridges and related issues. He is a NACE Level 3 Certified Coating inspector.

## Registration Deadline: Thursday, May 3, 2018

Attendance for this program is limited to 35 participants. Individuals who attempt to register after the course is closed will be added to a waiting list.

Register to attend individual lectures or the full lecture series and pay by credit card online at <http://bit.ly/SEILectures2018>. To register online for an event at the BSCES member rate you must login using your BSCES assigned username and password. If you do not know your BSCES member login information call 617/227-5551. To register for multiple lectures, please complete the registration form below and mail, email or fax it to BSCES, The Engineering Center, One Walnut Street, Boston, MA 02108, [bscesreg@engineers.org](mailto:bscesreg@engineers.org) or 617/227-6783, respectively. Cancellations received after May 3, 2018 and no-shows will be billed.

**Handouts:** Registered attendees will be provided a website reference for downloading handouts/notes.

**Lunch and Refreshments:** Morning and afternoon refreshments will be provided. Lunch will be the attendee's responsibility.

**Registration Form** BSCES SEI Steel Bridge Coatings Lectures  
Tuesday, May 8 & Wednesday, May 9, 2018  
AECOM, 1 Federal Street, 8th Floor, Boston, MA  
8:00 AM Registration, 8:15 AM Start, 12:15-1 PM Lunch, 4:30 PM Adjourn

### Registrant Information

Name: \_\_\_\_\_  
Company (if applicable): \_\_\_\_\_  
Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_  
Phone: \_\_\_\_\_ Fax: \_\_\_\_\_ Email: \_\_\_\_\_

### Registration Fees

#### Full Series – Both Days

- ☐ \$200 BSCES Member  
☐ \$250 Non-Member  
☐ \$170 Public Employee Member  
☐ \$200 Public Employee Non-Member  
☐ \$70 Senior/Student

#### Day 1 or Day 2

- ☐ \$140 BSCES Member  
☐ \$175 Non-Member  
☐ \$120 Public Employee Member  
☐ \$140 Public Employee Non-Member  
☐ \$50 Senior/Student

Check Day Attending: ☐ 1 ☐ 2

**Total Amount Enclosed** \$ \_\_\_\_\_

Make checks payable to "BSCES" and mail with completed form to: BSCES, The Engineering Center, One Walnut Street, Boston, MA 02108-3616

Or Pay with (Check one): ☐ Visa ☐ Master Card ☐ American Express

Card Name: \_\_\_\_\_  
Card Number: \_\_\_\_\_ Exp. Date: \_\_\_\_\_  
Billing Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
Signature: \_\_\_\_\_



2017-2018  
Society Sponsors

AECOM

CDM Smith

EarthSoft

GZA

Louis Berger

Robinson + Cole LLP

2017-2018  
Program Sponsors

Alfred Benesch & Co.

BSC Group

Cianbro Corporation

Childs Engineering  
Corporation

GEI Consultants, Inc.

Green International  
Affiliates, Inc.

Haley & Aldrich, Inc.

Hayward Baker

Helical Drilling

Howard Stein Hudson

Hoyle, Tanner  
& Associates, Inc.

Massport

McMillen Jacobs  
Associates

Nitsch Engineering

Department of Civil  
and Environmental  
Engineering,  
Northeastern  
University

Skanska Civil

Tufts University

VHB

Weston & Sampson

## Crossrail

**Chris Dulake FEng,**  
*Former Chief Engineer,  
Crossrail London*

*Currently Major Projects  
Portfolio Director,  
Mott MacDonald*

**Wednesday, May 16, 2018**

**Tufts University**

**Registration and Dinner: Science & Engineering Atrium, 200 College Ave, Medford, MA**

**Seminar: Robinson Hall Room 253, 212 College Ave, Medford, MA**

**5:30 PM – 9:00 PM (Dinner Included in Cost)**

Crossrail is the largest infrastructure project in Europe. The £15 billion (\$20 billion) railway has been constructed under the most expensive property in Europe, minimizing disruption to London and placing public safety at the forefront of planning, design and delivery of the project. It was given Royal Assent to proceed in 2008 when construction commenced and is rapidly nearing completion.

This talk will present the journey for the delivery of the civil engineering and tunneling works and some of the lessons learned through the design and construction phase. The key learning points from the project have been consolidated into four hard copy volumes available through the Institution of Civil Engineers with further extensive material available through the Crossrail learning legacy site [learninglegacy.crossrail.co.uk](http://learninglegacy.crossrail.co.uk).



## Speaker Bio:

### Chris Dulake, FREng FICE

Chris is a Civil Engineer, a Fellow of the Royal Academy of Engineering and a Fellow of the Institution of Civil Engineers. He has worked in the construction industry for 31 years in major underground transportation infrastructure projects worldwide. These include projects located in Istanbul Turkey, Melbourne and Sydney Australia, Thessaloniki Greece, Naples Italy, Dublin Ireland, New York City, and throughout the UK. He is currently Global Railways Leader and Major Projects Portfolio Director at Mott MacDonald. In this role he guides and supports Mott MacDonald's Project Directors for major projects in the UK and international transport sector.

Chris was previously Engineering Director for High Speed 2 (HS2) Phase 1, having moved from the role of Chief Engineer for the Crossrail Program, where he provided functional leadership to HS2 Phase 1 engineers and was Lead Engineer for the project.

On Crossrail he acted as the engineering technical authority providing technical leadership for the program. He joined the project in 2008 acting as Client for all the underground works and for two stations at Canary Wharf and Woolwich stations. Chris was heavily involved in establishing the Tunneling and Underground Construction Academy, contract procurement strategy, delivering safety through innovation and design and establishing early essential project controls.

He is a strong advocate for efficiency and quality in design and construction by utilizing collaborative working, efficient application of current technologies, shared risk management, streamlined assurance and informed project management.

Chris received his BSc from the University of Southampton, is a Chartered Engineer and has been a member of the Institute of Civil Engineers Dispute Resolution Panel, The British Tunneling Society, and the International Tunneling Association.

## Registration Deadline: Friday, May 11, 2018

**\$90 Members, \$115 Non-Members**

**\$75 Public Sector Members, \$90 Public Sector Non-Members**

**\$25 Student Members and Senior Members (65+)**

## Information/Registration:

Register to attend this meeting and pay by credit card online at <http://bit.ly/2EJeQ6p>. To register online for an event at the BSCES member rate you must login using your BSCES assigned username and password. If you do not know your BSCES member login information call 617/227-5551. You can also register for this event by mail or email. To do so, download and complete a [BSCES Event Registration Form](#) and follow the submission instructions. Cancellations received after Friday May 11, 2018 and no-shows will be billed.



# Medford/Somerville Campus Parking Map



SEPTEMBER 2015 EDITION

## Public Safety Administrative Services

Open Monday through Friday, 9 a.m. to 5 p.m. at  on the map  
419 Boston Avenue, on the first floor of the parking garage  
Tel 617.627.3692 | Fax 617.627.3789 | <http://publicsafety.tufts.edu/parking>

# Tufts





*Join the Younger Member Group (YMG) and the  
Environmental & Water Resources Institute (EWRI)*



**ENVIRONMENTAL &  
WATER RESOURCES  
INSTITUTE**  
Boston Chapter

## USS Constitution Tour

**USS Constitution Tour: Tuesday, May 22<sup>nd</sup> at 5:00 PM**

**Building 22, Charlestown Navy Yard, Charlestown, MA 02129**

**Followed by a Social at Ironside Grill**

A national icon for more than 200 years, the USS Constitution has had a long and illustrious career. Explore her service from the beginning to the present day – and all of the adventures in between! This tour will have a particular engineering focus, special for our group. The Tour will be followed by a social at Ironside Grill (25 Park Street, Charlestown). Appetizers included!

**Registration Deadline: May 15, 2018**

**\$20 BSCES Member; \$15 Student Member; \$25 Non-Member**

Register to attend this meeting and pay by credit card online at <https://bit.ly/2GDz836>. To register online for an event at the BSCES member rate you must login using your BSCES assigned username and password. If you do not know your BSCES member login information call 617/227-5551. You can also register for this event by mail or email. To do so, download and complete a BSCES Event Registration Form and follow the submission instructions. Cancellations received after May 15, 2018 and no-shows will be billed. Please contact [YMG@BSCES.ORG](mailto:YMG@BSCES.ORG) with questions!

2017-2018 Society Sponsors: AECOM | CDM Smith | EarthSoft | GZA | Louis Berger | Robinson + Cole LLP  
2017-2018 Program Sponsors: Alfred Benesch & Co. | BSC Group | Cianbro Corporation | Childs Engineering Corporation  
GEI Consultants, Inc. | Green International Affiliates, Inc. | Haley & Aldrich, Inc. | Hayward Baker, Inc. | Helical Drilling  
Howard Stein Hudson | Hoyle, Tanner & Associates | Massport | McMillen Jacobs Associates | Nitsch Engineering  
Department of Civil and Environmental Engineering, Northeastern University | Skanska Civil | Tufts University | VHB  
Weston & Sampson Engineers, Inc.



**Boston Society of Civil Engineers Section**  
American Society of Civil Engineers



**STRUCTURAL  
ENGINEERING  
INSTITUTE**

**Boston Chapter**

2017-2018  
Society Sponsors

AECOM  
CDM Smith  
EarthSoft  
GZA  
Louis Berger  
Robinson + Cole LLP

2017-2018  
Program Sponsors  
Alfred Benesch & Co.

BSC Group  
Cianbro Corporation

Childs Engineering  
Corporation  
GEI Consultants, Inc.

Green International  
Affiliates, Inc.

Haley & Aldrich, Inc.

Hayward Baker

Helical Drilling

Howard Stein Hudson

Hoyle, Tanner  
& Associates, Inc.

Massport

McMillen Jacobs  
Associates

Nitsch Engineering

Department of Civil  
and Environmental  
Engineering,  
Northeastern  
University

Skanska Civil

Tufts University

VHB

Weston & Sampson

# Doing Business with Massport

**Sam Sleiman, PE, CCM, FCMAA, NAC**

*Director, Capital Programs & Environmental Affairs  
Massachusetts Port Authority*

**Wednesday, May 23, 2018**

**Wyndham Boston Beacon Hill, 5 Blossom Street, Boston, MA 02114**

**6:00 PM Registration, Social & Dinner, 7:15 PM Presentation**

The Massachusetts Port Authority's (Massport) Department of Capital Programs and Environmental Affairs (CP&EA) programs and implements Massport's infrastructure and capital improvements. Among their wide-ranging responsibilities, CP&EA provides project and contract management, and technical expertise in engineering and architectural design and construction.

Mr. Sleiman's presentation will provide an overview of current and upcoming Massport strategic projects, their consultant and construction selection process, make-up of their typical design and engineering teams, and Massport's major initiatives, procedures and expectations for the delivery of a successful project.

**Registration Deadline: Friday, May 18, 2018**

**\$100 Members, \$125 Non-Members**

**\$85 Public Sector Members, \$100 Public Sector Non-Members**

**\$35 Senior Members (65+), Students**

**\$1,000 Table of 10**

## Information/Registration:

Register to attend this meeting and pay by credit card online at <http://bit.ly/2HqBrYw>. To register online for an event at the BSCES member rate you must login using your BSCES assigned username and password. If you do not know your BSCES member login information call 617/227-5551. You can also register for this event by mail or email. To do so, download and complete a [BSCES Event Registration Form](#) and follow the submission instructions. Cancellations received after May 18, 2018 and no-shows will be billed



**This presentation provides 1 Professional Development Hours (PDH)**

Supported by the staff of The Engineering Center Education Trust





*Please join us!*

# YMGB Red Sox Game & Social at Fenway Park

Tuesday, May 29<sup>th</sup> 2018

## Tuesday, May 29<sup>th</sup>

Boston Red Sox vs. Toronto Blue Jays  
7:10 PM  
Section L42

## *Pregame Social at 6:00 PM*

*Location TBD*

## Pricing

Students - \$35/ticket  
Members - \$40/ticket  
Non-members - \$45/ticket

## Information/Registration

*Register to attend this event and pay by credit card online at <http://bit.ly/2GVnXCW>. To register online for an event at the BSCES member rate you must login using your BSCES assigned username and password. If you do not know your BSCES member login information call 617/227-5551. You can also register for this event by mail or email. To do so, download and complete a [BSCES Event Registration Form](#) and follow the submission instructions. Cancellations received after Tuesday, May 22, 2018 and no-shows will be billed.*

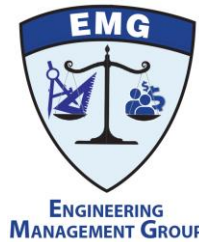
*Tickets will be handed out at pregame social. Details for a pregame social will be emailed to the group two weeks prior to the game. Food will be included at the social. Here's to a great 2018 season!*







**Boston Society of Civil Engineers Section**  
American Society of Civil Engineers



2017-2018  
Society Sponsors

AECOM

CDM Smith

EarthSoft

GZA

Louis Berger

Robinson + Cole LLP

2017-2018  
Program Sponsors

Alfred Benesch & Co.

BSC Group

Cianbro Corporation

Childs Engineering  
Corporation

GEI Consultants, Inc.

Green International  
Affiliates, Inc.

Haley & Aldrich, Inc.

Hayward Baker

Helical Drilling

Howard Stein Hudson

Hoyle, Tanner  
& Associates, Inc.

Massport

McMillen Jacobs  
Associates

Nitsch Engineering

Department of Civil  
and Environmental  
Engineering,  
Northeastern  
University

Skanska Civil

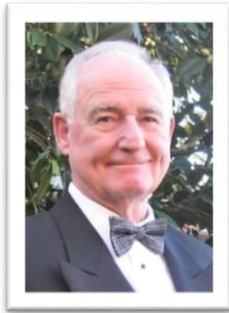
Tufts University

VHB

Weston & Sampson

## 2018 Joseph C. Lawler Lecture Megaprojects and Risk Wednesday, May 30, 2018

**The Fairmont Copley Plaza, Venetian Room, 138 Saint James Avenue, Boston, MA 02116**  
**6:00 PM Social/Registration; 6:45 PM Meal; Presentation to Follow**



**John Reilly, PE, CPEng, BE, MS**  
*President*  
*John Reilly Associates International*

The delivery of Megaprojects has been a story of ambition, politics and complexity, which in many cases has led to delays and cost overruns, but this does not have to be the case. Nearly 50 years ago, John's first Megaproject was the Washington DC Metro system, followed by the design of Boston's Southwest Corridor Program – delivered under budget and named the "Outstanding Civil Engineering achievement of 1987". Since then, he has worked on the management and delivery of complex megaprojects in 6 countries and has developed methods to better control cost, schedule and risk – including the development of WSDOT's Cost Estimate Validation Process (CEVP®).

The 2018 Lawler lecture will address 50 years of megaprojects – what have we learned? – focusing on processes and tools necessary for success. These include strategies, stakeholder management, team-alignment and partnering, alternative contracting and delivery methods, cost validation, probabilistic risk-based cost estimating and advanced risk management. Examples of current state of the art tools will be given, with reference to those used in John's current project – the Lima International Airport expansion and development program in Peru.

### Registration Deadline: Wednesday, May 23, 2018

**\$100 Members, \$125 Non-Members**

**\$85 Public Sector Members, \$100 Public Sector Non-Members**

**\$35 Senior Members (65+) & Student Members**

**\$1,000 Table of 10**

### Information/Registration:

Register to attend this meeting and pay by credit card online at <http://bit.ly/2JpP1uL>. To register online for an event at the BSCES member rate you must login using your BSCES assigned username and password. If you do not know your BSCES member login information call 617/227-5551. You can also register for this event by mail or email. To do so, download and complete a [BSCES Registration Form](#) and follow the submission instructions. Cancellations received after May 23, 2018 and no-shows will be billed.

2017-2018  
Society Sponsors

AECOM

CDM Smith

EarthSoft

GZA

Louis Berger

Robinson + Cole LLP



## FHWA-NHI-130055

### Safety Inspection of In-Service Bridges

**Monday, December 10, 2018 – Friday, December 21, 2018**

**Hilton Garden Inn Worcester, 35 Major Taylor Boulevard, Worcester, MA**

**Monday through Friday, 8:00AM – 4:30PM**

2017-2018  
Program Sponsors

Alfred Benesch & Co.

BSC Group

Cianbro Corporation

Childs Engineering  
Corporation

GEI Consultants, Inc.

Green International  
Affiliates, Inc.

Haley & Aldrich, Inc.

Hayward Baker

Helical Drilling

Howard Stein Hudson

Hoyle, Tanner  
& Associates, Inc.

Massport

McMillen Jacobs  
Associates

Nitsch Engineering

Department of Civil  
and Environmental  
Engineering,  
Northeastern  
University

Skanska Civil

Tufts University

VHB

Weston & Sampson

This 10-day course is based on the 2012 FHWA “Bridge Inspector’s Reference Manual” (BIRM) and provides training on the safety inspection of in-service highway bridges. Satisfactory completion of this course will fulfill the training requirements of the National Bridge Inspection Standards (NBIS) for a comprehensive training course. This course is not geared towards fracture critical, underwater, or complex structures. Mid-term and final examinations based on course content will be administered to participants.

Please note: To take this course participants must show that they have passed one of the following pre-requisite courses: FHWA-NHI-130054 *Engineering Concepts for Bridge Inspectors*; FHWA-NHI-130101, *Introduction to Safety Inspection of In-Service Bridges*; or FHWA-NHI-130101a *Prerequisite Assessment for Safety Inspection of In-Service Bridges*. A FHWA/NHI certification of completion with the participant name on it will be required to be presented to BSCES preferably at time of registration or no later than Friday, May 25, 2018. Please forward your prerequisite certificate in the form of a PDF document to [bsces@engineers.org](mailto:bsces@engineers.org).

### Registration Deadline: Friday, May 25, 2018

**Registration Fees: \$2,900 Members, \$3,100 Non-Members**

**Registration fee includes course materials, continental breakfast, breaks, and lunch**

### Information/Registration:

**Attendance for this program is limited to 30 participants. Individuals who attempt to register after the course is closed will be added to a waiting list.**

Reservations will be accepted on a first-come first-serve paid reservation basis. Payment must be received with registration to secure a slot. Register to attend this course and pay by credit card online at <http://bit.ly/SafetyInspection2018>. To register online for an event at the BSCES member rate you must login using your BSCES assigned username and password. If you do not know your login information call 617/227-5551. You can also register for this event by mail or email. To do so, download and complete a [BSCES Event Registration Form](#) and follow the submission instructions. Cancellations or no shows after May 25, 2018 will be billed.