

A Mission To Improve Boston's Water Resources: The Boston Water and Sewer Commission

by Michael Carroll, PE, Senior Associate, Stantec

As the largest water and wastewater utility in New England, the Boston Water and Sewer Commission is constantly working to improve and develop its facilities. Our firm has been involved in some significant work with BWSC for more than two decades, as have other member firms. Much of the focus of these projects has been to improve water quality in Boston Harbor and to reduce the amount of stormwater that goes to the MWRA's Deer Island Wastewater Treatment Plant. Some examples:

South Dorchester Bay CSO Program: The goal of this project was to reduce and ultimately eliminate CSOs, thereby improving water quality within both Dorchester Bay and Boston Harbor. Preliminary design included developing a comprehensive hydraulic modeling program to design and then evaluate the performance of the separated storm drain piping network. Using the Storm Water Management Model (SWMM), the design team created a storm drain model that included approximately 93,000 feet of new and existing piping serving an area of nearly 690 acres.

The final design involved four sewer separation projects installing 69,000 feet of new drainage facilities, and nearly 25,000 feet of new sanitary sewer facilities as well as replacing more than 76,000 feet of water main. Because construction was to take place in a high-density urban neighborhood, addressing utility conflicts and maintaining vehicular and pedestrian traffic were critical elements of design. As a result, the design included extensive coordination with utility owners and a comprehensive public outreach program. These projects also included designs to separate private building roof drain and parking lot drainage systems from the sanitary sewer system.

Fort Point Channel CSO: This project's original scope was to construct a combined sewage storage tunnel following recommendations in a 1997 CSO Facilities Plan/Environmental Impact Report



The CSO program in South Dorchester is improving water quality in Dorchester Bay

prepared for the MWRA. The facility was to be a 1,500-foot-long, 10-foot diameter tunneled storage conduit 45 feet below street level.

But since that report, parcel development had changed catchment area characteristics. Recognizing this, the design team provided a fresh look, evaluating a smaller tunneled storage facility, storage tank, and sewer separation. Based on cost benefit analyses, this evaluation assessed sewer separation in some areas and system optimization measures at regulator manholes that control CSO discharges. Understanding network hydraulics and recognizing that sewer separation would lower grade lines along critical segments of the piping system, the design team raised the overflow elevations in regulator manholes that control discharges to Fort Point Channel.

Sewer Separation of the Roxbury Canal Sewer: To further mitigate potential impacts to Boston Harbor water quality, the BWSC targeted sewer separation of 287 acres in Roxbury. The work also helped support a significant redevelopment initiative underway in Dudley Square, Roxbury's commercial center. The preliminary design effort included investigating existing wastewater infrastructure, assessing geotechnical and hazardous materials, implementing a flow monitoring program, developing a hydraulic

UPCOMING EVENTS

Engineering Management Group Event
March 31, 2016

104th BSCES Student Night
April 6, 2016

John R. Freeman Lecture
April 11, 2016

Francis M. Keville 27th Annual Dinner
April 14, 2016

Western Massachusetts Branch Event
April 25, 2016

Spring Awards Banquet
May 10, 2016

**Engineers and Land Surveyors
Day at the State House**
May 10, 2016

Younger Member Red Sox Outing
May 25, 2016

Further Details Inside



2015-16 Corporate Sponsors:



model, designing a new storm drain network, and developing a plan for implementing all of the recommended work.

The recommended plan for separation included over 32,000 feet of new storm drain and 10,000 feet of new sanitary sewer, as well as separating privately-owned drainage and downspout systems, rehabilitating the existing wastewater system, and replacing over 4,000 feet of aging water main. The plan also includes a component to redirect the flow of a large storm drain conduit, involving sewer separation of a 26-acre area, construction of a diversion structure, and the elimination of numerous illicit connections to the storm drain system.

continued on page 2

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A Mission to Improve Boston's Water Resources

continued from page 1

Construction for the proposed work is organized into five construction contracts: Dudley Square, Hampden Street, and three contracts in the Upper Roxbury area. The BWSC initiated and completed the Dudley Square project to support redevelopment of the Dudley Square area, minimize neighborhood impacts, and facilitate traffic management. Construction of the Hampden Street project is ongoing, and Upper Roxbury is currently under final design. Each of these projects presents unique challenges. In Dudley Square, for instance, the sheer size of the utilities—compounded by the major arterial roadway in the construction area—was daunting: 370 feet of 48-inch diameter pile-supported storm drain, 1,150 feet of 6' x 4' box conduit amidst heavy utility congestion, and parallel 42-inch-diameter storm drain and 24-inch diameter sanitary sewer systems.

Then, during design, detailed records research and field investigations identified a previously unknown areaway for an adjacent building that would conflict with a proposed storm drain. After an assessment of the potential impacts to the area was conducted, the design team developed an alternate route for the storm drain and conducted additional hydraulic modeling to verify the proposed changes.

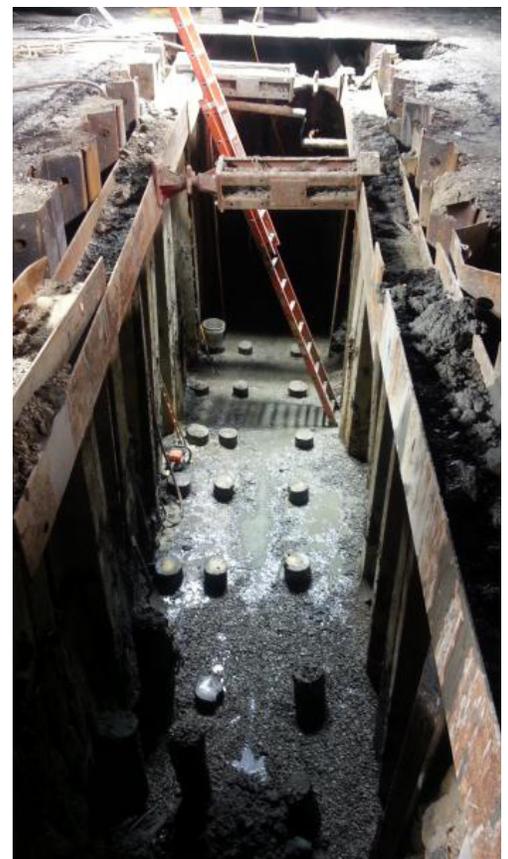
For the work on Hampden Street, in addition to designing installation of a 4' x 2' box conduit to address issues with limited cover and constructing 30-inch diameter piping in soft organic soils, the team came up with a new solution to avoid the need for new large-diameter piping in a major intersection. Rather, they determined a combined sewer could be converted to a storm drain to convey stormwater flow. This design modification, which also allowed for the abandonment of an existing CSO regulator, was estimated to save the Commission more than \$400,000 in construction costs.

The first construction contract in the Upper Roxbury area is scheduled to begin in the spring

continued on page 3



Crews drive piles as part of the Roxbury sewer separation effort.



Crews worked through the night in Roxbury to avoid disrupting the bustling neighborhood.

Submit an Article to BSCESNews

The BSCES Newsletter Editorial Board invites BSCES members to write and submit an article for publication in *BSCESNews*. Typically 400 to 800 words, *BSCESNews* featured articles are about technical topics or professional matters of interest to civil engineers. The May 2016 issue of the newsletter for example, will highlight the ASCE Coasts, Oceans, Ports and Rivers Institute Boston Chapter and feature one or more articles about on the topic of Emergency Preparedness.

Email your article in Microsoft Word format to BSCES Newsletter Editorial Board Chair Mike Cunningham at mcunningham@kleinfelder.com or BSCES Association Manager Rich Keenan at rkeenan@engineers.org.

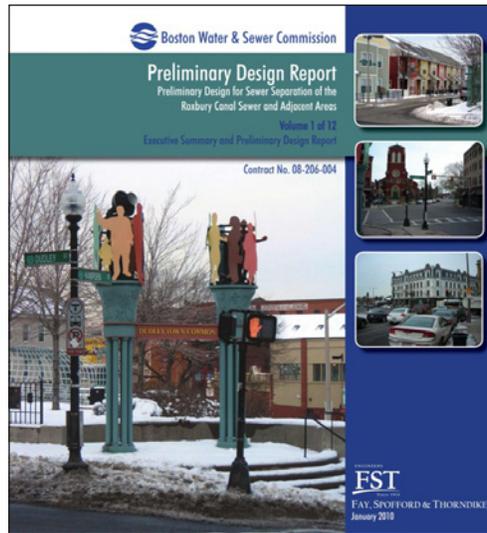
A Mission to Improve Boston's Water Resources

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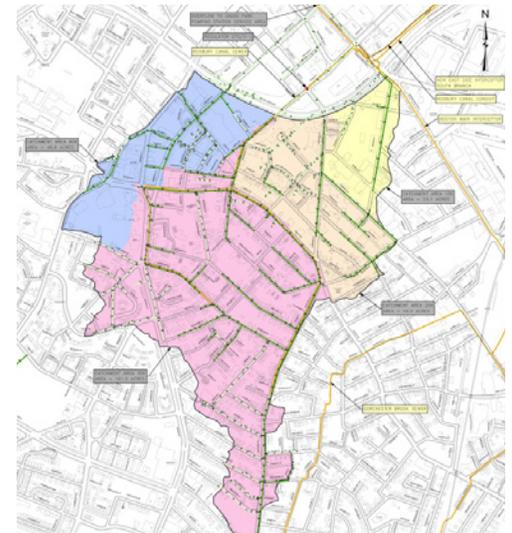
of 2016 and will be followed by the second and third contracts in the spring of 2017 and 2018, respectively. When completed, these projects will substantially reduce the volume to stormwater treated at the MWRA's Deer Island Wastewater Treatment Plant.

Through these and many similar projects, the BWSC has made tremendous strides toward improving the quality of Boston's water resources. As the future unfolds, the BWSC will continue its mission of upgrading critically important infrastructure to protect the environment, and to maintain the exceptionally high level of water and sewer services on which the community has come to depend.

Michael Carroll, PE, is a senior associate at Stantec, who works from the Burlington, MA office.



The preliminary Roxbury Canal sewer separation area



The preliminary Roxbury Canal sewer separation area

ASCE Multi-Region Leadership Conference, February 12 – 13, 2016

by Cara Pirkey, EIT, Transportation Engineer, HNTB Corporation and BSCES Younger Member Group Chair

On the coldest weekend in February, 400+ East Coast ASCE members flocked to the City of Bridges, Pittsburgh, PA, to attend the 2016 Multi-Region Leadership Conference (MLRC) hosted by ASCE. The Leadership Conference is made up of three different groups, the Workshop for Section Branch Leaders (WSBL), Eastern Regional Younger Member Council (ERYMC), and the Workshop for Student Chapter Leaders (WSCL) from Regions 1,2,4, and 5. In attendance from BSCES were BSCES President-Elect Brian Morgan, ASCE Region 1 Governor Linda Hager, BSCES Executive Director Tony Puntin, multiple local Boston University students and myself.

MLRC is a slam packed two days of sessions and networking opportunities, most of the sessions are roundtable formatted and geared towards developing relationships with other sections/

branches and discussing lessons learned and successful events. Not only does the conference provide plenty of time with local groups but also opportunities to talk to the 2016 ASCE president, 2016 president elect, and 2017 ASCE president elect nominees.

Presentations were made from many of Pittsburgh's finest, topics ranging from demolition of the local ice hockey arena to legislative involvement. A keynote speaker discussed "What Makes a Leader" and an Order of the Engineer ceremony was conducted.

During the conference, BSCES was recognized for two awards, the History & Heritage Citation and Outstanding Section and Branch Award for Very Large Sections (fourth time in five years!). Brian Morgan accepted them both on behalf of BSCES.



Brian Morgan accepting the Outstanding Section and Branch Award from ASCE 2016 President, Mark Woodson.

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East Cambridge's Development Update

by Carol J. Dennison, VP and Senior Program Manager Kleinfelder, Inc.

As part of Kendall Square Urban Renewal Plan (KSURP), over 5.6 million square feet of new development is either under construction or planned for construction over the next decade in Kendall Square, right in the heart of East Cambridge, MA. There will be approximately 24 acres of development within the 42 acre Kendall Square Urban Renewal area.

The new mixed-use development consists of life science and office buildings, residential, retail and restaurants, underground parking and open space; which includes the following:

- 1.7 million square feet of development on 11 acres, known as the Alexandria Center along Binney Street by Alexandria Real Estate Equities;
- 1.0 million square feet of proposed development, north of Broadway near the curved road where Binney Street transitions to Galileo Galilei Way by Boston Properties; which will be largely infill development and redevelopment of sites that currently have smaller buildings on them.
- The potential of up to 2.1 to 2.9 million square feet (subject to zoning) of redevelopment on the 14 acre parcel of the Volpe Transportation Center. The project will be set up where the developer is an Exchange Partner with the US Government Service Administration (GSA) to build a new 390,000 square foot Volpe Center and parking spaces to accommodate 1,300 employees; to leverage the expertise of the real estate industry to optimize the balance of the property for new market-driven uses.

- In addition, the City of Cambridge is preparing to redevelop approximately 5 acres of public parks in East Cambridge, known as Rogers Park, Triangular Parcel, Galileo Way Park and Point Park.

Next door to East Cambridge is known as Area 4, where MIT is in the midst of planning a transformation of their East Campus, known as the Kendall Square Initiative. MIT will be adding 1.9 million square feet of high-rise residential, high-rise commercial/laboratory, graduate student housing, child-care facility, academic space, retail and underground parking.

Infrastructure enhancements and increasing capacity for this scale and number of developments becomes critical. Cambridge's Department of Public Works, Community Development Department, Traffic, Parking and Transportation Department, and the Water Department are assessing their current capacity and condition of their sewer, drain, water and streets and evaluation mitigation opportunities. Information is essential on location of development, building and land use, building and site loading, utility and road connection points, underground utility congestion and roadway congestion and design and construction schedules for each.

Other factors to be considered—the City just issued a Climate Change Vulnerability Assessment Report (Part 1) which will serve as the technical foundation for the forthcoming Climate Change Preparedness & Resiliency Plan and will have an updated Climate Action Plan this year. New regulations by the EPA are

potentially being issued this month, which will require 260 municipalities that feed in to the Charles River to remove at least 54 percent of the phosphorus that washes in to the river every year.

The Agencies, City, Developers, Design Consultants, Contractors and the 7,000 residents that reside in East Cambridge will be working together for years to come as East Cambridge undergoes this transformation.



Boston Society of Civil Engineers Section
American Society of Civil Engineers

BSCES Awards Nominations Deadline is May 16

Do you know a worthy award recipient? If so, then download, complete and submit the 2016 BSCES Employer Recognition and/or Section Awards form contained in this newsletter by the Monday, May 16, 2016 submission deadline. Created in 2006, the Large and Small Employer Recognition Awards are given to those organizations who exhibit exemplary support of ASCE and BSCES. The long-standing BSCES Section Awards are given to individuals who have made significant contributions to the profession and their communities.

Please see the awards nomination forms at the end of this month's newsletter for further details.



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EASTERN TOPOGRAPHICS



Featured Group

Construction Institute—Boston Chapter: Spring Forward

by Daniel R. Cook, PE, SE, Senior Staff II – Structures, Simpson Gumpertz & Heger Inc., and Chair, Construction Institute Boston Chapter

On the recent morning of February 2nd, Punxsutawney Phil emerged from his den in Pennsylvania without his shadow in tow. His prediction of an early spring was welcome news to individuals all across Boston in the wake of last winter's record-setting barrage of snow. As the days get longer, and warmer temperatures begin to hold, construction around the city is thriving. Tower cranes fill the skyline at sites such as Millennium Tower, and barges float along the unfrozen Charles River to service the Longfellow Bridge rehabilitation project.

Just as construction within the city is expanding, so too is the Boston Chapter of ASCE's Construction Institute (CI). The mission of the CI Boston Chapter is to advance the state of the art in construction technology, equipment and techniques; to provide and encourage the advancement of education and research in construction engineering; to provide a forum for the exchange of ideas between all who have an interest in the engineered project; and to encourage interaction between designers, contractors, owners and other professionals associated in the construction industry.

We promote the exchange of ideas to hear, debate, and discuss current issues and the future of the profession and offer possible solutions across our industry sectors. We do this internally through regular conference calls, meetings typically held at Jacob Wirth, and private site tours. We typically engage others outside CI through organized dinner meeting presentations. This year, we have shifted our attention to planning site tours, networking sessions, and a full-day construction-based seminar.

In May 2015, we hosted an evening cruise that offered unique views of horizontal and vertical construction projects along the Charles River. Rob Collari of J.F. White, and Andrew Gioncondi of Skanska, delivered a presentation on the Longfellow Bridge Project. Topics of discussion included bridge history, project sequence, staged project approach, construction methods (including the use of Safeway deck and Gantry), historical elements to be repaired/replicated/

refurbished, arches, buckle plates, ornamental railing, riveted structural members, towers, seismic pier upgrades, utilities considering steam line outages at specific times of year, galvanization with riveted construction, the use of new mapping technology at the existing arch-to-column bolt layout, and general project challenges.

In December 2015, a small group of CI members had the opportunity to tour the Millennium Tower project site. Kathleen MacNeil of Millennium Partners – Boston, provided a private tour of the old Filenes Building. Over the height of the 60-story tower, we had the opportunity to see nearly completed lower-level common spaces in the process of punch list, residential units at various stages of completion at intermediate floors, and the incredible views offered by the unfinished penthouse, which may be sold as one, two, or three separate units. CI Boston Chapter continues to explore opportunities for project site tours capable of accommodating both large and small groups. We hope to tour Brighton's New Balance facility and adjacent commuter rail station in the very near future.

This year's 27th Annual Francis M. Keville Dinner will be held on Thursday, April 14th, at the Courtyard Boston Downtown. A joint meeting between the Keville Committee, CI Boston Chapter and the Boston Chapter of the Transportation and Development Institute (T&DI), this celebration of the late Francis Keville fills its venue to capacity year in and year out. The Francis M. Keville Memorial Fund was established in 1989 from donations in recognition of Mr. Keville's efforts and abilities to take his vision of large public transportation projects and make them a reality. The fund provides a forum to discuss important aspects of transportation and construction related matters through an annual function. The fund provides, through a competitive selection, a scholarship to students at Northeastern University in recognition of achievement or promise in transportation and/or construction. From time-to-time, it also provides a grant to a worthy

activity enhancing the transportation and/or construction related field. This year's keynote speaker is Braintree mayor and Massachusetts Department of Transportation (MassDOT) board member, Mayor Joseph Sullivan. Mayor Sullivan will be introduced by Stephanie Pollack, secretary of transportation and chief executive officer of MassDOT. See the insert at the end of this newsletter for more information about this upcoming dinner meeting.

CI Boston Chapter's prime focus this year is our upcoming full-day seminar, currently dubbed the "CI Boston Day-Summit." Scheduled for Friday, May 6th, this event will take on the form of a typical day at an ASCE national conference. The day will begin with an opening breakfast presentation by Sam Sleiman, director of capital programs and environmental affairs at the Massachusetts Port Authority and immediate past chair of the Construction Management Association of America (CMAA). From there, the day will be subdivided into a series of technical sessions separated by networking breaks. Each technical session will include three to five presentations, including a mix of project case studies, round table discussions, and interactive training programs. Presentations by Dr. Kord Wissmann, president of the Geopier Foundation Company and president of the ASCE Geo-Institute, construction consultant and author Cliff Schexnayder, Dennis Swinford of MIT's Office of Campus Planning, and representatives of Stantec, Howard Stein Hudson, and Skanska are also currently slated to fill out the day. If scheduling allows, we may end the day with a site tour for a select number of attendees. Beyond the summit, we hope to host the 1st Annual Strike Up a Conversation Bowling/Networking Scramble in June. Look for more information on these events in coming editions of *BSCESNews* and email correspondence.

We welcome and encourage participation in the Boston Chapter of ASCE's Construction Institute. If you are interested in joining our group or have ideas for future meeting topics, please contact me at 781/907 9448 or drcook@sgh.com.

Volunteer Opportunities

Outreach Volunteers Needed!

by Olivia A. Richards, Assistant Structural Engineer, Gill Engineering and BSCES Public Awareness & Outreach Committee Chair

The BSCES Public Awareness & Outreach Committee has numerous events planned this spring for which volunteers are needed. The following partial list of these events describes the nature of these undertakings and the role BSCES member volunteers will play. For more information on volunteering opportunities or becoming part of the BSCES Public Awareness & Outreach Committee, please contact me at oliviaannerichards@gmail.com.

Girl Scouts Annual STEM Conference and Expo

Date: Sunday, April 3, 2016

Time: Overall event is 9:00 AM – 5:00 PM; lunch is provided

Location: Sheraton Hotel in Framingham, MA

This event gives girls in grades 6–12 the chance to hear from women in the field and take part in STEM activities. BSCES will be hosting a workshop for Civil Engineering. We need volunteers who are interested in assisting with the hands on activities for the girls. Volunteers will be assisting with the activities and sharing

their experiences as civil engineers. Please contact [Olivia Richards](mailto:Olivia.Richards) if you are interested.

Girls STEM Summit East

Date: Sunday, April 10

Time: 8:00 AM – 4:00 PM; lunch is provided

Location: Regis College, Weston, MA

This event aims to broaden students' awareness of career paths in STEM by providing hands-on, STEM Career Sessions. Groups of about 30 high school girls will be rotated between career sessions to learn about different STEM careers. BSCES will be hosting the career session on Civil Engineering. We need volunteers who are interested in assisting with the hands on activities for the girls. The session will consist of a presentation on civil engineering by Michelle Cheung and followed by simple and fun activities that introduce the fields of transportation and structural engineering. Volunteers will be assisting with the activities and sharing their experiences as civil engineers. Please contact [Michelle Cheung](mailto:Michelle.Cheung) if you are interested.

10th Annual Cambridge Science Festival

Date: Saturday, April 16

Time: 12:00 noon – 4:00 PM

Location: Cambridge Rindge & Latin Field House, Cambridge Public Library, Broadway and Ellery Street, Cambridge

Every spring, BSCES attends the [Cambridge Science Festival](#). The founding collaborators are MIT, Harvard University, the City of Cambridge and the Museum of Science. BSCES is invited to attend the Science Carnival and Robot Zoo Event, which is an expo-style event with almost 100 booths providing hands on activities and demonstrations for the public. It is the largest and most publicized exposition that the BSCES Outreach Group attends. BSCES will have a booth in the field house with civil engineering activities for the public. We need volunteers to help with activities relating to bridge building, catapults, block towers, etc. All volunteers are welcome—engineers and engineering students. Please contact [Olivia Richards](mailto:Olivia.Richards) if you are interested.

Infrastructure Day

Date: Saturday, May 14

Location: Holyoke, MA

BSCES will be hosting its 2nd annual Infrastructure Day following the Choate Bridge Celebration in Ipswich last year. The Outreach Group will need volunteers for hands-on engineering activities for the public at the event. More details to come! Please contact [Olivia Richards](mailto:Olivia.Richards) if you are interested.

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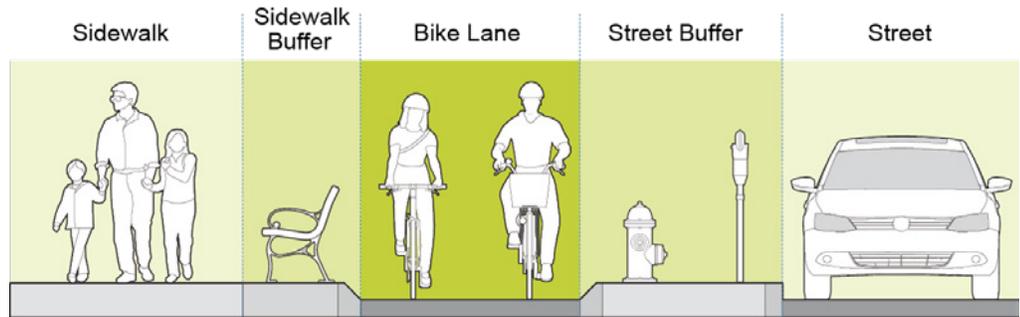
New Separated Bike Lane Guide Issued by MassDOT

by Matthew I. Shuman, PE, Town Engineer, Town of Watertown

MassDOT released its long anticipated “Separated Bike Lane Planning and Design Guide” on November 4, 2015 at the MassDOT Moving Together Conference. Separated bike lanes create an exclusive space for bicycle use along or in a roadway by means of physical separation from both pedestrians and vehicles. The form of physical separation can differ depending on the application, but usually includes some form of horizontal buffer between pedestrian and vehicular zones as well as a vertical separation or barrier from vehicular traffic. This configuration minimizes conflicts with motor vehicles and increases the safety of all users, including pedestrians.

Separated bike lanes are relatively new in the United States, but have been used in Europe for many years. Examples include Western Avenue in Cambridge and Massachusetts Avenue in Boston. A number are also in design or construction, such as Atlantic Avenue and Commercial Street in Boston. Although geared towards the existing right-of-way and weather constraints of Massachusetts, the Guide has been heralded by many groups as the most detailed engineering-level document yet published in the United States.

The Guide supports MassDOT’s goal of tripling the share of walking, bicycling and transit trips by 2030 through its GreenDOT policy, as well as the “complete streets” approach to transportation design. Research referenced in the Guide indicates that 60 percent of the population is “interested but concerned” about bicycling. These types of people are unlikely to use conventional bicycle accommodations on highly trafficked roads because they are concerned about safety while bicycling in close proximity to motor vehicles. However, they also



A separated bicycle lane provides dedicated space within the streetscape for exclusive bicycle use.

represent a large potential group of new users that could be encouraged to bicycle if adequate low-stress networks were provided. Separated bicycle lanes are intended to create more attractive, safer accommodations, particularly on high-speed and arterial roads, to provide better access to potential “interested but concerned” users.

Divided into seven chapters, the Guide discusses such issues as: when separated bike lanes are appropriate and feasible; bike lane configurations and separation strategies; utility, drainage and landscaping considerations; signalization guidance; and maintenance activities. In addition, an entire chapter is dedicated to intersection treatments. Intersections create a number of mixing zones and conflicts between vehicles, bicyclists and pedestrians. They are also the location where the majority of crashes between bicyclists and vehicles occur, although crashes between bicyclists and pedestrians are relatively rare. The Guide describes in detail a number of different typical intersection configurations and strategies to minimize conflicts, manage speeds, communicate right-of-ways, and provide adequate site distance. The Guide can be found on-line.



Western Avenue separated bicycle lane in Cambridge. From this vantage point, the bicycle lane transitions from road grade at the intersection to sidewalk grade. Street trees and furniture provide a physical barrier between the bicycle lane and the adjacent sidewalk, and the asphalt and concrete materials provide a visual barrier as well.



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Boston Building Boom Update

by Ronald Burns, PE, Principal Engineer, CHA Consulting, Inc.

After a slow start following the end of the recession in 2009, Boston has seen tremendous growth in its building sector. Mr. Golden, director of the Boston Redevelopment Authority (BRA) in an interview with WBUR News in July, 2015 stated that “We are going through what is arguably the biggest building boom in the history of Boston.”

This building boom has been fueled by Boston’s strong recovery from the recession. The Boston job market has seen steady improvement according to the BRA with unemployment falling from a peak of 8.4% in 2009 down to 4.2% in 2015. This is significantly lower than the 5.5% national average. Job growth has averaged 1.4% from 2000–2013. According to Jones, Lang, LaSalle the strong job growth in Boston is expected to continue until at least 2020.

Based on data provided to *The Boston Globe* from the BRA, as of November 2015 over \$7 billion in building construction projects are underway in Boston. This consists of over 83 large building projects. Over \$4 billion of that construction is being spent in three neighborhoods: Seaport district, downtown and Back Bay. If anyone has been to Red Sox game they must have noticed the building boom going on in the Fenway area as well.



To give a feel of the scope and size of the projects going on, the table below contains a sample of some of the largest buildings projects under construction or just completed in Boston.

There are also plenty of projects in the pipeline. Here are couple of large projects in the works:

- **Four Seasons Private Residences** at 1 Dalton Street. At 750 feet tall it will rival the John Hancock Tower in height.
- **Winthrop Square Garage** at 240 Devonshire Street. This is the site of a former city owned garage. Eight developers have responded to the city’s RFP. All eight have proposed large scale

projects with many of them including towers over 700 feet tall.

These are just a handful of the projects that are changing Boston’s skyline forever, and of course we haven’t even talked about Cambridge. GE’s recent announcement to move their headquarters to Boston is just another indicator of the robust economy Boston has. GE cited the educated workforce and the ability to partner with the elite universities and research centers in the area. The synergy created will just add to the areas job growth and add more fuel to the booming real estate market. So the congested streets and cranes on the horizon are not likely going away any time soon.

Project	Address	Square feet	Completion date
Millennium Tower: At the site of the old Filenes headquarters. This building is rising 60 stories/625 feet and includes residential and retail on the bottom floors.	1 Franklin Street	1, 200,000	Summer 2016
1 Seaport Square: A large mixed-use development adjacent to Moakley Federal Courthouse. The building will be 30 stories with 832 apartments.	Northern Avenue	1, 500,000	Summer 2017
TD Garden Towers: The first phase of this \$1+ billion project adjacent to TD Garden is underway. It will be mixed use with eventually three towers on 2.5 acres.	100 Legends Highway	1,500,000	2020 (est.)
The Van Ness: This large, two-tower, mixed-use complex is one block from Fenway Park. The Van Ness is one of at least 5–6 new mid/high rise apartment/mixed-use developments built or on the drawing board for the Fenway area. The two-tower building is 12–13 stories with 172 apts. and 230,000 square feet of office units and also houses Target’s flagship “city” store.	1325 Boylston Street	400,000 (est.)	June 2015
New Balance Headquarters: The recently completed New Balance headquarters is to house 700 employees and is easily visible from the Mass Pike in Allston. While not as large as some of the other complexes it deserves mention for: 1) It’s likely-to-be-iconic style which has already garnered accolades from the architectural community and 2) It’s expression of businesses’ commitment to urban locations after years of moving their businesses out to the suburbs.	20 Guest Street	250,000	September 2015
Congress Square: This large-scale redevelopment project includes 92,700 square feet of proposed new development as part of the overall 458,300 square foot redevelopment.	54-82 Devonshire Street	458,300	

BSCES Legislative Fellow Update from Beacon Hill— The Massachusetts Transportation Program

by Michael Sullivan, PE, Senior Bridge Engineer, Collins Engineers, Inc., 2015–2016 BSCES Legislative Fellow



On March 24th, the BSCES Transportation & Development Institute will be hosting an event entitled—the Massachusetts Transportation Program—A Legislative Update. This event will feature a panel of four speakers actively engaged in transportation funding and project programming at both the local and state level. The panel will feature Representative William Straus, Co-Chair of the Joint Committee on Transportation; State Representative Smitty Pignatelli, of Ways and Means; Mayor Joe Sullivan from the Town of Braintree; and Steve Woelfel, Director of Strategic Planning for MassDOT. Various topics will be discussed including local tax options, value capture, Chapter 90, and funding from the federal government. This important update is a great opportunity to network and provide thoughts to our legislative leaders.

The Baker administration has recently filed a couple of bills that will greatly impact funding for public works projects. The first bill is for municipal Chapter 90 funds: H4010—An Act financing improvements to municipal roads and bridges. This bill would authorize the Commonwealth to borrow \$200 million to fund improvements to municipally-owned roads and bridges. The bill also authorizes an additional \$50 million for design, construction, preservation, reconstruction and repair of smaller bridges with span lengths no greater than 20 feet. These funds can be used for engineering, design, permitting and other services essential to the projects.

The second bill, H.3983—An Act to provide opportunities for all, is a broader piece of legislation for the purpose of economic development in the Commonwealth. The bill authorizes \$500 million over five years for the

MassWorks infrastructure program, administered by the Executive Office of Housing & Economic Development. This program provides infrastructure grants to municipalities and other public entities to support economic development and job creation. Grants can be used for sewers, utility extensions, streets, roads, curb-cuts, parking facilities, site preparation and improvements on publicly owned land, pedestrian walkways, and water treatment systems. The goal of the MassWorks program is to create economic development in weak or distressed areas, revitalize communities to promote mixed-use development, and to enhance safety through transportation improvements. The bill also authorizes \$75 million for the Brownfields Redevelopment Fund, which was created to provide financial incentives to help parties overcome obstacles associated with the cleanup and development of contaminated properties.

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Recent News and Updates

\$7,500 SGH Scholarship Applications Deadline is March 25, 2016

Applications for the 2016 Simpson Gumpertz & Heger Scholarship are now being accepted. All undergraduate civil engineering majors who are: 1) members of an ASCE Student Chapter or Club in Massachusetts; 2) have completed a minimum of 2.5 years of a four-year program (or equivalent portion of a five year or part-time program); and 3) expect to complete their undergraduate degree in May 2016 or later; are eligible to apply for this \$7,500 scholarship. Applications are due by 5 PM on Friday, March 25, 2016. The winner will be announced during BSCES Student Night 2016, which is being held on Wednesday, April 6, 2016 at Tufts University. For additional information see the insert included at the end of this newsletter.

2016 Ernest A. Herzog Award Submissions Deadline Extended Until April 15

Due to a lack of submissions, the deadline for submitting a paper for the \$1,000 2016 *Ernest A. Herzog Award* has been extended until Friday, April 15, 2016. Eligible papers include those that present an infrastructure project, innovation or idea in which the author was actively involved in as an owner, advocate, engineer, or end-user. Areas of application may include design, construction, operation, maintenance, management or financing of infrastructure components or systems. For more details about this award, see the insert at the end of this month's newsletter.

Bertram Berger Young Engineer Award Nominations Deadline is April 22, 2016

The ASCE Transportation & Development Institute Boston Chapter is now accepting nominations for the 2016 Bertram Berger Young Engineer Award, which serves to recognize an outstanding BSCES younger member for his or her professional achievements and service to the community. The successful candidate should: 1) be less than 35 years old on May 1, 2016; 2) have attained exemplary professional achievements as a young engineer; 3) demonstrate leadership in the practice of civil engineering with emphasis on transportation; 4) enhance the stature of civil engineers within the community; 5) be active with professional organizations such as BSCES or similar; and 6) be a registered, or soon-to-be registered, professional engineer.

The Bertram Berger Young Engineer Award winner will receive a \$2,500 stipend to be used for continuing education and/or professional development. To nominate an individual for the Bertram Berger Young Engineer Award, please submit an up to three page narrative statement describing how the nominee meets the above described criteria by 5 PM on Friday, April 22, 2016. Please see the insert at the end of this newsletter for more information.

"Sustainability in Civil Engineering Award" Nominations are Due May 1, 2016

Until Sunday, May 1, 2016 the BSCES Committee on Sustainability will accept nominations for the 2016 Sustainability in Civil Engineering Award. Now in its second year, this award recognizes a Massachusetts civil engineering infrastructure project constructed within the last three years that exemplifies the principles of sustainability espoused by the Institute of Sustainable Infrastructure (ISI). For more information regarding submission guidelines and evaluation criteria for this award, please see the insert at the end of this newsletter or download the awards form from our website at [BSCES Sustainability Award Form](#).

New England ASCE Student Conference

Northeastern University and Wentworth Institute of Technology, have the privilege of co-hosting the 2016 New England ASCE Student Conference on April 22–24, 2016. Colleges and universities from all over New England and parts of Canada will gather at the Northeastern campus to present their bridge and canoe designs and see if they are strong enough to make it to the National Competition. All are welcome to witness this exciting event to cheer on your alma mater or favorite team. Please consider sponsoring this event to help reducing direct costs to students. Questions regarding sponsorship opportunities should be emailed to Steel Bridge Competition Co-Chairs [Corinne Bowers](#) and [Christine Lai](#) or Concrete Canoe Competition Chair [Jamie Grome](#).

State House Visit

On Tuesday, May 10, 2016, engineers will visit the Massachusetts State House for our Annual Engineers and Land Surveyors Day. Sponsored by ACEC/MA, BSCES, and MALSCE, this event allows the design/engineering community to speak with a single voice on issues that matter to us. BSCES recognizes the need for our industry to participate in development of public policy and the legislative process as they relate to our infrastructure. This event is one of the best opportunities to influence legislators. We hope you can provide your time and expertise to make this a successful event. [Click here](#) for additional details and registration.

Are you certifiable? Certification is the recognition of attaining advanced knowledge and skills in a specialty area of civil engineering. ASCE created Civil Engineering Certification, Inc. in 2004 to provide a mechanism for professional post-licensure certification of the various specialties within civil engineering. Each Academy offers the highest advanced post-licensure certification in areas of coastal, geotechnical, navigation, ocean, ports, and water resources engineering. All certifications adhere to ASCE's policy to broaden and deepen the body of knowledge for practicing engineers and to elevate the standards in civil engineering. [Click here](#) for more information on the programs.

2017 ASCE President-Elect Nominees



Robin Kemper
P.E., LEED AP, F.SEI, F.ASCE



Kristina Swallow
P.E., ENV SP, F.ASCE

Nominees for 2017 ASCE President Elect

Women may be underrepresented in civil engineering workforce, but that certainly won't be the case for ASCE Leadership in the near future. This spring there will be two female candidates for ASCE president-elect on the ballot. Given that there have been only three females elected to that position over ASCE's 164 year history, that is quite the accomplishment.

The official nominees for 2017 ASCE president-elect, as selected by the Society's Board of Direction Nominating Committee, are Robin Kemper, a senior risk engineering consultant for Zurich Services Corporation in New York, and Kristina Swallow, program manager for the city of Las Vegas. I have had the privilege to serve with both of them in various capacities on the ASCE Board of Direction or on National committees. I have had the opportunity to meet and socialize with their families and know both of their husbands—potential "first gentleman." I can say without reservations that both women would/will make an excellent leader for ASCE. The knowledge of our industry and dedication to our profession shows through in every discussion I have had with them. Their commitment to ASCE and the advancement of the civil engineering industry is unwavering.

Come this fall at the Annual Convention in Portland, OR, for the first time in its history, ASCE will have women in its two top leadership roles. After current President-elect Norma Jean Mattei is inaugurated 2017 president, and the winning nominee succeeds her as president-elect. Times, they are a changing!

Detailed information about [Robin](#) and [Christina](#) can be found on [ASCES' election page](#). Please take time to review both of the candidate's information and vote. It feels good to be part of a presidential race where the people can't lose ... no matter who is elected.

Infrastructure is not a Game

Well... this time it is. The game, called INFRA, was developed by Loiste Interactive of Finland, takes a unique look at the issue of deteriorating infrastructure. As the websites describes: "Your city

continued on page 11

Recent News and Updates *(continued from page 10)*

is crumbling. Years of corruption and deception have left the infrastructure of this once-booming town in shambles. Your mission, should you choose to accept it, is to step into the shoes of an ordinary structural analyst who's having a rather unordinary day. You will be exploring abandoned factories and tunnels and structurally unsound buildings in your city and its surroundings." Happy gaming!

Professional Development in your Wheelhouse

Stay on the cutting edge of your technical discipline with the most up-to-date codes and standards, professional practice publications, conferences, e-updates, and continuing education courses all designed to provide the resources you need to advance your career. ASCE can and should be one of your best references to continue your Professional Development. [Click here](#) today!

Some of the material includes the following:

- [The ASCE Library](#) gives you access to professional journal articles online, across all disciplines of civil engineering.

- [Professional Books](#), available to you at a significant member discount, give you access to the latest technical information, codes and standards, and best practices in civil engineering.
- [ASCE Conferences](#) open doors to new professional opportunities, let you exchange ideas with peers, and shake hands with industry colleagues.
- [ASCE proactively promotes diversity](#) and includes various backgrounds, skills, and experiences to develop appropriate solutions and actions that will embrace and enhance opportunities in civil engineering.
- [Nine Specialty Institutes](#), making specialty area information and services even easier to access
 - [Architectural Engineering Institute](#)
 - [Coasts, Oceans, Ports and Rivers Institute](#)
 - [Construction Institute](#)
 - [Engineering Mechanics Institute](#)
 - [Environmental & Water Resources Institute](#)
 - [Geo-Institute](#)
 - [Structural Engineering Institute](#)

- [Transportation and Development Institute](#)
- [Utility Engineering and Surveying](#)

Social Media

Did you know that BSCES is "connected"? As forms of communication continue to expand, BSCES is trying to keep up with all of the social media outlets. Our [twitter](#) account has over 300 followers from state agencies to engineering firms. We invite you to follow us and hashtag BSCES (#BSCES) if you attend one of our events. The BSCES Facebook page has almost 800 "likes." The page is used to announce upcoming events, provide picture galleries of some of our signature events, and sometimes shows the lighter side of engineering. Almost 1,800 individuals have connected with BSCES on [LinkedIn](#). This forum is used for meeting announcement and discussions that are more technical in nature. These sites, in addition to the [BBSCE homepage](#), will provide information on upcoming events and highlight BSCES accomplishments.

BSCES Infrastructure Day 2016 is Scheduled for Saturday, May 14th

by Dr. David Westerling, PE, PLS, Past-President BSCES/ASCE and Professor Emeritus, Department of Civil and Mechanical Engineering, Merrimack College

The BSCES Past-Presidents Committee has again undertaken the task of organizing an Annual Infrastructure Day. Coming up on Saturday, May 14th, Infrastructure Day will celebrate Holyoke's Great Stone Dam on the Connecticut River and the extensive canal system which powered the late 19th and early 20th century mills in Holyoke.

Working closely with the Holyoke Historical Commission and Mayor Alex Morse, the working team has assembled an amazing group of supporters for the event. The Holyoke Gas and Electric Department of the City (HG&E) now provides nearly one hundred percent of the City's electric power with carbon-free energy. HG&E owns and operates the dam and hydro-electric station and has just completed a \$9M downstream passage fish facility for migrating Atlantic Salmon,

American Shad and Blueback Herring.

Also of note is the impact in Holyoke of a BSCES Civil Engineering pioneer, Clemens Herschel. A Past-President of BSCES and ASCE, Herschel was brought to Holyoke in the 1880s as a hydraulic engineer to develop water control devices to distribute and measure water flows. In a special laboratory, he invented a flow meter which uses the Bernoulli principle and the relationship between pressure and velocity. He called it the Venturi Meter, named after an Italian scientist, who had studied water flow. Today the Venturi Meter is one of the most widely used flow measuring devices on the planet. Clemens Herschel will be honored at this year's Infrastructure Day. ASCE President-elect Norma Jean Mattei will be on hand for the ceremonies.

Tours will be available of the extensive three-level canal system on Infrastructure Day. The Massachusetts State Heritage Park will be the epicenter of activities for kids and their families, focusing on STEM education activities and historic research for K-12 students. Other participating groups include the Western MASS Girl Scouts, the Holyoke Public Schools, the Children's Museum of Holyoke, BSCES Outreach Program, the Connecticut River Watershed Association, the South Hadley Public Library, Tighe and Bond Engineering and many other schools, colleges and civic organizations.

A complete listing of activities, an event map and a schedule for the day will be available in future issues of *BSCESNews*. Look for an Infrastructure Day web page coming soon at www.Holyoke.org.



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Upcoming Events

For more information and to register for events, please visit 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.

Engineering Management Group Event

Thursday, March 31, 2016

Wyndham Boston Beacon Hill
5 Blossom Street, Boston, MA

5:30 PM Social/Registration

6:30 PM Meal

7:15 PM Presentation

Dispute Resolution Board: Alternative Dispute Resolution Process that Promotes Conflict Avoidance as well as Timely and Cost Effective Dispute Resolution

Bob Jarnis, PE, Woodard and Curran

The Dispute Resolution Board is an excellent, yet underused, tool that can be used to reduce the likelihood of protracted and costly disputes. Dispute Resolution Boards (DRBs) have successfully resolved construction contract disputes in the US since 1976. Since then, over 2,700 projects worth more than \$225 billion have used this process. Understanding the DRB process and the requirements that make it successful will be the focus of this presentation.

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

104th BSCES Student Night

Wednesday, April 6, 2016

Tufts University, Alumnae Hall
40 Talbot Avenue, Medford, MA

5:30 PM Social/Registration

6:30 PM Dinner

7:30 PM Presentation

Designing for Tornadoes: A Paradigm Shift

Dr. Long T. Phan, PhD, PE, F.ACI, Acting Director, Disaster and Failure Studies Program, National Institute of Standards and Technology

Dr. Phan has conducted research on a wide range of topics, including investigations of damage to the built environment caused by natural or man-made disasters. He has conducted numerous tornado investigations, such as those in Jarrel, Texas (1997); Orlando, Florida (1998); Alabama (1998); Spencer, South Dakota (1998); Joplin, Missouri (2011); and

Newcastle-Moore, Oklahoma (2013). Dr. Phan will discuss the lessons learned from these investigations, the key recommendations made in the studies, and how the design methodology for tornado events has changed and evolved.

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

John R. Freeman Lecture

Monday, April 11, 2016

Northeastern University, West Village F, Rm 020
40A Leon Street, Boston, MA

6:00 PM Reception

7:00 PM Lecture

Desalination for Water Supply: Is Energy Consumption Manageable?

Professor John H. Lienhard V, Director, Abdul Latif Jameel World Water and Food Security Lab Massachusetts Institute of Technology

Water scarcity is an increasing problem throughout the world. Desalination has been deployed worldwide to expand the supply of freshwater, especially for coastal populations. But concerns remain about the energy consumption of the process. In this talk, Professor Lienhard will discuss research directed at understanding the causes of energy inefficiency in various desalination processes and efforts to adapt concepts from thermal engineering to improve the design of both thermal and membrane desalination systems.

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

Plan to Attend!

Saturday, April 30, 2016

Middlesex Fells Reservation Clean-Up

Sponsored by the Younger Member Group

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

Save the Date!

CI Boston Day-Summit

Friday, May 6, 2016

Featuring presentations by...

Sam Sleiman, Director of Capital Programs and Environmental Affairs at Massport and Immediate Past Chair of CMAA

Dr. Kord Wissmann, President of the Geopier Foundation Company and President of the ASCE Geo-Institute

Cliff Schexnayder, Construction Consultant and Author of "Builders of the Hoosac Tunnel"

And representatives of

SKANSKA, Stantec, Howard Stein Hudson, and more

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

Register Today!

Engineers and Land Surveyors Day at the State House

Tuesday, May 10, 2016

Join BSCES, ACEC/MA, and MALSCE at the State House on May 10 to present the engineering and land surveying industry's views to our state legislators. Discuss issues important to you as a professional and to you as a citizen.

For up-to-date details, or to register for Engineers and Land Surveyors Day, [click here](#).

Mark Your Calendar!

Saturday, May 14, 2016

2016 Infrastructure Day To Celebrate Holyoke's Dam and Canals

Look for more information in upcoming issues of BSCESNews.

Upcoming Events *(continued from page 12)*

27th Annual Francis M. Keville Dinner

Thursday, April 14, 2016

Marriot Courtyard Boston Downtown
275 Tremont Street, Boston, MA

5:30 PM Reception

6:30 PM Dinner

Mayor Joseph Sullivan, Braintree Mayor and MassDOT Board Member

The Francis M. Keville Memorial Fund was established in 1989 from donations in recognition of Mr. Francis M. Keville's efforts and abilities to take his vision of large public transportation projects and make them a reality. The fund provides a forum to discuss important aspects of transportation and construction related matters through an annual function.

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

Western Massachusetts Branch Event

Monday, April 25, 2016

Massachusetts Green High Performance Computing Center
100 Bigelow Street, Holyoke, MA

5:30 PM Social/Registration

6:30 PM Meal

7:00 PM Presentation

The History of the Holyoke Water Supply System

David E. Pinsky, PE, President and CEO, Tighe & Bond

Darleen P. Buttrick, PE, Associate, Tighe & Bond

The Holyoke water system dates back to 1872, when the first Board of Water Commissioners was established. This presentation will follow the history of the development of the water system, from the construction of the network of dams, reservoirs, and pipelines to convey water to the City, to present day including the recent construction of a new ultraviolet disinfection treatment system to meet new drinking water regulations.

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

Spring Awards Banquet

Tuesday, May 10, 2016

Framingham State University
D. Justin McCarthy Center
100 State Street, Framingham, MA

5:30 PM Social/Registration

6:30 PM Dinner; 7:00 PM Presentation

ASCE President-Elect Norma Jean Mattei, Ph.D., F.SEI, M.COPRI, M.ASCE

Professor, University of New Orleans Department of Civil & Environmental Engineering

Join us as we celebrate the civil engineering profession and the dedication of professionals and young individuals who have strived for excellence this year. ASCE President-Elect Norma Jean Mattei will deliver the dinner's keynote address. Winners will be honored for the Ralph Salvucci Online Bridge Contest, the Model Bridge Competition, and the New England Regional Future City Competition, as well as the Herzog Award.

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

Save the Date!

Friday, May 20, 2016

2016 Bertram Berger Seminar A New Focus for Growth Around the Commonwealth

Sponsored by the T&DI Boston Chapter

Courtyard Boston Downtown

75 Tremont Street, Boston, MA

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

Save the Date!

Wednesday, June 1, 2016

Structural Engineering Feud

Sponsored by the SEI Boston Chapter & Younger Member Group

Bell in Hand Tavern

45 Union Street, Boston, MA

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

Purchase Tickets Now!

Wednesday, May 25, 2016

YMG Red Sox Outing

Fenway Park:

Red Sox vs. Colorado Rockies

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

ASCE Webinars

ASCE WEBINARS

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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](#).

Classifieds

Town of Bellingham

The town of Bellingham, MA is seeking an individual with public works construction project management experience to fill the position of **DPW Project Manager**. Applicant must have experience with managing public works construction projects, cost estimating, customer service, and AutoCAD. Individual will perform project management, concept through close out, with some field inspection of construction and maintenance projects contracts. P.E. or E.I.T. preferred. Find more information at www.bellinghamma.org. Email resume to bsmith@bellinghamma.org.

Make a difference at DCI

Design Consultants, Inc. (DCI) is a growing firm headquartered in exciting Assembly Square, Somerville, with offices in Quincy and Newburyport. Due to a recent acquisition, fast-

growing workload and record backlog, we seek **mid- and senior-level transportation engineers**. PTOE a plus. Competitive pay, excellent benefits. Executive management and stock ownership potential. Smaller firm culture where your contribution makes a big difference. Email to jobs@dci-ma.com.

COLLABORATIVE WORK SPACE FOR RENT within established Boston architecture firm

Team up with Eck MacNeely Architects. We currently have landscape architects, an interior designer, structural engineer and a developer all sharing space—and collaborating on projects. For Rent: One or two adjacent work stations with access to conference room, kitchen and restrooms. Use of our printers (including wide-format) can be arranged. 617.367.9696 or REBECCAA@ECKMACNEELY.COM for more information.

The Fort Hill Companies

The Fort Hill Companies are growing! We are a vibrant, multi-disciplined engineering, architecture, and planning firm based in Boston. We are looking for qualified candidates to fill positions in our engineering division, from entry level positions through executive level positions. We value team members who can work independently, take initiative, and contribute to team efforts. Key competencies include transportation planning and engineering, site civil design, and federal, state, and municipal government experience. Additional desired competencies include: international experience, Spanish language skills, military experience, and a broad background in engineering disciplines.

We are specifically interested in filling two positions: An **engineering executive** and a **junior civil/transportation engineer**. Please visit our website at <http://forthillcos.com/news/fort-hill-hiring> for more information or to apply!

Director of Capital Project Management

Responsible for developing, coordinating and monitoring execution of Department's water, wastewater, storm water, and roadway improvement projects and infrastructure upgrades. Qualified candidates possess a BSCE, registration as a PE in MA, and 7-10 years exp. in civil engineering.



Senior Project Manager of Utilities

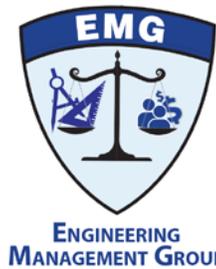
Responsible for managing water, wastewater and storm water design and construction projects. Qualified candidates possess a BSCE, registration as a PE in MA, and 5-7 years exp. in civil or environmental engineering.

AA/EOE

View full job descriptions: <https://ess.framinghamma.gov/MSS/employmentopportunities/default.aspx>



Boston Society of Civil Engineers Section
American Society of Civil Engineers



Dispute Resolution Board: Alternative Dispute Resolution Process that Promotes Conflict Avoidance as well as Timely and Cost Effective Dispute Resolution.

Bob Jarnis, PE, Woodard and Curran

Thursday, March 31, 2016

The Wyndham Boston Beacon Hill, 5 Blossom Street, Boston, MA

5:30 PM Social/Registration; 6:30 PM Meal; 7:15 PM Presentation

It's no secret that many construction projects result in change orders. Protracted claims can be costly in terms of both costs and schedule. The Dispute Resolution Board is an excellent, yet underused, tool that can be used to reduce the likelihood of protracted and costly disputes. Dispute Resolution Boards (DRBs) have successfully resolved construction contract disputes in the US since 1976. Since then, over 2,700 projects worth more than \$225 billion have used this process. Understanding the DRB process and the requirements that make it successful will be the focus of this presentation.

Please join us in hearing Mr. Jarnis speak on how the DRB can help you on future projects. Bob Jarnis is a Civil Engineering graduate of Northeastern University and obtained a Master's Degree in Civil and Environmental Engineering from the University of Wisconsin. He has been in engineering consulting for over 40 years focusing on water and wastewater projects. Mr. Jarnis was a key member of the design team for MWRA's John Carrol Water Plant serving Boston and the Croton Water Filtration Plant serving New York City. He is a Senior Technical Specialist for Woodard & Curran and is a member of the Dispute Resolution Board Federation Water and Wastewater Committee.

Registration Deadline: Friday, March 25, 2016

\$85 Members, \$110 Non-Members

\$70 Public Sector Members \$85 Public Sector Non-Members,

\$30 Senior Members (65+) & Students

Tables of 10 are available for \$850 regardless of membership

Information/Registration:

Register to attend this meeting and pay by credit card online at <http://bit.ly/EMG033116>. 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 March 25, 2016 and no-shows will be billed.

BSCES

Boston Society of Civil Engineers Section
American Society of Civil Engineers



Designing for Tornadoes: A Paradigm Shift

104th BSCES Student Night

Dr. Long T. Phan, PhD, PE, F.ACI

*Acting Director, Disaster and Failure Studies
Program, National Institute of Standards and
Technology*



Wednesday, April 6, 2016

Tufts University

Alumnae Hall, 40 Talbot Avenue, Medford, MA 02155

5:30 PM Social/Registration; 6:30 PM Dinner;

7:30 PM Presentation

Dr. Phan is the Manager of the Structural Performance under Multi-Hazards Program and the Acting Director of the Disaster and Failure Studies at the National Institute of Standards and Technology (NIST). At NIST, Dr. Phan has conducted research on a wide range of topics, including investigations of damage to the built environment caused by natural or man-made disasters. He has conducted numerous tornado investigations, such as those in Jarrel, Texas (1997); Orlando, Florida (1998); Alabama (1998); Spencer, South Dakota (1998); Joplin, Missouri (2011); and Newcastle-Moore, Oklahoma (2013). Dr. Phan will discuss the lessons learned from these investigations, the key recommendations made in the studies, and how the design methodology for tornado events has changed and evolved.

Registration Deadline: Friday, April 1, 2016

\$20 Students; \$25 Senior Members (65+)

\$45 BSCES Members, \$50 Non-Members

\$40 Public Sector Members; \$45 Public Sector Non-Members

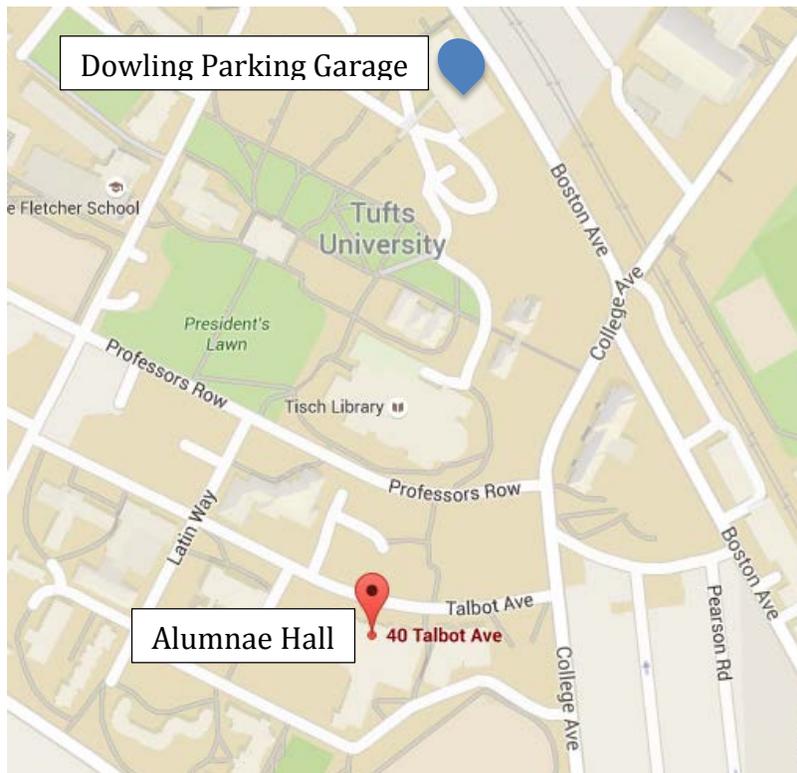
Information/Registration:

Register to attend this meeting and pay by credit card online at <http://bit.ly/BSCESStudentNight2016>. 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 April 1, 2016 and no-shows will be billed.



Boston Society of Civil Engineers Section
American Society of Civil Engineers

104th BSCES Student Night
Wednesday, April 6, 2016, 5:30 PM
Alumnae Hall
40 Talbot Ave, Medford, MA 02155



Alumnae Hall (marked in red) is located on Talbot Ave. Parking is available for \$8 at the Dowling Parking Garage, 419 Boston Avenue, Medford (marked in blue) or along Boston Avenue as available.

Public Transit: The nearest T stop is Davis Square (red line) with bus service (94, 96) to the intersection of Talbot and College Ave. Alumnae Hall is a 15 minute walk from Davis Square.

**Sponsored by the BSCES Student Affairs Committee,
Tufts University ASCE Student Chapter, and
Simpson Gumpertz & Heger Inc.**



Student Chapters Committee



SIMPSON GUMPERTZ & HEGER

Engineering of Structures
and Building Enclosures

2016 John R. Freeman Lecture

Desalination for water supply: Is energy consumption manageable?

Professor John H. Lienhard V

*Director, Abdul Latif Jameel World Water and Food Security Lab
Massachusetts Institute of Technology*

Monday, April 11, 2016

Reception 6:00 PM; Lecture 7:00 PM

Northeastern University, West Village F, Rm 020,
40A Leon St, Boston, MA 02115

Abstract:

The world's renewable fresh water supply may be considered to be the difference between precipitation over land and evaporation; and this supply is essentially fixed while world population rises and the water demands of growing economies rise. As a result, water scarcity is an increasing problem throughout the world, with water shortages impacting both rural and urban populations and with substantial environmental damage as a result of water diversions for human use.

Desalination has been deployed worldwide to expand the supply of freshwater, especially for coastal populations, and its use has increased rapidly, with more than 85 million m³/day of capacity now installed. The cost and lifetime of plants has also improved steadily. But concerns remain about the energy consumption of desalination. In this talk, we will discuss research directed at understanding the causes of energy inefficiency in various desalination processes and efforts to adapt concepts from thermal engineering to improve the design of both thermal and membrane desalination systems. Topics to be discussed include thermodynamic limits to performance, irreversibilities, and thermodynamic balancing, with examples drawn from reverse osmosis, humidification-dehumidification, forward osmosis, and the remediation wastewater from oil and gas production. Comparison will be made to the energy intensity of alternative sources of fresh water.

Registration:

This is a free event, to register online [click here](#), or you may register at the door.



BSCES

Boston Society of Civil Engineers Section
American Society of Civil Engineers



TRANSPORTATION
& DEVELOPMENT
INSTITUTE
Boston Chapter



CONSTRUCTION
INSTITUTE
Boston Chapter

27th Annual Francis M. Keville Dinner

Joint Meeting of the CI and T&DI Boston Chapters

Speaker:

Mayor Joseph Sullivan

Braintree Mayor and MassDOT Board Member

Introduction of Speaker:

Stephanie Pollack

Secretary & Chief Executive Officer, MassDOT (Invited)

Date/Venue:

Thursday, April 14, 2016

Marriot Courtyard Boston Downtown, 275 Tremont Street, Boston, MA
5:30 PM Reception; 6:30 PM Dinner

Registration Deadline: Friday, April 8, 2016

\$75 Members, \$95 Non-Members

\$65 Public Sector Members, \$75 Public Sector Non-Members

\$60 Senior Members (65+), \$55 Students

\$750 Table of 10

Information/Registration:

Register to attend this meeting and pay by credit card online at <http://bit.ly/KevilleDinner2016>.

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 April 7, 2016 and no-shows will be billed.

The History of the Holyoke Water Supply System

David E. Pinsky, PE

President and CEO, Tighe & Bond

Darleen P. Buttrick, PE

Associate, Tighe & Bond

Monday, April 25, 2016

Massachusetts Green High Performance Computing Center, 100 Bigelow Street, Holyoke, MA

5:30 PM Social/Registration; 6:30 PM Meal; 7:00 PM Presentation

The Holyoke water system dates back to 1872, when the first Board of Water Commissioners was established. At that time, the commissioners began planning out a network of reservoir systems with the construction of the first reservoir in 1888, followed by two more in 1897 and 1903. Several years later, in 1957, the Commissioners and their engineer, James Tighe, had the foresight to construct the Tighe-Carmody dam high in the hill towns west of the City, impounding billions of gallons of pristine water that would be conveyed to the City via gravity. To this day, the gravity based system envisioned by the City back in the 1800's continues to provide water of exceptional quality in an energy efficient manner to the City, while continuing to meet all State and Federal water quality regulations. This presentation will follow the history of the development of the water system, from the construction of the network of dams, reservoirs, and pipelines to convey water to the City, to present day including the recent construction of a new ultraviolet disinfection treatment system to meet new drinking water regulations.

Registration Deadline: Wednesday, April 20, 2016

\$45 Members, \$55 Non-Members

\$40 Public Sector Members, \$45 Public Sector Non-Members

\$15 Senior Members (65+), \$15 Students

\$450 Table of 10

Information/Registration:

Register to attend this meeting and pay by credit card online at http://bit.ly/WMB_042516. 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 Wednesday, April 20, 2016 and no-shows will be billed.

BSCES

Boston Society of Civil Engineers Section
American Society of Civil Engineers



BOSTON SOCIETY OF
CIVIL ENGINEERS SECTION

Save the Date!



Middlesex Fells Reservation Clean-Up

BSCES Younger Member Group

Saturday, April 30, 2016

Middlesex Fells Reservation

Prepare the Middlesex Fells Reservation for another season of hiking, canoeing, and generally enjoying nature. Located less than 10 miles north of downtown Boston, The Fells has fields, ponds, and woods, and so is a precious resource for those who enjoy spending time outdoors. Clean-up activities will relate to maintaining paths and picnic areas, such as planting, raking, and weeding.

The logo for the Boston Society of Civil Engineers Section, featuring the letters 'BSCES' in a bold, white, sans-serif font with a stylized blue and white graphic element to the left.

Boston Society of Civil Engineers Section
American Society of Civil Engineers



CONSTRUCTION
INSTITUTE
Boston Chapter

Save the Date:
Friday, May 6, 2016

CI Boston Day-Summit

Opening Breakfast Presentation by...

Sam Sleiman

*Director of Capital Programs and Environmental Affairs at
Massport and Immediate Past Chair of CMAA*

Additional Presentations by

Dr. Kord Wissmann

*President of the Geopier Foundation Company
and President of the ASCE Geo-Institute*

Cliff Schexnayder

Construction Consultant and Author of "Builders of the Hoosac Tunnel"

And representatives of

SKANSKA, Stantec, Howard Stein Hudson, and more

This full-day seminar will take on the form of a typical day at an ASCE conference. It will begin with an opening breakfast presentation, followed by a series of technical sessions separated by networking breaks. Each technical session will include thematically grouped presentations, including a mix of project case studies, round table discussions, and interactive training programs. The event should be attended by anyone with an interest in all things construction and construction engineering (history through innovative techniques) including structural engineers, geotechnical engineers, civil engineers, architects, planners, contractors, real estate developers, and facility managers, both public and private.



Boston Society of Civil Engineers Section
American Society of Civil Engineers

Public
Awareness
& Outreach
Committee



TRANSPORTATION
& DEVELOPMENT
INSTITUTE
Boston Chapter

The Spring Awards Banquet

Keynote Speaker:

ASCE President-Elect Norma Jean Mattei, PhD, F.SEI, M.COPRI, M.ASCE
Professor, University of New Orleans
Department of Civil & Environmental Engineering

Tuesday, May 10, 2016

Framingham State University, D. Justin McCarthy Center, 100 State Street, Framingham, MA
5:30 PM Social/Registration; 6:30 PM Dinner; 7:15 PM Presentation

Join us as we celebrate the civil engineering profession and the dedication of professionals and young individuals who have strived for excellence this year. We will be honoring the student winners of the Ralph Salvucci Online Bridge Contest, the Model Bridge Competition, and the New England Regional Future City Competition. We will also be honoring professional engineers who have achieved excellence with BSCES Lifetime Membership and the Herzog Award. ASCE President-Elect Norma Jean Mattei will deliver the dinner's keynote address. This year's Herzog Award winner will be revealed at the dinner and there will be a presentation of the winning paper by the author.

Registration Deadline: Thursday, May 5, 2016

\$40 BSCES Members, \$50 Non-Members

\$35 Public Sector Members, \$45 Public Sector Non-Members

\$25 Senior Members (+65), \$25 Student Members

\$400 Table of 10

Information/Registration:

Register to attend this event and pay by credit card on the BSCES website at http://bit.ly/BSCES_SpringAwards2016. 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 5, 2016 and no-shows will be billed.



Boston Society of Civil Engineers Section
American Society of Civil Engineers



TRANSPORTATION
& DEVELOPMENT
INSTITUTE
Boston Chapter

Save the Date

2016 Bertram Berger Seminar

“A New Focus for Growth around the Commonwealth”

Stephanie Pollack *(Invited)*

CEO and Secretary of Transportation, MassDOT

Friday, May 20, 2016

Courtyard by Marriott Boston Downtown, 275 Tremont Street, Boston, MA

8:00 AM Registration; 8:30 AM Panel Discussion; 11:45 AM Social

12:15 PM Luncheon, Bertram Berger Tribute, Keynote Address, and Awards

Panel 1: Planning for Sustainable Smart Growth

Moderator: Tom Tinlin, Highway Administrator, MassDOT Highway Division

Panelists: Tim Reardon, Metropolitan Area Planning Council

Sarah Myerson, Executive Director of Planning, BRA

Paul Nelson, Medical Academic and Scientific Community

Organization

[Representative], Cambridge Redevelopment Authority *(Invited)*

Panel 2: Mega Projects in This New Era

Moderator: Frank DePaola, General Manager, MBTA *(Invited)*

Panelists: Mike O’Dowd, Project Manager, MassDOT Highway Division

Joseph Beggan, Senior Manager of Transportation, Harvard Planning

Department

[Representative], NB Development Group, LLC *(Invited)*

[Representative], NPP Development, LLC *(Invited)*



Please join us!

BSCES YMG Red Sox Game at Fenway Park

Wednesday, May 25, 2016

Boston Red Sox vs. Colorado Rockies

7:10 PM

Fenway Park

4 Yawkey Way, Boston, MA 02215

Bleacher Section 38

\$30 per ticket

Pricing:

Students - \$25/ticket

Members - \$30/ticket

Non-members - \$35/ticket

To Register:

Register to attend this outing and pay by credit card online at <http://bit.ly/1pgwa1O>. To register online 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. 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 2016 season!



Photo credit: google

The logo for the Boston Society of Civil Engineers Section, featuring the acronym BSCES in a stylized white font on a dark blue background.

Boston Society of Civil Engineers Section
American Society of Civil Engineers



STRUCTURAL
ENGINEERING
INSTITUTE

Boston Chapter



BOSTON SOCIETY OF
CIVIL ENGINEERS SECTION

Save the Date

Structural Engineering Feud

Based on Family Feud TV Show; but, with Structural Engineers

Hosted by Not Roger Dawson or Steve Harvey

But, our very own Brian Brenner, P.E.

Associate, Stantec

Wednesday, June 1, 2016

Bell in Hand Tavern, 45 Union Street, Boston, MA

6:00 PM Registration, Refreshments and Networking

7:00 PM Structural Engineering Feud

Come and join us for an evening full of networking and fun!

The Structural Engineering Feud will include a Family Feud style contest with the questions based on structural engineering theme. You can choose to register as a team of five, have us assign you a team, or just come by as a spectator to meet some friends and have a few laughs!

Appetizers will be served. Cash Bar.



February 2016

Announcement of the 2016 \$7,500 Simpson Gumpertz & Heger Scholarship

To Prospective Applicants:

The principals of Simpson Gumpertz & Heger Inc. (SGH) have established the Simpson Gumpertz & Heger Scholarship with the Boston Society of Civil Engineers Section/American Society of Civil Engineers (BSCES) to encourage undergraduate college students who strive for excellence and who aspire to a career in civil engineering. It has been our experience as a firm and as individuals that the field of civil engineering provides technically challenging assignments while offering an opportunity to make a significant contribution to society.

SGH supports the civil engineering profession and wishes to encourage gifted students in the pursuit of their careers. We welcome your participation in this scholarship opportunity.

What is the Simpson Gumpertz & Heger Scholarship?

SGH established this scholarship with BSCES in 1997 to encourage students in the pursuit of civil engineering as a profession. In 2016, the scholarship amount will be \$7,500 in the form of a check presented to the scholarship winner.

Who may apply?

All undergraduate-level civil engineering majors who are members of an ASCE Student Chapter or Club in Massachusetts, who have completed a minimum of two-and-one-half years of a four-year program (or the equivalent portion of a five-year or part-time program), and who expect to complete their undergraduate degree in May 2016 or later are eligible to apply for this scholarship.

Review of the Application

Applications will be judged with equal weight given to three categories: professional presentation in the letter of introduction and resume, quality of ideas expressed and clarity of communication demonstrated in the one-page essay, and capabilities reflected in college/university transcript(s).

A three-person committee consisting of two representatives of BSCES and one Principal of SGH will judge applications. Decisions of the committee will be final. Leading candidates may be asked to meet with members of the review committee. BSCES reserves the option of publishing applicants' essays in *BSCES News* and/or *Civil Engineering Practice*.

Presentation of the Award

The recipient of the scholarship will be announced at the 2016 BSCES Student Night the evening of Wednesday, 6 April 2016, at Tufts University. The award recipient will be notified in advance of the meeting and will be invited to attend Student Night as a guest of SGH.

Simpson Gumpertz & Heger Scholarship 2016 APPLICATION REQUIREMENTS

How to apply

Students interested in applying for the Simpson Gumpertz & Heger Scholarship are asked to submit the following:

- A one-page letter introducing the applicant and summarizing their qualifications.
- A resume demonstrating the applicant's academic record, professional employment (in engineering or related fields), other employment, professional activities (membership and participation in professional organizations such as ASCE, SWE, EWB, etc.), and personal items of interest.
- A one-page essay demonstrating the applicant's writing ability and expressing original thought. The topic for the 2016 essay is the following:

Due to rising global temperatures, severe weather events are predicted to become more widespread in the future. These changes are likely to be seen within the design life of structures that exist or are being built today. Using a real project or projects (past, present, or one you imagine in the future), formulate an argument regarding how the potential impact of future changes in climate should be considered with current day buildings or in-progress designs.

To what extent should resilient designs, that can withstand increasingly powerful winds, flood waters, and storms, be prioritized? Should the emphasis in a resilient design be on robust systems with increased load-resisting capacity, flexible systems that can be easily adapted in the future to a changing environment, or breakaway systems engineered to fail in a safe and economically repairable manner? And what ethical obligation does an engineer have to raise these concerns even though experienced-based codes and standards may not adequately predict the future?

- Official college and/or university transcript(s).

Send hard copy applications to:

Simpson Gumpertz & Heger Scholarship Committee
Boston Society of Civil Engineers Section/ASCE
The Engineering Center
One Walnut Street
Boston, MA 02108-3616

For more information, please contact:

Robert W. Keene
Simpson Gumpertz & Heger Inc.
781-907-9000 or rwkeene@sgh.com

Applications can be submitted by hard copy to the address above or e-mailed (PDF format) to Robert Keene at rwkeene@sgh.com with the subject "SGH Scholarship". Applications must be received by 5:00 p.m. on Friday, 25 March 2016. If submitting electronically, a hard copy application must also be received at the above address no later than 5:00 p.m. on Wednesday, 30 March 2016. Applications will not be returned.

BACKGROUND

Ernest A. Herzog was a nationally recognized civil engineer. During his career, he served a term as president of the Boston Society of Civil Engineers Section and was also a fellow of the American Society of Civil Engineers (1987).

Mr. Herzog began his career with Spencer, White and Prentis at the atomic energy facility in Oak Ridge, Tennessee. After World War II, he transferred to a Boston-based firm named Chas. T. Main Inc. Eventually, Mr. Herzog joined the firm of Alonzo B. Reed Inc. where he progressed into the highest role of president and remained in that role for 20 years thereafter.

While in the transportation field, Mr. Herzog was actively involved in the design and construction of the monorail used at the 1962 Seattle World's Fair. This monorail, which is still in use today, has served as the prototype for several other monorail systems including those at Disney Land in Anaheim, California, Disney World in Orlando, Florida, and one in Tokyo, Japan. In fact, Mr. Herzog was a strong and persistent advocate of a monorail system to serve Boston's south shore communities to relieve the traffic congestion on the Southeast Expressway.

In 1973, Mr. Herzog co-founded Herzog-Hart, a full-service engineering firm that specializes in the design and construction of research and production facilities for the pharmaceutical and process industries.

Mr. Herzog was well known for his generous support of and encouragement to young college students and young professionals just at the onset of their careers. He lectured at Tufts University, Dartmouth College, University of Massachusetts, and Northeastern University. He also wrote and published numerous papers, particularly concerning the effects of transportation systems on society.

In memory of Mr. Herzog's commendable career achievements, the Ernest A. Herzog Award was established to promote an awareness of and to recognize innovative improvements to infrastructure. This award is given annually to the author(s) whose submitted paper is chosen to best recognize innovation and awareness of infrastructure.

PAPER GUIDELINES

Submitted papers shall present an infrastructure project, innovation, or idea in which the author was actively involved in as an owner, advocate, engineer, or end-user. The paper must be well written and address specific benefits to current professional practices, lifestyle, and/or sustainability through the application of existing or innovative technologies or methods. Areas of application may include design, construction, operation, maintenance, management or financing of infrastructure components or systems.

RULES

- A.** The paper should be original and not be less than 2,000 words and not more than 6,000 words. The paper should clearly describe the project, innovation, or idea and highlight benefits to the current engineering and construction practices. Graphic material including photographs should

be included to highlight specific areas of the project. The paper may have been previously published in a journal.

- B.** 3 copies of the papers shall be submitted to:
BSCES/ASCE
The Engineering Center
One Walnut Street
Boston, Massachusetts 02108-3616
Attn: Boston Chapter TD&I
Herzog Award Committee

An electronic copy should also be sent to bsces@engineers.org.

Deadline for submittal: April 15, 2016.

- C.** The recipient will be invited to give a short presentation on the paper at the BSCES Transportation and Development Institute-Outreach Committee Spring Awards Celebration. Original papers may be submitted (with the author's permission) for publication in the BSCES Journal and for BSCES Annual Awards (celebrated in the fall of 2016).

REVIEWERS

The BSCES Herzog Award Competition Subcommittee.

EVALUATION CRITERIA

Topics for the papers shall be related to one or more of the 17 infrastructure systems defined in ASCE's infrastructure report card (see <http://www.infrastructurereportcard.org/>). Papers are evaluated by the reviewers on the basis of the following criteria:

- A.** Technical writing; organization, graphics, grammar, and technical accuracy (30%)
- B.** Benefits to the current design, construction, operation, maintenance, or financing practices of infrastructure (20%)
- C.** Innovation; uniqueness of concepts (10%),
- D.** Benefits to lifestyle of the general public or other end-users (20%)
- E.** Sustainability, life-cycle cost benefits, or cost effectiveness (20%)

AWARD

The award presentation will be made at the BSCES Transportation and Development Institute-Outreach Committee Spring Awards Celebration on May 10, 2016. The recipient is required to present the paper at the awards dinner to a general audience that will include many non-engineers including middle and high school students. The recipient will receive a \$1000 award, a memorable plaque, and have the paper included in a future edition of the BSCES Journal.



TRANSPORTATION
& DEVELOPMENT
INSTITUTE
Boston Chapter

2016 Bertram Berger Young Engineer Award Call For Nominations

The BSCES Transportation and Development Institute Boston Chapter is now accepting nominations for the **2016 Bertram Berger Young Engineer Award**. The annual Bertram Berger Young Engineer Award serves to recognize an outstanding younger member of the Boston Society of Civil Engineers for his or her professional achievements and service to the community. The successful candidate should (1) be less than 35 years old on May 1, 2016, (2) have attained exemplary professional achievements as a young engineer, (3) demonstrate leadership in the practice of civil engineering with emphasis on transportation, (4) enhance the stature of civil engineers within the community, (5) be active with professional organizations such as BSCES or similar, and (6) be a registered, or soon-to-be registered, professional engineer.

In addition to recognition within the engineering community, the Award winner will receive a **\$2,500 stipend** to be used for continuing education and/or professional development. The award winner will be notified by the beginning of May, 2016 and will be presented with the award at the upcoming annual Bertram Berger Seminar and Luncheon on May 20, 2016.

To nominate an individual for the 2016 Bertram Berger Young Engineer Award, please submit an up to three (3) page narrative statement describing how the nominee meets the above described criteria. Nominations will be accepted until 5:00 p.m. on **Friday, April 22, 2016** and should be submitted via mail or e-mail to:

Mr. Kurt Jelinek, P.E., Nobis Engineering, Inc., 585 Middlesex Street, Lowell, MA 01851, e-mail: kjelinek@nobiseng.com, phone: (978) 683-0891.

2016 SUSTAINABILITY IN CIVIL ENGINEERING AWARD

Call for Entries

The purpose of the Sustainability in Civil Engineering Award is to recognize civil engineering infrastructure projects that embody the principles of sustainability espoused by the BSCES Committee on Sustainability, ASCE, and the Institute for Sustainable Infrastructure (ISI). Such projects prominently and creatively incorporate the five sustainability indicators of quality of life, leadership, resource allocation, natural world, and climate risk.

Eligibility

To be eligible, a project must demonstrate adherence to the principles of economic, social and environmental sustainability as identified by ASCE/ ISI criteria for sustainable infrastructure. **The project must have been designed by a team of civil engineers based in Massachusetts, and must have been constructed within the last five years.**

Rules for Submission

1. Entries for the award must include:
 - A completed Entry Form ([BSCES Sustainability Award Form](#))
 - A printout of the Envision™ project assessment scoring table from the ISI website completed by an Envision Sustainable Professional (ENV SP).
2. **Entries must be submitted no later than May 1, 2016.** The winner will be announced at the BSCES Annual Awards Dinner event in the Fall of 2016. Entries may be submitted electronically to wognibene@engineers.org.

2015 BSCES Sustainability in Civil Engineering Award Winner

The 2015 award was presented to the City of Cambridge for its **Alewife Stormwater Wetland** project, which embodies the concept of multi-use and sustainable infrastructure. The project was originally conceived as a concrete storage tank to serve a 420 acre neighborhood as a result of court-ordered combined sewer separation. Through broad stakeholder involvement, the project transformed into an “environmental miracle” that restored wildlife habitat and added features for the general public’s use and improved quality of life.



Read about the Alewife Stormwater Wetland in the [BSCES October Newsletter](#)



2016 INDIVIDUAL SECTION AWARDS

Each year, BSCES presents awards to deserving individuals in the Section or in the community who are nominated by their peers in recognition of their service. **Here is your opportunity to nominate a co-worker, friend, or someone who you think deserves special recognition.** To submit a nomination, complete this form and return it to:

**BSCES Awards Committee, Boston Society of Civil Engineers Section/ASCE,
The Engineering Center, One Walnut Street, Boston, MA 02108-3616**

The Nominations Deadline is **Monday, May 16, 2016**. The Awards Committee will review all nominations and present a list of candidates for selection by the Board of Government at their May meeting. Awards will be presented at the 168th BSCES Annual Awards Dinner in the fall.

I would like to nominate _____ For the:

_____ **CITIZEN ENGINEER AWARD:** This award is presented to a BSCES member or registered professional engineer for outstanding public involvement in local or national legislation, education (at any level), non-profit volunteer organizations, community activities, or similar activities improving the image of ASCE, BSCES and the civil engineering profession.

_____ **LESTER GAYNOR AWARD:** This award is presented to a BSCES member or registered professional engineer for part-time elected or appointed service as a city or town official, whose reimbursement for this service has not been more than an honorarium.

_____ **GOVERNMENT CIVIL ENGINEER AWARD:** This award is presented to a BSCES member who is serving as a paid public sector engineer at a federal, state, or municipal agency, department, or authority in Massachusetts.

_____ **CLEMENS HERSCHEL AWARD:** This award recognizes those individuals who have published papers, not necessarily published in the BSCES Journal, that have been useful, commendable, and worthy of grateful acknowledgment. If nominating for the Clemens Herschel Award, please attach the name of the paper and names of all authors, if co-authored.

_____ **RALPH HORNE AWARD:** This award is presented to a BSCES member or registered professional engineer for unpaid public service in a municipal, state or federal-elected or appointed post for philanthropic activities in the public interest.

_____ **JOURNALISM AWARD:** This award is to be presented to a member of the media who reports on engineering topics, particularly civil engineering, in a manner that benefits the profession. The Public Awareness and Outreach Committee reviews these nominations and recommends the recipient to the Board.

_____ **PRE-COLLEGE EDUCATOR AWARD:** This award is to be presented to a member of the K-12 educational community who integrates engineering topics, particularly civil engineering, in a manner that benefits the profession and may promote students to pursue an engineering career. The Public Awareness and Outreach Committee reviews these nominations and recommends the recipient to the Board.

_____ **TECHNICAL GROUP AWARD:** This award is given for papers which have been presented at a Technical Group meeting or for papers that were submitted to a Technical Group for review and recommended for publication by its Executive Committee. Each paper should be original (i.e., not contributed or published elsewhere). This award is open to all BSCES members.

_____ **YOUNGER MEMBER AWARD:** This award is intended to recognize a member, 35 years of age or younger on February 1 in the year of the award, who has made an outstanding contribution to BSCES.

Name and Company Address of Nominee(s)*:

Is this a re-nomination? Yes _____ No _____

***Please attach a brief (no more than one page) explanation of the candidate's qualifications for nomination.**

Your Name: _____ Daytime Telephone: _____ Email: _____

NOTE: *If you nominated someone last year who was not selected, you may re-nominate the individual(s).*

QUESTIONS: *Contact BSCES Awards Committee Chair Bruce Jacobs at (617) 879-0253 or bjacobs@hydroanalysisinc.com.*



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

2016 EMPLOYER RECOGNITION AWARDS

To Publicly Reward Employers for Exemplary Employee Support

The Boston Society of Civil Engineers Section of the American Society of Civil Engineers Awards Committee invites you to nominate an organization to receive the Small Employer Recognition Award or the Large Employer Recognition Award. Please see the following awards description and page 2 of this form for nomination instructions. To be eligible to receive this award your award nomination must be received by the BSCES Awards Committee no later than Monday, May 16, 2016.

As a means of fostering participation in Society activities, the Boston Society of Civil Engineers Section/ASCE has established an award to recognize those employers who encourage their engineers to actively participate in ASCE and BSCES. Special recognition will go to those organizations who exhibit exemplary support as evidenced by:

- Providing a model for involvement through organization-wide participation in local, regional, and national ASCE and BSCES activities.
- Allowing engineers time off to attend ASCE and BSCES meetings and seminars.
- Being sponsors of ASCE and BSCES meetings/ seminars or being sponsors of the BSCES Newsletter.
- Supporting and encouraging technical and professional growth.
- Encouraging engineers to prepare articles for publication in the BSCES Newsletter or ASCE and BSCES professional and technical journals.
- Assisting in the payment of ASCE and BSCES dues.

Members who want their organization to be considered for recognition should fill out the attached nomination form which describes their organization's level of support to ASCE and BSCES. The awards committee will review the nominations and select an exemplary small employer and a large employer in the Section. Organizations with less than 50 employees are eligible for the Small Employer Award. Awards will be presented at the 168th BSCES Annual Awards Dinner in the fall. Successful recipients will be considered for endorsement as potential (future) applicants for the ASCE Employer Recognition Award. No organization will be eligible to receive the award in consecutive years.

NAME OF EMPLOYER: _____

Boston Society of Civil Engineers Section/ASCE 2016 EMPLOYER RECOGNITION AWARDS

Complete and return this nomination form and attachment to the BSCES Awards Committee no later than Monday, May 16, 2016 to be eligible for the award.

Nominator/Title: _____
Address: _____
Telephone: _____ Email: _____
Signature: _____ Date: _____
Employer: _____
Contact Person: _____
Title: _____
Office Address: _____ Website: _____
Telephone: _____ Email: _____

Please answer the following questions:

How many employees do you have? _____
How many are civil engineers? _____
How many civil engineers are members of ASCE? BSCES? _____
How many times in the last year have you provided sponsorship of BSCES meetings/seminars or sponsorship of the BSCES Newsletter? _____
Please attach a list of ASCE and BSCES Members in your organization.

For those engineers who are ASCE and BSCES Members, please answer the following questions:

What percentage of ASCE and BSCES dues are paid by the employer? _____
Does the employer pay for subscriptions to ASCE and BSCES technical or professional journals? _____
On average, how many Technical/Professional seminars (one day or longer) does each of your engineers attend annually? _____
Does the employer allow time for members to attend ASCE and BSCES activities? _____
How many technical/professional articles were published by your engineers within the last two years? _____

How many of your engineers are active on an:

BSCES Board of Government _____
BSCES Technical Group or Committee _____
ASCE Regional (District) Council _____
ASCE National Committee _____

Please attach one 8.5 x 11 inch sheet (double sided) and describe any specific activities or policies which demonstrate your organization's support for involvement in ASCE and BSCES.

Please return this completed form and the additional page if needed no later than Monday, May 11, 2015 to: BSCES Awards Committee, Boston Society of Civil Engineers Section/ASCE, The Engineering Center, One Walnut Street, Boston, MA 02108-3616. For questions contact BSCES Awards Committee Chair Bruce Jacobs at (617) 879-0253 or bjacobs@hydroanalysisinc.com.

Thank you for your continued support of ASCE and BSCES.