



## JR Tech Talk – Hybrid Event!

**WHEN:**  
Thursday, May 26,  
5:30 p.m.- 8 p.m

**WHERE:**  
ZOOM & HNTB Corporation  
31 St James Ave., Ste 300  
Boston, MA 02116

**REGISTRATION FEES:**  
\$20 Member  
\$25 Non-Member  
\$10 Students & Seniors (65+)

**REGISTRATION LINK:**  
<https://www.bsces.org/even/ts/ymg-junior-tech-talk-4278>

### Cancellations receive after May 23, 2022 and no-shows will be billed.

Please note that an inherent risk of exposure to COVID-19 exists anywhere other people are present, and even precautionary measures such as masking and social distancing cannot completely eliminate this risk. The Boston Society of Civil Engineers Section/ASCE (BSCES) requires any person attending a Society-sponsored in-person activity to be fully vaccinated against COVID-19 and to be prepared to provide proof of vaccination. In addition, any person who chooses to travel to and/or participate in any BSCES in-person activity assumes all risks arising from that decision. All participants must agree to comply with all safety procedures established by the Commonwealth of Massachusetts and Centers for Disease Control and Prevention (CDC) as well as any other protocols put in place by BSCES, the host sites, travel facilities, or any other applicable authorities.



### Emily Hertz, EIT – Staff Geotechnical Engineer at GeoEngineers, Inc.

Emily is a geotechnical engineer who isn't afraid to get her hands dirty and even will go as far as to "taste" the soil to classify it. She has over two years of experience working in the Boston development market and enjoys taking on new challenges. Hailing from North Dakota, Emily enjoys playing softball and exploring new places.

**Speaking Topic:** The 380 Stuart Street project is an exciting take on open greenspace in commercial high-rise buildings downtown. Its offset façade helps optimize access to the outdoors to help you forget you are in the heart of Boston's Back Bay. This project is a great lesson in researching the history behind your project site and stresses the importance of thorough due diligence to help properly prepare you for challenges during construction.



### Pearse McManus, P.E. – Structural Engineer at HNTB

Pearse is a structural engineer with experience in the design, analysis, and load rating of highway and railroad bridges across the Northeast. He graduated with a B.S. from the University of Connecticut and a M.S. from Northeastern University.

**Speaking Topic:** The Haverhill Design-Build Project replaced two adjacent bridges carrying I-495 NB and SB over the Merrimack River in Haverhill, MA. The existing structures were built in 1961 and showed signs of deterioration. The replacement bridges consist of three spans, for a total length of 720-feet. The project included numerous construction challenges, including a limited in-water work window, which necessitated unique structural solutions.



### Sarah Pfeifle, EIT – Water Resources Engineer at CDM Smith

Sarah earned a BS in Environmental Science from Ithaca College and an MS in Civil Engineering, focused in water resources, from the University of Massachusetts Amherst in 2020. Since beginning her career at CDM Smith, she has contributed to projects pertaining to water quality, stormwater management, sewer infrastructure, groundwater studies, coastal dynamics, and riverine flooding.

**Speaking Topic:** Freshwater salinization caused by increased salt use threatens our waterways and health. The talk will describe the role of a junior engineer in developing the Illinois Tollway's Refined Salting Strategy, which lays out a 15-year capital and operations plan to significantly reduce salt use during winter maintenance operations. Chloride reductions are mandated in 401 Water Quality Certifications for three Tollway expansion projects. The resulting core strategy involves increasing liquid (brine) use while decreasing use of granular rock salt. The development of this plan required research in best practices and emerging technologies, analysis of historical data, and analysis of survey responses from Tollway stakeholders.



### Sonam Katira – Staff Civil Designer at Howard Stein Hudson

Sonam works in Howard Stein Hudson's (HSH's) Public Infrastructure group. She has experience working on municipal, state, and private roadway design projects. Sonam's experience includes designing ADA-compliant pedestrian ramps and crossings, creating complete plans for roadway design projects, and compiling cost estimates for roadway design projects. Sonam graduated with a Bachelor of Science in Civil Engineering from Northeastern University in May 2021.

**Speaking Topic:** The Columbus Avenue Center-running Bus Lanes project incorporates Bus Rapid Transit (BRT) that results in faster, more reliable trips along the corridor, and it is the first center-running bus lane in New England. This transformative project highlights the many innovative methods and technologies used to enhance regional transportation, mobility, accessibility, and equity, and will help to promote a culture of safe transportation that will shape the transit landscape for a post COVID-19 world.

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