



Minnesota Structural Engineers Association

Annual Seminar and Trade Show

May 12, 2026

Post-Tension Design: Principles and Practice

Science Museum of Minnesota

Discovery Hall



MINNESOTA STRUCTURAL ENGINEERS ASSOCIATION



AMERICAN COUNCIL OF ENGINEERING COMPANIES
of Minnesota



National Council of Structural Engineers Associations

Schedule of Events

Time	Location	Event
7:30 – 8:15am	Pre-function Space	Registration and Breakfast
8:15 - 9:00am	Discovery Hall	MNSEA General Meeting
9:00 – 9:30am	Discovery Hall	Trade Show Exhibitors Introductions
9:30 – 9:45am	Discovery Hall & Pre-function Space	Trade Show and Coffee/Water Break
9:45-10:45am	Discovery Hall	Technical Session 1 Practical Post-Tensioning for Buildings: Structural Principles and Execution Strategies Gannon Stromquist LeVoir, P.E. – Structural Project Engineer at HGA and President of the Minnesota Concrete Council Kris Borchardt, P.E. – Project Engineer at HGA
10:45-11:00am	Discovery Hall & Pre-function Space	Trade Show and Coffee/Water Break
11:00-12:00pm	Discovery Hall	Technical Session 2 When Things Go Wrong: Post-Tension Repairs Carl Schneeman, P.E. – Managing Principal at Walker Consultants
12:00-1:15pm	Discovery Hall & Pre-function Space	Lunch, Networking and Trade Show
1:15-2:15pm	Discovery Hall	Technical Session 3 Putting the Pieces Together – A Project Case Study Involving Precast, Post-Tensioned Concrete Foundation Elements in the Remote Arctic Cory Brett, P.E. – Senior Project Manager at Simpson Gumpertz & Heger
2:15-3:00pm	Discovery Hall	Closing Remarks and Trade Show
3:00-5:00pm	Elements Café Terrace	Social Hour & Venue Self-exploration



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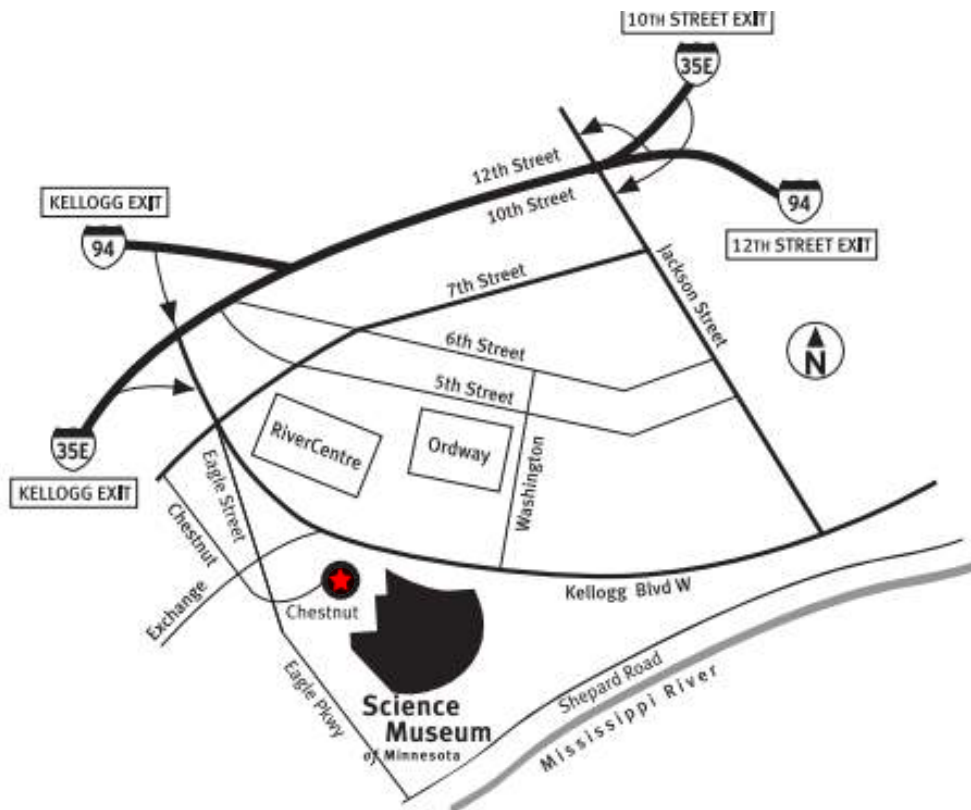
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Science
Museum
of Minnesota

Science Museum of Minnesota Information

Parking Instructions



East on I-94

If you are eastbound on I-94, take the Kellogg Boulevard exit. Go right and follow Kellogg to the three-way intersection of Kellogg, West 7th Street, and Eagle Street. Take Eagle down the hill to the second stoplight, Chestnut Street, and turn left. Proceed into the bus turnaround area to unload your students.

North on I-35E

If you are northbound on I-35E, take the Kellogg Boulevard exit. Go right and follow Kellogg to the three-way intersection with West 7th and Eagle Street. Take Eagle down the hill to the second stoplight, Chestnut Street, and turn left. Proceed into the bus turnaround area to unload your students.

West on I-94

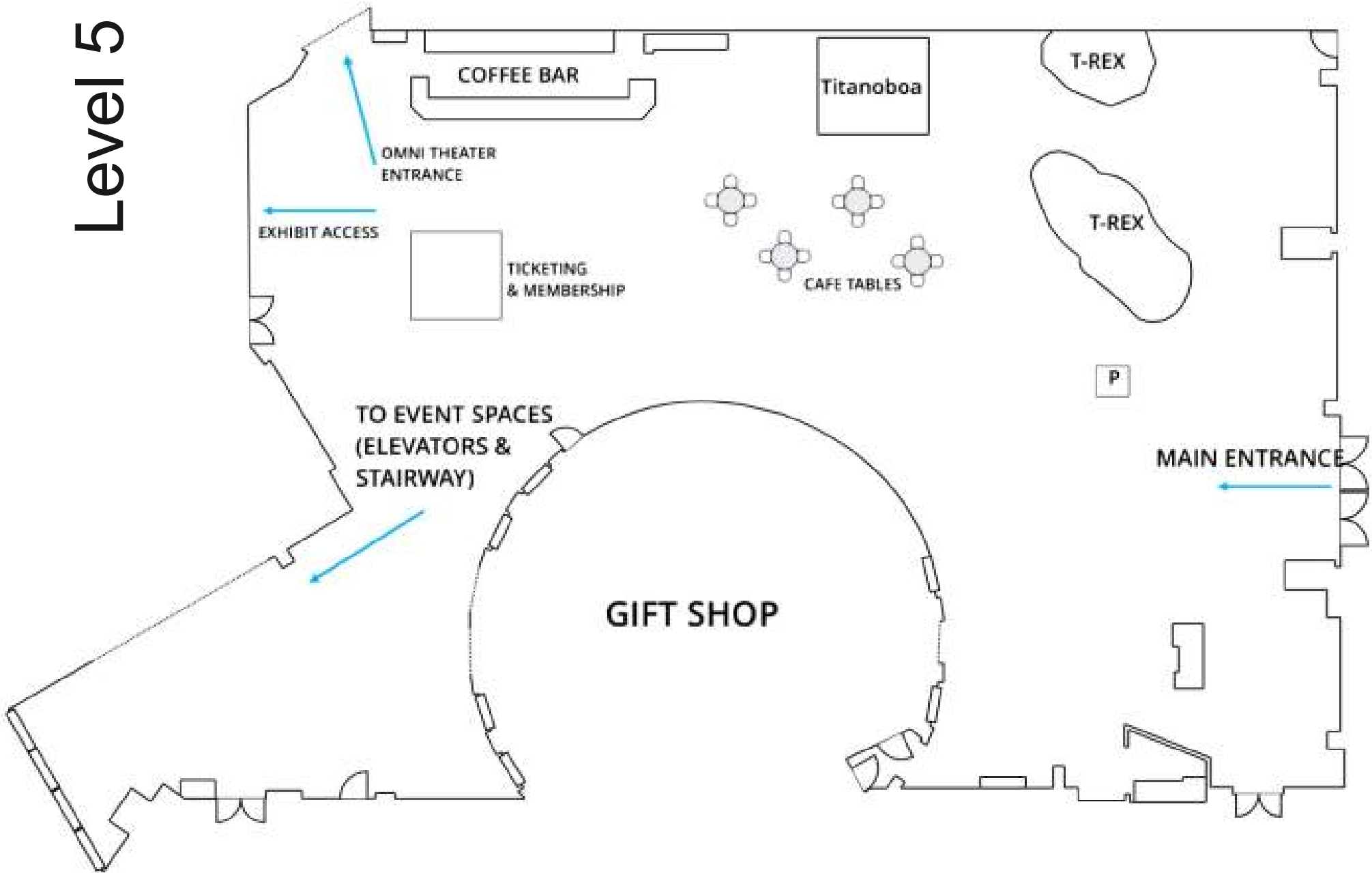
If you are westbound on I-94, take the 6th Street exit (from the left lane). Follow 6th Street to West 7th Street. Turn left onto West 7th and go south to Chestnut Street. Turn left onto Chestnut. Proceed into the bus turnaround area to unload your students.

South on I-35E

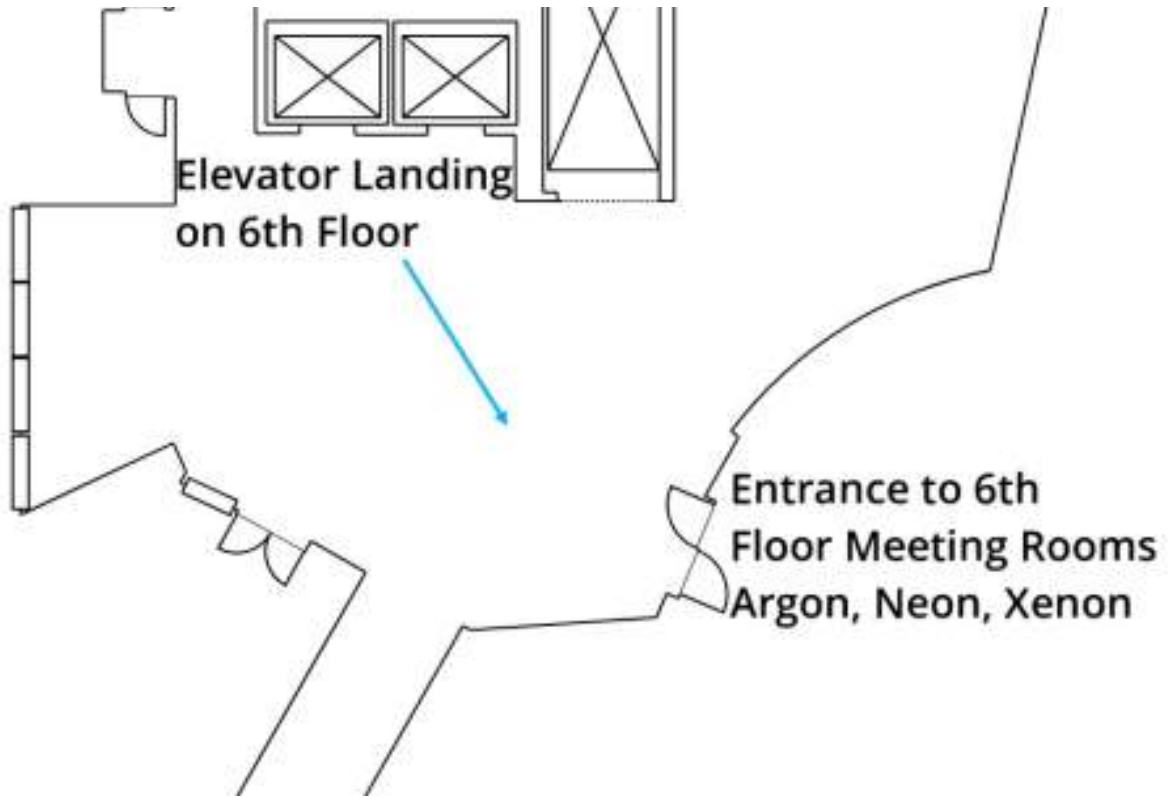
If you are southbound on I-35E, take the 10th Street exit to Jackson Street, turn left and go south to 7th Street; go right on 7th Street to the three-way intersection with Kellogg Boulevard and Eagle Street. Turn left on Eagle and go down the hill to the second stoplight, Chestnut. Turn left and proceed into the bus turnaround area to unload your students.



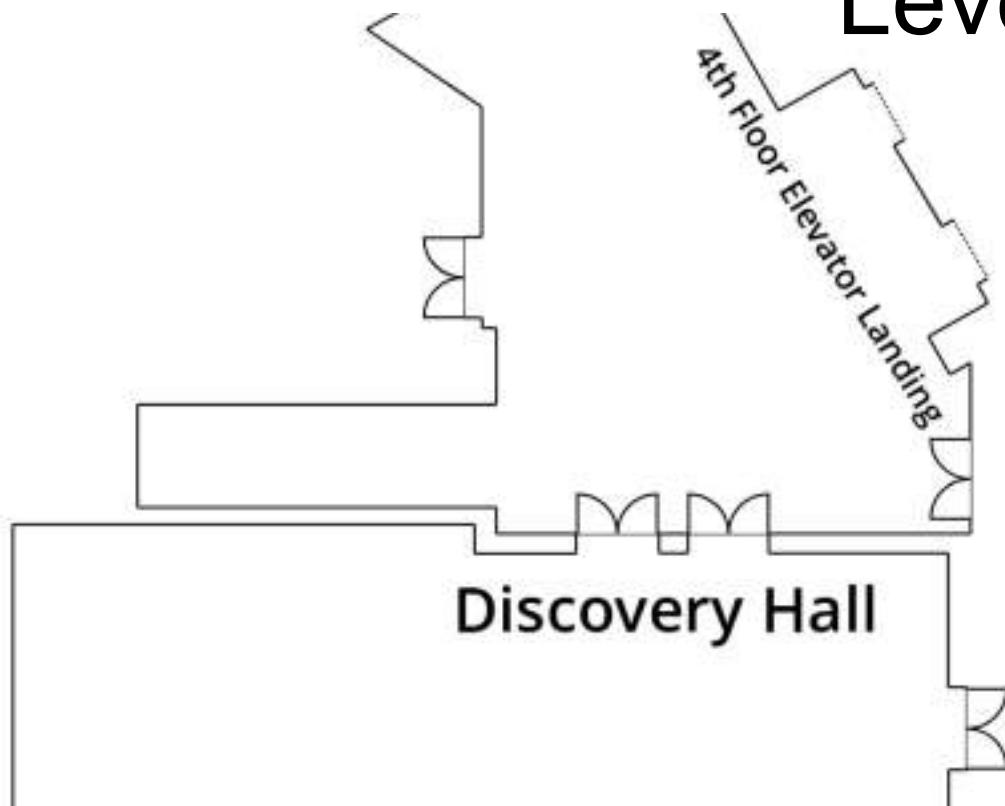
Level 5



Level 6



Level 4



MNSEA General Meeting Agenda

- I. INTRODUCTION – Kevin Vazquez & Phil Cici
- II. ACEC MN UPDATE – Megan Dayton
- III. MNSEA COMMITTEE UPDATES
 - I. Steering Committee – Ricky Kirchner
 - II. MNSEER Committee – Brad Severson
 - III. YMG – Abby Bosell
 - IV. Media Communications – Kerry Rauschendorfer
 - V. Sustainability - Kerry Rauschendorfer
 - VI. MNSEA Membership – Greg McCool
- IV. NCSEA LIAISON UPDATES
 - I. NCSEA Delegate Update – Elizabeth Manning
 - II. Communications Committee – Jerod Rudolf
 - III. SEER Committee – Kevin Vazquez
 - IV. Sustainability Committee – Kerry Rauschendorfer
 - V. Existing Buildings Committee – Greg McCool
- V. OLD BUSINESS:
 - I. MN Structural TAG Committee | MNSEA Support | ACI 318-19
- VI. NEW BUSINESS:
 - I. MNSEA Scholarship: First Time Attendee for NCSEA National Summit
 - II. Announcement of 2026-2027 MNSEA Officers
 - I. Past President: Kevin Vazquez
 - II. President: Phil Cici
 - III. Vice President: Tanner Swenson
 - IV. Secretary: Grant Magnuson
 - III. Year-End Acknowledgments – Kevin Vazquez
- VII. UPCOMING MNSEA MONTHLY MEETING:
 - I. Tuesday, September 15, 2026 – next monthly meeting



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Honoring our outgoing President **Kevin Vazquez, PE**



MINNESOTA STRUCTURAL ENGINEERS ASSOCIATION





Kevin Vazquez, P.E.
Past President
Senior Associate – Structural
The Haskell Company



Phil Cici, P.E.
President
Project Engineer
BKBM



Tanner Swenson, P.E.
Vice-President
Senior Associate
Wiss Janney Elstner, Inc



Grant Magnuson, P.E.
Secretary
Consulting Engineer
Simpson Gumpertz & Heger

2026-2027 MNSEA Officers



MINNESOTA STRUCTURAL
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MN Task Force 1 Training - October '25

Paratech Shoring



MN
SEA

SEER

Vertical Shoring



MN
SEA

SEER

Wall Bracing



MN
SEA

SEER

Railroad Tank Car Lift



MN
SEA

SEER

2ND RESPONDERS TABLETOP DRILL EXERCISE

PRESENTED BY MNSEA SEER COMMITTEE



What?

Join us at this two-hour session where we will practice 2nd responder duties.

This training will include:

- Introduction to the training and duties of a 2nd Responder.
- Review Survey 123 application for Rapid Structural Assessment
- Recommended tools for site bags.
- Case Studies for rapid evaluations and tagging with ATC placards.

A certificate for 1.0 PDH will be provided for Minnesota PE's who attend the in-person session.

Refreshments and pizza will be provided.

MN
SEA

SEER

When?

Tuesday, November 18th, 2025
4:00 – 6:00pm

Where?

Superior Decks & Railings
1319 5th Street South,
Hopkins, MN 55343

Cost: Free

RSVP by Nov 14th via:
**ACEC MN Registration
Link**

For questions email:
mnsea.seer@gmail.com



MNTF 1 Training - December '25

Wall Bracing w/ Paratech Shores



MNSEA ymg

2025-2026 Highlights

15 Social events and site
tours

Expanded K-12 outreach
efforts

Multiple Tabling Events at
Universities

30 New LinkedIn followers
(392 total)





**Chair: Mac Parris
Nelson-Rudie**

**Vice Chair & Professional
Development Events:
Cassie Pascarella
TKDA**

**Past Chair: Abby Bosell
HGA**



**Digital Media: Jenna Reynard
HGA**

**Student Liaison: Noah Struck
Kimley-Horn**

**Communications: Regan
Syverson
Nelson-Rudie**



**Outreach: Nate Williams
Krech Ojard & Associates**

**Secretary/Treasurer:
Sakthi Sundaram Saravanan
HDR**

2022 MNSEA Strategic Plan



**MINNESOTA
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www.mn-sea.org

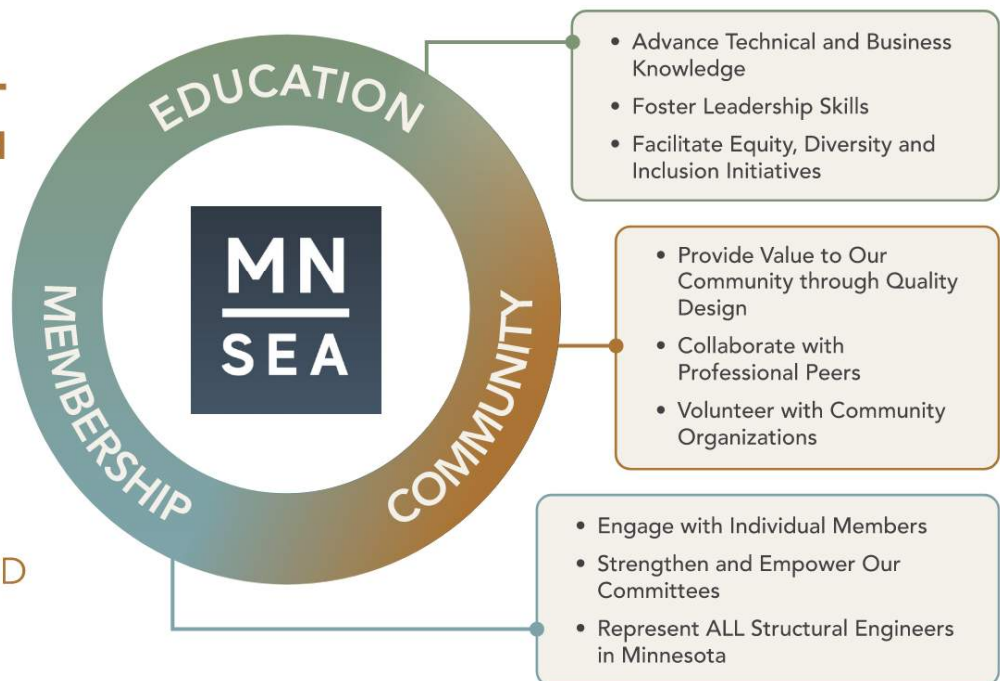
Mission Statement | MNSEA represents, educates and unites structural engineers in the state of Minnesota to strengthen, empower, and improve the quality of the structural engineering profession and to help them uphold their duty to the public

2022 STRATEGIC PLAN

We take ACTION through our Committees:

- Steering Committee
- Young Member Group (YMG)
- Structural Engineering Emergency Response (SEER)
- Structural Engineering Engagement and Equity (SE3)

THE **STRENGTH** BEHIND
THE BEAUTY



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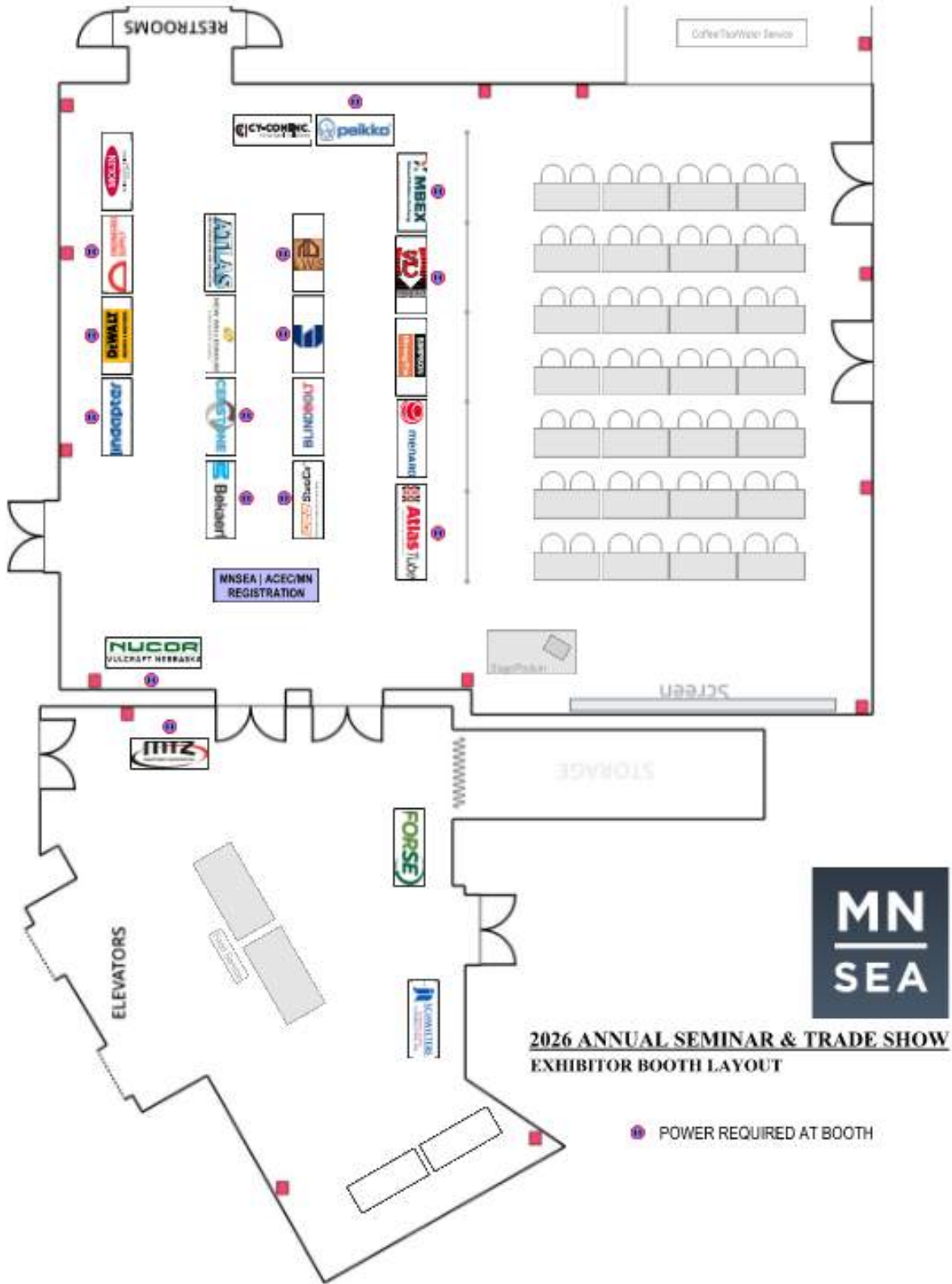
2026 ANNUAL SEMINAR & TRADE SHOW

Booth No.	Exhibitor/Company Name	Representative	
		Name	Email
1	NUCOR Vulcraft of Nebraska (**)	Dave Henley	dhenley@vulcraft-ne.com
2	ATLAS Tube Zekelman (*)	Rick Sebok	rick.sebok@zekelman.com
3	Bekaert Fibers	Jaclyn Leonard	jaclyn.leonard@bekaert.com
4	IDEA StatiCa	Yann Gueguen	yann.gueguen@ideastatica.com
5	Lindapter International	Luke Kurrle	luke.kurrle@lindapter.com
6	CY-CON, Inc.	Brad Westerberg	bwesterberg@cy-con.com
7	Cemstone Products Company	Justin Lashley	jlashley@cemstone.com
8	Menard USA	Dragos Petre	dragos.petre@menardusa.com
9	New Millennium	Steve Martin	steve.martin@newmill.com
10	Blind Bolts Co.	Tyler Wurster	tyler@abrafast.com
11	Atlas Foundation	Phil Baumer	phil.baumer@atlasfoundation.com
12	DeWALT Anchors & Fasteners	Vinay Damam	vinay.damam@dewalt.com
13	Subsurface Constructors, Inc.	Gary Hahn	gary.hahn@subsurfaceconstructors.com
14	Lam-Wood Systems, Inc.	Dave Johnson	davej@lamwood.com
15	Engineered Supply	Eric McElrath	EMcElrath@engineeredsupply.com
16	MOLIN Concrete Products	Steve Brawthen	steven.brawthen@molin.com
17	Simpson Strong-Tie	Dillon Rudrud	drudrud@strongtie.com
18	Minnesota Builders Exchange (MBEX)	David Siegel	ds@mbex.org
19	Peikko USA	Dominic Colpron-Labelle	dominic.colpron-labelle@peikko.com
20	Martinez Geospatial, Inc.	Jeremiah Osokpo	jeremiaho@mtzgeo.com
21	Wells Concrete	Gary Pooley	gary.pooley@wells.build
22	FORSE Consulting	Sam Rubenzer	sam@forseconsulting.com
23	JL Schwieters Construction Inc.	Pat Schwieters	pat@jlschwieters.com

(**) **Breakfast Sponsor**

(*) **Lunch Sponsor**

Exhibit Hall Layout



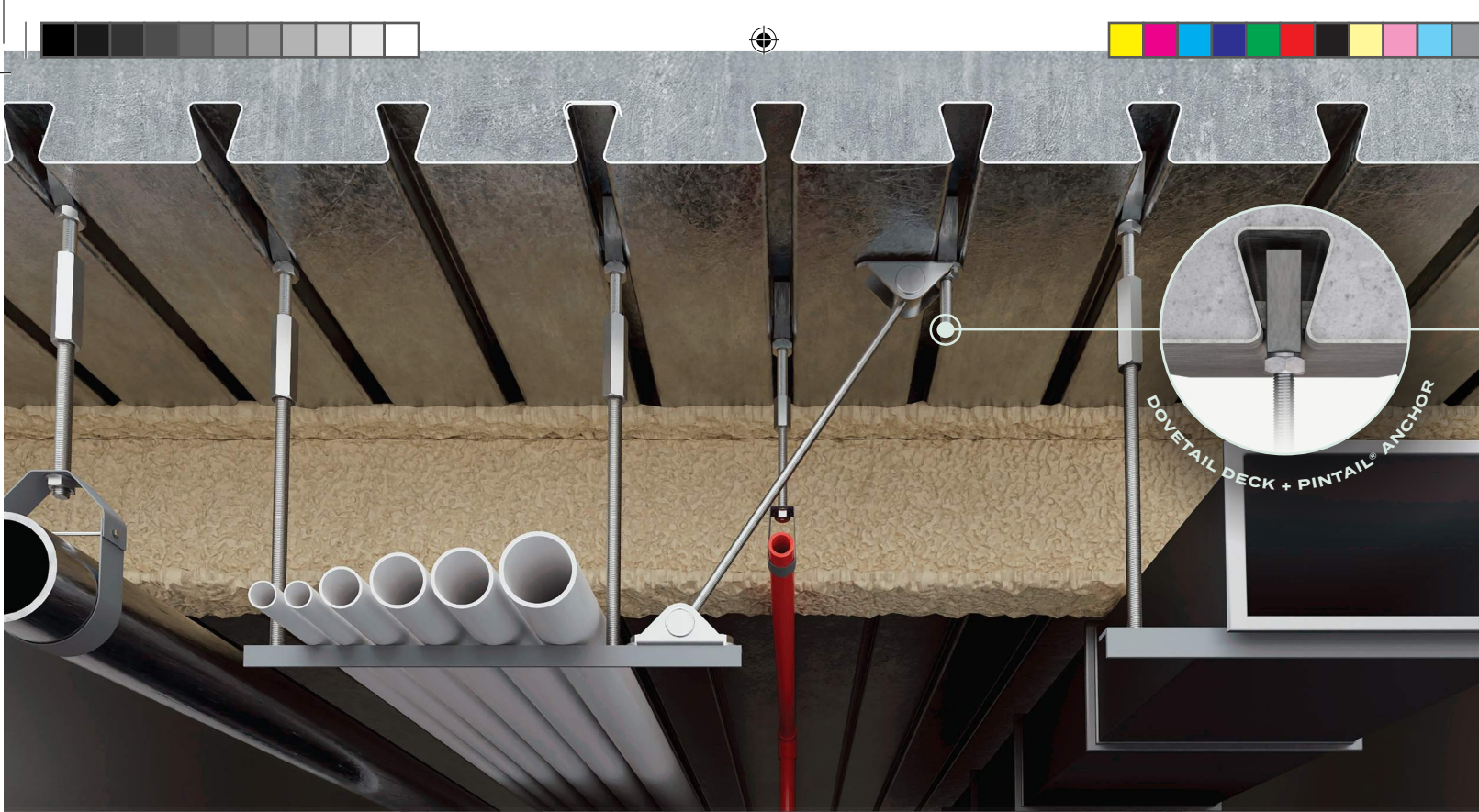
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FUTUREPROOF

TODAY FOR WHATEVER COMES TOMORROW.

New construction architecture requires special consideration for the inevitability of future upgrades. That's why modern construction projects need hanging solutions that are built for speed, versatility, and adaptability to ensure quick and seamless renovations.

To help meet that challenge, Vulcraft-Verco has developed the PinTail® Anchor, an innovative hanging solution that works exclusively with our Next Generation Dovetail Floor Deck, and are specifically designed to futureproof today's construction projects for tomorrow's renovations.

PINTAIL® ANCHORS

Install with one hand for easy installation, easy removal, and easy relocation

No noise, no silica dust, and no vibration during installation or relocation

Easy visual verification of secure installation, no complex tools required

PINTAIL® ANCHOR THREADED ROD AND NUT NOT INCLUDED

NEXT GENERATION DOVETAIL DECK

Available acoustic profiles design to meet sound and vibration requirements

Can achieve 1-, 2-, or 3-hour fire ratings (depending on the assembly) while using less concrete

Produced with recycled steel, reducing environmental impact

NEXT GENERATION
DOVETAIL DECK

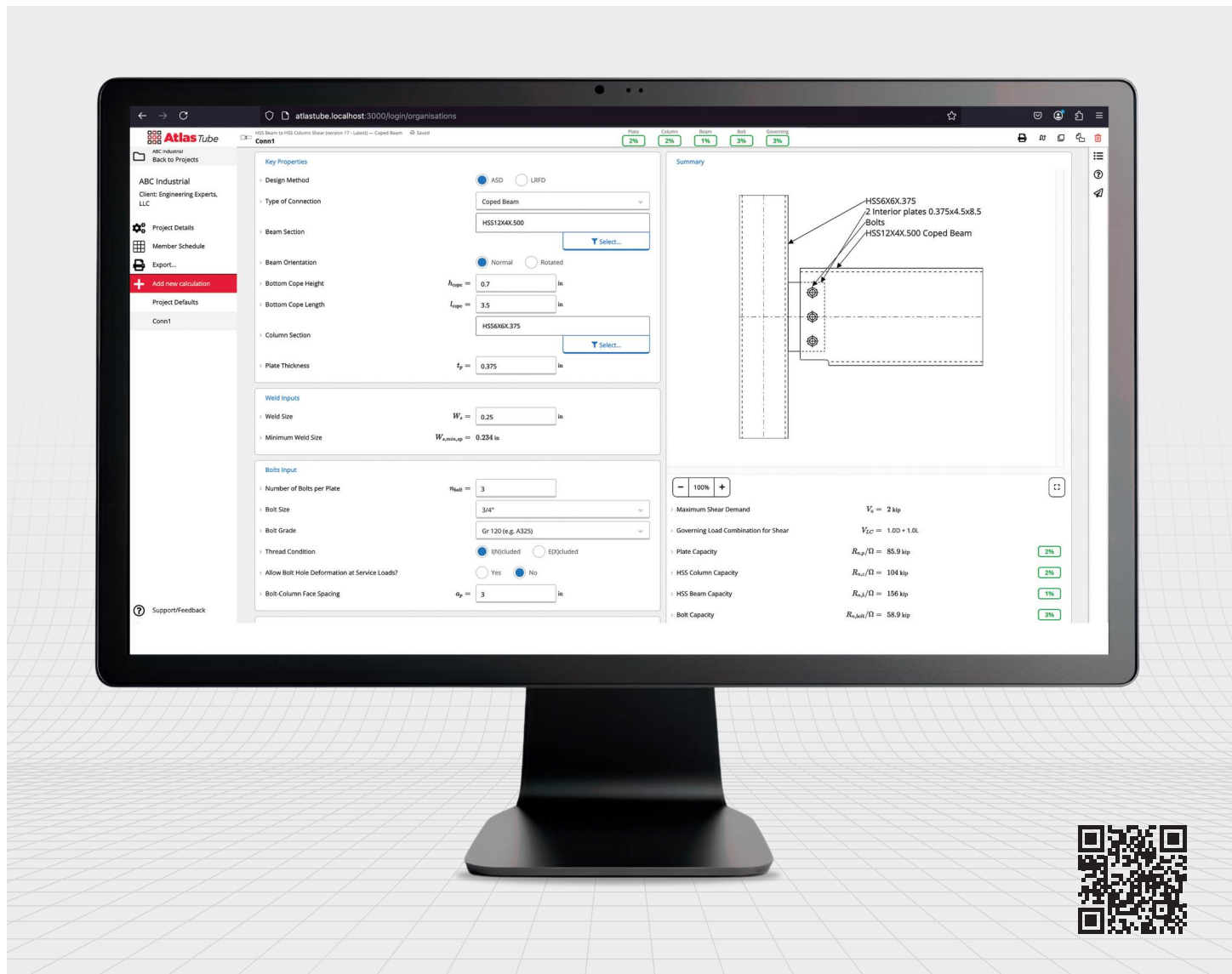
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atlastube.com/hub-mnsea

2026 Annual Seminar & Trade Show

Post-Tension Design: Principles and Practice



Post-tensioned design principles are fundamental for every practicing engineer, however, success within the profession depends on the ability to navigate the nuances of project planning, adapt to the ever-evolving field challenge, and apply practical judgement based on experience. Beginning with a core design principles review, the day will expand to cover practical design rules of thumb used, constructability considerations, and lessons learned. From efficient system layout and detailing, to corrosion investigation and tendon repair, to the overcoming of extreme logistical constraints through innovative problem solving, this seminar aims to further your practical knowledge and sharpen your perspective in the world of post-tensioned design.

SESSION 1 – Practical Post-Tensioning for Buildings: Structural Principles and Execution Strategies

Gannon Stromquist-LeVoir, P.E. – Structural Project Engineer at HGA and President of the Minnesota Concrete Council

Kris Borchardt, P.E. – Project Engineer at HGA

Post-tensioned concrete systems can make buildings more efficient, more durable, and more adaptable. This presentation offers a practical overview of how these systems work and the key ideas engineers should understand when using them. We'll look at the basic design principles, the major components, and how detailing and layout choices affect performance. The session also highlights what happens in the field—from construction sequencing to stressing operations—and shares lessons learned from past projects. Attendees will leave with a clearer sense of how to apply post-tensioning effectively in real-world building design and construction.



SESSION 2 – When Things Go Wrong: Post-Tension Repairs

Carl Schneeman, P.E. – Managing Principal at Walker Consultants



This session will review investigative and repair methods related to corrosion-induced deterioration in parking facility post-tension slabs and beams. Starting with the history of post-tension systems, the session will explain common investigative methods to assess tendon condition and determine structural review needs. Considerations for repair planning, shoring, methods of tendon restoration and restressing will be presented. Additionally, case studies will be presented to provide real-world applications. In particular, the session will explore a slab investigation to gauge the risk of hidden, but suspected damaged tendons in a 680 space multi-level garage. Additionally, the session will present a unique application of beam repair featuring external post-tensioning to restore safe load-carrying capacities.

SESSION 3 – Putting the Pieces Together – A Project Case Study Involving Precast, Post-Tensioned Concrete Foundation Elements in the Remote Arctic

Cory Brett, P.E. – Senior Project Manager at Simpson Gumpertz & Heger

As part of a radar facility being constructed for the U.S. Government in the remote Arctic, several logistical challenges confronted the project team. Procurement of construction materials in the U.S., delivery to Greenland, limited availability of construction equipment, and a restrictive two-and-a-half-month construction season all contributed to a complex engineering and construction project.

For foundation construction, traditional cast-in-place-concrete construction was not possible given the lack of batch plants near the remote site. Precast segmental-concrete elements were the alternative, including a mat foundation for the radar tower and deep footings for an ancillary support structure. To accelerate the erection schedule, the design engineers engaged a domestic concrete precaster to cast elements in Massachusetts and truck them to a port in Norfolk, Virginia. From there, segments were loaded onto a boat that carries supplies to the project site once a year. The segments had to be small enough to fit into shipping containers, be light enough for site cranes to manipulate, and act as a cohesive foundation system once installed. Using a combination of grouted splice sleeves and bonded post-tensioning techniques, the contractor completed foundation construction within the short construction season. This case study shows how the U.S.-based design engineers worked creatively and successfully with a domestic precaster and foreign contractor to provide a solution that satisfied the project's many technical and logistical challenges.





Gannon Stromquist-LeVoir, P.E. – Structural Project Engineer at HGA and President of the Minnesota Concrete Council

Gannon is a Structural Project Engineer at HGA with over a decade of experience delivering complex concrete and steel building projects, with a particular focus on post-tensioned concrete structures. His work spans new design, major retrofits, and investigations across commercial, institutional, and mixed-use markets. Gannon is known for his practical engineering judgment, collaborative leadership style, and ability to integrate structural solutions seamlessly within multidisciplinary project teams. He holds a Master of Science in Civil Engineering with a concentration in Structural Engineering from the University of Connecticut and currently serves as President of the Minnesota Concrete Council.



Kris Borchardt, P.E. – Project Engineer at HGA



Kris has more than 12 years of experience in the structural analysis and design of new and existing buildings, with proficiency across all major structural materials including post-tensioned concrete. His portfolio includes a wide range of projects requiring both new design and complex retrofit strategies. Kris is known for his strong multidisciplinary coordination skills and his direct, solution-focused communication with project stakeholders. Drawing on deep technical knowledge and an ongoing commitment to emerging structural technologies, he consistently delivers cost-effective, well-coordinated, and constructible structural systems.

Carl Schneeman, P.E. – Managing Principal at Walker Consultants

Carl has been with Walker for 20 years and specializes in parking facility planning, design, maintenance and repair. He holds a BS in Civil Engineering and MS in Structural Engineering from Marquette University and is a contributing member of ACI Committee 362 – Parking Structures. He also is the Chair of the National Parking Association’s Parking Consultants Council and past ICRI-MN Board Member. Aside from focusing on efficient, constructible, and durable parking facilities, Carl has worked on a wide array of parking facility investigations and evaluations leading to many complex repair projects. He enjoys finding creative solutions to restore facilities (often under traffic) and always loves sorting out deficiencies in post-tension and prestressing systems.



Cory Brett, P.E. – Senior Project Manager at Simpson Gumpertz & Heger



Cory Brett is a Senior Project Manager and a member of SGH’s structural engineering group. With twenty-five years of practice, Mr. Brett’s structural engineering experience includes designing, investigating, and rehabilitating many types of structures including foundations and retaining walls, transportation-related structures (e.g., bridges, tunnels, and sign support structures) and buildings of all types. Mr. Brett also performs specialized work related to evaluating flood hazards and designing structures to mitigate flood risk, and monitoring and predicting vibrations in buildings (including assessing structural damage and human comfort). Cory previously served on the Post-Tensioning Institute Committee DC 80, for the repair and rehabilitation of post-tensioned structures.



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www.acecmn.org

Certificate of Attendance

For The Following ACEC/MN Educational Program:

Post-Tension Design: Principles and Practice

Structural Design Principles and Execution Strategies for Post-Tensioning Design of Buildings, Review of Investigative and Repair Methods of Distressed Existing Post-Tensioned Parking Structures, and Case Study of Involving Precast, Post-Tensioned Concrete Foundation Elements in the Remote Arctic (MNSEA Annual Seminar & Trade Show)

Presenters:

Gannon Stromquist-LeVoir, PE / Kris Borchardt, PE / Carl Schneeman, PE / Cory Brett, PE

Presented: 5/12/2026
Location: Science Museum of Minnesota, St. Paul, Minnesota

3.0 Professional Development Hours (PDH)
0.3 Continuing Education Units (CEU)

[] - I attended the entire 3 hour seminar.
[] - I attended _____ hours of this seminar.

To the best of our knowledge, this educational program meets the requirements of the Board of AELSLAGID for continuing education. ACEC/MN makes no warranty, directly or indirectly, that this program meets the standard established by the Board of AELSLAGID for continuing education.

Note: This certificate was distributed at the end of the educational program and only to those who were in attendance for the entire program. If there are any questions regarding this certificate, or if confirmation is needed to verify the authenticity of this document, please contact the ACEC/MN office.



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