



May 3-4, 2018

GVSU Eberhard Center

Grand Rapids, MI



# Schedule At A Glance

## Day 1 - May 3

7:30 AM - 12:30 PM

**Golf Outing** (additional fee)

9:00 AM - 12:30 PM

**Sustainable Brewing Tour** (additional fee)

12:30 - 1:00 PM

**Meeting Registration**

1:00 - 4:15 PM

**Educational Sessions**

- Northern Concrete Pipe Tour
- Putting the Rapids back in the Grand
- Rainwater Rewards
- The Christman Building: Icon of Sustainability

4:15 - 6:45 PM

**Vendor Showcase**

- Cocktail Reception

7:00 - 10:00 PM

**Networking Event**

- Networking at the Knickerbocker (Includes dinner)

## Day 2 - May 4

8:30 AM - Noon

**Annual Meeting**

- Business Meeting
- Legislative Update
- NSPE Speaker
- Keynote Speaker

Noon - 1:00 PM

**Awards Luncheon**

- Engineer of the Year
- Young Engineer of the Year
- Presentation of Fellows
- Chapter Awards

1:00 - 4:30 PM

**Educational Sessions**

- Battery Storage on the Distribution System
- The Sustainability Plan
- MSU Solar Carport Project
- Public Private Partnership
- Civil + Sustainability: Current Strategies and Certification Options
- Countdown to Construction: Gordie Howe International Bridge

# Keynote Speaker

## Marie T. Strum, P.E.

Chief, Engineering & Technical Services  
U.S. Army Corps of Engineers

Marie Strum, Chief of Engineering and Technical Services for the U. S. Army Corps of Engineers, Detroit District, will be the keynote speaker. She will be giving attendees some insight on the Corp of Engineers and opportunities with the Corps. She will also be discussing the future of engineering and women in engineering.



A native of the Detroit area, Strum graduated from Michigan State University in 1985 with a Bachelor of Science Degree in Civil Engineering. She received a Master of Science in Environmental Systems Engineering from Clemson University in 1987.

In 1999, Strum was selected for a position as a Hydraulic Engineer for the Detroit District. Since that time, she has served in a variety of positions including within the Corps of Engineers. Strum also manages the Great Lakes Navigation Team, a regional team comprised of Buffalo, Chicago, and Detroit District staff focusing on navigation business line efforts.

Ms. Strum is a registered professional engineer in Michigan, Wisconsin, and California.

# Sustainable Brewing Tour

Join us at Founders Brewery for a tour and presentation about the biodigester project that Founder's and the City of Grand Rapids have entered into. Learn about the whole process and the engineering behind it. Your visit includes a catwalk view of nearly ten years' worth of expansions and technological advances at the Brewery. The tour overlooks equipment from inventive companies such as Krones and Lambrechts. See how these companies worked side-by-side with Founders Brewing Co. to create the innovative systems that help brew and package over 450,000 barrels of our world-class beer this past year alone. This tour will include lunch at Founders at the conclusion of the presentation. (2 PDH)



# Golf Outing

Thursday, May 3, 7:30 AM  
18-Hole Scramble  
The Mines Golf Course, Walker, MI

Join your colleagues for an 18-Hole Golf Scramble at The Mines Golf Course. You must register in advance. Teams will be chosen prior to the event.

The Mines Golf Course opened in the fall of 2005. The course was rated best new public course in 2006. The



course was built approximately 150 feet above the historic gypsum mines that were utilized as early as the 1860s and throughout the 1900s.

Architect Mike DeVries did wonders preserving much of the property. He utilized various features of the mines and mining process which were used in the construction of the course. The pump house near the first tee was built with brick saved from the property. The eighth hole is located where a natural sand pit was used for the mining operation. The water used to irrigate the course is directly pumped from the mines.

The 18-hole facility takes players through an unforgettable round featuring mature hardwoods, rolling terrain and sandy soils. The players will experience rolling bluegrass fairways and undulating bent grass greens.

It's a truly unique experience giving players an up north feel, just minutes from downtown Grand Rapids.



# Thursday, May 3, 2018

7:30 AM - 12:30 PM

Golf Outing

9:00 AM - 12:30 PM

Sustainable Brewing Tour (2 PDH) (lunch included)

Noon - 1:00 PM

Registration

## 1:00 PM - 3:00 PM

### Northern Concrete Pipe Plant Tour (2 PDH)

**Robin Denman**, *Northern Concrete Pipe*

Learn the difference between dry cast and wet cast technology during the Northern Concrete Pipe Tour. See how wire cages for reinforcement in our precast products are manufactured. Learn how pipe as well as manholes and specialty products are fabricated. Review the quality standards that they manufacture to, including a 3-edge bearing test to verify the strength of the pipe.

After attending this plant tour, attendee's will have a better understanding of manufacturing capabilities as well as basic installation practices of the products. Please bring hard hats and safety glasses otherwise they will be provided.

### Putting the Rapids back in the Grand (2 PDH)

**Matt Chapman**, Project Coordinator

*Grand Rapids Whitewater*

**Richard Bishop**, President/CEO, *Grand Rapids Whitewater*

**Jay Steffen**, Assistant Planning Director

*City of Grand Rapids*

Grand Rapids Whitewater is an innovative, local nonprofit organization focused on the revitalization of the Grand River and restoration of the city's historic namesake rapids. The goals of this project are to expand recreational uses, improve aquatic habitats, enhance environmental quality of the community, and boost tourism, business growth and employment opportunities along the riverfront. This presentation will illustrate historical uses of the Grand River, showcase the complexities of the project, provide a current project update, and explore the environmental, economic, and social benefits associated with a revitalized Grand River system. Presentation includes a walking tour of the River Restoration Project area.

## 3:15 PM - 4:15 PM

### Rainwater Rewards (1 PDH)

**Elaine Sterrett Isely**, Director of Water Programs

*West Michigan Environmental Action Council (WMEAC)*

Paul Isely

Rainwater Rewards ([rainwaterrewards.com](http://rainwaterrewards.com)) is stormwater calculator tool that shows values of green infrastructure (GI) investments. Workshop participants will learn to use Rainwater Rewards to demonstrate economic costs and benefits of ecosystem services associated with GI, and how to use the calculator to encourage real-world decision-making regarding implementation of GI practices.

### The Christman Building: Icon of Sustainability (1 PDH)

**Debra Sypien**, Sustainable Facilities Coordinator,

*The Christman Company*

**George Karidis**, Vice President, *Smith Group JJR*

The Christman Building is an exemplar of sustainable design—the first project in the world to receive a multiple LEED-Platinum certification. The 1928 structure, on the National Register of Historic Places, was adapted into a Class A office headquarters with a focus on daylighting and a healthy indoor environment. A first-of-its kind underfloor HVAC system accommodated high-silled windows, and now uses less energy than 85% of today's office buildings, even with uninsulated masonry walls. But getting there involved important lessons learned, in operations and recommissioning—leading to its LEED-Platinum certification number three and four."

## 4:15 PM - 6:45 PM

Exhibitor Showcase and Cocktail Reception

## 7:00 PM - 10:00 PM

Networking at The Knickerbocker

# Friday, May 4, 2018

8:30 AM-10:15 AM

Annual Meeting/Induction of Officers/Legislative Update (1 PDH)

10:30 AM - 11:30 AM

Keynote Address (1 PDH)

11:45 AM - 12:45 PM

Awards Luncheon

## 1:00 PM - 2:00 PM

### Battery Storage on the Distribution System (1 PDH)

**Nathan Washburn, PE**, Battery Storage and UAV Program Manager, *Consumers Energy*

Consumers Energy is installing several Battery Energy Storage Systems (BESS) in 2018. This presentation will give an overview of the projects including details on the physical configuration, challenges, and use cases being served.

### The Sustainability Plan (1 PDH)

**Allison Waske-Sutter**, Sustainability Manager, *City of Grand Rapids*

The City of Grand Rapids was one of the first cities to adopt sustainability as a strategy. The Sustainability Plan includes four pillars: environmental quality, social responsibility, economic prosperity and governmental accountability. Energy is a key area of focus. The City has a 100% renewable energy goal for 2025 and approved Property Assessed Clean Energy (PACE), Grand Rapids also adopted a 2030 District. Learn about the City's commitment to aggressively implementing energy efficiency and renewable energy.

## 2:15 PM - 3:15 PM

### The Michigan State University Solar Carport Project (1 PDH)

**Wolfgang Bauer**, University Distinguished Professor, *Michigan State University*

North America's largest solar carport facility, covering more than 5,000 parking spaces on 45 acres, is located on the campus of Michigan State University. It was completed in December 2017 and provides 18% of campus peak electrical power. This presentation will focus on the engineering and design challenges of constructing this facility and integrating it into the MSU micro-grid. Highlights include the senior capstone engineering projects that investigated firming of this intermittent renewable power source. Data from the first five months of operation will be shown.

### Public Private Partnership (1 PDH)

Richard Williams, Government Market Leader

*Michigan Honeywell International, Inc.*

Nelson Brikho, PE, *Michigan Honeywell International, Inc.*

The presentation will focus on how a unique public private partnership with a leading City in the country in sustainability can accomplish environmental sustainability missions. Together the City of Grand Rapids and Honeywell accomplished asset renewal, tremendous energy savings, operational savings, exceeded State of Michigan asset management objectives and met City sustainability targets by reducing their carbon footprint with demand side energy conservation strategies and measures comingled with renewable energy initiatives at their Lake Michigan Filtration Water Plant.

## 3:30 PM - 4:30 PM

### Civil + Sustainability: Current Strategies and Certification Options (1 PDH)

Ryan D. Musch, PE, MBA, LEED AP BD+C

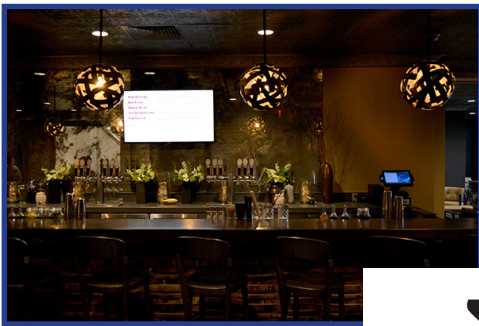
*FTC&H*

Sustainability has been implemented into infrastructure and development projects for several decades, but how has it changed over the years and what does it mean for today's projects? In particular, how is it applied to Civil Engineering projects and applications? This presentation will focus on Sustainable Civil Design including current trends and challenges. Several certification programs will be discussed and reviewed, highlighting their synergies and incentives.

### Countdown to Construction: Gordie Howe International Bridge (1 PDH)

*Windsor-Detroit Bridge Authority*

2018 will be a pivotal year for the Gordie Howe International Bridge project. This new crossing will forever change the Windsor-Detroit skyline and bring long-lasting economic benefits to both communities and the Canadian-US trade relationship. Learn about the project's four components, the final phases of the procurement process and the next steps in this historic undertaking.



## Networking at The Knickerbocker

Join your colleagues at The Knickerbocker at New Holland Brewing for dinner, drinks and some good conversation! This is a great opportunity to meet other engineers in a casual setting and enjoy the brews New Holland has to offer. The Knickerbocker presents a rustic, seasonal menu showcasing local and regional agriculture, old world techniques with a fresh perspective, including nose-to-tail butchery, heirloom produce and scratch cooking over fire. This will be an evening not-to-be-missed!



## Vendor Showcase

Be sure to visit the Vendor Showcase while you are at the Conference! Vendors will be set up and ready to talk to you on Thursday evening at the conclusion of the educational sessions. This is a great opportunity to see what new products and services are available to the engineering community. We appreciate the support of these vendors so be sure to stop by! The Vendor Showcase and cocktail reception will run from 4:15 to 6:45 PM.



## Conference Venue

The *Engineering Michigan's Future* conference will be held at the L.V. Eberhard Center, located on the Robert C. Pew Grand Rapids Campus of Grand Valley State University. Situated on the banks of the Grand River and conveniently located in the heart of downtown Grand Rapids, the center provides the perfect meeting space with scenic views of the river and the downtown skyline.

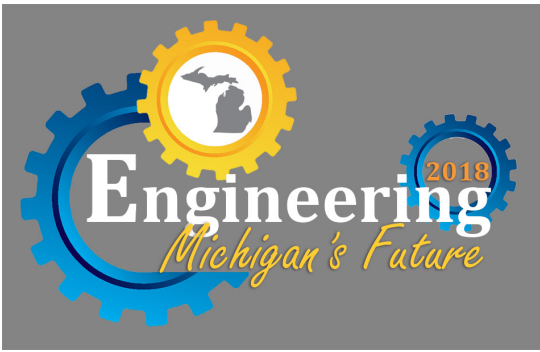


## Conference Hotel



The Holiday Inn Downtown Grand Rapids is the hotel for the *Engineering Michigan's Future* conference. The Hotel is conveniently located across the parking lot from the Eberhard Center. There is a block of rooms being held for this conference until April 17. After that date the room rate and availability is not guaranteed. The room rate is \$139/night.

For reservations call 616.235.7611 or book [online](#) with block code SPE.



Thursday, May 3 and Friday May 4, 2018  
 L.V. Eberhard Center  
 301 West Fulton  
 Grand Rapids, MI 49504

## Registration Fees

	through April 13	after April 13	My fees
Member	\$199	\$249	\$ _____
Non-member	\$249	\$299	\$ _____
Spouse/Guest	\$109	\$159	\$ _____
Sustainable Brewing Tour	\$49	\$59	\$ _____
Networking Event	\$49	\$59	\$ _____
Golf Outing	\$85	\$95	\$ _____
		Total due	\$ _____

## Attendee Information (Please complete one form per attendee)

Name: \_\_\_\_\_ Company: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: \_\_\_\_\_ e-mail: \_\_\_\_\_

Special dietary needs: \_\_\_\_\_

## Special Events (Please check if you plan to attend)

- |  |   |
|--|---|
| <input type="checkbox"/> Sustainable Brewing Tour (additional fee)             | <input type="checkbox"/> Northern Concrete Pipe Tour          |
| <input type="checkbox"/> Golf Outing (additional fee)                          | <input type="checkbox"/> Putting the Rapids back in the Grand |
| <input type="checkbox"/> New Holland Brewing Networking Event (additional fee) |   |

## Payment Information

Total \$ \_\_\_\_\_  Check payable to MSPE enclosed

Credit Card\*:  Mastercard  Visa  Discover  American Express

Card No. \_\_\_\_\_ Exp. Date: \_\_\_\_\_

Signature: \_\_\_\_\_ CVV: \_\_\_\_\_

\*If paying by credit card, please make sure the address you provide is the same as the credit card billing address.

### Cancellation Policy

If received in writing (email is acceptable) at least 10 business days before the conference begins, you will be refunded your registration fee after a \$50 administrative charge. Cancellations not received in writing by the date required will not be eligible for a refund. No-shows will not be refunded. Substitutions may be made at any time. The difference between the member and non-member price will apply if a non-member replaces a member. All refund requests must be submitted in writing to the MSPE office, 215 N. Walnut Street., Lansing, MI 48933; or email at [mspe@michiganspe.org](mailto:mspe@michiganspe.org)