

# ASCE

## WISCONSIN SECTION

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Downtown Milwaukee

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### President's Message

By: Jennifer Schaff

**The future looks bright! Retaining top talent is part of the hurdle we face for meeting the opportunities ahead.**

Despite the doom and gloom we hear on the news and the uncertainty surrounding the pandemic, the future is bright for our industry and our economy. In an article by Jay Flanders in ASCE magazine in January of 2022, he talks about the economic challenges during the pandemic and points to an upturn in Architecture, Engineering and Construction (AEC) market. Jay writes “Amid the onset of a global pandemic and subsequent lockdowns in countries around the world, many sectors within the AEC industry either languished or suffered serious setbacks in 2020. Throughout 2021, labor shortages, supply chain disruptions, and high prices for many construction materials affected the entire AEC sector. Despite these hurdles, residential construction remained



strong in 2021, far outpacing all other industry subsectors as it continued the torrid growth that began in 2020. Meanwhile, the nonresidential building sector remained stable, though a handful of subsectors hit hard by COVID-19 — notably lodging, offices, public safety, and amusement and recreation — continued their downward trajectories. Finally, the nonbuilding sector, which includes traditional infrastructure categories, showed mixed results during 2021, led by modest growth in the drinking water and wastewater treatment subsectors.

Even before the IIJA was signed into law, some economists noted the degree to which the AEC industry appeared on track to grow in 2022. For example, proposal activity for AEC firms remained strong in the third quarter of 2021, says David Burstein, P.E., a director and senior consultant for PSMJ Resources Inc., which provides consulting services to AEC firms.

“Our overall outlook for the industry is very, very strong” for 2022, says Rebecca Zofnass, a managing partner for the Environmental Financial Consulting Group (EFCG), which advises AEC firms on financial and strategic matters. “That’s based on what all the individual firms we gather data from are projecting for next year,” Zofnass says. “Both in terms of growth and profit margins, we are seeing a very, very quick recovery out of 2020 — certainly not the same lasting impacts that we saw in previous downturns.””

### **Labor shortage.**

The optimistic outlook for AEC is wonderful and yet I think there is a bit of apprehension as we look around to see staffing shortages and the lack of potential candidates. From an EFCG, November 2021 Insight Briefing, “Zofnass suggested that the combination of pre-existing trends in talent and HR (such as changing generations and their preferences) together with pandemic driven shifts (including remote working) are creating “greater talent challenges in the a/e/c industry than ever seen before” (EA 06-Aug-21). Key areas where firms are seeing an impact include:

- Attrition among students pursuing STEM degrees contributing to a potential deficit of 1.3 million architecture/ engineering workers in the US by 2030
- Intense competition between firms in finding ‘skilled/qualified candidates’
- Strong need for additional training and development, including digital skills, across all levels of the organization
- Heightened levels of depression and anxiety, in addition to new family obligations, stemming from the pandemic
- Continued above-average turnover among younger employees, women, and underrepresented communities
- Increase in employees leaving firms to work for a competitor (48% of voluntary turnover in 2021 vs 42% in 2020) - the Great Resignation”

Zofnass went on to underline the costly nature of losing employees, stating: “The estimates are between \$50K and \$150k per employee who is turned over. So if you reduce your voluntary turnover by one point, from say 10% to 9%, you actually add 4-5% straight to the bottom line.”

“Not only is it costly, especially in a growth environment turnover is effectively a leaky bucket,” she continued. “Because no matter how quickly you get new employees through the door, if your turnover rate is high, you’re going to have trouble supporting

the growth opportunities you see on the horizon.”

### **Are we paying enough?**

There are many benefits that can be offered to employees and offering a competitive salary is important. How much is enough? ASCE offers an online Salary Calculator that generates customized reports using sophisticated regression modeling and data directly extracted from the 2021 ASCE Salary Survey. Users input specific criteria and an algorithm produces customized salary results.

ASCE members get 5 free data uses and Student members get 2 free data uses of the Salary Calculator and/or the Searchable Survey Data. If you participate in data gathering in the current Survey, this grants an additional 10 uses, for a total of 15 free uses. You can access data and participate [here](#).

### **What else can we offer?**

There is much that can be said about what else we might offer to retain talent. I found a simple straight forward approach in [an article by TRANSEARCH](#). I offer the following interpretation of their five steps:

1. Understand what your employees are looking for. How do you do that? Ask them, remember the answers and act to make it happen.
2. Understand your employees career aspirations and help them obtain skills, training and experience to execute their goals.
3. Allow employees to engage in work that challenges them.
4. Emphasize employee wellness and maybe order a salad or two as an offering at the next work lunch meeting.
5. Encourage sharing of “war stories” and passing on of knowledge and skills.

I would add that continuing efforts to add diversity to our industry is really important to our future.

Now you might be reading this and thinking, I am not in a position to cause this type of change at my company. Yes, you are! You have a voice, I challenge you to use it!



Jennifer Schaff, P.E., M.ASCE  
ASCE Wisconsin Section President

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# 2022 ASCE Wisconsin Section Awards Call for Nominations

**Nominate Today!**



## **Nominate a *Civil Engineer* for:**

- Thomas Walther Distinguished Service Award
- Wisconsin Young Civil Engineer of the Year
- Individual Merit Awards
- Excellence in Journalism Award

## **Nominate a Civil Engineering *Project* for:**

- Category A: Construction Cost Under \$2,000,000
- Category B: Construction Cost \$2,000,000 and Over, but Under \$10,000,000
- Category C: Construction Cost \$10,000,000 and Over, but Under \$20,000,000
- Category D: Construction Cost \$20,000,000 and Over

Up to 2 awards can be awarded in each category.

## **Wisconsin Section Awards - Now Accepting Nominations**

Nominate your colleagues for the 2022 ASCE Wisconsin Section Awards by **June 1, 2022!**

The American Society of Civil Engineers (ASCE) Wisconsin Section invites you to submit nominations for awards recognizing ASCE Wisconsin Section members and projects for exceptional achievement.

These honors exist to award **students, younger members, career professionals, projects and journalists**. Section awards are given annually to individual Wisconsin Section ASCE members for achievement in one of the below particular areas.

Nominate a Civil Engineering **Individual** for the:

- Thomas Walther Distinguished Service Award
- Excellence in Journalism Award
- Individual Merit Awards - with categories including Education, Consulting, Government, and Private Practice
- Young Civil Engineer of the Year Award

Nominate a Civil Engineering **Project** for the Wisconsin Section Engineering Achievement Awards:

- Category A: Construction Cost under \$2 million
- Category B: Construction Cost \$2 million and over, but under \$10 million
- Category C: Construction Cost \$10 million and over, but under \$20 million
- Category D: Construction Cost \$20 million and over

Up to two awards can be awarded in each of the above project categories. **All nominations should be submitted to the Section Secretary, Matt Dahlem, via email**

## Get to Know: Mike Arnold, P.E., M.ASCE

Mike Arnold is a Senior Structural Engineer for AECOM in Milwaukee where he started his career as an intern in 2003. He has 18 years of experience in transportation structure design, with an emphasis in complex highway bridges and movable bridges. Mike has had the opportunity to be a part of some very exciting projects in Wisconsin, including the flyover bridges at the I-41/I-43 and I-41/STH-29 interchanges in Green Bay, the flyover bridges at the I-39/I-43 interchange in Beloit and the Racine Street Bascule Bridge in Menasha. Mike is a 2005 graduate of the University of Wisconsin – Madison with a B.S. in Civil Engineering.

Over the years, Mike has had the pleasure of serving in several roles for ASCE, including as Southeast Branch President, Outreach Chair for the Southeast Branch YMG Board, and currently as a Director-at-Large for the Wisconsin Section Board. Mike was on the Planning Committee for five ASCE Wisconsin Section Annual Meetings and Spring Technical Conferences over the course of eight years. Mike was proud to be a co-author of the 2020 ASCE Wisconsin Infrastructure Report Card Bridge Chapter.

Mike has been married to his wife Julia for 13 years and they live in New Berlin with their three children: Cole (8), Claire (5) and Blake (3). An Eagle Scout himself, Mike is a Den Leader and Assistant Cubmaster for Cole's Cub Scout Pack, hoping to inspire a future generation of leaders.



## Wisconsin Section Members Honored as New ASCE Fellows

**Congratulations to Yiyang Xiong, P.E., PMP, D.WRE, F.ASCE, and Mike Paddock, P.E., P.L.S., F.ASCE, on being named as Fellow Members by the ASCE Board of Direction.**

**Yiyang Xiong, P.E., PMP, D.WRE, F.ASCE**, associate director for Great Lakes Bioenergy Research Center (GLBRC), has been named a Fellow Member by the ASCE Board of Direction.



Xiong is an internationally known executive leader, entrepreneur, business strategist, business developer, program manager, and technical lead in global renewable energy and water resources sectors. GLBRC is one of four U.S. Department of Energy (DOE)–funded bioenergy research centers in the country. Prior to transitioning to the bioenergy industry, Xiong held various leadership roles in the hydropower industry. She also owns a small consulting business practice.

[View Yiying's full recognition from ASCE here.](#)



**Michael Paddock**, P.E., P.S., F.ASCE, an adjunct professor at Marquette University and civil engineer who has managed some of the largest infrastructure projects in Wisconsin (totaling over \$5 billion), has been named a Fellow Member by the ASCE Board of Direction.

Paddock's most significant contribution to the profession is in service engineering. As a volunteer, he has completed over 100 international service engineering projects on five continents as the Engineer in Responsible Charge.

[View Mike's full recognition from ASCE here.](#)

ASCE members elected to Fellow Member status have made celebrated contributions and developed creative solutions that have enhanced lives. Just 3% of Society members hold this prestigious honor.

If you have been at the ASCE Member grade for at least 10 years and are a licensed professional engineer or professional surveyor (where licensure is available), you may be eligible to upgrade to Fellow status. Fellow status must be attained by professional accomplishments via application and election by the Membership Application Review Committee. Members may request a waiver of specific requirements.

Visit [www.asce.org/fellows](http://www.asce.org/fellows) or email [fellows@asce.org](mailto:fellows@asce.org) to learn more about becoming an ASCE fellow. Applications available at [www.asce.org/fellows](http://www.asce.org/fellows) or by calling (800) 548-2723 (ASCE), ext. 6289, or emailing [fellows@asce.org](mailto:fellows@asce.org).

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## State of Wisconsin Publishes Clean Energy Plan

Opinion by: Public Affairs Chairman, Gregory Schroeder, P.E, M. ASCE

On August 19, 2019, Governor Tony Evers signed [executive order #38](#) creating the Governor's Office of Sustainability and Clean Energy. I don't think this was particularly prescient, because energy was already a longtime hot issue, but benefits are now coming to light. The Office has just published its first report, the state of Wisconsin [Clean Energy Plan](#). The executive order and the CEP have goals of reducing

GHG emissions, reducing the \$15 billion dollars Wisconsin pays to other states for fossil fuel each year, and growing renewable energy jobs here in the state.

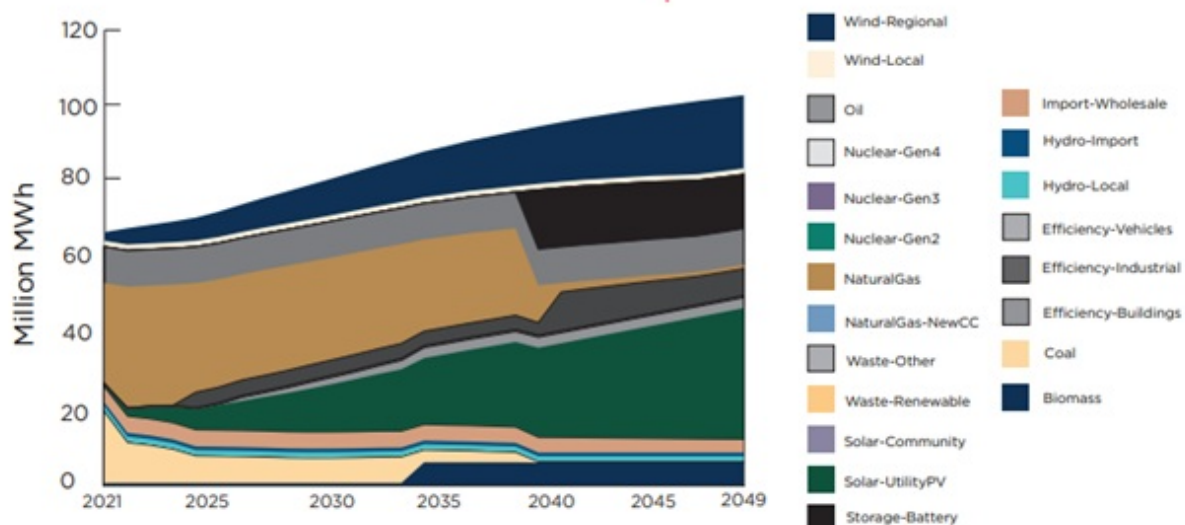
Recent events on the world stage have lifted the importance of executive order #38. Putin's invasion of Ukraine has caught Europe flat-footed and in urgent need of energy not from Russia. Fossil fuels as well as renewables are needed, and worldwide prices have risen dramatically. Inflation has risen for reasons related to covid, supply chains, labor shortages, and energy costs. Wisconsin needs to control energy costs and transition at the same time to a low carbon future.

My initial thoughts on the invasion of Ukraine were that we Americans could significantly and urgently conserve energy, which would help to control prices, allow more energy to support the Europeans, and result in less money going to Russia to support their war. Much to my chagrin, multiple sources told me emphatically that too few of us would sacrifice our individual use of energy even for such a worthy effect.

The [Clean Energy Plan](#) gives an important overview of energy and GHG emissions in Wisconsin. This report will be an important resource for the ASCE Wisconsin Section for the next infrastructure report card for the state because of the information it contains and the more holistic view of energy which balances transportation, agriculture, and other energy uses with the largest use, power generation.

The report includes two versions of transitioning from fossil fuels. One emphasizes solar and the other wind. If either version has potential, we have a lot of work to do. One key will be to bring on new-generation nuclear, and we are far from a consensus and commitment on this. Other important growth areas to meet the goals will include energy storage, carbon capture, and conservation.

Figure 21 - Electricity Generation by Source (Primary Solar)



Source: State of Wisconsin Clean Energy Plan 2022

In the specific area of residential and industrial building energy, the report's projections show that we will all heat our homes with electricity by 2050! This seems like a stretch to me, but how else might we reach zero carbon? Does this mean that all new single-family homes should be installing heat pumps as the main heating source?

We have all heard that dairy cows produce a lot of methane. Have you heard that this

'emission' can be greatly reduced by the addition of a small amount of a specific seaweed to the cow's diet? Here is a solution to a problem that should be pursued, but what will motivate a farmer to increase their cost with no financial incentive? Regulations will be needed at the federal level, so the playing field is level for all farmers.

More generally, a so-called carbon tax or GHG tax will be needed at the federal level to provide free markets with the correct economic incentives to reduce GHG emissions. My favorite example is the new business of space tourism. If kerosene is the rocket fuel, and I pay a quarter of a million dollars for a ten-minute joy ride then I should also pay for the environmental damage that I am inflicting on every other human on earth. I can only see three alternatives.

1. Promulgate individual regulations for every GHG generating industry and activity.
2. Implement a general carbon or GHG tax.
3. Delay action until impacts are untenable and costs ballooned.

The first alternative is not feasible, so the second is obviously needed. Unfortunately, we are still choosing to #3, delay action.

An important concept for transitioning our energy sources is that of stranded utility assets. Utilities have built fossil fuel power plants with a promise that customers will purchase the energy in the future and those dollars will pay for the investment in the plants. Abandoning a power plant prematurely has remaining (stranded) costs that must be borne by someone. Adding carbon capture would keep these plants used and useful, but the carbon capture technology is not yet competitive with alternatives. We must ramp up support for research and development.

Wisconsin's Public Service Commission is led by only three commissioners. By comparison, Florida has nineteen commissioners. Nineteen seems excessive and unwieldy, but perhaps a few more commissioners on our team could add balance, diversity, depth, expertise, and consistency.

As engineers and scientifically minded citizens, we need to speak up and encourage beneficial actions by our fellow citizens and our government representatives. There are too many flaws in the media narratives. Oversimplifications are rife. For example, electric vehicles charged from a coal-fired powerplant do not have zero GHG emissions. If you need a new vehicle, electric may be the right decision, but even if left in the garage, the decision to replace your car with an electric vehicle has created significant environmental impacts in its manufacture.

We must share our knowledge and wisdom, and not only via a letter to the editor of our local newspaper, but also where more communication happens now. This is via social media like Twitter and TikTok with the incredible limitations and dangers of those new public spheres of influence.

We would like to hear from you. Please log in to [ASCE Collaborate](#) and share your thoughts. Comment and reply to this article here: [WI Section on ASCE Collaborate](#)

*The opinions expressed here are those of the author only, and do not necessarily represent the views of his employer, the Wisconsin Section, or ASCE.*

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## **Around the Section - Branch Happenings**

### **Northwest Branch Now Accepting Applications for the Goodell Scholarship**

The Northwest Branch of the ASCE is now accepting applications for the Goodell Scholarship!

The branch annually awards one \$1,000 scholarship to a civil engineering student that lives within the boundaries of the Northwest Branch. This scholarship is to recognize the unselfish contributions to the civil engineering profession that were made by Mr. Harvey Goodell. Mr. Goodell provided leadership to the Branch for many years having been a LaCrosse area director from 1976-1984. He is most notably recognized by ASCE for his efforts in initiating and promoting the "Eminent Board" concept, which proposed methods for allowing private sector input in public engineering works. The hope of the Northwest Branch is that by awarding this scholarship, the spirit and enthusiasm shown by Mr. Goodell will be perpetuated.

Completed applications must be submitted by **5:00pm, May 31, 2022**

[View Details and Scholarship Packet](#)

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### **Become a Sponsor for the 2022 ASCE WI Southeast Branch Scholarship Golf Tournament**



#### **When**

Friday, June 10, 2022 from 10:30 AM to 6:00 PM CDT

#### **Where**

**Ironwood Golf Course**  
W270N6166 Moraine Drive  
Sussex, WI 53089

Does the golf world have greatness in the making? We can't be sure yet, but it has been an impressive run for Scottie! Equally impressive is the support the engineering

community has shown for the ASCE SE Branch Scholarship Golf Tournament over the last 10 years!

This year, the tournament is back to its original date on Friday, June 10th, 2022. It is also time to start thinking about securing your spot as a sponsor for the tournament. We are offering multiple opportunities to get one or two golf registrations FREE with your sponsorship at the \$500 and \$600 levels, respectively.

Sponsors, Sponsors, Sponsors, Thank you, Thank you, Thank you! You are the reason why we can offer three scholarships to deserving up and coming Civil Engineers.

Click on the links below to see all the sponsorship options and registration information for this year's tournament.

[Registration](#)

[Sponsor Information](#)

New this year, you will notice that you can sign up for your spot through the link below. Once registered, we will send you an invoice through Paypal, which will allow you to pay with a credit card online. As always, checks are accepted as well.



Gabriela Lukanus, S.M.ASCE  
*Marquette University*



*Congratulations!*  
2022 Wisconsin Section  
Outstanding Senior Civil Engineering  
**STUDENT  
AWARD  
RECIPIENTS**  
We Wish You All The Best For You  
And Your Future in Engineering



Eli Trast, S.M.ASCE  
*UM-Platteville*

## **Congratulations 2022 Outstanding Senior Civil Engineering Student Award Recipients**

Congratulations to Gabriela Lukanus and Eli Trast for being awarded the 2022 Wisconsin Section Outstanding Senior Civil Engineering Student Award!

## **Wisconsin Section Award Renamed to the Thomas Walther Distinguished Service Award**

The Wisconsin Section is pleased to announce the renaming of our distinguished service award to the Thomas Walther Distinguished Service Award. ASCE Wisconsin Board Members voted unanimously at the March 2022 Board Meeting to revise the title.

This award is designed to “recognize the importance of service to the community and people in general, while attaining a high professional standard of civil engineering conduct, accomplishment, and service.”



Tom's most passionate activity was service to the engineering profession, and it is our privilege to rename the award to honor him.

[Nominations for the 2022 Thomas Walther Distinguished Service Award can be found here.](#) [View the Wisconsin Section's Article mourning the loss of Tom here.](#)

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The background of the graphic is a photograph of a construction site. A large yellow crane is visible in the upper left, and a worker wearing a white hard hat and safety glasses is seen from the back/side in the lower left, looking towards the building under construction.

**THANK YOU**  
**ATTENDEES OF THE**  
2022 ASCE WISCONSIN  
SECTION **SPRING**  
**TECHNICAL CONFERENCE**

Presented by the Wisconsin Section  
Southeast Branch  
Friday, April 8, 2022

**THANK YOU**

to the 2022 Spring  
Technical Conference  
Planning Committee for  
coordinating a  
successful event!

**CHAIRS:**  
Nick Bobinski  
Tony Castle

**Committee Members:**  
Jake Brunoehler  
Wade Carter  
Neal Styka  
Aaron Bubb  
Zach Sadowski  
Cole McCraw  
Aaron Schramm

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## 2022 Spring Technical Conference Recap

By: Tony Castle, P.E. and Nick Bobinski, P.E., Committee Co-Chairs

Thank you to those who joined us on Friday April 8<sup>th</sup> for the 2022 Virtual Spring Technical Conference! We hope you found value in the conference and enjoyed the programing that you were able to attend. If you were not able to join us, some of the

highlights include an opening presentation from President Dennis Truax and Dr. David Noyce on ASCE's Future World Vision Project, an eye opening presentation on Unconscious Bias from the Honorable Judge Derek Mosley, and an interesting discussion on the art and ethics of interest based negotiations from Vance Crowe. Along with those general sessions, there were some excellent technical sessions throughout the day as well as recognition of our recent Wisconsin Section Student Award recipients and acknowledgement of the new Life Members and Fellows in our Section.

We would like to give one last thanks to our sponsors. Without their support this event would not have been possible. We would also like to take one last opportunity to thank our great volunteer planning committee and Impact Association Management staff who worked relentlessly to ensure a smooth event! Thanks everyone for a great conference !



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## 2023 Centennial Celebration Sponsor Highlight: Davy Engineering



**Davy Engineering** is a consulting engineering and surveying firm that partners with clients to provide cost-effective engineering services. Their mission is to provide clients with efficient, cost-effective, quality services founded upon integrity, professionalism, and commitment to long-term relationships.

Thank you, **Davy Engineering** for your support of ASCE Wisconsin's 2023 Centennial Year Celebration!

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# Thank You Sponsors

of the  
ASCE WISCONSIN SECTION  
2023 Centennial Year



Thank you to our exclusive event sponsor:



## Sponsorship Opportunities Available for the 2023 Centennial Year ASCE WISCONSIN SECTION



*Planning is underway for:*

- Multiple in-person celebratory events
- Highlights of our ASCE National Civil Engineering Landmarks
- One in-person Grand Celebration Event



Thank you to our exclusive event sponsor:



**Sponsorship Opportunities Available!**

## Welcome New Wisconsin Section Members!

The Wisconsin Section would like to welcome our newest members, who have joined since our last quarterly newsletter. We are excited that you've joined us!

Cesar Luis Andriola, S.M.ASCE  
Kayla Bates, S.M.ASCE  
Jared Beek, S.M.ASCE  
Zachary Graham, S.M.ASCE  
Sydney Kalinge, S.M.ASCE  
Madison Marchese, S.M.ASCE  
David Marcon, S.M.ASCE  
Brian Melching, S.M.ASCE  
Allison Raverty, S.M.ASCE  
Mansura Sharmin, S.M.ASCE  
Savanah Skack, S.M.ASCE  
Yu Tan, S.M.ASCE

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## Membership at a Glance

**Total WI section members: 1,776**

**Affiliate: 83**

**Assoc: 430**

**Distinguished: 3**

**Fellow: 54**

**Member: 1,021**

**Student: 185**

**New Members since last Newsletter  
(February): 13**



**CHECK OUT THE NEW  
NORTHWEST BRANCH  
MEMBER LINKED IN PAGE!**

Stay in the know on all regional happenings.

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**[WWW.LINKEDIN.COM/COMPANY/  
asce-wisconsin-northwest-branch](http://WWW.LINKEDIN.COM/COMPANY/asce-wisconsin-northwest-branch)**

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# **ASCE Wisconsin Section 2021-2022**

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AECOM  
[mike.j.arnold@aecom.com](mailto:mike.j.arnold@aecom.com)

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AECOM  
[tony.castle@aecom.com](mailto:tony.castle@aecom.com)

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[xiaoxi@uwplatt.edu](mailto:xiaoxi@uwplatt.edu)

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Madison Metropolitan Sewerage  
District  
[JenH@madsewer.org](mailto:JenH@madsewer.org)

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Corona Woychik  
ISG  
[corona.woychik@is-grp.com](mailto:corona.woychik@is-grp.com)

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Waste Management  
[lbuechel@wm.com](mailto:lbuechel@wm.com)

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Brad Severson  
raSmith  
[Brad.Severson@rasmith.com](mailto:Brad.Severson@rasmith.com)

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[clintmarchant@epcs.com](mailto:clintmarchant@epcs.com)

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[mdahlem@fehr-graham.com](mailto:mdahlem@fehr-graham.com)

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American Engineer Testing, Inc.  
[awalters@amengtest.com](mailto:awalters@amengtest.com)

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Joe Zellmer  
Outagamie County  
[Joseph.Zellmer@outagamie.org](mailto:Joseph.Zellmer@outagamie.org)

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Starboard Tack Consulting  
[Treas\\_ASCE\\_WI@outlook.com](mailto:Treas_ASCE_WI@outlook.com)

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