



# ASCE American Society of Civil Engineers

## WISCONSIN SECTION NEWSLETTER NOVEMBER 2002

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### President's Message

As we enter into the 80<sup>th</sup> year of the Wisconsin Section, I would like to take a few moments to review past accomplishments and recognize members who have made significant contributions to the Section prior to outlining the Section goals for the coming year.

First, I would like to thank Darrell Berry (Past-Past-President), who has left the Board after serving through the Presidential progression. Darrell served as the Champion of the 150<sup>th</sup> Anniversary for the Wisconsin Section and was instrumental in redefining and streamlining the Section Awards process.

Next, thanks to Fred Groth (Past President), who has been instrumental in working with the Legislative Cabinet in monitoring legislation that affects the civil engineering profession and with starting work on the Report Card on Wisconsin's Infrastructure.

Also, thanks to the Annual Meeting Committee for their efforts on a very successful meeting. Gary Amel and his group produced a meeting with interesting topics and speakers that drew one of the largest attendances ever in the Fox River Valley Branch area. There were so many members attending the Lambeau Field tour the construction manager had to call in reinforcements.

On September 27, the Marshall Building in Milwaukee received a National Historic Civil Engineering Landmark designation. ASCE President-Elect Thomas Jackson dedicated the building in a ceremony attended by National Officers and local members of ASCE, members of the Old Third Ward Historic Association, and the owner and tenants of the building. The Marshall Building is the oldest existing example of flat slab concrete



construction in the world. It joined projects such as the Panama Canal, Golden Gate Bridge, and Hoover Dam in winning this designation. I would like to thank Terese Dressel, Mark Mathu, and all the other people involved for all the work they have put into this award.

It is through the efforts of volunteers like the people I just mentioned that the Wisconsin Section remains one of most active and award winning sections in the country.

During the course of the next year, my goals will be to increase membership, meet with the branches and student chapters, review and revise the administrative manual, and to increase awareness and understanding of the civil engineering profession.

With your help, I will work to fulfill all of those goals. However, I would like to concentrate more on the last goal I just mentioned. This is to increase awareness and understanding of the civil engineering profession.

As current president Jerry Schwartz

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*President's Message (Continued from page 1)*

stated in a recent Message from the President: "Become a Leader – Get Involved". I urge each of you to be involved at the local level to promote the services and improvements we provide as civil engineers.

Here are a few examples of opportunities available for all of us to be involved in increasing awareness and understanding of the civil engineering profession.

For the past several years, the Wisconsin Section and several of its members have contributed time and money towards the Future Cities competition for junior high school students. Hundreds of teams and several section member volunteers have worked on this fun, innovative way to teach students about planning, constructing and teambuilding to find solutions to problems. Here is a great opportunity for individual members to be involved in helping their community and teaching at the same time.

Another great opportunity for community outreach is the Zoom into Engineering program. This is a hands-on set of fun experiments aimed at the 2-6 grade levels. They are very simple experiments that teach the students a principle of science or engineering. At the completion of the experiment, there is a discussion with the students to learn how the results of the experiment are applied to everyday life. I've had the opportunity to participate in this program and the students really enjoy and learn from it.

In early 2003, the Wisconsin Section will issue the Report Card on Wisconsin's Infrastructure for public review and use. This will be a unique opportunity for us to influence the legislature on funding priorities. I would ask for every Section member's support of this effort when we issue this information. This will be a golden opportunity to teach what civil engineering does for society in everyday life. Offer to speak to community organizations or business groups about the report card and what it means to your community. The closer you can bring this to your community, the greater effect we can have as a state to impact and influence legislation to improve infrastructure.

In closing, I challenge every member of the section to be involved, volunteer your time and talent, and spread the word that as civil engineers, we are committed to "Building a Better World".

Sincerely,  
Carl Sutter  
ASCE Wisconsin Section President



Canoeing on Lake Mendota

### Looking Back on our 150<sup>th</sup> Anniversary

Picture it ... over 1,000 civil engineering students from 112 universities from the U.S., Canada, Japan, Mexico, and Turkey. Now, imagine them building scale-model steel bridges, designing and creating systems to treat contaminated water with only common kitchen items, and racing through a lake in concrete canoes—all right here in our backyard. From Friday, June 21 through Monday, June 24, that was life for 1,200 civil engineering students and over 200 ASCE volunteers assembled in Madison, Wisconsin.

2002 was a hallmark year for the American Society of Civil Engineers as we celebrated our 150<sup>th</sup> Anniversary. As part of this year's activities, the Wisconsin ASCE members were proud to assist with the National Student Conference that was held at the University of Wisconsin-Madison. All five Wisconsin universities with a civil engineering program participated in making this once-in-a-lifetime event possible. Three years of planning certainly paid off. With 1,200 college students in Madtown, you can imagine the fun that was had by all. Here are some of the highlights from the conference:

- National Steel Bridge Competition – UW-Madison and UW-Platteville brought bridges to this year's finals, held at the Kohl Center. UW-Madison took first place honors in the construction speed and construction economy categories!
- National Concrete Canoe Competition – the concrete canoe displays were setup at the Kohl Center with the actual races held in front of the Pyle Center on Lake Mendota. UW-Madison finished 5<sup>th</sup> overall—the highest national finish ever for a Wisconsin University!
- Career Fair – participating students got an opportunity to do a little bit of planning for the future as they took part in a 2-day

*(Continued on page 3)*

*Looking Back (Continued from page 2)*

career fair held at the Kohl Center. Over 30 companies and organizations participated in this event.

- Field Trips— there was even a little bit of fun (with some learning thrown in, too, of course) through four different civil engineering field trips. Two trips took students to Milwaukee to see Miller Park and the Milwaukee Art Museum. The other trips took place in Madison and included tours of the Overture Project construction site, and the Madison Metropolitan Sewerage District wastewater treatment plant.
- Daniel W. Mead Contest— For the first time ever, regional finalists of this prestigious national ASCE writing competition presented oral presentations, which were held at the Memorial Union. Congratulations to Tamara Larson of UW-Madison who took home 1<sup>st</sup> place honors in this competition and represented Wisconsin so well! Her paper will be published in Civil Engineering Magazine later this year.

Thanks to all local consulting firms, contractors, trade groups, and individuals that made this conference such a resounding success. Having professional firms participate in the conference not only provided volunteers to help run the event, but also exposed students to professional role models in the field they are studying. Thanks again to everyone who helped support this event.

*Contributed by Jim Tinjum, President – SW Branch*



Concentrating on the Steel Bridge Competition

**Mark Your Calendars**  
*for the*  
**ASCE Spring Technical Conference**  
**Thursday Afternoon, March 27, 2003**  
**Spring Green, Wisconsin, USA**

The Editor's Text Box

### Engineers Resist Temptation

GREEN BAY, Wisconsin — The 2002 annual meeting of the ASCE Wisconsin Section was a great success. Held on September 20<sup>th</sup> at Green Bay's Radisson Hotel and Conference Center, the meeting attracted over 170 attendees. The event included excellent technical presentations, networking, camaraderie, and (see the legitimate report elsewhere in this newsletter) the presentation of awards to deserving projects and individuals.

But some feared that the civil engineers were flirting with trouble. A major casino was known to be lurking on the premises. Perhaps too confident in their knowledge of safety factors and recurrence intervals, would the civil engineers fall prey to the siren calls of the gaming tables? Would they abandon those late afternoon technical sessions for a more glitzy version of continuing education? Would the remnants of their dwindling 401k's be invested in a night of riotous living?

Alas! No such thing occurred! Due to careful planning by a seasoned Fox River Valley Branch committee, the civil engineers and guests were whisked away for the evening to an even greater attraction – the glory of Lambeau field! A stadium tour, the Packer Hall of Fame, and a tailgate of burgers, brats, and authentic Wisconsin beverages brought out the best in the ASCE members. Yes, there may have been a few exaggerated claims of being on the 50-yard-line during the famed 1967 ice-bowl. But the civil engineers passed their test and further enhanced their reputation as a professional and respectable bunch.

But who knows what new temptations may be awaiting the engineers next time? See you in Spring Green to find out.

## ASCE Wisconsin Section Awards Competition

It's never too early to begin thinking about next year's ASCE Wisconsin Section Awards Competition. The possibilities include the following:

- ❖ Individual Merit Awards
- ❖ Distinguished Service Awards
  - *Engineer in Education*
  - *Engineer in Consulting Practice*
  - *Engineer in Government Service*
  - *Engineer in Private Practice (Utility, Industry, etc.)*
- ❖ Excellence in Journalism Award
- ❖ Young Civil Engineer of the Year Award (nominee must be less than 35 years of age during 2002)
- ❖ Engineering Achievement Awards

Award nominations are due to the section secretary, Jim Buggs, by June 1, 2003, but now is the best time to inform your co-workers, and/or business associates about the program and select your projects.

The Engineering Achievement Awards recognize outstanding civil engineering projects located in the Wisconsin Section's geographical area. Project nominations are considered in four categories:

Category A: Construction cost under \$2 million

Category B: Construction cost \$2 million to \$10 million

Category C: Construction cost \$10 million to \$20 million

Category D: Construction cost over \$20 million

Awards are made by the Board of Directors, based on the recommendation of a selected Jury of Judges. One project, regardless of category or size, may then be designated the Wisconsin Section ASCE Outstanding Civil Engineering Achievement of the Year. In addition, all award winners will be asked to provide a poster for display at the Annual Meeting held each September, and will be given the opportunity to provide a presentation for use at the noon luncheon awards ceremony.

There is no fee for entering the ASCE awards program. We are simply looking for people and projects that demonstrate excellence in engineering skills, and represent a significant contribution to engineering progress and society. Start now and take this opportunity to recognize your projects and co-workers! For more information, log on to our section website at [www.asce.org/gsd/sections/wisconsin](http://www.asce.org/gsd/sections/wisconsin).

### 2003 DANIEL W. MEAD CONTEST FOR YOUNGER MEMBERS

The Daniel W. Mead Prize for Younger Members was established in 1939 to honor the memory and accomplishments of the 67th President of the American Society of Civil Engineers. The talents of many of the leaders of the profession were first recognized in previous contests for this significant professional honor. The current contest provides an opportunity for alert young civil engineers to further their professional development and gain national attention.

For 2003, the paper must be written on:

***"Is it Ethical to Profit from Engineering Work Arising from Natural or Manmade Disasters?"***

#### RULES:

- Authors should submit their papers to their section or branch secretary by January 3, 2003.
- The author must be an Associate Member, Member, or Affiliate of the Society 35 years of age or less on February 1, 2003.
- By February 1, 2003, the Section or Branch Secretary must submit two copies of the paper to: ASCE Awards Department, 1015 15th St. NW, Suite 600, Washington DC 20005. Include author's member ID.
- Each Section or Branch can submit only one paper.
- One winner may be selected from each of the four Zones and International membership of the Society.
- The national winner may be invited to present his/her paper at the ASCE National Convention, Nashville, TN, in October 2003.
- Only one person can write each paper.
- Paper must contain no more than 2,000 words and must address professional ethics.

### Milwaukee's Marshall Building Designated National Historic CE Landmark

A ceremony on September 27, 2003 officially conferred landmark status on Milwaukee's Marshall Building. ASCE's History and Heritage Committee approved the structure for recognition in the National Historic Civil Engineering Landmark Program.

At the ceremony, hosted by the Wisconsin Section, ASCE National President-Elect Thomas L. Jackson recognized the building at 207 East Buffalo Street as the oldest existing example of flat-slab concrete construction in the world. The Marshall Building was designed by the civil engineer Claude A.P. Turner and constructed in 1906. Turner's flat-slab system differed from previous reinforced-concrete construction in that it consisted of only a slab and supporting columns, eliminating the time and expense of formed beams on the underside of the floor. The system was the subject of intense debate and controversy when it was introduced, but within a few years it had been embraced by the civil engineering community. By 1913, in fact, more than a thousand such buildings had been constructed, and flat-slab design is very much in evidence in building construction today.

Many building officials at the time regarded flat-slab concrete construction as experimental and required that testing be carried out by placing loads of up to twice the design loading on the floor system. A promotional brochure prepared by Turner includes a March 7, 1907, photograph of the Marshall Building undergoing a load test of 140 tons in one of its 16 foot 8 inch by 17 foot bays. With sandbags piled approximately 9 feet high, the deflection was measured at 7/16 of an inch. This important documentation helped pave the way for acceptance of flat-slab construction technology.

Turner used a "mushroom head" to provide shear reinforcement. This head consisted of a cage of large-diameter radial and tangential bars at each column extending out to a diameter of nearly half the span length. In addition to imparting shear strength to the slab in the vicinity of the columns, these bars provided a cantilever support for the slab. The mushroom head was fabricated independently of the column rein-



forcement to save time in reinforcement placement. In addition, the column reinforcement could be varied from floor to floor without in any way affecting the required amount and placement of the mushroom head. Other economies introduced by flat-slab construction included the following:

- Eliminating forming and reinforcement for concrete beams and thus speeding the process of floor framing;
- Improving fire protection by reducing the number of sprinkler heads required and allowing more latitude in their placement;
- Lowering both floor-to-floor heights and costs through reductions in cladding and column construction;
- Improving illumination from windows and overhead lights;
- Increasing the number of opportunities for shafts and other floor openings.

The Marshall Building was originally owned by the John Hoffman & Sons Company, and in 1906 the building went by that name. Hoffman & Sons was a wholesale grocery firm specializing in coffee, tea, and spices. It pulverized sugar on the fourth floor of the building and ground coffee on its sixth floor. (Originally a five-story building, the sixth floor was added in 1911 in accordance with Turner's design.) Today the building is owned by George Bockl Enterprises and is used primarily as office space.

*Editor's note: Thanks to Mark Mathu, Jason Sorci, Kevin Wood and Terese Dressel for coordinating this successful nomination.*



Pres. Fred Groth and recipient Tom Wenzel



Pres. Groth and recipient Chris Foley



Pres. Groth and recipient Richard Smith



Pres. Groth and recipient Stan Woods



Pres. Groth and recipient David Matthews



Pres. Groth and recipient Jim Tinjum

## Congratulations to Our ASCE Award Recipients!

In a ceremony at the September 20 annual meeting in Green Bay, President Fred Groth presented ASCE Wisconsin Section awards to a well deserving line-up of individuals and projects. And here are the winners:

### Individual Awards

Thomas H. Wenzel - Distinguished Service Award

Christopher M. Foley – Individual Merit Award, Education

Richard A. Smith – Individual Merit Award, Consulting Practice

Stanley W. Woods – Individual Merit Award, Government Service

David K. Matthews - Individual Merit Award, Private Practice

James M. Tinjum – Young Civil Engineer of the Year

### Engineering Achievement Awards

Madison Metropolitan Sewerage District Lagoon Capping Project  
(Category A: project cost under \$2 million)

City of Oshkosh Marion Road Brownfields Redevelopment  
(Category B: project cost from \$2 to \$10 million)

Milwaukee Metro. Sewerage District-Valley Park Flood Management  
(Category B: project cost from \$2 to \$10 million)

Wisconsin DOT Highway 59 Waukesha South Bypass  
(Category C: project cost from \$10 to \$20 million)

Kenosha Harbor Park, A Pioneering Reclamation Project  
(Category D: project cost over \$20 million)

Milwaukee Art Museum Addition  
(Category D: project cost over \$20 million)  
(and Outstanding Civil Engineering Achievement Award)

## DNR CONVENES ADVISORY COMMITTEE ON SANITARY SEWERS

The Wisconsin Department of Natural Resources has convened an advisory committee for the purpose of recommending changes to several chapters of the Wisconsin Administrative Code. The chapters under consideration include NR110, NR205, NR208 and NR210, dealing with the planning, design, operation, maintenance and permitting of sanitary sewer systems.

New federal rules dealing with sanitary sewer overflows (SSO's) are expected to be coming forth soon from the Environmental Protection Agency. The Wisconsin advisory committee will help draft revisions to the state codes to ensure consistency with the present and anticipated future federal rules. Key requirements at the federal level are anticipated to include:

- CMOMs: the development of specific programs for capacity assurance, management, operation and maintenance of sewerage systems.
- A system for formal SSO notifications to the public and to health authorities.
- Prohibition of SSO's: an attempt to clarify existing laws, including discussion of situations that may provide communities with limited protection from enforcement when overflows are caused by factors beyond their reasonable control.
- Expanding permit coverage to satellite collection systems that are tributary to treatment plants owned by other agencies.

Issues of particular interest to the Wisconsin committee include defining adequate design capacity for wastewater conveyance facilities, developing benchmarks for the prevention of SSO's, the permitting status of in-plant flow diversions, and defining the conditions for which some SSO's may be considered unavoidable.

The eleven-member committee brings together a diverse group representing consultants, sewerage system owners, environmental groups, and regulatory agencies. Two members of our ASCE Wisconsin Section, Jerry Chudzik and Ned Paschke, are serving on the advisory committee.

## STATE BAR COMMISSION PROPOSES EXPANDED DEFINITION OF "THE PRACTICE OF LAW"

An interim report prepared by the Multidisciplinary Practice Commission (Commission), a commission appointed in May 2001 by the State Bar of Wisconsin's Board of Governors, proposes to expand the statutory definition of the "practice of law" that has been used in Wisconsin for over 20 years. Under the current definition in Wis. State Stats Sec. 757.30, the "Practice of Law" occurs when a person: "...[appears for or on behalf of another in a court action]...or who otherwise, in or out of court, for compensation or pecuniary reward gives professional advice not incident to his or her usual or ordinary business, or renders legal services for any other person, or any firm, partnership, association of corporation..."

The key words in this current definition, but not in the proposed definition, are *not incident to his or her usual or ordinary business*. An engineer interpreting a building or zoning code does not now practice law because that is a normal activity *incident to his or her business*.

The proposed definition, contained in Appendix B of the report, can be viewed online at the Wisconsin Bar Association's [http://www.wisbar.org/bar/reports/2002/MDP/App\\_B\\_May05.pdf](http://www.wisbar.org/bar/reports/2002/MDP/App_B_May05.pdf). It does not contain the general exclusion *not incident to his or her usual or ordinary business*. It itemizes a few exceptions, but none apply to engineers (or to architects, surveyors, or accountants for that matter).

ASCE's Wisconsin Section Board at its October meeting has authorized a letter to be sent by President Carl Sutter to the Wisconsin Bar Association requesting further discussion of the definition as proposed in the interim report before further action is taken on it.

*Contributed by Bill Meyer*

## WANTED

Your Articles, Comments, Photos, and Letters  
for publication in this ASCE Newsletter  
Anything civil, interesting and primarily factual  
may be submitted to:

Ned W. Paschke, Editor  
nedp@madsewer.org

Madison Metropolitan Sewerage District  
1610 Moorland Road  
Madison, WI 53713

Phone: (608) 222-1201 ext. 257

Fax: (608) 222-2703

Deadline for next issue: December 15, 2002

**Wisconsin Section Board Meetings**

Nov. 13, 2002	Neenah
Dec. 12, 2002	Milwaukee
Jan. 15, 2003	Madison
Feb. 2003	No Meeting
Mar. 27, 2003	Spring Green
Apr. 15, 2003	Wausau
May 22, 2003	Milwaukee
June 19, 2003	Madison
July 2003	No Meeting
Aug. 14, 2003	Neenah

**Southeast Branch Meetings**

Nov. 14, 2002	West Allis, dinner with ACI
Dec. 19, 2002	Marquette Univ., lunch w/ ESOM
Jan., 2003	UWM, dinner, date TBA
Feb. 11, 2003	Milwaukee, Engr.-of-Year banquet, with ESOM
Mar. 27, 2003	Spring Green Tech. Conference
Apr. 17, 2003	Marquette Univ., lunch w/ ESOM
May 15, 2003	Lunch, location TBA
Jun. 19, 2003	Dinner, location TBA, past-presidents and spouses night
July, 2003	Field trip, TBA
Aug., 2003	No meeting

\*TBA = to be announced

**Fox River Valley Branch Meetings**

Nov. 21, 2002	Green Bay, with WSPE
Dec. 2002	No meeting this month
Jan. 16, 2003	Manitowoc
Feb. 19, 2003	Appleton
Mar. 27, 2003	Spring Green Tech. Conf.
Apr. 22, 2003	Oshkosh
May 21, 2003	Green Bay, Golf Outing

**NW Branch Meetings**

Nov. 19, 2002	East side of branch
Jan. 21, 2003	West side of branch, with WSPE
Feb. 18, 2003	East side of branch
Mar. 18, 2003	West side of branch
Mar. 27, 2003	Spring Green Tech. Conference
Apr. 15, 2003	East side, with Wis. Sect. Board
May 23, 2003	Social event

**Southwest Branch Meetings**

Nov. 21, 2002	Dodgeville, with UW-Platteville
Dec., 2002	Essen Haus lunch mtg., TBA
Jan., 2003	Lunch mtg., TBA
Mar. 27, 2003	Spring Green Tech. Conference



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