



ASCE American Society of Civil Engineers

WISCONSIN SECTION NEWSLETTER

March 2001

2000 - 2001 BOARD OF DIRECTORS

President

Darrell J. Berry, PE
(414) 359-2300

President Elect

Frederick W. Groth, PE
(608) 242-1550

Vice President

Carl C. Sutter, PE
(920) 751-4200

Secretary

John Burgan, PE
(414) 359-2300

Treasurer

William Butler, PE
(920) 468-1978

Past President

Margaret A. Hawley, PE
(920) 830-6176

Directors-at-Large

Jill M. Organ, PE
(414) 278-4819

William W. Wuellner, PE
(608) 288-4100 Ext. 202

Tom Walther, PE
(715) 835-4511

Steven L. Peterson, PE
(920) 451-2536

Fox River Valley Branch Director

George Hoppen, PE
(920) 406-6134

Southwest Branch Director

Deanna Dietrich, PE
(608) 265-8030

Northwest Branch Director

Roger Clay, PE
(715) 720-6229

Southeast Branch Director

Steve Miller, PE
(414) 272-2426

President's Message

I'm writing this column just before Valentine's Day, but you probably won't be reading it until after St. Patrick's Day, when the days are getting longer and the temperature warmer. I'm pleased to report that your Wisconsin Section continues to remain strong and active. The Spring Technical Conference will be held on Friday, March 23 in Green Bay, and I hope all of you consider attending this annual event. Mark Ortmayer and his committee, and the technical committee chairs, have put together an outstanding program of technical topics. You should have received a separate flyer in the mail.

The annual Zone III Management Conference was held February 2-4 in Duluth. Roger Clay of the Northwest Branch had the honor of representing both the Branch and the Section at this event. Roger received our Outstanding Large Section award, and also spent quality time with Paul Skoglund, ASCE's national coordinator for the 150th Anniversary celebration.

Our Section was awarded a State Public Affairs Grant in the amount of \$1,285 and a Merit Grant in the amount of \$2,715 to fund the following activities: Public relations for nomination of a Milwaukee building for National Historic Civil Engineering Landmark status,



and for the Wisconsin Legislative Cabinet. Other applications were not accepted, but we reapplied for \$300 for the Future Cities regional competition held in Milwaukee in January and received that grant. The Wisconsin Section and the Southeast Branch were local sponsors for the Future Cities Competition.

On March 8, 2001, ASCE released the 2001 Report Card for America's Infrastructure, a follow up to the 1998 Report Card. It is anticipated that this new Report Card will capture as much media attention as the previous one did. ASCE national is taking extra measures to promote the Report Card as part of the media outreach plan. I will be the spokesperson for the Section and the Southeast Branch, and will be available to

(continued from page 1)

handle phone calls and other correspondence from the media. This Report Card is an assessment of our nation's infrastructure and our public policy recommendations to improve its overall quality. I welcome your comments in regard to this.

ASCE national has developed a Building Big Educational outreach Program, as a result of the success of Building Big's October 2000 broadcast on PBS television affiliates nationwide. This program is an initiative to introduce grade school and middle school children across the country, to the challenges of engineering. The Section has received requests from two middle schools, one in the Southeast Branch and one in the Northwest Branch, to provide classroom activities to give the kids a physical understanding of basic scientific and engineering terms.

The National 150th Anniversary Steering Committee is considering holding an ASCE 150th Anniversary National Championship Golf Tournament. It is still in the planning stages, and I'd like your comments about this event, before the end of March. More information is located elsewhere in the Newsletter.

Have a great Spring, and get down to Milwaukee and attend a Brewers Game at Miller Park. As always, if you would like to talk with me, I can be reached at (414) 359-2300, or by e-mail at dberry@hntb.com. Your thoughts and comments are welcome.

Darrell

ASCE Spring Technical Conference

The Wisconsin Section ASCE Spring Technical Conference will be held on Friday, March 23, 2001 at the K.I. Convention Center in Green Bay. The preliminary program calls for technical sessions focusing on engineering projects in the Fox River Valley area, with a general session on the Lambeau Field renovation. A program covering the ASCE People-to-People Ambassador Program's China visit will be featured following the evening banquet.

Suggestions for the Spring Technical Conference may be forwarded to the Conference Chairperson, **Mark Ortmyer** at mark.ortmayer@wepco.com

Institute of Transportation Engineers TRAFFIC ENGINEERING WORKSHOP

Traffic problems face all urban and rural areas. They are becoming more troublesome as our cities and villages grow and increase the number of vehicles the existing street system has to support. This workshop, sponsored by the Wisconsin Section of the Institute of Transportation Engineers, is designed to introduce those who are responsible for solving traffic problems, to new products, concepts and designs.

- 9:45 **Pedestrian and School Safety:** Terry Witkowski, Traffic Safety Consultant
- 10:15 **Traffic Engineering with Computers - Panel:** Applications, Limitations, Reliability
- 10:45 **Traffic Impact Studies**
- 11:30 **Lunch - With ITE Meeting!**
Lunch Session - Special Event Traffic Control - Green Bay Packers: Chris Pirlot, City of Green Bay
- 12:30 **Vendor Exhibits Open**
- 1:30 **New MUTCD - What's Changed?:** David Kuemmel, Marquette University
- 2:25 **Break**
- 2:45 **Traffic Control in Work Areas - Panel:** What Works and What Doesn't?
- 3:30 **Q&A, Closing Remarks/Adjournment**

Monday, April 9, 2001
COUNTRY INN - Pewaukee, Wisconsin

REGISTRATION FORM:

Name _____

Company _____

Position _____

Mailing Address _____

Telephone _____

Workshop Fee: \$50 Students: \$15
CEU Accreditation Fee \$5.00 additional (optional)

Make check payable to: Institute of Transportation Engineers
Registration Deadline: March 26, 2001

Mail check and registration form to: Barb Mikolajczyk
WDOT
W206 S10364 Victoria Dr.
Muskego, WI 53150
Tel: (262) 548-8747
Fax: (262) 521-5357

Lunch Selections: Please check one of the following:

- Lasagna
- Chicken Stir Fry
- Broiled Atlantic Cod

We Need Your Feedback

The National 150th Anniversary Steering Committee is considering holding an **ASCE 150th ANNIVERSARY NATIONAL CHAMPIONSHIP GOLF TOURNAMENT**. It is still in the planning stages, and we need you to review the preliminary plan and help determine whether to hold it and if so, in what format.

Purpose

- To build enjoyment and "team spirit" while celebrating our 150th birthday
- To enhance morale in ASCE Sections, Branches, Younger Member Groups, Student Chapters and other units
- To add another celebratory event, to our 2002 Annual Conference and Exposition
- To raise funds to support local and national ASCE programs, such as scholarships

Many Sections and Branches already use golf tournaments to raise scholarship funds, and a national tournament could increase participation in those tournaments. For other Sections and Branches, a national tournament can be a good way to start a fundraising program.

When?

Our initial thoughts are to use "qualifying rounds" to boil down entrants to a reasonable number. This might be based on the very popular "Oldsmobile National Scramble" format.

- Summer 2002 at local golf courses in Section and Branch areas
- Zone or District semi-finals, to qualify teams from across the country for the National finals
- Final tournament, likely to be held in conjunction with the 2002 Annual Conference and Exposition in Washington, DC

Where?

- Qualifying rounds: locally, to be arranged by Section, Branch, etc. chairpersons
- Zone/District semi-finals: locations to be determined
- Finals: Washington, DC in conjunction with ASCE's 2002 Annual Conference and Exposition

Format - - Either of these would work

- Weighted Scramble: based on handicap, only one player per team with handicap index under 8.3 (similar to Oldsmobile Scramble), or
- Callaway Scramble: winners determined by random selection of certain holes and not by lowest overall score, established handicap not required

Cost

- To be determined by each Section or Branch. An initial estimate is that \$50/player could be split 50/50 between Section or Branch scholarship funds and the ASCE Foundation. In addition to entry fees, Section and Branches often raise funds by selling "sponsorships" for individual golf holes, for nearest-to-the-holes and longest-drive contests, etc.

In order to facilitate planning; please provide your feedback by March 31, 2001

2001 Report Card for America's Infrastructure

Roads	<i>D+</i>	One-third of the nation's major roads are in poor or mediocre condition, costing American drivers an estimated \$5.8 billion a year. Road conditions contribute to as many as 13,800 highway fatalities annually. 27% of America's urban freeways - which account for 61% of all miles driven - are congested.
Bridges	<i>C</i>	As of 1998, 29% of the nation's bridges were structurally deficient or functionally obsolete, an improvement from 31% in 1996. It is estimated that it will cost \$10.6 billion a year for 20 years to eliminate all bridge deficiencies.
Transit	<i>C-</i>	Transit ridership has increased 15% since 1995 - faster than airline or highway transportation. Capital spending must increase 41% just to maintain the system in its present condition.
Aviation	<i>D</i>	Airport capacity has increased only 1% in the past 10 years, while air traffic has increased 37% during that time. Airport congestion delayed nearly 50,000 flights in one month alone last year. Congestion also jeopardizes safety - there were 429 runway incursions (near misses) reported in 2000, up 25% from 1999.
Schools	<i>D-</i>	Due to either aging or outdated facilities, or severe overcrowding, 75% of our nation's school buildings are inadequate to meet the needs of school children. The average cost of capital investment needed is \$3,800 per student - more than half the average cost to educate that student for one year. Since 1998, the total need has increased from \$112 billion to \$127 billion.
Drinking Water	<i>D</i>	The nation's 54,000 drinking water systems face an annual shortfall of \$11 billion needed to replace facilities that are nearing the end of their useful life and to comply with federal water regulations. Non-point source pollution remains the most significant threat to water quality.
Wastewater	<i>D</i>	The nation's 16,000 wastewater systems face enormous needs. Some sewer systems are 100 years old. Currently, there is a \$12 billion annual shortfall in funding for infrastructure needs in this category; however, federal funding has remained flat for a decade. More than one-third of U.S. surface waters do not meet water quality standards.
Dams	<i>D</i>	There are more than 2,100 unsafe dams in the United States. There were 61 reported dam failures in the past two years. The number of "high-hazard potential dams" - those whose failure would cause loss of life - increased from 9,281 in 1998 to 9,921 in 2001.
Solid Wastes	<i>C+</i>	The amount of solid waste sent to landfills has declined 13% since 1990, while the amount of waste recovered through recycling has nearly doubled. Most states have ten years' worth of landfill capacity and waste-to-energy plants now manage 17% of the nation's trash.
Hazardous Wastes	<i>D+</i>	Effective regulation and enforcement have largely halted the contamination of new sites. Aided by the best clean-up technology in the world, the rate of Superfund clean-up has quickened - though not enough to keep pace with the number of new sites listed as the backlog of potential sites is assessed.
Navigable Waterways	<i>D+</i>	The U.S. Army Corps of Engineers has a backlog of \$38 billion in active authorized projects. On the inland waterways system, 44% of all the lock chambers have already exceeded their 50-year design lives. Key deep-draft channels are inadequate for the mega-container ships, which are the world standard for international trade; and intermodal connectors to ports are in poor condition. Transportation demand on waterways is expected to double by 2020, and serious performance problems are likely if current levels of investment continue.
Energy	<i>D+</i>	Since 1990, actual capacity has increased only about 7,000 megawatts (MW) per year, an annual shortfall of 30%. More than 10,000 MW of capacity will have to be added each year until 2008 to keep up with the 1.8% annual growth in demand. The U.S. energy transmission infrastructure relies on older technology, raising questions of long-term reliability.

America's Infrastructure G.P.A. = *D+*
Total Investment Needs = \$1.3 Trillion
 (estimated 5-year need)

A = Exceptional
 B = Good
 C = Fair
 D = Poor
 F = Inadequate

Each category was evaluated on the basis of condition and performance, capacity vs. need, and funding vs. need.

Top Three Infrastructure Concerns from Survey of State's Civil Engineers

1. Roads and Bridges
2. Schools
3. Water Infrastructure

Key Infrastructure Facts:

- 19% of Wisconsin's urban freeways are congested.
- 37% of Wisconsin's roads are in poor or mediocre condition.
- 22% of Wisconsin's bridges are structurally deficient or functionally obsolete.
- Vehicle travel on Wisconsin's highways increased 19% between 1989 and 1999.
- 49% of Wisconsin's schools have at least one inadequate building feature.
- 60% of Wisconsin's schools have at least one unsatisfactory environmental condition.
- Wisconsin's drinking water infrastructure needs \$1.8 billion over the next 20 years.
- Wisconsin's wastewater infrastructure need is \$2.3 billion.

Field notes from civil engineers in state:

Cracks in the steel girders of a major 20-year old bridge nearly cause a collapse. Fortunately, there was no loss of life or injuries. It is anticipated further studies will determine the cause. Based on that, I believe that all structural steel bridges constructed during the mid 60's to mid 70's should be carefully inspected.
Civil Engineer, Milwaukee, WI

Each year elected officials increase funding to match the infrastructure but have, for 20 years, been unable to keep up with growth in both population and vehicle miles driven. This is resulting in the seemingly certain deterioration of our highway systems and this seems to affect all infrastructure issues.
Civil Engineer, Eau Claire, WI

Around Madison, a lot of problems could be corrected if we received more funding from the county. Today I saw that Dane County spends the least amount of money per person on roads in the state. Engineer, Madison, WI

We have schools that are 75+ years old and we keep applying "band-aids" to keep them serviceable. Civil Engineer, Eau Claire, WI

Flood and sewage back ups go hand in hand, and the problem just keeps getting worse. Civil Engineer, Milwaukee, WI

ASCE - Wisconsin Section Life Members

Fox River Valley Branch

- Terry Bollard

Southwest Branch

- William Boyle
- James Gaskell
- John Hoopes

Southeast Branch

- Anthony Karpfinger
- Francis Zauner
- Robert Kelley
- William Barthel
- Paul Otter

MSOE Open House

In an informal environment, take the opportunity to meet one-on-one with an admission counselor, talk to faculty, tour campus, see our many state-of-the-art labs, learn more about what MSOE has to offer you!

Saturday, April 21, 10 a.m - 1 p.m.

Saturday, July 14, 10 a.m - 1 p.m.

The Southeast Branch of the Wisconsin Section of the American Society of Civil Engineers has elected its Board of Directors for 2001.

The new officers are:

President	Terese M. Dressel, P.E. West Allis
President-Elect	John A Elkin, P.E. Wauwatosa
Treasurer	Van E. Komurka, P.E. West Bend
Secretary	Joel C. Marshall, P.E. Menomonee Falls
Director	Michael R Spence, P.E. Wauwatosa
Director	Jason C. Sorci, P.E. Milwaukee
Director	James A. Buggs, P.E. Waukesha

If you have any questions or would like any additional information about any of these newly elected officers, please contact Tim Bate, Public Information Committee Chairperson, at tbate@mmsd.com.

Proposed NR 151 Runoff Management Rules

“Runoff Performance Standards”

In early 2000, the WDNR conducted a series of public hearings to receive comment on proposed administrative rules for managing stormwater runoff from agricultural and nonagricultural (urban) lands. Based on comments received at the hearings, the WDNR formed a series of work groups to assist and advise with the redrafting of these rules. The work groups were made up of representatives from municipalities, industry, agriculture and environmental groups.

The runoff performance standards are divided into three categories:

- 1) agricultural lands and facilities,
- 2) urban lands, facilities and construction, and
- 3) transportation facilities,

The urban standards are further subdivided into construction, post-construction, and developed urban area performance standards.

The information provided below is from the January 24, 2001 NR151 draft administrative code. Only requirements for post-construction runoff and runoff from existing urban areas are discussed.

1. Post Construction Runoff Control for Newly Developed or Redeveloped Lands

- Standards apply to sites developed after the rule is adopted.
- Most sites with less than 10% impervious surfaces would be exempt from standards.
- Redevelopment sites with no increase in exposed parking or roadways would be exempt from standards.
- Practices must be implemented that reduce the annual solids loading from a newly developed site by 80% (as compared to the site with no practices) or 40% for a redevelopment site.
- The initial run off from a site shall be infiltrated according to soil conditions and development type. Certain runoff that could contaminate groundwater is exempt from infiltration.
- A permanent vegetative buffer area shall be maintained in newly developed sites around lakes, streams, and wetlands to filter pollutants and protect against erosion.
- Petroleum products in runoff from gas stations and vehicle maintenance areas shall be controlled to remove all visible sheen in the runoff.

2. Runoff Control from Existing Urban Areas

- This standard applies to cities, villages, towns, and counties with a population density of 1,000 people per square mile and any municipality required to obtain a stormwater discharge permit. The standard is not enforceable in areas with less than 2,500 people, unless 50 percent cost sharing is provided to the local unit of government.
- Standards are applied in a staged process. The first stage is to be implemented by March 10, 2008 and shall include:
 - ✓ Public education program
 - ✓ Fertilization based on soil test results and integrated pest management for public and private properties with pervious area in excess of 5 acres
 - ✓ Municipal leaf management and collection
 - ✓ Municipal street sweeping, catch basin cleaning, and de-icer management to achieve a 20% reduction in annual solids loadings
- The second stage is to be implemented by March 10, 2013 and shall include:
 - ✓ All of the first stage requirements
 - ✓ A combination of high efficiency street sweeping and structural best
 - ✓ management practices to achieve a 40% reduction in annual solids
 - ✓ loadings.

Both the “NR 216 permitted” municipalities, and the non-permitted municipalities are required to meet the NR 151 standards. The re-drafted rules are scheduled for another round of public hearings in the spring of 2001.

For more information on these new standards, consult the DNR runoff management website: www.dnr.state.wi.us/org/water/wm/nps/index.htm. This site will allow you to download the full text of the proposed regulations as well as inform you of public hearing dates and locations.

2000 - 2001 STANDING COMMITTEE CHAIRPERSONS

Committee	Chair	Phone No.
Nominations	Jeff Abramson	(715) 834-3161
Awards	Phil LeClaire	(414) 790-0414
Budget & Finance	Wayne Schumm	(414) 221-2375
History & Heritage	Tom Walther	(715) 839-2952
Jury of Judges	Peggy Hawley	(920) 735-6900
Membership	Randy Videkovich	(414) 225-5100
Newsletter	Carl Sutter	(920) 751-4200
Public Relations	Lori Mayerhoff	(414) 259-1500
Public Affairs	Fred Groth	(608) 242-1550
Engineering Education/ Professional Development	Rolf Killingstad	(608) 845-5121
Past President Council	John Goetter	(414) 259-1500
Annual Meeting	Mark Meyers	
Spring Technical Conference	Mark Ortmyer	(920) 755-6326
Younger Member Forum	Todd Paider	

2000 - 2001 TECHNICAL COMMITTEE CHAIRPERSONS

Committee	Chair	Phone No.
Environmental	Mike Penn	(608) 342-1537
Structural	Bob Schumacher	(414) 259-1500
Geotechnical	Steve Hunt	(414) 270-4207
Urban Planning & Transportation	Julie Verish	(414) 781-1782
Water Resources & Hydraulics	Dr. Hector R. Bravo	(414) 229-6756
Construction	Awad Hanna	(608) 263-8903
Management	Harry Farchmin	(414) 291-5100

Visit the Website

Visit us at www.asce.org/gsd/sections/wisconsin to find general information, current events, background data, and ASCE related links. Under current events, you can read the Board or Directors' minutes and find this newsletter online.

Our continued thanks to Marty Hanson for volunteering his time and talents, making our site current and informative.

hansonM@AyresAssociates.com, (715) 834-3161

Editor's Note:

Comments, suggestions, and articles regarding the newsletter can be sent to:

Carl C. Sutter
csutter@mcmgrp.com
 McMahan Associates, Inc.
 P.O. Box 1025
 Neenah, WI 54957-1025
 Phone: (920) 751-4200
 Fax: (920) 751-4284

Please submit all articles for May Newsletter by **April 27, 2001**

**Meeting Schedule
2000 - 2001**
(Updated March 15, 2001)

	Fox River Valley Branch	Southeast Branch	Southwest Branch	Northwest Branch
SEPTEMBER '00				21 Marshfield (8)
OCTOBER '00	25 Appleton	19 Milwaukee (D)	5 Madison (12) 26 Madison - 3:00 (#) 26 Madison - Eve. (10)	25 Abbotsford
NOVEMBER '00	17 Green Bay (3)	16 Milwaukee (D 2)	9 Madison 30 Dodgeville (11)	
DECEMBER '00	6 Green Bay (3 13)	21 Milwaukee (N 5)	12 Madison (N)	7 Menomonie (T)
JANUARY '01	30 Manitowoc (6)	25 Milwaukee (D 9 T)	19 Madison (N 3)	20 Menomonie (T)
FEBRUARY '01	22 Sheboygan (2)	No February Mtg	22 Madison (3)	15 Eau Claire (T)
MARCH '01	23 Green Bay (4)	23 Green Bay (4)	23 Green Bay (4)	23 Green Bay (4) 27 Marshfield (T)
APRIL '01	25 Appleton	19 Milwaukee (N 5)	17 Madison (N)	19 Eau Claire (#)
MAY '01	22 Green Bay	17 Milwaukee (N)	10 Madison (3)	17 Wausau (T)
JUNE '01		21 Milwaukee (D 6)		
JULY '01		19 (7 T)		
AUGUST '01				
SEPTEMBER '01	27 Wisconsin Dells (1)	27 Wisconsin Dells (1)	27 Wisconsin Dells (1)	27 Wisconsin Dells (1)

Scheduled Section Board Meetings

- 10/26/00 Madison - SW Branch Mtg.
- 11/16/00 Milwaukee
- 12/7/00 Fox River Valley
- 1/18/01 Madison
- No February Mtg
- 3/23/01 Fox River Valley - Spring Technical Confer.
- 4/19/01 Eau Claire
- 5/24/01 Milwaukee
- 6/21/01 Madison
- No July Mtg
- 8/23/01 Fox River Valley
- 9/27/01 Wisconsin Dells - Annual Mtg.



Non-Profit Org. U.S. Postage Paid Madison, WI PERMIT NO. 304

c/o Carl C. Sutter, P.E.
 McMahon Associates, Inc.
 P.O. Box 1025
 Neenah, WI 54957-1025

Address Services Requested

March 2001 Newsletter

Postmaster: Send address changes to
 Wisconsin Section ASCE
 at above address