



ASCE

ILLINOIS SECTION

NEWSLETTER

Vol. 38 No. 4

American Society of Civil Engineers

February 1997

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ILLINOIS SECTION NEWSLETTER

Mailed to all ASCE-IS dues-paying members
American Society of Civil Engineers
Illinois Section — Zone III — District 8

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Submission deadline
for the Feb. Newsletter
is Feb. 14, 1997

Citizens Become Pro-Active As Road Funding Declines

As ISTEA dollars dry up and no new programs are on track, many road improvement watchers are worried. With declining road fund balances at the federal and state level, we brace for a bumpy ride ahead.

The Illinois road fund will drop from \$1.2 billion this year to a projected level of \$820 million in 1998. This represents a one-third drop in the available road funds. Most of the highway funds are obtained through usage fees such as gasoline taxes. Some funds, however, come from other revenue sources; for example, vehicle registration and driver license fees. In Illinois, motorists are paying less annually in state gas taxes than they did 10 years ago, despite gas tax increases. This is due largely to the better fuel efficiency of vehicles. The net effect is a decrease in capital for road improvement projects. At the national level, more than half (9.3 cents) of the federal gas tax is used for deficit reduction and public transportation. While some will hold their breath and hope for the best, others have become pro-active.

The Illinois Citizens for Better Highways (ICBH) is a coalition of organizations with ties to road improvement projects. The group was formed in 1996, and Mr. Mark Strawn, Executive Director, leads the charge from his office in Springfield, Illinois. Since his office is just a few steps from the capital building, he can be effective with the political leadership. The watchdog organization includes several societies that lend support and backing. Among these societies are the

Associated General Contractors of Illinois, American Concrete Pavement Association, Illinois Asphalt Pavement Association, Consulting Engineers Council of Illinois, and the Illinois Road Builders Association. The goal of ICBH is to raise awareness of the declining road fund balance and to garner support for new funds needed to improve and repair Illinois roadways.

Their mission is dedicated to: improving highways and bridges, educating the motoring public and elected officials of the importance of a safe and viable highway system, ensuring adequate funding for the Illinois highway transportation infrastructure, and stopping all diversions of road funds. ICBH has identified two key activities to accomplish these goals. They are education and a continued presence before the Illinois legislature.

Illinois Citizens for Better Highways plans to educate the public by disseminating information through a variety of different media. Several research studies have been commissioned by ICBH and are due out this year. The types of research vary and include a review of Illinois road and bridge conditions, distribution of road funds, and the future needs of the motoring public.

Press releases will be forthcoming on a regular basis. The news flashes will highlight topics of safety, road and bridge conditions, highway funding and other issues of interest to highway users. Newsletters will be published and distributed on a variety of topics,

(Continued on Page 2)

DuPage Engineers' Week Program Feb. 20-22

The public is invited to explore the exciting world of engineering Feb. 20-22, 1997, as the Illinois Institute of Technology's Daniel F. and Ada L. Rice Campus hosts the 13th annual DuPage Area Engineers' Week Program.

Highlighting this year's program will be a presentation by David Boldenow of the National Transportation Safety Board about investigating the TWA Flight 800 plane crash and other disasters.

Topics of other sessions range from robots in manufacturing engineering to energy engineering. Top engineers and scientists from many of the Chicago area's leading academic and industrial institutions will conduct hands-on demonstrations, contests, interactive displays and stimulating presentations.

Launching the three-day program will be the Community Forum on Science and Technology, "Science, Sanity and Society," on Thursday, Feb.

20, at 7:30 p.m. at the Rice Campus. John McCarron, columnist and editorial writer at the *Chicago Tribune*, will be the forum leader. His weekly column on urban issues appears on the *Tribune's* op-ed page, where it earned the 1994 Peter Lisagor Award for best newspaper commentary. The forum will provide opportunity for questions and comments from the audience. For reservations and information, call (630) 682-6008.

Scheduled presentations for Friday and Saturday include the report on investigating air disasters; robots in manufacturing engineering; energy engineering; cryogenics; materials testing; new dimensions of the Internet; engineering with light, why wetlands work and what they do; designing structures; engineering at Motorola; a nuclear reactor that keeps itself safe, and engineering Jeopardy.

Interactive displays on Saturday include: ScavEngineering hunt, Rube Goldberg contest, Geiger Counter

hunt, a drop contest, a glider throw, and exhibits from SciTech. Displays featuring career information and literature on academic programs offered at the Rice Campus will be located in the first and second floor hallways.

Drawing 2,000 visitors annually, the DuPage Area Engineers' Week Program is held in conjunction with national Engineers' Week. The DuPage Program is a joint effort among professional engineering societies, the two area national laboratories, businesses, educational institutions, and community organizations. The purpose is to communicate what engineering is and what engineers do, as well as to attract young people to careers in science, technology, and engineering.

For more information on the DuPage program and to register, call (630) 682-6008. Additional information also can be found at the following website: http://www.iit.edu/whats_new/.

Citizens Become Pro-Active As Road Funding Declines

(Continued from Page 1)

including regional and national reports. ICBH will make available speakers for civic groups and may include interviews for news programs.

As each year passes, the infrastructure system continues to deteriorate, which increases the public awareness and, we hope, will promote a greater interest in funding. One key factor in the current uncertainty of the funding is the role politics has played in the state and federal budget process. As the political agendas of each party are added to the mix, a fair degree of uncertainty is likely in each successive budget. ICBH is maintaining a visible posture before the state legislators. By meeting with the political leadership, ICBH can demonstrate the need for continued funding and target its efforts at the decision-making level.

ICBH will continue to be a force for the next several years. In politics, a word at the right moment can make for better and smoother riding tomorrow.

Mike Dever

Call for Papers for ASCE Journal

You are cordially invited to submit an article or paper to the: *ASCE - Journal of Professional Issues in Engineering Education and Practice*. The journal seeks papers on a wide range of issues affecting Civil Engineering practice and education, including:

- Engineering Ethics • Certification • Registration
- Professional Development • Liability • Professionalism
- Projects • Course Content • Engineering History
- Teaching Innovations • Curriculum Development
- Recent Papers:*
- Early History of Professional Registration in the United States
- Americans with Disabilities Act and Employment Practices in Construction
- Sustainable Development Issues: Industry, Environment, Regulations and Competition
- Ethics and Quality in the Constructed Project
- Conflict Between Professionalism and Political Responsiveness

- History of Technology Policy - Commercial Nuclear Power

1995 / 1996 Best Paper

"Between the Devil and the Deep Sea: A Tale of Two Scientific (?) Analyses," by Dr. Muraleedharan T. R.

Information for authors:

Submit five (5) double-spaced copies to ASCE. Maximum length is 10,000 words for papers, 2,500 words for notes, and 1,250 words for discussions. Authors should consult: ASCE Author's Guide to Journals, Books and Reference Publications at <http://www.ascepub.infor.com>. We are also interested in non-peer reviewed articles for our new Forum Section. Any questions about potential submittals can be directed to: **Mark D. Evans, Editor:** (914) 938-5502; FAX (914) 938-5522; email: im8670@exmail.usma.edu; or **Brian Brenner, Associate Editor:** (617) 951-6276; FAX (617) 951-0898; email: brbrenne@bigdig.com.

PRESIDENT'S NOTES

The strength of an organization resides in its people. That is true for any business or government organization, big or small, profit or nonprofit. It is equally true for a professional society like ASCE. The strength of ASCE is found in the talents, diversity, skills and commitment of its members. ASCE currently numbers more than 120,000 members, with 3,200 residing within the geographic boundaries of the Illinois Section.

ASCE has experienced slow, steady growth to reach its current membership. This year each member is being asked to recruit just one new member. Imagine the impact that we, as a professional society, could have if ASCE numbered nearly 250,000 members. Imagine the voice that ASCE could have on the legislative and regulatory issues that affect us all.

The advantages to membership in ASCE are many and so varied that there is something that will appeal to just about any civil engineer. Monthly issues of *Civil Engineering* magazine, discounts on technical journals and



books, savings on continuing education and speciality conferences, opportunities to network with other professionals at local, regional, and international meetings and conferences, and comprehensive lowcost insurance programs are just some of the member benefits available to every ASCE member.

ASCE also has some personal and financial programs available this year: free access to a prescription drug program, a mutual fund program with fees waived, dental insurance, and a preferred mortgage program. There is some benefit or program to interest just about any civil engineer.

Personally, the membership advantages that have been most beneficial to me are the opportunities to network with engineers of varied disciplines, local technical meetings, access to quality engineering publications and research, and being apprised of current legislative issues through the ASCE Key Contact Program and Regulatory Affairs Network.

Please consider the challenge to recruit just one member. The impacts to ASCE nationally and locally and to yourself and your new member could be tremendous.

For more information on membership, just contact myself, any Illinois Section officer, or our local Membership Committee Chair, Jeff Smetters. Jeff may be reached at (312) 938-0300.

Allen Staron

FEQ Unsteady Flow Model Training Seminar

The ACSE Environmental Engineering and Water Resources Division (EE&WR) and the DuPage County Department of Environmental Concerns Stormwater Management Division are cosponsoring a four-day course in backwater profile computations using the FEQ Unsteady Flow Model. The seminar will be held April 29-May 2, 1997 at the WMX Technologies Leadership Development Center in Lombard, Illinois.

The course instructor is FEQ model developer Dr. Delbert Franz, Vice President of Linsley & Kraeger Associates, Ltd., in Mountain View, California. This intensive four-day course will introduce you to the latest techniques in the analysis of steady and unsteady open channel flow and includes both lecture and hands on computer laboratory sessions. The seminar will feature FEQ Version 8 and FEQUTL Version 4, which contain many enhancements from previous

versions. Each participant will receive a user's manual and a PC version of the FEQ and FEQUTL programs on diskette. Persons attending this course should have a strong background in open channel hydraulics, a working knowledge of MS-DOS based computing, and previous experience using backwater analysis computer programs.

The course fee is \$725. To register, send name, address, daytime phone number with a \$725 check or copy of a

fully executed government purchase order with the registration form to Eric Loucks, Camp Dresser & McKee Inc., 233 S. Wacker Dr. Suite 450, Chicago IL 60606. Make checks payable to ACSE/EE&WR. Corporate purchase orders are not accepted. For the latest registration information, call Eric Loucks at (312) 474-1111, Ext. 239 or Robert Covey, DuPage County Department of Environmental Concerns at (630) 682-7130.

Wisconsin Section to Tour Germany

This June, the Wisconsin Section of ASCE is sponsoring an engineers tour to Germany. They are asking engineers and their spouses who are members of the Wisconsin Section of ASCE to join the tour.

The tour is scheduled to leave O'Hare airport on June 16 and to

return on June 25. The visit will center around the Koblenz area on the Rhine River and will combine visits to civil engineering projects with general sightseeing.

Contact Mr. Alan Wagner in Milwaukee at 414-362-8142 as soon as possible for further information.

Structural Group Announces 1997 Lecture Series

The Structural Group and co-sponsor SEA01 will present their twelfth biennial lecture series, which is entitled "Challenges in Modern Structural Engineering." The lecture series, held on four separate nights, will feature topics covering blast resistant design, engineering liability, welding, and high performance concrete. During each of the four sessions, nationally recognized speakers and a panel of local professionals will present current developments and discuss trends related to the field of structural engineering.

The first session, "Designing to Resist Terrorist Attacks," features presentations discussing the background and application of protective design methods, and the response of structures to explosions. David Kossover, Engineering Specialist, US General Services Administration, will illustrate protective design through military and industrial projects and describe the shortcomings of these methods when they are applied to civilian structures. Using the attacks on the World Trade Center and the Alfred P. Murrah Federal Building as examples, Dr. Anatol Longinow, Wiss Janney, Elstner Associates, will

explain the structural response of individual elements and buildings as a whole.

Lectures given by attorneys Steven G.M. Stein and Paul M. Lurie highlight the second session, which is entitled, "Engineering Liability Issues." Mr. Stein, who teaches construction law at IIT Chicago-Kent College of Law, will address the requirements of an engineer when facing a lawsuit or a request for testimony or documents. Mr. Lurie, an active mediator, arbitrator and partnering facilitator, will discuss the various methods of dispute resolution and how engineers should be involved in these processes.

The next session, "Weld Specification, Fabrication, and Inspection," will present a practical understanding of the methods applied during the design phase, and fabrication process to achieve quality in welded connections. Eric Holby Jr., IFR Engineering, will discuss what an engineer needs to know, from standards and specifications to fabrication procedures and inspection requirements, to properly specify and control welding activities. Duane K. Miller, Lincoln Electric Co., will define the roles and responsibilities of the engineer and other parties in the weld

fabrication process, and provide a systematic approach to the causes of weld deficiencies and practical solutions. A third speaker, Jon Edwards, Chief of Shop Plans and Fabrications, IDOT, has been added to emphasize the issues, details and problems frequently encountered for highway and railroad bridges.

The final session, entitled "High Performance Concrete," will serve to dispel the notion that high performance only means high strength. Henry G. Russell, Consultant, will define the broad properties of HPC, and describe applications and aspects of structural design. Mary Lou Ralls, Texas DOT, will present case studies of two bridge projects utilizing HPC, and discuss the associated design, construction and research activities.

These sessions will be held on March 5 and 19, and April 9 and 23. Registration for the lecture series must be made by March 1. The standard registration fee is \$150. Registrants will receive a copy of the symposium proceedings; and for those attending all four sessions, 1.0 CEU's. To register or for further information, please contact Barb Pries at ASCE, (312) 263-1606.

Transportation Group Seeks Candidates for Award

This Award will be presented to an individual who has demonstrated outstanding civil engineering performance in the planning, design, and/or construction of transportation improvements and who has committed his or her career to the advancement of the transportation engineering profession.

The Award will be presented to a nominated candidate that has attained significant professional achievement with consideration of the following criteria:

- Service to the advancement of transportation engineering
- Evidence of technical competence, high character, and professional integrity
- Professional development of younger engineers
- Contribution to public service

- Quality of service to ASCE
- Other evidence of merit that may have advanced transportation engineering.

The Award will be presented at the May meeting of the Transportation Group.

Candidates may be nominated by any member of ASCE's Illinois Section on or before March 7, 1997. The nomination shall include documentation sufficient to evaluate the candidate based upon the award criteria.

Nominations should be submitted to:

ASCE Transportation Group
c/o Mr. Wayne Swafford
Teng & Associates, Inc.
205 N. Michigan Ave., Suite, 3600
Chicago, IL 60601

The Executive Committee will evaluate all nominees and determine the issuance of the Award.

P.E. Review Course Reminder

The next P.E. examination is April 18, 1997. On Feb. 19, the Illinois Section's Younger Member Group will begin an eight-week review course. Participants will meet Wednesdays from 5:30 p.m. to 9 p.m. at a downtown Chicago location. The cost is \$175, which includes a reference manual, dinner and soft drinks. Call Don Wittmer at (312) 930-9119 for information. The registration deadline is Feb. 12.

'Green' Engineering Seminar Series Begins Feb. 10

A series of eight seminars (seven remaining) on wetlands and mitigation banking will be offered at Rice Campus auditorium of IIT this spring on Monday afternoons from 4:30 to 6:00 p.m. The entire series is open to the public at no charge. For information about the environmental engineering spring seminar series, call Paul Anderson at (630) 682-6028.

February 10:

"Business and Construction Issues in Wetland Mitigation Banking," John Ryan, Land and Water Resources, Inc.

February 24:

"Hydrology of Wetlands," Christopher Burke, Burke Engineering

March 10:

"The Case for Good Site Planning: When Does it Make Sense to Bank?" Lan Richart, Planning Resources, Inc.

March 24:

"Ecological Systems Approach to Wetland Restoration and Mitigation," Steve Applebaum, Applied Ecology

April 7:

"Legal Aspects of Wetlands and Mitigation Banking," James Berry, Elmhurst College

April 21:

"A New Definition for Wetlands: Hydrogeomorphic Assessment Systems," Michael Miller, Illinois State Geological Survey

May 5:

"Wetland's Mitigation and 404 Permit Compliance Study," Jeanette Gallagher, U.S. Fish and Wildlife Service

Foundation Launches Charles Pankow Award Competition

The Civil Engineering Research Foundation (CERF) has launched the competition of the 1997 Charles Pankow Award for Innovation. All Award applications must be received by April 30, 1997 at 5:00 p.m.

The competition is open to all private and public U.S. and international firms, government agencies, and academia. Entries are invited in two categories: Applications and Concept. Entries for the Innovative Applications Award are encouraged for the following areas: Materials and Systems, Construction and Equipment, and Information Technology Systems for Design and Project Management. Entries for the Concept Award are requested for the development of innovation in building envelope systems, as based on a specific case study.

Fourteen finalists for the competition were selected in 1996, and the winning technologies in the Applications category were: the Development and Application of Aramid Tendons (Sumitomo Construction Co., Ltd); and FIRP™ Reinforced Glulams (Oregon State University and Wood Science & Technology Institute). The winner in the 1996 Concept category was the Carbon Shell Space Truss Bridge (University of California, San Diego).

Winners of each category will receive the prestigious Pankow Award. All Pankow Award finalists and winners will be announced and recognized at

the Awards Dinner on October 21, 1997 in Washington D.C.

For further details on the 1997 CERF Charles Pankow Award for

Innovation, please contact Mara Tyler of CERF at 202-842-0555, or mt Tyler@cerf.asce.org.

ASCE Offers Resume Referral Service

ASCE is pleased to announce that it has signed an agreement with Resume-Link to administer the American Society of Civil Engineers' Resume Referral Service. Resume-Link develops resume referral systems and services for professional membership associations and societies, top university and collegiate MBA programs, corporations, outplacement firms, government agencies and newspapers. Included among their professional association clients are three of ASCE's Sister Societies.

Effective Nov. 1, 1996, members seeking a new or better job can now use the services of the ASCE Resume Referral Service. This computer-based employment service provides job leads nationwide to qualified candidates in all professions and at all levels of management and experience.

As a special introductory offer, ASCE members can place their resume in the database at no cost through Oct. 31, 1997. After that date a fee of \$10 will be charged. Resume-Link ensures confidentiality to anyone who requests it.

ASCE members can also use the ASCE Resume Referral Service to recruit candidates for their open positions. Employers simply provide their job specifications to Resume-Link, and they will conduct a single search for \$275. Additionally, employers can purchase a 6-month subscription with monthly updates for \$795.

To request an Enrollment Form for the ASCE Resume Referral Service, or to conduct an employee search, call Resume-Link, the Service Administrator, at (614) 529-0429.

Transportation Group

February Technical Luncheon

Mr. Jeff Hochmuth of IDOT will present various aspects of the Intelligent Transportation Systems.

Date: Wednesday, Feb. 19, 1997

Time: 11:30 a.m. social
12:00 noon lunch
12:30 p.m. speaker

Place: Chicago Bar Association
321 S. Plymouth Ct., Chicago

Cost: \$15 - pay in dining room

RSVP: Dean Kiesling, 312/946-7121
or Bob Giurato, 847/364-8800

SECTION ACTIVITIES

EE&WR Group

The EE&WR Group meets the second Tuesday of every month. The next meeting is:

Date: Feb. 11, 1997
Time: 5:30 pm
Place: Lobby Conference Room
111 N. Canal St., Chicago
Info: David Moughton, (312)
353-6400 x3115

FEQ class will be offered on April 28 to May 1. For more information, call Eric Loucks at (312) 474-1313 or loucked@cdm.com. TR-20 class will be offered on March 11-12. For more information, call Melcy Curth Pond at (630) 574-2846.

Management Group

For information on the Management Group and its activities, contact Jeff O'Connor at (312) 454-1060 or Karen Steingraber at (312) 467-0123.

Administration Meeting

Date: Thursday, Feb. 20, 1997
Time: 5:15 p.m.
Place: Collins Engineers Inc
165 N Canal Street, Suite 975
Chicago, IL

We will plan Spring events including the next Management Express Luncheon scheduled for March 20, 1997.

Spring Conferences in Chicago

National Design Engineering

Date: March 10-13, 1997
Info: (212) 705-7470

59th American Power Conference

Date: April 1-3, 1997
Info: Contact Robert Porter,
IIT at (312) 567-3196

Younger Member Group

February Dinner Meeting

Mr. Ray Trygstad, Multi-Media Training Specialist with the Illinois Institute of Technology (IIT) will discuss the Internet and how it can be used in the engineering industry. The presentation will include an on-line demonstration of the Internet. Mr.

Trygstad is a former Navy pilot and is currently a graduate student at IIT working on his Ph.D.

Date: Tuesday, Feb. 18, 1997
Time: 5:30 p.m.
Place: IIT Campus, Chicago
Exact location will be furnished when reservation is made.
RSVP: Jennifer Jones at 630-773-3900
Cost: \$12.00 (includes dinner)

The Younger Member Group is once again sponsoring a videotape P.E. Review Course as a refresher for those braving the exam this Spring. The class will meet every Wednesday from Feb. 19 to April 9. Contact Don Wittmer at 312-930-9119 if you would like more information.

Structural Group

Reconstruction of I-55, the Stevenson Expressway, is the largest undertaking by the Illinois Department of Transportation since the reconstruction of the Kennedy Expressway. Rick Young, Consultant Project Manager for IDOT, District One, will present an overview of the project which involves one and a half miles of elevated roadway, reconstruction of six bridges, two major roadway interchanges at Damen and Archer Avenues, and the reconstruction of ramp bridges at the interchange with the Dan Ryan Expressway. The estimated construction cost is \$325 million. Joining Mr. Young in the presentation will be consultant representatives from the four major design sections, including Baker Engineering, Consoer Townsend Envirodyne, McDonough & Associates, and Teng & Associates.

Date: Tuesday, Feb. 18, 1997
Time: 5:30 p.m. - social
6:00 p.m. - dinner
7:00 p.m. - program
Place: Como Inn
546 North Milwaukee Avenue
Chicago, Illinois
Cost: \$25.00 (includes dinner)
RSVP: Barb Pries at 312-263-1606
by Friday, Feb. 14, 1997

Geotechnical Group

Geotechnical Group meetings are held every second Tuesday of the month, September through May.

February Meeting

The February Meeting will be a joint meeting with the local chapter of ACI. The meeting will feature speakers from the Chicago District of the U.S. Army Corps of Engineers. Bill Rochford and Olaf Weeks will discuss "Design and Construction of Roller Compacted Concrete Pavements at O'Hare Reservoir."

Date: Feb. 11, 1997
Time: 5:30 p.m. - social
6:00 p.m. - dinner
7:00 p.m. - presentation
Place: Como Inn
546 North Milwaukee Avenue
Chicago, Illinois
Cost: \$25 with reservations;
\$30 at the door;
\$10 students with reservations
\$15 faculty with reservations
RSVP: Ms. Pat Moser at (630)
717-4263 by noon on the
Thursday preceding meeting.

March Meeting

Topic to be announced.
Date: March 11, 1997

UP&D Group

Concerned about important issues confronting the civil engineering profession? Visit our next meeting to discuss these topics with fellow civil engineers involved in government, private practice, construction, consulting, and other disciplines. Please contact Dan Lynch at (847) 823-0500.

Group meetings are held every third Thursday of the month. The back room of Denny's Restaurant has been reserved for the Group. Our next meeting is as follows:

Date: Feb. 20, 1997
Time: 7:30 a.m.
Place: Denny's Restaurant
Oakbrook Terrace