

ASCE

American Society
of Civil Engineers



ASCE Illinois Section

News

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INSIDE:

President's Notes

2

Sustainable Transportation

4

Section Activities

6

News & Secretary Report

7

News from Geotechnical Group

8

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Northwestern University Trip to San Francisco

by Northwestern University ASCE Student Chapter

The Northwestern University ASCE student chapter recently engaged in a 5-day infrastructure tour of San Francisco, California, funded in part by the Illinois Section of ASCE and the Infrastructure Technology Institute based at Northwestern. The goal of the trip was to expose students to the inner workings of large-scale infrastructure planning and operations in a major city through on-site, behind-the-scenes tours. The tour began on March 21st 2009 and concluded on March 25th 2009.

The goal of the trip was to expose students to the inner workings of large-scale infrastructure planning and operations in a major city through on-site, behind-the-scenes tours.

The first 2 days of the tour were dedicated to getting acquainted with the city by means of mass transit. All of our members quickly became familiar with San Francisco's tight-knit, multi-modal mass transit system of trains, buses and cable cars.



On March 23rd, we kicked off the formal part of our tour with a site visit to the San Francisco - Oakland Bay Bridge (www.baybridgeinfo.org) east span replacement. We first watched a presentation of the history of the bridge and its subsequent need for retrofitting against seismic activity (in 1989, the Loma Prieta earthquake caused a partial collapse of the bridge's upper roadway). Next, we were given a tour by boat of the entire east span. The new span is being built alongside the existing steel truss span. The new bridge is made of precast concrete and will feature a self-anchored suspension (SAS) span; when completed it will be the largest of its kind in the world.

On March 24th, we traveled by CalTrain to the Diridon Station in San Jose, California. While on the train we were able to discuss

(continued on page 3)

President's Notes

Robert Gorski, P.E., M. ASCE



Summer is here but the Section is still busy on several fronts.

- **ASCE National President Election:** The Executive Board recently had conference calls with both candidates **Moustafa A. Gouda, P.E., D.GE, F.ASCE** (www.moustafagouda.com) and

The Section strongly encourages members to participate in the current election

Kathy J. Caldwell, P.E., M.ASCE (<http://www.kathyjcalldwell.com/>). Both are tremendous individuals that have contributed greatly to the Society and are excellent candidates. The Section *strongly encourages* members to participate in the current election. Only voting members with a valid e-mail address on record as of May 15, 2009 must have already received an e-mail seeking electronic vote. The e-mail has the link to the voting site and the election will close on August 13th. If you are eligible to vote and have not received an electronic signature, you may contact ASCE Customer Service at 800-548-ASCE (2723) and request that one be provided. No electronic signatures may be provided on the phone, so a valid e-mail address is needed in the member profile.

- The Section has hired a new Executive Secretary. **Sarah Harbaugh** has accepted the position with a strong similar experience working with the Illinois Association of Floodplain Managers (IAFSM). We are very excited to have Sarah join us and expect her to have a significant role supporting the Section. Sarah can be contacted at illinoissection@isasce.org. The Section congratulates **Barb Pries** on her retirement after 20+ years of support and thanks her for her service.
- **Treasurer and Incoming Directors:** The Board has met to discuss candi-

dates and has contacted individuals, look to the September Newsletter for their details and biographies.

- **Institutes:** At the June board meeting the Section offered support to each of the Technical Groups to participate in their respective Institute Conferences by offering to pay expenses for one member of each group to attend. The purpose of the attendance is for each group to determine if they would like to align with the Institutes, exchange best practices, and most importantly network with other professionals at a National level.
- Streamlining the ASCE award applications making it easier for members to nominate individuals and projects, special thanks to **Thera Baldauf** who leads the Awards Committee. Applications are due on July 17th, so please consider making a nomination.

The Section congratulates Barb Pries on her retirement after 20+ years of support and thanks her for her service.

Here is my monthly Key Issues update:

- **Local Government Relations -** The Committee is meeting to discuss follow up activities after an extremely successful visit to Springfield in April that included **Senators Martin Sandoval** (D-Chicago) and **Michael Bond** (D-Grayslake) speaking to the

ASCE Illinois Section News

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Illinois Section – Region 3

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**Submission deadline for the
Newsletter is the 10th of the month.**

group. Future activities will include continuing to engage Senator Sandoval with a visit to his District Office. The Section would also like to host a Chicagoland Event. Lastly the Section is looking reach out to a number of other Illinois organizations that are allied in our cause but may have not sought a larger role in Springfield.

- **Illinois Infrastructure Report Card** - The Committee shared a DRAFT with the Past Presidents on June 1st with comments due by July 10th.

Future activities will include continuing to engage Senator Sandoval with a visit to his District Office. The Section would also like to host a Chicagoland Event.

- **Engaging Young Students** - Newton Bateman Elementary in Chicago (www.bateman.cps.k12.il.us) will be participating in the Future City Competition. I will be

supporting the effort serving as the Mentor for the students. Please contact **Pat Lach**, Pre College Outreach Chair to get involved at plach@heyassoc.com.

Finally I would like to extend condolences on behalf of the Illinois Section to Past President **Nick Textor** (1990 – 1991) whose wife Nancy passed on June 16th.

Have a question? Want to get involved? Please contact me at 773-515-1207 or Robert.gorski@hdrinc.com

Northwestern University Trip to San Francisco

(continued from page 1)

bay area transportation issues with a variety of experts in the area including CalTrain employees, transportation consultants, as well as several high-level officials working on the California High Speed Rail (CHSR) project (www.cahighspeedrail.ca.gov). Once we arrived at the station, Rod Diridon – the station’s namesake – gave a presentation on CHSR and its current status. After the presentation, we toured the station and near-by city

to see the potential impacts of making the Diridon Station a HSR hub.

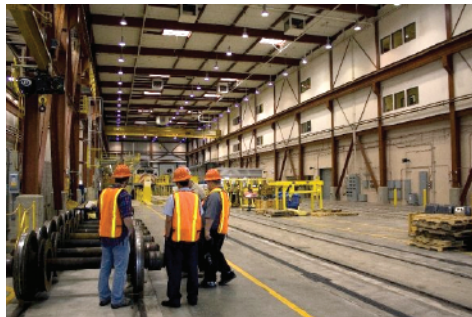
We were then shuttled to CalTrain’s centralized maintenance facility. While there we were given a tour of the structure, which contains all of the equipment necessary in repairing CalTrain cars and locomotives.

On the final day of our trip, we headed over to the University of California – Berkeley’s Richmond Field Station.

The NU-ASCE Student Chapter would like to thank again the Illinois Section of ASCE for their financial support.

We brought our chapter to this research facility to learn more about UC Berkeley’s strong program in seismic research as well as to see a demonstration of their shake table.

Overall, we feel that we gave our student members a comprehensive, enjoyable educational experience while in San Francisco. The NU-ASCE Student Chapter would like to thank again the Illinois Section of ASCE for their financial support. – NU-ASCE Student Chapter **ASCE**



Sustainable Transportation

by Libby Braband/CH2M HILL, Timothy A. Bevan, P.E./CH2M HILL, and Aaron Chanowitz, P.E./CH2M HILL

Between stimulus funding (the American Recovery and Reinvestment Act of 2009), the pending State of Illinois Capital Bill, and the upcoming reauthorization of the federal transportation bill, it is safe to say that approaches toward implementing transportation projects

A key concept in this new way of thinking is providing solutions based on the concept of sustainability.

in Illinois—and across the nation—are changing. A key concept in this new way of thinking is providing solutions based on the concept of *sustainability*.

One of the more widely quoted definitions of sustainability is taken from the 1987 Report of the World Commission on Environment and Development—that sustainability means “meeting the needs of the present without compromising the ability of future generations to meet their own needs.” At its core, sustainability is the capacity to improve the quality of life while simultaneously limiting negative effects on the natural environment. Sustainable transportation is but one subset of the overall concept of sustainability and can be achieved through the application of systems, policies, and technologies. This article focuses primarily on the concept of sustainable roadway design.

In the United States, nearly 80 percent of the population lives in urban areas, and 15 to 30 percent of all land in cities is devoted to transportation right-of-way. Practitioners believe that through the application of sustainable design standards, land used for transportation can yield greater benefits for people, businesses, and the natural environment. The sustainable urban streets movement includes strategies to reduce energy consumption, reduce consumption of material resources, reduce adverse impacts to environmental resources, support healthy urban communities, and support sustainability during implementation.

Depending upon locale, the sustainable roadway design movement is known by a variety of names: Green Streets, Great Streets, Complete Streets, or Green Highways/Tollways, to name just a few. Although the

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specific elements of programs vary, the general concept behind each is the same: transportation right-of-way that supports greater travel efficiencies and enhances the environment and community livability. Examples include IDOT’s Sustainable Highway Practices, O’Hare Modernization Program’s Sustainable Design Manual, and the City of Chicago’s Green Urban Design Guidelines.

One challenge facing the industry as it implements sustainable transportation is the lack of standard tools for measuring, managing, judging, and improving sustainable roadway practices. In response to that challenge, the University of Washington and CH2M HILL, Inc., have created the Greenroads Rating System, a system that identifies standard methodology for developing and evaluating roadway projects for sustainable practices that minimize or reduce adverse impacts on the human and natural environments, lower life-cycle costs, and achieving more positive societal outcomes.

The Greenroads rating system is comparable to the Leadership in Energy and Environmental Design (LEED) Green Building Rating system developed by the U.S Green Building Council, a system used to encourage sustainable vertical building projects. The Greenroads rating system applies to transportation projects, and provides the measurements and methodologies to enable the transportation industry to move toward more standardized and comprehensive sustainable practices. Greenroads

awards credits for a broad range of sustainable choices and practices. It includes a set of required sustainable measures considered reasonably achievable, and additional credits that can be earned in the categories of water and the environment, access and equity, construction activities, materials and resources, and pavement technologies. The rating system applies custom credits for projects that feature innovative and effective strategies.

Examples of these credits include MR-4 Recycled Content, AE-1 Roadway Safety, and PT-3 Warm Mix

One challenge facing the industry as it implements sustainable transportation is the lack of standard tools for measuring, managing, judging, and improving sustainable roadway practices.

Asphalt. MR-4 encourages higher percentages of recycled content in road construction, which helps limit the amount of virgin materials used, and reduces the amount of energy used and emissions resulting from construction. AE-1 promotes the use of highway safety audits for road projects as a means to reduce crash risk through enhanced geometric

Greenroads awards credits for a broad range of sustainable choices and practices. It includes a set of required sustainable measures considered reasonably achievable, and additional credits that can be earned in the categories of water and the environment, access and equity, construction activities, materials and resources, and pavement technologies.

design. Roadway crashes have an immense impact on society. In the U.S., roughly 3 million injuries and 35,000 fatalities cost society \$230 billion annually. Safety audits are a relatively low cost practice that can yield high rates of return on investment. Using warm mix asphalt instead of traditional hot mix can result in

substantial environmental benefits by using 20 percent less fuel and reducing greenhouse gas emissions 20 to 50 percent.

The Greenroads Web site (www.greenroads.us) has research information, specifications, and example applications for 55 sustainable roadway options that can be used to improve the sustainability of roadway projects. Depending on the number of credits awarded, projects can earn one of four certification levels: Certified, Silver, Gold, or Evergreen. By awarding credits and certification levels, Greenroads can encourage agencies and other transportation-related to incorporate sustainable practices into their regulations and operations.

The transportation industry must acknowledge that global and domestic urban trends encourage sustainability. The urban street right-of-way provides enormous opportunity, and the industry must be innovative in both developing and assessing the effectiveness of sustainable transportation solutions. **ASCE**

Are you interested in becoming the Illinois Section Newsletter Editor or Advertising Coordinator?

If so, please contact Leo Morand at 847-478-9700 or LMorand@gha-engineers.com

Section Activities

J U L Y / A U G U S T 2 0 0 9

Environmental Engineering & Water Resources Group

Social Event

Date: Tuesday, July 14

Time: 5:30 pm

Place: Park Grill (under the "Bean")
Millennium Park
Chicago, IL

Info: Please join us for hors d'oeuvres and socializing.

RECARGA 1-Day Workshop

Date: Friday, July 17

Place: DuPage County Government Center,
Wheaton, IL

Info: Please contact Matthew Bardol at Matt.Bardol@CGL-LTD.COM or 630-438-6273

Social Event

Date: Tuesday, July 21

Time: 5:30 pm

Place: TBD (Schaumburg / Woodfield Mall area)

RSVP: Please contact Graig Neville if you are interested gneville@manhard.com

Info: Please join us for hors d'oeuvres, socializing, and discussion on how to involve the outer suburbs in ASCE activities.

Monthly Group Meeting

Date: Tuesday, June 9

Time: 5:30 pm

Place: MWH
175 W. Jackson Blvd., Suite 1900
Chicago, IL 60604
(Use elevator banks on Van Buren side of building)

Urban Planning & Development Group

Monthly Meeting

Date: Thursday, August 13

Place: Chandler's Chophouse
Schaumburg, IL 60194

RSVP: Michelle Libinski at michelle.lipinski@gmail.com

Engineers Without Borders

Monthly Chapter Meeting

Date: Tuesday, July 28

Time: 6:00 pm to 7:30 pm

Place: Engineering Research Facility
UIC Campus
Northwest Corner of
Halstead and Taylor
Room 1043

Monthly Chapter Meeting

Date: Tuesday, August 25

Time: 6:00 pm to 7:30 pm

Place: Engineering Research Facility
UIC Campus
Northwest Corner of
Halstead and Taylor
Room 1043

UPCOMING EVENTS

Environmental Engineering & Water Resources Group

HEC-HMS Training

Date: September 17-18, 2009

Place: IDOT District 1
Schaumburg, IL

ASCE Illinois Section

93rd Annual Dinner

Date: November 13-18, 2009

Engineers Without Borders

Great Lakes Regional Workshop

Details: EWB is working with the Milwaukee and Wisconsin Professional Chapters to host this year's regional workshop. The Chicago Professional Chapter will be developing content and arranging presenters. CPC is looking for volunteers to help plan the event, develop content, and contact speakers. For additional information, contact Jennifer Schmidt at Jennifer.schmidt@jjs-ss.com

Place: Wyndham Milwaukee Airport Hotel and Convention Center
Milwaukee, IL

Structural Group

LRFD Design Training for Highway Bridge Substructures and Earth Retaining Structures

Date: November 16-19, 2009

Instructors: National Highway Institute (NHI)

Place: UBS Tower
1 N. Wacker Dr.
Chicago, IL, 60606

PDH: 24 Professional Development Hours will be earned by attendance.

Details: Details to follow

Illinois Section News & Secretary Report

J U N E 2 0 0 9

In an effort to inform Illinois Section members of the discussions at the monthly Board meetings, the Section Secretary contributes this monthly article to the newsletter. Any questions or comments on the Board activities are welcome by contacting Bill Cussen, at Bill-c@haegerengineering.com.

■ *Treasurer's Report*

▲ Treasurer Olson distributed the Treasurer's Monthly Report and Income Statement. The section remains in a healthy financial position. Revenues from National came in this month. Expenditures approved at the last meeting to the 139th Annual ASCE Conference in Kansas City in the amount of \$1,000 are reflected.

■ *New Business*

▲ The section is negotiating a contract with Sarah Harbaugh to be the Administrative Support Staff for the Illinois Section. Sarah currently handles the administrative tasks for the IAFSM.

■ *Group Report*

▲ All Groups presented a written report outlining previous and current month's activities.

■ *Standing Committee Reports*

▲ **Annual Dinner Committee:** The committee is continuing to look for a potential keynote speaker.

▲ **Awards Committee:** The deadline for nomination is July 17th, and all of the forms are on the Illinois Section website.

▲ **Communications Committee:**

The committee is currently looking for a new Communications Chair.

▲ **Golf Outing Committee:** The outing was well attended with 72 golfers, and through sponsorship the outing raised \$2,000 more than last year.

▲ **Illinois Engineering Council:**

The council is still working on the Engineering Hall of Fame, and they are currently planning their annual banquet on October 17th, 2009 at the IIT Campus.

▲ **Report Card Committee:** The draft report cards have been sent to the Past Section Presidents and also ASCE National for review and comment.

▲ **Minority Affairs Committee:** The committee is currently planning their MBE/WBE Business Symposium.

▲ **Nominations Committee:** The Committee is continuing to investigate nominations for next year's board.

■ *Old Business*

▲ Sponsorships are still available for the President Elect Dinner. Sign-ups are going slow, likely a reflection of the economy.

▲ ASCE National in conjunction with the Illinois Section will be hosting a Key Contact Training session in Chicago, in September.

▲ President Elect King and Secretary Cussen will be attending a Build 2016 presentation on June 4th.

▲ The EEWR Group is working with a potential speaker for the Metropolitan Planning Council's Summer Lecture Series. The topic will be sustainability.

▲ The Illinois Section Board will participate in a conference call with the two National President Elect Candidates, and discuss what the candidates see as key topics for the Engineering Community moving forward.

▲ The Illinois Section Board approved drafting a letter to support Al Staron for the Region 3 Governor at Large, should he decide he is interested in the position. Otherwise the Board will reach out to other Past Presidents.

▲ The Illinois Section Board has asked the technical groups to research becoming institute chapters and report back to the board on the pros and cons of becoming an institute chapter. The board is also encouraging the group chairs to attend their respective institute chapter conferences.

▲ The Structural Group is preparing an OPAL Award Nomination Package for William F. Baker, P.E., F.ASCE and the Geotechnical Group is preparing an OPAL Award Nomination Package for Clyde Baker, P.E., F.ASCE.

The next board meeting is scheduled for Monday, August 3, 2009, 5:30pm at MWH Americas, Inc., 175 West Jackson Blvd, 19th Floor.

By Bill Cussen, PE, Secretary
bill-c@haegerengineering.com

News From the Geotechnical Group

Gary F. Goodheart, P.E., Patrick Engineering, Inc.

The Geotechnical Group finished a very busy year in May with a dinner presentation on Green Piles by Tom Wysocky, Thatcher Engineering. Mr. Wysocky made an entertaining presentation on the increased importance being placed on environmental sustainability and energy efficiency where every portion of a project is being looked at, including foundations.

The Geotechnical Group is off for the summer but the officers have started planning for the 2009-2010 year. Fran Miller, P.E. will officially take over from Gary Goodheart as Group Chair in October. Kalyani Devabhaktuni, P.E. will move up to Vice Chair, and Julian Rueda will assume the position of Secretary Treasurer.

Both Fran and Gary are planning to attend the Inaugural 2009 Geo-Institute Geotechnical Summit in Aurora, Colorado, in August 2009. This meeting is anticipated to lay the groundwork to develop a Geo-Institute Chapter for the Chicago area in the coming year, so look for more on this issue in the coming months.

Geotechnical Group meetings will resume on September 9th (second Wednesday of the month) at Costas Greektown. The group will alternate its meetings this coming year between downtown Chicago and the western suburbs and is in the process of lining up speakers for the year. Subsequent meetings in downtown Chicago will be in November, January 2010 (joint meeting with AEG), March and May.

The group does not currently have plans to meet in October since the ASCE Illinois Section Annual Meeting is that month; stay tuned however, as group officers are considering adding a meeting in the western suburbs in October. Other meetings scheduled for the western suburbs will include the holiday meeting in December, and February 2010.

Planning has started for the Biennial Chicago Geotechnical Lecture Series, tentatively set for April 2010. If you would like to participate in the planning process and/or volunteer to help in other ways, please contact Fran Miller at (630)665-8585 or fmiller@geopier.com.

Calendar

2009

July 14	Environmental Engineering & Water Resources Group – Social Event	August 25	Engineers Without Borders – Monthly Chapter Meeting
July 17	Environmental Engineering & Water Resources Group – RECARGA Workshop	September 17-18	Environmental Engineering & Water Resources Group – HEC-HMS Training
July 21	Environmental Engineering & Water Resources Group – Social Event	October 14	ASCE Illinois Section – 93rd Annual Dinner
July 28	Engineers Without Borders – Monthly Chapter Meeting	November 13-18	Engineers Without Borders – Great Lakes Regional Workshop
August 11	Environmental Engineering & Water Resources Group – Monthly Group Meeting	November 16-19	Structural Group – LRFD Design Training
August 13	Urban Planning & Development Group – Monthly Group Meeting		

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ACTIVITIES AND EVENTS