

19TH ANNUAL GEOTECHNICAL SEMINAR

GEO-Omaha 2002

March 1, 2002 - Kiewit Conference Center - Omaha

OFFICIAL PUBLICATION OF THE NEBRASKA SECTION OF THE AMERICAN SOCIETY OF CIVIL ENGINEERS

February 2002 Volume XLIX Number 5

2001-2002 Nebraska Section Officers

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Nebraska Section

presents

The annual geotechnical seminar provides a forum for the presentation of a wide variety of geotechnical field, design, and construction-related topics. This year we are honored to have as presenters Dr. Robert Koerner, Dr. Jean-Louis Briaud, Mr. R. Gordon McKeen, Mr. David Butler, Mr. Melvin I. Esrig, and Mr. Jim Morrison (no, not THAT Jim Morrison). Please join us for what promises to be an interesting and informative program. As always, 0.75 CEU's will be awarded for conference attendance. See enclosed brochure.

Monthly **Meeting Information**

DATE: Thursday, February 28

HOST: Geotechnical Group

Nebraska Section ASCE

SPEAKER:

Robert M. Koerner, Ph.D., P.E.

H. L. Bowman Professor of Civil Engineering, Drexel University, Director of the Geosynthetics Research Institute (GRI)

TOPIC: Stability Assessment of Ten

Large Landfill Failures

TIMES:

5:30-6:30.....Social Hour 6:30-7:30......Dinner 7:30.....Meeting and Program

LOCATION:

Caniglia's Venice Inn 6920 Pacific Street

MENU:

Club Steak

Lemon Pepper Catfish Fillet

Chicken Parmesan

PRICE:

\$19.00

(incl. tax and gratuity)



Robert M. Koerner, Ph.D., P.E.

Robert M. Koerner is currently an H. L. Bowman Professor of Civil Engineering with Drexel University,

Philadelphia, PA. He received B.S. and M.S. degrees in civil engineering from Drexel University and a Ph.D. in geotechnical engineering from Duke University. He is an Honorary Member of ASCE and a member of the National Academy of Engineering. Dr. Koerner is the co-author of the only college level textbook covering geosynthetics, and has authored or coauthored more than 300 papers on geosynthetics in major engineering journals and for national and international conference proceedings. His latest effort is the fourth edition of the textbook entitled Designing with Geosynthetics.

Dr. Koerner serves as Director of the Geosynthetic Research Institute. GRI, founded in 1986, is charged with doing generic research on geosynthetic materials and related applications. Included within its scope are geotextiles, geogrids, geomembranes, geonets, geocomposites, geosynthetic clay liners and geopipes. Among his many distinctions, Dr. Koerner is an endower (with his family) of the Koerner Fellowships, past Terzaghi lecturer, past President of the Philadelphia Section of the ASCE, and past Delaware Valley Engineer of the Year.

DINNER RESERVATIONS:

See Page 4

President's Comments

Winter is a Busy Time for Nebraska Section Members



Bob Kalinski, President Nebraska Section, ASCE

arrives in your mailbox, the busiest time of year for many members of the Nebraska Section of ASCE will be well underway. Some of the primary events that are crammed into January through March include the Future City Competition, the Zone III Leadership conference, E-Week (including the Banquet and Balsa Wood Truss Contest), and the Annual Geo-

By the time this newsletter

technical Conference.

Many of these events were probably initially scheduled for winter because a reasonable person may assume that the workloads of Civil Engineers would be "relatively" light. However, we all know the truth that our professional workload knows no seasonable bias, which makes the time volunteered by our Section members even more special. In this column, therefore, I will attempt to acknowledge some of the members of the Nebraska Section who are working to make things happen this winter.

For the last several years, Kirby Woods has been in charge of organization of the Future City Competition (held on January 26), and keeps doing even a better job every year. This year's event was also organized by Brad Chambers with help at the contest from Nebraska Section members Dave Klostermeyer, Joe Waxse, Susie Jorgenson, Rich Kotan, Scott Gilliland, Dave Hollrah, Steve Kathol, and Brian Erickson.

The Zone III Leadership Conference was held on the weekend of February 1-3 in Kansas City. This year's volunteers were Ed Prost and Tom Marnik, who gave up their valuable weekend for the event.

E-Week is the week of February 17-23 and ASCE is the Chair for 2002. Some of this year's scheduled events include the E-Week Banquet at Cascio's Steakhouse in Omaha on February 15, with an organizational effort that has been spearheaded by Phil Rossbach. Another event will be the Truss Bustin' Contest at Westroads Mall in Omaha on February 23. This contest was set up by Bruce Harris, and our members are encouraged to stop by.

In addition, the Nebraska Section will be placing an advertisement in the E-Week Section of the Omaha World Herald, thanks to the efforts of Joe Waxse and Rick Kaufmann.

On the first day of March, the annual Geotech Conference will be held at the Kiewit Conference Center in Omaha. As it has for the last several years, this event has managed to stay fresh and unique and has been planned and set up with the help of Nebraska Section Geotechnical Committee members Loras Klostermann, Joe Benak, Ed Prost, Bob Lapke, Joe Waxse, John Christiansen, Ryan Beckman, Steve Saye, Brian Havens, and Dan Thiele.

Again, the purpose of this article is to recognize just some of our Section members who have helped make it a successful time of year by volunteering their time for the Civil Engineering profession and ASCE. In identifying individuals, however, I acknowledge that it is very possible that 1 or 2 names may have been missed, and I apologize if this is the case and encourage members to bring any oversight to my attention.



2002 Important Dates

Feb 17-23 National Engineers Week

Feb 23 Balsa Wood Truss-Bustin' Competition (see Page 4) Feb 28 FEBRUARY MEETING (Hosted by Geotechnical

Group), Omaha

Mar 1 ANNUAL GEOTECHNICAL CONFERENCE

Mar 14 MARCH MEETING (Hosted by Environmental Group),

TBA

Apr 11 APRIL MEETING (Co-hosted by Transportation

Group and UNO Student Chapter), Omaha

May TBA ANNUAL MEETING & BANQUET, GOLF OUTING
Oct 3 MONTHLY MEETING (Hosted by Structural Group)

Oct 4 ANNUAL STRUCTURAL CONFERENCE

The ASCE 2002 Member Drive is On!

Earn Rewards ... Win Prizes ... Help Your Colleagues!



Refer your colleagues for ASCE membership during the 2002 member drive and you can earn terrific rewards and prizes. Visit our special web site for details on how to participate. For more information visit

www.ASCEDrive.org

UNL ASCE 2001 Fall Semester Review/2002 Preview

Officers:

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Concrete Canoe Adam Studts
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Steel Bridge Jason Hascall

Jeremy Bowers Michael Schultes

Aaron

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Faculty Advisor Dr. Dave Admiraal Practitioner Advisor Steve Nickel

Activities/Updates:

Football Parking

Holding with tradition, ASCE members sold parking spaces for Nebraska Football games on the UNL campus. This year the University raised the rate from \$7.00 to \$10.00 with ASCE receiving \$4.00 in profit from each sale. There were 8 home games with approximately 40 parking passes sold at each game.

New Web Page

UNL ASCE created a new web page that has information about what we are doing, how to join, sponsorships, meetings, and other general information. Since this is ASCE's first web page, there are changes are still being made to improve the quality of the content. The web page can be located at http://www.triangle.binary.net/unlasce/. Along with our web page, we have also used Hotmail to mass email all civil engineering students on upcoming meetings and events. The email address is asce_unl@hotmail.com. These two improvements have increased the number of students who attend meetings and other functions that ASCE organizes.

Fundraising

The ASCE fundraising team will soon be sending out letters to Nebraska engineering firms asking for financial assistance for the concrete canoe and steel bridge competition. ASCE appreciates past doners for their help in making the concrete canoe and steel bridge design ideas a reality for the design teams.

Community Service

Last semester ASCE participated in two community service projects with the University of Nebraska-Lincoln's College of Engineering and Technology Department. These two events were the Women Interested in Engineering Day and the Gretna High School Engineering Exploration Day. ASCE held a half an hour bridge design competition with the students using the West Point Bridge Design software.

WSCL Conference

During the first part of February, UNL ASCE sent four officers to the Workshop for Student Chapter Leaders in Kansas City, MO. This event was held on February 1-3 and will help officers to bring back new ideas from professionals and other chapters.



April Concrete Canoe Competition w/ the Red Snapper

Concrete Canoe

Last April, ASCE members sent the Red Snapper to the ASCE Concrete Canoe Competition. The Red Snapper was a new design with a completely new form. With this new design, the canoe did last most of the race but fractured in the last part of the competition.

For the upcoming 2002 competition, the concrete canoe design team has begun the preliminary stages of constructing the concrete canoe. This included reviewing the design of the hull form, talking to faculty and professional engineers about design strategies, and looking over last year's successes and failures to come up with the best solution for this year's canoe. The design team decided to stay with current hull form and has begun fixing the old form and processing the ingredients needed to create the mixture.

This upcoming semester, the design team will finish the form, run concrete strength tests, place the concrete, and test the final product with trial races before the competition in April.

Steel Bridge

Last year's steel bridge team attended the Steel Bridge Competition in April in conjunction with the Concrete Canoe Competition. The design was the same as the previous years with some modifications. Though the bridge did incur some large deflections, the design held up.



This year the steel bridge design team has four members. They have spent a majority of last semester designing a new bridge by discussing the design with civil engineering faculty, professionals, and past steel bridge members. They hope to have the bridge built early this upcoming semester so that testing can be performed and modifications can be made before the competition in April.

Steel Bridge Construction

Balsa Wood Truss Competition

Mark your calendar for Engineers Week, February 17-23, 2002. One of the activities sponsored by the Nebraska Section/ ASCE during Engineers Week is the metro area High School Balsa Wood Truss competition. The competition will be held at the Westroads Shopping Center, 102nd and West Dodge Road. The testing machine that will load the trusses to failure will be set up in the mall leading to Von Maur. The testing will start at 1:00 P.M. and run most of the afternoon. So, if you like to see the creativity of High School students, hear and see things get broke, join us at the Mall on Saturday, February 23, 2002. For any questions or further details, please call Bruce Harris at 221-4440 (W) or 498-0296 (H).

DINNER RESERVATIONS

RSVP with menu choice by noon on Monday February 25

In Omaha and Eastern Nebraska: contact Bob Kalinski at (402) 894-2678 or president@neasce.org

In Lincoln and Central/Western Nebraska: contact Brad Levich at (402) 466-3911 or president-elect@neasce.org

The biweekly **ASCE E-Newsletter** is your gateway to the latest information about the American Society of Civil Engineers as well as news from the world of Civil Engineering. The latest edition of this newsletter can be found on the Nebraska Section's website. Just go to **www.neasce.org** and click on the *News* link.

In this issue

- ASCE's Metropolitan Section's National Engineers Week Celebration
- Celebrate EWeek—Recruit a Member in February and Double your Reward
- Town Hall Meeting to be Held at Final ASCE Zone Meeting
- This Week in Washington: Administration to Increase Watershed Funding in FY 2003
- Book of the Week: Waterbody Hydrodynamic and Water Quality Modeling: An Introductory Workbook and CD-Rom on Three-Dimensional Waterbody Modeling
- Lifelong Learning: Seismic Design of Buildings
- Conference of the Week: Space & Robotics 2002
- Institutes Info: G-I Board of Governors Nominations Due March 30

Last Month's Meeting

Twenty-four Members and Guests attended the January meeting held at the UNL campus in Lincoln to hear Nebraska DNR Director Roger Patterson discuss water rights issues. They were:

Stave Kathol Loras Klostermann Jeff Thompson Joe Waxse Ed Prost Machelle Krajewski Ryan Beckman Nathan Dickerson Randy Graham Bob Kalinski Pat Sward (guest) John Hill Daren Konda
Dave Admiraal
Mohamed Dahab
Deb Ohlinger
Holly Lionberger (guest)
Rick Wilson
Denis Gilbert (guest)
Steve Nickel
Carter Hubbard
Daryoush Razavian
Ryan Paradis
Roger Patterson (speaker)

In addition, approximately 20 to 30 student members were present.

PRESS RELEASE

LeBron Named Client Development Manager



Omaha — Lamp, Rynearson and Associates, Inc. (LRA), Omaha, has appointed Jeanne LeBron to the new position of Client Development Manager. She will have overall responsibility for client development, marketing and public relations.

A Certified Professional Services Marketer (CPSM), LeBron is currently President of the

Nebraska Chapter of the Society of Marketing Professional Services. She is also a Director of the Omaha Post of the Society of American Military Engineers.

Lamp, Rynearson & Associates is a Nebraska-based professional services firm serving the greater Omaha area since 1959. The firm now offers transportation and land development engineering, geographic information systems, telecommunications services, as well as laser scanning and modeling, surveying and construction administration services to private, governmental, commercial, institutional and industrial clients across the country. Its staff of 103 includes 30 engineers and a survey department of 26.

Section To Section

The Metropolitan Section (New York) of the American Society of Civil Engineers (ASCE) has commissioned ErrolGraphics and artist Craig Holmes the preparation of an artistic poster and notecards to celebrate the dedication of the Empire State Building as one of the "Top Ten Civil Engineering Monuments of the Millennium", and to commemorate the 150th Anniversary of ASCE.

Items can be ordered using the form which will soon be available through ASCE Metropolitan Section's web site at http://sections.asce.org/metropolitan/index.htm.



The 17" x 40" poster available at a price of \$20 ASCE for members, and \$25 for non-members (10% discount for orders of 10 or more posters), plus shipping. The 3¾" Χ g" folded notecards are available in packages of 5 \$8 for ASCE Members and \$10 for non-memplus bers, shipping.

To order, or to get additional information, please contact Maria G r a z i a Bruschi at posteresb @cs.com.

47th Annual Structural Engineering Conference - University of Kansas March 14, 2002 - Lawrence, Kansas

The purpose of the 47th Annual Structural Engineering Conference is to give structural engineering professionals the latest information on relevant topics and projects in the field.

Sessions include "Structural Considerations of the World Trade Center Collapse" by Gene Corley, PhD, PE, Senior Vice President, Construction Technologies Laboratories, Skokie, Illinois, who was the lead investigator for ASCE's WTC Data Collection Team after the disaster. Other sessions include "Robustness and Redundancy Considerations in High Rise Building Design", "Forensic Engineering", "Structural System Selection for Sports Facilities", and sessions on Building and Bridge Structure Design

For more information and online registration visit **www.kuce.org/app/sec/**

Two Structural Steel Design Seminars Scheduled for Denver (March 18 & 19, 2002) and Salt Lake City (March 20 & 21, 2002)

Structural Welding: Design and Specification A seminar on the design and specification of welding for steel-framed structures using the new AWS D1.1-2002 code, AISC's new specifications, and recent research

This seminar will familiarize you with the AWS D1.1-2002 Structural Welding Code - Steel, and the AISC ASD, LRFD-2000 and Seismic specifications. It will also include the latest developments from recent research into welding design following the Northridge earthquake, as well as other changes underway in the industry.

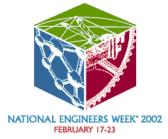
Steel Connections: Seismic Applications

A seminar on the design, construction and inspection of connections in steel buildings using the new FEMA 350 and 353 Guidelines, AISC and AWS Specifications Plan now to attend this practical seminar on the design, construction and inspection of connections in steel buildings in seismic regions. This seminar will familiarize you with the latest provisions on the use of steel in building structures in seismic areas, including the new FEMA 350 and FEMA 353 Guidelines, the new AISC Seismic Provisions, and AWS D1.1.

For more information contact the Steel Structures Technology Center at (248) 893-0132 or on the web at

www.steelstructures.com

Introduce a Girl to Engineering Day



Women are severely underrepresented in the engineering profession. Research shows that girls and young women lose interest in subjects and the fields of study leading to engineering careers long before they enter college.

For National Engineers Week 2002, the engineering community is being asked to continue "Introduce a Girl to Engineering Day." For this our second year, our goal is to have some 100 organizations, up from 90 last year, mobilize as many women in engineering as possible - a target of 10,000 - who, along with their male colleagues, will reach one million girls. "Introduce a Girl to Engineering Day" culminates on February 21, during National Engineers Week. (We realize that to accommodate tight schedules we need to be flexible and expect participation to occur throughout the school year.)

For ideas, you can check out the Introduce a Girl to Engineering Day 2001 archives. If you are interested in participating and/or in having your employer or professional engineering society or student chapter participate, or would simply like more information, please take a minute to complete and send the request for information. Let us know your plans and we'll add that information to our 2002 National Pledge Roster. In the meantime, we have suggestions for 10 easy ways you can participate. (See the website)

As part of our focus on girls, we will publicize the need for more women in engineering and will reach K-12 girls with positive messages about math and science education and engineering careers. Additionally we are striving to have engineering societies and other organizations incorporate their own focus on women engineers with a hope that these various entities can continue to collaborate in the future.

An updated "Introduce a Girl to Engineering" booklet is available from National Engineers Week. It includes: Girls, Women and the Engineering Profession: Quick Facts; 10 Handy Hints for Surviving Your National Engineers Week Event; Information about working with girls; definitions of what an engineer is, including a reprint from Girls' Life magazine, courtesy of Girl Scouts USA; and a sample news release. To order the booklet or obtain additional information about "Introduce a Girl to Engineering Day", visit the E-Week website at www.eweek.org.

<u>Presidential Message for National</u> <u>Engineers Week 2002</u>

I am delighted to extend my warmest greetings to all those observing National Engineers Week.

Engineers have made significant contributions to America's economy and our overall quality of life. In protecting our citizens, exploring new frontiers, developing our industries, and educating our young people, engineers have been vital to the crowning achievements of this great country. These dedicated men and women continue to lead our Nation to a better future, pioneering innovations in fields as vast and diverse as health care, the environment, the space program, and technology of all kinds.

This week's activities will prove invaluable in providing the next generation of engineers insight into the opportunities available to them and allowing today's professionals to illustrate their energy and passion for engineering.

Laura joins me in sending congratulations on the 50th anniversary of this important event and best wishes for a successful National Engineers Week.

George W. Bush

A Note from the Editor

The deadline for the March edition of *The Nebraska Civil Engineer* is Feb. 25. Send ideas for items that could be included in this newsletter, articles, or information to:

ASCE Newsletter Editor c/o **Rick Kaufmann**

Terracon 2211 South 156th Circle Omaha, NE 68130-2506 Office No.: (402)-330-2202

Fax No.: (402)-330-7606 email address: editor@neasce.org The Section's website can be found at

www.neasce.org

Direct any items of interest or comments to the Section Webmaster, **Brad Chambers**, at (402)444-6866 or <u>webmaster@neasce.org</u>. These can include job position postings, RFP's, corporate news releases, editorials, articles, or photos of ASCE-related events. We send out notices, reminders and an electronic copy of this newsletter via email. To be included in our email database, email Brad Chambers at the above address.

CHANGE OF ADDRESS?

Please notify ASCE national of any address changes by calling 1-800-548-ASCE (2723) or contact them through their web site at **www.asce.org**. Address changes made at the national ASCE office are updated monthly at your local Nebraska Section.

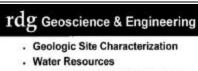


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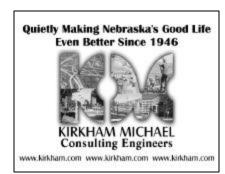




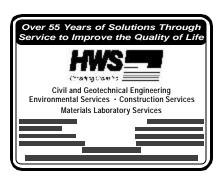
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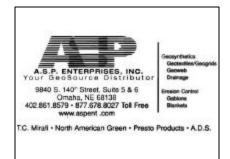
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