

# The Green Mountain Civil Report

Newsletter of the Vermont Section of the American Society of Civil Engineers  
Website <http://sections.asce.org/vermont>

## 2005/2006 Meeting Schedule

<u>Date</u>	<u>Event</u>
November 17, 2005	VT ASCE Nov. Meeting Joint Meeting with NH
January TBA, 2006	VSPE/VT ASCE Joint Jan. Meeting Winooski Downtown Project
February TBA, 2006	Engineers Week
April TBA, 2006	VSE/ASCE Joint Meeting Student Presentations
May TBA, 2006	VT ASCE May Meeting Lime Kiln Bridge Project

## SUSTAINABLE DESIGN AND DEVELOPMENT AT DARTMOUTH COLLEGE

Date: November 17, 2005  
Time: Social Gathering 5:30 pm  
Dinner Meeting 6:00 pm  
Location: Jesse's Steaks, Seafood and Tavern,  
Route 120, Hanover, NH  
Cost: \$35.00 – Student Members \$15.00 and Life  
Members Free  
Note: No-shows will be invoiced for the cost of the  
dinner.  
Meal: Prime Rib, Salmon or Marinated Chicken

## October Meeting Overview

The October VT ASCE dinner meeting was a great success. There were approximately 40 ASCE members in attendance to hear Dr. Downer discuss his role as a FEMA employee in Florida during the aftermath of last year's hurricanes.

Many aftermath photos of the numerous hurricanes were displayed and the lessons learned by FEMA were discussed. An interactive discussion about hurricane construction building codes, FEMA's hurricane relief assistance policies, and how some of the extreme hurricane devastation could have been avoided occurred after Dr. Downer's talk.

## NOVEMBER Meeting Announcement

Joint Meeting of NH ASCE and VT ASCE

### DINNER PRESENTATION:

### Synopsis:

Jim Merkel is Dartmouth's new sustainability coordinator with the task of embedding sustainable practices into: the college's strategic planning process. This program will explore the shift in mind-set, values and design processes that are in-progress at Dartmouth.

Sustainability has been defined as meeting the needs of the present generation without compromising the ability of future generations to meet their needs (Edward Allen). As Civil Engineers we must consider these issues in all of our projects. Come to this meeting and learn how one large NH institution is dealing with this challenge.

Reservations: Email preferred to  
[Spatenaude@dubois-king.com](mailto:Spatenaude@dubois-king.com), or by US Mail to:  
Shawn R. Patenaude, P.E.  
DuBois & King, Inc  
P.O. Box 339  
Randolph, VT 05060  
Phone: (802) 728-3376

Deadline: Friday, November 11, 2005

Directions: I-89 Exit 18 – NH Route 120 north bound toward Hanover. Jesse's is approximately 1 mile on the right.

Earn 1.0 Professional Development Hours (PDH) for the meeting

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## **Younger Member Forum** **News**

If you are 35 years of age or younger then, you are automatically part of the VT ASCE Younger Member Forum. The board members of VT ASCE YMF would like to announce a number of different activities that younger members of ASCE are welcome to attend. Historically, younger member ASCE sections all over the country have been described as “fun” “young” and “active” civil engineers. Here in VT, there is no exception!

### **STUDENT & YOUNGER MEMBER** **COMING EVENTS**

#### **YMF CONTACTS:**

For more information please contact any of us:

- Stephanie Zehler; Pres  
(szechler@dufresne-henry.com) (802) 864-0223
  - Bill Farley; Vice Pres  
(william.farley@state.vt.us) (802) 828-3417
  - Abby Lisius; Outdoor Events Chair  
(abby@trudellconsulting.com) (802) 879-6331
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## **ASCE National News**

NOTE: The next Regional ASCE Conference is located February 10 -12, 2006 in Boston

## **INDUSTRY NEWS**

### **ASCE Calls for New Orleans Advisory Panel**

By ASCE

Sep 13, 2005, 23:59

From Water and Wastewater.com

Reston, VA -- The American Society of Civil Engineers (ASCE) today called for the creation of an independent, federally funded reconstruction advisory panel for New Orleans to serve as the primary advisor to local officials on the rebuilding of the city and immediate surrounding areas. The panel should be comprised of technical experts who would provide an objective review of all design



and construction issues relating to the reconstruction and would be fully integrated with any federal agency involved in these efforts.

As proposed, the New Orleans Reconstruction Advisory Panel charter would be as follows: The federally sponsored and funded advisory panel will serve as primary advisor to the Mayor of New Orleans and affected parish, city and state governments on the rebuilding of the city;

- The panel will consist of experts from engineering, architecture, planning and other design and construction related fields;
- The recommendations of the panel will include strategies to minimize the impact of future storm events and other hazards;

- The primary goal will be to maintain and improve the way of life for the citizens of the metropolitan New Orleans area;
- The focus of the panel will be on incorporating mitigative and sustainable measures into the reconstruction efforts;
- The panel will serve as link to federal agencies working in support of the reconstruction effort; and
- The panel will function in an advisory capacity only and will have no authority to mandate solutions.

The panel concept was developed with leading non-governmental organizations at a meeting held on September 6 in Washington, D.C. Sponsored by ASCE and The Infrastructure Security Partnership, the roundtable meeting was held to coordinate a unified response by the engineering, design and construction community to the devastation caused by Hurricane Katrina.

The Infrastructure Security Partnership (TISP) was established following the tragic events of September 11, 2001 as a forum for U.S.-based public and private sector non-profit organizations to collaborate on issues regarding the security of the nation's built environment, including resilience to natural and man-made disasters through effective and efficient planning, design, construction and operation. Membership includes more than 200 organizations and agencies representing more than 2 million individuals and firms.

Founded in 1852, ASCE represents more than 137,000 civil engineers worldwide and is America's oldest national engineering society. The society celebrated its 150th anniversary in 2002.

Source: <http://www.asce.org/>

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## Hurricane Katrina Response for Design Professionals

On behalf of our members, the ASCE Board extends condolences to the victims of Hurricane Katrina. ASCE joins with the nation in sorrow over the magnitude of the loss and suffering. This letter gives you information on what you can do to help in the short term. Any updates and opportunities to provide direct disaster response assistance will be posted on ASCE's website [www.asce.org](http://www.asce.org) and The Engineering Center's (Boston) website under [www.engineers.org/whatshot/index.htm](http://www.engineers.org/whatshot/index.htm).

ACEC, ASCE, ACSM, NSPE, SFPE and other national engineering and land surveying organizations have urged us to convey the following information to you:

*Currently, the focus is on humanitarian aid and the most immediate need is for financial contributions. Many of our associations have long-standing partnerships with the American Red Cross. You may make contributions to the hurricane victims directly through the Red Cross at <http://www.redcross.org/>*

*Volunteers should not report directly to the affected areas unless directed by a federal agency or a voluntary agency authorized to provide this assistance.*

*The American Red Cross, for example, has an ongoing need for engineers, land surveyors, LSPs and other technical professionals who are trained in disaster response and ready for deployment. If you are able to volunteer in that capacity, please contact your local American Red Cross chapter at <http://www.redcross.org/donate/volunteer/>. They provide specific training in disaster response on the chapter level.*

In addition, a number of our member firms and agencies may have specific emergency response contracts with FEMA, EPA or other federal

agencies. These assignments require mobilization within 48 hours notice, within the next 7 days, for a 60-day minimum assignment due to Hurricane Katrina. If selected, Just-In-Time training for staff (1-5 days, depending on role/function) will probably be provided by FEMA, EPA or others at the onsite Disaster Field Office (locations TBD). The types of staff FEMA may need, for example, range from junior to senior level engineers and scientists who would serve as debris monitors, project officers (generally civil, structural, geotechnical, and environmental engineers), GIS specialists, beach erosion experts, community planners and other specialty roles (e.g., economists).

FEMA assignments are generally a minimum of 60 days, with only one 4-day turn around every 30 days. Workweeks are usually 50-60 hours or more, and can often entail working a 7-day workweek at the outset of a disaster. Deployed staff usually rent a car for the duration of the assignment, staying in nearby hotels. FEMA provides per diem and supplies most deployed staff with a pc and cell phone. Field equipment requires work clothes in good condition, sturdy boots, and protective eyewear. Onsite guidance is provided for all deployed staff regarding required protocols and procedures for the tasks at hand. Again, you need to be trained in disaster response for these assignments.

## **Outstanding Section and Branch Newsletter Award**

ASCE National is holding an Outstanding Section and Branch Newsletter Awards competition. The following five categories will be awarded: Very Large Section (greater than 2,000 members); Large Section (1001 to 2000 members); Small Section (1000 members or less); Large Branch (251 members or more); and Small Branch (250 members or less).

The Committee for Section and Branch Leaders will be judging the newsletters and

the awards will be presented at the 2006 Zone Leadership Conferences. Enter your newsletter by mailing it to **Michael Barton**, HDR 5210 E. Williams Circle Suite 530, Tuscon, AZ 85711 or by email (Mbarton805@aol.com).

We are permitted to mail as many issues as you desire, but a minimum of three issues must be submitted for eligibility to compete. The deadline for entries is [November 1, 2005](#).

The overall evaluation categories are based on newsletter format, newsletter content, and special features.

Additional Section and Branch Newsletter Award information is located on ASCE's web site at <http://www.asce.org/inside/newsletter.cfm>

Thank you.

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## **Other ASCE-VT Section News**

### ***MEET OUR NEW DISTRICT DIRECTOR***

I am very pleased to introduce your next District 2 Director: Paul D. Moyer, P.E. Paul is the past president of the Boston Society of Civil Engineers Section, where he actively contributed to 12 committees and held progressively responsible offices of secretary through president. For ASCE, Paul was a 150th Anniversary Champion, a delegate to the New England District, and currently serves on the Region 1 Formation Team. With 26 years of experience, he holds Bachelor of Science in civil engineering and Master of Science in civil engineering degrees from the University of Massachusetts and Northeastern University, respectively. He is vice president and manager of the Boston office of Dewberry, a 1700-employee ENR top-50 A/E firm.

Paul will be formally inducted onto the ASCE Board at the 2006 ASCE Annual Conference in Los Angeles, CA. He currently serves on the Region 1 Formation Team and has been appointed to serve on ASCE's Policy Review Committee for the next 3 years. He can be reached at: [pmoyer@dewberry.com](mailto:pmoyer@dewberry.com).



District 2 Director: Paul D. Moyer, P.E.

#### ***UPDATE YOUR CONTACT INFORMATION***

The Vermont Section of ASCE depends on its membership to update their member information with ASCE National. Shawn Kelley, our secretary, has access to the ASCE member database for Vermont, from which he is able to compile our electronic newsletter distribution list. Members who wish to be included in the electronic newsletter distribution, but who do not want to give their e-mail address to ASCE National or members who would like to receive a paper copy of the newsletter by mail should contact Shawn; see address in footer.

#### ***MESSAGE FROM THE EDITOR***

The Green Mountain Civil Report is the newsletter of the Vermont Section of the American Society of Civil Engineers. This newsletter intends to keep you up-to-date on the activities of civil engineers around our state.

Did you or your firm recently complete an interesting project that others would enjoy reading about? Does your firm have an engineering position open? Are you an ASCE member looking for a new position? Do you know of an upcoming engineering seminar or conference? If so, please send in a brief note to the Green Mountain Civil Engineering Report.

Please feel free to contact us with your announcements. We will work hard to get them included in the newsletter. The newsletter is typically distributed via email, however if you would like a hard copy or if you are not receiving the E-Newsletter and would like to please contact Shawn Kelley (Secretary and Newsletter Editor) at [skelley@geodesign.net](mailto:skelley@geodesign.net) or any of the officers listed below.

### **Job Offerings**

Submit Job openings to [skelley@geodesign.net](mailto:skelley@geodesign.net) for posting.

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## **OTHER ANNOUNCEMENTS OF INTEREST**

- 1) Boston Society of Civil Engineers Geo-Institute Section is hosting a 1-day seminar on Saturday, October 29, 2005. The seminar title is "**Recent Advances in Geotechnical Engineering**" The cost is reasonable compared to other day long seminars and 8 PDHs will be awarded to attendees. The announcement flyer (2 pages) is attached to the bottom of this newsletter.
- 2) ASME is having a meeting sponsored by the Upper Valley Branch of ASME. The focus is about the engineering and treatment of historic structures. An announcement from ASME (2 pages) is attached to the end of this newsletter.

## **2004/2005 ASCE Vermont Section Officers**

**Past President: Lynnette Whitney, P.E.**  
(LWhitney@dubois-king.com)

**President: Shawn Patenaude, P.E.**  
([SPatenaude@Dubois-King.com](mailto:SPatenaude@Dubois-King.com))

**President Elect: Chantal Beliveau, P.E.**  
([ChantalB@EngineeringVentures.com](mailto:ChantalB@EngineeringVentures.com))

**Treasurer: Lynnette Whitney, P.E.**  
(LWhitney@dubois-king.com)

**Secretary: Shawn Kelley, E.I., Ph.D.**  
([skelley@geodesign.net](mailto:skelley@geodesign.net))

**Director: Sherward Farnsworth, P.E.**  
([Sherward.Farnsworth@state.vt.us](mailto:Sherward.Farnsworth@state.vt.us))

**Director: Jean-Guy Beliveau, P.E., Ph.D.**  
([beliveau@emba.uvm.edu](mailto:beliveau@emba.uvm.edu))

**YMF President: Stephanie Zehler, E.I.**  
([szehler@dufresne-henry.com](mailto:szehler@dufresne-henry.com))

# BOSTON SOCIETY OF CIVIL ENGINEERS SECTION

## Geo-Institute

*Presents a*

## One-Day Seminar

*On*

## Recent Advances in Geotechnical Engineering



To achieve and maintain core competency skills, a geotechnical engineer must keep up with advancements, trends and developments in many areas of practice, including automated data collection, field testing, composite/lightweight materials, alternative foundation systems, and innovative geotechnical construction techniques. This seminar will present a selection of recent advances in these areas. Speakers will include: Allen Marr, Frank Rausche, Dana Humphrey, John Horvath, Hany Riad, James Collin, Oliver Reul, Gerhard Sauer, Brian Dorwart, Donald Bruce and George Burke. The seminar will be of great value to geotechnical engineers, structural engineers, construction engineers, federal and state agency engineers, general and foundation contractors, professors, and students. Seminar attendees will be awarded 8 PDHs and will receive one copy of the seminar proceedings, including a CD of relevant articles and sources selected by the speakers.

**Place:** Adamian Graduate Center, Bentley College, Waltham, Massachusetts

**Date:** Saturday, October 29, 2005

**Time:** 7:15 am to 5:30 pm

**Fees:** BSCES Member \$195; Non-Member \$235; Full Time Students & Seniors (65+) \$95; Public Sector Employee \$95; Seminar Notes Only \$75

Paid registrations must be received by October 14, 2005. Telephone registrations will not be accepted. The fees for the seminar include the cost of lunch, coffee breaks, and Seminar Notes. To register, complete and mail the registration form with your check to the address below. If you have any questions, please contact Mary Ann Nurczynski at (617) 452-6427 ph, (617) 452-8427 fax, or email at nurczynskima@cdm.com

*Please note that attendance is limited to the first 250 received paid registrations.*

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Detach form and mail with check made payable to BSCES to:

BSCES GEO-INSTITUTE RECENT ADVANCES IN GEOTECHNICAL ENGINEERING SEMINAR  
c/o Ms. Mary Ann Nurczynski, CDM, 50 Hampshire Street, Cambridge, MA 02139

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Last Name First Name Middle Initial

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Company or School Affiliation Position

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Mailing Address

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City State Zip Code

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Email Address Day Time Phone Number Fax Number

BSCES Member  Non-Member  Student or Senior  Public Sector Employee  Notes Only

Amount enclosed \$ \_\_\_\_\_. *Registration will not be processed without payment.*  Check box for vegetarian meal

# BOSTON SOCIETY OF CIVIL ENGINEERS SECTION



## Geo-Institute One-Day Seminar



### Recent Advances in Geotechnical Engineering

SEMINAR SCHEDULE  
Saturday, October 29, 2005

<b>Registration (coffee and pastries provided)</b>	7:15 am-8:00 am
<b>Introduction &amp; Welcome</b> Kathleen M. Murtagh, P.E., CDM, Seminar Chair	8:00 am-8:30 am
<b>Session I: Automated Collection of Instrument Data</b> Allen Marr, Ph.D., P.E., GeoComp Corp.	8:30 am-9:10 am
<b>Expanding the Application of Dynamic Pile Testing</b> Frank Rausche, Ph.D., P.E., GRL Engineers, Inc.	9:10 am-9:50 am
<b>Coffee Break</b>	9:50 am-10:20 am
<b>Session II: Tire Derived Aggregate as Lightweight Fill for Embankments and Retaining Walls</b> Dana N. Humphrey, Ph.D., P.E., University of Maine	10:20 am-11:00 am
<b>EPS Structural Innovations on the CA/T Project</b> Hany Riad, Ph.D., P.E., Parsons Brinckerhoff	11:00 am-11:30 pm
<b>Expanding the Use of EPS Geofoam in Practice</b> John Horvath, Ph.D., P.E., Manhattan College	11:30 am-12:00 am
<b>Lunch</b>	12:00 pm-1:30 pm
<b>Session III: Column Supported Embankment Design Issues</b> James Collin, Ph.D., P.E., The Collin Group, Ltd.	1:30 pm-2:10 pm
<b>Piled Raft Foundations</b> Oliver Reul, Ph.D., CDM	2:10 pm-2:50 pm
<b>Urban Tunneling – Where Are We Today</b> Gerhard Sauer, Ph.D., P.E., Dr. Sauer Corp.	2:50 pm-3:30 pm
<b>Coffee Break</b>	3:30 pm -3:45 pm
<b>Session IV: Risk Managed Design Method Applied to Horizontal Directional Drilling</b> Brian Dorwart, P.E., P.G., Haley & Aldrich, Inc.	3:45 pm-4:15 pm
<b>Modern Trends in Quality in Drilling and Grouting</b> Donald Bruce, Ph.D., Geosystems, L.P.	4:15 pm-4:45 pm
<b>Advances and Innovations in Ground Improvement Systems</b> George Burke, P.E., Hayward Baker, Inc.	4:45 pm-5:15 pm
<b>Closing Remarks</b>	5:15 p

## “Historic Preservation – Putting It All Back Together”

A Forum on Renovation and Preservation of Historic Buildings and Structures

**Saturday, October 22, 2005, 9:30 – 11:30 am**

Cummings Hall, Room 100

Thayer School of Engineering

**Dartmouth College**

**Hanover, New Hampshire**

**Keynote Speaker: James G Alexander, FAIA**  
**Principal, Finegold Alexander + Associates Inc**  
**Boston, MA**

**James G Alexander, FAIA** will draw upon his 30 plus years of experience in historic preservation and building reuse to discuss the challenges, opportunities, and lessons learned from the restoration of historic buildings. Projects range from the Ellis Island Immigration Center in New York to Alumni Hall in Haverhill, NH. Significant topics include integration of mechanical systems, unique structures, challenges of materials conservation, energy conservation, and the use of green building technology when rebuilding significant buildings for contemporary use. Projects to be discussed will include the Boston Opera House, Mechanics Hall in Worcester, the Nott Memorial at Union College, the 1.3 million square foot Wood Mill in Lawrence, MA, McKim Mead and White Student Center at Vassar College, the New Hampshire Historical Society headquarters in Concord, and Congreve Hall at UNH.

The presentation will be followed by a **forum and panel discussion** to further elaborate on preservation issues and the experiences, particularly in historic preservation, by a broad range of practitioners from the Upper Valley and Northern New England. Among those participating on the panel will be:

**David Boehm**, President of Engineering Ventures in Burlington, VT. Mr. Boehm and his consulting engineering firm have worked on many historical structures in Northern New England, including Norwich Inn, the Norwich Congregational Church, the Gates Building (currently moving around the corner on the South Block project in Hanover), the Wainshal and Peterson Mills in Claremont, NH

**Ray Clark** of Re-Create in Lyme, NH, has been a restoration contractor for 35 years. His clients have included the State of Vermont (Coolidge, Theron Boyd, Justin Morrill Smith sites) and Canterbury Shaker Village. He has disassembled and moved over 35 historic structures.

**Byron Haynes** of Haynes and Garthwaite Architects in Norwich, VT. Mr. Haynes and his firm have been responsible for architectural design for the renovation and preservation of a number of historic buildings in the Upper Valley, including Lyme Center (NH) Academy Building, St. Thomas Episcopal Church in Hanover, and numerous private residences.

**James Garvin**, of the State of NH Historic Preservation Office, is an architect and historian who serves as New Hampshire's State Architectural Historian. He is the author of a number of articles on preservation of historic structures, including one (with Ed Levin) in the current issue of *Timber Framing*.

**Arnold Graton** directs Arnold M. Graton Assoc., which specializes in restoration and repair of historic covered bridges and other structures, including churches, public buildings, barns, and houses. The Graton's have been responsible for the restoration of many covered bridges in New England and eastern US.

**Ed Levin**, Owner/Proprietor of Paradigm Builders of Hanover, NH, has been responsible for the timber frame design of many structures around the US, including covered bridges such as the highway bridge in Hartland, VT and the refit of the Squag City Bridge in Cornish, NH, and for numerous buildings including the Dartmouth Skiway. He has also lectured widely and published many articles on timber frame design.

**Jan Lewandoski** is the owner of Restoration and Traditional Building in Greensboro VT, a company specializing in the restoration and reconstruction of historic timber frame structures, particularly bridges, churches, barns and public buildings. He has had responsibility for the renovation of over 25 covered bridges in Vermont, and re-erected a late Qing Dynasty Chinese house for museum in Peabody, MA.. He lectures widely and has published numerous articles in professional journals on historic building technology.

Several other architectural historians will be present to offer a historical perspective.

A light lunch will follow, starting at about 11:30. The discussion will continue over lunch.

There is no charge for attending the forum, but a \$5 contribution is requested from those attendees who remain for lunch. (No charge for students or forum panelists.) Reservations for the lunch should be made by Friday noon, October 21 by calling Linda Cuthbert at 603-646-3551 or e-mail to [Linda.Cuthbert@Dartmouth.edu](mailto:Linda.Cuthbert@Dartmouth.edu).

The meeting is sponsored by the **Upper Valley Subsection of the ASME** (American Society of Mechanical Engineers), in collaboration with **Thayer School of Engineering, Preservation Education Institute** in Windsor, VT, local chapters of **ASCE** (American Society of Civil Engineers), **ASM** (American Society of Materials), **SME** (Society of Manufacturing Engineers), and local architects.

**All are welcome to attend.**