

ASCE Newsletter

Central Ohio Section

November, 2011
Volume 16, Issue 3

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NOVEMBER LUNCH MEETING

Date/Time: Thursday, November 17, 2011 - 11:30 A.M. - Registration - 12:00 P.M. - Lunch
Location: Grange Insurance Audubon Center – 505 West Whittier St. - Columbus, OH 43215
Speakers: Michael Bongiorno, AIA, LEED AP BD+C (DesignGroup) & Ryan M. Hoffman, CEM, BAEP, LEED AP BD+C (Heapy Engineering)
Topic: **Designing the “LEED Gold” Grange Insurance Audubon Center
A Joint Meeting with OSPE**

The presentation will focus on the creative design strategies employed throughout this unique LEED Gold environmental education center. Site strategies for dealing with impacted soils, unstable subsurface conditions, and geo-thermal well challenges will be discussed. Innovative building strategies that take advantage of prevailing winds, daylighting, and stormwater management will also be discussed. In addition, Michael will discuss the design team's use of integrated BIM (Building Information Modeling) modeling and simulation during the early stages of design.



Menu: Chef's tossed salad with choice of dressings, baked penne bolognese, freshly baked rolls and butter, assorted dessert bar, sodas, iced tea, and coffee.
CPD Hours: A certificate for one (1) Continuing Professional Development (CPD) hour will be issued at the conclusion of the program.
RSVP: **Registration is due by 5:00 PM on Thursday, November 10, 2011.** Late registrations and walk-ins may not be accepted. Registration fees may still be required for no-shows and registrants canceling after November 10, 2011. Register and pay [online](#) with a credit card, or you may also contact Adam Rich at (614) 218-0686, or register@centralohioasce.com.
Cost: \$20 ASCE Members & Guests - \$15 ASCE Life Members - \$10 Students.
Payment: The preferred method of payment is [online](#) before November 10, 2011 or on the day of the event by cash or check. If you need to pay for multiple registrations, please pay by check. Checks should be made payable to Central Ohio ASCE.

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LETTER FROM THE PRESIDENT

In October we had many local professionals attend the luncheon meeting at the Bridgewater Conference Center. I would like to thank Tim Van Echo of S&ME, Inc. and Ken Ricker of ms consultants inc. for providing us with an outstanding presentation of the City of Columbus' Upground Reservoir Project that provided us with the many challenges and facets of design, planning and construction of this very complex project. I also wanted to thank Stephanie Philips and the others from the Young Members Group for planning of the on-site tour of the project site on November 4th which helped provide a complete and better understanding of the project.

Please join us at the Grange Insurance Audubon Center on November 17, 2011 at 11:30am for speakers Michael Bongiorno of the DesignGroup and Ryan Hoffman of Heapy Engineering to discuss the designing of the "LEED Gold" Grange Insurance Audubon Center. The presentation will discuss the site strategies for dealing with impacted soils, unstable subsurface conditions, geo-thermal well challenges and those innovated designs that helped achieve the LEED Gold certification. Those who attend will receive a

certificate for one (1) Continuing Professional Development (CPD) hour.

Over the past few weeks I have been corresponding with The Ohio State University Student Chapter Practitioner Advisor Cheryl Shafer and the Student Chapter President Joshua Otworth about helping them coordinate monthly speaking events for the ASCE Student Chapter. The local Student Chapter is looking for companies and/or local professionals to visit them on campus and provide a presentation of what types of services their companies provide, how they use the skills learned in college in a practical application on a daily basis or even helping provide possible future career or internship opportunities. For further information please contact me directly and I will be able to direct those interested.

Thank you,

Mike Mazzoli

President@CentralOhioASCE.com

ISI SUSTAINABILITY RATING TOOL



INSTITUTE FOR
SUSTAINABLE
INFRASTRUCTURE

As you may be aware, the American Public Works Association

and construction elements, but environmental, legal, social and economic variables. The tool is called **EnviSion™** and its purpose is to help facilitate the public discussion of what constitutes sustainable infrastructure in your community and to assist public works professionals in implementing those goals.

tion (APWA), the American Council of Engineering Companies (ACEC) and the American Society of Civil Engineers (ASCE) have joined together to found a stand alone, independent, not-for-profit, 501 c (3) organization to develop and promote a rating system for civil infrastructure.

The intent of **EnviSion™** is to evaluate infrastructure in a holistic manner that takes into account community needs, values, priorities and resources and, in doing so, provides a guide for better decision making about what constitutes sustainable infrastructure in an increasingly complex environment that measures everything in terms of sustainability.

The new organization, called the **Institute for Sustainable Infrastructure (ISI)**, is forming several committees to assist the ISI Board of Directors and staff in developing programming for the organization, including Accreditation, Education and Training Committee, Intergovernmental, Nonprofit and Global Affairs Committee, Recognition Committee, Research and Resource Committee, and Technical.

The rating system and tool is in the development stage and is available now for public comment on the ISI website [here](http://www.sustainableinfrastructure.org). The anticipated roll out date for the tool is January 2, 2012 and once the rating system is rolled out will begin conducting training accreditation workshops to train individuals in the use of the system.

The Institute has developed a prototype tool to rate the sustainability of a civil infrastructure project at any point in its life cycle, and to relate that assessment to other infrastructure assets and needs. The tool factors in not only engineering

If you have done so, log into the ISI website (<http://www.sustainableinfrastructure.org>) and check out the tools and information that has been posted.

C O L U M B U S U P G R O U N D R E S E R V O I R T O U R

The Younger Members Group recently organized a site tour of the Columbus Upground Reservoir and Pump Station construction. The re-scheduled tour took place on a sunny afternoon last Friday, November 4th. The tour was planned as a follow-up to the Section's October Luncheon, in which presenters Ken Ricker (ms consultants) and Tim Van Echo (S&ME) gave an overview of the reservoir project. The completed 9.2 billion gallon reservoir will be the largest lined upground reservoir in the state and one of the largest in the country. Over 20 people participated in the tour, including Section and Younger Members and college civil engineering students.

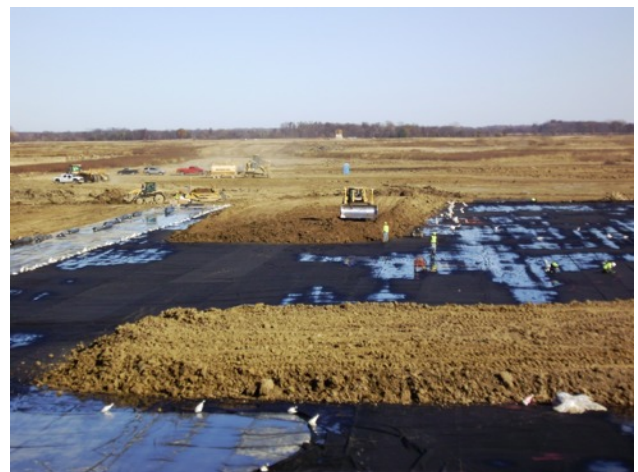


Following a brief site safety meeting, the tour group was guided around the 800+ acre reservoir site and had a chance to view the construction in progress. The group observed the installation of the geomembrane liner panels and the process that is required for construction of the composite liner system. The group also saw portions of the constructed embankment, riprap slope protection, dewatering efforts and influent pipeline installation. Along the tour, information and statistics about the site were given by Winston Stewart and Paul DeVerteuil of

URS, Tim Van Echo and Joe Troxell of S&ME, Stuart Ravary of ms consultants and Phil Boss of H.R. Gray. After the reservoir site tour, some participants were able to drive over to the pump station site near the Scioto River to view the construction progress for the pump station structure and inflatable weir.

Thank you to all who came out for the site tour. The Younger Members Group would like to thank all those who helped make the tour possible. Special thanks goes to Winton Stewart with URS for coordinating the visit, the City of Columbus for allowing the group to visit the site, Kokosing Construction for access to the pump station site and Beaver Excavating for the use of their bus to travel around the site.

Anyone interested in getting involved in future ASCE Younger Member activities can subscribe to the group's mailing list via the "E-mail lists" link on the left side of the Section's website, or contact Stephanie Phillips at PhillipsS@pbworld.com.



A S C E N E W S O N L I N E P U B L I C A T I O N



Beginning with January's edition, *ASCE News - The Newspaper for Members of the American Society of Civil Engineers*, will be published in a digital format only, part of ASCE's commitment to sustainability and fiscal responsibility.

monitor, and viewing preferences tailored for easy reading. The document can also be printed for convenience.

The November 2011 edition of *ASCE News*, which will match the hardcopy to be mailed, can be viewed electronically by clicking [HERE](#). This November edition is in the same format as the digital-only editions that will appear starting in January, 2012.

The digital edition will be "published" and made available for viewing and download by ASCE members each mid-month, at the same time the print editions arrived in the mail. The high quality online magazine loads quickly, can be expanded and customized to best fit your

By discontinuing the newspaper's print edition, ASCE furthers its commitment to sustainable publishing, reduces printing and mailing costs, and continues to advance its electronic publishing efforts.

NATURAL GAS DRILLING IN SHALES

Both the Ohio EPA and U.S. EPA are conducting studies and issuing permits for public comment to regulate the booming hydraulic fracturing, or “fracing”, industry. These technologies are currently emerging in Ohio to access natural gas and oil deposits held in shale formations buried deep under the surface. Together, these Marcellus and Utica Shale regions extend across New York, Pennsylvania, Maryland, West Virginia, Ohio and portions of Kentucky and Tennessee. The deposits sit between 7,000 and 12,000 feet below ground.

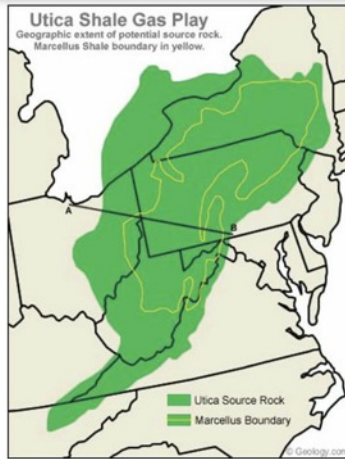


Figure 1. Marcellus and Utica Shale distribution

These geologic formations are considered an important, largely untapped resource because they hold large reserves of natural gas. Researchers estimate the Marcellus Shale alone could satisfy U.S. energy demands for about 14 years, as it contains as much as 363 trillion cubic feet of natural gas.

Most drilling is currently underway in the Marcellus Shale region of Pennsylvania, which is the thickest

area of the deposit. Ohio is experiencing less Marcellus Shale drilling than adjacent states because the thickness of the strata is much thinner on its western edge. As much of eastern Ohio is situated atop the Utica Shale formation, which is thought to hold large reserves of oil and natural gas, Ohio will likely see a significant increase in future drilling. For additional information on the drilling process, environmental concerns, and permitting issues and public comment periods, visit the Ohio EPA website at <http://www.epa.ohio.gov/shale.aspx>.

In addition, at the request of Congress, the U.S. EPA, has announced its final research plan on hydraulic fracturing to better understand its potential impacts on drinking water resources. The final study plan looks at the full cycle of water in hydraulic fracturing, from the acquisition of the water, through the mixing of chemicals and actual fracturing, to the post-fracturing stage, including the management of flowback and produced or used water as well as its ultimate treatment and disposal. The study will be informed by case studies, and EPA announced the locations for five retrospective and two prospective sites for these studies. Two of the study sites are on the Marcellus Shale deposits in Pennsylvania. For more information visit <http://water.epa.gov/type/groundwater/uic/class2/hydraulicfracturing/index.cfm>.

COLUMBUS' HIGH STREET CAP SERVING AS MODEL

Columbus' Cap at Union Station - the retail complex adjacent to High Street over Interstate 670 - was opened in 2004 but is now serving as a model for a national trend: sinking freeways and replacing the 1960's era highway bridges with caps, using them to reconnect neighborhoods previously severed by the highways.



Caps have been constructed in cities such as Seattle, Boston, and Phoenix. Dallas is constructing a three-block long version hosting a park, and Columbus has more on the horizon. City's like Chicago are studying the concept and using Columbus as a case study.

The model for the Columbus cap, modeled after the Union Station architecture which previously

occupied the site, was more modest in scope than versions used elsewhere, and sought not to use open space to break the urban feel, but to extend the urban feel through the adjacent Downtown/Convention Center area and the Short North. Thus, the cap was cheaper to construct and increases foot traffic to local establishments, a concept that minimizes the impacts of the highway below.



Photos courtesy of Columbus Dispatch.

2011 - 2012 CENTRAL OHIO ASCE MEETINGS

Meeting Date	Topic	Location	Coordinator
Thursday, November 17, 2011 Lunch	Grange Insurance Audubon Center	Spaghetti Warehouse	Carrie Bremer (SEAOO)
Thursday, December 15, 2011 Dinner	I-71 Jeremiah Morrow Bridge	Arlington Cafe	Dane Redinger (ACI)
Thursday, January 19, 2012 Lunch	Ohio Elected Official	T.B.D.	T.B.D. (ASCE)
T.B.D., February 20-24, 2012 Lunch	Engineering Week	T.B.D.	Engineering Week Organizing Committee
Tuesday, March 27, 2012 Lunch	Dodridge Street Bridge	OSU Fawcett Center	Scott Roe (FCEO)
Thursday, April 19, 2012 Lunch	T.B.D.	OSU	Dr. Carolyn Merry (OSU)
Thursday, May 17, 2012 Lunch	ASCE President Elect	T.B.D.	Bob Redfield (ASCE)
June , 2012	Planning Meeting	T.B.D.	Michael Navabi (ASCE)
Friday, June , 2012	Annual Golf Outing	Darby Creek Golf Club	Jim Pajk (ASCE)

ASCE CONTINUING EDUCATION

ASCE Geographic Services is pleased to provide Continuing Education seminars and workshops. These in-depth, practice-oriented programs are produced by ASCE's Continuing Education Department.

- Nov. 3-4, 2011 Chicago [Instrumentation and Monitoring Bootcamp: Measurements for Structural and Geotechnical Projects](#)
- Nov. 3-4, 2011 Chicago [Seismic Design of Highway Bridges](#)
- Nov. 16-18, 2011 Chicago [Structural Design of Buildings and Industrial Facilities for Blast Loads and Accidental Chemical Explosions](#)
- Nov. 17-18, 2011 Cincinnati [Leadership Development for the Engineer](#)
- Jan. 19-20, 2012 Chicago [Earthquake Induced Ground Motions ~Newly Updated](#)
- Feb. 9-10, 2012 Chicago [Pumping Systems Design for Civil Engineers](#)
- Feb. 23-24, 2012 Minneapolis [Progressive Collapse Mitigation: Practical Analysis Methods and Proven Solutions](#)
- March 7-9, 2012 Chicago [HEC-RAS Computer Workshop for Unsteady Flow Applications](#)
- March 29-30, 2012 Minneapolis [Introduction to Dam and Levee Safety, Evaluation and Rehabilitation](#)
- March 29-30, 2012 Chicago [Seismic Design and Performance of Building Structures](#)

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BOARD MEETING

*Our Next Board Meeting
 Will Be December 1, 2011.
 4960 Vulcan Avenue
 Columbus, Ohio 43228*



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Central Ohio Section



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