

# The Voice

NOVEMBER 2006

# Voice

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AMERICAN COUNCIL OF ENGINEERING  
COMPANIES OF TENNESSEE

THE VOICE OF TENNESSEE'S ENGINEERING COMPANIES

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## Sustainable Design and the Growing Green Trend

by Paul McCown, P.E., CEM, LEED AP, CxA

The mindset of the industrial revolution was if it doesn't work, just force it. In the last quarter of the 20th century, business, industry and government thought more about how to reduce, reuse, and recycle. Now the mindset is transitioning to the next step: sustainable design.



**Paul McCown**

If you haven't heard the phrase "sustainable design" or "green design," you will (you just did).

With the advent of the US Green Building Council and its Leadership in Energy and Environmental Design (LEED™) building rating system, green is now mainstream in the commercial building construction industry. More and more people agree that green building is not a fad and the LEED Rating System may soon become the *minimum* standard for building design and construction. Yes, you read correctly—*minimum*.

Before we continue too far down this path, let me back up a bit and define sustainable. The best, most succinct definition could be "no waste." Sustainable—like a tree, like the water cycle, like the earth before the industrial revolution. The ASHRAE definition is, "the concept of maximizing the effective use of our resources while minimizing the impact of those resources on the earth and its environment."

The environmental movement began in the 1940s, coinciding with the nuclear arms race. However, it never took hold in mainstream applications until recently. Why now? The reason is economics. Large corporations have seen the benefits of sustainable design and are taking initiative on implementing green design practices. The results are increased economic prosperity through energy savings, improved occupant health and satisfaction, and better stewardship of land, air and water.

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So, back to that minimum standard. Almost anyone who has facilitated the LEED process for at least one project will tell you that the most difficult part of LEED Certification is the documentation. Many of the prerequisites and credits of the LEED system are simply good standard design practices.

*(continued on page 2)*

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# The Cost of Growth is Increasing

by Bill Johnson, P.E.  
President, ACEC of Tennessee

By the time you read this article, thoughts will be turning to family, Thanksgiving and the blessings we enjoy including living in a state that has good growth. However, this growth is occurring at greater and greater cost.



Bill Johnson

An article entitled, "Tennessee Cities Economic Strength Growing," appearing in the October 9, 2006 issue of *Tennessee Town & City*, notes, "The economic strength of Tennessee communities is improving with several ranking in the top 10 percent nationally." That's good news. However, with economic growth there will always be a need for more and better infrastructure.

At the 2006 ACEC Fall Conference in Charleston, South Carolina, a presentation focused on this issue. Joan Berkowitz, Farkas Berkowitz & Company, made some interesting points in her session, "State of Play of Environmental Engineering." Here are some facts that I gleaned from her remarks:

- Competition for resources (energy and metals) and speculation over geopolitical uncertainties are driving up construction costs
- For highways and streets, costs are up 22% over the last two years and are continuing to escalate
- During the last two quarters, bids exceeded estimates by over 25%
- Prices are increasing, particularly for lump sum contracts

With the need for infrastructure continuing to grow in Tennessee and the increasing cost for that infrastructure, what will be the source of capital to fund growth? One source will continue to be federal spending. ACEC will need to continue to push for increases in the federal highway programs and funding for the clean water acts to help meet the demand. We will also help develop other approaches to meet the financial needs of our respective communities.

I am confident that engineers will play a crucial role in helping our cities, state and nation meet the challenge as the cost for growth increases. After all, problem-solving and innovation characterize the engineering profession.

## Sustainable Design *(continued from page 1)*

For instance, many cities have adopted ASHRAE 90.1 as the standard for their energy code. LEED references this as the minimum, so the only additional requirement is to document efforts in the LEED format. If low-emitting materials (paints, coatings, carpets, etc.) cost the same as those that off-gas harmful chemicals into the building, why wouldn't projects utilize them? Many of these products are cost competitive in the marketplace and the trend is that more and more options are becoming available.

The key right now is education, and not just about green buildings, but about the global green movement. More people need to capture the vision and act on what is actually taking place now in order to plan for what is to come. Urban sprawl is slowing and people are moving back into and revitalizing cities. Renewable

energy production costs are becoming competitive with burning fossil fuels. Automakers are producing hybrid-electric vehicles—and can't keep up with demand. Large corporations such as Nike, Ford, BP, Interface—the list goes on and on—are marketing and implementing sustainable business practices.

Get involved by being in the know. You can visit almost any corporate website and find something about what they are doing regarding sustainability. Think about your daily activities. What small, seemingly insignificant actions can you take toward sustainability? We can get there. We can.

*Paul McCown is a Project Manager and LEED Facilitator at SSRcx, LLC, a subsidiary of Smith Seckman Reid.*

# EEA Entries Begin to Arrive; Judges Named

Several days prior to the November 3 deadline, entries for the Engineering Excellence Awards (EEA) competition were already arriving at the ACEC of Tennessee office. Joe Chester, P.E., chair of the awards program, and David Harrell, P.E., co-chair, believe this is an indication of the high level of interest and enthusiasm for the program.



Joe Chester

“We know that Tennessee engineering firms did some outstanding work this past year,” said Chester, who is Vice President for Infrastructure Services, Tennessee Region, at engineering firm URS. “The EEA program is an excellent way to focus attention on a firm’s accomplishments. It gives a firm a platform for bragging.”

Harrell, Vice President at engineering firm Vaughn and Melton, added, “Awareness of the EEA program is increasing among city, county, state, and growth and development officials. I think that was one of the reasons that we have been able to recruit such a distinguished group of judges for the 2007 competition.”



David Harrell

## Judges Named

As of the end of October, six people have agreed to serve as judges for the 2007 EEA program. They have backgrounds in engineering, architecture, planning and development, and public projects. Serving as judges in 2007 will be:

- Kimberly McClurkin, Department of Public Works, City of Chattanooga
- Vicki Simms, Executive Director, City of Gatlinburg Chamber of Commerce
- Bridget Jones, Executive Director, Cumberland Region Tomorrow

- Fort Gwinn, Professor/Chair of Engineering Mechanics Department, Lipscomb University
- Wain Gaskins, P.E., Director of Engineering Department, City of Memphis
- T.K. Davis, Design Director, Nashville Civic Design Center

The judges will convene in February 2007 at the Tennessee Engineering Center in Nashville to review the entries. The winners in the 10 entry categories and the recipient of the Grand Award will be announced on the evening of March 6 during an awards banquet at the Hilton Nashville Downtown.

The December 2006 edition of *The Voice* newsletter will include a list of firms entering the 2007 EEA competition.

## Engineering Excellence Awards 2006 Winners

*2006 Grand Award for Engineering Excellence*  
Ross Bryan Associates, Inc., Nashville

*Honor Award for Building Technology Systems*  
I. C. Thomasson Associates, Inc., Nashville

*Honor Award for Environmental Engineering*  
EnSafe Inc., Memphis

*Honor Award for Structural Systems*  
Askew Hargraves Harcourt & Associates, Inc., Memphis

*Honor Award for Studies, Research & Consulting Engineering Services*  
Bowlby & Associates, Inc., Franklin

*Honor Award for Surveying & Mapping Technology*  
Vaughn & Melton, Knoxville

*Honor Award for Transportation*  
PBS&J, Nashville

*Honor Award for Water, Wastewater & Water Resources*  
Barge Waggoner Sumner and Cannon, Inc., Nashville

## Welcome, New Members

**Simpson Engineering, LLC**  
P. O. Box 524  
3159 Chatata Valley Rd., NE  
Charleston, TN 37310  
423-336-2108  
Email: [jmsimpson@simpsonengr.net](mailto:jmsimpson@simpsonengr.net)  
Website: [www.simpsonengr.net](http://www.simpsonengr.net)  
**Principal:**  
John M. Simpson, PE, President

Simpson Engineering offers construction management and civil and structural engineering services, including the design of formwork, excavation bracing, temporary structures, falsework, and cofferdams. The company also provides technical support for construction dispute resolution and pre-bid engineering.

**URS Corporation**  
1000 Corporate Centre Drive  
One Corporate Centre, Suite 250  
Franklin, TN 37067  
615-771-2480  
Email: [Joe\\_Chester@URSCorp.com](mailto:Joe_Chester@URSCorp.com)  
Website: [www.URSCorp.com](http://www.URSCorp.com)  
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Joe C. Chester, PE  
John E. Waggoner, PE  
Billy R. Nichols, PE

One of the largest, global full-service engineering design firms and a leading U.S. federal government contractor. Executes large and complex engineering projects and provides a comprehensive range of professional planning and design, systems engineering and technical assistance, program and construction management, and operations and maintenance services.

## CALENDAR

### NOVEMBER

# 14

Environment  
Committee Meeting  
1:30 p.m., Nashville

### DECEMBER

# 6

Professional Liability  
Seminar, Knoxville

Information:  
[ctoler@tnc.org](mailto:ctoler@tnc.org)

### DECEMBER

# 7

Professional Liability  
Seminar, Nashville

Information:  
[ctoler@tnc.org](mailto:ctoler@tnc.org)

### DECEMBER

# 8

Professional Liability  
Seminar, Memphis

Information:  
[ctoler@tnc.org](mailto:ctoler@tnc.org)

## Member News

- S&ME announces the addition of four new professional staff members in its Knoxville office. Joining S&ME are Matt Haston, a professional engineer with more than 10 years of geotechnical experience; Cheryl Horn, an environmental professional; Nate Peterson, a registered geologist; and Randy Rainwater, a professional engineer with more than 25 years of experience in construction materials testing.
- Hart Freeland Roberts Inc., Nashville, announces that Harry L. Little, PE, an environmental engineer, and John Meadows, PE, a transportation engineer, have joined its staff. Little is team leader of the Environmental Engineering Department. Meadows, who is also a certified erosion control specialist, will concentrate primarily on roadway design.

# ACEC

AMERICAN COUNCIL OF ENGINEERING COMPANIES  
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## December Seminars Offered Statewide

An ACEC of Tennessee-sponsored seminar, *Business Management and Your Bottom Line*, will be offered in Knoxville on December 6, in Nashville on December 7, and in Memphis on December 8. The four-hour program will focus on client selection, indemnification, good and bad contracts, and how they affect your profit. The seminars will be presented by Crow Friedman Group and XL Design Professionals. Attendees will receive four professional development hours credit.

Mark your calendars now and contact Candy Toler for more information and a registration form ([ctoler@tnec.org](mailto:ctoler@tnec.org)).

## FROM THE EXECUTIVE DIRECTOR

### *Tips on Marketing Professional Design Services*

by Candy Toler  
Executive Director, ACEC of Tennessee

**M**ike Fitts, the State Architect, spoke at a recent meeting of the Society for Marketing Professional Services. His presentation was titled, *Chasing the State*. As most of you know, Fitts serves as staff support for the State Building Commission, which awards all state projects other than transportation projects.



Candy Toler

According to Fitts, marketing your services to the state involves hard work and PLOTTING, which boils down to: Politics, Luck, Opportunity, and Timing. He observed that the state uses a form of qualifications-based selection in hiring engineers and architects and the “owners” of the state work are broken down into thirds—the UT system, the Board of Regents, and the remaining state departments.

In FY 2007, capital projects will amount to

almost \$500 million. In prior years, the range has been \$300 - \$500 million. The process starts when state agencies submit their budget requests in the fall for the fiscal year that begins July 1 of the following year. The Governor evaluates the requests and balances those against state priorities and the revenue available. The Capital Budget Request is submitted to the General Assembly when the Governor presents his budget proposal. The legislature conducts hearings and ultimately approves the budget before adjourning in May or June, although there have been years when it was done in July.

The hot issue right now is addressing design/build. The topic for the not-too-distant future will be sustainable design. (Note: An article on sustainable design appears on the front page of this newsletter.)

When asked, Fitts said that the biggest problem in construction of state facilities is communication and he emphasized the importance of attempting to understand the owner's problems. For more information on the State Building Commission, visit <http://www.state.tn.us/finance/rpa/archit.htm>.