

MAY/JUNE 2012

# ENGINEERING INC.

www.acec.org

AWARD-WINNING BUSINESS MAGAZINE • PUBLISHED BY AMERICAN COUNCIL OF ENGINEERING COMPANIES

>> Education for  
Tomorrow's  
**Industry Leaders**

>> Changing  
**Wind Power**  
Marketplace

>> Annual  
Convention  
**Highlights**  
Marketplace  
Opportunities

## DESIGNS Of Distinction

Tetra Tech-INCA's Surge Barrier  
Storms to Top of Year's Best  
Engineering Achievements

ACEC

AMERICAN COUNCIL OF ENGINEERING COMPANIES

100 Years of Excellence



# ACEC

LIFE/HEALTH TRUST  
*Advantage* PLAN



Designed by engineers, for engineers

## THE *Advantage* PLAN

Now offering stop-loss coverage for firms that 'self insure'

The *Advantage* Plan combines the **advantage** of taking control of the funding for your healthcare benefits with the **protection** against unexpected large claims.

**MONEY BACK** — *Advantage* Plan firms have the opportunity to receive an "Experience Refund."

**REASONABLE** — Renewal rate increases won't exceed committed levels.

**NO 'LASERING'** — Firm is isolated from impact of high-cost claims incurred after initial enrollment.

**SATISFACTION** — We partner with your existing provider network to eliminate coverage disruption.

**FAST** — Receive a stop-loss claim payment within two business days.

If your firm is currently, or considering, self funding its healthcare benefits, we can help.

Call 1-800-841-6130 or visit [www.aceclifehealthtrust.com](http://www.aceclifehealthtrust.com) for more info and to see how the Advantage Plan can reduce costs.

The American Council of Engineering Companies (ACEC) and the ACEC Life/Health Insurance Trust are two separate legal operating entities and, as such, the organizations are governed and functions independently. For full details and the requirements to qualify for coverage with the ACEC Life/Health Trust "Advantage Plan," contact [sales@aceclifehealthtrust.com](mailto:sales@aceclifehealthtrust.com) or call 1-800-841-6130.

\*Refund based on overall performance of the plan and firm's stop-loss claims experience.



8

## Cover Feature

### 2012 ENGINEERING EXCELLENCE AWARDS

Honoring the year's most exceptional engineering achievements.



20

## Features

### 2012 ANNUAL CONVENTION WRAP-UP

Highlights from the 2012 Annual Convention and Legislative Summit in Washington, D.C.

20



24

### TAKING THE LEAD

ACEC's Senior Executives Institute helps executives develop leadership skills to grow their businesses.

24

## Departments



4

### FROM ACEC TO YOU

Council advocacy efforts advanced by member visits to Capitol Hill.

### MARKET WATCH

Wind power market set to take off again after near-term slowdown.

### LEGISLATIVE ACTION

House, Senate set to finalize long-term transportation bill; ACEC Federal Markets Conference spotlights opportunities.

### DECISION MAKERS

HDR Chairman and CEO George Little shares views on life and work.

2

### BUSINESS INSIGHTS

Opportunities in a growing sustainability market; emerging industry trends analysis; CASE presents 10 foundations for risk management.

32

4

### MEMBERS IN THE NEWS

Barry K. Dewberry elected chairman of the board at Dewberry; Greenhorne & O'Mara names Joseph T. Skinner president and CEO.

34

6

### MERGERS AND ACQUISITIONS

Pace of M&A mirrors economy's fragile recovery.

36

30

# From ACEC to You

## Council Advocacy Efforts Advanced by Member Visits to Capitol Hill

**T**he record-setting 2012 Annual Convention culminated in a massive convergence of ACEC "citizen lobbyists" on Capitol Hill—just at a time when a strong, unified industry voice was most needed.

Convention attendees conducted more than 300 meetings with their congressional delegations to urge passage of long-term transportation, water/wastewater infrastructure and energy legislation.

Their lobbying efforts couldn't have been better timed, as the House was deciding that very week how to move forward on legislation that would open negotiations with the Senate on a final transportation bill.

Many Convention attendees praised the annual meeting's business agenda. CH2M HILL CEO and Convention keynoter Lee McIntire predicted "unprecedented opportunities" for the engineering industry in society's response to global challenges in climate change, population growth, and water and energy shortages.

Congratulations to all 147 winners at the Engineering Excellence Awards Gala, attended by 600-plus members and clients.

Special congratulations to Tetra Tech-INCA, which led the design team for the magnificent Lake Borgne Surge Barrier in New Orleans, winner of the 2012 Grand Conceptor Award.

For complete coverage of the Annual Convention and the 2012 Engineering Excellence Awards, *see page 8*.



Ted C. Williams  
ACEC Chairman



David A. Raymond  
ACEC President & CEO



# ENGINEERING<sup>INC.</sup>

THE OFFICIAL PUBLICATION OF THE  
AMERICAN COUNCIL OF ENGINEERING COMPANIES

## AMERICAN COUNCIL OF ENGINEERING COMPANIES

CHAIRMAN	Ted C. Williams
PRESIDENT & CEO	David A. Raymond
VICE PRESIDENT, OPERATIONS	Mary Ann Emely
VICE PRESIDENT, GOVERNMENT AFFAIRS	Steven Hall
VICE PRESIDENT, INSTITUTE FOR BUSINESS MANAGEMENT	Jeffrey L. Beard
DIRECTOR, COMMUNICATIONS and MEDIA	Alan D. Crockett
STAFF EDITOR	Andrea Keeney akeeney@acec.org 202-682-4347
SENIOR COMMUNICATIONS WRITER	Gerry Donohue

## ACEC PUBLIC RELATIONS AND EDITORIAL ADVISORY COMMITTEE

CHAIRMAN	Jackie Fox
----------	------------

## TMG

MANAGING EDITOR	Corey Murray
ART DIRECTOR	Jeff Kibler
PROJECT MANAGER	Katie Mason

## ADVERTISING SALES

Nina Goldman Director, Sales and M.O. Services ACEC 1015 15th Street, NW, 8th Floor Washington, D.C. 20005-2605 202-682-4325 ngoldman@acec.org
Rob Shafer Media Director Naylor 770-810-6986 rshafer@naylor.com

*Engineering Inc.*, Volume 23, Number 3 (ISSN 1539-2694), is published bi-monthly by the American Council of Engineering Companies (ACEC), 1015 15th Street, NW, 8th Floor, Washington, D.C. 20005-2605. Periodicals postage paid at Washington, D.C., and at additional mailing offices. Annual subscriptions are \$24 for members (included in dues as a non-deductible amount); \$45 for U.S. non-members; \$65 for institutional subscriptions. Back issues are \$15.

POSTMASTER: Send address changes to *Engineering Inc.*, c/o ACEC, 1015 15th Street, NW, 8th Floor, Washington, D.C. 20005-2605.

© 2012 American Council of Engineering Companies. All rights reserved. This publication may be copied, downloaded from the ACEC website, stored in electronic or hard-copy format, and disseminated to third parties for educational and information purposes. ACEC expressly disclaims any liability for damages of any kind in connection with such copying, downloading, storage, and/or dissemination. By copying, downloading, storing and/or disseminating this publication, the recipient of this publication expressly agrees to defend, indemnify, and hold ACEC, its officers, directors, employees, volunteers and agents harmless from and against any and all losses, damages, claims, causes of action and liabilities, including reasonable attorneys' fees and costs, arising out of or resulting from the recipient's use of this publication. Notwithstanding the above, no part of this publication may be altered, resold, licensed, or used for any other commercial purposes without the prior written permission of ACEC. Recipients may opt out of receiving the electronic version of this publication from ACEC by sending an e-mail with the subject line "Unsubscribe" to ACEC at [magazine@acec.org](mailto:magazine@acec.org).

*Engineering Inc.* subscribers: If you have a mailing address correction or need to add or remove an employee from the *Engineering Inc.* mailing list, please contact the ACEC Membership Department at [memberservice@acec.org](mailto:memberservice@acec.org) or call 202-347-7474 and ask for Member Records.

**ACEC**  
AMERICAN COUNCIL OF ENGINEERING COMPANIES  
[WWW.ACEC.ORG](http://WWW.ACEC.ORG)



# INSURANCE ISN'T ONE-SIZE -FITS- ALL

## ACEC BIT TRUSTEES

All fellow engineers—  
helped design this business  
owners insurance just for  
ACEC Member Firms.

# ACEC

BUSINESS INSURANCE TRUST

Business & Professional Liability Insurance

## ACEC BIT BUSINESS INSURANCE IS OFFERED EXCLUSIVELY TO ACEC MEMBER FIRMS.

Coverage choices include:

- ▶ **Business Owners Package**
- ▶ **Workers' Compensation**
- ▶ **Commercial Auto**
- ▶ **Umbrella Liability**

The ACEC Business Insurance Trust (BIT) and Marsh USA, Inc. receive compensation from The Hartford for their endorsement and promotion of the commercial insurance products and services of The Hartford. ACEC BIT Trustees are not licensed insurance producers or agents. All Hartford insurance products and services are sold through licensed Marsh sales professionals.



## ▶ WAS YOUR BUSINESS INSURANCE CREATED JUST FOR YOU?

As fellow engineers, we at the ACEC Business Insurance Trust (BIT) share your high standards for quality and precision. That's why we worked with The Hartford® to create a **business insurance program** that's tailored *specifically* to the needs of engineers.

After all, the engineering business has unique needs, opportunities and challenges that aren't necessarily shared by other industries. By working with the insurance experts at Marsh, we can help you get the right coverage—at the right price—for *your* business.

**Can your current insurance provider say the same?**

## GET A FREE QUOTE TODAY!

Make sure you have coverage developed  
**exclusively for your needs.**



Count on the experienced  
**MARSH INSURANCE TEAM**

Call the Marsh insurance experts:

**800.338.1391**  
or visit [www.acecbit.com](http://www.acecbit.com)

# Wind Power Market Set to Grow After Near-Term Slowdown

**Y**ou've heard the saying, "the calm before the storm." For U.S. wind power, the past few months have represented the storm before the calm.

The federal renewable energy production tax credit (PTC)—the prime driver behind the growth of the wind industry since its inception in 1992—is scheduled to expire at the end of 2012. Armed with this knowledge, the industry has been installing turbines at a feverish pace.

"We're busier than all get out," says Jack Hand, president/CEO of POWER Engineers in Hailey, Idaho. "Everyone is pushing the envelope to get done by Dec. 31."

## Political Jockeying Throws Market

The PTC provides an income tax credit of 2.2 cents per kilowatt-hour for the production of electricity from utility-scale wind turbines. The credit helped bring the cost of wind power in line with other energy sources and, over the past four years, helped the wind industry garner 35 percent of all new U.S. power capacity projects.

"Wind has been one of the fastest-growing energy sectors," says Fort Felker, director of the National Wind Technology Center at the National Renewable Energy Laboratory in Golden, Colo. "It's behind only natural gas, and not that far behind."

Despite impressive gains, election-year wrangling has called into question the future of the PTC. Most analysts expect the PTC to get an extension,

but not until after voters go to the polls in November.

The PTC has expired three times in the past, each time with dire consequences for the industry. When it happened at the end of 1999, installations in the wind energy market dropped 93 percent during the following year. The other two times, at the end of 2001 and 2003, installations dropped 73 percent and 77 percent, respectively.

A recent study, "Impact of the Production Tax Credit on the U.S. Wind Market," by independent consulting firm Navigant Consulting, says that if the PTC is not renewed, wind power installations would drop from more than 8 gigawatts (GW) in 2012 to just 2 GW in 2013. Total investment in wind would fall from \$15.6 billion to \$5.5 billion, according to Navigant's projections.

"We don't expect to see much new work in the wind sector until the PTC is extended," says Gary Zahalka, vice president of generation, planning and renewable energy at Ulteig Engineers in Fargo, N.D. "A lot of the manufacturers have already started laying off a bunch of people."

Industry watchers say lingering uncertainty surrounding the PTC extension will likely depress the wind market in 2013. Farther out, though, Navigant says a four-year extension

of the PTC could jump-start the industry. With an extension, annual installations would hover between 8 GW and 10 GW per year from 2014 to 2016. At that pace, total wind investment would be poised to grow to \$16.3 billion by 2016.

## Market Factors Slow Down Wind

While the PTC has an outsized impact on the wind industry, three other factors could contribute to a down market in the next couple of years.

The slow national economy has weakened underlying demand for electricity, says Chris Varone, president of Riverview Consulting in Irvington, N.Y., which specializes in renewable energy.

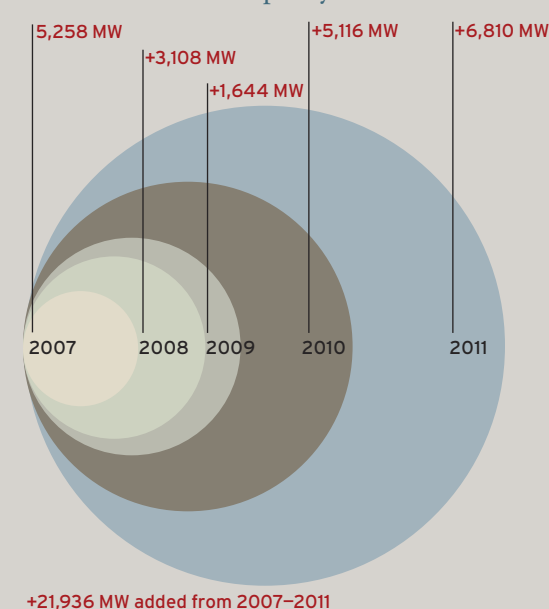
"There's not enough demand to get investors motivated about the sector," he says. "Producers aren't looking to grow their markets right now."

Recent advances in natural-gas extraction technologies, specifically hydraulic fracturing,

have pushed down natural gas prices, making it difficult for wind projects to compete. Varone says natural gas prices will trend higher as drillers have to dig deeper and farther afield to tap existing reserves. Within a few years, PTC-aided wind power prices will be on par with natural gas.

In the past five years, the wind industry has added

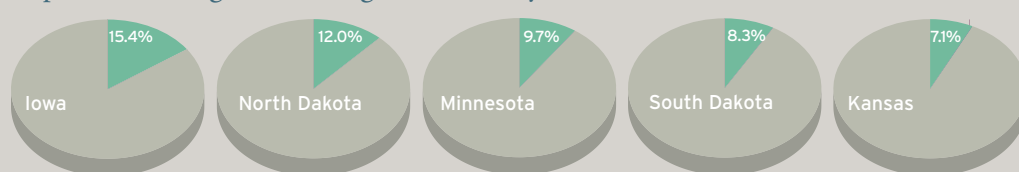
U.S. Wind Power Capacity, Installed Since 2007



Source: American Wind Energy Association

30 GW of power to the existing transmission grid with minimal negative impact, says POWER Engineers' Hand. That's encouraging. But, moving forward, the demand for transmission capacity will push the limits of firm resources.

Top 5 States, Largest Percentage of Electricity From Wind 2010



Source: American Wind Energy Association



"One park in the North Sea will produce more than 7 GW," says Varrone. "There will be 1,000 of these huge machines, each more than 160 meters tall and with a rotor sweep area twice the size of the infield and outfield of Yankee Stadium."

Longer-term, Bloomberg reports in its "Global Renewable Energy Market Outlook" that developing countries will also make investments in wind power. "By far, the most rapid growth will be seen in India, the Middle East, North Africa, Africa

and Latin America, which are projected to experience growth rates of 10 percent to 18 percent between 2010 and 2020. By 2020, the markets outside of Europe, the United States, Canada and China will account for 50 percent of world demand," the news service reports. Talk about winds of change.

*Gerry Donohue is ACEC's senior communications writer. He can be reached at [gdonohue@acec.org](mailto:gdonohue@acec.org).*

"The amount of investment in transmission is huge right now," says Hand. "Our company is working on 5,000 miles of 500-kV lines. We hadn't done that much in the past 30 years combined."

In the face of these and other factors, the wind industry will continue to make technological advances that could reduce the cost of wind power. Larger rotors and computerized operation, for example, would make it possible to operate in lower-wind sites, bringing wind production closer to demand centers. Most analysts expect technologies to emerge that should make wind power cost-competitive with other forms of power within a few years—even without the PTC.

## International Market

Much of the near-term action in wind power will be in international markets.

In 2010, China accounted for nearly half of all wind power installations globally, up from barely any five years earlier. Experts say China will continue to be a huge market for the foreseeable future, but the torrid pace will slow. Of particular interest to U.S. firms, the Chinese government is committed to wind as a domestic industry. Chinese companies are currently responsible for more than 85 percent of wind power installations.

Northern Europe represents another potential hot spot. Wind power has made so much penetration onshore in Europe that almost all of the growth in the coming years will be offshore, but it will be massive. Germany and the United Kingdom already have plans to install 50 GW of offshore wind power in coming years. That's equivalent to eight years of U.S. production at current levels.

THE LEADING **EDGE** ON  
SAFETY IS ENGINEERED  
FROM THE GROUND UP

See us at the ASSE show | Booth # 734

## SlipNOT®

INFRASTRUCTURE | INDUSTRIAL | COMMERCIAL  
[www.slipnot.com](http://www.slipnot.com) | [info@slipnot.com](mailto:info@slipnot.com) | 800.754.7668

SlipNOT® Metal Safety Flooring products may be covered by one or more of the following patents: 5,711,119, 6,839,951 and 6,863,932.

SlipNOT® manufactures slip resistant metal flooring products that are designed to increase safety and decrease your risk exposure.

## SLIP RESISTANT SAFETY FLOORING





AP PHOTO/LAWRENCE JACKSON



Rep. John Mica (R-Fla.) will lead House negotiators on the transportation bill.

## House, Senate Set to Finalize Long-Term Transportation Bill

A House-Senate Conference Committee has been appointed to negotiate a final long-term transportation authorization bill, a key Council priority, following approval of alternative bills by both houses.

On March 14, the U.S. Senate passed an ACEC-backed two-year surface transportation reauthorization bill (S. 1813) that maintains current funding levels plus inflation through September 2013. The bill, Moving Ahead for Progress in the 21st Century (MAP-21), was approved on a broad bipartisan vote of 74–22.

MAP-21 consolidates many existing highway programs,

gives states more flexibility in allocating funds, reforms project delivery requirements and begins implementation of performance measures for state transportation departments. In addition to formula funding to states and local agencies, it provides \$1 billion per year in financing support to leverage additional private investment through the Transportation Infrastructure Finance and Innovation Act program. To support highway and transit program funding levels, the bill supplements the Highway Trust Fund with \$13.9 billion by redirecting certain import fees and transferring funds from various other accounts.

In the House, Republican leaders were forced to abandon plans for a comprehensive five-year, \$260 billion authorization plan after the bill failed to garner sufficient support. The House adopted an alternative measure to advance the legislative process and begin conference committee negotiations with the Senate. The House bill (H.R. 4348) includes an additional 90-day extension of current transportation funding and programs, as well as ACEC-backed provisions to approve the Keystone XL pipeline and improve the environmental review process for projects.

ACEC will seek to retain lan-

guage from the five-year bill that would task state departments of transportation with contracting out for engineering services to the maximum extent practicable.

Passage of a final compromise bill to send to the White House was a key lobbying objective for Council members during the Annual Convention. “This remains the single biggest jobs bill that Congress could complete this year,” said Ken Wightman of David Evans & Associates, chairman of ACEC’s Transportation Committee.

The current extension of federal highway and transit programs expires June 30.

## ACEC Federal Markets Conference Spotlights Opportunities

The Annual Convention featured a Federal Markets Conference that included presentations by 14 federal agencies—including the Departments of Interior, Homeland Security, and Justice—identifying opportunities and upcoming projects that involve engineering and related services.

“Hearing the current and potential detailed acquisition plans—good or bad—of so many present and prospective clients at one time greatly enhances the ability of my firm to strategically plan for the future,” said Joan Freitag of

Hanson Professional Services and incoming chair of the Federal Agencies and Procurement Advocacy Committee.

The Federal Markets Conference also included a Teaming

Fair, which brought together large and small firms to discuss teaming opportunities on specific federal projects.

With the recent increase in the small-business size standard

for engineering services, the fair provided needed interaction between ACEC Member Firms of all sizes. (See *Annual Convention wrap up* on page 18.)



Terry Edwards (left) of the U.S. Air Force Center for Engineering and Environment was one of a dozen federal agency officials who discussed contracting opportunities at the Annual Convention. Also pictured from left: Karl Calvo, U.S. Customs and Borders; Commander Pete Carroll, U.S. Coast Guard; and Rodger Evans, U.S. Department of the Interior.



# Increased Pressure For Water Infrastructure Funding

**W**ater infrastructure funding was a key lobbying priority for ACEC members during the recent Annual Convention. In addition to urging Congress to protect investment levels for the State Revolving Fund (SRF) programs, Council members advocated for new financing mechanisms to help communities fund water needs.

ACEC members were successful in building support for bipartisan legislation—H.R. 1802 and S. 939—that will make it easier for communities to finance water projects through private activity bonds. The Senate has already adopted a modified version of S. 939 as part of the surface transportation reauthorization bill.

Council members also expressed their support for a proposed new program—the Water Infrastructure Financing and Innovation Act (WIFIA)—that would provide below-market loans and loan guarantees to reduce borrowing costs and unlock more private capital for water projects.

The WIFIA concept has already been included in House legislation (H.R. 3145), and House Water Resources and Environment Subcommittee Chairman Bob Gibbs (R-Ohio) is developing a new bill that would include both WIFIA and private activity bonds. Steven Fangmann of D & B Engineers of Woodbury, N.Y., recently testified on behalf of ACEC in favor of WIFIA at a hearing before Gibbs' subcommittee.

Clinton O. Robinson of Black & Veatch and vice-chair of ACEC's Environment and Energy Committee, said, "ACEC Member Firms pressed the point home to Congress that notwithstanding budget realities, communities need stable SRF funding and additional financial tools to maintain the progress our federal-state-local partnership has made over the decades in keeping water safe and clean."



AP PHOTO/JAY PICKTHORN/ARGUS LEADER

## ISSUES ON THE MOVE

## WHAT'S NEXT

Surface transportation bill

Conference negotiation could finish by June

Water infrastructure

Private Activity Bond provision to move as part of transportation bill

Energy

Keystone pipeline may be added to final transportation bill



AP PHOTO/JAY PICKTHORN/ARGUS LEADER

## ACEC Takes Its Energy Agenda to Congress

**E**nergy issues were front and center at the recently concluded ACEC Annual Convention, with Member Firms lobbying for legislation to promote an all-of-the-above approach that encourages all forms of domestically produced energy, as well as expansion of long-distance transmission line capacity.

Approval for the Keystone XL oil pipeline from Canada to the United States, which has been delayed by the administration, is a key priority for ACEC. Emphasizing that the pipeline will increase energy security by reducing U.S. dependence on crude oil imported from unfriendly countries, Council members pressed House and Senate members to back legislation to expedite its approval.

ACEC members also lobbied on behalf of extending the Renewable Energy Production Tax Credits (PTC) to support wind, geothermal, hydropower and other renewable energy projects. The wind energy PTC is due to expire on Dec. 31. The Council's "citizen lobbyists" also urged lawmakers to reduce the financing risks and provide more certainty to the renewable energy industry by passing H.R. 3307, which would extend the PTC for all renewable energy sources through 2016.

## For More News

For weekly legislative news, visit ACEC's *Last Word* online at [www.acec.org](http://www.acec.org).

# 2012

## Engineering Excellence

# AWARD WINNERS

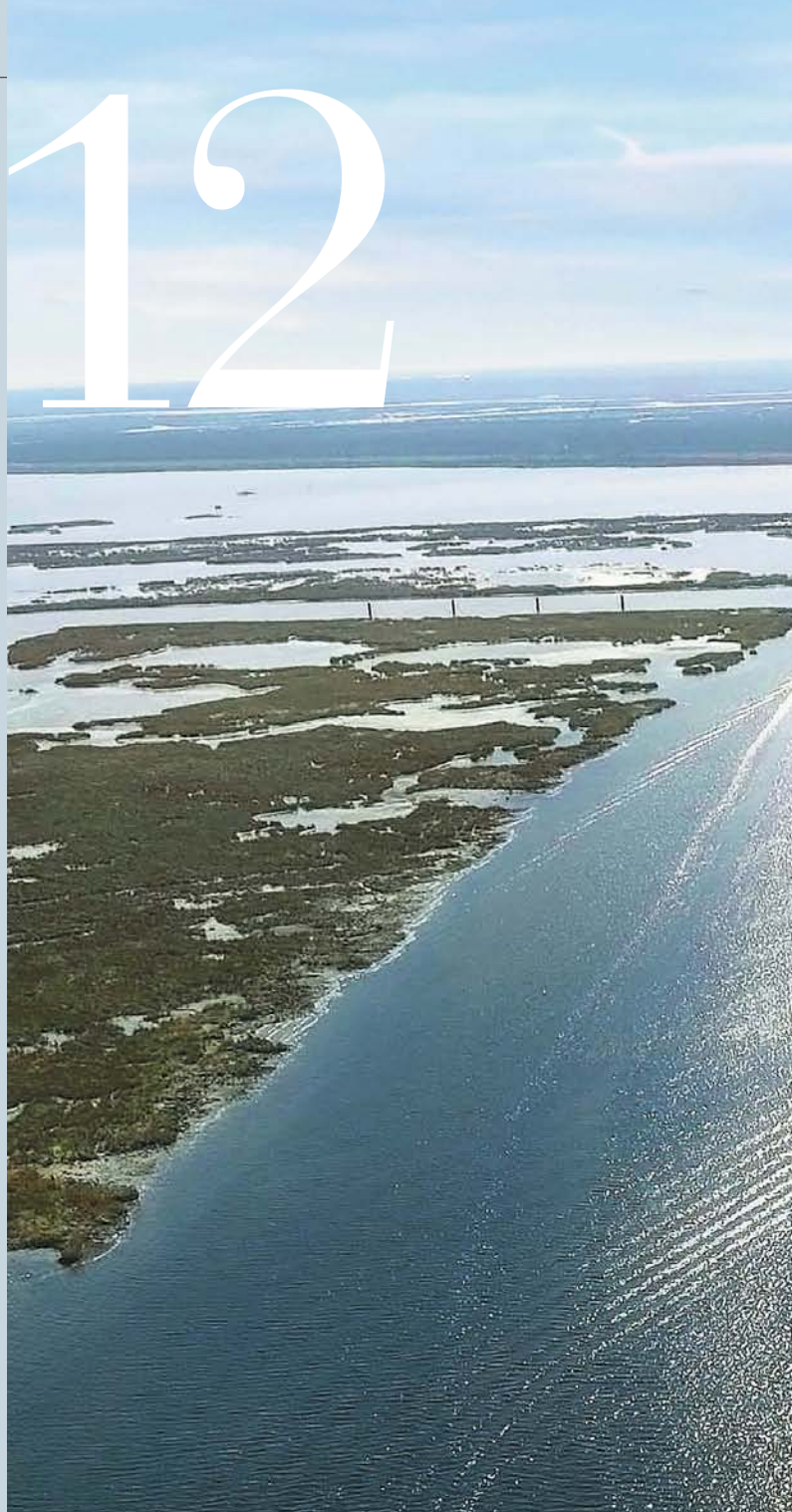


The 2012 Engineering Excellence Awards Gala—known as the “Academy Awards” of the engineering industry—showcased 147 ACEC Member projects from the United States and throughout the world.

A panel of 28 judges from across the nation representing a variety of built environment disciplines selected 24 top award recipients—16 Honor Awards, eight Grand Awards and the Grand Conceptor Award for the most outstanding engineering achievement—

based on criteria such as uniqueness and originality, technical complexity, social and economic value, and public awareness.

Emmy Award-winning comedian Ross Shafer once again hosted the sold-out black-tie extravaganza, which was attended by more than 600 members and guests.







ACEC 2012 ENGINEERING EXCELLENCE AWARD WINNERS

# GRAND CONCEPTOR AWARD

## Lake Borgne Surge Barrier, New Orleans, La.

Tetra Tech-INCA—Bellevue, Wash.

Achieving revolutionary new heights in flood protection, this \$1.1 billion response to the devastation of Hurricane Katrina can withstand a 100-year-level storm surge event. Nearly two miles long and 26 feet tall, the new structure is the largest surge barrier of its kind in the world.

During Hurricane Katrina, a storm surge entering the confluence of the Mississippi River Gulf Outlet and Gulf Intracoastal Waterway overtopped and collapsed a 4,000-foot-long levee section causing widespread flooding, death and destruction in New Orleans and surrounding areas.

Extending across the marsh from the Gulf Outlet to the Gulf Waterway, the new barrier effectively moves the first line of storm-surge defense more than 12 miles away from downtown New Orleans and eliminated the need for raising approximately 30 miles of existing levees and floodwalls.

The structure is supported with 1,271 concrete cylinder piles, 66 inches in diameter, 144 feet long and driven to depths up to 130 feet. Three gates allow vessel passage—a concrete barge swing gate and a buoyant sector gate—both 150 feet wide and weighing more than 675 tons per leaf. Another barrier entrance features a 56-foot-wide vertical lift gate.

Tetra Tech-INCA led the design team that included leading flood control engineers from across the United States and Europe. The project is now a model for floodgate and floodwall design worldwide.



## ACEC 2012 ENGINEERING EXCELLENCE AWARDS

# GRANDAWARDS

### **Aqua at Lakeshore East, Chicago, Ill.** Magnusson Klemencic Associates—Seattle, Wash.

Majestically towering 87 stories from a once-neglected industrial brownfield site, Aqua at Lakeshore East represents pioneering structural design for vertical construction. The newest addition to Chicago's downtown includes 78 distinctive undulating balconies that cantilever up to 12 feet—more than twice the distance of conventional balconies. Innovative structural design provides support exceeding traditional systems, yet contains no elements that would obstruct views of Chicago's historic skyline. The 2.3-million-square-foot complex features 264 condominiums, 481 apartments, 325 hotel rooms, two long-span ballrooms, offices, retail, and five levels of parking, and is a breakthrough for future urban high-rise construction.



### **Marina Bay Sands Integrated Resort, Singapore** Arup—Cambridge, Mass.

Breathtaking engineering design produced a fabulous new tourist destination in the heart of Marina Bay, Singapore's new downtown. The 38-acre resort includes three 55-story, asymmetrically curved luxury hotels, each topped and connected by SkyPark, a 2.5-acre



landscaped rooftop that is the world's largest cantilevered public space, which features a 150-meter outdoor swimming pool. The resort also includes the lotus-shaped ArtScience Museum, two 2,000-seat performance theaters and more than 1 million square feet of casino, retail and restaurant space. The project team overcame unfavorable geological conditions and unusual design geometries to produce the spectacular \$6 billion resort that is now a primary tourist attraction for Asia's busiest seaport.



### **Co-Digestion and Combined Heat & Power Improvements, Johnstown, N.Y.**

Malcolm Pirnie, The Water Division of Arcadis—Clifton Park, N.Y.

Pioneering engineering design produced the first U.S. wastewater treatment plant that operates entirely on power recovered from the treatment processes, making it a "net zero" energy facility. The project team reduced system electrical demand while significantly increasing digester gas production from the treatment process. Two new 350-kW generators fueled by the digester gas provide heat and electricity for facility operations. Average power production increased from 143,000 kW in 2009 to more than 405,000 kW in 2011. The decreased operational costs help keep customer rates low and established the facility as a leader in sustainable wastewater treatment.



### **U.S. Highway 82 Mississippi River Bridge, Washington County, Miss.**

HNTB Corporation—Baton Rouge, La.

The dazzling new 2,500-foot-long, three-span cable-stayed bridge is the third-longest of its type in the U.S. and a visually stunning new crossing over America's most-storied river. The project team incorporated an innovative dredged-caisson/drilled-shaft foundation design to support two distinctive 425-foot-high concrete towers. The new structure is more than three times the width of the 1940s-era bridge it replaced and offers two 12-foot traffic lanes in each direction, two 12-foot exterior emergency lanes, and two eight-foot median emergency lanes. An aggressive construction schedule delivered the new bridge three months ahead of schedule and nearly \$1 million under budget.



# GRANDAWARDS

## **The Elwha River Restoration Project,** City of Port Angeles and Clallam County, Wash. URS Corporation—Denver, Colo.

As part of the second-largest National Park Service river restoration project in U.S. history, two obsolete hydroelectric dams are being removed without adverse sediment impact on downstream water quality and the river's endangered species. To safely dispose of more than 18 million cubic yards of sediment that had become trapped behind the two 1900s-era structures, the project team designed two treatment facilities—an 11-million-gallon-per-day facility to meet stringent water-quality standards, and an innovative surface water diversion system that provided safe passage for migrating fish. The result sets a new precedent for dam removal, river restoration and fish preservation.



## **Harbor Drive Pedestrian Bridge,** San Diego, Calif. T.Y. Lin International—San Diego, Calif.

A graceful new pedestrian bridge is one of the longest self-anchored suspension bridges in the world, and fulfills a century-old vision of linking Balboa Park and San Diego Bay. The new 550-foot bridge provides safe passage over a major highway and six railroad lines and includes a 131-foot-tall, 60-degree inclined pylon and a curved deck. The structure contains a unique self-anchored support system that is attached to the bridge itself, as opposed to traditional ground anchoring. Architectural concrete finishes, textured walking surfaces, stainless steel aircraft mesh and indirect deck lighting enhance the scenic experience of the city's downtown and waterfront.



## **Yorkville Dam Safety Improvements & Bypass Channel,** Yorkville, Ill. Teng & Associates—Chicago, Ill.

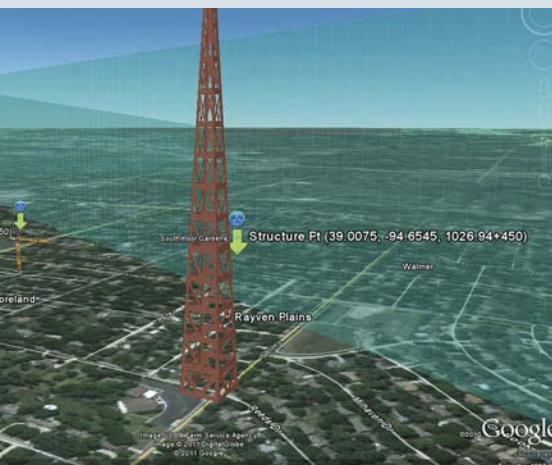
Creative engineering along the Fox River in Yorkville, Ill., improved water recreational attractions by eliminating a life-threatening turbulence condition generated by a dam. Hydraulic conditions downstream produced a submerged roller effect, which had claimed 28 drowning victims over the last 35 years. The project team incorporated a new stepped dam spillway that eliminated the trapping turbulence, making the river safer for recreation. The design also included an innovative fish ladder and a new bypass channel with waterways for recreational and competitive Olympic-style boating.



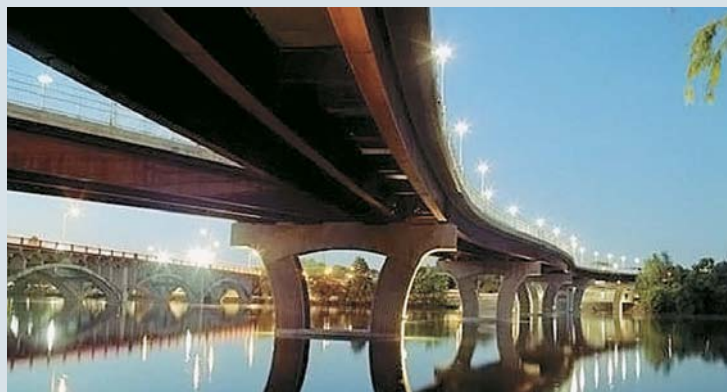
## ACEC 2012 ENGINEERING EXCELLENCE AWARDS HONORAWARDS

### **Kansas Airspace Awareness Tool, Topeka, Kan.** Burns & McDonnell—Kansas City, Mo.

A new resource for city and regional planners can now accurately and easily depict the complex network of airspace. The Kansas Airspace Awareness Tool (KAAT) transforms imaginary airspace into a precise, easy-to-understand three-dimensional model. The project team provided programming, research and data testing in development of the program,



which accurately depicts location and elevation data to avoid potential airspace conflicts from structures or takeoff/landing patterns. Developed within the Google Earth platform, the KAAT is Internet-accessible and user-friendly for state and local governments, allowing planners to make better airspace decisions, improve safety and protect valuable public assets.



### **FHWA Curved Steel Bridge Reference Manual with LRFD, Nationwide** Michael Baker Jr.—Horsham, Pa.

A new comprehensive manual for designing curved and skewed steel bridges provides a critically needed industry resource where none previously existed. Curved and skewed steel bridges feature many unique complexities, yet represent some of the most elegant, aesthetically pleasing and cost-effective structures in the world. The project team produced the first-of-its-kind 1,470-page manual that addresses specific issues such as erection sequencing and the effects of skewed supports and lateral bracing. It provides a seamless blending of theoretical instruction and practical design examples benefiting both the novice and the seasoned engineer. The manual, which also incorporates Load and Resistance Factor Design relating to curved and skewed steel bridges, is considered a breakthrough resource for the engineering community worldwide.



### **Propellants North Facility, Kennedy Space Center, Fla.** Jones Edmunds & Associates—Gainesville, Fla.

NASA's first "net zero" facility is a pioneering example of engineering excellence combined with innovative sustainable technology. Designed to produce enough energy onsite to offset operational requirements, the Propellants North Facility achieved U.S. Green Building Council's Platinum status—the highest rating for sustainable buildings. It features 336 photovoltaic panels, which supply 100 percent of the building's energy, saving the agency approximately \$16,000 in monthly energy costs. Water conservation and stormwater management are enhanced by innovative rainwater harvesting and a downstream dry-detention swale.



### **I-93 Fast 14 Project, Medford, Mass.** Tetra Tech and Gill Engineering Associates—Framingham, Mass.

Resourceful engineering helped meet the formidable challenge of replacing 14 structurally deficient bridge superstructures on I-93—a primary route into Boston—over 10 consecutive weekends in the summer of 2011. Predicted to take four years or longer, the largest accelerated bridge effort in Massachusetts history features creative innovations in construction design, including prefabricated bridge elements, special rapid-setting concrete and updated traffic management. By providing motorists with a safer highway without protracted construction delays, the project now serves as a model for highway infrastructure renewal efforts nationwide.



## HONORAWARDS



### **Hickory Ridge Landfill Solar Energy Cover, Atlanta, Ga.**

**HDR Engineering—Jacksonville, Fla.**

Groundbreaking engineering transformed a closed 48-acre landfill into the largest solar energy generating facility in Georgia. Innovative technology was used to apply a high-strength geomembrane across the top of the landfill, anchoring the edges in vertical trenches similar to a bed sheet. Side slopes on the geomembrane provide an ideal, clean and stable surface for 7,000 photovoltaic solar panels, which create more than a megawatt of clean energy—enough to power 224 residences. The cover also eliminates \$1.5 million in annual maintenance costs for a traditional grass-covered landfill cap and represents a new, profitable alternative for the more than 17,000 closed landfills throughout the nation.

### **Mobile LiDAR Mapping for Street Improvements, Austin, Texas**

**Surveying and Mapping—Austin, Texas**

State-of-the-art mobile light detection and ranging expedited Austin's plan to implement major downtown streetscape improvements. The project team used laser-based scanning and high-resolution digital spatial data technology that acquired millions of 3D design points per minute. The advanced system provided extraordinarily detailed street information for a seven-block area, in a fraction of the time required by conventional surveying methods. The detailed data set can be used for 3D visualization, modeling and other future urban planning needs without additional cost.



### **KFC Yum! Center, Louisville Arena, Louisville, Ky.**

**Walter P Moore—Houston, Texas**

A deteriorated, virtually unusable site has been transformed into a new iconic landmark that enhances the downtown Louisville skyline, stimulates the local economy, and is one of the finest college basketball facilities ever built. The new 22,000-seat multipurpose arena rises from a previously unstable, flood-prone site congested with massive underground structures too deep to be removed. The project team incorporated a labyrinth foundation system to support loads between the existing obstacles and engineered “smart columns” to support a curving 406-foot span that forms the arena's distinctive serpentine roofline. An elegant three-story curved glass exterior provides panoramic views of the nearby Ohio River.



### **Lake Oswego Interceptor Sewer, Lake Oswego, Ore.**

**Brown and Caldwell—Portland, Ore.**

The world's first-known buoyant gravity sanitary sewer system lies just beneath the surface of this popular recreational lake, replacing an outdated pile-supported system that leaked raw sewage after heavy rains. The project team developed an innovative 29,000-foot-long buoyant gravity sewer system featuring high-density polyethylene pipe supported by bedrock-anchored tethers as deep as 200 feet. Carefully supported depths combined with gravity maximize free sewage flow to a nearby wastewater treatment plant, while its serpentine alignment provides thermal expansion capability for fluctuating water temperatures. This creative solution protects water quality and has a service life of 100 years.



## ACEC 2012 ENGINEERING EXCELLENCE AWARDS HONORAWARDS

### East Fork Raw Water Supply Project, Seagoville, Texas

Alan Plummer Associates—Dallas, Texas

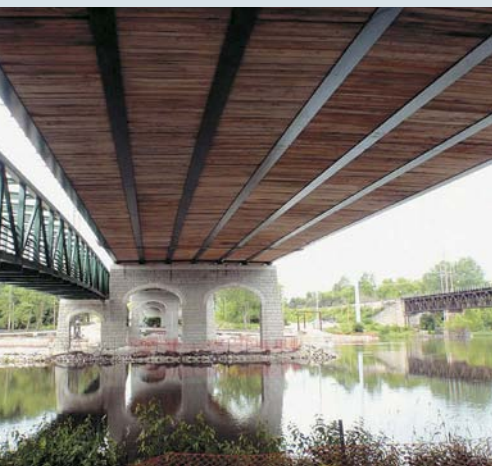
The largest water-reuse project in Texas history successfully averts a critical supply shortage for more than 1.5 million North Texas Water District customers. When available water supplies could no longer meet current or future water district demands, the project team used cutting-edge engineering to divert 91 million gallons of effluent per day from the Trinity River. Filtering the water through 2,000 acres of constructed wetlands, the water is then piped 43.5 miles to another lake for storage, blending and distribution to customers. Completed at a fraction of the cost and time of developing a new reservoir, the project represents a signature solution in water-reuse innovation.



### Stearns Road Corridor, South Elgin and Bartlett, Ill. Alfred Benesch & Company—Chicago, Ill.

Also, Bollinger, Lach & Associates / Bowman, Barrett & Associates / Christopher B. Burke Engineering / Civiltech Engineering / Hampton, Lenzini & Renwick / Huff & Huff / McDonough Associates / Michael Baker Jr. / Omega & Associates / T.Y. Lin International Great Lakes / URS Corporation / Wills Burke Kelsey Associates

The Stearns Road Corridor proves that new infrastructure can be successfully developed while actually enhancing a fragile surrounding environment. The project team created a new five-mile road and bridge over the Fox River that also included three miles of new multiuse paths, and hand-stained underpass structures to enhance three regional trails. The project also involved acquisition and substantial restoration of 216 acres of surrounding green space, including the planting of 150 new deciduous trees, 350 shrubs and 200 perennials, ensuring both transportation and environmental enhancement.



### Sacramento International Airport's Big Build, Sacramento, Calif.

AECOM/Corgan Associates—New York, N.Y.

Groundbreaking engineering created the Sacramento International Airport's new showpiece central terminal, new 19-gate concourse and state-of-the-art automated people mover linking the two facilities. The five-level terminal features inventive structural design that utilizes exposed steel beams as an aesthetic enhancement. A co-generation system provides reliable and sustainable power. Designed and constructed in a tightly confined area without impacting ongoing airport operations, the \$1 billion expansion provides much-needed additional capacity to serve more passengers and carriers.



### West Closure Complex Pump Station, New Orleans, La.

Bioengineering/ARCADIS—Washington, D.C.

This new solution for severe Gulf Coast storms is the world's largest interior drainage pump station—larger than two football fields—and a primary component of the overall Gulf Intracoastal Waterway protection system. The complex features 11 enormous pumps, each weighing more than 70 tons and capable of discharging 20,000 cubic feet of water per second, the equivalent of filling an Olympic-sized swimming pool in less than 21 seconds. Able to withstand Category 5 hurricane-force winds and flying debris, the facility represents an extraordinary engineering achievement in major flood prevention.



# HONORAWARDS

## **SW Moody Avenue, Portland, Ore.** **Harper Houf Peterson Righellis—Portland, Ore.**

Innovative engineering provided critical infrastructure upgrades for a major section of SW Moody Avenue, a key component of Portland's 120-acre South Waterfront Innovation Quadrant redevelopment. The project team overcame contaminated site soils and a complex public and private utility right-of-way by raising the roadway 14 feet and relocating more than 4,000 feet of water lines and 150,000 feet of conduit, along with all supporting access vaults, manholes and other structures. The 3,200-foot-long reconstructed highway adds new dual streetcar tracks, pedestrian walkways and a dedicated two-way bicycle track for a new direct connection to downtown.



## **Submarine Drive-In Magnetic Silencing Facility, Beckoning Point, Pearl Harbor, Hawaii** **SSFM International/Moffatt & Nichol Joint Venture—Honolulu, Hawaii**

A new state-of-the-art demagnetizing facility minimizes a submarine's magnetic signature to make it less detectable by enemies and explosive devices. The complex design features two parallel 706-foot-long finger piers for the submarine to pass through, unique low-magnetic structural components such as stainless steel alloys and structural aluminum, and an innovative power supply system. More efficient than previous labor-intensive methods, the facility serves as a model for future high-security facilities with equally stringent non-magnetic criteria.



## **Improvements at the Grand Canyon, Grand Canyon National Park, Ariz.** **HDR Engineering—Phoenix, Ariz.**

A previously congested, hazardous and confusing Grand Canyon overlook now provides more than 5 million annual visitors with a safer, more intuitive and accessible way to enjoy one of the greatest wonders of the world. Numerous obstacles such as vehicle/pedestrian safety hazards, inadequate signage and narrow rim trails had hampered the visitor viewing experience. The project team utilized advanced geotechnical engineering to blend innovative built elements into natural surroundings, including more accessible ADA-compliant trails and walkways, enhanced directional features, a new stone amphitheater and expanded parking. The upgrades will serve as a model for other planned engineering enhancements along the canyon rim.

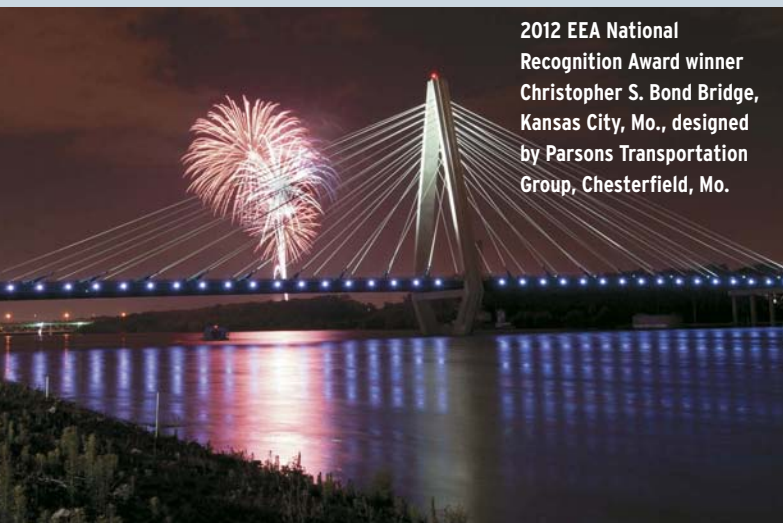


## **Texas Medical Center Energy Upgrade, Houston, Texas** **Burns & McDonnell—Houston, Texas**

Resourceful thermal energy engineering will contribute more than \$200 million in energy savings over the next 15 years at the world's largest medical complex. To meet growing heating and cooling demands at the Texas Medical Center—serving 6 million patients a year in 14 hospitals—the project team designed a massive thermal energy system, including the nation's largest chiller facility with 32,000 tons of coolant capacity; an 8.8-million-gallon chilled water thermal energy storage tank, the largest of its type in the world; and a 48-megawatt combined heat and power plant capable of producing 330,000 pounds of steam per hour. The system also taps waste heat from the power generation process to produce high-temperature water for distribution to the Center's 18 buildings.

# 2012 EEA NATIONAL RECOGNITION AWARD WINNERS

FIRM NAME	PROJECT NAME	FIRM NAME	PROJECT NAME
<b>ACEC/ALABAMA</b> Barge, Waggoner, Sumner & Cannon	Tennessee River Modeling	<b>CH2M HILL/Neel-Schaffer</b>	OCU Landfill Gas-to-Energy System
<b>ACEC/ALASKA</b> HDR Engineering	William Jack Hernandez Sport Fish Hatchery	<b>Hardesty &amp; Hanover</b> <b>Jones Edmunds &amp; Associates</b> <b>Kimley-Horn and Associates</b>	Ben Sawyer Bridge Propellants North Facility Downtown Promenade and Street Reconstruction Salvador Dali Museum
<b>ACEC/ARIZONA</b> HDR Engineering	Making the Point: Improvements at the Grand Canyon CAP Superstition Mountain Recharge Project	<b>ACEC/GEORGIA</b> <b>CH2M HILL</b>	Georgia Regional Water Planning Project Hickory Ridge Landfill Solar Energy Cover
<b>Stanley Consultants</b>		<b>HDR Engineering</b>	
<b>ACEC/CALIFORNIA</b> AECOM/Corgan Associates	Sacramento International Airport's Big Build Stanford Law School William H. Neukom Building Happy Hollow Park and Zoo Pedestrian Bridge	<b>ACEC/HAWAII</b> <b>Masa Fujioka &amp; Associates</b>	USS Arizona Memorial Visitor Center Replacement Submarine Drive-In Magnetic Silencing Facility
<b>Degenkolb Engineers</b>		<b>SSFM International/Moffatt &amp; Nichol</b>	
<b>HNTB Corporation</b>		<b>ACEC/IDAHO</b> <b>Horrocks Engineers</b>	I-84, New York Canal Modeling and Mitigation I-84, Ten Mile Road Interchange Lapwai Valley Regional Wastewater Project
<b>International Bridge Technologies</b> <b>RBF Consulting, a Company of Michael Baker Corporation</b> <b>T.Y. Lin International</b> <b>URS Corporation</b>	Coast Meridian Overpass Project Camp Pendleton Desalination Feasibility Study Harbor Drive Pedestrian Bridge The I-5 Gateway	<b>H. W. Lochner</b> <b>Progressive Engineering Group</b>	
<b>ACEC/COLORADO</b> CTL/Thompson	Mount Carmel Church Renovation 4th Street Bridge Georgetown Water Treatment System Improvements Delta Wastewater Effluent River Diffuser The Elwha River Restoration Project	<b>ACEC/ILLINOIS</b> <b>Alfred Benesch &amp; Company</b> <b>Bollinger, Lach &amp; Associates</b> <b>Bowman, Barrett &amp; Associates</b> <b>Christopher B. Burke Engineering</b> <b>Civiltech Engineering</b> <b>Hampton, Lenzini &amp; Renwick</b> <b>Huff &amp; Huff</b> <b>McDonough Associates</b> <b>Michael Baker Jr.</b> <b>Omega &amp; Associates</b> <b>T.Y. Lin International Great Lakes</b> <b>URS Corporation</b> <b>Wills Burke Kelsey Associates</b>	Stearns Road Corridor
<b>FIGG</b> <b>Frchetti Engineering</b>		<b>Alfred Benesch &amp; Company</b> <b>Collins Engineers</b>	Wabash River Bridge One Weekend; One Bridge-EJ&E Bridge Roll-In Design Resource Recovery at Wild Rose Yorkville Dam Safety Improvements & Bypass Channel Historic Wood Paver Restoration
<b>URS Corporation</b>		<b>HDR Engineering</b> <b>Teng &amp; Associates</b>	
<b>URS Corporation</b>		<b>TranSystems Corporation</b>	
<b>ACEC/CONNECTICUT</b> Kleinfelder/S E A Consultants	Armed Forces Reserve Center, Middletown, Conn.	<b>ACEC/INDIANA</b> <b>Crawford, Murphy &amp; Tilly</b> <b>DLZ Indiana</b> <b>DLZ Indiana</b>	Georgia Street Reconstruction I-69 Tier 2 Section 4 EIS and ROD Water Resources Program Management Accelerate 465 New Wastewater Treatment Facility
<b>ACEC/FLORIDA</b> Atkins	Courtney Campbell Causeway Interchange 2-mgd NF/RO Design-Build WTP	<b>HNTB Corporation</b> <b>Strand Associates</b>	
<b>CDM Smith</b>		<b>ACEC/IOWA</b> <b>Stanley Consultants</b>	University of Iowa Combined Heat and Power Plant Waverly Dam Reconstruction
		<b>Stanley Consultants</b>	
		<b>ACEC/KANSAS</b> <b>Burns &amp; McDonnell</b> <b>Cook, Flatt &amp; Strobel, Engineers</b> <b>GBA Architects and Engineers</b> <b>H.W. Lochner</b>	Kansas Airspace Awareness Tool Echo Ridge Subdivision K-7 and Johnson Drive Interchange Bull Creek Bridge Rehabilitation



2012 EEA National Recognition Award winner  
Christopher S. Bond Bridge,  
Kansas City, Mo., designed  
by Parsons Transportation  
Group, Chesterfield, Mo.



# 2012 EEA NATIONAL RECOGNITION AWARD WINNERS

FIRM NAME	PROJECT NAME	FIRM NAME	PROJECT NAME
<b>ACEC/KENTUCKY</b> Biagi, Chance, Cummins, London, Titzer GRW Qk4  Stantec	University of Kentucky Veterinary Diagnostic Laboratory Northern Ditch Interceptor City of Shepherdsville IFAS Implementation River Road Bridge Widening Over Harrods Creek	<b>Parsons Transportation Group</b>	kcICON Project—Christopher S. Bond Bridge
<b>ACEC/LOUISIANA</b> Bioengineering/ARCADIS  Tetra Tech-INCA	West Closure Complex Pump Station Lake Borgne Surge Barrier Project	<b>ACEC/MONTANA</b> DOWL HKM  HDR Engineering HDR Engineering, Inc./ Morrison Maierle	Big Hole Diversion Dam Replacement Pablo Pedestrian Bridge Bozeman Water Reclamation Facility
<b>ACEC/MARYLAND</b> AECOM  AECOM	Metro Fire and Security Management Systems Upgrade The Mary Catherine Bunting Center at Mercy	<b>ACEC/NEW JERSEY</b> CDM Smith CH2M HILL  Gannett Fleming  Hatch Mott MacDonald  Jacobs Engineering Group  Parsons Brinckerhoff  Parsons Brinckerhoff  PS&S	Record-Setting HDD Installation NHSA Hoboken H1 Wet Weather Pump Station I-78 and Garden State Parkway Interchange 142 Jersey City Water Plant Improvements Rt. 36 Highlands Bridge Over Shrewsbury River Rt. 46/Main Street Interchange Reconstruction Widening of the GSP Bridge Over Mullica River The Heights at Montclair State University
<b>ACEC/MASSACHUSETTS</b> Arup  Tetra Tech and Gill Engineering Associates	Marina Bay Sands Integrated Resort 93 Fast 14 Project	<b>ACEC/NEW MEXICO</b> CDM Smith  Molzen Corbin	City of Hobbs WWTP Improvement Project University of New Mexico Arena “The Pit”
<b>ACEC/METROPOLITAN WASHINGTON</b> Robert Silman Associates Robert Silman Associates  Syska Hennessy Group	Maryland 9/11 Memorial University of Virginia Clinical Cancer Center AIA Headquarters Sustainable Modernization	<b>ACEC/NEW YORK</b> AECOM  Arup C. T. Male Associates Engineering, Surveying, Architecture & Landscape Architecture DeSimone Consulting Engineers Gannett Fleming Engineers and Architects/GeoDecisions, a division of Gannett Fleming HAKS	Yankee Stadium Redevelopment City Work Calais Land Port of Entry GLOBALFOUNDRIES-FAB 8  HL 23 Searchable Property Environmental E-Database  New Croton Aqueduct Rehabilitation
<b>ACEC/MICHIGAN</b> HNTB Corporation NTH Consultants  Ruby+Associates	Michigan State Rail Plan Detroit/Wayne County Port Authority Public Dock and Terminal Conversion of Ottawa Street Power Station		
<b>ACEC/MINNESOTA</b> Bolton & Menk  Bolton & Menk  HDR Engineering/ Mead & Hunt HDR Engineering  HDR Engineering HGA Architects and Engineers  TKDA	Downtown Watertown Redevelopment Improvements Saint Peter Water System Improvements Holmes Street Bridge No. 4175 Rehab Project Innovations in Tire-Pavement Noise Research St. Joseph Wind Farm Town Green Bandshell and Pavilions District Energy Solar Thermal System		
<b>ACEC/MISSISSIPPI</b> HNTB Corporation	U.S. Highway 82 Mississippi River Bridge		
<b>ACEC/MISSOURI</b> Burns & McDonnell  Burns & McDonnell HNTB Corporation	Biofuels of the Future: The ZeaChem Solution Iatan Generation Station Unit 2 Replacement of BNSF Bridge 204.66 Over Mississippi River		

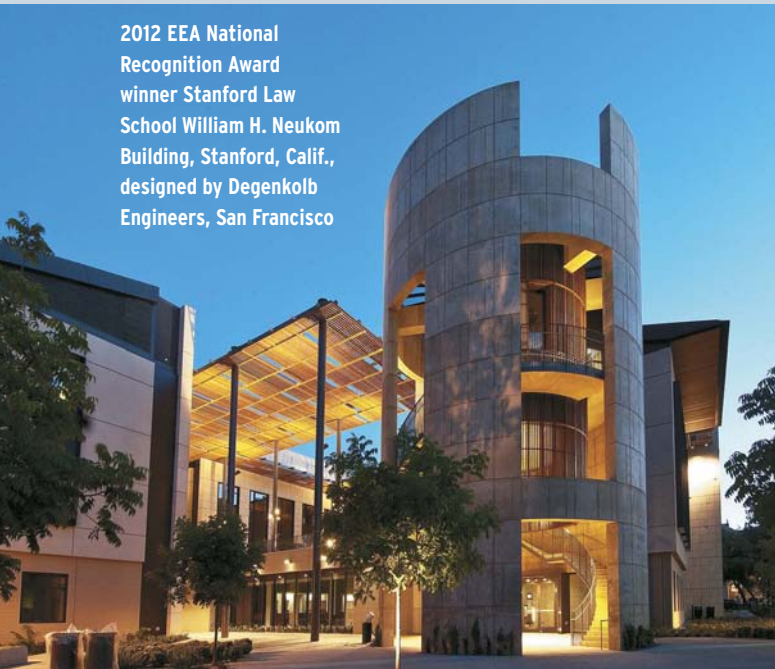


The Salvador Dali Museum, St. Petersburg, Fla., designed by Walter P Moore, Tampa, Fla., is a 2012 EEA National Recognition Award winner.

# 2012 EEA NATIONAL RECOGNITION AWARD WINNERS

FIRM NAME	PROJECT NAME	FIRM NAME	PROJECT NAME
Hardesty & Hanover Hazen and Sawyer	Willis Avenue Bridge Paerdegat Basin Combined Sewer Overflow Facility	<b>ACEC/PENNSYLVANIA</b> Borton-Lawson	Lehigh River/Pohopoco Creek Bridge Project
HDR Engineering	Reconstruction of the Roosevelt Island Bridge	The EADS Group	Flight 93 National Memorial: Phase 1
HNTB Corporation	Rehabilitation of Atlantic Avenue Viaduct	Gannett Fleming Michael Baker, Jr.	South Street Bridge Reconstruction FHWA LRFD Curved Steel Bridge Reference Manual
Holzmacher, McLendon & Murrell	Treatment Online Inadvance of Impending Plume	SAI Consulting Engineers	S.R. 0028-036 Etna Interchange Reconstruction
Joseph R. Loring & Associates	Hudson Valley Community College-TEC SMART	Urban Engineers	U.S. Airways New GSE Facility
KLD Engineering	Queensboro Bridge/Tramway MPT Modeling & Analysis	<b>ACEC/SOUTH CAROLINA</b> Collins Engineers GWA	Seismic Evaluations for CCSD AgFirst Emergency Switchboard Replacement
Malcolm Pirnie, The Water Division of Arcadis	Co-Digestion and Combined Heat & Power Improvements	Keck & Wood	Winthrop University-Campus Green
Mueser Rutledge Consulting Engineers	Cofferdam for the Cannelton Hydroelectric Plant	Vaughn & Melton Consulting Engineers	Whitmire Bridge Replacement Over Duncan Creek
Syska Hennessy Group	U.N. Headquarters, North Lawn Conference Building	Wilbur Smith Associates	Preparing for the Future-Critical Missions
Thornton Tomasetti	Penn State University Millennium Science Complex		
<b>ACEC/NORTH CAROLINA</b> Schnabel Engineering Stewart Engineering	Deep Creek Watershed Dam 5D Buckner Companies Home Office	<b>ACEC/SOUTH DAKOTA</b> Short Elliott Hendrickson	Southland Lane Detention Project
<b>ACEC/OHIO</b> Malcolm Pirnie in association with Stantec and H.R. Gray	Columbus Professional Program Management	<b>ACEC/TEXAS</b> Alan Plummer Associates	East Fork Raw Water Supply Project
<b>ACEC/OREGON</b> Brown and Caldwell CDM Smith	Lake Oswego Interceptor Sewer PDX Deicing Collection & Treatment System	Burns & McDonnell	TECO Master Plan Implementation Project Phase One
Harper Houf Peterson Righellis	SW Moody Avenue: SW River Parkway to SW Gibbs	Espey Consultants	Restoration Hamilton Pool/ Receiving Watershed
McMillen Parsons Brinckerhoff	Choloma Hydroelectric Project East Side Combined Sewer Overflow Tunnel	Ford Engineering	Live Oak Road Water Plant Expansion
Parsons Brinckerhoff	LTD Gateway EmX BRT Extension	Pape-Dawson Engineers Surveying and Mapping	U.S. 281 Superstreet Mobile LiDAR Mapping for Street Improvements
		URS Corporation	Green Water Treatment Plant Decommissioning
		Walter P Moore	KFC Yum! Center, Louisville Arena
		Walter P Moore	University of Texas/MD Anderson Alkek Patient Care Tower Expansion
		<b>ACEC/UTAH</b> CDM Smith	West Valley Light Rail TRAX Project
		<b>ACEC/VIRGINIA</b> Hardesty & Hanover HDR Engineering	Chincoteague Bridge Replacement Atlantic Treatment Plant Expansion Phase I
		<b>ACEC/WASHINGTON</b> Anchor QEA	Percival Landing Major Rehabilitation Project
		CH2M HILL Magnusson Klemencic Associates Parsons Wood Harbinger	Brightwater Treatment Plant Aqua at Lakeshore East SR 532 Corridor Improvements 767 Production Line Relocation
		<b>ACEC/WISCONSIN</b> HNTB Corporation	Milwaukee County Grounds Floodwater Facility
		Mead & Hunt Strand Associates	Rest Areas 11 & 12 Monona Drive (CTH BB)

2012 EEA National  
Recognition Award  
winner Stanford Law  
School William H. Neukom  
Building, Stanford, Calif.,  
designed by Degenkolb  
Engineers, San Francisco





## 2012 EEA JUDGES

ACEC thanks the 2012 Engineering Excellence Awards (EEA) judges and EEA Committee members for their time and dedication to this year's competition.

**Linda Bridwell**  
*Chief Judge*  
Kentucky American Water  
Lexington, Ky.

**George G. Alexandridis**  
Delaware River Joint Toll  
Bridge Commission  
New Hope, Pa.

**Arthur Barsema**  
Commonwealth Edison  
Company  
Rockford, Ill.

**Brigadier General (Ret.)  
Stephen Burritt**  
National Guard  
Henniker, N.H.

**Laura Cabiness**  
City of Charleston  
Charleston, S.C.

**Lawrence Chiarelli**  
Polytechnic Institute of NYU  
Brooklyn, N.Y.

**Karen Durham-Aguilera**  
HQ USACE  
Washington, D.C.

**Dr. Sam Easterling**  
Virginia Tech  
Blacksburg, Va.

**Dr. Dennis Fallon**  
The Citadel Civil and  
Environmental Department  
Charleston, S.C.

**Garret Graves**  
Governor's Office of Coastal  
Activities  
Baton Rouge, La.

**Dr. Moujalli C. Hourani**  
Manhattan College  
Riverdale, N.Y.

**Maryann Johansson**  
The University of California—  
Santa Barbara  
Santa Barbara, Calif.

**Jerry Johnson**  
Washington Suburban  
Sanitary Commission  
Laurel, Md.

**Jill A. Jordan**  
Assistant City Manager  
Dallas, Texas

**Paul Kovacs**  
Illinois Tollway  
Downers Grove, Ill.

**Melinda McGrath**  
Mississippi Department of  
Transportation  
Jackson, Miss.

**Keavin L. Nelson**  
Veolia Water North America  
Hellertown, Pa.

**Tom Powers**  
City of Chicago  
Chicago, Ill.

**Dr. T. Peter Ruane**  
American Road & Transportation  
Builders Association  
Washington, D.C.

**Dr. Susan Shea**  
Department of Transportation  
Springfield, Ill.

**Julie Skallman**  
Minnesota Department of  
Transportation  
St. Paul, Minn.

**Stephen K. Swinson**  
Thermal Energy Corporation  
Houston, Texas

**Maj. Gen. Merdith W.B.  
"Bo" Temple**  
USACE  
Washington, D.C.

**Paul Wageman**  
Winstead PC  
Dallas, Texas

**Andrew Wescoat**  
Exxon/Mobil Environmental  
Services  
Fairfax, Va.

**Kristine Young**  
Miller the Driller  
Runnells, Iowa

**Michael Zetlin**  
Zetlin & De Chiara, LLP  
New York, N.Y.

**Peter Zipf**  
The Port Authority of New  
York & New Jersey  
New York, N.Y.

**Herbert Berg**  
*Chairman*  
M & H Design Associates  
Chicago, Ill.

**Patricia Mosher**  
*Vice Chair*  
HNTB Corporation  
Kansas City, Mo.

**Jon M. Beekman**  
Wright-Pierce  
Fayette, Maine

**Fredric S. Berger**  
The Louis Berger Group  
Washington, D.C.

**George Binder**  
ACEC/Kentucky  
Frankfort, Ky.

**W. Harold Cannon**  
Cannon & Cannon  
Knoxville, Tenn.

**Andrew J. Ciancia**  
Langan Engineering &  
Environmental Services  
New York, N.Y.

**Edwin K. Dedeaux**  
Allen & Hoshall  
Ridgeland, Miss.

**Jeffrey Druckman**  
AMEC Environment &  
Infrastructure  
Chicago, Ill.

**Judy L. Hricak**  
Gannett Fleming  
Camp Hill, Pa.

**Dennis M. Kamber**  
ARCADIS  
Washington, D.C.

**Dennis B. Micko**  
Banner Associates  
Brookings, S.D.

**Stuart D. Monical**  
MKK Consulting Engineers  
Greenwood Village, Colo.

**Daisy P. Nappier**  
ACEC  
Washington, D.C.

**Peter F. Piattoni**  
Fay, Spofford & Thorndike  
Burlington, Mass.

**Donald G. Sherman**  
HDR  
Phoenix, Ariz.

## 2012 EEA SPONSORS

ACEC wishes to thank the following companies for their sponsorship of the EEA Gala:

### GOLD

AECOM  
HDR Engineering  
HNTB Corporation

### PATRON

Burns & McDonnell

### HOST

ACEC Retirement Trust  
Alan Plummer Associates  
American Society of Civil Engineers  
Arcadis  
Arup  
CDM Smith  
CH2M HILL  
Magnusson Klemencic Associates  
Michael Baker Jr., Inc.  
Syska Hennessy Group  
Tetra Tech-INCA  
The Louis Berger Group  
T.Y. Lin International  
Urban Engineers  
URS Corporation

### DONOR

Gannett Fleming  
TMG Custom Media  
Victor O. Schinnerer/CNA



# PROMISING Prospects

Seeking to take advantage of new marketplace opportunities, more than 1,300 ACEC members—an all-time record—attended the recent ACEC Annual Convention in Washington, D.C.

The high turnout gave the Council a robust advocacy presence on Capitol Hill as the Convention's "citizen lobbyists" held more than 300 meetings with senators, congressmen and staffers to urge passage of long-term transportation, water/wastewater infrastructure and energy legislation.

The Convention also featured thought-provoking political insights from two former governors, perspectives on market success from three top U.S. engineering firm leaders, more than a dozen federal agency contracting presentations and cutting-edge business management sessions.

The annual meeting was highlighted by the black-tie Engineering Excellence Awards Gala, which also was attended by an all-time record of more than 600 guests.

"The strongest part of this year's program was the speeches by Governors Haley Barbour and Ed Rendell. They were dynamic, entertaining and addressed issues that matter to our industry," said Jim Thomas of VTN Consulting in Las Vegas. "We always try to attend this event. The program is always really solid and pertinent to our business."

William Hall of United Consulting in Indianapolis was impressed with the Convention's targeted business focus. "I sat in on the Transportation Committee Meeting where the transportation bill was discussed," Hall said. "I enjoyed learning specifics about highway funding and FAR overhead issues, especially since my firm and state are dealing with these issues."





CEO panel participants, left to right: ACEC President Dave Raymond (moderator); HDR Chairman/CEO George Little; ARCADIS CEO Steven Blake; and Cardno USA President Paul Gardiner.

Leslie Peterson, of Lamp, Rynearson & Associates in Omaha, Neb., interviews with Sam Palmer of Terracon during the Annual Convention's Teaming Fair.



## Teaming Fair Exceeds Expectations for Subcontracting Opportunities

**M**ore than 70 firms participated in the Annual Convention's Teaming Fair, which helps large firms seek out small firms for subcontracting opportunities on federal contracts. Many participants came away impressed with the program.

Vaughn Anderson, of DJ&A, P.C., in Missoula, Mont., called the Teaming Fair "an excellent opportunity to connect with larger firms," adding, "we made some good contacts."

"It was fast and wild, but great for our firm," said Anastasia Vassos, vice president of WSP Flack + Kurtz in Boston. Three interviewers from the firm took part in the program.

"The Teaming Fair really exceeded my expectations," said David Sprenkle, senior vice president of Merrick & Company in Aurora, Colo. "We're looking to follow up with many of the firms we interviewed, and at least three firms may have the skills, experience and small-business status we were looking for to fill current teaming needs."



CH2M HILL CEO Lee McIntire says global challenges are creating opportunities for engineers.

## CH2M HILL CEO Says Engineers Best Suited to Address Global Challenges

**C**H2M HILL Chairman and CEO Lee McIntire said engineers are uniquely positioned to lead the response to many global challenges, including climate change, population growth, and water and energy shortages.

"Who's going to solve these problems but this group right here," said McIntire during his keynote address at the ACEC Convention. "Our industry is one of the best in the world for dealing with change. It's our time to lead."

McIntire pointed to the energy sector, where fracking and other innovations have led to a dramatic increase in production. "I believe that the United States could be a net exporter of oil, gas and coal by 2030," he said, adding that engineers bring more to leadership than professional competence. "Certainly it's about innovation, but it's also about who is going to be trusted," he said. "I maintain that it's going to be us."





Incoming ACEC Chairman Ted Williams (right) greets outgoing Chairman Terry Neimeyer at the Board of Directors Luncheon.

## Williams Succeeds Neimeyer; New ExCom Takes Office

**T**ed Williams, executive vice president of Landmark Engineering, Inc., in New Castle, Del., succeeded Terry Neimeyer as ACEC Chairman for 2012–2013 at the spring meeting of the ACEC Board of Directors.

New members of the 2012–2013 Executive Committee: Chairman-elect **Gregs Thomopoulos**, chairman/CEO of Stanley Consultants, Inc.; **Ralph Christie, Jr.**, chairman/president/CEO, Merrick & Company; **Michael Matthews**, president/CEO, H&A Architects and Engineers; **William Stout, III**, chairman/CEO, Gannett Fleming; **Peter Strub**, eastern regional vice president, TranSystems Corp. ACEC/Alabama Executive Director **Renee Casillas** is the new NAECE representative.

## CEO Panel Addresses Funding Challenges, Growth Opportunities

**L**eaders of three top U.S. engineering firms shared insights into how they are positioning their firms for marketplace success.

George Little, chairman and CEO of HDR (#11 on the 2012 *ENR* 500), said that because of “Congress’ lack of focus on infrastructure, we’re going to see more local funding and more public-private partnerships.” He forecast that the energy sector will remain strong, but added that any growth in water and wastewater will be due almost solely to municipalities having to conform to ever-increasing EPA regulations.

Steve Blake, CEO of ARCADIS (#12), projected continued acceleration of industry mergers and acquisitions. “They’re going to get bigger because of globalization, projects getting bigger, clients demanding more services and ownership transition,” Blake said, adding that as ARCADIS has expanded globally, it has developed a “home market” strategy. “Brazilians run Brazil for us,” he said. “Chinese run China.”

Paul Gardiner, president of Cardno USA (#30), described his firm’s rapid expansion from an Australia-based firm in 1999 to a global powerhouse with 6,500 employees in 250 offices in 85 countries. “We entered the United States through an acquisition in 2007,” explained Gardiner. “Through several more acquisitions, we’ve grown to the point where our U.S. operations account for 65 percent of our total revenues.”

## Rendell Calls Infrastructure ‘Best Job Creator’

**F**ormer Pennsylvania Gov. Ed Rendell—a longtime champion for infrastructure investment—told Annual Convention attendees that increased spending on infrastructure is the best way “to rejuvenate the economy and rebuild our country.”

“The American people want infrastructure investment, the best job creator there is,” said Rendell. “Unless we do it, we will no longer be a great nation.”

If the United States were to invest \$200 billion annually in infrastructure for the next 10 years, Rendell said, “We would be No. 1 globally in infrastructure and be energy independent.”

In his new book, *A Nation of Wusses: How America’s Leaders Lost the Guts to Make Us Great*, Rendell writes that “our politicians have lost the will to make hard decisions because they are too concerned about staying in office.”



Former Pennsylvania Gov. Ed Rendell champions increased infrastructure investment prior to attendee visits on Capitol Hill.



Greg “Skip” Bailey of Deloitte leads a discussion on cloud computing during the CIO Council Symposium.



Former Mississippi Gov. Haley Barbour

## Barbour Predicts Tight 2012 Presidential Election

**F**ormer Mississippi Gov. Haley Barbour predicted that the upcoming presidential election will be a hard-fought, neck-and-neck contest.

“If the election is about the president’s record, then the GOP stands a great chance,” Barbour said. “If the election is about anything else, then the president’s chance for a second term increases.”







National Recognition Award winners proudly lift their awards at the Engineering Excellence Awards Gala.



EEA Gala guests continued the celebration late into the night at the inaugural EEA After Party.



Sen. Tom Carper (D-Del.), a member of the Environment and Public Works Committee, greets John Brand (seated) of Butler, Fairman and Seufert, Inc., Indianapolis, at the ACEC/PAC-sponsored VIP Luncheon on Capitol Hill.



The team that won the 2012 Grand Conceptor Award displays its trophy during the Engineering Excellence Awards Gala. From left: Dale Miller, Tetra Tech-INCA; Stephanie Hall, U.S. Army Corps of Engineers (USACE); Col. Robert Simler, USACE; Karen Durham-Aguilera, USACE; Angela DeSoto-Duncan, Tetra Tech-INCA; Col. Ed Fleming, USACE and Shiv Batra, Tetra Tech-INCA.

### ACEC/PAC Fundraising Picks Up Pace in Critical Election Year

ACEC/PAC boosted its already strong 2012 fundraising performance by raising \$148,000 at the Annual Convention with the popular Spring Raffle, once again a key component. Winners of the 2012 Spring Raffle:

- \$10,000** — Joseph Debs, RS&H, Inc., Jacksonville, Fla.
- \$5,000** — Sheri Smith, T. Baker Smith, Houma, La.
- \$2,000** — Mitchel Simpler, Jaros, Baum & Bolles, New York City
- \$1,000** — Gregg Ten Eyck, Leonard Rice Engineers, Inc., Denver
- \$1,000** — Charles Gozdziwski, Hardesty & Hanover, New York City
- \$1,000** — Ted Richards, Strand Associates, Madison, Wis. (which he returned to ACEC/PAC)
- \$1,000** — R. Roush, Leonard Rice Engineers, Inc., Denver
- \$1,000** — Janice Burnett, ACEC/Arizona





  
**Vision**

  
**Strategy**

  
**Success**

  
**Organize**

  
**Leadership**



---

# Taking the Lead

● By Alan Joch

ACEC's Senior Executives Institute provides **navigable path** to **effective** firm management

## Takeaways

- » ACEC's Senior Executives Institute includes lessons in advanced management, leadership and public policy.
- » Executives leave the program with lasting personal and professional relationships and a lifetime network of best practice resources.
- » Among the topics executives say they've examined are how to navigate the political process and decision-making in tough economic times.

**R**unning a successful engineering firm is no easy task. It requires vision, sensitivity to clients' needs, the ability to coach and nurture internal talent and a constant focus on quality. The stakes are higher during difficult economic times, which is why a select group of senior executives increasingly turns to one of their most unique resources for help—fellow graduates of ACEC's Senior Executives Institute. »»

"Any of us can call someone else in the group to ask about their business and get an unabashed answer to the question," says Paul Hirst, president at Caldwell Richards Sorensen in Utah, and a member of SEI's first graduating class. "We don't have to go it alone."

More than 400 industry executives have passed through the Council's flagship education program since 1995, completing intensive, forward-thinking training in advanced management, leadership and public policy. Class XVI concludes in Spring 2012, with Class XVIII beginning in September 2012.

Though executives typically enroll in the program for professional development, graduates report that they often come away from the experience with a deeper understanding of their own strengths and weaknesses as leaders and with lasting professional relationships that benefit them throughout their careers.

"SEI was a high-water mark for me in my development personally and as an engineer," Hirst says.

### Innovative Curriculum

As part of SEI's 1995 inaugural class, Hirst was one of 14 engineering executives who took part in the original program, which met over seven weeklong sessions over more than two years.

The decision to enroll amounted to a gamble for the high-level executives involved. SEI was brand-new and, at the time, had no track record of success, says Kyle Davy, a leadership and management consultant and co-designer of the SEI curriculum.

The Institute's founders—including former ACEC Executive Vice President Howard Messner and Louis Marines, former CEO of the American Institute of Architects—envisioned a professional develop-

ment program that stressed leadership and management with insights into politics, personal relationships and a commitment to building lasting companies that adapt to changing markets.

The program's founders understood that there is no shortage of professional development programs from which busy executives can choose, whether from other industry groups, universities or private organizations. To set SEI apart, organizers have and continue to focus on business issues unique to engineering. (See sidebar.)

"The ability to concentrate on the leadership challenges inside our industry and to share those perspectives and practices with other executives is extremely important," Davy says.

SEI's typical annual enrollment ranges from 24 to 28 participants. The time commitment has been streamlined from seven to five nearly weeklong sessions over 18 months. Recent installments have de-emphasized management training—a topic often highlighted in other executive training programs—in favor of leadership skills specific to engineering.

"We continue to draw from the best and brightest ideas about leadership, personal mastery and strategy," Davy says. "And we give much more attention to coaching that supports growth and development inside organizations."

What hasn't changed, he says, is the rigor of the program. Graduates devote 21 days to formal class time, not including time spent outside class reading assigned books and articles.

This intensive training, which also includes interactive case-study analyses and learning how to communicate more effectively, stood out to Hirst from the time he attended his first session.

"Before, when I talked to someone about their performance, for example, I assumed they would clearly understand what I was saying," he explains. "I never bothered to ask, 'What did I just say?' When you ask that question, it's amazing the answers you sometimes get."

Other SEI graduates report similar experiences. Lamar Dunn, president of Lamar Dunn & Associates and a member of SEI's second graduating class, says all 17 of his classmates formed relationships that have lasted for years. "Even the wives of class members bonded," he says.

Dunn so valued his experience at SEI that he has since put two additional staff members through the program, for a total of about 10 percent of the firm's staff. "We are all better individuals as a result," he says.

### No Missing Pieces

A decade later, SEI participants continue to praise their time with the Institute. Bill Stout, chairman of Gannett Fleming, enrolled in his first session in 2006, shortly after being selected as the company's next CEO. "While I relished the challenge of becoming CEO, it also seemed rather daunting," he recalls. "I saw SEI as an opportunity to round out some missing pieces in my experiences and education."



**"SEI was a high-water mark for me in my development personally and as an engineer."**

PAUL HIRST  
CALDWELL RICHARDS  
SORENSEN

## 5 Steps to More Effective Leadership

**T**he Senior Executives Institute's expansive curriculum addresses the breadth of experience required of engineering executives at successful firms. Here's what to expect.

**Session 1:** Executives spend five days in Washington, D.C., broadening their understanding of economic trends, public-policy debates and global concerns.

**Session 2:** During four days in New Mexico, SEI participants work to develop better self-awareness, learn stress management techniques and hone their interpersonal and communication skills.

**Session 3:** Participants meet in Boulder, Colo., for exercises in improved leadership, team building, adapting to change, and strategic planning and designing of successful organizations.

**Session 4:** Classmates travel to San Francisco to study new models for professional practices, learn alternative project delivery methods, explore lean theory and sustainability, and update their knowledge of human resources and technology issues.

**Session 5:** Four days at Amelia Island, Fla., wrap up the SEI experience, as attendees explore creativity and innovation, partnering and alliances, coaching and mentoring and learn how to integrate lessons learned through SEI into real-world business practices.



Working In Harmony With Nature



## Modular Bioretention System

- Meets standard bioretention cell design
- Local agency low flow (5-10 in/hr) or high flow soils
- Modular design for consistent dimensional tolerances and reduced construction costs
- Infiltration or detention designs
- Precast concrete for structural integrity



[www.kristar.com](http://www.kristar.com)  
1-800-579-8819



# Not Just for Engineers

**N**ot everyone who attends ACEC's Senior Executives Institute (SEI) is a practicing engineer.

The current class includes professionals such as Paula Hochstetler, president of the Airport Consultants Council (ACC) and one of four women currently enrolled in the SEI program.

"In addition to growing professionally, I was interested in learning what was on the minds of this new generation of engineering leaders. Anticipating their concerns, priorities and needs will enable us to better adapt our services," Hochstetler says.

With four of five SEI sessions now

complete, Hochstetler says the program is helping her become a better leader. "It forces us to take time out to think about what we're doing. Are our actions effective and authentic? How about our basic attitudes? The instructors work us over, and in all honesty, the combination of sessions and readings has been intense," she says. "But, it's been well worth every ounce of effort."

Hochstetler recalls working through the principles outlined in *The Fifth Discipline*, a book about group problem-solving that encourages executives to diagram an organizational challenge in hopes of

uncovering a solution. The document writing process within ACC used to take an inordinate amount of time and resources. By diagramming the problem as part of her work at SEI, Hochstetler was able to identify a flaw in the editing stage—authors weren't routinely receiving specific feedback on their work—which was creating delays.

"If we had not diagrammed the process, we would not have visually seen where the error was being made," she explains. "Now the authors have a chance to grow and perhaps will no longer even need to have their work reviewed."

Stout found the personal development sessions especially beneficial. "If you are going to ask people to be led by you, you need to understand yourself pretty well," he says. "If you have a better understanding of how others perceive you, you are in a better position to work with them."

Stout also came away with new insights into Washington politics and how engineering firms can better influence legislative outcomes, particularly the benefit of communicating firm needs and business interests.

"That was something I knew before the program, but it really crystallized for me how to shape your approach to elected officials," he says.

Stout was the first executive from Gannett Fleming to attend SEI, but he wasn't the last—five other firm executives have since completed the program. "It has given us all a common set of tools and a language that we can use when we are speaking with one another about leadership issues," he says.

The ability to communicate took on new significance during the recent economic downturn, particularly as staff cutbacks and other tough decisions became necessary.

"Those of us who had to lead the organization through this experience were all people who have been through the SEI program," Stout recalls. "Because of that, we were in a better position both to be responsive to the outside environment and to help people understand why we had to do what we were doing."

## The Big Picture

To climb the executive ranks at any firm requires focus and a commitment to personal success, but such dedica-

tion can also cloud the collective business mission.

SEI aims to help participants balance personal growth and collective business ambitions, says Ron Fuerst, senior principal at Langan Engineering and Environmental Services. Fuerst joined SEI in 2008. "Before that, I had a title, I knew what I did here, and I thought I understood what my importance was to the firm," he says. "But all of that was totally from my own viewpoint."

Eighteen months and five sessions later, "SEI really opened my mind to what it takes to establish a successful, sustainable and growing firm," Fuerst says. "Now I'm less competitive individually and much more concerned about all the things that are necessary for the firm's success."

Fuerst employs a philosophy he learned from SEI called "Check It Out," a way of thinking that encourages executives to slow down their decision-making process and to put the brakes on decisions or actions that could potentially send the firm in the wrong direction.

"If there is something that needs to be said, I now say, 'We've got to check something out here,'" explains Fuerst. "It puts everyone's defenses down and helps you get to the meat of the matter without being defensive or competitive."

Completing the program is an accomplishment. But how do executives stay energized and apply the lessons learned through professional development to day-to-day operations at their firm? To Fuerst, the answer is obvious. "The fact that we send another person to SEI every year helps me," he says. "Our SEI graduates bring back an energy that keeps me recharged." ■



**"I saw SEI as an opportunity to round out some missing pieces in my experiences and education."**

BILL STOUT  
GANNETT FLEMING



**"Even the wives of class members bonded. We are all better individuals as a result."**

LAMAR DUNN  
LAMAR DUNN &  
ASSOCIATES

*Alan Joch is a business writer based in Francetown, N.H.*





## Powering our Future – Turning Wastes into Resources

The Gloversville-Johnstown Joint Wastewater Treatment Facility has achieved a remarkable goal – it is the first and only U.S. wastewater treatment plant that can produce 100% of its own power using renewable biogas to fuel a combined heat and power system – in other words, a zero net energy capable facility.

We are proud to be the engineering consultant partnering with Gloversville-Johnstown on this groundbreaking project. Winner of the ACEC Grand Award in the Waste & Storm Water Category, this project represents the culmination of over 12 years of work focused on energy conservation, wastewater process optimization, co-digestion and energy generation.

**[www.arcadis-us.com](http://www.arcadis-us.com)**

Additional ACEC national recognition:  
Honor Award – Water Resources Category  
The West Closure Complex Pump Station

Imagine the result

## George Little



**Q. If you had not pursued a career in engineering, what other profession(s) interested you?**

**A.** I liked building things, so maybe something in the construction industry.

**Q. What is the best advice you ever received?**

**A.** You can achieve anything you want if you're willing to work hard enough for it. I've heard this more than once through the years and it has stayed with me. There's really no other way to do it unless someone just gives you something. I learned the value of hard work from my dad, and I held two jobs to work my way through college.

**Q. What do you know now that you wish you had known 20 years ago?**

**A.** Presidents and CEOs are real people just like everyone else—they just have more responsibility.

**Q. What do you consider your greatest professional achievement, and why?**

**A.** Consistent, profitable performance, because it creates a strong company and also creates resources for people to do other things. We are an employee-owned company, and our employees' retirement security is very important to me. At the front end of my career, passing my PE exam was a big deal, because it allowed me to get into consulting. Being promoted wasn't as big a deal to me, although it was the outcome.

**Q. Do you have any hobbies—something outside of work, maybe—that you enjoy doing?**

**A.** Nothing unique, but I enjoy golf when I can get out. As much as we sit in meetings and on planes, it's nice to be outside chasing a little white ball!

**I**n December 2011, George Little succeeded Richard Bell as chairman, CEO and president of HDR. Little is responsible for the growth and strategic direction of the company, which is 11th on the *ENR Top 500* and employs more than 7,800 professionals in more than 185 offices. Prior to taking the reins at HDR, Little was president of HDR Engineering, Inc., the firm's largest operating company, since 1997.

**Q. What is the primary reason you chose to become an engineer?**

**A.** I was intrigued with electricity. The more I learned, asked questions and became involved and even became involved in an industry Explorer post in high school, I realized that electrical engineering was what I wanted to do.

**Q. If you were president of the United States for one day and could make one executive decision, what would it be?**

**A.** Create a balanced budget, because if we don't solve our debt issues, the country will be worse off every single day. You can't keep spending money you don't have; no one in private life is able to do that.

PHOTO COURTESY OF HDR, INC.; © 2012 MALONE AND CO.





complex world | CLEAR SOLUTIONS™



## CLEAR SOLUTIONS FOR A COMPLEX WORLD

**Congratulations to  
our USACE Lake  
Borgne Surge  
Barrier Design  
Team – Winner of  
ACEC's 2012 Grand  
Conceptor Award**

Tetra Tech is developing clear, sustainable solutions for the world's most complex projects. We have more than 40 years of experience supporting U.S. Department of Defense missions, including civil works, facilities design, environmental compliance and conservation, installation restoration, munitions response, and construction projects. From water resources to military transformation to energy efficiency, Tetra Tech offers comprehensive A-E services that address the full project lifecycle. Tetra Tech provides clear solutions for consulting, engineering, program management, construction management, and technical services worldwide. [www.tetrattech.com](http://www.tetrattech.com)

## Opportunities in Growing Sustainability Market

Project request for proposals increasingly require using sustainable products and materials, conserving energy and water, recycling wastes, and following new procedures for sustainable project delivery.

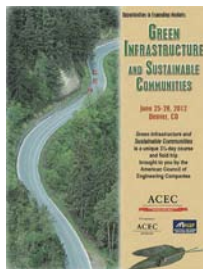
ACEC surveys show that Member Firms are creating or expanding sustainable engineering practices within their organizations by bringing together people with the requisite knowledge and experience to compete for project work.

The market for sustainable engineering services is driven by three core client needs:

- **Public Expectation:** Demonstrating that the client organization is operating in a way that protects the environment and the communities it serves.
- **Investment Opportunity:** Viewing client operating problems and issues from a “sustainability lens” and taking a life cycle view.
- **Long-Term Necessity:** Recognizing that the consequences of operating under a non-sustainable model for development are now within an organization’s planning horizon.

For these clients, design variables, such as carbon footprint, embodied energy, extended project life, and use of recycled materials, must be taken into account. Emerging opportunities in sustainable project development and delivery will be explored in the upcoming *Green Infrastructure and Sustainable Communities* course, scheduled for June 25–28, 2012, in Denver.

Participants will hear about emerging opportunities in sustainable development, become familiar with national and international metrics for sustainability, understand how to identify future projects through sustainability audits and learn how to apply lifecycle analysis to proposed projects and programs. Expert green infrastructure faculty will explore ways to expand business practices in sustainable engineering, especially with regard to sustainable transportation, buildings and water/wastewater projects. For more information, visit [www.acec.org/education](http://www.acec.org/education).



## Get a Jump on Emerging Industry Trends

The business environment in which our industry operates has been irreversibly altered. Firms now face multiple generations in the workforce, each with its own experiences and motivations.

As governments have fewer dollars to spend on public projects, public-private partnerships are increasingly prevalent. This changes the way the industry approaches projects and does business. Increased interest in sustainability opens the door to new—previously unknown—markets and the attendant risks that come with such uncertainty.

As firms seek a competitive advantage, awareness of current trends and the development and implementation of proactive practices to capitalize on these changes can be the difference between a firm becoming a market leader and struggling to catch up.

A new book by ACEC Press, *A/E/C Mega Trends: The Path to Competitive Advantage*, highlights seven emerging trends that are likely to reshape the architectural, engineering and construction industry in the United States in the next decade. These trends involve changes that will affect a broad scope of business activities, including company governance, business development, operational methods, overhead control, and human resources and innovation.



## CASE Provides 10 Foundations for Risk Management

Professional liability is a critical concern for structural engineers. To help address risk issues related to structures, the Council of American Structural Engineers (CASE) presents its *Ten Foundations for Risk Management*.

The 10 foundations are (1) Firm Culture; (2) Prevention & Proactivity; (3) Planning; (4) Communication; (5) Education; (6) Scope; (7) Compensation; (8) Contracts; (9) Contract Documents; and (10) Construction Phase. Each includes worksheets, sample documents, case studies and exercises for assembling a risk management toolkit.

In addition, CASE has released two more products:

**CASE Tool 2–4: Project Risk Management Plan** lays out the methodology for managing project risks and includes common project risks and templates for how to record and track those risks.

**CASE Tool 4–5: Project Communication Matrix and Coordination Log** provides an easy, efficient way to establish and maintain project-specific communication standards and document key project-specific deadlines and program/coordination decisions. This Excel-based tool helps firms maintain consistent project communication standards and document and communicate project coordination decisions.

All of the CASE-developed products are available at [www.booksforengineers.com](http://www.booksforengineers.com).

The ACEC Institute for Business Management provides comprehensive and accessible business management education for engineering company principals and their staffs.

Visit ACEC’s online educational events calendar at [www.acec.org/calendar/index.cfm](http://www.acec.org/calendar/index.cfm) or bookstore at [www.acec.org/publications](http://www.acec.org/publications), or call 202-347-7474, ext. 338, for further information.



Knowledge

• **Expertise**

• Relationships

Other companies serve the industry

**We're IN the industry.**

Over 50 years of industry experience, over 600 closed, industry transactions and the network to prove it — we're FMI and **we focus on you.**

FMI served as the exclusive financial advisor in the following transactions:

\* Represented by FMI



has been acquired by



has been acquired by



has been acquired by



has been acquired by



**Investment Banking for the engineering and construction industry.**

Mergers and Acquisitions

Buy-Side Representation

Corporate Divestitures

Sell-Side Representation

Michael Landry | 303.398.7283 | mlandry@fminet.com | Hunt Davis | 919.785.9212 | hdavis@fminet.com | www.fminet.com/ca

Steve Isaacs | 919.785.7200 | sisaacs@fminet.com | Grant Thayer | 303.785.7255 | gthayer@fminet.com

# Members in the News

## On The Move

**Barry K. Dewberry** was elected chairman of the board at Dewberry. **Sidney O. Dewberry**, outgoing chairman who co-founded the firm in 1956, will transition into the role of chairman emeritus and founder.

**Eric Keen** was appointed president of **HDR Engineering, Inc.**, and vice chairman of **HDR, Inc.**, succeeding **George Little**, who was named chairman, CEO and president of **HDR, Inc.** (See page 30.) **Doug Wignall** was named president of **HDR Architecture, Inc.** He succeeds **Merle S. Bachman**, who is retiring at the end of the year.

**Neil McArthur** will succeed **Harrie Noy** as chairman and CEO of **ARCADIS**. Noy was

scheduled to step down May 16. **Greenhorne & O'Mara (G&O)** named **Joseph T. Skinner** president and CEO. **Lawrence J. Longo** was appointed COO.

**Brian P. Reed** was promoted to CEO of **RS&H**, effective July 31, when current chairman and CEO, **Leerie T. Jenkins Jr.**, will transition out of the CEO position to serve as chairman of the board. **David K. Robertson**, the firm's COO, was also named president. **Richard Hurst** was hired as vice president of transportation/infrastructure.

**Guy Templeton** was named president and COO of the Asia/Australia-Pacific/Southern Africa operating company of **Parsons Brinckerhoff (PB)**. Templeton succeeds **Chuck Kohler**, who has been appointed group director of operational delivery for **Balfour Beatty**, PB's parent company.

**Randy Ferguson** joined **Barge, Waggoner, Sumner, and Cannon, Inc.**, as COO.



Sidney and Barry Dewberry



Eric Keen



Doug Wignall



Neil McArthur



Joseph T. Skinner



Guy Templeton

## Welcome New Member Firms

### ACEC/Alabama

**A.G. Gaston Engineering, LLC**, Birmingham  
**Goodwyn, Mills & Cawood, Inc.**, Montgomery  
**Weatherford & Associates, Inc.**, Montgomery

### ACEC/California

**Chad Mosley, P.E.**, Cupertino  
**Ramos Consulting Services, Inc. (RAMOS/CS)**, San Marino  
**RJR Engineering Group, Inc.**, Oxnard

### ACEC/Colorado

**FirstPass Engineering**, Castle Rock  
**Warren Mesloh Services, LLC**, Fort Collins

### ACEC/Florida

**Craven, Thompson & Associates, Inc.**, Fort Lauderdale  
**Eisman & Russo, Inc.**, Jacksonville  
**EPTISA Engineering, Inc.**, Pembroke Pines  
**MDM Services, Inc.**, Lakeland  
**Monta Consulting & Design of WMR**, Altamonte Springs  
**Preble-Rish, Inc.**, Port St. Joe  
**Scalar Consulting Group, Inc.**, Boynton Beach

### ACEC/Illinois

**d'Escoto, Inc.**, Chicago  
**Robinson Engineering, Ltd.**, South Holland

### ACEC/Indiana

**Civil Engineering Consultants**, Reelsville  
**Durkin & Villalta Partners Engineering, Inc.**, Indianapolis

### ACEC/Louisiana

**Atchley & Atchley, Inc.**, Shreveport  
**GAEA Consultants, LLC**, New Orleans

### ACEC/Maryland

**Structura, Inc.**, Baltimore  
**ACEC/New Hampshire**  
**Golde Planning & Design, Inc.**, Concord  
**Hayner/Swanson, Inc.**, Nashua

**S. W. Cole Engineering, Inc.**, Somersworth

### ACEC/New York

**Critical Solutions & Innovations, Consulting Engineers, PLLC**, New York, N.Y.

### ACEC/Ohio

**BHE Environmental, Inc.**, Cincinnati  
**Columbus Engineering Consultants, Inc.**, Columbus  
**H.R. Gray & Associates, Inc.**, Hilliard  
**River Consulting, LLC**, Columbus

### ACEC/Oklahoma

**Boatman Engineering, LLC**, Okemah  
**MPW Engineering, LLC**, Tulsa

### ACEC/South Carolina

**Benjamin B. Christensen, PS**, Aiken  
**DDC Engineers, Inc.**, Myrtle Beach

### ACEC/Tennessee

**Structural Design Group, Inc.**, Nashville

### ACEC/Texas

**ARKK Engineers**, Houston  
**Bury + Partners Engineering Solutions**, Houston  
**Busch, Hutchison & Associates, Inc.**, d/b/a Hutchinson & Associates, Baytown  
**DFW Consulting Group, Inc.**, Irving  
**DGR Consultants, LLC**, Dallas  
**Ford Engineering, Inc.**, San Antonio  
**MS2 Inc. Consulting Engineers**, San Antonio  
**Nelson Jones**, Flower Mound  
**PaveTex Engineering and Testing, Inc.**, Dripping Springs  
**Purdy-McGuire, Inc.**, Dallas  
**RVE, Inc.**, Corpus Christi  
**Sherfey Engineering SA, LLC**, San Antonio  
**Shield Engineering Group, PLLC**, Fort Worth  
**Texas Utility Engineering, Inc.**, San Antonio  
**ACEC/Washington**  
**Aspect Consulting, LLC**, Seattle  
**Wallis Engineering**, Vancouver

**ACEC/Wisconsin**  
**Structural Dimension**, Brookfield

## Calendar of Events

### JUNE

- |   |   |
|---|---|
| <p><b>5</b> ESOPs for Engineering Companies (online seminar)</p> <p><b>6</b> The Changing Face of Indemnity: Meaner and Uglier (online seminar)</p> | <p><b>13</b> Calculating the Right Earnings to Determine Your Firm's Value (online seminar)</p> <p><b>22-23</b> <b>ACEC/Virginia 2012 Annual Conference</b>, Wintergreen, Va.</p> |
|---|---|

Additional information on all ACEC activities is available at [www.acec.org](http://www.acec.org).





## Shaping the Future

### Delivering Engineering Excellence

- Project Management
- Environmental
- Energy
- Geotechnical
- Water Resources
- Municipal Services
- Industrial Services
- Infrastructure
- Site Development/  
Planning Services
- Transportation
- Mining

Follow Us



AMEC is a focused supplier of construction, engineering and project management services to its customers in the world's oil and gas, minerals and metals, clean energy, environment and infrastructure markets. With annual revenues of over \$5 billion, AMEC designs, delivers and maintains strategic and complex assets and employs more than 27,000 people in 40 countries worldwide.

[amec.com](http://amec.com)

Keep your professional license  
as mobile as you are.

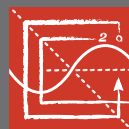


To practice in multiple states, professional engineers need their licenses to be mobile.

NCEES records are accepted by licensing boards nationwide. Once established, your records can quickly and easily be transmitted to any state board to simplify and expedite your application for comity licensure.

You don't have time for unnecessary paperwork. Let NCEES keep track of your record so you can focus on what's ahead.

[ncees.org/records](http://ncees.org/records)  
[records@ncees.org](mailto:records@ncees.org)  
800-250-3196



**NCEES**  
advancing licensure for  
engineers and surveyors

# Mergers and Acquisitions

## Pace of M&A Mirrors Economy's Fragile Recovery

In speaking with ACEC Member Firm owners and managers across the nation, there's a near-unanimous consensus: The first quarter of 2012 was markedly better businesswise than the same period in 2011.

This year's unusually mild winter, compared with last year's deep freeze, resulted in an earnings windfall from field operations in the first three months of the year with much-improved bottom lines, and—perhaps more important—stronger backlogs.

Firms increasingly are seeing private capital re-enter the buildings and land development sectors. The first quarter also saw continued success for firms with a footprint in the Marcellus, Bakken or Utica shale regions.

With so many Member

Firms reporting stronger earnings, one might assume that mergers and acquisitions (M&A) activity is on the rise.

When the economy is growing, firms are usually stronger and generally more optimistic—there are relatively more buyers in the market with relatively higher deal valuations.

The numbers, however, tell a different story. The pace of design firm activity is down 11 percent over the same period last year. This mirrors the larger economy. As of Jan. 20, 221 deals had been announced in North America across all industries, compared with 396 through the same period in 2011, a decline of some 44 percent, according to data from market research firm mergermarket.

So, why the slowdown, especially when the economy

suggests that the pace of M&A should be increasing? There are two primary reasons:

- Buyers are still cautious and are conducting due diligence—particularly when vetting opportunities and backlog as presented by potential sellers.
- Sellers are feeling more optimistic about their short-term outlooks. Many are seeing more opportunities and hearing good news from their clients and owners. The resulting improvement in self-confidence makes sellers less likely to accept conservative offers.

Changing expectations and outlooks on the part of potential buyers and sellers are directly attributed to a lack of clarity about the nature of the current economic recovery.

BY MICK MORRISSEY

Both camps recognize the recovery is occurring, but one is more skeptical than the other about its pace and risks.

Watch for the pace of M&A to pick up again in the second and third quarters as confidence in the economic recovery builds. Also, expect a spike in activity in the fourth quarter, as firms move quickly to consummate deals prior to the end of the calendar year in anticipation of tax increases in 2013.

### ACEC Member Spotlight

In March, ACEC member **McKim & Creed** (Raleigh, N.C.) acquired a 31-person **AECOM** survey operation, formerly known as **SURVCON** (Houston). SURVCON is a full-service professional land surveying and aerial mapping firm. It will operate under the name SURVCON, a Division of McKim & Creed.

In February, ACEC member **Spalding DeDecker Associates** (SDA; Rochester Hills, Mich.) acquired fellow ACEC member firm **Coyle Engineering** (San Antonio). Coyle Engineering will operate under the name Coyle-SDA.

To view the most up-to-date and “live” versions of the M&A heat maps accompanying this article, and to see who the buyers and sellers are in each state, go to [www.morrisseygoodale.com](http://www.morrisseygoodale.com).

*Mick Morrissey is managing principal of Morrissey Goodale LLC—a strategy, M&A and human capital solutions firm serving the A/E/C industry. He can be reached at [mmorrissey@morrisseygoodale.com](mailto:mmorrissey@morrisseygoodale.com).*

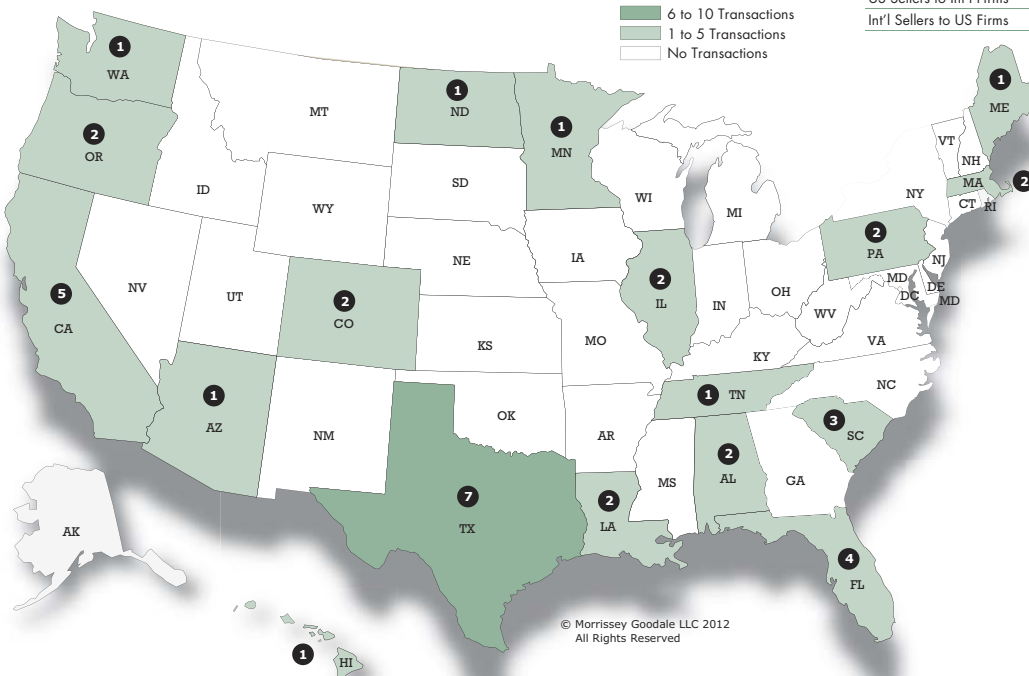
### 2012 MERGER AND ACQUISITION ACTIVITY Firm Sales by State through March 29, 2012

States by Total Activity:

- 21 or more Transactions
- 16 to 20 Transactions
- 11 to 15 Transactions
- 6 to 10 Transactions
- 1 to 5 Transactions
- No Transactions

#### US vs Int'l Sellers:

Total US Sellers	40
Total Int'l Sellers	31
US Sellers to Int'l Firms	2
Int'l Sellers to US Firms	6







# ACEC Retirement Trust

## Why YOU should belong to the ACEC Retirement Trust (Trust)

ACEC Retirement Trust recently announced its decision to partner with Great-West Retirement Services® (Great-West). Great-West is the fourth-largest retirement plan record keeper in the United States<sup>1</sup> and provides defined contribution plan services to 25,000 plans representing 4.4 million participant accounts and \$151 billion in assets.<sup>2</sup>

## Together, ACEC Retirement Trust and Great-West offer:

Specialized, Local Service Professionals  
Time and Cost Savings  
Fiduciary Protection<sup>3</sup>  
Communication, Education and  
Enrollment Services

Plan Design, Compliance and  
Trust Services  
Flexible, Integrated Recordkeeping  
Fund Review and Investment  
Advisory Services<sup>3</sup>

**To learn more about the benefits of the ACEC Retirement Trust, log onto our website at [www.acecert.com](http://www.acecert.com) or contact our educational consultant to the trust, Nancy Barrette at Wells Fargo Advisors, LLC at 1-800-521-9463 or via e-mail at [nancy.barrette@wellsfargoadvisors.com](mailto:nancy.barrette@wellsfargoadvisors.com).**

**Core securities, when offered, are offered through GWFS Equities, Inc. and/or other broker dealers. GWFS Equities, Inc. is a wholly owned subsidiary of Great-West Life & Annuity Insurance Company.**

Great-West Retirement Services® refers to products and services provided by Great-West Life & Annuity Insurance Company, FASCore, LLC (FASCore Administrators, LLC in California) and their subsidiaries and affiliates. Not intended for Plans whose situs is in New York. Great-West Retirement Services® is a registered trademark of Great-West Life & Annuity Insurance Company. GWFS Equities, Inc. is not affiliated with Wells Fargo Advisors, LLC or Nancy Barrette. ©2012 Great-West Life & Annuity Insurance Company. All rights reserved. (04/2012). PT# 147120

<sup>1</sup> Source: PLANSPONSOR magazine, July 2011 (based on year-end 2010 figures). Information and #4 ranking by participant accounts refer to the retirement business of Great-West Life & Annuity Insurance Company and First Great-West Life & Annuity Insurance Company, and to FASCore and reflect all recordkeeping customers: those of institutional partners, TPA clients and Great-West Retirement Services.

<sup>2</sup> As of December 31, 2011.

<sup>3</sup> CAPTRUST Advisors provides fiduciary advisory services to your plan. CAPTRUST Advisors is not affiliated with GWFS Equities, Inc.

**PUT THE POWER OF ACEC RETIREMENT TRUST TO WORK FOR YOU.**



## Membership Delivers Discounts

ACEC members may receive up to a **12%\* discount** on annual premium.

What if you could pay less for health insurance? Your firm may be eligible for favorable rates through the ACEC Life/Health Trust insured by UnitedHealthcare.

As an ACEC member, you may benefit from:

- **Outstanding service** — You'll have a customer care team dedicated to your account.
- **A broad network** — 98% of the U.S. population has local access to a UnitedHealthcare provider.\*\*
- **Your choice of broker** — There's no need to switch agents.
- **Streamlined administration** — Moving from your current health plan is surprisingly simple . . . plus, you can get medical, dental, vision, life and disability all in one plan.

Learn how your engineering firm may pay less for health care coverage with the ACEC Life/Health Trust.

**Call 1-877-265-3919 or visit  
[uhctogether.com/acec4](http://uhctogether.com/acec4) for more  
information.**

**12%\***  
**discount**  
on annual premium

The American Council of Engineering Companies (ACEC), the ACEC Life/Health Insurance Trust and UnitedHealthcare Insurance Company are three separate legal operating entities and, as such, the organizations are governed and function independently. UnitedHealthcare's services are provided with the authorization of the ACEC Life/Health Trust. Questions related to health benefits offered through the Life/Health Trust should be directed to 1-800-573-0415.

\*Potential 12% discount on annual premiums for businesses with 2-99 employees, as compared to UnitedHealthcare products sold outside the ACEC Life/Health Trust.  
\*\*Network statistic based on GeoAccess information and UnitedHealthcare standard network access mileage criteria, 2010.

© United HealthCare Services, Inc. Insurance coverage provided by or through UnitedHealthcare Insurance Company or its affiliates.

Insured and serviced by:

