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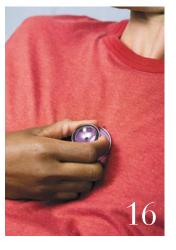
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Engineering Inc. promotes the advocacy and business interests of ACEC by offering news, legislative analysis and business practice information to member firms, clients, opinion leaders and policy makers.

FROM ACEC TO YOU

ACEC Celebrates 100 Years Of Industry Service

In the spring of 1909, a small group of consulting engineers met in a brownstone in New York City to create the American Institute of Consulting Engineers (AICE)—the forerunner of ACEC.

One hundred years later, the original mission of AICE remains the same:



to protect and enhance the business interests of engineers engaged in private practice.

Throughout 2009, the Council will celebrate its centennial, and the March/ April issue of *Engineering Inc.* will commemorate the Council's history and Member Firm achievements.

The Council has earned a reputation on Capitol Hill and in the White House for strong and reliable industry

advocacy. That is why, for example, President-elect Barack Obama gave us an exclusive interview just prior to the November elections. (See page 10.)

The Council has also been stalwart in bringing the latest business insights to our members. This issue highlights one of the most pressing concerns facing the new administration and our industry—the cost of health care for employers and individuals. (See page 16.)

Also included herein is the ACEC Institute for Business Management spring catalog.

As you can see, even in our 100th year, the Council is getting not only older, but better.

John F. Hennessy III ACEC Chairman

David A. Raymond ACEC President & CEO

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THE OFFICIAL PUBLICATION OF THE AMERICAN COUNCIL OF ENGINEERING COMPANIES

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CHAIRMAN John F. Hennessy III PRESIDENT & CEO David A. Raymond

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VICE PRESIDENT, Jeffrey L. Beard

INSTITUTE FOR BUSINESS MANAGEMENT

DIRECTOR, COMMUNICATIONS

Alan D. Crockett

akeeney@acec.org

202-682-4347

STAFF EDITOR Andrea Keeney

ACEC PUBLIC RELATIONS AND **EDITORIAL ADVISORY COMMITTEE**

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THE MAGAZINE GROUP

EDITORIAL DIRECTOR Thomas Halligan MANAGING EDITOR Corey Murray

ART DIRECTORS Jeff Kibler, Melissa Hamid PROJECT MANAGER Mary Mieszczanski

ADVERTISING SALES

Nina Goldman

Director

Advertising & Sponsorships

1015 15th Street, NW, 8th Floor Washington, D.C. 20005-2605

202-682-4325 ngoldman@acec.org

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Raymond Promotes Infrastructure Stimulus on FOX News

CEC President Dave Raymond appeared on FOX Business on Dec. 17 to provide perspective on the upcoming stimulus bill.

In a live interview, Raymond said: "We've had decades of political indifference to America's crumbling infrastructure. As a result, we don't have an infrastructure that can sustain a modern competitive economy.

"If we can inject some funding to bring America's infrastructure to a 21st-century level, we will be able to do something about sustainable recovery."

President-elect Obama has reiterated his plan for investing billions in infrastructure when he takes office in January, although concerns



"If we are just filling potholes, then we will miss a unique opportunity to expand and improve our infrastructure so that we can sustain a recovery and successfully compete in the global economy."

have been raised that dollars may be spent on short-term repairs only. Raymond said that infrastructure investment should be targeted at "sustainable recovery, not just putting people to work on shortterm assignments." He sent letters this week to House and Senate leaders to underscore the point.

In the letter Raymond said: "To successfully promote sustainable economic growth, the infrastructure package should not be limited to assisting states with deferred maintenance. If we are just filling potholes, then we will miss a unique opportunity to expand and improve our infrastructure so that we can sustain a recovery and successfully compete in the global economy."

Go to www.acec.org to see Raymond's FOX Business interview and letter to Congress on infrastructure-based economic recovery.

Private Engineers Cost 14% Less Than Public Engineers

he use of private engineers for the design of public projects in New York state was found to cost at least 14 percent less than government in-house engineers, according to a recent study by the Polytechnic Institute of New York University.

With financial backing by the ACEC Minuteman Fund, the study also found that consultants have more flexibility to meet fast-track deadlines than government agencies.

"The Polytechnic Institute findings confirm our long-held

belief that increased use of private engineering firms is in the best interests of the state," says ACEC/New York Executive Director Jay Simson.

The results were formulated using comparative data for government engineers versus private engineers on: direct salaries adjusted for hours of work per week; fringe benefits, including medical insurance, pension plans, survivors' benefits, workers' compensation, unemployment and Social Security insurance; and overhead.

Statistical information for in-house costs was based on April 2007 New York State Department of Transportation data. Private engineering firm statistics were derived from an April 2008 random sampling of salaries, benefits and overhead information from engineering firms throughout New York state.

The statistics were indexed and adjusted using the U.S. Department of Labor Statistics' Employer Cost Index established for private professionals and related groups.



ACEC/New York Executive Director Jay Simson says "findings confirm long-held belief."

Celebrate 100 Years of Excellence

Join ACEC in celebrating our 100 years of service to the engineering industry.

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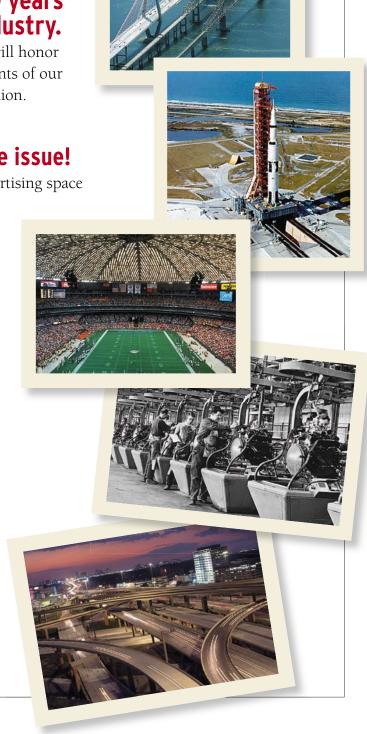
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100 Years of Excellence



Worldwide Opportunities Abound in Water Infrastructure

By Joe Salimando

onsidering that 70 percent of the Earth's surface is ocean and 65 percent of the average human's body mass is composed of water, it's easy to understand why water is at the heart of so many major domestic and global disputes. Nations everywhere are increasingly faced with critical decisions regarding adequate water supply, public demand and environmental impact. Consider these examples:

Electricity—Water (steam) turns turbines; we need to burn more coal to boil more water to turn more turbines to make more power. But the American Water Works Association (AWWA) has asked Congress to rethink the current movement toward carbon capture and sequestration. Injecting carbon into the ground *could* help fix global warming. But AWWA doesn't want the soot to affect underground aquifers.

India vs. Pakistan—

Among their many disputes, these two nations threatened last November to attack each other over access to water supplies following the expiration of the 1962 Indus Water Treaty.

Global warming—The Great Lakes contain 20 percent of the world's fresh water supply. All "show a drastic decline in water levels since 1997," according to the National Oceanic & Atmospheric Administration.

Consumption Concerns

To understand the severity of these problems, we first must understand the broader picture:

Increasing millions of people in China and India are gaining more access to high-protein meals (beef and chicken). Not surprisingly, it takes a lot more water to feed a meat eater than a vegetarian (because one must first raise crops to feed livestock). Some rule-of-thumb estimates:

Acreage: It takes 0.75 to one acre of cultivated land to feed a vegetarian, compared with three to four acres to feed a meat eater.

Water use: Seventy percent of global water use goes to irrigation (20 percent for industry, 10 percent for residential uses).

Bottom line: More meat eaters (tens of millions more, potentially, in just a few years) mean more irrigated land. And more irrigation = more water use. *Figure 1* demonstrates how global water consumption continues to outpace global population.

Consider this data from the World Future Society (WFS), as noted in a recent article by Lester R. Brown of the Earth Policy Institute:

- "One-hundred-seventy-five million Indians are fed with grain produced with water from irrigation wells that will soon run dry."
- In China, routine aquifer overuse has led the World Bank to predict "'catastrophic consequences for future generations' unless water use and supply can quickly be brought into balance."

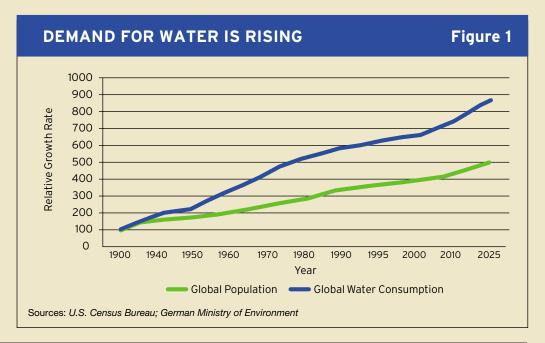
The parade goes on. News service Asia Pulse reported in September that Australia will spend "an unprecedented \$25 billion (U.S.) on new water infrastructure for cities over the next decade, in an effort to put an end to harsh water restrictions."

Booming Niches

Engineering firms with water expertise have numerous niches to explore—and many don't even have to leave U.S. soil to capitalize on them. (See *Figure 2*). A few examples:

Replacement of water infrastructure: Most U.S. water infrastructure "dates back to the World War II era," according to Water & Wastes Digest. Said Mark Halleman of Infrastructure Management Group: "If we don't begin replacing some of that infrastructure today, you can only imagine the size of the capital investment that will be needed in 10, 20 or 30 years."

Pipe replacement: AWWA estimates the cost of replacing



and repairing aging pipes will top \$250 billion over the next 20 years. Sunil Sinha of Virginia Tech told *Construction* magazine: "Underground water pipes lose about 40 percent of the water...because of leaks and other structural damage."

Wastewater problems:

"The overall physical condition of the nation's 16,000 wastewater facilities is poor," *Engineering Inc.* reported one year ago. "Water treatment plants, pipes, control basins, pumping stations and other infrastructure are at risk of failing. More than 200,000 water mains break" annually.

Water treatment: Global industry analysts last year said that the market for municipal water treatment equipment and supplies would grow by 6 percent from 2007 to 2010. The United States was the largest single market worldwide.

Water for power plants:

And there are niches within niches. Global research consultant Frost & Sullivan says water treatment in the power industry earned \$580 million in revenue in 2008. By 2013, that figure is projected to more than double to \$1.17 billion.

Desalination plants: These could provide some assistance in meeting drinking water needs. Though two-thirds of the more than 7,000 plants worldwide are located in the Middle East, there's only one small plant in the United States—the \$158 million Tampa Bay Water project.

U.S. Needs Are Clear

Domestically, it's easy to see why clean water is at the top of current and future government priorities. Consider these examples:

New York: According to the

governor's office, municipal wastewater treatment systems will exceed \$36 billion in the next 20 years, "while repairs for drinking water infrastructure would exceed \$20 billion over the same period."

Pennsylvania: The state's Sustainable Water Infrastructure Task Force found "drinking water and wastewater systems face \$36.5 billion in capital repairs and upgrades over the next 20 years."

Colorado: The Water Quality Control Commission says, "292 drinking water and wastewater projects urgently need more than \$2.6 billion in improvements."

Investors Take Notice

Global emerging technology consultant Lux Research recently forecast that revenues in "the hydrocosm" (the worldwide water industry)

would reach \$522 billion in 2007 and nearly \$1 trillion in 2020. According to the company's release, the 2007 figures break down as follows:

- \$385 billion in services;
- \$64 billion in equipment;
- \$9 billion in chemicals; and
- \$62 billion in bottled water.

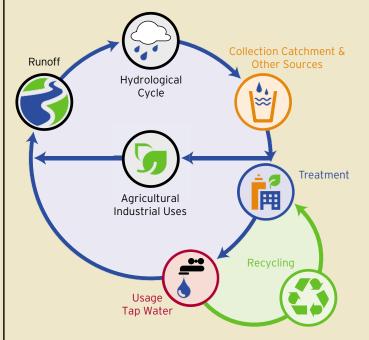
Of the estimated \$1.12 billion in venture capital that's gone into water companies since 1998, Lux reports that 59 percent has been invested in the past two years.

Separately, the U.S. EPA "estimates a \$540 billion gap between what communities are spending on water infrastructure and the actual investments needed."

Joe Salimando writes frequently on the construction industry at www.eleblog.com. He can be reached at ecdotcom@gmail.com.

OPPORTUNITIES ALONG THE WATER CYCLE

Figure 2



COLLECTION

- Water collection facilities, watershed management
- Desalination of saltwater, condensation techniques

TREATMENT

- Industry consolidation and outsourcing trends, water treatment and large-scale project management
- Treatment, purification, testing technology to respond to quality and safety standards

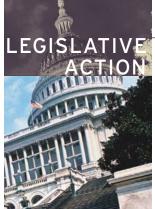
USAGE

- Improve metering to manage affordability and accountability of use
- Repair and replace leaking pipes and build infrastructure to supply water to needed areas

DISTRIBUTION (INCLUDING RECYCLING)

- Wastewater management and recycling gray water for other uses
- Remediation of contaminated ground water

Source: Calvert, Unparalleled Challenge and Opportunity in Water Infrastructure, September 2008



FROM ACEC'S GOVERNMENT AFFAIRS DEPARTMENT

ACEC SUPPORTS PRESIDENT-ELECT ON INFRASTRUCTURE-BASED STIMULUS PACKAGE

ACEC Urges President-Elect and Congress to Enact Infrastructure-Based Stimulus

ACEC emphasized the importance of robust infrastructure investment in November to congressional leaders and representatives of President-elect Barack Obama's transition team.

ACEC President Dave Raymond was among a select number of industry leaders invited to meet with representatives of Obama's transition team at the U.S. Department of Transportation in late November.

Earlier in the month, Raymond also wrote to U.S. House and Senate leaders to underscore the importance of including infrastructure investment in any economic recovery package.

In the meeting with Obama's transition team, Raymond said that an immediate influx of funding should be part of a long-term economic agenda that includes multiyear reauthorizations for highway and transit, aviation and other critical infrastructure programs to make the investments necessary to sustain economic growth.



The president-elect has said that an economic stimulus bill will be among his first priorities when he takes office. (See exclusive interview with the president-elect on pp. 11–14.)

In his letter to congressional leaders, Raymond asserted that: "An infrastructure-based economic stimulus package would spur immediate job creation and economic growth. At the same time, it would help create the critical infrastructure base needed for America to compete in the 21st century."

Tax Relief May Be Added to Stimulus Package

In addition to infrastructure funding, Congress and the next administration may include significant tax changes as part of the economic recovery package.

President-elect Obama has prioritized tax relief for low- and middle-income Americans, perhaps making permanent the income tax rates adopted in 2001, except for the top two rates, which may be increased at some point.

In addition, Obama has proposed several targeted tax relief measures. A \$500 tax credit available to individuals earning up to \$75,000 and couples earning up to \$150,000 is being considered to partially offset payroll taxes. He also supports suspending taxation of unemployment benefits.

Although the emphasis will be on tax relief for individuals, the recovery package could also include provisions that would benefit business investment. Two possible measures are: an extension of the higher Section 179 expensing level and the bonus depreciation provision, both part of the stimulus bill approved by Congress in early 2008.

Larger Tax Changes

In addition to tax provisions in a stimulus bill, Congress and the new administration may consider broader tax changes.

President-elect Obama has stated that the reduced tax rates for higher-income individuals may be allowed to expire in 2011. Income tax rates would increase for individuals earning more than \$200,000 and couples earning more than \$250,000. The top two rates would likely increase to 36 percent and 39.6 percent, from 33 percent and 35 percent, respectively. Businesses that are organized as S corporations or partnerships also would be affected by these tax rate increases.

Additionally, estate tax relief is expected to be frozen at 2009 levels, with an exemption of \$3.5 million per person and \$7 million per couple and a top tax rate of 45 percent. The president-elect also has expressed support for increasing the top capital gains rate from 15 percent to 20 percent or higher; the tax rate on dividends may also rise.

Some congressional leaders have signaled interest in a larger tax reform effort. Legislation introduced by House Ways and Means Committee Chairman Charles Rangel would lower the top cor-

ISSUES ON THE MOVE	WHAT'S NEXT
Infrastructure stimulus package	House, Senate action in January-February
Broad-based tax reforms	Provisions included in stimulus package, larger package later in year
Amicus brief on behalf of liability protections	Court decision expected in March

porate tax rate from 35 percent to around 30 percent and would offset this change by taking away certain business tax benefits. These include repeal of the Section 199 tax deduction, increasing employment taxes on S corporation shareholders and raising taxes on U.S. companies that work internationally. Absent larger tax reform, these tax increases could be used to pay for new spending programs.

Minuteman Fund Supports Metro Washington Amicus Brief

ACEC has awarded a Minuteman Fund grant to ACEC/Metro Washington for the filing of an *amicus* brief to support a federal court ruling that bars state claims against engineering firms when providing services to the Federal Emergency Management Agency (FEMA).



Courtney Brown, ACEC/Metro Washington President says issue is "vital."

In September 2006, Columbia Venture sued Dewberry & Davis, an engineering firm based in Fairfax, Va., in federal district court in Columbia, S.C., over engineering services that Dewberry provided to FEMA under the National Flood Insurance Act (NFIA). Having no recourse under federal law for the suit, Columbia Venture asserted its claims under state law.

On Feb. 14, 2008, the district court granted Dewberry's motion to dismiss the case, finding that NFIA preempts state law causes of action. Columbia Venture then

filed its appeal with the U.S. Court of Appeals for the Fourth Circuit.

"We believe this suit is of vital importance to the engineering industry," said ACEC/Metro Washington President Courtney Brown. "We're very appreciative of ACEC and the Minuteman Fund for their help in defending this crucial principle of law."

The Minuteman Fund is ACEC's most powerful resource for helping Member Organizations pursue legislative and legal initiatives of national importance. All Member Firms are encouraged to contribute to the Fund.

NTSB Faults Gusset Plates in Minn. Bridge Collapse

The National Transportation Safety Board (NTSB) reviewed a final report in November on the 2007 I-35W bridge collapse in Minneapolis in which the failure of certain steel gusset plates was identified as the cause of the disaster.

The bridge that carried 140,000 vehicles daily failed during the evening rush hour on Aug. 1, 2007, killing 13 and injuring 145.

NTSB is expected to make safety recommendations based on the findings. ACEC President Dave Raymond urged policymakers to keep the bigger picture in view when considering the report.

Voters Strongly Support Infrastructure Ballot Initiatives Nationwide

Infrastructure was the big winner on Election Day as voters throughout the nation approved more than \$71 billion in new revenue for expanding and repairing transportation and water infrastructure projects.

The three largest nationwide infrastructure ballot initiatives that passed were:

- a \$10 billion statewide bond measure in California to provide initial financing for a high-speed rail system;
- a half-cent sales tax in Los Angeles County to raise \$40 billion for transit and road projects; and
- a sales tax increase in the Seattle region to fund \$17.8 billion worth of transit projects over the next 20 years. In Rhode Island, voters also approved a measure to allow the state to borrow \$87 million for transportation infrastructure improvements. Its passage makes the state eligible for \$436 million in matching federal funds for transportation.

In Pennsylvania, more than 62 percent of voters supported a \$400 million clean water ballot initiative for water and sewer projects. The approval allows the state's Infrastructure Investment Authority to make grants and loans available for improvements to municipally owned water and wastewater systems.

"ACEC/Pennsylvania was very happy to see this referendum pass so overwhelmingly by the voters of Pennsylvania," said Andrew Hilt, executive vice president of ACEC/Pennsylvania. "Water and wastewater infrastructure funding is needed in the commonwealth. Now that these dollars have been approved by the voters, ACEC/Pennsylvania will work with the Pennsylvania Infrastructure Investment Authority to make sure that our members are positioned to help their clients access these funds."

"Regardless of NTSB's final conclusions, the I-35W bridge collapse was a tragic reminder that we simply cannot continue to underinvest in the nation's critical infrastructure," said Raymond. "Sufficient funding must be made available to rebuild and maintain these structures that are so vital to the safety and economy of our nation."

FOR MORE NEWS

For weekly legislative news, visit ACEC's *Last Word* online at www.acec.org.



Interview With President-Elect

In this exclusive interview with ACEC just prior to the historic election, Mr. Obama offered candid views on specific issues of importance to the engineering industry.

ACEC: ACEC members are involved in virtually every aspect of infrastructure development and improvement, from transportation, water projects and environmental restoration to energy development and transmission. America has seriously underinvested in its infrastructure over many years. What steps will you take as president to reverse this trend and promote the kind of infrastructure needed to sustain a growing economy?

PRESIDENT-ELECT BARACK OBAMA:

Modernizing America's infrastructure is a critical component of my long-term economic growth agenda, and it also plays a key role in ending our dependence on foreign oil and reducing our greenhouse gas emissions. While China, India and our other economic competitors are making significant investments to build 21st-century roads, bridges and ports, Washington not only has provided too few resources to maintain our



existing infrastructure but also has paid little attention to building new infrastructure to accommodate a growing population and the demands of a global economy. We need a new national focus on infrastructure policy to strengthen our competitiveness, improve the safety of our infrastructure and combat global climate change.

The safety and capacity deficiencies of our various infrastructure modes are well documented. Ultimately, what Joe Biden and I find to be the biggest deficit in our national infrastructure is a coordinated and sustained federal, state and local effort to safeguard and modernize all of our infrastructure modes. As president, I will enter into a new partnership with state and local civic, political and business leaders to enact a truly national infrastructure policy that recognizes that we must upgrade our infrastructure to meet the demands of a growing population, a changing economy and our short- and long-term energy challenges.

During the campaign, I proposed several initiatives to help address our infrastructure challenges. As part of our emergency economic plan, we have called for the creation of a \$25 billion Jobs and Growth Fund, which will partially be used to replenish the Highway Trust Fund so that our important infrastructure projects continue to receive adequate funding. We have called for reforming the federal transportation funding process, working to eliminate wasteful and politically motivated spending, and engaging state and local leaders in efforts to reevaluate our federal transportation funding process. As president, I will require governors and local leaders in metropolitan areas to make energy conservation a required part of their planning for the expenditure of federal transportation funds—an effort that will spur more focus on investing in efficient modes of transportation and efficient projects.

Finally, I also have called for the creation of a new, independent, expert-run National Infrastructure Reinvestment Bank to invest \$60 billion in additional direct federal funding over 10 years into our transportation infrastructure. This Bank will use this \$60 billion to leverage private and public capital to spur even more investments beyond today's funding into our infrastructure.

ACEC: What is your plan to address the unstable cost of gasoline and other energy challenges facing the country?

OBAMA: America's challenges in providing secure, affordable energy while addressing climate change mean that we must make much more efficient use of energy and begin to rely on new energy sources that eliminate or greatly reduce greenhouse gas emissions. My programs will focus on a greatly expanded program of federally funded energy research and development and on policies designed to speed the adoption of innovative energy technologies and stimulate private innovation.

First, I have proposed programs that, taken together, will increase federal investment in the clean energy research, development and deployment to \$150 billion over 10 years. This research will cover:

- Basic research to develop alternative fuels and chemicals;
- Equipment and designs that can greatly reduce energy use in residential and commercial buildings—both new and existing;

- New vehicle technologies capable of significantly reducing our oil consumption;
- Advanced energy storage and transmission that would greatly help the economics of new electric-generating technologies and plug-in hybrids;
- Technologies for capturing and sequestering greenhouse gases produced by coal plants; and
- A new generation of nuclear electric technologies that address cost, safety, waste disposal and proliferation risks.

I also will work closely with utilities to introduce a digital smart grid that can optimize the overall efficiency of the nation's electric utility system, by managing demand and making effective use of renewable energy and energy storage.

Second, it is essential that we create a strong, predictable market for energy innovations with concrete goals that speed introduction of innovative products and provide a strong incentive for private R&D investment in energy technologies. These concrete goals include:

- Increasing fuel economy standards 4 percent per year and providing loan guarantees for domestic auto plants and parts manufacturers to build new fuel-efficient cars domestically;
- Increasing new building efficiency by 50 percent and existing building efficiency by 25 percent over the next decade, and taking other steps that will reduce the energy intensity of our economy 50 percent by 2030;
- Extending the Production Tax Credit for five years and creating a federal Renewable Portfolio Standard that will require that 10 percent of American electricity be derived from renewable sources by 2012, and 25 percent by 2025; and
- Ensuring that regulations and incentives in all federal agencies support the national energy and environmental goals in ways that encourage innovation and ingenuity.

I also will encourage communities around the nation to design and build sustainable communities that cut energy use with walkable community designs and expanded investment in mass transit.

ACEC: Like most businesses, the rising cost of health insurance continues to be a major issue of concern to the engineering industry. What is your strategy for controlling health care costs?

OBAMA: I am committed to signing health legislation by the end of my first term in office that ensures all Americans have affordable, accessible health care coverage. My plan will save a typical American family up to \$2,500 every year on medical expenditures.

Our plan maintains patient choice and

establishes a National Health Insurance Exchange with a range of private insurance options, as well as a new public health plan to allow individuals and small businesses to buy affordable and accessible health coverage similar to that available to federal employees. The plan will provide tax credits to people so they can afford health care and will reduce the typical family's health care costs by \$2,500 per year by modernizing our inefficient health care delivery system. Inefficient and poor quality care costs the nation \$50 billion to \$100 billion every year. Billions more are wasted on administration and overhead because of inefficiencies in the health care system.

I believe we must dramatically redesign our health system to reduce inefficiency and waste and improve health care quality, which will drive down costs for

families and individuals. We can improve efficiencies and lower costs in the health care system by:

■ Offering federal reinsurance to employers to help ensure that unexpected or catastrophic illnesses do not make health insurance unaffordable or out of reach for businesses and their employees;

- Ensuring that patients receive and providers deliver the best possible care;
- Adopting state-of-the-art health information technology systems;
- Reforming our market structure to increase competition in the insurance industry; and
- Reducing prescription drug costs by allowing the government to negotiate for cheaper Medicare Part D drugs and allowing the importation of safe, less expensive drugs from developed nations such as Canada.

ACEC: Do you see future changes in the tax code as necessary to promote economic growth and, if so, what policies will you promote as president?

OBAMA: After working-age households have seen real income declines of \$2,000and during a time in which typical families are seeing the costs of health insurance, gas prices and college tuition spiral each and every yearthere is an urgent need for middle-income tax relief to help families maintain economic security as well as invest in their futures. I will offer 95 percent of working Americans and their families a tax cut of up to \$1,000 each and every year. I also will offer new tax credits for families' retirement savings, college expenses and mortgage interest payments, to help Americans build nest eggs and move up the eco-

nomic ladder.

Meanwhile, I have laid out a pragmatic, sensible approach to deliver middle-class tax relief in a fiscally responsible way. I will raise revenue for the federal government at the same time as cutting taxes for middleincome families by closing inefficient tax loopholes, cracking down on offshore tax

I will enter into a new partnership with state and local civic, political and business leaders to enact a truly national infrastructure policy that recognizes that we must upgrade our infrastructure to meet the demands of a growing population, a changing economy and our short- and long-term energy challenges.

havens and repealing a portion of the tax cuts passed in the last eight years for families making more than \$250,000.

Finally, my plan cuts taxes on the net for the economy while maintaining fiscal discipline by cutting spending overall, including by responsibly ending the war in Iraq, limiting payments to high-income farmers, cutting subsidies for private plans in Medicare, reforming student loans, cutting earmarks, ending no-bid contracting and phasing out unnecessary and duplicative programs. Overall, my budget will reduce the deficit relative to its current level and its realistic future trajectory.

ACEC: We have a shortage of engineers in this country, with the National Science Foundation and others reporting that America's colleges and universities are not graduating enough students with degrees in science, technology, engineering and mathematics to compete in the global marketplace. What role can the federal government play in addressing this challenge?

OBAMA: In a globalized and technologydriven world, our prosperity and national security depend on our ability to lead the world in scientific and technological

innovation. Other nations are now challenging that leadership, and in responding we must call upon the talent and creativity of the American people.

I will make an unprecedented commitment to science and America's future by making science, technology, engineering and mathematics (STEM) education a priority. I already have demonstrated this commitment by introducing legisla-

tion to support a strong STEM workforce and STEM literacy for all Americans. With Congressman and physicist Rush Holt, I helped establish a STEM Scholarship Base to prepare more students for STEM careers, creating a web portal with



the financial aid opportunities available in science and technology. This will help first-generation college students who may otherwise receive limited guidance in how

I will make an

unprecedented

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to science and

America's future

by making science,

technology,

engineering and

mathematics

(STEM) education

a priority.

to finance a degree in science or technology after high school.

I also sponsored an amendment, which became law, to the America COM-PETES Act that established a competitive state grant program to support summer learning opportunities with curricula that emphasize mathematics and problem solving. We cannot strengthen STEM education without addressing the

broader challenges of improving American education and other priority issues.

My comprehensive education plan is built on the recognition that teachers play a critical role in student learning and achievement. My administration will work closely

with states and local communities to ensure that we recruit math and science graduates to the teaching profession. Through Teacher Service Scholarships, a Teacher Residency Program and Career Ladders, I will transform the teaching profession from one that has too many underpaid and insufficiently qualified teachers to one that attracts the best STEM teaching talent for our schools.

In addition to a focus on high-quality teachers, my comprehensive plan addresses the needs of our most at-risk children, focuses on strong school leaders and enlists parent and community support. My proposals for a comprehensive "zero to five" program will ensure that children enter school ready to learn. And when they finish school, I will make sure that through the new \$4,000 American Opportunity Tax Credit, they will have access to affordable higher education that will provide them with the science fluency they need to be leaders in STEM fields and across broad sectors of our society.



Through highs and lows – we're there for you and your employees.









Whether your employees are up on a bridge or down in the pipelines, we've got health care coverage solutions to address their individual needs.

ACEC Life/Health Trust represents the needs of more than 1,100 engineering firms and 35,000 employees. We've joined with UnitedHealthcare to provide our members with an array of products, from traditional PPOs to industry-leading consumer-driven health plans.

It's health care coverage designed by engineers for engineers.

Our health care coverage also features:

- Access to a nationwide network of over 537,000
 physicians and health care professionals, plus 4,700
 hospitals and 60,000 pharmacies, so you can get care
 wherever it's convenient for you
- A vast product portfolio of traditional and consumerdriven health plans, including Health Savings Accounts and Health Reimbursement Accounts
- Specific rates, pricing and custom plan designs available for Trust members
- Dedicated sales, service and wellness representatives

Insured and serviced by:



Call 1-877-275-3644 or visit uhctoday.com/acec for more information.

The American Council of Engineering Companies (ACEC), the ACEC Life/Health Insurance Trust and United HealthCare 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.

UHCEW346178-002

TO EASE EMPLOYER HEALTH CARE

Firms find creative ways to stem rising

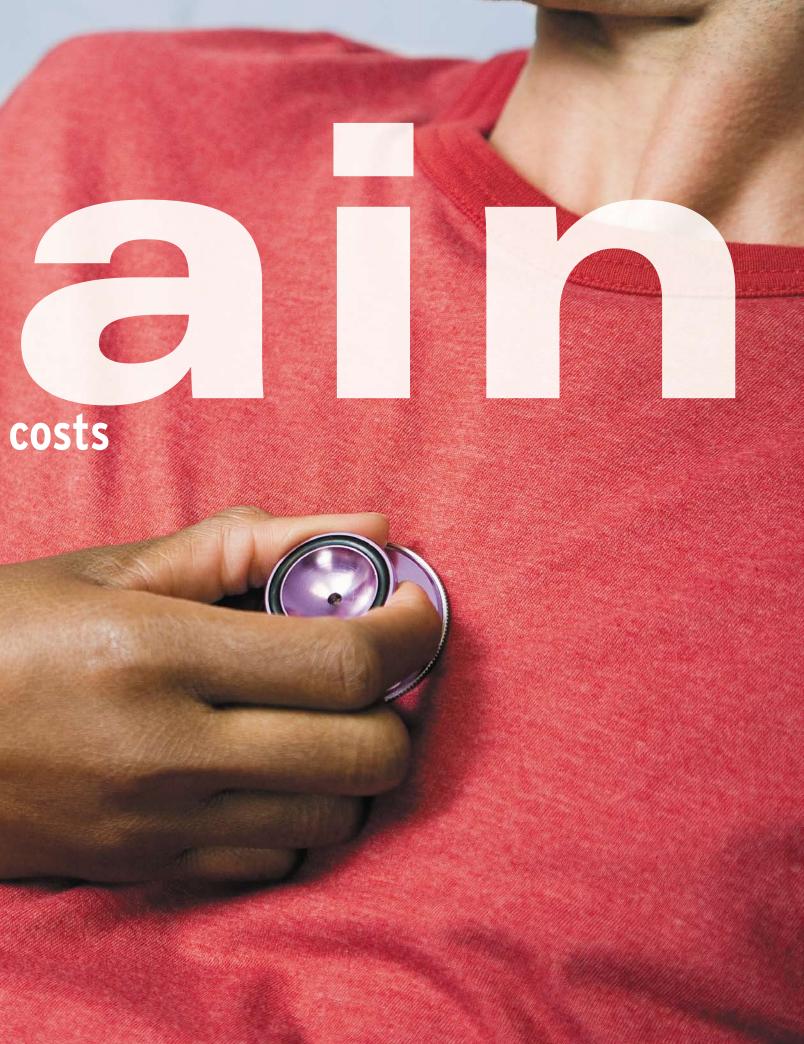
teady increases in health care costs concern all employers, but small- and medium-sized engineering firms are truly feeling the pain. Offering a comprehensive and affordable health plan is table stakes for firms scrambling to attract the best and brightest from a shrinking talent pool. "You can't recruit employees without it. In our industry, it's an expectation," says Karen Wood, chief financial officer at HMB Professional Engineers, Inc., a 70-person firm in Frankfort, Ky.

Add to that the budgetary tradeoffs ballooning health care costs impose on the broader economy. "There's high priority in our industry to lobby for infrastructure funding from the government, but if we can't get this health care cost issue under control, infrastructure funding will just be pushed completely into the background," says Michael McMeekin, president of Lamp, Rynearson & Associates in Omaha, Neb.

Some firms opt to give their employees a choice of traditional insurance carriers, such as health maintenance organizations (HMO) and preferred provider organizations (PPO), each with preferred networks of providers, or regional health insurance plans. A growing number of companies are adding newer high-deductible plans complemented by health savings accounts (HSAs). Still others believe self-insurance models offer the most leverage when negotiating premium costs with insurance providers. Regardless of which option engineering firms choose, all are spending a significant amount of time trying to boost their employees' health care IQ.

"Employees need to know that health care costs are not somebody else's problem," Wood says. "The decisions they make with their own health have more of an impact on their insurance costs than anything else."





mployers need to know that health care costs are not somebody else's problem.

KAREN WOOD

HMB PROFESSIONAL ENGINEERS



No Permanent Cure in Sight

When asked to name the most serious health care challenge firms face, threequarters of the companies responding to a 2007 survey by the National Federation of Independent Business (NFIB) trade association cited the need to reduce health care costs and address increases in the cost of care. Seventy percent said they would like to get out of the "employee health insurance business," but felt that wasn't possible because of prevailing financing and care delivery methods, NFIB said.

Concerns such as these are understandable given how quickly costs are rising. The federal government's Centers for Medicare and Medicaid Services (CMS) estimates that health care spending in this country topped out at more than \$2.2 trillion in 2007, or about \$7,500 for each citizen. By contrast, spending levels were approximately \$75 billion in 1970, or only about \$356 per person. These trends probably won't ease any time soon. CMS expects spending to almost double by 2016, when each individual will account for about \$12,782 in bills.

The sobering fact is that employers are bearing the brunt of these increases. In 2007 alone, insurance premiums paid by employers jumped more than 6.1 percent as coverage for individuals hit \$4,400 per policy and family coverage averaged \$12,100, according to a survey by the Henry J. Kaiser Foundation.

Pat Feyen, president of the ACEC Life/ Health Trust, says engineering firms can expect health insurance cost increases of 13 percent in 2009–2010.



Health care analysts attribute the price hikes to several factors. "The advances of technology mean there are better drugs now than 10 years ago and hospitals can do more life-saving procedures. All that costs money," says Bradley Herring, assistant professor at Johns Hopkins University's Bloomberg School of Public Health. "There's a pretty broad consensus that these new technologies are bringing us benefits that are higher than their additional costs, but that's not to say that there aren't some examples of certain technologies that are ineffective on average or perhaps just being overutilized by people who don't really benefit from them.'

ur business is providing infrastructure for the public, but more and more we have to get into the health care business.

MICHAEL McMEEKIN LAMP, RYNEARSON & ASSOCIATES



Feyen says people's lifestyle choices also impact prices. "Factors that affect health are principally behavioral," he says. "Fifty to 70 percent of all diseases are associated with modifiable health risks and are therefore preventable. It follows that these decisions then account for up to 70 percent of all health care spending."

Some say fundamental characteristics of the health care system also help push costs higher. "The economics of health care are unique in that the person consuming the service is not the person who's paying for it," says Paul Guppy, vice president for research at the Washington Policy Center, a Seattle-based public-policy think tank. He compares the model to dining on a company expense account: "The menu looks a lot different if your boss is paying than if you're picking up the tab yourself."

Containing Costs

While health care costs are expected to rise even steeper over the next decade, many businesses, including engineering firms, are finding ways to ease the pain.

HMB keeps copayments as low as possible by encouraging employees to schedule physicals and see doctors after early signs of illness. Such personal diligence keeps people healthier and out of the hospital, which reduces premiums.

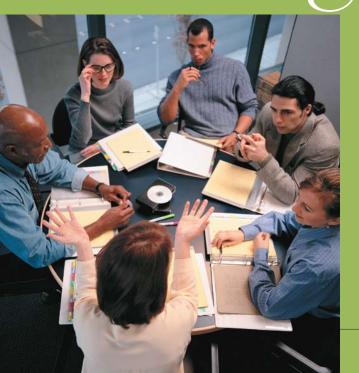
The company also sets a \$250 deductible on prescriptions before employees receive discounts-an effort to educate them about the difference between namebrand drugs and generic alternatives.

(Continued on page 19)





SPRING2009 COURSE CATALOG Institute For Business Management



- Leadership & Ethics
- Project Management & Project Delivery
- Business Management & Quality
- Human Resources
- Finance & Economics
- Contracts & Risk Management
- Marketing & Business Development
- Communications & Information Technology

Business Practice Education Delivered Nationally, Regionally, and at Your Desktop

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

Comprehensive Curriculum Choices

More than 100 programs covering critical core content are available this year. These courses are taught by industry practitioners and owners noted for their engineering business expertise.

The Institute curriculum covers eight basic tracks:

- Leadership & Ethics
- Project Management & Project Delivery
- Business Management & Quality
- Human Resources
- Finance & Economics
- Contracts & Risk Management
- Marketing & Business Development
- Communications & Information Technology

Online Course Catalog and Registration

All of the Institute's educational offerings are contained in a fully searchable format on ACEC's website. For a complete list of upcoming national and regional educational opportunities, visit ACEC's online education events calendar:

www.acec.org/calendar/index.cfm

Search for programs by topic, by date or by location. Plan and register for educational training in an easy, systematic manner.

The ACEC Bookstore

An active publications program is an important component of the Institute's educational offerings. Popular topics for books and other resources offered in the ACEC Bookstore include:

- Project delivery systems
- Building Information Modeling (BIM)
- Sustainability
- Contract documents through Contracts & Risk Management Central
- · Surveys on business trends, salaries and benefits
- Practice guidelines

Visit the online ACEC Bookstore at www.acec.org/publications for a diverse and continually updated selection of publications.

Learning...When and Where You Want It

Institute courses are offered in several presentation formats to satisfy member preferences and typically earn professional development hours (PDHs):

- Traditional face-to-face multi-day courses scheduled throughout the U.S.—including nationally sponsored programs and those delivered by ACEC's state Member Organizations
- Interactive, real-time online seminars
- Educational sessions at ACEC national conventions and conferences
- Archived self-paced courses over the Internet

Online Seminars

ACEC's online seminars allow you to participate anywhere the Internet is available. Leading professionals present focused topics in 1½-hour sessions, and participants log on to a website to view a live presentation. Calling in to a toll-free number adds the audio portion of the presentation. Participants can ask questions via the web. Sessions provide 1.5 professional development hours (PDHs).

Significant savings are realized by having multiple participants for a single-location registration fee.

rcep.net: Educational Management Initiative Offers Continuing Education Options, Record Keeping

ACEC's Institute for Business Management and The National Council of Examiners for Engineering and Surveying (NCEES) have jointly undertaken the creation of an engineering educational management system—a freestanding online database resource for A/E/C professionals in search of continuing education opportunities. The web location is www.rcep.net, hosted by NCEES and ACEC.

The rcep.net program is also an expanding registry of continuing education providers that have demonstrated adherence to high-quality, effective practices in professional education for engineers and surveyors.

Of primary importance to users is the searchable Master Calendar of Courses, which facilitates a fast and precisely targeted call-up of all courses matching a user's search criteria. The site also offers a lifetime record keeping service, which will track a subscriber's courses and credits for reference by employers and state licensing boards.

This one-stop shopping site will be the first and best resource available for A/E/C professionals seeking information on availability of online and on-site engineering education courses and programs.





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Registration Form







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Leadership and Ethics

COURSES

Senior Executives Institute (SEI) Class 15

September 2009-March 2011

Washington, DC

The ACEC Senior Executives Institute (SEI) is an advanced management, leadership and public policy training program for current and emerging A/E leaders. SEI provides a compelling and challenging curriculum through unparalleled learning opportunities so that A/E executives prosper in the 21st century. SEI is highly interactive, energetic, exploratory and challenging.

Each SEI class attends five five-day sessions over two years covering:

- Your Vision and the World
- Personal Mastery
- Situational Leadership, Strategy and Systems Thinking
- Organizational Leadership Issues
- Putting It All Together

Registration Fee:

Member-\$25,250; Non-member-\$28,500

Registration for 2009 Class 15 and information are available at http://www.acec.org/education/sei.cfm.

SEI class size is limited.

PDHs: Each of the five SEI sessions provides approximately 28 professional development hours.

Registration:

For more information, contact Dee McKenna, deputy director of ACEC's Institute for Business Management, at dmckenna@acec.org, at 202-682-4328, or visit http://www.acec.org/education/sei.cfm.

Strategic and Business Planning: Budgeting and Execution for Engineering Organizations April 29-30, 2009

Washington, DC

Wonder where your company's headed in the current tough economic times? This course will take a hard-nosed look at effective strategic planning and properly executed business plans. The program features specific examples of what works and what doesn't, offering six separate factors for what is required to create a successful strategic plan and how to carry it out. The course is highly interactive, with participants sharing their own experiences and ideas and joining in small group exercises, culminating with an intensive scenario planning activity.

Faculty: Rod Hoffman, S&H Consultants; Gerry Salontai, Kleinfelder, Inc.

Registration Fee:

Advance (through March 27): Member–\$845; Non-member–\$1,070

Regular (after March 27):

Member-\$1,070; Non-member-1,195

PDHs: 11

ONLINE SEMINARS

See page I-14 for pricing and other details.

Developing Future Leaders: Best Practices and Lessons Learned for Growing 20- to 35-Year-Olds

Geordie Aitken, Aitken Leadership Group; Michael Baker, David Evans and Associates, Inc.

March 24, 2009

Leaders in many engineering firms are challenged by the apparent difference in values and goals within the 20- to 35-year-old demographic, and they struggle to employ strategies that will maximize their young talent. This seminar offers case studies to illustrate how to slow the "brain drain" and create a professional environment in which young leaders can thrive.

Professional Ethics: A Preventive Maintenance Approach Chris Bauer, Bauer Ethics Seminars May 19, 2009

This unique program demonstrates the ethics risks you never knew you had, and details how to make sure they don't turn into ethics problems. In an entertaining and engaging way, Bauer will lead you through a re-thinking of your definition of ethics and ways to help yourself, colleagues, and co-workers keep ethical principles constantly in mind during day-to-day decision-making.

For a complete list of books on Leadership & Ethics Topics, visit www.acec.org/publications.



Project Management and Project Delivery



COURSES

Green Infrastructure and Sustainable Communities Certificate Course Presented with Colorado State University February 9-12, 2009

Portland, OR

Developed with Colorado State University, this intensive certificate program examines sustainable development within a business context, sustainable design tools and techniques for specific engineering markets (urban water management, transportation, buildings), and related innovation. Drawn from among the country's leading practitioners working in sustainable development, faculty will look at assembling high-performance project teams, the status of sustainable technologies, and the future of sustainable engineering. The program is structured for working design professionals, contractors and builders.

Registration Fee:

Advance (through January 9): Member–\$1,545; Non-member–\$1,745

Regular (after January 9):

Member-\$1,745; Non-member-\$1,945

PDHs: 32 (In addition to a Certificate of Completion)

Sustainable Project Management for Facilities and Infrastructure Systems

March 17-20, 2009

Falls Church, VA

Developed with Virginia Tech, this new course covers the practical side of sustainable development technologies and services through an overview of specific techniques, methods, tools, and resources to encompass the full life cycle of facility and infrastructure systems. Curriculum includes theoretical and practical experiences on cutting-edge global projects, plus a visit to Washington, D.C., green facility and infrastructure sites.

Registration Fee

Advance (through February 17): Member–\$1,985; Non-member–\$2,035

Regular (after February 17):

Member-\$2,035; Non-member-\$2,235

PDHs: 32

Watch for new COURSES...

Our calendar of ONLINE seminars is continually adding new hot-topic events. See what's new at www.acec.org/calendar/index.cfm



Building Information Modeling (BIM): The Promise and The Reality for A/E/C Firms March 26-27, 2009

Seattle, WA

ACEC presents the voices and experiences of industry innovators who are transforming the BIM multi-dimensional collaborative project planning concept into A/E/C marketplace reality. The 1½-day course is a must for firm leaders and project managers considering expansion into BIM. Curriculum topics include an up-to-date examination of BIM as a concept, demonstration of how it is being put into practice by the collaborative professional teams involved, real-life transition plans and related IT budgeting case studies, exploration of BIM technology, discussion of associated legal issues and risks, and a look at how firms can best prepare for a BIM future.

Registration Fee:

Advance (through February 27): Member–\$845; Non-member–\$1,070

Regular (after February 27):

Member-\$1,070; Non-member-\$1,195

PDHs: 11

Engineering Sustainable Infrastructure

March 26-27, 2009

Dearborn (Detroit), MI

Engineers increasingly confront complex environmental and infrastructure sustainability challenges—clearly, solutions will require a new way of visioning work and practice. This new 1½-day course examines sustainable development in a business context, delivers necessary tools and techniques, and examines the future of sustainable design in specific engineering markets.

Registration Fee:

Advance (through March 6):

Member-\$845; Non-member-\$1,070

Regular (after March 6):

Member-\$1,070; Non-member-\$1,195

PDHs: 11

Project Management and Project Delivery

ONLINE SEMINARS

See page I-14 for pricing and other details.

Project Management for Design Professionals William (Bill) Ramroth, Jr., AIA, Architect February 17, 2009

This session offers an introductory overview of project management for design professionals moving into this challenging arena, or engineering firm staff interested in gaining understanding of this important function. This seminar is a primer of practical advice, instructions and techniques, based on Ramroth's book of the same title. Topics will cover project management from A–Z.

Diverging Diamond Interchange: An Innovative Traffic Solution

Lorenzo Rotoli, Fisher Associates

May 5, 2009

This presentation examines the benefits of reducing the footprint and cost of traffic interchanges while improving capacity and safety. Participants will see how one firm used 3D visuals to build credibility and consensus, facilitate the public involvement process, and allow interactive navigation within the proposed project.

The Climate Project: Impact of Global Climate Change on Engineering Practice

Raymond J. Sirois, Wright-Pierce Engineers May 26, 2009

Increasingly, engineers are faced with having to engage the issue of climate change in design. This seminar looks at several examples of recent climate impacts on local infrastructure and how it's changing engineering's approach to design.

For a complete list of books on Project Management & Project Delivery, visit www.acec.org/publications.



Business Management and Quality

COURSES

Business of Design Consulting (BDC) for the Engineering Firm of the 21st Century

A Best Practices Educational Event

March 25-28, 2009

Orlando, FL

The Business of Design Consulting (BDC) is presented for design professionals seeking to sharpen their business practice knowledge to compete more successfully. Attendees will hone management skills with new insights from leading practitioners who specialize in the A/E/C environment.

The intensive four-day program offers engineering firm professionals a logical sequence of focused learning in eight essential management areas and delivered through application exercises, extensive discussion and interactive workshops.

BDC offers expertise from some of the industry's leading authorities on:

- Leadership
- Human Resources
- Finance
- Business Management & Ownership Transition
- Contracts and Risk Management
- Information Technology
- Marketing

Faculty: Paul Doherty, Satellier, LLC; Peggy Pound, The Pound Group; Colvin Matheson, Matheson Financial Advisors, Inc.; Tom Porterfield, Victor O. Schinnerer & Company, Inc.; David Stone, Stone and Company.

Registration Fee:

Advance (through February 27): Member–\$1,525; Non-member–\$1,745 Regular (after February 27):

Member-\$1,745; Non-member-\$1,945

PDHs: 28

Commended Master's Program Earn a Master of A/E/C Business Management from Northwestern University

ACEC and Northwestern University, Evanston, IL, have joined forces to offer the nation's premier design and construction master's program, created specifically for business-minded A/E/C professionals. Northwestern's 12-course, three semester A/E/C business management curriculum leads to a Master of Science degree from the McCormick School of Engineering and Applied Science. The Master's program is for individuals with several years' experience who hold a professional degree in engineering, architecture, construction or closely related field of study.

For more information, contact Jeffrey Beard, vice president, ACEC, and director of the Institute for Business Management at 202-347-7474 or by e-mail at jbeard@acec.org.



HumanResources

ONLINE SEMINARS

See page I-14 for pricing and other details.

Teaming and Joint Ventures in the Public-Private Partnership (PPP) Market—A Case Study

Keith Sabol, Parsons Corporation

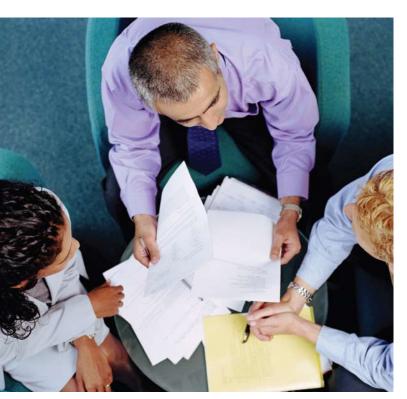
April 7, 2009

This case study focuses on strategic alliances, the value and challenges of design-construction joint venture, leveraging strengths to succeed in emerging markets, and mitigating risk. Attendees will gain an inside look at how contractual teaming relationships can successfully propose and deliver large infrastructure projects, understand and meet owners' needs and concerns, and expand geographic markets.

Built to Last: Sustainability and Succession Robert vanArsdall, XL Design Professional April 21, 2009

Sustainability isn't just about energy conservation and resource renewal—it can also describe the construction of a firm that will last 100 years and longer. This seminar looks at long-term firms that have implemented management practices to ensure successful succession as an orderly process replicated over and over rather than as a unique event in time.

For a complete list of books on Business Management & Quality, visit www.acec.org/publications.



COURSES

Education Forum April 26, 2009

Washington, DC

ACEC's newest Forum is designed to bring together specialists in the education and training function at A/E/C firms. In addition to opportunities for developing professional networking connections, this dynamic group will discuss emerging trends and share problem-solving ideas and information, all in an interactive roundtable meeting format. Participants can stay in touch between Forum meetings through a dedicated Listserv.

Registration Fee:

Member-\$350; Non-member-\$450

PDHs: 8

Human Resources Forum August 2009

Charleston, SC

The HR Forum is a 1½-day meeting structured for peer networking in an interactive roundtable format for human resources professionals. Facilitators develop a basic agenda and each participant's input will formulate Forum discussions on emerging trends and problem-solving in the workplace. An HR professional Listserv is available to participants, facilitating education, idea sharing and informal communication year-round.

Registration Fee:

Member–\$425; Non-member–\$525 PDHs: 8

ONLINE SEMINARS

See page I-14 for pricing and other details.

Career Futuring: Five Strategies That Create Long-Term Career Protection

Lynne Waymon, Waymon & Associates

February 11, 2009

Worried about your career future? Don't let an organizational earthquake, downsizing, layoff, or outsourcing upset your plans. Learn practical strategies from the co-authors of the *Fireproof Your Career ToolKit*. Take a self-assessment to determine what to do first to be eager to stay yet prepared to go, and learn the myths and realities about job security. Create your future using five tried and true strategies that will change the way you think about work.

Breaking the Generational Language Barrier in Today's Multigenerational Engineering Workplace

Lori Oakes-Coyne, Morrissey Goodale, LLC

March 3, 2009

For the first time, employees from four generations are in the engineering workplace. Such diversity can provide a healthy

Human Resources

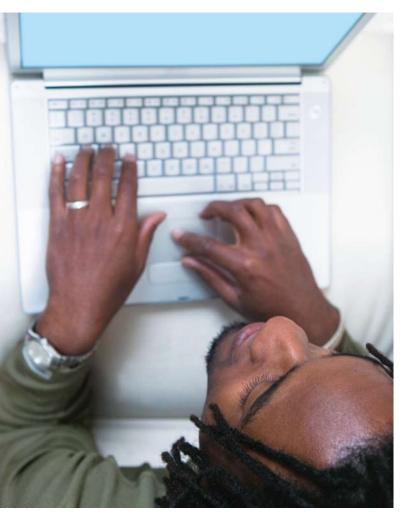
array of perspectives and experiences, allowing a firm to expand its toolbox of solutions, capture new markets, and connect with a wider client base. But that same range of backgrounds and opinions leads to conflict as well. This seminar addresses ways to break down generational language barriers through understanding differences and creating positive, productive communications.

Retirement Program Trends in the Engineering IndustryDavid Waters, Prudential Financial; Nancy Barrette, ACEC Retirement Trust

June 3, 2009

Hiring and retaining quality staff in the engineering industry has become much more challenging, and a firm's retirement program is always a benefit of interest to prospective employees. This seminar provides an overview of retirement plan design and trends within the engineering industry, with data breakdown by firm size.

For a complete list of books on Human Resources, visit www.acec.org/publications.



Finance and Economics

COURSES

Finance Forum September 14-15, 2009 Chicago, IL

ACEC's Finance Forum is a 1½-day meeting of industry finance professionals with the goal of gaining new insights and information to be more successful for their firms. The Forum gives attendees the opportunity to network with peers and exchange valuable information and experiences. Content typically includes perennial issues such as executive compensation, sales and growth, mergers and acquisitions, and government contracts and systems in the current environment. A professional Listserv is available for participants so that education, idea sharing and communication can continue year-round.

Registration Fee:

Member–\$425; Non-member–\$525 PDHs: 8

ONLINE SEMINARS

See page I-14 for pricing and other details.

What Is the Right Value for Your Firm? David S. Cohen, Matheson Financial Advisors, Inc. March 31, 2009

This seminar will assist owners and principals readying their firms to sell and providing information for dissemination—so as to positively impact firm performance and build shareholder value. Topics include reasons for a formal valuation, different ways to value a firm, financial indicators that drive value, internal transition or external transaction value, and more.

For a complete list of books on Finance & Economics, visit www.acec.org/publications.

Popular ACEC ONLINE Seminars Now Available On Demand

The ACEC Bookstore offers a growing list of seminars—originally presented live online—as On-Demand Webinars...web-based and accessible anytime.

Contracts and Risk Management



COURSES

Applying Expertise as an Engineering Expert Witness

A Course for Professional Engineers,

Architects and Surveyors

March 19-20, 2009

Kansas City, MO

Engineers are often qualified to serve as expert witnesses in legal proceedings. But only the court-savvy and prepared engineer takes on these potentially lucrative assignments. This unique course prepares participants for engagement in legal service and earns recognition as an engineering expert witness and a course Certificate.

Applying Expertise as an Engineering Expert Witness is a focused and engaging 1½-day step-by-step explanation of the qualifications, ramifications, and expectations of serving as an expert witness. Participants will learn about courtroom demeanor, how to maintain credibility, deposition behavior, permissible out-of-court statements, ethics, pre-courtroom testimony preparation, visual aids and more.

Registration Fee:

Advance (through February 23): Member–\$895; Non-member–\$995

Regular (after February 23):

Member-\$1,095; Non-member-\$1,195

PDHs: 11

Legal Counsel Forum

April 28-29, 2009

Washington, DC

Held in conjunction with ACEC's 2009 Annual Convention and Legislative Summit, the Legal Counsel Professional Forum is a 1½-day meeting, structured as an interactive roundtable for networking among legal counsel *employed or retained by ACEC member firms*. The goal is to provide a setting for the exchange of information by participants to enhance their ability to serve their firms and clients. The Forum encourages input to enrich and promote conversations on emerging issues and problem solving in the workplace. A professional Listserv is available for participants so that education, idea sharing and communication can continue year-round.

Registration Fee:

Member-\$350; Non-member-\$450

Recognizing the Snares and Pitfalls in Construction Industry Contracts

May 28-29, 2009

Philadelphia, PA

This course is an important investment in equipping your firm's engineers, architects, contractors, project managers, contracting officers, specifiers and others with key information in critical contract areas to avoid risk. Attendees will discover how to identify and understand two dozen contract provisions that are critical to maintaining professional standards and protecting their business. Segments will focus on specific contract provisions, the

latest revisions to the most-used contracts, and recent court rulings involving construction contracts.

Registration Fee:

Advance (through May 1):

Member-\$845; Non-member-\$1,070

Regular (after May 1):

Member-\$1,070; Non-member-\$1,195

PDHs: 11

EJCDC Contract Documents

ACEC offers a broad array of contract documents, including environmental and funding agency contracts. Go to www.contractscentral.net or www.acec.org/publications to purchase downloadable documents.

ONLINE SEMINARS

See page I-14 for pricing and other details.

Risk Taking Under the 2007 AIA, Consensus and EJCDC Documents

Roger L. Sabo, Schottenstein Zox & Dunn

March 10, 2009

Recent 2007 construction documents present both new opportunity and risk, as the engineer preparing the contract forms can craft a document from the Standard form and change it and/or the conditions to create a whole different set of opportunities or problems. This seminar identifies specific topics to watch for and their treatment in the newest contract forms available.

How Firm Culture Can Reduce Risk (And Improve Profits!)

Gregg E. Bundschuh and Dave Collings, Ames & Gough; Michael Planer, Pruitt Eberly Stone, Inc.

March 17, 2009

Structural engineers carry a heavy expense burden when it comes to the cost of risk. Hear how some structural firms manage risk more effectively than others and thus have fewer problems—and higher profits—with a well-executed risk management plan backed up by the right firm culture.

Risk Management Report Card: Would Your Firm Earn 'A,' 'F,' or 'Incomplete'?

Erin Austin and Jack Beemer, David Evans and Associates, Inc., and Panel

May 12, 2009

A successful risk management program involves more than insurance procurement and saying "no." Participants will learn about gaps and exposures that need to be addressed in their own programs, and see how risk issues can be efficiently resolved without hurting business by implementing some of the panel's best practices.

For a complete list of books on Contracts & Risk Management, visit www.acec.org/publications.

Marketing and Business Development

COURSES

Market Forecast Series

ACEC's Market Forecast Series presents up-to-date contracting opportunities and procurement approaches from federal agency programs and private clients. Key representatives discuss budget outlooks, agency or industry organization, and procurement. Gain new insights to doing business and winning projects with federal agencies and various private-sector owner representatives. Agencies and industries represented may include U.S. Army Corps of Engineers, Naval Facilities Engineering Command, General Services Administration, U.S. Air Force, health care, education, and land development.

Registration Fee:

Member-\$199; Non-member-\$249

PDHs: 1 per session

Announced in advance; visit www.acec.org/calendar/ for details.

Professional Sales and Marketing Forum

April 26, 2009

Washington, DC

Held in conjunction with ACEC's 2009 Annual Convention and Legislative Summit, the Professional Sales and Marketing Forum is a day-long meeting designed to help sales and marketing professionals network with peers and gain valuable insights that can be implemented in their firms. A professional Listserv is available for participants so that education, idea sharing and communication can continue year-round.

Registration Fee:

Member-\$325; Non-member-\$395

PDHs: 8

ONLINE SEMINARS

See page I-14 for pricing and other details.

Developing a Cleantech Business Strategy Scott Boutwell, C-Level Strategies LLC

January 27, 2009

The terms "cleantech" and "sustainability" cover a wide range of technologies, processes, services, and market segments. Opportunities to leverage new technologies are substantial—in terms of new client acquisition and in obtaining higher-margin lines of business. This seminar will provide A/E/C executives with a better understanding of the specific market segments in sustainability; the emerging trends in technology development and investment, and the key investors and influencers that A/E/C executives need to know.

Calculating Carbon Footprints: Potential Business for **Engineering Firms**

Mark van Soestbergen, International Carbon Bank and Exchange

January 29, 2009

This seminar looks at "carbon footprinting," defined as "the impact of human activities on the environment in terms of the greenhouse gases produced and measured in units of carbon dioxide." Participants will learn how to establish their firms' carbon footprints, and to extend that practice as a client service.

For a complete list of books on Marketing & Business Development, visit www.acec.org/publications.



Communications and Information Technology

COURSES

Information Technology Forum September 2009

Orlando, FL

The Information Technology Forum is a 1½-day meeting structured for networking with peers in an interactive roundtable format to help IT managers better serve their firms. A Listserv is available to participants, facilitating education, idea sharing, and informal communication year-round. A Forum agenda provides the framework for discussion, which encourages participants' input to enrich the ensuing conversations on emerging trends, problem solving in the workplace and more.

Registration Fee:

Member-\$425; Non-member-\$525

PDHs: 8

ONLINE SEMINARS

See page I-14 for pricing and other details.

Lessons Learned in Implementing BIM and IPD in a 900-Person Multidisciplinary Firm

Sean Smith, Gresham, Smith and Partners

February 10, 2009

This first-hand case study explores the implementation strategy in the application of Building Information Modeling (BIM) and Integrated Project Delivery (IPD) in a large firm with multiple locations, markets and services. Attendees will examine the correlation between the principles of the Core Team of an IPD team, and the steering group for overall firm implementation.

For a complete list of books on Communications & Information Technology, visit www.acec.org/publications.



Other Education 100 Years of Excelle and Business Management Resources

Business Advisory Services Program (formerly Organizational Peer Review)

ACEC's Business Advisory Services (BAS) provide design firms a review of business management practices and procedures through the eyes of objective, experienced practitioners. It is management consulting at a fraction of the typical cost, firmwide or in a targeted area.

Business Advisory Services offers a highly cost-effective analysis of one or more of a firm's most critical functional areas:

- General Management
- Human Resources, Training and Professional Development
- Project Management
- Quality Management
- Computer Systems-Management/Information Technology
- Financial Management
- Business Development

Conducted by a team or an individual with specific expertise in functional area(s) selected, a BAS analysis is a confidential process. Because the program is positive and constructive, a BAS analysis offers an opportunity for firms to continue to improve their delivery of services to clients and to motivate their employees in the work they do and in their personal career development.

For more information, contact ACEC Business Advisory Services at skaska@acec.org, or 202-347-7474, ext. 320.

New Contracts & Risk Management Central Website Offers One-Stop Contracts Shopping



Contracts & Risk Management Central brings together a complete inventory of contract forms and supporting documents that are in use nationwide by over 500,000 professionals delivering facilities and civil infrastructure for public and private owners. Included are:

- Engineers Joint Contract Documents Committee (EJCDC) Engineering and Construction Contracts
- Council of Professional Surveyors (COPS) Land-Surveying Contracts
- Council of American Structural Engineers (CASE) Structural Contracts
- International Federation of Consulting Engineers (FIDIC) International Contracts
- Construction Management Association of America (CMAA) Construction Management Contracts
- American Institute of Architects (AIA) Contracts... and a wide selection of risk management products.

Contracts & Risk Management Central is a dedicated website accessible through the ACEC Bookstore at www.acec.org/publications or direct at www.contractscentral.net.

Annual Convention and Legislative Sum

on't miss ACEC's annual Washington, D.C., meeting of A/E/C business leaders and key policymakers in Congress and federal agencies. Program highlights include:

Top-Tier Business Education Sessions

- Education programs to make your business more successful, complete with PDH credits
- New business models for design firms
- Finding engineering talent
- New ideas in risk management
- CEO Roundtables—peer networking at its best

Premier Legislative Summit

- Lobbying Congress on key industry issues
- Legislative briefing and advocacy training
- Name speakers with an inside take on the Washington scene and the new administration
- Briefings on new business opportunities from U.S. Army Corps of Engineers, DOT, GSA and other agencies

Engineering Excellence Awards Gala

Called the "Academy Awards" of the Engineering Industry, ACEC's annual black-tie gala hosts business leaders, Congress and the administration to honor our industry's most outstanding achievements of 2008. This is truly a "can't miss" event for convention attendees.

SESSIONS HIGHLIGHT TODAY'S 'HOT TOPICS'

Business Management & Quality

LEED® Us Not Into Temptation

Randall L. Lewis, XL Insurance While "green" design can offer environmental benefits, it has attendant risks which need to be recognized and understood so that they can be managed. This session will explore how different market sectors are embracing "green design," uncover the root causes of related risks, examine how design firms can manage that risk through sound practice management strategies, and develop their practice to support sustainable project objectives.

Conflict Avoidance Is Not the **Answer: Negotiation, Conflict Resolution and Mediation Skills for Engineering Firms** Kenneth Gibble, Gibble Norden **Champion Brown Consulting** Engineers, Inc. and Donna Maltzan, Consultant

Engineers routinely face conflict with staff, other consultants, clients, contractors, and in their own board rooms. While healthy conflict is often a catalyst for change, typical responses to conflict situations are often ineffective. Presenters will demonstrate critical skills for addressing warranted and unwarranted conflict using two case studies—one in project management, the other between partners—to work through useful skills and techniques which can be passed

along to staff. Participants will receive a self-assessment of their current conflict and negotiation skills level.

Leveraging Customer Relationships to Sustain Growth in the Engineering Sector

Gary Jandegian, URS Corporation Engineering firms are increasingly adapting strategies predicated on relationship-based portfolios to drive growth in a highly competitive and regulated marketplace. This session will explore how engineering firms can take positive, proactive steps to cultivate and enhance client relationships, creating partnerships that result in long-term contract dedication over time, and a go-to affiliation that

increases revenue by encouraging ongoing transactions. Jandegian will source URS Corporation's success using a client-centered business model, and lessons learned in positioning the company as a value-adding member of the client's network.

From Engineering Firm to **Professional Services Firm** David Kipp, Ross & Baruzzini

The consulting engineering industry is in continual danger of becoming commoditized in the eyes of clients. Those firms that can embrace related professional services of higher value will more easily differentiate and compete. One way firms can adapt is to develop interesting and innovative new professional services, with

Visit www.acec.org for the most up-to-date listing of sessions and events. Plan now to join us!



mit, April 26–29, Washington, D.C.

100 Years of Excellence

resulting higher fees and margins, healthy growth in the core A/E business, and a competitive profile that energizes employees and clients. This session outlines some of the ways growing firms are making such transitions.

Additional Services Fee Recovery Training

Tom Gramza, Bromin Solutions Inc. Whether a result of architectural revisions, owner decisions, value engineering, or other circumstances, additional work performed outside of a project's contracted scope must result in fee recovery, not lost revenue. This highly interactive session will equip participants with the ability to identify and assign value to additional services, and provide the skills, motivation and confidence to effectively approach clients with additional services requests. And it all starts with changing engineers' attitudes: their services are not a commodity; they must be compensated for all

Communications & Information Technology

their work.

Stop the Madness: How to Manage E-Mail Overload Karen Susman, The Remarkable Toolbox™

E-mail: can't live without it; can't get anything done with it. E-mail overload wastes time and energy. This session will help participants get a handle on their own e-mail and train others in how to respond to, send, and control the "necessary monster." Learn to curb your e-mail addiction; compose subject lines that get your e-mail read; write e-mails that are clear, brief, and get quick

replies; train others how to e-mail and respond to you; and e-mail etiquette that can cut volume in half.

Finance & Economics

Deal or No Deal: An Overview of M&A Activity in the A/E/C Industry

Steve Gido, ZweigWhite

The last five years have witnessed a record amount of M&A activity for the A/E/C industry, as firms of all shapes and sizes are joining forces and reshaping the competitive landscape for the future. Participants will learn how the slowing economy is impacting M&A activity, gain insight into what's driving engineering activity for buyers and sellers, the "hot" markets and sectors, tips on firm valuation and deal structures, and the promises and pitfalls of integrating two engineering firms into one.

Streamlining the Organization Towards Profit and Efficiency Robert vanArsdall, XL Design Professional

As graduation rates for construction-related engineering disciplines continue to decline, firms must become more expert at doing more with less. This session presents techniques to identify activities that generate true profit, and those that drag profit down. Participants will learn to use owner objectives as the source for firm resource allocation, how to identify valueadded and value-detracting activities, and ways to uncover opportunities to outsource the latter while in-sourcing the value-added—enabling the company to thrive even in times with few new hires.

Risk Management & Contracts

Integrated Project Delivery: A Look at the Legal and Insurance Issues Affecting Consulting Engineers Katherine D. Enos, Esq.; James

Lee, Esq., Lee & McShane PC The integration of design and construction is accelerating and new concepts and contracts for collaborative design are radically refabricating engineering practice. The many creative forms of integrated project delivery challenge well-founded legal principles and insurance coverage products, but for firms to prosper under future forms of collaboration and integrated practice, an understanding of these issues is vital. This session explores the contractual and other legal issues of integrated project delivery as well as insurance coverage developments responsive to new practice paradigms.

It Was a Dark and Stormy Night...Spooky Case Studies of Engineers' Professional Liability

Erick L. Singer, Esq., Ice Miller LLP; Karen Erger, Esq., Holmes Murphy & Associates

Gather 'round to hear three spooky cases of engineers' professional liability—both real and alleged. This session will include discussion of factors that led to each crisis and how results might have been improved. Participants will have the opportunity to submit "horror stories" from their own practices for group discussion and analysis. They will acquire techniques to identify and evaluate risk factors associated with recurrent themes in liability claims, spot warning signs that

can lead to claims, evaluate risk inherent in every practice and gain strategies for managing, transferring or avoiding risk.

Making Construction Administration a Risk Management Tool

Mark Blankenship and Dan Buelow, HRH Architects & Engineers

Engineers have exposure to claims resulting from deviations from construction documents and jobsite accidents. While the presence of an engineer on the site favorably impacts project quality, engineers must proactively avoid being drawn into issues resulting from poor contractor performance. This interactive workshop discusses matching the scope of services to an owner's expectations; documentation issues and what to do when there is an unsafe condition on the jobsite; and best-practices in shop drawing review, and pay application approvals—practical advice that will reduce exposure to claims and improve firm profitability.

What Is Your Firm's Liability Rating?

Timothy J. Corbett, SmartRisk; Dana Hughes, Beazley; Greg D. Kumm, Prosurance/Redeker Group, Ltd

All A/E firms, large and small, have liability exposures. This session will identify claim trends, root causes and key areas of risk, and liability exposures. Each participant will perform a Self-Risk Assessment, obtaining a "basic" Liability Rating, which indicates an awareness of the firm risk management practices. The methods, strategies and benefits used for an inde-

Annual Convention and Legislative Summit

pendent, firm specific Risk Assessment will be identified and examples provided.

Leadership

The Power of Strategic Management and the Balanced Scorecard Brian Kinahan, SUMMIT Performance Systems

The Balanced Scorecard methodology is recognized worldwide as an effective and powerful management toola framework within which firms can define, support, and measure the areas that most impact key objectives. This session looks at methodology and benefits, definitions of key process areas and the building of employee competency models, as well as how to subdivide key process areas into sub-processes that connect "job families" directly to overall strategy and achieve long-term sustainable success.

Designing and Managing a Leadership Development Program

Joseph D. Rei, Ph.D, Advanced Management Institute for Architecture and Engineering

This session uses real-life examples of the challenges and fears that individuals face when stepping into leadership roles to explore what senior management and clients expect leaders to understand and do at each level. This session also will identify leadership skills critical to each stage of a successful career and discuss the importance and pit-falls of mentoring and coaching programs and how to use them to develop leaders.



Human Resources

Winning With Millennials: How to Attract, Retain, and Empower the Latest Generation

J. Tim Griffin, RMF Engineering, Inc. In 2010, the millennial generation will dominate the U.S. workforce, and firms that do not prepare for this eventuality will be left behind. Today's design firm leaders are having a difficult time understanding recent engineering graduates resulting in frustrations and miscommunications among firm leaders and young engineers. This session focuses on practical tools to attract, retain, and empower this workforce in order to bring them successfully into design firms.

Marketing & Business Development

The Integration Imperative™: Erasing Marketing and Business Development Silos Once and For All in Professional Service Firms Suzanne Lowe, Expertise

Suzanne Lowe, Expertise Marketing LLC and David Kipp, Ross & Baruzzini

Participants will gain new knowledge about how a firm's non-technical marketers, business developers and other operational staff members can better collaborate with technical professionals to sell services and benefit clients. New organizational constructs are presented to help erase functional silos, improve internal hand-offs from marketing to selling and embed marketing and business development into every person's job.

Effective Negotiations Steven J. Isaacs, Advanced

Management Institute for Architecture and Engineering Most engineers approach the negotiation of contracts and fees as a routine task without considering that negotiations establish the relationship with clients that lasts the length of the project. This interactive session focuses on the time and energy required for negotiation preparation and offers various techniques to achieve successful results focused on the interests of the parties and their organizations. Participants will gain a broader understanding of the fundamentals, techniques and tools for preparation and use in the successful negotiating process.

Spring 2009 Online Seminars

What Is an Online Seminar?

ACEC's online seminars are a cost-effective and convenient way to participate in informative and popular learning events from anywhere the Internet is available. Professionals from leading firms present topics in a tightly packed 1½-hour session in a format that facilitates important learning right at your computer.

At the session start time, participants log on to a website for the live presentation delivered in real-time. Calling a toll-free number provides the audio portion of the presentation and participants can ask questions via the web.

With one registration fee payable per connection, a roomful of people can participate at no additional cost. ACEC's spring 2009 online seminar lineup features some of the most popular traditional topics, as well as some new ones.

Online seminars generally are held from 1:30 to 3 p.m. Eastern time. Unless otherwise noted, seminar fees are: Member–\$199
Non-member–\$249
Each course offers 1.5
PDHs.

Sessions are frequently added or amended to reflect hot topics or cutting-edge ideas as industry issues arise, and the schedule is continually being expanded.

Visit www.acec.org/ education for the up-to-date list of upcoming topics and dates.

State Organization Spring 2009 Programs

ACEC/Florida

2009 Green Engineering Seminar: Engineering Florida's Future

January 15 Orlando, FL

One-Stop PDH Shop

January 14 Tampa, FL

January 21 Orlando, FL

February 10 Destin, FL

2009 Annual Geotechnical & Materials Engineering Council (GMEC) Conference

April 30–May 1 Orlando, FL

For information and to register, visit http://www.fleng.org/confirain.cfm.

ACEC/Illinois

2009 Winter Conference and Engineering Excellence Awards

Feb 12–13 Chicago, IL

2009 Annual Meeting and Government Affairs Workshop

June 4–5 Springfield, IL

For details and to register, visit http://www.acec-il.org/events.cfm.

ACEC/Oregon

Engineering Excellence Awards Dinner

January 14 Portland, OR

Day at the Capitol Preview Breakfast: How to Talk to Your Legislator, Lobbying 101

February 10 Portland, OR



Government Contracting Breakfast

February 26 Portland, OR

Day at the Capitol

March 10 Salem, OR

Networking Day

June 24 Aurora, OR

For details and to register, visit www.acecOregon.org.

ACEC/Virginia

Creating an Extraordinary Organization—The Mindset of Leadership

March 13–14 Hilton Head, SC

Political Program

June 19–20 Charlottesville, VA

For details and to register, visit www.acecva.org.

ACEC/Wisconsin

Transportation Improvement Conference

March 9–10 Stevens Point, WI

For details, and to register, visit *www.acecwi.org*.

Annual Meeting

May 14 Milwaukee, WI

For details and to register, visit www.acecwi.org.

To be listed in the ACEC Institute for Business Management Fall 2009 Course Catalog, please contact hhemphill@acec.org.



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Refunds, credits, substitutions and cancellations. For cancellations received by ACEC at least 30 days before the program date, ACEC will issue a full refund of registration fees, less a \$100 administration fee. For cancellations received by ACEC between 29 and 15 days before the program date, ACEC will issue credits toward future ACEC education seminars. Credits are valid for six months toward any ACEC seminar. For cancellations received by ACEC 15 days or less before a program date, ACEC will issue no refunds or credits. In addition, ACEC will issue no refunds or credits for "no-shows." Substitute attendee registrations may be made at any time.



American Council of Engineering Companies 1015 15th St., NW, 8th Floor Washington, DC 20005-2605

(Continued from page 18)

"When employees buy that drug for the first time, we want everybody to know what that really costs," says Wood. That way, they're more likely to opt for a generic version. "That's made a huge difference in our claims for prescriptions," she says. HMB also promotes economical mailorder prescriptions for 90-day supplies of drugs that receive volume discounts.

Many firms consider personal wellness a top priority. "Some upfront work will, in the long run, save on costs," says John Spina, vice president of administration at C&S Companies in Syracuse, N.Y. C&S even uses a wellness coordinator to offer employees tips on staying healthy and keeping costs down. Tools include a monthly newsletter with articles about health insurance costs and how generic drugs can save money.

HMB recently built a gym and workout facility in its basement and adopted a healthy approach to office life. "We don't typically buy doughnuts. We buy bagels or something else a bit healthier when we have a meeting," says Wood.

Keeping employees informed helps them understand the struggles employers

e're very open because otherwise employees never realize how much the company is taking on versus how much they are paying. JOHN SPINA **C&S COMPANIES**



Picking a Plan

wo of the trendiest tools for stemming cost increases are high-deductible health plans (HDHPs) and associated health savings accounts (HSAs). Industry estimates put the number of HSAs in this country at about 6 million.

But C&S Companies is finding that employees often balk at deductibles of \$5,000 or more for individuals even when the company pays the full HDHP premium for individuals and families. As an added incentive, the firm contributes money each January to an employee's HSA. By contrast, C&S pays 85 percent of the premium for individuals and 55 percent for dependent coverage when employees choose the company's Blue Cross Blue Shield alternative.

Participants in both plans have filed fewer claims in recent years, so while C&S's overall rates jumped 8 percent in 2009, it enjoyed an 8 percent decrease the previous year and level costs in 2007, says John Spina, vice president of administration.

Lamp, Rynearson & Associates is bracing for a 20 percent increase after seeing stable rates for 2008. For two years, the company has offered a high-deductible, HSAbacked plan that pays half of the premium for individuals and families. Employees can also choose a more traditional PPO. President Michael McMeekin believes highdeductible plans help dampen cost increases, though it's hardly an industry panacea, he says. "It's just lowering the magnitude of the increases."

HMB eschews HMOs, PPOs and high-deductible plans in favor of a hybrid self-insurance approach that uses a third-party catastrophic-insurance provider for employee claims greater than \$45,000. All other claims are handled by HMB. This alternative gives HMB flexibility when negotiating new rates with insurance carriers, says CFO Karen Wood. "With a traditional HMO or PPO, we found that your company's claims experience really is a non-factor. You get the same percentage increase that everybody else in that region or that pool is going to get, so there's no benefit for the education or the wellness programs that you implement."

face. C&S regularly shares information about the rates it's paying for premiums, overall contributions by employees and projections about rate increases from carriers. "We're very open because otherwise employees never realize how much the company is taking on versus how much they are paying," Spina says. "The more information people have, the more they understand. Finding out how much the company was paying made them feel a little better" about rate hikes.

Some companies now are less likely to stick with the same insurance carrier in the hope a long-term relationship leads to lower rates. Though Lamp, Rynearson & Associates typically avoids annual shopping for quotes, McMeekin says the firm is rethinking its strategy. "You are forced to play that game because insurance companies seem to have a strategy quoting low to get you in and two or three years later hitting you with huge increases," he says.

McMeekin's company also is considering new incentives aimed at lowering insurance rates. Under consideration is a possible plan to reward employees who opt for coverage through a spouse's employer.

Long-Term Answers

Budget-conscious firms acknowledge that the efforts of managers and employees to contain rising costs likely will not be a long-term solution to the health care dilemma. Some even question why employers are involved in the health care discussion at all. "More and more I ask myself, 'Why is health care tied to employment?" says McMeekin. "Our business is providing infrastructure for the public, but more and more we have to get into the health care business. I just ask myself, 'Are we doing the right thing?'" ■

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





PROJECT:

Cowboys Stadium, Arlington, Texas

FIRM:

Walter P Moore, Houston

exas prides itself on size, and the construction of Cowboys Stadium in Arlington, Texas, includes many superlatives: world's longest single-span roof structure (1,225 feet), largest video display (25,000 square feet), largest operable glass walls (180 feet wide by 120 feet high) and one of the largest domed sports facility roof structures (660,000 square feet).

Slated for completion in June 2009, the massive stadium features two monumental arches rising 292 feet above the playing field, which support a retractable roof. Each arch box truss is 17 feet wide by 35 feet



deep and weighs 3,255 tons. The arches are more than twice the length of the Gateway Arch in St. Louis, according to officials at Walter P Moore, which designed and built the Cowboys Stadium roof.

When the owners of the stadium began construction work in March 2006, their goal was to build a larger, amenityrich facility that would blend innovative design with the wellknown brands of Texas Stadium and the NFL's Dallas Cowboys, says John Aniol, project manager at Walter P Moore.

"In its quest to realize the owner's vision, the design team found many opportunities for creativity," Aniol says. "Inherent in the design of any covered stadium is the complexity of conquering the long span over the bowl and event area without obstructing views."

The owners wanted to make a bold design statement with this main roof span, which resulted in perhaps the central challenge of the project: the 1,225-foot twin arch box trusses that, upon completion, will support the world's longest single-span roof structure.

"It is difficult enough to command such a span to efficiently defy gravity, given its own weight and the weight of a 'simple' fixed roof," Aniol says. "But add a moving roof to the equation, and the span begins to object. Add show rigging loads at the arches' center, and the trusses' protests gain intensity. Finally, demand that the twin arches permanently support the world's largest centerhung video board—the equivalent of hanging a five-story building from the center of an almost quarter-mile span-and it seems too much to ask."

One of the unique features of the facility required a solution that pushed creative boundaries. The 70-foot-tall by 160-foot-long video board looms over the field in an enormous I-shaped plan that

extends from 20-yard line to 20-yard line. "The structural design team created a 70-foottall steel structure that contains a 10-level network of catwalks and is clad on all sides with video displays," Aniol says.

The video board assembly weighs 1.2 million pounds, comparable to the weight of 350 mid-sized automobiles. The design team suspended the assembly using eight 3-inch diameter steel cables, plus eight sway steel cables. The cables are tethered to large steel box trusses that span the 256 feet between the twin arch trusses. "The inclusion of these video board box trusses reflects the traditional box trusses that sweep across the opening at the Cowboys' original home, Texas Stadium, giving it a distinctive television signature," Aniol says.

Retaining the Texas Stadium's hole in the roof—an icon that's an integral component of the Cowboys brand—was important to the owners. But another



goal was for the fully enclosed roof to protect spectators from inclement weather. The design team accommodated both desires with a sleek bi-parting retractable roof.

Two panels meet above the 50-yard line when they are in the closed position. At the flip of a switch, a rack-and-pinion mechanization system springs to life. The system, designed by Uni-Systems of Minneapolis, in coordination with Walter P Moore, is the first application of this type of retractable roof in North America.



PROJECT:

Wing Luke Asian Museum, Seattle

FIRM: Sparling, Seattle

he owners of the Wing Luke Asian Museum in Seattle were determined to give the nearly 100-year-old museum a youthful makeover that featured a hefty dose of 21st-century technology.

"They were very interested in creating an immersion type of experience," says Troy Thrun, executive principal in charge at Sparling, the engineering firm responsible for providing electrical engineering, audiovisual consulting, acoustical engineering and architectural lighting design for the renovation project.

"The planners were trying to maintain as much of the old feel and history as possible,' explains Thrun. "The 'youth'

component of the owners' input comes into play in that they also were very interested in a strong technology and audiovisual presence."

Wing Luke, an affiliate of the Smithsonian Institution, reopened at its Chinatown/ International District location in May 2008 after the renovation. The 57,000-square-foot refurbished museum has 18 immersion exhibits, contemporary exhibition halls and spaces, collection and exhibit storage, shop space, offices and meeting spaces. There's also a library, 60-seat theater, large community hall, recording studio and gift store.

Much of the original building was left intact, including its narrow doorways, corridors and small rooms. Windows and doors were repaired and reinstalled, and fir joists were reused as stair treads.

The dichotomy of the turn-of-the-century Chinese living space/meeting place and today's high-technology,

information-sharing and dramatic electronic visual experience presented a very real challenge.

"It was important to keep the wood structure exposed as part of the historical importance of the facility," says Thrun. Careful consideration of layout during the design phase and final installation was critical to achieving the makeover while minimizing the impact to the historical feel of the museum.

The facility has two significant light wells that not only serve as circulation space between the second-floor galleries, but are themselves an immersion exhibit, Thrun says. "The idea was to create the feeling that the facility was alive with activity from the period."

The existing wood-hung windows that once previously separated the exterior space from the interior living quarters were frosted, and lighting fixtures were designed in special slots above, below



and behind the glazing. This technique, along with installed audio sounds of daily residential activity, gives the illusion that the original occupants still reside behind the old wood walls and glass.

"The strong sense of history and pride was palpable and transferred to the design team," Thrun says. "Our design effort attempts to tell the story of the people of the past." As a result, now that Wing Luke Asian Museum has reopened, it offers visitors the best of both worlds: history with a touch of modernization.

Making Space at McCormick Place

PROJECT:

McCormick Place **Convention Center** West Expansion, Chicago

FIRM:

A. Epstein and Sons International, Inc., Chicago

hen the Metropolitan Pier and Exposition Authority (MPEA) launched the West Expansion project for McCormick Place Convention Center in Chicago, the organization had a lofty goal: to design and build "the very finest convention center ever built, to set the new standard by which all other mid- and largesized meeting and exhibition facilities will be judged in the future."

MPEA, which owns and operates McCormick Place, contracted with Mc4West LLC, a design-build consortium that includes Chicagobased architecture and engineering firm A. Epstein and Sons International, Inc., to help meet its objective. Designed to prepare McCormick Place for the future of a convention industry increasingly geared toward professional association meetings, the project represents a massive expansion of an already expansive facility.

The West Expansion added more than 2 million square feet of space to the McCormick Place Campus—a facility

that housed 2.6 million square feet of existing exhibit halls across four buildings prior to the project. The new section includes about 459,000 square feet of exhibition space, 140,750 square feet of meeting/banquet space, a 103,750-square-foot ballroom (one of the largest in the country), as well as food and support service spaces.

Completed in August 2007, the project required connecting the existing McCormick Place complex with pedestrian and vehicular bridges and modifying an existing parking garage and conference center. The new facility also includes an elevated service roadway between the existing truck-marshalling facility at the South Hall and exhibition

A key challenge was keeping all the various organizations involved and on the same page. "Design and construction of the building on a fast track (the deadline for completion was just over 51 months) required an unprecedented degree of communication and cooperation between MPEA, Mc4West, the city of Chicago and the state of Illinois along with their many regulatory agencies," says Carl Gergits, Epstein's project director for the McCormick Place West Expansion project.

The expansion required nearly 250 separate permits for work, ranging from lane closures to relocation of an historic façade to the main permit for the convention center, Gergits says. Specific staff members were dedicated by the contractor, development manager and design team to manage and guide the project through a multitude of review processes.

Another big challenge was overcoming cultural differences between contractors and designers. This was accomplished by implementing design and construction teams.

"Traditional conflicts





between quality of design and cost of construction became outmoded by integrating the builders in the design process and the designers in the purchasing and construction process," explains Gergits.

The expansion enables McCormick Place to remain the largest exhibition facility in the United States.





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2008 Professional Liability Insurance Survey of Carriers

Economic Uncertaint Insurance Picture

Financial instability could lead to 'perfect storm' of increased claims and litigation

By Mau By Maureen Conley

he soft insurance market for design professionals continued this year, though some experts predict a harder future, results from the 2008 survey of professional liability insurance carriers show.

The question then becomes: What will happen when the hardening begins?

A record 16 carriers responded to the 2008 survey, conducted jointly by ACEC, the National Society of Professional Engineers (NSPE), the American Institute of Architects (AIA) and the AIA Trust. It should be noted that 13 of the respondents were interviewed on Oct. 2, an important date considering that any fallout from the late October near-collapse of the global financial system was not reflected, explains Gregory Sauter, chairman of ACEC's risk management committee and executive vice president of corporate development for AECOM's U.S. Group.

Still, Sauter says the survey illuminates market fundamentals over the past year and is a valid snapshot of trends when viewed as part of the overall picture—a picture that continues to unfold in unpredictable ways.

Every carrier is, of course, interested in growing market share over the next year. But Sauter says that the economic downturn could mean "less market to go around." At the same time, "pressures that would normally drive premiums higher might not have the same impact in a slow economy."

More Claims Expected

Insurance carriers say conditions are ripe for increased claims and litigation. John Farrar, vice president of Illinois-based Clark Dietz, says that even before the October financial meltdown, carriers were predicting increases in claim frequency and severity as a result of the soft economy.

Timothy Corbett, founder and president of SmartRisk, believes the current economic conditions could create a "perfect storm" for increased litigation, as the credit crisis and other unpredictable external forces, coupled with internal turmoil driven by reduced revenue and evolving business strategies, could "increase risk on projects" and "dramatically increase liability."

Jerry Sullivan, product manager for A/E firms at London-based Beazley, agreed, adding that shrinking revenues mean "contractors are fighting over a much smaller pie,

which could lead to underbidding of work" and increased claims. Sullivan says many firms expect to be hit with a negligence countersuit if they sue for payment of fees.

In a more robust economy, parties might be more motivated to "work it out" and bring a project online. But a tighter financial market usually makes project participants more sensitive to delays and cost overruns, says Michelle Duffett, executive vice president of Insight Insurance Services, Inc.

ressures that would normally drive premiums higher might not have the same impact in a slow economy.

GREGORY SAUTER AECOM



While recouping costs through litigation may become more likely, Kate Enos Frownfelter, construction program manager at Victor O. Schinnerer & Company, Inc., urges firms to weigh lost fee revenue against the resources needed to defend against a claim and consider negotiating instead.

Premium Trends

Insurance premiums have trended flat to downward over the past several years. "Going into the interviews, there was a lot of capacity and a lot of capital" available to support PLI for design firms, Farrar says.

Corbett says at least two new carriers are planning to enter the market, adding even more capacity and creating "tremendous options for A/E firms." Such competition normally would drive premiums lower, at least for "A" accounts, says Sullivan. But that pot is shrinking; in today's environment, capital requirements and economic pressures make growth difficult or less desirable for many carriers.

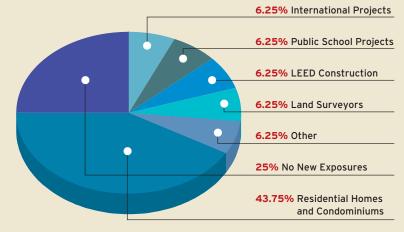
Going forward, carriers must balance the loss of revenue from investment portfolios—a key component of insurance premiums—as well as tighter credit markets and losses from recent hurricanes. Carriers

f you are going to change carriers in search of a lower premium, make sure that the carrier has shown a commitment to the PLI market.

SCOTT MILLER a/e ProNet



Particular Exposures That Might Lead to Higher Rate Increases Than in Recent Years



Source: ACEC's 2008 Professional Liability Insurance Survey of Carriers

expect the economy to drive capacity and capital lower and predict the market could "turn hard," though many carriers do not expect premium increases until after 2009, according to Farrar.

The picture is further complicated because premiums correlate to revenue. Carriers use simple or weighted averages of past and current billings and future projections to predict liabilities during the policy period. Firms should start to see some decrease in premiums once they have had "more than one year in a row of billings that decreased from the prior year," Duffett says. But a firm coming off a good year and projecting a dismal 2009 might not.

Some of the carriers say that now is not the time to save money on PLI, as it's risky to reduce insurance limits or increase deductibles in a time of heightened litigation. Firms that make such decisions will take the hit if they face a claim.

Some carriers also believe that deductibles are currently where they should be, after increasing from previous levels considered too low. Still, firms considering higher deductibles today might not enjoy the premium discounts they expect. Since legal fees for most PLI claims run above \$10,000, Duffett says doubling your \$5,000 deductible is not likely to eliminate any claims. William Farran, practice leader for design professionals at Travelers, says it also could invite scrutiny of a firm's financial statement to ensure it can cover a high deductible.

"The key point regarding high deductibles is that a firm pays a separate deductible for each claim," says Scott Miller,

president of a/e ProNet. "It becomes a question of whether a firm can weather the high deductibles if it has several claims in one year."

Changing carriers also invites a measure of risk. In addition to a potential gap in coverage, a switch could mean a loss of longevity credits. And a low price offer intended as a sweetener could lead to higher costs down the road. "Ask yourself, what besides the price is the carrier giving you?" Frownfelter says.

Miller also cautions that carriers that are new to the market might attempt to buy business by offering a lower premium, only to vacate the market a year or two later. "It takes five years for a carrier to determine if it is underwriting profitably and successfully," he says. "If you are going to change carriers in search of a lower premium, make sure that the carrier has shown a commitment to the PLI market."

Risk Partner

It's a good idea, says Corbett, to select an insurance carrier on the value of its services, not its price. "You want to find an insurance carrier that will help you in managing and mitigating risk and liability exposures," he says. Risk mitigation helps the carrier and the design firm by improving overall profitability.

Albert Rabasca, director of industry relations at XL Insurance, agrees. Tempting as it is to set risk management and loss prevention practices aside "and embrace a mode of pure survival," he says, "when the economy does turn around-and it willthe positions we have all worked so hard for



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could be obliterated" and clients could be left with "the potential for unlimited liabilities and potentially uninsurable risks."

Sullivan points to the importance of effective contracts. A contract will govern how a dispute unfolds, and a strong contract "will bring you through a tough time with an owner," he says.

Pre-claims assistance "varies greatly by carrier," but should be an important factor in any PLI decision, adds Corbett. Duffett also encourages firms to contact their carrier any time they need help "figuring out how to talk to a client, whether to document a discussion, or if they need to send a letter to correct a misunderstanding." Travelers has added crisis event coverage to its standard A/E PLI policies to protect its insureds' reputations," says Farran. The policy covers public relations consulting in response to an event that an insured believes could adversely impact its reputation.

To navigate among all these options, Paula Dixon, president of the Professional Liability Agents Network (PLAN), recommends that firms work with an insurance agent or broker who specializes in professional liability coverage for design and environmental firms. "They can pro-

t's time for design firms to follow the lead of contractors and carefully examine a client's finances before accepting a speculative project.

PAULA DIXON PLAN



How Do You Expect Your Rates to Change in 2009? 43.75% Remain Flat 37.50% Unsure/Not Reported 18.75% Lower Source: ACEC's 2008 Professional Liability Insurance Survey of Carriers

vide a wealth of risk management tools, such as contract review services, and help you select the right carrier to meet your needs," says Dixon. "They'll help you separate the seasoned carriers who are in the market for the long term as opposed to those who will likely be the first to bail if the market turns south."

Future Risks

Though mold and asbestos claims have stabilized, Sauter says, the flooding caused by Hurricane Katrina and other recent devastating storms has brought the condition of levees to the fore. Changes to the U.S. Army Corps of Engineers' levee certification requirements could introduce considerable new risk for firms. Many have been asked to assess the condition of levees without full information on the original design or current conditions. Sauter advocates that the industry work together to "make sure we have the appropriate risk shared between the Corps and the consultant community," so that public risks are not placed on a consultant through contract requirements. ACEC continues to work with the Corps on efforts to properly allocate that risk.

Carriers also continue to monitor risk trends in Leadership in Energy and Environmental (LEED) certification and sustainable design. Higher claims have not yet materialized in this sector, notes Farrar, but carriers are concerned that owner expectations are driving the standard of care higher. The familiar cautions still apply, he says: treat LEED as a goal, because your policy may not cover a guarantee; make your client aware that newer materials have not been as thoroughly tested and might not be as good as existing ones; and have your insurance carrier carefully

review these contracts, as they often carry more risk than a standard project.

Integrated project delivery and Building Information Modeling (BIM) also are on most carriers' radar. Though the inherent collaborative nature of BIM blurs many liability boundaries, Duffett says that the increased cooperation and integration of the process also might mean fewer errors.

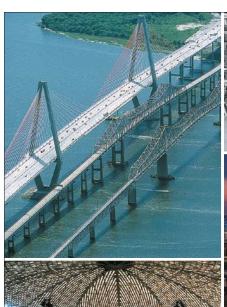
Travelers launched a new PLI policy in November to cover network and information security, partly to address the emergence of BIM, says Farran. Such a policy is meant to protect firms against claims arising out of any virus transmitted by their network, failure to give access to the insured's computer system or failure to prevent unauthorized access to private information.

PLI experts say it's hard to predict the market's near-term future, especially considering the tumultuous and interdependent state of the economy. However, Sauter says he is hopeful President-elect Barack Obama's administration will invest significantly in infrastructure, possibly as part of an economic stimulus package.

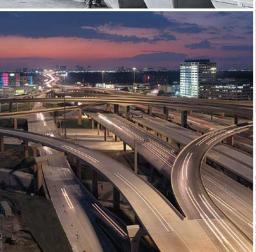
Corbett says it's important for a firm to "do your homework" and find the latest available information on your carriers' financial status, and it's "very important to research and evaluate who a firm is, what their financial capability is and who is behind the scenes."

PLAN's Dixon adds that the financial status of clients and potential clients is equally important. "It's time for design firms to follow the lead of contractors and carefully examine a client's finances before accepting a speculative project." ■

Maureen Conley is a business writer based outside Washington, D.C.









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Sunday, April 26

Enjoy an evening of dinner and dancing with the renowned Radio King Orchestra, Washington's most exciting and elegant big band! Featured on NBC's hit television series *The West Wing*, the Radio Kings will keep you dancing all night with extraordinary sounds.









DAVID GERGEN Monday, April 27

Having served in the administrations of Presidents Nixon, Ford, Reagan and Clinton, CNN contributor David Gergen brings unparalleled insight to his political commentary. He will share his views on the Obama administration's agenda and challenges.

PREMIER LEGISLATIVE SUMMIT

Join ACEC's citizen lobbyists in carrying important industry messages to Capitol Hill:

- Lobby Congress on Water, Transportation, Development, Taxes and Other Key Business Issues
- Think Like a Member of Congress—Training Session
- Interact with Top Government Officials
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- CEO Roundtables



ENGINEERING EXCELLENCE AWARDS GALA

Emmy Award-Winning Host **Ross Shafer** Tuesday, April 28

Known as the "Academy Awards" of the engineering industry, the annual black-tie reception, dinner and awards program honors the year's most outstanding projects.





EARLY REGISTRATION FEES

FULL CONVENTION	EARLY BIRD	AFTER 3/27
Member Registration:	\$975	\$1,075
Non-Member Registration:	\$1,325	\$1,525
Spouse/Guest Registration:	\$375	\$475

^{*}Discounted price cannot be combined with any other offers or discounts

HOTEL INFORMATION

Convention activities will be held at the Grand Hyatt Washington, located at 1000 H Street, N.W., in downtown D.C. between the White House and Capitol Hill, and easily accessible by Metro. The ACEC room rate is \$270 single/double occupancy, plus tax. Call the hotel at 202-582-1234 and reference ACEC. Room reservations must be received by April 3, 2009. For more hotel information, go to: www.grandwashington.hyatt.com.

To register, or for more Convention information, contact meetings@acec.org or visit www.acec.org.

MEMBERS IN THE NEWS

On The Move



Robert Gomes



Frank R. Finch

Robert (Bob) Gomes will succeed Tony Franceschini as the next president and CEO of **Stantec**, effective May 15, 2009. Franceschini, who has led Stantec since 1998, will continue with the company as a member of the board of directors.

Greenhorne & O'Mara, Inc. (G&O), President Frank R. Finch has been appointed CEO of the firm. G&O's current CEO, John Healey, will continue as chairman of the board.



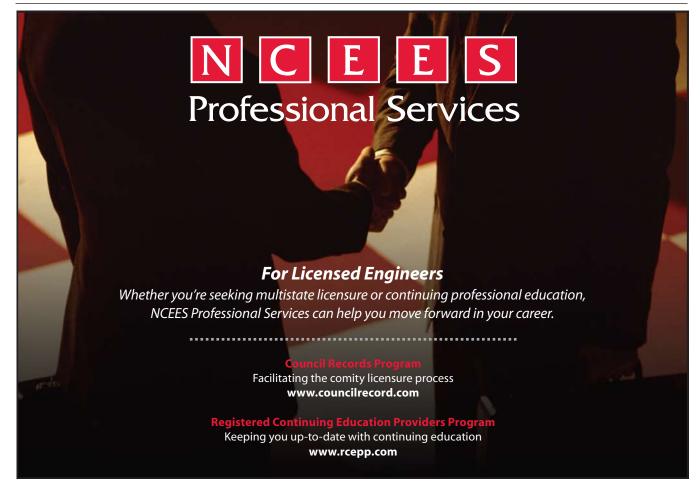
Mit Jha



Larry D. Walker

Mit Jha has joined David Evans and Associates, Inc. (DEA), as its new senior vice president for strategy and business development.

The Louis Berger Group, Inc., recently named Larry D. Walker president. Walker, who joined the firm in 1988, previously served as vice president of the firm's global infrastructure services group.



MEMBERS IN THE NEWS

Welcome New Member Firms

ACEC/Alabama

Engineering Design Group, LLC, Birmingham

InSite Engineering, LLC, Hoover

ACEC/Arizona

JE Fuller Hydrology & Geomorphology, Inc., Tempe

Tristar Engineering and Management, Inc., Phoenix

ACEC/California

4 Creeks, Inc., Visalia

Aztec Engineering, South Pasadena Cordoba Corporation, Oakland

LFR, Inc., Emeryville

Pacific Engineering and Construction, Inc.,

San Francisco

PE&C, Redondo Beach

RailPros, Inc., Irvine

ACEC/Colorado

Capstone Enterprises West, LLC,

Grand Junction

ACEC/Idaho

Toothman-Orton Engineering Company,

Boise

ACEC/Illinois

Fehr-Graham & Associates, Freeport

ACEC/Kansas

Ronning Engineering Co., Inc., Overland Park

ACEC/Massachusetts

AJA Engineering, Marshfield Daniel Carson Consulting Engineer, Framingham

ACEC/Metro Washington

Ashe Consultants, PLLC, Herndon, Va. Keast & Hood Co., Washington, D.C.

ACEC/Minnesota

Donohue & Associates, Inc., St. Louis Park PBS&J, Lakeville

ACEC/Mississippi

Benchmark Engineering & Surveying, LLC, Brandon

Covington & Associates Corporation, Biloxi

ACEC/New Hampshire

Appledore Engineering, Inc., Portsmouth

ACEC/New Jersey

Kupper/JMT, Trenton

ACEC/New Mexico

Voss Scientific, LLC, Albuquerque

ACEC/North Carolina

Highfill Infrastructure Engineering, PC, Cary

ACEC/Oklahoma

Koneru Consulting Services, PLLC, Oklahoma City

Meshek & Associates, PLC, Tulsa

ACEC/Oregon

Fire Protection Consulting, Portland

ACEC/Tennessee

Burns Cooley Dennis, Inc., Memphis CSR Engineering, Inc., Springfield

ACEC/Virginia

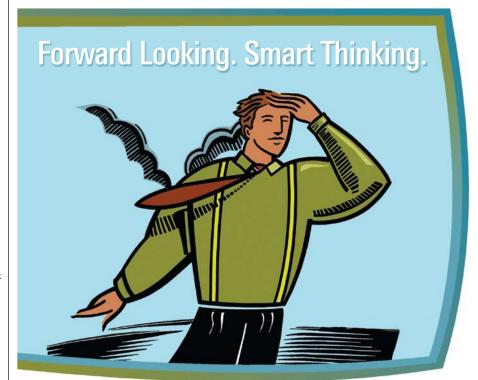
Cates Engineering, Ltd., Gainesville

ACEC/Wisconsin

JSD Professional Services, Inc., Verona

CEC/Texas

JP Engineering, LLC, San Antonio PIKA International, Inc., Stafford



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MEMBERS IN THE NEWS

Calendar of Events

2009

JANUARY

- 27 Developing a Cleantech Business Strategy (online seminar)
- 29 Calculating Carbon Footprints:
 Potential Business for
 Engineering Firms (online
 seminar)

FEBRUARY

- 9-12 Green Infrastructure and Sustainable Communities, Portland, Ore.
- 10 Lessons Learned in
 Implementing BIM and IPD in a
 900-Person Multidisciplinary
 Firm (online seminar)
- 11 Career Futuring: Five Strategies That Create Long-Term Career Protection (online seminar)
- 17 Project Management for Design Professionals (online seminar)
- Now That I Have Them, How Do
 I Keep Them? (online seminar)

MARCH

- 3 Breaking the Generational Language Barrier in Today's Multigenerational Engineering Workplace (online seminar)
- 10 Risk Taking Under the 2007 AIA, Consensus and EJCDC Documents (online seminar)
- 17 How Firm Culture Can Reduce Risk (and Improve Profits!) (online seminar)
- 17-20 Sustainable Project

 Management for Facilities and
 Infrastructure Systems, Falls
 Church, Va.
- 19-20 Applying Expertise as an Engineering Expert Witness, Kansas City, Mo.

- 24 Developing Future Leaders:
 Best Practices and Lessons
 Learned for Growing 20- to
 35-Year-Olds (online seminar)
- 25-28 Business of Design Consulting (BDC) for the Engineering Firm of the 21st Century, Orlando, Fla.
- 26-27 Building Information Modeling
 (BIM): The Promise and the
 Reality for A/E/C Firms,
 Seattle
- 26-27 Engineering Sustainable Infrastructure, Dearborn, Mich.
- 31 What Is the Right Value for Your Firm? (online seminar)

APRIL

- 7 Teaming and Joint Ventures in the Public-Private Partnership Market-A Case Study (online seminar)
- 21 Built to Last: Sustainability and Succession (online seminar)
- 26-29 ACEC Annual Convention and Legislative Summit, Washington, D.C.
- 29-30 Strategic and Business
 Planning: Budgeting and
 Execution for Engineering
 Organizations, Washington,
 D.C.

MAY

- 5 Diverging Diamond Interchange: An Innovative Traffic Solution (online seminar)
- 12 Risk Management Report Card: Would Your Firm Earn 'A,' 'F,' or 'Incomplete'? (online seminar)
- 14 ACEC/Wisconsin Annual Meeting, Milwaukee
- 19 Professional Ethics: A
 Preventive Maintenance
 Approach (online seminar)

Additional information on ACEC's events is available at www.acec.org.

MEMBERS IN THE NEWS

Mergers & Acquisitions

DR, Inc., has acquired E. T. Archer Corporation, known as Archer Engineers, an engineering/project management firm headquartered in Lee's Summit, Mo. Going forward, Archer Engineers will conduct business as HDR Archer.

"We are very pleased to have them on board and look forward to the additional expertise they will bring to the HDR family, particularly in the water/wastewater engineering arenas," said HDR Engineering, Inc., President George Little.

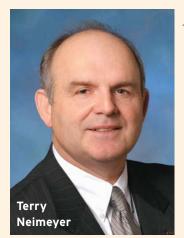
Under the new corporate structure, Archer Engineers President and CEO Stan Christopher will be a senior vice president and will direct HDR's water business practice in Kansas and Missouri. Michael Kalis will be a vice president and water section manager for these areas.

RS Corporation has acquired most assets of Tryck Nyman Hayes, Inc. (TNH), an engineering firm in Anchorage, Alaska.

TNH's experience in the design of highways, bridges, ports and rail systems is now combined with URS's Alaska capabilities in environmental planning and design. The new group intends to pursue larger and more complex infrastructure programs, as well as MILCON and BRAC contracts for the Department of Defense and Alaska pipeline projects.

reenhorne & O'Mara (G&O) announced its acquisition of Orlando, Fla.-area firm EMS Scientists, Engineers, Planners (EMS). The move continues the expansion of G&O's Water & Environment (W&E) division.

Vince DiCamillo, regional vice president and market leader for G&O's W&E division, said: "This will enable us to expand our professional services with new practices such as air and noise assessments and modeling, and build upon our existing competencies and client base."



Awards

he Gazette of Politics and Business, a Maryland-based publication, recently ranked KCI Technologies, Inc., seventh among the top 53 businesses in Maryland and placed Terry Neimeyer, the firm's CEO and ACEC Treasurer, on the publication's annual list of the "25 CEOs You Need to Know." Companies were ranked by revenue growth, employee satisfaction, community service and innovation in their field of expertise.

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www.acec.org/jobbank/index.cfm



FROM ACEC'S INSTITUTE FOR BUSINESS MANAGEMENT

ELECTRONIC DOCUMENTS; EXPERT WITNESS TESTIMONY; FINANCIAL PLANNING

Tips for Using Electronic Documents and Signatures

Just as technology has opened the door for more efficient information sharing among design professionals, it also has raised numerous concerns about its potential misuse, particularly with regard to sensitive documents.

Michelle Kantor, head of the Construction Law Practice Group at Chicago-based McDonald Hopkins LLC, says one of the first steps a firm should take is to meet with counsel and familiarize its employees with U.S. copyright laws, as well as state engineering practice laws that stipulate who can stamp certain protected documents and what types of signatures are necessary.

Apart from the law, Kantor offers this advice to keep important documents protected:

- Ink trading-partner agreements with clients. These documents should clearly spell out the rules of engagement when doing business electronically;
- Mark drawings with copyright protection;
- Use read-only formats when sending information online;
- Consider the use of encryption technologies;
- Use watermarks or hidden text to distinguish original plans;
- Limit document distribution;
- Employ technology firewalls;
- Carefully label all proprietary plans and documents;
- Put disclaimers on all drawings and e-mails;
- Have a good Internet and e-mail policy—one that spells out what documents can leave the firm and in what format;
- Make sure you have copyright registration; and
- Work with legal counsel to attain proper cyber insurance and create policies for sending and receiving electronic documents.

Being an Expert Witness

Engineers not only are called on to design vital infrastructure, but their expertise often is needed during construction-related court proceedings.

Often referred to as expert witness testimony, this type of work is in growing demand. But for firms that supply expert witnesses for court proceedings and trials, the work requires more than simply standing before a judge and speaking the truth.

To help prepare engineers interested in giving expert testimony, ACEC has developed a new education course scheduled to debut in March. Guy Vaillancourt, president of environmental engineering and remediation for Woodard & Curran, who has testified as an expert witness in trials, will join a team of lawyers and a former judge to help engineers understand their role.

"Lawyers use experts a lot," says Vaillancourt. The first step

toward being a credible expert witness is to know the material. Experts must be able to explain their positions clearly to a judge and jury. This means conducting a thorough and impartial preliminary analysis of the information. It also means learning to work alongside lawyers and getting comfortable with answering questions under oath.

It's also important not to become an advocate, explains Vaillancourt. Engineers who serve as experts must always strive to conduct an impartial analysis of events. If the work supports a lawyer's case, the engineer might be retained to testify; if not, the lawyer might opt to go in another direction. The key, he says, is to be truthful. Showing bias can severely damage a witness's credibility on the stand and at work.

For more on this new course, visit: www.acec.org/education/eventlist.cfm.

Financial Wisdom in Tough Times

As the nation's economy continues to tread on shaky ground, discussions such as how a firm can shore up its balance sheet, when to consider a merger or acquisition, or issues involving effective risk management and employee stock ownership are frequently at the core of many boardroom conversations.

These and other questions were top-of-mind during a September Finance Forum led by Loren Sokolow, CFO of California-based Psomas and Don McConnell, CFO of KCI Technologies in Maryland.

Financial leaders talked about universal challenges, including changes in Federal Acquisition Regulations and the rising cost of employee health benefits. A discussion of common problems touched on several issues, from vehicle fleet policies and car allowances to lines of credit and strategic long- and short-term financial planning.

In an effort to keep employees happy and secure, leaders advocated the continued value of employee savings plans and stock ownership—two benefits firms have leveraged to great effect in the hunt for new engineers.

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/events/index.cfm or bookstore at www.acec.org/publications, or call 202-347-7474 for further information.

Let the ACEC Retirement Trust run your 401(k) Plan and you're covered...



- ...On Savings! The average ACEC Retirement Trust client saves .5% on their assets under management. (see the chart for details)
- ...On Time! Finally, you can stop wasting your time running the 401(k) plan and get back to doing what you do best—running your business.
- ...On Participation! We'll use our proven strategies to boost participation, increase deferrals, improve asset allocation, and help your employees better save for retirement.
- ...On Compliance! Our fiduciary oversight protects you and makes sure that your Plan is run properly now... and in the future.

ACEC Retirement Trust is a complete solution for managing your company's 401(k) Plan. Best of all, Prudential Retirement® is the recordkeeper for the ACEC Retirement Trust, bringing more than 75 years of experience, expertise, and fiduciary support to your Plan!

Join today and enjoy the peace of mind that comes from making a decision that helps keep you—and your employees—covered.

ACEC Retirement Trust Potential Savings			
Retirement plan assets (million)	\$2.5	\$25	
Average expense ¹	1.36%	1.17%	
ACEC expense ²	0.78%	0.78%	
Potential annual saving for an average plan	\$14,500	\$97,500	

To find out more about the potential cost savings and other benefits of participating in the ACEC Retirement Trust, contact Nancy Barrette of Wachovia Securities, LLC, at 800-521-9463 or via e-mail at nancy.barrette@wachoviasec.com.

Prudential Retirement's group annuity contracts are issued by Prudential Retirement Insurance and Annuity Company (PRIAC), Hartford, CT, a Prudential Financial company. Securities products and services are offered by Prudential Investment Management Services LLC (PIMS), Three Gateway Center, 14th Floor, Newark, NJ 07102-4077. PIMS is a Prudential Financial company.

Wachovia Corporation is the majority owner and Prudential Financial, indirectly through subsidiaries, is a minority owner of Wachovia Securities, LLC. Nancy Barrette is a Financial Advisor for Wachovia Securities LLC, 1 New York Plaza, New York, NY 10292.



¹Averages Book, 401k Source, 2007 HR Investment Consultants, Inc.

²Average Investment Expense represents dollar-weighted average based on 12/31/07 assets.

