2008 Grand Conceptor Award Winner:
Seattle’s Olympic Sculpture Park by Magnusson Klemencic Associates

Mergers & Acquisitions Boost Market Share

Effective Strategies To Motivate Your Workforce
What will happen to your future if you face a lawsuit today?

Regardless of the safeguards you put in place, claims and lawsuits can happen. Not only can these risks be financially devastating, they can severely disrupt your firm…and your future.

The ACEC Business Insurance Trust helps you take control of these risks with affordable professional liability insurance that has been thoroughly reviewed by your peers.

The ACEC Business Insurance Trust Professional Liability Program provides you:

- Solutions and insurance options guided by practicing engineers who understand the issues you face every day in the management of your practice
- Comprehensive coverage tailored to your firm’s needs
- Expert legal counsel and defense of legal claims and lawsuits

Plus

- Your participation in the ACEC Business Insurance Trust Program benefits both ACEC and your State Member Organization

Take control of your future with the ACEC Business Insurance Trust.

Call for more information and a quote today: 1-800-338-1391

The ACEC Business Insurance Trust (BIT) has authorized Marsh USA Inc. to make engineer’s professional liability insurance available to member firms. Neither ACEC nor The BIT endorses any one professional liability provider. It is the objective of Marsh USA Inc., to offer a choice of providers for PLI coverage. The selection of underwriters may change from time to time.
TABLE OF CONTENTS

FEATURES

25
A VERY BIG DEAL
Strategic mergers and acquisitions can boost market share.

10
IT’S ALL ABOUT ATTITUDE
Involvement, communication are keys to improving workplace morale.

17
BRANDING WITH POWER
Firms realize the benefits of effective marketing.

20
ACEC COALITION UPDATES
Coalitions address risk management, GPS machine guidance, fee calculations.

38

DEPARTMENTS

FROM ACEC TO YOU
Engineering Excellence Awards: History in the making.

2
LEGISLATIVE ACTION
Budget resolutions seek to restore highway funds; H-1B visa legislation introduced; ACEC advocates for increased water funding.

8
NEWS & NOTES
Member Firms make Fortune’s list of "Best Companies to Work For."

4
MEMBERS IN THE NEWS
Thomas Z. Scarangello named chairman of Thornton Tomasetti; PB's Adiele Nwankwo named “One of the Most Important Blacks in Technology for 2008” by US Black Engineer & Information Technology.

39
MARKET WATCH
Falling dollar turns United States into low-cost producer.

6
ONE ON ONE
Hanson CEO “Satch” Pecori confronts market challenges, slowing economy, importance of advocacy.

44

COVER STORY

2008 ENGINEERING EXCELLENCE AWARDS
Award winners reach new heights of engineering excellence.

25

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.

The articles and editorials appearing in this magazine do not represent an official ACEC position or policy unless specifically identified as doing so.
2008 EEA: History in the Making

The 42nd Annual Engineering Excellence Awards (EEA) once again reaffirmed the remarkable impact our profession has on the quality of life we enjoy.

Magnusson Klemencic’s Olympic Sculpture Park in downtown Seattle won the Grand Conceptor Award as the year’s best engineering triumph for its imaginative example of restorative engineering.

The new University of Phoenix Stadium, home of the NFL’s Arizona Cardinals, features a revolutionary movable 9,500-ton playing field that can be wheeled from under the dome to the outdoors for access to natural sunlight and rain.

The new Kay Bailey Hutchison Desalination Facilities in El Paso, Texas, taps vast brackish groundwater from beneath the desert floor and converts it into drinking water.

The new Springfield (Va.) Interchange decongests what was perhaps the nation’s worst traffic clog.

For a complete wrap-up of EEA winners, see page 25.

This edition of Engineering Inc. also features reports on how Member Firms are using strategic mergers and acquisitions to boost market share; how they are enhancing employee morale; and the latest in marketing and branding techniques.

A new Coalitions page highlights the achievements of ACEC’s coalition partners; this edition features the Council of American Structural Engineers, the Council of Professional Surveyors and the Council of American Mechanical & Electrical Engineers.

Orrin B. MacMurray
ACEC Chairman

David A. Raymond
ACEC President & CEO
YOU’VE PROBABLY HEARD THE RUMORS. NOW LEARN THE TRUTH ABOUT TERRA INSURANCE COMPANY.
Member Firms Make *Fortune’s* List of ‘Best Companies to Work For’

Three ACEC Member Firms—CH2M HILL, David Evans and Associates, Inc. and Kimley-Horn & Associates—recently were named to *Fortune* magazine’s 2008 list of “100 Best Companies to Work For.”

More than 400 companies participated in the annual survey, which polls employees at the nation’s largest companies about their work environment, including questions about executive management, job satisfaction and workplace camaraderie. Participating companies also are evaluated for diversity, compensation and quality of employee benefit programs.

Kimley-Horn & Associates, an engineering and land-planning firm out of Cary, N.C., was ranked No. 38. *Fortune* commends it for a wide range of attributes, including a diverse project portfolio and the freedom it provides employees. The firm also was recognized for encouraging employees to pursue their individual career goals.

John Ariz, the firm’s senior vice president and principal regional leader, says it’s Kimley-Horn’s vision that makes it special. “Kimley-Horn is a special place to work because we all have an interest in the success of the firm,” he says. “Whether it is through a shared vision that inspires folks, an open communication policy that informs staff, a bonus program for all employees that rewards performance or a generous retirement plan that ensures a financial legacy, we all see how we can contribute and be recognized.”

At No. 54 on this year’s survey was Englewood, Colo.—based engineering and construction services firm CH2M HILL. CH2M HILL was commended for its competitive compensation and benefits packages, open communications practices and employee ownership culture, where employees own 100 percent of company stock.

“We owe a huge thanks to every one of our employees whose collective efforts truly make CH2M HILL a great place to work,” says Chairman and CEO Ralph Peterson.

“arisk,” he says. “Whether it is through a shared vision that inspires folks, an open communication policy that informs staff, a bonus program for all employees that rewards performance or a generous retirement plan that ensures a financial legacy, we all see how we can contribute and be recognized.”

At No. 54 on this year’s survey was Englewood, Colo.—based engineering and construction services firm CH2M HILL. CH2M HILL was commended for its competitive compensation and benefits packages, open communications practices and employee ownership culture, where employees own 100 percent of company stock.

“We owe a huge thanks to every one of our employees whose collective efforts truly make CH2M HILL a great place to work,” says Chairman and CEO Ralph Peterson.

“arisk,” he says. “Whether it is through a shared vision that inspires folks, an open communication policy that informs staff, a bonus program for all employees that rewards performance or a generous retirement plan that ensures a financial legacy, we all see how we can contribute and be recognized.”

At No. 54 on this year’s survey was Englewood, Colo.—based engineering and construction services firm CH2M HILL. CH2M HILL was commended for its competitive compensation and benefits packages, open communications practices and employee ownership culture, where employees own 100 percent of company stock.

“We owe a huge thanks to every one of our employees whose collective efforts truly make CH2M HILL a great place to work,” says Chairman and CEO Ralph Peterson.

School-Based Engineering Efforts Target Younger Learners

Buoyed by concerns that the United States needs to produce more engineering graduates to compete with those from other increasingly industrialized nations—China and India, to name two—several organizations and even some concerned corporations are launching programs designed to attract young students, some as early as elementary school, to the engineering profession.

The American Society for Engineering Education (ASEE)—which released a report recently stating that 62 percent of engineering degrees awarded at U.S. colleges and universities in 2006 went to foreign nationals, up from 50 percent in 2000—maintains a website dedicated to attracting more youths to the profession.

Dubbed ASEE K12 Engineering Center, the online destination is a portal for students and educators with access to a range of engineering resources, including a free publication about why K–12 engineering education is important, a national database of public-private outreach campaigns supporting engineering education in public schools, and a free guidebook to engineering education for high school students, among other tools.

Simulation and modeling software provider Autodesk offers a link to its Student Engineering and Design Community, where teachers and aspiring engineers can download free graphics and design programs, often scaled-down versions of technologies used by professional engineers.

Siemens, the worldwide engineering and technology provider, offers a link to its Global Opportunities in Product Lifecycle Management program, a massive grant and educational effort that reportedly reaches some 956,603 students annually at 9,355 participating educational institutions.

ASEE is not alone in its efforts. A longtime proponent of better science, technology, engineering and mathematics (STEM) instruction in schools, chip-maker Intel Corp. has sought to generate interest through its Engineering is Elementary curriculum, a collection of technical courses created by the Boston-based Museum of Science. That program now is in use by 500 schools across the country.

The Society of Women Engineers offers dozens of foundation-funded programs, school-based activities, contests and special regional events intended to pique girls’ interest in engineering as a potential career.

And Project Lead the Way, a nonprofit organization that supports better STEM education in schools, offers a suite of design and technical courses that K–12 schools can integrate throughout their standard curriculum.

The jury still is out on whether these programs are having their desired effect. But ASEE plans to release a study in conjunction with the National Research Council later this year examining the impact of such efforts during primary school.
TRUTH: About 25% of the fees generated by Terra’s insureds are for civil engineering services. Some of our insureds perform civil engineering almost exclusively. Others perform it in conjunction with environmental and/or geotechnical engineering. Terra wants to insure more firms that provide civil engineering, alone or in conjunction with other disciplines.

Terra’s not huge (our insureds will tell you that’s a major asset), but that hasn’t stopped us from becoming North American engineering’s second-oldest PL insurance provider. TRUTH: Terra has been providing PL insurance since 1969. Terra was the nation’s first PL company to offer environmental coverage to its insureds.

Terra is a risk-retention group, meaning the insureds (and only the insureds) own the company. And it’s a good one! According to A.M. Best Company – the internationally recognized insurance-company rating organization – Terra is “the highest-rated risk-retention group in the United States.” TRUTH: Best has given Terra a stated rating of “A, Excellent” and an implied rating of “A++, Superior.” And Terra’s score on A.M. Best’s “Capital Adequacy Ratio Tests” is one of the highest of all insurers (not just PL insurers!) doing business in the United States.

Because Terra is a risk-retention group, Terra gives all its profits to its owner/insureds (on a tax-deferred, capital-gains basis). While past performance may not be an indicator of future performance, it’s worth noting that Terra’s stock value has achieved a new-record high for 79 consecutive calendar quarters; i.e., every quarter since the company became a risk-retention group in 1988. TRUTH: Those who bought stock at $10 a share in 1988 can now redeem it for more than $240 a share. Subtract their capital gain from what they’ve paid for their PL insurance since 1988, and their net cost is $0. Or, in some cases, a negative (which in that case is something to be very positive about).

Terra has been so profitable because it’s well managed and because its owner/insureds are well managed, too. TRUTH: By applying unique risk-management programs developed and/or underwritten by Terra, Terra owner/insureds experience a phenomenally low claim frequency; on average, about one claim per $28 million in revenue they generate per year. And that’s all claims, about half of which are closed at no cost to our owner/insureds.

Terra provides a variety of prospectively rated and retro plans to firms that bill from $500,000 to more than $100 million per year. If your civil engineering firm is in that category and you’re ready for a rewardingly different approach to PL insurance, visit Terra’s website, e-mail, or call.
Falling Dollar Turns U.S. Into Low-Cost Producer

By Joe Salimando


Such bleak prognostications bring to mind the old saying, “It’s always darkest just before it turns pitch black.” But it’s not all doom and gloom for market watchers. As the U.S. dollar continues to lose value (see Figure 1), there is another side of the declining coin:

- A weaker dollar makes it increasingly difficult for multinational and U.S.-based firms to financially justify the offshoring of jobs;
- U.S.-based construction—including the revitalization of existing buildings and even the reuse of abandoned industrial facilities—starts to look like a much smarter play;
- Foreign governments are holding vast amounts of U.S. dollar-denominated securities. This is especially true for countries such as China and for Middle Eastern oil exporters. For them, it’s quickly becoming a game of “use it or lose it”—a fact that could lead to increased investment on U.S. shores.

United States vs. China
The United States might be en route to becoming a better manufacturing location than China. Why?

- China has allowed its currency to appreciate versus the U.S. dollar;
- The decision to peg the renminbi’s value relative to the dollar is hurting the Chinese economy, stimulating increased inflation (8.7 percent on an annual basis in February 2008);
- China has struggled in the manufacturing game of late—problems often linked to a talent shortage, particularly in engineering sectors. “The main drawback of Chinese applicants for engineering jobs…is the educational system’s bias toward theory,” states a recent article in The McKinsey Quarterly. “Compared with engineering graduates in Europe and North America, who work in teams to achieve practical solutions, Chinese students get little practical experience in projects or teamwork.

“The result of these differences is that China’s pool of young engineers considered suitable for work in multinationals is…no larger than the United Kingdom’s.”

Why Build in the United States?
There is an aging workforce in the United States, and some would argue we have our own skill/talent problems. But we also have a major advantage over other countries: immigration, legal and illegal. The United States attracts people and, in its own way, welcomes those who want to succeed.

That advantage, taken with the dollar’s decline, makes the prospect of building on our shores advantageous.

The Japanese started construction on four new U.S. auto assembly plants in the past three years. Korean auto manufacturer Kia recently decided to build a plant in Georgia. The India-based IT services firm Tata Consultancy Services (TCS) just opened a new facility in Cincinnati, Ohio, which includes 200,000 square feet of office space and can accommodate up to 1,000 TCS associates, most of whom will be locally hired from the region and its universities.

In March, German auto manufacturer BMW announced plans to cut its German workforce by 7.5 percent over two years, moving production to the United States, where car output is expected to rise by 50 percent between 2008 and 2012 (thanks, in large part, to a $750 million expansion of the company’s South Carolina plant).

An Associated Press report detailing the decisions at BMW quoted one source as saying, “This is completely driven by the plunge in the dollar. It is untenable to produce at a much higher cost in Germany.”

Joe Salimando writes frequently on the construction industry at www.eleblog.com. He can be reached at ecdotcom@gmail.com.
TERRA
INSURANCE COMPANY
A RISK-RETENTION GROUP

WE’RE NOT FOR EVERY FIRM. ONLY THE BEST.
(AND THAT’S THE TRUTH.)

2 Fifer Avenue / Suite 100
Corte Madera, CA  94925
800/872-0077
(In CA, 415/927-2901)
FAX: 415/927-3204
E-MAIL: terra@terrarrg.com
WEBSITE: www.terrarrg.com
Budget Resolutions Would Restore Highway Funds

A budget shortfall in the Highway Trust Fund that threatens funding for 2009 highway projects would be remedied under provisions in U.S. House- and Senate-passed budget plans.

Though both resolutions passed by narrow margins, the votes handed ACEC and its coalition allies an early win in what will be a yearlong fight to ensure that federal surface transportation programs are fully funded in 2009.

ACEC members converged on Capitol Hill during the Annual Convention in late April to lobby House and Senate offices in support of the trust-fund fix and other industry issues.

“Congress needs to act this year if we’re to head off a serious shortfall in the Highway Trust Fund that could reduce funding to the states by 32 percent,” said ACEC President Dave Raymond. “The votes in March are only the first steps in the process—the tough part remains ahead of us as we attempt to secure these budget recommendations into law.”

Both resolutions provide additional funding to restore the F.Y. 2009 shortfall, ensuring that highway and transit projects are funded at the SAFETEA-LU-authorized levels of $43.2 billion and $10.3 billion, respectively. The Senate resolution goes a step further, adding an extra $4 billion for new transportation spending as part of a future economic stimulus package.

House and Senate negotiators are working to hammer out a compromise budget resolution. Though not binding, the budget resolution provides House and Senate appropriators with a blueprint for spending priorities in 2009.

ACEC-Backed H-1B Visa Legislation Introduced

ACEC supports two legislative measures that would increase the availability of H-1B visas used by U.S. companies to retain and recruit highly skilled talent.

H.R. 5630 and H.R. 5642, introduced by Reps. Gabrielle Giffords (D-Ariz.) and Lamar Smith (R-Texas), respectively, seek to significantly increase the current yearly cap of 65,000 H-1B visas. The Giffords bill (H.R. 5630) would raise the visa cap to 130,000 in 2009 and 180,000 in subsequent years based on demand. Smith, the senior Republican on the U.S. House Judiciary Committee, wants to create short-term relief for H-1B visa applicants by increasing the cap to 195,000 for fiscal years 2008 and 2009.

The need for legislative relief was underscored in April when the U.S. Bureau of Citizenship and Immigration Services received approximately 200,000 applications for the 65,000 available H-1B visas for 2009. As it did last year, the agency will use a lottery system to choose H-1B recipients.

ACEC continues to advocate for more H-1B visas to address the persistent shortage of engineers in the United States. The Council also is helping guide legislation through Congress that would provide financial aid incentives to encourage more young people to pursue engineering degrees.

**ISSUES ON THE MOVE**

<table>
<thead>
<tr>
<th>WHAT'S NEXT</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Budget plans to restore highway funds</strong></td>
<td>House, Senate appropriators to act in spring</td>
</tr>
<tr>
<td><strong>Contractor tax enforcement legislation</strong></td>
<td>Possible floor action before summer</td>
</tr>
<tr>
<td><strong>A/E retainage issue</strong></td>
<td>FAR Council to respond before summer</td>
</tr>
</tbody>
</table>
ACEC Advocates for Increased Water Funding

ACEC President Dave Raymond urged U.S. House and Senate appropriators to restore funding for the Clean Water State Revolving Fund (SRF) to $1.35 billion for F.Y. 2009.

He called on Congress to reject President Bush’s budget request of $555 million, which represents a cut of $134 million from the current level and a reduction of more than 50 percent of what the SRF traditionally received for several years before F.Y. 2005.

In letters to the appropriators, Raymond noted that “the need for increased investment in our nation’s 16,000 wastewater systems is tremendous and has been well-documented,” citing EPA’s most recent “needs” survey, which reported that publicly owned treatment plants will need $202 billion in capital investments over a 20-year period to remain in service.

“The nation has made significant progress in enhancing water quality since passage of the Clean Water Act in 1972,” Raymond said. “If we are to continue this trend and realize the goals set forth in the act, it is critical that Congress take action to restore funding to the SRF program. Congress needs to reject this request and restore appropriate funding.”

New Development in Effort to Repeal 3 Percent Withholding

As ACEC and its coalition allies continue efforts to repeal the 3 percent withholding mandate, the House of Representatives has adopted legislation addressing contractors and their tax liabilities.

The House approved the Contracting and Tax Accountability Act of 2007 (H.R. 4881), introduced by Rep. Brad Ellsworth (D-Ind.), which would bar any individual or companies that have seriously delinquent federal tax debt from contracting with the federal government. This would apply to anyone with an outstanding tax debt for which a lien has been filed, unless the taxpayer has agreed on a payment plan with the IRS or is appealing the debt.

Under H.R. 4881, potential contractors would be required to certify that they do not have tax debt, and would have to authorize the IRS to share certain information about the contractor’s tax status with federal agencies.

ACEC and its allies in the contracting community are closely monitoring the progress of this legislation and are advocating the full repeal of 3 percent withholding before any new requirements are imposed.

In addition, ACEC has submitted comments to the U.S. Treasury Department highlighting serious problems with the implementation of 3 percent withholding, such as whether withholding can be passed on from prime contractors to subcontractors, and how withholding will interact with prompt-pay laws.

Small Firm Council Members Weigh In on Retainage; SBA to Review Practice

The Small Business Administration’s (SBA’s) Office of Advocacy is proceeding with a review of retainage policies following input from ACEC members concerned about the effect on smaller firms.

Retainage is a practice followed by federal agencies where a percentage of payment—typically 10 percent—is withheld from federal A/E contracts. In some instances, the retainage fee is not released until the related project has been completed, which often can take years. The practice can have a negative effect on a firm’s cash flow, especially small firms.

“Retainage requirements pose a significant burden on small firms,” said ACEC Small Firm Council Chairman Gregg Ten Eyck of Denver-based Leonard Rice Engineers, Inc. “The law is unclear about when retainage fees will be released, resulting in an interest-free loan to the federal agencies at small firms’ expense. We look forward to working with SBA and the [Federal Acquisition Regulatory Council (FAR)] to address this issue.”

The SBA’s Regulator Review and Reform Initiative was established to identify issues for federal agency review to determine if they are outdated, ineffective, duplicative or overly complex. As part of the initiative, SBA has requested that the FAR Council review the practice of withholding retainage fees and reduce their impact on A/E firms.

For more news, visit ACEC’s Last Word online at www.acec.org.
MERGER AHEAD
Strategic mergers and acquisitions help boost market share

Tony Franceschini knows mergers. As president and chief executive officer of Stantec, Inc., he’s spent the better part of 15 years inking the kinds of deals that have helped turn his half-century-old firm into a multinational engineering powerhouse with more than $600 million in sales and 8,500 employees.
“Acquisitions have accounted for roughly two-thirds of our growth since the mid-1990s,” says Franceschini. “It has been a very successful strategy.”

One not without risk. The business world is littered with the shipwreck debris of mergers and acquisitions (M&As) gone awry. Like a jeweler in search of the perfect diamond, he says, successful corporate marriages rely on attention to detail.

“The reality is that a deal must amount to more than the sum of its parts,” explains Franceschini. “The goal is to create an equation where one plus one equals three.”

Even in the shadow of the recent economic downturn, many companies are eyeing M&A deals—either as buyer or seller.

“Acquiring companies often are looking for increased revenue streams, while those positioning themselves to be sold usually are looking to leverage their expertise into greater financial and business opportunities,” says Andrew J. Sherman, a senior partner at the Washington, D.C.–based law firm of Dickstein Shapiro.

Whereas a spate of high-profile M&As in media and technology sectors have come under fire for creating a monopolistic culture responsible for limiting customer options, increased merger activity in the engineering industry isn’t likely to yield the same criticisms, says Ray Kogan, president of Kogan & Company, a McLean, Va.–based consulting firm.

“Within any local or regional market, there are plenty—many engineering firm principals would say, too many—firms that are qualified to do almost any project. Consolidation in the industry through mergers and acquisitions may tend to ‘prune the tree’ of those firms that might not otherwise survive in the long term, but I don’t believe that any consumers of engineering services will be hurt at all. In fact, typically acquisitions result in a stronger firm that can bring more capabilities to any given project or client.”

Though it’s difficult to get an accurate read on the raw number of M&A transactions under way, industry-watchers say deals are likely to continue in substantial numbers in the months and years ahead.

But these transactions can quickly spell doom if they are not conceived and executed carefully, legally and sensibly.

There are, among other things, strategic issues to mull, cultural factors to weigh, financial matters to examine and human resources concerns—including pay and roles—to address. Even when companies engage in the required up-front analysis and conduct comprehensive due diligence, there’s no assurance the deal will work.

“There are a lot of unknown variables,” says Kogan. “There are no guarantees.”

Typically acquisitions result in a stronger firm that can bring more capabilities to any project or client.

RAY KOGAN
KOGAN & COMPANY

Building on Success

Mergers and acquisitions have long played an important role in the business world. Buying, selling and combining assets enables organizations to grow, while improving their market position and financial standing.

Rather than create a new product, service or business line from the ground up, acquisitions provide a gateway to instant competition. Well-orchestrated deals can fill gaps and address niches that would otherwise require intensive recruiting, training and management—not to mention steep acquisition costs.

Colvin T. Matheson, managing director of Matheson Financial Advisors in Falls Church, Va., says a number of factors have contributed to the recent flurry of M&A activity. A shortage of talent and a backlog of projects have made companies more conscious of acquiring talent by purchasing other companies. And an unusually fragmented market has fueled demand for strategic pieces that can help a company boost its market share and revenues.

Age is another contributing factor, says Matheson. Many principals of small engineering shops are approaching retirement. Though they’d like nothing more than to cash out and begin enjoying their golden years, many are finding that the next generation of leaders often lacks the capital or experience to confidently take the reins.

“There are a lot of cases where there’s a real talent deficit,” says Matheson. The second tier of executives is adept at managing projects, but it isn’t ready to run a firm. It comes down to a basic question: Do we close the doors or look for someone who can buy us out?

At Miami-based PBS&J, President Todd Kenner says he receives two to three inquires a week—almost all from small firms looking for a suitor. The firm also receives an occasional feeler from a larger company interested in exploring a merger or acquisition.

Kenner says PBS&J has completed 18 deals since 1990 and “looked at” hundreds of firms over that span. “One of the
Identify a strategic need. Technical expertise, footprint, geography, market share, customer reach and growth opportunities are just a few factors to consider.

Identify suitors or acquisition targets. Examine the industry, including competitors, to discover potential opportunities and matches.

Understand the culture. Once you’ve identified a potential buyer or seller, take a close look at the culture, including attitudes, work styles and philosophy. It’s essential to observe work patterns up close and personal, and address any yellow flags up front. An incompatible culture is a deal breaker.

Know your potential partner. Understand the assets, liabilities, expertise, intellectual capital and customer list that the merger or acquisition partner brings to the table—and how the deal makes sense strategically.

Don’t skimp on due diligence. Spend the required time—often 90 days or more—poring over the potential partner’s finances, legal and compliance records, HR practices, IT systems and more.

Make sure you’ve got the valuation right. Examine cash flow, P&L statements, project backlogs, billings and client lists.

If you’re a seller, begin preparing for a sale 18 to 24 months ahead. Ensure that you have accrual-based financial statements, industry-standard software and strong project management systems in place.

Frame a sound agreement. It’s important to look beyond the basics. An agreement must cover exit strategies for principals, contingency clauses, severance policies and a host of other issues.

Integrate companies and systems. Pay and benefits, job titles and organizational charts, workflow and IT systems all are key elements of building a successful enterprise.

Monitor performance and make necessary adjustments. It’s important to give people the space to do their work—without feeling as though Big Brother is watching. It’s also necessary to keep an eye on key metrics and business practices and understand where to make tweaks and changes.

Don’t be afraid to admit to a mistake. Unfortunately, some deals just don’t work. If it’s clear that certain employees aren’t fitting in, or that a deal isn’t paying dividends, it might be prudent to pull the plug—or at least look at restructuring options. It’s unlikely that things will improve by themselves.
biggest drivers is the ability to design, build and operate projects in-house,” he says.

Firms with engineering roots now are looking outward to expand their portfolio of offerings. Over the last few years, a spate of companies has moved beyond core engineering functionality and into architecture and construction. “Executives at larger companies understand that it is one of the biggest drivers for building market share, increasing revenues and expanding a market presence,” notes Kenner.

So far, his firm has done a good job of delivering on that promise. PBS&J has emerged as an industry heavyweight—partly due to its ability to absorb strategically significant firms in the right geographic areas. That list includes EIP Associates, a 100-person environmental and urban planning services firm with headquarters in Sacramento, Calif., and approximately $12 million in revenues (October 2007); and Eco-Science, a 22-employee Raleigh, N.C.–based firm specializing in environmental services (March 2008).

Still, not every deal has lived up to expectations. Kenner says as many as one-third of the company’s acquisitions have fallen short of pre-established goals, though these transactions mostly took place in the 1990s.

“It’s important to learn from mistakes and get better over time,” he says. PBS&J has amassed a team of experts that can hit the ground running when a potential deal arises. The team includes M&A experts from finance, human resources, operations, legal, compliance and other areas. Their objective: to “get a fix on things quickly and efficiently,” says Kenner.

Gaining an Edge
The first step in any merger or acquisition is ensuring a strategic fit. It’s relatively straightforward to determine whether a target company has potential to reinforce or expand the core business and enhance shareholder value. An engineering firm might seek to add architectural and construction services to its product portfolio, or address fast-growing niche areas, such as water infrastructure or environmental services. It also might target key geographies.

Far more difficult is determining how to mesh two distinctly different cultures. “Culture is a soft and somewhat intangible thing that often boils down to trusting your gut,” says Matheson. “If business goals don’t match and the companies have incompatible styles, the merger or acquisition is doomed.”

Dealmakers have to think about company values, attitudes, work habits, ethics, principles, goals and pay and benefits. They also have to engage in face-to-face meetings and give executives time to observe activities and business processes.

“Understanding culture can feel like trying to nail Jell-O to a wall,” says Stantec’s Franceschini. He advises companies to create a list of no more than a dozen of the most crucial elements and to use some type of metric or scorecard to track compatibility. “Unless we feel that we can operate as a single team with a balanced organizational structure, we pass on the deal,” he says. “If the cultural fit isn’t there, it really doesn’t matter how good the strategic or financial aspects appear to be.”

No merger or acquisition can be justified by a balance sheet alone. “You’re buying a lot of intangibles, including intellectual capital,” says Franceschini. Firms must deal with people and client contacts. If executives don’t buy into the approach or they’ve already got one foot out the door, the deal is in trouble.

But if those pieces fall into place and executives like what they see, they can move from exploration into the due diligence phase of the process.

Due diligence involves scrutinizing the suitor’s finances, IT systems, project management practices, human resources, compliance and other factors. It’s vital to understand how competing networks and enterprise applications would merge.

An acquiring company also must set a valuation for the target firm. Getting a fix on assets, a firm’s inventory of projects and cash flow is paramount.

“When you acquire an engineering firm, you really are buying existing contracts and a backlog of work,” says Matheson. It is important to know where the target company stands on various projects. “Whether they are ahead of schedule, on schedule or behind schedule determines how income is measured and it can skew the valuation significantly. The acquiring firm can wind up overpaying or underpaying for the target company.”

There also is a need to address compensation and benefits. An acquiring firm usually wants to retain the principals of the target company for three years or longer or have them sign non-compete agreements,
Executives at larger companies understand that [M&As are] one of the biggest drivers for building market share, increasing revenue and expanding a market presence.

TODD KENNER
PBS&J

Auditors and consultants likely will descend on target firms to pore over every aspect of the business. In the wake of devastating accounting scandals, from Enron to WorldCom, firms are increasingly wary of suspect bookkeeping, and the evaluation process can sometimes be tedious. A majority of large engineering firms are privately owned, which means they aren’t always subject to the same accounting standards as public companies. Still, financial review and valuation is a difficult and often time-consuming endeavor.

“It can become extremely nit-picky and impersonal,” cautions Matheson. “The buyer and seller must be significantly committed to the deal in order for it to survive.”

Constructing a Future

Once cultural analysis and due diligence are complete and companies sign an agreement, there remains the onerous task of structuring the financing (usually through operational cash, borrowing, stock or some combination of these methods) and creating the new business.

The process can prove both exhilarating and terrifying as elements of risk and opportunity collide.

“It’s all about moving forward in a way that minimizes disruptions, distractions and obstacles,” says Gordon Meurer, vice president at Lakewood, Colo.-based Kennedy/Jenks Consultants.

Meurer speaks from experience. In June 2007, his 25-person firm, Meurer & Associates, was bought by Kennedy/Jenks. “We had been talking about succession planning and opportunities for our staff. We had examined how we could best serve the Denver market better,” says Meurer. “Although I’m 62, I still have energy and enthusiasm. I want to continue to work. Selling the company wasn’t a retirement strategy. It was a way to maximize the company’s value and expertise.”

When Kennedy/Jenks approached him in fall 2005, Meurer already had begun weighing his options, including a sale to someone who would keep the 28-year-old company independent.

But the executive team ultimately agreed that an external acquisition would pay greater dividends. After a couple of years of discussions, meetings, negotiations and due diligence (including nine months of cultural analysis), the companies decided to make a deal.

The two entities faced myriad challenges, from getting used to different procedural systems, to morphing accounting methods, to syncing human resources processes and handling other business functions. But, so far, the marriage has worked. “One of the keys was that Kennedy/Jenks welcomed our input and didn’t minimize or marginalize our experience,” says Meurer. “Although the deal was an acquisition, it really felt like a merger between two equals.”

Today, the former Meurer & Associates office operates independently and retains its own name, which is widely known in Colorado. “What really has changed,” says Meurer, “is our ability to work with clients that we, as a smaller firm, weren’t equipped to handle. Employees and customers have recognized that the new structure is beneficial. Our people have been able to grow and expand their careers beyond what would have been possible as a separate company.”

Although some firms, such as Kennedy/Jenks, allow acquisitions to operate under their existing name, others firms do not. Stantec and PBS&J, for example, absorb sellers and fully integrate them into their respective organizations—usually within a few months. “We believe in a single company with a single mission. Autonomous operations run contrary to this approach,” says PBS&J’s Kenner.

Despite enormous challenges and all the risks, M&As remain viable options for many engineering firms. Says Sherman: “If you do your homework, manage the process and have realistic expectations, a merger or acquisition can deliver impressive results. It can create new business opportunities and income streams within a much shorter time frame.”

Samuel Greengard is a freelance business writer living in West Linn, Ore.
Experience

Old world charm, French 'joie de vivre' and a modern style all its own. Over the years European flair has blended with North American savoir-faire to create the story of Montréal — a rich tradition, a mosaic of cultures, and a fierce passion for the future.

Learn

First-class professional educational programs taught by respected practitioners with content in key management areas: Business Management, Technology Leadership, Risk Management and Contracts, Project Management and Project Delivery, Environment and Sustainability, Transportation, Infrastructure, and Buildings.

Enjoy

Montréal is a city oozing with a thousand flavors. Enjoy sights, restaurants, quaint cafés, and shopping with a European flair — there is something for every taste.

Mark Your Calendar

Montréal, Canada
The Fairmont Queen Elizabeth Hotel
October 19-22, 2008

For more information visit www.acec.org/conferences/fall-08
It's All About

Attitude

Involvement, communication keys to improving workplace morale

By Kim Fernandez

Have concerns about your benefits package? Got an idea for a corporate outing? Fed up with having to wear a tie to work? Just plain unhappy?

If you work at Sargent & Lundy, your boss wants to hear about it. When the Chicago-based firm decided several years ago to create a place online where employees could make suggestions about how to improve life at the office, the thinking was simple: Motivate your employees by making them feel valued.

Company executives say the feedback—good or bad—helps them shape the firm's culture. What's more, at a time where good talent is increasingly hard to find, it enables them to stamp out potential problems before they can sap morale.

"Having your employees engaged is critical," says Pamela Petrich, Sargent & Lundy's vice president of human resources. ""There's a lot of employee involvement. This is a tool that's very much at the forefront of the upper management of the company. And employees are encouraged to use it."

A lot of engineers might be wary of openly criticizing their employer, especially when those in charge might hear about it. But Sargent & Lundy wants its people to say what's on their mind.

"Engaged employees are employees who are motivated, who care about their jobs and who care about their employers," says Petrich. "And we're constantly looking for ways to keep our employees connected to the organization."

That, experts say, is the right move, especially as competition for top-flight engineers heats up throughout the industry.

"There's a major talent shortage, especially in engineering and the sciences," says Beverly Kaye, author of Love 'Em or Lose 'Em: Getting Good People to Stay and Up Is Not the Only Way: A Guide to Developing Workforce Talent.

"Any company that thinks the atmosphere or the culture of the company doesn't count is making a big mistake,"
Morale Builders

Consultant and author Beverly Kaye says taking steps to make employees feel appreciated can go miles in the attitude and morale department. Here are a few inexpensive ideas about how to show appreciation to your staff:

- Give free tickets to sports or entertainment events.
- Give employees gift cards to local merchants or popular eateries.
- Allow employees to participate in the hiring process for a new manager.
- Give subscriptions to favorite magazines and have them sent to employees' homes.

she says. “It is the major differentiator between one company and another. And the company that keeps its most talented engineers probably is going to win in the long run.”

Making Connections

Throughout the industry, more firms are introducing programs to help new and veteran workers feel a kinship with their employers.

At Portland, Ore.–based David Evans and Associates—recently named to Fortune magazine’s 2008 list of the “100 Best Companies to Work For”—executives consider employee satisfaction a key indicator of the firm’s overall success.

“Employee satisfaction is at the forefront,” says Michelle Willis, the firm’s associate director of human resources. “That, in and of itself, says that we value how our employees feel about the organization.”

Barry Barber, human resources director at Kimley-Horn and Associates, Inc., which also made Fortune’s list, says there is no substitute for good talent.

“From the beginning, our culture has centered on providing an environment for our people to flourish,” says Barber.

In order to recruit and retain talented employees, Kimley-Horn offers several benefits, including employee ownership.

“We are privately owned by the practicing professionals of the firm,” explains Barber. “Approximately 12 percent of our employees are owners and no one owns more than 5 percent of the shares. We have a proven ownership transition plan that ensures financial stability and provides opportunities for new owners.”

At David Evans, executives show their appreciation by paying employees for every hour worked. Salaried employees receive their agreed upon wage, plus a straight rate after 40 hours worked and hourly employees get time and a half.

Firms also are finding ways for employees to help one another.

At Malcolm Pirnie, a White Plains, N.Y.–based firm, mentoring programs to foster camaraderie have been implemented. An online system matches employees with mentors and provides the opportunity for both parties to offer feedback on their experiences.

“People get their greatest career growth through experiences, through projects and through people on the job,” says Al Brockwell, Malcolm Pirnie’s director of talent and organization development. “We use mentoring in conjunction with classroom training.”

David Evans employees are eligible for DEA University. The two-year-old program offers special brown bag training sessions, where staff has an opportunity to discuss everything from striking a good work-life balance to technical skills.

The idea: to create an environment within the firm where everyone eventually is learning from everyone else.

Put a few strong minds together in a room and good things are bound to happen, says Kaye. “Having smart peers who other engineers can problem solve with and hang out with is important. The more I can provide my team opportunities to work in tandem with one another—help one another and be creative with one another—the greater chance I have of building a positive climate.”

Climbing the Ladder

Experts agree: It is crucial to foster an environment where success is rewarded with opportunities for advancement.

Gary Topchik, author of Managing Workplace Negativity, says keeping the lines of communication open along the chain of command helps employees get ahead. It also helps project managers keep team members on task and on point.

“The manager has to figure out what makes each employee tick,” says Topchik.

“What is the motivational factor to get that person to perform better than they’re currently performing? Is it more responsibility? Is it being more visible? Working independently? Learning something new? Once they find out what it is, if they can supply it, it’ll really help with motivation.”

Sargent & Lundy, for example, is
developing a database that will give each employee access to information about his or her own customized career path within the organization. When the system launches, it will provide each employee with his or her own personalized virtual space with access to training modules and internal and external links, including information to help them get ahead relative to their individual experiences and goals.

Malcolm Pirnie employees have access to similar assessments through the company’s talent management program. “It really helps people to have a clear idea of what their various career path options are in the company,” says Brockwell.

David Evans and Malcolm Pirnie also periodically survey their employees, using an outside company to solicit ideas and feedback. Executives say the surveys, though basic, are an affirmation to employees that their opinions matter.

Willis says much of what David Evans has done in recent years to improve workplace morale is the result of employee feedback.

The surveys “help to guide our activities so that we know where to put our efforts and where we might be lagging behind,” she says.

“There are a number of things that are ingrained in our company that acknowledge that people have challenges on the job and at home,” adds Malcolm Pirnie’s Brockwell. “The work/life balance is important to us, and we know that their happiness and contentment certainly comes through in the work they do for our clients.”

Some managers often are reluctant to ask for feedback for fear that the demands—a heftier paycheck, for one—will be too high. But that isn’t often the case, says Kaye.

“A major step for managers to take is a very simple one: ask your people why they stay with the company and what you can do to keep them,” says Kaye. “Ask them individually. Listen hard to what they say, and provide for things you can do within your control.”

Petrich agrees. In her experience, small changes and initiatives go a long way toward keeping employees happy.

“Someone said they’d like to create a book club,” she says. “We looked at our budget and went ahead to start a book club. We have all kinds of athletic programs that we sponsor and support. We have a Toastmasters group. When the Chicago Public Schools were looking for science fair judges, we opened that up to our employees. So they go to various schools to judge science fairs, and they can say, ‘I represent Sargent & Lundy and I’m an engineer.’”

It’s the little things, she says, that give employees a strong sense of ownership in the firm, and a sense that their managers value their input beyond their area of expertise.

“The more motivated the workforce is, the more productive they’ll be, and the better your bottom-line results,” says Topchik. “It’s well worth trying to get people to be motivated in the workforce. It’s a huge payoff.”

Kim Fernandez is a freelance business writer living in Bethesda, Md.

---

**Simpson Gumpertz & Heger**

Simpson Gumpertz & Heger is a national consulting engineering firm that designs, investigates, and rehabilitates structures and building enclosures.

We are always looking for highly qualified candidates interested in working on challenging and exciting projects in an environment that promotes employee growth and satisfaction. We have five offices: Boston, Los Angeles, New York, San Francisco, and Washington, DC.

We offer an excellent compensation and benefits package in a corporate culture based on learning and growth. To learn more about SGH and current job opportunities, visit our web site at www.sgh.com/EmploymentOpportunities.

Please send your resume to:
Simpson Gumpertz & Heger Inc.
Attn: Human Resources Dept.
41 Seyon Street, Bldg. 1, Suite 500
Waltham, MA 02453
Fax: 781-907-9009
As a rule, engineers pride themselves on their ability to tackle any type of technical challenge, whether it’s creating a new structure or infrastructure system, or striking the ideal balance between natural and built environments.

But that same enthusiasm often doesn’t carry over to marketing—an important and potentially lucrative practice that all too often is overshadowed by ongoing projects. The aversion to marketing is not merely a reflection of engineers’ preference for logical “left-brain” work. Although most firms recognize and appreciate the marketing-equals-more business mantra, they often consider these efforts low-priority chores to be performed when time permits, or if a major project opportunity arises.

“The challenge is making marketing a priority,” says marketing consultant Mel Lester of The Business Edge in Shawsville, Va. “As long as you see it as overtime or an extra-time activity, you will never be good at it.”

Another source of reluctance stems from the common association of marketing with sales and the negative perception of cold calls, suspicious motives, and the resilience necessary to rebound from unsuccessful sales pitches.

Other firms see little need—if any—to market themselves, due to the overall prosperity of the past several years, a consistent client base or the belief that they simply are above such practices.

“When business is good and you have a big backlog, the perceived importance of marketing diminishes,” says Lester.

Though the ultimate objective of marketing is to generate new business, it brings value in other ways, too.

“Marketing is a carefully defined and crafted strategy for raising awareness of what a firm is, and what it can do to help clients get the best results,” says Donna J.
Marketing is a carefully defined and crafted strategy for raising awareness of what a firm is, and what it can do to help clients get the best results.

DONNA J. CORLEW
SCHNEIDER CORPORATION

Corlew, business development manager for the Schneider Corporation in Indianapolis and president of the Society for Marketing Professional Services. “Without it, there’s no way an engineering firm can survive and grow.”

Marketing also helps an engineering firm differentiate from its peers, a key factor in a business environment increasingly dominated by price and commoditization.

“As an industry, we’ve become our own worst enemy in that regard, especially when working for contractors or architects,” says Nick Cerro, director of marketing for the C&S Companies in Syracuse, N.Y. “When a client considers everyone equally qualified, you need to convey the experience of working with your firm, and how you can serve them differently—and better.”

Another factor that distinguishes effective marketing is its emphasis on long-term, strategic goals, rather than the short-term focus of winning a specific project. It also can help a firm gain immediate visibility in a new geographic area or service market.

“Marketing helps establish and build your brand, and helps you gain recognition of your expertise and capabilities,” says Alethea O’Dell, marketing director for San Francisco–based Degenkolb Engineers, “which also spotlights its advocacy on earthquake safety issues as part of its marketing strategy.

Prospective clients aren’t the only targets of a sound marketing strategy. In an age where talent is increasingly hard to come by, engineers also are promoting their profession.

“Given the engineering industry’s talent shortage, the image a firm projects will go a long way in its ability to recruit the next generation of engineers,” Cerro says. “It also will cultivate a greater appreciation of what the profession offers to society among clients, decision-makers and the public.”

Breaking Down Barriers That engineering firms often struggle with marketing comes as no surprise to O’Dell.

“When the inside, you’re always thinking about your firm, but forget that current and prospective clients are not,” she says. “You may have the greatest technical skills in the world, or do something really great. But without marketing, those qualities and accomplishments won’t take you anywhere.”

Lester agrees, noting that effective marketing boils down to communication—a skill that not all technically minded people have or know how to do well. “There are few practitioners who excel at it, and most others are brought into it grudgingly,” he says.

That doesn’t mean marketing talents can’t be cultivated. Doug Tholo, strategic business development manager for the Howard R. Green Company in Cedar Rapids, Iowa, says personality studies have found that the majority of engineers are honest and caring—“the same traits that are needed to influence somebody to buy something. If engineers feel that they can be themselves in marketing settings, people will trust them.”

But, like any project, success requires a significant upfront investment. Poorly executed marketing campaigns often suffer from inconsistency, improper follow-up, mixed or unclear messages and a lack of distinctive elements that make positive, lasting impressions.

“That’s why a marketing strategy needs the full buy-in and support of senior management to ensure that it receives the time and resources necessary to be effective,” says Corlew. “You have to have a plan and follow through on it.”

Consistency is equally essential for building a bond of trust with customers—even if they aren’t customers yet.

“Too many firms respond to a [request for proposal] and expect something to happen overnight,” says Tholo. “It won’t because the buyers don’t know them. Building trust is something that we as an industry don’t do extremely well. We tend to be engineers first, and businesspeople second.”

Essentials for Effectiveness Some look at effective marketing strategies as an exercise in matchmaking—determining how their firm can help clients achieve positive results. That process begins with thoughtful research and assessments.

Winslow “Bud” Johnson, president of Stamford Marketing Group in Stamford, Conn., says, “It means analyzing the market and what it needs; analyzing your services and how well they meet those needs; analyzing your prices to make sure they are competitive, yet profitable; and analyzing promotional tools to select a mix that works best.”

Given the industry’s talent shortage, the image a firm projects will go a long way in its ability to recruit the next generation of engineers.

NICK CERRO
C&S COMPANIES
When looking to build an effective marketing plan, the best sources often are customers themselves.

“We learn as much as we can about specific markets and prospective clients, making sure that there’s a need in an area where we can provide the best service,” says Tholo. “Then we visit those clients and ask open-ended questions about the issues and challenges they’re dealing with.”

The key, says Tholo, is to be genuine and sincerely interested in what the client has to say. “You want to create an atmosphere where they truly want to talk to you,” he explains.

Such conversations are best orchestrated by the firm’s senior managers and not business and development staff. “You’re there to listen, not sell,” says Tholo.

The modern marketer’s toolbox contains a virtually unlimited range of “traditional” and “new media” options for positioning a firm’s expertise and capturing clients’ interests. Tools range from brochures, trade articles, and media relations, to conference papers and presentations, web seminars and sponsorships.

Johnson advises looking to competitors and as far as other industries for clues that might help firms cultivate a distinctive image. “You can learn a lot from, say, the packaged goods industry, or firms that market to entirely different customers or in other parts of the globe,” he says.

Some engineering firms also are making use of company websites as a marketing tool, though Johnson says many don’t know how to properly gauge its effectiveness.

“There are some sites that are cluttered designs where the messages get lost, while others are difficult to navigate and contain outdated information,” he says. “Websites need constant attention to their look and content in order to attract visitors and get your messages across.”

Despite the advent of technology, experts say, there still is no substitute for the personal touch.

“You can’t replace the value of face-to-face relationships,” Cerro says. “Anything you can do to educate and interact with people is going to be effective marketing.”

Many firms, for example, take active roles in their clients’ professional organizations, keeping them abreast of important issues and trends.

Good networking also helps with those dreaded “cold calls.”

“When you’ve learned something about a prospective client, either directly or through a third party, it’s much easier to ‘warm up’ that call because you already have a connection,” says Corlew.

**Operational Issues**

Increasingly, successful marketing of engineering services is a company-wide effort, not the domain of designated business development specialists or client liaisons. Firms are finding ways to integrate marketing with all major business functions, largely because it touches so many different areas—new projects, recruitment, community and stakeholder relations, and professional development, to name a few.

“The days of having marketing separate from operations are over,” says Corlew.

Firms can no longer afford for marketing to be an afterthought. “I encourage firms to budget time for marketing activities the same way they budget time for projects,” Lester says. “They need to identify specific tasks, monitor time and resources used in performing them, and if a conflict arises, they immediately need to reschedule those tasks.”

When business slows, engineering firms should resist the temptation to pare down their marketing efforts and resources in the name of controlling overhead.

“Economic downturns actually provide an ideal opportunity to stand apart from competitors that may be stepping back,” O’Dell says.

Marketing cutbacks also risk inconsistency, causing clients to question whether the firm has the stability necessary to be a partner now, or in the future.

“Laying off marketing coordinators will have a negligible impact on the bottom line,” says Lester. “What is important is the return firms are getting on that investment, not just the cost of it.”

That leads to perhaps the biggest challenge of marketing—establishing a direct correlation to business results. Unfortunately, there are no ready-made measurements available. That’s due, in large part, to the individual nature of engineering firms and the inability to control external influences tied to a given project’s success.

“It shouldn’t just be proposal wins or the number of client call-backs,” Cerro says. “Each firm needs to define what success looks like, and devise its own metrics to measure it.”

Just as marketing spans an engineering firm’s entire operational spectrum, so too should responsibility for its success.

“The business development professional can’t do it without a technical person’s knowledge,” Tholo says. “Everybody plays a role, and the performance indices should be designed to encourage people to work together.”

That includes not simply telling clients and customers what you can do, but actually doing it—probably the best marketing tactic of them all. “If you’re the best at serving customers before, during and after the sale, success will take care of itself,” Lester says.

O’Dell agrees. “The best marketing is when clients are talking about you,” she says. “That’s how you make a lasting impression.”

Jim Parsons is a freelance business writer living in Bristol, Va.
For over 50 years, the engineering experts at Erdman Anthony have delivered the most innovative, cost-effective solutions to meet the complex challenges of our clients. The Frederick Douglass - Susan B. Anthony Memorial Bridge in Rochester, New York is just one example.

Together with the New York State Department of Transportation, we extend our appreciation to the ACEC for recognizing this project. We also thank the Rochester community for their unwavering support. Their vision enabled us to design an award-winning bridge that will transcend time.

For more information, visit erdmananthony.com or call 585-427-8888.
From a revolution in stadium design to a state-of-the-art molecular research facility, the achievements of the 2008 Engineering Excellence Award winners reflect the industry’s enormous impact on every aspect of life, nationally and worldwide.

ACEC Member Firms entered 158 projects in this year’s EEA competition. A 33-member judging panel of industry experts and professionals from across the nation provided comprehensive analysis to determine the top 24 winners—eight Grand Awards, 16 Honor Awards and the “Grand Conceptor Award” for the year’s best engineering effort.

Judging criteria included uniqueness and originality; technical, social and economic value; complexity; success of the project in meeting goals; and advancement of a positive public image of engineering excellence.

And the 2008 EEA winners are …
Creative engineering has transformed a blighted industrial wasteland into a stunningly picturesque urban waterfront in downtown Seattle.

The project team had to overcome soil stability challenges for the 8.5-acre coastal site that rises 40 feet above the original grade. In addition, it had to mitigate contaminants from the site’s six decades as an oil storage facility.

More than 200,000 cubic yards of imported soil were strategically placed to form the park’s complex elevated levels. Pioneering “decoupled” shoring walls were used to keep soils in place, and subsequently, also comprising a unique capping system to diminish contamination.

An innovative rainwater drainage system redirects runoff to the Puget Sound. A new stabilization buttress in the water reinforces an aging seawall, while the location doubles as a habitat for endangered Chinook salmon.

The new Olympic Sculpture Park features a continuously sloping 2,200-foot Z-shaped path linking three land corridors; each has a distinctive panoramic view. The project’s re-created beachfront is the first engineered beach on a major U.S. city waterfront.

Now home to 21 works of art and nature, the park provides a breathtaking public recreation experience, an example of urban artistry and sustainability, and a world-class engineering feat.
HNTB—Arlington, Va.

The new Springfield Interchange replaces a previous traffic junction that became known as one of the nation’s worst traffic clogs—tying up more than 300,000 vehicles per day, and yielding the highest accident rate on the Washington-area Capital Beltway.

The project involved widening of roadways, demolition and replacement of 50 bridges, major intersection reconfigurations, design of 15 signalized intersections, and enhancements to six miles of local arterials and streets.

The new interchange accommodates more than 500,000 vehicles a day, with easy traffic flow, faster commutes, and increased safety.

University of Phoenix Stadium, Glendale, Ariz.
Walter P Moore—Houston, Texas

The futuristic University of Phoenix Stadium, site of this year’s NFL Super Bowl, includes North America’s first “completely operable” playing field and the first “inclined” retractable roof. The project team designed a distinctive 9,500-ton natural grass playing field that can slide from its game-day position inside the stadium to outside the facility for sunshine and nourishment. When the grass field is outside, the indoor facility becomes a state-of-the-art concert or convention venue.

The stadium’s 500,000-square-foot retractable roof allows flexibility for stadium events in air-conditioned comfort or opened to the outdoors. In its first year of operation, the stadium hosted 180 events, including college football’s Fiesta Bowl. It has raised the bar for future multi-purpose stadium design.

Cobble Mountain Reservoir Dam Project, Springfield, Mass.
CDM—Wethersfield, Conn.

Valve failure at the Cobble Mountain Reservoir Dam would have been catastrophic: loss of the system’s entire water supply—and thus drinking water and fire protection—for the 250,000 residents of Springfield, Mass. and its surrounding communities, as well as likely worker fatalities.

Workers had to be lowered down a 233-foot-deep, 10-by-5-foot air shaft to access the 1900-era reservoir valve system. The project team’s design of a mechanical underwater plugging system successfully isolated the valves in the dry. Workers are now able to drain and depressurize the valve, allowing full rehabilitation—all without safety incident or interruption of service.

The effort protects Springfield’s water supply and serves as a model for hazardous valve replacements at similar reservoirs nationwide.
The 1930s-era U.S. Route 24 Bridge over the Lower Rouge River in Dearborn was suffering from extensive cracking and substructure movements which would ordinarily require its replacement.

Instead, the project team designed an innovative, alternative approach of installing tensioned steel bars vertically into the original concrete bridge abutments to increase design load. They also installed engineered backfill with biaxial geogrid in horizontal layers to reduce soil pressure against the abutment walls by 75 percent.

The project’s innovations saved considerable costs, were completed three months ahead of schedule and avoided significant environmental impairment to the river from construction.

Seemingly floating above water, the 120,000-square-foot Discovery World at Pier Wisconsin science and technology museum is a gleaming showpiece of structural and mechanical engineering.

The project team created the museum’s “floating” illusion by designing a unique Z-frame to slip over pipe piles driven into Lake Michigan to assure structural stability. An aquarium built beneath the lake withstands downward forces as well as hydrostatic pressures of 1,040 pounds-per-square-foot.

The complex also features interactive exhibit areas, performance and digital theaters, exploration laboratories, and a 250-seat lakefront amphitheater. A rolling lawn extending to the lakefront doubles as the ceiling for the underground parking facility and a “green roof” stormwater mitigating system.

The new Tacoma Narrows Suspension Bridge—the second suspension bridge built in the United States in the past 40 years—eases enormous traffic tie-ups, and can withstand an earthquake of 8 on the Richter scale—a must for the region’s high seismic activity.

The project team used a ground-breaking cast-in-place dredged caisson foundation system to achieve extreme support requirements—the equivalent of two 20-story buildings underwater—supporting 510-foot-tall concrete towers.

The bridge also features 5,400 feet of joint-less superstructure, a 2,800-foot main span housing four lanes, and a pedestrian and bicycle path. The lower level is designed to accommodate additional highway expansion in the future.
A new state-of-the-art animal research facility is a critical weapon against potential bioterrorism. The facilities will be used to study deadly animal pathogens—as five of the six most deadly biothreat agents worldwide are found in animals.

The design allows scientists and veterinarians to safely conduct research on a variety of endemic and zoonotic diseases—those which are communicable to humans from animals under natural conditions. The new 153,000-square-foot complex features elaborate air-filtration systems, air-tight animal housing quarters, horizontal and vertical containment barriers, flushable flooring systems, special carcass disposal and effluent decontamination systems.

Dr. Hudspeth Ear Cell Laboratory, New York, N.Y.
AKF Engineers—New York, N.Y.

A pioneering marriage of science and engineering has resulted in a state-of-the-art ear research facility that one day may lead to inventions that will eliminate the need for hearing aids.

Ear cells are extremely sensitive and require any advanced research to be performed in an environment free of acoustic or magnetic interference. The project team designed an “isolation” test chamber featuring an inner box—which absorbs ambient noise—and an outer box—which shields magnetic fields. Stringent quietness criteria also required special high-static pressure acoustic air silencers and draft-free ceiling diffusers. The result is a world-class testing chamber that allows scientists to perform experiments that otherwise could not be achieved.

National Armed Forces Center for the Intrepid, Fort Sam Houston, Texas
Syska Hennessy Group—Fairfax, Va.

A state-of-the-art rehabilitation complex at Fort Sam Houston addresses a serious shortage of facilities available to treat severely injured soldiers from Iraq and Afghanistan.

The project team provided mechanical and electrical design for a broad array of leading-edge rehabilitation systems including a computerized gait laboratory, a prosthetics fabrication lab, swimming and wave pools, and a Computer-Assisted Rehabilitation Environment (CAREN)—a 21-foot simulator dome with a 300-degree screen where rehabilitative virtual realities are displayed. Today, the center provides treatment for hundreds of severely wounded soldiers.

Eleanor Schonell Bridge, Brisbane, Australia
International Bridge Technologies—San Diego, Calif.

Australia’s first bridge solely dedicated to bus, pedestrian, and cycle transportation also provides a critical passage over the Brisbane River connecting Dutton Park and the University of Queensland—previously serviced only by ferry.

The cable-stayed 1,280-foot Eleanor Schonell Bridge features several ecologically sustainable design features, such as solar panels to collect energy for night lighting and the “smart” collection and treatment of storm water. The bridge is a charming addition to the Brisbane region which also eases traffic congestion and reduces vehicle emissions. Motorists no longer have to travel longer routes to and from the university.
Groundbreaking engineering is eliminating a trash and debris problem from sewer overflows that has plagued new luxury and recreational development along New Jersey's Gold Coast.

The project team’s patented screening technology was utilized on 11 sewer system components to eliminate the discharge of debris from the overflows. The components include seven screening facilities, two pressurized vortex separation facilities, two consolidation conduits and other related projects for the 150-year-old system. The result significantly improves water quality along the waterfront without compromising the aesthetic appeal of the riverfront’s revitalization.

The new Frederick Douglass-Susan B. Anthony Memorial Bridge provides a majestic landmark to a rapidly developing downtown Rochester skyline.

The new bridge replaces a deteriorating structure with the first true arch bridge in the U.S. It carries I-490 over the Genesee River and several downtown streets, and features a three-rib arch span with 12 braces and a fanned cable arrangement. A new pedestrian walkway is cantilevered over the river, offering sweeping downtown views and connecting to an existing promenade.

The design is enhanced with a subtle lighting that illuminates the arch and cables from the ground up, creating a soft glow that also illuminates both the pedestrian walkway and the driving experience.

Maine’s first cable-stayed bridge replaces a 75-year-old regional landmark with an eye-catching structure featuring both state-of-the-art cable technology and the world’s tallest public bridge observatory.

The project team designed an advanced cable-stay cradle system to simplify long-term maintenance, and a pressurized nitrogen gas system around the stays to inhibit corrosion. The 1,161-foot main span also contains the world’s first installation of a strand monitoring system that allows easy and inexpensive force load inspection of the individual cable stays. During its first season of operation, the 420-foot-high observatory attracted more than 72,000 visitors.

The proposed 350-lot luxury Gozzer Ranch Golf Course development now has a state-of-the-art wastewater treatment facility despite having no access to a municipal system.

The project team designed an effluent reuse system around a filter membrane bioreactor—the first such reuse permit issued by the state—which treats up to 130,000 gallons per day. No chemicals are used in the treatment process and the effluent is converted into irrigation and landscaping water for the golf course. Activated carbon scrubbers protect the surrounding area from odors. An existing community drainfield also was taken out of service to eliminate a major potential environmental hazard.
Kay Bailey Hutchison Desalination Facilities, El Paso, Texas
CDM—Cambridge, Mass./Moreno Cardenas—El Paso, Texas

Groundbreaking engineering has produced North America’s largest inland desalination plant to provide an abundant drinking water source to the arid El Paso region.

The 27.5-million-gallon-per-day plant taps vast brackish water from beneath the desert floor and converts it into drinking water using reverse osmosis membranes. A solar-fueled deep-well injection system also deposits concentrated waste steam more than 3,500 feet underground with no adverse environmental impact. The project now serves as a model for other communities seeking sustainable options to meet long-term water supply needs.

Bradford Woods Wastewater Treatment System, Bloomington, Ind.
Natural Concepts Quality Water Engineering LLC/American Structurepoint, Inc.—Indianapolis, Ind.

An environmentally friendly alternative to a traditional wastewater treatment plant has become an innovative complement for the 2,500-acre Bradford Wood nature preserve, Indiana University’s leading international outdoor education park.

Aligning the need to replace an aging wastewater treatment system with the center’s dedication to environmental sustainability required the project team to design a wetlands-based system mimicking the purification process of a natural wetlands. The system includes a subsurface-flow constructed wetland, a vegetated re-circulating gravel filter, and a soil absorption system. In addition to a cost-effective alternative to wastewater treatment, the project also has become a valuable teaching and research tool for the university.

Chao Phraya River Bridge, Bangkok, Thailand
PB—New York, N.Y.

A majestic new gateway to the city of Bangkok is also Thailand’s longest bridge—longer than any cable-stayed bridge in the U.S.

The highly efficient 120-foot-wide superstructure includes two gleaming 613-foot-high A-shaped towers, each topped with a 26-foot-tall gold-colored Thai-styled spire. For longevity and simplicity of maintenance, the design eliminates several commonly used but frequently troublesome bridge components. Labor intensive bearings were replaced by easy-to-service bumpers; in addition, tie-down devices such as steel rods, which require extensive inspection and maintenance, were replaced by concrete counterweights.

Saving St. Anne’s, Grand Forks, N.D.
Stanley Consultants—Minneapolis, Minn.

The century-old St. Anne’s home for senior citizens—listed on the National Register of Historic Places—was targeted for demolition until creative engineering reversed its fate.

In response to flood devastation, the construction of more than 30 miles of new levees and floodwalls was mandated for the Grand Forks area, forcing many structures such as St. Anne’s—which stood in the floodwall’s path—to be either relocated or demolished. Alternatively, the project team designed an innovative eight-foot floodwall that wraps around every intricate corner of St. Anne’s, but does not actually touch the building’s exterior and connects with the new municipal floodwall. The innovative design saved St. Anne’s from demolition, safeguarded the building, and is part of the community’s new flood protection system.
Uncertain water levels and frequent costly repairs on an outdated spillway prevented Lake Brazos from becoming an attractive waterfront destination for the city of Waco.

The creative project team designed a customized 3,000-foot-long labyrinth weir containing 25 V-shaped cycles over the foundation of the 45-year-old existing spillway. This eliminated the need for spillway replacement and for the river to be diverted during construction. It reduced cost and environmental impact and assures more reliable lake levels with less maintenance. Lake Brazos can now fulfill its potential as a hub of downtown Waco’s revitalization.

First Avenue District School, Newark, N.J.
Paulus, Sokolowski and Sartor—Warren, N.J.

A school for pre-kindergarten to eighth-grade students features numerous innovative and sustainable design strategies for lowering operating costs, improving energy efficiency and providing a state-of-the-art learning environment.

The project team’s LEED Standard design features effective north and south daylight sensors to provide artificial lighting as needed, geothermal heating and cooling systems to reduce fossil fuel dependence, roofs clad in a white single-ply membrane to reduce the “heat island” effect, and high-performance insulation and waterproofing. Hailed as a new standard in 21st century educational facilities, the school serves as a benchmark of quality and technology for schools nationwide.

Tule River Fish Return System, Sequoia National Park, Calif.
Blair, Church & Flynn Consulting Engineers—Clovis, Calif.

Inspired engineering now prevents fish from being trapped at a Southern California Edison hydro-electric facility—a problem that left unresolved would have shut down one of Southern California’s key sources of power.

The project team’s solution included two fish ladders to divert fish around the facility, down a mountainside, and back to their natural habitat. The innovative system of pipes, ladders and channels maintains critical water flow and depth, maximizes oxygenation and fish protection, and ultimately reduces the risk of any disruption to the power plant.

Project FROG Prototype, San Francisco, Calif.
Degenkolb Engineers—San Francisco, Calif.

Resourceful engineering has led to the creation of a state-of-the-art modular classroom facility, providing overcrowded school systems with an economical alternative to trailers.

The Flexible Response to Ongoing Growth (FROG) initiative includes stylish prototype modular buildings which can be configured to create conventional classrooms, labs, auditoriums and other specialized educational spaces. The design also features a steel truss-like structural system to meet strict seismic criteria and ensure occupant safety in the event of an earthquake. It offers the same flexible, cost-effective and deployment advantages as trailers, but with an interior layout and environment much more conducive to learning.
## 2008 EEA NATIONAL FINALISTS

<table>
<thead>
<tr>
<th>FIRM NAME</th>
<th>PROJECT NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ACEC/ALABAMA</strong></td>
<td></td>
</tr>
<tr>
<td>Malcolm Pirnie</td>
<td>Granular Activated Carbon Master Planning Project</td>
</tr>
<tr>
<td>TTL</td>
<td>Cypress Point</td>
</tr>
<tr>
<td><strong>ACEC/ARIZONA</strong></td>
<td></td>
</tr>
<tr>
<td>David Evans and Associates Holben, Martin &amp; White Consulting Structural Engineers Premier Engineering Corporation</td>
<td>Low Distortion Projection Euclid Avenue/Park Avenue Bike/Ped Overpass Camelback Road Pedestrian Underpass</td>
</tr>
<tr>
<td><strong>ACEC/ARKANSAS</strong></td>
<td></td>
</tr>
<tr>
<td>Garver Engineers</td>
<td>Lighting Up the Big Dam Bridge</td>
</tr>
<tr>
<td><strong>ACEC/COLORADO</strong></td>
<td></td>
</tr>
<tr>
<td>Burns &amp; McDonnell</td>
<td>Town of Erie—Lynn R. Morgan Water Treatment Plant Expansion</td>
</tr>
<tr>
<td>FIGG</td>
<td>Penobscot Narrows Bridge &amp; Observatory</td>
</tr>
<tr>
<td>M-E Engineers</td>
<td>Launce r S. Rockefeller Preserve Visitor Center</td>
</tr>
<tr>
<td>Merrick &amp; Company</td>
<td>Large Animal Housing &amp; Training Facility</td>
</tr>
<tr>
<td>Merrick &amp; Company</td>
<td>Spallation Neutron Source Target Hot Cell</td>
</tr>
<tr>
<td>Merrick &amp; Company</td>
<td>Conservation Planning Using Hyper spectral Science</td>
</tr>
<tr>
<td><strong>ACEC/CONNECTICUT</strong></td>
<td></td>
</tr>
<tr>
<td>Gibble Norden Champion Brown Consulting Engineers PB</td>
<td>Adaptive Use of Wauregan Hotel Route 15 Bridge Over the Housatonic River (Sikorsky Bridge)</td>
</tr>
<tr>
<td><strong>ACEC/DELAWARE</strong></td>
<td></td>
</tr>
<tr>
<td>Pennoni Associates</td>
<td>Market Street Renovation Project</td>
</tr>
<tr>
<td><strong>ACEC/FLORIDA</strong></td>
<td></td>
</tr>
<tr>
<td>FIGG</td>
<td>I-280 Veteran’s Glass City Skyway Double Track Bridge Over the New River</td>
</tr>
<tr>
<td>URS Washington Division</td>
<td>Caster Avenue East CSEO Storage Facility</td>
</tr>
<tr>
<td><strong>ACEC/GEORGIA</strong></td>
<td></td>
</tr>
<tr>
<td>Brown and Caldwell</td>
<td>Peachtree Road Corridor Gwinnett Environmental &amp; Heritage Center</td>
</tr>
<tr>
<td>URS Corporation</td>
<td></td>
</tr>
<tr>
<td>Uzun &amp; Case Engineers</td>
<td></td>
</tr>
<tr>
<td><strong>ACEC/IDAHO</strong></td>
<td></td>
</tr>
<tr>
<td>CH2M HILL Project Engineering Consultants</td>
<td>US 95: Setters to Bellgrove Happy Valley and Amity Roundabout Gozzer Ranch Wastewater Treatment &amp; Effluent Reuse System</td>
</tr>
<tr>
<td>Welch Comer &amp; Associates</td>
<td></td>
</tr>
<tr>
<td><strong>ACEC/ILLINOIS</strong></td>
<td></td>
</tr>
<tr>
<td>Earth Tech</td>
<td>Veterans Memorial Tollway—Des Plaines River Valley Bridge FAI 80/94 (Kingery/Borman Expressway)</td>
</tr>
<tr>
<td>ENTRAN</td>
<td>Reconstruction of the South Tri-State Tollway</td>
</tr>
<tr>
<td>Hanson Professional Services</td>
<td>Bioswales for Stormwater/Water Quality Benefit I-294</td>
</tr>
<tr>
<td>Huff &amp; Huff</td>
<td>Open Road Tolling Plaza 66 DeKalb &amp; Plaza 69 Dixon</td>
</tr>
<tr>
<td>Strand Associates</td>
<td></td>
</tr>
<tr>
<td>V3 Companies of Illinois</td>
<td>I-355 South Extension</td>
</tr>
<tr>
<td><strong>ACEC/INDIANA</strong></td>
<td></td>
</tr>
<tr>
<td>Applied Engineering Services</td>
<td>Plant 1 Expansion, Knauf Insulation Bradford Woods Wastewater Treatment System Replacement Project</td>
</tr>
<tr>
<td>Natural Concepts Water Quality Engineering/American Structurepoint</td>
<td></td>
</tr>
<tr>
<td><strong>ACEC/IOWA</strong></td>
<td></td>
</tr>
<tr>
<td>MSA Professional Services</td>
<td>Alternative Wastewater Systems Design Guidance</td>
</tr>
<tr>
<td><strong>ACEC/KENTUCKY</strong></td>
<td></td>
</tr>
<tr>
<td>FFEB JV</td>
<td>A Joint Venture Getting Up to Speed in the Big Easy</td>
</tr>
<tr>
<td>Fuller, Mossbarger, Scott &amp; May Engineers GRW Aerial Surveys</td>
<td>Manchester Goes Green: A Landfill for the Ages AMP-Ohio Hydroelectric Projects I-64 Riverside Expressway “Restore 64”</td>
</tr>
<tr>
<td><strong>ACEC/MAINE</strong></td>
<td></td>
</tr>
<tr>
<td>Haley &amp; Aldrich</td>
<td>Non-Stop Shopping</td>
</tr>
<tr>
<td><strong>ACEC/MARYLAND</strong></td>
<td></td>
</tr>
<tr>
<td>George, Miles &amp; Buhr/KCI Technologies</td>
<td>Mattawoman Wastewater Treatment Plant—Upgrade for Enhanced Nutrient Removal (ENR) Frederick Douglass Bridge Over Anacostia River Swan Point Wastewater Pumping, Water Reclamation Facilities Telemetry/Alarm Control Instrumentation for Water Distribution System New Design Water Transmission System</td>
</tr>
<tr>
<td>Rummel, Klepper &amp; Kahl and Corman Construction</td>
<td></td>
</tr>
<tr>
<td>Rummel, Klepper &amp; Kahl and Corman Construction</td>
<td></td>
</tr>
<tr>
<td>Sidhu Associates</td>
<td></td>
</tr>
<tr>
<td>Whitman Requardt and Associates</td>
<td></td>
</tr>
</tbody>
</table>
### 2008 EEA NATIONAL FINALISTS

<table>
<thead>
<tr>
<th>FIRM NAME</th>
<th>PROJECT NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FIRM NAME</strong></td>
<td><strong>PROJECT NAME</strong></td>
</tr>
<tr>
<td>ACEC/MASSACHUSETTS</td>
<td>Cobble Mountain Reservoir Dam Project</td>
</tr>
<tr>
<td>Nitsch Engineering</td>
<td>Rainwater Harvesting Using RainUSE™ Software</td>
</tr>
<tr>
<td>R.G. Vanderweil Engineers</td>
<td>WGBH Corporate Headquarters</td>
</tr>
<tr>
<td>ACEC/METROPOLITAN WASHINGTON</td>
<td>NGA Chiller Plant Renovation 1-95/1-395/1-495 Springfield Interchange</td>
</tr>
<tr>
<td>HSMM</td>
<td>National Armed Forces Center for the Intrepid</td>
</tr>
<tr>
<td>HNTB</td>
<td>CDM Cobble Mountain Reservoir Dam Project</td>
</tr>
<tr>
<td>Syska Hennessy Group</td>
<td>RainUSE™ Software</td>
</tr>
<tr>
<td>ACEC/MICHIGAN</td>
<td>Michigan State University (MSU)—PARKING RAMP NO. 6</td>
</tr>
<tr>
<td>Fishbeck, Thompson, Carr &amp; Huber</td>
<td>New Methods to Predict SSOs in Wayne County’s NHV/RV District</td>
</tr>
<tr>
<td>Harley Ellis Devereaux</td>
<td>Charfield Wastewater Treatment Plant</td>
</tr>
<tr>
<td>Orchard, Hiltz &amp; McClinton</td>
<td>Saving St. Anne’s</td>
</tr>
<tr>
<td>Parsons Corporation</td>
<td>US-23 and Lee Road Roundabout Interchange</td>
</tr>
<tr>
<td>Wade Trim</td>
<td>US-24 Bridge Rehabilitation Over Rouge River</td>
</tr>
<tr>
<td>ACEC/MINNESOTA</td>
<td>Cascade Creek Realignment Project Water Treatment Plant Improvements</td>
</tr>
<tr>
<td>Bonestroo</td>
<td>Cobalt Condominiums/University-Central Marketplace</td>
</tr>
<tr>
<td>Earth Tech</td>
<td>Charfield Wastewater Treatment Plant</td>
</tr>
<tr>
<td>Erickson, Roed &amp; Associates</td>
<td>Saving St. Anne’s</td>
</tr>
<tr>
<td>HLB and Donohue &amp; Associates</td>
<td>US-23 and Lee Road Roundabout Interchange</td>
</tr>
<tr>
<td>Stanley Consultants</td>
<td>US-24 Bridge Rehabilitation Over Rouge River</td>
</tr>
<tr>
<td>ACEC/MISSISSIPPI</td>
<td>Michigan State University (MSU)—PARKING RAMP NO. 6</td>
</tr>
<tr>
<td>Malcolm Pirnie</td>
<td>New Methods to Predict SSOs in Wayne County’s NHV/RV District</td>
</tr>
<tr>
<td>ACEC/MISSOURI</td>
<td>Michigan State University (MSU)—PARKING RAMP NO. 6</td>
</tr>
<tr>
<td>Burns &amp; McDonnell</td>
<td>New Methods to Predict SSOs in Wayne County’s NHV/RV District</td>
</tr>
<tr>
<td>GeoTechnology</td>
<td>Michigan State University (MSU)—PARKING RAMP NO. 6</td>
</tr>
<tr>
<td>Harrington &amp; Cortelyou</td>
<td>Michigan State University (MSU)—PARKING RAMP NO. 6</td>
</tr>
<tr>
<td>HDR</td>
<td>Michigan State University (MSU)—PARKING RAMP NO. 6</td>
</tr>
<tr>
<td>Horner &amp; Shifrin</td>
<td>Michigan State University (MSU)—PARKING RAMP NO. 6</td>
</tr>
<tr>
<td>TranSystems</td>
<td>Michigan State University (MSU)—PARKING RAMP NO. 6</td>
</tr>
<tr>
<td>Walter P Moore</td>
<td>Michigan State University (MSU)—PARKING RAMP NO. 6</td>
</tr>
<tr>
<td>ACEC/MONTANA</td>
<td>Michigan State University (MSU)—PARKING RAMP NO. 6</td>
</tr>
<tr>
<td>WGM Group</td>
<td>Michigan State University (MSU)—PARKING RAMP NO. 6</td>
</tr>
<tr>
<td>ACEC/NEBRASKA</td>
<td>Michigan State University (MSU)—PARKING RAMP NO. 6</td>
</tr>
<tr>
<td>HDR</td>
<td>Michigan State University (MSU)—PARKING RAMP NO. 6</td>
</tr>
<tr>
<td>Lamp, Rynearson &amp; Associates</td>
<td>Michigan State University (MSU)—PARKING RAMP NO. 6</td>
</tr>
<tr>
<td>ACEC/NEVADA</td>
<td>Michigan State University (MSU)—PARKING RAMP NO. 6</td>
</tr>
<tr>
<td>Kimley-Horn and Associates</td>
<td>Michigan State University (MSU)—PARKING RAMP NO. 6</td>
</tr>
<tr>
<td>ACEC/NEW JERSEY</td>
<td>Michigan State University (MSU)—PARKING RAMP NO. 6</td>
</tr>
<tr>
<td>CH2M HILL</td>
<td>Michigan State University (MSU)—PARKING RAMP NO. 6</td>
</tr>
<tr>
<td>CH2M HILL</td>
<td>Michigan State University (MSU)—PARKING RAMP NO. 6</td>
</tr>
<tr>
<td>GEC</td>
<td>Michigan State University (MSU)—PARKING RAMP NO. 6</td>
</tr>
<tr>
<td>HBP</td>
<td>Michigan State University (MSU)—PARKING RAMP NO. 6</td>
</tr>
<tr>
<td>HDR</td>
<td>Michigan State University (MSU)—PARKING RAMP NO. 6</td>
</tr>
<tr>
<td>Horner &amp; Shifrin</td>
<td>Michigan State University (MSU)—PARKING RAMP NO. 6</td>
</tr>
<tr>
<td>TranSystems</td>
<td>Michigan State University (MSU)—PARKING RAMP NO. 6</td>
</tr>
<tr>
<td>Walter P Moore</td>
<td>Michigan State University (MSU)—PARKING RAMP NO. 6</td>
</tr>
<tr>
<td>ACEC/NEW MEXICO</td>
<td>Michigan State University (MSU)—PARKING RAMP NO. 6</td>
</tr>
<tr>
<td>CH2M HILL</td>
<td>Michigan State University (MSU)—PARKING RAMP NO. 6</td>
</tr>
<tr>
<td>CH2M HILL</td>
<td>Michigan State University (MSU)—PARKING RAMP NO. 6</td>
</tr>
<tr>
<td>GEC</td>
<td>Michigan State University (MSU)—PARKING RAMP NO. 6</td>
</tr>
<tr>
<td>HBP</td>
<td>Michigan State University (MSU)—PARKING RAMP NO. 6</td>
</tr>
<tr>
<td>HDR</td>
<td>Michigan State University (MSU)—PARKING RAMP NO. 6</td>
</tr>
<tr>
<td>Horner &amp; Shifrin</td>
<td>Michigan State University (MSU)—PARKING RAMP NO. 6</td>
</tr>
<tr>
<td>TranSystems</td>
<td>Michigan State University (MSU)—PARKING RAMP NO. 6</td>
</tr>
<tr>
<td>Walter P Moore</td>
<td>Michigan State University (MSU)—PARKING RAMP NO. 6</td>
</tr>
<tr>
<td>ACEC/NEW YORK</td>
<td>Michigan State University (MSU)—PARKING RAMP NO. 6</td>
</tr>
<tr>
<td>AKF Engineers</td>
<td>Michigan State University (MSU)—PARKING RAMP NO. 6</td>
</tr>
<tr>
<td>Arup</td>
<td>Michigan State University (MSU)—PARKING RAMP NO. 6</td>
</tr>
<tr>
<td>Barton &amp; Loguidice</td>
<td>Michigan State University (MSU)—PARKING RAMP NO. 6</td>
</tr>
<tr>
<td>Bergmann Associates</td>
<td>Michigan State University (MSU)—PARKING RAMP NO. 6</td>
</tr>
<tr>
<td>C&amp;S Companies</td>
<td>Michigan State University (MSU)—PARKING RAMP NO. 6</td>
</tr>
<tr>
<td>Earth Tech Northeast</td>
<td>Managing FEMA: Post-Katrina Engineering Cost Recovery</td>
</tr>
<tr>
<td>Erdman Anthony</td>
<td>Managing FEMA: Post-Katrina Engineering Cost Recovery</td>
</tr>
<tr>
<td>Greeley and Hansen/Hazen and Sawyer/Malcolm Pirnie</td>
<td>Managing FEMA: Post-Katrina Engineering Cost Recovery</td>
</tr>
<tr>
<td>Halcrow HPA</td>
<td>Managing FEMA: Post-Katrina Engineering Cost Recovery</td>
</tr>
<tr>
<td>Halcrow HPA</td>
<td>Managing FEMA: Post-Katrina Engineering Cost Recovery</td>
</tr>
<tr>
<td>Hardesty &amp; Hanover</td>
<td>Managing FEMA: Post-Katrina Engineering Cost Recovery</td>
</tr>
<tr>
<td>Hazen and Sawyer</td>
<td>Managing FEMA: Post-Katrina Engineering Cost Recovery</td>
</tr>
<tr>
<td>Lockner Engineering</td>
<td>Managing FEMA: Post-Katrina Engineering Cost Recovery</td>
</tr>
<tr>
<td>Naik Consulting Group</td>
<td>Managing FEMA: Post-Katrina Engineering Cost Recovery</td>
</tr>
<tr>
<td>PB</td>
<td>Managing FEMA: Post-Katrina Engineering Cost Recovery</td>
</tr>
<tr>
<td>PB Americas</td>
<td>Managing FEMA: Post-Katrina Engineering Cost Recovery</td>
</tr>
<tr>
<td>Stantec Consulting Services</td>
<td>Managing FEMA: Post-Katrina Engineering Cost Recovery</td>
</tr>
<tr>
<td>STV</td>
<td>Managing FEMA: Post-Katrina Engineering Cost Recovery</td>
</tr>
<tr>
<td>Syska Hennessy Group</td>
<td>Managing FEMA: Post-Katrina Engineering Cost Recovery</td>
</tr>
<tr>
<td>Tectonic Engineering &amp; Surveying Consultants</td>
<td>Managing FEMA: Post-Katrina Engineering Cost Recovery</td>
</tr>
<tr>
<td>The Louis Berger Group</td>
<td>Managing FEMA: Post-Katrina Engineering Cost Recovery</td>
</tr>
<tr>
<td>The RBA Group</td>
<td>Managing FEMA: Post-Katrina Engineering Cost Recovery</td>
</tr>
<tr>
<td>Thornton Tomasetti</td>
<td>Managing FEMA: Post-Katrina Engineering Cost Recovery</td>
</tr>
<tr>
<td>Weidlinger Associates</td>
<td>Managing FEMA: Post-Katrina Engineering Cost Recovery</td>
</tr>
</tbody>
</table>

---

**CH2M HILL**

- **Dewberry**
  - NHSA Innovative Engineering Supports the Gold Coast Upper and Lower Aetna Dams Restoration

- **Hatch Mott MacDonald**
  - Tampa Bay Seawater Desalination Plant Modifications
  - Wireless E-911 Communications Center, Sheriffs Department
  - The Prudential Center

- **Intertech Associates**
  - First Avenue District School
  - Weehawken Waterfront Park

- **Langan Engineering & Environmental Services**
  - Paulus, Sokolowski and Sartor

- **Paulus, Sokolowski and Sartor**
  - Kirtland AFB Bulk Fuels Facility Remediation
  - East Side Source of Supply Transmission Pipeline

---

**CH2M HILL**

- **Dewberry**
  - NHSA Innovative Engineering Supports the Gold Coast Upper and Lower Aetna Dams Restoration

- **Hatch Mott MacDonald**
  - Tampa Bay Seawater Desalination Plant Modifications
  - Wireless E-911 Communications Center, Sheriffs Department
  - The Prudential Center

- **Intertech Associates**
  - First Avenue District School
  - Weehawken Waterfront Park

- **Langan Engineering & Environmental Services**
  - Paulus, Sokolowski and Sartor

- **Paulus, Sokolowski and Sartor**
  - Kirtland AFB Bulk Fuels Facility Remediation
  - East Side Source of Supply Transmission Pipeline
<table>
<thead>
<tr>
<th>2008 EEA NATIONAL FINALISTS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FIRM NAME</strong></td>
</tr>
<tr>
<td>Wendel Duchscherer, Architects &amp; Engineers</td>
</tr>
<tr>
<td>Ysrael A. Seinuk</td>
</tr>
<tr>
<td><strong>ACEC/OREGON</strong></td>
</tr>
<tr>
<td>GeoDesign</td>
</tr>
<tr>
<td>KPFF Consulting Engineers</td>
</tr>
<tr>
<td><strong>Figg</strong></td>
</tr>
<tr>
<td>Gannett Fleming</td>
</tr>
<tr>
<td>L. Robert Kimball &amp; Associates</td>
</tr>
<tr>
<td>URS Corporation</td>
</tr>
<tr>
<td><strong>ACEC/SOUTH CAROLINA</strong></td>
</tr>
<tr>
<td>BP Barber</td>
</tr>
<tr>
<td><strong>Collins Engineers</strong></td>
</tr>
<tr>
<td><strong>Bridgefarmer &amp; Associates</strong></td>
</tr>
<tr>
<td><strong>Brown &amp; Gay Engineers</strong></td>
</tr>
<tr>
<td><strong>Cobb, Fendley &amp; Associates</strong></td>
</tr>
<tr>
<td><strong>Chiang, Patel &amp; Yerby</strong></td>
</tr>
<tr>
<td><strong>Jose L. Guerra</strong></td>
</tr>
<tr>
<td><strong>URS Corporation</strong></td>
</tr>
<tr>
<td><strong>ACEC/SOUTH DAKOTA</strong></td>
</tr>
<tr>
<td>HDR</td>
</tr>
<tr>
<td><strong>BP Barber</strong></td>
</tr>
<tr>
<td><strong>Collins Engineers</strong></td>
</tr>
<tr>
<td><strong>Dennis Corporation</strong></td>
</tr>
<tr>
<td><strong>Hussey, Gay, Bell &amp; DeYoung The LPA Group</strong></td>
</tr>
<tr>
<td><strong>Vanasse Hangen Brustlin</strong></td>
</tr>
<tr>
<td><strong>ACEC/VIRGINIA</strong></td>
</tr>
<tr>
<td>DJG</td>
</tr>
<tr>
<td>McKinney &amp; Company</td>
</tr>
<tr>
<td><strong>ACEC/WISCONSIN</strong></td>
</tr>
<tr>
<td>Earth Tech/CDM/CH2M HILL/ Eisenhardt Group</td>
</tr>
<tr>
<td>Magnusson Klemencic Associates Parsons/HNTB (A Joint Venture) Sparling Wood Harbinger</td>
</tr>
<tr>
<td><strong>ACEC/WISCONSIN</strong></td>
</tr>
<tr>
<td>Earth Tech/CDM/CH2M HILL/ Eisenhardt Group</td>
</tr>
<tr>
<td>Graef, Anhalt, Schloemer &amp; Associates, Inc. and HGA (Joint Venture) Milwaukee Transportation Partners</td>
</tr>
</tbody>
</table>

**FIRM NAME** | **PROJECT NAME** |
| Strand Associates | **ACEC/TEXAS** |
| Bridgefarmer & Associates | Bridge for I-40 Cross-town in Oklahoma City |
| Brown & Gay Engineers | Natural Living |
| CDM/Moreno Cardenas | Kay Bailey Hutchison Desalination Facilities |
| Cobb, Fendley & Associates | Hurricane Mapping Project |
| Freese and Nichols | Lake Brazos Labyrinth Weir |
| HNTB | Dallas North Tollway Phase III-3-D Visualization |
| **Jose L. Guerra** | **Mexican American Cultural Center** |
| **Pate Engineers** | **Verano at City South** |
| **URS Corporation** | **183A Toll Road Design-Build University of Phoenix Stadium** |
| **Wayne P Moore** | **ACEC/WEST VIRGINIA** |
| **Vanasse Hangen Brustlin** | **Infrastructure Engineering Corporation** |
| **International Bridge Technologies** | **Kennedy/Jenks Consultants** |
| **Tile River Fish Return System** | **Malcolm Pirnie** |
| **T-U-S: Expansion of Water Reclamation Plant Project FROG Prototype** | **Nitrification Control Using Chlorite Ion** |
| **Los Angeles Regional Transportation Management Center** | **Bitter Creek National Wildlife Refuge** |
| **Graham Reservoir and Athletic Field Improvements Project** | **Water Quality Basin at Woodside Avenue** |
| **Eleanor Schonell Bridge** | **Shibanpo Bridge** |
| **Redwood City Recycled Water Program** | **New Benicia-Martinez Bridge** |

**ACEC/WISCONSIN** | **2008 EEA National Finalist, GeoDesign, Inc., of Portland, Ore., designed the Portland Aerial Tram.**
ACEC would like to thank the 2008 Engineering Excellence Awards Judges for their time and dedication to this year’s EEA competition.
For Licensed Engineers
Whether you’re seeking multistate licensure or continuing professional education, NCEES Professional Services can help you move forward in your career.

Council Records Program
Facilitating the comity licensure process
www.councilrecord.com

Registered Continuing Education Providers Program
Keeping you up-to-date with continuing education
www.rcepp.com
COALITIONS ADDRESS RISK MANAGEMENT, GPS MACHINE GUIDANCE, FEE CALCULATIONS

The Council of American Structural Engineers (CASE) made progress at its Winter Meeting on several member benefit initiatives:

- Developed four new CASE Risk Management Tools to help members minimize risk, including a scope management checklist and a contract keyword scanning tool;
- Updated CASE standard contracts and guidelines;
- Initiated new claims consultation program to help firms reduce claims costs; and
- Formed joint committee on Building Information Modeling (BIM) with the Structural Engineering Institute.

CASE is a coalition of structural engineering firms within ACEC. It provides information and business practice products designed to increase profitability, improve quality, reduce liability and enhance management practices of structural engineering firms. Its Annual Summer Meeting will take place Aug. 20–22 in Minneapolis.

For more information or to join CASE, visit the website: www.acec.org/coalitions/CASE.

The Council of Professional Surveyors (COPS) developed recommended contract language and disclaimer notes to limit firms’ liability relative to the use of Global Positioning Systems machine guidance technology in the heavy equipment industry.

COPS also updated standard contract forms and quality control review sheets for various project types and issued guidelines for project kickoff meetings and the release of electronic data.

The Coalition joined with ACEC Government Affairs to address industry issues, including how to generate support in Congress for a National Surveyors Week and ensure that surveying graduates are eligible for loan forgiveness benefits under the proposed Higher Education Act.

COPS is a coalition of surveying firms within ACEC. Its goals are to strengthen the business environment and image of Member Firms with an emphasis on providing information about business practices and managing risk, and to be an advocate within ACEC for the interests of surveying firms.

For more information or to join COPS, visit the website: www.acec.org/coalitions/COPS.

The Council of American Mechanical & Electrical Engineers (CAMEE) finalized free fee calculation spreadsheet for members. New standard contracts and risk management tools for mechanical/electrical (M/E) firms is slated for release this summer.

It also continued to sponsor teleconferences with the National Association of State Facilities Administrators (NASFA). Currently working on several business-related articles on BIM, LEED certification, environmental design, building commissioning and partnering with state agencies for industry magazines and trade publications, including Engineering Inc. and the ASHRAE Journal.

In addition, CAMEE worked with ACEC to develop new education course on BIM for mechanical/electrical/plumbing engineers. Release date: June 20, 2008.

CAMEE is a coalition of M/E engineering firms within ACEC. Its purpose is to recommend policies and develop programs to serve the needs of Member Firms engaged in M/E practice and to identify business needs of the M/E practitioner.

For more information or to join CAMEE, visit the website: www.acec.org/coalitions/CAMEE.

To obtain contract documents created by CASE, COPS and CAMEE, go to ACEC’s new Contracts Central: www.acec.org/cc.
On The Move

Richard J. Brauer has been promoted to president and CEO of McFarland-Johnson. Brauer, a former executive vice president, succeeds Tom Coughlin, who is retiring. Prior to joining McFarland-Johnson, Brauer served as transportation division manager at Fisher Associates and also was vice president of Sear-Brown Group, Inc.

Bradley L. Mallory has been appointed president and CEO and a member of the board of directors of the Michael Baker Corporation. Mallory succeeds Richard L. Shaw, who is retiring as CEO, but will remain chairman of the board, as well as chairman of the board’s executive committee. Formerly, Mallory served as COO of Michael Baker.

Alan Krause was elected president and COO of Broomfield, Colo.–based MWH. As president, Krause replaces Bob Uhler, who remains CEO. MWH also elected Don Smith chairman of the MWH Global, Inc., board of directors. Smith replaces Murli Tolaney, who retired as chairman, but will remain as a senior adviser.

Jill Wells Heath has been promoted to CEO of Mulkey Engineers & Consultants in Raleigh, N.C. Heath, who is replacing firm founder Barbara H. Mulkey, will carry over her responsibilities as president into her new role as CEO.

William M. Stout recently was named chairman and CEO of Harrisburg, Pa.–based Gannett Fleming. Stout succeeds Ronald J. Drnevich, who retired in January.

Randall (Randy) A. Neuhaus has been named president of S&ME, Inc., an engineering and environmental services firm headquartered in Raleigh, N.C. Neuhaus succeeds John R. Browning, who will step down to a reduced schedule as a senior technical consultant.

Pete Dyke has joined ARCADIS as executive vice president and CFO for its U.S. operations. Dyke will be responsible for financial oversight, human resources, information technology and corporate financial governance of ARCADIS U.S.
Mergers & Acquisitions


Going forward, Boise, Idaho–based Doherty & Associates will conduct business as HDR|Doherty & Associates. Under the new corporate structure, Doherty & Associates President Karen Doherty will be the design center manager for several transportation projects in the company’s western region.

The firm also acquired Cummins & Barnard, Inc., a full-service consulting engineering firm headquartered in Ann Arbor, Mich. Going forward, Cummins & Barnard, Inc., will conduct business as HDR|Cummins & Barnard.

The firm specializes in consulting and design services for industrial, institutional and utility power generation facilities within the United States.

Under the new corporate structure, William Damon III, Cummins & Barnard chief executive officer, will be a senior vice president and director of power consulting. James Connell, Cummins & Barnard president, will be a senior vice president and director of power facilities.

Jackson Hole, Wyoming and Teton Valley, Idaho offer unparalleled quality of life and are world-renowned for mountain sports activities, abundant wildlife, resort amenities, and proximity to Yellowstone and Grand Teton National Parks.

Survey Department Manager

Required Skills and Qualifications include:
- 10 plus years experience as a licensed land surveyor.
- Excellent client management skills.
- Experience as a department manager or assistant leading a surveying group including staff development, marketing, contract management and department budgeting.
- Knowledge of public land survey system, boundary resolutions, ALTA surveys, subdivision design and layout.
- A record of involvement with professional surveying societies and community organizations.
- Ability to obtain a Wyoming and Idaho PLS license within 6 months.

Jorgensen Associates offers a broad range of professional engineering, land surveying and planning services with offices in Wyoming and Idaho. Our client base is a result of the firm’s 34 year reputation based on teamwork, integrity and our dedication to providing quality professional services. We offer competitive wages, performance bonuses, relocation assistance, a company vehicle, and a comprehensive benefits package.

To apply, email your resume and letter of interest to: jobs@jorgensenassociates.com or call Julianne at 307.733.5150

Equal Opportunity Employer

Contact ACEC Assistant Director of Advertising & Sales Nina S. Goldman at 202-347-7474, by email at ngoldman@acec.org, or visit the website at www.acec.org/directories/advertise.cfm.
Awards

Adiele Nwankwo has been named “One of the Most Important Blacks in Technology for 2008” by US Black Engineer & Information Technology magazine. Nwankwo is a senior vice president in the Detroit office of Parsons Brinckerhoff (PB).

US Black Engineer & Information Technology, the nation’s most widely read minority technical magazine, sponsors the National BEYA Global Competitiveness Conference, which annually recognizes the ongoing achievements of black leaders in science, technology, engineering and math-related careers. According to the magazine, “These men and women are role models. Their accomplishments validate the contributions that African Americans make in technology and business.”

Nwankwo has more than 28 years of transportation planning and engineering experience and has served as project manager on several projects. At PB, he has completed numerous major planning studies and programs for the Michigan Department of Transportation and for local metropolitan planning organizations.

Aine Brazil, of Thornton Tomasetti, Inc., recently was honored in New York by Girls Inc., a nonprofit organization that inspires all girls to be strong, smart and bold. Brazil was among a group of women and men who, by their work and example, were honored for creating a better future for girls.

Brazil, a managing principal at Thornton Tomasetti, is involved in the firm’s design of high-rise office and residential buildings, hotels, hospitals and other projects.

“As a woman who often sat alone in the engineering classroom and later in the boardroom, Aine Brazil is a pioneer for young women and girls,” said Girls Inc. President and CEO Joyce Roché. Brazil also has been featured in The New York Times and Crain’s New York Business’ “New York’s 100 Most Influential Women in Business.”
MEMBERS IN THE NEWS

Welcome New Member Firms

ACEC/Alabama
CDG Engineers & Associates, Andalusia
ACEC/Arizona
JG Engineering, Inc., Phoenix
Point Engineers, Cave Creek
PolyPhase Engineering, LLC, Scottsdale
Terrascape Consulting, LLC, Phoenix
ACEC/Colorado
Griffeth Structural, LLC, Fort Collins
JLB Engineering Consultants, Inc., Louisville
Moser and Associates, Inc., Denver
Navjoy Consulting Services, Inc., Denver
ACEC/Florida
Bengal Engineering Inc., Jacksonville
K.M. Engineering Consultants, Inc., Sunny Isles Beach
Olsen Associates, Inc., Jacksonville
Randy Merritt, P.E., Crawfordville
ACEC/Georgia
Collaborative Infrastructure Services, Inc. (CIS), Conyers
ER Group, LLC, Lawrenceville
Horizon Engineering, Inc., Marietta
ProcessWorx, LLC, Lawrenceville
Switzer Engineering, Inc., Acworth
ACEC/Hawaii
Bow Engineering & Development Inc., Honolulu
DSA Engineering, Inc., Honolulu
Lyon Associates, Inc., Honolulu
Yogi Kwong Engineers, LLC, Honolulu
ACEC/Illinois
Compass Surveying, Ltd., Aurora
Fuhrmann Engineering, Inc., Springfield
Thomas Engineering Group, LLC, Oak Park
ACEC/Indiana
Shrewsberry & Associates, LLC, Indianapolis
ACEC/Kansas
GeoSource, LLC, Topeka
ACEC/Kentucky
Sabak Wilson & Lingo, Inc., Louisville
ACEC/Massachusetts
Stanley D. Elkerton, P.E., Consulting Engineer, Walhamp
ACEC/Michigan
Comprehensive Structural Services, Inc., Keego Harbor
Scott Civil Engineering Company, Grand Rapids
ACEC/Missouri
Donohue & Associates, Inc., Chesterfield
ACEC/Montana
Great West Engineering, Inc., Helena
Kin & Associates Consulting Engineers, Bozeman
ACEC/New Hampshire
Summit Engineering, Portsmouth
ACEC/New Mexico
Byrd’s I Engineering, LLC, Artesia
Radian Engineering, LLC, Corrales
ACEC/New York
WB Engineering, PLLC, New York
ACEC/North Carolina
Baker Engineering Consultants, Inc., Raleigh
Barrier Geotechnical Contractors, Charlotte
ACEC/Oregon
Cascade Design Professionals, Inc., Milwaukie
Catena Consulting Engineers, Portland
McGee Engineering, Inc., Corvallis
Moyano Leadership Group, Inc., Salem
WRG Design, Inc., Portland
ACEC/Pennsylvania
NTM Engineering, Inc., Dillsburg
Powerhouse Design Inc., Pittsburgh
ACEC/Tennessee
EMC Structural Engineers, P.C., Nashville
ACEC/Vermont
Resource Systems Group, White River Junction
ACEC/Virginia
T3 Design, P.C., Fairfax
ACEC/Washington
Core Design, Inc., Bellevue
Knight Engineers, Inc., Vancouver
Westmar Consultants Corporation, Kirkland
CEC/Texas
AIA Engineers, Ltd., Houston
Dougherty Sprague Environmental, Inc., Richardson
JPH Consulting, Sugar Land
River, Houston
CELSOC/California
Accurate Land Solutions, San Leandro
Afinar, Bakersfield
DZNE, Inc., Aliso Viejo
HMK Engineering, Inc., Calabasas
HTT Engineering, Oakland
KOA Corporation, Monterey Park
Mark Briner Consulting, Lafayette
NA Engineering Company, San Jose
Ocean Law, Simi Valley
Shamrock Environmental Design & Development, San Marcos
The LPACIFIC Group, Inc., Irvine
Tsubota Civil Engineering, Inc., San Ramon
WAU & Company, Moraga

Since the ACEC Job Board’s inception in August of 2005, over 1,000 member firms have posted job openings and more than 7,000 job seekers have posted resumes. Find your next new hire at:

www.acec.org/jobbank/index.cfm
## Calendar of Events

**2008**

**MAY**

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>Women in the Boardroom (online seminar)</td>
</tr>
<tr>
<td>8</td>
<td>ACEC/Wisconsin Annual Meeting, Milwaukee</td>
</tr>
<tr>
<td>13</td>
<td>Strategizing Winning Proposals From Value Proposition to Differentiation on Deadline (online seminar)</td>
</tr>
<tr>
<td>15</td>
<td>Calculating Carbon Footprints—Potential Business for Engineering Companies (online seminar)</td>
</tr>
<tr>
<td>21</td>
<td>Strategic Planning for Your Company’s Next Bus Drivers (online seminar)</td>
</tr>
</tbody>
</table>

**JUNE**

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>28</td>
<td>Project Life Cycle Cost Estimation Methods (online seminar)</td>
</tr>
<tr>
<td>28</td>
<td>ACEC/Delaware Annual Meeting, Wilmington, Del.</td>
</tr>
<tr>
<td>29–30</td>
<td>Recognizing the Snares and Pitfalls in Construction Industry Contracts, Chicago</td>
</tr>
<tr>
<td>13–14</td>
<td>ACEC/Tennessee Annual Meeting, Franklin, Tenn.</td>
</tr>
<tr>
<td>16–17</td>
<td>Advanced Project and Program Management for the Engineering Industry, Northwestern University, Evanston, Ill.</td>
</tr>
<tr>
<td>18–21</td>
<td>Business of Design Consulting (BDC) for the Engineering Firm of the 21st Century, Chicago</td>
</tr>
</tbody>
</table>

**SEPTEMBER**

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>International Employment Solutions for the 21st Century (online seminar)</td>
</tr>
<tr>
<td>15–16</td>
<td>Finance Forum, Chicago</td>
</tr>
</tbody>
</table>

**OCTOBER**

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>19–22</td>
<td>ACEC Fall Conference, Montreal, Canada</td>
</tr>
</tbody>
</table>

**NOVEMBER**

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>5–6</td>
<td>Human Resources Forum, Chicago</td>
</tr>
<tr>
<td>7</td>
<td>Trends in Business Ethics That Affect Engineers (online seminar)</td>
</tr>
</tbody>
</table>

Additional information on ACEC’s events is available at www.acec.org.
Hanson CEO Confronts Market Challenges, Slowing Economy, Importance of Advocacy

Sergio “Satch” Pecori is president and CEO of Hanson Professional Services, Inc., in Springfield, Ill.

Q. Looking back on more than half a century of growth for Hanson Professional Services, what have been the primary market challenges you have faced and overcome?

A. When our firm was founded in 1954, we operated with just a few employees based in Springfield, Ill., providing geotechnical and structural engineering for a wide variety of clients in the United States and abroad. As the needs of these clients changed, we evaluated how we could change to continue to meet their needs. Essentially, Hanson was determined to “fill the voids” our clients faced and expand our role and services to maintain these working relationships.

Throughout the years, we have expanded to include skill sets such as environmental, mechanical, electrical, civil, water resources and architectural services, all to benefit our clients. We also have expanded our geographic locations, spanning from West Palm Beach, Fla., to Anchorage, Alaska, to provide our clients with easy access to Hanson professionals across the United States.

Q. Transportation funding is a concern facing the industry at the state and national levels. What’s the solution in your view?

A. The current federal stimulus package aims to put money in the hands of a wide variety of people to encourage individuals to buy goods and services, which is a short-term solution, in my opinion.

We need a federal stimulus package that will have a greater impact on the nation, that will improve our infrastructure, that will put people to work and have a beneficial long-term impact.

Our state and federal governments need the resources to address critical needs in transportation, including maintaining, updating and expanding roads, bridges, railroads, airports and city infrastructures. Any new stimulus package should address these needs directly.

Q. What does a slowing economy mean for your firm?

A. The slowing economy affects our firm and clients in several ways. Some of our industrial clients are looking at slower expansion plans. The mortgage crisis has caused some of our development projects to stop and foreclosure actions to begin. The devalued U.S. dollar has caused foreign investors to acquire some of our competitors, thus changing that landscape.

“We need a federal stimulus package that will have a greater impact on the nation, that will improve our infrastructure, that will put people to work and have a beneficial long-term impact.”

Increased fuel costs have shifted some commodity traffic from highways to railways and waterways, thereby changing our business opportunities. The slowing economy has resulted in less personal spending, which means less tax revenue for states and cities, resulting in less money for capital improvements. In general, the slowing economy will affect us negatively for the most part, but will create some added opportunities in the areas of railway and waterway infrastructure due to the increase in fuel prices.

Q. As someone who has been active with ACEC/PAC over the years, can you describe how that involvement has been beneficial to your firm?

A. I view my participation in ACEC/PAC as playing an active role in supporting good government. Through PACs, we support members of Congress that have similar beliefs when it comes to transportation and other governmental-related issues that affect our industry. The bottom line is that we need elected officials who support initiatives and funding programs that are crucial to the betterment of our country and the livelihood of our industry.

Participating in ACEC/PAC becomes more beneficial over time. For example, in order to create an adequate-to-exceptional transportation and infrastructure system, we need individuals who are willing to bring to members of Congress our continual awareness of the vital needs of our cities, states and the industry.
We insure professional liability and property casualty, and we keep you safe from big bad wolves.

No matter what your materials are, your building has to stand. And sometimes it has to withstand the unexpected. Travelers understands, and has both professional liability and property casualty lines of insurance tailored specifically for engineers. And because our underwriters specialize in underwriting engineering risks, your coverage will evolve alongside your most complex projects.

For more information on Travelers insurance for engineers, contact your independent agent or call 443-353-2253. Suddenly, those big bad wolves aren’t so big, or so bad, after all.
Are you looking for a retirement program to attract and retain talented employees, that will also be easy for you to administer and maintain? Look into the ACEC Retirement Trust, offering your employees a solid 401(k) plan while providing you with great benefits, including:

- Savings on administrative fees (see box on right)
- Expanded fiduciary protection
- Lower investment fees (see box on right)
- High quality administration and recordkeeping
- Customized education and proactive plan design

Prudential Retirement® is the recordkeeper for the ACEC Retirement Trust, bringing you more than 75 years of experience, expertise, and fiduciary support.

Join today and enjoy the peace of mind that comes from making a smart decision… for you and your employees.

**ACEC Retirement Trust Potential Savings**

<table>
<thead>
<tr>
<th>Retirement plan assets (million)</th>
<th>$2.5</th>
<th>$25</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average expense¹</td>
<td>1.36%</td>
<td>1.17%</td>
</tr>
<tr>
<td>ACEC expense²</td>
<td>0.78%</td>
<td>0.78%</td>
</tr>
<tr>
<td>Potential annual saving for an average plan</td>
<td>$14,500</td>
<td>$97,500</td>
</tr>
</tbody>
</table>

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.

¹Average Investment Expense; Averages Book, 401k Source, 2007 HR Investment Consultants, Inc.
²Average Investment Expense represents dollar-weighted average based on average assets for the 12-month period ending 12/31/07.

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.