Secretary of Transportation

ANTHONY FOXX

Meeting Funding Crisis Head-On

States Take Up Where Feds Leave Off in Transportation

Hidden Opportunity in Sub-Saharan Africa

Member Firm Innovation in Commuter Hubs

U.S. Ports in Expansion Boom
WORKING TO MAKE THE
CONSULTING ENGINEERING INDUSTRY
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Cover Feature

U.S. TRANSPORTATION SECRETARY ANTHONY FOXX
Believes nation is ready to tackle its “infrastructure deficit.”

Features

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With no long-term federal funding plan in place, state governments take the lead in fixing the nation’s bridges, highways and roads.

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Mergers and acquisitions are big in Texas.

2014 ANNUAL CONVENTION PREVIEW
Join your colleagues at the upcoming Convention and Legislative Summit in Washington, D.C., April 27–30.
Looming Transportation Funding Crisis Adds Urgency to Convention Lobbying Effort

An important voice in the reauthorization efforts on MAP-21 is U.S. Transportation Secretary Anthony Foxx, who warned Congress in recent testimony that insolvency of the Highway Trust Fund looms on the horizon. Foxx believes the nation is finally ready to tackle its “infrastructure deficit.”

ACEC is engaged in heavy lobbying of Congress on infrastructure issues—both on WRDA and MAP-21; and ACEC’s “citizen lobbyists” will be on Capitol Hill at our upcoming convention, April 27–30, to underscore the threat we face if programs are allowed to further degrade or drastic cuts occur. The need for long-term, sustainable funding to support the nation’s infrastructure is essential for continued economic growth, security and well-being of our nation.

Our Capitol Hill fly-in also presents an opportunity for ACEC members to influence congressional action on other critical industry issues such as tax and regulatory reforms and expansion of energy markets.

In this issue of Engineering Inc. we also highlight states that have launched their own innovative programs to increase infrastructure funding notwithstanding federal support; the boom in U.S. port expansion; new innovations by Member Firms for U.S. transportation hubs; new opportunities in Africa; and other business features.

We look forward to seeing you at the Annual Convention this spring.

From ACEC to You
AECOM is a global provider of professional technical and management support services to a broad range of markets, with revenues in excess of $8 billion. Our approximately 45,000 employees — including architects, engineers, designers, planners, scientists as well as management and construction services professionals — deliver visionary solutions to the challenges facing our clients in more than 140 countries. AECOM has provided engineering services on some of the world’s most high profile sports venues.

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Rio de Janeiro, Brazil

Yas Island Formula One Race Circuit
Abu Dhabi, U.A.E.

CenturyLink Field
(World’s Loudest Stadium)
Seattle, Washington, U.S.A.
ACEC Endorses Bipartisan Infrastructure Legislation

Sen. Michael Bennet (D-Colo.) and Roy Blunt (R-Mo.) have introduced the Partnership to Build America Act, an ACEC-backed bill that would create a $50 billion national infrastructure financing authority.

The legislation “offers an innovative approach to solving a big problem,” wrote ACEC President Dave Raymond in a letter to the bill’s sponsors. “The American Infrastructure Fund will help to unlock private capital to advance projects at the state and local level that often cannot be undertaken under traditional funding due to their size, complexity and cost.”

The fund would provide loans, loan guarantees and other financing to state and local governments and public-private partnerships. Eligible projects include transportation, water, energy, telecommunications and education facilities. The fund’s initial capital would come from the one-time repatriation of overseas corporate earnings at a lower tax rate.

Eleven senators have already co-sponsored the bill (S. 1957), including six Republicans, four Democrats and one Independent. The bill is a companion to legislation introduced by Rep. John Delaney (D-Md.) in the House, which has garnered more than 25 co-sponsors from each party.

Shuster Anticipates New Transportation Bill; More Revenues Needed for Trust Fund

House Transportation & Infrastructure Committee Chairman Bill Shuster (R-Pa.) expects the committee to unveil and pass a MAP-21 reauthorization bill in late spring or early summer. He said the House needs to approve the surface transportation bill before August in order to negotiate a final bill with the Senate before the current law expires Sept. 30.

Shuster’s key principles for the bill include fiscal responsibility, more project delivery reforms, funding flexibility for state and local agencies and a focus on freight mobility.

ACEC is collaborating with Shuster and committee leadership to ensure the bill contains specific Council priorities, including long-term robust funding and contracting-out provisions.

U.S. Secretary of Transportation Anthony Foxx announced that the Highway Trust Fund might face cash...
ACEC-Backed Contracting Reforms Become Law; Helps Both Small and Large Firms

Congress has embraced ACEC-backed contracting reforms that benefit both large and small firms in the federal marketplace.

The recently signed National Defense Authorization Act for Fiscal Year 2014 includes a provision (Section 1614) that allows prime contractors to count all small-firm subcontractors toward meeting small-business subcontracting goals. Previously, only first-tier, small-business subcontracts were counted. This count did not provide agencies and lawmakers with an accurate picture of total small-firm participation. ACEC has long advocated for better data to demonstrate small-firm participation in the federal marketplace, and this policy change will address this need.

Congress also adopted similar reforms in the Bipartisan Budget Act of 2013 for the Department of Energy’s management and operating contracts. For the first time, first-tier subcontracts awarded to small firms will count toward the agency’s small-firm prime contracting goals.

“This is a big win for ACEC, which has worked closely with key congressional committees in recent years to implement procurement reforms,” said ACEC President Dave Raymond. “These reforms will better account for small-business participation, while also giving agencies greater flexibility in assembling engineering firm teams to respond to the needs of each project.”

Immigration Reform Gains New Momentum

The immigration reform effort started by the Senate may have new life after languishing in the House. House Speaker John Boehner (R-Ohio) recently released immigration reform principles, including support for legal status for undocumented immigrants, which could clear the way for House action and possible negotiations with the Senate. The president highlighted the need for immigration reform in his State of the Union address, which signaled a degree of optimism that progress toward a compromise on immigration was possible.

Last summer, two House committees approved five separate bills addressing several issues, including high-skilled visas—an ACEC priority—after rejecting a comprehensive approach by the Senate. These pieces of legislation did not move to the House floor for a vote, and observers believed the window of opportunity was closing as the midterm election draws near.

ACEC will continue to work with business community allies in urging Congress to approve legislation that lifts the cap on H-1B visas and makes it easier for firms to attract highly skilled engineering professionals from around the world.

For More News
For weekly legislative news, visit ACEC’s Last Word online at www.acec.org.

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| Immigration reform           | Possible House action by the summer |
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The nation’s ports are in the throes of a massive spending spree. Sixty-three ports will invest a combined $46 billion over the next five years to upgrade facilities, according to the American Association of Port Authorities. That’s on top of tens of billions already spent in the past several years.

This flurry of investment can be attributed largely to two factors. No. 1: U.S. trade is expected to more than double over the next three decades, from 1.2 billion tons in 2010 to 2.6 billion tons in 2040. The fastest-growing sector is projected to be container trade between the United States and Northeast Asia, which accounts for 62 percent of all U.S. waterborne imports and 40 percent of all waterborne exports. The containers are offloaded onto east-bound intermodal trains.

“Now the shipping lines will have a choice: call on the West Coast and use rail, or continue through the Panama Canal to the East Coast,” says Ken Jones, senior practice manager for the ports and coastal engineering practice at Atkins North America. “It will come down to a comparison of the costs.”

Because transporting cargo by water is less expensive than overland, East Coast ports hope to reap as much as a 25 percent shift in container cargo from the West Coast. But there’s a problem: No East Coast port is currently capable of accommodating a fully loaded post-Panamax vessel, which is why many are feverishly upgrading their infrastructure.

“We’re seeing very aggressive capital programs,” says Rick Ferrin, vice president, ports and maritime business, southeastern United States, at TransSytems. “South Carolina has been extremely aggressive, allocating $1.5 billion over the next 10 years. Miami is investing heavily to be the first port of call. Even Port Canaveral is building new container terminals and intermodal rail facilities.”
days. No East Coast port has the infrastructure to do that as effectively as a West Coast port, but all are building larger container yards and making better transportation connections. Miami, for example, recently completed a $1 billion tunnel to connect the port to the Interstate Highway System.

Some industry experts predict there will be more losers than winners in this post-Panamax competition. Only one or two East Coast ports will likely become the primary ports of call for these larger ships. Current front-runners include the ports of Virginia, New York/New Jersey and Charleston, but shippers will wait for the full impact of all the port investment before committing.

Other ports will not have wasted their investment. Historically, whenever larger ships enter the fleet, the displaced vessels shift to the next lower tier of ports, pushing the next class of ships to a lower tier, and so on. Those ports that don’t get the post-Panamax vessels should still see a significant uptick in their business.

This cascading effect is the driver behind strong public funding for ports. “The states recognize the economic value of ports,” says Atkins’ Jones. “They generate a lot of jobs—both directly and indirectly—and the amount of money that moves through a port has a significantly positive effect on the local community and state.”

Grain and Oil

The cascading effect could also benefit many Gulf Coast ports. Post-Panamax vessels are unlikely to call at these ports because the water tends to be too shallow and the cargo volumes too small. Nevertheless, Panama City and Port Manatee in Florida are expanding with the expectation of more cargo traffic, and Gulfport, Ala., is planning to deepen and widen its channel.

The two major Gulf Coast ports—Houston and New Orleans—should see a significant impact on their export business due to the Panama Canal expansion.

Most U.S. grain exports currently flow through the Port of New Orleans. Even with the limited size of the current Panamax vessels, transportation costs are still lower than riding the rails to the West Coast. When the canal expands, that cost differential will widen; U.S. Department of Transportation estimates the cost of transporting grain through the canal will drop by 13 percent. Lower costs are expected to both increase the percentage of U.S. grain flowing through New Orleans and improve the competitiveness of U.S. grain in world markets.

Houston looks to profit from the boom in U.S. energy production. “They have an advantage over other ports because they already have so much energy infrastructure in place,” says Ernesto Aguilar, vice president of engineering at Atkins, NA. “And they have been strengthening their infrastructure in anticipation of the canal expansion.”

Cutting Rail Times

For West Coast ports, the competitive disadvantage is the expense of the rail connection to the Midwest. West Coast port officials are working with the railroads to make that connection more efficient.

Ports are investing heavily in speeding up the transfer from ship to rail by increasing on-dock rail connections and building larger container terminal yards. The railroads have extended double-stacked train lengths from 6,000 feet (200 TEU capacity) to 18,000 feet (600 TEU capacity). They have also reduced transit times to as little as 51 hours from Los Angeles to Chicago.

The West Coast ports have one advantage that the East Coast ports will not be able to match for some time: They can already accommodate the huge Suezmax vessels, which are capable of carrying up to 18,000 TEUs and are still too big to go through the Panama Canal.

—Gerry Donohue is ACEC’s senior communications writer. He can be reached at gdonohue@acec.org

### Channel Depths at Primary East Coast Container Ports

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<thead>
<tr>
<th>Port</th>
<th>Channel Depth</th>
<th>Planned Channel Depth</th>
<th>Scheduled Completion</th>
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<tbody>
<tr>
<td>Boston</td>
<td>40 ft.</td>
<td>48-50 ft.</td>
<td>Under study</td>
</tr>
<tr>
<td>New York</td>
<td>45-50 ft.</td>
<td>50 ft.</td>
<td>2014</td>
</tr>
<tr>
<td>Delaware River</td>
<td>40 ft.</td>
<td>45 ft.</td>
<td>2017</td>
</tr>
<tr>
<td>Baltimore</td>
<td>50 ft.</td>
<td>No immediate plans</td>
<td>No immediate plans</td>
</tr>
<tr>
<td>Hampton Roads, Va.</td>
<td>50 ft.</td>
<td>55 ft.</td>
<td>Not available</td>
</tr>
<tr>
<td>Wilmington, N.C.</td>
<td>42 ft.</td>
<td>&gt;42 ft.</td>
<td>Under study</td>
</tr>
<tr>
<td>Charleston, S.C.</td>
<td>45 ft.</td>
<td>&gt;47 ft.</td>
<td>Under study</td>
</tr>
<tr>
<td>Savannah, Ga.</td>
<td>42 ft.</td>
<td>&gt;47 ft.</td>
<td>2016</td>
</tr>
<tr>
<td>Jacksonville, Fla.</td>
<td>40 ft.</td>
<td>45-47 ft.</td>
<td>Under study</td>
</tr>
<tr>
<td>Port Everglades, Fla.</td>
<td>42-45 ft.</td>
<td>&gt;48 ft.</td>
<td>Under study</td>
</tr>
<tr>
<td>Miami</td>
<td>42 ft.</td>
<td>50 ft.</td>
<td>2014</td>
</tr>
<tr>
<td>Mobile, Ala.</td>
<td>45 ft.</td>
<td>&gt;50 ft.</td>
<td>Under study</td>
</tr>
<tr>
<td>New Orleans</td>
<td>45 ft.</td>
<td>50 ft.</td>
<td>Under study</td>
</tr>
<tr>
<td>Houston</td>
<td>45 ft.</td>
<td>No immediate plans</td>
<td>No immediate plans</td>
</tr>
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Source: U.S. Department of Transportation Maritime Administration
In July 2013, Anthony Foxx was sworn in as the nation’s 17th Secretary of Transportation. He leads an agency that oversees air, maritime and surface transportation, with more than 55,000 employees and a $70 billion annual budget.

Foxx is the former mayor of Charlotte, N.C. He also served as a law clerk for the U.S. Sixth Circuit Court of Appeals, as a trial attorney for the Civil Rights Division of the U.S. Department of Justice and as staff counsel to the U.S. House of Representatives Committee on the Judiciary.

In this exclusive interview with Engineering Inc., Secretary Foxx offers his vision for addressing the nation’s transportation challenges.
Q: In your recent keynote speech to the Transportation Research Board (TRB), you laid out your priorities for the U.S. Department of Transportation (DOT) for closing the infrastructure gap, including the use of innovation to deliver projects more efficiently and at lower cost. What role does the engineering industry play in that vision?

A: Now more than ever, we’re being asked to stretch every transportation dollar as far as possible, and engineers play a key role in helping us to do so. One of the most effective ways that we’re doing that is through our Every Day Counts initiative, which is saving State DOTs millions of dollars and delivering the benefits of road and bridge projects to travelers much more quickly. One innovative technology that engineers have contributed to is Asphalt Safety Edge, which is installed during paving or resurfacing projects and allows drivers who drift off highways to return to the pavement safely. Warm-Mix Asphalt is a building material used to create more durable pavement at less cost and with fewer emissions. Another example is Accelerated Bridge Construction, which uses prefabricated bridge elements and systems to build the superstructure next to an existing bridge. Then, crews will slide the bridge into place. This approach allows for fewer roadwork-related delays on the highway while the bridge is being assembled. Due to the visionary role that engineers play in our transportation system, we’ve been able to deliver projects more efficiently and at a lower cost.

Q: The Moving Ahead for Progress in the 21st Century Act (MAP-21) contained many new changes to highway and transit programs, particularly in project planning and regulatory review and a transition to performance-based programming. What progress has been made and what remains to be done?

A: The Department of Transportation has implemented an across-the-board effort to streamline its approval process and cut government red tape. We’ve expedited the review and permitting of 50 major projects, including bridges, transit projects, railways, waterways, roads and renewable energy.

In January, we announced a final rule that will significantly cut red tape, while achieving better environmental outcomes for certain transit and highway projects under the National Environmental Policy Act and spur them towards completion more quickly than in years past. The new rule responds to President Obama’s call for federal agencies to put people first by streamlining and improving government services wherever possible. We anticipate that this new rule will expedite the delivery of specific transit and highway projects—including those to be built within an existing right-of-way where transportation already
Q: Funding for highway and transit programs under MAP-21 expires in September of this year, and revenues into the Highway Trust Fund are not keeping pace with expenditures. In your view, what do the administration, Congress and the stakeholder community need to do to address this challenge?

A: One of my top priorities as secretary of transportation is to work with Congress to show them that our most fiscally responsible path forward is to fund infrastructure now. We must pass a surface reauthorization bill and a bill for rail. President Obama has put forward an idea to fund transportation with the proceeds from corporate tax reform, and it’s a good idea because it could secure a source of funding for multiple years. Meanwhile, on Capitol Hill, members of Congress are continuing to put forward proposals for funding transportation and I look forward to reviewing each and every one of them. This is promising, because what we need is a dialogue among everyone involved so that we can find a way to move forward.

To help, we began posting information on our website showing exactly how much money the Highway Trust Fund has left—and we’ll update that number every month until the fund runs out, or until it can sustain itself. This is a number that we currently share with Congress, but the American people need to know it as well, because they’re the ones who use our transportation system, and they’re the ones who will travel slower and less safely if it isn’t funded.

Q: In your TRB speech, you also discussed the need to develop a more integrated transportation system. What are your thoughts on improving the nation’s freight transportation system, from ports to waterways to highways to rail, and what is the department doing to advance a national strategic freight plan?

A: When we talk about moving mountains, we’re usually talking in hyperbole, but by 2050, America’s transportation system will need to move an additional 14 billion tons of freight. This is roughly the weight of all the rock and all the land that tectonic forces move around under the Earth each year—about the weight of a good-sized mountain. However, when it comes to transportation, we’re not talking about hyperbole—we literally need to move mountains. We’re already making progress on this front by developing a National Freight Plan that looks at all modes, but we need to do more. We need a plan that takes our roads and rails and ports and links them all together—making the finest system of transportation the world has ever known into its 21st-century incarnation.

In order to help the department promote a safe, economically efficient and environmentally sustainable freight transportation system, we also created the National Freight Advisory Committee that will provide advice and recommendations on how to move forward. This committee will work to develop strategies to help states implement state freight advisory committees and state freight plans, develop measures of conditions and performance in freight transportation, and develop freight transportation investment, data and tools. In addition, last year the DOT proposed a series of key highways to serve as a highway Primary Freight Network (PFN). MAP-21 required the DOT to designate up to 27,000 miles on existing interstate and other roadways, with a possible addition of 3,000 miles in the future, as a PFN to help states strategically direct resources toward improving freight movement. The highway PFN will become part of a larger highway National Freight Network that includes all interstates and other rural highway routes designated by states that make up critical highway portions of the nation’s multimodal freight system.

Q: The Transportation Infrastructure Finance and Innovation Act (TIFIA) program of federal credit assistance received huge increases in 2013 and 2014. What role will TIFIA and other innovative finance mechanisms play in the future of transportation development?

A: The TIFIA program provides federal credit assistance in the form of direct loans, loan guarantees, and standby lines of credit to finance surface transportation projects of national and regional significance. TIFIA credit assistance provides improved access to capital markets, flexible repayment terms and potentially more favorable interest rates than can be found in private capital markets for similar instruments. TIFIA can also help advance eligible, large-scale projects that otherwise might be delayed or deferred because of size, complexity, or uncertainty over the timing of revenues.

MAP-21 expanded the TIFIA program tenfold into one of the largest transportation infrastructure loan programs in history, making up to $17 billion available in credit assistance for critical infrastructure projects. TIFIA is making significant progress ramping up the staff resources necessary to meet the enormous demand, including hiring additional program employees. The DOT is committed to meeting the demands of MAP-21 and is working diligently to provide financing to creditworthy projects.

We were also pleased to see that Congress included $600 million for another round of TIGER grant funding in the omnibus bill last month. Together, TIGER and TIFIA are helping support projects with exceptional benefits, helping us explore ways to deliver projects faster and save on construction costs, and helping the country make investments in our nation’s infrastructure that make communities more livable and sustainable.
To say some states have transportation issues would be an understatement. Across the country, roadways are deteriorating and widespread congestion is rampant. More than 66,000 bridges are deficient and in dire need of repair, and public transit systems are burdened by ever-increasing demand. Faced with flat or declining contributions from the federal government, the onus is increasingly on states to address critical infrastructure improvements. >>
Despite budget challenges of their own, many state legislatures nonetheless are enacting innovative policies to ensure that the future transportation needs of their citizens and communities are met.

According to the National Council of State Legislatures (NCSL), 435 bills seeking tax increases or bonding initiatives to increase funding for transportation were introduced in 47 states and the District of Columbia last year. Though a majority of these bills failed to gain traction, transportation funding is clearly a concern. So far in 2014, 11 bills to increase funding have been introduced in state legislative sessions.

**Not a Pretty Picture**

“There’s no question that states are on the front lines of a well-documented and worsening transportation funding crisis,” says Jaime Rall, NCSL’s senior policy specialist. “It’s a chronic central gap between transportation infrastructure needs at all levels of government.

“Experts agree that the nation as a whole is only spending one-third to one-half of what is needed to maintain and improve U.S. transportation systems,” she said, adding that “there are many reasons for the funding gaps—years of underinvestment, aging infrastructure, growing transportation demands and gas tax revenues that aren’t keeping up with needs.”

At the federal level, Rall points out that transportation is facing its own fiscal cliff with the federal transportation law—MAP-21—expiring this September. “They have a short window with the law and they didn’t solve the core problems of structural funding gaps,” she says. “It just transferred funds from other sources to keep the federal Highway Trust Fund solvent. The Congressional Budget Office predicts that the fund will face insolvency in fiscal year 2015.”

The fallout? “States have no choice but to rely upon themselves,” Rall says.

In 2013, Maryland, Massachusetts, Ohio, Pennsylvania, Vermont, Virginia and Wyoming passed laws to increase revenue for transportation infrastructure maintenance and expansion in their states.

**Take a Gas Hike**

In Maryland, “the roads and bridges weren’t exactly crumbling,” according to Jim Otradovec III, executive director of ACEC/Maryland, “but they were getting there.”

Seeking to recharge the state’s struggling economy and improve its declining infrastructure, and to finally forge ahead with long-planned mass-transit projects, Otradovec and other stakeholders lobbied for the state’s first gas tax increase in nearly 20 years.

It wasn’t easy. But “we pushed hard,” Otradovec recalls. “This was a multiyear effort that included ACEC/Maryland, along with area business leaders, contractors, AAA and the Chamber.” The difference maker? Transportation advocates framed the dilemma in terms legislators could easily understand, says Otradovec.

“We focused on the fact that jobs were involved. They understood how many of their constituents were out of work,” he says. Legislators are always “concerned with public opinion, and you can’t lose sight of that.”

In May 2013, Maryland Gov. Martin O’Malley signed a tax increase into law that should yield $4.4 billion for new projects in the state over the next six years. The phased-in tax means Maryland motorists can expect to pay 13 to 20 cents more per gallon of gasoline by 2016.

“You have to work through it,” explains Otradovec. “It was also important to help people understand that the funds will be going to where they are intended. I would tell any state to count the votes in the general assembly and heavily focus your efforts.”

In Pennsylvania, the transportation picture was dire, says ACEC/Pennsylvania Executive Vice President Eric Madden. He cites a 2010 report that projected a $3.5 billion gap between what the state was spending and what it would take to get its transportation infrastructure back in “a state of good repair.”

“With the cost of inflation, every day of delay was costing us $1 million,” Madden says. Just how bad was the situation in the Keystone State? “We led the nation in the number of bridges that were structurally deficient,” Madden says.

The controversial bill to raise revenue for local road and bridge repairs drew support from powerful special interest groups across the state, including those representing the elderly (AARP) and commuters (AAA), commerce (Pa. Chamber of Business and Industry) and agriculture (PennAG). It also promoted long-term funding for public transportation, freight rail, airports, bicycle and pedestrian facilities.

Following several months of contentious debate, Gov. Tom Corbett signed a revenue increase into law that would collect an additional $2.3 billion to $2.4 billion over a five-year ramp-up. Some of the funding mechanisms in the new law provide an inflation-sensitive increase in the state’s oil company franchise tax, inflationary increases in driver vehicle registration and licensing fees and surcharges on moving violations.

The Governor’s Transportation Funding Advisory Commission in 2011 estimated that a typical Pennsylvania driver will spend roughly $22 more a year in 2014 and $132 more by 2018.

Madden says the effect this new revenue will have on the economy, particularly infrastructure projects, cannot be overstated. “We lost more than 3,000 engineers in this state that were either eliminated through mergers and acquisitions, or bankruptcies or relocation outside of the state.”

ACEC/Pennsylvania President David Lowdermilk concurred. “The passage of this legislation is of monumental impor-
something positive to get the level of support the governor’s transportation package needed.”

Last summer, the state enacted a 3.5 percent wholesale tax on gasoline and a 6 percent tax on wholesale diesel. Eliminated was the previous 17.5 cents-per-gallon tax on gasoline at the pump. Officials say the new tax arrangement will better enable the state to keep up with inflation.

Part of Virginia’s deal calls for an increase in the amount of sales tax devoted to transportation. All told, the amount of tax money collected through the arrangement and devoted to transportation should eclipse $880 million annually by 2018. “It also allows some localities to have the ability to ask through referendum to increase their sales tax as well,” Israel explains.

She says the tax increase was critical for Virginia. “We’re one of only a few states where all public roads are maintained by the state—usually localities do it,” she says. And there was another problem:

Virginia took a similar tack to fill its infrastructure coffers.

Transportation advocates in the Old Dominion State had to overcome a common antitax attitude among state legislators when debating the importance of increased investment.

“Our biggest challenge was the potential gridlock of a ‘no new taxes’ legislature, along with unrelated issues tied to the initiative to obtain sufficient votes to pass the measure,” says Nancy Israel, executive director of ACEC/Virginia. “The governor came up with the idea and wanted to do it—and then got the support of the House speaker to help push it through,” Israel says.

ACEC/Virginia has consistently made our legislators and administration aware of the importance of developing and maintaining the state’s transportation infrastructure as a key to economic and business growth,” she says. “We helped legislators grasp the importance of doing

In Wyoming, a gas tax increase was desperately needed—and state legislators knew it.

“We were trying to maintain infrastructure and, if it didn’t happen, WYDOT (Wyoming Department of Transportation) would have only been able to maintain certain highways,” says ACEC/Wyoming Executive Director Joe Lord.

A long-standing ACEC/WYDOT Co-op Committee gave ACEC/Wyoming and its members an active forum in which to help determine a sustainable funding solution for the state’s transportation system. As a result of these and other discussions, WYDOT approached the state legislature in 2012 to address the need for increased funding.

ACEC/Wyoming Member Firms also approached their senators and representatives to encourage support for WYDOT’s proposal. “Throughout the legislative process, the thrust of our pitch to legislators was that as engineers and transportation specialists, we know the system is deteriorating and will continue to deteriorate at an accelerated pace, and the cost to stem this tide will never be lower than it is right now,” Lord says.

Pennsylvania Gov. Tom Corbett signs a revenue increase that will collect more than $2 billion over a five-year ramp-up for his state.

“Everyone has to keep looking for ways to deal with the situation, or transportation systems could get much closer to falling apart.”

JOE LORD
ACEC/WYOMING
WYDOT’s efforts in 2012 resulted in the formation of an interim study committee tasked with finding the required long-term transportation funding. The committee recommended the gas tax increase, which the governor supported.

Under the proposal, the state fuel tax increased from 14 cents to 24 cents. State officials say the increase will yield an estimated $70 million per year, approximately two-thirds of which will go toward state highways, with the remainder for local governments.

Lord credits the victory in no small measure to the efforts of WYDOT officials, who had pushed for the tax for years.

Still, he says, it’s not a panacea. Even with the influx of tax money, Wyoming has a ways to go. “Interstate 80 is 400 miles, and you could spend the entire budget just maintaining that,” he says. But, “we can at least fund some things ahead of schedule.”

An Uncertain Road
Tax increases and other state-supported funding measures will stem the bleeding in many states. But such measures won’t fix the problem. Engineers still need a long-term transportation plan from the federal government. ACEC is working closely with House and Senate leaders on the reauthorization of MAP-21 with the goal of creating a stable, long-term funding mechanism to support transportation needs.

Rall says NCSL is working to encourage a strong federal presence in transportation policy and funding. The problem: “No one knows what they can count on,” she says.

Even Lord, whose state had a relatively easy time passing its latest tax measures, says engineers and others can hold out for only so long. “We don’t know how much longer we’ll get federal assistance,” he says. “Everyone has to keep looking for ways to deal with the situation, or transportation systems could get much closer to falling apart.”

Eric Butterman is an engineering and technology writer based in Texas.

**States That Passed 2013 Laws to Boost Revenue for Transportation**

<table>
<thead>
<tr>
<th>State</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maryland</td>
<td>$4.4 billion</td>
</tr>
<tr>
<td>Massachusetts</td>
<td>$500 million annually</td>
</tr>
<tr>
<td>Ohio</td>
<td>$1.5 billion</td>
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<tr>
<td>Pennsylvania</td>
<td>$2.3–$2.4 billion</td>
</tr>
<tr>
<td>Vermont</td>
<td>$56 million</td>
</tr>
<tr>
<td>Virginia</td>
<td>$3.5 billion</td>
</tr>
<tr>
<td>Wyoming</td>
<td>$70 million annually</td>
</tr>
</tbody>
</table>

*So far in 2014 state legislative sessions, 14 states have introduced bills to increase revenue for transportation.

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Joseph J. Grabowski
CEO — Wenck Associates Inc.
In early 2013, Congress passed new legislation where the following tax changes went into effect:

- Top individual tax rates increased to 39.6%
- The estate/gift tax rates increased from 35% to 40%
- The Social Security tax on all working taxpayers increased by 2%
- Top capital gain tax rates increased to 23.8%
- Various tax credits and deductions permanently expired
- Reinstatement of the phase out of itemized deductions and personal exemptions

Many states also increased their highest tax rates. This combined with the Federal changes is resulting in a combined Federal, Medicare and State tax rate of nearly 50% for taxpayers who have interests in S-Corporations, LLCs and Partnerships. Shareholders of these entity types need to look at various items to lower their effective rate such as:

- Entity structuring that utilizes lower C-Corporation tax rates, without giving up single taxation on the possible sale of the company or major assets of the company

"Tax planning discussions with our AE clients focus on the Research & Development Credit, IC DISC, 179D, 831b and residency planning - all of which are affected by entity structure.”
- Joel Newby, HLB Tautges Redpath Ltd.

- Implementing or moving to a 100% ESOP (Employee Stock Ownership Plan) ownership structure. Partial ESOPs can lower the overall tax burden, but are not as tax efficient
- Reorganizing how rental real estate is owned and grouped to qualify for the rental property trade or business exemption to the 3.8% Medicare tax
- Reviewing, revising or adopting qualified retirement plans to maximize contributions as appropriate
- Determining if any tax free or tax deferred investments make sense, like IRAs (Roth and traditional), municipal bonds, variable annuities and cash value life insurance policies

"Given the current tax environment, the 100% S-Corporation ESOP structure has greater appeal than ever. Because the ESOP is a tax-exempt Trust, no current tax is due on the Company’s earnings. The ability to retain all your earnings for reinvestment in the firm, make acquisitions, or pay higher salaries can be a significant competitive advantage.”
- Chris Staloch, Chartwell Capital Solutions
• Spreading assets and applicable income among family members with low tax rates
• Changing state residency – not impossible, but likely improbable

So, is it time to change to a C-Corporation? Since the Tax Reform Act of 1986, the answer to that question has been no in 90% of circumstances. Now, that answer may not be as clear.

Every business needs to review their structure using the goals of the company and the owners to drive the decision. The decision needs to be supported by financial modeling, including “what if” scenarios. Legacy companies (e.g., sale unlikely) are currently utilizing or switching to the C-Corporation structure because the short term benefits are substantial and the long term risks are unlikely. For specific C-Corporation considerations, see the chart above.

For those companies contemplating a sale or merger, the S-Corporation model may still be the most advantageous depending on the entity structure and goals of the buyer. Some firms are experiencing “tax affecting” deductions from their purchase price as a result of strategic buyers who are C-Corporations or financial buyers who want to convert the company to a C-Corporation. Sale to an ESOP could be a better alternative than the above. The ESOP is a friendly, inside buyer where the S-corporation status is not only maintained, but preferred. In 100% transactions, neither the company nor the ESOP trust incur any tax liabilities.

These topics and much more will be explored at the upcoming ACEC 2014 Annual Convention held on April 27-30 in Washington D.C. as part of the Finance Track, sponsored by Chartwell, The ESOP Law Group, and HLB Tautges Redpath Ltd. Please contact Leo Hoch at 202.682.4341 or lhoch@acec.org for further information on the program.

Joel Newby is a Partner and the Construction/Engineering Practice Leader at HLB Tautges Redpath Ltd. - a proactive, innovative, value-driven CPA firm.

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Member Firm transportation hub designs spur economic growth

CENTERs OF COMINGS & GOINGS
By Darlene Bremer

PROJECT: Atlantic Yards, Brooklyn, N.Y.
FIRM: Stantec, Edmonton, Alberta

PROJECT: Chatham Area Transit (CAT), Savannah, Ga.

PROJECT: Denver Union Station, Denver
FIRM: AECOM, Los Angeles
PROJECT: Atlantic Yards, Brooklyn, N.Y.
FIRM: Stantec, Edmonton, Alberta

Situated in the Prospect Heights neighborhood in Brooklyn, N.Y., the 22-acre Atlantic Yards mixed-use commercial and residential development project is one of the hallmarks of a years-long urban renewal looking to restore energy and economic viability to a borough long overshadowed by its northern neighbor, Manhattan.

At the heart of the project is a state-of-the-art multi-modal transportation hub built to serve the needs of local residents, the developer and the Metropolitan Transit Authority (MTA).

“With commuter rail, subway access and bus service all served from the Atlantic Yards terminal, residents and visitors can easily get to and from the area, including to the new 18,000-seat Barclays Center, home of the Brooklyn Nets NBA team,” says Stuart Lerner, vice president of Stantec, the ACEC Member Firm contracted to design and implement much of the transportation project.

The firm’s scope of work was completed in 2012, and largely encompassed transportation improvements in the public Right of Way, including site improvements such as security bollards, parking lots, lighting, plaza design/landscaping, sidewalk improvements and street alterations to accommodate urban development. The firm was also responsible for designing a new subway station over and adjacent to the 90-year-old existing subway tunnels and a complicated web of urban utility lines.

Stantec also added a new commuter rail tunnel from the western end of the yard to improve rail operations into and out of the yard and replacing the Department of Transportation bridge that spans the rail yard on Carlton Avenue. In addition, the firm rehabilitated and reconfigured the Long Island Railroad car shop.

“All of the design and construction needed to be accomplished while keeping vehicle, rail, and subway service in operation,” Lerner explains. But perhaps the greatest challenge was accommodating the new subway station entrance on top of a deteriorating, 90-year-old subway tunnel. To solve the problem, the company designed a structure to bridge the existing tunnel and reinforced the old tunnel in specific and strategic locations.

Engineers who worked on the project say Atlantic Yards has improved transportation into and out of the region and breathed new life into an old neighborhood in Brooklyn.
Old Greyhound Bus Depot Turned Travel Hub

The Chatham Area Downtown Intermodal Transit Center in Savannah, Ga., was designed from an existing Greyhound bus terminal.

PROJECT: Chatham Area Transit (CAT), Savannah, Ga.


Fifteen years ago, urban planners in Savannah, Ga., had a vision: The Chatham Area Transit Downtown Intermodal Transit Center would provide visitors, citizens and local transit employees with a modern hub for travel, position the city for economic growth and reinforce the importance of multi-modal transit across the region.

It was a grand idea, but the project stalled—for years.

Then, in 2006, ACEC Member Firm Wendel Companies was brought in during the site selection process. And the wheels began to turn once more.

“The site chosen for the new center was an existing Greyhound bus station,” recalls Sean Beachy, project architect. “After considering input from the Historic Savannah Foundation and the Metropolitan Planning Commission, our team began to transform the deteriorating, unappealing terminal into a welcoming public space that could accommodate multiple modes of transit and provide an iconic canopy design to foster civic pride and improve the perception of public transit.”

Wendel was responsible for developing the site’s master plan, to ensure efficient and safe operations, designing the flow pattern of vehicles and people on the site, integrating that flow pattern with the building’s design, and designing the site’s three canopy covers and lighting, mechanical and electrical systems.

The engineering team was challenged almost immediately. The footprint of the existing building conflicted with the traffic circulation pattern designed for the new passenger transfer platform. “To resolve the problem, we had the entire rear portion of the building removed, which included part of the existing Greyhound station canopy, and rebuilt that corner to fit into the allotted space,” explains Beachy.

The canopy removal left the team with unused concrete tees. The leftover tees “were reused as the roof structure of a new canopy for the trolley system, which contributes to achieving LEED Gold certification,” Beachy says.

LEED certification was a paramount requirement in the firm’s design of the canopies for the passenger transfer center. The engineering team decided on a rolled steel “wing” form with wide flange steel columns to achieve the desired architectural aesthetics and to provide exceptional functionality. “The canopy’s central translucent panels make use of daylight as a way to decrease energy consumption,” Beachy says. “The V-shape of the central roof enables natural ventilation to evacuate vehicle exhaust and provides a natural cooling effect for occupant comfort though the opening between the translucent roof and the curved roof.”

The end result: a multi-transportation center that accommodates two separate bus platforms, 14 saw-tooth slips, waiting benches that are integrated into the structural design of the CAT platform, and electronic information kiosks and signage that are tied into the buses’ automatic Vehicle Location system.
PROJECT: Denver Union Station, Denver

FIRM: AECOM, Los Angeles

In 2006, officials for Denver’s Regional Transportation District (RTD) began the long march toward revitalizing rail transit at the city’s historic rail hub, which included incorporating the free downtown bus circulator and shuttle service, in addition to bicycle, taxi, automotive, and local/regional bus service.

The plan was to spur development in an otherwise underused area of downtown Denver. “The Denver Union Station redevelopment project combines public transit expansion with private development to create a new multi-modal transportation district and focal point of activity for the region,” says Joe Pulicare, executive vice president, Americas Transportation, for AECOM.

As part of the development team, AECOM is responsible for designing the $400 million, 19.5-acre site that will include—upon completion in May 2014—several public spaces, from gardens to plazas to high rises to retail facilities. Additionally, the company will oversee the design of an eight-track commuter train station immediately behind historic Union Station (DUS), relocate an existing light-rail train (LRT) station adjacent to the consolidated main line tracks, add an underground bus terminal, design and build surface streets, relocate utilities and establish drainage patterns to support the transportation facilities and all future development.

“As lead designer, we worked in close collaboration with the RTD to deliver a comprehensive solution of efficiency and economic viability,” Pulicare says.

A project of this size typically features multiple stakeholders with competing interests, and the DUS is no exception. That’s why the design-build team held discipline-specific meetings, as well as weekly high-level owners meetings. “These meetings helped ensure real-time communication and efficient change management as the project progressed,” explains Pulicare.

Cost was another concern. “More than $100 million in costs related to underground construction were saved when the refined master plan separated the new LRT terminal from the Amtrak/commuter rail train hall and brought all of the rail functions up to street level, rather than in a three-level, partly underground composition,” Pulicare says. Separating the transportation modes, rather than “stacking” them, also created an opportunity for a more dynamic pedestrian and retail space in the heart of the station district.

The historic Denver Union Station will continue to have a prominent role in the new multi-modal transit district, which will accommodate 12 types of transportation, six public plazas and 1.35 million square feet of retail, commercial and residential real estate.
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Accessing important project documents while on a job site can be a challenge, especially when those sites have limited or restricted Internet access. Engineers increasingly need to read and edit large drawing sets from a variety of mobile devices, and they must be able to do this in a secure setting.
Electronic file-sharing technology has evolved in recent years—particularly with the evolution of cloud computing, which has made file sharing easier. If your firm does off-site work or collaborates with other offices, it’s important to stay on top of the latest developments, because effective, dependable and flexible file sharing can be vital to the success of a project.

In the past, electronic file sharing was more localized, with files shared mainly among users in the same building or complex, via custom web portals, applications such as Microsoft SharePoint or content management systems, says Pham Nguyen, chief technology officer at Sopris Systems, a global solution provider that specializes in enterprise applications for the professional services industry.

While this method served a purpose for local users who needed to share documents, “it was very limited in regard to the remote, more dispersed users that we have today,” Nguyen says. “Everyone had to go into the office to access files. If you wanted to use the documents outside the office, you had to copy the files. It was often a nightmare to maintain remote files.”

Technology such as SharePoint has improved some of the challenges associated with remote file sharing, Nguyen says. But users still face security restrictions—such as having to go through a virtual private network to gain access—as well as connectivity limitations when faced with lower bandwidths.

“With early generations of intranets, there was frustration in users not buying into file sharing because of download issues,” Nguyen says. “There were also limitations in terms of searching data to find particular CAD designs.”

The cloud has changed all that.

“Cloud computing has taken over the responsibility of IT in regard to file sharing and collaboration,” Nguyen says. With cloud services “providing those frameworks of collaboration, people who are remote can connect and share files across the board with peers on a project,” he says.

“File sharing saves a lot of money on printing and associated supplies, while the time that it takes to share has dropped considerably.”

ERIC ELDRIDGE
Haley & Aldrich

This is especially important considering how many firms now have more than one office. “It’s more critical now to be able to collaborate among employees to provide a better picture for the customer,” Nguyen says. In construction, speed is a huge factor—so the ability to track changes and download files becomes that much more important.

Smaller engineering firms tend to use hosted cloud services because they are less costly, whereas larger firms are more inclined to deploy their own on-premises cloud environments, or a hybrid of private and public cloud services, Nguyen says.

Improved Services
Among the more popular file-sharing services for engineers are ShareFile from Citrix, iShareDocs, Secure Collaboration from Accellion, and enterprise file sharing from Egnyte.

It’s not just the availability of cloud hosting that has made more efficient file sharing possible, but enhancements to telecommunications services, including higher bandwidth to access files.

“With these newer telecommunications frameworks, you can do content management with more than just documents; you can have blueprints and articles available to share,” Nguyen says. “There’s a lot of archival or historical data out there that engineers need, and a lot of enterprise content solutions allow you to make that data accessible.”

ACEC Member Firm Haley & Aldrich, Inc., uses a variety of tools to share files with clients. The right tool depends on a variety of factors, says Eric Eldridge, IT director at the Boston-based firm. These include the amount of data being shared, how many people need to have access to the information, whether the information will change and how long the information needs to be available.

Haley & Aldrich uses email to share small files. “Our staff prefers the simplicity and immediacy of email to share with multiple recipients,” Eldridge says.

It also uses File Transfer Protocol (FTP)—a standard network protocol used to transfer files from one host to another over the internet—and Secure File Transfer Protocol (SFTP), the encrypted version of FTP, for large files that users do not need to collaborate on and that typically need to be transferred to a single recipient.

Eldridge says the firm also incorporates a client portal—a set of SharePoint sites that has been in place for more than five years—where both clients and staff can place files to provide a single repository for information. This is used for files that are less than 50MB in size.

And it’s using ShareFile, a cloud-based, hosted solution from Citrix that lets the firm share larger files with several people, using a simple, web-based user interface.

With the various forms of electronic file sharing, “at a rudimentary level, we are able to share files to various recipients in a timely manner,” Eldridge says. He adds, “File sharing saves a lot of money on printing and associated supplies, while the time that it takes to share has dropped considerably.”

Still Some Problems
Despite its advantages, file-sharing technology has created its share of challenges for some users. Among the issues Haley & Aldrich has encountered is the tendency of users to integrate alternatives not provided through the company, such as Dropbox, SkyDrive or Google Drive, which leads to higher costs and security issues. “This causes a problem in securing our intellectual property,” Eldridge says.

Another issue: the inability to collaborate in some cases. “Our sharing is more one-way delivery than collaborative sharing,” Eldridge says. “The value of these activities could be higher if we were able to have true, collaborative sharing that can occur from a single location.”

Incremental Improvements
In the future, engineering firms will need to be more “data-driven” than “file-driven,” Eldridge says. “Information that we look to share and consume is really just data,” he says. “A file is a representation of that data at a point in time. If we can have relevant data in a single location and merely give various users a view into that data, then we are really not moving around a bunch of files. We are just giving people access to the right information in a way that they want to consume it.”

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Mulkey Engineers and Associates in Raleigh, N.C., has used FTP services for file sharing for years, but has lately begun to rely more heavily on cloud-based solutions, according to Barry Pierce, principal at the firm.

FTP raises a number of issues, not the least of which is security, Pierce says. “FTP is not a secure solution, so it’s not something that we want to use for storing sensitive documents,” he explains. Users often upload files to FTP with the understanding that the post is temporary, only to find out later that the posts are not deleted.

Mulkey began using ShareFile from Citrix in small doses a couple of years ago. Now the firm uses it for file sharing companywide, Pierce says.

The firm, which specializes in providing roadway, bridge and building design and engineering services, still uses FTP for a few long-term projects that don’t require high security and have very large file attachments. But ShareFile gets the lion’s share of the work. “It has been easier for our users than FTP, and provides a more secure and robust solution,” Pierce says.

ShareFile also provides a solution for addressing file overload. “With ShareFile, you set an expiration date for when a file or folder will be deleted,” Pierce says. And it deletes that file automatically.

### Solving the Problem of Storage

For Mulkey, perhaps the biggest challenge related to file sharing is the need to accommodate very large attachments. “When the email server becomes the file-sharing tool, it has many pitfalls, such as using lots of storage space,” Pierce says. “For example, with the latest version of Microsoft Exchange, if someone sends a 10MB file to 100 users, it takes up 1GB of storage space.”

The cloud can address many of the storage concerns firms have, and it will become even more prevalent and useful for file sharing in the future, Nguyen says. So will the use of mobile devices to access files, such as tablets and eventually even smartphones. “We’re seeing more of the smaller devices get bigger screens so you can see the files,” Nguyen says. “Users can download the assets they need and have them on their devices and go to a job site to perform work.”

The future will also likely see an increase in the use of business intelligence applications and big data/analytics in file sharing, Nguyen says. He expects to see more engineering firms working together on big data initiatives in areas such as geospatial data and mapping. “At a global level, we’re starting to see more and more of that type of collaboration,” he says.

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Bob Violino is a business and technology writer based in Massapequa Park, N.Y.
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Sub-Saharan Africa offers unprecedented opportunities for U.S. engineering firms, according to Obama administration.

By Bob Woods

Firms that do international work are always on the lookout for new markets. Countries such as China and India are known destinations. But here’s one maybe you haven’t considered: Sub-Saharan Africa (SSA).
Just ask ACEC Member Firm Tetra Tech. The Pasadena, Calif.-based firm has worked in the region for nearly two decades. Most of that work has come in response to RFPs issued by U.S. government entities—the U.S. Agency for International Development (USAID), Millennium Challenge Corporation (MCC) and the like.

That process became slightly more exclusive in 2010, when MCC awarded Tetra Tech and a handful of firms a five-year contract for upfront planning and design services. The arrangement meant that only those firms with contracts would be asked to reply to host-country RFPs for A/E services, procured through MCC.

"Under our contract, we’re now working on a power-sector project in potentially three different countries in southern Africa," explains Brian Potvin, director of international development at Tetra Tech.

This represents a shift in U.S. foreign aid strategy toward the 49 SSA nations. What was once a piecemeal approach has evolved into a sustainable long-term model.

“These are whole-of-government initiatives to make sure that more U.S. companies are aware of trade and investment opportunities in the region and are linked to the resources to help them,” says Michael Masserman, executive director for export policy, promotion and strategy for the U.S. Department of Commerce, International Trade Administration.

Pegging SSA as possibly the world’s next major economic success story, the Obama administration launched its Doing Business in Africa (DBIA) campaign in November 2012.

"Doing Business in Africa is a real partnership between Commerce, the U.S. private sector and African governments and businesses,” Masserman says. DBIA reflects an unprecedented approach to increasing U.S. trade in the region.

Big Numbers
Just how much opportunity are we talking about here? U.S. trade to and from Africa has tripled over the past decade, and in 2012 the U.S. exported $22.5 billion in goods to the region. SSA is home to seven of the 10 fastest-growing economies in the world: Ethiopia, Mozambique, Tanzania, Congo, Ghana, Zambia and Nigeria. The International Monetary Fund estimated economic growth in SSA at an impressive 5.6 percent last year and 6.1 percent throughout 2014.

Led by the Commerce Department, DBIA is a government-wide collaboration with the State Department, Export-Import (Ex-Im) Bank, the U.S. Trade and Development Agency, the Overseas Private Investment Corporation and other agencies. “The Obama administration is focused on trade as a core mechanism for advancing democracy, security and development,” Masserman says.

Last summer, the White House announced a pair of core initiatives—Power Africa and Trade Africa—that present new opportunities for U.S. engineering firms. “In the past, the most common projects surrounded the oil and gas sector and construction of facilities,” Masserman says. “We’re now pursuing investments in road transportation, water, electric power and other projects.”

While U.S. agency sponsored programs represent a small fraction of global opportunity available to engineers, many U.S. firms use such programs to gain entry into specific international markets.

The White House estimates that more than two-thirds of the SSA population lives without electricity. The International Energy Agency estimates that the region will require more than $300 billion in investment to achieve universal electricity access by 2030. Power Africa will initially focus on providing electricity in six countries—Ethiopia, Kenya, Tanzania, Nigeria, Ghana and Liberia. It aims to provide electricity access to a minimum of 20 million new households and businesses through a combination of on-grid, mini-grid and off-grid solutions.

Bringing electricity, water, health care, education, information technology and other basic services will undoubtedly improve the quality of life for millions of people in the region. “The satisfaction of being able to help people and provide essential services in jumpstarting their overall economic growth is exciting,” Potvin says. “There’s a lot of reward in that.”

The United States plans to contribute more than $7 billion in financial support to Power Africa through a combination of several agencies over five years. USAID will provide $285 million in technical assistance, grants and risk mitigation to advance private-sector energy transactions and help local governments develop policy, regulatory and other reforms. MCC will invest $1 billion in power and infrastructure, agriculture and finance and enterprise development. Contracts like those awarded to Tetra Tech will be used to develop and support these programs. Ex-Im Bank will also offer up to $5 billion in support of U.S. exports for the development of power projects across SSA.

Trade Africa, an initiative that seeks to increase internal and regional trade within SSA and expand trade and economic ties between Africa, the U.S. and other global markets, will initially focus on the members of the East African Community—Burundi, Kenya, Rwanda, Tanzania and Uganda. These nations together have a population of more than 130 million people and benefit from increasingly stable, pro-business regulations. “Engineering services opportunities exist throughout the region in both hard and soft infrastructure,” Masserman says, “such as roads, ports, airports, intermodal logistics, housing and commercial development.”

The Corporate Council on Africa (CCA), a Washington, D.C.-based nonprofit devoted to U.S.-Africa business relations, is responsible for steering U.S. business involvement in the region. CCA features more than 160 member companies and several U.S. engineering firms.

“We’re a convener,” says CCA Vice President Bob Perry, a former U.S. ambassador to the Central African Republic, in describing the association’s role in bringing member companies together with U.S. and African entities to plan projects from the outset. “Companies appreciate being part of the planning process, because with
their input, a project put up for bid is more likely to attract their bids and improve their probability for success.”

CCA and ACEC Member Firm Black & Veatch, headquartered in Overland Park, Kan., has been doing business in Africa for nearly half a century. Its experience and track record are two reasons Eskom, the South African state utility, chose the firm to provide project management, engineering and construction management services for Eskom’s massive Kusile Power Station project, a 4,800-megawatt supercritical, coal-fired facility under construction near Witbank, South Africa. The plant is intended to address a severe shortage of available electrical power generation for homes and businesses in certain parts of the country. Black & Veatch also facilitated an $800 million Ex-Im Bank loan to Eskom for the project, adds Perry.

Navigating Obstacles

Expanding trade in SSA, as in other emerging markets, presents both tremendous opportunities and enormous challenges for firms. “To attract business, African governments will have to improve rule-of-law mechanisms, increase transparency and reduce corruption,” says Masserman. There also are more tangible challenges to contend with, such as a lack of roads, bridges, electricity, water systems and other infrastructure needed to do the work.

Some countries maintain local content requirements, often difficult to address in a world of limited resources. A firm, for instance, might be required to hire a certain number of local engineers, a condition stymied by a lack of skilled engineers or training programs that meet U.S. requirements. “To avoid financing and payment problems, we advise firms to work out dispute and resolution mechanisms beforehand,” Masserman says.

CCA recommends that its members share information among themselves, which is one reason it has invited African companies to join. “Having a local partner that understands how to operate in that culture many times can be the key to success or failure,” explains Perry. ACEC Member Firms have a ready-made link to African engineering firms through ACEC’s membership in FIDIC (International Federation of Consulting Engineers) and the member engineering associations from those countries.

Besides expanding trade and investment, there is another incentive for engineering firms to explore opportunities in this dynamic part of the world. “Engineers have an opportunity to do good and to do well,” Masserman says. He adds, “The impact that U.S. engineering firms have had in the region on social, political and economic needs cannot be overstated.”
You Can’t Manage Cost or Schedule Without Managing Risk

Risk Management – as Critical as it is Broad

In construction, where information and processes flow between companies, risks can stem from changes in scope, schedules, costs, errors, claims, and fraud, to name just a few. As with any business, miscommunication can cause many problems – and clear, trackable communication can prevent them or mitigate their impact on construction projects.

Taking a look at risk management in the construction industry, KPMG International recently published its Global Construction Survey 2013. In this survey, KPMG interviewed 165 senior executives from construction and engineering companies.

The survey responses around risk management are compelling:

- 81% of respondents ranked “efficient risk management” highest as a factor for growth.
- 77% reported underperforming projects due to delays, poor estimating processes and failed risk management processes.

KPMG summarized the respondents’ recommendations with direct quotes:

“Many of the controls appear to be in place. Now it is time for contractors to make sure that people are fully aware of and observing these procedures and that management has an enterprise-wide view of risk.”

“We need to get more people to follow the [risk management] process. We must ensure people think of risk management as a fundamental part of the construction process and have it top of mind at every stage of work.”

Aconex clients recognize the value of risk mitigation – to both their projects and their companies – through the use of secure and robust systems.

“This provides an iron clad record. Nothing can be deleted or altered. If there is a dispute, we are going to win every time.”

Risk Mitigation

What’s the best way to mitigate project delivery risk? Construction project management software built specifically to manage communication between companies.

Imagine a project without the phrases: “I didn’t receive that drawing.” “I sent my comments to you last week.” “We built it based on the latest version we received.”

Aconex users don’t have to imagine. They have removed roadblocks, saved time and money, and greatly reduced their risk.

The Case for Construction Management Software

The complexity of construction along with the potential for acceleration with economic recovery – make strong arguments for the adoption and use of project-wide information and process management systems.

Project-wide means that every individual on the project team, regardless of organization, has appropriate access to the same project information and adheres to the same project workflows.

Every project document, drawing and model is registered, and every transmittal, submittal or other communication between project team members is recorded. All project discussions, decisions, reviews, and approvals are captured in a cumulative audit trail. Bids, contracts, schedules, RFIs, change orders, invoices, and materials are subject to the same structure and visibility.

In short, nothing happens on the project – from feasibility and design through construction and handover – without it being fully documented in a permanent record that is readily accessible.

As we have heard from Aconex clients:

“We like that when something is stored on Aconex, it’s set in stone. You can’t tamper with it. We have a better audit trail and there is better accountability for all parties.”

“If it isn’t on Aconex, it isn’t official.”

This is how project delivery risk is managed and mitigated for the world’s largest and most complex construction projects. Incidentally, the same principles apply to managing and mitigating the risk of fraud or unethical behavior. As audit and advisory firm Grant Thornton said in their Global Fraud Commentary 2013, “...implementing the right technology ensures maximum accountability and transparency across all project stakeholders.”

“Aconex provides a project-wide view of progress.”

Using a single platform to manage information and processes between companies on your project improves visibility and control, and reduces your risk.

Michael Brothers, VP of Construction, Hill International

When everyone on a project uses different systems, processes and information management are complex, inefficient and risky.
Address Remote Office Storage Issues Forever

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- Complete Projects More Quickly
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- For All Applications in Your Environment
- Do Away with Remote Office Backups
- Preserve Existing Workflows
- Reduce Overall IT Costs

AUTODESK®
Authorized Developer
In Washington, professional organizations have to toot their own horns loudly to be heard. There are more than 5,000 associations represented in the District of Columbia, all wrangling for an audience with key decision makers. “The best way to make your voice heard among all the competing interests is to have a large and successful political action committee,” explains Illinois ACEC/PAC Co-chair John Carrato. “That’s just the way it is.”

In 2013, ACEC Member Firms rose to the challenge. The Council’s political action committee (ACEC/PAC) grew at an unprecedented clip, raising an all-time record amount of $770,000 in personal donations.

In 2013, 33 states met or exceeded their fundraising targets. And Phil Beer, ACEC/PAC chairman and vice president at USI Consultants, Inc., in Indianapolis, has his sights set even higher. “We want to get to the point where we’re bringing in $1 million a year for the PAC. That’s the target set by ACEC’s Strategic Plan,” Beer says. ACEC/PAC also enjoyed a very successful year in hosting and co-hosting fundraisers for key members of Congress in Washington, D.C., and throughout the nation.

So, what’s motivating members to contribute? The 2014 congressional midterm elections in November will be critical—as always—for the industry’s legislative agenda. A number of pro-business candidates will face tough contests in many states, with some congressional primaries already being held. “We must support those candidates who are friendly to ACEC and ACEC member businesses,” Beer says.

Also on the national scale, energy issues, the water bill and the need for long-term transportation funding have also spurred donations. “Congress has to start serious discussions about funding transportation and hopefully create a more long-term vision on all three,” Beer says.

At the state level, the negative influence of unions, slumping economies and prevalent professional liability issues have firms and individuals active and ready to contribute.

ACEC/PAC champions in several states have successfully convinced membership of the value proposition of PACs in general and ACEC/PAC specifically. Here are some of the secrets to their fundraising success.

**It’s About Message Control**
Delaware-based Member Firms saw firsthand the importance of political engagement when ACEC leaders caught wind of an attempt by trial attorneys to increase the liability limit on consulting or professional engineers from six years to 12 years.
In addition to federal advocacy tools like ACEC/PAC, the state organization used a grant from the ACEC Minuteman Fund and other sources to bend the ear of legislators. “We did a good job of getting the message out there, and the trial attorneys really didn’t push it forward,” says ACEC/Delaware PAC Chair Ted Januszka, an associate vice president at Pennoni Associates in Newark, Del. “I think they knew we were serious about protecting our collective firms’ liability.”

That success, coupled with looming funding shortfalls at the state’s Department of Transportation and other state agencies, highlighted for Delaware members the importance of an aggressive political program and powered the state organization to reach its annual ACEC/PAC fundraising goal for the sixth consecutive year.

**Union Power Play Spurs Illinois PAC Donations**

Illinois is the nation’s most prolific fundraising state, raising $63,000 in ACEC/PAC funds during 2013, or 140 percent of its goal. It is the only state to raise more than $50,000 for ACEC/PAC in each of the previous four years.

ACEC/Illinois PAC Co-chair Gregg Foltz, of Chastain & Associates in
Your Trusted Source for Talent Solutions.

ExactSource is a multi-faceted company offering unique services to help A/E/C firms grow their business through talent acquisition, market research, and technology solutions. With a well-established and prominent presence in the A/E/C community, ExactSource successfully serves firms in 38 states across the nation, including over 20 firms on the Top 500 A/E list. Contact us today to see how our solutions can help you.
“First, we let people know that ACEC is the voice of the engineering industry,” explains Stump, chief operations officer at Volkert in Franklin, Tenn. “We want that voice to be heard by the people who pass and influence legislation. One of the best tools we have to do that is the PAC,” explains Stump.

“Whether it’s Congress or a regulating authority, those agencies or individuals are setting our business climate,” says Stump. “If we want to affect that, then we have to make sure that our voice is being heard. It’s not just having access to leadership; we want to be able to deliver the message on matters that impact our firms.”

That type of thinking is part of the reason the state continually meets its fundraising goals.

Go Big or Go Home

Traditionally, it’s been the smaller firms that have contributed the most to Tennessee’s PAC. Now, the organization’s leaders are working to attract larger firms.

“Most large firms have their own PAC, and employees are focused on their own giving,” explains Stump. “But I’ve spent my entire career in large firms, and I believe we are in a service position and serving the public is very important to us. As large firms, we owe it to the industry and our profession to try and create the best environment we can for all our engineers.”

He noted that while leaders at large engineering firms realize just how much decisions in Washington can affect business, it’s becoming increasingly clear that they cannot effectively influence that environment on their own.

“As one firm, our voice is very limited, but as an industry, we can go have those conversations—and that’s where the PAC is so important,” Stump says. “It adds clarity and credibility to the message.”

Preparing the Next Generation

In Washington state, one challenge is finding a new pool of donors after veteran donors retire, or finding ways to replace big PAC advocates with new champions. “We’re always working on the next generation,” says ACEC/Washington PAC Chair Chris Robertson, vice president of Shannon & Wilson, Inc., in Seattle.

Robertson hopes that getting the state’s leadership development group more politically involved will bridge that gap. “Some of them have already been making PAC donations. If we can get that going, we can have a sustainable model,” he says.

In Delaware, PAC leaders seek participation from Gen X and Millennial professionals. “It’s very important for us to make PAC involvement part of their culture, so when they rise up to leadership positions, they’ll know it’s an important aspect in their career development and their industry,” Januszka says. “We can’t afford to wait.”

Washington state’s 170 ACEC Member Firms have combined to reach 130 percent or more of the state organization’s fundraising goal for the past two to three years. “At first, it was a little difficult because we only had a few key people participating in the PAC,” Robertson says. “Developing the broader base took time.”

He started by communicating the PAC’s legislative successes, such as getting legislation passed for infrastructure and transportation funding, to other firms. “We’ve become one of the largest ‘funding agencies’ for transportation initiatives in the state,” even beating out the likes of Microsoft and Boeing, says Robertson.

“People recognize that if you want to have influence, you have to put your money where your mouth is,” he says.

“It’s important for our Member Firms and organizations to be politically active and supporting candidates who are pro-business, who are open to small businesses and moving legislation that affects us, who are looking to fund infrastructure and help grow an economy,” says Andrew Cummings of Connelly & Wicker in Jacksonville, the PAC champion from Florida and the 2014 ACEC/PAC vice chair. “It’s vitally important that our members see that and help contribute. The larger our PAC, the bigger the voice we have with Congress.”

Stacy Collett is a business and technology writer based in Chicago.

Reaching the century mark isn’t easy – you have to be quality-driven, client-focused, and have a vision for the future. At 100 years, STV is looking ahead. As an employee-owned firm, our planners, architects, engineers and construction managers have a stake in the business, and are committed to quality performance. We provide personal attention and timely solutions, with an eye toward sustainability. And with more than 35 offices, we are a local firm with national resources.

When it comes to getting your project delivered right, choose the firm that has the drive and vision to be the best.
Join your colleagues at ACEC’s Annual Convention in Washington, to lobby Congress on critical industry issues, gain valuable business insights, find out about new market opportunities, hear top CEOs and take advantage of leading-edge management courses.

**KEYNOTE SPEAKERS**

- **David Gregory**  
  NBC News Political Analyst and Host of Meet the Press  
  Hyper-Partisan Politics and the National Agenda

- **General (Ret.) Michael Hayden**  
  Former Director of NSA and CIA  
  America’s New Security Threat

- **Martin Regalia**  
  Chief Economist and Senior VP, U.S. Chamber of Commerce  
  National Economic Outlook

April 27–30, 2014  
Grand Hyatt Hotel  
Washington, D.C.
CONVENTION HIGHLIGHTS
• CEO Roundtables
• CIO and CFO Symposia
• Business Education Seminars
• Emerging Leaders Forum
• Middle East and Sub-Saharan Africa Markets Program
(see related article on page 32)

FEDERAL LOBBYING AND MARKETS
• Congressional Issues Briefing
• Lobby Congress on infrastructure, water, transportation and other key business issues
• Federal business opportunities from top officials at the Army Corps of Engineers, Naval Facilities Engineering Command, National Parks Service, Bureau of Land Management, Federal Emergency Management Agency, Veterans Administration, World Bank, General Services Administration, and other agencies
• ACEC/PAC Sweepstakes and Congressional Fundraiser

TEAMING FAIR
• Small firms participate in one-on-one interviews with large firms for subcontracting opportunities on federal contracts.

ENGINEERING EXCELLENCE AWARDS GALA
• The “Academy Awards of the engineering industry”—black-tie reception, dinner and awards ceremony to celebrate the year’s most outstanding engineering achievements.
• A “Champagne After-Party,” featuring live music and dancing, is free to all Gala registrants.

HOTEL INFORMATION
The Grand Hyatt Washington is located in downtown Washington, D.C., between the White House and Capitol Hill and is easily accessible by Metro. ACEC’s room rate is $309, single/double occupancy, plus 14.5 percent tax. Room reservations must be received by Wed., March 19. After this date, rooms may not be available or not available at this rate. Rooms are available until the cutoff date or until rooms in the ACEC room block are gone, whichever occurs first.

To make your hotel reservation online, visit www.acec.org/conference/annual-14 and click “Hotel and Travel” to access the hotel reservation link. A reservation confirmation will be sent to you directly from the online reservation agent, at which time your reservation is confirmed at the Grand Hyatt. You may also call toll free, (888) 421-1442, and refer to “ACEC Annual Convention.”

For more information or to register online, go to www.acec.org.

Mark Everson
Former IRS Commissioner, vice chairman, alliantgroup
Recent IRS Rules and How They Will Impact Your Business
On-Demand 10-Pack Provides Continuing Education When You Need It

For many engineering and surveying professionals, achieving state-mandated PDHs each year is difficult and time-consuming. Often, as renewal deadlines approach, professionals find themselves short of the credits required to maintain their licenses. ACEC On-Demand Webinars eliminate the stress of meeting continuing education requirements by providing convenient access to educational programming, topicality, flexibility and cost savings. Practitioners can easily locate the latest engineering business management topics and earn important PDHs when they are needed. And the new On-Demand Webinar 10-Pack makes in-house continuing education even more immediate, accessible and cost-effective.

Instead of $199 per webinar, the 10-pack rate delivers 10 webinars at just $140 per session—that’s a $59 savings with every selection. Practitioners can take advantage of outstanding on-demand webinar modules from ACEC and its top-notch educational partners at any time—day or night, during the work week or on the weekend. There’s no expiration date, and the 10-pack subscription is completely transferrable among staff and offices. Each 90-minute recording carries 1.5 PDHs (unless otherwise specified). Content areas include:

- Business Management and Quality
- Finance and Economics
- Human Resources
- Marketing and New Business Development
- Contracts and Risk Management
- Leadership and Ethics
- Project Management and Project Delivery
- Public Policy and Industry Issues

For a complete listing of topics, visit www.acec.org/education/on_demand_search.cfm.

Implementing a Risk Management Program at Your Firm

Professional liability is of primary importance to structural engineers. To address this and other areas of risk within firms, the Council of American Structural Engineers (CASE) has developed “Ten Foundations for Risk Management,” a program to help firms reduce risk. Foundation topics include: Culture, Prevention & Proactivity, Planning, Communication, Education, Scope, Compensation, Contracting, Contract Documents and Construction Phase.

Each foundation area contains tools (presentations, worksheets, sample documents, case studies) to help implement a firm’s risk management program.

CASE also released three updated tools in the following foundation areas:

**Foundation One: Culture**

CASE Tool 1-1: Create a Culture for Managing Risks and Preventing Claims: This tool provides sample templates and presentations to aid in creating a culture of risk management throughout the firm. It includes PowerPoint presentations, scripts and sample statements that users can modify to their own situations. Case studies highlight best practices and procedures to manage liability and limit risk.

**Foundation Three: Planning**

CASE Tool 3-1: A Risk Management Program Planning Structure: The key to managing risk is to determine significant risk factors and prepare policies to address them. This newly updated version of Tool 3-1 helps firm principals design effective risk management programs. The tool features a grid template to focus on areas of engineering practice where risk may arise and helps to mitigate those risks.

**Foundation Five: Education**

CASE Tool 5-1: A Guide to the Practice of Structural Engineering: A university education provides graduates with many of the tools they need to practice structural engineering. But no matter how rigorous the curriculum, few graduates are fully prepared or know what to expect the first day on the job. Tool 5-1 aims to provide new graduates with a better understanding of how the profession works.

CASE is the structural engineering coalition of ACEC designed to ensure the professional and financial success of structural engineering firms nationwide by providing tools and best practices to reduce claims, increase profitability, improve quality and enhance management practices.

All documents contained within the CASE program are available for purchase at www.booksforengineers.com.

ACEC’s Business Resources and Education Department provides comprehensive and accessible business management education for engineering company principals and their staffs. Visit ACEC’s online educational events calendar at www.acec.org/calendar/index.cfm or bookstore at www.acec.org/bookstore, or call 202-347-7474, ext. 324, for further information.
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FOR OVER 25 YEARS

www.ecslimited.com
Late last year, ACEC joined America’s Infrastructure Alliance as an advisory board member. The Alliance is a nonprofit coalition of transportation organizations dedicated to educating Americans on the importance of a robust national infrastructure. As president and CEO of the Alliance, I want to formally welcome ACEC and the more than 5,000 firms it represents.

President Ronald Reagan once said in a radio address, “America can’t afford throwaway roads or disposable transit systems. Common sense tells us that it’ll cost a lot less to keep the system we have in good repair than to let it crumble and start all over again.”

Thirty years later, our country continues to struggle to apply Reagan’s common-sense approach to our national infrastructure policy.

At the end of last year, the U.S. House of Representatives passed a water resources bill, the Water Resources Reform and Development Act of 2013 (WRRDA), by a margin of 417 to 3 and sent the legislation to conference with the Senate, where it is on its way to becoming law.

For such a historically divided Congress, passage of WRRDA was a huge bipartisan accomplishment and something the Alliance actively supported through aggressive news media and social media outreach. The Alliance also invested heavily in targeted online video ads in districts that applauded members on the committee who support WRRDA. Now we are seeking to build on that success as we prepare for the more tenuous task of supporting the reauthorization of MAP-21, the landmark surface transportation law.

To get the job done, we’ll need the help of ACEC and its members, stakeholders throughout the transportation industry, as well as ordinary Americans. Through the use of social media, email advocacy and even old-fashioned phone calls, the Alliance will actively engage Americans in Washington, D.C., and across the country on this serious issue.

Whether by pushing individuals to sign an online petition urging Congress to properly invest in our infrastructure or by partnering with state-level groups to write an op-ed for a local newspaper, the Alliance will actively use all kinds of creative tools to tell the story of how our transportation infrastructure is critical to everyday life.

Engineers know more than anyone that investing now saves money later. After 25 years, the average cost-per-lane-mile for road reconstruction can be more than three times the cost of preservation treatments over the same time period. Americans drive 3 trillion miles annually, and that heavy usage creates the need for maintenance and repair work on our national highways.

Unless Congress acts, surface transportation annual funding for highway programs would be cut by 90 percent—from $40 billion to approximately $4 billion—while funding for transit projects would fall by 27 percent—from $11 billion to $7 billion. These valuable programs repair our infrastructure, improve safety and boost efficiency, all critical to the nation’s economic success.

Not only is this good policy, it’s a constitutional obligation. The founding fathers realized that commerce among states needed to be encouraged and facilitated, so that individuals in the cities, as well as in rural areas, would benefit.

They were very clear about this when they wrote that the federal government has a constitutional obligation to support our national infrastructure and enable commerce across all states.

Opposition groups will argue that the federal government should cede its role in funding transportation projects, kicking responsibility down to the states. This sounds interesting in theory, but in order to complete projects that are truly national in scope, the federal government has to step up. Otherwise, we could end up with a disjointed system of “haves” (states willing to spend money) and “have nots” (states not willing or able to spend money), exactly what the founders sought to avoid when they wrote into the Constitution that Congress had the power “to regulate Commerce with foreign Nations, and among the several States.”

We cannot afford any more inaction from Congress. Americans deserve a strong, healthy infrastructure, and America’s Infrastructure Alliance looks forward to our partnership with ACEC to move this debate forward.

For more information, visit www.americasinfrastucture.com.

Jeff Loveng is the president and chairman of America’s Infrastructure Alliance and former chief of staff to House Transportation & Infrastructure Committee Chairman Bill Shuster (R-Pa.).
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New Publication for 2014

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Edited by David J. Hatem and Patricia B. Gary

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Streamline Contract Creation

**EJCDC Contract Documents**

The Engineers Joint Contract Documents Committee (EJCDC) is a joint venture of the National Society of Professional Engineers/Professional Engineers in Private Practice (NSPE/PEPP), the American Society of Civil Engineers—Construction Institute (ASCE-CI), and ACEC.

EJCDC Contract Documents are prepared by experienced engineering design and construction professionals, owners, contractors, professional liability and risk management experts, and legal counsel.

Review the complete EJCDC Catalog at [www.acec.org/bookstore](http://www.acec.org/bookstore), click Contracts.

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Managing your A/E business for success requires technical expertise coupled with a broad awareness of today's best multi-disciplinary business practices. This popular management “intensive” will help sharpen your current business practices, as well as help you nurture potential leadership talent within your organization.

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Additional information on all ACEC business resources is available at [www.acec.org](http://www.acec.org).
Members in the News

On The Move

Lee C. Lennard was promoted to president and CEO of Brown & Gay Engineers, Inc., in Houston. He succeeds Ronald L. Mullinax, who becomes chairman. Lennard is the current past president of ACEC/Texas, Houston Chapter and also serves as the chairman and treasurer of the ACEC Houston PAC.

John Marrow was named president and CEO of Seattle-based Harris Group, Inc. He succeeds retiring CEO James Gabriel, who held the position since 2003 and has been with the firm for 29 years. Marrow joined Harris Group in 2012 as chief operations officer.

David DeLizza was promoted to COO of Philadelphia-based Pennoni Associates. Joe Viscuso was promoted to senior vice president for strategic growth; he is based in Westchester, Pa.

Michael Renshaw, current executive general manager, international, for Cardno Limited, will succeed Andrew Buckley as CEO and managing director, based in Brisbane, Australia.

Bruce Howard was appointed executive vice president and chief of development at MWH, a newly created role, and Marshall Davert was appointed operating president for the government and infrastructure business segment covering the Americas and Asia Pacific. Both are based at the company’s Broomfield, Colo., headquarters.

Gregory S. Nixon joined CH2M HILL as senior vice president and chief legal officer. He will be based at the firm’s headquarters in Englewood, Colo. Other key assignments announced by the firm and their markets are: Mike Szomjassy, energy; Chris Shea, environment and nuclear; Bob Bailey, facilities and urban environments; Terry Ruhl, transportation; Greg McIntyre, water; and Mike McKelvy, global. In addition, Elisa Speranza will now serve as global managing director of corporate affairs and strategic consulting.

John D. Porcari was named senior vice president and national director of strategic consulting at Parsons Brinckerhoff (PB). He previously served as U.S. Deputy Secretary of Transportation. Porcari is based in PB’s Washington, D.C., office.

Steven A. LaRocco was appointed senior vice president and rail & transit systems division manager at Parsons, headquartered in Pasadena, Calif. LaRocco will be based in the firm’s Houston office.

Paul Nietzschmann joined WSP as senior vice president, where he will lead the firm’s bridge design practice in New York and New Jersey. Nietzschmann previously served as a vice president at Parsons Brinckerhoff and Parsons Transportation Group.

Walter R. Huntley Jr. joined Albany, N.Y.-based CHA as senior vice president and director of strategic client development following CHA’s acquisition of his firm, Atlanta-based Huntley Partners, an economic development consulting firm. Huntley previously served as president of the Atlanta Economic Development Corporation and as chief of staff to former Atlanta Mayor Maynard Jackson.

Retired Maj. Gen. Timothy Byers, USAF, joined Tampa, Fla.-based Atkins as senior vice president, defense sector, in the company’s federal business unit. Byers is based in the firm’s Alexandria, Va., office.
Members in the News

Welcome New Member Firms

ACEC/California
California Controlled Atmosphere, Dinuba
Christian Wheeler Engineering, San Diego
CYS Structural Engineers, Inc., Sacramento
SANDIS, Oakland
Stanton Engineering, Sacramento
West Yost Associates, Davis
ACEC/Colorado
Hurst & Associates, Inc., Boulder
Surveying and Mapping, Inc. (SAM, Inc.), Lakewood
Swanson Rink, Inc., Denver
ACEC/Illinois
Professional Testing Service, Hampshire
ACEC/Indiana
Circle Design Group, Indianapolis
Cripe Architects & Engineers, Indianapolis
Jacobi, Toombs & Lanz, Inc., New Albany
Kaskaskia Engineering Group, LLC, Evansville
R.E. Dimond and Associates, Inc., Indianapolis
ACEC/Kansas
Morrow Engineering, Inc., Wichita
ACEC/Louisiana
Incat Crowther America, LLC, Lafayette
Trigon Associates, LLC, New Orleans
ACEC/Massachusetts
City Point Partners, Boston
ACEC/Metro
Washington Delon Hampton and Associates, Chartered, Washington, D.C.
ACEC/Minnesota
ACEC/Ohio
Advanced Engineering Consultants, Columbus
ACEC/Oregon
Phase 1 Environmental Engineering, West Linn
ACEC/South Carolina
BES Design/Build, LLC, Summerville
Holt Consulting Company, LLC, Columbia
SZ Engineering, Inc., Goose Creek
ACEC/South Dakota
Skyline Engineering, Rapid City
ACEC/Tennessee
Structural Detailing, LLC, Brentwood
Wiser, Murfreesboro
ACEC/Texas
Admiralty, Marine and Structural Engineering, Inc., Houston
Alliance Geotechnical Group, Dallas
Balcones Geotechnical, Austin
Big Red Dog Engineering & Consulting, Austin
Carbonyx, Inc., Plano
Cates-Clark & Associates, LLP, Dallas
Cibor, Inc., Houston
Corwin Engineering, Inc., Allen
Cross Engineering Consultants, McKinney
DBR Engineering Consultants, Inc., Houston
Excel Engineering, Inc., Houston
Ferrovial Agroman US Corp., Austin
G.P. Ventures, LLC, Magnolia
HPF Consultants, Inc., Midland
Johnson Surveying, Inc., San Antonio
Jones Engineering Solutions, LLC, Houston
MECX, Inc., Houston
Romeo Engineering Inc., Ft. Worth
Texas Design Interests, LLC, Austin
Texas Lone Star Controls, Inc., Houston
The Dimension Group, Dallas
VEI Consulting Engineers, Fredericksburg
Zephyr Environmental Corporation, Austin
ACEC/Virginia
Dulles Geotechnical and Materials Testing Services, Inc., Ashburn
ACEC/Washington
DL Design Group, Vancouver
ACEC/Wyoming
Ken Small Associates, LLC, Jackson

HNTB Celebrates 100th Anniversary

What began in 1914 as a small bridge design partnership in Kansas City, Mo., has in 100 years grown into an industry leader with more than 3,600 professionals, in 60 offices across the country.


HNTB has contributed to some of the largest, most iconic and complex bridges, highways, airports, public buildings and public works projects in the country. Among them, the State Route 99 Alaskan Way Tunnel in Seattle; Levi’s Stadium, the new home of the National Football League’s San Francisco 49ers in Santa Clara, Calif.; and has served as general engineering consultant to the New Jersey Turnpike Authority. The firm started by designing innovative railroad bridges, but its capabilities have grown to include a full range of infrastructure-related services, including planning, design, program delivery and construction management.

HNTB Chairman Harvey Hammond, who joined the firm in 1966, said, “We’re celebrating more than just longevity; we are celebrating our contributions to the infrastructure that moves the people and goods of this country.”

The firm has planned several activities throughout the year to commemorate its milestone anniversary. Employees at each HTNB office will combine to perform at least 100 hours of community service in the towns where they live and work.
SEI turns successful A/E executives into forward-thinking industry leaders.

SEI Class 20 begins September 2014.

For details and registration, visit sei.acec.org

Calendar of Educational Programs

MARCH

4  Why Clients REALLY Select Your Firm (webinar)
5  Sustainable Green Design—The Smarter Way to Grow Green (webinar)
6  2013: Design and Construction Cases in the Courts (webinar)
11  ESOPs and Engineering Firms (webinar)
12  PR Tips, Tactics and Insights to Build Your Company’s Brand (webinar)
18  Ensuring Profitable Growth, Developing Winning Strategies for Solid, Measurable Results (webinar)
19-22 Business of Design Consulting-2014, Chicago
20  Ethical Decision-Making for PEs: Today’s Standards and Benefits (webinar)
27  Improving Project Reliability Through a Five-Stage Schedule Maturity Framework (webinar)

APRIL

2  14 Touches to Win the Sales Cycle (webinar)
8  Mergers and Acquisitions 2.0 (webinar)
10  Negotiating Better Engineering Contracts—Spring 2014 (webinar)
15  A Tour of the Horizon for Architecture, Engineering and Construction Service Opportunities with the U.S. Government (webinar)
16  Business Continuity Planning for Severe Weather and the Impact on Small Firms—Preparing for the Unexpected (webinar)
27-30 ACEC 2014 Annual Convention and Legislative Summit, Washington, D.C.

MAY

14  10 Keys to Business Continuity Planning—2014 (webinar)

JUNE

3  Simple Revenue Boosters to Start Now (webinar)
17  Positioning to Win: Taking QBS to the Next Level (webinar)

Additional information on all ACEC activities is available at www.acec.org.
Engineering Mergers and Acquisitions Are BIG in Texas

Engineering M&A activity in Texas has been, as they say in the Lone Star State, “hotter than a fur coat in Marfa.” Thirteen Texas design firms sold in 2013. Houston, in particular, has been scorching, with nearly 50 firm sales since 2007—almost double any other U.S. metropolis over the same time frame. We expect Texas to continue to be a hotbed of M&A activity in 2014. Here’s why:

- **Economic Growth.** Four Texas cities (Austin, San Antonio, Houston and Dallas) occupied Forbes’ “Top 10 Metro Areas With the Most Economic Momentum Going Into 2014.”
- **Job Creation.** According to Stateline, Texas is expected to create 308,000 jobs in 2014—significantly more than any other state. This ranks Texas No. 1 in the nation in projected total job creation and No. 3 in percentage growth (2013).
- **Relocation Destination.** Houston, Dallas/Ft. Worth, Austin and San Antonio were all among the top 10 U.S. metro areas in 2012 in net migration, and are expected to show continued growth.
- **Infrastructure Investment.** With a growing population and a booming economy, Texas is heavily investing in its water, transportation, energy, environmental and social infrastructure. Given the recently passed $2 billion state water plan and continued expansion of the state’s massive highway systems, Texas will need to rely on consulting engineers to support its growth.
- **Energy Nexus.** Houston is considered by many to be the energy capital of the world, home to more than 5,000 energy-related companies. Texas produces more wind power than any other state and is rapidly increasing its solar capacity. As we decrease our dependence on foreign energy, expect Texas to remain at the center of the U.S. energy renaissance. Each of these factors will continue to fuel M&A activity in the Lone Star State over the next few years.

**Recent ACEC Deal-Makers January 2014**
ACEC Member Pennoni Associates (Philadelphia) acquired 40-person HVAC, mechanical and process engineering firm B.D. Abel (Wilmington, Del.).
ACEC Member Goodwyn, Mills & Cawood (Montgomery, Ala.) acquired ACEC Member Kemp & Seagle Consulting Engineers (Columbiana, Ala.), a civil engineering firm specializing in transportation design, civil site development and construction engineering inspection.
Kerry R. Gilbert & Associates (Katy, Texas), a 13-person land planning consulting firm, joined civil engineering and surveying firm Brown & Gay Engineers (Houston), also an ACEC Member.

Bon Terra Consulting (Irvine, Calif.), a 60-person environmental planning and resource management consulting firm, merged with leading engineering and consulting firm and ACEC Member Psomas (Los Angeles).

December 2013
ACEC Member RESPEC Consulting & Services (Rapid City, S.D.) acquired Morgan Worldwide Consultants (Lexington, Ky.), which provides mine planning and design, mine economic analysis and feasibility studies for the aggregate, coal, gold and diamond markets.
ACEC Member Stantec (Edmonton, Canada) signed a letter of intent to acquire ACEC Member Williamsburg Environmental Group (Williamsburg, Va.), a 115-person environmental consulting and engineering firm.
ACEC Member GRW Engineers (Lexington, Ky.) acquired Chapman Technical Group (St. Albans, W.Va.), which offers engineering, architectural, interior design, surveying and landscape architectural services.
ACEC Member Schnabel Engineering (Glen Allen, Va.) acquired Geo/Environmental Associates (Knoxville, Tenn.), an 18-person firm specializing in geotechnical, environmental and civil engineering.

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

**Watch the M&A Takeaway video that accompanies this article, presented by Mick Morrissey, at www.morrisseygoodale.com/ACECMergers/MarchApril2014.**

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- Business Owners Package
- Workers’ Compensation
- Commercial Auto
- Umbrella Liability
- Professional Liability
- Management Liability
- Personal Auto and Home
- Key Person Life
- Key Person Lump Sum Disability

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Receive more options, more flexibility with the ACEC Life/Health Trust.

Now more than ever, it’s important to have options and flexibility in offering health care coverage for your employees. With the ACEC Life/Health Trust for ACEC members (insured by UnitedHealthcare), you’ll find an array of affordable health plan solutions to meet your unique needs – all while easing the burden around health care reform compliance.

The ACEC Life/Health Trust offers:

- **Product and Price Flexibility** – A broad product portfolio offers several medical plan designs ranging from traditional to account-based plans to fit your coverage and pricing needs.*
- **Preferred Savings** – Potential savings on annual medical plan premiums.**
- **Dedicated Service Team** – Our dedicated account service team is U.S.-based with more than 20 years of combined engineering industry and health care experience.
- **A Broad Network** – UnitedHealthcare’s vast provider network provides local access to 99% of the U.S. population.***
- **Streamlined Administration** – Moving from your current health plan is surprisingly simple. Plus, ongoing online administration is easy and secure for increased accuracy and efficiency.

Learn how your engineering firm can take advantage of health care solutions tailored to your needs with the ACEC Life/Health Trust.

Call 1-877-232-8621, or visit uhctogether.com/acec1 for more information and to download a complimentary copy of our white paper.

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*The ACEC Life/Health Trust offers 35 medical plan design options for groups with 2-50 eligible employees; and it offers 85 medical plan design options for groups with 51 or more employees.

**ACEC members may receive potential savings on annual premiums, as compared to UnitedHealthcare insurance license products sold outside the ACEC Life/Health Trust.

***Network statistic based on GeoAccess information and UnitedHealthcare standard network access mileage criteria, 2013.

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