Corps of Engineers Lt. Gen. THOMAS BOSTICK Values ACEC Partnership

CEO's Weigh Public vs. Private Client Dynamics

Competition Keeps PLI Rates Steady

Power Generation Undergoes Steady Transformation
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POWERED BY ACEC LIFE/HEALTH TRUST

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CALL FOR ENTRIES

ENGINEERING EXCELLENCE AWARDS

2015

CALL FOR ENTRIES
American engineering firms have entered their most innovative and complex projects and studies in competitions conducted by state member organizations (MOs). Qualifying projects at the MO state level are then eligible to participate in the ACEC national competition. Deadline for the national competition is Friday, January 9, 2015.

EEA entries are accepted into one of 12 project categories: studies, research, and consulting engineering services; building/technology systems; structural systems; surveying and mapping technology; environmental; waste and storm water; water resources; transportation; special projects; small projects; energy; and industrial and manufacturing processes and facilities.

A distinguished panel of 25-30 judges possessing a vast array of built environment and technical expertise will be convened over three days to evaluate and rank submissions for engineering excellence. The panel then selects top award winners—16 Honor Awards and eight Grand Awards. One Grand Conceptor Award will be selected from the Grand Award winners as the overall best engineering project.

Projects from all across the world are rated on the basis of: uniqueness and/or innovative application of new or existing techniques; future value to the engineering profession and perception by the public; social, economic, and sustainable development considerations; complexity; and successful fulfillment of client/owner’s needs, including schedule and budget.

Every year, ACEC’s Engineering Excellence Awards (EEA) Gala provides firms with national recognition and a venue to showcase their talent and expertise in a dramatic setting. The annual black-tie EEA gala—to be held on Tuesday, April 21, 2015—celebrates, with pride and elegance the most outstanding project achievements of the engineering profession.

All National Recognition Award Winners will be showcased during the EEA Gala awards program.
ELIGIBILITY
Any engineering or surveying firm is eligible to enter the awards program, regardless of whether the firm is a member of ACEC.

GENERAL CRITERIA
1 Both member and non-member firm entries must be submitted to the ACEC national competition through an ACEC state Member Organization (MO).
2 Each entry should be submitted to the state MO in accordance with local rules for the entry. Contact your state ACEC MO office for details. However, entries submitted to the ACEC national competition must be electronically submitted in accordance with the rules and requirements outlined in this brochure.
3 Each MO may submit 10 entries from its own membership, plus one member entry for every five, above 10 that were submitted to the MO. A MO may submit any non-member entries judged by the MO to be legitimate candidates for entry in the national competition. Such non-member submittals will not be counted against the member submittal limitations outlined here.
4 Engineering or surveying projects that have won awards in other state or national organizations’ programs are welcome in the ACEC EEA competition.
5 Projects entered in the competition may have been executed anywhere in the world. Research and Studies (Category A) or Surveying and Mapping projects (Category D) must have been publicly disclosed by the client between Nov. 1, 2012 and Oct. 31, 2014. Construction of projects (Categories B through L – with the exception of D) must have been substantially completed and ready for use between Nov. 1, 2012 and Oct. 31, 2014.
6 Entries in the national competition may be placed in any one of the 12 categories. The entering firm must select the one category that is most appropriate. A project may be entered only once in any category. However, after a project entered in Category A has been constructed, it may be entered in a different category – B through L – in the year when eligible.
7 Each entry must consist of three components:
   - Official electronic entry
   - USB flash drive containing submission materials
   - Photographic display panel
Non-compliance with the rules may disqualify an entry. Please read the requirements thoroughly.
Note: See “Preparing Your Entry” for the Engineering Excellence Awards.
8 ACEC will not be responsible for any damages to or loss of an entrant’s official Project Submission Form, USB flash drive or photographic display panel.
9 The ACEC Engineering Excellence Awards committee reserves the right to determine, and change if necessary, the eligibility and category classification of any entry.
JUDGING
Entries will be judged on the basis of:
- Overall engineering excellence in each of the 12 categories
- The work performed by the entering firm only
- The rating guidelines listed.
Winners and affiliated MOs will be notified shortly after judging is completed.

AWARDS
All submissions are considered National Recognition Award Winners. The panel of judges will select 24 awards at their discretion — eight Grand and 16 Honor Awards. A Grand Conceptor Award will be selected from the eight Grand Award winners. The Grand Conceptor will be announced at the gala as the top national winner selected by the judges, whose decisions on all awards are final. Awards will be presented to the clients/owners and entering firms submitting the winning entries.

PUBLICITY
The public relations and marketing value of participation in the national EEA program is substantial. All national winners will be highlighted in ACEC’s public relations program, which benefits all U.S. engineering firms. Working with participating firms and MOs, ACEC staff will contact local media to announce winners and their awards. Through national and MO efforts, display panels can be exhibited in such public venues as city and state administrative buildings, universities, shopping centers and office buildings. These activities enhance direct business development benefits for both local and national award winners. Further benefits are gained through feature stories presented in firm brochures, newsletters and other publications.

RATING GUIDELINES FOR JUDGING
Each entry will be evaluated based on the following five categories, which are key elements of the project description text required in the electronic submittal described below.

1. Uniqueness and/or innovative applications of new or existing techniques ...........................................20%
2. Future value to the engineering profession and perception by the public ............................................20%
3. Social, economic and sustainable development considerations ............................................................20%
4. Complexity ................................................................................................................................................20%
5. Successful fulfillment of client/owner needs ..........................................................................................20%
Total ................................................................................................................................................................100%

RATING GUIDELINE DEFINITIONS
1. Uniqueness and/or Innovative Applications of New or Existing Techniques:
- Does the entry demonstrate the use of a new science or a breakthrough in the general knowledge of engineering?
- Does the entry represent a unique application of new or existing technology, techniques, materials or equipment?

2. Future Value to the Engineering Profession and Perception by the Public:
- Will the entry redefine current engineering thinking?
- Does the entry advance a positive public image of engineering excellence?

3. Social, Economic and Sustainable Development Considerations:
- Do the solutions identified produce secondary benefits of value to the community environment?
- Does the entrant’s approach provide society with social, economic, or sustainable development benefits?

CALL FOR ENTRIES - CATEGORIES

CATEGORY A: Studies, Research and Consulting Engineering Services
- Non-design services, projects not involving the preparation of construction documents consisting of but not limited to the following types of projects:
  - New products, materials and technologies
  - Expert testimony
  - Basic research and studies
  - Computer/software technology
  - Technical papers
  - Public outreach/involvement
  - Water conservation
  - Security plans

CATEGORY B: Building/Technology Systems
- Project feasibility studies/economic/risk
- Value engineering

CATEGORY C: Structural Systems
- Foundations
- Tunnels
- Buildings
- Seismic design
- Towers
- Bridges
- Stadiums

CATEGORY D: Surveying and Mapping Technology
- Geometrics, ALTA, land title and rights surveys
- Control, GPS, monitoring or construction surveying
- Survey mapping, GIS/LIS, photogrammetry

CATEGORY E: Environmental
- Foundations
- Tunnels
- Buildings
- Seismic design
- Air quality
- Noise
- Recycling
- Waste pond management
- Carbon sequestration and trading
- Mitigation

CATEGORY F: Waste and Storm Water
- Hazardous waste
- Solid waste
- Restoration/reclamation/remediation
- Residuals management and treatment
- Air quality
- Noise
- Recycling
- Waste pond management
- Carbon sequestration and trading
- Mitigation

CATEGORY G: Water Resources
- Hazards, hydrology
- Surface and groundwater supply development
- Treatment
- Transmission, distribution & storage
- Watershed management
- Water use reduction
- Flood risk management
- Climate adaptation
- Coastal and eco-system restoration
- Locks/dams/water control structures
- Irrigation
Does the entrant’s contribution to the project improve the health, safety or welfare of the public or affected environment?

4. Complexity:
- Did the entry successfully address highly complex criteria or unique problems?
- Were extraordinary problems of site, location, hazardous conditions, project requirements, or similar elements present?
- Did the entry require the use of out-of-the-ordinary technology or ingenuity for achievement of the project’s goals?

5. Successful Fulfillment of Client/Owner Needs:
- Did the engineer or entrant successfully engage the client/owner in the overall project development process?
- Was it an economical and cost-effective solution?
- How did the final cost relate to the original budget estimate?
- How closely does the entrant’s solution meet the total goals of the client/owner?
- Did the entrant meet the client’s time schedule?

PREPARING YOUR ENTRY

This section describes all required submission materials for entering the 2015 ACEC EEA competition. All materials must be submitted exactly as designated below. Digital files must be PC compatible and appropriate to the information being submitted (i.e., Microsoft Word for text, high resolution JPEGs, photos or other images, Adobe PDFs, etc.).

If the submission does not meet the requirements listed, it may be disqualified.

If any part of an entry does not meet requirements listed, that portion of the entry may not be presented for judging. Please follow the guidelines.

No reference to other awards is permitted in your submitted materials.

In any given year, an entry may be submitted through only one MO. If a project was entered in more than one MO competition, it is the responsibility of the affected MOs to decide which one will enter the project in the national competition.

DATES TO REMEMBER

January 9, 2015 — Submitted materials MUST BE RECEIVED by ACEC. Materials received after that date will NOT be accepted. All materials submitted for judging in the national competition become the property of ACEC and may be used in ACEC publications. Panels may be used for displays or other promotional or educational purposes. Submitted materials will NOT be returned.

January 21, 2015 — The entrant’s company representative, as listed on the entry form, must be available by phone.

February 20-22, 2015 — Judging takes place in Washington, D.C.

April 21, 2015 — EEA Dinner and Gala Awards Program in Washington, D.C.

SUBMISSION REQUIREMENTS

The following three main components must be submitted with the national EEA competition entry:

I. Official electronic entry
II. USB flash drive containing submission materials
III. Photographic display panel

**NOTE: No QR Codes or embedded links are permitted in any portion of an award submission**

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**CATEGORY H:** Transportation
- Highways
- Rail
- Airports
- Marine/ports
- Public transit
- Intermodal facilities

**CATEGORY I:** Special Projects
- Safety and security
- Corrosion protection/cathodic protection
- Program and construction management
- Land development
- Trenchless technologies/directional boring
- Recreational facilities
- Subsurface engineering

**CATEGORY J:** Small Projects
- Total project construction budget does not exceed $2.5 million. At the entrant’s discretion, except for entries in Category A, projects under $2.5 million are not limited to this category

**CATEGORY K:** Energy
- Transmission and distribution
- Power generation
- Renewable energy
- Cogeneration
- Energy storage technologies
- Energy usage reduction programs
- Demand side management

**CATEGORY L:** Industrial and Manufacturing Processes and Facilities
- Petrochemical
- Biotech
- Manufacturing
- Heavy industry
- Industrial waste
- Materials handling
- Mining, metallurgy, mineralogy
I. OFFICIAL ELECTRONIC ENTRY
All project information shall be submitted electronically. Each document must be uploaded separately through ACEC’s Awards Submittal Portal. The electronic entry must contain all of the following items:

1. Electronic Project Submission Form located on the ACEC website — http://www.acec.org/awardprograms/engineering-excellence-awards. Once the entrant has completed the project submission form, the form can be printed out so it can be signed by all required parties. This form can then be uploaded as part of the electronic project submission.

NOTE: You must submit entry fee payment with the electronic Project Submission Form. ($1,100 for ACEC members; $3,500 for non-ACEC members.) Refer to your MO for state competition fees.

Original completed entry form must be signed by both the entrant and the client/owner (senior executives/officials), stating that the submitted project was substantially completed and ready for use between Nov. 1, 2012 and Oct. 31, 2014.

The following project information must be uploaded individually and included with your Engineering Excellence Awards submittal.

2. CLIENT/OWNER LETTER (one page max.) Letter addressed to ACEC describing the relationship of the client/owner and entrant in the development of the project and how it exceeded the client/owner’s needs.

3. EXECUTIVE SUMMARY (one page max.) Overview of project. Describe the problem and solution; project title and entry category must appear at the top of the page. Specifications: 8.5” x 11”; 1” side margins; double-spaced text; 12 pt. minimum size font.

4. PROJECT DESCRIPTION (five pages max.) Tell the story of the project. Address items a, b, c, and d as listed below; project title, entry category, and page number must appear at the top of each page. Entrants may use text, photos, graphics, or charts as needed. Specifications: 8.5” x 11”; 1” side margins; single-spaced text; 12 pt. minimum size font.

Text must include the following:
   a. ROLE OF ENTRANT’S FIRM in the project.
   b. ROLE OF OTHER CONSULTANTS participating in the project.
   c. ENTRANT’S CONTRIBUTION TO THE PROJECT: A brief description of the entrant’s contribution addressing each of the following Rating Guidelines (refer to “Rating Guideline Definitions” above for detailed rating, judging, and weighting information):
      - Uniqueness and/or innovative application of new or existing techniques.
      - Future value to the engineering profession and perception by the public.
      - Social, economic, and sustainable development considerations.
      - Complexity.
      - Successful fulfillment of client/owner needs.

Include total project budgeted cost, total project actual cost, entrant’s portion of the budgeted cost, entrant’s portion of the actual cost, scheduled and actual date of completion (as indicated on the Electronic Project Submission Form).

d. SUMMARY: Describe in layman’s terms why this project is worthy of special recognition (word count between 100 - 500 words). Explain all factors that comprise the project’s uniqueness and complexity, such as innovative engineering, challenges faced and overall social impact. NOTE: This summary will provide the basis for all ACEC publicity on the project.

5. KEY PARTICIPANTS
List the key participants on the project including firm name, address, phone number, website, and e-mail address of each participant. Include contractors, subcontractors, other engineers, architects and designers significantly involved in the project.

Specifications: 8.5” x 11”; 3-hole punched.

6. PHOTOS OR GRAPHICS
Six different photos or graphics (one per page) with captions describing the subject matter (refer to “Photograph Guidelines” below). Captions shall begin with: Photo 1, Photo 2, etc. High resolution JPEG files; 300dpi.

Photograph Guidelines:
Because the photographs will be projected on a large screen during the EEA gala, it is very important to submit sharp, high-quality, high-resolution images.

Three of the photographs should show the completed project and provide the highest level of visual impact for publicity.

Three of the photographs should display the planning, startup, and/or construction phases of the project.

One enlarged, unmounted, glossy photograph will be requested from each of the 24 national winners at a later time for ACEC’s EEA display wall in Washington, D.C. The judging committee will select this photo from those submitted with the entry.

7. PHOTOGRAPHIC DISPLAY PANEL
Small-size copy of the photographic display panel. Specifications: JPEG; 300dpi.
8 MEDIA LIST
E-mail addresses of local newspapers, TV, and radio stations in Excel format. If the MO or entrant prefers to handle all local and national publicity for the project, include a statement to that effect. Specifications: Excel file; 8.5” x 11” or 11” x 17”.

9 PRESS RELEASE (two pages max.)
Press release that clearly and concisely describes the project and the entrant's participation, based on information presented in the Project Description. Also describe the value of the project to the community including information such as the number of people served, cost savings, etc. Do not reference other awards the project has won. Specifications: double-spaced; 8.5” x 11”.

10 SUPPLEMENTARY REPORT
Include a supplementary report containing the findings portrayed with text, graphs, or photos, as needed.

NOTE: This report is ONLY required for Category A submittals.

II. USB FLASH DRIVE
USB Contents & Specifications: One USB flash drive (to be sent to ACEC with Photographic Display Panel). Include labels on USB and Photographic Display Panel with firm name, project name and category. Test the USB flash drive on different computers to ensure that it is not machine-dependent.

Include each of the following items in the file type indicated, in the order given, and with the titles shown:

01 Electronic Project Submission Form
02 Client/Owner Letter
03 Executive Summary
04 Project Description
05 Key Participants
06 Six Photos or Graphics
07 Photographic Display Panel
08 Media List; Excel File
09 Press Release
10 Supplemental Report

III. PHOTOGRAPHIC DISPLAY PANEL
Panel text and photos should demonstrate the challenges, solutions, innovation, complexity and unique aspects of key project elements. The panel should be prepared with high-quality photos and graphics with minimal text.

Photographic panel requirements:
1. PANEL SIZE: 30” x 30” square, with a matte finish, laminated front and back as follows:
   a. Front lamination thickness: 5 mil
   b. Back lamination thickness: 5 mil
   c. Panel stock thickness before lamination: no more than 5-6 mil
   d. Total panel (with lamination) thickness: 15-16 mil

NOTE: Framed or mounted panels will NOT be accepted.

2. VELCRO ATTACHMENTS: Four, 9-inch long strips of Velcro (the hook side only) must be placed vertically on the back, near each corner of the panel.

3. PHOTOS/GRAPHICS: Maximum of 6 photos and/or graphics shall be used on the panel. Each image shall be a minimum of 7” x 5” or 35 square inches in area. A background photo is not considered a photograph.

4. TEXT/FONTS: Panel text may not exceed 250 words total, not including captions. Font sizes: 32 pt. minimum font for text or descriptions; 28 pt. minimum font for captions and graphics.

5. REQUIRED ELEMENTS: The front on the panel shall also include the ACEC logo (download from ACEC website), title and location of the project or study, client/owner’s name and location, and entering firm’s name and location (minimum 32 pt. font size).

6. CORNER SPACE: Leave a 2” x 2” space in the upper right-hand corner of the panel that is free of text or images. Do not leave the “blank” space as a white square; the background scheme should continue, but will be partially covered by the review committee’s coding label.

7. BACK OF PANEL LABEL: Add a label to the back of the panel with the name of the entrant’s firm, the firm address, the project name, and the entry category.

NOTE: If production/printing services for your photographic display panel are not available in your community, contact Daisy Nappier at ACEC for sources.

SHIPPING
Photographic display panels must be rolled and shipped in mailing tubes.
All materials including the electronic submission must be received by January 9, 2015.
Ship USB flash drive and Photographic display panel to:
American Council of Engineering Companies
Attn: Daisy Nappier
1015 15th Street, NW, 8th Floor
Washington, D.C. 20005-2605
## ABOUT THE PROJECT

Project Name ____________________________________________ (limit to 45 characters)

Judge this entry in the following category (check one):

- A. Studies, Research, and Consulting
- B. Building/Technology Systems
- C. Structural Systems
- D. Surveying and Mapping Technology
- E. Environmental
- F. Waste and Storm Water
- G. Water Resources
- H. Transportation
- I. Special Projects
- J. Small Projects
- K. Energy
- L. Industrial and Manufacturing Processes
- M. Construction Technology
- N. Environmental
- O. Water Resources
- P. Energy
- Q. Manufacturing Processes
- R. Construction Technology
- S. Environmental
- T. Water Resources
- U. Energy
- V. Manufacturing Processes
- W. Construction Technology
- X. Environmental
- Y. Water Resources
- Z. Energy
- AA. Manufacturing Processes
- BB. Construction Technology
- CC. Environmental
- DD. Water Resources
- EE. Energy
- FF. Manufacturing Processes
- GG. Construction Technology
- HH. Environmental
- II. Water Resources
- JJ. Energy
- KK. Manufacturing Processes
- LL. Construction Technology
- MM. Environmental
- NN. Water Resources
- OO. Energy
- PP. Manufacturing Processes
- QQ. Construction Technology
- RR. Environmental
- SS. Water Resources
- TT. Energy
- UU. Manufacturing Processes
- VV. Construction Technology
- WW. Environmental
- XX. Water Resources
- YY. Energy
- ZZ. Manufacturing Processes
- AA. Construction Technology

Completion/Use Dates:

- Scheduled
- Actual

Category A Costs:

- Budgeted $ ____________________________
- Actual $ ____________________________

Construction Costs:

- Total Project Budget $ ____________________________
- Total Project Actual $ ____________________________
- Entrant's portion of Total Project Budget $ ____________________________
- Entrant's portion of Total Project Actual $ ____________________________

- Check box if project was awarded through QBS process.

## ABOUT THE FIRM(S) SUBMITTING THE PROJECT

Entering Firm(s) ____________________________________________

Firm CEO ____________________________________________

Firm Representative ____________________________________________

Must be available by phone on Wednesday, January 21, 2015 (phone calls will only be made if there are clarifications or additional information required for your submittal)

Address (no P.O. Box) ____________________________________________  City ______________________  State ________  Zip _____

Phone (_____) ________________________  Cell (_____) __________________________  Fax (_____) ________________________

E-mail _________________________________________________________________________________________________________

I hereby authorize submission of this project into the American Council of Engineering Companies' 2015 Engineering Excellence Awards competition.

Senior Executive/Principal ____________________________________________  Title ________________________

Signature ____________________________________________  Date ________________________

Address (no P.O. Box) ____________________________________________  City ______________________  State ________  Zip _____

Phone (_____) ________________________  Fax (_____) ________________________

E-mail _________________________________________________________________________________________________________

## ABOUT THE CLIENT/OWNER(S) OF THE PROJECT

Client(s)/Owner(s) ____________________________________________

I believe the work of the engineer meets the intended uses and expectations for the project and hereby grant permission to enter this project in the ACEC 2015 Engineering Excellence Awards competition, and authorize publication of its outstanding features, unique aspects, or innovations. I confirm that the project was substantially completed and ready for use between November 1, 2012 and October 31, 2014.

Client/Owner Representative ____________________________________________  Signature ________________________  Date ________________________

Address (no P.O. Box) ____________________________________________  City ______________________  State ________  Zip _____

Phone (_____) ________________________  Fax (_____) ________________________

E-mail _________________________________________________________________________________________________________
Cover Feature

STAYING ON MISSION
Lt. Gen. Thomas Bostick on the Army Corps of Engineers’ partnership with ACEC, its role in infrastructure development and the need to prioritize projects.

Features

PUBLIC VS. PRIVATE
Top engineering CEOs target growing private sector markets while public sector projects inch back to normalcy.

MEETING THE NEED
ACEC Coalitions provide innovative tools to spur business growth.

2014 PROFESSIONAL LIABILITY INSURANCE SURVEY OF MEMBER FIRMS
Competition keeps rates low and claims frequency in check.

SUSTAINING INDUSTRY MOMENTUM
Members of the 2014–2015 Executive Committee point to marketplace gains.

2014 FALL CONFERENCE
Don’t miss the chance to hear top political and industry leaders at the Fall Conference on the Big Island in Hawaii.

Departments

FROM ACEC TO YOU
Emphasis on private client markets.

LEGISLATIVE ACTION
Tax extenders legislation stalls; ACEC-backed reforms in House defense bill.

MARKET WATCH
Major transformation for power generation market.

RISK MANAGEMENT
Strategic document retention for effective post-project risk management.

BUSINESS INSIGHTS
Rural utility service approves latest EJCDC documents; new e-book series launches.

MEMBERS IN THE NEWS
Robert E. Chaput, Jr., named president and CEO of S.W. Cole Engineering, Inc.

MERGERS AND ACQUISITIONS
Not as much deal activity in huge New York market as you might expect.
After being hit hard six years ago, engineering markets are finally showing significant recovery. Private markets are particularly strong, led by the energy sector.

Across a broad front, commercial clients, who previously stockpiled cash, are now spending again. Banks and financial institutions are lending again.

More than two thirds of all professional engineering services are performed for private clients—in power, petroleum, industrial and commercial facilities, housing and land development. This private work is expected to grow stronger through 2015 and beyond.

In contrast, the public sector remains sluggish because of declining or uncertain federal and state funding streams. Water-supply projects were down 5.6 percent in 2013. Wastewater projects were down 5.1 percent. A lone bright spot was transportation, with a 7.5 percent increase, although over an already low base.

The Council is therefore ramping up its attention to private client practice, even as we continue to promote greater public funding. We want to make sure that private market issues and opportunities are emphasized in our business and legislative agendas. Our Fall Conference will feature a special panel on "Opportunities in Booming Energy Markets."

This issue of Engineering Inc. includes insights from top Member Firm CEOs on private markets, how a transformation is underway in the power market, and how competition is keeping professional liability insurance rates in check.

Our upcoming Fall Conference, Oct. 22–25, at the Hilton Waikoloa Village on the Big Island in Hawaii is shaping up nicely, so register now to take advantage of incredible rates for a five-star experience.
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 150 countries. AECOM has provided engineering services on some of the world's longest and most innovative bridges.
House, Senate Committee Advance F.Y. 2015 Transportation Spending Bills

The House of Representatives and Senate Appropriations Committee have approved their respective F.Y. 2015 spending bills for the Department of Transportation. Both bills would maintain highway and transit funding levels under MAP-21.

Highways would receive nearly $41 billion in both bills, consistent with current levels and contingent on a reauthorization or extension of MAP-21. Transit programs are funded at $11.1 billion in the Senate committee bill (S. 2438), including $8.6 billion for formula grants, consistent with MAP-21, and $2.16 billion for capital investment grants, an increase of $220 million for new projects. The House-passed bill (H.R. 4745) limits transit new starts funding to $1.7 billion for ongoing capital expansion projects.

Both bills would fully fund the Airport Improvement Program at $3.35 billion, the current authorized level. The Senate bill would increase FAA facilities and equipment by $130 million to $2.61 billion, while the House bill maintains current funding.

To meet lower overall budget totals, the House bill cuts TIGER multimodal grants from $600 million to $100 million and reduces Amtrak funding from $1.4 billion to $1.2 billion, a $200 million reduction to capital improvements and debt service.

By contrast, TIGER grants are funded at $550 million in the Senate bill and Amtrak funding would be maintained at the F.Y. 2014 level of $1.4 billion, including $1.05 billion for capital expenses and debt service.

The current fiscal year ends Sept. 30. The House and Senate must resolve their differences or approve a continuing resolution before that date.

House Approves ACEC-Backed Reforms in Defense Bill


Rep. Mick Mulvaney (R-S.C.) offered an amendment to the defense bill that would require the use of the two-step design-build contract selection process for projects of $1 million or greater, when the design-build process is appropriate. In those instances, the bill limits the number of short-listed firms to five.

ACEC opposes the one-step process because it essentially selects the lowest acceptable offer and burdens design firms. The cattle-call nature of the process disincentivizes firms from investing in innovative design solutions. Using the two-step process and limiting the qualifications-based short list to five enhances each firm’s probability of selection and encourages them to invest in design efforts.

The defense bill would also ban the use of reverse auctions by agencies when procuring design and construction services from small businesses. ACEC has long opposed the government’s use of reverse auctions, in which bidders are allowed to reduce their bids over a set period based on their competitor's submittals. The bill reinforces existing QBS requirements for A/E services.

The Council is working to secure similar reforms in the Senate’s version of the defense authorization bill.

Tax Extenders Legislation Stalls

The Senate is attempting to complete consideration of a package of tax provisions, S. 2260, which expired at the end of 2013. Democrats and Republicans differ over what amendments will be offered.

The legislation includes extensions of provisions of interest to ACEC Member Firms, such as the R&D tax credit, parity for employer-provided transit benefits, increased Section 179 expensing limits, and the wind energy tax credit. The tax benefits would be in effect for 2014, retroactive to Jan. 1, 2015.

Senate Republicans want to offer an amendment to repeal the medical device tax that was part of the Affordable Care Act. But Senate Finance Committee Chairman Ron Wyden (D-Ore.) wants to keep any amendments directly related to the tax extenders in S. 2260.

Instead of taking up the entire package of tax extenders, the House Ways and Means Committee approved several bills to make certain tax provisions permanent. These include the R&D tax credit, small business expensing and bonus depreciation. The House approved permanent extension of the R&D tax credit in May by a vote of 274 to 131. Additional floor votes are expected in the House this summer.

Final action on the tax extenders is likely to occur after the November election.
Congress Looks to Short-Term Highway Trust Fund Extension

Congressional leaders are committed to passing a short-term patch for the Highway Trust Fund, with financing options emerging to keep the fund solvent through the end of the year.

ACEC has been telling Congress for months that the U.S. Department of Transportation will be unable to make timely project reimbursement payments to states when the balance of the trust fund is depleted this summer. The funding uncertainty is already forcing transportation departments to postpone or cancel projects.

The Senate Finance Committee has crafted a proposal to supplement the Highway Trust Fund with $8.4 billion, which would provide enough funding for an extension of MAP-21 through Dec. 31. The Preventing America’s Transit and Highways Act would prevent the shortfall in the trust fund projected to hit in late July, modifying numerous tax provisions to offset the additional funds, including several nontransportation-related items.

House Republicans were reportedly considering another round of federal pension changes and increases in Pension Benefit Guaranty Corporation premiums, a budget maneuver used to offset spending increases in MAP-21 in 2012. Senate Finance Chairman Ron Wyden (D-Ore.) and Ranking Member Orrin Hatch (R-Utah), were negotiating with House Ways and Means Chairman Dave Camp (R-Mich.) on a bi-partisan solution that could pass both houses in July.

An extension through the end of the year would leave open the possibility of taking up a long-term transportation reauthorization in a post-election session. Many stakeholders and infrastructure supporters in Congress believe the lame-duck period presents the best opportunity for raising sufficient revenue to pay for a six-year bill.

A short-term fix for the Highway Trust Fund and enactment of a long-term reauthorization supported by stable and growing revenues continue to be high priority advocacy items for ACEC.

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

Regulatory Actions on Wetlands, Carbon Emissions Prompt Industry Pushback

The Environmental Protection Agency and U.S. Army Corps of Engineers have proposed to broaden the scope of the Clean Water Act beyond navigable and interstate waters to include upstream tributaries, adjacent wetlands and other waters that could impact the chemical, physical or biological integrity of those waters.

Federal jurisdiction over these waters has been questioned in several Supreme Court decisions, leading to uncertainty for the regulated community and inconsistent determinations by agency officials. Groups in construction, manufacturing, mining, agriculture, housing and real estate have already expressed concerns about a significant expansion of federal permitting authority.

EPA also released its Clean Power Plan proposal in June, which calls for the power sector to cut carbon emissions by 30 percent below 2005 levels nationwide by 2030. Power plants account for roughly one-third of all domestic greenhouse gas emissions in the United States, and while there are limits on arsenic, mercury, sulfur dioxide, nitrogen oxides and particle pollution from power plants, there are no national limits on carbon dioxide pollution levels.

Opponents of the rule in the energy and manufacturing sectors, including the American Petroleum Institute, have expressed concerns that the proposal is not consistent with the administration’s own “all of the above” energy policy. The U.S. Chamber of Commerce released a report saying such regulation could raise consumer prices for electricity, kill jobs and slow economic growth.

ACEC has solicited comments from Member Firms and is working with affected client organizations on response actions.

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Demand for electrical power will slowly and steadily grow over the next 20 years, increasing by just less than 1 percent annually through 2040.

Coal has long dominated power generation. It currently accounts for 37 percent of supply, followed by natural gas (31 percent), nuclear (16 percent), renewables (12 percent) and hydropower (7 percent).

But coal’s supremacy in the power generation market is about to wane. The combination of cheap and plentiful natural gas, programs encouraging renewable fuel use and tighter emissions control regulations is steadily transforming the industry. That’s not an easy thing to do.

“Power is really hard to change,” says Jack Hand, president and CEO of POWER Engineers, Inc. It takes hefty investments and long lead times to build new power facilities. That’s why change will happen slowly. The United States Energy Information Administration (USEIA) projects that natural gas won’t surpass coal as the nation’s primary power generating source until 2035. By 2040, natural gas will account for 35 percent of power generation, followed by coal (32 percent), nuclear (16 percent) and renewables (16 percent).

**Natural Gas Rising**

The development of hydraulic fracturing and horizontal drilling techniques has opened a pipeline to the nation’s shale gas reserves. And that work will only increase. USEIA projects shale gas production will more than double by 2040, from 7.8 trillion cubic feet/year to 16.7 trillion cubic feet/year.

Such dramatic supply expansion has many immediate impacts—natural gas prices have plummeted and chemical companies and other manufacturers have repatriated factories. But its full force is only now being felt across the industry.

“Up until fracking, natural gas plants were running at about 35 percent capacity,” says Hand. “Today we’re over 50 percent. The word on the street is we won’t start building new plants until we get to 60 percent of capacity.”

But give it a few years. Work on several new natural gas plants should kick into high gear in 2016, says Hand, who adds, “Once it gets going, I really don’t think it’s going to slow down.”

According to the American Public Power Association’s (APPA) latest Report on New Generating Capacity, power plants totaling 47,525 megawatts (MWs) are currently in permitting. Of those, 48 percent are natural gas plants. Coal plants, which accounted for 40 percent of plants in permitting in 2009, make up less than 6 percent.

Two key regulations further threaten coal’s future. The Mercury and Air Toxics Standard, which takes effect in 2016, and the Obama administration’s recent decision to cut carbon emissions from power plants by 30 percent by 2030 will significantly increase operating costs for many coal plants. Utilities must weigh whether to retool those facilities or shutter them.

Dean Oskvig, president and CEO of Black & Veatch’s energy business, anticipates a surge in requests to retrofit coal plants, even if on a limited-time basis. “Each plant is its own story and will have to be addressed on a case-by-case basis,” he says. “That work won’t continue forever, though, and before too long all the big plants will be done.”

Even with those upgrades, USEIA estimates that 50,000 MWs of coal-fired capacity will be retired by 2021.

Rather than retiring or retooling a plant, Hand says...
some utilities are changing
tack completely. “They can
turn an existing facility into a
natural gas plant. They don’t
have to pay for the infrastruc-
ture, other than adding the gas
line,” he says.

Renewables
Percolating
Wind and solar power are pro-
jected to grow significantly in
the coming years, filling some
of the void left by coal, but
“they will never be base load,”
Hand says.
Hand expects more utilities
to combine solar and natural
gas in single facilities, a move
that would reduce a firm’s car-
bon footprint.

Meanwhile, the future of
nuclear power is in flux. Near-
term retirements of plants will
cut the generating capacity
from 102,000 to 98,000 MWs
by 2020.
“The industry is watching
how the five reactors under
construction go, in terms
of cost and schedule,” says
Oskvig. “After that, they’ll
decide on whether to make
some moves.”

Hand says he is bullish on
the long-term potential of
nuclear power generation. “It
makes too much sense,” he says.

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

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In May 2012, Lt. Gen. Thomas Bostick became the 53rd U.S. Army Chief of Engineers and Commanding General of the U.S. Army Corps of Engineers (USACE), serving as the senior military officer overseeing the majority of the nation’s civil works infrastructure and military construction. As commanding general, he is responsible for more than 33,000 civilian employees and 700 military personnel who provide project management, construction support and engineering expertise in more than 130 countries. He is also responsible for the Corps environmental protection projects; restoring thousands of acres of wetlands; and emergency response after a disaster, whether natural or manmade.

In this exclusive Engineering Inc. interview, Bostick talks about challenges facing the Corps, how congressional funding limitations affect the work of his organization, and why he values the partnership between the Corps and ACEC.
Q. ACEC has valued its partnership with USACE over many years. Looking ahead, how would you describe the importance of this partnership?

A. The Army Corps of Engineers really doesn’t do anything alone; we’re part of a team. It’s organizations such as ACEC and others that are part of our overall success. In the future, I think it’s even more important that our organizations work together. One of the points that my team often tells me about is how much work we do and how much the industry does. About 60 percent of our design work goes to architectural/engineering firms, and we retain about 40 percent. That 40 percent allows us to retain enough talent within our organization to do the kind of oversight we need to do. So I think the partnership is going to get even stronger, and with the challenges we all face, it really must continue to blossom.

Q. What constitutes a satisfactory level of core competency to maintain the capacity to fulfill the mission? Some federal or state agencies say to maintain core competency they need to do maybe 10 percent of design work. In this era of tight budgets, many agencies have decided they can increase the design load on the private sector and still maintain overall control of the program without compromising quality. Where do you come out on this question?

A. To address your question of what number is right—should it be 10 percent or 20 percent or 30 percent—is really difficult to answer. Part of it goes back to how we’re structured. We have nine divisions, 44 districts, seven labs and two centers—and each of them has different capabilities that are important for them to maintain some technical competence. What we are trying to do is take a close look at how we’re structured and organized. I’ll use our Military Programs as an example. In 2005 the Base Realignment and Closure created a huge amount of work for the Corps—$12 billion in projects that all had to be done by 2011. In some of the districts that did not have a strong Military Program, we grew the technical competence. But now we need to bring some of that down because that work is no longer resonant. But what has happened over the years is that the structure is relatively the same. One could argue that maybe you don’t need Civil Works competence in this particular district, or you don’t need Military Programs in that district, or maybe you don’t even need the district. I think those difficult decisions are what we need to work on, because that would address really how much technical competence we need in particular areas. Still, if I were to walk up to Congress and say, “I would like to merge these two districts and you are no longer going to have a district in your area”—that would not be a pleasant conversation. But we need to address the issue, just as the Army is looking at brigade combat teams—Fort Knox is losing its brigade combat teams and the 4,000 soldiers and families that come with it. Those are tough decisions. I am saying that we’ll address what the ultimate number is, but right now when you have that many organizations, and they all need to retain some level of competence, we’re pretty much steady at 40 percent.

Q. What are your major domestic challenges regarding navigation, water resources, flood control and other civilian activities?

A. I would say our first challenge is raising awareness of the importance of our infrastructure, the facts that the infrastructure is aging, and the responsibility for the American public and the Congress, and all of us working together, to do something about it. President Roosevelt started a lot of it with the New Deal, putting America to work in building much of the dams and levees and infrastructure we enjoy today that does so much in terms of water supply, navigation and flood risk mitigation. And we had a huge construction program in the 1950s and 1960s, but now much of that infrastructure is past its life expectancy and needs rehabilitation or replacement. Along with that, we’re working on environmental issues and ecosystem restoration. But all that will not continue to go on forever in its current capacity without an investment in its future. My deputies keep talking about the four R’s: roads, runways, railways and rivers. Not many people talk about our rivers, but look at what rivers do for America—60 percent of our grain and 25 percent of our hydropower comes through these rivers. A large part of America’s economy is based on what we’re able to do on our inland waterways and our ports, but for the longest time there was no discussion on the value that this provides our country. On a strategic level, the initial challenge is let’s talk about this; let’s get this into the national dialogue. The president has been doing just that. Two years ago, there was not much discussion about the importance of our ports and our inland waterways. Today it’s different, and I think a couple things are driving it. One is the post-Panamax ship and how the new Panama Canal, when opened, will allow these large ships with 50-foot drafts to come in. We...
have very few ports in America that can accept these large ships. If we want to be economically competitive, we need to do something about it. We were asked to do a port strategy that helped lead to the “We Can’t Wait Strategy” that the president announced in August 2012. The strategy emphasized how we need to cut the bureaucracy and red tape and move forward. It also specifically identified ports that we need to get ready for post-Panamax ships—New York, New Jersey, Jacksonville, Charleston, Savannah and Miami. New York and New Jersey are moving along. Miami has even fronted the money, both their share and the federal government’s share, so they also can be ready to go. That leads me to the other challenge. There is no way the federal government can pay for everything that’s needed for this country’s infrastructure. So it’s important that we find alternative financing mechanisms. We need to execute a plan that will put us on a path to success.

Q. How have current congressional funding constraints affected USACE operations?
A. It is always a significant issue for any organization to finish a challenge on time, on budget and to a high standard. The reality is that we respond well to crisis and disaster. We see that we need to do it, we invest the funds, it becomes a priority and we finish the work. We have a tougher time anticipating that a problem is coming and then doing something about it. Consider Hurricane Katrina and how the protection system in New Orleans was first authorized in 1965. Forty years of work on this project, and we were only about 50 percent complete when Katrina hit in 2005. Then we get $14 billion from Congress to respond to the disaster. The $14 billion was used to build the Hurricane Storm Damage Risk Reduction System, which subsequently withstood Hurricane Isaac in 2011. So in six years we did what we couldn’t do in 50 years, and in six years we did for $14 billion what ultimately cost us $130 billion overall because we couldn’t invest earlier. So that’s the challenge. We saw the same thing with Superstorm Sandy. I remember going up and down the coast with Governor Chris Christie and he would look at some areas where all the homes were protected, the city was protected, and there was a Corps project in front of it. Just two miles down the road, there was complete devastation with nothing there, but there was an authorized project that could have been there if it could have been funded. That’s our challenge. A related challenge is that we only have so much money and end up spreading it around almost like peanut butter, with few, if any, projects receiving the funding they need to be completed in a timely, efficient way. Often we have to suspend construction when funds run out and resume when more funds become available. That’s really the crux of the issue—how do you prioritize and finish projects in a reasonable amount of time to provide

“The reality is that we respond well to crisis and disaster. We see that we need to do it, we invest the funds, it becomes a priority and we finish the work. We have a tougher time anticipating that a problem is coming.”

Past ACEC Chairman Gregs Thomopoulos (left) and ACEC President Dave Raymond (right) meet with Corps Chief Thomas Bostick at USACE headquarters.
the safety and the benefits the country expects from you? We try to do the best we can with the funds that the Congress provides us—which are pretty significant, but not enough. Just take the projects we’re working on today. Our Civil Works budget is around $5 billion, but to just finish the projects we’re working on today, we need about $23 billion. We’re never going to receive $23 billion, so we’re never going to be in that position, such as with the surge barrier or a post-disaster where we had the funds to completely finish the project. What we’re trying to do is do fewer projects and complete them to a high standard and on time.

Q. How do you view the Corps’ international mission at a time when our nation’s focus on Asia-Pacific is expanding?
A. I think they fit very well together. The Corps is really an amazing organization, a fact that may not be well understood in America, but is extremely appreciated and valued in the international community. I had no idea how much the Corps was valued internationally until I was asked to speak in Uganda to all the army chiefs of staffs for the African continent. I was the G-1 of the Army and the head of personnel at the time, but they introduced me as the next Chief of Engineers. Guess what all the questions were about? They were about the Corps of Engineers and how could they build their own Corps of Engineers. The Corps is seen as a beacon of hope and goodwill in a lot of these countries. Most of the projects we do are small and not very expensive, but have huge impacts. We’re helping Nigerian engineers do barge dredging for their ports. We’re working in the lower Mekong River and have had a team there to the U.S. to study the Mississippi River. We’re working in Pakistan to help on problems with dams, and Brazil wants to build 10 dams in 10 years and is looking for technical assistance. In the end, this helps their stability, their economy and their security. I think the Corps should be looked at as a national security asset, because we are involved in defense, we are involved in diplomacy and we are involved in development—the three “D’s.” I would not think of this as siphoning off work from the U.S.; instead, I think it’s important to continue these relationships to help other countries when and where we can.

Q. When you look at the impact of climate change on the nation, do you look at it as an immediate problem or a long-term problem? What level of criticality are we at presently?
A. I look at it as both a short-term and a long-term challenge. Many don’t completely realize all that happened in 2011. We had a historic flood along the Mississippi. The work that our predecessors did to build the Mississippi River and Tributaries Flood Control system, starting in 1928 after the floods of 1927, was the reason we didn’t lose a single life in that 2011 flood. However, because we didn’t lose any lives, most people don’t realize that this was a flood of record—all because of our predecessors having the foresight to look forward. The very next year, we had a drought of immense proportions that affected the Mississippi to the point that barge traffic almost stopped. It took pushing to raise the national dialogue on the importance of what was happening on the Mississippi. We lowered the depth two feet by removing rocks from the Mississippi, but more importantly, we made everybody understand the impact of what the drought can do to our national economy.

We now have the worst drought in 100 years in California and we are taking significant measures to help combat what we’re seeing out there. I don’t like to get into the debate on what is climate change or what’s causing climate change. We just know we are seeing a higher sea level, and we’re seeing record droughts that impact our ability to conduct normal activities of navigation. The president even said: “When you have several 100-year storms in the same year, something is happening.” And that’s what we’re seeing—multiple storms of the magnitude we would not have expected. Those are just facts we have to deal with, now and into the future.

Q. How do you foresee the Corps’ mission evolving from today’s priorities to those 10 years from now?
A. Several areas will continue to be important, such as our missions in flood risk management, navigation and ecosystem restoration. We’re doing a lot of work in climate change; we’ve seen the impact of rising sea levels, both with Katrina and with Sandy. I also think the research and development we’re doing as we look to the future is going to be vitally important. I also like the ongoing efforts to work collaboratively with other countries to jointly find solutions to some of the challenges we face. At the same time, we’re the nation’s largest public engineering agency, and when another agency needs help, we’re here to provide it. We’re working very closely with all federal agencies to assure that precious taxpayer dollars are utilized in the most efficient and effective manner.
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After a brutal economic recession followed by a slow, often painful recovery, U.S. engineering firms say the tide is indeed turning, due in large part to a surge in the private sector business. Even more encouraging: Growth in the energy industry, relaxed lending practices among banks and international investors and other factors point to continued gains in this market this year and beyond.

Exactly how strong will private sector demand for engineering services be in the months ahead, and how will profits in these resurgent markets compare with those in the public sector? Executives at ACEC Member Firms weigh in on their public and private client experience and their projections for the future. >>
Do you expect your firm's industrial and commercial business to increase, decrease or stay the same in the next couple years?

“We spent the second half of last year doing some soul searching to understand internal and external trends over the next three to five years relevant to commercial business,” says Cyrus Izzo, co-president at Syska Hennessy Group, in New York City. “Our conclusion was that we absolutely see it increasing.”

He noted that a strong upturn is already underway in the health sciences. “That includes health care, research and laboratories,” Izzo says, adding, “We see continued strength in these areas,” especially for institutions that focus on research. Rounding out the growth markets now and in the immediate future: mission-critical assets, such as data centers and other facilities designed to house important resources and transportation projects, such as airports.

“We saw commercial business come back two years ago, and we expect it will continue to grow for another three or four years,” says Michael Hart, principal and CEO for M-E Engineers, a mechanical and electrical engineering firm based in Denver. “But, of course, anything can happen.”

Underlying this upward trend is a recovery of sorts in the banking industry. On the heels of a near-crippling collapse of the credit market, U.S. and international banks and lending institutions subsequently adopted a conservative approach to business loans. “That's starting to loosen a little bit,” Hart says. “In addition, we're seeing clients with a backlog of cash that had accumulated over the last few years. Now, they are willing to spend it, and they're seeing business opportunities that are encouraging them to do so.”

“The overall economy is getting stronger, but I'd still describe it as volatile,” says Robert Higgins, president and CEO of Barge, Waggoner, Sumner and Cannon in Nashville, Tenn., who adds that his firm has benefited from new and expansion projects in Nashville, the greater Tennessee areas, and throughout the Southeast.

“Business is coming from the energy industry and from increasing activity in the housing market, as well as from overseas companies,” Higgins says. His firm recently did work for a German company invested in a U.S.-based metals plant.

Burns & McDonnell CEO Gregory Graves notes that the economic hangover coming out of the recession was "short and pretty mild," at least where his firm was concerned.

Revenues for the Kansas City-based firm totaled $1.9 billion in 2013, up 23 percent over the previous year. “Beginning in 2009, our industrial projects improved quite dramatically,” says Graves. He adds: “Last year, our commercial business really took off.”

Today, the firm’s industrial and commercial business continues to expand. “We’re in a couple of markets that are just red hot right now. One is the United States and Canadian petrochemical sector, where we expect growth between 15 percent to 20 percent for our company this year,” Graves says.

A second hot market is the energy sector, especially projects related to strengthening the national power grid, such as high-voltage transmission lines running from northern Canada to the Mexican border. “This country has a long way to go, as does Canada, in creating a secure and reliable grid infrastructure, and that’s been very good business for us,” Graves says.

Raymond Messer, CEO of Walter P Moore in Houston says: “We’re seeing an increase in the commercial work for large projects, such as multistory commercial office space. We’re currently involved in several of those types of jobs.”

He attributed some of the upturn to pent-up demand. “People were waiting, waiting, waiting during the downturn—they wanted to see what was going to happen with the economy,” Messer says. “For those of us in the South, the energy boom in particular is having a positive impact. As companies expand their operations, they may require additional office space or new warehouse and industrial space.”

What are the primary differences for your firm when serving an industrial or commercial client compared to a public sector client?

“Public sector clients evaluate potential contractors primarily through Qualifications-based Selection,” Messer says. “Then you negotiate the scope of work and the fee.” He says the public sector also includes requirements for contracting with underutilized businesses, including minority and women-owned firms. “In some areas of the public sector, such as transportation or energy, contracts tend to be created on a time and material basis. Because the contractors are guaranteed to not lose money, agencies justify paying a lower profit margin.”
“On the other hand, some private sector companies are fair on their fees and loyal to firms based on past performance,” Messer says. “Private sector clients also tend to want more changes during the design process and have schedules that are faster paced. There are exceptions, but generally, once a decision is made, it’s time to move forward.”

Once the contract is awarded, the work process for private and public sector clients is similar, Izzo says. “In both cases, we maintain high service standards across all our accounts. We go through the same rigor on both fronts, from the schematic design and conceptual thinking for the project right through to cutting the ribbon and move-in day.”

Overall, he says commercial clients have more negotiating latitude than their public sector counterparts. Private firms aren’t bound by the need for an open bid process or laws and regulations specific to the federal sector. “We go through a rigorous go/no-go decision process internally before we even think about pursuing work, whether in the public or private worlds,” Izzo says. “We’ll pass on many opportunities if we don’t see how we can really add value to the project. Pursuing a project isn’t inexpensive—it costs quite a bit of money to go after a project, so we want to make sure that our win rate is as high as it could possibly be.”

Graves notes that it’s difficult to generalize about serving the public sector because working for the federal government is so different from working for a federal contractor. “In the same way, working for state departments of transportation is also completely different from working for a big city like Kansas City. But if I were forced to generalize, I would say that industrial and commercial clients have the ability to be more focused on what’s best for the project versus what’s best for the project and what looks the best politically. That certainly makes life a little easier for project managers in industrial and commercial markets, which translates into faster decision-making, without a doubt.”

“Public sector clients always have to watch how the money is being spent and how decisions are being made,” says Hart. “There are usually numerous parties involved in making those decisions from an overall managerial and administrative standpoint. So there are a lot more hoops to jump through for everybody, including the clients themselves. In the commercial world things go a little faster because you are dealing with only a couple of people who are part of the decision-making body. They can make decisions on the fly and decide to do something any way they want—it’s their money.”

What has been your firm’s experience regarding profitability of industrial and commercial projects compared to public sector projects?

“We find that the biggest factors when it comes to profitability are the client having a clear understanding of its needs and our being able to help them meet those needs,” says Higgins. “When that happens we don’t see major differences in the industrial or public sector. It’s more a project-by-project difference.”

“Profitability is dependent on many factors, but generally speaking we see stable profits in both private and public sector projects,” Izzo says. “If we do the right amount of homework early on with our go/no-go decision, we should see the same level of profitability. Where you see wild fluctuations is if a firm does not do that upfront due diligence to make sure it’s the right type of project and client with the right cultural fit. That’s where you might see some wild differences in profitability.”

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“Profitability is dependent on many factors, but generally speaking we see stable profits in both private and public sector projects,” Izzo says. “If we do the right amount of homework early on with our go/no-go decision, we should see the same level of profitability. Where you see wild fluctuations is if a firm does not do that upfront due diligence to make sure it’s the right type of project and client with the right cultural fit. That’s where you might see some wild differences in profitability.”

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“Public sector clients always have to watch how the money is being spent and how decisions are being made,” says Hart. “There are usually numerous parties involved in making those decisions from an overall managerial and administrative standpoint. So there are a lot more hoops to jump through for everybody, including the clients themselves. In the commercial world things go a little faster because you are dealing with only a couple of people who are part of the decision-making body. They can make decisions on the fly and decide to do something any way they want—it’s their money.”

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The Council has always provided guidance and support for the nation’s engineering firms to help them maximize profitability. ACEC’s six professional coalitions help address specific needs of the industry.

In this special feature, the heads of ACEC’s coalitions examine trends, outline special concerns, and note their specific resources and programs to move Member Firm businesses forward. 

By Maureen Conley

Meeting the Need
ACEC Coalitions providing innovative tools to spur business growth
Business Climate

The improved economy brings much enthusiasm for the future, but it also presents challenges for firms.

One of those challenges is how to manage lingering uncertainties, says Andrew Rauch, chairman of the Council of American Structural Engineers (CASE) and secretary-treasurer of BKBM Engineers in Minneapolis. And, after years of financial struggles, there is plenty of that. “You never know if that project you started yesterday will get postponed tomorrow,” and no one is truly comfortable with their current backlog of work, he says.

While CASE may not be able to eliminate such uncertainties entirely, Rauch says the coalition is aiding its members in other ways, such as by “keeping risk management costs down and helping businesses run more effectively using some of the tools that we have.” CASE is currently developing guidelines for members about how to best manage risks to their overall business, as well as to specific projects.

Improvements in the real estate and land development sectors are current issues the Land Development Coalition (LDC) is helping its members navigate, says Chair Michael Snyder, senior vice president at Dewberry in Lanham, Md.

With the overall economy picking up in this sector, the coalition has created special programs and publications to keep members current on ever-changing market conditions and emerging trends in the industry. One other important focus for the coalition will be helping members navigate the maze of regulations and permitting requirements that firms encounter from state to state.

LDC went from not having any professional practice publications just a few years ago to an entire library devoted to helping firms navigate the “new trends happening in land development today,” Snyder says. And the coalition continues to add new publications to its library. Through the rest of this year, its main focus will be developing a new guide to manage firm staffing issues. This guide will help firms increase staffing levels now that more projects are going forward by clients. Firms will need guidance on how to increase staff, since they haven’t needed to in the past few years.

Growth is a good thing, but keeping track of changes in the marketplace is tough, especially in a growing, if uneven, marketplace. “Some sectors are hotter than others, but it is still not a robust national economy, so sales and what’s going on in our core markets continue to be an issue for everyone,” Snyder says.

To combat these issues, LDC is inviting business development experts to speak at its conferences. At the recent ACEC Annual Convention, for example, LDC members heard from an energy market expert about “some of the dynamics and opportunities for engineers” in the oil and gas industry, says Snyder.

Policy, Financing

Infrastructure policy and funding is another wildcard that ACEC’s coalitions are keeping a close eye on for members.

In today’s tight budget environment, design professionals need to find ways to “get the most efficient job done” and “do more with limited resources,” says Anthony Bartolomeo, chair of the Design Professionals Coalition (DPC) and president and CEO of Pennoni Associates, Inc., in Philadelphia.

To help, DPC is working with ACEC to implement a strategic plan that includes partnerships with other industry groups committed to addressing common business issues, such as deferred maintenance on infrastructure.

By working together, Bartolomeo says DPC and its partners can achieve more momentum and support for solutions that might require large initial investments of public funds.

Also on DPC’s agenda is reauthorization of the transportation-funding bill (MAP-21), which is due to expire this year, and continued funding for the Highway Trust Fund, which is slated to run out of money by August, says Bartolomeo. DPC has joined other interest groups in a push to get legislation through both houses of Congress, an effort that requires “giving legislators what they need” to better understand the impact these and other funding initiatives have on the industry.

Policy and tax issues are also of interest to member firms—and coalitions are monitoring several issues, such as the Affordable Care Act (ACA). Matthew Murello, chair of the Small Firm Council (SFC) and president of Lewis S. Goodfriend & Assoc. in Whippany, N.J., says ACA mandates have changed since the law was enacted in 2010. “People are asking, ‘Now what do I do?’ and this kind of uncertainty is keeping everybody up at night,” Murello says.

Most SFC members fall below the 50-person threshold for the act’s “employer mandate,” a requirement to provide employees with health insurance coverage—but that doesn’t exempt them from the implications of the legislation. Small firms must keep pace with current federal requirements and try to anticipate “what is
coming next,” he says. Helping members understand this changing landscape is high on SFC’s agenda for 2014.

**Increased Competition**

As work picks up, the need for capable talent also increases—which often can pit firms against one another.

Small firms routinely struggle to hire and retain the best and the brightest employees, especially when larger competitors can offer higher salaries, says Murello. “One of the key issues for every small business is how to take younger employees and develop them as leaders in the company,” he says. To help its members hire and retain top talent, SFC sponsors workshops and roundtable sessions where professionals share information, learn from one another and engage in some “group therapy.” SFC recently hired an outside human resources consultant to provide a two-day seminar on grooming the next generation of leaders.

For Michael DeSantiago, chair of the Council of American Mechanical and Electrical Engineers (CAMEE) and president of Primera Engineers Ltd. in Chicago, it comes down to standing out in the crowd.

As an industry, “we need to learn to be the employer of choice,” he says. Engineers have a lot of options. They can go overseas or work for technology companies. That’s why it’s important for firms to provide an attractive option.

That’s why CAMEE plans to “be on campus as early as the start of the school year to get in front of these young engineers before they are all spoken for,” he says.

Across the country, CAMEE and its members are also sharing ideas about employee retention. Simple ways to inject fun into the workday are especially important, says DeSantiago. There is “a lot of competition for engineers, and it’s going to get more intense. Getting students to go into technical careers is tough enough. Getting them to choose your firm is tougher still. Your firm has to become the kind of place young up-and-comers want to work at.”

**Technology and Innovation**

When you work in a field dominated by technology, change is inevitable. Just ask a member of the nation’s surveying industry.

New innovations, including global positioning systems (GPS) and geospatial mapping, have remade the entire sector. “We used to lay out a lot of construction staking, but now that can be done with machines that have GPS,” says Ralph Guida IV, chair of the Council of Professional Surveyors (COPS) and president of Guida Surveying in Irvine, Calif.

Rather than fight change, COPS encourages its members to embrace it. As GPS and other technologies evolve, designers will need help using the latest equipment and learning to marry these innovations with existing surveying practices and principles, Guida says.

Building Information Modeling (BIM) is another technology that’s changing the game for U.S. engineering firms, particularly those involved in mechanical, electrical and plumbing, says DeSantiago.

To adjust to this revolution, CAMEE is developing tools to help its members effectively transition to BIM. While BIM guaranteed to be a major part of a firm’s future, questions remain about when and how to use it—and that’s part of what CAMEE is helping its members figure out.

**New Toolkits**

To help their members adjust to a changing business and economic climate, many of ACEC’s professional coalitions have released new toolkits for use in solving the most pressing industry challenges.

COPS continues to update its safety checklist and standards, says Guida. As technology evolves and one-man survey crews work more efficiently, surveyors need to think about “how to keep one guy safe when he is out by himself. Guida says safety is COPS’ No. 1 priority, followed closely by technology.

In addition to developing risk management guidelines, Rauch added that CASE has convened a special committee to develop guidance on implementing the code of standard practice for steel joists; another committee is updating a series of standard contracts based on comments from outside counsel. These contracts cover different types of structural engineering projects, from consulting with project owners to hiring another engineering firm to providing specific services, such as special inspections.

Rauch echoes the theme shared by all ACEC coalitions when he says CASE is committed to providing tools that will “keep you out of trouble and make projects run more smoothly.”

Maureen Conley is a business and technology writer based outside Washington, D.C.
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With stable premiums and plenty of professional liability insurance (PLI) carriers competing for market share, U.S. engineering firms that responded to the most recent ACEC PLI Survey of Member Firms indicate the market is ripe for testing new insurance options.

By Maureen Conley

Of the 375 Member Firms who responded to this year’s survey, 18 percent used the competitive landscape to switch to a new PLI carrier. Of those, some 55 percent said lower premiums were a factor, while 32 percent looked for better policy terms.

As the business climate improves, conventional wisdom would suggest premiums should increase. But PLI is still a good buy. Eighty-six percent of responding firms said their deductibles were unchanged in F.Y. 2013, despite the fact that 62 percent of firms reported higher revenues, with as many as half reporting billings increases of 5 percent or higher.

Overall claim frequency is unchanged from 2012. Member Firms that responded to this year’s survey spent nearly 45,000 personnel hours defending a total of 408 claims and spent upwards of $100 million to resolve them. Of those claims, firms considered only 22 percent to be frivolous.

When asked to describe what contributed to claims, two factors rose to the top: errors and omissions (51 percent) and communications problems (45 percent). Contracts continued to be a larger issue for smaller firms compared with larger firms (40 percent and 22 percent, respectively). Third-party claims, a new category on this
Again, Catlin claims service is ranked #1 by the American Council of Engineering Companies.

The 2014 American Council of Engineering Companies (ACEC) Professional Liability Survey has ranked Catlin #1 for claims service for the third time. In this survey, the Catlin team that specializes in Design Professional, Construction and Environmental claims received the top score.

When faced with a professional liability claim, Catlin is committed to providing our clients the most responsive service possible. So, it's no wonder that 100% of respondents in the 2014 ACEC Survey indicated that they were satisfied with our claims handling and 4 out of 5 gave us the highest possible marks for customer satisfaction.

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year’s survey, factored into 43 percent of claims.

**What’s Your Specialty?**

New this year, the survey results were broken out into fields of practice.

Gross revenue increased across all disciplines, according to the survey, with firms specializing in electrical work reporting the largest increases.

Geotechnical and structural firms reportedly made the fewest errors or omissions that resulted in claims (25 percent and 33 percent, respectively), while mechanical/HVAC and environmental firms attributed a much higher percentage of claims to such mistakes (80 percent and 75 percent, respectively).

Bad contracts were a factor in half of all claims filed against both electrical and geotechnical firms. That compares with 20 percent or fewer claims filed against firms that specialize in other disciplines.

Chuck Kopplin, a long-time member of ACEC’s Risk Management Committee, says success with contracts “depends on how well they are reviewed,” noting smaller firms are less likely to have dedicated risk managers on staff.

More than half of environmental, geotechnical and structural engineering firms that responded to the survey said they sometimes or frequently turn down work, compared with one-third or fewer mechanical, electrical and civil firms.

**Positive Economy, Troubling Trends**

Kevin Collins, who manages the architects and engineers program for insurance carrier CNA/Victor O. Schinnerer & Co., says his firm reported revenue increases for 21 straight months. Collins says insureds are averaging 3 percent annual growth, with larger firms growing the fastest. Collins expects growth to tick up even higher, to 4 percent or 5 percent by the end of 2014. Jeff Connelly, program manager for Marsh, the exclusive broker for ACEC’s Business Insurance Trust, notes that as business improves throughout the industry, design firms tend to seek higher levels of liability protection.

Jeff Todd, president of a/e ProNet, an insurance network for architects and engineers, is seeing this trend. He says the solution is often to find a second carrier willing to provide the coverage in exchange.

In this market, “most brokers have access to multiple carriers” and are able to secure acceptable terms, Todd says. But carriers may not deliver on projects that cost less than the limits the owner is seeking; “at the end of the day, the limit has to make sense to the carrier,” he says.

Though business is on the upswing, the survey revealed that a number of smaller firms continue to opt out of PLI coverage, explains Jim Messmore, senior vice president at Hanson Professional Services, Inc. Fourteen percent of firms grossing less than $500,000 opted out of PLI in F.Y. 2013, compared with 10 percent in the previous fiscal year and 2 percent in 2010. Smaller firms are also less likely to have claims, according to the survey. Ninety-one percent of the smallest firms surveyed reported no claims in F.Y. 2013.

**Walking Away From Work**

Exposure to risk or a lack of insurance coverage has prompted some firms to turn down work. Forty-three percent of all firms surveyed said they frequently or sometimes turned down work in F.Y. 2013, forgoing an estimated $4.5 million in potential fees.

Matt Richards, vice president of Wisconsin-based Strand Associates and a co-vice chair of ACEC’s Risk Management Committee, says the amount of firms turning down work “amounts to a big deal” in the industry. He says it’s evidence that, at least in some engineering disciplines, it’s becoming increasingly challenging for firms to meet the standard of care.

Carl Munkel, director of risk management for Nashville-based Gresham, Smith and Partners (GSP), says contract terms are the No. 1 reason that his firm turns down work. The 650-employee firm has an in-house risk management group that does a “very thorough agreement review” and seeks advice of outside counsel when necessary. Munkel sees terms and conditions getting “more onerous”—often including warranties and higher standards of performance, inappropriate indemnification and defense requirements, and unrealistic expectations for PLI coverage. GSP attempts to mitigate these terms through negotiations, modifications in scope, fee adjustments or other means. Even when consulting for another firm, GSP will at least review the prime agreement, and in some cases has worked with the prime consultant to negotiate a better agreement with the project owner.

Mike Blankinship, who owns Davis, Calif.-based Blankinship & Associates, Inc., says his firm sees more onerous indemnity clauses.
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He says many municipal project owners increasingly ask his firm to take on “liability that has nothing to do with the work we do.” Agreeing to be held responsible for someone else’s mistakes likely would not be covered by PLI, and could put a firm and its assets at risk, he says. That’s why PLI contract review services are an important piece of the best PLI coverage agreements.

Switching Carriers

Lower premiums are by far the biggest reason firms change carriers, according to the survey. That’s especially true for smaller firms. Among firms grossing less than $500,000, 23 percent of those surveyed changed carriers in FY. 2013 and 71 percent of those firms made the move in favor of lower insurance premiums. “Price impacts these firms so much, yet the small firms are the ones that don’t have in-house risk management,” says Al Rabasca, director of industry relations for the design professional unit of XL Group. He said smaller firms especially need help with contracts, education, loss prevention and risk management, “not just an insurance policy that reacts when they have a claim.” He noted a correlation between firms that seek lower premiums and claims handling satisfaction. “It’s kind of a vicious yet predictable cycle. Go for the lowest price and you will, most likely, be dissatisfied with the claims handling.”

When selecting carriers, the top-three factors firms considered, according to the survey, are broker recommendation (31 percent of firms surveyed ranked this most important), price (28 percent) and claims handling expertise or carrier reputation (24 percent).

A proven track record and longevity in the A&E market is crucial, says Beazley U.S. A&E Focus Leader Jim Schwartz. “With the potential for nine-figure payouts and the possibility of real volatility in claims, firms need to make sure they are with a carrier that understands the industry and will be there for the long term,” he says.

Blankinship says he especially values loss prevention training as a part of PLI coverage. “It is easier to prevent problems than resolve them,” he explains. PLI carriers offer strategies for use “in the office, in the field, and in negotiating with clients in a way that will protect you, your firm and its assets,” he says. Strand leans heavily on educational programs offered by its PLI carriers, Richards says, but pre-claims assistance is also valuable.

Effective claims handling saves time and allows designers to achieve “better results and improve profitability,” Collins says.

Some firms may change carriers to get “dollar-one defense,” under which a firm only pays its deductible if there is a settlement or judgment, says Mike Cosgrove, CEO of Professional Concepts Insurance Agency and incoming president of the Professional Liability Agents Network. This feature often saves money, but it is generally available only to firms with revenues below $3 million. Aggregate deductible—wherein a firm makes a single deductible payment, even if it has more than one claim in a single year—is another feature that often entices firms to change carriers. Firms seeking higher coverage limits sometimes have no choice but to change, especially if their existing carrier can’t accommodate their needs.

When Claims Arise

GSP’s Munkel says, “our firm is very aggressive in reporting potential claims and problems to its PLI carrier.” The firm teaches employees the process and makes reporting easy. Then, as the end of its policy term nears, communications go out asking employees if anything needs to be reported. This avoids the possibility of a carrier denying coverage because a problem was not reported in a timely fashion, he says.

The best carriers have experienced claims handlers who work in partnership with firms to determine how best to approach a claim, explains Collins. Oftentimes, these carriers intervene to gather information and develop a plan for resolving disputes, usually within 90 days of being notified of a claim. If the team decides to settle, it is “always with the informed consent of the insured.”

XL is another carrier that prides itself on stepping in early to help firms avoid or mitigate claims. If a claim does result, Rabasca says, XL often turns to mediation, which entitles the insured to a deductible credit, adding that in the event a case can’t be resolved quickly and equitably, XL is “fully prepared to defend the matter at trial” on behalf of its clients. •

Maureen Conley is a technology and business writer based outside Washington, D.C.
All signs point to a much healthier engineering marketplace in 2014 and 2015. As the economy continues to improve, private industry is beginning to invest in new projects, governments are weighing long-term funding plans for infrastructure, and progress is being made toward national energy independence.

While a number of obstacles can still derail these positive trends, optimism about engineering markets is understandably strong among the 2014–2015 ACEC Executive Committee.

In this special feature, ExCom members discuss promising opportunities in the marketplace and highlight leadership skills necessary to achieve success.

Energy
Breakthroughs in shale oil drilling techniques, coupled with increased legislative support for energy projects in many regions, have many of this year’s ExCom members enthusiastic about emerging energy markets. ExCom Chairman Richard Wells points to the nation’s progress toward exporting excess liquefied natural gas to other countries as another key indicator for sector growth.

“If we can continue to use our independence, I think it will hold our prices down,” says Wells, who is also vice president for corporate development at Kleinfelder in Greensboro, N.C. “Companies will then see more industrial jobs coming back into the United States because prices will be favorable for them to do business here from an energy perspective.”

New ExCom Vice Chairman Randall Neuhaus agrees. “We’re discovering more shale gas and other energy opportunities in the United States. The idea that we can become energy independent is something that we just didn’t think was possible a few years ago,” says Neuhaus, who is president and CEO at S&ME, Inc., in Raleigh, N.C. “I think that’s going to be a strong driver for our industry and for our economy.”
Sustaining Industry Momentum

Thoughts from ACEC’s Executive Committee

By Stacy Collett
Cardno Knows
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Cardno delivers the information, tools, and big-picture view you need to efficiently use and properly manage your assets throughout their full life-cycle.

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NEEER in Walnut Creek, Calif., says climate change and resilient construction are, for the first time, taking center stage in the national conversation.

Resilience initiatives will have to move quickly though to catch the infrastructure wave. “Nations are ready to spend billions on infrastructure,” says Poland, who adds, that’s why the industry “needs to get proper standards and performance goals for resilient designs in place.”

International Projects
Future market opportunities aren’t just confined to U.S. borders. Engineering firms are also looking abroad for new prospects, especially as international markets improve, says ACEC Chairman-elect Ralph Christie, Jr., chairman of Merrick & Company in Greenwood Village, Colo.

“Even midsize and small firms can provide their expertise in certain markets internationally,” Christie says. As an example, his midsize Merrick & Company worked in more than a dozen countries in 2013 and 50 countries in the last 10 years. “About 20 percent of our revenue was in international work last year,” he says.

International infrastructure projects will also be driven by a growing global population with increased demands for water, transportation, energy, housing and other essentials, says ExCom Vice Chairman Chris Poland, principal and founder of Chris D. Poland Consulting Engineers in popularity with many governments. “Energy is a very important factor. We need cheaper and more efficient power,” which will drive renewable resource projects for wind and solar power, he says.

Innovation
Telecommunications and electrical innovations are powering business opportunities for Overland Park, Kan.-based Black & Veatch. ExCom Senior Vice Chairman and Black & Veatch Associate Vice President Clint Robinson points to an intrapreneurial mindset—taking skills the firm already has and translating them into new markets. For example, he cites how Black & Veatch recently used its knowledge of electric tower construction to design telecom towers for a booming mobile industry.

The firm’s Smart Integrated Infrastructure group also worked with electric carmaker Tesla to design, construct and deliver 70 of its 100 recharging stations. “We’re not in the transportation field, but we’re certainly now in the field of providing electricity for batteries in cars,” Robinson says.

Private Sector Opportunities
Member Firms working primarily in the private client market are optimistic about legislation and incentives that promise to promote new business opportunities, says new ExCom Vice Chairman Mitchel Simpler, managing partner at Jaros, Baum & Bolles in New York. “For the private sector, that includes continued energy tax credits, which they hopefully will continue to do, incentives for R&D tax credits, which also inspire people to take advan-
taking of new technologies and economic growth with low interest rates continuing, which allows the private sector to do more development."

Simpler says his firm emerged unscathed from the recent recession and was not forced to lay off any of its engineers. It is now in a favorable position heading into the economic recovery, taking advantage of what Simpler calls "the low cost of money."

In Denver, new ExCom member Lauren Evans is also predicting a healthy growth in the private client market. "We got involved in environmental engineering earlier than other engineers, and business is on the rise here," says Evans, president of Pinyon Environmental, Inc., based in Lakewood, Colo. She added that in the last six months, the number of Phase 1 site assessments performed by her firm jumped 20 percent.

Leadership in a Recovering Economy
Taking advantage of growth opportunities rarely occurs, however, without taking risks. ExCom members agree that risk-taking can test firm leadership and in many cases force some leaders to step outside their comfort zone to prepare their firms for the future.

Across the board, ExCom members agree that the new marketplace requires foresight and taking chances.

"Change is inevitable, but if you can anticipate the wave you can plan for it—or be pushed by it," says Kothari. "I tell my team, let’s keep our eye out for the next wave and go surfing."

Poland agrees. "A firm leader really needs to be very adaptable to change and constantly look forward to find out where you can move your industry in a way that serves a social need—and then build a practice that surrounds that market."

The most successful firms will proceed boldly but with caution, Robinson says. "Take incremental steps toward big challenges. Big course changes are a lot more risky than a lot of small changes that will eventually lead to a big shift."

One challenge will be for leaders to find new ways to attract and keep young engineers, Floyd says. The down markets of the last few years have forced many firms to downsize. "Now, as things are turning around, you’re going to see an increased demand for engineers," he says. "The goal for us is to create a challenging environment for our engineers so they’re not lured away by the competition. We also have to be able to find and recruit new talent to build our staffs back up to handle the increasing workload that we see coming."

The next generation needs mentoring, if it intends to climb the firm ladder, adds Reimer. "Key leaders must be willing to engage the up-and-comers in the firm sooner." Her suggestions: "Work out an arrangement with better communication and mentoring. Engage those behind you and help them strengthen their skills and move forward."

Executives will also need to adopt softer skills to navigate a changing marketplace as today’s engineering leaders must have a high "emotional intelligence," Christie says. "In my mind, it’s really not only understanding yourself but your team’s capabilities and having a good, instinctive sense for market trends and what’s going on in the world. Engineers aren’t trained in this and it’s hard to measure, but you know it when you see it."

These soft skills apply to more than just firm leadership. “More of us really need to become leaders in society,” Evans says. "We should be out explaining to people what needs to be done with our infrastructure and why."

Public service is a common leadership goal shared by many ExCom members. Neuhaus calls this a having a "servant-minded attitude" and says, "a strong leader needs to be open to ideas that best serve the community." He adds that the thought process should be, “I’m here to serve our clients and all of our shareholders.”

That doesn’t mean you can’t take risks. “The opportunities that are out there may not just fall in your lap,” Neuhaus explains.

Reflecting on the new marketplace, ACEC President Dave Raymond says that “along with these big opportunities in energy, infrastructure and facilities, major challenges lie ahead for the industry.”

He cites legislative and regulatory battles, including long-term transportation funding, tax reform and energy regulations.

Responses by ACEC ExCom members are emblematic of those throughout the field. "This is much more encouraging than just a few years ago, when the common industry sentiment was of varying degrees of struggle," Raymond says. "Today we are looking ahead optimistically and developing new markets."

Stacy Collett is a business and technology writer based in Chicago.
Taking Engineering to the Next Level --
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For more information and to register online, go to conf.acec.org.
Strategic Document Retention for Effective Post-Project Risk Management

Construction is completed and the client has moved into its new facility. The last invoice has been paid and the project is ready for closeout. Finally.

The design professional should breathe a sigh of relief, right? After all, successfully navigating all those risks wasn’t an easy job. But don’t exhale just yet. As most engineers know, liability does not end at project or report completion.

That’s why it’s important to have a strong, enforceable document retention policy.

Managing risks after the fact begins with closing out the project by culling the files and deciding what documents need to be retained. This applies to both hard copy and digital data. Do not under any circumstances throw your documents into a box, write them to electronic media and ship them off to a long-term storage facility. Your firm’s written record retention policy provides good guidance on what to retain and what should be destroyed, provided that policy is enforced. The worst document retention policy a firm can have is one they do not follow.

What to Keep?

In deciding what documents to retain, the firm should first review its contract. The contract takes precedent over any firm policy and is a good starting point on deciding what to retain. A copy of all final documents including drawings, specifications, manuals and reports should be retained. It may be of value to retain copies of any documents generated for intermediate milestones such as a client’s review or a permitting agency’s review.

Any documents that the design professional relied upon to perform their services should also be retained, such as land surveys, traffic studies, soils reports, and client-provided information. Additionally, all contracts with the client and sub-consultants, along with any amendments, should also be retained.

Written correspondence, such as letters, memos, transmittals, meeting minutes and emails should also be retained, but draft copies should be discarded. Written documentation confirming any directions or information given verbally such as during telephone calls should be saved. Maintaining written documentation of information provided and decisions made during the project could prove to be invaluable. It is so much better and more believable than relying on someone’s memory.

There is no need to keep every email written about a project. Only keep those emails that document an action was taken or something was sent, received or given.

During the construction phase there are many documents generated that also need to be retained. These include shop drawings or material samples submitted for approval along with logs showing dates they were received and returned. Reports documenting on-site observations and photographs should be kept, but not photographs that do not pertain to services provided.

Because there is little initial cost to taking photographs, there is a tendency to take photographs of everything happening on a construction site. This could be problematic for the design professional, especially if a photo is taken of an unsafe condition and the person taking the photograph brings it to the attention of the site superintendent.

When retaining digital data, consideration should be given to both the format of the data and the media on which it is stored. Ideally data should be stored in a format that is likely to be readable in the future, such as a PDF, and not in a format readable only by a specific software program. Even if the firm is still using the same software 10 years from now, it’s likely to be several versions newer. Assuming the program can correctly read the file, can it be guaranteed that it will produce the same results? These same precautions apply to media on which digital data is stored.

The risks associated with document retention when closing out a project need to be well managed. Staff that was assigned to the project most likely has been reassigned and are eager to clear their desks and take on the challenges of their next project. By having a written document retention policy and enforcing it, firms ensure that staff will be given the guidance on what is important to retain and what should be discarded. Such a policy streamlines the project closeout process and helps to better manage post-project risks.

Glen R. Mangold is the managing director of the Architects/Engineers program for Markel Corporation, a provider of professional liability insurance. He can be reached at gmangold@MarkelCorp.com.

Charles W. Kopplin has more than 40 years’ experience as a consulting engineer, including 14 years as the risk manager for an ENR Top 500 Design Firm. He can be reached at cw.kopplin@gmail.com.

The material in this article is provided for informational purposes only and is not to be regarded as a substitute for technical, legal or other professional advice. The reader seeking such advice is encouraged to confer with an appropriate professional consultant or attorney.
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Subject to the modifications indicated in the Rural Utilities Service (RUS) Bulletin 1780-26, the Engineers Joint Contract Documents Committee (EJCDC) developed the following documents, which were previously approved by RUS for procurement of professional and construction services by loan and grant recipients:

- Agreement Between Owner and Engineer for Professional Services (EJCDC No. E-500, 2014 Edition)

In addition to these items, associated construction contract documents, some of which are available through ACEC and some of which must be developed by the engineer via instructions in the Bulletin, are also available. Project-specific EJCDC documents approved prior to the effective date of this Bulletin are still considered approved.

The Bulletin consists of exhibits with required modifications that when combined with the standard EJCDC documents and appropriate drawings, specifications and other required documents, create a complete set of engineering and construction contracts for use with RUS projects. RUS state offices are permitted to modify the guidelines in the Bulletin when necessary to comply with state statutes and regulations.

New E-Book Series Launches

2014 is the year of the ACEC e-book. We are celebrating the launch of this effort with two new books: Winning Strategies for A/E/C Firms: An Executive’s Guide to Maximizing Growth and Profitability by Clare G. Ross and Win More Work: How to Write Winning A/E/C Proposals by Jim Rogers.

These books are available for sale and immediate download in the ACEC Bookstore and will release to Google Play, iTunes and Amazon over the next few months. Visit the ACEC Bookstore regularly for the latest e-book releases: www.acec.org/bookstore.

ACEC Coalitions are also getting in on the e-book trend. The Land Development Coalition recently released a new book called Financial Planning for Successful Land Development Projects. The publication is a compilation of documents developed for firms specializing in land development services, including Ethical Cost Proposals for Land Development Services, Cost to Compete and Contract Negotiations and Establishing Financial Controls for Successful Land Development Projects.

Each document gives project managers a tool to anticipate a project’s scope and cost, while simultaneously managing client expectations.

To purchase publications from the Land Development Coalition, or any of the ACEC Coalitions, visit www.acec.org/bookstore.

SEI Celebrates 20 Years of Leadership Training

The ACEC Senior Executives Institute (SEI), the industry’s premier leadership development program, works on multiple levels to help executives identify and explore their unique brand of leadership style, with the goal of developing stronger, more effective corporate leaders.

Over 18 months, participants work to build core knowledge, skills and overall business acumen—but that is just the beginning. SEI’s program is designed to encourage creative thinking and vision beyond the day-to-day, or even year-to-year, approach of A/E business management, resulting in a greater awareness of the ebbs and flows of the industry environment.

By strengthening their leadership skills, participating executives can better articulate what matters most for themselves and their businesses, thus creating an environment in which compelling visions, goals and strategies emerge and take root. Applications are currently being accepted for SEI Class 20, which starts in September in Washington, D.C. To learn more, visit sei.acec.org.
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55% of drivers today identify traffic delays due to road construction as the most frustrating part of their driving experience.* With off-peak construction, asphalt pavements leave roads open to traffic during rush hour. Surface maintenance and repair is quick, ensuring drivers have a smooth, high performance surface with minimal inconvenience. No wonder an independent survey found 87% of engineers, developers, transportation officials and other key stakeholders chose asphalt for its ease of maintenance.** Smoother, quieter, fewer delays... that’s drivability. That’s asphalt.

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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 40 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.
On The Move

Robert E. Chaput, Jr., was named president and CEO of S. W. Cole Engineering, Inc. Other management changes at the firm: Chad B. Michaud was named COO and executive vice president. He is also the manager of the Somersworth, N.H., office. Former President and CEO Paul Kohler is now senior vice president. Kohler, who remains on the board of directors, is manager of the firm’s Gray, Maine, office. Roger E. Domingo was promoted to vice president of construction services and Timothy J. Boyce was named vice president of engineering. Gary Bucklin was promoted to vice president of geoscience services.

New York City-based Thornton Tomasetti announced that Andrew Goldbaum joined the firm as CFO. He will be based at the firm’s New York City office. Also, Jeffrey K. Luney joined the firm as a vice president in its Building Performance – Forensics practice.

William Hardy joined Tighe & Bond as the firm’s COO. Hardy will oversee operations from the firm’s headquarters in Westfield, Mass.

London-based AMEC appointed Jeff Reilly group president of strategy and business development. He will be based in Houston.

Louis Berger Senior Vice President Ivan Keogh assumed direct leadership for all firm activities in India. Keogh assumes these responsibilities in addition to leading the firm’s business in Asia.

Craig Pincince joined Oakbrook Terrace, Ill.-based Professional Service Industries, Inc., as senior vice president of national sales. Pincince, who will be located in the firm’s Dallas office, will focus on the national retail, hospitality, developer, commercial and REIT/finance market sectors.

Pasadena, Calif.-based Parsons announced the following promotions: James Smith to vice president in its Environment & Infrastructure Group (Smith is based in Richardson, Texas); Brian Hard to vice president of alternative project delivery services support for Operational Shared Services (Hard is based in Denver); Thomas Ahern to vice president, director of contracts for Operational Shared Services (Ahern is based in Washington, D.C.).

Tom Lothspeich and Dan Bender have been appointed vice presidents at Stanley Consultants. Lothspeich, who is based in the firm’s Muscatine, Iowa, headquarters, is a senior project manager and manager of the Power Generation Group of the firm’s Energy Business. Bender is west regional manager of the firm’s Infrastructure Business and is based in the company’s Las Vegas office.

ACEC Member Firm Named No. 1 Small Business in America

The U.S. Chamber of Commerce named Sanderson Stewart in Billings, Mont., Small Business of the Year. The Chamber selected the ACEC Member Firm from a record number of applicants.

“Sanderson Stewart’s outstanding leadership, track record and operating style truly set it apart and make it a prime example of what it means to be a successful small business,” said U.S. Chamber President/CEO Thomas Donohue.

The ACEC Member Firm, which focuses on land development and community planning, employs 70 professionals and has offices in Montana, North Dakota, Idaho and Colorado.

“Wow! The No. 1 small business in America!” said President and CEO Michael Sanderson. “It’s such a tremendous honor for our exceptionally talented and dedicated team, who are truly the best of the best. So it’s very, very satisfying to see them get recognized on the national stage.”
Members in the News

Welcome New Member Firms

ACEC/Alabama
Orion Engineering, Inc., Theodore

ACEC/Arizona
HilgartWilson, Phoenix
Hill International, Inc., Phoenix
Jerome E. McGetrick and Associates, Tucson
M3 Engineering & Technology Corporation, Tucson
McDougall Devcon, Phoenix

ACEC/Arkansas
B & F Engineering, Inc., Hot Springs

ACEC/California
Chris D. Poland Consulting Engineer, Walnut Creek
D. Woolley & Associates, Inc., Austin

ACEC/Colorado
Bristol Engineering Services, Golden
Fulton Engineering, Inc., Broomfield
Knight Piesold and Co., Denver
MDP Engineering Group, P.C., Denver
TAE Inc., Northglenn
Triax Engineering, LLC, Denver

ACEC/Connecticut
Solli Engineering, LLC, Monroe

ACEC/Florida
Applied Sciences Consulting, Inc., Tampa
Bay Area Sinkhole Investigation & Civil Engineering, LLC, Tampa
Devien Engineering, Inc., Lake Mary
TECS LLC, Tampa

ACEC/Georgia
Pont Engineering, Inc., Marietta

ACEC/Illinois
Bernal-Albano, Inc., Chicago

ACEC/Indiana
CET Incorporated, Portage
Loftus Engineering, Inc., Indianapolis

ACEC/Louisiana
APS Design and Testing, Baton Rouge
Compliance EnviroSystems, LLC, Baton Rouge

ACEC/Metro Washington, D.C.
Summer Consultants, Inc., McLean

ACEC/Minnesota
IMO Consulting Group, Minnetonka
Professional Engineering Services, Ltd., Wayzata

ACEC/New York
Calocerinos Engineering, PLLC, Liverpool
Geotechnical Systems & Structures, PE, PLLC, Mannsville
Hinman Consulting Engineers, New York City

ACEC/North Carolina
Three Oaks Engineering, Durham

ACEC/Ohio
KZF Design, Inc., Cincinnati
Resource International, Inc., Columbus

ACEC/Oklahoma
Marquardt Engineering, PLLC, Tulsa
STMS, Inc., Lawton

ACEC/Oregon
ESA Vqi1-Aqrimis, Portland
SEFT Consulting Group, Beaverton

ACEC/South Carolina
Hanna Engineering, LLC, Florence

ACEC/South Dakota
TSP, Inc., Sioux Falls

ACEC/Tennessee
Civil & Environmental Consultants, Inc., Franklin
GEO Services, LLC, Knoxville
Strategic Services Company, LLC, Maryville

ACEC/Texas
Blackline Engineering, Houston
Broadus & Associates, Austin
CMT Engineering Inc., Lubbock
Engineering & Terminal Services, LP, Houston
GarzaBury LLC, Austin
Johnson & Pace Incorporated, Longview
Nova Engineering, Inc., Carrolton
USA Professional Services Group, Inc., Dallas

ACEC/Utah
Cloward H2O, LLC, Provo
GEM Buildings, Brigham City
Hoj Engineering & Sales, Inc., Salt Lake City
S&S Worldwide, Inc., Logan

ACEC/Virginia
Precision Engineering, P.C., Salem
Rampart Engineering, P.L.C., King William

ACEC/Washington
Brien Commercial Engineers P.S., Tukwila

ACEC/Wisconsin
IIW, P. C., Hazel Green

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Calendar of Educational Programs

**JULY**

8 Sharpen Your Communication Skills! (webinar)
10 If You Haven’t Planned It, You Can’t Control It – 2014 (webinar)
15 Defining a Winning Social Media Channel Strategy (webinar)
16 So What if You Stamp or Sign It? The Meaning of Using Your Professional Seal (webinar)
17 The SEC Municipal Advisor Registration Rule: Does the Engineering Exemption Protect Your Firm? (webinar)
22 The New Wave of Engineering Firm Websites (webinar)
23 Creating a Social Media Policy (webinar)
24 Getting Out? Know Your Options (webinar)
29 Proposals that Lose: Anatomy of the Worst Proposal Ever (webinar)
30 Business Continuity Planning for Severe Weather and the Impact on Engineering Firms. Preparing for the Unexpected (webinar)

**AUGUST**

6 Business Development Training: Getting the Biggest Bang for Your Buck (webinar)
12 Are You Fighting Fires Instead of Managing Your Employees – Summer 2014 (webinar)
19 Seven Secrets of Project Management (webinar)
20 Ten Keys to Business Continuity Planning – 2014 (webinar)
27 Mergers and Acquisitions 2.0 (webinar)

**SEPTEMBER**

2 Seize the Day! Strategies for Email Success (webinar)
3 Find the Lost Dollars – Six Steps to Increase Profits in Architecture, Engineering and Environmental Firms (webinar)
10 Legal Issues Unique to Design-Build (webinar)
11 Strategic Planning – Don’t Waste Your Time! (webinar)
17 How Buyers Buy (webinar)
23 Ten Top Tips of Terrific Communicators (webinar)
25 Opportunities Lost: 16 Missing Things from Most

To sign up for ACEC online seminars, go to www.acec.org/education.

Additional information on all ACEC activities is available at www.acec.org.
Mergers and Acquisitions

New York State: Size and Economy Not Reflected in Deal-Making Totals

With its combination of size, economic activity and engineering challenges, one might assume that the state of New York—home to the most populous city in the United States and the third-largest in gross state product and total population—is a hotbed of industry mergers and acquisitions.

While more active than most, New York lags other states in deal activity. In 2013, we observed nine industry deals in which a New York-based firm merged or was acquired. This placed New York behind California, Texas, Florida, Colorado and harbor infrastructure and navigation-related projects.

ACEC Member GZA GeoEnvironmental (Norwood, Mass.) announced the acquisition of Laurel Oil & Gas Corp., a provider of project management and consultancy services to oil and gas operators.

ACEC Member Stantec (Edmonton, Canada) signed a letter of intent to acquire Federal Network Systems (FNS) (Ashburn, Va.), a subsidiary of Verizon Communications. FNS provides systems integration and communication, information technology and data security solutions.

New York State: Size and Economy Not Reflected in Deal-Making Totals

Recent ACEC Deal-Makers

ACEC Member KCI Technologies (Sparks, Md.) acquired Redding Linden Burr (Houston), specializing in mechanical, electrical, plumbing and energy services.

ACEC Member Hatch Mott MacDonald (Iselin, N.J.) acquired Coast & Harbor Engineering (Edmonds, Wash.), which specializes in protection and restoration of coastlines, development of port and harbor infrastructure and

navigation-related projects.

ACEC Member GZA GeoEnvironmental (Norwood, Mass.) announced the acquisition of Laurel Oil & Gas Corp., (Clarksburg, W.Va.), a provider of project management and consultancy services to oil and gas operators.

ACEC Member Stantec (Edmonton, Canada) signed a letter of intent to acquire USKH (Anchorage, Alaska), a multidiscipline design firm serving public and private sector clients.

ACEC Member Terracon (Olathe, Kan.) acquired RGA Environmental (Emeryville, Calif.), a provider of hazardous materials, industrial hygiene, safety, emergency response, litigation and environmental construction management.

In an interesting development, though not yet officially a deal, Balfour Beatty is reportedly considering a sale of ACEC Member Parsons Brinckerhoff (PB), only five years after acquiring PB for the equivalent of $626 million, according to Engineering News Record. Additionally, Balfour Beatty CEO Andrew McNaughton announced he is leaving the firm. He assumed the CEO role in January 2013.

ACEC Member Coffman Engineers (Seattle) acquired the assets of ACEC Member and electrical engineering and lighting design firm MOSS Engineering (Honolulu), which specializes in the design of power, communication, specialty architectural lighting and control systems.

ACEC Member Stantec (Edmonton, Canada) signed a letter of intent to acquire JBR Environmental Consultants (Salt Lake City), a full-service environmental consulting firm.

ACEC Member Jacobs Engineering (Pasadena, Calif.) entered into an agreement to acquire Federal Network Systems (FNS) (Ashburn, Va.), a subsidiary of Verizon Communications. FNS provides systems integration and communication, information technology and data security solutions.

To view the most up-to-date and “live” versions of the M&A heat maps accompanying this article and 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/JulyAugust2014.

Neil Churman is principal consultant of Morrissey Goodale LLC – a strategy, M&A and human capital solutions firm serving the A/E/C industry. Churman, who is based in the firm’s Houston office, can be reached at nchurman@morrisseygoodale.com.
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- **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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