

34 years; 10 observations

Mark Zweig lists some things he has learned about the A/E/P and environmental business over three decades.



Mark Zweig

EDITORIAL

We are still weak marketers. The number of firms in this business that cannot even refer to themselves by a single company name is appalling. Websites are horrible. Graphic design is terrible. Written copy is verbose.

The end of August marked 34 full years working in the A/E/P and environmental consulting business. I have been a student of the industry that entire time, but have also been an owner, employee, manager, board member and consultant to firms in this business. Not everyone knows this, but my design/build/development company (Mark Zweig, Inc. – No. 3,720 in the Inc. 500 | 5000 list of fastest-growing, privately held firms for 2014) is also a provider and purchaser of A/E/P and environmental consulting services. I have designed many houses down to the smallest detail, including furniture, colors, and even the art on the walls.

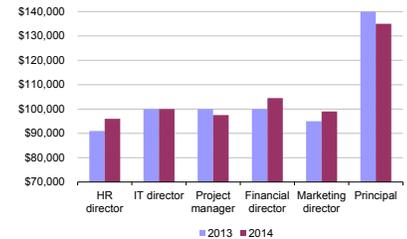
So, after all that, I thought I would share some of my observations of this business (and the people in it) with you:

- 1) This business gives people working in it a lot of job satisfaction.** People like seeing the results of their efforts in a tangible form. There is something about seeing something built – something big you can walk around on or in – that you were a part of planning or designing that you just can't get from doing anything else. I think it is one of the big draws that keeps people in this business, and coming back to it after they leave.
- 2) While architects and engineers are not necessarily all great**

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TRENDLINES

Ups and downs



A/E firm leaders have seen small changes in base salary across a number of titles this year, according to ZweigWhite's 2014-2015 Management Compensation Survey. The report finds that principals and project managers saw salary decreases from \$140,000 last year to \$135,000 this year, and from \$100,000 to \$97,500, respectively. Meanwhile, financial directors' and marketing directors' median base salaries increased from \$100,000 to \$104,000; and from \$95,000 to \$99,000, respectively. HR directors' base salary also increased from \$91,000 to \$96,000, while IT director salary remained steady at \$100,000.

– Margot Suydam, Director, Research

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businesspeople, they are getting better. The average firm in this business makes a 10-percent-plus pre-tax, pre-bonus profit, and a 20-percent-plus return on their equity. Not to mention the typical principal makes close to \$200K per year in total compensation.

3) We are still weak marketers. The number of firms in this business that cannot even refer to themselves by a single company name is appalling. Websites are horrible. Graphic design is terrible. Written copy is verbose. There's way too much self-laudatory everything. We have uncoordinated business development efforts with zero management. We don't understand search engine optimization, e-marketing, or social media. We don't understand what influences people to buy one thing or another. In spite of the best efforts of organizations such as SMPS (and they do a bang-up job), our marketing development lags most other industries.

4) Clients are (usually) a necessary evil but you cannot think about them in that way. Clients can be a real pain. They want what they want and they don't always know what that is. They don't know what you do. They call and expect an immediate response. They may not pay as fast or be as grateful as we think they should be. But the bottom line is: unless you are John Portman or Jonathan Segal, without them you are out of business. You have to make them feel important, serve them well, and keep selling them with a smile on your face, period – unless you want to find a new career doing something else.

5) Specialization is the easiest path to success. I don't know why higher education institutions don't teach this (unless the teachers themselves don't get it, which I suspect is the case). Clients pay higher prices, are more likely to seek you out in the first place, are more likely to listen to you, and you'll not be geographically hamstrung when you are specialized. Yes, some people will feel it restricts their creativity. But the best people get creative around the constraints of the industry, organizations or project types they work on... and succeed far beyond local generalists who still believe "good designers can design anything."

6) No one ownership structure is universally the best. The ESOP firms are usually zealots about it. The firms with a million owners think that

is best and motivates all. Sole proprietors think they need sole control for fast decision-making. Everyone is right – and everyone is wrong. And everyone is entitled to their opinions but no one ownership structure works for all firm types. Where they are in terms of their development, growth rate, needs for capital, etc., all affects what ownership structure makes sense.

This business gives people working in it a lot of job satisfaction. People like seeing the results of their efforts in a tangible form.

7) Everyone has costs they can cut out of their business. Everyone does. I can go in any company and look at the financials and in one day find hundreds of thousands, if not millions of dollars, of expenses that could be reduced. Do the owners and managers want to go through the pain of doing this? Most of the time, no. But it doesn't mean a purely rational person couldn't do it. Insurance needs to be bid. Underemployed principals and managers cut. Excess space carved off. Unneeded assets disposed of. There are costs that can be reduced.

8) Figuring out how to charge more is almost always more fruitful than figuring out how to reduce costs. It has always disturbed me that project management training seems to focus on over-managing a meager budget when if more time and effort would have been extended on the front-end of the project a higher fee and smaller scope could probably have been negotiated.

9) The people who work for you and with you are, have been, and always will be your biggest problem, AS WELL AS your best opportunity. That clichéd question every management consultant loves to ask: "What keeps you up at night?" can almost always be answered with: "People problems!" People don't always behave well. They drag their personal baggage into the workplace. They don't get along. They don't always do their jobs. They are unhappy with their jobs or with you as their manager or leader. They have different opinions on a course of action. All of these issues will always be there. How you respond to these problems will determine whether or not you can build an organization of wide ranging talents and skillsets that

can sustain itself over time and liberate you to move on to whatever else you would like to do with your life.

10) This industry WILL adapt and change along with the markets we serve.

It's interesting to me to see firms like **AECOM** buying a contracting company. Or architecture firms getting into marketing consulting. Or engineering firms getting into the software business. Or environmental firms going into the temp help business. I think it is great to see firms not putting themselves into such narrowly defined boxes as they once may have because it will be the only way we can adapt to rapidly changing client organizations. I have faith firms in this business can and will adapt (at least some of them) based on the evidence I'm seeing in our industry.

So there you have it. I could go on and on and fill up all these pages with my years of observations. Maybe someday I will put it all into a new book. But truth is, if I ever have time to write another book, I'd rather write a novel based on this business so we can glamorize the profession a little! We all need to sell the sizzle if we are going to influence young people to jump in. ▲▲

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TRANSITION

Succession plans: Why do you need them?

If you don't identify someone able, willing and capable to run the firm when you leave, how will you ensure the future you worked so hard to create will sustain?

By LIISA SULLIVAN
Correspondent

The absence of a succession plan can undermine an organization's effectiveness as well as its sustainability, according to the HR Council of Canada. There are many reasons to implement one, namely ensuring your company's staff can carry out missions, provide services and meet goals. Another reason to focus on succession planning has to do with the changing realities of workplaces. The impending retirement of baby boomers is expected to have a major impact on workforce capacity.

For instance, Teresa Howe in "Succession Planning and Management" identifies several emerging realities about the workforce in Canada, most of which also apply to the U.S.:

"Owners (who fail to plan adequately for ownership transition) will likely have difficulty attracting and retaining the next tier of leaders and owners."

- Vacancies in senior or key positions are occurring in numerous organizations, simultaneously, and demographics indicate there are statistically fewer people available to fill them.
- Baby boomer retirements are on the rise just at the time when the economy is growing and increasing the demand for senior management expertise.
- There is no emerging group of potential employees on the horizon as in past generations (i.e., baby boomers, women entering the workforce, large waves of immigration).
- Many organizations eliminated middle manager positions during restructuring in the 1980s and 90s and no longer have this group as a source to fill senior-level vacancies.

A succession plan ensures that there are qualified and motivated employees (or a means of recruiting them) at the ready. It also shows stakeholders your company's commitment to the future.

SUCCESSION PLAN IN ACTION: A REAL-LIFE SCENARIO. Chambers Group, Inc. (Santa Ana,

GOOD TO KNOW

When the time comes to sell their firm stock, more than two-thirds of owners (70 percent) would prefer to do so internally.

Source: 2014 Principals, Partners & Owners Survey, ZweigWhite: www.zweigwhite.com/p-2193-principals-partners-owners-survey-2014



Craig Neslage,
Executive VP and
Manager of
Operations,
Chambers Group,
Inc.

TIPS FOR SUCCESSFUL SUCCESSION PLANNING

The HR Council of Canada provides the following succession planning tips:

- **Secure senior management and board support for a succession planning process.** This gives employees and staff an understanding of how important succession planning is to the organization.
- **Review and update your succession plan regularly.** This ensures you reassess your hiring needs and determine where the employees identified in the succession plan are in their development.
- **Develop procedure manuals for essential tasks carried out by key positions.** Include step-by-step guidelines.
- **Adequate time should be provided to prepare successors.** The earlier they are identified, the easier it is on the individual to be advanced and on other employees within your organization who will know whether certain options are available to them.
- **Understand that your succession plan will be a unique reflection of your organization.** Succession plans are as different from each other as the organizations for which they are developed.

CA), a 100-person environmental consulting firm with five offices, is in its 36th year as a private corporation. The three owners are currently in their mid-to late-60s and have worked half of their careers or more in the company, in one capacity or another. In 2005, the majority owner, Sherman Smith, in the capacity of president thought it was time to bring in another level of professional management between him and his senior technical managers. That was basically the beginning of a succession plan.

"That worked out well because he could now focus on risk management and company growing pains and leave the daily business duties to the new VP of operations," says Craig Neslage, the executive VP and manager of operations.

In the ensuing years, technical department managers came and went, except one who steadily showed that he not only was a good technical manager, but was also a good business developer and a solid company man. By mid-2013, the support group managers of finance, human resources, and marketing had demonstrated that they were not only dedicated to the company, but were also very competent in their roles. Thus, transition development was taking place, rather than transition planning per se.

Toward the end of 2013, the organization chart was changed to two main branches led by an executive VP of corporate operations (Neslage) and an execu-

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A/E BUSINESS NEWS

ABI REACHES HIGH The last three months have shown steadily increasing demand for design services and the Architecture Billings Index is now at its highest level since 2007. The American Institute of Architects reported the July ABI score was 55.8, up noticeably from a mark of 53.5 in June. This score reflects an increase in design activity (any score above 50 indicates an increase in billings). The new projects inquiry index was 66, following a very strong mark of 66.4 the previous month.

As a leading economic indicator of construction activity, the ABI reflects the approximate nine- to 12-month lead time between architecture billings and construction spending.

The AIA has added a new indicator measuring the trends in new design contracts at architecture firms that can provide a strong signal of the direction of future architecture billings. The score for design contracts in July was 54.9.

“Business conditions for the design and construction marketplace, and those industries associated with it, appear to be well-positioned for continued growth in the coming months,” said Kermit Baker, AIA chief economist. “The key to a more widespread boost in design activity continues to be the institutional sector, which is starting to exhibit signs of life after languishing for the better part of the last five-plus years.”

Key July ABI highlights:

- Regional averages: Northeast (55.5), South (55.1), Midwest (54.1), West (53.5)
- Sector index breakdown: mixed practice (61), multifamily residential (56.5), institutional (53.3), commercial/industrial (51.2)
- Project inquiries index: 66
- Design contracts index: 54.9

GREEN CODE AGREEMENT The International Code Council, ASHRAE, the American Institute of Architects, the Illuminating Engineering Society of North America and the U.S. Green Building Council signed a memorandum to collaborate on the development of Standard 189.1, the International Green Construction Code and the LEED green building program. The unprecedented cooperation aims to create a comprehensive framework for jurisdictions looking to implement and adopt green building regulations and codes and/or provide incentives for voluntary leadership programs such as LEED.

SUCCESSION, from page 3

tive VP of technical operations (Mike McEntee) who both reported to the president (Smith).

The owners, in considering their options for retirement and succession, opted to sell the company to employees through an Employee Stock Ownership Plan (or ESOP). This option served several purposes. One was it gave existing employees a reason to stay and continue to grow the company. Another was that it provided the owners a cash-out and provided the employees a new form of additional compensation in stock ownership. The owners can now continue to help the company as members of the board of directors.

THE CONSEQUENCES OF NOT PLANNING. Ian Rusk, managing principal of Rusk O'Brien Gido + Partners, LLC, a financial advisory services firm for architecture, engineering, planning and environmental firms, and former ZweigWhite CEO, says that succession planning has never been more important than it is today.

The agreement outlines the development, maintenance and implementation of new versions of ANSI/ASHRAE/IES/USGBC Standard 189.1, Standard for the Design of High-Performance, Green Buildings Except Low-Rise Residential Buildings and the IgCC, which will be combined into one regulatory tool.

This agreement also endeavors to align the LEED program with the new code to ensure a streamlined, effective set of regulatory and above-code options for jurisdictions across the country.

“Architects have become the leaders in employing green building techniques, and the IgCC, a valuable regulatory tool, provides support leading to the creation of a sustainable, resilient built environment,” said Robert Ivy, AIA CEO.

“This agreement, which underscores the AIA’s dedication to sustainable design and construction, should lead to more rapid adoption of responsible approaches by designers, builders, developers and a host of other building industry groups.”

“This landmark agreement will leverage the unique strengths of each of the five partner organizations to deliver a coordinated, integrated suite of green building tools. An ANSI standard as the basis of a regulatory code to push the market and a rating system to pull the market higher,” said Brendan Owens, vice president, LEED and U.S. Green Building Council.

NONRESIDENTIAL INDEX DROPS FMI, a provider of management consulting and investment banking to the engineering and construction industry, released the 2014 Third Quarter Nonresidential Construction Index report. The NRCI shows a decrease of 3.3 points from Q2, but is still above the same time period in 2013. The cost of materials and labor continues to climb, weighing negatively on the index.

Other factors keeping the NRCI from rising are government entities continuing to reduce spending and avoid making final decisions on the highway bills, as well as private investors taking a passive role waiting for others to act first.

The good news is that the economy has passed the “survival” stage and currently occupies the “thriving” phase. Backlogs remain strong, with expectations of improvement and productivity up slightly. Thriving in the new economic climate will require companies to not just be the strongest or biggest, but also the most adept at dealing with change.

He cautions that firms that fail to plan adequately for ownership transition will face some tough decisions.

“Owners of such firms will likely have difficulty attracting and retaining the next tier of leaders and owners,” he says. “As a result, they will see an erosion of their equity value due to the limited internal market for their shares. They may be forced to sell externally (i.e., to another firm), but without a strong second tier of leaders, finding a strategic buyer could also prove challenging.”

Overall, succession planning requires you to think about your organization, its potential for growth and its future financial performance, the people you employ, and the personal objectives and retirement horizons of all parties, Rusk adds.

Every A/E firm has to deal with partners retiring. Having a documented succession plan in place and implementing it now will help ensure your firm’s success when the transition occurs. ■▲

TZL time machine

10 years ago

HEADLINES Editorial: More mergers and acquisitions | Entrepreneurship is alive and well | Focus on A/E Business Benchmarks: A/E firm profits declining; How can you respond to decreasing profitability?; Turnover rates remain high | Project Management Perspectives: Countering the three adverse laws of project scheduling | Case Study: Mackay & Sposito puts its accountability in writing | The importance of being yourself.

THE ZWEIG LETTER ran a series of articles under the topic of “A/E Business Benchmarks” in its Sept. 13, 2004 issue (#578) that tackled areas such as declining profitability and turnover.

The article drew statistics from the 2004 Financial Performance Survey of A/E/P & Environmental Consulting Firms to show that turnover remained high at 14.1 – just down slightly from the previous year. (See more stats from the 2004 survey in the Trendlines sidebar to the right).

According to the article: “High turnover often puts extra pressure on the remaining employees to pick up the slack. For firms looking for a way to reward—or pacify—these employees, incentive compensation may be the answer. But in times like these, offering extra rewards may seem to be far more difficult than it was a few years ago. Perks can be more than just rewards for the employees still with your firm, however, they can make a big difference for the potential new hire who’s comparing your firm to your competitor down the street.”

Another article in the series looked at declining profits in A/E firms, according to the 2004 Financial Performance Survey of A/E/P & Environmental Consulting Firms. While survey data indicate that most firms experienced revenue growth in 2003, the rate of growth remains slow and has been outpaced by increases in fixed costs, the article said.

In his editorial, Mark Zweig wrote about a renewed interest in the merger and acquisition market and a return to the optimism of the late 1990s and early 2000s.

20 years ago

HEADLINES Editorial: Support staff | Hiring from the government | SMPS: Change or die?

The Sept. 12, 1994 issue of **THE ZWEIG LETTER** tackled a trend that we see recurring from time to time in new staff announcements: New hires coming from former government jobs.

This seems to make sense. After all, the new person knows the inner workings of government agencies and, if your firm seeks work from the public sector, it sounds like a no-brainer.

However, the article titled “Hiring from the government” makes some very interesting points: They’re not self-starters. They’re the type of people who, at five o’clock, are up and out the door.

“Given two candidates who are equal, one from the government sector, and one from the private sector, I’d go with the person from the private sector,” Gordon Rose, president of **The Rose Group** (Fayetteville, NC), told **THE ZWEIG LETTER** back in 1994. However, Rose admitted there are exceptions for everything, citing a case of someone who came from U.S. Army Corps of Engineers and was successful at his firm.

Others said that hiring from the government is like everything else: some will fit in and some will not.

In his editorial, Mark Zweig wrote about disgruntled support staff (everyone from file clerk to the CFO), who complain they make less than technical people. However, Zweig wrote that the real issue is that support staff’s real gripes are about lack of prestige, lack of ownership opportunities and lack of job security.

TRENDLINES

6.5 Average backlog (in months)

79 Average collection period (in days)

39.4 Median return on owners equity (pre-tax, pre-bonus).

1.5 Debt to equity ratio taking into account all liabilities.

Source: 2004 Financial Performance Survey of A/E/P & Environmental Consulting Firms.

Are drones grounded for now?

The use of unmanned aircraft resides in a legal vacuum, and although there is an FAA policy statement against unauthorized use, enforcement is sporadic.

The U.S. Federal Aviation Administration (or FAA) has the power to regulate the U.S. airspace. However, there is no Federal statute currently prohibiting use of a drone (called an Unmanned Aircraft System, or UAS) for commercial use. There is a law requiring the FAA to develop such rules and regulations by end of September, 2015, and there is an FAA “policy statement” on the topic. But, a recent March 2014 court ruling held that an FAA policy statement is not binding on the general public. That decision is currently on appeal, so, for the next year companies that want to use drones in their business have some risk of drawing a citation from the FAA, but the fine would be appealable.

FAA POLICY STATEMENT. In early 2007, the FAA issued this official “Policy Statement” on UAS: “The current FAA policy for UAS operations is that no person may operate a UAS in the National Airspace System without specific authority. For UAS operating as public aircraft the authority is the COA [certificate of authorization], for UAS operating as civil aircraft the authority is special airworthiness certificates.” That sums up the FAA’s position, which has not changed since 2007. No commercial use of UAS without a special airworthiness certificate... and the FAA is only issuing very few certificates at present for manufacturers and for public bodies and universities for research. The only commercial exemption issued to date was for an oil company to monitor wildlife in the Arctic, not over a habitable or urban area. Therefore, it is not likely one would be issued for purely commercial purposes.

THE PIRKER CASE. In April 2012, the FAA issued a \$10,000 fine to an aerial photographer who flew a small drone over the University of Virginia while making a commercial video. The photographer (Raphael Pirker) used an inexpensive lightweight, remotely piloted Styrofoam glider to capture aerial footage of the campus as part of an advertisement for the university’s medical school. He was cited for violation of FAA regulations. Mr. Pirker appealed the fine on the basis that the FAA had no valid rules over “model aircraft” flight operations. He won the appeal with the administrative law judge ruling that the FAA could not discriminate against drones versus other forms of model aircraft, since the FAA doesn’t have any regulations (yet) that govern model aircraft as “unmanned aircraft” and since there is no difference in the law (yet) between a drone and a model aircraft. The administrative law judge ruled that small commercial drones should,



WILLIAM
QUATMAN

GENERAL
COUNSEL

for legal purposes, be treated as model aircraft, which are governed by a set of self-enforced 1981 guidelines used by hobbyists without the need for FAA approval. He stayed the decision while the agency appeals, so the final word is not yet written on that case. See, *Huerta v. Raphael Pirker*, NTSB, Docket CP-217, Mar. 6, 2014.

THE 2012 ACT. The FAA Modernization and Reform Act of 2012 was passed by Congress and signed into law by President Obama on Feb. 17, 2012. The Act addresses “unmanned aircraft” (but does not use the term “drone”) and it orders that the FAA safely integrate commercial drones into the civilian airspace by Sept. 30, 2015. The exact wording of the relevant section 332 (a) is: “Not later than 270 days after the date

See BILL QUATMAN, page 8

Many states have adopted resolutions recognizing the benefits of a thriving UAS industry in their state. In the meantime, use drones at your risk and seek legal advice for the state in which you want to fly!

Orchestrating leadership transitions

Think of leadership not as a single person but as a team of individuals, each with his or her own strength and talent.

For years I've watched firms struggle with leadership transition, particularly firms started by one or more principals with engaging personalities and a certain design flair. Who can ever replace the "name(s) on the door"? These people are known and loved by clients, staff and partners cultivated over the years. Can anyone ever walk in their shoes? Can those legacy relationships be successfully transferred?

The architectural and engineering professions are rife with stories of leadership transition failure. Successes are few and far between, requiring finesse and careful planning.

Many firms going through transition opt for acquisition or merger, transferring leadership to and adopting the culture of the acquiring, or stronger firm. Culture invariably enters the conversation – whether a new leader or group of leaders succeeds the previous generation or the firm is acquired or merged. Stakeholders ask, "What will this business be like going forward? Will I fit in? Will I be well served?"

Leadership transition isn't always wholesale. If a firm is led by a team of leaders who share common values and who are facile enough to step into another's role when there is a vacancy, there's a greater chance of seamless and successful transition. It's like a runner in a relay handing off the baton. I've seen more successes when a well-balanced leadership team is able to integrate one new leader at a time into the team.

Which raises the question, "Is a firm best led by a single leader, supported by a leadership support team, or should the leadership team be co-equals, as in a partnership"? I look at the design professions as needing several discrete talents to round out what it takes for a firm to be successful:

- **Creativity.** Whether in architecture or engineering, someone drives innovation, usually a conceptual person less driven by detail or business acumen. The most successful are those who have deep respect for the other talents and individuals required to offer a well-rounded and balanced approach to what clients need.
- **Salesmanship.** No firm can survive without selling work. I've seen far too many creatives who believe they could do their best work – if only the client didn't keep getting in the way. A salesman is constantly focused on the client's needs. That person is attuned to what it will take to make the client's business perform better.
- **Management.** Firms led by a strong creative are often lacking in tight management support and controls, migrating toward



Ed
Friedrichs

FROM THE CHAIRMAN

a successor who will maintain the status quo or simply manage things a little better. Some folks have a strong desire to create order and are more prone to doing things right than doing the right things – i.e., a manager vs. a creative. But to be successful, both are needed, and each must honor and respect what the other brings.

- **Business acumen.** Some people are just better at knowing how to make money. I almost think it's genetic, although in the nature vs. nurture argument, I usually find there's something in a person's background that has given them the insights and motivation to negotiate a favorable contract, manage the scope and work undertaken to fit the fee achieved, and maintain a close relationship with the client such that bills are paid on time. They tend also to be prudent about spending money, assuring the firm has the resources in facilities, tools and equipment to provide great service without gold-plating it.

See ED FRIEDRICHS, page 8

The architectural and engineering professions are rife with stories of leadership transition failure. Successes are few and far between, requiring finesse and careful planning. Many firms going through transition opt for acquisition or merger.

BILL QUATMAN, from page 6

of enactment of this Act, the Secretary of Transportation, in consultation with representatives of the aviation industry, Federal agencies that employ unmanned aircraft systems technology in the national airspace system, and the unmanned aircraft systems industry, *shall develop a comprehensive plan to safely accelerate the integration of civil unmanned aircraft systems into the national airspace system.* *

** The plan required under paragraph (1) shall provide for the safe integration of civil unmanned aircraft systems into the national airspace system as soon as practicable, but *not later than September 30, 2015.*” Within 18 months after the Sept. 30, 2015 plan is submitted to Congress, the FAA is to publish a “final rule” on small unmanned aircraft systems that “will allow for civil operation of such systems in the national airspace system.” So, it may not be until *March 30, 2017* that we have an FAA final and enforceable rule on use of drones. Industry groups are urging the FAA to expedite the approval process, citing a nearly four-year delay on its small-drone rule and a pent up demand for drones. At present, however, there is no Federal statute permitting or prohibiting use of commercial drones.

Many commercial companies are using drones despite the FAA’s Policy Statement, willing to risk a \$10,000 fine versus being left behind the market in use of drones. To date, the FAA has apparently issued only one fine for an unauthorized commercial drone flight, and that was reversed on appeal.

MODEL AIRCRAFT. Section 336 of Public Law 112-95, titled “Special Rule for Model Aircraft” is being cited by the FAA to prohibit use of commercial drones. This law essentially states, however, that the FAA cannot regulate *recreational use* of model aircraft under 55 lbs. By definition, the FAA is arguing that “commercial use” (rather than “hobby use”) takes the aircraft out of the exemption and pulls it within FAA regulation. The problem is, however, that there is no FAA rule or regulation on commercial UAS as of this date. FAA’s Advisory Circular, AC 91-57, dated June 9, 1981 says, “Do not fly model aircraft higher than 400 feet above the surface. When flying aircraft within 3 miles of an airport, notify the airport operator, or when an air traffic facility is located at the airport, notify the control tower, or flight service station.” This is not a federal law, but merely guidance for voluntary compliance. FAA guidance also says that model aircraft flights should be flown a sufficient distance from populated areas and full scale aircraft.

AIRWORTHINESS CERTIFICATES. The FAA issues “airworthiness” certificates to ensure that an aircraft design complies with the appropriate safety standards in the applicable airworthiness regulations. The FAA does not, however, require model aircraft operators to obtain these certificates. In a public statement in the Federal Register on Feb. 6, 2007, the FAA stated: “Under FAA policy, operators who

wish to fly an unmanned aircraft for civil use must obtain an FAA airworthiness certificate the same as any other type aircraft. The FAA is currently only issuing special airworthiness certificates in the experimental category.” The FAA has issued just five experimental certificates for unmanned aircraft systems for the purposes of research and development, marketing surveys, or crew training. So, it is very tough to get such a certificate out of the FAA.

TO DRONE OR NOT? Many commercial companies are using drones despite the FAA’s Policy Statement, willing to risk a \$10,000 fine versus being left behind the market in use of drones. To date, the FAA has apparently issued only one fine (to Mr. Pirker) for an unauthorized commercial drone flight, and that was reversed on appeal. FAA reportedly also wrote cease and desist letters to a Minnesota beer company and a Detroit florist to stop using drones in their activities. But the FAA learns about most violations only from reports in the media, tips from rival businesses or when companies film their drone flights and post them on YouTube, so the ability to police the use of commercial drones is very limited. The FAA has been sued by a Texas nonprofit search-and-rescue firm challenging whether the agency ban can extend to its operations. There may be other lawsuits pending as well.

In 2013, 43 states introduced 130 bills and resolutions addressing UAS issues. At the end of that year, 13 states had enacted 16 new laws and 11 states had adopted 16 resolutions. These laws range from use of UAS by law enforcement, to protecting against invasion of privacy, to authorized test sites, to emission of sounds or visible light, to funding studies about use of UAS. Many states have adopted resolutions recognizing the benefits of a thriving UAS industry in their state. In the meantime, use drones at your risk and seek legal advice for the state in which you want to fly! ▲▲

G. WILLIAM QUATMAN is an architect and general counsel at **Burns & McDonnell Engineering Co.** (Kansas City, MO). Contact him at bquatman@burnsmcd.com.

ED FRIEDRICHS, from page 7

I’ve never seen a single individual who embodies all of these talents in a balanced and effective fashion. In fact, the most successful models encourage creative conflict between them. Each person advocates strongly for his or her point of view, but each accepts that the other’s focus and point of view is necessary. They challenge each other until they achieve a balanced approach to everything they do.

As you approach leadership transition in your own firm, think of leadership not as a single person but as a team of individuals, each with his or her own strength and talent. Most importantly, these individuals must have a deep respect for each of the points of view necessary to experience leadership harmony and achieve excellence in our professions. ▲▲

EDWARD FRIEDRICHS, FAIA, FIIDA, is a consultant with ZweigWhite and the former CEO and president of **Gensler**. Contact him at efriedrichs@zweigwhite.com.

AWARDS

Best Firms winners speak out

By LIISA SULLIVAN
Correspondent

While it is an honor to receive the award, it's the internal benefits that each organization garners that makes the effort worthwhile.

ZweigWhite's "Best Firms To Work For" award recognizes employers in the architecture, engineering, planning and environmental industry for their superior practices, policies, people, and places that make great work environments and sets them apart from their peers.

The award is given in five categories: civil engineering, multidiscipline, environmental, structural engineering, and architecture. In this first of a two-part article, we asked for feedback from six best firm winners about the process as well as their placing.

Bill Straub, president and principal consultant, **All4**, Kimberton, Pa.

"It's an honor to be included on the Best Firms To Work For list, particularly since we are going up against our peers in the industry. Creating a 'best in class' environment to attract and grow top-quality consultants was one of the principals' original goals when founding ALL4 back in 2002. As we've continued to grow, ALL4 has kept this goal at the forefront of the organization and it is a big contributor to our overall corporate culture and our success."



Straub said that the application process was enjoyable and was also an exercise that ALL4 takes seriously, particularly gleaning feedback from the employee survey results. Management uses this feedback when developing corporate strategies and its 'Best in Class Department' uses it to collect new ideas, as well as gain insight into additional improvements employees would like to see implemented.

Kathleen English, managing principal, **English + Associates Architects, Inc.**, Houston



"I was surprised and a little unbelieving. For me, it is reassuring to know that even through all the challenges and stress of projects and sometimes clients, people still enjoy their experience here and hopefully look forward to continuing to improve."

English adds that while the process is very thorough and a little time consuming, it poses a great opportunity for them to review office policies and to recommit to follow and improve them as much as possible in order to build the kind of workplace they all want.

See each firm's rank and category in the next page.

Dana Harbaugh, president and CEO, **NAC|Architecture**, Seattle



"We're thrilled! Being a ZweigWhite Best Firm To Work For is in fact a specified goal in NAC|Architecture's strategic vision. It is critical for us to attract and retain great people, and being named on this list not only helps us do so, but tells us we are on the right path. We're especially proud of this."

Harbaugh, like other firm leaders mentioned here, agreed that the application process was easy, comprehensive and fair. He said that while it necessitates an investment of time, the benefits are substantial in terms of internal benchmarking and external recruiting.

See BEST FIRMS, page 10

ON THE MOVE

CALLISON HIRES Callison (Seattle, WA), a 1,000-person global architecture and design firm, announced that **Kyle Jeffery** has joined the firm as a design director in the Dallas office. Jeffery, whose career in design spans 29 years, will oversee projects in the department store studio.

"We are excited to have Kyle join the talented team of retail leaders in our Dallas office, which is rapidly expanding," said John Jastrem, Callison chairman and CEO. "Callison, the global leader in retail design, provides Kyle a great global platform to deliver his design expertise to our clients."

Jeffery joins Callison from **Gensler**, where he was a design director in the firm's Dallas office. The breadth and complexity of his work has made him a leader in retail design, fixture design, displays, merchandising, branding and storytelling. Jeffery has a clear grasp of what it takes to create a positive customer experience and satisfy

key financial drivers for success. His keen ability to experience the design process from strategy to ideation, design to implementation, and manufacturing to merchandising, greatly informs his designs and understanding of the different needs of all the retail channels.

"I am very excited to be part of the Callison leadership team in Dallas, a group I have respected for a long time," Jeffery said. "My approach is a perfect fit with Callison's design philosophy – to provide value to clients through creative and clever, business-driven design."

Jeffery began his career working for a millworker and understands shop fabrication. He then opened and ran a millwork shop for several years, designing and building furniture and custom cabinets. Jeffery joined **RYA Design Consultancy**, a retail design studio specializing in luxury retailers including Neiman Marcus, Liverpool and Bloomingdale's.

BEST FIRMS, from page 9

Henry Gallart, president, **SidePlate Systems, Inc.**, Mission Viejo, Calif.

"I was exceedingly pleased to see that our growing firm has become one of the prestigious Best Firms To Work For. We are especially proud of earning fourth place among our peers."

Gallart adds that the overall experience was easy and ZweigWhite staff was great in explaining all of the details. He does not really see any room for improvement in the process.

Amanda Piotrowski, Skunkworks project manager, **Davis Bews Design Group, Inc.**, Oldsmar, Fla.

"We were thrilled to have received this distinction again this year. Our focus is on maintaining our commitments to quality, excellence and value in our designs and construction documents, so while it is never our primary goal to chase such accolades, the fact that we are still able to obtain them while protecting our level of service is a byproduct in which we take great pride. At Davis-Bews Design Group, we consider ourselves a 'self-managing organization' – we provide our employees with the knowledge and tools to uphold our expectations with little supervision – and this award solidifies our confidence in our business model. We create value for our employees, who in turn create value for our customers."

Piotrowski says that the application process was easy and accessible. The amount of time and energy it required proved minimal, and the participation level expectations were much more reasonable and easily attainable than some of the other competitions they have entered in the past. Firm leaders waited for the results with great expectation. Piotrowski hopes that in the future, there is a way to reduce that time.

"It would make this already excellent process even better," she says.

W. Brant Aden, CEO, **Foresite Group, Inc.**, Norcross, Ga.



"We were very pleased and appreciative of the opportunity to participate in this nationwide competition. Personally, I was overwhelmed by the number of associates within our firm who eagerly participated and gave great feedback on so many areas of our business related to our culture, philosophy, technology, strategy, programs and benefits. The survey and the recognition has given us great insight into our business practices and has motivated us to continue to evolve our organizational structure."

Aden believes that grading and evaluating anything you are passionate about should be an enjoyable process. He says that the survey was exceptionally thorough, giving plenty of guidance to the intent and purpose of each block of questions. Although many participants did not use the space for comments often, he did appreciate the option on a majority of the questions. He did hear from some participants say that the surveys were very long and that they would have enjoyed having the ability to save their responses in progress and come back to it at another time.

RANKINGS

All4, 2nd, Environmental Services category. **English + Associates Architects, Inc.**, 3rd, Architecture category. **NAC|Architecture**, 4th, Architecture category. **SidePlate Systems, Inc.**, 4th, Structural Engineering category. **Davis Bews Design Group, Inc.**, 1st, Architecture category. **Foresite Group**, 5th, Civil Engineering category; 4th, Multidiscipline category.

WORTH

Firm valuation: The inside scoop

Many questions, including purpose, method, frequency, and whether to use an external accountant, are answered here.

By LIISA SULLIVAN
Correspondent

Valuations are done for multiple reasons that include investment analysis, capital budgeting, merger and acquisition transactions, financial reporting, and more. In short, business valuation is a process and a set of procedures used to determine what a business is worth. While this sounds easy enough, how these valuations are done varies widely, so getting your business valuation done right takes preparation and thought.

“Each year, we get an independent valuation that uses an income-based approach utilizing the discounted cash flow method.”

USING A COMMON FORMULA. Isabelle Adjahi, director of communications and investor relations, **WSP Global Inc.** (Montréal, QB), a 17,000-person management and consultancy services firm to the built and natural environment, says that in terms of market capitalization, the most common formula is to simply multiply the number of shares by worth.

More specifically, as per the last financial statements, WSP has 61,646,134 shares outstanding and at the time of this printing, WSP shares were \$36.61. Therefore, its market capitalization was CAD \$2.257 billion.

“Basically, these metrics can be used as a proxy for the public opinion of a company’s net worth and this is a determining factor in some forms of stock valuation,” Adjahi says.

However, she adds that there is also another way to evaluate the company. This involves doing the same work that financial analysts do.

“Financial analysts such as Dundee and Desjardins use a variety of methods, including investment philosophy, investment objectives, fundamental analysis or technical indicators, to figure out the stocks that offer a buying opportunity,” she says. “It’s a complex exercise that they explain in detailed research reports.”



Isabelle Adjahi,
Director of
Communications
and Investor
Relations, WSP
Global Inc.



Bradford Perkins,
Chairman and
CEO, Perkins
Eastman
Architects.



William
Egan, CFO, EHS
Support, LLC.

ASSET, MARKET AND INCOME

Haleo Corporation, the developer of ValueAdder, a business valuation software, advises that there are three fundamental ways to measure a business’s worth. They include: asset, market and income approach, as follows:

- **Asset approach.** This approach views the business as a set of assets and liabilities that are used as building blocks to develop the overall value picture. This approach is based on the so-called economic principle of substitution, which addresses this question: What will it cost to create another business like this one that will produce the same economic benefits for its owners?
- **Market approach.** As the name implies, this approach relies on signs from the real marketplace to determine what a business is worth. Here, the so-called economic principle of competition applies: What are other businesses worth that are similar to my business?
- **Income approach.** The income approach takes a look at the core reason for running a business – making money. Here the so-called economic principle of expectation applies: If I invest time, money and effort into business ownership, what economic benefits will apply and when will they occur?

EXTERNAL VERSUS INTERNAL VALUATIONS. At **Perkins Eastman Architects** (New York, NY), an 820-person firm, Bradford Perkins, chairman and CEO, explains that there are three different types of valuation. They include:

- 1) **Positioned to sell.** If a firm is for sale, the methodology used to examine value tends to be at least twice as much as the firm’s internal value.
- 2) **Transferring stock ownership.** Numbers are fairly priced to transfer stock ownership. Consultants are often used to determine how to establish a formula for internal transfer. On average, you take three years of net profit balanced against the net worth.
- 3) **Transferring to next generation.** If the firms need to transfer a significant amount of shares from one generation to the next, the price is discounted down to make for easy ownership.

“In our case, we are in the third category,” Perkins says. “As a first generation firm, we need to make share prices attractive to the second generation. We need to move a larger number of shares in the short term to facilitate the long term.”

See VALUATION, page 12

TRANSACTIONS

FIRMS MERGE **David Evans and Associates, Inc.** (Portland, OR), a 750-person professional services consulting firm, has expanded its presence in Southern California by merging with **Hall & Foreman, Inc.**, (Tustin, CA), an 85-person, multidisciplinary design firm.

Hall & Foreman has additional offices in Los Angeles, Santa Clarita, Temecula and Victorville, Calif. Upon closing the transaction Hall & Foreman became a wholly owned subsidiary of the parent company of DEA, David Evans Enterprises, Inc.

DEA Chairman and CEO Al Barkouli said, "The merger provides us with the opportunity to more than double our staff in Southern California. Hall & Foreman's strong presence in the greater Los Angeles area will complement our existing offices in Los Angeles, Ontario, San Diego and Santa Barbara, and enable us to offer our public and private clients additional resources and a comprehensive suite of services."

Hall & Foreman CEO John Hogan said, "Hall & Foreman provides engineering services to a variety of municipalities, public agencies, private builders and developers. Joining David Evans and Associates, Inc. will allow us to further strengthen our service offerings to our clients and will enable our employees to continue expanding their professional experience by working within the context of a broader team. This means increased resources for clients with infrastructure and development projects across Southern California."

Founded in 1961, Hall & Foreman provides a full complement of civil engineering services for projects as diverse as private development and public infrastructure. Serving public and private clients for more than 50 years, Hall & Foreman's services range from due diligence and conceptual studies to preliminary engineering, final engineering, construction support, as-built plans and GIS services. Hall & Foreman is ranked by industry authority ZweigWhite as a "Best Civil Engineering Firms to Work For" and is listed by ZweigWhite as one of the fastest growing architecture/engineering/planning and environmental consulting firms in the nation (#91 in the 2014 Hot Firm List).

For more than 35 years, DEA has provided clients with unique and innovative design services for transportation, water, land, energy and marine infrastructure systems. The firm's staff includes engineers, surveyors, hydrographers, planners, landscape architects and natural resources scientists. DEA has 20 offices in eight states and employs more than 750 people. DEA is an employee-owned corporation and consistently ranks among ENR's "Top 100 Pure Design Firms" in the United States.

STANTEC BUYS ADD INC. **ADD Inc** (Boston, MA), a 210-person architecture, interior design, planning, and branding firm, signed a letter of intent to merge with North American design firm **Stantec** (Edmonton, AB). The deal, which helps Stantec strengthen its capabilities in the buildings business line in the Eastern U.S.,

is expected to close this month.

"One of the strongest opportunities for growth in North America is its urban centers," said Bob Gomes, Stantec president and CEO. "ADD Inc's background in urban markets with projects in commercial development, workplace design, mixed-use housing, hospitality, retail, and academic institutions gives us a platform to continue growing in these areas across the country."

ADD Inc focuses on architecture, interior design, planning, and branding services. The firm serves multifamily housing, hospitality, retail, higher education, and corporate office developer and end-user clients. Some of the company's most notable projects include the Massachusetts College of Art's "Tree House" residence, with an exterior that features an organic mosaic of over 5,000 composite aluminum panels. The building is hailed as one of Boston's most innovative new high rises and named one of four finalists in the Americas by the Council on Tall Buildings and Urban Habitat's Best Tall Building Competition.

The firm also recently completed One Channel Center, a nearly 500,000-square-foot office building for State Street Bank in Boston's emerging Innovation District, and Gale South Beach, a boutique hotel in Miami that balances tropical Art Deco design with modern amenities, including a roof-top bar and pool, a restaurant and cocktail lounge, and a nightclub. The firm is currently working on Solitair Residences, Miami's new 48-story luxury apartment building located at the entrance to Brickell Citi-Centre in the Brickell Financial District.

"We have always put collaboration, innovation, and client service at the center of our design philosophy and practice. Joining with such a diverse, multidisciplinary company as Stantec affords us the opportunity to further our design vision while growing and better serving our clients," said Fred Kramer, president of ADD Inc.

Stantec has existing offices in both ADD Inc locations, with over 90 employees in each of its downtown Boston and Coral Gables, Fla., offices. ADD Inc brings Stantec's total count of U.S. staff to about 6,400 employees.

CORRECTION Due to a production error, a photo of John McLain, president, **Baseline Engineering**, appears incorrectly next to a quote attributed to Larry Lott, president and COO, **Harrison French & Associates** (pictured right) in a story titled "Hot Firm winners speak out," page 4, Aug. 18, 2014 (#1068) issue of THE ZWEIG LETTER. A corrected version of the article appears on the online version of THE ZWEIG LETTER in PDF format.



Larry Lott.

VALUATION, from page 11

Basically, it comes down to your need. Perkins says that external buyers are willing to pay more than internal buyers.

INVEST IN A THIRD-PARTY ANALYSIS. William Egan, CFO, **EHS Support, LLC**, a 66-person environmental, health, and safety solutions specialist that is all virtual with no offices, believes that it's important for firms to invest in an independent valuation from an outside CPA firm.

"Each year, we get an independent valuation that uses an income-based approach utilizing the discounted cash flow method," he says. "It uses historical data and detailed five

years of pro-forma (projected) financial statements. These numbers are scrutinized by our senior management team and outside CPA firm before they are fed into the valuation model to ensure a true and fair valuation is received."

Egan says they do not like simply doing what he called "the back of the envelope method" when it comes to doing firm valuations.

"We prefer to receive detailed, scientific information that is data driven," he says. "EHS does this once a year because circumstances change over time. It's worth every dime we invest to update our firm's valuation every year." ▲▲