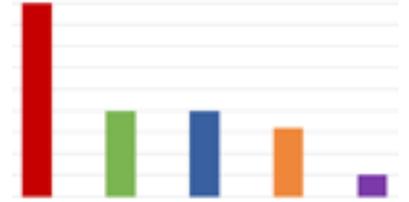


TRENDLINES

PM performance appraisals



Of respondents to Zweig Group's 2015 Project Management Survey who receive regular performance appraisals, 45 percent say a **president, CEO, or managing partner** performs the appraisals. **Department managers** and **other principals** account for another 20 percent each, while 16 percent of respondents are appraised by a **division manager**, and 5 percent by an **executive committee**. Totals sum to more than 100 because multiple answer choices could be selected.
— Vivian Cummins, research analyst assistant.

Get your offers accepted

Here are a few tips on ensuring that potential employees accept your job offer, and have a back-up in case they don't.

“One of the big questions every leader has to ask him- or herself is: ‘What is my REAL job as a leader?’”



Mark Zweig

EDITORIAL

It's a big problem today. You go through a long search process, interviewing multiple candidates for a difficult-to-fill-yet-critical position, develop what you think is a great offer, and then ultimately get a turndown. Everyone is disappointed and you are back to Square 1.

I've hired hundreds, if not thousands, of people over the years, not to mention I was trained as a recruiter when I first got into this business in 1980. Here are some things that you can do to improve your offer-to-acceptance ratio:

- 1) Treat every job candidate like gold.** Your job is to have every single person you interview wanting to work for your firm if you want them there. Stop thinking about your role as one of keeping bad apples out. Your real job is to have good apples wanting to come in. **YOU** want to be in the driver's seat on who works there. That means everyone has to be favorably impressed with the company and your people.
- 2) Before any face-to-face interviews are conducted, develop some recruitment “sales” material.** A nice video would be great where you interview current employees who tell you how much they love working there. But you also need simple benefit summaries, cost of living data for your area, a current org chart, some history of the firm, and a list of all your awards and accolades received, as well as some articles on the firm that may have appeared in print. You want to sell – you need “sales” material. This information can help keep you from getting a turndown.

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- 3) **Plan out every detail for your interview.** Who will the candidate meet? How long will they meet with them? What will they see? Who will they go to lunch or dinner with? Plot it all out and then tell everyone involved, including the candidate, what's going to happen. And if travel is required, make that easy. Help the candidate with flights or hotel arrangements. Make them feel comfortable and important so they don't turn down your offer, should you eventually make them one.
- 4) **Get all of the candidates' compensation details.** The way you do that is by asking very early on in the process "How much do you currently earn?" Then say, "How much of that is base versus bonus and overtime? Do you have any special benefits? Do you have a company car? If not, do you get an auto allowance? How much of your medical insurance do you have to pay? How much vacation time do you get?" Be direct. Don't ask what they want. Ask where they currently are now. Not knowing all of this will result in your paying too much or offering too little and getting a turndown.
- 5) **Stop being obsessed with why the job candidate wants to make a change.** Especially for candidates coming from outside recruiters – they may not **WANT** to make a change but may be open to the idea. Let them feel comfortable. Let them open up to you and don't put them on the defensive or you'll get a turndown.
- 6) **Get a good realtor involved.** Tell the realtor a condition of your referrals is they have to tell you what's going on inside the candidate's head. You need to hear the discussion from the car ride to look at houses or the phone calls they have before and after their visit. Not paying attention to the candidate's housing needs and letting them fend for themselves will nearly always result in a turndown.
- 7) **Look for a way to talk to the spouse.** You have to know their needs and where their head is or you'll likely get a turndown. Find a reason to call them. Tell the candidate that this is just part of your normal hiring process. You may learn a lot and find out about issues you can address like special school or healthcare needs that you wouldn't know about otherwise.
- 8) **Write a good offer.** Generally, any offer that isn't a 15 percent increase in base salary or better will probably get a turndown. Relocations may cost you even more. Lower cost of living is rarely considered by job candidates. And rarely will people make a lateral move salary-wise even if your bonus is a whole lot better.
- 9) **Don't give the candidate forever to make their decision.** Shorter decision times are better (48 to 72 hours). Seven days, 10 days, or two weeks is way too long and will nearly always result in a turndown.
- 10) **Ask the candidate how they will respond to a counteroffer, should one be made (and it probably will be!).** Then deliver the counteroffer speech. They have been "unfaithful" (when they talked to you about another job opportunity). "Things will never be the same." The whole point is to let them know accepting a counter offer would be a mistake and that they have held a gun to their employer's head and caught them off-guard so don't trust any promises made in that kind of a situation.
- 11) **If the candidate tells you they'll accept but want to wait until they turn their notice in to their boss, discourage that kind of thinking.** They are setting themselves up for a counter offer, and you don't want that. Tell them you would feel they were a lot more decisive and committed if they formally accepted your offer **THEN** told their current employers they are leaving.
- 12) **Always get a backup candidate.** No matter how good it looks – do it. You may need it. And if you don't need a backup you will have the confidence to tell your number one candidate what they need to hear in case they try to get too greedy during the offer stage.
- 13) **If someone turns down your job offer, ask them why.** If they say the pay is too low ask what they expected. Ask them if you got that pay for them would they accept immediately? You never know ... it may be a minor problem. Don't make assumptions about why someone turns down your job. You could very well be wrong!

Do **ALL** of these things and you will increase your offer-to-acceptance ratio. I'm certain of it!

MARK ZWEIG is founder and CEO of Zweig Group. Contact him at mzweig@zweiggroup.com. ➤

TALK TO US

What management topics would you like to see covered in 2016? Email abennett@zweiggroup.com.

Take your advice from Mark Zweig to-go.

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Published continuously since 1992 by Zweig Group, Fayetteville, Arkansas, USA. ISSN 1068-1310.

Issued weekly (48 issues/yr.). \$475 for one-year subscription, \$775 for two-year subscription.

Article reprints: For high-quality reprints, including Eprints and NXTprints, please contact The YGS Group at 717-399-1900, ext. 139, or e-mail TheZweigLetter@TheYGSGroup.com.

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Recruiting the culture

Getting the full feel of a client – sometimes by visiting the firm – helps recruiters sell the firm to job candidates.



Randy
Wilburn

RECRUITING NOTES

One of the things that I do as a retained recruiter is visit our clients to learn more about them, meet with hiring managers, and get a better feel for their culture. I'm always amazed by what I see when I go on these visits. Some offices and staff are what I pictured and some are not.

I recently visited with an architecture firm located in the heart of Detroit. I was adamant about visiting this client because not only do they have a tough position to fill but they are also in a location that presents many challenges for some when it comes to relocation – Detroit, Michigan!

I must say the trip – a quick 24 hours – was well worth it. We used Uber from our hotel to their office in the pouring rain and we ran to the entrance of the building, which is surrounded by a bunch of really cool older buildings in downtown Detroit.

“A good recruiter needs every tool available to sell an opportunity to a candidate ... Everything we experienced was memorable and it helped us to form a narrative in our heads that we would eventually share with any candidate that we come across.”

The lobby, which we found out later was designed by our client, was modern with clean lines and a lot of warm wood. We took the elevator up to visit our client and, once again, were pleasantly surprised by even the interior of the elevator – our client had designed that as well. We finally got to our client's floor and my jaw dropped when I saw their workspace. It had an open layout with some cool design elements throughout, including burnt wood paneling, a unique commuter bike rack that you would only find in an architectural office, and a roof deck to die for.

I saw all this before my colleague and I even sat down with our client to meet with them. If I had never visited the office I would not have a strong feel for the office space, the company, or the people who work there. All these things matter in the grand scheme of things.

A good recruiter needs every tool available to sell an opportunity to a candidate. Now, it helps that our client brought in several talented people for us to meet with to get a flavor for the people and they also gave us a quick tour of downtown Detroit with lunch included. Everything we experienced was memorable and it helped us to form a narrative in our heads that we would eventually share with any candidate that we come across.

Too many firms hire recruiters and send them a job description and scream “Fetch!” I may be oversimplifying, but it's how things go down with many firms, hiring managers, and recruiters in this industry. I see it all the time. We've even had firms ask us why we need to come out and visit with them.

The bottom line is that we know our industry, but we don't know you!

A successful recruitment relationship needs total buy-in by all parties. On the recruiting side of things, I find it hard to sell something that I've never seen, touched, or tasted. It is fairly straightforward and seems to make sense as I write this, but we encounter so many firms that fight us on this issue.

We've actually turned away work from firms that want us to recruit for them but don't want to invest the time necessary for us to visit with them and learn more about their culture. Our firm handles all manner of management consulting including strategic planning and we interview a ton of employees, something that could probably happen online or over the phone, but the body language is such an important component to developing trust and getting people to warm up to you. We always meet in person with our clients to improve our ability to effectively help them.

So back to our client in Detroit. We spent the day with them and I have to say that it was time well spent. We could have easily done a video conference and maybe met some of their

See RANDY WILBURN, page 4



RESOURCES

FINDING THE TOP TABLETS FOR ENGINEERS Design firms are slowly moving toward mobile design tools, although this transition is not as fast as the transitions in other manufacturing industries. While computing power is no longer an issue with mobile devices, the ability to view and design on a small screen will always hinder detailed design tasks. However, the improvements that are being made continue to entice design firms as well as professionals and encourage them to transition to these devices.

More and more power is coming in yet smaller and lighter devices. Even the latest, thinnest laptop, such as the Lenovo ThinkPad X1, can look like a monster compared to the company's recently introduced tablet/keyboard combo, the Yoga P40. The power and portability of some of these new devices are leading many engineers to question the need for super power in a box that stays in one place or their laptop — which suddenly looks large and feels heavy. Maybe a super tablet or convertible would be good enough most of the time?

How Mobile Is Mobile?

While the “mobile” label can be applied to any computer that can be deemed portable (up to and including 20-pound behemoths with 19-inch screens and power supplies as big as bricks) let us look at what is truly mobile and functional enough for engineering. For this article, mobile means devices you can pick up and carry over to show a coworker something without breaking your back.

Power and mobility such as this is offered by some of the new, larger tablets and a fast-growing class of mobile hardware,

such as the tablet/keyboard combination or “convertibles,” currently being led by the Microsoft Surface Pro 4.

Can a Tablet Be Your Only Computer?

The transition to tablets for engineering and designing can be impeded by the size of the tablet screen. For example, the iPad Air 2 with a 9.7-inch (diagonal) screen may be fine for viewing and mark-up, but you couldn't work on it all day. Tablets are getting bigger, however. The iPad Pro has just burst onto the scene with a 12.9-inch screen. The Panasonic FZ-Y1 tablet is the biggest of all in this article with a 20-inch screen and could be conceivably be looked at all day—though for most full-time CAD and CAE use, a single screen would be considered a graphical downgrade. A tablet should at least include a docking device to which larger or multiple screens could be added. Still, we will include them here for all the following advantages:

- **Rough sketching.** Freely sketching to communicate with a customer or to start a design idea such as a product shape, color, etc. or sketching floor plans in the architecture, engineering and construction industry.
- **Annotations and mark-up.** Annotating an existing design to make changes to the detailed design later or to add material or function-based notes on a machined part.
- **Calculation.** Calculating wall thickness of parts, drilling location from edges or wall thickness, measuring perimeter, area, etc.
- **Collaboration.** Collaborating and communicating within teams or offsite with suppliers and on the manufacturing floor to

relay design changes quickly.

- **Reuse and overlaying.** Design firms of all sizes also report that they are able to replace and reuse components from a library of parts into assemblies during design meetings. Overlaying features in assembly to check with new or existing parts in assembly has also has proven productive for many designers.

You Can Touch This

Mobile tablet features such as touch and a pen or stylus come in handy to navigate through the design. Over time, these features have been introduced on laptops that may or may not have a detachable tablet attached to a keyboard.

Where Are the Apps?

Most CAD vendors have released viewers, sketching and light design-editing applications on the popular iOS (iPad/iPhone), Android and Windows platforms. CAD vendors have to work with the limitations imposed by the hardware performance and software of Apple's iPad that restricts the free release of productive features. On the other hand, the Android platform caters more toward a phone-based operating system. It may surprise engineers to learn that the iOS platform ranks highest in the number of light design applications released. The Android applications are currently only at 70 percent of the number of iOS applications.

Most heavy-duty engineering applications, such CAD and CAE, are still based on Microsoft Windows.

Source: Engineering.com

RANDY WILBURN, from page 3

employees that way, but it's honestly not the same. In my mind, I can see and walk any candidate through our client's office, the type of employees working there, and the general surroundings around the office building. All these attributes, which we've experienced firsthand, help us to have a successful recruiting experience where we can compel candidates from both near and far to consider joining our client's firm.

“If you want to get serious about your recruiting in 2016, you have to pull together a better game plan when it comes to finding the best people. If you are going to work with a recruiter make sure they know you inside and out and can articulate your firm's culture and values as well if not better than you can.”

Recruiting is certainly an art and to be successful you must master every aspect of the recruiting process including knowing your client and their culture inside and out. This will never happen with just a phone call, an exchange of contracts or proposals, and LinkedIn.

There is so much more to it.

If you want to get serious about your recruiting in 2016, you have to pull together a better game plan when it comes to finding the best people. If you are going to work with a recruiter make sure they know you inside and out and can articulate your firm's culture and values as well if not better than you can. If you need help or guidance in this area I'm here to listen. Let us know what we can do to help make your recruitment and retention goals a reality in the coming year.

Mark your calendar too! We will be doing a “Become a Better Recruiter” seminar for the design industry this upcoming year. Visit ZweigGroup.com for dates and more information on all our seminars and events. ▀

RANDY WILBURN is director of executive search at Zweig Group. Contact him at rwilburn@zweiggroup.com.

The sustainable future

Industry experts weigh in on how sustainable design, processes, and products could affect the A/E industry in 2016.

By LIISA ANDREASSEN
Correspondent

As clients become more sophisticated, the definition of sustainability will continue to expand beyond the tangible buildings and materials. Clients are more aware of the risks and costs involved with development, and as a result sustainability has grown to include minimizing risk and reducing long-term costs.

So, what does the year ahead look like for sustainable products and processes? We asked a few design leaders from large, medium, and small firms to weigh in.

LONG-LASTING, INTELLIGENT, AND VIABLE. Simone Brogini, a senior project architect with **Kleinfelder** (San Diego, CA) – a 2,000 person global science, architecture, and engineering consulting firm – says that there is a stronger emphasis on designing buildings that are resilient and adaptable as climate change data becomes more readily available.

“Mitigating the effects of climate change, especially for municipal and government agencies, means minimizing long-term financial vulnerabilities, as well,” he says.

As technology improves, Brogini says that clients expect a higher level of work through the implementation of building information modeling during the design process and the incorporation of virtual design and construction during the construction phase. All the while, lean principles will be incorporated in the project to reduce its duration without impacting the project’s quality.

“The definition of sustainability is becoming all-encompassing, and designers have a vast amount of technology and tools at their disposal to produce sustainable buildings that are long-lasting, intelligent, and financially viable.”

BIM allows designers to provide clients with a vast amount of information throughout the design and construction processes, including material specifications and quantities.



“When used with energy modeling software, BIM models can provide design guidance to improve energy performance,” Brogini says. “They can also move to 4-D BIM when information such as scheduling is intelligently linked to the 3-D model.”

With this added information, 3-D models are more frequently becoming part of projects’ deliverables. Following construction, these models are incorporated into clients’ facilities operations using facility management software.

This workflow improves productivity throughout design and construction and provides the necessary tools for clients to run their facilities efficiently, which ultimately improves sustainability, especially in the financial sense.

“The definition of sustainability is becoming all-encompassing, and designers have a vast amount of technology and tools at their disposal to produce sustainable buildings that are long-lasting, intelligent, and financially viable,” she says.

GETTING GREENER WITH DATA. Tracy Jordre, project architect and sustainability lead at **JLG Architects** (Grand Forks, ND), a 101-person firm, outlines three forecasts that top her list:

1) **Green Building Performance Data.** Now that this data is required to be disclosed for commercial

See FUTURE, page 8



GOOD TO KNOW

This special four-page section can be removed from TZL for easy reference and sharing!

SPOTLIGHT ON: **Con**



Defunct mall to become community park

Instead of demolishing an old, unused mall, one community is hoping to repurpose it into a spectacular mixed-use town center.

By Liisa Andreassen
Correspondent

California is about to get the world's largest green roof. The Vallco Shopping Mall, in the heart of suburban Silicon Valley, is a classic example of a dying shopping center. So, developers are starting over. The mall and the sprawling adjacent parking lot could be turned into a new, walkable neighborhood, topped with the largest green roof in the world.

"It's not easy to be a shopping mall these days," says Reed Moulds, managing director at **Sand Hill**, the developer behind the \$3 billion redesign. "We've done some research, and we haven't found a single shopping mall that's started construction since 2006. This is clearly a dying model that's on display at Vallco."

After months of community meetings, the developers realized they had to take a completely different approach to the mall – not just knock it down and add new stores. The new design, if it's approved by the city of Cupertino later this year, will have a downtown-like street grid with town squares for farmers' markets and will be lined with stores, offices, and hundreds of apartments.

All of this will be wrapped inside a 30-acre park with running trails, vineyards, orchards, and gardens.

"For us, the challenge was how do we bring to the community the town center they've wanted for decades, revitalize retail at this location, but also meet their desire for a model for sustainable growth and a desire for open space," Moulds says. "The 30-acre community park and nature reserve was what they've always wanted."

"LEEDING" THE WAY. Enter Architect Rafael Vinoly and **Olin Landscape Architects**, who have unveiled designs for the world's largest green roof. This community park in the sky is sandwiched between Apple's Infinite Loop headquarters and the spaceship-like Apple Campus 2. This ambitious project, to be called the Hills at Vallco, will transform the failed shopping mall into a sustainable and walkable LEED Platinum mixed-use community.

Without a doubt, the green roof is the project's crown jewel, an unprecedented engineering feat that's at least twice as big as anything attempted before. The elevated community park will include 3.8 miles of walking and jogging trails along rolling hills, orchards, vineyards, meadows, organic gardens, children's play areas, and a sanctuary for native fauna and flora.

The sustainable green roof will help the Hills at Vallco achieve LEED Platinum certification by growing na-

necting

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tive, drought-tolerant and climate-responsive plants; reducing the building's energy demands with natural ventilation and insulation; improving air quality; and counteracting the heat island effect. Recycled water and recaptured rainwater will be used to irrigate the park.

At street-level, the new mixed-use neighborhood will feature a walkable and bikeable downtown street-grid anchored by two town squares. Parking will be primarily tucked underground, and a transit center could be built at the shopping center. The 15-block street-grid will be filled with 625,000 square feet of retail space, 2 million square feet of office space, and 800 residential units. The residences include 680 market-rate apartments, 80 affordable apartments, and 40 apartments for seniors. The family-friendly development will include plenty of restaurant and entertainment options, such as an AMC movie theater, ice rink, bowling alley, and fitness club. The town square might also be used to host farmers' markets and outdoor movie nights.

“For us, the challenge was how do we bring to the community the town center they’ve wanted for decades, revitalize retail at this location, but also meet their desire for a model for sustainable growth and a desire for open space.”

Sand Hill plans to contribute \$40 million worth of amenities and funding to local school districts, including:

- For K-8 students, a new 700-student elementary school, replacing modular classrooms with permanent classrooms, expanding school recreation fields, and a \$1 million endowment for the Eighth Grade Yosemite Science Program.
- For high school students, a new 10,000-square-foot Innovation Center within the Hills at Vallco. This flexible, mixed-use space will serve as an incubator space for students throughout the district and will spawn creative endeavors including student-led businesses and will serve as a hub for the district’s work-based learning initiatives. It will also be a place where students can build projects, display art, perform, and host robotics competitions. ▀

PROFILE

Crowdfunding connection

Crowdfunding sites such as Kickstarter and Indiegogo have been used to launch entrepreneurial engineering products, including 3-D printers and drones.

By Liisa Andreassen
Correspondent

You’ve likely heard the term “crowdfunding,” but how does it fit into the world of AEC? Over time, people have found different ways to fund the construction of a building ranging from deep-pocketed patrons to passionate philanthropists. However, as our world continues to get more connected with the aid of technology, funding projects is no longer limited to individuals – crowds are forming, too.

ENTREPRENEURIAL ENGINEERS TAKE NOTE. Crowdfunding has altered the landscape for the entrepreneurial engineer. For example, a quick review of Kickstarter or Indiegogo reveals 3-D printers, drones, solar road panels, and thousands of other engineered and could-be engineered products that might be produced with enough solicited money.

“Kickstarter has raised more than \$1.5 billion for companies and projects,” says Jason Best, cofounder and principal of **Crowdfund Capital Advisors** and entrepreneur-in-residence at the University of California, Berkeley’s Center for Entrepreneurship and Technology. “There are close to 80,000 projects that have been funded on Kickstarter, and there are currently more than 8,000 live projects today.”

The traditional path of raising money also still exists. In fact, crowdfunding sites make inventors more visible to distinctly non-crowd investors.

“Venture capitalists spend a lot of time trolling through Kickstarter, Indiegogo, and the other reward-based sites, looking for that next cool thing,” Best says. “As much as the little guy seeks big money, big money seeks the inventive little guy before he gets too expensive.”

See CROWDFUNDING, page 8

A NEW INDUSTRY CROWDFUNDING PLATFORM EMERGES.

Make Architecture Happen is a crowdfunding platform designed for architects, designers, and industry affiliates who want to raise money to make their most ambitious projects a reality. Architects and designers can create fundraising projects that tell their story and pitch their project to a “crowd” of donors in exchange for a reward or product or to collect donations.

Make Architecture Happen is also a place to discover new projects, learn about architectural design, and show your passion for architecture by getting involved.

People contribute to projects for many reasons, but usually it’s because they want to be involved in what the project is doing or because they want the perks or rewards that are part of the project.

Makearchitecturehappen.com is free to join and explore.

FUTURE, from page 5

buildings in more than 30 major U.S. cities, it will be easier to see how buildings are actually performing and what technologies are making the greatest impact.

"I am hopeful that as the conveyance of this data becomes more standardized, that more building owners will understand the benefit of releasing this performance information to the design and construction industries and will start to provide the data on a voluntary basis, regardless of building type," she says.

- 2) Green conversion of existing buildings.** Performance data and case studies of conversions are now readily available and have gained the attention of even some of the biggest doubters. For example, it's now relatively easy to provide calculations to prove to owners and users how their buildings can perform more efficiently as well as to provide study findings of healthy building environments and how that increases work performance.
- 3) Growth of solar power technologies.** This particular area is on the verge of having a profound impact on how solar energies are thoughtfully integrated into building design. With the emergence of transparent solar cells, although not affordable for most projects, the ability to convert standard windows into solar concentrators while having no visible impact on the building is a game changer. When these will be affordable in the marketplace has yet to be seen, but fingers are crossed for 2016.

STORMWATER SOLUTIONS. Julia Algeo, senior principal and project manager with **Maser Consulting P.A.** (Red Bank, NJ), a 600-person multidiscipline firm, says that one sustainable design process that is becoming the design method of choice in the field of stormwater management are bio-retention facilities.

CROWDFUNDING, from page 7

Of course, not every idea comes to light. In fact, only 40 percent of the projects that make a run on Kickstarter succeed. But this, too, says Best, is a kind of success.

"Frankly, for the 60 percent that fail, what an incredible opportunity," he says.

"As much as the little guy seeks big money, big money seeks the inventive little guy before he gets too expensive."

ENVIRONMENTAL PROJECTS ALSO BENEFIT. The following three projects are examples of recent crowdfunding successes:

- **Little Sun Charge:** A combination solar phone charger and light designed by Danish-Icelandic artist Olafur Eliasson in collaboration with engineer Frederik Ottesen. The slender, square device, faced with a photovoltaic surface on one side and a luminaire on the other, can fully charge a mobile phone in five hours. Based on the premise that affordable light sources beyond daylight should be available to the masses, Eliasson and Ottesen envision supplying off-grid communities with Little Sun Chargers. This effort builds on the pair's initial project, the Little Sun solar-powered lamp, of which

"These facilities are being incorporated into our designs to provide groundwater recharge and water quality treatment, simultaneously with flow reduction, as a more sustainable way to manage stormwater," she says. "And, with land at a premium, bio-retention facilities that can meet all of the stormwater management requirements all in one feature, without having many separate systems, are a perfect solution."

Linda B. Gumeny, director of design for **Great Ecology** (New York, NY), an 18-person integrated science and design firm, believes that green infrastructure will be incorporated in all new projects – rain gardens, constructed wetlands, stormwater detention facilities, and permeable pavements.

"I hope cisterns (above and below ground) become ubiquitous particularly in arid and drought stricken areas, but also in our more temperate climate. I think for them to become more acceptable, they need to be multi-functional and attractively designed. I hope to see a continuing awareness of ecological functionality as a driver in site development, in concert with aesthetic considerations, to make the best use of our limited land," she says.

She also hopes to see:

- **Urban water collection.** High volumes and velocities that can be captured and slowed down with many small facilities, some along the streetscape. These can also combat heat island effect in combination with street trees. "I think parks are a great place for the larger, end-of-the-line stormwater facilities, which would also be a park amenity," she says.
- **Rehabilitating outdated and non- or low-functioning stormwater facilities** for bioremediation and/or reductions in velocity and volumes. This can be done in suburban communities and commercial/industrial properties. These properties can also include smaller stormwater facilities (as with the urban stormwater collection) along the line of the system (i.e. rain-gardens on individual residential properties). ▾

147,000 units were sold to communities lacking access to electricity. Their goal was to raise about \$56,000. They ended up raising more than \$260,000.

- **Smog Free Tower:** Designed by Dutch artist Daan Roosegaarde and described by the project team as being the largest air-purifier in the world, the small structure resembles a mechanical ventilation shaft clad in thin metal louvers. It uses the same ionic purification technology found in healthcare and portable home devices to remove ultra-fine smog particles from the air. The tower creates zones of purified atmosphere in outdoor public spaces, so that citizens of chronically polluted cities like Beijing can experience clean air. The campaign raised about \$170,000.
- **Steam Generator:** Bjarke Ingels and Jakob Lange of Denmark-based architecture firm **Bjarke Ingels Group** launched a crowdfunding campaign for what they're calling the world's first steam-ring generator, a reinterpretation of the industrial smokestack for the eco-conscious city of Copenhagen, Denmark. The tower is intended to emit steam rings with every ton of carbon dioxide released from the facility. Given the challenge of achieving a smoke-ring phenomenon on an urban scale, the designers have employed combustion engineers and rocket scientists to work on the project. A successful crowdfunding effort enabled the design and construction of a few working prototypes. The campaign raised about \$26,000. ▾

Court rulings expand design firm liability

2 Superior Court decisions might affect firm liability in Pennsylvania; awareness of these cases and potential impact could save firms trouble.



Rob
Hughes

GUEST
SPEAKER

Pennsylvania's Superior Court issued two opinions in recent months that might have a significant impact on design firm liability. Notably, this court has great influence over Pennsylvania's entire judicial system, including the courts of common pleas – the venue for most civil litigation, including suits against design firms based on doing work in Pennsylvania.

DESIGNING TO CODE MIGHT NOT PROVIDE ADEQUATE PROTECTION. The first opinion, *Truax v. Roulhac*, involved a bodily injury claim sustained by a pedestrian struck by a car as she walked along a sidewalk outside a local bar. The driver, intoxicated at the time of the accident, was trying to park near the bar when her car jumped the curb. The pedestrian filed suit against the business owner for damages related to her injuries.

The trial court dismissed the claims against the bar, stating: "No Pennsylvania court has held that a business owner was negligent for failing to install vertical bollards in addition to horizontal wheel stops." The standard of care was met because the design "complied with all applicable building codes and zoning ordinances, and to impose a duty upon property owners above and beyond these standards would defeat the purpose of having such standards in the first place."

The Superior Court disagreed and found the bar owners potentially negligent. The court's rationale was that because the building protruded slightly at the site of the accident, pedestrians were left exposed to the potential threat of a car jumping the curb. Thus, the owner provided inadequate protections and was obliged to take additional precautions. The court went on to note that the adequacy of the precautions was not definitively established by showing that the design met applicable building codes. Simply put, more was required of the building owner (and, by extension, of any design engineer working on plans for this property).

Although this case did not involve a design firm, the opinion could leave design engineers exposed to significant liability, even when their design meets all applicable codes. The designer must be able to proactively identify potential areas of "greater concern" for safety and design above and beyond the standards at these locations (while presumably convincing the client to pay for these additional costs).

"Design firms operating in Pennsylvania might want to check with their legal counsel on the feasibility of requiring the owner to include a waiver of direct claims against the design team in their prime agreement with the contractor. This might help limit your direct exposure."

RULING ERODES PENNSYLVANIA'S ECONOMIC LOSS DOCTRINE. The second opinion – *Gongloff Contracting L.L.C. v. L. Robert Kimball & Associates, Architects and Engineers Inc.* – further erodes Pennsylvania's interpretation of the economic loss doctrine. That doctrine prohibits direct claims against design professionals for purely economic damages, absent privity of contract. In this case, Gongloff was the structural steel erector on a convocation project designed by Kimball for California University of Pennsylvania. Gongloff sued Kimball directly for additional costs incurred because of errors in Kimball's design documents, allegedly resulting in significantly undersized roof trusses.

Readers might recall the 2005 *Bilt-Rite* opinion, which opened the door in Pennsylvania to direct claims based on negligent misrepresentation. This case broadens *Bilt-Rite* by answering two questions adversely with respect to the design community: (1) Must the design professional make an explicit negligent misrepresentation of a specific fact to a third party? (2) Did Kimball either "expressly or implicitly" represent that the structure could safely sustain all required in situ loads?

Kimball argued that absent this specificity, no direct claim could be maintained and the trial

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TRANSACTIONS

J.L. PATTERSON SELLS TO JACOBS ENGINEERING D.A. Davidson announced that it served as exclusive financial advisor to **J.L. Patterson & Associates Inc.**, a design, engineering, construction management, and environmental services provider for the rail industry, on its sale to **Jacobs Engineering Group, Inc.**

Financial terms of the transaction were not disclosed.

“JLP is clearly a leader in the rail engineering space, an attractive and growing market within the E&C sector,” said Monte Giese, co-head of investment banking and head of Davidson’s E&C group. “We believe Jacobs is the highest quality partner for the next phase of JLP’s growth.”

BUSINESS NEWS

JACOBS AWARDED CONSTRUCTION MANAGEMENT SERVICES RE-COMPETE **Jacobs Engineering Group Inc.** (Pasadena, CA) announced it was awarded a construction management services re-compete contract in support of the Cobb County Water System’s 2015-2020 Capital Improvement Program in Georgia.

Jacobs is providing professional, technical and administrative services, as well as other skilled personnel to perform activities associated with water, wastewater and storm water facilities construction; and utility locate services.

In making the announcement, Jacobs Senior Vice President and General Manager Buildings & Infrastructure, Americas, Randy Pierce said: “We’re very pleased by the opportunity to continue our relationship with the Water System and keep its projects moving forward successfully.”

STERLING CONSTRUCTION AGAIN SELECTED AS SUBCONTRACTOR FOR BALFOUR BEATTY/GRAHAM CONTRACTING JV **Sterling Construction Company**

Inc. (The Woodlands, TX) announced that its subsidiary, **Ralph L. Wadsworth Construction Company LLC** was selected by Denver’s **Regional Rail Partners** as a major subcontractor for a joint-venture between **Balfour Beatty** and **Graham Contracting** on two regional transport district projects.

These projects, which entail construction on multiple segments of the North Metro Rail Skyway Bridge, are the second and third jobs awarded to RLW by RRP during 2015. The first project calls for RLW to construct four bridges as well as six miles of track grade between the Skyway and 112 Street. Along with the bridges, RLW will build the associated drainage, mechanically stabilized earth walls, cast-in-place walls and a pedestrian tunnel. The project also includes platform walls for two stations and the retrofit of electric panels and arc flash protection for two bridges. Construction began in October 2015 and is expected to be completed by August of 2016.

ROB HUGH, from page 9

court agreed, having dismissed the case at an earlier stage – and prior to discovery. This allowed Kimball to avoid the significant efforts and costs of engaging in depositions and other discovery.

However, the Superior Court rejected Kimball’s argument that Gongloff must identify a particular communication or document provided by Kimball as being false. The court opined that the “design itself” is: “A representation by the architect that the plans and specifications, if followed, will result in a successful project. If, however, construction in accordance with the design is either impossible or increases the contractor’s costs beyond those anticipated because of defects or false information included in the design, the specter of liability is raised against the design professional.”

The actual “misrepresentation” was simply Kimball’s roof design. As to specificity, Bilt-Rite “requires only that information, a rather general term, be negligently supplied by the design professional.” Gongloff satisfied this requirement by alleging that the design was supplied “in order to provide guidance” to others as to how to build the project. And, as to “false” information, Gongloff need only allege that the feasibility of construction, per the drawings, was “called into question.”

These “hurdles” to filing and maintaining a direct claim are of little obstacle; all project designs are offered as guidance and general contractors and their subs often question design and constructability/feasibility – indeed, do we know of any project without design-related requests for information?

Thus, not only does the opinion support the right to direct claims; as a practical matter, it appears there is little hope for an early dismissal of the design professional under the foregoing standard. At the very least, a trial court will allow

the claimant to engage in discovery; imposing significant litigation and expert costs on the design defendant(s).

Unfortunately, neither case has an easy risk-management “fix.” Contractual solutions might not be effective as design firms are unlikely to have a contract with the project’s general contractor or its subs.

The court’s rationale was that because the building protruded slightly at the site of the accident, pedestrians were left exposed to the potential threat of a car jumping the curb. Thus, the owner provided inadequate protections and was obliged to take additional precautions.

Design firms operating in Pennsylvania might want to check with their legal counsel on the feasibility of requiring the owner to include a waiver of direct claims against the design team in their prime agreement with the contractor. This might help limit your direct exposure. Alternatively, you could seek indemnification from the client/owner for any third party claims based on a standard of care beyond that imposed by the applicable building code. Nonetheless, such agreements may not be legally enforceable and may not help if the client doesn’t have the financial resources to take over your defense or reimburse you for any liabilities.

Ultimately, being aware of these cases might be a design firm’s best risk management tool: Understand their potential impact on your firm and take a prudent approach to your work. ▀

Rob Hughes is the senior vice president and partner at **Ames & Gough**. Contact him at rhughes@amesgough.com

PROFILE



Photo source: National Endowment for the Humanities

Everett Fly honored

Architect receives 2014 National Humanities Medal for efforts to preserve African-American history.



Everett Fly,
Architect,

By RICHARD MASSEY
Correspondent

A mother's love for her son sparked a long career in architecture and preservation of African-American history, and that career was recognized with an honor unlike any other – a 2014 National Humanities Medal from President Barack Obama.

Architect Everett Fly was an inquisitive kid when his mother, Nadine Burnim Fly, recognized his abilities. She nurtured his instincts, giving Fly a background suitable for a bachelor's in architecture from the University of Texas and a master's in landscape architecture from Harvard University.

“I was absolutely stunned when President Obama actually mentioned me by name in his opening remarks. It made the years of effort worthwhile.”

“My mother always had a great respect and appreciation for my natural artistic and creative talents,” Fly says. “She understood that I could use those talents and skills in a professional career. So, she encouraged me to do things like draw and build models when I was in grade school. Once I began to take formal art classes in high school, she would sacrifice the limited money she had to buy art supplies for me. She also bought books related to architecture for me to read.”

Fly, 62, is based in San Antonio, Texas, his hometown. One of the largest cities in the nation with history dating back to the 17th Century, Fly credits the town with fostering his love and respect for historic preservation. Though San Antonio is the well-spring, his work in preservation has taken him to obscure and nearly forgotten places all across the country.

He recalls a time in 1980 when he was looking through historic maps in the National Archives in Washington D.C. He found records of a black settlement in Arlington, Virginia, called Freedman's Village, which existed on part of the land now occupied by Arlington National Cemetery.

“I learned that some of the original black residents of Freedman's Village are buried in Arlington National Cemetery, along with prominent American statesmen, war heroes, and presidents,” he says. “I had never seen this black community documented in any American history book. I realized that this kind of history needed to be included in the broader accounts in order for the nation's history to be truly democratic, authentic, and complete.”

His research in the field began during his time at Harvard. His experience during graduate school evolved after graduation, and in 1979, he was awarded a National Endowment for the Arts fellowship. Since that time, he has identified more than 1,200 African-American districts, neighborhoods, settlements, villages, and towns across the United States.

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ZG15 INDEX

Ticker	Name	Market	Market Cap	Share Pricing						Valuation				
				Close Oct. 31, 2015	Close Nov. 30, 2015	Beginning of Month Change	% Month Change	Change from 50-day MA	% Change from 50-day MA	EPS	EV/Rev.	EV/EBITDA	Price/Sales	Price/Book Value
ACM	AECOM Technology Corp	NYSE	4.82B	29.47	31.83	2.36	8%	1.81	6.02%	(1.04)	0.50	8.76	0.27	1.38
AMFW	Amec Foster Wheeler	NYSE	2.49B	10.92	6.47	(4.45)	-41%	(3.13)	-32.60%	0.36	0.54	7.86	0.34	0.94
CBI	Chicago Bridge and Iron Co.	NYSE	4.5B	44.87	42.75	(2.12)	-5%	(0.01)	-0.03%	(2.68)	0.50	5.20	0.34	2.12
EEL	Ecology and Environment	Nasdaq	46.27M	10.61	10.84	0.23	2%	0.10	0.91%	0.79	0.30	4.17	0.37	1.26
EME	EMCOR Group Inc	NYSE	3.17B	48.28	50.40	2.12	4%	2.59	5.41%	2.57	0.46	8.63	0.48	2.10
ENG	ENGlobal	Nasdaq	30.08M	1.22	1.03	(0.19)	-16%	(0.02)	-1.71%	0.15	0.20	3.06	0.29	0.93
EXPO	Exponent Inc.	Nasdaq	1.33B	51.41	51.63	0.22	0%	0.80	1.58%	1.57	4.02	16.02	4.54	5.21
FLR	Fluor Corp	NYSE	6.88B	47.81	48.60	0.79	2%	1.16	2.45%	4.52	0.30	4.78	0.35	2.23
HIL	Hill International Inc	NYSE	1177.37M	3.38	3.45	0.07	2%	0.02	0.44%	0.08	0.48	7.02	0.28	1.52
JEC	Jacobs Engineering Group	NYSE	5.39B	40.14	44.14	4.00	10%	3.23	7.89%	2.40	0.45	9.21	0.44	1.25
KBR	KBR Inc.	NYSE	2.801B	18.44	19.44	1.00	5%	0.72	3.83%	(7.46)	0.39	(32.19)	0.51	2.85
STN	Stantec Inc	NYSE		25.09	25.88	0.79	3%	0.86	3.44%	1.34				
TRR	TRC Companies	NYSE	331.51M	10.33	10.65	0.32	3%	(0.16)	-1.50%	0.66	0.68	6.83	0.80	2.18
TTEK	Tetra Tech Inc.	Nasdaq	1.64B	26.90	27.79	0.89	3%	0.95	3.54%	0.64	1.00	9.09	0.96	1.94
VSR	Versar Inc.	NYSE MKT	30.35M	3.21	3.11	(0.10)	-3%	(0.10)	-3.14%	0.11	0.23	6.78	0.17	0.78
WLDN	Willdan Group Inc	Nasdaq	69.45M	11.11	8.80	(2.31)	-21%	(1.94)	-18.07%	0.74	0.45	5.56	0.53	1.93
DJIA	DOW Jones Industrial Avg.	NYSE		17663.54	17719.92	56.38	0%							

*information at close of day Nov. 30, 2015

Average 0.7x4.84x0.72x 1.92x
Median 0.46x 6.83x 0.38x 1.93x

EVERETT FLY, from page 11

A highlight was his work in gaining recognition for Eatonville, Florida, the oldest incorporated African-American municipality in the country. He is currently employed as a consultant for the Historic Black Towns and Settlements Alliance, which is composed of Tuskegee, Alabama; Hobson City, Alabama; Grambling, Louisiana; Mound Bayou, Mississippi; and Eatonville. His goal is to help the mayors of those towns interpret their historic resources, protect them, and use them to generate cultural tourism.

A key difficulty in preserving black history, particularly in regard to architecture, is that much of the history has already been lost to time. What survives, however, suffers from the fact that much of what was planned and built was done so through nontraditional means. In terms of preservation, that's a big problem.

“The absence of a classical town plan drawn by an academically trained architect or engineer, would not diminish the cultural and civil rights significance of the structure,” Fly says. “But, many black buildings and sites are still rejected from local, state, and national historic registers because they were not designed by a trained architect or follow a classical architectural design style.”

Though preservation of African-American history is what Fly is best known for, he also does traditional architecture

and landscaping projects. Bread-and-butter work in San Antonio includes a recreation area for the Good Samaritan Center, the parking lot for the Mount Zion First Baptist Church, and the Carver Center, a private primary school, designed at the behest and with the support of retired NBA superstar David Robinson.

“I realized that this kind of history needed to be included in the broader accounts in order for the nation’s history to be truly democratic, authentic, and complete.”

Still, when the White House and the National Endowment for the Humanities came calling, they did so because of Fly’s unique and important preservation work. And Fly’s presence at the ceremony in the East Room, where nine others were honored, was a bit of a surprise. National Humanities Medals typically go to writers, historians, and philosophers.

For Fly, the medal was the ultimate validation of his work.

“I was aware that the president had been briefed on the accomplishments of each medalist,” Fly says. “But I was absolutely stunned when President Obama actually mentioned me by name in his opening remarks. It made the years of effort worthwhile.”