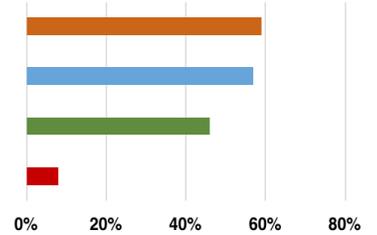


## TRENDLINES

### Why firms conduct market research



A majority of firms (59 percent) conduct market research to **learn more about clients and potential clients**, and 57 percent of firms do research to **inform strategic decisions**. While 46 percent of firms do research to **anticipate changes in current markets served**, very few (8 percent) do research to **publish and sell the results to clients and potential clients**, according to the 2015 Marketing Survey. Totals sum to more than 100 percent because more than one answer choice could be selected. (Use code **SPRINGMKT15** to order this survey at 15 percent off on [ZweigGroup.com](http://ZweigGroup.com))

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## Unplanned events

“Problems crop up that you didn’t anticipate – health problems, a parent dies, a key employee quits, divorce, IRS audits.”



Mark Zweig

### EDITORIAL

**A**s the bumper sticker says, “Shit Happens.” Unfortunately, it rarely occurs at the ideal time. Problems crop up that you didn’t anticipate – health problems, a parent dies, a key employee quits, divorce, IRS audits – there are many bad things that **CAN** and **DO** happen that are not within your control.

What you can control is your response to these things. That’s what I want to talk about today.

- 1) **Stay calm.** Cool heads prevail. If you get emotional you cannot think properly and you won’t get the reaction you want from others. Don’t let that happen to you.
- 2) **Start by figuring out what your desired outcome is.** Whatever happened has happened. Now what do you want to happen next? That’s what you need to know or it probably won’t happen.
- 3) **Write down your ideas and options.** I do it all in my phone. You may do it on a notebook. Or you could do it on your computer. Don’t be too judgmental too early. You want ideas here.
- 4) **Make a decision.** Ideas and options are great but you have to make a decision. Maybe some of these have a lower risk of failure than others. Or maybe some have a very low cost if they do fail. These may be some of the first things you want to try.
- 5) **Take action!** Nothing good happens until you make it happen. You have to take action. All the positive thinking, ideas and options won’t do you any good without action. It is only through action that you will rebuild your confidence.
- 6) **See if you achieve your desired outcome.**

See MARK ZWEIG, page 2

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# Surrounding yourself

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Page 6

## ON THE MOVE

**FLUOR COMPLETES DOMINION'S BRUNSWICK COUNTY POWER STATION** Fluor Corporation announced that it has achieved substantial completion for Dominion Virginia Power's Brunswick County Power Station.

Fluor provided engineering, procurement, construction, and commissioning services for the 1,358-megawatt natural gas-fueled power station in Brunswick County, Virginia. Fluor completed the project with a construction staff totaling more than 1,500 workers during the peak of construction activity.

The completed power station will produce enough electricity to power 325,000 homes and began producing electricity in April.

"The completion of the Brunswick County facility is a prime example of Fluor's service excellence we provide to our clients," said Chris Tye, president of Fluor's Power business. "We are especially proud of the project team that demonstrated our ability to achieve quality completion ahead of schedule. Building upon our long and proven track record with Dominion, Fluor again delivered an asset that supports their pursuit to provide customers with clean and reliable energy."

Fluor is also scheduled to begin construction on Dominion's new Greensville County Power Station later this year, a 1,600-megawatt combined-cycle, natural gas-fired power station in Greensville County, located seven miles from the Brunswick County Power Station.

**PG&E AND AMERICAN INSTITUTE OF ARCHITECTS OPEN ANNUAL ZERO NET ENERGY DESIGN COMPETITION** Pacific Gas and Electric Company and the American Institute of Architects, California Council announced the sixth annual Architecture at Zero competition for zero net energy building designs.

Partnering with San Francisco State University, this year's competition challenges students and professionals worldwide to develop designs for undergraduate student housing that are ZNE

buildings. These structures produce as much clean energy as used during a year through a combination of energy efficiency and on-site renewable energy generation. Winners will be chosen by a panel of international experts and are awarded up to \$25,000 in total prizes.

"The American Institute of Architects, California Council is excited to collaborate on this important initiative that affirms the role of architects in leading efforts to use design to curtail climate change," said Mike Malinowski, AIACC President.

The competition strives to generate new, innovative ideas for ZNE construction to help achieve California's goal for all new residential construction to be ZNE by 2020 and all new commercial construction to be ZNE by 2030. Last year's competition spurred state-of-the-art designs for multi-family housing at University of California, San Francisco's Mission Bay campus.

"PG&E is proud to sponsor Architecture at Zero for the sixth year in a row. This competition showcases the zero net energy designs available today that drive energy efficiency in our local communities and build towards California's clean energy future," said Vincent Davis, PG&E's senior director of energy efficiency programs, policy, and strategy.

"Given San Francisco State University's commitment to building healthy, vibrant and safe housing for students, we are delighted to partner with PG&E on this competition. We seek to be leaders in the California State University system by aggressively meeting or exceeding government mandates for energy efficiency. Developing zero net energy buildings on campus will contribute to meeting the challenges of climate change," said Senior Associate Vice President and Campus Architect, Thomas Lollini, San Francisco State University.

Competition entries are due by October 28, 2016 and will be juried by a panel of international experts.

MARK ZWEIG, from page 1

Evaluation to determine success or failure is crucial to your ultimate success or failure in how you dealt with the problem.

**7) If you aren't happy with the decision, make a new decision.** This is what my Dad calls "decide-act."

**8) Repeat steps 5, 6 and 7 until you achieve your desired outcome.**

**9) If things don't work out, remember that this, too, shall pass.** Nothing is permanent. Everything is temporary. You will get through whatever it is you're going through. That's life! Nothing good, or bad, lasts forever. ▀

MARK ZWEIG is Zweig Group's founder and CEO. Contact him at [mzweig@zweiggroup.com](mailto:mzweig@zweiggroup.com).



### Talk to us

Do you have an interesting story to tell? Is your company doing things differently and getting results? Let us know. We'd love to contact you and feature you in an upcoming case study. If interested, please email [rmassey@zweiggroup.com](mailto:rmassey@zweiggroup.com).

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## PROFILE

# Surrounding yourself

Innovate. Learn. Evolve. Virtual environmental firm, with offices on three continents, is looking at a very real disruption in the industry.

By LIISA ANDREASSEN  
Correspondent



Kenneth Ogilvie, Chairman and CEO, EHS Support

Ever wonder what it would be like to work for a firm that was 100 percent virtual? Well, Kenneth Ogilvie knows what it's like to run one. Since 2005, he's been chairman and CEO of **EHS Support** (#1 Best Firm Environmental and #30 Hot Firm for 2015), an 80-person environmental consulting firm with offices in the United States, South Africa, and Australia.

“Creating a high performance virtual organization requires considerable investment in software, communication tools, and outside management consultants.”

Prior to founding EHS, Ogilvie worked for two other companies as a field scientist, supervisor, general manager, service line lead, vice president, and senior vice president. He then decided to strike out on his own to create a company that would be a great place to work, while delivering five-star client service. He wanted to form a company that was truly different and, he says, “We have definitely accomplished that.”

### A CONVERSATION WITH OGILVIE.

**The Zweig Letter: What's different about managing a “virtual” firm compared to a brick and mortar one? Any key insights to offer here?**

**Ken Ogilvie:** There are always communication challenges and you need to look at doing things differently. We have evolved from emails and conference calls to a virtual software model and an organizational structure that allows us to communicate effectively while making everyone feel connected. You have to focus on culture and communication much more than you would at a brick and mortar location. Creating a high performance virtual organization requires considerable investment in software, communication tools, and outside management consultants. However, if done right, it can be very successful. Our success has led to a lot of interest in the tools and methods we use, with Microsoft even studying what we are doing to help make their software more focused on the virtual environment.



The staff at EHS Support.

**TZL: Has EHS always been virtual or is that something that has evolved?**

**KO:** We started out virtual and have kept the model since the beginning.

“Our success has led to a lot of interest in the tools and methods we use, with Microsoft even studying what we are doing to help make their software more focused on the virtual environment.”

**TZL: What are your key strengths? What do you feel the key strengths are for an effective leader?**

**KO:** Over the years, I've taken various management profiles. Meyers Briggs reveals that I am an ENFJ

See Q&A, page 4



Q&A, from page 3

(extroverted, intuitive, feeling, and judging), and Strength-Finders defines me as a responsible achiever, activator, futurist, and strategist. It's these skills that allow me to work with our teams, generate what we want the future to look like, and quickly take action to accomplish those goals. The secret to effective leadership is surrounding yourself with others who have strengths that contrast yours (but complement as well). We make sure we focus on that when forming teams. In my 30 years in the industry, I have never worked with a better and more well-rounded management team and staff. They fire on all cylinders all the time and we constantly look to support each other when needed.

"I am not a micro manager. People have the freedom to make decisions and learn from them – good or bad."

**TZL: How would you describe your leadership style?**

**KO:** Very autonomous and hands off. I am not a micro manager. People have the freedom to make decisions and learn from them – good or bad. Experience brings with it the ability to know how much rope to give someone – whether using a situational leadership style, good project management tools, or that gut feel. It's also important to create strong unconditional relationships so people feel comfortable communicating.

**TZL: What's been the greatest challenge to date? How did you deal with it?**

**KO:** Addressing challenging staff. Being an ENFJ, I am the emotional one on the management team. As such, deciding to let someone go who may be better off elsewhere is not my strong suit. I've been blessed to have a great management team that makes these tough decisions. Everyone wants to do well, whether working here or somewhere else, and I would rather help someone find their sweet spot and realize their full potential no matter where they work.

**TZL: What is your vision for the future of EHS Support?**

**KO:** Our management team has a fantastic future company vision that we are working on right now. We have five- and seven-year plans and our vision is to create a sustainable company. The plan covers all facets of the business and is updated quarterly.

**TZL: How have you seen the company evolve?**

**KO:** It started out with just me and evolved so quickly that within three months my partner, Andy Patz (our current president), was on board. Ten years later, we are at nearly 80 staff in 20 plus states, several territories in Australia, and a JV in South Africa. Our growth continues to be fueled by the ambition of the management team and other company contributors.

**TZL: Tell me about a recent project you are especially proud of and why.**

**KO:** We all have special client projects, but I think the

greatest 'project' I'm proud of is the evolution of our culture and how we've gotten here. I learned along the way that you have to innovate, learn, and evolve. If you do that enough, you get to a stage where you can disrupt the industry.

**TZL: Is there any news you care to share about EHS Support projects or anything else?**

**KO:** Stay tuned. We are launching a new business model that should revolutionize the industry.

**TZL: Are you married? Children? Pets?**

**KO:** I am married to my college sweetheart, Dawn. We are going on 29 years. We have a daughter, Kaity, who is married and lives in Manhattan. We also have a cat, Whiskers.

**TZL: What's one thing most people at the firm don't know about you?**

**KO:** My life is an open book. Most folks know my routine of working out, work, and spending time with family and church activities. I lead a boring, but in my opinion, very productive life.

**TZL: What is the last book you read?**

**KO:** *The Trusted Advisor* by David H. Maister, Charles H. Green, and Robert M. Galford.

**TZL: What's the last movie you saw?**

**KO:** *The Revenant*.

**TZL: What's the best piece of work-related advice you've ever gotten?**

**KO:** The difference between good and great is the extra two to four hours per week and what you spend that time working on. Spend it on doing things others don't want to do, helping others become successful, and working on things that will have the biggest impact in your life whether personal, professional, spiritual, or financial. Have the focus and consistency to make sure you set them aside and use them for good.

"Experience brings with it the ability to know how much rope to give someone – whether using a situational leadership style, good project management tools, or that gut feel."

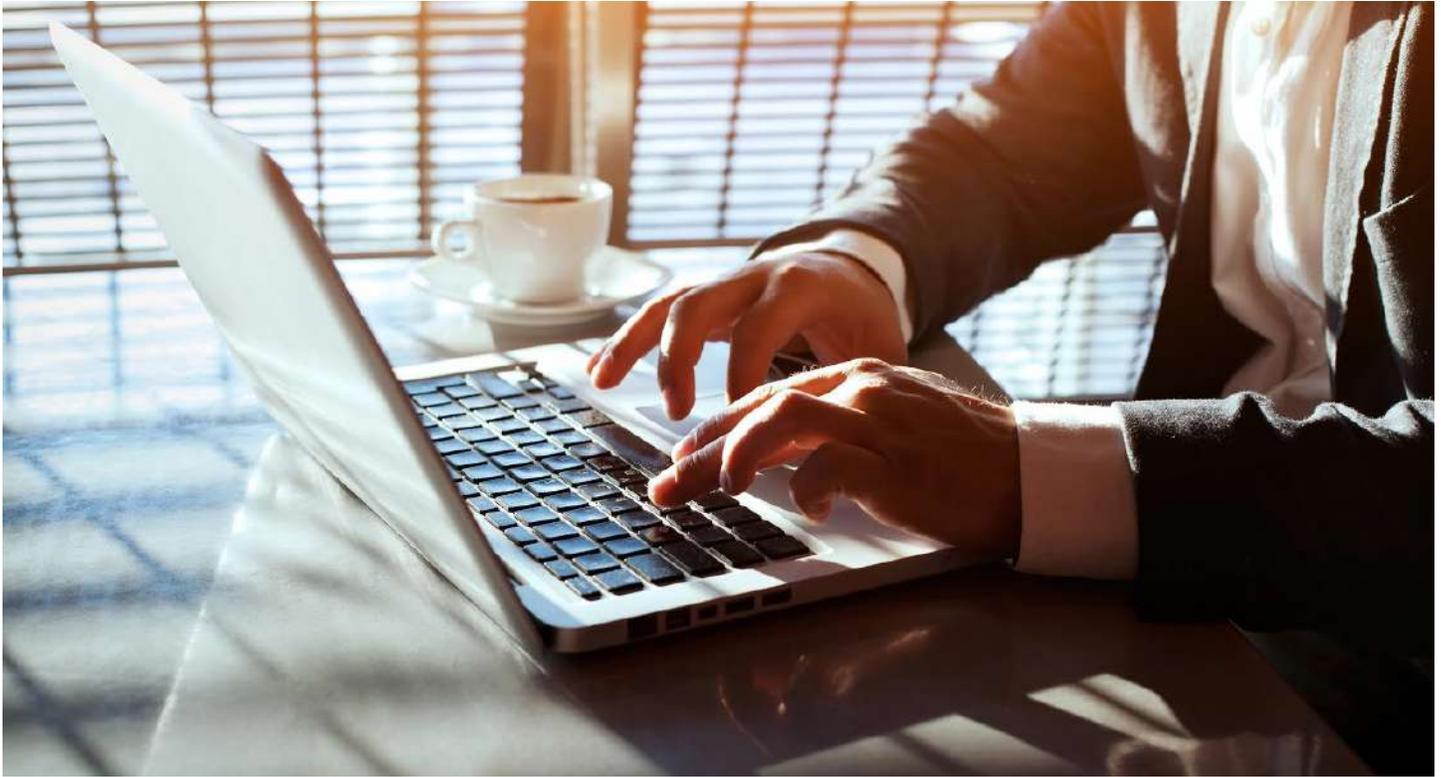
**TZL: When you're not working, what types of activities do you enjoy?**

**KO:** Spending time with my wife and family and working out.

**TZL: Do you have a favorite lunch?**

**KO:** I guess it depends. If I'm out with a client or have a lunch meeting I love rare tuna with rice and a vegetable. When I am at home, it's whatever I can grab quickly and eat at my desk – likely chicken or fish. ▀

## OPINION



# Don't get robbed!

In the cyber age, with miscreants increasingly shrewd, insuring your firm against theft of monies and information is the order of the day.



Dan  
Knise

GUEST  
SPEAKER

Today more than ever, design firm leaders must be attuned to the growing risk of theft and disruption from hackers and other perpetrators. No longer can your focus be only on those who want to steal money from the petty cash drawer. In the current environment, you must keep an eye on your online banking and even your information; today's thieves have found value in data, in addition to money.

The use of the internet and online business and banking services is rapidly changing the nature of these risks and requiring increased emphasis on network security and sound risk management practices. It also calls for a review of your existing insurance policies to ensure you are adequately protected.

Consider some recent examples:

■ **Fraudulent transfer of funds.** In checking its online bank statement, an engineering firm found an unauthorized \$86,000 withdrawal. It discovered that someone, using malware, had been “shadowing” their computer key strokes and misappropriated their bank PIN and account information. With this information, the withdrawal was made without anyone’s knowledge or consent. Crime insurance (also known as “employee dishonesty” or a “fidelity bond”), might have covered this claim; however, in

“The use of the internet and online business and banking services is rapidly changing the nature of these risks and requiring increased emphasis on network security and sound risk management practices.”

this case the bank was on the hook for failing to follow its own authentication protocol.

■ **Cyber extortion.** At another design firm, a client’s electronic file folder “disappeared” from their system just days before construction drawings were to be delivered. In the ensuing panic, they also discovered issues with their back-up system and could not

See DAN KNISE, page 8



# SPOTLIGHT ON: Rotterdam

## PROFILE



The Dutch Windwheel, by Doepel Strijkers

## Resurgent Rotterdam

Dutch port city emerging from Amsterdam's shadow with eye-popping architecture, willingness to innovate, and a proposed Windwheel that just might change the world.



Duzan Doepel,  
Co-Founder,  
Doepel  
Strijkers

By RICHARD MASSEY  
Managing Editor

Of the world's national brands, perhaps none are as well known, or as admired, as the Dutch windmill.

Symbolic of the country's ingenuity and can-do attitude, the windmill speaks to the Dutch ability to not only make a lot out of a little, but to flourish in the process. So it should come as no surprise that the windmill-inspired Dutch Windwheel – a colossal waterfront wind turbine that also has apartments, a hotel, and offices – is poised to embody the country's commitment to the economy of the future.

But this incredible, 570-foot Windwheel, which will produce more energy than it uses and employ the most advanced clean tech in existence, is not planned for Amsterdam, Holland's acclaimed center of art and progressivism. Instead, the Windwheel is proposed for Rotterdam, which, over the last couple of decades, has asserted itself as one of the world's premier incubators of cutting edge architecture.



Eline Strijkers,  
Co-Founder,  
Doepel  
Strijkers

"The climate is set for a project like the Dutch Windwheel," says Duzan Doepel, cofounder and principal of Rotterdam-based **Doepel Strijkers**, the architecture firm that designed the Windwheel. "Developers from across the world have come to us and said they want to build it tomorrow – but we're not ready yet."

"Developers from across the world have come to us and said they want to build it tomorrow – but we're not ready yet."

Though it was designed as a piece of architecture, the real intent of the Windwheel is to serve as a product, the central piece of a futuristic business plan tying together clean energy, real estate, and tourism. Developed by the consortium of Doepel Strijkers, **Meysters**, and **BLOC**, otherwise known as the **Windwheel Corp.**, the project has piqued international interest, and innovation partners include **SIEMENS**, **HUAWEI**, **MAMMOET**, and **PNO**.



While its symbolism is inspired by the windmill, the Windwheel's greater ambition is to signify the transition away from fossil fuels, Doepel says. In that context, Rotterdam is the perfect location to determine if the most sophisticated ideas of a circular economy – energy, water, waste, and materials in a closed cycle – can be realized within a workable business model.

“I fell in love with Dutch design. It’s free. I didn’t envision that same freedom in South Africa.”

“Can we bring it all together in a building?” he says.

Though the market seems ripe for the Windwheel – investors from the United States, Europe, and China want the project – Doepel says it’s still in the feasibility stage, that research and development is ongoing, and that nothing is set in stone.

“There’s no guarantee that we will build it,” he says, referencing the 2025 timeframe.

The development of the Windwheel comes as Rotterdam, considered the second city of the Netherlands, emerges as a destination for an assortment of temporary and permanent arrivals. Tourism, foreign investment, and knowledge migrants are all on the rise, according to economic development agency Rotterdam Partners. Also of note is that Rotterdam made *Lonely Planet’s* Best in Travel City 2016.

The city’s momentum, in large part, is due to the architecture and the free-flowing spirit it has engendered. In 1940 during the Rotterdam Blitz of World War II, the Germans bombed the city, destroying nearly the entire historic core. When it came time to rebuild, Rotterdam did not seek to replicate what was lost. Rather, the city looked to the horizon.

These days, Rotterdam, the largest port in Europe, features the Cube Houses by **Piet Blom**, the De Rotterdam hotel and office complex by renowned firm **OMA**, the Timmerhuis, also by OMA, the Markthal Rotterdam by **MVRDV**, and the Erasmus Bridge by **UNStudio** (formerly **van Berkel and Bos**).

Duzan, a native of South Africa, came to Rotterdam in 1996 as an intern for MVRDV. He stayed in Holland, and in 2007, cofounded his firm with partner Eline Strijkers.

“I fell in love with Dutch design,” he says. “It’s free. I didn’t envision that same freedom in South Africa.”

Duzan is the one who in January famously told *Dezeen Magazine* that “Amsterdam is the city of the past, Rotterdam is the city of the future,” a double-down on his Windwheel design.

Rotterdam city officials have partnered with international



The Erasmus Bridge and OMA's De Rotterdam / Google Images

consultant advisor Jeremy Rifkin, who champions the Third Industrial Revolution, a world-changing paradigm shift based on technology and renewable energy, a shift Rifkin says will create billions of jobs and transform the global economy.

Rotterdam is already headed down that road, making the Windwheel a logical expression of local ideals. Doepel says as much.

“It [the Windwheel] is based on the kinds of things we see going on in the city.”

“It [the Windwheel] is based on the kinds of things we see going on in the city,” he says.

Even if the Windwheel is never built, the groundbreaking design has made headlines across the world. Composed of two loops – an inner ring for offices, apartments and a restaurant, and an outer ring that serves as a new-era Ferris wheel – the Windwheel is designed to generate electricity through wind and solar, capture and recycle water, and convert waste into biofuel. The project has been featured in *Gizmag*, *Forbes*, *Popular Science*, and *Tech Insider*, in addition to the standard rounds the design has made through the industry.

Doepel says the notoriety has been good for business, as the Windwheel has inspired clients to come to his firm with various proposals. And though he hails from South Africa, he has warmed to the simple ethos the Dutch invoke when asked to innovate.

“Try it,” he says. ▀

DAN KNISE, from page 5

easily recreate the files. Thus, they were forced to pay ransom of \$1,000 in bitcoin to the cyber criminals. Fortunately, the files were returned just in time for delivery to the client, but not without both a financial and psychological cost. In this case, the design firm had not yet purchased cyber/network security insurance. However, had they secured such a policy, they would have been covered under the “cyber extortion” section.

**PROTECTING YOUR DATA AND YOUR MONEY.** The first step in protecting your firm is to have a solid risk management plan, including:

- A system of financial controls that separates requests for payment from approvals, check issuance, and signature;
- Monthly reconciliation of bank statements and accounting records to track receipts and payables;
- Second approvals for any wire transfers or ACH transfers;
- A secure computer network that includes firewalls, encryption, anti-malware protection, and other barriers to unwanted intrusions;
- Back-up storage of data that allows you to quickly duplicate information that is lost, stolen, or compromised;
- Strong passwords (and don’t forget mobile devices);
- Ongoing monitoring of computer systems including, potentially, intrusion testing; and
- Continual updating of systems, including installation of “patches.”

“In the current environment, you must keep an eye on your online banking and even your information; today’s thieves have found value in data, in addition to money.”

**INSURANCE CAN PROVIDE IMPORTANT FINANCIAL PROTECTION.** Once solid risk-management measures are in place, the second block of a strong plan is to have appropriate insurances in case there is a loss. To address these risks, there are two key insurances that most design firms of any size should purchase:

- Crime insurance (also known as employee dishonesty or fidelity bond); and
- Cyber/network security insurance.

Both are relatively inexpensive and widely available in the insurance marketplace. A few key things to look for in each include:

**CYBER/NETWORK SECURITY INSURANCE.** Although several other insurance policies typically carried by design firms may provide some limited cyber/network security coverage (e.g., a sublimit on the package or professional liability policy), these “add-on” coverages often leave significant gaps. The only true protection is a stand-alone cyber/network security policy that covers both first-party costs (e.g., cost of notification and credit monitoring for affected individuals and business income lost due to a covered data breach or denial of service attack), and third-party claims (e.g.,

lawsuits alleging damages from a breach or costs incurred by your client for breach-related claims). Some key points about cyber/network security insurance policies are:

- **Typical limits carried.** \$1 million to \$5 million (note that various sublimits apply).
- **Coverage sections.** Typical coverage sections include: privacy and security liability, breach notification and regulatory compliance costs (also referred to as “event management”), public relations and forensic assistance expenses, business income interruption, cyber extortion payments and regulatory fines and penalties. Often, media liability is also included to protect against claims of copyright infringement.
- **Deductibles.** Deductibles usually range from \$5,000 to \$50,000, depending on size of the firm and limits purchased.
- **Other concerns.** Pay attention to issues such as: the definition of “confidential information,” any prior acts dates/exclusions, whether or not there is a professional services exclusion (must be deleted or carved back), whether or not coverage is primary over any other available insurance.

**CRIME/EMPLOYEE DISHONESTY INSURANCE.** This coverage is often an add-on to a design firm’s so-called package insurance policy which also provides general liability and property insurance. Generally, the limits of coverage provided under this approach are in the \$25,000 to \$100,000 range with a relatively narrow coverage grant. This is probably fine for smaller firms; however, firms with \$5 million or more in billings should consider purchasing a stand-alone crime insurance policy. These policies often can be written for a three-year term and premiums are quite reasonable. Some key coverage issues to watch for include:

- **Typical limits carried.** Limits usually run from \$500,000 to \$5 million or more depending on the size of the firm’s revenues and assets.
- **Deductibles.** Typically, \$5,000 to \$25,000, depending on firm size and limit purchased (higher limits tend to have higher deductibles).
- **Key extensions.** It is critical that the policy include funds transfer fraud and computer fraud. More claims are arising from these forms of theft (which, by the way, may be excluded from the coverage provided under your package policy noted above). Another key extension, “third party coverage,” addresses loss of monies by a client or others if their funds are, for some reason, in your control.

**PROTECTING YOUR FIRM.** Solid risk management remains the most important way to protect your firm from cyber theft of data or monies. First, recognize the risk and develop a plan to protect your important assets – information and money. Next, train employees and ensure ongoing compliance. Insurance is, in many ways, the “belt and suspenders” protection to all your other actions. And cyber and crime insurers have a wealth of resources to assist you in preventing loss; some purchase the insurance primarily to gain access to these resources.

In this challenging risk environment, continued vigilance is definitely the order of the day! ▀

DAN KNISE is the president and CEO at **Ames & Gough**. Contact him at [dknise@amesgough.com](mailto:dknise@amesgough.com).

## OPINION



# Bringing back civility

There's plenty of conflict and anger in the world, but rather than giving in, dive into the hard yet rewarding work of good-faith collaboration.



Ed  
Friedrichs

FROM THE  
CHAIRMAN

Reading *The Wall Street Journal* one morning, I became convinced that civility had disappeared from our planet. We've got angry and abrasive politicians (think Donald Trump and Bernie Sanders). And there's brutality, with ISIS rounding up 5,000 civilians in Fallujah to use as human shields against attacks from the Sunnis and Shiites. There's the strangling of business, particularly small companies, with over-regulation. The Dodd/Frank bill, for example, brought us 22,200 new pages of regulations, adding \$35 billion in compliance costs annually. JP Morgan alone had to hire 19,000 new compliance officers.

"I believe it's possible for us as design and engineering professionals to affect change in our relationship with the teams with which we're working."

After a year, Illinois, a state that's underfunded by \$7 billion, is still in a standoff over the state budget as fighting continues between the governor, who wants reform in state employee pensions, and the legislature, which is beholden to the public employee unions. Instead of reform,

the legislature wants to raise taxes on millionaires, motorists, sodas, and real estate. And that was just in the morning!

While these are extreme and disparate examples, I began to wonder if incivility is contagious and if we can bring true civility back into our daily lives and dealings. I hear more and more stories about scrapping among participants in projects – city staff and elected officials treating developers and architects as adversaries; contractors looking for ways to trip up architects and engineers.

See ED FRIEDRICHS, page 10



# BUSINESS NEWS

## THORNTON TOMASETTI LAUNCHES TTIWII

Thornton Tomasetti, the international engineering firm, announced the launch of TTIWII, a privately held company that develops and commercializes new technologies. The new company is the first of its kind in the AEC industry.

TTIWI – a play on “Thornton Tomasetti Weidlinger Innovation accelerator” – was a key strategic initiative sparked by the merger of Thornton Tomasetti and Weidlinger Associates in 2015.

Key points:

- TTIWI will initially feature a collection of six products in various stages of development that come from legacy projects at Weidlinger Applied Science, Thornton Tomasetti CORE studio, and other R&D efforts across the firm.
- Each year, TTIWI will select products from the firm's CORE R&D program, its technology incubator. To be considered for migration over to TTIWI, they need to be products and tools that will benefit from development outside of Thornton Tomasetti and have special investment or organizational needs.
- The new company is overseen by a board of managers, elected by shareholders. Additionally, an AEC technology advisory

firm will assist with the initial start-up phase.

“TTIWI gives us a platform to drive innovation in our industry and beyond,” said Thomas Scarangelo, Thornton Tomasetti's chairman and CEO. “We are taking technologies that are developed in our CORE R&D incubator and tested in real-world scenarios, then providing the necessary support and leadership to accelerate them to the next level.”

## THE RELATED GROUP SELECTS BALFOUR BEATTY CONSTRUCTION TO BUILD HIGH-RISE RESIDENTIAL TOWER IN ATLANTA

The Related Group has selected Balfour Beatty Construction to build its new mixed-use residential tower in the heart of Midtown Atlanta. Located at West Peachtree and 14th Street, the 39-story tower will be the tallest residential tower project built in Atlanta since 2009. Consistently ranked by the Atlanta Business Chronicle as a top five commercial contractor, Balfour Beatty Construction is well established in the market with deep experience serving the commercial office, K-12, higher-education, hospitality, and multi-family markets.

The Related Group's Midtown Atlanta project will feature 390 luxury apartments with 6,500 square feet of retail space. The property will feature a pool terrace with clubroom amenities and a fire pit terrace on the 39th floor. Ideally situated in the gateway to Atlanta's Arts District,

Piedmont Park and the Midtown business district, residents will also enjoy convenient access to Whole Foods Market's planned pub, microbrewery, and cooking school, in addition to a variety of restaurants.

“The Related Group is well known for its commitment to creating places that inspire and bring meaningful momentum to the neighborhoods where they are located,” said Al Petrangeli, president of Balfour Beatty Construction's Georgia Division. “Midtown is Atlanta's most walkable neighborhood and home to an impressive mix of businesses, retail and green space. We're honored to be the construction partner on this high-profile project that marks the Related Group's first entry into the Atlanta market.”

To maximize efficiency and manage costs, the Balfour Beatty team is leveraging lean construction methods and the latest technologies to deliver the project. To help accelerate the project timeline, the building's window wall system will be manufactured off-site. The team is using BIM technology to maximize efficient coordination with trade partners and to mitigate potential challenges well before installing mechanical systems or the building's skin. Designed by architecture firm Smallwood, Reynolds, Steward, Stewart, the project is scheduled for completion in first quarter 2018.

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I believe it's possible for us as design and engineering professionals to affect change in our relationship with the teams with which we're working. I believe we can disagree with respect. I believe it's possible to seek common ground as a starting point for dialogue about differences. I believe we can listen past our preconceptions and teach others to do the same. I'd like to inspire you to try a new approach, one in which you take leadership in creating a trusting and collaborative atmosphere. Civility is hard work, but I think you'll find your efforts will be contagious and begin to build antibodies against dysfunctional and unproductive behavior.

“I'd like to inspire you to try a new approach, one in which you take leadership in creating a trusting and collaborative atmosphere.”

- 1) Start with trust (see my recent blog on the topic at edfriedrichs.com/2016/03/). If you can build trust and respect among all members of the team charged with building the project, there's a good chance civility can be restored. Trust and respect are foundational elements for dealings with architects, engineers, and contractors, as well as clients, city agency staff, and elected and appointed officials.
- 2) Work with your clients, along with everyone else involved with the project, to identify the “greater good” that will result

“Civility is hard work, but I think you'll find your efforts will be contagious and begin to build antibodies against dysfunctional and unproductive behavior.”

from the thing you're building. Make sure your client can articulate why and how the community and its people will benefit. Take this charter to elected officials and staff. Listen to their concerns and act collaboratively to make accommodations in response. Help the city agencies and officials to see that your intentions are good. The objective is to inspire them to “own” the project because it will make the community a better place. Remember that every elected official has a first priority – to get elected on the next ballot challenge they face. It's important for them to be able brag about what they've done to improve their community. Together with city officials, take the project to the community so they can see that there is a common agenda between the project developer and the city. Listen to their concerns, and adapt appropriately until you have a common agenda among all constituents for your undertaking.

Never accept that it is impossible to achieve civility. Keep at it until you do. You may find that bringing back civility can change the world – or at least the world in which you operate. Civility begins with each of us. ▀

ED FRIEDRICHS, FAIA, FIIDA, is a consultant with Zweig Group and the former CEO and president of Gensler. Contact him at edfriedrichs@zweiggroup.com.

## OPINION



# Cash flow and ‘AR drift’

Don't just put a collection policy in place. Make sure your accounting team, project managers, and principals make a coordinated effort to shore up accounts receivable.



Ted  
Maziejka

### FINANCIAL FITNESS

**A**s firms enter the last quarter of 2016, a strategic look at cash flow is critical to being well positioned going into the end of the year and entering 2017.

One of the killers to cash flow is accounts receivable drift. Otherwise known as AR drift, it's the practice of allowing your clients to drag out payments over 30 or 60 days, or even more, despite the contract your firm has with the client.

So, to ensure that your firm is well positioned, this is a good time to review and amplify the following among project principals, project managers, financial managers, and contract managers:

**REVIEW OF CONTRACT TERMS.** Your firm's contract with the client is the starting point for all issues related to collections. It is the subsequent adherence to the contract by your principal in charge and project managers that governs how your firm will manage the accounts receivable process.

Your client hired your firm for superior qualifications, expertise, and value. The contract, which establishes the ground rules for performance, allows your firm to provide those

services and to invoice the client accordingly. AIA established “pay upon receipt” as standard language. Other contracts specify payment within 30 days after the invoice date. And your contracts have their own unique terms and conditions.

“Your firm's contract with the client is the starting point for all issues related to collections.”

Why are you not holding your clients to the terms of the contract? More importantly, does your contract have terms and conditions that govern the invoicing, collection, and suspension of work for non-payment?

By not providing a sound business approach and adherence to the contract terms, your firm runs

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# TRANSACTIONS

**LJA ACQUIRES LONGARO & CLARKE CONSULTING ENGINEERS** LJA Engineering, Inc. has acquired Longaro & Clarke Consulting Engineers, an Austin-based engineering firm. L&C has served municipal, commercial, industrial, and private sector clients in Texas since 1994.

Reinforcing its commitment to position LJA to provide the highest level of professional services to the public and private markets in Central Texas, this acquisition broadens LJA's services in land development, flood control planning, and utilities studies and design.

Joe Longaro and Alexander Clarke started L&C after leaving LJA 22 years ago, and are glad to be part of the LJA family again.

"Sometimes, you go back to the beginning. We started our careers at LJA in the '80s, but decided to make a go of it on our own," Longaro said. "When LJA approached us about a merger 20-something years later, we saw the benefits to both sides. Our clients will now have more in-house services, will benefit from both LJA's and L&C's extensive knowledge of Central Texas, and our employees will have more opportunities. It is a win/win for everyone!"

With this acquisition, LJA has more than 60 engineers, technicians, and environmental specialists located in Central Texas to serve the technical needs of local public and private entities, backed by the extensive knowledge

base of experience available through LJA's staff of more than 600 statewide.

L&C joins LJA with a great reputation in the industry with both clients and fellow professionals. The current L&C offices will remain and continue to service existing clients, as well as market LJA's expanded comprehensive services.

LJA is an employee-owned, full-service consulting engineering firm serving both public and private sectors. With offices throughout Central Texas and in Jacksonville, Florida and Omaha, Nebraska, the staff of LJA includes more than 600 experienced engineers, hydrologists, environmental scientists, and more.

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the risk of fostering and condoning AR drift. Heading into the end of the year with drifting AR creates increasing pressure on year-end cash requirements.

**INCREASE CLIENT COMMUNICATION.** As you enter the final quarter of the year, have a sit-down with your clients and ask what services they might want to accelerate as they head toward the end of the year.

Client breakfast, lunch, or dinners are great business development vehicles, but most importantly as Q4 looms, understanding their strategic direction will be critical to your firm's expansion of services, and the tête-à-tête facilitates the cash collection effort.

"By not providing a sound business approach and adherence to the contract terms, your firm runs the risk of fostering and condoning AR drift."

Are the firm's project managers practicing effective client communication? A short weekly email that informs the client of progress on the project and that delineates completion of milestone goals is a critical component of effective cash-flow management. If the PM sends out a weekly status report, the firm's invoice is less likely to receive scrutiny by the client who has been informed of the progress of the project.

The invoice will most likely be paid faster, and this will break the cycle of AR drift.

**FIRM WIDE AWARENESS OF THE COLLECTION POLICY.** Does your firm have a written collection policy that is adhered to? Does the principal in charge, project manager, and accounting department all adhere to the terms of the policy? The following is a guide, and other factors such as prime versus non-prime contract agreements and specific unique contract terms should be taken into account. September is a perfect time to ensure that all your firm's projects are focused on the adherence to contract terms and collections.

The following policy is based on payment upon receipt:

- **Five days after invoicing.** Accounting department emails client contact to confirm receipt and ask when payment can be expected.
- If payment arrives as scheduled, no further action. If not;
- **35 days.** Accounting department calls client contact to ascertain payment status. If there is no acceptable answer, accounting contacts PM.
- **35-37 days.** PM contacts client PM to determine where the issue is. If corrected and payment received, no further action. If not;
- **40 days.** Principal in charge calls the client principal in charge to determine what the issue is, and if the resolution will result in a payment. The date and amount of payment should be confirmed and communicated to the PM and accounting team. No other response is going to aid in establishing payment. Statements from the client such as: "Payment is forthcoming, we will get it out to you," are meaningless without when and how much!
- **45 days.** If no payment received, the principal in charge calls the client and stops work until payment is resolved.

Clearly, the best way to ensure that cash will flow is by having expectations clearly defined up front at the start of the project.

One further way to avoid this is the review and approval of a project cash flow with the client. The cash flow mirrors the deliverable schedule, shows the client you are concerned about their resources, and will allow the financial team to have a much more predictive way to manage the flow of funds on the project.

Comparisons of AR outstanding by principals and PMs are some of the most effective tools that the firm can employ in reviewing, assessing, and monitoring cash flow in the firm. Collaborative and cooperative review of the AR by the financial team and the project team will go a long way to improving the cash flow performance of your firm. By consistent monitoring, the ACP review will aid in identifying where AR drift is occurring. ▀

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