PM data dive

Women PMs are hungry for leadership and management training, and want their firms to do more in that regard.

Zweig Group just released the 2019 Project Management Report of AEC Firms. This research publication contains data gathered from a survey of 144 different firms and covers topics related to project management practices and the experience of being a project manager in an AEC firm.

In light of the diversity tenet of Zweig Group's mission and our commitment to promoting inclusion and finding solutions to solving gender-related recruitment and retention issues, via our new ElevateHer initiative, we decided to dig deeper into this data set.

The following three important questions help illuminate the experience of being a project manager:

1) What is your biggest challenge as a project manager?
2) What was your biggest fear about becoming a project manager?
3) What is the most important thing your firm could do to improve project management?

We divided responses to these questions by respondent gender. Twelve percent of project managers were women and 88 percent were men. While the biggest challenge for women project managers was "managing my time" (67 percent), the biggest challenge for men was "managing client’s expectations" (49 percent) – something that only 17 percent of women said was their top challenge. While 50 percent of women selected "managing team members" as their top challenge, that dropped to only 33 percent for men. We were surprised to see that 15 percent of men responded that "staying within budget" was their biggest challenge – something selected by 0 percent of women.

Men and women project managers also had vastly different experiences when it came to their biggest fears about the job. Concerns about supervising staff were the top issue for 60 percent of women, but only 12 percent of men. No women were afraid of "difficulty meeting budget/time goals," but 25 percent of men had this concern. More than double the amount of men compared to women were concerned with "getting away from the design/technical work I love" (44 percent compared to 20 percent).

When we asked this group "What is the most important thing your firm could do to improve project management?" women were most likely to answer, "provide more leadership training" (71 percent women, 45 percent men) and "have clearly defined expectations" (57 percent of women), but men were more likely to answer "hire more experienced staff" (58 percent). Men were also more likely to

See CHRISTINA ZWEIG NIEHUES, page 2
ON THE MOVE

GUY CARPENTER TAPPED TO LEAD STANLEY CONSULTANTS WATER MARKET Guy Carpenter will lead the water engineering market for Stanley Consultants. Based in Muscatine, Iowa, Stanley Consultants is a worldwide provider of engineering, environmental, and construction services.

Carpenter, formerly a vice president with Carollo, will report to Michael Helms, infrastructure business leader, operating from the firm’s Phoenix office. Carpenter has 27 years of experience in water, wastewater, and reclaimed water consulting and master planning. He specializes in advising clients on how to develop and deliver water resources in a safe, reliable, and economic manner.

Carpenter is tasked with developing and executing global water market strategy at Stanley Consultants, engaging with key industry leaders to identify new trends, directing the business development team toward new opportunities, and managing profit and loss.

“What I love about Guy is his passion for water,” Helms said. “He brings a wealth of experience in solving many of the water scarcity and quality challenges that confront most communities today. Not only is he out in front with his clients tackling these issues, he also is out in front of public policy through his leadership on various water-centric boards and committees.”

The water engineering team serves throughout the company’s spectrum of engineering services, including federal and military, civil engineering, energy, transportation, and smart cities design and consulting. Stanley Consultants has a long tradition of working on major water projects such as the rebuilding and protection of New Orleans, to designing water plants in the Middle East, improving the Florida Everglades, supplying western United States with water and storm water abatement and designing numerous water supply and wastewater treatment facilities.

“As an observer and in past project partnership with Stanley, I’ve always admired the firm’s ability to adapt and respond to the shifting demands on infrastructure services,” Carpenter said, adding that Stanley Consultants is well-positioned to help clients repair and replace aging facilities, given its history of infrastructure master planning, design, and construction management.

“While breakthroughs in treatment technology and funding adequacy will continue to be big drivers in the water market, effective use of data will be the game changer. How data is collected, managed, processed, and acted upon is the most important influencer for the water industry and our basis for designing solutions,” Carpenter added. “It will drive how we optimize operations, improve the protection of public health and the environment, reduce capital and operations and maintenance costs, and inform the utility rate payer.”

Private equity and venture capital firms have begun investing in technology and water projects. Carpenter intends to leverage that interest to help clients meet funding challenges. He also stressed that water issues are common across all engineering activities.

“As industries look to improve their bottom lines and integrate sustainable principles into their supply chains, manufacturing processes and resource management programs, water continues to arise as a particularly rich area for improvement. Taking a holistic evaluation approach that includes the nexus between water and energy, as well as the value of recovered resources, will yield large cost savings and reduced carbon footprints.”

“As consulting engineers, it’s our job to look for the win-win opportunities between the industrial users of water and the communities in which they’re located,” Carpenter said.

Stanley Consultants provides planning, engineering, program management, environmental, and construction services worldwide. Recognized for its commitment to client service and a passion to make a difference, Stanley Consultants brings global knowledge, experience, and capabilities to serve federal, municipal and industrial clients in the energy and infrastructure sectors. Since 1913, Stanley Consultants has successfully completed more than 25,000 engagements in all 50 states, U.S. territories, and in 110 countries.

CHRISTINA ZWEIG NIEHUES, from page 1

suggest “[assigning] more administrative staff to projects,” an answer chosen by no women.

While we can’t conclusively answer what causes these gender differences, it’s clear from these results that women project managers are hungry for training related to leadership and management – leading and managing people is a top challenge, a key fear, and the thing they think their firm could improve upon.

CHRISTINA ZWEIG NIEHUES is Zweig Group’s director of research and e-commerce. She can be reached at czweig@zweiggroup.com.
Most of those I know who are owners and managers of AEC firms will admit they would like to get more done. So many feel they are being pulled in so many directions that oftentimes, at the end of a day or week, it is hard to see what was accomplished. That doesn’t lead to high job satisfaction (or life satisfaction, for that matter!).

I have worked with so many high achievers in this business over the years. Here are some the things I see them doing:

- **Getting up early.** You can get so much more done when you get up early. There are three hours between 5 a.m. and 8 a.m. Those might be the very most productive hours of the day. You have to use your time wisely when the interruptions are at a minimum.

- **Allocating time.** You have to allocate blocks of time to your most important activities. Dedicating these blocks where you shut the door and don’t do anything else is a tactic productive people often use. Those blocks are used for matters such as making client calls to find more work, or spending time mentoring your successor. Creating these blocks of time for critical activities is one way to be sure the distractions of the day don’t pull you too far off course.

- **Working off a “do” list.** There is nothing that can take the place of a simple list of tasks to accomplish that you can check off when done. I keep mine in “notes” in my phone. Those who get a lot done use a “do” list as one of several tools in their “productivity toolboxes.” It may sound old-fashioned to use one but they work.

“Learning to be an effective delegator has to be part of your productivity formula. It takes trust in other people and really good communication skills to work. The most productive people in this business are good at it.”
Staying organized.

Delegating everything they can.

“I never bought into that notion that a messy desk says anything about how creative or how busy you are. My experience is that most people who are at the top of their fields are highly organized at home and at work. It’s rare you will go into a CEO’s office that isn’t very neat – even those who have a ton of stuff in there.

“You can get so much more done when you get up early. There are three hours between 5 a.m. and 8 a.m. Those might be the very most productive hours of the day. You have to use your time wisely when the interruptions are at a minimum.”

■ Saying “no.” You will never be able to accomplish your priorities if you say “yes” to everyone who wants you to do something. Knowing it’s OK to say “no” sometimes and when you can do it is something that the most productive people in this business really understand and practice on a daily basis.

■ Delegating everything they can. I’m not going to say that you shouldn’t ever do tasks that are “beneath” your station, because at times you have to, if for no other reason than to boost morale. That said, a steady diet of working below your highest and best use is not a good use of your time. I have seen this way too often with owners and managers in the AEC business. Learning to be an effective delegator has to be part of your productivity formula. It takes trust in other people and really good communication skills to work. The most productive people in this business are good at it.

■ Tuning into themselves. Knowing yourself – when you are at your sharpest, what your typical distractions are so you can avoid them, what you do best and what you aren’t so good at – is essential to be the most productive person you can be. Not everyone is as introspective and tuned into themselves as they probably should be.

I could go on and build a list three times as long as this. But, I, too, have to move on to my next priority task this morning!

MARK ZWEIG is Zweig Group’s chairman and founder. Contact him at mzweig@zweiggroup.com.
# 2020 Seminar Calendar

Learning is your competitive advantage. Zweig Group is your life-long learning provider of choice.

## FEBRUARY
- **26** Elevate Your Recruiting & Retention Strategy  
  Seattle, Washington  
- **27** Elevate Learning Series: The Basics of Business Development  
  Seattle, Washington  

## MARCH
- **12-13** The Principals Academy  
  Dallas, Texas  
- **26** Elevate Learning Series: The Basics of Business Development  
  Washington, DC  

## APRIL
- **2-3** CEO Roundtable Retreat  
  Atlanta, Georgia  
- **8-9** Elevating Doer-Sellers: Intensive 2 Day Workshop  
  San Francisco, California  
- **23** Elevate Your Recruiting & Retention Strategy  
  Toronto, Canada  
- **30** Elevate Learning Series: Communicating With Confidence  
  Phoenix, Arizona  

## MAY
- **19** Project Management for AEC Professionals  
  Tampa, Florida  
- **21** Elevate Learning Series: Communicating With Confidence  
  Detroit, Michigan  
- **27** Learn The Language of Business: Financial Management  
  Dallas, Texas  

## JUNE
- **11-12** The Principals Academy  
  Detroit, Michigan  
- **17-18** Leadership Skills for AEC Professionals  
  Seattle, Washington  
- **24** Elevate Your Recruiting & Retention Strategy  
  Denver, CO  
- **25** Elevate Learning Series: The Power of Positioning  
  Denver, CO  

## JULY
- **14** Learn The Language of Business: Financial Management  
  Chicago, Illinois  
- **23-24** The Principals Academy  
  Portland, Oregon  
- **30** The Power of Positioning  
  Washington, DC  

## AUGUST
- **5-6** Elevating Doer-Sellers: Intensive 2 Day Workshop  
  Chicago, Illinois  
- **12** Project Management for AEC Professionals  
  Dallas, Texas  
- **20** Elevate Your Recruiting & Retention Strategy  
  Orlando, Florida  
- **27** Elevate Learning Series: Building a Persuasive, Powerful, Pursuit Strategy  
  Vancouver, Canada  

## SEPTEMBER
- **24** Elevate Learning Series: Building a Persuasive, Powerful, Pursuit Strategy  
  Raleigh, North Carolina  
- **30-2** 2020 ELEVATE AEC Conference & Awards Gala  
  Denver, Colorado  

## OCTOBER
- **14** Project Management for AEC Professionals  
  Minneapolis, Minnesota  
- **21** Elevate Learning Series: Creating a Championship Interview Team  
  Los Angeles, California  
- **22** Elevate Your Recruiting & Retention Strategy  
  Los Angeles, California  

## NOVEMBER
- **5-6** The Principals Academy  
  Phoenix, Arizona  
- **12-13** CEO Roundtable Retreat  
  Napa, California  
- **19** Elevate Learning Series: Creating a Championship Interview Team  
  Nashville, Tennessee  

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**Have questions?**

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Zweig Group is an approved provider by the American Institute of Architects, SMPS, and ACEC.
Finding needles in the haystack

As Zweig Group’s director of executive search, Chad Coldiron’s passion is connecting top talent with AEC firms.

By RICHARD MASSEY
Managing Editor

He can throw a curveball. He can also hit one. In the process of finding top talent for AEC firms, a lot can happen, and not all of it is good. Candidates get cold feet. They take an unannounced vacation and don’t respond to emails and phone calls for two weeks. Or an offer sheet dies on the vine. But for a guy with a background in insurance, and a proven history of handling emergencies, it’s all in a day’s work.

SEVEN QUESTIONS WITH CHAD COLDIRON.

The Zweig Letter: In your role at Zweig Group, how do you Elevate the Industry?

Chad Coldiron: First things first. You have to show up ready to work every day in the AEC industry, and in life in general. If you don’t, someone else will and the ball will roll on without you. The AEC industry is a machine that churns 24/7 and demands a lot out of anyone who wants to experience a good level of success in their careers. My role specifically helps Elevate the Industry in a couple of key ways:

1) Helping firms find the needle in the haystack. This is my true passion – helping firms by bringing the best teams together. Almost every AEC firm is struggling to find talent on all levels. We have worked with firms to find and attract entry-level positions all the way to working with a board of directors through the transition from one CEO to the next. Elevating women in the industry has been a real pleasure as well. The numbers don’t lie; they are an underpaid and often under appreciated demographic in the AEC industry and we are often in a position to change those circumstances.

2) Working in the executive search arena allows me to participate in bringing different networks together. Zweig Group offers so many different services, it’s easy to identify where we might be able to provide guidance or supply helpful data points outside of executive search.

3) Adding diversity to the industry. The Zweig Group 2019...
“Almost every AEC firm is struggling to find talent at all levels. We have worked with firms to find and attract entry-level positions all the way to working with a board of directors through the transition from one CEO to the next.”

TZL: You wear several hats at Zweig Group. How do you switch from one role to the other during the day, through the week, and throughout the year?

CC: Wearing multiple hats at work is certainly not preferred for everyone, but the ones who can get it done usually have the personality to match. I really want to show up to work every day and help people no matter what they need. It’s tough to balance some of the external client needs with internal demands, but that is where being on a great team comes into play.

TZL: As Zweig Group’s director of executive search, you are chest deep in the talent wars. Good people are hard to find. In the event of an economic downturn, and a subsequent easing in the labor market, what would be the opportunity for AEC firms?

CC: The opportunity is going to be tremendous for the firms that are ready for a downtown. Firms will start to see their biggest need – mid-level, professionally licensed project managers – start to become available again. Firms of all sizes will begin to enter an increasingly attractive M&A market, which will often produce large talent fallout. However, firms cannot be successful if they do not begin to invest more time and effort into their recruiting, retention, and marketing efforts. According to Zweig Group’s 2019 Policies, Procedures, & Benefits Survey, only 32 percent of firms reported having a recruiting/HR budget. Firms have not made a significant increase in recruiting/HR spending over the last five years, some of which can be explained by the increase in the smart use of social media to develop brand recognition and relationships with potential candidates. Why are firms not spending more to solve their No. 1 reported issue with the lack of available talent in the marketplace?

TZL: Your job demands that you fly across the country to meet potential clients for a proposal, or to meet a new client for a kickoff meeting. What is your go-to icebreaker when engaging a client face-to-face for the first time?

CC: Our airport in Northwest Arkansas often has me catching some odd-hour flights, so I normally arrive the evening before our meeting and depart immediately after we wrap things up the next day. Arriving the evening before always gives me a chance to meet up with the client for a casual dinner or drink on neutral turf. If I can’t connect with the client during that first evening, I usually spend it exploring some of the areas surrounding the office and gathering some ice-breaker type talking points.

“You have to show up ready to work every day in the AEC industry, and in life in general. If you don’t, someone else will and the ball will roll on without you.”

TZL: Before coming to Zweig Group, you worked in insurance. How does that experience inform your current role as director of executive search?

CC: My previous role in the insurance industry had me ready for literally anything at all hours of the day. Claims, crashes, leaks, thefts, fires, and financial issues – you name it and I worked with someone through it. I’ve found that executive search demands carrying a very similar mindset. It could be a candidate having a change of heart in the last hour or a client disappearing from communication altogether while they are on vacation for two weeks. You have to be ready to react to anything and not get thrown off your game.

See FINDING NEEDLES IN THE HAYSTACK, page 8.
“Ninety percent of principals are white, 83 percent are male, and only 58 percent of male principals feel there is a problem with a lack of diversity amongst principals in the industry. Seventy percent of our executive search hires in the last two years have been women, and I am proud of that.”

lessons, but also set me up for success in whatever I aim to do. It may have been learning that arriving five minutes early is 10 minutes late from my little league coach (thanks dad), or the fact that you should be running every single on-field scenario in your head between each pitch. As a pitcher, you generally have a lot to think about one moment and then close yourself off for complete tunnel vision the next. If you have seen Kevin Costner in For Love of the Game you’ll know exactly the type of tunnel vision I’m talking about. Those experiences also helped me look at any challenge and think, “I can handle that, it’s only some hard work.”

TZL: Trust is crucial. How do you earn the trust of your clients?

CC: Setting clear expectations on a weekly basis with every client is crucial when establishing trust – whether it was a very productive week or if you didn’t talk to any candidates at all. Keeping your client up to date on how you are going to help them accomplish their goal is all it takes in most cases. We also visit with each client face-to-face at the beginning of our engagements. This is a crucial part to gaining the trust of qualified candidates as they can see the investment the client is willing to make to ensure success. Finding and bringing on rock stars at their firms really helps, too!

TZL: You were a standout athlete and pitcher for the University of Arkansas baseball team, a perennial SEC powerhouse. How did your experience playing top-tier ball, and the work it took to reach that level, shape your life and your work?

CC: My experiences in sports provided me with some hard
The brand elements that have been created for your company are such an important part of your brand’s identity. Think about it. Everyone has the same features on their face – a mouth, nose, eyes, and ears – yet every person looks different. Brand elements can be the same for each company: a logo, color palette, marketing materials, graphics, websites – all tangible elements that create the identity. What makes them stand apart is what makes all of us unique as individuals, the way the elements are designed and presented. So why focus on these elements? To help your company’s brand put their best “face” forward.

So often the logo is the only element that surfaces when talking about brand identity, but that is just one of many brand elements that consumers see that identify who you are. As designers it is up to us to make sure we completely understand all elements and know how to properly utilize them in order to ensure brand consistency and strength, and to maintain brand awareness. If you lose focus, the ways in which these elements are used will start to decline and create confusion surrounding your company’s brand identity.

The question then arises, how do we maintain focus on these elements? Communication is key for making sure the elements are being used properly. Create a digital brand book, or a brand guide communicating the appropriate use of all of your brand elements. Be specific if you have ways in which your logo, graphics, or color palette must be used.

Show examples of marketing materials that demonstrate your elements in use. Everyone enjoys looking at good visuals and seeing examples of your brand identity in action.

Don’t be afraid to speak up if you notice a brand element isn’t being used properly or to its full potential.
STV SIGNS DEFINITIVE AGREEMENT WITH THE PRITZKER ORGANIZATION TO RECAPitalize STV AND POSITION THE COMPANY FOR FUTURE GROWTH

STV Group, Inc., and The Pritzker Organization, L.L.C. announced that the Tom Pritzker Family Business Interests advised by TPO have agreed to recapitalize the ownership of STV. STV is a leading engineering, architectural, program and construction management, planning, and environmental professional services firm, with corporate headquarters in New York, New York, and Douglassville, Pennsylvania. Under the terms of the agreement, TPO will purchase shares in STV owned by the company’s ESOP and partner with current management to leverage STV’s existing strength to drive future growth.

“What this transaction marks an exciting step in STV’s evolution and supports our vision of investing to drive growth for the future,” said Dominick Servedio, P.E., executive chairman of STV. “In TPO, we have found not only an investor but a true partner that shares our values, respects our culture, and is committed to supporting STV’s future growth for the benefit of our company, our clients, and our employees.”

“Partnering with TPO will enable us to bring together the resources of STV and TPO for the benefit of our customers and our employees,” said Milo Riverso, president and CEO of STV. “Following the transaction, STV will continue to provide quality services to our diverse client base. The recapitalization will not affect the structure of the company’s current management team nor the way it operates.”

Tom Pritzker, chairman and CEO of TPO said, “We are very excited to partner with the STV team. For more than 100 years, STV has built a tremendous team and track-record of successfully executing on complex projects with the highest-quality customers. From its leadership, to its people, to its projects, STV is exactly the type of company we seek to support and we look forward to partnering with the STV team for many years to come.”

The recapitalization transaction has been unanimously approved by STV’s board of directors and ESOP Trustee, Great Banc Trust Company. Houlihan Lokey Capital, Inc. is acting as financial advisor to STV. Founded more than 100 years ago, STV is a leader in providing architectural, engineering, planning, environmental, and construction management services for transportation systems, infrastructure, buildings, energy, and other facilities. The firm has offices throughout the U.S. and in Canada.

MARKET STREET MEMORY CARE RESIDENCE PALM COAST WELCOMES RESIDENTS TO THEIR NEWLY OPENED ‘BLOSSOM HOUSE’

Market Street Memory Care Residence Palm Coast celebrated their grand opening one year ago, welcoming founding residents and family members to the newly constructed senior living community.

Market Street Memory Care Residence is a state-of-the-art memory care community offering two similar and adjacent accommodations: Magnolia House and Blossom House. These two ‘neighborhoods’ are joined by Watercrest’s uniquely designed Market Plaza, an active, ‘outdoor’ streetscape with salon and spa, bakery, post office, news stand, and numerous LifeBUILT programming touches that are a highlight and crucial element of their multi-sensory memory care programming.

As the Magnolia House reached occupancy this year, the team at Market Street Palm Coast celebrated the newly opened Blossom House and the opportunity to serve even more seniors living with Alzheimer’s and dementia-related illnesses in their growing community.

“From the day we opened our doors here at Market Street Palm Coast, the surrounding community has overwhelmed us with support and outstanding partnerships,” says Christine McGrath, community relations director at Market Street Palm Coast. “We are blessed to serve the seniors and families of Palm Coast and thrilled to open our Blossom House neighborhood to welcome even more residents to our Market Street family.”

Architected by LifeBUILT Architecture, Palm Coast features an inviting and purposeful design, including spacious accommodations, abundant natural lighting, internal courtyards with lush gardens, circular walkways, and visual cuing. The 64-unit memory care community offers world class care, multi-sensory programming, diverse culinary experiences, and unparalleled associate training honoring seniors with Alzheimer’s and dementia.

“We are here to save lives, change family dynamics, and lead a culture of love, empathy, and passion,” says Amy Jacob, executive director of Palm Coast. “With our continued growth and passionate team of associates, we have the ability to truly make a difference for the seniors we serve.”

“If you take a moment to step back and truly understand the value of the work you do by using your firm’s brand elements correctly you’ll see the impact it has on your firms brand image. Remind yourself and others to look at the big picture.”

PAM WOOD, from page 9

Potential. Sometimes people are unaware they’ve used something incorrectly. As designers we’re here to explain why we don’t use the elements in the way they were presented, and to help come up with a creative solution that uses the elements properly to fit the scope of the project.

Schedule periodic meetings with your design team to discuss your brand elements. Talk about what’s working and what isn’t working. Discuss ways in which you can continue to maintain focus surrounding the brand. This is also a good opportunity to brainstorm any changes that should be considered, and how to properly implement the changes.

Very early on in my career, I was fortunate enough to be part of a team that did an analysis for a company’s brand elements. When discussions started, we knew we didn’t have a clear path or a solid focus on the elements because so many of the materials had their own “face.” The overall consensus was that all these pieces of collateral, when laid side-by-side, looked like they came from multiple companies, not one company. How confusing – and what an eye-opener! Upon wrapping up the analysis we knew what we had to do. We had to shift our focus to the

PAM WOOD is the graphic design manager at Geosyntec Consultants. She can be reached at pwood@geosyntec.com.
Shop drawing liability

Good contracts can help, but timely and thorough reviews of shop drawings are, perhaps, the best defense.

Shop drawings are a controversial area for design professionals. These documents, prepared by others, not under the architect or engineer’s supervision are, by custom and by contract, reviewed by the designer and “approved” for fabrication and for construction. Several courts have found design professionals liable for negligent shop drawing review. A discussion of this topic starts with understanding the purpose of shop drawings.

PURPOSE OF SHOP DRAWINGS. Contrary to popular belief, architects and engineers do not design each and every component of a building. Some items are manufactured products and the design professional specifies a particular make, model, color, and size appropriate for the project. The contractor is then required to submit information verifying that the right product will be supplied. Still other building components are custom fabricated for the project, and the detailing is left up to the fabricator itself. The fabricator’s drawings are then given to “the shop” for use in making the component – thus the name “shop drawing.” As one court stated, “shop drawings are the final word as to how the work should proceed on the job, and supersede the architectural plans.”

Under standard AIA contracts, the review process requires that the fabricator’s shop drawings are first submitted to the contractor, who is to review and “approve” them. The contractor checks the drawings for materials, field measurements and field construction criteria, and coordinates the information in such submittals with the requirements of the contract documents, and sends it on to the architect. The architect’s review and approval is limited to “checking for conformance with information given and the design concept expressed in the Contract Documents.” AIA A201 Par. 4.2.7 (2017). When the shop drawing is returned “approved” by the architect, then the contractor can order or fabricate that item.

LIABILITY FOR NEGLIGENT REVIEW. Negligent review and approval by the design professional may result in liability, depending on the facts and the contractual duties of the reviewing professional. In a 1983 case, specifications called for use of 10-gauge steel on a stair landing, but shop drawings were submitted which called for thinner, 14-gauge steel and were approved by the architect. When the light-gauge landing pan collapsed and injured two workers, the architect was sued and was found liable for the injuries. In a 1995 case, a worker was injured when he fell from an unguarded walkway along a shoring wall and he sued the engineer for professional malpractice in reviewing the shop drawings. The court ruled for the engineer, however, finding that the engineer owed no duty to the worker for handrails or barricades of a temporary nature since those features were “primarily a safety measure rather than an inherent design requirement of the structure of the shoring wall.”

Where the shop drawing relates to the means and methods of construction, AIA-type contract language may shield the design professional from liability. In a 1982 case, an architect was found

See WILLIAM QUATMAN, page 12
not liable for the deaths of two workers and the injury of another allegedly caused by negligent approval of shop drawings for steel erection because, under the AIA General Conditions, the contractor, not the architect, was responsible for temporary field connections and for the means and methods of construction.

**DOES APPROVAL SANCTION A DEFECTIVE SUBMITTAL?** That question has been answered differently in various cases. In a 1977 case, the specifications called for “solid wood doors” but the contractor supplied “particle board doors.” The court held that the architect’s approval of the shop drawing did not sanction the use of nonconforming doors based on contract language which defined the architect’s “approval.”

Like AIA’s A201, the contract stated that the contractor was not relieved of responsibility for deviations from the contract requirements by the architect’s approval of shop drawings unless the contractor had notified the architect of the deviation and the architect had given specific written approval of the deviation. Such contract language may deflect liability from the design professional. For example, in a 1995 case, the court held that the engineer’s stamp, which stated that “review does not relieve the contractor from complying with all requirements of the contract documents,” meant that the contractor was liable for the failure of certain post-tensioning components, and that the engineer’s approval did not waive the original contract requirements.

**DELAY IN APPROVAL.** Some of the lawsuits over shop drawings relate to project delays due to late action on submittals. These cases meet with mixed results. For example, in a 1977 case, a contractor sued the project architects to recover for increased costs due, in part, to negligent and tardy approval of shop drawings. Likewise, in a 1995 case, a subcontractor sued the project engineer for costs arising from rejecting the sub’s initial shop drawings and in preparing new shop drawings, when the original drawings complied with the contract documents. In a 1989 case, an architect was held liable to a contractor for delay damages arising, in part, from the architect’s negligent interpretation of contract documents and its responses to shop drawings. However, in a 1988 case, an engineer was found immune from the contractor’s suit for delayed approval of shop drawings based on a contract clause that said the engineer owed no duty to the contractor. Since delayed reviews can hold up fabrication and cause schedule delays, design professionals need to track their response time. The AIA publishes a form to track review of shop drawings and other submittals. AIA G712 (1972).

In states that have adopted the “economic loss doctrine,” pure delay claims caused by negligent review of shop drawings cannot be made by a contractor or subcontractor against a design firm with whom they have no contract. In a 1989 case, a contractor that had no direct contract with the engineering firm was barred from suing for delay damages for negligent review of shop drawings under that doctrine. Also, a “no-damages-for-delay” clause in a construction contract was found to bar claims related to late shop drawing reviews in a 2010 case.

**SHOP DRAWING STAMPS.** There is a wide variety of wording used on shop drawing stamps. Especially during the mid-1980s, there was a push to avoid using the word “approved” on shop drawing stamps with the logic that if design professionals avoided using the “A-word,” they might not have liability for action taken by them on submittals. However, time has shown that courts often equate a “Reviewed” stamp with “Approved,” regardless of the wording used on the stamp. In a recent 2017 Iowa case, the engineer’s stamp “Furnish as Submitted” was held equivalent to “Approved.” In the 1984 Hyatt Skywalk case, discussed below, the Administrative Law Judge found that, “Although the contract documents require that shop and erection drawings be submitted to the engineer of record for ‘review and approval,’ testimony at trial indicates that engineers never use the term ‘approved’ when indicating review and approval of these drawings. This custom apparently rests upon the dubious basis that most engineers’ insurance carriers have directed that the word ‘approve’ not be used.” That judge ruled that the engineer’s “review stamp” on shop and erection drawings, “functionally indicates both review and approval.”

**NO ACTION TAKEN.** A design professional’s failure to take action on a submittal does not necessarily mean “approval,” however, as one court ruled in 1946. The contract stated that shop drawings submitted without being required would be returned “without action.” The court held that the subcontractor wrongly assumed that shop drawings returned with no action were “approved.” Today, AIA’s General Conditions permit architects to request “informational” submittals, without the need to approve those documents. A201, par. 3.12.4 (2017). Contractors should not assume that the absence of action on such submittals means “approval.”

**THE HYATT SKYWALK CASE.** No single event has had such a dramatic effect on the construction industry as did the collapse of the Hyatt skywalks in 1981, in which 114 people were killed and over 200 more were injured. In the wake of this disaster, the industry engaged in a decade-long review of the entire process of shop drawings and design delegation. The Administrative Law Judge’s 442-page opinion in this case found violations of the state licensing laws sufficient to permanently revoke the licenses of two engineers. The engineers appealed and lost, with the Missouri Court of Appeals ruling that the reviewing engineer was aware of a design change made by the steel fabricator, as reflected on the shop drawings, but that engineer did not review the redesigned connection for structural integrity, a willful act with wrongful intention, constituting “gross negligence.”

As a direct result of the Hyatt skywalk disaster, and national attention on the shop drawing review process, the 1987 edition of the AIA General Conditions added four new disclaimers of what the architect’s approval “is not.” The 1997 edition carried forward the expanded language, with an added section related to design-build components and more protection for the architect. AIA A201, par. 3.12.10.1 (2017); See also, B101, par. 3.6.4.3 (2017).

**CONCLUSION.** While there have not been any major lawsuits in recent years over shop drawings, the topic remains one of potential liability for design professionals. Good contracts can help, but timely and thorough reviews of shop drawings are, perhaps, the best defense.