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LEADING EDGE

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FEATURES

This Quarter:
Leading Edge

Dear Reader:

Thank you for considering FMI to stimulate your thinking. We pride ourselves on serving the construction industry and its leading organizations. Our experience since 1953 drives our writing, and we hope that you find a significant return on your investment in reading the *FMI Quarterly*.

This quarter's issue deals with development of leaders. In tough times, the strategy for your investment in talent development, more than ever, should be focused on the key drivers of your business. If you have not identified the relatively few key drivers that fuel your business, you may want to start there. FMI's long-standing framework of Get (the right) Work, Do Work (with organizational excellence and high productivity) and Keep Score (of the worthwhile activities and results) might be a framework to begin your contemplation of key drivers. Then, the suggestion is that you build your organization's talent development by asking what improvement in skills will best support your individualized key business drivers.

While improved marketing and business development, skilled project execution, and beefed-up management information and organizational skills will certainly help improve your bottom line, don't overlook leader development. Ultimately, the actions of human beings accomplish all business results. As long as organizations need people, they also need excellent leader skills. Leader development is not just for emerging leaders either. Senior leaders need stimulation through continual development of their own skills too. As you read the articles dealing with leader development, ask yourself, "How can my organization best use this information to develop our leadership skills?" Simultaneously, ask yourself, "How can I best use this information to develop my own skills to a greater degree?"

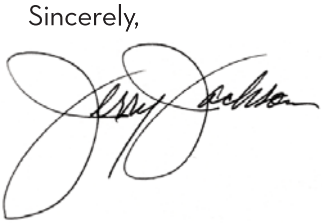
Our usual warning: Thinking isn't doing. Don't forget to build and execute action plans so that the best of your thinking becomes reality.

In the broad area of developing leaders, you'll find Randy Stutzman's piece, "Picking Your Successor" that lists the top-10 mistakes contractors make when choosing their successor. Longtime contributor Gregg Schoppman maintains that construction businesses must focus on making the transformation to successful business enterprises, in addition to being great builders, in “Field Managers: Technicians or Businesspersons?” This is part one of a two-part series. Tim Tokarczyk and Tom Alafat propose that a person’s emotional quotient (EQ) is a better predictor of success than IQ in “Emotional Intelligence.” Lynn Russell engages Tom Kenney and Paula Cino, two leaders who were instrumental in the development of the National Green Building Standard, in “Bringing Green Home.” FMI researchers Jay Bowman and Kevin Haynes share their list of top influencers in our industry in “Influencers in Construction.” AMI’s Steven Isaacs and Cheryl May offer advice to new leaders on how to restructure their existing workload and routine and relegate work to the next level of leaders in “Strategic Leadership Transitions.” Jennifer Jones, Jake Appelman and Tom Alafat’s article, “More is More,” provides a new twist to executive coaching through cadre coaching.

As usual, each issue of *FMI Quarterly* also provides articles, both long and short, on other topics of value to our readers. Included in this issue is Scott Winstead’s interview with Nancy Simonson of Zurich, who discusses solutions that make it easy for contractors who build infrastructure projects to deal with the exposures they have. Newcomer Michael Kanaby offers a short piece on productivity and the green movement in “The Effects of Green Building Practices on Labor Productivity.” Mike Clancy talks with Billy Miller and Dan Murphy of Zurich in “Managing the Risks of Project Suspension” about their experience with what happens when a project is suspended. Another newcomer to *FMI Quarterly*, Grant Thayer, recommends that it may be time to review your strategic plan to see if it is still appropriate in the current economic environment in “Are You Riding a Dead Horse?” Griffith Morris and Ken Loflin describe in “Assessing Compliance” an improved approach to measuring degrees of compliance between what goes on in the field versus what should be happening.

All in all, another packed issue … that can produce changed results only through action. Pick a few nuggets, plan the right actions, execute, generally with considerable repetition, to the point that new habits are established. Meanwhile, look forward to next quarter’s issue that will focus on the broader subject of talent development.

Sincerely,



Jerry Jackson
FMI Quarterly Publisher and Senior Editor

Departments

BUSINESS DEVELOPMENT

Picking Your Successor

Successfully managing a construction company is all about making the right decisions. Some decisions have small consequences and can be easily rectified. Some have huge consequences and can destroy the value of the firm. Of all the decisions that a CEO makes, few will be as important as successfully choosing the right successor. All things being equal, choose the right person and the organization will continue to grow and prosper. Choose the wrong person and be prepared to suffer some huge consequences. Among them are:

- Exodus of good people
- Damaged morale
- Poor or incomplete strategic direction
- Loss of organizational focus
- Flawed job selection and execution
- Decimation of profits and value

Jack Welch, the iconic former CEO of General Electric, said that picking his successor was his most important responsibility. Given GE's stock performance since his departure, one has to conclude that he did not do a very good job. For many CEOs in the industry, this decision is even more important because they have most of their personal wealth invested in the company. Whether the decision is to sell to a third party or sell to employees, they are personally invested in the overall future success of their company.

Over my 30 years of working with contractors, I have seen many identifiable mistakes in the area of successorship and have developed my own personal top-10 list. The list is in no particular order.

They did not start early enough.

Choosing a successor takes time. You may have several internal candidates and not a clear leader among them. It will take time to increase their responsibilities and see which one emerges on top. It will then take more time to provide them with the training and mentoring necessary to ensure their success. You may not have any internal candidates, in which case you will need to attract, hire, train and mentor the heir apparent. There is no absolute time period for this process, but at least five years is a good rule of thumb.

They assumed that the second in command could successfully lead the organization.

All successful organizations have a person who functions as the No. 2 person. Cisco had Poncho, Batman had Robin — the list is endless. In construction firms, sometimes this person is perfectly capable of assuming the reins of the leader. Often, leaders assume (or convince themselves) this person will be successful, without much critical analysis of his or her people skills, financial or technical abilities or even motivation to lead the company. This is unfair to all parties concerned.

They did not pick a constructor.

Successful construction firms have to be good at a number of things, but at their core, they need to be good at execution. To have the greatest chance of success, your next CEO needs to be someone who intimately understands the construction work that you perform. He or she needs to know when project managers or superintendents are doing their jobs. While successful candidates have come from the accounting or business development group, the odds are against this.

To have the greatest chance of success, your next CEO needs to be someone who intimately understands the construction work that you perform.

The successor did not have the right personality profile.

Successful leaders of construction companies typically have dominant, take-charge personalities, which are very different from people with more passive and steady qualities. Some of the characteristics of this dominant personality include the ability to:

- Get immediate results
- Cause action
- Accept challenges
- Make quick decisions
- Question the status quo
- Take authority
- Manage trouble
- Solve problems

These traits are based on the work of the DiSC® Evaluation by Inscape Publishing.[1] It is a solid set of characteristics of dominant, successful leaders. I would never consider a candidate without having him or her complete this or a similar profile. In my experience, I have never seen a successful president of a construction company who did not have this dominant personality.

They forgot that character matters (a lot).

Much has been written about the importance of being a servant leader. Successful construction companies of all sizes are led by people who are far more concerned with the success of their customers, employees and other stakeholders than with their own personal success. They revel in seeing their people grow and succeed. They consistently strive to do the right thing, even if it is expensive, time-consuming and unpopular. They have a deserved reputation of integrity and honor.

They did not surround themselves with smart people.

One comment I have heard many times over the years from successful leaders is something like, "I always try to surround myself with people who are smarter than me." You can teach people to do almost anything. Unfortunately, you cannot teach them how to be smart. Smart people learn quickly, do not tend to repeat their mistakes, and inspire confidence. Customers, employees, suppliers and subcontractors will quickly decide whether the heir apparent has the intelligence to be successful and gain their confidence.

You can teach people to do almost anything. Unfortunately, you cannot teach them how to be smart.

They do not listen to their people.

The people in your organization are much more aware of the succession process than you probably imagine. They are continually evaluating talent and making judgments about an individual's ability to lead the firm. Smart CEOs listen to their people when they express either positive or negative opinions about the heir apparent. There is probably not going to be unanimous agreement as to your choice. However, if you feel there are strong concerns from the organization as a whole about your choice, you should re-evaluate your candidate and proceed with caution

They do not listen to trusted advisors.

Pay a lot of attention to the opinions of those you trust. If you present an idea and they are not enthusiastic, often it is because it was not a very good idea. Your trusted advisors have an insight into you and your organization. If they are not excited about your choice of a successor, there is probably a good reason that deserves further deliberation.

They do not make an honest assessment of the heir apparent's weaknesses and address them.

The most common example of this mistake is selecting a successor who thoroughly understands the construction side of the business but is weak on the financial side. Successful construction companies know how to get work profitably, do work productively and keep score accurately. Your successor will probably have weaknesses in at least one of these areas. It is your job to make sure he or she has the training and mentoring in all of these areas to be successful.

> Successful construction companies know how to get work profitably, do work productively and keep score accurately.

They have made the successful transition, but fail to get out of the way.

The Bible says that no man can serve two masters. Likewise, construction companies do not function well with confusion as to who is in charge. Smart leaders know when to get out of the way and let their successors take the reins. This may involve giving the new CEO your office. It may include taking long vacations. It certainly entails the public and enthusiastic support of the decisions of the new leader.

Management succession is hard. You have seen the horror stories when it is not successful. Companies with strong balance sheets, great repeat-customer relationships, and capable and loyal employees are forced out of business in a few short years, if the correct successor was not chosen. You have also seen many instances where management succession has been very successful. If you avoid these 10 pitfalls, I believe that you will greatly improve your chances of success. ■

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[1] The DiSC Evaluation is used for HR, training and employee development and at times as a part of a hiring process. DiSC is a registered trademark of Inscape Publishing.

CONTRACTORS

The Effects of Green Building Practices on Labor Productivity

The good news is that for a labor-intensive contractor, the effects of green construction processes on labor productivity can be mitigated and managed, with proper planning and training.

It would be next to impossible to be in the construction industry in 2009 and not to have heard of green building. "Green" is the buzzword that permeates all facets of the industry, including owners, architects, builders, building products manufacturers, tenants and even consultants. Everyone, it seems, wants a green label. Research argues that utilizing green practices in the construction industry can reduce energy consumption, CO_2 emissions, water use and the usage of natural resources, all while increasing the productivity of the building tenants.

Green building practices will continue to accelerate. Consumers are being bombarded with information and advertising on green products and the various benefits they offer the environment.

With increasing demand on natural resources and ever-mounting pollution concerns, green building practices should saturate all aspects of the construction industry. As part of President Barack Obama's energy and environment plan, 5 million new green jobs will be created with his pledge of $150 billion dollars to transition the United States to a clean-energy economy.

The concept of green building in construction is positive and similar to the safety initiatives that began in the early 1980s and will benefit the industry. Like the safety initiatives that began in the early 1980s, there will be a learning curve before the net gain can be realized. Learning curves always have incremental costs until experience yields productivity gains. But are there costs associated with the green building practices beyond the typical learning curve? As green building practices become more prevalent, all parties to the process must understand the associated costs. It is relatively easy to compare the cost of green-certified products with those not certified green; but what are the costs of labor productivity associated with putting green products in place? Green building practices are going to continue to gain momentum, and without prior experience against which to benchmark the effects of green building practices on labor productivity, it is important that labor-intensive contractors who want to be successful in these techniques understand how labor productivity will be affected.

Green building practices will continue to accelerate. Consumers are being bombarded with information and advertising on green products and the various benefits they offer the environment. With increased awareness of the benefits of green, consumers will continue to expect more environmental considerations in the structures they occupy. The 2008 *FMI U.S. Markets Construction Overview* found that from 2005–2008 green construction grew 110%. FMI's Research Group continues to forecast the growth of green construction, specifically in office, education and health care. In addition, the recently launched stimulus package is laden with green initiatives and green requirements on projects. As green building practices continue to grow, all contractors will be impacted by green in some way.

"What are the effects of green building practices going to be on field labor productivity?" is a question for all labor-intensive contractors. RSMeans, one of the nation's leading suppliers of construction-cost information, recently published its 2009 green building cost data and the book "Green Building: Project Planning & Estimating: 2nd edition." The organization claims it launched this new data in light of the fact that green building has moved from "a growing trend to a major force in the industry." FMI asked Stephen Plotner, a senior engineer at RSMeans, what the differences were in labor productivity for this green cost data versus the standard cost data. Stephen told us that from its perspective, RSMeans found no difference in labor productivity or installation time between green materials and non-green materials. Although this seems contrary to what you would expect, there is validity in the data. It does not take a worker any longer to install a low-e glass window, a bead of VOC free caulk or a low-flow commode versus installing a similar product without the green benefits. The output per man-hour on the installation of these green products should be equivalent to the output per man-hour on the standard product, making the productivity rate the same. Based on this logic, it can be assumed that beyond the initial learning curve, field productivity for green projects is the same as for standard projects; and in its most basic context, this would be correct. Utilizing green building practices goes beyond the substitution of one product for another; it involves extensive site management and an integrated building system.

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The U.S. Green Building Council (USGBC) is the nonprofit organization responsible for LEED certification. LEED, or Leadership in Energy and Environmental Design, is the most recognized form of certifying the use of green building practices in the nonresidential market. This third-party verification system ensures the use of the appropriate level of green building processes for the level of certification requested. In addition, the performance of the building is measured. For a labor-intensive contractor being tasked with providing a building to an owner that meets a specific level of certification, it is necessary to know what is required of the specific project to achieve the certification level.

Achieving certification under the LEED program requires that the project be constructed using certain techniques and activities that may add labor cost to the project. Activities such as construction-activity pollution prevention, protecting habitat and open space during site development, construction-waste management, material reuse, indoor-air-quality management during construction, and the use of low emitting materials are requirements that can be part of a LEED project. Although substituting one product for another only affects productivity minimally, the extra steps involved under a LEED can affect productivity. For instance, if a crew now has to separate jobsite debris to meet a recycling credit, the output will be increased versus previous established benchmarks for debris removal. Likewise, the stringent requirements on material usage can create opportunities for rework, further reducing crew productivity. Nathan Marty of Auld & White in Jacksonville, Fla., has worked as a project manager on several LEED accredited projects. According to Nathan, "The key is labor-intensive contractors need to know the process and plan for it to avoid rework."

Contractors who have been successful in working on green projects have strong project-management systems and processes in place that revolve around a collaborative approach to project delivery and are inclusive of all aspects of the project from preconstruction through closeout. With the rising demand on managing site conditions and waste, increased levels of document control and unfamiliar building practices, communication and planning become more critical. This could be troublesome for many contractors, as FMI's "2009 Contractor Productivity Survey" found the top-two internal challenges to improving productivity were lack of planning and communication skills, and that 61% of field managers plan five days or less ahead.

With the new constraints green building practices will bring, such as separating debris so it can be recycled, field managers will need to plan much further ahead to avoid fades in field productivity.

With the new constraints green building practices will bring, such as separating debris so it can be recycled, field managers will need to plan much further ahead to avoid fades in field productivity. Eric Harrison, superintendent for Hourigan Construction, found this out the hard way. "As soon as someone threw steel into the wrong dumpster, we had to pay someone to separate the entire thing." The types of materials that will be needed on a green project may not be as readily accessible as conventional products, and procuring shortages may take longer. In addition, there will be documentation procedures typically not encountered in conventional construction. Field managers will have to familiarize themselves with these requirements in advance to ensure obligations are met. In addition, planning will become more important for the field manager on a LEED project because of the attention to detail required on the project specification and the stringent commissioning process to achieve a LEED certification. Mr. Marty, now on his third LEED project, estimates that his field superintendents spend at least 10% more time planning upfront and 25% more time planning in their weekly meetings. As he puts it, "Everyone on-site needs a constant reminder. If procedures are not followed — if you don't have a plan and follow the plan — productivity will be affected."

Green construction systems have continued to grow in the construction industry at a pace that can no longer be classified as a new trend. In the current economic climate, it is not realistic to be a contractor and decide to have no part of green construction. The good news is that for a labor-intensive contractor, the effects of green construction processes on labor productivity can be mitigated and managed, with proper planning and training. Contractors wishing to participate in green building must take a hard look at their current project-management systems and processes in place. If you want to be successful at performing green construction projects, you will need to be disciplined and consistent in your approach to project delivery. Mr. Harrison has found that there is no effect on productivity if it is managed upfront. It will not be the green building process that reduces field productivity, but the lack of preparing for it. ■

In the current economic climate, it is not realistic to be a contractor and decide to have no part of green construction.

Michael Kanaby *is a consultant at FMI Corporation. He may be reached at 919-785-9251 or via e-mail at mkanaby@fminet.com.*

Quarterly Interview

Solutions

Nancy Simonson of Zurich Construction

"Brokers want us to provide the broadest coverage available with credit terms and conditions that can ease the burden on contractors and owners and assist them in reducing costs and increasing work-site safety."

— NANCY SIMONSON

With the federal emphasis on infrastructure spending, contractors need to build infrastructure projects with minimum worry about their insurance needs. *FMI Quarterly* spoke with **Nancy Simonson, senior vice president of Zurich Construction**, about the state of the construction industry; Zurich's new offering, InfraSolutions;™ and other tools that are timely in today's marketplace. Simonson details why these tools target the contractors who pursue highway, mass-transit, wastewater, power and energy, and related projects.

Winstead: Nancy, you've spent a lot of time talking to contractors. What do you see out there in the marketplace?

Simonson: That's an interesting question. Let's begin with January when I started talking with our current contractor customers. They were saying they had sufficient backlogs that would last through 2009, but were concerned about what was in store for 2010, as there appeared to be fewer projects being bid at that time. They also had concerns that the financial conditions of some of the owners that they were contracted with or in midproject with could cause issues down the line.

There was already heightened concern about the economy causing contractors to focus on market specialization and an added focus on their own financial strengths — more than just managing their cash flow on projects.

They identified a deeper penetration into financial management in their organizations emphasizing owners,' subcontractors' and even insurers' financial conditions. Their focus on market segmentation was interesting, because contractors had spent some time developing certain owners and certain segments where they felt that there was going to be sufficient capital expenditure over the next two to three years. For example, contractors were viewing the health care industry or hospital projects and defining a need to develop a larger focus there.

I think the economic picture that we have right now is more difficult than originally projected.

An even greater voiced concern was whether the contractor had the ability to realign resources to the infrastructure building side of its operation. In January it was reported that an estimated $2 trillion worth of infrastructure expenditure had to be done in the U.S. to take care of existing infrastructure, repair or replacements. This appeared to be where the construction opportunities would exist in the immediate future. Contractors clearly saw that private-capital spending would be much slower to recover. In addition, the brokers we talked to were telling us about the increased number of bidders on the projects; so things were becoming highly competitive. Finally, general building contractors were expressing concern over the financial stability of their subcontractors.

Winstead: As you travel around the country and speak to contractors, where are the bright spots out there?

Simonson: I think the economic picture that we have right now is more difficult than originally projected. The stimulus plan is causing some movement, but the market contraction and the banks positioning themselves and tightening the credit lines have increased the cost of letters of credit for contractors. This continues to make things difficult and an ongoing struggle for the contractors. Cash management and financial management for the contractor take the highest priority. Currently, infrastructure spending is a bright spot for people because there has been a lot of noise about the stimulus plan.

General building contractors were expressing concern over the financial stability of their subcontractors.

Project activity has increased over the last few months. There is an increased awareness on infrastructure spending, including highway, bridges, mass transit, airports, wastewater, power and energy.

There have been heightened levels of discussion about nuclear facilities lately, both in the repair of existing nukes as well as the new nukes they are talking about in the Southeast. Stimulus funding has focused on civil construction, and we've seen a number of projects bid just this summer that are between the $100 million to $700 million range, focused on the heavier civil infrastructure side of the house. Energy continues to be important. Alternative energy, wind and nuclear, is where all the expenditure is going to be. There is focus on the health care industry, with hospitals continuing to expand. We see much health care coverage on the wrap-up, owner-controlled side of the house, and our contractors are specializing in that type of segmentation.

The brokers say that more important than anything else is the need for carriers to bring forward large project solutions that work — solutions that make it easy for the contractors to deal with the exposures they have.

Winstead: In addition to contractors, another important component to the construction industry is the brokers. What are they seeing out there right now?

Simonson: The brokers say that more important than anything else is the need for carriers to bring forward large project solutions that work — solutions that make it easy for the contractors to deal with the exposures they have. Brokers want us to provide the broadest coverage available with credit terms and conditions that can ease the burden on contractors and owners and assist them in reducing costs and increasing work-site safety.

Winstead: Given the state of our industry, tell me about InfraSolutions™ and how it could help contractors in light of current market conditions?

Simonson: We are excited that InfraSolutions™ combines *infrastructure*, which is definitely where opportunities exist for both contractors and for Zurich Construction, and *solutions*, which we provide every day to the construction industry. InfraSolutions™ is a combination of construction-focused insurance products that address a contractor's needs, as well as cash-flow enhancements and specialized service offerings focused squarely on infrastructure projects.

Winstead: What makes this different from traditional Zurich products and services?

Simonson: We have specialized services that were developed in combination with the Associated General Contractors of America (AGC) that focus on improving worker safety. We've bundled them together in packages that allow the insurance terms to more directly align with the way the contractor bids, and how contractors and projects need insurance throughout the life of the project (three to five years) and through the extension of the completed operations term (also known as statute of repose) to a maximum of 10 years.

We've also added some very attractive terms to cash flow. When we refer to the existing state of cash-flow issues, our InfraSolutions™ effort has built in a clash deductible. The clash deductible spans multiple lines of insurance coverage. It helps protect the contractor or owner from bearing the financial burden of multiple deductibles arising out of one loss. Application of multiple deductibles on a single loss could cause financial hardship, leading to a deterioration of the financial strength of the contractor and ultimately "sinking the ship."

Application of multiple deductibles on a single loss could cause financial hardship, leading to a deterioration of the financial strength of the contractor and ultimately "sinking the ship."

This is best explained by way of a bridge collapse example. One loss (the collapse) impacts three or four coverages that the contractor has, and instead of having four deductibles apply, we have one deductible apply. In a bridge collapse, let's say the contractor or the owner has indicated that he or she can assume a $250,000 deductible per line of insurance. Since the likelihood that one loss will have all coverages apply is slim; he or she agrees to carry a $250,000 deductible for workers' compensation, another $250,000 deductible for general liability, and another $250,000 deductible for builder's risk. But, if indeed this bridge collapse happens, the contractor would have the likelihood of having severe worker injury, damage to other people's property, builder's risk loss and, if the contractor was involved with a design-build operation at all, a professional loss. The contractor could have four $250,000 deductibles apply.

With the clash deductible that we are offering, a qualified contractor would have 150% of one deductible only apply, so the contractor's loss would be capped at $375,000 instead of $1 million. We think this is a good position because it does allow the entity to retain a cash flow that it is looking for in this time.

Winstead: What are the specific benefits that a contractor would see with some of these products?

Simonson: We talked about flexibility of credit. We have developed flexible premium payment terms that allow eligible contractors to free up their working capital. If you look at an insurance program that is structured to reflect project exposures as they occur, such as work put-in-place or labor expended, that is a much-more-effective and efficient process for the contractor. In addition, factors we bring to the marketplace have exposures collected by premium auditors who are focused on construction and established by underwriters who can assist the contractor in purchasing the right type of insurance at the right price.

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All of these solutions help the contractor with the cash-flow side of the house. Flexible collateral terms and options can also help free up credit lines for eligible contractors. Historically, collateral in the terms of letters of credit (LOC), trust agreements or certificates of deposit have been available but they have been difficult to enter into — difficult for the contractor and the insurer to meet and get together on terms. Zurich has reached out to the financial markets to collaborate on ways to streamline the processes and reduce the administrative costs.

We have developed what we call eZ Trust,™ which is a templated trust approach in which a contractor can easily enroll. The administrative costs are reduced and eligible contractors receive the benefit. We also offer a certificate of deposit option called eZ CD,™ another templated form with

General-building contractors build these projects where 70% or more of the work performed is subcontracted to others. That is the ideal spot for Subguard.®

low administrative costs that we have set up with selected banks to help ease the burden of increased collateral/LOC costs. Other new solutions to address cash flow include the InfraSolutions™ consolidated premium reduction. If you buy more than one insurance product from Zurich, we will reflect the reduction of expenses because we underwrite as a team and have much more efficient ways of sharing information, therefore eliminating some of the overhead costs. The more coverages that a contractor or owner buys from Zurich, the larger the consolidated premium credit.

Typical coverages for heavy civil infrastructure work include workers' compensation, general liability, auto, professional liability, environmental liability and property. For general building construction — termed social infrastructure work under the stimulus plan — which includes schools, hospitals and prisons, we would include Subguard,® which is a Zurich proprietary product covering subcontractor default.

Winstead: I'm glad you brought up Subguard.® Connecting the dots between your comments on Subguard,® the health and well-being of subcontractors in the current market and the cost of a bond, when would it make sense to use Subguard,® and when would it not make sense?

Simonson: Much of the stimulus spending is directed at heavy-civil work on infrastructure and that is typically self-performed work, performed by joint ventures or individual contractors. That is not where Subguard® makes sense. Subguard® is more appropriately focused on the social infrastructure stimulus construction I identified earlier. General-building contractors build these projects where 70% or more of the work performed is subcontracted to others. That is the ideal spot for Subguard.® It offers the opportunity to increase the profitability of the contractor's project if, and this is a really big if here, if the general building contractor has the ability to develop and adhere to stringent programs of subcontractor selection based on sound business principles, relationships and financial analysis.

Winstead: So it does not absolve the general building contractor of the responsibility of due diligence, but is an insurance product to account for a disaster if and when it occurs.

Simonson: Absolutely. An advantage of Subguard® is that through this product, the general-building contractor is actually able to control and manage the expected or actual default of the subcontractor under its own terms. Contractors control the decision in their own selected way and can actually get to the end result, which is finishing that project, on budget and on time.

Winstead: Is there a project-size limit that determines when Subguard® should be used?

Simonson: We do not focus on project size per se for Subguard,® because we provide rolling programs to our general contractors, rather than project-specific policies. Subguard® can be an effective risk management tool on projects of all sizes. Our general contractor clients have successfully employed it on $50,000 jobs and projects well over $500 million as well as everything in between. The risk to general contractors and project owners of subcontractor nonperformance exists on every project, and the financial losses can be many multiples of the value of the subcontract. Subguard® has proven itself as a tool to help project owners and general contractors manage their risks.

Winstead: It certainly sounds like the InfraSolutions™ offering hits the mark given current market conditions and contractor concerns. Besides InfraSolutions™ and Subguard,® are there any other tools or services that Zurich offers that contractors could take advantage of now?

The risk to general contractors and project owners of subcontractor nonperformance exists on every project, and the financial losses can be many multiples of the value of the subcontract.

Simonson: We offer plenty of good quality, traditional coverages, but we are really pulling them together and adding some "bells and whistles" onto the InfraSolutions™ program.

One we have not talked about is that our servicing department, our risk engineers, worked in tandem with the Associated General Contractors of America (AGC) and the team built a highway-worker safety program. We have also developed, in combination with AGC, a soft-tissue injury-prevention program, specially designed to assist with infrastructure projects. These programs focus on critical elements that can help contractors reduce cost and increase worker safety.

Zurich also offers a value proposition benchmarking tool, which complements our InfraSolutions™ effort, because it compares a contractor's historical loss information against the aggregate data that we have for its peers. It is based on the size, operations and geographic area of the contractor. We rank that contractor relative to average and best in class, or experience and then select the leading cause of loss. We then work with him or her on three actions that will significantly improve the cost of losses that he or she has.

The other thing I will talk about is Project Speed. This is a three-party relationship that the contractor, broker and Zurich team put together that triggers a lean project quoting process. This enables our contractors to receive an insurance program with broad coverage and competitive pricing within five days. That exceeds the customers' expectations and allows them to select the cost of insurance informatively. If the project term exceeds four years and we have that extended to completed operations for 10 years, that's a long time to have an unknown kind of insurance cost weigh on the contractor. We believe this process helps the contractor to deliver on long-term projects.

The last offering I will talk about is ProjectSuite. This is coverage designed to meet the needs of that project-specific joint venture or a wrap-up through either a contractor-controlled insurance program (CCIP) or an owner-controlled insurance program (OCIP). Zurich ProjectSuite brings together the coverages that are available: general liability along with extended completed operations coverage, professional and environmental. In the case of general liability, this extended coverage can last for as long as a 10-year extended reporting period or the statute of repose, whichever is less. This is important for our contractors who want to ensure they retain coverage through the time they are exposed.

In addition, we are open to discussing the tailoring of some professional liability coverage that our contractors can rely on, depending on whatever their actual professional exposure may be. Contractors that have very little exposure or no exposure at all can actually craft professional liability to respond to the insured party's

We are open to discussing the tailoring of some professional liability coverage that our contractors can rely on depending on, whatever their actual professional exposure may be.

acts or omissions only, if they are more involved in the design-build side. They can obtain full first-party protective and third-party coverage under the contractor's professional form, which is designed for that purpose. It can also bring the builder's risk coverage to the equation by combining builder's risk as the right-sized coverage with some significant capacity and our Better Green coverage that helps builder's offset the costs of green upgrades on the builder's risk side.

These are comprehensive coverages and we are pleased to offer these options to both our contractor and owner-market segments on infrastructure projects.

FMI Quarterly thanks Nancy Simonson for taking the time to share her thoughts on Zurich's latest offerings with our readers. ■

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This is intended as a general description of certain types of construction services available to qualified customers through Zurich American Insurance Company. Zurich American Insurance Company does not guarantee a particular outcome, reduction in costs, or improvement in administration and further assumes no liability in connection with the providing of these services. Insurance coverages underwritten by individual member companies of Zurich in North America, including Zurich American Insurance Company. Certain coverages not available in all states. Some coverages may be written on a nonadmitted basis through licensed surplus lines brokers.

Risk engineering services are provided by Zurich Services Corporation.

Field Managers: Technicians or Businesspersons?

PART 1 OF A 2 PART SERIES

Construction businesses must focus on making the transformation to successful business enterprises as well as being great builders.

By Gregg M. Schoppman

The truly successful firms understand the business of construction far better than those who simply operate in the construction business. When one examines the people who comprise the foundation of the industry, it becomes apparent that the technical skills that help create the world's greatest structures simply outweigh the business skills on which other industries place great emphasis.

Project managers groomed at the university level in areas of civil engineering and building construction spend the majority of their career learning the technical principles of concrete, steel and asphalt, while business skills become relegated to fundamental finance courses focusing on equipment investments and depreciation. The development of managers and superintendents is not simply a product of higher education. Many managers and leaders of construction firms today received the vast majority of their education in the field. Field expertise helped create the foundation for some of the great firms worldwide. However, the emphasis remained squarely with the building product and less on how the business creates value and long term strategic success.

Construction businesses must focus on making the transformation to successful business enterprises as well as being great builders. Managers within these firms must take the time to understand the realm of business and how to apply these principles to their projects. The thesis of this article is to develop a more solid business foundation for project leaders, including awareness and passion for business success. From the core curriculum of the nation's most prominent MBA programs, the following list was generated as the "Project Manager's MBA":

- Finance and Accounting
- Organizational Behavior
- Ethics
- Marketing
- Economics
- Operations Management

The aim is to provide business principles for project managers to utilize on their projects. Many of the ideas of this article break no new ground, but provide focus on how project leaders can implement fundamental MBA concepts in a project setting.

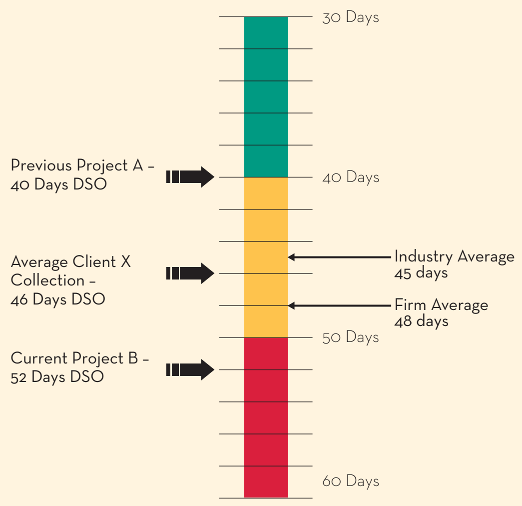
FINANCE AND ACCOUNTING 101

Cash flow. The crux of many discussions in firms nationwide centers around issues related to positive cash flow. For many years, the cash flow focus was to involve project leadership further in the preparation of invoices. Collecting receivables has long been viewed as an accounting function and a distraction to the process of building. Recently, progressive contractors have not only made collecting outstanding receivables an obligation of the manager, but also the superintendent. The evolution in thought was driven primarily by the fact that the people with the most intimate knowledge of the project and impediments to potentially being paid were previously not involved in the process. The marriage of management and finance has become a cornerstone of great project management discussions.

> **Construction businesses must focus on making the transformation to successful business enterprises as well as being great builders.**

Collections. Forty-five days. Sixty days. Ninety days. The outstanding collections continue to creep into the financial danger zone for many contractors across the county. Essentially, contractors and suppliers provide interest-free financing for many of the large projects when cash is not collected promptly. In most cases, the perspective of field management is that collecting the money is secondary to constructing the project. Collections drift along unmanaged with management focusing on outstanding receivables only after they reach 50 or 60 days. The first challenge to overcome is the stigma that collecting receivables is a distraction to the construction process. In a low-margin industry such as construction, cash flow is critical not only to funding internal costs such as payroll, but also to providing payments to the trade contractors who are carrying the bulk of the risk. Managers must continuously evaluate their project's cash collection performance. One indicator is demonstrated in Exhibit 1.

Exhibit 1
Days Sales Outstanding (DSO) Project Indicator



One of the business anomalies in construction is that the collection of revenue often occurs long after the service is rendered. Industrywide, there is a sense of complacency regarding when funds are collected. Customers are branded as "late-payers," and management does little to change this or more proactively manage the payment process. Interestingly enough, firms seldom adequately price projects and change orders when dealing with these late payers. For example, do managers consider items such as interest carry when determining an appropriate margin? Most would argue that this strategy would make the firm less competitive. If this were the case, wouldn't a proactive collection strategy prove more effective than simply raising prices to cover cash inefficiencies?

When contemplating projects to chase or price, management often holds these "late-paying" customers to the same standards as those who pay within an acceptable tolerance. Fundamental time value of money and return on investment calculations are equally sufficient tools to evaluate project and client suitability. Poor performing contractors fail to understand the power of collections on the health of their business and simply bid from the gut rather than with the sophistication of a businessperson.

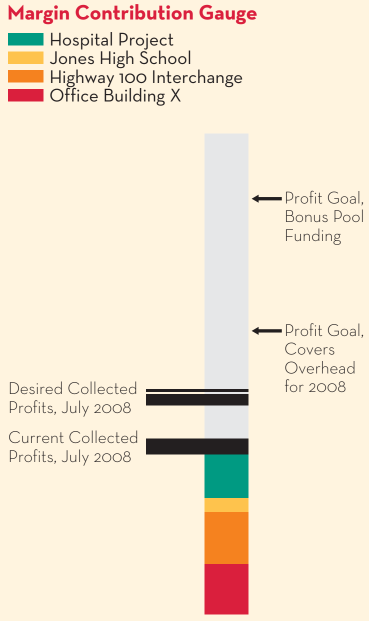
Best-of-class firms utilize benchmarks such as those illustrated in Exhibit 1 to evaluate their position. While measurement alone will not furnish cash to fund payroll and expenses, benchmarking is an essential tool to gauge the effectiveness of internal processes as well as provide a measure of success or shortcoming. Organizations such as the Risk Management Association and CFMA provide benchmark data for every niche within the industry. In addition to benchmarking internal performance, high-performing project managers use the same metrics to evaluate their customers for future project selection and pricing.

Margin Contribution. Philanthropic organizations around the country provide one of the greatest visuals to illustrate margin contributions. Gigantic thermostats dot the landscape of churches and charities, using the rising mercury to portray their contribution collections. Construction leaders would be well served to use this same principle to represent the contribution of projects to the bottom line on a monthly basis. Exhibit 2 is an example of a margin contribution metric that could be utilized within a construction firm to demonstrate project-by-project influences.

Presenting the concept of break-even analysis in this fashion provides a visual depiction of the point at which collections merely cover corporate overhead and may trigger any special incentives for the employees. Razor-thin margins in the construction industry are no secret. Project gains and losses are commonplace. However, controllable losses tend to be discounted and referred to as "the cost of doing business." Superior project managers understand the true value of a project loss, often viewing it as a personal loss. Exhibit 3 provides a depiction of how a small loss can be portrayed in the grand scheme of margin contribution.

Exhibit 2

Margin Contribution Gauge



The margin achieved through completing a $200,000 project or segment of work simply covers the loss on the other project. There is no additional margin gain through this new project. The concept of margin contribution is not complicated. Those who focus on the bottom line of their projects from beginning to end truly have the ability to create margin gain.

Purchasing Strategy. Within the supply chain of construction, purchasing materials and subcontractors, lays another process whereby a manager can influence margin. Often, purchasing is more of an exercise to keep the project moving and gain momentum than a tactic to gain additional margin. A clear and definitive process used to gain additional margin within the boundaries of good business sense should include the following:

Exhibit 3

Margin Contribution

Task Description	Budget	Costs to Date	Cost to Complete	Variance
Concrete Slab	$60,000	$65,000	$80,000	-$20,000

Total Project Value	$1,000,000
Original Project Profitability	$100,000
Revised Project Profitability	$80,000
Margin Erosion	$20,000

Work Needed to Recover Lost Margin	-$200,000 (worth of work @ 10% margin)

- Purchasing Strategy — Specified materials, such as commodity components of copper, plastics and steel, should be examined to determine if the following options are feasible:
  - Hedging — Should purchases be strategically accelerated, delayed or staggered to achieve margin gains in price fluctuations? Can futures be purchased to further hedge price fluctuations?
  - Bulk Purchasing — Should purchases combine needs of other projects to achieve bulk discounts?
- Purchasing Matrix — Using a series of pre-qualified vendors and subcontractors, a matrix can aid analysis of additions, alternates, qualifications and exclusions. Exhibit 4 demonstrates the use of such a table.
- Purchasing Goals — Management should purchase all materials within a certain percentage of the project schedule, with the exception of those earmarked as strategic purchases. For example, management may dictate that ALL purchases be made within the first 15% of the project schedule.
- Material Handling — Examine each component to reduce trucking and freight costs to the office and/or to the project site. Carefully consider how the material will be placed on site to reduce labor-handling costs.
- Purchasing Terms — In many cases, purchasing terms are dictated by the prime contractor or end-user, as well as how his or her accounting department processes and pays invoices. Carefully examine ALL terms and conduct an appropriate analysis of the cost savings. If paying in two weeks for the life of the project saves the project $20,000, and the project can remain overbilled, the decision should be easy. It may break with protocol, but a savings such as this is worth the extra work.

Smart and ethical purchasing sets the tone for a project. A project is often defined by its weakest supplier and/or subcontractor. Using these financial instruments to understand more deeply the dollars behind a bid separates weak purchasers from actual managers.

Exhibit 4

Bid Comparison Matrix

Contractor/Supplier	Contractor A	Contactor B	Contractor C	Contractor D
Base Price	$900,000	$800,000	$850,000	$950,000
Adds				
Lightning Protection	Included	$25,000	Included	Included
Bond	Included	$10,000	$15,000	Included
Premium Time for Accelerated Schedule	$10,000	$35,000	$15,000	Included
Value Engineering				
Option A	($50,000)	(25,000)	($30,000)	None Included
Option B	($20,000)	None Included	None Included	None Included
Actual Price	$840,000	$845,000	$850,000	$950,000

Note: Conduct similar analyses to examine unit pricing models. Whether it is on a square foot or linear foot basis, great managers examine the total package and not just the bottom line.

ETHICS 101

As scandals such as the Madoff Ponzi scheme and Enron's meltdown adorn the front pages of the national news, ethics curricula have become increasingly important to educators. For more reasons than the nature of work, the media has portrayed construction as a dirty industry without ethics. While industry image is improving somewhat, construction firms routinely battle the perception of the industry. Integrity and ethics appear in many corporate charters and value statements. However, how many live and breathe the value of integrity at all levels in the organization? The real ethical battle has shifted from the boardroom to the project war room.

For more reasons than the nature of work, the media has portrayed construction as a dirty industry without ethics. While industry image is improving somewhat, construction firms routinely battle the perception of the industry.

Ethics and Integrity

Integrity is widely viewed as a C-level trait, that is, a Corporate-Suite-level trait. The root of ethical behavior begins long before an individual makes it to the corner office. Dr. Ralph James addressed the root of profitability to integrity in his book, "The Integrity Chain." James believes that decisions at the project level are precursors to decision at the C level. Small breakdowns in integrity or the "little white lie syndrome" at the project level lead to larger breakdowns later. For example, consider cost-reporting in most companies. Project managers routinely complain about the inaccuracy and untimeliness of the field's reporting of quantities and percentage of completion. Field managers charge the office with creating unrealistic budgets and then shuffling dollars on cost reports as if this were some convoluted Ponzi scheme. Both arguments have merit and neither is largely viewed as one of the deadly sins. While hardly catastrophic, this breakdown of integrity at the project level often leads to poor decision making later. Exhibit 5 illustrates a chain of events that has the ability to lead to more-significant ramifications at a corporate level.

The lack of adherence to project controls and standards directly

Exhibit 5

Project Cost Reporting Downward Spiral

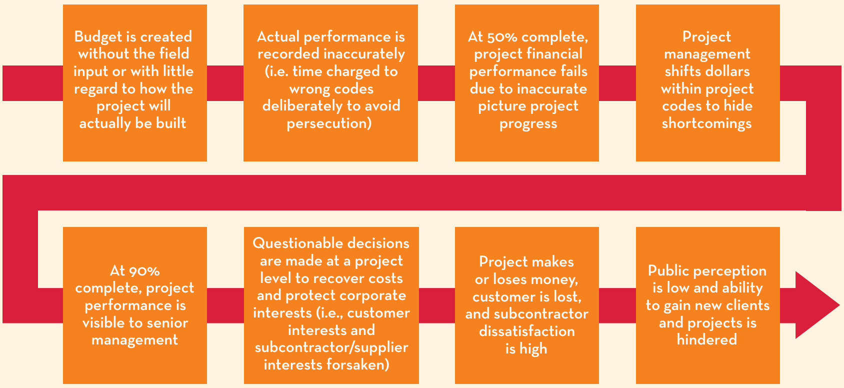
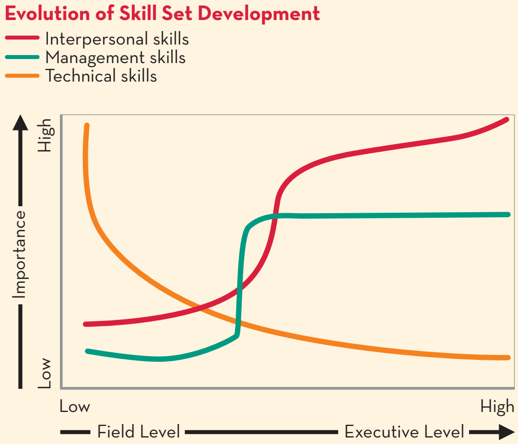


Exhibit 6

Evolution of Skill Set Development



affects overall corporate profitability. Many companies do not provide the appropriate level of time to establish the correct budget. The rush to start the job far outweighs the need to establish a realistic budget. In many firms there is a belief that bad news on project performance will be met with harsh repercussions. Hiding losses and covering ones' tracks becomes the modus operandi to avoid a reaming. Rather than ask probative questions, such as "Why did we lose money in this category?" many senior managers shoot first and ask questions later, if at all. Human behavior dictates that it only takes one beating to realize the need for a new strategy. Collaboration upfront is imperative. Planning takes time and the integrity chain breaks when firms do not consider time for planning a part of the critical path. Companies with a culture of asking questions with the sole purpose of improving performance rather than casting blame truly better their performance. Project ethics are the embodiment of a firm's corporate values.

ORGANIZATIONAL BEHAVIOR 101

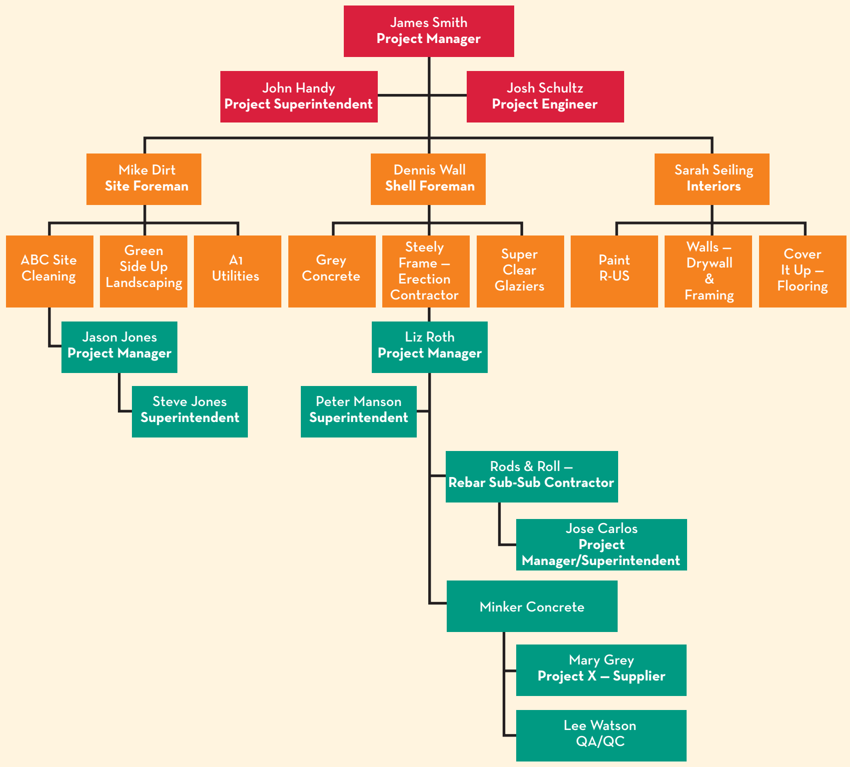
As men and women enter the construction industry, the focus is on the technical side of the business rather than the people side. Understanding how structures and projects are built is far more important than the people building them. As managers and superintendents progress through their careers, the need for "soft skills" becomes much more pertinent. Exhibit 6 illustrates this principle.

Project Organizational Structure

Organizational diagrams are often limited to the ranks of senior management when trying to define some level of reporting structure. Even with an organizational chart, lines of communication are often blurred, and dashed lines represent informal chains of command. The same dysfunction can exist on a project, where misguided communication can lead to margin erosion. A published organization chart is not enough. A clear project organizational structure with consistent and well-defined lines of communication must exist on every project. During the pre-job planning process, all contractors and suppliers should understand their roles, their direct superior and how/when communication should be routed. Exhibit 7 examines a typical project organizational chart as defined during pre-job planning. Exhibit 8 further illustrates the flow of communication during the life of the project.

While the organizational structure in Exhibit 7 may not be foreign, the concept of delineating specific duties in accordance with position may be. There is a frequent lack of coordination and communication on most projects, which breeds discontent and frustration. Most project organizations can be described as "flat" with simply a project manager and superintendent facilitating the needs of anywhere from 16–30 trade contractors and/or suppliers. The structure of Exhibit 7 limits the number of direct reports on the project, while allowing phase-specific foremen the opportunity to lead and manage smaller sectors of the project.

Exhibit 7
Sample Project Organizational Structure



Pundits might argue this added layer of field management is simply an added cost and has the potential to exasperate the crews and tradesmen.[1] With a clear communication plan in place and strict adherence to structure implemented, phase foremen can offer the following benefits:

- *Training Ground* — Firms can use this structure to train future superintendents in a limited and controlled environment.
- *Quality Control* — Management has the ability to proactively reduce defects through closer management of a smaller number of crews and contractors

In order to be a more effective building contractor, a "mechanistic model" or one that simply applies traditional field and office duties to positions on a project, should be refined.[2] Most construction projects have natural dividing lines according to the Work Breakdown Structure or by activities to be performed. For example, mechanical contractors can manage projects in a similar fashion by breaking their work into rough-in, piping and finish-out, all while there is one "field general"

Exhibit 8

Project Communication Matrix

Position	Responsible For	Input Required	Time Frame and Frequency
James Smith Super Contractors Project Manager 555-555-5555 jsmith@supercont.com	• Project Schedule Update • Project Invoicing • Owner Meeting	• Current status report, Three-week, look-ahead schedules • All monthly billing • Hot Issues	• Input from Team – Due every Friday, Output to Team – Schedule out every Tuesday • Invoices/Bills Due 20th of the month • Issues before agenda generation, Every Monday by noon
Josh Schultz Super Contractors Project Engineer 555-555-5551 jschultz@supercont.com	• Submittals • Request for Information • Change-Order Proposals	• Review Specification 1000 for requirements • Sketch, Question and Proposed Solution • See Change Order Process (attached) for details	• Submittals – As required • RFI – Within 48 hours of issue • CO – Within 48 hours of change issue
John Handy Super Contractors General Superintendent 555-555-5552 jhandy@supercont.com	• Site Supervision • Safety • Quality Control • Close-out	• Weekly Short-Interval Plans • Safety Inspection Reports • Project Exit Strategy	• Attendance at weekly meetings is MANDATORY – Minutes and action plans generated by Josh • Weekly inspections are due by EOB Wednesday (with Toolbox Talks) • Exit-Strategy Meeting on June 1, 2009
Mike Dirt Super Contractors Site Foreman 555-555-5553	• All work associated with a pad-ready site, utilities, paving and landscaping	• QA/QC Reports	• All related QA/QC reports and as-builts to be checked at EOB Friday

managing the day-to-day operations from a higher level within the organization. Electrical contractors could also benefit from this allocation strategy. Obviously, none of these structural solutions are developed without regard to cost and customer. Best-of-class contractors develop personnel strategies that utilize their personnel while fitting the needs of the customer.

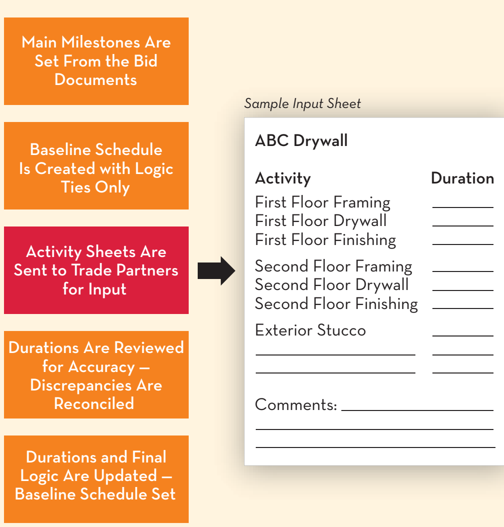
Contractors engaging in partnering arrangements outside of basic contract obligations are becoming more of the norm.

Motivation

Like it or not, managers and superintendents spend the vast majority of their time motivating not only the individuals on their team but also the multitudes of suppliers and trade contractors that support their project. Collaborative environments are a relatively new concept that may require modification of individual behaviors, but can result in more-effective management of trade contractors. Contractors engaging in partnering arrangements outside of basic contract obligations are becoming more of the norm. Preconstruction meetings have become more-collaborative discussions rather than dictatorial instruction sessions. Project leaders who create this level of buy-in are using a greater motivational tool than the old school toolbox of "win-lose" conditions and motivation through fear.

On a group level, buy-in to project goals is created through early involvement. For instance, how often are project schedules created with little input from the people involved in ensuring the schedule is met? Managers and superintendents feel if they allow input from trade contractors and suppliers, they are relinquishing control. Under this rationale, the assumption is that trade contractors will provide unrealistic time frames with little regard for their own budgets, rather than work as diligently as possible and strive to finish their work because it benefits their best interests as well. Exhibit 9 illustrates an input tool that managers

Exhibit 9
Schedule Development Flowchart and Duration Buy-In Tool



can utilize when creating the baseline schedule.

For clarification, each trade contractor is provided this tool as the prime contractor develops the baseline schedule. Each trade then provides its respective durations prior to the final version being ratified. With a baseline schedule created from input of each trade as well as the superintendent, contractors now have a vested interest through their direct involvement. What greater motivational tool for trade partners than to use time budgets that they established.

Feedback

Feedback is highly valuable in a project, whether it is individual performers or a trade contractor. Jim Collins, author of "Good to Great," discusses the need to have high achievers "on the bus" as well as the discipline to remove underachievers. Many interpret Collins' commentary to be focused on individuals within the organization. An argument should be advanced that this concept extends to project teams as well. First, it is important that all projects have some sort of post-job review, not only those that are dubbed failures. Create a well-defined post-job review to provide beneficial feedback on the following components:

- Things out of our control that impacted the project.
- What would I do again from my position (i.e. project manager, superintendent, estimator, etc.)?
- What would I change?
    - Customer review
    - Ability to get answers
    - Ability to get paid
- Worked for win-win solutions
- Trade contractor/supplier review
    - Top-2 contractors/suppliers and why
        - Ability to meet schedule
        - Ability to meet daily production
        - Ability to work safely
        - Ability to manage project documentation (i.e., submittals, as-builts)
    - Bottom-2 contractors/suppliers and why
        - Inability to meet schedule
        - Inability to meet daily production
        - Inability to work safely
        - Inability to manage project documentation (i.e., submittals, as-builts)

These items, when collected and analyzed, become the impetus for powerful discussions within the firm. With time, the "lessons learned" create a database to achieve repeatable success. The criteria for judging performance is objective and steers clear of personality conflicts and favoritism. Furthermore, poor performers are then culled out through a process that provides them critical feedback. Some level of intervention prior to banishment should be required to allow for corrective behavior. The discussion may offer critical insight into one's own process and management flaws. Often, "black-listed" firms never receive the gift of high-quality, constructive feedback and continue operations at a substandard level. The time invested in post-job reviews is returned through higher-performing contractors and suppliers that have a higher level of understanding regarding project issues important to the firm.

Organizations are faced with a war for talent, even amidst a turbulent economy. As organizations downsize, managers wrestle with the need to retain star tradesmen while balancing costs. Predation from other organizations is always a threat in an industry that continues to become less attractive to younger generations. Often, managers view the solution to many employee problems as monetarily driven. Pay them more and satisfaction will increase. Many firms across the country have some of the highest-paid, unhappy people because they choose not to remove obstacles that impede productivity, but instead go around them. Trades such as concrete finishers, masons and pipe layers may have a high turnover ratio regardless. The repetitive nature and grueling conditions of some projects create an environment of attrition. Best-of-class firms have found ways to combat these issues by focusing on daily goals and incentivizing performance. For example, road builders use flags to signify daily production marks. Those that achieve the goal on a routine basis are rewarded with weekly meals or some other bonus. Some contractors focus their crews on daily goals and competition. Winners receive some non-monetary prize or other non-salary compensation.

Organizations are faced with a war for talent, even amidst a turbulent economy. As organizations downsize, managers wrestle with the need to retain star tradesmen while balancing costs.

The best incentive is the one identified by the people who will receive it. Ask the crew what will improve performance. More often than not, incentives will not be large compensation increases but rather simple team rewards, such as barbecues and symbols of team solidarity. Regardless of the incentive, managers who focus on their people and project goals, and remove obstacles that impede productivity have more successful projects. Reactive managers wait until issues percolate to the surface. Proactive managers understand the frustration these obstacles pose to the crews and seek actively to remove them.

PART 1 SUMMARY

The first three subjects, finance, ethics and organizational behavior, were briefly examined to provide business management correlation to construction-industry project management. Within the industry, there is a general perception that traditional business principles will not work for reasons that range from the composition of the people to the nature of the work itself. "We are a different type of industry" is often extolled by industry executives. This separatist notion dooms many organizations to failure and adds drag to the potential of the construction industry. Business-school concepts have the ability to be applied to all industries. Savvy construction leaders find creative ways to apply these principles to create great organizations. ■

Part 2 of this series will be published in a future issue of *FMI Quarterly.*

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[1] Robbins, Stephen, (1991). Organizational Behavior. Prentice Hall, Upper Saddle River, N.J., p. 418.

[2] Ibid., p. 430.

Emotional Intelligence: Leading in the 21st Century

Many experts believe that a person's emotional quotient (EQ) is a better predictor of success than IQ. Unlike IQ, emotional intelligence is a skill set that we can develop and improve throughout our lives.

By Tim Tokarczyk and Tom Alafat

Ed is a project manager who has risen through the ranks due to his attention to detail and insistence on finishing projects on schedule. He arrives on-site to inspect work completed by Dean, a journeyman, only to discover it was built out incorrectly. Fixing the work will increase the projected hours and material cost. Even worse, Dean refuses to take any responsibility for the mistake, even though there was a task plan in place.

Ed recognizes the severity of the situation and wants Dean to accept ownership over the problem. Tensions rise and both men start shouting, which attracts the attention of the rest of the crew. Ed realizes this is an unhealthy situation and unproductive toward his eventual goal of getting Dan to own the problem and develop a workable solution, but is unable to control his anger. The two men eventually start making personal attacks on each other.

To Ed's credit, his attempt to get Dean to accept responsibility for the mistake was intentional and part of the bigger picture in helping Dean become ready for the next level of leadership. Ed thought Dean might be resistant to take responsibility for his mistake, but he pictured himself behaving differently. He imagined he would listen to Dean's initial excuses, convince him to take responsibility and motivate him to solve the issue. He did not expect to lose his temper and he did not expect to hear himself personally attacking Dean. Instead of focusing on the issue, he called Dean "lazy, incompetent and worthless." Ed felt bad about the confrontation, but in the heat of the moment, his words and actions felt uncontrollable. Reflecting on the argument, he realized that over the years, he has had many similar encounters. Ed knows there is a better way to deal with conflict but feels powerless to do so when tensions rise and tempers flare.

Ed's situation is common in the building industry. In a profession with enormous pressures, ambitious deadlines and long hours, interpersonal conflicts are going to arise. The construction industry is notorious for generating conflict-laden situations. Conflict may develop in numerous ways: contractors submit numerous change orders to owners; designers deny responsibility for mistakes; builders encounter environmental issues that were not considered by the designers; or neighborhood residents start to complain once a project has begun. These and a multitude of other scenarios occur in the construction industry every day and may lead to cost overruns, schedule delays, safety issues and costly litigation. Construction work is one of the most stressful occupations around the globe, according to the International Labor Office. To deal effectively with these pressures and conflicts without damaging personal relationships, construction employees need to focus on building their emotional intelligence.

EMOTIONAL INTELLIGENCE IS A BETTER PREDICTOR OF SUCCESS THAN IQ

Emotional Intelligence may be defined as the ability to recognize and harness the power of one's own and others' emotions as a source of information, connection, energy and influence. In his seminal book, "Emotional Intelligence," Daniel Goleman states, "At best, IQ contributes about 20 percent to the factors that determine life success, which leaves 80 percent to other forces."[1] Many experts believe that a person's emotional quotient (EQ) is a better predictor of success than IQ. Emotional intelligence has gained momentum in recent years, as research further proves its importance to the long-term success of leaders.

Emotions play a powerful role in the workplace, which may lead to counterproductive behaviors that can hamstring projects and batter personal relationships. Have you ever worked with someone who displayed a need for absolute control and insisted on always having the last word? How about someone who, when wronged, would do everything possible to even the score and even savor the opportunity to "teach them a lesson"? Compare this to a leader who is perceived as good at listening and gaining input from others before implementing change. Think of leaders who cooperate with others and build relationships, who can control their impulses and understand their own emotions, as well as the emotions of others. Whom would you rather work with?

Developing emotional intelligence is not a simple process. Research studies have shown that emotional intelligence is directly related to job performance and affects attitudes at work. In light of the recent economic situation, emotional intelligence takes on even more importance. People are concerned, worried, stressed, dealing with the loss of co-workers through layoffs and are still expected to perform at high levels. Effective leaders show compassion and empathy for these feelings, acknowledge the difficulty of the situation, show appreciation for the work being done, and inspire the workforce to continue working, believing that things will get better. Leaders need emotional intelligence to handle the current economic situation successfully.

Unlike IQ, emotional intelligence is a skill set that we can develop and improve throughout our lives, and it plays an essential role in every relationship we build. Leaders who are high in emotional intelligence gain trust and receive support from employees, which helps them lead effectively, especially during tough times. The framework of emotional intelligence is comprised of four components: self-awareness, self-management, social awareness and relationship management.[2]

SELF-AWARENESS

Self-awareness is the foundation for emotional intelligence and plays a key role in leadership development. A person high in self-awareness recognizes his or her own feelings and emotions and how they affect one's behavior. The more accurately we can identify our emotional triggers, the easier it is to avoid an emotional misstep. For example, if Ed were more aware of the internal cues that were telling him he was about to lose his temper with Dean and had developed strategies to mitigate those emotions productively, he would have been in a better position to decide how to handle his emotions appropriately.

Leaders high in self-awareness have an accurate understanding of their strengths and challenges. We can all think of a construction leader who pretended to know it all and would never admit to making a mistake. Many of us operate on the misguided belief that we must appear as though we know everything or else people might start to question our abilities. However, when you pretend to have all the answers and never admit missteps, you are modeling low EQ behavior that may have negative consequences for you, the project and your organization. On the other hand, if you openly own mistakes and admit that you still have plenty to learn, you open the door to collaborate with and learn from others.

Many of us operate on the misguided belief that we must appear as though we know everything or else people might start to question our abilities.

Another aspect of self-awareness is in how we convey our emotions nonverbally. Compelling aspects of communication are done without words and occur at a more-accelerated rate than speech. While nonverbal communication is not about words, it is not necessarily silent. Tone of voice says a great deal. We have all heard the axiom, "It is not what he said, but how he said it." Raising the volume level of your voice or adding a patronizing timbre can speak volumes to the people you are leading.

Nonverbal communication is also a visual language. While in conversation, if you stand or sit in a rigid manner, the message you send will be received quite differently than if you are visibly relaxed. The manner in which we talk, listen, look and move can create a sense of trust and connection or can produce fear and discomfort in our everyday interactions with the people we lead. Improving self-awareness of our nonverbal communication includes paying attention to eye contact, facial expressions, tone of voice, posture, gestures and touch. Nonverbal communication is the vehicle that consciously or unconsciously transmits positive or negative signals to others.

As a leader, you should solicit feedback on your performance from others by asking insightful questions and listening intently without trying to defend your actions.

Conceding the need to increase your skill level in some aspect of interpersonal communication is often the most-difficult step in the self-awareness process. We all have blind spots. It is difficult to see something in yourself that may be obvious to others, and this is what makes developing self-awareness so challenging. One way to start to develop your self-awareness is to request and listen to feedback from the people you work with who know you well. Co-workers and acquaintances can shed light on those areas in which you are not aware.

As a leader, you should solicit feedback on your performance from others by asking insightful questions and listening intently without trying to defend your actions. Ask your supervisors, colleagues and direct reports how your behavior affects them. For example, you might ask, "What can I do to be even more effective in working with you?" The skill of asking insightful questions is invaluable in developing self-awareness. However, when the question is about your own performance, it can be difficult to be objective about constructive feedback. If you defend your actions, you miss what the person is trying to communicate to you, and people will be less likely to give you feedback in the future. If you accept the feedback gracefully, you will be more likely to hear what you need to hear. When you demonstrate that you are open to both positive and constructive feedback, you show willingness to learn and develop your self-awareness. In addition, asking questions is a fundamental approach to problem solving and decision making and illustrates that it is okay not to know everything. When others see that you do not have all the answers but are intent on learning and growing, this encourages them to be open to learning as well.

There are also other ways to acquire feedback on your performance. Formally, you can receive it through 360° multirater assessments. In 360° assessments, your peers, superiors and direct reports anonymously provide feedback on all aspects of your behavior. It may be difficult for some people to tell you to your face the impact you are having on them, especially if you are in a position of authority over them. Through the 360° assessment, they have the opportunity anonymously to give feedback in written form.

Informally, you can set aside some time to reflect on the events of the day. How well did I manage my emotions today? What emotions did I display that were the most effective or detrimental to my leadership effectiveness and my relationships? These are a couple of questions that you could ask yourself. Self-reflection is one of the most powerful means of increasing your own self-awareness. Often, we are not even aware of how we acted or what we could have done differently until we reflect upon our behavior later. If you get into the habit of self-reflection, you will soon find that your self-awareness will increase dramatically.

SELF-MANAGEMENT

While self-awareness is the first step in becoming a more emotionally competent leader, it alone does not solve the problem. For example, Ed could have had enough self-awareness to realize he was getting angry and frustrated at Dean, but if he simply let his emotions get the better of him, the result would be the same. Emotionally intelligent leaders first recognize the emotions they are experiencing and then immediately work on managing those emotions.

The self-management component of emotional intelligence includes numerous competencies. First is emotional self-control. People high in self-control have already developed self-awareness about their emotions and use that knowledge to control their emotions and ultimately their behavior. For example, becoming more aware of the internal cues or triggers that tell us we are about to lose our temper puts us in the position to decide how to handle the emotions appropriately. Ed did not expect to lose his temper and lash out at Dean; however, when those emotional triggers were pushed, Ed lost control and did something

Emotionally intelligent leaders first recognize the emotions they are experiencing and then immediately work on managing those emotions.

that he regretted later. Leaders with a stronger sense of self-control seem unfazed in stressful situations or when dealing with a hostile person. They learn to navigate their emotions instead of disconnecting from them. When those emotional triggers are pushed, people high in self-management slow down their reactions so that they have the time to make the most insightful, appropriate and productive decision on how to react. When they develop skills of sensing, identifying and using their emotions, they are able to harness their power and put these skills to advantageous use in leading their people.

Another competency of self-management is optimism. Optimism keeps us motivated over the long term because it allows us to see the future as positive and desirable. Optimism guides us through our current struggles, as we are able to see beyond the present and anticipate an appealing future. Most people involved in construction would acknowledge that stress is potentially an everyday experience. There is always pressure to complete projects on time and within budget. There is always risk involved in undertaking a project due to low margins, which reduces the flexibility to make mistakes and still profit financially. It is easy to fall into feelings of pessimism or negativity. Leaders need to remain optimistic and to give their people hope, especially in the face of setbacks or challenges.

Optimism is tied into resiliency and perseverance, and these two skills are essential in determining one's ability to lead during the stresses and challenges faced every day in the construction industry. Leaders who are optimistic do not veer off course when obstacles arise. When confronted with turmoil and confusion, optimistic leaders stay calm and levelheaded and may use humor to relieve tense or uncomfortable situations. Do you think that Ed may have been able to reduce the tension with Dean if he used humor to diffuse the conflict? A simple joke about the absurdity of the situation and wondering how they arrived at that point could have decreased the tension both men felt.

When circumstances become tense, an effective strategy is to remove yourself from the situation, take time to calm down and think about how best to respond. Ed could have paused the conversation, explained to Dean that he was becoming upset, and asked to restart the discussion later. Building in time to step away and reflect would have allowed Ed the opportunity to calm down and focus his energy on more-positive emotions before restarting the conversation with Dean. In many situations, however, it is difficult to stop a conversation at the moment when tensions begin to rise. Leaders with strong emotional intelligence are able to, in the moment, recognize the emotions they are experiencing, and come to a quick conclusion about the appropriateness of those emotions. Ed could have realized he was getting upset, taken a few deep breaths and planned a more-appropriate course of action. By simply naming the emotion, we work toward reducing it. Ed could have said, "Dean, I apologize for getting angry. You are one of our most experienced employees. My goal here is not to start an argument or place blame, but simply to find an equitable solution to this problem." Although Ed would have still felt angry, he would have taken some key steps toward managing those emotions.

Self-management is more difficult to achieve than self-awareness. The times when we need to display self-control over our emotions are those times when our emotions work hardest to prevent that from happening. It is the rare person who can flip a switch and start managing his or her emotions better. This competency takes time to develop. Leaders determined to manage their emotions better will encounter starts and stops, times when they handle their emotions extremely well and times when they do not. This is to be expected. The road to becoming an emotionally competent leader is long. Great leaders will recognize when they have achieved success at self-management and will learn from those times when they do not. Once Ed realizes he needs to improve his ability to recognize and manage his emotions, he has taken the first steps toward emotional competence. At times, his emotions may still get the best of him. This does not mean he failed or that he has no emotional intelligence; it simply means that he is still a work in progress. By better managing his emotions even a percentage of the time, he will begin to see immediate results in the relationships he has at work.

The road to becoming an emotionally competent leader is long. Great leaders will recognize when they have achieved success at self-management and will learn from those times when they do not.

SOCIAL-AWARENESS

While increasing emotional intelligence starts with a focus on you, it does not end there. Becoming more aware of your emotions and then managing those emotions are important components to emotional intelligence; however, those alone will not make you a truly emotionally intelligent leader. Emotional intelligence also involves how well you recognize and respond to the emotions of others. Leaders need to be aware of the emotions of others as well as the emotions they themselves are experiencing.

Most of us know people who display very little social awareness. They are unable or unwilling to read and recognize the emotions of others and will have interpersonal conflicts or alienate those around them because of their behavior. This will adversely affect their upward mobility and ability to lead others effectively. The inability to connect with others and gain their respect is a major issue for those who have not learned how to notice and interpret the verbal and nonverbal cues that others are sending.

One of the most important pieces of social awareness is to show empathy for others. Empathy involves first a cognitive recognition of the emotions of others and then connecting emotionally to how they feel. Empathy is often confused with sympathy. Sympathy is more focused on you than it is on others. Someone displaying sympathy would look at a person and think, “How would I feel in his or her situation?” For example, if Ed were to sympathize with Dean, he might think, “If I were Dean, I would be very angry if someone approached me and criticized the work I had been doing.” Sympathy is valuable, but the focus here is on Ed, not Dean. While Ed may feel angry, it does not necessarily mean that Dean does. Sympathy involves trying to project yourself into another person’s situation, asking how you would feel if those conditions existed for you. Empathy, on the other hand, is simply asking, “How does he or she feel?” The focus here is not on you, but on him or her. For Ed to show true empathy, he would ask himself, “How does Dean feel in this situation?” It may turn out that Dean does not feel angry as much as he feels embarrassed by the poor quality of his work.

Empathy involves focusing purely on the other person — recognizing how that person feels and then showing care and concern for those feelings. Empathy seeks to understand the other individual’s experiences, feelings, wants, needs and perceptions. It is one of the most valuable actions a leader can take and a key component of building one’s social awareness.

One can also increase social awareness by taking a coaching and mentoring approach with his or her people. By asking what the other person needs to grow and develop, you will intentionally begin to focus on his or her strengths, weaknesses, desires, hopes and fears. In our example, instead of focusing on only the negative, Ed could have helped Dean to see what he did right and how he could have been more effective by performing the work correctly the first time. Ed might have shown more patience with Dean had he taken a coaching/mentoring approach and would have been more inclined to try to help Dean recognize the consequences of not taking responsibility for his actions.

Leaders who are aware of the emotions of others can leverage that awareness to build connections with their people and establish trusting relationships.

Leaders who are aware of the emotions of others can leverage that awareness to build connections with their people and establish trusting relationships. Trust is built when one person realizes the other has his or her best interests at heart and is looking out for them. Increasing one’s awareness of the emotions of others is one of the most valuable steps leaders can take to create long-term credibility and success in their leadership. To build effective, trusting relationships, leaders need to focus less on themselves and more on others. They need to show empathy, ask the right questions and demonstrate they have the other person’s best interest at heart. One of the best ways to build trust in a relationship is to give trust. Leaders who show that they trust the competence and capabilities of their employees will in turn find that those employees trust their leader as well.

RELATIONSHIP MANAGEMENT

The final component of emotional intelligence is the ability to manage the relationships we experience every day, with our families, friends, co-workers and acquaintances. For leaders to improve their relationship-management skills requires a combination of the previous components we have discussed. To be a strong relationship builder demands an awareness of one's own emotions and the ability to manage those emotions. It also requires an awareness of the emotions of others and the awareness, discipline and maturity to respond appropriately to those emotions. Leaders able to do that create an environment than can lead to positive outcomes from both a business and relational perspective.

Every relationship will inevitably find itself in conflict at some point in its existence. The conflict could be small, with few serious consequences, or it could be vast, with life-changing ramifications. Conflict in and of itself is not unhealthy and successfully dealing with it can strengthen the relationship, rekindle commitment or increase trust. However, conflict handled poorly can damage or destroy the relationship.

Emotionally competent leaders are able to negotiate and resolve conflicts, tapping into the emotions they feel and the emotions the other party experiences. Ed and Dean certainly hit some conflict in their work relationship, and the actions they took worked to disintegrate instead of empower it. Their argument represents the danger that can occur when one does not effectively manage conflict. Unless Ed takes steps to repair the relationship, he can expect to find Dean unwilling to approach or engage him, choosing instead to withdraw from the relationship. Dean could become actively disengaged in his work, lose motivation or eventually remove himself from the organization. Studies have shown that the No. 1 reason employees leave an organization is due to their direct supervisor — and consequently, some breakdown in that relationship.[3]

Leaders must also display compassion in their interactions with others. Compassion may seem like a nebulous, difficult concept to put into practice, but it has proven extremely helpful to leaders wishing to mend or build relationships. One of the biggest challenges leaders face is giving good, constructive feedback to their people without angering or upsetting them. This is exactly the situation Ed found himself in, and if he had focused on taking a compassionate approach with Dean, he could have prevented the escalation of emotions that led to the argument. First, leaders need to give feedback that is more positive before giving constructive feedback.

Conflict in and of itself is not unhealthy and successfully dealing with it can strengthen the relationship, rekindle commitment or increase trust. However, conflict handled poorly can damage or destroy the relationship.

By consistently giving positive feedback, Ed would have built a healthier relationship with Dean, and Dean may have been more willing to hear the constructive feedback, because he knows that Ed has his best interest in mind.

To further show compassion, Ed would need to ask himself some questions about how he viewed Dean and the other journeymen working for him. Does Ed truly view Dean as a vital part of his team or simply as a means of getting the work done? Far too often, would-be leaders view their people purely as an asset or a means to an end — instead of unique individuals with their own strengths and weaknesses, who are deserving of our time, energy and attention. Had Ed not looked at Dean as a cog in the greater machinery of the organization, he might have taken more time to consider the best way to approach Dean. This would allow Ed to focus on how he could help Dean become more effective, instead of viewing him as a problem that needed to be "solved." By showing compassion to our people — showing that we value them and their contributions to the organization — we empower and motivate them, building stronger and better relationships.

Leaders who focus on developing their relationship-management skills will need to keep in mind the importance of teamwork.

Leaders who focus on developing their relationship-management skills will need to keep in mind the importance of teamwork. The leader's role of creating teamwork could command much more discussion, but, for the purposes of this article, will only be briefly touched upon. Building individual relationships is important, but the larger aim is to create high-performing teams of individuals who trust, depend and rely upon each other to continue operating at high levels of performance. Individuals on high-performing teams will not only accept constructive feedback, but will willingly seek it out in an effort to become even more effective. Building strong individual relationships is important, but leaders must weave those relationships into a true team atmosphere, leveraging the strength of the entire team to increase its effectiveness.

DEVELOPING EMOTIONAL INTELLIGENCE

While leaders have a number of options to develop their emotional intelligence, such as books, articles, conferences and seminars, one of the most proven, powerful means to quickly improve one's emotional intelligence is through executive coaching. While books and seminars undoubtedly offer additional information and help you develop a plan to increase your emotional intelligence, only executive coaching provides a one-on-one opportunity to receive timely, specific feedback about your strengths and the areas in which you need to improve.

Some executive coaching includes an Emotional Intelligence 360° assessment, in which those with whom you work closely provide their feedback on your emotional intelligence. From this feedback, you and your executive coach outline a coaching plan with specific goals and action steps to develop your EQ skills. Executive coaches will help you shift and expand your mindset to accelerate your ability to reach the objectives established in your coaching plan. Executive coaches will also provide specific assignments that will assist you as you work toward your goals and act as an accountability partner to ensure you follow through on them. Finally, executive coaching provides you with advice, insight and counsel in how to handle those difficult situations that arise.

While the conflict between Ed and Dean reached a boiling point, the relationship was not beyond saving. The argument spurred Ed to reflect on how well he managed his emotions. Building on that self-awareness, Ed would next need to manage those emotions properly, taking careful note when he let his emotions get the better of him. He also recognized the need to focus more on the emotions of others, to show compassion and empathy for his co-workers, and to work on forming trusting, strong relationships that are built on mutual respect and understanding. The road to becoming an emotionally intelligent leader is not an easy one, as it often consists of unlearning behaviors we have demonstrated our entire life. Working with an executive coach would certainly help Ed focus on those areas of EQ he needs to improve and would help guide him as he worked on raising awareness of his own and others' emotions. He would then leverage that knowledge to manage his own emotions as well as those of others. Improving emotional intelligence begins with raising your own awareness of the strengths and weaknesses you have. Ed took that first step. Propelled by his desire to improve the way he interacted with others and prevent additional personal conflicts from arising, there is every reason to think Ed would be successful in this endeavor.

The journey toward true emotional intelligence is neither short nor easy, yet any progress made will immediately offer rewards in the workplace. Leaders focusing on their emotional intelligence will begin to handle emotions more appropriately and build strong, lasting relationships with their co-workers. In the long run, increasing emotional intelligence is one of the most powerful means to effect personal change and increase effectiveness of the organization but, more importantly, in those personal relationships which allow an organization to be successful. ■

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Bringing Green Home

FMI recently spoke with Tom Kenney and Paula Cino, who were instrumental in the development of the National Green Building Standard, to learn more about their roles in this important endeavor.

By Lynn Russell

The National Green Building Standard, approved in early 2009, provides guidance for safe, sustainable and high-performance building practices for residential construction. It is the first and only green building rating system approved by the American National Standards Institute (ANSI), making it the benchmark for green homes.

The National Association of Home Builders (NAHB) formed a 92-member stakeholders group of builders, researchers, environmental experts and designers, and in 2004 developed the NAHB Model Green Home Building *Guidelines*, designed for single-family construction only.

In 2007 the NAHB and the International Code Council (ICC) adopted the American National Standards Institute consensus process for development of the ICC-700 2008 National Green Building Standard.

The ANSI mission is to promote and facilitate voluntary consensus standards and ensure the integrity of their development and maintenance. The ANSI designation signifies that the National Green Building Standard (NGBS):

- Was developed using fair and open processes that ensured due process for all stakeholders through public hearings and comment periods.

- Was developed by a balanced consensus committee that guarded against dominance by any one party or interest group.
- Provided several opportunities for stakeholders to appeal Consensus Committee decisions on their unresolved comments, first to the NAHB Research Center's Executive Standards Committee and twice directly to ANSI.

The NGBS includes criteria for rating environmental impact of design and construction practices for residential buildings and land development. The NGBS establishes four levels for green residential buildings: bronze, silver, gold and emerald ratings, and one- to four-star rating for site design and development. An administrative process for adopting entities is defined by the NGBS, including third-party verification for claiming compliance with the Standard. The six areas of concentration for green building ratings are:

1. Lot design, preparation and development
2. Resource efficiency
3. Energy efficiency
4. Water efficiency
5. Indoor environmental quality
6. Operation, maintenance and building owner education

The NGBS green ratings are based upon (weighted) points earned for green practices (see Exhibit 1). There is a minimum point requirement in each of the six categories, establishing a balanced approach. Some mandatory practices do not garner points but must be fulfilled for certification. A key difference between LEED® and the NGBS is the target user. LEED® is designed for the top 20% of green builders. The NGBS is reaching out to the full spectrum of the residential market.

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Exhibit 1

Threshold Point Ratings for Green Buildings

	Performance Point Levels (1) (2)			
Green Building Categories	**Bronze**	**Silver**	**Gold**	**Emerald**
Lot Design, Preparation and Development	39	66	93	119
Resource Efficiency	45	79	113	146
Energy Efficiency	30	60	100	120
Water Efficiency	14	26	41	60
Indoor Environmental Quality	36	65	100	140
Operation, Maintenance and Building Owner Education	8	10	11	12
Additional Points from Any Category	50	100	100	100
Total Points	**222**	**406**	**558**	**697**

(1) In addition to the threshold number of points in each category, all mandatory provisions of each category shall be implemented.

(2) For dwelling units greater than 4,000 square feet (372 square meters), the number of points in Category 7 (Additional Points from any category) shall be increased in accordance with Section 601.1. The "Total Points" shall be increased by the same number of points.

Tom Kenney is vice president of Engineering & Research for the National Association of Home Builders (NAHB) Research Center. He was intimately involved in the NAHB Research Center's role as an accredited standards developer with the American National Standards Institute (ANSI) and as the secretariat for the National Green Building Standard.

Paula is the director of Energy and Environment for the National Multi Housing Council (NMHC). She represented the National Multi Housing Council and community in the ANSI development process for the National Green Building Standard.


Tom Kenney


Paula Cino

Russell: What was your role in the development of the National Green Building Standard?

Kenney: As an accredited standards developer, the NAHB Research Center provided technical assistance and administrative support for the effort. We were instrumental with marshaling resources to organize and facilitate the standards development process. While we provided assistance on technical matters and aided the Consensus Committee and its Task Groups, the NAHB Research Center did not have a seat on the Committee, did not vote or advocate positions. We were a neutral party providing the forum and support for the process.

Cino: Like the 2004 NAHB Guidelines, the National Green Building Standard (NGBS) was originally envisioned as a standard for single-family homes. NMHC saw an opportunity and asked NAHB/ICC to expand the standard to all residential buildings, including multifamily. NMHC subsequently was appointed to the NGBS Development Committee.

Russell: What vision drove the initial concept? How did it evolve from the guidelines to the "Standard"?

Kenney: The initial concept was rooted with the NAHB and members' needs at the federal, state and local levels. Green building and sustainable construction concepts were growing and finding relevance in the marketplace. Builders respond to the market, and it became clear that the shelter industry would benefit from a unified approach. Many green programs and industry practices were being established as de facto standards. Lack of harmonization and potentially conflicting programs jeopardized NAHB's ability to establish credible responses at all levels. For credibility, NAHB needed an accredited consensus standard backed by a third-party certification process.

Cino: Although the process for moving from guidelines to standard happened behind the scenes at NAHB/ICC, I think everyone in the residential sector recognized a growing need for a new green building tool. As jurisdictions increasingly considered mandatory or incentive-based green building programs and more investors sought green assets, a new metric was needed that was verifiable, code-compatible and third-party accredited.

Russell: The residential construction community was represented on the Consensus Committee by developers and architects; NAHB's Multifamily Council; the U.S. Green Building Council; the American Society of Heating, Refrigerating and Air-Conditioning Engineers; and the National Multi Housing Council (NMHC). How was the committee formed? What drove the selection of members?

Kenney: As the secretariat, we solicited for volunteers to participate on the Consensus Committee. The solicitation was advertised widely to as many materially affected parties as we could identify. A candidate list of individuals and firms that self-nominated was provided to NAHB and ICC for vetting and selection. The NAHB Research Center assessed the selections for potential conflicts of interest, balance, coverage duplication and coverage gaps. The size of the 42-member Consensus Committee was not predetermined, but it was based on the need to accommodate key materially-affected parties, while maintaining balance — roughly one-third representation across user, general and producer categories. The final selection of nominees was then reviewed and approved by the NAHB Research Center's Executive Standards Committee.

Cino: All interested parties were encouraged to apply for committee membership. The ICC and NAHB then selected committee members based on background and experience, following American National Standards Institute (ANSI) requirements for diversity of participants (i.e., the committee had to represent all points of view including industry, green building advocates, product manufacturers, code officials, etc.).

RON JONES is co-founder and editorial director of Green Builder® Media. Considered as one of the fathers of the green building movement, Ron has been instrumental in setting guidelines and standards with the most-recognized organizations in the green building/sustainable development sector, the National Association of Home Builders (NAHB) and the U.S. Green Building Council (USGBC). He served as charter chairman of the NAHB Green Building Subcommittee and is an original member of the LEED Homes Committee for the USGBC. Ron is also the owner of Green Builder LLC, a national award-winning design/build company that specializes in challenging site projects and environmentally appropriate construction.

Russell: Who led the effort?

Kenney: There were many leaders in the authoring process. Clearly, Ron Jones, who served as chair, was the integrity keeper of the process. The drafting process was an essential activity, and the success and efficiency in authoring a completely new standard from new cloth was, in my opinion, very impressive. That success is attributable to the volunteers of the Consensus Committee and, specifically, the Task Group leader/volunteers.

Cino: An army of people at NAHB and ICC worked to bring the NGBS project together. But, importantly, NAHB/ICC took a backseat role once the committee was constituted, with all substantive decisions flowing from the committee members. For that reason, Ron Jones, the committee chair, played a crucial role in moving the standard forward. Jones was a brilliant selection to lead the effort because he represents the best of both worlds — an accomplished home builder and a respected green building advocate.

Russell: What were the success factors in the leadership approach?

Kenney: The success factors were set by the leadership provided by NAHB and ICC. Specifically, their decision to rely on the ANSI consensus process to author the standard and to give complete control to the Consensus Committee for its content was notable.

Cino: All opinions were considered and no one was shut out of the conversation. This included input from non-committee members.

Russell: How was buy-in achieved around the table?

Kenney: By definition, buy-in was integral to the process. Materially affected parties had a voice in the authoring process and public hearings conducted by the Consensus Committee. The hearings provided forums for open debate and consideration of expert opinions and facts. NAHB provided a first-draft proposal to start the process. Basically, the proposal was to update and modify the NAHB Model Green Home Building Guidelines. However, the Consensus Committee wrote a completely new standard, while borrowing some practices from the Guidelines. The majority of the standard, especially the point system, was original work, developed anew by the Consensus Committee and Task Groups. Also, public comment periods were provided for every new version of the draft standard. Finally, it would be fair to characterize the authoring process as one completely defined by the Consensus Committee and executed by the support of Task Groups volunteers.

Cino: Jones promoted an understanding that we were all working towards a common goal, even if we disagreed about how to get there. He emphasized that this is a work in progress — green building is not an exact science; we don't yet have all the answers, and change is occurring every day.

Russell: Were there any serious conflicts between the parties? How were they handled?

Kenney: As with any standard development, one expects conflicts, differences of opinions, and position loss and gains. This is especially true when a standard is one that provides differentiation — in this case defining green. While some parties were occasionally disappointed, I believe it is fair to say that everyone had opportunities to make his or her case multiple times.

Cino: As expected, when you bring such diverse stakeholders to the table, there were countless, significant disagreements about everything from the structure of the standard to specific provisions. There is a certain simplicity to resolving

> The motivation for the Standard process was ease of regional adaptation and consistency in jurisdictional interpretation. As a result, the system is prescriptive and developer friendly. The stakeholders agreed upon a single system for all residential building types (including multifamily) rather than multiple versions. The Standard was designed for easy administration by third-party certifiers or inspectors.

conflicts under the ANSI process, however. Everyone gets an opportunity to argue his or her point of view; then the committee votes on the matter.

Russell: What else did NAHB Green learn from other green building processes that could be translated to the Standard to set it apart as a thought leader?

Kenney: From the onset, we trusted the open process of discussion and debate to yield the best outcome. Ensuring inclusion by all materially affected parties was key to the success. Also, having an independent chairman was an important factor as well. Ron didn't advocate and he did not vote unless a tiebreaker was needed.

Cino: As all the above points state, simplicity is key. The standard was developed as an easy-to-use, yet robust, green building tool.

Russell: The baseline for energy savings has been increased, stating that the structure must perform at least 15% better than the 2006 IECC to qualify for "Bronze." Can you share any of the discussion around this increase in expectations?

Kenney: A starting point was establishing building code and energy code requirements in the NGBS to ensure uniformity on key green practices. This was in recognition that local adoption of the latest editions of model codes is not uniform. Additional green practices beyond code were added to the various green rating levels to establish increasing levels of performance. For the Bronze level, energy efficiency is about equivalent to Energy Star™.

Cino: Most people consider energy efficiency to be the most notable part of green building, so it was important that any project built to the standard evidence a marked improvement in energy use. The committee felt 15% was a meaningful threshold that projects could achieve without negatively impacting cost or function.

Russell: Was there discussion about dealing with the variability of our industry?

Kenney: Yes, there is inclusion for multifamily structures as defined in the scope of the NGBS and through referencing appropriate standards such as the International Building Code. For energy, ASHRAE 90.1 can also be used for compliance.

Cino: Yes, it is hoped that the flexibility and options within the standard can account for the diversity of (multifamily) building types.

Russell: Did the committee discuss human behavior and the best approach to achieving acceptance by the industry?

Kenney: Yes, performance and durability are strongly influenced by occupant habits and behavior. The NGBS attends to this in Chapter 10: Operation, Maintenance and Building Owner Education.

Cino: While not specifically discussed in these terms, this idea was always in the background of our discussions. For that reason, the change we are asking for had to be justified and quantifiable. But we also used a balanced approach. There is a lot of emotional investment in a home, owned or rented, so projects can't be all efficiency with no sense of aesthetic, or comfort or flexibility.

Russell: The NGBS was submitted to ANSI in early 2008 as the first residential green building standard to undergo the process. It applies to single-family and multifamily construction, as well as land development and single-family remodeling. ANSI placed their stamp of approval on the Green Standard in January of 2009. What is the anticipated effect of its acceptance and implementation in the field?

Kenney: The ANSI approval credential sets this document apart from all others and essentially it is the standard of green for residential.

Cino: Hopefully, the NGBS will become the new baseline standard for jurisdictions, owners and consumers considering green building in the residential sector.

Hopefully, the NGBS will become the new baseline standard for jurisdictions, owners and consumers considering green building in the residential sector.

Russell: Any comments you would like to add?

Kenney: As with all ANSI standards, they are living documents that require maintenance and updating. The NAHB Research Center's Web site provides an online form http://www.nahbrc.org/technical/standards/greenbuilding.aspx for submitting proposals for future revisions of the NGBS. The proposals for change will be used as initial input in the next revisions cycle of the Standard.

The Web portal www.nahbgreen.org provides information about the NAHB Green Building Program, education offerings and certification services. Exploring the online scoring tool http://www.nahbgreen.org/ScoringTool.aspx is an excellent way to learn the NGBS, and its use is required for getting a building certified by the NAHB Research Center.

FMI thanks Tom and Paula for their insights and time. ■

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Managing the Risks of Project Suspension

Dan Murphy and Billy Miller of Zurich discuss some of the risks associated with project suspension, and how to manage them.

By Mike Clancy

The construction industry invests considerable time and effort to develop and improve practices for planning, commencing and executing construction projects. Much less time is devoted to understanding what happens when a project is suspended or terminated. However, in today's economic climate, a number of projects have been suspended or terminated, or are at risk of a similar fate in the near future.

So what does happen when a project is suspended? Can the parties involved just pack up their offices or jobsite trailers and move on to the next project? Unfortunately, the reality is not so simple. In this article, FMI and Zurich discuss some of the risks associated with project suspension or termination, and how the savvy construction firm can manage these risks. Dan Murphy is the vice president of construction services for Zurich in North America. Billy Miller is the assistant vice president for field operations/construction at Zurich Services Corporation. Zurich is a leading commercial property-casualty insurance provider serving the global corporate, large corporate, middle market, specialties and programs sectors.

Clancy: How big a problem is project suspension in construction today?

Murphy: It depends on geography. We are seeing more project suspensions and cancellations in some regions of the United States than in others. For example, Zurich insures a contractor in the Midwest that was building a large casino on a reservation. The project stopped when it was about 80% complete, and the contractor was unable to finish.

Miller: We see this issue in small retail building as well as in entertainment businesses like in Las Vegas and similar venues — projects have been suspended without much warning. We have also seen mixed-use facility condominium projects incurring some of these same problems. Project suspension is more significant in certain geographic areas; however, there are actually some regions of the country where one would be hard-pressed to tell that there is a slowdown at all.

Project suspension is more significant in certain geographic areas; however, there are actually some regions of the country where one would be hard-pressed to tell that there is a slowdown at all.

Clancy: What kind of trends are you seeing? Is project suspension happening more frequently, and is this a problem that contractors should expect to continue even after the recession?

Murphy: We will see more suspensions during this recession, and I expect our contractors will need training and education on what to do if one of their projects is suspended. One of the main issues will be how to return to a project that was suspended. Contractors will also need to address Quality Assurance/Quality Control (QA/QC) issues and what to do if there is a new owner. These are some of the major issues I think we will have to confront after the current recession.

Miller: We have seen the problem of project suspension come in waves. We saw several projects before the end of the year that were put on hold, and I think that most people expected that financing would free up. However, that money has just not come through as anticipated. Zurich is just beginning to see some large OCIP (Owner-Controlled Insurance Program) and CCIP (Contractor-Controlled Insurance Program) projects receive funding in the last three months that they have been waiting on for almost a year. We are starting to see some of the financing shake loose, but it appears to be directly connected to where private funds are being made available for commercial building. I have a sense that we will see more project suspensions before the end of 2009 and another wave going into 2010.

Clancy: Is this problem mostly on the private side, or are we seeing any public entities, municipalities or states starting to suspend and cancel projects as well?

Miller: We have seen public project suspensions in some areas where tax revenues have been decimated. This was particularly noticeable when public entities did not use bonding to support their construction, but used sales tax and other general revenue funding mechanisms instead. We have seen many of those types of projects come to a halt.

Clancy: Follow-up on what you said, Dan, about contractors needing training and education on what to do if their project is suspended. What are some of the immediate actions contractors should take when a project looks like it is going to be suspended, and what do they need to do in the longer term to protect themselves?

Murphy: Contractors must understand that project suspension has always been a potential problem, though it was not as common in the past. Typically, if contractors felt comfortable with an owner, they did their background research and agreed to build. Now banks are suddenly refusing to provide the owner with money, so the job stops. When this happens, the stage at which the job stops becomes a major concern. Has the contractor thought about the contractual language in the event that project suspension occurs? If the contract language lacks provisions for job suspension, it becomes difficult to resolve who is responsible for what, such as security, quality control and quality assurance. There is a whole array of potential problems for which the contractor, the owner and the bank could be responsible.

Miller: If the contractor pulls out a contract today and finds that it lacks suspension or contract-stop language, it is time to sit down with the owner and discuss this issue. Problems arise not because contractors do not know or understand what to do; rather, they encounter issues because of a lack of focus on the potential problem before it happens. Usually after an owner goes bankrupt, the opportunity for dialogue to work out these issues is minimal. For instance, who has the responsibility for environmental storm drain runoff? This is an example of the type of problems for which general contractors have to foot the bill, even though it was never within the scope of their project. The contractor is unlikely to be paid for solving this problem, but may need to cover the expense to protect the public. Contractors make these types of investments to protect their good name on the street.

Murphy: Another important step for contractors is to retain documents and records of what they have done up to the point of project suspension.

Clancy: What type of records would they need to retain in your opinion?

Murphy: Contractors must have a high-quality documentation program. Information must be preserved up to the point to which the project was built, including video and pictures of what the site looked like when construction stopped. A copy of the contract, contract amendments, change orders and all other documentation leading up to the project suspension are also necessary. All of this information must be retained in a jobsite file at the contractor's home office. Then if there are any questions two, four or 10 years from now, the information can be recovered and used to explain what the jobsite was like when the project stopped.

Clancy: How do we go back into a suspended project, whether it was something that we started that was suspended, or something that we are coming in to finish? What are some of the challenges contractors may have with these sorts of projects?

Murphy: Let's say a contractor put the heating/ventilation/air conditioning system (HVAC) into a building but later had to shut it down and board up the windows. Then he or she comes back to finish the project two or three years later. Does the contractor have a warranty on that equipment? No one ever tested it; the contractor just shut it down and boarded up the building. Or what if a contractor erected a structural steel building, which was suspended. When he or she returns two or three years later, does the contractor need to replace the steel? Does the entire structure need to be sandblasted so the fireproofing will adhere to the steel? There is a wide range of concerns that must be considered when a project isn't taken to completion and turned over to its owner.

Contractors must have a high-quality documentation program. Information must be preserved up to the point to which the project was built, including video and pictures of what the site looked like when construction stopped.

Miller: From a strategy perspective, decommissioning a project that is suspended is a challenge. The previous contractor should have archived all of the pictures and details regarding the point at which construction was suspended. New contractors that come in should have a similar strategy and need to ensure that they take good pictures before assuming responsibility for the job, documenting the existing conditions thoroughly. Contractors must develop a strategy that protects their interests, thereby helping to avoid making replacements beyond the scope of their new contract when the project starts up again. This is probably the most unfortunate part of the whole process because it is a frictional cost added to the construction project. Significant protection activity occurs at the project stop, and the new contractor will need to take the same measures to safeguard his or her interests — and the job may not even be the same project that existed previously. All of these actions are necessary to make sure people have a clear view of the contractor's scope and responsibilities incurred, from both a warranty perspective and builder's risk exposure.

Murphy: An additional concern arises around warranty, builder's risk and construction-defect coverage. Who is responsible for what if two different general contractors work on the same project? There are a number of concerns that Zurich is working to identify and address in a white paper,[1] so our contractors will know what to do if the sky begins to fall on their project.

Miller: The genesis for Zurich's white paper really came from our customers. We have a group of customers we meet with to discuss emerging issues, and project suspension was a dilemma that many were facing. We explored potential problems and collected solutions that are currently being used. In most cases, our customers gave us very clear examples of the problems they had and how they were resolved. At they same time, they were asking if anyone experienced the same problems, and whether they could be solved in a better way. This was a great opportunity for us to capture these thoughts and make them available to our customers. We are bringing those solutions back to the construction industry to help others handle these issues.

Clancy: What are clients that are forward-thinking and best in class doing to mitigate their risk from project suspensions?

Miller: Most of them have a perspective of prevention. In terms of risk-management strategies, the contractors that are prevention-focused are going to have a better cash return than those with reactive strategies. Most that have experienced project suspension in the past recognize that an ounce of prevention is worth a pound of cure. Some of Zurich's contractors are actually sitting down to address the "what-ifs" to make sure they understand what they need to do. This practice allows contractors to maintain good relationships with the owners so when things improve, they will be better-positioned to get the work when it comes back and have a chance to help make these project suspensions and restarts a win-win for everybody involved.

Clancy: So the recommendations that you would typically make to your clients would be taking a preventive stance up-front, making sure the language is in the contract and that these concerns are addressed proactively?

Miller: I recommend that contractors review tactical plans within their different functional areas. For example, equipment management — how do we get equipment off-site? Consider a situation where a project goes bankrupt and the contractor has cranes sitting and cannot get access to decommission them because the financing fell through, or because there is a completely new owner who is unwilling to give control and access to the site. How do you get your people in and out of the project to get their personal tools off the job? I think tactically contractors should proactively create a plan for each of their key functional areas, such as material supply, quality control, equipment and labor.

Murphy: It is also important for contractors to look at the types of insurance coverage they need. For example, who is responsible for maintaining site security when the project ends? Some of this is discussed in our white paper, including protection of completed work, environmental hazards, stormwater runoff and other concerns associated with building. When a project stops, who is left holding the bag?

Clancy: Right — it's like musical chairs — who doesn't have a place to sit when it's all said and done?

Murphy: That is a great way to put it. Or going to a cakewalk and you don't get the cake.

Clancy: Tell us about some of the "horror" stories — the kind of consequences that contractors might face in this process. What happens to a contractor if there is not resolution around who will address environmental issues or site security?

Murphy: We can use site security as a potential horror story. Site security, if abandoned, could become a real issue for the owner, the contractor and the insurance company. Zurich is very fortunate to have construction specialists who are out in the field asking questions. Six months from now, who is going to be responsible for keeping the kids out of this worksite? This doesn't happen to every contractor, but it is important to ask the right questions. Would you agree with that, Billy?

Miller: I do. It is a very viable concern, and I cannot think of a project suspension or termination that is not a tragedy. Everybody loses when these things happen. There are issues with losing good jobs in the community. Suspensions can also have devastating effects on the contractor because there are often items set up for payment that never happen. One particular job I'm thinking of had just received more than a million dollars' worth of materials on-site and they ended up arguing over that money for another year and a half before it was moved to the right place. It cost the contractor dearly, including his relationship with the supplier and his ability to do work for the owner in the future. Those are some drastic situations. They don't occur in every instance, but can really damage the future of a company and the potential of coming back to start those projects up again.

Murphy: It can be very damaging not only to the general contractor, but also to the first-, second- and third-tier subs. If there is no money, how are they going to be taken care of? How will they be paid for the work they have done up to this point? If the money dries up, suddenly it becomes an issue of an electrician who can no longer feed his family. There are many repercussions with the issue of project suspension.

Clancy: From Zurich's perspective, what are the trade contractors' concerns, and how they may be different from the general contractor, since most of them are working on a "pay-if-paid" basis?

Miller: There may be some contractual provisions that will help the trade contractors. Many trade contractors can't finance their payroll if they miss payments for two or three months. Some of them are working on a shoestring budget; so if the money is dragged out for six months to a year trying to settle the final payment, those companies could be severely damaged. We are seeing evidence of this all over the country right now, where trade contractors' business is being drastically slashed and there is a minimal credit line available to help these companies continue to operate. Many of them end up in bankruptcy.

If the money dries up, suddenly it becomes an issue of an electrician who can no longer feed his family. There are many repercussions with the issue of project suspension.

Clancy: Apart from these financial concerns, what concerns are there specific to trade contractors in respect to project suspension or project cancellation?

Miller: I think the biggest concern is warranty. For example, an HVAC contractor may have a sense of what the scope will be, the materials required and the warranties they are going to support. If the materials and equipment are never completely put together, commissioned and started, the issue of warranty support becomes very gray. That is probably the biggest exposure with electrical equipment, HVAC and some of the boiler machinery for commercial buildings. It becomes very difficult to determine who is holding the bag in terms of maintaining ongoing warranties.

Murphy: There are a couple of potential issues here. First, what kind of warranty support is the product manufacturer going to provide if the contractor is unable to do a full installation, startup and commissioning? Second, what if one company buys the equipment, and it ends up being stored in a building or container and another contractor installs it two years later?

Miller: There is another angle here. With a commercial building or any structure — it is never strongest until full completion, when all the components on the structure are in place. In terms of insurance exposure, a point of contention may be determining when builder's risk coverage stops and property coverage begins. This usually involves a date with transitions, punch lists and substantial completion. With a suspended or terminated project, how do owners get coverage for a project that may be partially completed? They will need to have a relationship with a carrier to manage and cover that property on an ongoing basis. Providing coverage for a building that is not completed and may not be able to handle windstorm or other exposures could be a complicated issue for the insurance carrier as well.

Zurich has recognized the significance of this issue and is actively working to identify the exposures associated with suspension.

Clancy: What services are Zurich offering in this particular area to help clients manage project suspension or cancellation risk?

Murphy: Zurich has recognized the significance of this issue and is actively working to identify the exposures associated with suspension. We are talking with our contractors, asking them for feedback and advice to ensure that we capture the exposures associated with project suspension situations, in order to share this information with other contractors. The intent is to use this information to educate and train our owners, contractors and subcontractors so they understand what could happen should a suspension occur.

Miller: Zurich has several distinctive services, such as the white paper and corresponding education process. We have construction specialists who can provide an on-site assessment for contractors who are experiencing or have the potential to experience project suspension. We can also work with a contractor's senior team to conduct a Zurich Hazard Analysis (ZHA), which examines products and processes to reveal the risks associated with that product or process. This information helps to determine the level of risk the contractor is prepared to tolerate and focus attention and resources where they are needed most. We have conducted this analysis with several owners to date, talking with them about how most effectively to manage these projects. Zurich risk engineers provide this service on an as-needed basis for our customers.

Clancy: Is there anything else regarding this topic of project suspension or project cancellation that our clients need to be aware of as we try to ride out these turbulent financial times?

Murphy: I think that the white paper identifies everything that we know to date. We will continue to ask the construction industry for additional information to be included and given back to the contractors. Zurich's direct line to our contractors through risk engineering and our other service partners allows us to share this information quickly.

Miller: A final thought that I would add is that a theme between every horror story I've heard from a contractor is the belief that he or she didn't think it would happen to him or her, or that there was no way that this particular owner could be exposed to it. I just had a conversation with an owner yesterday who never thought he would be in bankruptcy. He never saw it coming, and his entire team is devastated by the whole event. Assuming that a project suspension will not happen to them can leave contractors or owners vulnerable. I would encourage people to give this issue a thorough review, discuss it with their department heads and team leaders and identify what they have done to be prepared for such an event.

While in previous years, project suspension and cancellation were minor problems, they are an especially hot topic in today's construction market. FMI and Zurich hope that the issues raised in this article stimulate new thinking about this problem and help our clients to manage the risks they face from project suspension. Ultimately, project suspension is nearly always a traumatic situation, but with the proper planning it need not necessarily be a fatal one. ■

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[1] Zurich customers may contact their risk engineer to request a copy of this white paper. Alternatively, it is available to the public online at www.zurichna.com/construction.

Are You Riding a Dead Horse?

Is it time to review your strategic plan to see if it is still appropriate in the current economic environment?

By Grant Thayer

Avoiding bad economic news for the past year would require separation from all media. While the economy is now showing green shoots that may indicate a recovery, the nonresidential construction industry's economic behavior usually lags 12 to 18 months behind the rest of the economy. This lagging effect is no surprise; on an upswing, increased economic activity takes time to result in unmet construction needs, and even then, projects must pass through architecture, engineering and bidding before job signs go up.

As an industry, construction's lag behind the greater economy can result in swings of optimism and pessimism. When times are good, contractors tend to grow too fast and have issues with structure, process and talent. During economic contractions, contractors typically turn to operational efficiency and cost cutting with the aim of winning enough work to survive. Unfortunately, refocusing on operational efficiency is not the same as having an appropriate strategy. In fact, the resultant focus on operations often comes at the expense of neglecting a company's overall strategy.

One indicator that your company is neglecting its overall strategy is empty boxes or dual-hatted persons on the organizational chart. An organizational structure should be designed around the implementation of a strategy. Assuming that is the case, many companies have left positions open, via attrition or layoffs, once considered vital to their strategies. By so doing, the company's strategy is unofficially abandoned, just as the positions that should support the strategy in the organizational structure have been abandoned. Another red flag of strategic neglect is a reluctance to communicate. Do your executives avoid strategy discussion or ignore due dates for implementing parts of your strategic plan? Finally, a definitive indicator of neglect is suspending the activity of strategy-related committees. Statements such as, "these guys should be out winning work, not spending their time in committees" indicate an abandonment of a strategic focus in favor of an operations focus. If you observe these or similar behaviors in your company, then it is time to review your strategic plan to see if it is still appropriate in the current economic environment. A simple four-step process, performed by a team or by an executive trusted to make strategic decisions, can facilitate this review. This process includes identifying:

- What is the new economic context for your company, and is your current strategy still appropriate to that context?
- What value can be retained from the current strategy?
- What parts of the current strategy are kept and what parts are abandoned?
- What obstacles could prevent a successful change in strategy?

PREPARATORY WORK: DEFINING THE NEW CONTEXT

The context in which a company finds itself should drive its strategy. Reviewing the changes in context is the best way to see if a strategy needs to be revisited. One way to understand changes in context is by focusing on the "4 C's":

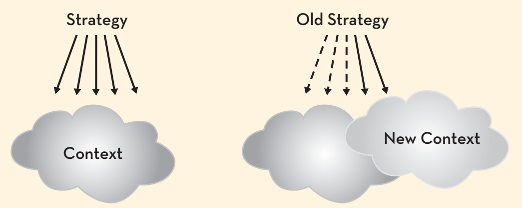
- **Climate:** These are the external factors and forces the company faces — materials prices, political issues and the greater economy.
- **Customer:** This includes everything about the customer — changes in buying behavior, any unmet needs and a gap analysis identifying unserved opportunities.
- **Competitors:** This category includes everything about your competitors — their strategies, their management and their level of aggressiveness.
- **Company:** This includes any internal considerations — your company's strengths, weaknesses, aspirations and resources.

Successful companies employ strategies that reflect a good understanding of their market context. However, it can be seen from the 4 C's that context is not static. In the current economic environment, the C of Climate (which encompasses the external economic climate) in particular has been changing rapidly, resulting in a contraction in construction spending that increases the contractors' competitive environment. There will be further change in the other C's in response to the dramatic change in Climate. Your company may have gone through layoffs, resulting in a change in available resources. Your competitors may have adjusted their strategy or attempted to move aggressively into a healthier market segment. Your customers may have changed their pricing or scheduling expectations.

Base your decisions on whether or not to revisit your strategy on an honest assessment of the current context, including all of the 4 C's. You are likely to find the context your business is operating in has indeed changed due to the economy and that you will need to adopt a new strategy (see Exhibit 1).

Exhibit 1

Understanding Potential Obstacles to Changing Strategy



UNDERSTANDING POTENTIAL OBSTACLES TO CHANGING STRATEGY

To say that a company's strategy should change with the greater economic context may be stating the obvious. However, it is common for companies to fail to recognize how shifts in the greater economic context should result in appropriate adjustments to their strategies. Consider a landscaping contractor that has grown dramatically in big-box retail development in the recent boom. Only now, after this market has almost disappeared, has this company reacted by drastically reducing overhead so that it can "bid low" on the work that remains. Notice its strategy of pursuing the big-box retail market has not changed, despite the clear shift in the economic context of that market. It has refocused on operations, and the result is it is working for lowered margins in a dwindling market — a recipe for disaster. Episodes like this beg the question, "What are the obstacles that prevent a successful reassessment of company strategy?"

It is common for companies to fail to recognize how shifts in the greater economic context should result in appropriate adjustments to their strategies.

One obstacle in reviewing your plan can be vested interests in the old strategy. Consider who makes strategic plans for construction companies. Usually a strategy team is composed of senior leadership and junior managers identified as having high potential for advancement. Egos and company politics can make it difficult for these types to admit that the grand strategy they authored is outdated. Furthermore, organizations assign champions, who are usually high-potential junior managers, to implement the tactical portions of a strategy. The senior managers who included them in the strategic planning process often view their success or failure in the implementation phase as a test of their suitability for promotion. Sometimes this evaluation criterion is not explicit, but high-potential candidates are smart and have figured this out for themselves. These champions will be very sensitive to strategic changes that could have even the appearance of a failure in their ability to implement their initiatives or may otherwise weaken their position in the company relative to their peers. Committees task their champions with being "evangelists" for the strategy and gaining "buy-in" from their peers. No one likes to appear as an advocate for a failed plan.

Some companies are reluctant to change strategies because they feel it sends the wrong message to rank-and-file employees. A common problem for contractors is to have a history of starting strategic initiatives but never finishing them before moving to the next business book flavor of the month. Companies that have experienced continual new starts will be sensitive to abandoning any strategy because they fear the opinion in the field will be, "Here we go again."

In the recent high-growth environment, many contractors put firm numbers in their strategic plans on either revenue or a percentage-growth basis. It can be difficult to let go of a figure like "a 25% increase in net profit dollars," because moving away from a hard number implies an admission of failure. There is often an urge to say, "Let's just leave that figure in the strategic plan, because we still want to get there some day," despite it being unreasonable in the current economic context.

OVERCOMING THE OBSTACLES

Considering the strength of the forces arrayed against an honest review of the current strategic plan, how can senior management overcome the obstacles and conduct an honest review of the existing strategy?

Ensure the strategy team is composed of your best strategic thinkers. The preparatory work of reviewing the new economic context will provide the backdrop against which the team will evaluate the strategy. The team must be your company's best and brightest, not just the people who have the spare time or who hold the high-ranking positions.

Change in organizational mindset comes from the top. Since senior leadership had the largest influence and stake in the creation of the old strategy, the employees will look to them to gauge the organization's commitment to change. Senior leadership must be visible advocates for revisiting the strategic plan and accepting the results of that examination may require a new direction.

In order to create buy-in, senior management must communicate down through the organization the reason for changing plans. Remember that employees may fill in missing information with rumor and assumptions, and during an economic downturn, people tend to assume the worst.

Take special care of those with a stake in the old strategy, as they have good reason to resist revisiting it. Their buy-in at this key moment is very important because when invited to participate in the old strategic planning process, they were intentionally set up to be influencers within the organization. Leverage the influence these players are given; you do not want them to become disillusioned and use their sway within the organization as strategy assassins. Be very direct with your expectation of their support for the new or modified strategy.

A comprehensive review of an existing strategic plan requires homework similar to that required when preparing to create a new strategic plan from scratch.

REVIEWING THE CURRENT STRATEGY

A comprehensive review of an existing strategic plan requires homework similar to that required when preparing to create a new strategic plan from scratch. This may include an internal situational analysis and a review of the company mission, vision and values. As part of this preparation, it is also worthwhile to review your core and distinctive competencies. A core competency is something your company does very well relative to everything else it does. A distinctive competency is work that the company excels in relative to its competitors. By understanding both core and distinctive competencies, a contractor can identify which strategies are best executed by using the unique strengths and weaknesses of its particular firm. A full understanding of the new context and your company's internal capabilities is a prerequisite not only to assessing the current strategy, but also to creating its replacement when the time comes. In this sense, the groundwork you are building for the strategic plan review will do double duty.

Once you assemble the background information, there are many frameworks available for strategic planning, and a comparison between them is beyond the scope of this article. A simple technique used to review an existing strategy is to apply a "SMART" framework. The acronym SMART stands for specific, measurable, achievable, realistic and timely.

Consider a regional commercial general contractor, specializing in building strip malls, whose current strategic plan contains a goal of 30% year-over-year revenue growth for 2009 through 2011. This strategic plan, created in February 2008 when the company enjoyed a record backlog, was mainly concerned with finding and retaining enough office and field personnel to staff the work. Now they have worked through most of their backlog and have been unable to win enough work to replace it.

Applying the SMART framework, we see that while the revenue target is specific and measurable, it is no longer achievable, realistic or timely and, therefore, is a candidate for removal from the strategic plan. The parts of the strategic plan concerned with attracting and retaining talent may still be kept because they pass the SMART test, but this strategy will need to be redirected to supporting a new, more realistic and timely strategy. The retention element of the strategy is still appropriate, but the company may hold off on trying to attract new recruits until the economic context improves.

Consider a general contractor using a strategy of migrating from a functional organizational structure focused on low-cost production to a more entrepreneurial divisional organizational structure with a strategy to specialize in three higher-margin market segments: casinos, resorts and health care. Using the SMART framework, the decision may be to scrap the entire strategy. The current strategic plan is not realistic or timely — two of the three proposed divisions are for markets that are down, and a functional organizational structure oriented towards low-cost production may be the best way to win enough work to survive the downturn. Analysis of the validity of existing strategies calls for both skill and objectivity that some companies find difficult to perform in-house. A third-party perspective can help.

Analysis of the validity of existing strategies calls for both skill and objectivity that some companies find difficult to perform in-house. A third-party perspective can help.

RETAINING VALUE FROM AN OLD STRATEGY

After reviewing the existent strategy based on the current economic context, conducting appropriate research and analysis, and applying the SMART framework to your current strategic plan, you will reveal needs for any partial or complete changes to the company's strategy. How does an organization move forward and prepare to create a new strategy that fits with the times? First, consider that there are gains available from carefully managing the transition out of the old strategy and into the new strategic direction. Opportunities to retain value include:

- Identify parts of old implementation that support the new strategy, and communicate to the champion and committee participants their role is valued and their strategy initiative is likely to continue in a modified form.

- Publicly recognize successes of the old strategy, including the contribution of those who worked on the implementation. This will improve buy-in when the new strategy rolls out.
- Conduct a formal review and debrief, if your company used strategy implementations as tests of a junior manager's promotion potential, to let them know that you value their efforts and mention specific benefits generated. This will encourage their participation in the new strategy.
- Identify strategies to revisit when the market turns, and communicate them to your team. This will avoid the impression that the company lacks follow-through.
- Note any strategy implementation that has improved cost, efficiency or revenue generation. Carry these initiatives into the new strategy because they are the most likely to benefit the company in the down-market environment.
- Retain core and distinctive competencies identified when the "old" strategy was created. Since these are the best features of the company and can be re-leveraged into a new strategy, these competencies should change infrequently.

CREATE A NEW STRATEGIC PLAN

When you have assessed your situation and concluded that the near and mid-term world has indeed changed for contractors, your strategy will need to change with it. However, before you dive into a new strategic planning process, take simple, reasonable steps to capture the value locked in your old strategy before you cut it loose. Be sure to communicate how the change is beneficial to your employees and you will minimize negative reactions. Plan now for this downturn and the rebound that is certain to follow. ■

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Influencers in Construction

In this best-of list of construction industry influencers, the individual's or group's influence must represent a recent or developing means by which the engineering and construction industries operate, and the influence should manifest itself in an observable and perhaps monumental way.

By Jay Bowman and Kevin Haynes

Most influential and best-of lists are inconsequential. For every name listed, there are 100 more that could be argued — and argued credibly — that deserve to take its place. Why do we like them then? And why are they so numerous? We all wait impatiently for the industry's top 100 construction-management-design-engineering-green companies. Right?

OK. So maybe we woke up on the wrong side of the bed this morning. There's no inherent evil in these lists, at least we think not. So why the interest? Because they make us think. They make us debate and argue and otherwise jump-start the analysis portion of our brains. We recall where we were and when we first learned of the various honored individuals and their impact on our own lives. So here is another best-of list aimed at starting a healthy debate.

Merriam Webster's Collegiate Dictionary, 11th edition, defines the word "influence" as "to affect or alter by indirect or intangible means." Many tend to think of influence as being more direct and intentional, as it very well may be. The following individuals and groups of individuals have had significant and direct or indirect influence on the current and future demand and delivery of engineering and construction services. They are not judged as their influence being positive or negative; opinions may differ sharply. However, their influence will assuredly be felt.

The following criteria were used to develop the list of industry influencers:

- The individual's or group's influence must represent a recent or developing means by which the engineering and construction industries operate.
- These individuals or groups must represent one of the four macro-environment realms — social, economic, political and professional.
- The influence should manifest itself in an observable and perhaps monumental way.

As such, we have selected the following individuals or groups of individuals.

- **Social** — *Green building* — Rick Fedrizzi, president, CEO and founding chairman of the U.S. Green Building Council
- **Economic** — *American Recovery and Reinvestment Act* — Rep. Dave Obey (D-WI), chairman of the House Appropriations Committee and lead sponsor, along with the other members of the 111th U.S. Congress
- **Political** — *Employee Free Choice Act* — Sen. Tom Harkin (D-IA) and Rep. George Miller (D-CA), lead sponsors
- **Professional** — *Integrated Project Delivery (IPD)* — The American Institute of Architects, California Council's Integrated Project Delivery Task Force

Why write an article like this? Most influential, best-of and similar lists are a common occurrence in today's business and pop-culture media and, frankly, more often ones of interest rather than relevance. How many people have made important decisions regarding their corporate strategy because of one of these lists? Not many, one would hope. Instead, as you read this article, consider the macro-environment realms and process by which the individuals, groups, trends, etc., were identified and their potential impact on how engineering and construction companies succeed, and apply them to your own situation.

Social — *Green building* — Rick Fedrizzi, president, CEO and founding chairman of the U.S. Green Building Council

During the last decade, perhaps no trend in the AEC industry has gained more attention and momentum than the green-building movement. The concept of green building has gone from a relative new phenomenon just a decade ago to a major industry topic in the last few years. It is now widely known that green building is a source of significant environmental and economic opportunity. Consider that buildings in the United States are responsible for nearly 40% of CO2 emissions, 40% of energy consumption, 13% of water consumption and 15% of gross domestic product (GDP) per year. Greater building efficiency can meet

85% of future U.S. demand for energy, and a national commitment to green building has the potential to generate 2.5 million American jobs. More owners than ever are demanding that their building partners use green building techniques.

At the forefront of the green building movement are the U.S. Green Building Council (USGBC) and its founding chairman, Rick Fedrizzi. Since Fedrizzi became president and CEO in 2004, the Council's membership has tripled, establishing it as a leader in the global sustainability movement. Currently, the USGBC has 78 local affiliates, more than 20,000 member companies and organizations and more than 100,000 LEED® (Leadership in Energy and Environmental Design) accredited professionals.

Thanks in large part to Rick Fedrizzi, the USGBC is the driving force of an industry that is forecasted to reach $60 billion by 2010.

Under Fedrizzi's leadership, the USGBC has widened its influence in the industry through the development of its internationally recognized LEED® certification program. In 2002 LEED® projects totaled 35 million square feet, while in 2007, this figure increased to more than 3.2 billion square feet. Additionally, by collaborating with the Clinton Global Initiative, the International Codes Council, AIA, ASHRAE, ASID, ASLA, BOMA and IFMA, Fedrizzi has helped to broaden the base of green building. His vision for the USGBC is to expand outreach and education, advocate support for public policy initiatives and increase emphasis on green building's role in social-equity progress.

A/E/C industry stakeholders are embracing the green-building movement for its environmental, economic and social advantages that benefit everyone, including owners, occupants and the general public. Recently, the USGBC and Fedrizzi were recognized with the National Building Museum's 2009 Honor Award at its annual gala. This award acknowledges leadership on environmental issues and the significant accomplishments made in improving sustainability within the built environment. Thanks in large part to Rick Fedrizzi, the USGBC is the driving force of an industry that is forecast to reach $60 billion by 2010.

Economic — *American Recovery and Reinvestment Act* — Rep. Dave Obey (D-WI), chairman of the House Appropriations Committee and lead sponsor, along with the other members of the 111th U.S. Congress

The primary objective of the $787 billion American Recovery and Reinvestment Act of 2009 (ARRA) is to assist the nation's economic recovery process by emphasizing job creation and providing assistance to those areas most impacted by the recession. The ARRA targets economic growth through two paths: direct fiscal expenditures ($575 billion), or appropriations; and tax incentives ($212 billion). It also focuses on investments in technology, transportation, environmental protection and other infrastructure, and proposes strategies to

It is premature to judge the success of this landmark piece of legislation signed into law by President Obama on February 17, 2009.

stabilize both state and local government budgets. In total, more than 75 federal programs will receive funding from the ARRA.

Rep. Dave Obey (D-WI) is the current Chairman of the House Appropriations Committee and lead sponsor of the ARRA. He was first elected to the U.S. House of Representatives in 1969 and has served uninterrupted since. Rep. Obey's committee is responsible for controlling federal spending.

Describing the need for this latest federal economic stimulus, he said, "The economy is in a crisis not seen since the Great Depression. Credit is frozen, consumer purchasing power is in decline, in the last four months the country has lost 2 million jobs, and we are expected to lose another 3 million to 5 million in the next year. [The ARRA] is the first crucial step in a concerted effort to create and save 3 million to 4 million jobs, jump-start our economy, and begin the process of transforming it for the 21st century, with $275 billion in economic recovery tax cuts and $550 billion in thoughtful and carefully targeted priority investments with unprecedented accountability measures built in."[1]

It is premature to judge the success of this landmark piece of legislation signed into law by President Obama on February 17, 2009. To date (July 14, about five months), new spending — that not representing transfer payments and jobless benefits — is less than 10% of the total.[2] FMI's own analysis of the ARRA concludes that less than $100 billion of the $787 billion is directly tied to construction. This amounts to less than 1% of total construction spending put in place in the U.S. annually. However, it is certain that it will push the federal debt over $1 trillion. This does have serious implications for the construction industry. If the ARRA does not work as intended — likening it to Vice President Biden's recent admission that the administration "misread the economy" — then the resulting debt has the potential of weakening federal spending in the normal process of public construction, such as highways. Industry conventional wisdom that public markets are up when private markets are down may no longer hold true.

Political — *Employee Free Choice Act* — Sen. Tom Harkin (D-IA) and Rep. George Miller (D-CA), lead sponsors

The Employee Free Choice Act (EFCA), currently being debated in Congress, would dramatically reduce the requirements to organize a company's workforce. Under current law, an election is called when union organizers submit union cards signed by at least 30% of the company's workers. Originally, EFCA would require all of a company's workers to join the union once 51% of union cards were signed, without an election — theorizing that signing the card is a form of election. However, as *FMI Quarterly* goes to press, Sen. Harkin expects the card-check provision may be dropped when the bill reaches the Senate floor. Still remaining in the legislation would be a binding arbitration provision for union contracts. Once established, the company and its union would be forced into binding arbitration if a collective bargaining agreement could not be met within 90 days of starting. Last, penalties would be increased for employers that engage in unfair labor practices during organizing drives, such as illegal firings and certain questions of employees or counter presentations.

Some of the preceding stipulations of the bill have been dropped — namely the elimination of secret ballots. However, many of the things promoted by EFCA will likely influence labor decisions until new legislation is drafted and passed.

EFCA has the potential of shifting the balance of contractors from nonunion (currently more than 80%) to union. A majority of contractors becoming affiliated with a union would affect almost everything in the industry, from hiring practices and training to financial structures and competitive bidding. What impact would jurisdictional rules have on the industry? Again, this is not intended to argue the merits of such a change and whether it would be good or bad. Rather it is intended to make one think of the breadth of changes that could occur.

A majority of contractors becoming affiliated with a union would affect almost everything in the industry, from hiring practices and training to financial structures and competitive bidding.

Sen. Tom Harkin (D-IA) and Rep. George Miller (D-CA) are the lead sponsors of EFCA. Sen. Harkin was first elected to the Senate in 1980 and has served uninterrupted since, longer than any Democrat in Iowa's history. Regarding EFCA, he has argued that there is moral dimension to the bill and that it is about social justice. Sen. Harkin further suggests that 60% of workers want to join a union. If true, it would not be unreasonable to assume greater than 50% of contractors could see their workforce organized.

Rep. Miller was first elected to the House in 1975 and has served uninterrupted since. He is currently the chairman of the Education and Labor Committee. As chairman, he is responsible for the House's version of EFCA. Describing the need for this legislation, Rep. Miller said, "The current process for forming unions is badly broken and so skewed in favor of those who oppose unions, that workers must literally risk their jobs in order to form a union."[3] He is committed to easing the process by which unions may be formed.

Professional — *Integrated Project Delivery (IPD)* — The American Institute of Architects, California Council's Integrated Project Delivery Task Force

In the current economic climate, industry stakeholders are continuing to experience pressure to keep project costs down and increase efficiency. As a result, new project tools and processes are being introduced to the AEC industry. The future of the industry is quickly evolving from traditional design-bid-build and design-build delivery systems to the emerging process of Integrated Project Delivery (IPD). IPD is a project-delivery approach that integrates people, systems, business structures and practices into a process that collaboratively harnesses the talents and insights of all participants. Its goal is to optimize project results, increase value to the owner, reduce waste and maximize efficiency through all phases of design, fabrication and construction. The result is a more-mutual process that involves project participants earlier in the building and design stages.

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While the roots of IPD may be traced back to Toyota and its Toyota Production System, recently it has been the efforts of an interdisciplinary group of owners, architects, engineers, contractors, subcontractors and attorneys that has moved the IPD process forward. Known as the IPD Task Force, it is sponsored by McGraw-Hill Construction and the American Institute of Architects, California Council (AIACC).

The growing use of IPD in the A/E/C industry allows much-greater information collaboration between project participants and is considered an important tool for increasing productivity throughout the building process. The United Kingdom's Office of Government Commerce (UKOGC) estimates that savings of up to 30% in the cost of construction can be achieved where integrated teams support continuous improvement over a series of construction projects. In addition, the UKOGC estimates that single projects using integrated teams can achieve savings of 2 to 10% in construction costs.[4] While still a work in progress, the AIACC and IPD Task Force have gone a long way in helping to describe the key elements of the IPD process.

CONCLUSION

So there you have it; the most influential individuals and groups in the construction industry today. Okay, maybe that's an overstatement. Better yet, here's a list of trends and issues that have far more significance than the people and groups comprising the list or we who are responsible for its creation. Use your own imagination and come up with your own list. The macro environment framework we employed is a proven and good model for assessing the opportunities and threats you may face. And if you have any complaints or challenges, we'll be in the blogosphere deriding the latest best-of lists. ■

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[1] OBEY UNVEILS AMERICAN RECOVERY & REINVESTMENT BILL, Measure Intended to Stabilize the Economy and Restore Public Confidence, January 15, 2009, http://www.obey.house.gov/index.php?option=com_content&task=view&id=678&Itemid=205

[2] The Economy is Even Worse than You Think, July 14, 2009, Wall Street Journal, Mortimer Zuckerman

[3] Rep. George Miller of California, 2007 Congressional Record, Vol. 153, Page E260, February 5, 2007

[4] Office of Government Commerce, Achieving Excellence in Construction Procurement Guide, Vol. 5, at p. 6 (2007) www.ogc.gov.uk

Strategic Leadership Transitions: Passing the Torch

Leadership transition is never easy. People frequently have the desire to take on new things, but do not want to let go of old and familiar tasks.

By Steven J. Isaacs and Cheryl May

The economic crisis has thrown both the retirement and leadership-development plans of many design-firm professionals into disarray, but now that the shock is over and recovery strategies are in place, it is time to put leadership transition plans back on track.

The leadership transition process is a key component of a design firm's leadership-development plan and the firm's overall strategic plan. Yet the transition from one leadership or management position in the firm to a higher level is often difficult. Leaders- or managers-in-transition often find that their fondness for familiar duties, perspectives and work habits are hard to let go, hampering their ability to assume new responsibilities.

Arthur M. Freedman describes this situation in his 2005 essay "Swimming Upstream: The Challenge of Managerial Promotions."[1] While he uses the term "managers-in-transition," his description applies to both managers and leaders:

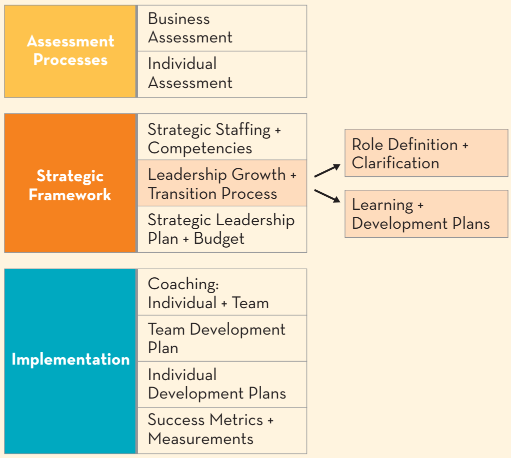
> … managers-in-transition must make conscious decisions to let go of some of their habitual or preferred lower-level perspectives, familiar responsibilities and work habits. Discarding anachronistic work practices and routines will free them up so they can focus on the demands of the new responsibilities that they must master. This enables them to adapt to

the novel demands of their higher-level roles. This process will be repeated each time managers-in-transition are confronted by the challenge of negotiating the next higher career shift or crossroad that they must navigate.

While these truths seem obvious, it is frequently difficult for people to make major changes in their habitual thinking, behavior and routines on the job. In spite of widespread awareness and documentation about the difficulty of making such changes, design-firm principals often have little information on how to facilitate these changes. This results in transitions that take longer than needed and reduced or lost productivity during the transition, as well as frustration on the parts of the leader- or manager-in-transition, the team he or she is leaving behind, and the group he or she is now leading.

A typical example is the executive who accepts a more strategic role in the firm — planning the future, acting as the firm's external ambassador — but who also continues to handle the work he or she had "handed off" to a subordinate manager, such as low-level personnel decisions and administering projects and contracts. By doing so, the executive is disempowering subordinates, delaying their learning and growth, and not focusing on the bigger strategic responsibilities that require his or her advanced qualifications.

Exhibit 1
Strategic Leadership Development Process
Leadership transition is a key part of the overall strategic development process



Using a facilitated transition process that takes into consideration the temperament, abilities and development needs of the individual, as well as the strategic and tactical needs of the team and firm, has tremendous value to all. AMI (Advanced Management Institute) has created a facilitated leadership transition process that asks participants to seek a high level of candor quickly, to be constructive, think strategically and focus primarily on the perspective of the firm's well-being. This process is typically part of an overall leadership development effort that is, in turn, part of the firm's strategy framework (see Exhibit 1).

THE FACILITATED LEADERSHIP TRANSITION PROCESS

The goal of the facilitated leadership transition process is to help leaders restructure their existing workload and routine, relegate work to the next level of leaders and managers and make available the needed time to take on valuable new strategic initiatives. The result is a distribution of work that enables more valuable initiatives by firm leaders, new and challenging assignments for the next level of developing leaders and managers, and greater job satisfaction and higher value to the firm across the board.

The facilitated leadership-transition process is a collaborative effort, beginning with senior leaders and branching downward through as many levels as necessary. The firm must participate actively. Individuals will take ownership of the initiatives they are assuming and fully release the work they are handing off to others. The entire team will seek to improve its mutual support, communication and teamwork.

The facilitated leadership transition process builds:

- individual self-awareness, in order for leaders to have a better understanding of and control over their own behavior, especially when in the midst of conflict and stress.
- team awareness, to give the team insight into each member's essential traits, potential areas for development and gaps that need to be filled.
- unique values the leader can bring to the firm and new tasks that result in leaders championing new areas of high value for the firm.
- tasks and routines the leader should keep.
- tasks and roles that can be handed down to the next tier of leaders, preventing the leader from being stretched too thin and yielding the added benefit of professional development for the next level of leaders.

An additional step in the process, when needed, identifies persons who want to "step back" or even depart the firm.

THE PROCESS IN ACTION

Step One: Individual and Team Characteristics and Awareness

Jim Collins, author of *Built to Last* and *Good to Great*, maintains that it is not "what we do" but "who's on the bus" that is the most crucial question for any firm to ask. Collins' decades of research on the topic convinced him that finding the right people is crucial to success. AMI believes that leadership development requires a high level of self-understanding or emotional intelligence.

Assessment instruments administered by qualified facilitators can help identify potential leaders at various levels in the firm and confirm that those already on the leadership track are either qualified or not. Assessments help pinpoint an individual's strong abilities and characteristics, including those that need more attention or are not part of the candidate's intrinsic makeup, and should be provided to the firm by a different team member.

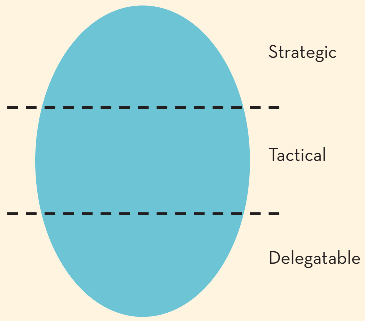
Team assessments are highly useful in helping the team understand how its members can work best together, which person to turn to for certain abilities and where the team needs to expand skills by adding new members.

To illustrate how vital the individual assessment process is, AMI recently worked with the president of a successful engineering consulting firm and his group leaders to provide assessments and a facilitated leadership transition session. AMI met one-on-one with the president and each of his leaders to review the individual results of the Harrison Assessment,™ Myers Briggs Type Indicator (MBTI®) and Five Dysfunctions of a Team Assessment. During this process three vital pieces of information surfaced that would greatly impact the group session:

- The president did not trust his group leaders because he suspected that one of them had leaked vital and confidential information within the firm.
- One of the group leaders was greatly maligned and misunderstood by his peers. His assessment results indicated him to be a 'Sensor' (S) on the MBTI.® During meetings, he would put pressure on the group to present information in a precise and factual way. When his colleagues did not comply, he would get frustrated to the point of anger, which drove a further wedge between him and the team. By contrast, all other members of the executive team scored as 'Intuitors' (N) on the MBTI.® They preferred to start their meetings by looking at the big picture first, addressing their current strategic status and brainstorming new possibilities. They frequently ignored the detailed, factual data that their Sensor teammate brought up at every meeting. Until they learned through the assessment results that they had different ways of taking in information, they did not understand Sensor's frustration. The knowledge gained from the assessment process gave the group better tools for understanding each other's perspectives and enabled them to start looking for value in each of their contributions.
- A recently promoted executive vice president was having a hard time letting go of his former technical group leader tasks; he had a tendency to delegate things and then take them back. To make matters more difficult, he had wooed a senior leader away from a competitor to take over technical initiatives, but had only met with him twice in two months. He simply did not want to let go of the technical part of his former role. This issue was addressed during a later step in the facilitated leadership-transition process.

In all three situations, giving leaders the opportunity to reflect on their preferences, strengths and essential traits during their individual assessment reviews allowed major issues to surface and be worked on throughout the facilitated leadership-transition process.

Exhibit 2
Clarifying a Vision
Classifying work as strategic, tactical and delegatable



Step Two: Evaluate New Value the Leader Can Bring and What New Tasks He or She Should Take On

AMI has enjoyed an ongoing relationship with two leaders of an engineering firm who were ready to step up to take on new strategic initiatives and wanted others to also move up and take on new roles in the firm. The leaders wanted this younger tier to take on more responsibilities, but did not know what to hand over to them or which of them would welcome the new responsibilities.

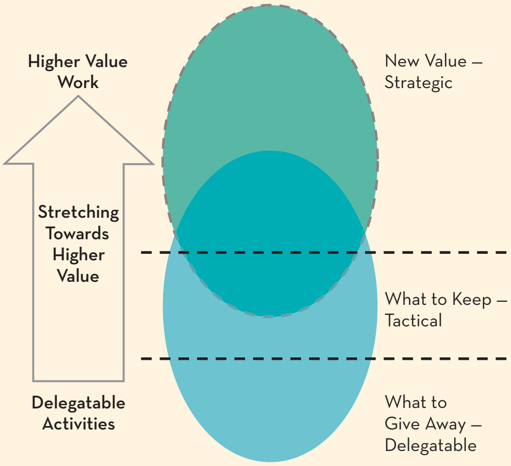
The two leaders were asked to consider what strategic new value they each wanted to bring to the firm over the next three to five years. To help them clarify this vision, they were asked to start with an oval figure (see Exhibit 2), and inventory what each of their current roles entails — what is strategic, what is tactical, and what they currently do that is easily delegated to others.

The next question was, "If you knew the day-to-day business was being taken care of, what would you like to work on next?" Their task was to "stretch" that diagram and their own roles by identifying what advanced strategic work they would like to take on but did not currently have time to do (see Exhibit 3).

The first leader wanted to look for more business opportunities in other cities or countries and to get more involved in the local professional community and be a rainmaker. The second leader wanted to explore how the firm could grow through mergers and acquisitions. Both leaders wanted the firm to start using integrated project delivery. Each identified work beyond his or her current roles that would be of higher value to the firm that neither currently had time to take on.

In order for this new strategic work to begin, both leaders need to let go of some portion of "the old" and identify tasks to hand over to

Exhibit 3
Leadership Role: Expansion
Identify what to stretch to, what to keep, what to give away



others, in order to assume new work and still be effective. That evaluation process boils down to three questions:

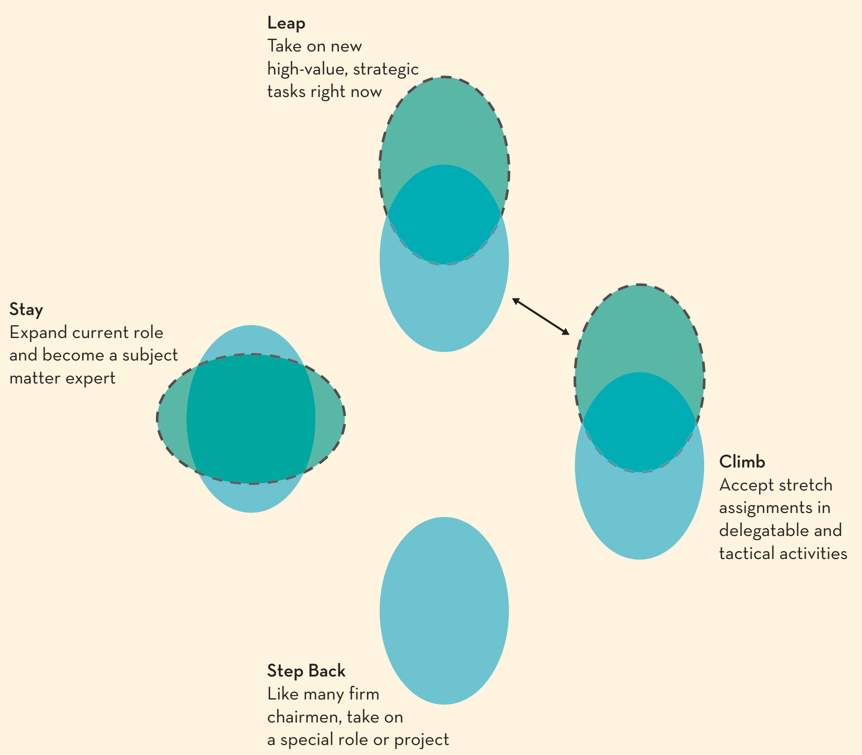
1. What new tasks should the leaders take on?
2. What tasks should they still keep?
3. What tasks can they hand down to the next tier or generation of leaders?

Once a leadership team classifies its work in these three categories, it and its next tier of leaders have some decisions to make. From this step onward, the whole leadership team works together, enabling the members to gain better understanding of each other's abilities, create buy-in for choices by both the leaders and their colleagues, and build a sense of ownership and excitement about challenges each of them will assume.

At this point in the case study, the two leaders and their next tier of developing leaders each had four options to choose from (see Exhibit 4):

1. **Leap** — Take on those high-value strategic tasks immediately
2. **Climb** — Accept stretch assignments and fully grow into them in six months to one year
3. **Stay** — Expand in the current role and become a subject matter expert
4. **Step Back** — Assume a special role or project

Exhibit 4
Leadership: Role Decisions
Leap, climb, stay or step back



SORTING IT ALL OUT: WHAT TO KEEP AND WHAT TO DELEGATE

Typically, the tasks identified as those the senior leaders should TAKE ON are of a high-strategic value:

- Build strategic alliances
- Research into markets, both existing and new
- Understand the client's point of view
- Get involved in industry organizations (in both our own and client industries), public service, community organizations and charitable work, outreach to students
- Design work, innovate on behalf of the firm
- Expand into new industry areas, new technologies, new delivery methods

Examples of tasks the senior leaders would RETAIN are:

- Mentor the next level of leaders, building the firm's talent
- Maintain client relationships
- Seek ways to improve project processes
- Delegate projects quicker
- Oversee fee proposals and negotiations (not preparation)
- Increase activity in key markets
- Oversee business operations

Tasks the senior leaders would DELEGATE to others could include:

- Preparation of RFPs
- Preparation of fee proposals
- Preparation for presentations, even creating PowerPoint slides and writing the talk
- Everyday, mundane tasks: signing of checks, budget details, scheduling, timesheet review, invoices and other basic business operations
- Project Management
- Administration of HR tasks, such as benefits, recruiting, training sessions, assignments, etc.

BRINGING IN THE ENTIRE TEAM

The engineering firm leaders identified the strategic work the two senior leaders would stretch into, the tactical work they would keep (or in some cases relegate to others), and the delegatable work they would let go. The entire leadership team now needed to identify who would take on the work the senior leaders were shedding (see Exhibit 5).

TEAM ASSESSMENT

This step begins by reviewing with the entire team the results of the team graphs from the Harrison Assessment,™ the Myers Briggs Type Indicator® and Five Dysfunctions of a Team Assessment. The team members look at their individual scores as compared to the team score and together identifies trends, patterns and gaps. In most cases, some major developmental opportunities arise.

In the case of one team, they realized that they all were extremely self-motivated (wants to lead, enthusiastic about one's own goals, needs a challenge), but lacked the skills and awareness to manage the stress that this was causing in their lives. When the team learned that not managing the stress would lead to burnout, health issues and reactivity in the workplace, it made a commitment to be on the lookout for signs of stress and give people time off when they needed to get away and recharge.

SELF-SELECTION: IDENTIFYING WHAT EACH PERSON WILL TAKE ON

In the case of the two senior leaders at the engineering firm, the entire leadership team was asked how many of the next-tier developing leaders felt they were ready to run the company right now. Five of them raised their hands.

Those five candidates were asked to challenge their decisions by looking again at their essential traits and assessment results to determine whether they would be suitable for upper management. One of the five admitted that his scores

Exhibit 5

Bringing in the Entire Team

The entire team prepares to identify what each member will take on

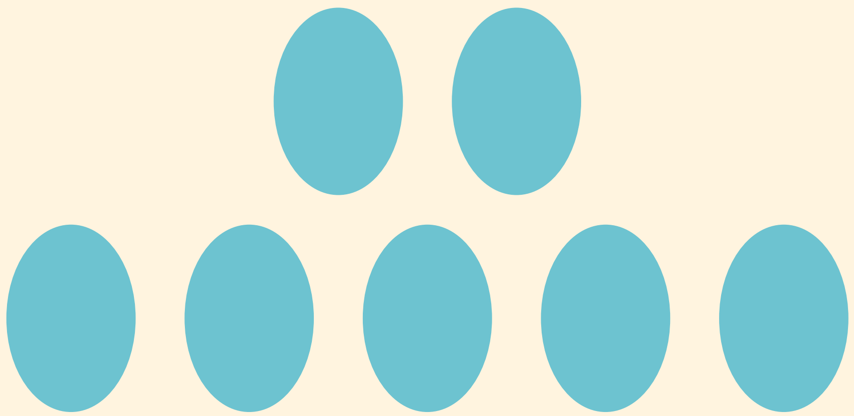
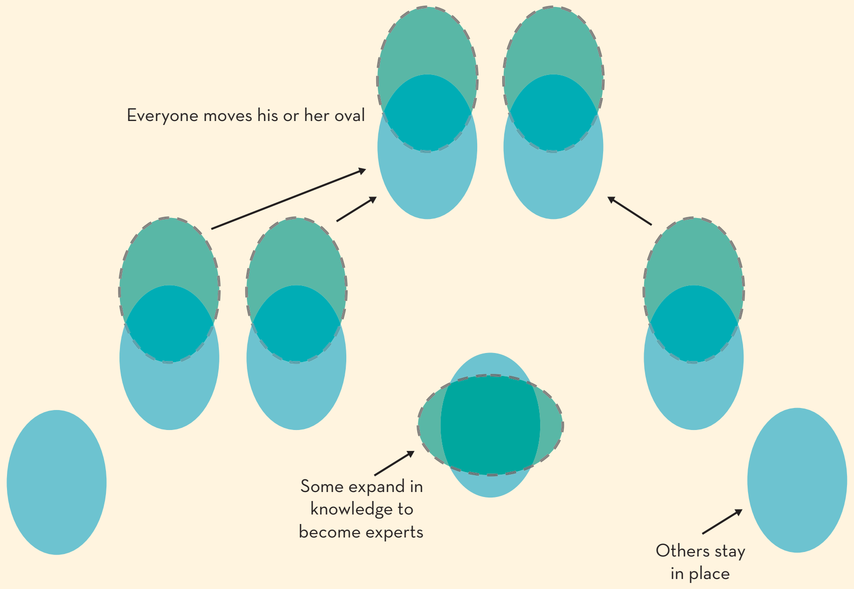


Exhibit 6

Self-Selection: Identifying What Each Person Will Take On

Almost everyone moves his or her oval



showed that he did not want to lead or make decisions for others. He told the group that he was much better suited to staying where he was and supporting the team; he really did not want to lead. The group supported his decision and applauded his honesty. The remaining four showed that they each had many of the essential traits for upper management, but also identified several development areas on which they would need to focus (see Exhibit 6).

The remaining four identified the tasks they would like to assume from the two senior leaders. This newly advancing leadership team worked with the senior leaders to create a detailed action plan outlining which tasks each of them would take on and when they would reach full ownership and accountability.

Now that this second tier of leaders had identified the new challenges they wanted to take on they were ready for the same questions asked of the two senior leaders: "Now that you have the new roles/tasks to stretch into, what tasks can you let go of and hand down to someone else?"

FINAL STEP: TRANSITION AS A CONTINUOUS PROCESS

AMI learned through conducting this process with over a dozen companies that it needs to begin with the senior leader's self-awareness. "Who am I? What new roles do I want to stretch into? What will bring the greatest new value to the firm? If I could successfully pass the day-to-day operations on to someone else, what would I love to be doing next?" By giving leaders a concrete role and high-value work to stretch into, it is much easier for them to let go of former tasks and delegate them to the next tier of leaders. This is in contrast to the typical process of asking someone to let go of part of his or her role before he or she has something new to stretch into, resulting in resistance to delegating work and people repossessing tasks after they have delegated them.

A facilitated leadership-transition process can become an organic feature of the firm's ongoing leadership development, occurring naturally over time.

A facilitated leadership transition process can become an organic feature of the firm's ongoing leadership development, occurring naturally over time. The leaders stretch up into new strategic value, decide what to keep and what to let go of, and their tasks are passed to those who will find them challenging and developmental. After going through the process for the first time, it can easily become part of the yearly cycle; thus, the movement continues and the firm thrives (see Exhibit 7).

CONCLUSION

Leadership transition is never easy. People frequently have the desire to take on new things, but do not want to let go of old and familiar tasks. This is especially true when leaders are not confident that the upcoming leadership tier has the skills or interest to take on new responsibilities and be successful.

Such issues of trust are difficult to bring up and even more difficult to solve. Many leaders avoid the topic until they are forced to confront it. For example, when a health issue necessitates a transition, they become burned out running the business or they realize they are stretched too thin and there are simply not enough hours in the day to get everything done. This situation limits the ability of firms to expand in strategic ways and take advantage of senior leaders' abilities in innovation and entrepreneurism. It also prevents future leaders from fully developing the skills they need for the firm to continue thriving.

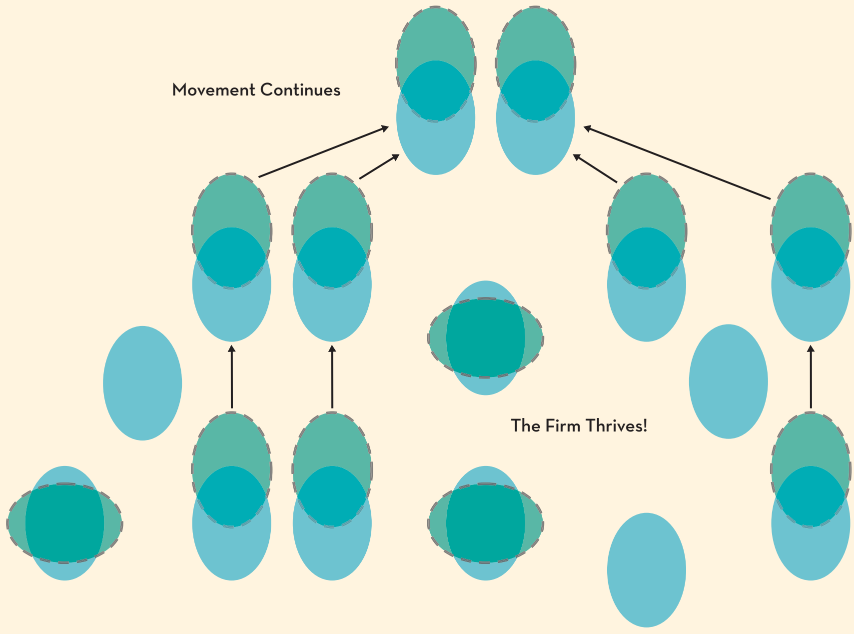
Facilitated leadership transition gives leaders a process that eases the anxiety of their own transitions and their reluctance to assign tasks to younger leaders. It turns the issue of trust into one of choosing roles that individuals need and want in order to develop their abilities in service of the firm and allows each person involved to take responsibility for his or her own action plan.

The entire group validates the feasibility of each decision and takes ownership

Exhibit 7

Final Step: Transition as a Continuous Process

Facilitated leadership transition can help the firm constantly develop new leaders



for its implementation. The participants leave the session with a clear understanding of each person's role and expectations. Further, the group increases their understanding of themselves and their colleagues, with a greater depth and appreciation for the strengths and vulnerabilities that each brings to the team. Individuals not only have an opportunity to step up into new, more-challenging and valuable roles, but at all levels in the firm they report feeling a marked increase in job satisfaction. ■

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[1] Kaiser, R., editor (2005). Filling the leadership pipeline. CCL Press.

More Is More: Leaders Coached Simultaneously Means Exponential Impact

Just as individual coaching can be transformational at an individual leadership level, cadre coaching can be transformational at an overall organizational level.

By Jennifer Jones, Jake Appelman and Tom Alafat

"I'm not sure what Mark and his coach are working on, but whatever it is, it's working!" This unsolicited comment and similar ones were made by four different employees at a $1.6 billion general contractor, all referring to a division president. Mark has an executive coach with whom he has been working for the past 12 months to help him strengthen specific leadership skills and, in turn, achieve overarching organizational goals.

The overall impact of coaching was intensified by the fact that not only the division president engaged in coaching, but the entire leadership team worked with an executive coach at the same time. A national A/E/C firm senior vice president also noticed dynamic changes that occurred due to his team of eight having worked with a coach simultaneously. "For us, the communication is better and the trust level is higher. Communication and trust was a huge step in the right direction in order for us to achieve our common objectives."

The emergence of executive coaching as a billion dollar industry supports coaching as a proven means of improving results as a leader. Every day, thousands of executives work with coaches as part of their personal development. Great coaching can expand capacity, smooth the transition into a new position and sharpen a leader's focus. Yet no matter how transformational coaching is at an individual level, it is the systems and culture of the organization that determine the depth and duration of change. One of the coaching approaches evolving as a best practice in organizational change is cadre coaching, which leverages an entire network of coaches and leaders to make systemic and cultural shifts in organizations.

HOW CADRE COACHING WORKS

While coaching an individual leader is an established method of building the skills and mind-set of a change agent, that leader has to influence an entire team of peers, who may not share a common vision for change or have the skills needed to implement the change. This is akin to taking a star athlete away to work with a personal trainer and then asking him or her to return and change the entire team. This model can move painstakingly slow as it relies on building momentum one person at a time and focuses more heavily on individual development than on overall organizational change. Cadre coaching addresses this issue through the multiplicative effect of coaching an entire leadership team simultaneously. Coaches are hired to work with members of a leadership team, individually, during the same time frame. The goal of cadre coaching is to address not only individual developmental needs, but also a shared set of organizational objectives.

Step One: The first step in effective cadre coaching is to launch a rigorous examination to identify the current situation of the organization. This effort includes assessing the performance, operations, culture, talent and future aspirations

OVERVIEW OF MODELS

- Triangular relationship exists among the leader(s) getting coached, the coach(es) and the stakeholders in the organization. All three parties have a unique role in the coaching process.
- Stakeholders in the organization champion the coaching process and provide organizational context to coaches, allowing coaches to understand the bigger picture.
- Coaches work with individual leaders to invoke lasting change.
- Leaders being coached are committed to the coaching process and to making a deeper, positive impact on the organization as a result.

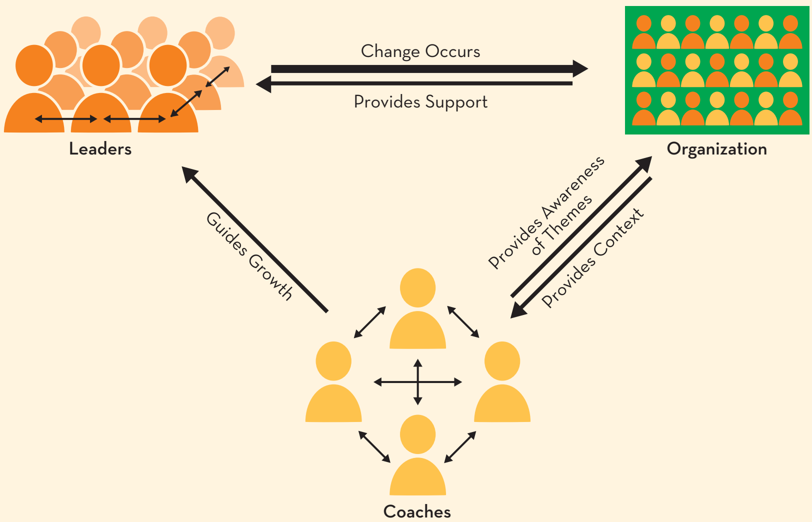
Cadre Coaching Model (See Exhibit 1)

- Coaches meet with stakeholders in the organization to understand context and organizational goals.
- Individual coaching plans are created with a clear link between personal goals and the organizational goals established for cadre coaching.
- Cadre members share experiences with one another, adding to depth of learning.
- Coaches meet as a group to discuss themes/patterns among executives getting coached.
- Coaches discuss implications of these themes with stakeholders.
- Individual and organizational change occurs, with equal focus on both.

Individual Coaching Model (See Exhibit 2)

- Coach meets with stakeholders in the organization to understand context and goals.
- Individual coaching plan is created.
- Individual and organizational change occurs, with focus on the leader's individual development.

Exhibit 1
Cadre Coaching Model



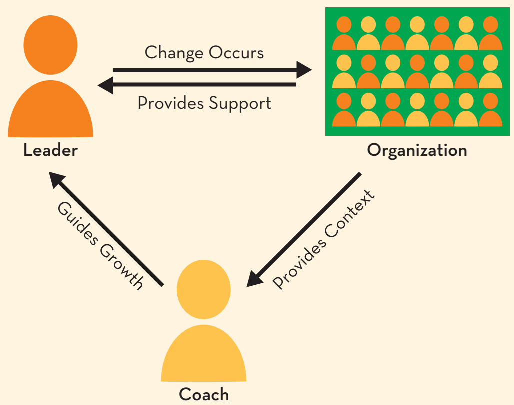
of the company. Collecting this data gives a candid snapshot of where the highest and best use of coaching exists.

Step Two: Using the information from Step One, the company develops a set of organizational objectives to target through cadre coaching. For example, after assessing the organization, it might be determined that significant leadership transitions will occur over the next few years due to the retirement of current members of the executive team. In this scenario, cadre coaches would help those being coached to focus on preparation for a future leadership role, the skills required to lead and manage change, and the development of the next generation of leaders.

Having a third party who partners with the organization to determine these objectives can be beneficial so that all existing blind spots are uncovered. In some cases, the culture at a company can inadvertently hinder key issues from being discussed, let alone from becoming organizational objectives to target through cadre coaching.

Step Three: Once the organizational objectives are determined, coaches design the individual plans to reflect steps that achieve the individual as well as the organizational goals. For

Exhibit 2
Individual Coaching Model



example, one company objective for cadre coaching may be to develop leadership capacity among high performers to prepare for management succession. An executive in this company may have an individual goal of giving specific feedback to direct reports as well as delegating more tasks to these individuals in a way that is developmental. This individual goal of developing direct reports is also accomplishing part of the organizational goal to develop leadership capacity. The key point is that each leader being coached will move toward achieving a shared set of organizational objectives by following his or her unique, individual coaching plan.

ESSENTIAL FIRST STEPS FOR EFFECTIVE CADRE COACHING:

1. Assess organization: operations, culture, talent and future aspirations.
2. Develop shared set of organizational objectives for cadre coaching.
3. Design individual coaching plans with specific steps to achieve both individual and organizational goals.

Cadre coaching is most effective when the highest team of leaders engages in it before other levels of leaders. After the top-tier embrace coaching and positive change occurs, the tone is set for how coaching is perceived at other levels of the organization. Simply stated, cadre coaching requires the support of the stakeholders — CEO, president, owner. If cadre members do not see a commitment at the highest levels, they will not take the commitment as seriously themselves. Taking the time to regularly meet with a coach, working on agreed-upon action items between coaching sessions, being mentally open to operating outside of one's comfort zone, and being open to change are all investments in time and mental energy that successful cadre coaching requires.

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WHERE CADRE COACHING HAS THE HIGHEST RETURN

Cadre coaching has the greatest return in situations that demand a leadership team to change their collective mind-set and approach to the business. This is especially relevant in our current economic situation, where executive teams must readjust to a new "normal" and re-examine their existing mental and business models. Times of organizational change require great transformations at an individual level, and cadre coaching adds accelerant to the process.

This was the case at a top engineering and architectural firm which engaged eight members of its leadership team in cadre coaching last year and is currently engaging more than 15 more top executives in coaching. A senior vice president at this firm explains, "A huge change that's occurred since we began coaching is the executive management team is working together better. The executive directors who lead the business units make joint decisions now. Decisions are no longer being made individually that could detrimentally affect the other business units."

One West Coast-based general contractor engaged 22 of its top executives in cadre coaching to help implement seamless leadership reorganization. The company's president remarked, "One of the biggest positives of our coaching engagement is that we are all are freer to challenge each other and own up to commitments we have made to each other. Our executive team has talked more strategically and we've committed to continue to communicate more and not be bashful. This has allowed us to stay focused during our leadership transition. Most importantly, we have established a consistent message that we can deliver to our people."

ORGANIZATIONAL OPPORTUNITIES WHERE CADRE COACHING IS EFFECTIVE:

- Ownership transition
- Leadership transition
- Succession planning
- Implementing new organizational strategy
- Culture change efforts
- Developing new competencies in response to market shifts
- Enhancing communication between business units and functional groups

BENEFITS OF CADRE COACHING

The value of cadre coaching is in the synergistic results. If one executive being coached can impact his or her team of direct reports, then many executives getting coached will impact many teams of managers in the same organization at the same time. The positive impact to the organization is exponentially greater because many of the direct reports will develop better skills through the modeling of their manager, and this will have a positive impact on those who report to them as well.

There are several other reasons for the synergistic effect of cadre coaching. First, the common experience creates a degree of connection among the team members. Conversations about their coaching emerge, and whether these conversations are candid or remain at a higher level, the connections and discussions reinforce what is experienced during the coaching sessions.

One construction industry vice president attests to the value of these types of conversations: "Several of us on my team who are engaged in coaching talk about our experiences and what we are learning. My direct report is working with a coach and she shares some of the exchanges with her coach to me. I'm sharing with her the experiences I'm having, and it is reinforcing the learning for both of us."

The common coaching experience also helps to build camaraderie among the cadre. This opens up new and richer lines of dialogue between cadre members.

The common coaching experience also helps to build camaraderie among the cadre. This opens up new and richer lines of dialogue between cadre members. Deeper communication between executives leads to teams that are more productive. An A/E/C firm senior vice president remembers the impact that cadre coaching made on a group brainstorming session. "Several people who were also undergoing coaching and I participated in a committee brainstorming session. It was tremendous. During the exchange of ideas, you could observe how some of the participants had developed over the course of their coaching program — me as well. The coaching experience we had in common brought it all together. It's hard to quantify, but it's something I'll always remember as a great experience. It was so much fun — my colleagues and I still talk about it!"

Another reason for this synergistic effect is the ability to identify themes among the group being coached. Often, several coaches will coach an entire team of leaders. When this occurs the coaches can meet periodically to discuss overall organizational trends and patterns they are observing within the team, with permission granted to do this from each coaching client. This discussion uncovers important implications for an organization that the coaches share with key stakeholders. For example, a construction executive noted, "One advantage of our executive team getting coached is that we learned we have many people who are operationally based in their thinking, and we're not as strong in the strategic, long-term thinking." This insight was achieved through cadre coaching — the coaches discussed trends they observed and reported key business implications back to the stakeholders.

BENEFITS OF CADRE COACHING — SUMMARY

- Drives alignment of vision and strategy
- Impacts the organization exponentially greater than when coaching a lone leader
- Identifies similar themes among the cadre and subsequent organizational implications
- Identifies true future leaders in the organization
- Creates common language and context among cadre
- Opens up new lines of dialogue among cadre

Executive coaches who work with a cadre of leaders also have the means to quickly grasp the dynamics of working relationships. When one coach engages with several individuals on the same team, he or she is now a third party who is able to witness the interpersonal dynamic of each leader firsthand. This gives the coach a vast amount of information to work with — much more information than he or she would have if coaching only one leader. Instead of having one executive's perspective on his or her performance and how the team functions, the coach is receiving several perspectives, in addition to understanding the dynamics of the various personality types involved. Therefore, the coach can quickly recognize the reality of a situation and be more effective as a coach to all team members. One of FMI's senior coaches, Mike Hawkins, is coaching several leaders from a construction company in the northeastern U.S. — two senior executives and several of their direct reports. By working with multiple members of the team, Mike gains firsthand knowledge of the issues and opportunities that make not only the individuals better, but also the entire team. For example, one of the executives lacked delegation skills. By working with the executive and those to whom he delegated, a combined solution including empowerment, guidance and follow-up was put into place with all parties. Tremendous progress occurred very quickly due to the fact that Mike was coaching several members of this team.

The CEO of a large general contractor points out another advantage of cadre coaching. "It's helped us to identify the true future leaders that we have. We've learned who were truly engaged in the process versus those who were doing it because they had to. The whole executive coaching process helped clarify who was and who wasn't a fit for the long term." This results in a tremendous cost savings for organizations. Getting the right people in the right positions, especially at the higher leadership levels, is essential for running an organization effectively. When people are not put in the right positions, the process necessary to correct the problem (hiring, losing talent, rehiring and reorganizing an internal structure) comes at a high cost.

Getting the right people in the right positions, especially at the higher leadership levels, is essential for running an organization effectively.

RETURN ON INVESTMENT

Does cadre coaching impact the bottom line? One construction industry senior vice president doesn't hesitate to answer, "Absolutely. I think if people can communicate more effectively, be a more effective role model, be more self-aware, then that translates to a better organization; a better organization is going to perform better, and an organization that performs better is going to have a better bottom line. No question." Another industry leader believes employee retention, motivation and better client communication are all benefits of cadre coaching that influence the bottom line. He adds, "Efficiency is also a factor. If we become better leaders, project managers and project executives will know what to do without asking us for every little thing, and that improves the efficiency of our organization." Industry leaders who have engaged in cadre coaching have seen the results it brings. They agree that the coaching makes a positive impact in performance areas that directly and indirectly affect the bottom line.

The CEO at a top general contractor sees the connection between cadre coaching and longevity in the market. "Michael is president of his division and he certainly knows our market. Anything we can do to make him a better leader is going to help us be in this market for the long haul, and the coaching effort has certainly helped him become a better leader."

The coaching experience creates a common language and context among the leaders being coached. New and richer lines of communication emerge. Teams are more efficient and more productive as a result.

SUMMARY

Cadre coaching can advance overall organizational initiatives very effectively when implemented strategically and when essential preliminary work is done. Preliminary work starts with a careful evaluation of the organization: assessing the performance, culture, talent and short- and long-term corporate goals. Based on this information, stakeholders arrive at a shared set of organizational objectives. Then coaches create individual plans that address both individual development goals and organizational objectives.

Once cadre coaching begins, the network of coaches and cadre members in an organization is leveraged to produce synergistic results. The coaching experience creates a common language and context among the leaders being coached. New and richer lines of communication emerge. Teams are more efficient and more productive as a result. In addition, coaches meet to identify possible patterns among the leadership team that may have gone unnoticed prior to the formation of the coaching cadre. Business implications resulting from these themes are communicated to the stakeholders of the organization.

Just as individual coaching can be transformational at an individual leadership level, cadre coaching can be transformational at an overall organizational level. Cadre coaching is particularly effective when an organization is experiencing a transitional situation, such as ownership transition, leadership transition, succession planning, cultural-change efforts or implementation of a new organizational strategy.

An executive committee member at a national A/E/C firm explains cadre coaching at his firm: "The difference coaching has made is something we talk about as a tremendous success story. The organizational changes we're experiencing could not have happened to this degree without cadre coaching." ■

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Assessing Compliance

Without a valid measurement process, management receives a false sense of cold comfort on risk undertaken and is likely to have to deal with unpleasant surprises and crisis management/containment.

By Griffith R. Morris and Kenneth M. Loflin

Compliance is particularly important in the gas industry because of potential risk to the public and customers, utility employees and property. In the late 1960s, following a series of explosions and fires involving natural gas and petroleum product pipelines, the National Pipeline Safety Act (DOT-192) mandated comprehensive standards and procedures for pipeline construction, operation, maintenance, inspections, incident documentation and emergency response.

State regulators were charged with drawing up procedures mirroring the federal act, and incorporating these in state regulatory law. Subsequently, gas distribution utilities developed procedures responsive to those of their respective state commissions.

A recurring issue throughout the industry is how best to assess compliance with regulatory requirements. In the event of reportable incidents, it is then how best to show compliance in order to reduce liabilities and counter punitive penalties.

This article describes an improved approach to measuring degrees of compliance between what goes on in the field (actual field practices) versus what should be happening (written standards/procedures).

This approach to measuring risk and compliance is drawn from five engagements conducted for natural-gas distribution systems located in as many states, each with its own regulatory commission. The methodology developed was created and implemented for all the companies and presented to each of the five state regulatory commissions as an ongoing system with which to measure compliance going forward.

CONTINUOUS IMPROVEMENT — THE CURRENT SITUATION

Beginning with manufactured gas before the beginning of the last century, through the post-WW II widespread growth and use of natural gas, to the enactment of the Pipeline Safety Act, gas-system managers have uniformly had as key objectives the provision of safe, reliable service at reasonable cost to their customers. Safety, as the paramount concern, continues to be monitored principally through inspections or field audits of system condition, construction in progress and ongoing operations.

The way inspections are conducted has not fundamentally changed since the industry's beginning. Inspectors/Field auditors are trained in the system's written procedures and dispatched to a field site to witness and record compliance/noncompliance based on their observations. Sometimes inspectors are assigned sections or regions to cover; sometimes they focus on a particular aspect of construction or operations; sometimes they follow specific contractors and/or company crews.

> **Safety, as the paramount concern, continues to be monitored principally through inspections or field audits of system condition, construction in progress and ongoing operations.**

The technology, however, has advanced from handwritten reports. Hand-held computers log pass/fail results on project work steps for transmittal to central databases. These devices also provide on-site call-up of applicable procedures, past contractor or company crew performance on similiar installations, acceptable/approved variations on standards and other useful information. Other gains in technology include "smart pigs" propelled through cast-iron or steel pipes to produce videos or photos to examine conditions, the use of new systems to radiograph welds in search of flaws, and much-improved leak-detection "sniffing" equipment.

Technology advances notwithstanding, the information gathered only describes what piece of the installation occurs most often during its construction, but not what is most important in the installation in terms of measuring risk to people and property upon failure. Nor is such data inferential about the systemwide or regional compliance (widespread protection of people and property). Data collected, however more quickly, says nothing with any precision about risk or compliance. Such methodology provides no statistically valid measurement of meaningful risk factors, and thus no basis for demonstrating levels of confidence, high or otherwise, for the entire system. This ability to understand systemwide implications of valid data is essential for executive management to provide oversight and risk management. Without a valid measurement process, management receives a false sense of cold comfort on risk undertaken and is likely to have to deal with unpleasant surprises and crisis management/containment.

IMPROVE COMPLIANCE, REDUCE ENTERPRISE RISK

The objectives in designing and implementing an improved compliance measurement system were driven by the most serious reportable incidents. These have remained FMI's objectives for subsequent client engagements.

- Ensure with high levels of confidence that actual construction performance from a systemwide point of view, for both company employees and outside contractors, is in compliance at all levels of federal, state, local and company procedures and practices.
- Collect and document information and insight into the construction performance of the several electric utilities and other utility systems with which the company jointly serves customers.
- Provide findings, conclusions and recommendations supporting opportunities for improvement with regard to the company's construction management process and intercompany practices.

The newly designed risk management and compliance process initially focused on four principal measures deemed to be most critical in avoiding failures and reportable incidents. Field auditors collected pass/fail information on 103 compliance factors at each inspection site. The four key and most critical measures are:

- Clearance between gas pipes and electric lines
- Depth of cover over gas pipes
- Distance of warning tape from gas pipes
- Continuity of locater wires

Simply put, these were considered as the utility elements in new-business residential construction, that if noncompliant, can potentially injure people and damage property.

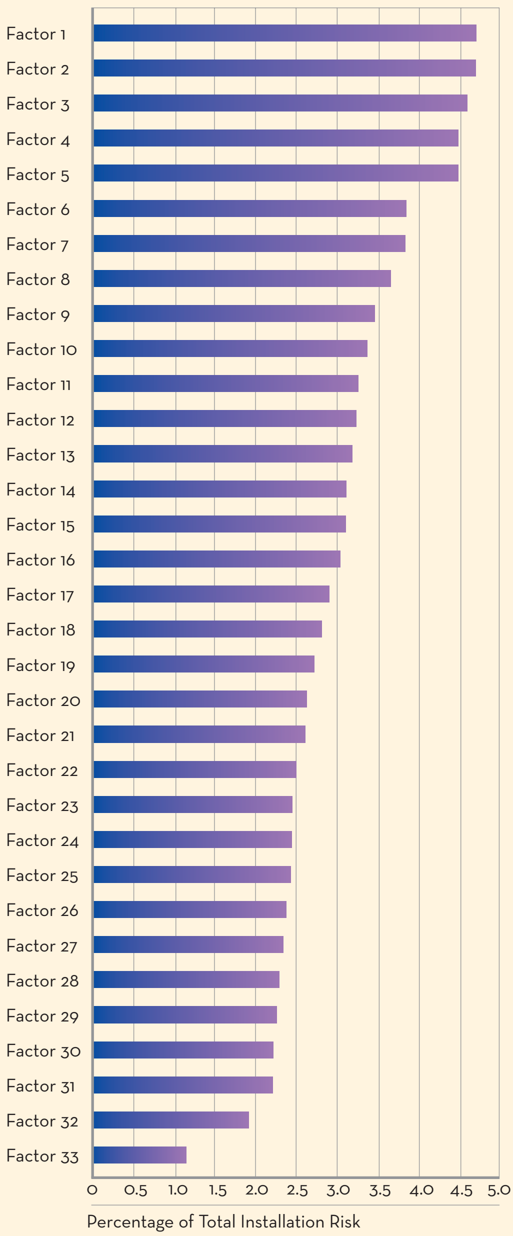
IS THERE ONE MEASURE OF RISK?

What about all of the other information gathered at each inspection (103 compliance factors)? How do these affect risk? Must you keep up with the pass/fail performance on all 103 compliance factors? Are some more important than others? Can you combine and use them all as one critical determinate of risk and installation compliance? Is it possible to measure separately the performance of crews and contractors in certain locations, subdivisions, territories, regulatory jurisdiction or by type of customer served?

By using the method described here, the data contained in all of the 103 compliance factors are brought together to capture the meaning in terms of a single risk-management measure, providing a much more useful performance-management tool. In addition to scoring each compliance factor on a pass/fail basis, describe the risk of the entire installation by finding the individual contribution of each compliance factor to total risk.

That is, instead of treating each of the 103 compliance factors in a single installation as if they had the same value or equal weight, determine the importance of each of the 103 compliance factors according to their contribution to the risk of the entire installation (See Exhibit 1). If the

Exhibit 1
Risk Ranking for Installation Factors



inspection shows that an individual compliance factor fails, rather than treating it as if it had the same value as any other factor that failed, it is treated according to its individual importance and contribution to total risk of the installation. The result is one measure, based on weighted criteria, that provides the basis for a single risk-adjusted compliance score for each installation inspected.

The company ranks each of the items of information gathered at an inspection as to its contribution to the overall risk of the installation. If the total risk of the installation could be considered 100%, then what portion of the total does each one compliance factor represent? It was found that about 10% of the items counted for about 50% of the entire risk. So, is it important to concentrate on those items having more importance, or it is a waste of time and resources, and a misreading of risk?

HOW IS THE IMPORTANCE OF EACH COMPLIANCE FACTOR DETERMINED?

How is the importance of each of the 103 compliance factors determined? Clients are asked what they think is most important to saving lives and property through what is called the Delphi Method of consensus building. By utilizing the clients' and FMI's own experience, consensus is reached on a set of weighted criteria, which provides the basis for a single risk-adjusted compliance score for each installation inspected. This method involves polling a group of company people at several levels and from different parts of the organization. Even with varying degrees of specific knowledge about construction by members of the group, their rankings provide a surprisingly accurate predictive tool.

HOW IS THE INFORMATION COLLECTED?

In the past, field auditors "dropped in" on an installation and observed a small portion of whatever was under way at the time. The new program is different in that:

- Auditors observe installations from beginning to end, start to finish.
- Sites are assigned auditors through a carefully randomized process.
- Should compliance problems emerge, auditors are instructed to record the situation "as found," require the crew to correct the problem, and make certain the installation is in compliance "as left."
- Field audits address the principal elements associated with risk to people and property introduced by noncompliant construction practices.

HOW MANY INSPECTIONS ARE NEEDED TO BE CONFIDENT ABOUT THE RISK AND COMPLIANCE OF THE ENTIRE SYSTEM?

Once you know what to collect and how to get it, you need to know how many: how many inspections, audits, samples. Besides inspecting installations from start to finish and assigning auditors to installations at random, the question arises, "How many installations need to be inspected to produce compliance measures that can stand the scrutiny of statistical validity, public scrutiny and legal challenge?" In other words, they produce a number (risk measure) for management, like a tachometer on an engine that determines the velocity of the engine with precision, with high statistical confidence.

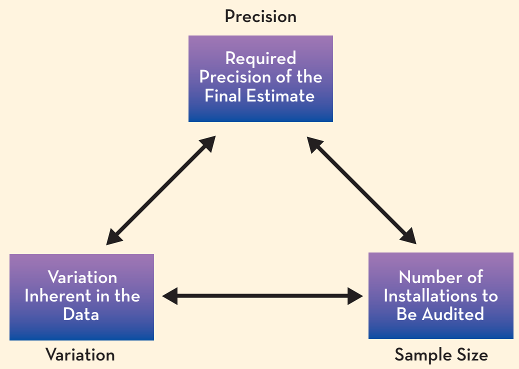
The cost of inspecting and auditing compliance must be balanced with the degree of risk the company is willing to undertake. The risk is measured by the compliance level, or by error rate: the more errors, the more risk. The cost is determined by the required number of samples, which in turn are determined by the:

- Size of the Installation/Construction Program — In this example, the client had 25,000 new installations annually.
- Confidence Level — Desired level of statistical significance (usually a 95% confidence level.)
- Required Precision — How close you want the sample to predict the likely (but unknown) risk and compliance value for the system.
- Inherent Variation — The value of risk/compliance for the system — not known in advance, but requires us to make an initial experienced-based estimate (See Exhibit 2).

For one client with 25,000 new installations to be inspected annually, and intent on being 95% confident in the results, the process began with the assumption of a 15% noncompliance rate, plus or minus 5%. With this assumption, 216 samples were needed (See Exhibit 3).

This initial assumption is necessary because no one knows the real rate of non-compliance for the entire system. When samples began to arrive, it became clear that the noncompliance rate was actually less than the assumption. This lower level of noncompliance also means a lower level of statistical variability and an automatic increase in precision. As the samples continued to arrive, the noncompliance rate approached 5%, plus or minus 2%. With 505 samples, there was 95% statistical confidence that the actual non-compliance rate for the entire system was between 3% and 7%.

Exhibit 2
Value of Risk/Compliance for the System



To get a 100% confidence level and 100% precision on the actual level of risk and compliance, it would be necessary to inspect all installations, a sample size of

Exhibit 3

Sample Size Required for 25,000 Installations

(95% Confidence)

Maximum Error Percent	Percentage of Non-Compliance					
	5	10	15	20	25	30
1	1,577	2,888	3,677	4,629	5,366	5,788
2	505	808	1,168	1,452	1,583	1,872
3	230	394	551	678	799	883
4	152	240	320	392	462	507
5	103	156	216	259	298	329
6	73	109	153	182	214	235
7	54	86	117	137	159	174
8	48	67	89	109	123	136
9	36	55	71	87	98	106
10	32	46	59	71	80	88

25,000. By choosing a 95% confidence level and a 2% precision level, one is still confident that the estimate is close (plus or minus 2%) and truly reflects the actual level of risk of the entire system, but at a substantially diminished cost.

How much risk is too much risk is an important question. The only real way to know the answer is to know the cost of failure. The cost of failure requires determining the value of human lives and property that may be destroyed in an incident.

Tragedies give a handle on the value of a human life, by the size of insurance settlements and other related payouts by government. The determination of the appropriate level of risk that the company should assume, in order to be efficient, is beyond this discussion.

How much risk does your system have is an equally important question. Here you are only trying to determine what risk you are actually assuming. From there you are able to drive it down further by management action or relax a little and reduce some cost, if you have a very low noncompliance rate. This method provides the answer to this second major question: How much risk does your system have, with 95% statistical confidence?

The significance of this statistically valid confidence level is that it is widely accepted by our regulators, federal and state courts, as well as the military because it is recognized as *being as good as reasonable men acting prudently can achieve*. The Nuclear Regulatory Commission accepts this on things like stainless-steel welds in nuclear power plants, and the armed forces accepts this on deliverables like bullets.

How much risk is too much risk is an important question. The only real way to know the answer is to know the cost of failure.

Many courts have upheld prudent man defense in civil litigation. For example, to move to a 96% confidence level, our client would need a much greater sample, say from the 500 installations to about 3,000. As earlier stated, achieving 100% confidence would necessitate observing all 25,000 installations, from beginning to end. Clearly, this is impractical and does not balance risk, precision and cost. With 95% confidence, you know the level of risk and can act on this information, if the risk level is found to be unacceptably high. The actions are then proactive and deal with the highest risk elements.

WHY CHANGE? WHAT ARE THE BENEFITS?

Major benefits of this new way of measuring compliance are several and begin with greater assurance to all industry stakeholders, partners and participants that the degree of risk and compliance is understood with a high level of confidence, and that all is being done that can reasonably be expected to minimize the risks.

Specifically, this Risk in Systems Compliance System (RISCS) permits:

- Continuous improvement in attaining very high levels of compliance.
- Measurement and comparison of compliance by area/subdivision, which, together with compliance performance comparisons of company and contractor crews, provides a basis for Best Practice gains.
- Fewer, not more, full-time field inspectors after system implementation, auditor training and IT integration.
- Vastly improved compliance documentation for regulatory authorities.
- Reduced liability and risk associated with punitive jury awards in civil cases.
- Potential reductions in insurance premiums as a result of reduced risks to the utility and its constituents.
- Greatly improved platform for managing overall corporate/enterprise risk.
- A solid basis for certificates of executive management under Sarbanes-Oxley.
- A prudent man defense for stockholder suits against the board of directors and management.

This way of measuring compliance is, of course, not limited to field construction activities or the gas, electric or water utilities. In fact, it has direct applicability to measuring compliance between any set of procedures, field or office, with actual practice in carrying them out. ■

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