

ractice Management Digest

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Features

Innovation as Improvisation

by Izzy Gesell

What would you call a person who can take something with a known use and employ it in an entirely new way? How about someone who recognizes a need and designs an effective solution? Most would say "inventor," "originator," "innovator," or "creator." But how about "improviser?" The skills that make improv-theater participants successful are the same ones that innovators rely on:

- · Focus on the present. Improvisers stay in the moment and respond only to what is available to them. They keep their minds open and focus on what is happening instead of on what is expected or desired.
- Accept reality. Accept what is offered without judgment or resistance. The basic rule of improv is "yes . . . and." "Yes" connotes acceptance. "And" allows the improviser to build on what was given and move the idea forward.
- Build on what you have. Once you accept an idea, support it, add to it, and help to move it forward.
- · Release the things you can't control. Once an idea moves forward, let the outcome go. Improvisers have high involvement on the process but low attachment to the outcome.

> Read the full article

Drawing Kanbans for a State Revision-Review Process by Cliff Moser, AIA

Kanbans have been used in "Lean" production since Toyota introduced them as part of its "Just-In-Time" manufacturing process. RTKL Associates used kanbans to manage production quality in the process of revising postapproval documents for California Office of Statewide Health Planning and Development (OSHPD) review.

Kanban is a Japanese term for signal. In Lean manufacturing, it is a way to track work-in-process production. It signals a cycle of production and materials and is used to maintain an orderly and efficient flow of materials throughout a production process. In this project, when traditional quality-control processes were insufficient, the design team incorporated kanbans into the control of production and inventory of drawings and other construction documents. The success realized by moving quality control from an inspection process to a production process was especially important, as it outlined new methods firms could try in order to integrate quality processes into project development and production.

Read the full article

Construction Document Delivery: Designing the Way We Work by Mike Czap, AIA

Many firms today are having difficulty consistently delivering good construction documents. Owners, contractors, and trade publications lament the demise of the quality of construction documents compared with those produced a generation ago.

Reasons abound. There is an increased emphasis on design, while projectdelivery demands have increased within a shortened time frame. The profession has become more narrowly focused, specializing by project type. Value is seen in the ability to market, plan, and design but less so in areas of constructability or building systems integration. Meanwhile, while technology offers an increase in productivity, it continues to change rapidly, and advances in communications have only served to increase expectations for quicker project delivery.

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Quality construction documents can become the rule—if we're willing to reexamine the fundamentals of how we work in these four areas of practice:

- · Positioning the project. Before agreeing to a detailed timetable, first understand the interdependencies between items to determine whether the timetable is both realistic and achievable.
- Implementing strategic office processes. Develop well-thought-out methods for getting work done rapidly and consistently.
- · Emphasizing teamwork and team building. Many firms are experiencing stress resulting from insufficient and/or inexperienced staff. Leverage the experience of senior staff to actively mentor and train interns. Elevate the stature of production work, and recruit individuals skilled in putting buildings together.
- Executing the project. Success in the CD phase entails much more than drawing. Approach CD development with a critical path methodology. Plan your projects: Concurrently design, engineer, and make your buildings constructable.
- > Read the full article

Practice Management Problems, Pitfalls, and Predicaments: How to Spot Precursors of a Professional Liability Claim

by Thomas M. Bongi, Esq.

Tradition holds that one's future can be foretold by examining the arrangement of loose tea leaves at the bottom of a cup. By "reading" these leaves, a trained seer can tell you if you will live in prosperity or face financial ruin. Today's projects require the design professional to be more than a tealeaf reader. True rewards will come to those who not only anticipate what might happen but also take steps to change the course of those events.

When the "tea leaves" warn of a potential claim situation, it is incumbent upon you to recognize those warning signs and take appropriate action. The potential project problems, pitfalls, and predicaments are many, covering the gamut of situations before the project begins, during construction, and after project completion. Some of the preventative steps that design professionals can take include

- · Performing basic research into the client's and/or owner's backgrounds before accepting the job.
- · Asking pointed questions about funding and ensuring the contract ensures enforceable payment terms—and then staying on top of those fees.
- · Documenting discussions and resolutions and responding in a timely manner to RFIs, whether they are reasonable or not.
- Watching your back by paying close attention to cost overruns and delays

Read the full article

Reduce Your Risks: Incorporate Key Project Management Guidelines into Contracts

by Michael Strogoff, AIA

When negotiating a contract, you have a golden opportunity to customize your project management plan and obtain your client's agreement to abide by it. Discussing, setting in motion, and documenting your project management plan may provide as much risk protection-for both you and your client-as all the legal jargon contained elsewhere in your contract.

You can incorporate into your contracts these elements of your project management plan:

- · Language that specifies clear lines of communication
- · Fees that are not based primarily on costs
- Language that assigns distinct responsibilities
- · Requirements for a kickoff meeting, frequent status meetings, and reviews of meeting minutes
- Language that requires the client to carry appropriate contingencies
- Language that encourages early dispute resolutions

> Read the full article

News

Letter from the Chairs

by Grant Armann Simpson, FAIA, and Andrea Cohen Gehring, AIA

Welcome and thank you for reading the PM Digest.

The AIA Practice Management Advisory Group understands that every firm, regardless of size, project type, or extent of service offering, must be well-managed to be successful. Our programs and content offerings are designed to provide insights into successful practices of all types. Our vision is to have each of our members say: "I am delighted that easy and effective access to and sharing of AIA Practice Management knowledge has improved me, my practice, and my profession."

The Practice Management annual fall conference, Bridges, was presented jointly by AIA Practice Management and AIA Louisiana at AIA Louisiana's annual convention in Shreveport. Held in late September 2006, it was a wonderful event, presenting powerful lessons in risk management, marketing, construction documents, and project management skills to help members set high goals for improving their project delivery skills.

Speakers included leaders from some of our country's most successful firms. Some were experienced speakers and some were new speakers with powerful and compelling messages. All were greeted by the Louisiana audiences with a warm welcome and desire to learn from them.

Highlights included engaging preconference workshops and informative breakout sessions and seminars. AIA Practice Management asked RK Stewart, FAIA, the AIA's national president-elect, to present one of two keynote sessions on its behalf. Stewart presented a compelling message on the current issues facing architects today and the AIA's support of issues ranging from integrated practice and workforce challenges to quality of documentation. Providing a great support structure, the AIA is developing tools and resources to assist its members. For example, an integrated practice forum (which included topics on building information modeling and alternate project delivery models) was developed as a springboard to begin a dialogue with the knowledge communities and their members. A primary resource for knowledge sharing, AIA Practice Management has embraced this topic and developed programs and conferences with an integrated practice focus.

This issue of the Digest includes articles and resources in support of our fall conference theme.

January brings annual changes to the AIA Practice Management Advisory Group roster. Andrea Cohen Gehring, AIA, will rotate off the advisory group while our newest appointed member, Cliff Moser, AIA, begins his five-year tenure. I have been associated with AIA Practice Management Advisory Group members as a speaker for the past 12 years. It is now my honor to become a lifetime member of the esteemed group of individuals known as past chairs and look forward to my fifth year on the advisory group in the capacity as immediate past chair.

Best wishes to the rest of the 2007 AIA Practice Management Advisory Group, including Jim Sawyer, AIA, 2007 chair; Sara McCann, AIA, 2008 chair; and Michael Strogoff, AIA, and Cliff Moser, AIA, members. Keep in touch with AIA Practice Management, www.aia.org/pm/, and with the advisory group through our AIA staff liaisons (whom we could not do without!), Bruce Bland and Doug Paul.

Resources

The Practice Management Project Delivery Skills Conference: New Solutions to Old Problems

by Stuart Shell, Assoc. AIA

In this essay, a recipient of the PMKC scholarship for emerging professionals discusses his experiences and the benefits he gained from the PMKC fall 2006 Project Delivery Skills Conference, held September 13–16 in Shreveport, La. Each conference seminar addressed one or more of these interconnected arenas of practice that are important areas of competency and effectiveness for emerging professionals to develop:

- Construction documents, construction administration, and information processing
- · Contract negotiations, contract management, and marketing

Contribution to a culture of learning within the firm and community

The most informative session for this emerging professional may have been the Practice Management Panel and Open Forum, in which seasoned practitioners shared topics of concern. Panelists acknowledged that in the architectural profession, changes in the production of deliverables and the shape of services has made crafting the next generation of professionals a top priority.

Read the full essay

Contribute to Practice Management Digest

The Practice Management Knowledge Community is committed to providing AIA members with useful, engaging, and provocative information about the practice of architecture. As part of our efforts, we are asking you, our fellow practitioners and strategic partners, to share your knowledge and experience by contributing an article for inclusion in an upcoming issue of *Practice Management Digest*.

Articles can be of any length and format as long as they provide valuable insights and useful information. The possible practice management topic areas include the following: business practices and trends, delivery methods, financial management, human resources management, innovation management, integrated practice, intern development, leadership development and leadership transition, marketing and business development, operations management, project management, quality management, risk management, social responsibility management, strategic alliances, and strategic planning. Completed articles are preferred; however, we will work with you to help develop an article from even the barest outline of an idea.

In addition to submitting an article, you can also contribute to the *Digest* by suggesting topics or submitting comments about a recently published article. Most important, get involved and share your knowledge! To submit an article, suggestions, or comments, contact Bruce Bland at bbland@aia.org for further information.

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Innovation as Improvisation

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What would you call a person who can take something with a known use and employ it in an entirely new way? How about someone who recognizes a need and designs an effective solution? Most would say "inventor," "originator," "innovator," or "creator." But how about "improviser?" The skills that make improv-theater participants successful are the same ones that innovators rely on.

Improv may seem entirely spontaneous and, at times, a little magical to the audience. In truth, however, there is a method to improv's madness. All improv consists of an outcome and a method. The outcome is what the audience sees; the method is the secret behind the outcome and allows the outcome to occur. Improv works because it puts people in the right frame of mind to achieve breakthroughs in thought. Since improv games are tools, their real value lies in what they create for the players: the ability to balance spontaneity and control.

Skilled improvisers create order out of chaos, reason out of nonsense, and harmony out of discord. It takes practice and a system to create something from nothing. In improv, the framework that defines the system actually expands possibilities rather than constricting them. This is accomplished by allowing the participants to focus on the process rather than the outcome. Whether the goal is to entertain or to innovate, four foundational behaviors lead to success:

1. Focus on the present

Improvisers stay in the present. They resist the urge to plan ahead, evaluate, or anticipate what others will do. They respond in the moment and only to what is available to them within the context of the rules of the game. Likewise, successful innovators must keep their minds open and focused on what is happening rather than on what is expected or desired.

An example is an Improv game called "One Word at a Time." Players construct a story by adding one word each time it is their turn. The only way to succeed is to let go of the need to control the story or fellow players. When this happens, a story that has never been told before easily unfolds.

2. Accept reality

The basic rule of Improv is known as "yes . . . and." This is a shorthand way to communicate that whatever is offered is accepted without judgment or resistance. The "yes" connotes acceptance; the "and" allows the next speaker to build on what was given and move the idea forward. It does not suggest agreement with everything offered, but it does imply willingness to accept it. For instance, while playing "One Word at a Time," it is inevitable that a word will come that is unexpected or even unwanted. Rather than try to force an outcome, successful improvisers let go of preconceived ideas and thereby gain momentum toward the creation of something brand new.

Innovators benefit from "yes . . . and" by learning that productive cocreation is fueled by sharing responsibility, being comfortable in taking risks, and having unconditional acceptance of all ideas.

3. Build on what you have

Once you accept an idea, support it, add to it, and help to move it forward. Avoid trying to make the "right" or best contribution.

Improv theater is like walking backward: There's a clear view of where we have been but not of where we are going. For innovators, this construct is a helpful reminder that major innovations have come from taking one small step beyond what was. Something that at first glance seems like just a tiny step forward can be the catalyst to significant change.

4. Release the things you can't control

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Once an idea moves forward, let the outcome go. Improvisers know that it is futile to try to control the outcome of an Improv structure. They contribute what and when they can. They have high involvement in the process but low attachment to the outcome. This method of innovation, like improvisation, often has a significant end result without being able to point to who did what. The whole is much greater than the sum of the parts.

As human beings are made up of an "authentic self" (who we naturally are) and a "societal self" (whom we have created as a coping mechanism). Effective personal and team behavior flourishes when we act from our authentic self. Improv shows us that at any one moment, we can choose which self to operate from. Becoming a more spontaneous, confident, and effective person is not the result of becoming a *better* "you" or something new but by becoming more *truly* "you."

If you want to see what innovation looks like in real time and in three dimensions, check out an improv theater group. There you will be witnessing authentic and constant innovation.

Izzy Gesell, M.Ed, CSP, is a coach, facilitator, and author of Playing Along: Group Learning Activities Borrowed from Improv Theater. *More information and free articles are available at* www.izzyg.com. *Contact information: P.O. Box 962, Northampton, MA 01061; phone: 413-586-2634; fax: 413-585-0407; e-mail:* izzy@izzyg.com.

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Drawing Kanbans for a State Revision-Review Process by Cliff Moser, AIA

Abstract

Kanbans have been used in "Lean" production since Toyota introduced them as part of its "Just-In-Time" manufacturing process. This article describes the use of kanbans in the process of revising postapproval documents for California Office of Statewide Health Planning and Development (OSHPD) review and describes their use in managing document quality.

Why use a kanban system for drawing production?

Kanban is a Japanese term for signal. In Lean manufacturing, it is a way to track workin-process production. It signals a cycle of production and materials and is used to maintain an orderly and efficient flow of materials throughout a production process. In manufacturing it usually comprises a printed card that contains specific information such as part name, description, quantity, and so on.

Architects have developed computer-aided design (CAD) systems that do not allow for the active, "over-the-shoulder," in-progress oversight once utilized with hand drawings. With CAD, drawing progress can be measured only by stopping production and printing and reviewing. Without stopping production, it is difficult to know what progress has been made. With this in mind, the drafting team experimented with creating a kanban system to review drawing progress to remedy guality-control failures in documentation for a complex hospital project requiring revision approval from the OSHPD, a California state agency that reviews and inspects hospital construction and construction documents.

By way of background, once OSHPD approves and signs off on the design and construction documents, any changes to the documents must be tracked and collected into post-approval documents (PADs), which are submitted to OSHPD for a change review and approval. In addition to actually changing the drawings, a significant part of the revision process involves collecting the changes in a narrative format that describes the drawing revisions and explains why the changes were made. This is a requirement made for the benefit of the OSHPD reviewer who must formally review and approve any revisions, whether they are Request for Information (RFI) responses or owner changes. This narrative is submitted as a required document that accompanies the drawings. The drawings themselves must have each revision properly clouded and numbered.

OSHPD is stringent concerning these requirements and if a PAD is submitted that has changes without benefit of narrative or proper clouding and numbering, the submittal is rejected.

Traditional quality-control methods are sometimes not enough

The UCLA Westwood Replacement Hospital (UCLA WRH) was a \$1-billion project with 1.2 million square feet of new, full-service hospital space (imaging, med surg, ICU, NICU, women's health, dietary, parking, and so on). The OSHPD Construction Drawing Approval package consisted of more than 3,000 sheets of drawings and more than 1,500 pages of specifications, schedules, and other small-size documents. Any PAD change consists of owner revisions, contractor changes, or architectural instructions and incorporates anywhere from 30 to 200 sheets of changed documents. Four architectural firms plus mechanical, electrical, plumbing, and structural and other consultants were actively involved in producing revisions.

Our team's first effort at creating a complete, correct, and coordinated PAD submittal resulted in failure. We submitted drawings that had changes that weren't clouded or narrated, drawings that had several different revision clouds and reference numbers (past, present, and future), and narrations that didn't match the revisions and vice versa. All drawings and disciplines were affected. It seemed that the revisions and processes monitoring those changes were too scattered to be trackable and traceable. The team couldn't keep the pieces together long enough to package the PAD; it couldn't describe the changes coherently after the fact; and it couldn't manage a process that seemed too disparate and transient. After the submittal was rejected, the team reviewed the failure. In reviewing the failure and recommending changes, the team was immediately faced with the inspection dilemma.

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Traditionally a delivery failure in architecture is seen as a quality-control failure and hence an inspection error. The story is always the same: A young inexperienced staff, racing a deadline, will deliver drawings that turn out to be incomplete and uncoordinated. The team and the firm's management identify this condition as a failure in quality control or as inadequate experienced oversight inspection prior to delivery. To rectify the problem, the traditional model is to quickly engage additional inspectors— usually older and jaded experienced staff—who are charged with inspecting the firm's documents according to an extrinsic knowledge checklist (RediCheck or similar) or intrinsic knowledge (experience and past lessons learned) prior to release.

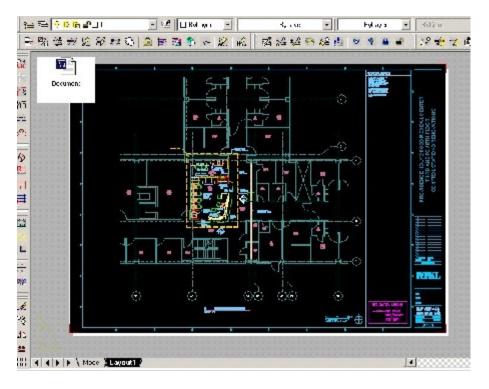
This model is repeated earnestly in all firms with the best of intensions, and it initially eliminates surface quality problems, the information gaps, and the lack of coordination between disciplines, but this model does nothing to fix drawing problems at the production phase. In its review, the UCLA WRH team determined that it could not employ the inspection model, as it could not afford the time or expense of additional inspectors. In addition, it recognized that the OSHPD process was an inspection process as well as a design review process.

OSHPD had a two-level triage process: (1) spot-check for revision cloud/numbers and narratives, and (2) act as coordinated consultant to architectural drawings. Because several inspectors were already built into the process after delivery, it was felt that additional inspectors would add little or no value to the PAD development and production process. Therefore, the deep root-cause review of the failure of the process delineated that the only way to achieve true quality would be by using the production team to process each of the separate revisions and determine whether there was a way to allow the documents themselves to describe their revisions and to state and identify where they were as in the PAD process.

How the kanban was implemented

The team outlined the idea of a production kanban that would somehow attach information to the document in process of revision. An attachment listed descriptions of the revisions, who made the changes, when the changes were made, and what was the planned OSHPD PAD publication.

The team created a Word document template that matched the approved OSHPD narrative form (see figures, below). All members of the team received Instructions that when they opened a live drawing and began making changes, they were to attach (embed) the Word document to the CAD sheet drawing and begin filling it in as they completed changes. The template identified each revision, outlined the reason for the change, and stated the number the revision would receive for that sheet. When the team member was finished with changes for that document or complete for the day, he or she would completely fill in the form and save the document and the drawings. The drafter would also select and copy the information into an e-mail and mail the changes to a designated PAD e-mailbox. The subject line of each e-mail was designated so that each e-mail would sort itself into the specific sheet or specification or schedule change, who made the change, and the date the change was made.



When the team would prepare a PAD change, it would go to the e-mail folder and select those describing the document changes. If several team members worked on drawing A.302, the selection process would pick all e-mails with A.302 as the subject reference line. The PAD packager would open up all the e-mails for the selected PAD and copy the text from each e-mail (we instructed e-mail file types, too: only rich text, no plain-text or html file types). If the e-mails were incorrect or of the wrong file type, the packager would reject the e-mails and send them back to the team member for correction prior to packaging.

To work properly, a kanban should be simple. This process demonstrated that any member of the project team (and management), with a quick review of e-mail files, could determine which revisions had been made. The e-mail kanban could be used to describe the changes to the engineering team, and the CAD sheet (with attached kanban) could be sent to each discipline with the new background. This solved coordination errors where numerous project members may have participated in a particular change but not fully comprehended the full scope of changes now required as part of the revision. The changing of a door location may have created Phase 1 modifications (interior finishes, electrical switches, thermostat locations, door/hardware changes, and so on) as well as unforeseen Phase 2 structural or MEP modifications, which may not be completely thought out or coordinated throughout the project and disciplines.

Drawing Kanbans for a State Revision-Review Process

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For PAD packaging, the selected e-mails would be collected from the e-mail folder and opened. Each e-mail would be copied and pasted into a master PAD narrative. The final document required minimal formatting (using correct e-mails) and could be printed to use as a checklist for reviewing the PAD documents.

Attaching active and traceable changes to the drawing and creating a self-audit trail through e-mail capture allowed the project to reduce packaging and inspection initially by 50 percent (one to two team members) and by 70 percent to 80 percent (four team members) once the protocols were understood and followed.

Once the drawings were published, the changes were frozen and the Word document detached. The drawings were placed back into the server for active revisions. When new revisions were required on the documents, the team member would attach a new Word template and begin the process anew.

The use of kanbans in non-PAD document production

After realizing success in its limited utilization with PAD revisions, the team was asked if it could think of ways to implement the system into the typical production of construction documents. Since PAD documents were discrete, traceable overlays to existing documents, developing and using kanbans was easy. Would using kanbans to signal typical progress of a drawing set be seen as too difficult and oppressive? Because narratives aren't a traditional requirement of drawing production, asking a team member to write down and e-mail everything they had done for the day may prove to be a difficult task.

In the end, our team didn't diffuse the use of kanbans beyond the UCLA WRH project. Other teams in the firm that were managing similar construction-phase projects with similar drawing revisions (but not under OSHPD review) declined to follow our procedures and tracked their changes using traditional quality-control methods.

Summary

This project demonstrated that kanbans could be incorporated into the control of production and inventory of drawings and other construction documents. Further exploration into using kanbans into traditional drawing production should be pursued. The success realized by moving quality control from an inspection process to a production process was especially important as it outlined new methods firms could try in order to integrate quality processes into project development and production.

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Drawing Kanbans for a State Revision-Review Process



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Construction Document Delivery: Designing the Way We Work

by Michael F. Czap, AIA

Many firms today are having difficulty consistently delivering good construction documents (CDs). Owners, contractors, and trade publications lament the demise of the quality of construction documents compared to a generation ago.

Reasons abound. The practice of architecture has changed greatly over the last 20 years. There is an increased emphasis on design, while project-delivery demands have increased within a shortened time frame.

The profession has become more narrowly focused, with entire firms or practice groups specializing in project types such as multifamily, retail, hospitality, or healthcare. Value is seen in the ability to market, plan, and design but less so in areas of constructability or building systems integration.

Technology, while offering an increase in productivity, continues to change rapidly, and advances in communications have only served to increase expectations for quicker project delivery.

The good news is that quality construction documents can become the rule—if we're willing to reexamine the fundamentals of how we work and why. Below are four areas of practice that have a significant effect upon the quality of our construction documents.

Positioning the project

Football aficionados understand well that field position is essential to victory in the game. Likewise, success in project delivery is greatly affected by how we position the project. Architects will often agree to contracts or schedules that put the project at an immediate disadvantage, well before a single line is drawn. Firms will understaff at critical junctures or move projects forward without solving essential issues.

It is important to look at the whole of project delivery and not see it simply as a series of phases—the goal being to ensure that we don't allow problems to accumulate along the way.

Before agreeing to a detailed timetable, first understand the interdependencies between items to determine whether the timetable is both realistic and achievable. Actively manage your client's expectations, and keep them informed of project progress and potential issues. Let them know that you are not perfect and there will be issues, but that you will work together to solve them.

Implementing strategic office processes

Develop well-thought-out methods for getting work done rapidly and consistently. Most firms pay little or no attention to how they work. They don't identify productive work methods or teach their staff how to do them.

Drawings are an "organized complexity" consisting of overlapping building systems and components, logically arranged and coordinated with each other. Well-designed production processes can aid in the planning, integration, and quality documentation of building systems and make the drawings easy to understand and follow.

Prototypical drawing systems can be used to simplify and streamline aspects of the CD process. Elements such as partitions, doors, cabinetry, building accessories, and, yes, handicapped accessibility clearances can be easily scheduled using systems that cover a majority of situations—with additional drawings for atypical situations only.

Building Systems Sheets comprising well-researched and coordinated reference details for roofs, exterior skin systems, stairs, etc., provide a

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Construction Document Delivery: Designing the Way We Work

resource that can be used over and over again.

Develop tools that facilitate client interaction and information gathering in an organized manner—and then document it back to them in an attractive, easy-to-understand format.

There is no time savings in thinking through the issues affecting a project, but there can be a reduction in the documentation effort. Ludwig Mies Van der Rohe famously observed that "less is more." We think of his comments with regard to design but should also consider their application to document preparation.

Focusing on teamwork and team building

A team is ultimately only as good as the players on the field, and many firms are experiencing stress resulting from insufficient and/or inexperienced staff. Recruiting, training, and retaining personnel is a significant concern. In addition, many experienced architects are no longer proficient with the tools or the trade and must depend upon younger staff to do the work.

What can a firm do?

Leverage the experience of senior staff to actively mentor and train interns. Pay attention to the team's complement to ensure that issues of management, design, constructability, and documentation are all addressed.

Elevate the stature of production work, and recruit individuals skilled in putting buildings together.

What about consultants? Structural, MEP, civil, and other team members should be viewed at times like a client. Set all parameters affecting their work, and see that the information they need—along with that which they provide—flows to all parties concerned in a timely manner.

Finally, work to reduce or eliminate barriers that prevent staff from doing work right the first time.

Execute, execute, execute

Having a work (or game) plan is not enough. You still have to do the right thing at the right time, and do it well. Success in the CD phase entails much more than drawing.

Approach CD development with a critical path methodology by identifying what needs to happen at the appropriate time and building in coordination efforts between disciplines. Look ahead to identify and eliminate potential roadblocks. It's more productive to prevent problems from happening as opposed to expending effort later to detect and correct.

Concurrently design, engineer, and make your buildings constructable. Where possible, major design and decision making coupled with simultaneous costing and value engineering should be complete by the end of design development.

Plan your projects, and avoid the tendency to work as hard as you can without first knowing what you intend to accomplish.

Doing good work is not negotiable. As architects, we are trained and motivated to be creative in planning and design. Let's extend that dynamic into the construction document arena to also be imaginative and resourceful by Designing the Way We Work.

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News & Best Practices from the PM Knowledge Community

Practice Management Problems, Pitfalls, and Predicaments: How to Spot Precursors of a Professional Liability Claim

by Thomas M. Bongi, Esq.

Tradition holds that one's future can be foretold by examining the arrangement of loose tea leaves at the bottom of a cup. By "reading" these leaves, a trained seer can tell you if you will live in prosperity or face financial ruin.

While design professionals might benefit from seeing into the future, true rewards will come to those who not only anticipate what might happen but also take steps to change the course of those events. In short, today's projects require the design professional to be more than a tea-leaf reader.

The truth is that some projects are destined to result in a claim against the design professional even before he or she puts pencil to paper (or, more appropriately, before the CAD station is turned on). But if you know where to look, often you can see early signs of a claim just waiting to happen.

The early bird doesn't pay as much for the worm

No matter the cause or the source of the claim, it is incumbent upon you to recognize the warning signs of a potential claim and take appropriate action. The longer an issue on a project goes unnoticed or simply ignored, the more it costs to ultimately address. ("Costs" here does not simply refer to money. All issues "cost" in terms of lost time, productivity, and opportunities. You also need to factor in the potential loss of good will with the client and potential impact to one's reputation.)

Simply put, it is in your best interest to recognize when there is a potential problem. To do so, you must learn to spot the warning signs. You must learn to read the tea leaves.

Let's take a look at some of the warning signs of a potential claim situation. We'll call them potential project problems, pitfalls, and predicaments.

Before the project begins

Some of the most glaring indicators that trouble is on the horizon are present right at the beginning, before work begins.

1. Unreasonable now, unreasonable later

Has the client been unreasonable during contract negotiations? Has he or she been inflexible and unwilling to negotiate? Does the client insist that you agree to an onerous and one-sided agreement with an indemnity clause that makes you liable for everything except the client's "sole negligence"?

A client unwilling to truly negotiate with you to reach a mutual agreement is sending you a strong signal. You are not entering into an arm's-length transaction but one where the client is demanding the upper hand. Ask yourself what the client's reaction will be if the contractor asserts your plans are incomplete. Who do you think will be asked to pay for cost overruns?

2. Litigation as a first resort

What is the litigation history of your client? Does he or she have a penchant for going after the design professionals on a project? Some owners and developers are well known for using the designers (and their insurance policies) as supplemental funding for their projects.

You should be doing some basic research before agreeing to work with a client. You can determine how often someone is involved in litigation by checking court records. Many courts offer searchable records online. You also can subscribe to a database service such as Lexis/Nexis to find this information. For a low-tech approach, try calling others who have worked for

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the client and ask about their experience.

3. Stepping in for another

Are you taking over for another design professional? Why? What reason did the client give for the other professional leaving or getting fired? Probe. Don't just accept statements such as "We had a difference of opinion" or "We decided to go in a different direction." Most important, call the design professional you are replacing. In most cases, they will talk to you and give you valuable information. Often, the other designer will give you a completely different reason for their departure. Obviously, if the previous professional says she left because she never got paid or because the client sued her, you need to reevaluate your relationship with the client.

4. Underfunded and overleveraged

Does the client have enough money to complete design and construction of the project? Lack of adequate funding leads to one of two things: you don't get paid or the client files a claim against you. The first is obvious. The second may take some explaining. Without adequate funding, the client may ask you to engage in "value engineering." Value engineering is often code for the client asking for a project of similar scope, quality, and schedule but at significantly less cost. Invariably, the client will not get what it wants and will seek free services or money to get the project the client couldn't afford to begin with.

Ask your client pointed questions about funding. Also, tell the client you perform credit checks on all clients and then do it. Credit reports are readily available and relatively cheap. Additionally, Dunn & Bradstreet reports are a wealth of information. If the client resists your research efforts, ask yourself why.

5. Amateur hour

Does the owner have experience with the type of project proposed? If not, you've got a problem. No matter how much the owner "talks the talk," there is no substitute for having "walked the walk." If there are any problems during design, construction, or subsequent operation of the project, you will be painted as the "professional" that got the job by holding yourself out as an expert in the field.

During construction

6. Buried in RFIs

The same day the contractor signed its contract, it submitted 50 requests for information (RFIs). What are you going to do? First, you need to determine whether there is a problem with your plans and specifications. Was there a lack of coordination of the different design disciplines?

If a QA check shows the plans are solid and the RFIs are unwarranted, you need to call this to the attention to the owner and the contractor in writing. Unfortunately, you also must respond to each RFI in a timely manner. An unanswered RFI can form the basis of a significant delay claim by the contractor. Even if the answer is obvious, you need to provide the answer to avoid the contractor allegation that sounds something like this: "We submitted over 200 RFIs on this project, which is proof the plans were inadequate. Furthermore, some weren't responded to for over six months!"

7. There goes the budget

Are your billings significantly over your contract amount? Is the project significantly exceeding the owner's budget? If so, it is likely you won't get paid for all your work. At worst, the owner will be looking to the design team to cover the cost overruns on the project.

8. The cold shoulder

Is the owner or client not returning your calls? Do you perceive a curt attitude on the part of others involved in the project? Were you not invited to attend a meeting you would typically attend? Any one of these issues is not necessarily a sign of an impending claim. Rather, they can fall into the category of "vibes," which can be hard to read. Listen to your gut, and be alert for bad vibes from owners and other project team members. If you perceive that someone has an issue, ask them about it. Get it out into the open, and soon. The longer an issue simmers, the harder it will be for you to address it.

9. Where did that come from?

If you receive combative correspondence from your client, you've moved well beyond the "vibe" stage and are approaching unmistakable signs of a claim.

Do not overreact to such correspondence, but try to figure out what drove the client to take that action. You almost certainly will want to talk to the client about it, but you must also respond in writing. While you may think you have addressed the issue by talking it through with the client, document the discussion and the resolution reached.

10. The money spigot is turned off

Many clients take a long time to pay invoices. The hard part is determining whether the lack of payment is simply the client's standard business practice or a sign of dissatisfaction with your work. To avoid having to guess which it is, you need clear payment terms in your contract, and you need to hold the client to those terms. If you are able to get the client to pay you on a regular basis as agreed to in the contract, any disruption to that routine should be a warning sign to you. Either the client is running low on funds (could be trouble) or is dissatisfied with your work (definitely trouble).

11. Why aren't you working?

Construction work on the project has stopped. Time is money, and time is being wasted. Even if the reason for the stoppage seemingly has nothing to do with the design, this is a signal to watch your back. You may be surprised to find out that the owner or contractor is blaming your design for the stoppage. Or perhaps they believe you should have caught someone else's error during your construction phase services. Whatever the reason, you need to pay attention to construction disruptions and make sure you are not the cause—or are not perceived as the cause.

After project completion

12. You sue me, I'll sue you

The project is completed, but you are still owed a lot of money, and your client refuses to pay. What do you do? You sue! After all, you have an airtight case, you did the work, and you are entitled to the money. Maybe if you just file and serve the lawsuit, the client will come to his senses, right? Wrong.

It is estimated that 80 percent of lawsuits by design professionals to collect fees are answered with a countersuit against the designer for professional negligence and/or breach of contract. One lawsuit has become two, your professional reputation is taking a hit with every allegation made by the client's lawyers, your insurance company is involved, you owe a deductible, and you'll have to give deposition testimony.

The best way to avoid this scenario is to have a good contract with the appropriate payment terms and to stay on top of the fees owed to you. As the amount of money you are owed increases, the client's ability to manipulate the situation increases because your options and bargaining power have decreased. Don't allow yourself to be placed in that position.

Recognizing the problem is the most important step

While many of the situations mentioned above may seem to be obvious precursors to a claim, others may not be so apparent. By keeping the danger signs in mind, you should be able to spot even the not-so-obvious situations.

The key is to pay attention. People generally tend to focus on the good and ignore the bad. Some call it "whistling past the graveyard"—being cheerful or optimistic when the situation doesn't warrant cheer or optimism. Your task is to overcome the inclination to ignore or discount potential issues. To effectively manage project risks, the first and most important step is to recognize potential problems before they turn into claims. If you read the tea leaves correctly, you can take the steps necessary to overcome the problem.

Thomas M. Bongi, Esq., is an attorney and the director of industry relations for the Design Professional group of XL Insurance, one of the largest insurers of design professionals in North America. He has more than 15 years of experience representing architects and engineers in more than 1,300 claims throughout the United States. He can be reached at thomas.bongi@xlgroup.com .

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Reduce Your Risks: Incorporate Key Project Management Guidelines into Contracts

by Michael Strogoff, AIA

[Note to readers: Michael Strogoff, AIA, presented a workshop "Managing Client Expectations" at the AIA Practice Management Knowledge Community Fall Conference in Shreveport, La. This article elaborates on one of the key aspects that Strogoff discussed during this workshop.]

When negotiating a contract, you have a golden opportunity to customize your project management plan and obtain your client's agreement to abide by it. Discussing, setting in motion, and documenting your project management plan may provide as much risk protection-for both you and your client-as all the legal jargon contained elsewhere in your contract. To reduce your risks, incorporate the project management guidelines below into your contract with your client.

Specify clear lines of communication

Design and construction projects often involve numerous disciplines, dozens of people, hundreds of possible choices, and thousands of decisions. The opportunities for information to get lost, incorrectly conveyed, or misinterpreted are almost infinite. To lessen the likelihood of inaccurate or missing information affecting vital decisions, establish clear and direct lines of communication whenever possible. Consider incorporating language such as the following:

In recognition of the importance of direct and ongoing communication in achieving the Owner's objectives, preventing problems and resolving problems when they do occur, the Owner and Architect agree to maintain direct and frequent contact with each other and keep each other informed about the status of the project and about issues that might affect the parties' abilities to meet the Owner's objectives. The parties further agree not to delegate the responsibility to communicate directly with each other to any third party including subconsultants, contractors, construction managers and agency officials.

Forget about your costs

Take lessons from others outside our industry. Lawyers often charge contingency fees, M&A specialists charge hefty commissions, realtors' fees relate to sale prices, and physicians' fees relate to the complexity of the procedures they undertake.

Even outside the service professions, one is hard-pressed to see price tags based on a provider's costs. Imagine a sticker on a new car made up of the manufacturer's costs. Instead, car dealers highlight features, such as cruise control and navigation systems, and focus on benefits such as 0-to-60 acceleration in 4.1 seconds, more cargo space, and greater fuel economy. Nobody questions what the eight-speaker Surround Sound stereo system cost to manufacture when they decide whether it's worth an additional \$275.

Assign distinct responsibilities

An effective project management plan assigns clear responsibilities so that each required task or decision is made by the appropriate party as needed to prevent delays. Because many of these tasks and decisions involve the owner or other parties, assigning responsibilities is not an internal exercise that can wait until after a contract is signed. Instead, incorporate language and/or a matrix that designates which party-e.g., owner, design professional, contractor, owner's other consultants-is responsible for each service and deliverable. It's okay to designate "primary," "secondary," and "review" responsibilities as long as you define these terms. However, stay away from "shared" responsibilities. Too many important tasks and decisions fall through the cracks if ultimate accountability is not assigned to a single party

Conduct a comprehensive kickoff meeting

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Don't assume that your client is committed to allocating adequate time, energy, and responsibility for providing data, reviewing information, making timely decisions, and helping overcome project obstacles as your project proceeds. Risks are unnecessarily created or exacerbated when clients shuck their responsibilities. To increase the likelihood that your client will meet its obligations, consider including language such as the following:

At the start of the Project, the Owner and Design Professional, including all key decision makers, shall participate in a focused kickoff meeting to identify and discuss the following items: expectations with respect to overall project goals and priorities; lessons learned from other projects; project parameters (including scope, construction budget, program and site conditions; major project challenges and potential road-blocks); schedule milestones (including meetings and decision points); roles and responsibilities of each member of the Owner and Design Professional teams; lines of communication and decision making process; and deliverables on a phase-by-phase basis. The Owner and Design Professional shall mutually develop an action plan to help prevent problems from arising and to help mitigate problems that appear to be arising during the course of the Design Professional's services.

Hold frequent status meetings

Don't stop at the kickoff meeting. Include language that obligates the owner's top decision makers to participate in status review meetings at key milestones. Again, require participants to develop an action plan for mitigating potential problems. Frequent review meetings will also help demystify the design process and educate your clients, which, in turn, will lead to more realistic expectations, better decisions, and fewer claims

Incorporate appropriate contingencies

Clients that understand and plan for the imperfect nature of the design and construction process are less likely to file unwarranted claims. As part of educating your client and avoiding legal wrangling, require your client to carry appropriate contingencies. Consider language such as the following:

The Owner and Design Professional agree that certain increased costs and changes may be required because of possible omissions, ambiguities or inconsistencies in the drawings and specifications prepared by the Design Professional and, therefore, that the final construction cost of the Project may exceed the Owner's budget or most recent opinion of probable construction cost. The Owner agrees to set aside a reserve in the amount of __ percent of the Project construction costs as a contingency to be used, as required, to pay for any such increased costs and changes.

Make reviews of meeting minutes mandatory

In addition to creating a paper trail, meeting minutes are an essential project management role. Use them to document what was discussed, what and why decisions were made, what actions are required, and who is responsible for performing them. Insert language that requires each party to promptly review all meeting minutes and notify the other party in writing of either their acceptance or proposed corrections. To give this provision some teeth, specify that all meeting minutes will be considered accurate and fair representations unless the reviewing party notifies the authoring party otherwise within a specified number of days.

Include pre-dispute mechanisms

Disputes are least costly to resolve when addressed quickly and by the people closest to a problem. Resolving arguments at the lowest level possible also helps people develop communication and management skills valuable in deterring future disputes. To encourage early dispute resolutions, consider incorporating the following:

Prior to any claim, dispute or controversy between Owner and Design Professional under this Agreement, the parties shall first attempt to resolve the matter by a negotiation between the parties' designated project managers. If the designated project managers are unable to resolve the matter, the matter will be referred to negotiation between the parties' chief executive officers or managing principals. Only after the chief executive officers or managing principals are unable to resolve the matter shall the matter be submitted to mediation, arbitration or other legal proceedings.

In addition to the project management guidelines described above, incorporate others that apply specifically to your practice. Remember, a contract represents a golden opportunity to inform clients, create realistic expectations,

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and promote ongoing communication—the hallmarks of effective project management.

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Practice Management Knowledge Community Project Delivery Skills Superconference: New Solutions to Old Problems

by Stuart Shell, Assoc. AIA

Attending the 2006 PMKC conference was an excellent growing experience for me. I am grateful to the AIA PMKC and my firm, RDG Planning & Design, for making my presence there possible. This type of conference is energizing for a young professional, and I'm eager to share information from the seminars with others. I'm also enthusiastic about the support I've received from the leadership at RDG in relation to the conference. I'm currently drafting a summary of presentations at the conference to be integrated into our Lunch and Learn series. I've also spoken with a senior partner about his vision for a community of education at the firm. In the long run, I aspire to contribute to RDG as a resource for practice management topics.

The overarching message that I gleaned from the conference, and that I'll take back to RDG, is that I must become effective in three interconnected arenas of practice in the profession: (1) I need to be competent in the basic services of our practice—in crafting construction documents; administering the construction contract; and (as RK Stewart, FAIA, commented) processing information. (2)I also need to be capable of maneuvering in the realms of contract negotiations, marketing, and contract management. (3) Most important, I need to contribute to a culture of learning within the firm and the community.

To the credit of the PMKC, each seminar I attended at the conference addressed those three arenas. Former Honolulu Mayor Jeremy Harris, Hon. AIA, illustrated how the architectural community can positively affect and even direct city development. James E. Porter, Assoc. AIA, spoke passionately about construction contract administration, bringing his commitment to public safety to the forefront. Highlighting the importance of meetings to successful project delivery, Krista Becker, AIA, and Karen Johnston, Assoc. AIA, presented a roadmap for how to successfully organize stakeholders with different objectives. Thomas M. Bongi, Esq., and Wyatt Sanders each illustrated how litigation affects the professional environment. Grant Simpson, FAIA; Mike Czap, AIA; and Jim Atkins, FAIA, all spoke to the importance of construction documents and how those documents should be understood as one element of a realized design.

Of all the sessions at the conference, the one most informative to me was the Practice Management Panel Discussion and Open Forum. Listening to seasoned practitioners discuss topics of concern in their practices was both educational and enervating. Panelists acknowledged that in the architectural profession, changes in the production of deliverables and the shape of services has made crafting the next generation of professionals their No. 1 concern. Being part of that next generation, the situation is similarly concerning—making it natural to process the content of all the seminars through the rubric of "How do I learn that?"

This conference represented a starting point for me. I am eager to continue building my capabilities, and those of my firm, with advice I took from Shreveport. More than that, several friendships I formed helped me to realize the value of sharing our experiences as architects and as individuals.

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