



THE AMERICAN INSTITUTE  
OF ARCHITECTS  
Practice Management Knowledge Committee

# PRACTICE MANAGEMENT DIGEST



This issue of the PM Digest is sponsored by the AIA Trust



## Letter from the Editor

*By David B. Richards, AIA*

This issue of the Practice Management Digest considers Quality from several points of view. Quality can mean many things in the practice of architecture. These articles focus on the need to establish processes that result in quality work, along with the need for each practice to develop its own definition of quality in their work.

In this issue Matt Bartner, AIA of Kitchen and Associates has provided an overview of quality management in his article, "Project Quality Management." The Design Professionals Risk Control Group and the XL Group have approached quality from the client's point of view and how an architect's processes in project delivery impact quality. Brian Palmquist shares a process of web-based project management manual that enhances quality by specifically tailoring processes to each individual project and making project information readily available to all team members. Samir Emdanat of Ghafari Associates discusses a process of collaborative project planning to enhance the quality and timing of the delivery of services. And Michael Lough, AIA of Integral Consulting shares a philosophical discussion on the ethics of our decisions.

Special thanks to our sponsor for this issue, [the AIA Trust](#). Ann Casso, Executive Director, AIA Trust and Ed Hord, FAIA, former Chair, AIA Trust have provided an article that focuses on ownership transition in the firm and the need to prepare for the future early.

As the Practice Management Knowledge Community, our mission is to advance the practice of architecture through discovering, generating, organizing, and sharing insights, resources, and tools that enable architects to practice more effectively.

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## Features

## Project Quality Management

*By Matthew Bartner, AIA, LEED AP BD+C*

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## The Web-Based Project Management Manual

*By Brian Palmquist, Architect, AIBC, MRAIC, Intl. Assoc. AIA, BEP, CP, LEED AP*

In the fall 2014 edition of the AIA Practice Management Digest, "The Project Management Manual" (PMM) proposed "...flexibility to suit individual style in meeting the objectives of project management." While I am definitely in agreement with the concept of the PMM, in my world it is actually a web-based database customized for each project that lives and breathes online in real time independent of individual project team members.

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## Collaborative Planning Made Easy

*By Samir Emdanat*

There is an increasing need for collaboration across project supply chains to deliver projects faster, safer, less expensively, and of a higher quality. Project outcomes are to a large extent related to the effectiveness and reliability of the assembled teams. Integrated Project Delivery (IPD) and collaborative Design/Build create the appropriate environment for supply chain collaboration.

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## Good Faith, Bad Faith and Between

By Micheal J. Lough, AIA

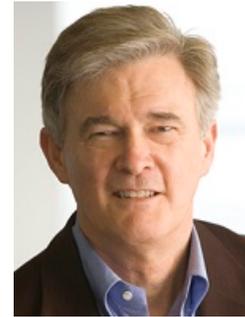
A philosophical discussion on the ethics of our decisions. "Is it good business practice and is it an architect's responsibility to act in Good Faith? [...] Could the developer be considered as acting in Good Faith by fully living up to their responsibilities per the contract even if it knew beforehand that the contractor had unwittingly signed an agreement which was disadvantageous since their bid was too low?"

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## Architecture Firm Ownership Transitions



Submitted by The AIA Trust. Contributing writers: Ann Casso, Executive Director, AIA Trust and Ed Hord, FAIA, former Chair, AIA Trust

The slowly improving economy has led to an increasing pace of mergers and acquisitions among architecture firms. To help AIA members through these types of transitions, [the AIA Trust](#) commissioned George Christodoulo to author a white paper on: "Selling, Merging or Closing Your Practice? An Overview of the Many Processes and Factors to Consider When Choosing a Course of Action" to help members determine their own best course of action.

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## The AIA Trust Wants Your Feedback!

The AIA Trust is committed to offering member benefits and free practice/risk management resources to help AIA members practice. Please share your ideas by emailing your answers on these questions to [AIATrust@aia.org](mailto:AIATrust@aia.org)

1. Are there specific risk management resources (guides, tips, studies, forms, etc.) that the AIA Trust might offer through our website that would be useful to you and your firm - and if so, what topics and kinds of resources would they be?
2. Are there benefit programs, either employee programs for your firm or individual benefit programs, which you would find beneficial for you and/or your employees - and if so, what benefits would they be?

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## Best Practices

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The Best Practice Committee has added to the body of knowledge available to AIA Members. AIA Best Practices represent the collective wisdom of AIA members and related professionals. As a group, the Best Practices are a compendium of relevant knowledge gained from experience that is immediately applicable to a task at hand. The articles are distilled to their essentials, packed with usable information, linked to related resources and kept relevant and up-to-date by inviting feedback from practicing professionals.

### **Introduction to the AIA Code of Ethics -- BP 01.01.01**

Members of the American Institute of Architects lead the way through the highest standards of professionalism, integrity, and competence. The Code of Ethics and professional Conduct is both guide and measurement of those practices.

Architecture as a practice is based on a moral foundation of professionalism, with responsibilities to the general public, our respective clients, to the profession itself, our colleagues, and to the shared environment that surrounds all of us. For members of the American Institute of Architects (AIA), the concise language of the Code of Ethics and Professional Conduct is both guide and measuring stick for professional behavior. This Best Practice provides an introduction to the AIA Code of Ethics and Ethical Practice.

[Read more »](#)

### **What is an AIA Best Practice and How Do I Submit One? -- BP 20.04.02**

Best Practices are freely contributed articles written by practicing professionals, allied professionals, strategic partners, and industry consultants. The Best Practices are an opportunity for AIA members and other allied professionals to contribute to the advancement of the practice of architecture and the profession. As noted above, the intent is that they be kept relevant and up-to-date. In other words, each article should be viewed as a living document, and additional, timely and relevant articles are constantly needed. This Best Practice provides information on how to submit an article.

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[Find more Best Practices »](#)

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## **News**

### **Two recipients selected for the David W. Lakamp a/e ProNet Scholarship**

The American Institute of Architect (AIA) has selected **Alyssa Tope, Assoc. AIA**, and **Edward Palka, Assoc. AIA**, to receive the 2015 David W. Lakamp a/e ProNet Scholarship. The program, initiated by ProNet, a national association of insurance brokers who are committed to providing liability insurance and loss prevention to architects, is awarded to architecture students who demonstrate a particular interest in the principles of management in architecture practice. Tope and Palka will both receive \$5,000 to use towards their tuition.



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## 2016 Institute Honor Awards Call for Entries

For more than 60 years, the Institute Honor Awards program has recognized achievements for a broad range of architectural activity to elevate the general quality of architecture practice, establish a standard of excellence against which all architects can measure performance, and inform the public of the breadth and value of architecture practice. The AIA continues that tradition by inviting you to submit your best work for the 2016 program.

The 4 awards are:

- Institute Honor Awards for Architecture
- Institute Honor Awards for Interior Architecture
- Institute Honor Awards for Regional and Urban Design
- The Twenty-five Year Award

All submissions must be received before 5:00 PM EDT on **August 21, 2015**.

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## Upcoming Events

### PMKC Fall Symposium: Save the Date!

Sunday, November 8, 2015 | 8:00 AM - 6:00 PM EDT | New York City, NY

### Speak at AIA Convention 2016!

AIA Convention is one of the largest annual gatherings of architects and design professionals in the U.S., featuring hundreds of speakers and education sessions on practice strategies and opportunities, emerging trends, and topics that inspire and educate. If you're an articulate subject matter expert with a great concept for an education session, we invite you to **submit your proposal by August 15, 2015**.

[Learn More](#)

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## Upcoming Webinars - Free LUs!

### FGI Primer/Healthcare 101

Wednesday, July 29, 2015 | 2:30 - 4:00 PM EDT | **Earn 1.5 AIA LUs** | [Learn more](#)

*Sponsored by the AIA Academy of Architecture for Health (AAH) Knowledge Community*

This is a primer on how to use the FGI Guidelines in the course of planning and design of healthcare facilities. We will review the essential elements of the Guidelines, available formats and how to best go about retrieving information.

### Department of the Navy Housing Privatization and Veterans Affairs Housing Programs

Thursday, August 6, 2015 | 12:00 - 1:00 PM EDT | **Earn 1.0 AIA LUs** | [Learn more](#)

*Sponsored by the AIA Housing Knowledge Community (HKC)*

An overview of the Department of the Navy's Housing Privatization Programs and Veterans Affairs Housing Programs

[View More Webinars](#)

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## Resources

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### Visit the Practice Management Knowledge Community online!

Visit the PMKC online to access best practices, see the PM Digest archives, view webinar resources, and information about the ProNet Scholarship. In addition, members may post discussions, keep up to date on announcements, and learn more about upcoming events. | [Visit the PMKC home now](#)

The PMKC Leadership Group is seeking new members. Candidates for the Leadership Group should have demonstrated leadership in Practice Management and be willing and able to work with the LG in delivering content to the 14,000 members of the PMKC. This content includes the PM Digest, Webinars, Best practices, the fall conference and more! | [Learn more and apply](#)

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### AIAU Courses on Practice Management and More

Our industry changes every day. New ideas, technology, materials, business opportunities, and more are constantly emerging. AIAU makes it easy to keep up -- offering learning units (LUs) on the topics you need to stay current, the tactics and trending issues that affect your practice, and the ideas you crave for inspiration.

You'll learn from top instructors on your schedule, from anywhere in the world. Once you complete a course, we'll automatically update your AIA transcript with your continuing education credits. Individual courses are \$25 for AIA members and \$40 for non-members. Buy four or more courses and save 15%, no promo code needed.

[Is Perfection Possible? Managing Uncertainty and Expectations in Building Design and Construction](#) | Earns 1.25 LUs / RIBA

[Lean Architecture: Excellence in Project Delivery](#) | Earns 1 LU / RIBA

[Avoiding or Reducing Architect–Contractor Conflicts in Small Projects](#) | Earns 1.5 LU / RIBA

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See everything that the Practice Management Knowledge Community has to offer on [AIA KnowledgeNet](#). Visit the PM Digest [archives page](#) for past issues.



The American Institute of Architects  
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AIA Knowledge Communities

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## Project Quality Management

By Matthew Bartner, AIA, LEED AP BD+C

### What is Quality Management?

Quality Assurance (QA) and Quality Control (QC) are both practices that were originally formalized by manufacturing industries in response to customer expectations of uniform and replicable quality in mass-produced products. Since that time, these practices have migrated into many other types of work including the design and construction of buildings. While the goal of near-perfection in any product is admirable, there is clearly a difference between the multimillion dollar R&D budgets spent before manufacturing a factory-built product, and the budget and approach of the typical building design project.

### How does QA/QC apply to an architect's work?

Quality in this context encompasses two different ideas - "correct features" and "minimal deficiencies."

- Correct features is the domain of QA - the work meets customer needs and provides customer satisfaction. In short "doing the right things".
- Minimal deficiencies is the purview of QC - the work is free from errors that require doing work over again (rework) or that result in field failures, customer dissatisfaction, or customer claims. In short "doing things right".

*"In short, quality management is an economic tool to increase efficiency – a concept central to the process of generating economic growth. It aims for a consistent quality in the outcome of a process, making sure that a product or service will satisfy pre-defined requirements. It does so by controlling the quality of the product and the quality of the production process." --Quality Management, Architecture & Politics, Luis Trappe<sup>1</sup>*

With these definitions you can see that QA is done in our daily activity to make sure the work meets the project requirements, while QC is embodied in our processes for checking and evaluating the work at milestones along the way. For a pragmatic look at the jargon surrounding quality management, Charles Nelson offers a good summary in his article "Decoding the Quality Quotes".<sup>2</sup>

<sup>1</sup> <http://www.conditionsmagazine.com/archives/1598>

<sup>2</sup> [http://www.psmj.com/documents/PSMJ\\_113.pdf](http://www.psmj.com/documents/PSMJ_113.pdf)

Quality and Risk are inextricably linked, because one major goal of implementing a quality focus in the design professions is to reduce risk to us and our clients in the production of our work. When so much of our work is defined by its uniqueness (different sites, different buildings, different materials) it may be hard to see how QA/QC can be applied in practice when there is not significant repetition between many projects. There are several ways in which these practices can be included in our work, and being aware of them when planning and documenting a project are a first step towards improving quality.

*"The single action that architects can take to improve the "certainty" which they expect of their Construction Documents is to increase the frequency, quality, and extent of reviews of the documents. Too often, documents at all design phases and the Construction Documents phase are issued without sufficient review. Insufficiently reviewed documents are a firm's "Unknown Unknowns:" important details that firms don't know that they don't know, which can bite them later in the project." -- Knowing the Unknown Unknowns: Achieving Certainty in Documents, Micheal J. Lough, AIA <sup>3</sup>*

### **Project Planning**

Unpredictable outcomes are a hallmark of any design-driven process, but this is where the importance of well-considered and defined goals at the outset of a project can help ensure that the result of the design process meets the real needs of the work. Think about and document at the start of the project all high-level or detailed goals for the project - these can be client goals or firm goals. Make sure everyone on the team knows about the goals that will concern them when they begin their work. Build adequate time in to project schedules for reviews and checks both within the office and by any outside reviewers [agencies, clients, consultants].

Clients will continue to demand projects that are delivered in a consistent and predictable manner. Consider during planning what can be done on a particular project to improve the predictability or consistency of the results, while maintaining the important goals you have developed as discussed above.

*"...many design and construction projects are managed and delivered in a manner that makes the outcomes unpredictable, sometimes wildly so. These unpredictable outcomes steal power from the owner, who is obliged to make decisions without the benefit of accurate market or coordination information. To make matters worse, the focus on competitive cost control has created barriers to acquiring this information." --Unpredictable Outcomes, Barbara White Bryson and Canan Yetmen <sup>4</sup>*

### **Checklists**

The power of checklists is often minimized, but these can be invaluable in catching errors or problems that can go unnoticed when you are working so closely on a project. The AIA Best Practices include

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<sup>3</sup> <http://www.aia.org/akr/Resources/Documents/AIAB093597>

<sup>4</sup> [http://www.di.net/articles/unpredictable\\_outcomes/](http://www.di.net/articles/unpredictable_outcomes/)

several helpful checklists for building design documents,<sup>5,6</sup> as do other sources such as the Associated Builders and Contractors in their "Constructibility Checklist".<sup>7</sup>

The AIA Best Practice article "*Quality Control—Managing the Top 5 Risks*" one of the key issues presented that is very common for our work is the risk of client-directed changes to the project. While these changes need to be managed from a financial and contractual perspective, they should also be considered from the quality and schedule perspective. As the author says, professionals "*often subject themselves to unreasonable time schedules that do not permit adequate review, coordination, and checking of the efforts*" which can exacerbate a fee problem by also introducing a quality problem.

At the very far end of the spectrum for our profession, the RIBA "Quality Management Toolkit",<sup>8</sup> provides a detailed framework for firms to formalize their quality management plans. While this is a significant undertaking, the Toolkit also offers a good one-page summary on page 18 of what should be considered when planning for quality in our projects.

### Transitions

As a project changes from a primarily design/iterative focus in its early stages to a documentation/linear focus during the "DD / CD" stages, it is an important time for a QA review to verify that the design meets the client's requirements as well as basic levels of constructibility.

Any material differences between requirements and design should be reviewed to ensure the client is aware of these and has accepted these deviations.

### Quality culture

Having procedures for checking documents at milestones is not enough. Exceptional firms develop a quality "culture" around the office that is as much a part of the firm as a design or service ethos.

*"Quality is getting people to do better all the worthwhile things they ought to be doing anyway"*  
--Quality is Free: The Art of Making Quality Certain, Philip B. Crosby

This quality-minded culture must be demonstrated by project and firm leadership, therefore it is critical for project managers to make this a focus of their own work, and their review of the work of others.

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*Matthew Bartner AIA, LEED AP BD+C is an Associate with Kitchen & Associates, which provides architecture, engineering, planning, interior design and energy-related consulting services to non-profit organizations, private developers, local municipalities and public agencies throughout the country. He is a member of the AIA Best Practices Committee.*

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<sup>5</sup> <http://www.aia.org/aiaucmp/groups/secure/documents/pdf/aiab094997.pdf>

<sup>6</sup> <http://www.aia.org/aiaucmp/groups/secure/documents/pdf/aiab094998.pdf>

<sup>7</sup> <http://ps.businesssocialinc.com/media/uploads/abcva/constructability%20checklist.pdf>

<sup>8</sup> <http://www.architecture.com/Files/MembersOnly/QMToolkit/Guidance.pdf>



## What is Quality?

*The genesis of this material is from a collaboration between members of the Design Professionals Risk Control Group (DPRCG) and staff of XL Catlin. DPRCG is a risk management group comprised of many of the most recognized names in the design industry and policyholders of the Design Professional unit of XL Catlin. This paper was edited for the Practice Management Digest by David B Richards, AIA in June 2015.*

Ask 20 design firms to define quality and you will likely come up with 40 different answers. Many A/E firms take the word to mean, “not getting sued,” “not losing clients,” “checking the documents before they are released to the clients,” or even “delighting the client.” But quality in a design firm should encompass much more.

Research has shown that over 90 percent of the claims presented initially as technical faults have their actual roots in one of four non-technical causes. What this means is that design firms must manage service quality and produce technical quality — sometimes quite different demands.

The quality/continuous improvement movement got its start in the industrial setting, the manufacture of things. In this setting, quality has a very specific meaning: quality is conformance to specifications.

But what specifications would a design firm use? Many service firms are unsure how and where measurement fits into their businesses, and how the concepts usually applied to the world of things can be applied to the world of people and ideas.

Since the work of an A/E combines professional services (service), with the delivery of a project (manufacturing), let’s look at both of these business sectors to identify the potential factors measured in a quality management program.

Manufacturing companies define quality within these parameters†:

- Performance — operating characteristics
- Conformance — match to specifications
- Durability — longevity, service life
- Serviceability — ability to repair
- Aesthetics — perceived quality

Service companies, on the other hand, define quality within very different parameters:

- Time — how much time a customer must wait
- Timeliness — the extent to which a service will be performed when promised
- Completeness — the extent to which project delivery is consistent with the client expectations
- Courtesy — the extent to which all employees treat the client cheerfully and politely
- Consistency — the extent to which services are delivered in the same fashion for every customer, and every time for the same customer
- Accessibility and convenience — the extent to which service is easy to obtain
- Accuracy — the extent to which the service is performed right the first time
- Responsiveness — the extent to which service personnel react quickly and resolve unexpected problems

### **Quality Management**

*Quality management* can be defined as the analysis, planning, implementation and control of programs designed to create, build and maintain beneficial exchanges with target buyers for the purpose of achieving organizational objectives.

In other words, quality management involves managing demand, which in turn involves managing customer relationships. Note that nowhere in this definition does “quality design,” “quality engineering” or “risk management” appear. This definition starts with company strategy. Each firm needs to ask itself:

- What business are we in?
- What client market sectors do we serve?
- What possible margins exist within these sectors and how can we best capitalize on them?
- What is it that these clients need?

All businesses, not just design firms, should start with this knowledge. Since design currently accounts for less than one percent of the total lifecycle cost of a building, what other needs of the client can the firm satisfy? *Quality management begins with the client — and the client’s needs, desires and vision for the project.*

### **Quality Management Principles**

Just as every design firm serves unique clients and unique markets in unique ways, no “cookie-cutter” quality approach can serve all firms. The principles of quality, though, remain the same:

- Quality starts with the client
- Measurement is a constant
- Measurement must be actionable

This means that standardized quality programs — those that focus on checking results at the end of the process are considerably less effective than those that focus on improving the process that results in quality output. Remember, *quality output is one that is in compliance with the expectations of the client.*

To develop a workable quality management plan for an A/E firm:

- Define quality from the client's perspective. This can be done as simply as using the device of the "project triangle" of schedule, cost and scope to understand the client's drivers.
- Define the barriers to achieving this level of quality, internally and externally.
- Define the steps that will be taken to measure, change and measure again any efforts in improving the process.



Many quality plans designate the project manager as responsible for the project's success, without detailing how those responsibilities are to be measured, what authority the project manager has to affect change, or how success will be measured. Too often, this serves as a major stressor for project managers, who are told to control a project but are not given the adequate authority or tools for the job. (One of the major non-technical causes for claims is the staffing on A/E projects, uncontrolled by project managers and unmeasured by A/E firms.)

To document this process, there is a flow-down from the general to the very specific: quality policy, definition of quality objectives, the quality manual itself delineating the measurement and monitoring activities to be followed, and finally any forms or records to document improvement.

The process is not very different from the strategic planning process that many firms employ. They define the firm's vision; the vision determines the goals; goals determine tactics; tactics determine individual business plans; individual business plans have performance measurements that add up to the whole. Measurement and responsibility are assigned with attention to improving results from the previous year. Each person responsible must document the measures defined by the tactics for his or her area of responsibility. As firms also know from strategic planning, flexibility and adaptability have to be built into the plan.

In the world of quality systems, the A/E design business can be seen as a process of design delivery. This process can be distilled into numbers of unique inputs and outputs, each of which can be matched and measured. Outputs from one design group become the inputs for another design group on the project. Input/output charts are then used to measure expectations and specifications at each stage of development.

At the simplest levels, these charts allow the staff to understand the interrelationships in project work and match outputs against specifications early in the design stage. Without a clear vision of the uses and scope of each input/ output stage, valuable time is wasted and possible error is introduced. For

example, in some firms, structural design changes are not communicated to the electrical, fire control and HVAC departments within the same company, not to mention subconsultants.

To successfully apply the input/output model, project managers and individual team members must be given responsibility and authority for each stage of the project, as outputs from one part of the process become inputs to the next. Responsibility, therefore, lies at the lowest levels in the design team for completeness and compliance with specifications. It is management's role to empower the employees to measure and implement change.

Another important aspect of quality management is staff training, including new employee orientation, continuing education and outside training. It provides for both internal and external improvement of the company.

### **Defining Quality in Your Firm**

Design firms face a number of challenges as they pursue the development and implementation of a quality management plan. While it would be nice to hand you a model plan, the fact is all firms are unique, and no single plan will fit every firm. The purpose of this paper is to help you understand and define quality for your firm, so you can begin your quest for quality on a solid foundation.

As you work to refine your firm's concept of quality, keep these important concepts in mind. Avoid the tendency to view quality as simply an end process. Focus on the idea that quality management begins with understanding the individual client's needs, desires and vision. And remember that every member of your firm should understand and support your firm's definition of quality.

### **Endnotes**

† Adapted from *Total Quality and Organizational Development* by W.M. Lindsay and J. A. Petrick. (Delray Beach, FL: St. Lucie Press, 1997)

‡ Ibid.

### **Additional Resources**

- Kenneth Rose, PMP. *Project Quality Management: Why, What & How*. J. Ross Publishing, 2005.
- Evans, James R. and William M. Lindsay. *The Management and Control of Quality*. West Publishing, 1993.
- Juran, J.M. and A.B. Godfrey. *Juran's Quality Handbook, 5th ed.* New York: McGraw-Hill, 1998.
- Shearer, Chive. *Practical Continuous Improvement for Professional Services*. Milwaukee, WI: ASQC Press, 1994.



## The Web-Based Project Management Manual

*By Brian Palmquist, Architect, AIBC, MRAIC, Intl. Assoc. AIA, BEP, CP, LEED AP*

In the fall 2014 edition of the AIA Practice Management Digest, “The Project Management Manual” (PMM) proposed “...flexibility to suit individual style in meeting the objectives of project management.” I have been struggling with that approach for years, because its logical conclusion is the personalized notebooks that so many designers and builders use to capture often critical details of a project’s records – and then they leave the project, or the firm, or this earth.

While I am definitely in agreement with the concept of the PMM, in my world it is actually a web-based database customized for each project that lives and breathes online in real time independent of individual project team members.

In lieu of a traditional PMM text, my project architect creates a customized web-based project Work Plan, what I call an i-WP (“i” for “internet-based”). Core processes and procedures of a professional services firm form the “bones” of every i-WP – essentially the firm’s PMM. I use twelve standard phases to organize an i-WP:

Phase #	Phase Name
01	Startup – Predesign
02	Schematic Design
03	Design Development
04	Construction Documentation
05	Bidding or Negotiation
06	Construction Management
07	Changes + Instruction
08	Submittals
09	Installation + Review
10	Completion + Occupancy
11	Post Completion
12	Administration

### Figure 1 – 12 Standard Project Phases

The procedures included in these 12 phases comprise a company’s “standard” services. I started years ago with services recommended or required by my professional associations, then added the enhancements that characterize my firm – the services that differentiate us from our competitors. My current library includes about 300 procedures, each with its own detailed instructions (to assist with mentoring) and any required forms or templates.

My twelve phases include five construction contract administration phases (06 through 10), instead of a single phase. That division of one into five arises from my experience and research, which shows that 70% of the quantity of what architects do arises during construction, with a conservative average of 850 distinct construction phase documents.<sup>1</sup>

Things start to get interesting when I further refine the i-WP for a specific project by integrating what I call the “10 C’s”:

01	<b>Clients</b> I work with
02	<b>Contractors</b> I work with
03	<b>Consultants</b> I work with
04	<b>Contract</b> types - lump sum, design-build, P3, etc.
05	<b>Cost</b> ranges – small project versus megaproject
06	<b>Communities</b> I work in
07	<b>Construction</b> type – concrete, steel, wood, etc.
08	<b>Calendar</b> (schedule) I work to – fast track, etc.
09	<b>Climate</b> of the project – regional variations
10	<b>Complexity</b> of the project – warehouse versus airport

### Figure 2 – The 10C’s<sup>2</sup>

The 10C’s work like this: at the start of a new project, I create an i-WP that extracts just those procedures applicable to the project at hand, let’s say a school in Nashville. As I encounter new “C’s”, for example a new client representative, a new school room layout or a new planning ordinance, I will capture that new knowledge to the existing project and just as importantly, to my database for reuse on future projects.

As I integrate new knowledge into a current project’s 12 phases, I also “tag” those knowledge items with whichever 10C’s apply – for example, the new (**Client**) representative reporting preferences, the new classroom design preference (**Complexity**) and the new planning ordinance (**Community**). The next time I work with any of that combination, I select those tags while setting up the i-WP, and the correct

<sup>1</sup> Palmquist, Brian, *An Architect’s Guide to Construction – Tales from the Trenches Book One*, Quality-by-Design Software Ltd., Vancouver, BC, Canada, 2015, ISBN 978-0-9939876-0-1, [www.ingramSpark.com](http://www.ingramSpark.com), Figure 4, pp. 7-9.

<sup>2</sup> Palmquist, Brian, *ibid.*, Figure 7, page 13.

customized requirements populate the new project's i-WP, integrated with my core processes and procedures. I call this knowledge capture and transfer process "i-KnowHow."

The robustness of a web-based database shows itself in several ways. With a bit of practice, setting up an i-WP for that new school building is a 10-minute exercise – fast enough that I use it to estimate fees at the proposal stage. The i-WP becomes a continuous archive as it records procedural progress and the multiple usage of forms such as "Submittal", "Mockup Report", etc. As these reports and forms are issued, the database automatically records what was issued and aggregates all correspondence arising, whether from a designer or builder's laptop, tablet or smartphone. If a client reporting requirement changes mid project, the reporting procedure is quickly amended in one master location and immediately populates all current and future projects for that client.

A couple of the other advantages of a web-based PMM/i-WP include: the ability to provide intern architects with training information and forms attached to that procedure they are struggling with; and a complete, real time briefing "book" in a single location for new team members.

The Project Management Manual is indispensable to successful and cost effective project planning and execution, especially when it integrates "10C" preferences with a firm's professional practices. Bringing the PMM to the web creates the optimal 21st century architectural project management toolset.

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*This article is drawn from material in Brian Palmquist's book, "An Architect's Guide to Construction – Tales from the Trenches." He has made educational presentations to designers, builders and quality professionals at more than 50 conferences throughout North America.*



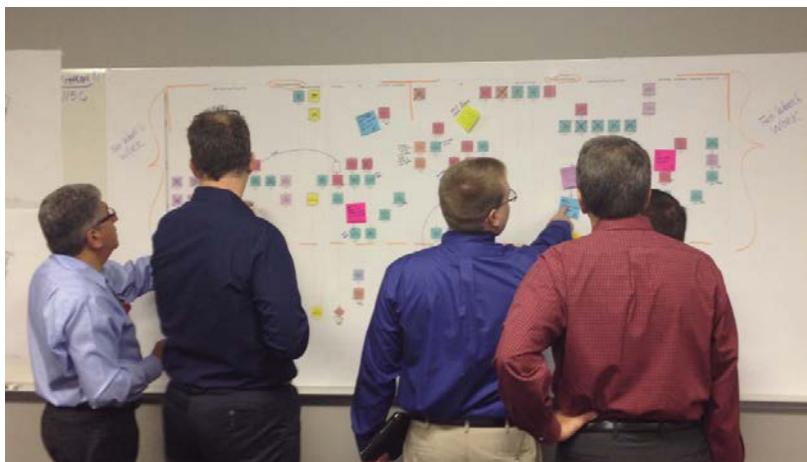
## Collaborative Planning Made Easy

By Samir Emdanat

There is an increasing need for collaboration across project supply chains to deliver projects faster, safer, less expensively, and of a higher quality. Projects are temporary organizations that are the result of the gradual assembly of teams. Project teams assemble with the expectation that they can collaborate, learn the project quickly, and perform at a high level in a relatively short period of time. As a result, project outcomes are to a large extent related to the effectiveness and reliability of the assembled teams. Integrated Project Delivery (IPD) and collaborative Design/Build create the appropriate environment for supply chain collaboration. As the industry's use of those delivery methods continues to increase, demand is now higher than ever for new visual and flexible planning tools, such as vPlanner®, designed specifically to improve transparency and to support collaborative behaviors among project participants.

### Context for Developing vPlanner

Lean approaches to project planning such as Handoff Work Planning and the Last Planner® System (LPS) improve workflow reliability through the use of pull planning techniques that emphasize clarity of handoffs, continuous flow, constraint removal, commitment management, and learning. Effective use of these planning approaches requires that all those directly responsible for the work, or the Last Planners, to be active participants in the planning process which is visual by nature.



*Handoff Work Planning During the Early Design Phase of a Project (Courtesy of Ghafari Associates, LLC)*



**Visual Planning:** vPlanner is designed entirely around the concept of visual workflow management. It includes a dynamic layout engine that maintains visual continuity when transitioning from one layout to the next. When new tasks are inserted into the plan, they are automatically arranged to preserve as much of the existing layout as possible by maintaining visual continuity. Visual searches operate on combinations of user-defined task attributes to search the plan and identify tasks that meet the user's criteria. The Swimlane Composer tool can rearrange search results quickly into hierarchical layouts based on user options. Swimlanes make it simpler to visualize standard activities and workflow in very complex plans.

**Planning Support:** vPlanner reduces the planning process cycle time. It includes a workflow-based integrated calculation engine capable of processing thousands of activities in almost real time. Users can automatically arrange lookahead activities against milestone driven dates and screen them for constraints during the Make-Ready Planning process. As the team identifies constraints, vPlanner reprioritizes planned activities and identifies the minimum number of possible sound commitments on a weekly basis.

**Commitment Management:** vPlanner supports various commitment management workflows including daily commitment management as well as weekly or bi-weekly commitment management with daily check-ins. The system tracks the results of those short-term workplans to improve the overall planning process and the reliability of the team.

vPlanner has been used to plan various project phases from early design to detailed production system design and workflow management such as Takt Planning and Location-Based Management. Additionally, teams have successfully used vPlanner to plan Commissioning and Move-In phases of projects, which typically require highly interconnected networks of activities to produce handoffs at the appropriate level of detail.

For more information on vPlanner please visit the vPlanner website (<http://www.myvplanner.com>).

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*About the Author: Samir Emdanat is the Director of Ghafari Management Services and the Director of vPlanner Product Development. He is an industry recognized leader in managing Integrated Project Delivery (IPD) teams. He is known for his approach to overall project integration, consistently resulting in breakthrough results in various industries. His completed projects have received numerous industry awards for their application of lean thinking and innovative use of BIM technologies.*

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## Good Faith, Bad Faith and Between

*By Micheal J. Lough, AIA*

In the 1980's as a Project Manager I attended a closed bid opening at the offices of a large development firm for a mid-sized commercial project. There were six invited bidders with five of the bids very tight and one low. After reviewing the bids we could see that the low bidder had clearly made a mistake and missed some scope in his bid. My recommendation to the developer, who was my client, was to notify the low bidder that there was an error in his bid. The developer's take was to sign up the low bidder quickly. Their reasoning was that they were big boys and that they would eat their error. The developer signed them up and within a month the contractor realized their bid mistake. For the duration of the project the contractor's focus and energies were split between the responsibilities of constructing the project and finding a way to recoup their losses. Did the developer act wrongly? Did they have an obligation to notify the low bidder of their error? Did they act in Bad Faith? Was this action in the best interests of their project? Was I right in recommending notifying the low bidder that there was an error in his bid?

In logic, whether associated with mathematics or philosophy, there are statements which are either true or false, but not ambiguous. For example, one could say "The sky is blue" and on a bright clear day the vast majority could agree that this is a true statement. Of course, one could contest what does it mean to be blue or what do we mean by sky. If we argue that architects should conduct their business by acting in Good Faith then we need to understand what it means to act in Good Faith. If there is some ambiguity in what Good Faith means then it could be argued that there is some middle ground between acting in Good Faith and acting in Bad Faith. Thus, "Not Good Faith" is not necessarily "Bad Faith"; there is some ambiguous space between.

Is it good business practice and is it an architect's responsibility to act in Good Faith? Even if desiring to act in Good Faith determining what Good Faith is can be elusive. Also, how extensive is the ambiguous ground between Good Faith and Bad Faith and how far into that zone do we want to venture? If we can't clearly define Good Faith and Bad Faith how do we define the boundaries and know the extent of the ambiguous; it's ambiguous because there is no clear definition. The developer in the example above sought to take advantage of a contractor's mistake and felt it had the right to do that. So when in the process does acting in Good Faith begin; is it once an agreement is executed? Could the developer be considered as acting in Good Faith by fully living up to their responsibilities per the contract even if it

knew beforehand that the contractor had unwittingly signed an agreement which was disadvantageous since their bid was too low?

Marcus Tullius Cicero, ancient Roman philosopher, politician and political theorist was credited with introducing the Romans to the schools of Greek philosophy. In his work *De Officiis*, Cicero states that “The first office of justice is to keep one man from doing harm to another, unless provoked by wrong.”

*“...men, too, are born for the sake of men, that they may be able mutually to help one another; in this direction we ought to follow Nature as our guide, to contribute to the general good by an interchange of acts of kindness, by giving and receiving, and thus by our skill, our industry, and our talents to cement human society more closely together, man to man.”*

Cicero also states “The foundation of justice is good faith; that is, truth and fidelity to promises and agreements.” So in the example above can we argue that good faith would be truth and fidelity to the contract even though the developer knew that the contractor was signing an agreement which included an error causing himself harm? Social Contract theory which has roots in the Platonic dialogues and was developed during the seventeenth and eighteenth centuries by philosophers including Thomas Hobbes, John Locke and Jean-Jacques Rousseau argued that just by nature of our human interactions we are constantly under contract. This is consistent with modern understanding of Good Faith which means that the fair and equitable negotiations of contracts and treaties are required if acting in Good Faith; one cannot negotiate an unfair agreement and make the argument that truth and fidelity to such an agreement constitutes Good Faith.

One of Cicero’s inspirations is Aristotle’s The Nicomachean Ethics which does not make specific reference to the term “Good Faith”, but the moral philosophy addresses the related concept of justice. In *Nicomachean Ethics* the virtues are means not extremes; courage is the mean between cowardice and rashness or recklessness. Aristotle argues that “the words justice and injustice are ambiguous”. Aristotle states “...just means lawful and fair; and unjust means both unlawful and unfair. And since the unjust man takes more than his share, he will be concerned with goods...” Aristotle’s mean with regard to justice is earning the appropriate share; not taking too much and not taking too little. Aristotle argues that determining what is just is not easy; what is just must be a mean.

*“... a just act necessarily involves at least four terms: two persons for whom it is in fact just, and two shares in which its justice is exhibited. And there will be the same equality between the shares as between the persons, because the shares will be in the same ratio to one another as the persons; for if the persons are not equal, they will not have equal shares; and it is when equals have or are assigned unequal shares, or people who are not equal, equal shares, that quarrels and complaints breakout.”*

Aristotle seeks to determine the mean of justice by employing a geometrical proportion for distributive justice and an arithmetical progression for rectificatory justice. Aristotle’s value-based ethics have historical significance and are foundational to the concept of good faith. Using Aristotle’s sense of just

and unjust in determining good faith and bad faith would suggest that good faith is a narrow mean with narrow ambiguous boundaries and bad faith falls outside the true mean and ambiguous undefined boundaries on each side. It's important to note that Aristotelean justice differs in a fundamental way from Good Faith; being just is acting lawful and fair whereas acting with Good Faith is the intent to act justly.

It seems unreasonable to expect all architects in all situations to seek the perfect mean of justice in the Aristotelean sense. Architects want good and fair contracts with their clients and they should seek good and fair contracts with their consultants. Negotiating agreements, performing services and dealing with others in Good Faith is often expressed as a "win-win". Negotiating agreements, performing services and dealing with others with an attitude of "win-lose" or "win-indifferent" is not expressive of Good Faith; a purposeful "win-lose" approach would be acting in Bad Faith. Taking more than ones fair share would be unjust.

The American Institute of Architects Code of Ethics & Professional Conduct includes mandatory Rules of Conduct; a violation of a Rule is grounds for disciplinary action by the Institute. The rules do not specifically require members to act with justice or act in Good Faith, however, Rule 2.104 states, "Members shall not engage in conduct involving fraud or wanton disregard of the rights of others." Neither the 2012 Code of Ethics & Professional Conduct nor the Rules of Procedure define wanton disregard. The webpage [About the AIA – Code of Ethics & Bylaws](#) does offer the following:

***What is meant by "wanton disregard"?***

*In previous NEC Decisions, the Council has addressed the concept of "wanton disregard" and noted that in the law it is considered to be "something more than simple negligence, but something less than intentionally damaging action." In other words, it is action taken in disregard of a high degree of danger that is apparent or would be apparent to a reasonable person.*

So wanton disregard is a mean or an intermediate between two forms of conduct; one more culpable and one less culpable. The Ohio Supreme Court description of distinction between willful, wanton and reckless misconduct is offered for its clarity and brevity.

The Ohio Supreme Court in *Anderson v. Massillon* makes the following distinctions:

*Willful misconduct implies an intentional deviation from a clear duty or from a definite rule of conduct, a deliberate purpose not to discharge some duty necessary to safety, or purposefully doing wrongful acts with knowledge or appreciation of the likelihood of resulting injury.*

*Wanton misconduct is the failure to exercise any care toward those to whom a duty of care is owed in circumstances in which there is great probability that harm will result.*

*Reckless conduct is characterized by the conscious disregard of or indifference to a known or obvious risk of harm to another that is unreasonable under the circumstances and is substantially greater than negligent conduct.*

There are other legal characterizations which express misconduct as 1) willful or intentional, 2) wanton, or 3) reckless or negligent; but the Ohio Supreme is representative and generally consistent with other interpretations. The AIA's reading is correct establishing wanton disregard as an intermediate conduct. The "in disregard of a high degree of danger" phrase does not at first appear to be clear or consistent with placing wanton disregard as an intermediate conduct between intentional and reckless. The phrases "injury" and "harm to another" of the Ohio Supreme Court distinctions are not limited to physical harm. "Injury" and "harm" can take many forms. Per Merriam-Webster's Collegiate Dictionary the word "danger" is defined as "...**3: exposure or liability to injury, pain, harm, or loss**". By this definition of danger which is broader than its general association to physical harm the AIA's description would generally be consistent; but not the most clear.

What should be clear is that per the AIA Code of Ethics & Professional Conduct is that it a violation of a mandatory rule for members to engage "wanton disregard the rights of others" or the more culpable willful or intentional disregard the rights of others. It would also be highly likely that acting in Bad Faith would be engaging in conduct involving the willful or wanton disregard the rights of others. They are both conducts based on intents.

While the majority of Members conduct themselves professionally and ethically it is still incumbent upon them to know that according to the Code of Ethics Members "are dedicated to the highest standards of professionalism, integrity, and competence." There are Rules of Conduct which are mandatory. Not only are we required to base our conduct upon a code of ethics which has its ties to moral philosophy as members we also have obligations to the profession. Rule 4.101 of the Code of Ethics states that "Members having substantial information which leads to a reasonable belief that another Member has committed a violation of this Code which raises a serious question as to that Member's honesty, trustworthiness, or fitness as a Member, shall file a complaint with the National Ethics Council." The National Ethics Council (NEC) has the obligation to provide for the "fair and expeditious disposition of ethics cases" according to the NEC Rules of Procedure. The Rules of Procedure and the actions of the NEC are set up to keep in consonance the rights due those charged with a violation of the Code of Ethics and Professional Conduct and the rights of the Institute.

In this article many questions are raised that are not answered; the hope is that this article is thought provoking. It could be argued that it is good business practice to act in Good Faith but if so and exactly what that means is elusive. This article will close with a couple of unanswered hypotheticals leaving it to the reader to draw conclusions as to whether or not the architect acted in Good Faith and/or engaged in conduct involving the wanton disregard the rights of others:

- An architect takes a commission for a project much larger than ever taken before and realizes during the Construction Documents phase that they do not have the skill set to execute contract

documents meeting the standard of care required by the contract. The architect also spent total anticipated fee halfway through the Construction Documents phase. Rather than seeking the necessary help and committing to the contractual obligations the architect essentially gives up attempting to complete quality construction documents expecting the owner and contractor to address serious deficiencies in the documents.

- An architect engages the services of a consultant. The consultant performs quality services but invoices are not paid. Finally, the consultant suspends services per the termination clauses of the agreement for failure to pay. The architect incorporates the work product of the consultant into several project Construction Documents, represents the work as his work to the owner, executes lien waivers which assures owners that consultants have been paid, invoices for the consultants work, and is paid for the work. The architect never pays the consultant.

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## Architecture Firm Ownership Transitions

Submitted by [The AIA Trust](#)

Contributing writers: Ann Casso, Executive Director, AIA Trust and Ed Hord, FAIA, former Chair, AIA Trust

The slowly improving economy has led to an increasing pace of mergers and acquisitions among architecture firms. In addition, ‘baby boomer’ firm owners now considering retirement also fuel various ownership transitions. Privately owned architecture firms in today's consolidating, competitive environment face numerous hurdles when considering traditional internal ownership transitions and leadership succession programs. To help AIA members through these types of transitions, the AIA Trust commissioned [George Christodoulo](#), head of a national law practice serving design professionals as both buyers and sellers in mergers and acquisitions, to author a white paper on: [“Selling, Merging or Closing Your Practice? An Overview of the Many Processes and Factors to Consider When Choosing a Course of Action”](#) to help members determine their own best course of action.

The performance of architecture firms since the 2008 recession has inhibited the capability of younger owners to finance their purchase of shares, delaying typical paths for leadership succession. The market turnaround in recent years may increase the likelihood of successful internal transitions, since an infusion of profits is necessary to finance the purchase of shares from older leaders, while allowing adequate capital to operate and grow. It remains vital that the next generation of architects have the inclination and entrepreneurial business instincts to lead a firm.

Recently an architectural firm based in Baltimore, Maryland began the search for another firm with which to merge or to purchase in order to expand their geographic reach and insulate the firm from regional economic swings. The Baltimore firm was looking for a firm with a similar culture and values as well as one that was structured for future success. At first, a great number of firms looked interesting as they were both successful and well-run. The firm leaders who were in their 60's were looking to retire with a good financial payout to fund their retirement. With further investigation, it was apparent that many of these firms had not developed the next generation of rainmakers and leaders, so that when the current leaders left, there would be no one remaining who could lead the firm or retain current clients and bring in new ones.

There is a lesson here: running a firm that is successful and profitable is not enough. If one wants to create real value in a firm that could in later years fund a founder's retirement, then great attention

needs to be paid to the development and retention of the next generation of leaders. This is essential for either an internal transfer of a firm or for a firm merger or sale. Employees should be recruited and retained who have the potential to take the firm into the next generation. Employee attributes to look for:

- Creative
- Ambitious
- Able to take over the management of key clients and land new ones
- Financially savvy
- Honorable

Promising future leaders will need to be mentored and groomed for leadership. As the current firm principal, you will need to spend time and money on helping them to develop the skills needed for success. You will need to let them manage existing clients and support them in finding new clients. There are hazards here. Once you spend years mentoring and training ambitious, bright young people and handing over the management of the firm's clients, how do you keep them from taking those clients and starting their own firm? It is very important to make sure that you compensate them well, give them early ownership, and have them share in the financial success of the firm. They also need to understand the value that comes from the resume and client base of their current firm.

If an internal transition isn't feasible, there may be good reasons for an external purchase of an architecture firm, including a higher valuation of the firm by outside purchasers and clients who want to minimize the number of joint ventures, firms, and sub-consultants on projects. There are numerous courses of action that may be considered with an external purchase since it is a complex process. A description of the alternatives, along with charts clarifying the parties involved, are included in the AIA Trust white paper.

Whether internally changing the ownership of a firm, dealing with an external buyer, or merging architecture firms, the Trust white paper addresses the practice and business issues that will ultimately determine success or failure. These factors include whether the firms have compatible cultures, how the firm will be named, professional liability insurance, personal property of seller shareholders, tax ramifications, the retention and future employment of the seller's employees, and the communications plan and branding strategy as they relate to the public and to the firm's clients.

Also outlined are the steps involved and factors to consider should the decision be made to close the firm. A firm closure isn't as simple as it may sound. Beyond the obvious downside of ending a business and terminating employee jobs, disadvantages can include lower net proceeds to the owners, and unresolved outstanding debt and current property leases.

The final decision of whether to sell, merge, or close a firm will not only affect the financial return to the owners, but the employment of staff, and the firm's culture. There is no right answer to how each firm's leadership should best evolve over time; only options to be weighed with the circumstances and priorities of the firm's owners. Change is inevitable, and potential consequences underscore the

importance of being prepared for it. Understanding the various approaches and possible outcomes can help guide firm principals to chart the best path to their future.

Read the AIA Trust White Paper: [Selling, Merging, or Closing Your Practice? An Overview of the Many Processes and Factors to Consider When Choosing a Course of Action](#)

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### **The AIA Trust Wants Your Feedback!**

The AIA Trust is committed to offering member benefits and free practice/risk management resources to help AIA members practice. Please share your ideas by emailing your answers on these questions to [AIATrust@aia.org](mailto:AIATrust@aia.org).

1. Are there specific risk management resources (guides, tips, studies, forms, etc.) that the AIA Trust might offer through our website that would be useful to you and your firm - and if so, what topics and kinds of resources would they be?
2. Are there benefit programs, either employee programs for your firm or individual benefit programs, which you would find beneficial for you and/or your employees - and if so, what benefits would they be?

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*Ed Hord, FAIA, is a founder and senior principal of Hord Coplan Macht (HCM), a 200-person architecture and landscape architecture firm with offices in Baltimore, Denver and Alexandria, VA.*

*Ann Casso ran membership and member benefit departments at three major national associations before coming to the AIA Trust as Executive Director 12 years ago.*

*The AIA Trust evaluates, selects, and monitors member benefit programs that meet the Institute's high standards of quality and value and serves as a risk management resource for AIA members.*