

The VOICE

The official magazine of The Construction Users Roundtable
Summer 2006

CURT: Growing the Industry

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- A Lean Initiative ● CURT Details
- Committee Reports ● DuPont Profile
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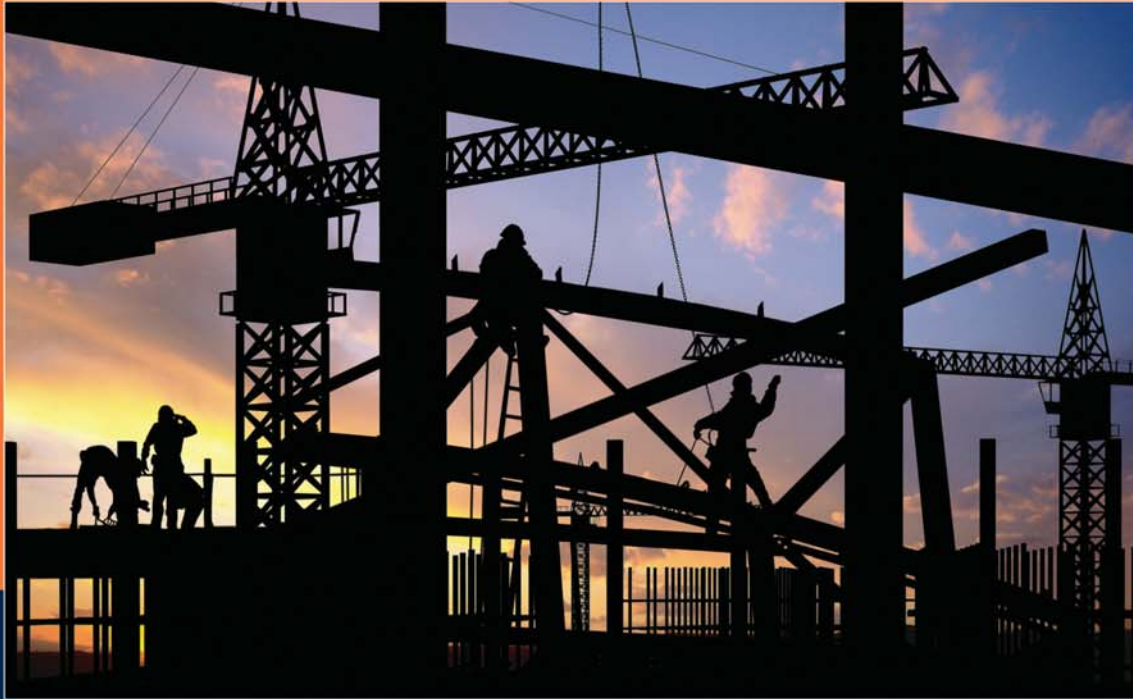
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Construction cranes pierce the skyline near downtown Minneapolis; evidence of a robust construction industry.

Published For: **The Construction Users Roundtable** 4100 Executive Park Drive Cincinnati, Ohio 45241 Tel: 513-563-4131 Fax: 513-733-9551
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Published by: Matrix Group Publishing, Please return all undeliverable addresses to: 16516 El Camino Real, Suite 413, Houston, TX, 77062 **Toll Free Tel: (866) 999-1299**
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The World of Construction is Never Boring

We are all faced with increasing costs in every segment of our business. Issues such as shrinking labor availability, rising material costs, managing natural disasters, global influences on local needs and improving safety performance are challenging us all.

In addition, we are all saddled with a rapid rate of change and a corporate demand to become more competitive. We cannot perform our business as usual and it is not comfortable!

We can respond to these chaotic and confusing circumstances with fear and frustration. Or, on the other hand, we can adopt a positive perspective and recognize the opportunity for growth, change and excitement. Whatever our outlook, our businesses can no longer tolerate the construction industry's complacency to change.

Change, however, without direction can be catastrophic. Strong collaboration between the owner communities is imperative if the owner is going to be successful in driving competitive change. CURT seeks to provide that direction by developing new information, products and resources that equip the owners as they seek improvement.

CURT conferences, seminar, workshops, publications and committees are all designed to enable our members to make more informed business decisions and develop better solutions to pressing industry problems.

Many owners have heard their organization state the death cry, "but our business is unique and different." The reality is our businesses have more similarities than differences and that is certainly true in the construction aspect. CURT endeavors to identify those commonalities and strengthen and improve owner performance in those common areas.

CURT is committed to improving response time to emerging and critical industry issues. We want to improve the rate of flow of information, products and services necessary for effective and timely decision making.

Active engagement and aggressive participation in CURT are paramount to our mutual success. The construction industry is hungry for direction and it is our job as owners to motivate those who wish to change and to empower those who wish to initiate change.

The construction industry is one of the world giants of commerce. Moving this beast will take time. Owners must be relentless in their push for change, be consistent in their expectations of the industry and drive as many platforms of improvement as possible to lead the industry on this journey. Change is inevitable but growth is optional; let's grow together and lead this transition by engaging in CURT.

Tom Weise
Intel Corporation
CURT President

CURT seeks to provide that direction by developing new information, products and resources that equip the owners as they seek improvement.

On behalf of CURT, I would like to invite you to our 2006 National Conference, November 13-15 in Tucson, Arizona. Held at the beautiful El Conquistador Golf and Tennis Resort in Tucson, Arizona, this conference, as those in the past, will prove to be an invaluable resource for your company. The Construction Users Roundtable National Conference is an annual event which brings together construction industry leadership, ranging from the owner, to the contractor, to the supplier, and the craft labor communities. Past conferences have been highly regarded by attendees and have delivered valuable insight into critical industry issues such as safety, productivity, workforce development, and use of technology.

For more information visit www.curt.org.

We hope to see you there!

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Embracing the Possibilities

Tucked away in a dusty corner of my home office hangs my first T-Square. A thirty-year old relic that serves as a constant reminder of how much the industry has changed since I signed up for my first drafting class in high school. It also serves to remind me that the inability to change and to adapt to new circumstances is a sure way to be relinquished to a corner reserved for the almost useless and obsolete.

Today our industry continues to experience rapid changes. Whether in the design professions, the construction arena, insurance, or law, the multitude of disciplines that converge to make up the complex world of real estate development and capital improvements are experiencing daily new challenges. As Owners, we can sit back and let it happen to us, struggling to keep up with the changes, or we can take a leading role in shaping the future. The Construction Users Roundtable provides us with the collective opportunity to influence that future, and it does so in a collaborative environment that brings to the table all the stakeholders.

On the labor front, CURT continues to work intensively with labor, both merit shop and union, to address productivity issues, safety, and training. We have now expanded these efforts to address the impact of hurricanes Katrina and Rita on the workforce.

Through the A/E Productivity Committee, working closely with other major industry groups such as the AIA and the AGC, we have taken bold steps to bring some sense into the evolving technologies affecting the design professions and explored new project delivery options that will take full advantage of these technologies. In doing so, we have not limited ourselves to the simple deployment of technology to solve an isolated problem. Rather, we have looked at the entire process from a risk allocation and business model stand point of view and seek to answer the question: how can we do it better and how can we do it faster?

The opportunities to benchmark and share best-practices with CURT owners continues to be a valuable tool in bringing home tangible benefits back to our individual members. As a result, each representative is able to contribute immediate results to their respective operations, improve efficiency and realize a return on investment goals.

These are but a few examples of why I remain invested in CURT. Unlike the inanimate T-Square, that could not move unless and until it was directed by the hand that guided it, we have a choice: we can either embrace the possibilities and lead the way into our future or become the forgotten relic of the past, amusing to look at but, for all practical purposes useless. For me, the choice is simple.

Ricardo Aparicio, AIA, Esq.
General Electric Company
CURT Vice President

The opportunities to benchmark and share best-practices with CURT owners continues to be a valuable tool in bringing home tangible benefits back to our individual members.



CURT, Facing the Pressure, Making a Difference

The end of 2005 marked The Construction Users Roundtable's fifth year of existence; five years of helping owners, contractors, architects, engineers and labor, both merit and union shop, work together to improve the construction industry.

Our white papers, owner common practices, special reports, surveys, workshops, conferences and seminars have all worked together to improve construction industry cost effectiveness. While we are not where we used to be, we are not yet where we need to be.

A major challenge is still before us.

Every year real success in our business becomes more difficult to achieve. Corporate board and Wall Street expectations grow continuously. "Faster, better, cheaper," is their mantra. The effect of China's bursting economy, India's increased participation in American business, Katrina effects and other global issues have a tremendous and sometimes adversarial impact on the US construction industry.

Owners expect construction projects to be delivered when and where needed, at lower cost and without problems, labor or otherwise. Pressures abound. In addition, material prices climb, shortages occur, trained craft and professional talent become scarce, building systems become more complex, technology usage lags, and public concern on the built environment grows and results in increased regulatory requirements.

So what can CURT do? Do we have a chance to make a difference that passes the "so what" test? Can we honestly provide the platform for change? Have we developed a foundation on which we can continue to build? And if so, where are we going with it? What will the future bring?

CURT members respond with a resounding YES to all

those questions! The owner members have gone on record as committing to the improvement of the industry. How? We will focus on high impact change. We will focus on people-training, communicating, collaborating, alliancing, leveraging, rallying and helping this very fragmented industry align and drive change that results in improvement.

We will put our energy into building a better industry and creating opportunity. We will deliver results which drive change and we will deliver expeditiously. We will succeed!

However, be advised that we will avoid certain behaviors as well. We avoid the energy and resource drain of finding fault, laying blame, setting traps and seeking unfair advantage.

Every industry group working together can make great progress. We simply must require it. It has been said that a construction owner's daily routine often mirrors that of a dentist: an endless series of half hour meetings, many of which are filled with excruciating pain. The pace is frenetic; the atmosphere can often be organized chaos. No job is more diverse.

Therefore, here is my commitment to the industry from my vantage point. I will commit to help members of this organizational community reaffirm its values, help replenish the energy and commitment of our hard working volunteers, assist the Board in developing a crystal clear and focused vision of what their organization can become, and help drive results.

CURT will lead! This is a grand and a fun adventure with meaning and purpose. I invite you to come grow with us.

Gregory Sizemore, Esq.
CURT, Executive Vice President

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The Lean Machine

Tightening the industry's waistline is the focus of a new *lean* initiative

As you scan a work site, chances are that you will come across a number of waste areas. This could be excess materials, new pieces not being used immediately or workers who are not utilized properly. Eliminating these areas has become a focus of CURT, through a new initiative known as lean construction.

Lean construction (or lean project management), as noted by Gregory Howell, co-founder and managing director of the Lean Construction Institute, can be defined in a variety of ways. One interpretation, as Howell explains, is that it is a way to maximize value and minimize project waste.

This, however, is seen by some as what is already being done in the industry. Howell points out a distinction between the lean and current practice, in that lean focuses on reducing waste (including physical materials and other factors such as poor coordination, overburdened or idle people and workers and idle inventory) in the delivery of the project, whereas current practice tends to focus on optimizing the utilization of labor in each activity and thus adds to overburdening and reduces the predictable release of work downstream. Howell sees that while

there are efforts currently in place, the work in lean project management attacks waste not visible in current practice and works to continuously reduce it.

It is in this definition that Howell and other bodies, including CURT's own Lean Construction Committee, face a considerable challenge. Howell explains that due to terminology being similar to that being used today and a belief that current systems are the same as lean construction, it has been an arduous task to show that the new process is beneficial. Some organizations, however, have made the effort to show that lean construction can do even more to work at reducing waste.

One of these companies is General Motors. The car company has begun a series of communications to other organizations, talking about their approach to lean projects. Jack Hallman, manufacturing construction management, notes that his approach has not only been to have GM be the speakers, but to also bring contractor companies to his presentations to offer their thoughts and testimonials.

"I take them and have them do part of the presentation so it isn't just General Motors standing up there talking, but actual A/E firms and contractors explaining how it has helped," Hallman explains, "it is guys who have actually done the work in the field, telling them this is what it has done, this is what it has saved me, this is how it helped me. We're trying to get the message across that this isn't just one company-this actually works."

In fact, this multi-segment approach to launching lean construction has been an

Did you know?

Efforts in lean construction are not only active in the United States, but around the world.

"There is a larger, international community doing this," notes Lean Construction Institute Co-Founder and Managing Director Greg Howell.

In fact, the Lean Construction Institute, which started in the USA, has been able to establish sister organizations in the United Kingdom and Denmark.



effort across CURT. Members of the committee include those from owner companies, contractor companies as well as the academic sector. By having these varying groups as part of the effort to make lean construction a reality across CURT, different viewpoints are brought forth, allowing as many angles and ideologies as possible to be seen in progressing to the full-out implementation of lean construction.

A new world

As much as supporters would like the implementation of lean project management to be a simple switch, realistically it can't happen on a moment's notice. As is the case in any industry, significant changes can take years to be fully implemented, especially when you are attempting to overhaul a system that has been in place for so long.

CURT's Lean Construction Committee, however, has recognized the challenge it faces from the very beginning. Joe Gionfriddo, a CURT Lean Construction Committee member, sees that this is not simply a new system being introduced to the industry. Instead, he sees this as being a complete culture change that needs the full cooperation of the numerous CURT member companies in order to be implemented.

What is making the transition easier is that several companies, such as Procter and Gamble, DuPont and Rohm and Haas, have, as Gionfriddo explains, lived in an environment that embraces change and have already begun efforts towards

lean construction independently of CURT. The challenge now, he notes, is to bring other companies up to a level where this new approach to managing projects can be realized.

"Some companies have been integrated with lean principles in manufacturing and have lived and grown up in a change environment," Gionfriddo says. "There's another group of CURT member companies that have not been exposed to that. They're locked into the industry standard, status quo, and are not familiar with the cultural change process that must come with it. If you look at lean, probably 80 to 90 percent of the effort is cultural, behavioral thinking change."

In order to successfully implement this change the committee has chosen to use a series of phases to reach their ultimate goal. This approach has begun at

Phase Zero, which has been an introduction to lean project development. The initial stage, as Gionfriddo describes, has been focused on building an awareness of lean construction, including educating companies on the principles, concepts and the vision towards the future.

It is this stage, as well as the next, that Gionfriddo sees as being the most integral in the process. "I think to get people started, Phase Zero and Phase One are crucial to getting the concepts understood, getting some pilots underway and identifying some success stories," he says.

Past success

The efforts of CURT to implement lean project management are being made somewhat easier by a precedent set a few years ago. While newer companies may not be familiar with this, there was a time when CURT made a concerted effort to implement more safety in the workplace.

As Gionfriddo explains, eliminating work-related injuries was a far-fetched concept in the eyes of the industry. Now, however, working towards that goal has become a reality and has had yielded considerable results. Gionfriddo believes that this history will help in the transition to lean construction.



"What has made it easy was almost all of the companies of CURT have lived through the cultural/behavioral change regarding safety," he says. "Our goal was zero injuries and we've improved tremendously." ●

A multi-disciplinary effort
Not only has the construction industry been working towards lean project management, but associated sectors are as well.
As Jack Hallman, director of construction management at General Motors explains, similar waste reduction projects are underway in other areas, including the Sheet Metal and Air Conditioning Contractors' National Association, a.k.a. SMACNA.
"They're trying to push this through their entire industry. They have booklets out on lean," Hallman says, adding that the concrete industry has also made improvements on waste.

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About The Construction Users Roundtable

The history of CURT:

The Construction Users Roundtable was formed in the summer of 2000 by construction and engineering executives representing major corporations that are among the largest consumers in the construction industry. The formation of the association was prompted by a desire to continue the thirty-year effort of the Construction Committee of the Business Roundtable. The objective in the new organization is to have broader owner representation and increased owner input on industry issues.

CURT's mission:

The mission statement of the organization captures the essence of who we are and why we exist: "The Mission of The Construction Users Roundtable (CURT) is to create strategic advantage for construction users. CURT will accomplish this by providing aggressive leadership and focus on business issues that promote excellence in the development and execution of engineering, maintenance and construction projects."

What can CURT do for your company:

CURT is a value-based association that ultimately seeks to increase total shareholder return in a company. CURT exists:

- To help you improve quality and cost effectiveness in your company's construction and maintenance projects;
- To provide the "owners voice" to the industry and to provide the owners direct involvement in national construction issues;
- To provide a resource for sharing best practices among owners companies;
- To provide a forum to address mutual owner issues especially safety, labor relations, productivity improvement and other cost reduction strategies;
- To provide an opportunity for owners to network on domestic and international issues;
- To promote work force education and training as well as effective construction planning and practices;
- To influence public policy when necessary and seek improvement in laws or regulations that may adversely affect construction or maintenance costs;
- To provide a repository for owner resources so that owners can become more effective decision makers;
- To collectively communicate and interact with contractors and contractor associations to assure that the owners voice is heard and understood;

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- To improve existing and create new strategic alliances with both open shop and unionized sectors of the industry;
- To develop industry standards and owner expectations with respect to safety, training, worker qualifications; and
- To empower and enhance the effectiveness of Local User Councils throughout North America.

CURT initiatives:

CURT has developed several initiatives that it feels will improve construction cost effectiveness. In addition, members and associates actively participate in regular meetings, conferences and seminars. Special reports and publications will also be distributed on a regular basis. Each year a National Construction Owners Conference will be held to highlight and showcase the latest industry developments affecting construction cost effectiveness from the owners' perspective.

CURT initiatives include:

- Safety Improvement and Safety Excellence Recognition;
- Work Force Development and Craft Training;
- Industrial Relations With Associations and Labor;
- Local User Council Support and Development;
- Sponsorship of the National Construction Owners Conference; and
- Industry Communications and Technology Deployment. ●

CURT IS:

An autonomous organization that provides a forum for the exchange of information, views, practices and policies of various owners at the national level. Similar groups, called Local User Councils, function at the local level and seek to address problems of cost, quality, safety and overall cost effectiveness in their respective area.

CURT STANDS FOR:

Improvement. It stands for improving overall cost effectiveness. It stands for improving the way construction is planned, managed, accounted for, regulated and executed. It stands for improving the way workers are motivated, supervised and work. CURT also stands for change; changing and improving what owners permit, require and accept responsibility for.



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— **Robert C. Hixon Jr., CCM**
Project Executive
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Tom Weise, President

INTEL CORP
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Chandler, AZ

"My primary objective as CURT's president was to influence and build operational excellence in whatever CURT did. Clearly our ability to influence a broad spectrum of the industry requires consistency in execution. We have matured to that space with more to follow. I'm very proud of the CURT organization."

Tom Weise is currently responsible for the acquisition and supplier management of Intel's global construction business. He has received numerous Intel Recognitions such as; "Contribution to Materials Training and Career Development," "Development of Intel's Supplier Continuous Quality Improvement Process," and "Development of the Intel Advanced Total Cost Method."



**Ricardo Aparicio, AIA, Esq.
Vice President**

GENERAL ELECTRIC COMPANY
Contracts Manager Project Services
Birmingham, AL

"The past few years at CURT has seen the beginning of two very important initiatives, both of which I am very proud of. One, the AE Productivity Committee, which is looking at how we can improve the quality of products delivered to our members. Two, our annual national conference, which has proved to be an excellent forum for owners and contractors to discuss and address the issues that most affect our industry."

Aparicio is in-house counsel and Contracts Manager for General Electric's Corporate Properties and Services Operation. Aparicio holds a Bachelors of Architecture and Juris Doctor degrees from the University of Miami, Florida and is a certified specialist in Construction Law in the State of Florida, where he holds concurrent professional licenses to practice architecture, interior design, construction and law.



**Larry Wargo,
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FIRSTENERGY
Consultant, Contractor Services
Akron, OH

"The key element of CURT is that we provide a forum for owners to be heard and to table their concerns. With every day, every month and every year the momentum of CURT has been growing. Our visibility has been growing. Our influence has been growing. Everyone wants to know what CURT's position is on issues and that is a great indicator of just how beneficial this organization is."

Larry Wargo, the current secretary/treasurer of CURT, is a consultant with FirstEnergy, an energy provider in Ohio.



William P. Tibbitt, Past President

JOHNSON & JOHNSON
Executive Director, Worldwide
Engineering Services
New Brunswick, NJ

"As one of the original owner members of CURT and one of its past Presidents, I am delighted with the growth and development of the organization. I am especially impressed with our ability to effectively partner with other key industry organizations to drive improvement. I encourage every owner with a significant capital program to get involved in CURT and take advantage of its tremendous network and excellent products and services."

In his present position, Bill Tibbitt and the group he leads are responsible for the project management of all of Johnson & Johnson's major capital projects worldwide. Tibbitt was also among the original owner members to form The Construction Users Roundtable and is currently that organization's immediate past Chairman.

At Large Board of Trustee Members



Steven B. Satrom

AIR PRODUCTS AND CHEMICALS, INC.
General Manager Engineering & Construction Americas
Allentown, PA

"CURT is the only organization that brings together a diverse cross section of the owner community. Because our industry is very fragmented, it can be very difficult to drive positive change without the owner's demanding the change and driving the industry to adopt our wishes. The current improvements in safety would not have happened without owner leadership and changing our contractor selection practices."

Satrom was the first President of CURT and one of the eight founding members. He was instrumental in establishing the initial focus for the organization, creating a viable entity and gaining the industry acceptance and recognition necessary for it to become the "Voice of the Owner".



Egon J. Larsen

AIR PRODUCTS AND CHEMICALS, INC.
Global Construction Manager
Allentown, PA

"CURT is a strong owner organization that brings together the combined influence, resources and desires of a major portion of the construction industry's customers. This unique forum allows us to exchange and share ideas, issues and opportunities to improve the construction industry and help our own company needs at the same time."

Larsen is responsible for Air Products and Chemicals, Inc.'s construction activities totaling approximately \$700M annually. This includes locations in the America's, Europe, Asia and the Middle East. With over 25 years of experience in managing projects and construction, he has been instrumental in numerous capital project initiatives and development programs.



Allen Bunner

TYCO INTERNATIONAL
Director Engineered Systems
Bath, OH

"We are excited with the opportunity within CURT to provide a positive impact on the construction industry. Our focus will continue in areas of safety, workforce development, productivity improvements and implementation of various technology solutions. It is difficult for any industry to marshal their collective resources and 'voice' their common issues to their constituents, and suppliers. CURT enables the collective 'voice' of the owner community to have value in the construction market."

Bunner has had more than 30 years of mechanical and electrical contracting background, specializing in fixed fire protection systems, including more than 20 years focused in Special Hazards systems, and 15 years experience with International contracting and exportation of fire protection technologies.



**Gregory L. Sizemore, Esq.,
Executive Vice President**

THE CONSTRUCTION
USERS ROUNDTABLE
Cincinnati, OH

"'Great necessities call out great virtues.' Pretty heavy stuff for a ten year old kid, but that is exactly what Abigail Adams wrote her young son, John Quincy Adams, who eventually became our sixth President. It's great advice for us too. Our industry has many challenges and an urgent need for leadership. Each of us must respond with our best virtues. My passion is to see CURT become a platform where each individual's contribution can collectively drive dynamic and much needed change."

Sizemore has over 24 years of construction industry and association management experience. For eighteen years, Sizemore was the Executive Director of the Construction Owners Association of the Tri-State (COATS) in Cincinnati, Ohio, and, in 1989 Sizemore started Sizemore & Company, a construction industry association management and consulting firm. He was instrumental in the start-up of CURT and has served as the Executive Vice President since its inception. Sizemore serves on various industry and civic boards including the University of Cincinnati's Industrial Advisory Council, the Advisory Committee to the Albany Technical College, the west Virginia Construction Coalition Conference and the ACE Mentor Board.

2006 CURT COMMITTEES

Education and Implementation Committee



Lennart K. Antell, Chairman
MEADWESTVACO CORPORATION
Director of Engineering
Dayton, OH

"The E&I committee is focused on driving the adoption of CURT initiatives in the construction industry. We also act as an incubator for new initiatives. For example, we have a very active task force on lean construction. This is a concept that has been around for some time, but only a few companies have successfully adopted lean principles in construction. Our task force is working with other industry organizations to develop some practical guidance about how a company can get started on the "lean project delivery" journey."

Lennart Antell is Director of Engineering with MeadWestvaco, a global packaging company that delivers high-value packaging solutions and products to the world's most recognized companies. Antell has extensive experience in facility planning, due diligence and project management. Prior to joining MeadWestvaco he worked with a Finnish consulting company on various projects in Scandinavia, North and South America and Africa.



Lean Construction Committee



Joe P. Gionfriddo, Chairman
PROCTER & GAMBLE COMPANY
Corporate Engineering-Global Construction
Management Process Owner
West Chester, OH

"The lean construction task force is a new initiative. We have a present-day set of operations, principles and tools, and our challenge is how can we move the industry we have, towards a new, futuristic vision that utilizes lean project delivery?"

For the past 25 years, Gionfriddo has worked across six of the seven global business units within Procter & Gamble, holding various manufacturing and capital management roles. He is viewed as a capital management master in project/construction management, receiving one of their highest technical recognitions, the Procter & Gamble Capital Management Leadership & Mastery Award in 2002.

Productivity Committee



Charles G. Hardy, Co-Chairman
GENERAL SERVICES
ADMINISTRATION, CCM,
Director of Construction
Chicago, IL

"The Productivity Committee is focused on creating a substantially changed project environment, where projects are undertaken by deeply collaborative teams composed of all disciplines that contribute to project fruition. We want better, faster, more capable projects—optimized projects—to be the norm rather than the exception. This is especially important in a time when technology and processes are changing rapidly. The benefits to owners include better value through improved delivery times; higher quality relationships, processes, communications, documents and construction; safer workplaces; more efficient use of resources; less waste of time and money; and much more effective use of dollars invested in projects."

Charles G. Hardy is a registered architect, a certified construction manager and a nominee for the Miles Romney Innovation in Real Property Management. Before joining GSA in 1991, Hardy was an architect with architectural firms in Florida and Illinois practicing in the areas of real estate development and office design. Additionally, Mr. Hardy is an officer in the U.S. Air Force Reserve.

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International Association of
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and Asbestos Workers



Joseph J. Hunt, Gen. Pres.
International Association of
Bridge, Structural, Ornamental
and Reinforcing Iron Workers



Dana Brigham, Gen. Pres.
International Union of
Elevator Constructors

Safety Committee



Bob Krzywicki, Chairman

E. I. DUPONT
Contractor Safety
Practice Manager
Wilmington, DE

"Our safety committee has four critical tasks for 2006. These are the safety awards, given out annually at our conference; completing a CURT safety profile of our members; develop an educational model based on the Owners Safety Blueprint; and increasing our collaboration with other construction organizations."

Bob Krzywicki has 25 years of experience at the DuPont Company specializing in construction and contractor safety issues. As the Manager for this practice for DuPont Safety Resources, Bob leads a specialized consulting practice team and is responsible for marketing, sales, product development and delivery of services to clients worldwide.



Technology Committee



Michael S. Alianza, Chairman

INTEL CORP.
Senior Analyst
Chandler, AZ

"In today's fast paced, multi-tasking manager's life, there is little time to stay current on the technologies that can greatly effect the outcome of an owners capital investment project. Owners need to focus on their core business, which in many cases means that the process of the design and construction of their facilities to perform their core business, is lower on the priority list. CURT's technology committee provides a forum that owners can review technologies in focused 'Technology Showcases' which make available capabilities that are available and typically vetted through other members experiences."

As the senior analyst to Intel Corporation's Corporate Services division, Alianza provides forward looking advice and implementation plans for new industry trends and technology within construction. With a career started by digging foundations by hand twenty-five years ago in the Philippines, Alianza has come to focus on practical user friendly construction solutions. These solutions range from practical new ceiling structure designs, revolutionary new facility design and operations software too the latest technology in construction management.

Workforce Development/ Industrial Relations Committee



Steve Mongiardo, Chairman

MERCK & CO., INC.
Senior Director, Infrastructure, Environmental
and Office Projects
Lebanon, NJ

"Our committee is very focused on improving the quality of the workforce in the US. We're focused on the availability of labor—in particular training development and the shortage of good skilled labor due to events like Katrina. That's why CURT is great. The owners are focused and that makes it possible to speak on issues like this with one unified voice—that's what will really impact change."

Steve Mongiardo has been with Merck & Co., Inc. for 21 years and currently manages projects at domestic Merck sites including West Point, PA, Danville, PA and Albany, GA, Elkton, VA. In his position he is responsible for all major capital utilities/infrastructure projects which support new research and manufacturing facilities. These projects include new power generation facilities, high voltage distribution systems, water treatment facilities, office complexes, site development, parking garages, and chilled water distribution facilities.



National Conference Planning Committee



Ken W. Kuechenmeister, Chairman

AMEREN
Manager, Generation Construction &
Management Services
St. Louis, MO

"The CURT National Conference is one of the most valuable networking and educational opportunities that exist for owners. Each year the national conference has sold out and it has continued to grow. As the 2006 National Conference Chairman, I encourage you to make plans now to attend. More information is on the CURT website."

Ken Kuechenmeister is responsible for major outage scheduling, construction supervision, contractor labor relations, project planning and contractor safety field compliance for Ameren's fossil power plants in Missouri and Illinois. Prior to that, Ken spent four years in the petro-chemical industry, 22 years at the Callaway Nuclear Plant, and three years at Ameren's coal-fired Meramec Station.

Membership Information

Membership Categories

REGULAR MEMBERSHIP

Construction Owner: Any industrial or major commercial user of construction or maintenance services who spends at least 75 million dollars annually as a corporation. The company must be represented by at least one high ranking corporate policy maker usually the vice-president or corporate manager of construction or engineering.

ASSOCIATE MEMBERSHIP

Contractor, Subcontractor, Specialty Contractor, Supplier, Service Provider: From time to time the board may create a number of Associate Members positions. Provided space is available, Associate Members may be recommended by an Owner Member and the recommendation must be accompanied by two letters of recommendation and be approved by a 2/3 majority vote of the Board.

ASSOCIATION ASSOCIATE MEMBERSHIP

Any not-for-profit national trade association, research organization, or educational organization that provides services to the industrial or commercial construction industry may be eligible for membership in the CURT and make application to join, provided they meet the Association Associate Membership requirements established by the Board of Trustees and an opening in this category of membership becomes available.

CURT Members 2006

OWNER MEMBERS

ABBOTT LABORATORIES
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ALSTOM POWER INC.
AMEREN
AMERICAN ELECTRIC POWER
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THE DOW CHEMICAL COMPANY
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EASTMAN KODAK COMPANY
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RUDOLPH/LIBBE COMPANIES
THE SHAW GROUP INC.
TETRA TECH EC INC.
TURNER CONSTRUCTION
WASHINGTON GROUP
INTERNATIONAL

ASSOCIATION MEMBERS

ABC (Associated Builders & Contractors)
AGC (Associated General Contractors)
AIA (American Institute of Architects)
MCAA (Mechanical Contractors Association of America)
NACA (North American Contractors Association)
NEA (The Association of Union Constructors)
NECA (National Electrical Contractors Association)
SMACNA (Sheet Metal/Air Conditioning Nat'l Association)



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TURN TO THE LABORERS.



To tap into the Laborers' workforce development supply chain on your next project, contact your Laborers' Local Union or the LIUNA Construction Department at (202) 942-2237.

President:

Tom Weise, Intel Corporation

Vice President:

Ricardo Aparicio, General Electric

Secretary/**Treasurer:**

Larry Wargo, FirstEnergy

Immediate Past**President:**

William P. Tibbitt, Johnson & Johnson

Board of Trustees



Left to Right: The CURT Board of Trustees, Steven B. Satrom, Egon J. Larsen, Ricardo Aparicio, Tom Weise, Allen Bunner, Gregory L. Sizemore, William P. Tibbit, Larry Wargo (not present)

Objectives

The purpose of this effort is to promote the CURT message, policies, position papers and publications to other owners and to other industry constituencies. To serve as spokesperson for CURT industry press if needed. To facilitate communication among the various industry factions.

"CURT's current focus includes resources, competitiveness, flexibility and building a rapid change environment. We want to show results in everything we touch and build the momentum



to reinforce a rapid change environment which will enable the industry to be more competitive. We must motivate through our results and demonstrate we can change!"

As CURT's president for 2005, Tom Weise dedicated much time and effort

towards leveraging a larger audience in the construction process, believing CURT is the ideal vehicle to make that happen. ●

Productivity Committee

The CURT Productivity Committee is focused on improving the efficiency and effectiveness of capital projects. All project phases, from planning through construction and operation have been evaluated. All those involved in capital projects including owners, designers, constructors, operations, and maintenance have been engaged in the process. Members of the Productivity Committee believe that productivity is enhanced by the efficient and effective integration of all project tasks, tools, and resources. This effect was documented in the CURT White Paper, WP-1202, Collaboration, Integrated Information, and the Project Life-cycle in Building Design, Construction, and Operation. Objectives of the Productivity Committee include:

- Describe the characteristics of an "optimized project"
- Create recommendations for implementation
- Describe intended outcomes
- Cite best practices
- Describe implementation of recommendations
- Identify overlaps and connections to work of other task teams
- Document conclusions

To further these objectives the Productivity Committee has established four goals for 2006. These include:

- Establish a research project in conjunction with Stanford/CIFE which will document current practices, identify gaps and roadblocks, and establish "best practices"
- The goal of this study is to examine a range of recent and current construction and process projects, to carefully examine them according to a defined range of criteria and record the findings.
- The intent is then to analyze the findings, to sift them, sort them, to uncover underlying commonalities, differences, or patterns-to distill "nuggets of truth" that could be used in comparative conversations to illustrate benefit in industry change.
- Develop metrics and data analysis from an owner's perspective
- Identify compelling reasons which drive change
- Include the process (industrial) sector along with the building construction sector ●



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Education and Implementation Committee

A key issue for CURT is to ensure that beneficial technologies and best practices are developed and widely adopted. The CURT Education and Implementation (E&I) Committee was established during 2005 to fill this need and it has identified the following objectives:

- Assist and lead with communication, implementation and adoption of recent research findings and products.
- Assist individual committee chairs with implementing their committee's recommendations.
- Guide and influence academic institutions in developing and building curriculums.
- Survey CURT membership to ascertain special education needs and request.
- Plan and develop education programs, seminars and workshops that enhance construction industry cost effectiveness.
- Develop a method of identifying and showcasing "CURT Success Stories"
- Explore creative ways to deliver and communicate information to the construction industry

The E&I Committee has established several important initiatives for 2006:

- Safety-The E&I committee will develop a standardized training program for the Owner's Safety Blueprint. This supports the Safety Committee's goal to promote and deploy this Safety Committee key product.
- Lean Task Force-Support the newly formed Lean Project Delivery System Task Force. This task force has recently defined its objectives, and has organized itself into three teams:
- The Lean Strategy Team is focused on developing a vision, roles and

expectations, benefits, and an implementation roadmap.

- The Lean Education and Communication Team plans to raise awareness of Lean Construction techniques, and share experiences of industry leaders in the implementation of Lean principles.
- The Lean Techniques Team will identify tools and processes, define the measurable benefits of Lean Construction, and maintain a close interface with the Construction Industry Institute (CII).
- SOP for Implementation-Develop a Standard Operating Procedure (SOP) for implementation of CURT initiatives. This will serve as a guide in rolling-out future CURT findings and products.
- New CURT Magazine-Support the launch of a new CURT Magazine. This magazine, "The Voice", will help communicate the CURT message to a wide audience.

- Cooperation with select industry organizations-The E&I Committee will strive to increase the effectiveness of CURT through close cooperation with other industry organizations, such as Construction Industry Institute (CII), Construction Innovation Forum (CIF), Local User Councils (LUCs) and others.

- Workshops-Hold four owner workshops during the year. These workshops offer members opportunity to share and discuss critical work processes. Workshops are summarized in CURT User Practice publications.

- Benchmarking-Complete at least three benchmarking/surveys during the year. These surveys provide critical benchmarking information and are highly valued by CURT members. ●



Safety Committee

The CURT Safety Committee is focused on improving construction safety through owner involvement in the construction work process. Safety Committee members believe that owners can dramatically influence safety results by setting expectations, establishing a safety culture, and monitoring safety performance. The committee has documented this approach to construction safety in the Construction Owner's Safety Blueprint, CURT Report R-807.

Each year the CURT Safety Committee honors excellence in construction safety through their Construction Industry Safety Excellence (CISE) Awards. These awards highlight leading safety performance by owners, contractors, and Local User Councils. Awards are presented each year at the CURT National Conference. Award recipients are encouraged to share their formula for success with others attending the conference.

Objectives of the Safety Committee include:

- Recognize and promote continuous improvements in construction industry safety performance.
- Provide recognition for outstanding owner and contractor safety performance.



- Communicate with regulatory agencies regarding Owner's position on safety issues and practices. Recommend solutions in accordance with CURT member policies.
 - Develop a Blueprint of problem areas to be addressed by the committee.
 - Develop educational materials on safety improvement for use by owner and contractor organizations.
 - Represent CURT on the ANSI Construction Standards Committee
- In 2006 the Safety Committee has set the following goals:
- Establish an owner "Safety Profile" as a model for owners to emulate
 - Recognize safety leadership through the annual CISE Safety Awards
 - Complete a standardized training module for teaching the Owner Safety Blueprint
 - Continue collaboration with the Construction Industry Institute on safety issues ●

Workforce Development Committee

The objectives of the Workforce Development Committee are to:

1. Work with existing industry organizations to:
 - Alleviate the skilled craft shortage.
 - Promote the recruitment, retention and training of craft workers.
 - Promote productivity improvement.
 - Improve the industry image.
 - Recognize outstanding workforce development efforts with an annual award.
 - Communicate any new workforce developments and findings to the CURT members.
 - Add value to the labor sector contribution by resolving critical issues that impact cost effectiveness.
 - Drive improvements that will benefit owners, contractors, and their workers.
2. Create two subcommittees whose functions are described as follows:

Industrial Relations Subcommittee

- Address the agenda items outlined above as well as other issues pertinent only to the unionized sector of the industry.
- Merit Shop Subcommittee

Address the agenda items outlined above as well as other issues pertinent only to the open shop sector of the industry.

During 2005 the CURT Tripartite Initiative engaged owner, contractor, and labor leadership to address several critical issues; workplace disruption, absenteeism, and use of overtime. Recommendations for owners, contractors, and organized labor were documented in several CURT Reports. Recommendations have been put into effect in several demonstration projects.

Also in 2005, the CURT/ABC Workforce Initiative Team established a position requiring prequalification of construction contractors based on training development program, selected a team to create the owners position on compensation, and provided support for a Construction Industry Institute research project to develop the business case for craft worker training.

In 2006 the Workforce Subcommittees will jointly focus on enabling development of the construction workforce of the future. The CURT Workforce Development Committee has recognized a shortage of skilled qualified craft workers in the

construction industry. This shortage is expected to intensify over the next decade. All segments of the construction industry must work together to develop a well trained labor pool capable of executing work efficiently and effectively.

The Workforce Subcommittees will:

- Address recruiting and retention of the workforce.
- Working conditions, an area owners can influence, will be included.
- Initiate an owner's survey of labor issues.

The Industrial Relations Subcommittee will:

- Kick off another demonstration project.
- Develop guidelines on how to use the Tripartite agreements.
- Continue Tripartite work on drug testing, background checks, worker attitude, and safety.

The Merit Shop Subcommittee will:

- Deploy the training prequalification document.
- Develop plans for a compensation sub-team.
- Support the Construction Industry Institute training research effort. ●

Technology Deployment Committee

The CURT Technology Deployment Committee is focused on the use of new and emerging technology in the construction industry. Technology "showcases" have been used effectively to demonstrate the impact of new technologies. The objectives of the Technology Deployment Committee are to;

- Use the unique owner's perspective that CURT has to identify and encourage the development, benchmarking, demonstration, and deployment of technologies that enhance the practice of world-class facility engineering from planning to design, construction, maintenance, and operation.
- Help the owner make the right decisions on technology procurement and deployment.

In 2006 the Technology Committee will develop an online Technology Deployment Center (TDC), specifically for owners. This interactive tool would provide technology recommendations to owners based on the owner's current work practices. The TDC is populated with owner experience and is searchable by technology tool, owner need, contracting strategy, vendor, or other key components. Owner queries are scored and output recommendations are rated for use. The TDC would be populated with CURT owner member information during 2006 and opened to the industry in 2007. ●

National Conference Planning Committee

The CURT National Construction User Conference Committee develops and implements the annual CURT national conference. The national conference provides a unique forum for industry leaders to address critical construction industry issues. All segments of the construction community are represented; owners, contractors, suppliers, and craft labor. Past conferences have been well attended and highly valued by attendees. Objectives of the conference committee include;

- Identify the "hot" issues in the construction industry domestically and globally and create programs that address these issues from the owners' perspective.
- Select quality topics, speakers and presentations to address the most important issues in the industry.
- Identify and inform attendees on construction industry trends, legislative developments, uses of new technologies and best practices in project management.
- Develop conference theme
- Showcase CURT successes and accomplishments

The 2006 CURT National Construction User Conference has been scheduled for November 13-15, 2006 at the El Conquistador Resort in Tucson, Arizona. ●

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Local User Council Support

CURT provides support for a number of Local User Councils (LUCs). These LUCs are stand-alone organizations that have been established to address local and regional construction industry issues. Objectives of the CURT LUC liaison include;

- Provide interface between existing LUCs and CURT.
- Assist in the development of a network of resources to share programs and speakers and provide membership support to each other.
- Provide an Annual LUC Summit for the executive directors and board members to share best practices.
- Assist in the development of new LUCs where local interest dictates.

The 2006 LUC Summit, sponsored by CURT, will be held on Monday, June 12th, in St. Louis, Missouri. These summits are well attended and highly regarded by the participants. LUC executives and elected officials typically attend. ●

Robert C. Volkman is the liaison to the Local Users Councils. Retired from the Procter & Gamble Company, where he spent thirty-two years in various assignments in the area of capital projects and construction management, he began his career following his formal education, which includes a BS in Civil Engineering from the University of Illinois and an MS in Construction Management also from the University of Illinois.

From 1990 to 1998, Bob was the Associate Director For Global Project and Construction Management where he was responsible for construction technology worldwide. His responsibility included leading a network of construction professionals and contractors in improving the execution of construction projects with technology development, training, and performance measures. Because of the significant improvement in P&G's results in construction safety, cost savings and project performance, Bob was awarded a PRISM Award, P&G highest recognition for Engineering Leadership and Mastery.

With CURT, Bob has the following roles:

- Leader, Local User Council Network
- Member, Education and Implementation Committee
- Leader, CURT Benchmarking Surveys
- Leader, CURT User Practices Workshops
- Resource, CURT Tripartite Initiative
- Resource, CURT National Conference



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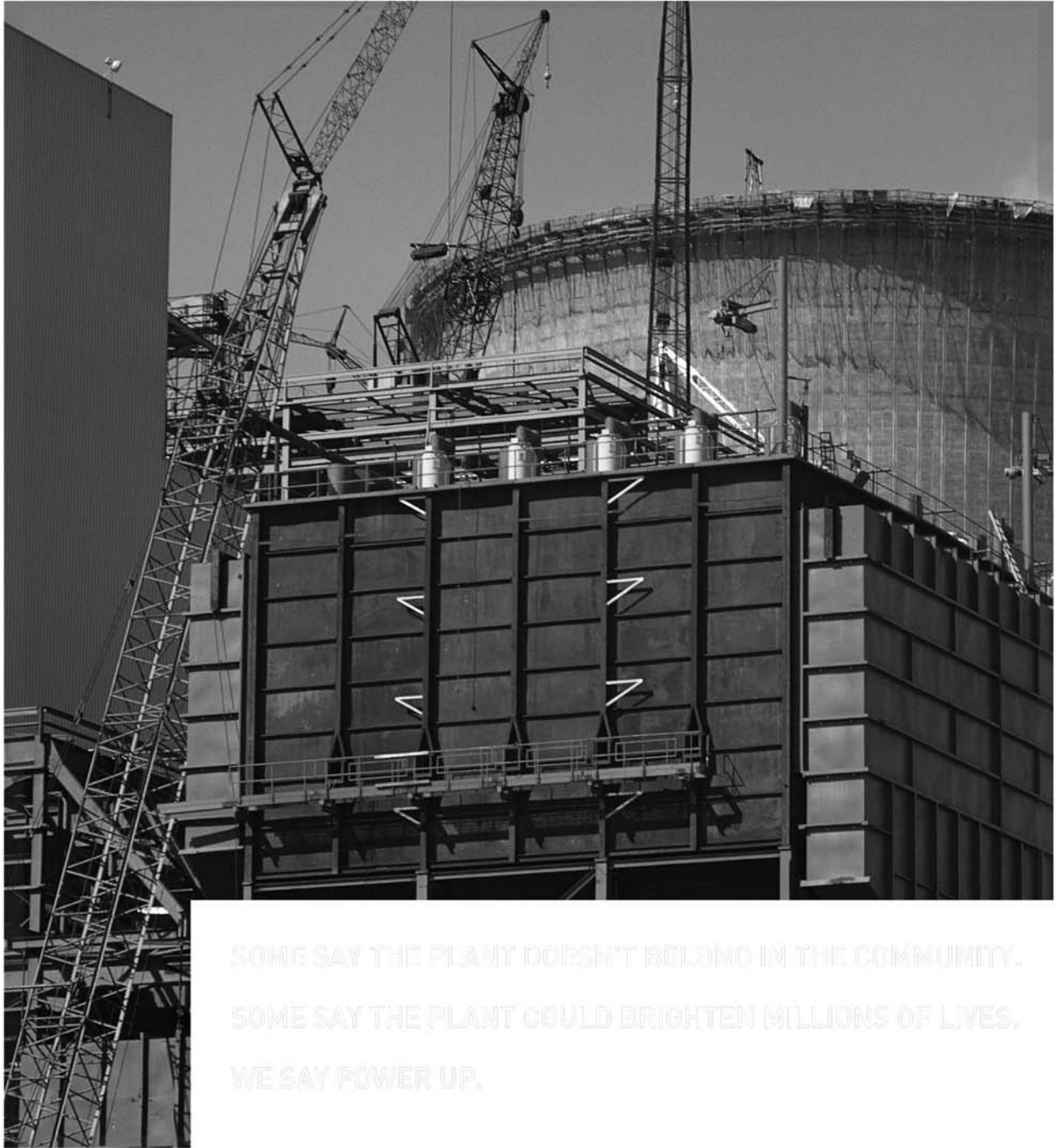
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Fill 'Er Up???

Understanding price fluctuations

By William G. Geisen, Esq.

Each of us has confronted the dilemma whether to "fill 'er up" with rising gasoline prices. We might forego a trip, or drive down the road to find a cheaper price. Yet, more often, we simply fill up the tank and pay the higher gas price because we have to go ahead and get from Point A to Point B.

Similarly, when there are unanticipated material price increases during the course of a construction project, the job usually doesn't come to a stop. Somebody has to pay whatever it takes to get the materials that are necessary for the job. But who? In a traditional fixed price contract, the owner has bargained for a price that is truly fixed and the contractor bears 100 percent of the risk of fluctuations in the prices of the materials. Is that still the right answer? Or is it more reasonable for the risk of extreme fluctuation to be shared between the owner and the contractor?

Over the past few years, a variety of material price increases have wreaked havoc on the construction industry. Materials experiencing sudden price instability include steel, steel products, copper, gypsum, PVC piping and

cement, to name just a few. Recently, the inflation in building materials has been driven significantly by the rapid industrialization of nations like India and China, as well as major reconstruction efforts in the Middle East. Domestically, the devastation of hurricanes and other natural disasters in the past two years has also caused certain material prices to skyrocket.

The March 6, 2006 cement trade agreement between the United States and Mexico should assist with concrete shortages around the country and have a positive impact on domestic cement prices, at least in the Gulf Coast areas. What goes up may eventually come down. That is of little comfort, however, if you have to move forward with construction at a time when prices have suddenly and unexpectedly shot up.

In a fixed price contract, the risks of material price increases are theoretically borne solely by the contractor. Over the years, contractors facing huge increases in material prices have attempted to shift that burden to the owner utilizing various legal theories, but with little success.

For example, contractors sometimes seek "Change Orders" from owners,

claiming that it is impossible or impractical to perform the fixed price contract due to a significant price increase. The contractor tries to demonstrate that the price increase was not foreseeable, that the parties did not address the issue contractually and that the contractor's performance has been rendered commercially impractical or impossible. Generally, courts have not embraced the impossibility or impracticality argument due to the contractor's inability to prove unforeseeability. Construction contracting is a risky business, and courts have often determined that such price fluctuations are just part of the anticipated risk of signing a fixed price contract.

Similarly, some contractors have attempted to categorize a significant price fluctuation as a contractual "force majeure" event. The contractor tries to establish that its performance should be excused due to an unforeseen event beyond the parties' control. But, once again, courts have not been particularly receptive.

The traditional answer therefore puts the entire risk of any increase in material prices on the contractor. More recently,



however, the inclusion of price escalation or price adjustment clauses in the parties' "fixed price" contracts is gaining momentum.

Price adjustment provisions have been included in fixed price contracts on public projects for several years. In fact, the Federal Acquisition Regulation includes three different types of price adjustments based upon established prices; actual costs of labor or material; or costs indices of labor or material. Most fixed price contracts used on

private projects, on the other hand, have not included price escalation or price adjustment clauses.

Obviously, the contractor is the one who has to eat the loss, or collapse from insolvency, in the traditional private sector model. Two years ago, The Associated General Contractors of America (AGC) took action. In May, 2004, the AGC published Document No. 200.1. This AGC document, if adopted by the parties, requires the owner and the contractor to identify

potentially affected materials up front and to define how any pricing fluctuations will be handled during the course of the construction project. Then, the contractor must provide thirty days notice from the date the basis for a price adjustment arises. The material price can only be adjusted prospectively. As long as the contractor is not at fault, the contractor may also be eligible for a time extension and delay costs.

Of course, owners might be reluctant to give up some of the leverage which they've had on this issue for so long. A truly fixed price, within an established budget, may be essential to giving the project itself a green light. Contractors, for their part, may emphasize that they will be forced to hedge their fixed price bids higher, to try to cover this risk, unless a price fluctuation clause is included, and that, in the most extreme circumstances, a dramatic increase in material prices allocated solely to the contractor could put them out of business, delaying or otherwise impairing the completion of the project.

There is plenty of middle ground for negotiation. Price fluctuation clauses can be drafted which flow both ways, so the owner has the potential benefit of a decrease in the price of materials as well as the risk of a price increase. Also, the change in contract price resulting from a fluctuation in material prices would rarely start at the first dollar: the owner and the contractor can share the risk, with the contractor absorbing the first X percent or the first \$X, with the owner's risk (or benefit) kicking in thereafter.

When the price of materials spikes in a truly unexpected way, neither of the contracting parties is at fault. Price fluctuation clauses provide one way to negotiate a fair allocation of that risk. ●

William G. Geisen, Esq. is partner with the Cincinnati, Ohio firm of Graydon Head & Ritchey LLP and also chairs the firm's Construction Industry Group.



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DuPont

With more than 60,000 employees worldwide, operations in excess of 70 countries and revenues, in 2005, at over \$26 billion, DuPont certainly has a lot to be proud of. Coupled with the January 2006 announcement that the company is among Fortune magazine's 2005 Blue Ribbon companies (corporations selected to four or more of Fortune's exclusive lists) for America's Most Admired Companies, World's Most Admired Companies, the Fortune 500, and the Fortune Global 500, are all indicators of the company's steady success.

As Fred Strolle, Communications Manager at DuPont says, "DuPont has positioned itself as a leader in many industries. We've always had the products but now we're focusing on providing the solutions as well; for example in the areas of the environment and safety. We're always looking at and working on what's next for our markets."

One such example can be found in DuPont™SentryGlas®, a relatively new product in the DuPont product portfolio. Strolle explains that in response to world events, DuPont created DuPont™SentryGlas, which can protect against bigger storms, larger impacts and more powerful blasts. "It can be used in a number of applications," says Strolle. "These may include use in residential or commercial homes' windows, doors and skylights."

This product, among many others, illustrates a major DuPont area of

execution, safety. As Michael Conley, Engineering Manager at DuPont points out, "one of the biggest contributions DuPont has been able to make to the industry, alongside CURT, has been to improve the industry's safety standards. DuPont takes a leadership role in this area and we strive to advance training, we work to ensure contractors meet specific requirements, and we participate in areas where we're needed and where we can learn, such as after Katrina. Helping the industry meet a certain benchmark in safety ultimately helps us and that is why we strive to drive safety for the industry as a whole."

"DuPont has positioned itself as a leader in many industries. We've always had the products but now we're focusing on providing the solutions as well; for example in the areas of the environment and safety."

Bob Kryzywicki, Contractor Safety Practice Manager and CURT's Safety Committee Chair agrees that the company's leadership role is one of giving, but also receiving. "We must listen and learn as well because we don't have all the answers. That's why a forum such as CURT, one where owners can come together and share ideas, is so important. By collaborating we can drive change and ensure safety is on everyone's radar."

Conley is quick to point out that CURT is important to a company like DuPont on other levels, as well. He notes three distinct benefits, the first being the collaboration on safety. Second, Conley says the chance to talk with other leaders about the industry, to participate in conferences, to discuss white papers and to, in essence, share notes, is vital. "This cooperation allows us to see how other people are operating—to compare technologies, recruiting techniques,

DuPont Fast Facts:

- DuPont was founded in 1802.
- Their innovative products and services for markets include agriculture, nutrition, electronics, communications, safety and protection, home and construction, transportation and apparel.
- Brands include DuPont™Teflon® fluoropolymers, films, fabric protectors, fibers, and dispersions; DuPont™Corian® solid surfaces; DuPont™Kevlar® high strength material, and DuPont™Tyvek® protective material.
- Since 1990, the DuPont Community Fund has provided support to more than 400 projects worldwide. The fund matches dollar for dollar-up to \$10,000-donations made by DuPont sites.
- DuPont allocates more than US\$1.1 billion to research and development every year.
- More than 200 students benefit from the DuPont scholarship program every year, applying scholarship funding to scientific research and information sharing projects and studies.

training methods. It really allows us to learn from each other and grow from that knowledge."

Third, Conley points out the benefit of personal development, something he has experienced as a member of CURT. Having never been involved with such an organization, he recognizes that he has learnt a lot, personally, about the industry through his activities within CURT. "For me it has been challenging, interesting and fun."

Certainly DuPont is a company with a vision. Their tagline, The miracles of science, is holding true as the company endeavors to provide real-world solutions for residential and commercial jobs throughout the United States and, ultimately, around the world. ●

Mark Your Calendars Now!

What: The 2006 Construction Users Roundtable National Conference of Construction Owners...

"Building Value in a Dynamic Construction Environment"

When: November 13-15, 2006

Where: The Hilton El Conquistador Resort, Tuscon, AZ

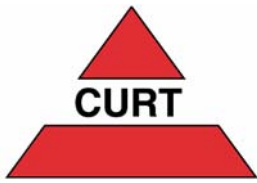
Who Should Attend: Owners, contractors, A/Es, everyone interested in improving construction industry cost effectiveness.

For More Information:

WWW.CURT.ORG

Click on the National Conference link.

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The CIF is: An international nonprofit organization and strategic partner of The Construction Users Roundtable (CURT) that is dedicated to identifying construction innovations quickly and sharing them with others in need of creative solutions to common problems.

Visit www.curt.org for more information.

- Construction Workforce Awards Are:** Developed to give significant national and international recognition for extraordinary, exemplary and innovative training and education programs that lead others to a career in the construction industry.
- Constructor CISE is:** The Construction Industry Safety Excellence (CISE) Constructor Awards were developed to recognize commendable safety performance of individual constructor firms over a sustained time period.
- LUC CISE is:** The Local User Council (LUC) Construction Industry Safety Excellence (CISE) Award will recognize and reward exemplary leadership on the part of an LUC for the implementation of programs resulting in safety enhancement among their members.
- Owner CISE is:** The Construction Industry Safety Excellence (CISE) Owner Awards were developed to recognize commendable safety management by owner member companies of CURT that have most effectively implemented the recommendations of The Business Roundtable CICE Report A-3, "Improving Construction Safety Performance" and other recommendations from the Construction Industry Institute safety research.

The Hurricane Recovery Initiative

The massive challenge of reconstruction in the wake of Hurricanes Katrina and Rita offers a major opportunity to build skills and employment in the impacted region among disadvantaged and displaced residents in order to help the region retain and develop its industrial and manufacturing capabilities, and accelerate economic recovery.

The storms affected nearly six million people in the region, 19 percent of whom were already living below the poverty line. It left hundreds of thousands of families homeless with more than 350,000 jobless in Louisiana and Mississippi alone. Reconstruction—industrial, commercial and residential—will require thousands of qualified construction workers.

Given the national shortage in qualified construction workers, regional reconstruction requirements cannot be fully met. This gap may slow economic recovery, and those displaced by the storms will be less likely to return to the Gulf Coast area.

CURT has partnered with the Business Roundtable (BRT), The Associated Builders and Contractors (ABC), The Associated General Contractors (AGC) and other leading construction organizations to address this critical workforce need. Specifically CURT is working with McGraw-Hill to assess the specific craft needs, communicate those needs to the various training organizations—both union and merit shop—conduct surveys and communicate owner needs in the affected area as the initiative progresses.

The U.S. construction industry trains thousands of workers every year, from laborers to carpenters, welders, electricians and equipment operators. Doing so in the storm affected region could reduce regional unemployment, bolster reconstruction and facilitate the return of displaced residents.

The CURT Hurricane Recovery Task Force meets in conjunction with the CURT General Membership Meetings. ●

The ABC Workplace Initiative

The Associated Builders and Contractors, Inc. (ABC) is a national association that represents 23,000 merit shop construction and construction related firms, including all specialties within the U.S. ABC's activities include government representation, legal advocacy, education, and workforce development, among other initiatives and their main objective is, "to add value in the merit shop sector of the construction industry by identifying critical issues that affect cost effectiveness and driving improvements that will benefit owners, merit shop contractors and their workers."

ABC and CURT are collaborating to ensure that owners receive high quality projects on-time and within budget. Other goals are to create better careers for workers and enhance contractor profitability and value.

As Gregory Sizemore, Executive

Director of CURT says, "we are delighted to be working with the ABC to improve the workforce. They are an integral and vital part of our industry"

To date much has been done to see that this happens. The current agenda includes:

- Advocacy for CII Research Grants that support CURT/ABC Initiatives
- Joint surveys (such as absenteeism and overtime)

Joint position papers on issues such as:

- "Metrics Models" that address training and compensation
- Promotion of NCCER training and skills assessment
- Joint efforts on construction industry image improvement, retention, prequalification standards, managing impact of labor shortages on projects, recognition of success

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continued from *The ABC Workplace Initiative* on page 41

The implementation plan includes:

- Develop white papers and reports on surveys, research findings and recommendations
- Develop Educational Materials With Allied Organizations
- Tie meetings into currently planned CURT meetings where possible

Planned meeting dates are as follows:

- September 12, 2006-Philadelphia
- November 13-15, 2006—CURT National Conference

Stay tuned for more information, next issue! ●

The Tripartite Initiative

In 2004 CURT developed the CURT Tripartite Initiative (CTI) to address issues such as safety, productivity, best practices, workforce development, and industrial relations. The mission of CTI is to improve the cost effectiveness of the organized construction industry through meaningful dialogue, collaboration, and mutual commitment to positive change for owners, contractors and building trades unions. This will be achieved by identifying those areas where improvement would result in lower project costs for owners, more jobs for the trades, and more profitable jobs for the contractors.

For CURT and for the construction industry, this is the first time in history that leaders at the national level of all three major sectors (owners, contractors, and building trades union representatives) have agreed to work together to effect change that benefits everyone.

The reasons for CURT's involvement are quite compelling and include the fact that owners:

- Are facing tremendous pressure to reduce capital cost as business becomes more competitive.

- Must function with reduced internal staffs. In addition to less staff, their responsibilities are now global as more and more construction projects emerge internationally.
- Must work within a construction business environment which has become uncompromising, competitive, difficult, and unpredictable. What owners need from the industry is tripartite cooperation that achieves real and lasting change and a measurable return on investment.

In January 2006 a Tripartite Initiative Meeting was held in San Diego, California. All interested parties met and discussed the issues at hand, including safety, implementation and future plans. As Steve Mongiardo, Workforce Development/Industrial Relations Committee Chair for CURT says, "Initiatives like the tripartite initiative really show that CURT is recognizing workforce concerns and working toward viable solutions. We're identifying problems and looking at how we can fix them. That can only lead to a more successful industry." ●



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Design-Build: Another tool for your tool box

By Steven W. Dunsford, D.Mgmt

Design-build is an accepted and frequently used project delivery system for construction projects and new buildings. So why is it not used more often in industrial construction? Do you know when to use it and when to walk away? If you don't...read on.

In 1999 Sanvido and Konchar did a study of owners, focusing on project delivery systems. What they found was that design-build projects (as opposed to design-bid-build) were 6 percent less expensive, 33 percent faster, had 5 percent less cost growth and 11 percent less schedule growth. The study asked owners what they thought of these delivery systems. Their answer was surprising: design-bid-build quality barely owner met expectations. Design-build projects exceeded them.

These numbers are certainly impressive. Is design-build a fit for you? Let's look at the facts:

Project Delivery Systems

There are three predominate project delivery systems: Design-Bid-Build (DBB), Construction Management (CM) and Design-Build (DB). DBB is well understood in the industry and owners feel they have more control however this system often creates adversarial relations and likewise change-orders can be a significant downside. CM, representing about 10 percent of the market, is very popular in industrial construction. Coordination issues, missed scope and speed, among others, can be serious draw-backs. While the latter two systems can have their advantages, DB is growing in popularity with owners.

Each of the three project delivery methods has their own set of pros and cons. It all depends on the situation. That's why it is so important to not be

limited to a single method. Owners should have multiple tools in their tool box and use the right tool for the right job.

Design-Build is a construction methodology where the owner has a contract with only one company, the design-builder, who integrates the engineering and construction work. DB ideally begins early in the planning stage and extends through facility start-up. The result: instead of executing each project phase sequentially, the work overlaps and the overall duration of the project becomes shorter.

The most attractive benefit of DB cited by owners is schedule reduction. The graph Schedule vs. Cost identifies the least cost point on a project cost curve and illustrates how reducing the schedule on a DBB project normally requires moving up the curve-increasing project costs. The lower graph reflects how design-build effectively shifts the curve to the left, reducing the schedule without increasing costs. Again, this is accomplished by eliminating the sequential process of completing detail design, then bidding, then mobilizing for construction, as opposed to executing all these concurrently.

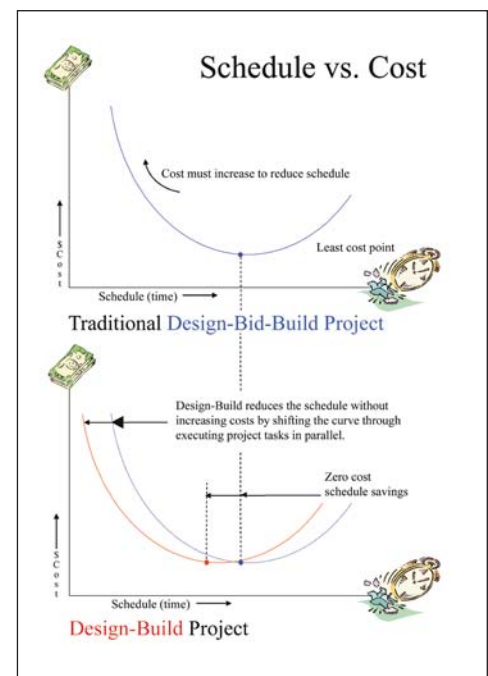
Consistent with most things in life, this speed comes with a price. When it comes to DB a compressed schedule means that you'll have a much shorter window to make any changes. Design-build projects move very quickly, meaning that you must be able to review the design and material submittals rapidly and make decisions quickly. If the culture of the owner's company is not flexible enough to allow this, then the promise of design-build will not likely be achieved.

Design-build can offer owners great potential rewards, as well as risks. For

schedule-constrained projects design-build can be the fastest alternative. With design-build there is a single point of responsibility and thus less opportunity for change-orders, claims and disputes. On the other hand, the design-build contractor will be accepting substantial risk. Once the guaranteed maximum price (GMP) is set against the owner's program, the design-builder must be given broad control. This requires partnering between the design-builder and owner and involves significant trust.

The right delivery system

If you decide design-build is right for your project, then you must prepare a firm, clear and accurate owner's program document. Ideally, work with a design-build firm where an existing relationship of trust already exists. Make sure though, that whatever firm you do choose has extensive experience with design-build



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Construction Industry Contracts Council (CICC)

An industry idea whose time has come!

This article was originally published in the April 2006 issue of Pipeline, the monthly eNewsletter of the National Association of Surety Bond Producers. Further information about the National Association of Surety Bond Producers is available from its web site at www.nasbp.org.

How often as a bond producer have you heard your contractor and subcontractor clients express the desire for the construction industry to come together and to agree on a common set of standardized documents, at least for the purpose of establishing a true industry-accepted baseline for the commencement of contract negotiations? If NASBP (National Association of Surety Bond Producers) has its way, such sentiments may no longer have to be voiced. NASBP and eight other prominent industry organizations are exploring the possibility of creating a separate, non-partisan, industry-recognized entity to promulgate an equitable, inclusive process and a permanent "home" for the industry to work out its risk allocation and contracting issues.

Obviously, this is no simple feat, so such an effort requires a broad, initial coalition of industry constituencies to make it work. Besides NASBP, the other organizations engaged in this effort are The Construction Users Roundtable (CURT), the Construction Owners Association of America (COAA), the National Association of State Facilities Administrators (NASFA), the Associated General Contractors of America (AGC), the Design-Build Institute of America (DBIA), the Associated Specialty Contractors, Inc. (ASC)—an umbrella group of nine trade contractor groups, the American Subcontractors Association (ASA), and the Surety Association of America (SAA), organizations collectively representing public and private owners,

design professionals, contractors, specialty contractors, bond producers and sureties. The idea behind creating this new "home" is that efforts to develop "industry standard" documents should not be resident in one trade or professional association, but should be a collective industry enterprise in which all trade and professional associations would be encouraged and could choose to participate actively. Spurring this effort further is each organization's realization that the current, growing litany of competing industry standard form families, sometimes confusing in intent and conflicting in purpose, no longer seems to benefit the industry or its productivity as a whole.

Over the past one and one half years, NASBP, along with the other organizations mentioned, have been meeting regularly in a united effort to map out the structure for a separate, non-partisan entity and the development process for a new generation of industry forms that would have the participation and buy-in of these and other interested organizations.

Each organization is quick to make the point that this is an inclusive, not exclusive, effort. "We want every and any organization interested in the process to join in the effort," states DBIA Past President, Dave Crawford, Sundt Construction, Inc., Tempe, AZ. He states, "our effort centers on providing a central destination to focus industry-wide efforts and to identify best practices in contracting, and we collectively believe that our organizations can make a better business environment through meaningful, sustained collaboration on these issues." COAA Board of Director Alan Watson adds, "the new entity will be structured in a way to permit any interested organization, including owners, to participate at the level of commitment and activity of its choosing."

Recent meetings of these organizations have centered on two fronts: creating a business model and implementing structure for the new entity, likely in the form of a limited liability company, whose members would be non-profit industry associations, and developing the process of drafting new sets of contract documents eventually to supplant the existing sets of member organizations' documents. Significant progress is being made on both fronts.

Bill Ernstom, an AGC representative to the effort and General Counsel and Senior Vice President of Alberici Corporation, St. Louis, MO, remarks, "there is nothing more powerful for reaching agreement than a process that forces you to roll up your sleeves and tackle tough issues face-to-face." He adds, "we been successful thus far because there are no guests at this table, each organization comes as an equal and expected contributor to the process."

Planned for commencement of operations by April 2007, CICC is an ambitious project with an equally ambitious timeline for critical startup milestones. "Actions may speak louder than words, but in this effort, neither will be separated from the other," says Ernstom. "Our words—that is, a new generation of industry-accepted forms—will demonstrate our actions and commitment."

"The effort towards progress in any industry sometimes requires decisive steps," relates CURT President Tom Weise, Intel Corporation, "if we are to make productivity gains in this industry, we, as an industry, must act in concert, not in piecemeal fashion, to achieve our aims." NASBP President Edward Heine, Payne Financial Group, Inc., Missoula, MT, adds, "I am in complete support of this effort to better the risk climate of the construction industry; we must encourage all industry organizations to get involved." ●

Reverse Auction

The pros and the cons.

Are reverse auctions worth it?

While reverse auction may be new to the industry, this Internet-based method for bidding on construction or project services is gaining much recognition. However, while it may speed up the inquiry process, creating a more time efficient means of garnering products, it may not always be the way to go.

With the advent of a technology driven world, tools such as reverse auction were bound to find their way into the construction market. Think eBay, only in reverse. Rather than numerous buyers bidding on an item, the highest bid winning—in the case of reverse auction, the buyer (for example Company X) takes bids from the service providers (Company A, Company B and Company C) and can ideally have A, B and C bid each other down, to achieve the lowest possible bid. Reverse auctions are held online and in real time, with immediate feedback to the bidders. This system can show all bidders the current lowest or best bid attribute, or it can show a bidder's relative ranking as compared to the best current bid. There are numerous pros and cons (see accompanying chart) that illustrate why the process can be beneficial, but also why it is best to beware. For this reason, CURT created Guidelines on the Use of Reverse Auction Technology, an in-depth manual that can be found at www.curt.org. The guidelines say as follows, "all bidding should be based on sound engineering and procurement processes. The use of reverse auctions is not intended to undercut proven procurement processes."

The process should include:

- A traditional inquiry process that appropriately documents and prequalifies bidders before the auction begins.

- A bid scope that is clearly defined and understood by all bidders.
- Owner non-price criteria that are clearly defined.
- These include owner expectations for safety, quality, training, schedule, and all other performance criteria. These areas may be evaluated as part of or separate from the actual Reverse Auction process.
- Owner investigation of any bids that seem unreasonably low compared to the owner's own estimate and/or other bids. The owner must be satisfied that a contractor has a high potential to successfully complete the scope for the given bid price.

Ricardo Aparicio, Vice-President of CURT, says that developing these guidelines was a very important task for the organization. "Addressing present issues is something that CURT works very hard on. In this case, developing guidelines on the use of reverse auction was something that is beneficial to our members because there are so many factors involved." Above all, it is vital that both the buyer and the seller understand the parameters that they're agreeing to. It is essential to remember that you get what you pay for—know what **you're** paying for! ●

PRO

May lead to more competitive bids from contractors and reduced cost of projects, provided that a sufficient number of qualified bidders participate.

May lead to innovative approaches that result in more efficient construction processes or methods. These innovations could lower costs for all projects.

Bidders are able to see and understand where they are in the bid process, enabling bidders to become more competitive and improve future bids.

CON

May NOT result in achieving a lower price as compared to a sealed bid process, since the low bidder can see all the competition's bids and is only required to beat the lowest bid, as opposed to submitting their own lowest possible price.

May result in a lack of reputable, well-qualified bidders. Contractors may refuse to participate in Reverse Auctions because of a mistrust of the process or a perception of being treated like a "commodity."

Could increase likelihood of claims, as bidders reduce cost to levels they cannot achieve. Such reductions may be made purely on emotion created by the intensity of the auction process.

Strategic Sourcing in the Construction Industry: How does a big player do it?

In 2003 DuPont started a Strategic Sourcing process to develop long-term relationships with a handful of contracted construction, maintenance and services suppliers. As George Morris of DuPont Global Sourcing & Logistics emphasizes, "the intent was to develop a long term team of contracting firms that could help DuPont consistently implement construction and contractor management best practices, optimize the number of contractors needed, and add value to our sites."

The business benefit of working with this group of contractors is to make DuPont businesses more agile and cost competitive by capitalizing on the close business relationship these suppliers have with the sites. This approach has enabled DuPont to better utilize the industry knowledge of these business partners resulting in more competitive DuPont businesses. In addition, business leaders can now concentrate on growing DuPont businesses rather than making individual sourcing decisions.

With the advent of the internet and the various technology-driven tools that are available, The DuPont Strategic Sourcing process uses a variety of tools and procurement approaches, including eNegotiations, expanding the global supply base, and moving away from single source supply situations to competitive arrangements with multiple suppliers.



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and experience with the specific type of facility or process being built.

For large corporations the use of design-build may be constrained by procurement policies. Many have accounting governance policies that require all significant projects to be competitively bid thus limiting the ideal design-build variation, which is to engage the design-builder very early. Bridging-engineering type DB variations reduce the potential schedule benefits and increase demands on the owner's resources.

It is clear that design-build offers great potential benefits to owners... for appropriate projects. You owe it to your company to not simply utilize one system with which you are most familiar but to be open to the project delivery system that best fits each project.

Further information on the design-build project delivery system is available through the Design-Build Institute of America (DBIA), The Association of General Contractors (AGC), or the American Institute of Architects (AIA). ●

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