

**SPECIAL ISSUE:**  
National Conference Re-cap

# The VOICE

The official magazine of The Construction Users Roundtable

Spring 2009

## **MONEY MATTERS:** **An Economic Construction** **Forecast For 2009**

### **INSIDE:**

● IUC's Do Good At Local Level ● Environmental Regulation ● CURT Member Profiles ● ConsensusDOCS 300 vs. AIA Contract Documents

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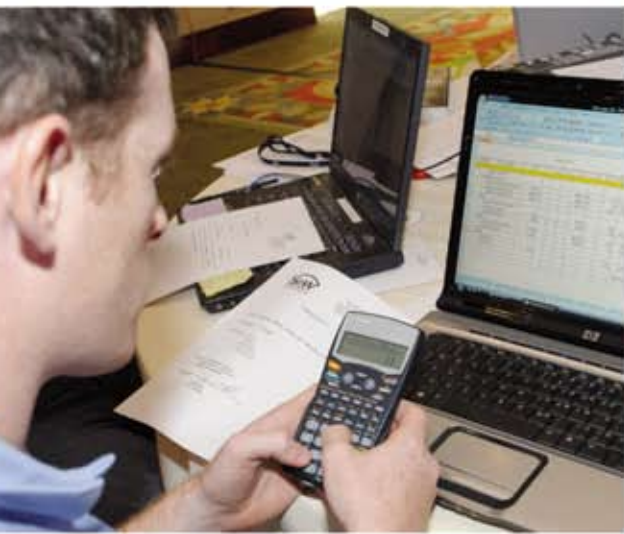
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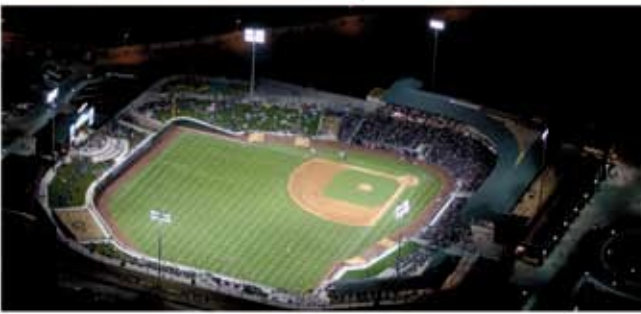
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**On the Cover:**

It's discussed during every newscast, it is featured in every financial magazine and some aspect of it is written about on the front page of almost every newspaper. It's the economy and its current state of disarray. So, where is the world economy headed? And how is construction going to be impacted? Check out the cover story on page 18 for more information.

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## CURT: Providing a Positive Impact on the Industry

**W**elcome back from the holidays. I hope everyone had time to reconnect with family and friends, and got away from the challenging work environment. I know I did and now I feel re-energized and ready for the challenges of 2009.

During the holidays it was good to take a break and see my parents in Michigan; I try to visit them at least once a year. As most know, Michigan is not the best place to be these days with the economy as it is and the auto capital of the world having one of—if not the worst—economic outlook of all times. My parents are retired and as such, may not be directly affected but many of their friends and neighbors are not so lucky. I was expecting a bit of a subdued atmosphere from my parents and their friends but to my surprise and delight, it was actually quite pleasant and rather upbeat.

After a day of reconnecting with everyone I finally pulled my dad aside and asked about the unusually high spirits despite the economic turmoil in Detroit. He understood my concern but explained that he tries to look at this the same way in which he and my mom made it through the many challenges of immigrating to the U.S. They always looked at each situation, as the glass being half full rather than empty. He said that history has shown that no matter how bleak the situation, it will always get better sometime in the future. But the best part about this—and the reason for the optimism—is that positive change always comes as a result of some unexpected good event that turns the situation around.

This different and very positive way of looking at the situation made sense even to the most pessimistic engineer like me. I have to say, my parents continue to be an inspiration and a source of optimism just the same as they were when we immigrated to the U.S some 50 years ago.

I find that CURT and its members also have this kind of positive motivation and impact for me. The recent Conference in beautiful Palm Springs, CA again brought home the kind of topics, discussions and ideas that help me deal with and manage the challenges of running a global construction organization. From the economist's realistic outlook, to communicating with the latest technology forums like LinkedIn and Facebook, the topics and ideas helped me deal with the many challenges in the construction industry. And 2009 will be no exception for CURT in helping us manage through this temporary (my dad's positive outlook) economic setback.

During the CURT meeting in February in Tampa, FL, we piggybacked on the information presented at the National Conference in November 2008. The Wednesday workshop looked in-depth at the impact on projects and what others in the industry are doing to deal with this. Industry leaders presented their ideas and had an open dialog for opinions and areas where CURT members can work together to have an impact. The information generated during this workshop, in turn, has helped us plan the next industry forum in June, which will be held in conjunction with ENR. The June meeting will be in Washington DC, allowing us to include key members of the new administration to give us insight, generate solutions and potentially helpful ideas to expedite the quick turnaround of the economic issues that are affecting each of us.

I hope you will join us and contribute to the discussions as CURT continues efforts to lead the way for improvements to the construction industry. Let's work together to generate that positive event that will turn our economic situation back to a robust growing economy.

Egon Larsen  
Air Products and Chemicals, Inc.  
CURT President

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## A True Success

The 2008 CURT National Conference once again brought insight to relevant and pressing issues for the construction industry. The venue was not bad either! Held November 10 to 12<sup>th</sup> in sunny Rancho Mirage, CA, attendees got to enjoy constant sunshine and a constant air of learning.

Speaking of an atmosphere of learning, one of the conference highlights was economists David Wyss and Narimen Behravesh who shared their views on the domestic and global economy. Wyss was great at simplifying domestic economics with wit and humor. I recently saw him interviewed on national network television and reflected, "Wow, I just saw him in person!"

I'd like to give a special "hats off" to the CURT Next Generation subcommittee and Bob Wendover who brought us the perspective from the younger generation. Futurist Joel Barker gave us insight into varying paradigms that may drive future

technologies and a copy of his book as an additional conference perk.

It was also a pleasure hearing from three very sincere, approachable and down-to-earth CEOs—Craig Martin of Jacobs, Chad Holliday of DuPont, and Howard Putnam, former CEO of Southwest Airlines. It was great seeing leaders who are very real and who demonstrate a passion for caring about people in the way they do business.

Thanks must also go to all the plenary and concurrent session participants for sharing their expertise and for making the CURT Conference a learning event.

I am already looking forward to the 2009 CURT National Conference, chaired by Norbert Young of McGraw Hill Construction!

Jocelyn Scott, DuPont  
CURT Outgoing National Conference Chairperson

## Mark Your Calendars for Next November

Spring, summer and then November! Yes, it seems far away but it's never too early to start thinking about the next CURT National Conference, slated for November 16, 17 and 18 in exciting Orlando, FL!

As always, the National Conference Committee is working hard to put together an agenda that is timely, relevant and geared towards helping you implement the best practices possible for your company. While it will be hard to top last year's Conference, I can assure you we're working hard to come up with a stellar line-up of speakers and sessions that will bring complete value for your time and money.

While many companies have pulled back their travel

expenses in 2009, I would like to urge everyone to attend this Conference. There is no better event for networking with industry leaders and experts, benchmarking against other like companies, and connecting with others in the industry who are likely experiencing the same difficulties as you.

Now, more than ever, it is important for you to attend the CURT National Conference. I look forward to seeing you there!

Norbert W. Young, Jr., FAIA, McGraw-Hill Construction  
CURT Incoming National Conference Chairperson



### The VOICE presents a conference re-cap:

Go to page 33 for comments from CURT's Board of Directors.

Go to page 34 for a synopsis of the conference's major speakers.

Go to page 39 for an overview of the winners of the Safety Awards and the Workforce Development Awards.

Go to page 44 for a re-cap of the concurrent educational breakout sessions.

Go to page 46 for a snapshot of the fun and excitement the golf tournament evoked.

Go to page 47 for feedback on the tradeshow and conference attendees' comments.



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## CURT: Working Towards an Improved Value Proposition

The past several weeks have been among the most tumultuous the construction industry has ever seen. News reports of downsizings, layoffs, bankruptcies and bail-outs dominate newspapers and television programs. It is often said that bad news travels faster than good news. And if that is not true then at the very least, we certainly tend to react to the bad news more quickly than to the good.

Our industry is not immune from such responses. Unemployment lines are filled with designers, construction project managers and crafts persons. Some who were able to do so took an early retirement. Most of those who remain among our ranks have hunkered down until the storm passes. Hunkering down means many things to many firms. For some it means cutbacks in their outside industry involvements, elimination of discretionary travel and spending, maintaining the status quo internally, and waiting the thing out. Not CURT! Not even close. Even in these challenging times, CURT is boldly moving forward on several fronts.

First, we are developing a robust marketing plan designed to grow the organization in terms of services, products and members. Our goal is to reach 75 owner members by this time next year as well as engaging new industry sectors and a new cadre of associate members.

Second, we are moving ahead with our workforce development agenda and are continuing to grow the value proposition of the newly formed Construction Workforce Development Center (CWDC). This new enterprise will focus on improving the industry's image and promoting skilled trades—both union and open shop—to young adults eager to find a rewarding career. In addition, CWDC is developing a robust labor demand and supply forecasting process in conjunction with the Canadian Construction Sector Council. This is the first time that a Canadian group has partnered with a US construction organization to help improve the quality of forecasting in North America.

Third, CURT intends to increase and improve the quality and quantity of its education and implementation products. Media in our portfolio currently include: The VOICE, The CURT-Alert E Newsletter, Owner Practices, White Papers, Surveys and Studies.

Each of these, along with our website, is being evaluated for improvements. We are also exploring the concept of a Virtual CURT Community in response to increasingly limited T&L budgets among our member firms.

Fourth, CURT prides itself in being a nimble organization; one that can respond to the fluctuations and changes in the marketplace in a way that represents the needs of the owner community. In order to become even more nimble and responsive, we are overhauling our infrastructure. That includes upgrading the Contractor Associate category, targeting key members and key industry sectors as well as developing metrics on each member and each representative. In addition it means reviewing our staffing needs, our succession planning process and our approaches to leadership development. All of this work is now underway and being led by our very capable Board of Trustees and Executive Committee.

Last, CURT understands that to be a credible voice of the owner we must recognize that our industry is now a global one. In response, CURT leadership is developing a plan of outreach into other areas of the globe. There will be more on this in future issues of The VOICE.

In a time of extreme challenge, CURT is committed to respond and not react. We are not raising dues for 2009 and we are committed to long-term sustainability and improvement of the value proposition for all our stakeholders. In short order all members will be contacted to arrange an in depth interview to enable our leadership to better understand your company's needs and expectations. It is our goal to enhance those features which bring you value, eliminate the lesser productive activities and initiatives, and improve our effectiveness in the industry. As always, our office or any member of the Board of Trustees welcomes your input. Together we can make a difference and not only survive, but thrive. Thanks to each of you for your involvement, interest and participation.

Greg Sizemore, Esq.  
CURT Executive Vice President

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## Membership Categories

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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 CURT and submit an 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.

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# Money Matters: An Economic Construction Forecast For 2009

Over 2.5 million jobs were lost during 2008; Americans experienced record losses to their 401(k) plans as the stock market plummeted, and the financial markets were in turmoil, battered and bruised after a wave of bankruptcy filings and uncertainty about the economy. And despite the billion dollar bailouts that governments in the U.S. and around the world are doling out, there are few signs that domestic and global economies are going to rebound anytime soon.

Government statistics for the first month of 2009 tell an equally gloomy story. Employers slashed an additional 598,000 jobs off of U.S. payrolls in January, leading to a national unemployment rate of 7.6 percent. This is the worst job loss since December 1974, and brings job losses to 1.8 million in just the last three months.

The unemployment numbers, bad as they are, only tell part of the story. The February 6<sup>th</sup> report also found that 2.6 million people have now been out of work for more than six months. The United States hasn't seen similar statistics like this since 1983.

Workers in the construction industry are experiencing this firsthand and, according to Associated Builders and Contractors' (ABC) Chief Economist Anirban Basu, the

forecast for commercial and industrial construction in 2009 isn't very promising.

"For more than a year, economists have been discussing how weak the overall economy has been. The ongoing credit crunch began in earnest in August 2007 and the U.S. economy shrank during last year's fourth quarter," said Basu. "Because commercial construction typically lags the overall economy by one to two years, the weakness that has pummeled other segments of the nation's economy has not been as apparent in commercial construction performance."

This, however, is about to change. "One of the most telling signs that we will see a downturn in commercial and industrial construction activity is the dramatic fall of the Architecture Billings Index (ABI), produced by the American Institute of Architects. In October, the ABI rating reached a historic low not seen since the rating system was established in 1995."

"While nonresidential construction employment was down 4.7 percent on a year-over-year basis in October, this level of job loss pales in comparison to what is likely to emerge over the next twelve months," added Basu.

## STIMULUS BILL COULD PROVIDE RELIEF

On February 17<sup>th</sup> President Obama signed the \$787 billion American Recovery and Reinvestment Act into law. Before signing the stimulus package, he told reporters, "Today does not mark the end of our economic troubles. But it does mark the beginning of the end—the beginning of what we need to do to create jobs for Americans scrambling in the wake of layoffs; to provide relief for families worried they won't be able to pay next month's bills; and to set our economy on a firmer foundation."

Obama hopes the package will help maintain or create 3.5 million jobs. It also includes help for victims of the recession in the form of expanded unemployment benefits, food stamps, health-care coverage and a tax cut for low- and middle-income taxpayers. Billions of dollars will also be funneled to state governments for transportation projects, such as road and bridge construction, and mass transit.

The package is welcome relief, according to Stephen Sandherr, Chief Executive Officer of the Associated General Contractors of America (AGC). "In just a few short weeks President Obama and Congress have created real and meaningful opportunities for unemployed workers and struggling businesses that will counter the effects of the economic downturn. They understand that significant investments in infrastructure and construction projects can play a vital role in our economic recovery. Millions of construction workers and tens of

thousands of construction companies are now ready to lead the way in proving them right."

The over \$135 billion in construction and infrastructure investments included in stimulus legislation will create or save nearly two million jobs over the next two years, according to AGC. The analysis, conducted by the association's Chief Economist, Ken Simonson, concluded that the infrastructure and construction funding would create or save 650,000 construction jobs and 300,000 positions in related fields such as equipment and material

supply. An additional 970,000 jobs in the broader economy would also be created or supported by the investments.

Even with the passing of the stimulus bill, most analysts agree that the ride is still going to be rough. At the 2008 CURT National Convention in November, David Wyss, Chief Economist at Standards & Poor's, relayed to attendees that the economic outlook was cause to "fasten seatbelts". Now, over two months later, Wyss says, "The ride has gotten even rougher. The deterioration of the economy in the fourth quarter was as abrupt a shift as I have ever

seen. We still expect the economy to hit bottom this summer, but the decline will be worse than I expected a couple of months ago, and the unemployment rate will go higher."

Wyss thinks that while the billions in stimulus money will help the economy, "It is clearly too late to prevent a recession. Most of the stimulus will come in the second half of the year and in early 2010—which will help the recovery."

At the November Conference Wyss explained that the strength in the non-residential sector was offsetting the weakness in residential construction, but that non-residential was now also beginning to decline. Looking at the latest data, Wyss now believes that, "Nonresidential construction is likely to drop at a double-digit pace this year and next, after double-digit growth in 2007 and 2008. We expect a return to growth (albeit slow) in 2011."

The following table provides year-to-year performance from 2007 through 2008. For the most part, the industry has held up well, with total nonresidential construction put in place rising in every industry with the exception of the commercial segment. As the forecast after the table indicates, the story will not be the same in 2009.

YEAR-TO-DATE PERFORMANCE, 2007 – 2008*			
Indicator	2007	2008	12-month % Change
<i>Construction Put in Place - (millions, seasonally adjusted annual rate) Source: U.S. Census Bureau</i>			
<b>Total Nonresidential</b>			
Lodging	32,216	38,700	20.1
Office	68,263	75,000	9.9
Commercial	88,678	80,600	-9.1
Health Care	44,499	45,450	2.1
Educational	100,606	105,950	5.3
Power	58,047	67,250	15.9
Manufacturing	51,576	68,200	32.2
<b>Private Nonresidential</b>			
Lodging	31,225	38,500	23.3
Office	56,103	58,200	3.7
Commercial	85,143	77,500	-9.0
Health Care	36,014	36,500	1.3
Educational	18,612	19,000	2.1
Power	46,039	56,500	22.7
Manufacturing	51,193	67,700	32.2
<b>Public Nonresidential</b>			
Office	12,160	16,800	38.2
Commercial	3,535	3,100	-12.3
Health Care	8,485	8,950	5.5
Educational	81,995	86,950	6.0
Power	12,008	10,750	-10.5
<b>Construction Employment - (thousands, seasonally adjusted) Source: U.S. Department of Labor</b>			
Nonresidential	809.8	780.0	-3.7
Residential	951.2	845.5	-11.1
<i>Producer Price Index - (base date of June 1986 = 100) Source: U.S. Department of Labor</i>			
<b>Inputs to Construction Industries – Index Value</b>	<b>181.4</b>	<b>196.1</b>	<b>8.1</b>
*2008 data contains projected fourth quarter dollar values.			

#### A CLOSER LOOK:

The Construction Labor Research Council (CLRC) is the industry's most comprehensive source of construction labor costs and related information for use in better understanding and administering labor and its cost. Focusing on the union sector, CLRC data and analyses facilitate informed decision making. Information provided by CLRC is accurate, timely, objective and recognized and respected throughout the construction industry.

*The VOICE* asked Robert M. Gasperow of the CLRC how supply/demand compares to last year at this time. He said, "There is no question that industry activity is down in most sectors with industry data highly influenced by the weak residential market. Employment declined from 7.6 million in 2007 to 7.2 million in 2008. The unemployment rate increased from 7.4 percent to 10.6 percent. We do not forecast the future; however, it does not appear the bottom has been reached. The impact of an economic stimulus plan will be positive, but timing and level are unclear at this time. Anecdotally, there is weakening demand for key industrial crafts, but owners remain concerned as to the adequate availability in the southeast and midwest. Delays are more common than cancellations."

As for the future, Wyss isn't overly optimistic. He predicts that the U.S. will hit rock-bottom at mid-year, making this recession the longest (and probably the deepest) since the Great Depression. He cautions though, that, "If financial markets remain locked up the recession could drag on. We need to get through the problems that are pushing the economy down. The housing market needs to stabilize; we expect starts and sales to hit bottom this quarter, but prices not for another year.

The financial markets need to calm down and credit markets thaw; there are some encouraging signs, but no certainty those problems are coming to an end."

**A CONTRACTOR'S POINT OF VIEW**

BE&K, which was founded in 1972, provides engineering, construction and maintenance services for clients in a variety of markets throughout the United States. While a year ago business was booming in the construction industry, to the point where

contractors in some locations were able to pick and choose their projects, the situation now tells a very different story.

Tom Vaughn, President of BE&K, says that, "There is no question that we are conducting business in challenging times which has resulted in scheduling adjustments of some projects. We are constantly monitoring the markets and always remain cognizant of the current economic climate."

Vaughn says that he has noticed BE&K's owner customers are certainly more mindful of taking on unnecessary risk, just like everyone else during this challenging economic time. "We have had a few projects slow down as these clients are now funding the projects from free cash flow, and due to the drop in commodity prices, that cash flow is lower than they expected. We have had one prospective international project delayed indefinitely, but it could come back once the banks open for business."

Even in challenging times, though, Vaughn explains that as a contractor BE&K must continue to provide the quality product that customers have come to expect over the years. "For BE&K and all KBR companies, best-in-class risk awareness is a core value and at the forefront of our daily work. For us, this commitment is a constant component of every project we undertake, regardless of the economic climate that exists."

One of the keys to BE&K's stability during this economic slowdown is its diversity. Vaughn says that, "BE&K, as a member of the KBR family of companies, has a very diversified business that provides some protection from such downturns, although as broad-reaching as the current environment is, no amount of diversification can isolate you from market realities. We have continued to develop our Industrial Services business (plant maintenance and small capital project work), and one of the many synergies of the KBR acquisition is the combining of KBR and BE&K Industrial Services to create an organization with significant strengths and 'reach' which will bring greater value to our clients."

He continues, "We also execute a large number of small projects, both in engineering and construction, many through long-term



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**A CLOSER LOOK:**

The demand for industrial construction in the south is still relatively strong, says Eddie Clayton, Outage Planning Manager for Southern Company Generation, and representative for the Southeast Manpower Tripartite Alliance (SEMTA). "While there have been several project cancellations and delays in the southeast, reports at the recent SEMTA meeting say that the demand for industrial construction is still relatively strong for now." Clayton also says that:

1. Overall forecasted demand for skilled labor has been impacted but is still strong in many areas of the southeast.
2. Current projections of total compensation for industrial construction labor will continue to increase at more moderate levels or flatten, but not decrease in the southeast.
3. SEMTA is in the process of updating demand projections using the CWDC Forecasting Model.
4. There are independent studies for the southeast that reflect 2009 will experience a peak in demand, then decrease for the next few years. Previous projections reflected a steady increase in demand with a peak in 2011, instead of 2009.

relationships or alliances and those types of projects are minimally affected by today's environment. Even when the market was overheated, we continued to serve those customers."

BE&K also has strength in the power market, which continues to be one of the few bright spots out there. This, says Vaughn, "Should help us maintain a reasonable volume."

**CURT EVOLVES TO CONTINUE SERVICE**

"As you read the newspapers, watch the news or even talk to colleagues and friends, it doesn't take long to realize that the recession is affecting all types of companies," says Egon Larsen, President of the Construction Users Roundtable (CURT) and Global Construction Manager for Air Products and Chemicals, Inc. "We're seeing it more and more as an organization. Companies are cutting out their discretionary costs; travel in particular."

CURT, says Larsen, is ahead of the game. "We've started using collaboration

software so that the committees can still meet without having to travel. Then, at our February meeting in Orlando, FL, we made it possible for 'attendees' to tie in remotely from their computers for the general meeting session, which took place on Wednesday. We also hope to have audio, visual or both available for remote users at our future meetings."

Services like these, says Larsen, are what make CURT membership an economical benefit in tough times. "Things are changing

so quickly," says Larsen. "Budgets are being slashed and companies are weighing what's needed and what can be cut. Now is the time to take advantage of CURT's services; networking with colleagues in similar situations, taking advantage of our industry knowledge, and connecting with other industry experts."

While industry experts seem to be predicting that the worst may still be to come, only time will truly tell how long or how bad this recession will be. ●



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# GET INVOLVED LOCALLY: LUCs like Florida's FCURT Bring Companies Together at the Local Level

By Randy Bakel, FCURT's Executive Director

Local User Councils (LUCs) are spread across the U.S. and vary in character, makeup and purpose. Yet, they all provide many opportunities for their members to improve engineering/construction/maintenance and business results. Today 17 LUCs are officially affiliated with CURT and come together twice a year for our "LUC Summit", which is designed to benefit CURT and the LUCs. Current activities include organizing locally for the CURT Workforce Labor Supply/Demand Forecasting Model, implementing Owner Safety Blueprint training, and sharing best practices. Our next LUC Summit will be held in conjunction with the CURT meeting in June 2009.

The Florida Construction Users Roundtable is one of the LUCs affiliated with CURT. It is headquartered in Bonita Springs, FL and has been active since the early 70s. In 1974 two Florida LUCs, bound by their common interests, merged to form the Florida Business Roundtable, Inc., a statewide association. In 2002, in response to the formation of CURT (formerly the construction arm of the Business Roundtable), the Florida Business Roundtable Inc. changed its name to the Florida Construction Users Roundtable Inc.

Today's Florida Construction Users Roundtable is an exciting, rewarding association for its members and continues to drive toward its mission, "To strive to provide Florida construction industry users and their associates a forum for effective exchange of information, views, practices, and policies to help members improve their business operations."

Through the years, we have seen significant change in our industry globally, nationally and certainly locally in Florida. Today all industries, including

ours, face ever-more effective competition driving us all to get more results with fewer resources and people. In spite of this trend, FCURT has grown to more than 50 members, up from fewer than 20 three years ago. Currently, FCURT has a diverse membership that seeks to become even more diverse.

Our members consist of industrial companies, engineering and construction companies, educational entities, unions, and hardware and service suppliers. We believe that the same problem, when viewed from several different perspectives, can lead to significant, new, creative solutions.

## FCURT's activities include

**Program Meetings:** FCURT provides exposure to the latest thinking and action. Our day-long Program Meetings, held quarterly in different parts of Florida, feature highly credible speakers and the latest topics impacting and shaping our business. In addition, we draw from our affiliation with CURT and benefit from information and developments nationally.

**Workforce Development:** We have a group dedicated to improving the, "Development of our professional and skilled trades workforces." Activities are focused on bringing improvement information to our members and alerting to the availability of training grants/funds.

**Safety:** We have a group organizing to provide Owners' Safety Blueprint (OSB) training locally to our members and others with interest.

**Scholarships:** Each year we provide a University of Florida engineering student with a scholarship made possible from our Golf Fundraiser.

## The VOICE of FLORIDA

**CONSTRUCTION:** We publish a

magazine yearly that focusing on the industry in Florida.

**FCURT Website:** FCURT provides exposure and as a result, potential new business. Our members are showcased on our web site ([www.fcourt.org](http://www.fcourt.org)) with a link to their home page, providing ready access for anyone searching for Florida construction related companies.

**Networking:** FCURT offers the opportunity for all industry participants to come together and work together for the good of all members in a neutral unbiased setting. Our industry historically has operated at arm's length and confrontationally, and as a result has been fragmented. Today's trends are toward working much more collaboratively across lines that were historically difficult to cross. FCURT provides a forum for collaboration.

In addition to all of these benefits, FCURT members have fun! Our quarterly Program Meetings are not only educational, but are also social networking opportunities for talking, sharing and comparing experiences whether in the meeting, over a meal or on the golf course. In addition, once a year, we hold our very popular golf event and awards luncheon.

FCURT is just one example of what is possible locally with an LUC. If you do engineering and construction related work, you should look at an LUC in your area and think seriously about membership and participation. We are a local focal point working to improve our industry and your business. Think about it. Where else can you invest such a small amount and get so much in return? Get involved locally! ●

*Randy Bakel is the President of Bakel Consulting and FCURT's Executive Director.*

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# The Current Climate of Environmental Regulation Impacting Construction

By **A. Christian Worrell III, Esq.** and **Richard T. LaJeunesse, Esq., LEED AP**

## INTRODUCTION

The construction industry is subject to a wide variety of environmental statutes and regulations. These requirements apply to the construction process from the time a site is selected and prepared, to the point of substantial completion and operation of the project. Conventional wisdom would suggest that the Obama administration will seek to strengthen current environmental laws and, through the U.S. Environmental Protection Agency, implement additional restrictive changes using the regulatory and policymaking process.

Some of these changes are expected to affect the construction industry. However, the extent of such changes may be tempered by the realization that the implementation of stricter environmental controls could have an adverse effect on the United States' struggling economy. With an expected shift of government resources to large public works expenditures, the construction industry should also be prepared for dealing with the tighter controls that already exist on publicly funded projects. In addition to regulatory mandates, the construction industry has been undergoing a sea change as a result of growing concerns over sustainability and the desirability of "green" buildings. These efforts are largely voluntary in nature, however, their impact on the construction process can be just as significant as many regulatory controls.

## SITE SELECTION

Obviously, one of the first concerns for the owner and stakeholders in a construction project is completion of appropriate due diligence with respect to the suitability of the project site. This due diligence covers a broad range of potential concerns. From the environmental standpoint, the avoidance of liability under the federal Comprehensive Environmental Response Compensation and Liability Act (CERCLA or Superfund law) should top the list of such concerns. Acquisition of the project site should be conditioned upon the satisfactory completion of a Phase I Environmental Site Assessment (ESA), and if necessary, additional sub-surface or other investigations, to ensure that the owner establishes defenses to potential liability under CERCLA. These defenses include the Innocent Land Owner Defense, the Bona Fide Prospective Purchaser Defense and the Contiguous Property Owner Defense. Completion of a phase I ESA in accordance with U.S. EPA's All Appropriate Inquiry Rule and/or ASTM Standard 1527-05 are the first steps in this regard.

The project site need not be contaminant-free in order to establish one of these defenses; e.g. the Bona Fide Prospective

Purchaser Defense allows the purchaser of contaminated property to avoid CERCLA liability if a number of requirements are satisfied. However, construction on a site that is affected by the presence of contamination may require changes in the design of the planned structure such as vapor barriers or other engineering controls. Due care during the construction process to ensure consistency with engineering controls and avoidance of exposure of construction workers to risks will need to be evaluated.

The presence of hazardous substances is not the only environmental consideration during the site selection process. The site should be evaluated for the possible presence of wetlands and/or the need to relocate streams. In most instances, Section 404 of the federal Clean Water Act requires a permit where a construction project will affect "Waters of the United States" through dredge and/or fill activities. The presence of wetlands is typically not addressed in the Phase I ESA, absent special arrangements between the owner and the consultant. The presence of jurisdictional wetlands on a construction site does not necessarily preclude the possibility of completion of the project. However, the expense of the permitting process and required mitigation activities will need to be factored into the project schedule and budget.

Where a project entails modification of existing structures, the owner should be prepared to address the potential risk associated with the presence of asbestos-containing materials (ACM), polychlorinated biphenyls (PCBs), chlorofluorocarbons (CFCs) and lead-based paint (LBP). As part of its due diligence, the project owner will need to arrange for a thorough survey of suspect ACM in order to determine whether or not such material is regulated



under the federal Clean Air Act, National Emissions Standards for Hazardous Air Pollutants (NESHAPS). If regulated ACM is present, the need for pre-demolition or pre-renovation abatement should be factored into the project budget and schedule. Similarly, the potential presence of PCBs needs to be evaluated. The federal Toxic Substances Control Act, through regulations at 40 CFR Part 761, defines the responsibility of those who create or generate PCB waste. PCBs may be found in electrical transformers, capacitors, ballasts, hydraulic systems, waste oil tanks or as contaminants in soil or in structures such as wooden or concrete flooring.

Where demolition or renovation activities may affect existing refrigeration or HVAC systems (as well as smaller appliances such as air conditioners) containing CFCs, federal Clean Air Act regulations pertaining to Protection of Stratospheric Ozone, 40 CFR Part 82, may apply. These regulations generally require the recovery and recycling of CFCs.

The handling of LPB and other lead contaminated materials is also a common concern.

Government-funded projects entail additional layers of regulatory review. For example, requirements imposed under the National Environmental Policy Act are often a source of delay in federal projects. These requirements are outside the scope of this article.

## SITE PREPARATION AND CONSTRUCTION

A threshold environmental determination for work on the project site is whether or not a storm water permit will be required. The federal Clean Water Act, National Pollutant Discharge Elimination System (NPDES), 40 CFR Part 122, and corresponding state programs typically require that a construction project which disturbs one or more acres of land will require an NPDES permit for the discharge of storm water run off. Frequently, the project will be eligible for coverage under a statewide general permit subject to certain filing requirements and implementation of Best Management Practices for handling of the storm water. These practices would be documented in a Storm Water Pollution Prevention Plan, which will guide activities at the project site.

Once construction begins, careful consideration should be given to the use of any building materials or coatings that contain hazardous substances and the management of any wastes generated in the construction process. Certain construction wastes may constitute hazardous waste under the federal Resource Conservation and Recovery Act and state counterpart laws. Waste which contains listed hazardous constituents or which meets criteria such as ignitability, corrosivity, reactivity or toxicity will have to be handled in accordance with strict guidelines applicable to accumulation, labeling, transportation and off site disposal.

Another consideration when dealing with hazardous substances is the potential effect such materials may have on the quality of the indoor air of the finished project. Potential indoor air issues are not typically the subject of permitting requirements or other regulatory programs such as those under the federal Clean Air Act, although of course OSHA compliance is of paramount importance. The Clean Air Act may not apply to many construction projects. However, if a construction project will result in regulated air emissions, a myriad of Clean Air Act requirements will apply, including securing proper permits before construction begins.

Beyond government imposed requirements, there is clearly a heightened interest in implementing green-building and other sustainability measures that have environmental impact. The movement toward building certification places increased importance on a variety of environmental factors, whether under the United States Green Building Council's Leadership in Environmental Energy and Design (LEED) Certification System, or under other rating or certification systems, such as Green Globes, Energy Star or others, dependent upon prevailing practices in a given region or industry subsector. LEED tracks factors relevant to sustainable sites, water efficiency, energy and atmosphere, materials and resources and indoor environmental quality (including construction air quality management plans), all relevant to the overall environment of construction.

As the future unfolds and the policies of a new federal administration are put to test, we anticipate that sustained or enhanced regulation will clearly impact the construction industry. Broader concerns regarding global warming and reducing carbon footprints are likely to have even greater impact. ●

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In 1967, Suncor Energy, Inc. pioneered the development of Canada's Athabasca oil sands—one of the world's largest petroleum resource basins. Since then, Suncor has grown to become a major North American energy producer and marketer with a team of more than 6,500 employees throughout Canada and the United States. Suncor supports their core oil sands business with conventional natural gas production and refining, marketing and retail businesses. The company also invests heavily in biofuels and zero-emission wind energy.

**THE RIGHT NOW:**

Suncor's business strategy includes a proven three-part approach: develop their large oil sands resource base; employ a staged approach to expanding their upgrading technology to increase production; and integrate their products into the growing North American marketplace through their refining operations and strategic supply agreements. With this approach at the helm, Suncor's long-term goal is to increase production and sales to more than half a million barrels of crude oil per day.

Suncor has a track record of delivering on such goals. Since the company became publicly traded in 1992, daily oil sands production has increased more than 300 percent. Over the same period, Suncor's total return on investment has outperformed the S&P 500 by more than 1,600 percent.

Growth isn't the only thing the company is focused on; sustainability is another. While Suncor looks to expand operations, they are also committed to minimizing their environmental footprint while contributing to the wellbeing of the communities in which they operate.

**THE FUTURE:**

Sustainability for the future is a core element at Suncor, which was the first oil sands company to voluntarily adopt a Climate Change Action Plan and report annually on progress. Greenhouse gas emissions per barrel at their oil sands plant have been cut in half by 44 percent, compared to 1990 levels.

Suncor continues to focus on developing innovative strategies to reduce total greenhouse gas emissions. This includes offsetting carbon emissions through renewable energy projects. Their four wind power projects have a total capacity of 147 megawatts of renewable energy, offsetting the equivalent of approximately 280,000 tonnes of CO2 annually.

Suncor also operates Canada's largest ethanol-production plant and is pursuing further expansion in the biofuels business in St. Clair, ON.

**THE SOCIAL COMMITMENT:**

In November 2008 Suncor Energy and its employees, contractors and retirees in both Canada and the U.S. gave back to their local communities through financial and personal support to United Way organizations.

Collectively, team members contributed more than \$1.8 million, including money raised through company-endorsed United

Way events. With additional funds provided by the Suncor Energy Foundation and Suncor Energy U.S.A., total investment was more than \$2.6 million. Financial contributions will support many social service agencies including youth services, crisis intervention and services for economically challenged families.

"It's easy to give when times are good, but it demonstrates real care and commitment to give when times are tough," said Rick George, Suncor's President and Chief Executive officer. "The fact that so many Suncor employees, contractors and retirees are dedicated to keeping the community strong, by supporting the real and present needs of those less fortunate, really speaks volumes about the people who work at this company."

**THE AWARDS:**

In October 2008 Suncor Energy Inc. was selected as one of Canada's Top 100 Employers in Mediacorp Canada Inc.'s annual competition recognizing employers that are industry leaders in attracting and retaining employees. "We're thrilled to be selected as a top employer" said Sue Lee, Suncor's Senior Vice President, Human Resources and Communications. "It's not an organization that makes it a great place to work; it's the people. And this award is a testament to the kind of workplace our people have created." ●



*Suncor's refinery, located in Commerce City, near Denver, is the largest refining operation in the Rocky Mountain region with a capacity of 90,000 barrels per day.*

# Credentials MATTER



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“NCCER provides a nationally recognized program that our company can trust and believe in. Through the standardized certification process, we are assured that craft professionals are qualified, which is key for our ability to compete globally.”

*Jonathan Yarbrough*  
Baytown Site Mechanical Manager  
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## THE CONTRACTOR: Gilbane Building Company

## THE WEBSITE:

www.gilbaneco.com

## THE HISTORY:

Gilbane Building Company was founded in 1873 as a family-run carpentry and general contracting shop in Providence, RI. During World War II, the firm built large defense projects such as the Naval Station in Newport, RI and was awarded the distinguished Army/Navy E Award. Gilbane earned its national reputation by delivering notable public projects including the Smithsonian Institute's National Air and Space Museum, and the Vietnam War Memorial.

Today, fourth and fifth generation leaders draw upon the company's long-standing core values. Still a privately held, family-run company, Gilbane currently employs over 2,200 people across the country.



*In all, 494 tie-backs were installed through the perimeter wall at the Capitol Visitor Center, ensuring its stability against the tremendous pressure exerted on it by the weight of the Capitol and surrounding earth.*

## THE RIGHT NOW:

Given today's challenging economic climate, Gilbane is well-positioned to help clients make the right decisions now that will benefit them long-term. Having already embraced the principles of Integrated Project Delivery, Gilbane is saving clients time and money through the use of BIM, LEAN scheduling and digital project management.

In December 2008, Gilbane staff were on hand to celebrate the opening of the U.S. Capitol Visitor Center (CVC) in Washington, DC. Gilbane served as construction manager for this 580,000-square-foot underground addition—the largest in the Capitol's 215-year history. "It was exhilarating to be involved in one of the greatest building projects in our history," says Paul Choquette, Jr., Chairman of Gilbane Inc. and Principal-in-Charge of the CVC project for Gilbane.

Presently, Gilbane has teamed with Turner Construction to manage construction of the new \$747 million community hospital at Ft. Belvoir, VA. The 1.2 million-square-foot facility is part of the Base Realignment and Closure (BRAC) act and is being built through an integrated design/bid/build procurement. This process uses coordination with a contractor to accelerate the construction process and help avoid errors by evaluating cost and schedule impacts of design decisions.

## THE FUTURE:

By establishing Centers of Excellence—groups of experts in various project types—Gilbane is able to zero in on what matters most to individual markets and deliver specific solutions based on knowledge and experience. One example is the company's CostAdvisor, an interactive conceptual cost modeling program that provides clients with realistic project costs during the conceptual phase.

Gilbane is also taking green to a new level with its High Performance Building Program, which assists owners in setting

goals, tracking energy savings, installing appropriate systems and establishing measurement protocols for sustainability. The program was first implemented on Gilbane's New Haven Schools Project, a 14-year initiative to rebuild or renovate all of New Haven's public schools. To date, over a 5-year period, the city has saved more than \$10 million by reducing average overall building operation efficiency by over 65 percent.

## THE SOCIAL COMMITMENT:

Gilbane's business is strengthening its surrounding communities through infrastructure, and the company's commitment is strengthening those communities through volunteerism, corporate giving and partnerships with organizations, such as:

- **The ACE Mentoring Program:** Through financial support, mentoring programs, and scholarship awards, Gilbane recognizes that today's students are tomorrow's leaders.
- **Rebuilding Together:** One of Gilbane's largest charitable partners is Rebuilding Together, a program that brings together skilled construction professionals with volunteers to renovate the homes of those unable to perform the work themselves.
- **United Way:** In November 2008, Gilbane held its first-time-ever unified United Way campaign in which all regions participated. The company set a new record by raising more than \$500,000.

## THE AWARDS:

In November 2008, Gilbane received top honors from The Construction Users Roundtable (CURT) in safety, earning the Construction Industry Safety Excellence award for outstanding safety performance over the past three years. This was the second time in a row Gilbane was recognized for this honor. ●



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## THE ASSOCIATION: Associated Builders and Contractors, Inc.

### THE WEBSITE:

www.abc.org

### THE HISTORY:

Associated Builders and Contractors (ABC) was launched in a Baltimore, MD., living room in 1950 by seven construction contractors who shared the belief that construction projects should be awarded based on merit to the most qualified and responsible low bidders.

Today, ABC has 25,000 members in 79 chapters across the U.S. and is the voice of the commercial and industrial construction industry with the White House, Congress, federal agencies, state and local governments, and the courts, as well as with the news media.

### THE RIGHT NOW:

ABC is currently involved in a wide range of initiatives designed to build on its strong culture of superior customer service by providing members in the commercial and industrial construction industry with programs, products and services essential to their operations.

- ABC is actively working at all levels of government to represent the merit shop construction industry on key issues critical to its members' success. These include workforce training, the Employee Free Choice Act or "card check" legislation, green building initiatives, open competition in contracting and healthcare.
- ABC offers tools to help its members develop business opportunities and promote company achievements; management education programs featuring national-level conferences and meetings, as well as seminars and courses conducted by ABC chapters at the local level; and promoting construction as a top career choice for high school and

college students through ABC chapters and 60 student chapters across the nation.

- ABC's safety programs and products help members maintain safer and more productive work sites.
- In addition to many training resources, ABC provides members with the Safety Training and Evaluation Process (STEP) guide—the industry's leading safety evaluation program.
- The ABC Merit Choice insurance program encompasses both an insurance agency and an association-based insurance trust. Members who choose ABC as their insurance provider receive outstanding support and value-added services that help them attract and retain employees.

**"ABC is devoted to supporting the success of its member firms and to advancing the merit shop philosophy. This philosophy encourages open competition and a free-enterprise approach to business, which awards contracts based solely on merit, regardless of labor affiliation."**

### THE FUTURE:

ABC is expanding its "green" initiatives to include a Green Contractor Certification program, designed to recognize construction companies that implement green practices and principals at their workplace environments; more "green building" education and training opportunities at the national and local levels; and continuing to build a "green" resources area of the ABC website that includes sections on best practices, newsletters and articles, and a list of scheduled "green" workshops.



ABC also is designing and producing a diversity manual for its members. The publication is intended to be an effective tool to help contractors develop and implement diversity programs in their companies. In addition, ABC will continue its Chapter Grant Initiative offering funding to ABC chapters in support of new and existing diversity programs.

ABC is launching a new webinar series for 2009 in an effort to keep its members up-to-date on timely industry issues and best practices with easily accessible, low-cost online education programs.

### THE COMMITMENT:

"ABC is devoted to supporting the success of its member firms and to advancing the merit shop philosophy," says Kirk Pickerel, ABC President and CEO. "This philosophy encourages open competition and a free-enterprise approach to business, which awards contracts based solely on merit, regardless of labor affiliation."

### THE AWARDS:

In its 59 year history, ABC has won numerous awards. The latest honors include the 2008 Association Trends All-Media Contest: Gold medal for the 18<sup>th</sup> Annual Excellence in Construction Awards program; Gold medal for the "Card Check" media campaign; Silver medal for ABC's electronic newsletter *Newsline*, Silver medal for the 2007 *Year in Review* publication and Bronze medal for the *ABC Member Resources Guide*. ●

7:35pm

Safe at Home

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# CURT Leaders Declare Conference a Major Success



Back row: Steven B. Satrom; Curtis Ashley Baker, P.E.; Michael G. Conley; Charles G. Hardy.  
 Front row: Ricardo Aparicio, AIA, Esq.; Egon J. Larsen; Allen Bunner; Gregory L. Sizemore, Esq.  
 Missing: Larry Wargo and Steve Mongiardo.

Each year the National Conference Planning Committee goes above and beyond the call of duty to put together an educational, immensely beneficial and memorable event. The CURT Board and Committee Chairs agree!

"The 2008 CURT Annual Conference again delivered on its promise of being a premier national forum that brings focus to issues of current importance to the construction industry. The economic outlooks, viewpoints from the next generation of employees, real world case studies and workshops, and insightful messages from industry leaders gave everyone something of real use as we face an ever-changing and difficult economic environment."

Steven B. Satrom  
 CURT President Emeritus  
 Vice President of Engineering,  
 Energy Business  
 Air Products and Chemicals, Inc.

"The CURT conference always provides valuable insight into what's happening in the marketplace we work in. The value of this understanding is even higher in the current environment due to all the turmoil in our industry. This year's Conference provided multiple perspectives ranging from three current/former CEOs of DuPont, Jacobs and Southwest Airlines, to the next generation's views, to industry benchmarking data, to two very interesting presentations from renown economists. At the same time, the Conference continued to provide valuable information on many other current interests—

crane safety, workforce development, LEAN construction, and contract documents, to mention a few."

Michael G. Conley  
 CURT Secretary  
 Manager, DuPont Project  
 Engineering Centre  
 DuPont Engineering

"Attendance to CURT events is now more important than ever. The leverage of CURT is the consortium of owners who are addressing similar issues, and who have the combined influence to develop industry-oriented solutions. CURT's commitment to discussing current issues and to producing educational sessions, tools and resources for the owner community is reason enough to continue participation."

Gerry Sprentall  
 Co-Chairman of CURT's Workforce  
 Development and Industrial  
 Relations Committee  
 CSC Operations Construction Manager  
 Intel Corporation

"It is beneficial for companies to send representatives to the CURT Conference because of the diversity in the plenary sessions, as well as the break-outs. Getting to listen to these presentations and then seeing what great 'nuggets' of information

you can take back and implement at your own company is where the value-add is for any organization."

George Lancos  
 Co-Chairman of CURT's LEAN  
 Project Delivery Committee  
 Project Director  
 Johnson & Johnson Worldwide  
 Engineering & Real Estate

"The CURT Conference is one of the premier events each year at which to hear and learn from our industry's finest leaders. It's also a great opportunity to refresh and expand your professional network. Both the new knowledge and vast experience of the Conference attendees creates an ideal environment to identify major improvement initiatives, new business opportunities, or perhaps to simply validate current operations. The 2008 Conference provided much needed perspective concerning the severity of the economic downturn. Given the current economic climate, Conference attendance may be cut as an 'unnecessary' expense. However, the CURT Conference, particularly during tough economic times, provides too great a value to be missed."

Patrick Duffy, Chairman  
 Education and Implementation Committee  
 Manger, Project Management  
 Tampa Electric Company ●

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# Speaking Out:

## What the Major Speakers Had to Say



### THREE SHADES OF GREEN: DIFFERENT TECHNOLOGICAL PATHWAYS TO SUSTAINABILITY

Joel Barker, Futurist, Author and Filmmaker, Infinity Limited, Inc.

"Green is here," according to Joel Barker, who was the kick-off speaker at CURT's 2008 National Conference. Barker, who is one of the most sought after speakers in the world on the topic of

change and vision, believes that the word has more green solutions than problems—it's just a matter of making the choice about which technology to use.

But, did you know there are three shades of green? If your company is looking into sustainable technology, you need to understand the difference. Barker helped attendees differentiate between the three shades:

1. Limits Tech: Science and technology, as they have been used in the past century, bring about short-term advantages but long-term disaster. Mother Nature knows best.
2. Local Tech: There is a sufficient amount of resources in the world for everybody. Science and technology are OK as long as they are locally scaled. Humans are the shepherds of nature.
3. Nature Tech: Mother Nature has already solved all of our problems. Science's job is to find her answers and create compatible technologies. Our relationship with nature is that of a co-equal partner.

So...what does all this mean? According to Barker, understanding these various shades of green will help business leaders identify the technologies that will best benefit their companies, while helping the environment.

One of Barker's most quoted phrases is, "No one will thank you for taking care of the present if you have neglected the future."

### THE STATE OF THE INDUSTRY: FMI OWNER SURVEY

Mark Bridgers, Senior Consultant, FMI Corporation

Jeff Lukowski, Consultant, FMI Corporation

Jerry Klint, Vice President of Construction, Ameristar Casinos Inc.

Harold Helland, Manager of Project Management, Abbott

James Breen, Vice President Worldwide Engineering, Johnson & Johnson

In order to better understand how owners mitigate and manage construction risk in today's capital, material and labor intensive environment, a survey of 225 owners, agencies and organizations was conducted. The collective annual capital spending was \$234 billion, with construction projects taking place on every continent with all types of construction. While in the past a bell curve was used to predict risk, the survey found that this method doesn't work in today's economy where even the most mundane risk can cause problems on a project.

Another major finding was that many owners were choosing to avoid risk by canceling projects or moving them to less risky locations. However, as James Breen pointed out, "The key to avoiding risk is open communication, where both sides listen. Another big thing is that when you use people over and over again, you retain their knowledge and expertise, lessening risk."

Harold Helland agreed, saying, "We have our favorite contractors too, who we work with repeatedly. They know our standards and help us meet our goals."



## OWNER STRATEGIES FOR A SUSTAINABLE FUTURE: THE CURT PERSPECTIVE

Egon Larsen, Air Products & Chemicals, CURT President

For newly elected CURT President Egon Larsen, the value of CURT is, "Sustaining the enablers so they can come with ideas on how to make the industry work better. CURT provides the infrastructure to get change done by bringing decision makers to the table."

As an organization, Larsen pointed out that CURT has grown about 10 percent per year, boasting a total of 87 members in 2008. That number however, is not big enough according to Larsen, who'd like to see it grow up over 100 members by 2011. One way to do this will be to get more contractors to participate (in the past the owner to contractor ratio was 4:1), and to take a fresh look at marketing the CURT brand to find the right members.

Larsen also announced that CURT will be expanding to Asia in the near future, with research and planning taking place this spring, and initial implementation happening in the spring of 2010. "We had seven companies in Asia say they were interested," said Larsen. "We were able to meet with three and got a lot of great ideas out of these meetings."

Moving forward, CURT's four strategic initiatives for the future are:

1. Enhance EPC industry influence;
2. Increase qualitative work products and new services;
3. Advance education and communication; and
4. Aggressively plan for organizational growth.



## LEADING IN THE NEW REALITY

Chad Holliday, Chairman of the Board & CEO, DuPont

During the last week of September 2008 Chad Holliday was on his way to Japan when he heard there was going to be a mild recession. While there he met with colleagues at Toyota who had heard the news too, and were worried. Holliday thought to himself, "If Toyota is worried then we'd better be worried too."

In order to get peoples' attention, Holliday announced a "corporate crisis" and for 52 hours the company looked at all projects and where they were at. They realized just how serious the global problems were and that they weren't going to end anytime soon. "It's a new reality," said Holliday. "Last year at this time we had no idea how dynamic the change would have to be."

Holliday said that while the way of doing business has changed, this crisis is a, "Crisis of opportunity. After calling the 'corporate crisis' our mentality changed. We looked at absolutely everything that was going on. We sped up a few projects and we slowed some down. And we shut down very few. Finally, we came to the reasoning that we don't have a sale until we collect the money. This is a new way of thinking in the company's 206 years of existence."



## INTO 2009: HOW THE ECONOMY WILL AFFECT YOU

David Wyss, Chief Economist, Standards & Poor's  
Nariman Behravesh, Chief Economist, Global Insight

The good news, according to David Wyss, is that, "This recession won't be a terribly deep recession. It will be long...but moderate." However, he cautioned in November, "A deeper recession is possible if the financial markets remain locked up, oil prices remain high and home prices continue to drop."

As most Americans understand, housing was too affordable, thanks to low mortgage rates. But, when rates went up, the ratio of home price to income hit a record high in 2006. The result was too many houses at too high of prices, which led to defaults and foreclosures, cutting back institutions' willingness to lend. While this was offset by strength in non-residential construction, this has also now started to decline.

The fix, according to Wyss, includes building fewer houses so that supply and demand get back into balance, and that home prices have to come back down to a realistic level.

As for the future, the bottom line according to Wyss is that, "The economy will recover slowly. Fiscal policy stimulus will end, keeping recovery slow, financial markets will remain locked up, home prices will continue to fall, and this could turn into the deepest recession since WWII."

Nariman Behravesh, who provided a global economic outlook, predicted that, "It's going to get much worse before it gets better."

After pointing out that this is not a, "Made in the USA problem but rather a *global* credit problem," he predicted that, "No region will remain unscathed. The only question is, how bad will different regions be hurt."

Behravesh likened today's credit woes to a classic hangover after a binge, saying, "Everyone binged and the result is that banks are now unwilling to lend to each other."

However, Behravesh points out that Wall Street isn't going anywhere. "We've been here before—many times. A world recession is inevitable but don't get too carried away with the doom and gloom. U.S. economic resilience and Asian dynamism will likely reassert themselves once the crisis has blown over."

## INNOVATIVE DESIGN FOR NEXT GENERATION BUILDINGS: CISCO INTELLIGENT BUILDING

Dave Clute, CRE Solutions Lead-U.S./Canada, Cisco Systems

"The buildings of the future are here," said Dave Clute during his speech, "They're just not evenly distributed throughout the world."

What is an intelligent building? According to The Building Intelligence Group, it's the, "Use of technology and process to create a building that is safer and more productive for its occupants and more operationally efficient for its owners."

An intelligent building, explained Clute, involves a number of components:

- It should have reduced energy consumption;
- It should have better energy purchasing;
- It should improve operating staff efficiency; and
- It should improve maintenance and response.

Examples of intelligent buildings include One Bryant Park, New York City, NY; The Telus Regional Headquarters, Toronto, ON; Carnegie Mellon University, Pittsburgh, PA; Pacific Controls Headquarters, Dubai, UAE; and Bangalore Campus, Bangalore, India.

For more information, go to [www.cisco.com](http://www.cisco.com).



Norm Tavian, Architectural Illustrator, Neumann/Smith Architecture

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## EMBRACING TOMORROW'S EMERGING CONSTRUCTION PROFESSIONAL

Robert Wendover, Managing Director, The Center for Generational Studies

Natasha McCurry, Manager of Project Support Services, BE&K Construction, Co

Bryan Beischel, Engineering, Turner Construction Company

Julia Nicolae, Project Manager, U.S. Central Services Administration

In this presentation Robert Wendover told attendees what it's going to take to recruit AND retain new Millennials. This includes:

- Ample opportunities for training and growth;
- Consistency and fairness in management;
- State-of-the-art computers and equipment;
- A positive, optimistic workplace;
- Opportunities for advancement; and
- A work environment that allows for the completion of personal tasks as long as the employer's work gets done.

In order to illustrate these changing needs, Natasha McCurry, Bryan Beischel and Julia Nicolae demonstrated just how different "their" generation is from the generation most of the attendees in the audience came from. This included a different reliance and knowledge of technology, a different balance between work and home, a different idea of what career advancement means, and different expectations for workplace recognition.

## CONSENSUSDOCS 300 MULTI PARTY COLLABORATIVE AGREEMENT: THE FINER DETAILS

Teresa Magnus, CEO, Vulcan Insulation  
Edward Parrott, Attorney, Watt Tieder Hoffer and Fitzgerald, Jim Frey, Senior Vice President, Alberici Constructors, Jeff Fuchs, President and Founding Partner, DELTA Consulting Group

In this presentation panel members discussed the key elements of ConsensusDOCS 300. Stemming from an industry that was frustrated with conventional contract documents, owners who wanted to save money, and a team of individuals who thought

they could do better, this multi-party collaborative agreement has, according to Edward Parrott, allowed, "Everyone to pull the rope in the same direction."

"Not only can this work, it will work," said Jim Frey. "Everyone is frustrated with how things used to be done. Adversarial relationships were the norm and that led to a broken system—delays, extra costs, lots of change orders, disputes and unmet expectations. With ConsensusDOCS all that can change. Planning and scheduling is improved, coordination and communication increases and the teams function as a unit. This increases trust and outcomes are something everyone can be proud of."

## STRATEGIES FOR A SUSTAINABLE FUTURE: THE JACOBS APPROACH

Craig Martin, President and CEO, Jacobs

As Craig Martin explained, Jacobs' approach for a sustainable future focuses on establishing long-term clients and selecting the right projects. This is governed by three approaches:

1. An eco-charette: These intense meetings include all the participants in a building design project. The meeting focuses on ideas for efficient use of energy and resources in the new building, and the group generates goals and then develops strategies for accomplishing those goals.
2. BIM: All of Jacobs' projects are done with the help of Building Information Modeling (BIM).
3. Results: Jacobs' approach is results-driven, always pushing for the highest possible productivity and the safest work sites.

According to Martin, this "Jacobs' approach" will ensure sustainability for the company's future.



"365 days a year without an accident?"

Yes, it is possible."

Marty Bruno, Skanska Environmental Health and Safety Director, New York City

Making every day free of accidents may be an ambitious target, but it's one Marty Bruno is committed to. "At Skanska, safety is a way of life, both at our jobsites and our offices," he says. "Protecting our people is our number-one priority; we want all our workers to go home safely at the end of each day." That's why Skanska implements an Injury-Free Environment (IFE) policy on projects before they even get underway. "Instilling safety measures into every phase of a project helps us identify potential challenges well in advance," Bruno explains. Our IFE philosophy increases safety awareness for all Skanska employees, ensuring that they work more safely than ever before. It's also a philosophy that many of our clients appreciate.

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## CREATING A CULTURE AND PROCESS FOR IDEAS TO EMERGE

Howard Putnam, Former CEO, Southwest Airlines

Howard Putnam is a man who is not afraid of change. In fact, this former CEO of Southwest and Braniff Airlines, and Group VP Marketing for United Airlines, welcomes change with open arms...when it's done right. Putnam captivated CURT attendees during the last session of the Conference by taking them on a journey through his life and career.

Howard Putnam was raised on an Iowa farm and learned to fly out of a pasture in his Father's J-3 Piper Cub. He entered the airline business as a baggage handler at



Midway Airport in Chicago for Capital Airlines at the age of 17. Capital was soon merged into United and Putnam held thirteen different positions in sales, services and staff assignments in several cities, before being named Group Vice President of Marketing for United Airlines, the world's largest airline, in 1976.

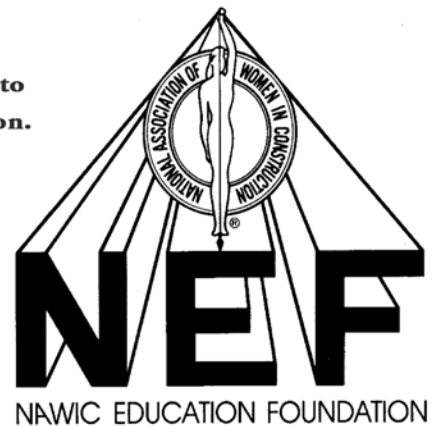
In 1978 he was recruited to become President and CEO of the fledgling Southwest Airlines in Dallas, TX. While at Southwest Putnam and his team tripled the revenues and tripled profitability in three years. They also successfully guided Southwest through airline deregulation and Southwest was the first air carrier to order the Boeing 737-300, which later became the largest selling aircraft ever for Boeing. ●

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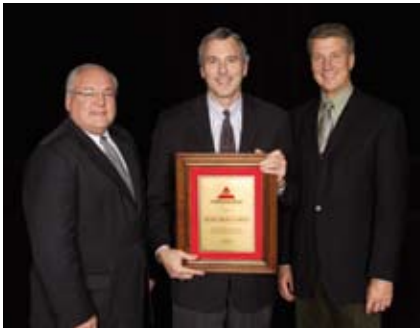
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# And the Award Goes to...

## SAFETY AWARDS

The Construction Industry Safety Excellence (CISE) Awards recognize those contractors, owners and LUCs that exemplify the value of safety in their everyday work practices. They were presented by Greg Sizemore, Executive Vice President of CURT, and Art Goehry, CURT Safety Committee Chairman and Director of Project Management for Johnson & Johnson.



Greg Sizemore; Jeff Patterson, Global Construction Director; and Art Goehry

**CLASS:** Owner Safety Award

**NAME:** The Dow Chemical Company

**ABOUT:** Dow's Drive to Zero philosophy for EH&S events was a key differentiator that led to Dow winning this award. "At Dow, the safety of our employees, contractors and communities is our top priority," said Don Taylor, Dow Functional Vice President for Manufacturing & Engineering (M&E). "As part of our 2015 Sustainability Goals and our Drive to Zero safety initiative, we are committed to working with all stakeholders, including contractor firms, to set new standards for safety. This includes ensuring our safety programs have the necessary involvement and support to be effective. We are very honored to have won this CISE Award."



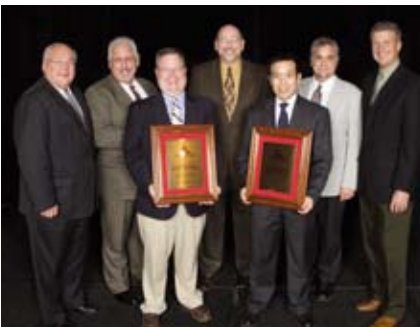
Greg Sizemore; Gary Baudouin, Project Executive; Tim Delaney, Project Safety Coordinator; and Art Goehry

**CLASS:** Owner Safety Award

**NAME:** ExxonMobil Chemical, Baton Rouge Polyolefins

**PROJECT:** Global Engineering Services INSB Project

**ABOUT:** ExxonMobil emphasizes the importance of strong safety leadership to their employee and contractor workforce to ensure a strong safety culture. With each member of their workforce, they focus on improved hazard recognition and a lower tolerance for risk. To contribute to industry-wide safety improvement, they also share best practices and lessons learned among ExxonMobil organizations and within the industry. In addition, they co-sponsor the Robert W. Campbell Award, which honors companies that achieve high levels of excellence by integrating safety, health, and environmental management into their overall business operating systems.



Greg Sizemore; Butch Standerfer, Associate Engineering Director; Don Hamme, Sr. Project Engineer; Greg Landis, Director - West Point Regional Engineering; David K Wong, Sr. Project Engineer; Art Limper, Global Manager, Construction Safety - GES Construction Safety; and Art Goehry

**CLASS:** Owner Safety Award

**NAME:** Merck & Co., Inc. Global Engineering Services & MSD Haarlem

**ABOUT:** This project is recognized for 31,000 hours in one year with an LWR of 0.0 and an average RIR of 0.0. To achieve this, the management team implemented a detailed "Job Safety Analysis" for working at heights greater than 70 feet. A unique feature of this program was an active safety approach that transitioned workers accustomed to residential construction into the industrial setting.

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*Greg Sizemore; Butch Standerfer, Associate Engineering Director; David K Wong, Sr. Project Engineer; Greg Landis, Director - West Point Regional Engineering; Don Hamme, Sr. Project Engineer; Art Limper, Global Manager, Construction Safety – GES Construction Safety; and Art Goehry*

**CLASS:** Owner Safety Award

**NAME:** Merck & Co., Inc. Global Engineering Services West Point

**ABOUT:** This 2 year project comprised of 130,000 construction hours, yet had an average LVR of 0.0 and a RIR of 0.0. In order to achieve this the team implemented a company-wide Safety Incident Reporting System that linked project safety results to a common database. They also distributed and made full use of cut resistant gloves throughout the project, and utilized a modified roof edge protection system for trench fall protection. In addition, every "near miss" incident was also investigated.



*Front Row: Greg Sizemore; Gina Litzler, P&G Construction Technology & Safety Leader; Joe Gionfriddo, P&G Corporate Engineering Global Construction & Welding Technologies Manager; Tim Fletcher, P&G St. Louis Project Construction Manager; Carlos Lange, Bis FruCon Operations Manager. Back Row: Dan Nordhill, P&G Global Business Unit Construction Manager; Andy Donnelly, Bis FruCon President of Construction; Rob Knobbe, Bis FruCon P&G St. Louis Plant Site Construction Manager; and Art Goehry*

**CLASS:** Owner Safety Award

**NAME:** The Procter & Gamble Company, St. Louis, MO

**ABOUT:** A number of factors contributed to this project's success (it was completed with a 0.0 LVR and 0.0 RIR). This includes the implementation of a "SafeStart" program that focuses on personal awareness and accountability of individual workers; a team that was infused with experienced safety management staff; an orientation process that was comprehensive and included the use of STA cards; and preplanning with key element assessments like CSPA Audits and peer reviews.



*Greg Sizemore; Tim Stout, Safety Director; Kirby Caddell, CEO; and Art Goehry*

**CLASS:** NAICS 236 – General Building Contractor

**CATEGORY:** >500K to 2MM man hours/year

**NAME:** Caddell Construction Co., Inc.

**ABOUT:** According to Caddell Construction Co., Inc's website, "No other aspect of Caddell's project management plan receives more emphasis than the health and safety of the men and women who work at Caddell project sites." The key to Caddell's safety success is the fact that safety procedures and processes are driven from top management throughout the entire organization. Safety efforts are supported through innovative practices, such as rewards and recognition, a budget that accommodates substantial prizes, and reward programs that are tailored toward specific project cultures.



*Greg Sizemore; Anthony O'Dea, Director, Corporate Safety; and Art Goehry*

**CLASS:** NAICS 236 – General Building Contractor

**CATEGORY:** >2MM man hours/year

**NAME:** Gilbane Building Company

**ABOUT:** With annual revenues in excess of \$3.5 billion and over 2,000 employees, safety is a focus on each and every project executed by Gilbane Building Company. In fact, the company's application achieved a perfect score in all CURT CISE statistical categories! Safety achievements include: the company's EMR over the past 3 years was the lowest of all applicants, averaging 0.36; their safety program is designed to eliminate risk for employees, owners, site personnel and visitors; and they use hand held PDAs to perform, document and quickly communicate safety inspections throughout their company.



*Patrick S. Jones, VP Support Services Supervisor of Corporate Safety Manager; Kevin Parker, Corporate Safety Manager; and Donald J. Silva, CEO/President*

**CLASS:** NAICS 237 – Heavy Construction Contractor

**CATEGORY:** >500K to 2MM man hours/year

**NAME:** Performance Mechanical, Inc. (PCI)

**ABOUT:** Performance Mechanical, Inc. is constantly developing, improving and fine tuning their proactive safety culture. This progressive behavior-based approach to safety has resulted in a tremendous positive impact on their employees and customers alike. Safety practices include a robust process around Job Hazard Analysis and pre-task planning; a Short Service Employee (SSE) Program that pairs new employees to seasoned mentors; and a Post Job Project that reviews lessons learned on all project aspects, including safety issues.



*Greg Sizemore; Bobby LeBlanc, Project Manager; and Art Goehry*

**CLASS:** NAICS 237 – Heavy Construction Contractor

**CATEGORY:** >2MM man hours/year

**NAME:** Shaw Constructors Inc.

**ABOUT:** Shaw Constructors Inc. is part of the Shaw Group, a 27,000 employee company based in Baton Rouge, LA. The company not only drives safety from their most senior management, but also participates in monthly reviews of all first aid, doctor's cases, and near miss and recordable incident investigations. Shaw Constructors Inc. also pre-qualifies all sub-contractors as well as provides safety mentoring opportunities with a "team partner" approach.



*Greg Sizemore; Dominic Caminiti, Director of Loss Control; and Art Goehry*

**CLASS:** NAICS 238 – Special Trade Contractors

**CATEGORY:** >500K to 2MM man hours/year

**NAME:** University Mechanical & Engineering Contractors (UMEC)

**ABOUT:** UMEC set out the goal of zero incidents...and met it! Their innovative use of wireless PDA's for the real-time documentation and sharing of weekly audit results for all projects and fabrication shops keeps them at the forefront of technology in driving continuous improvements in safety. UMEC is a subsidiary of EMCOR Group Inc. Frank T. MacInnis, Chairman and CEO of EMCOR Group, Inc., said of the award, "We are extremely gratified that two of our operating companies [UMEC and PCI] were selected from among the vast population of contractors within the U.S. and Canada to receive these prestigious CURT safety awards. It is a testament to EMCOR's on-going safety programs and continuing dedication to creating a culture of safety at all levels of the organization, from corporate management, operating company management, down to every one of our field employees."



*Greg Sizemore; Cliff Florczak, EHS Director, Shaw Environmental & Infrastructure; Mike Zustra, Senior Director, Environmental Health & Safety; and Art Goehry*

**CLASS:** NAICS 238 – Special Trade Contractors

**CATEGORY:** >2MM man hours/year

**NAME:** Shaw Environmental & Infrastructure (E&I)

**ABOUT:** Employing more than 5,000 Shaw Group Employees, E&I is best known for its expertise in hazardous water operations and emergency response type work, most recently including clean-up from hurricanes and other disasters. Their safety practices include a holistic approach to safety which showcases their dedication to maintaining a safety-focused and environmentally sound business. This proactive approach creates value for clients and safeguards their most important asset—their employees.

# WORKFORCE AWARDS

Developed to recognize both national and international examples of extraordinary and innovative training programs, winning a Construction Industry Workforce Award is truly a prestigious honor. The awards were presented by Greg Sizemore, Executive Vice President of CURT, and Gerry Sprentall, CURT Workforce Awards Chairman and Construction Manager for Intel Corporation.



*Greg Sizemore; Pamela R. Mullender, President/CEO; and Gerry Sprentall*

**PROGRAM:** ACE Mentor Program of America

**PROJECT PROFILE:** Will there be enough architects, construction managers and engineers to fill the industry's needs ten years from now? The ACE Mentor Program of America, Inc. is working hard to make sure there are. ACE is an acronym for architecture, construction, and engineering. ACE is made up of affiliates that serve youth within a certain city or region. Each affiliate has a board of directors, a local coordinator, and a number of teams.

- ACE runs for the duration of the school year. The teams meet for approximately 15 sessions, for about 2 hours after school. In addition to these team sessions, there are also all-team activities such as "College Night" and field trips to construction sites.
- At the end of the year, all of the teams, in each location, gather for a final presentation night. Here they present their designs to other teams, their families, teachers, prospective mentors and the affiliate administrators so all can share in the students' accomplishments.



*Greg Sizemore; Richard Cattanch, Construction Education Foundation, CEO; and Gerry Sprentall*

**PROGRAM:** Alaska Construction Academy

**PROJECT PROFILE:** Through Alaska Construction Academy's efforts, Alaskan students and adults are recruited, trained and placed into jobs in the construction industry. Alaska Construction Academies:

- Promote understanding among Alaskans about career opportunities in construction related occupations;
- Build a strong, flexible workforce able to enter the workforce or continue with post-secondary education training and apprenticeships; and
- Enable employers to hire workers with training to increase productivity and improve the quality and safety of the workforce.



*Greg Sizemore; Don McCollister, President, Construction Division – Turner Industries Group; Lori Brannon, Workforce Development Manager – Turner Industries Group; Jim Mouch, Vice President Business Development – Turner Industries Group; and Gerry Sprentall*

**PROGRAM:** Turner Industries Group – Turner Industries Training Academy

**PROJECT PROFILE:** The Turner Industries Training Academy is a compilation of the products and services offered by various ABC Chapters, the Louisiana Community and Technical College System, the K-12 public education system, and community-based organizations. Turner Industries invests in community-level events to bolster the awareness of parents, teachers and administrators to attract youth and improve the image of the construction industry as a viable career. Turner Industries has graduated over 600 individuals from ABC classes. This well-trained workforce helps them to more efficiently meet the need of its clients.

# Break-out Sessions, Revisited

## Other presentations included:

### The Emerging Craft Worker . . .

**Recruiting and Developing: Three Perspectives** by Dan Nordhill, GBU Construction Manager, The Procter & Gamble Company; Timothy Mongeau, Corporate Training Manager, BE&K Construction Co.; and Ken MacDougall, Business Agent, IBEW Local 380

**Safety Problem Projects: How to Turn Them Around** by Guy Silvey, Western U.S. Safety Director, Turner Construction Company; Art Goehry, Director of Project Management, Johnson & Johnson; and Bob Krzywicki, North American Ops Leader, DuPont Safety Resources

**AIA Contract Documents and ConsensusDOCS . . . Helping You Decide Which is Best for Your Company** by Betty Hum, Director TMG Operations & Business Processes, Intel Corporation; and Eric Hedlund, Sr. Vice President, Sundt Construction

**A Creative Approach to Workforce Development: 2008 Workforce Award Winners** by Lori Brannon, Workforce Development Manager, Turner Industries; Richard Cattanach, Executive Director, Alaska Construction Academy; and Pam Mullender, President, ACE Mentor Program of America

**The Owners' Roadmap to Successful BIM Implementation** by Chuck Hardy, Deputy Director, GSA-PBS Great Lakes Region; Mike O'Neal, Director of Worldwide Engineering, Johnson & Johnson; Markku Allison, Resource Architect, American Institute of Architects; Mike Kenig, Vice Chairman, Holder Construction Company; and David Morris, Director of Virtual Construction, EMCOR Construction Services

Every year the CURT National Conference Committee strives to put together a line-up of break-out sessions that educate, inform and update attendees on the industry's major issues, technologies and opportunities. The 2008 Conference was no exception!

Check out the overviews below and watch your mailbox for a handy CD that was sent to all the Conference attendees. It contains all the PowerPoint presentations from the Conference.

**High Flying Safety: Training and Certification** by **Jan Tuchman, Editor-in-Chief for Engineering News-Record; Howard Meek, Construction Safety Specialist for Rohm and Haas Company; and Jeffrey Shoaf, Senior Executive Director, Government and Public Affairs, Associated General Contractors of America**

In 2008 crane safety was brought to the forefront when a number of accidents happened across the country, killing numerous workers and injuring countless workers and bystanders. In response, 21 associations got together for a Crane Safety Summit in September 2008. Meek, who represented the CURT Safety Committee at the summit, explained that owners rely on contractors to bring crane safety expertise to the job site. He advised that until there is guiding legislation:

- Before you let someone do a lift on your project, it is imperative that you find out what training/certification that person/company has.
- You must decide who will write lift plans (owners or contractors), and who will approve the plan.
- There needs to be communication between the lift crew, owners and contractors.

**LEAN and Green Legally: Avoiding the Pitfalls LEAN Construction and Green Building** by **Rosemary Carson, Associate, Crowell & Moring, LLP; and Bernadette Stafford, Associate, Crowell & Moring, LLP**

Everyone wants green buildings, right? But, what exactly does "green" mean? In this presentation Carson and Stafford counseled that before a green project is started, owners and contractors need to define in the contract what expectations are, desired LEED certifications need to be written out, and everyone's idea of what sustainability means, needs to be outlined from the start.

**CWDC: A Sustainable Approach to Workforce Development** by **Ashley Baker, Vice President, Southern Company; Daniel Groves, Workforce Consultant, CURT; and Bob Collins, Construction Sector Council**

In this presentation the responsibilities and benefits of a Construction Workforce Development Centre (CWDC) were outlined. Responsibilities include:

- Building a network for reliable labor supply/demand forecasting;
- Executing an effective marketing/recruiting strategy;
- Partnering with effective organizations and employ their training and outreach programs;
- Educating/enabling candidates to choose a career path; and
- Launching the program regionally, then nationally.

The benefits to owners of the CWDC include a reliable tracking system for less cost, regional supply/demand information, easy access to input data on a regular basis, and a secure interface with data confidentiality.

### What You Ought to Know About New Legal Developments Before Your Next Project by Bill Geisen, Partner, Graydon Head & Ritchey LLP

In this presentation Geisen outlined four recent legal developments that owners need to be aware of before starting new projects. These are 1) new crane regulations, 2) standard form contracts' adoption of BIM, 3) dispute resolution trends; and 4) legal protections in a volatile economy.

In regards to the volatile economy, Geisen said that in a year where construction is forecast to be down 9 percent (following declines in 2007 and 2008), due diligence on projects has increased, planning for projects has to be more detailed, and reviewing contract documents is more important.

### Extreme Makeover: Attracting the Best New Talent by Carolyn Verst, Project Engineer, DuPont; Brian Dwyer, Associate Project Manager, Bovis Lend Lease; Brent Helms, Project Engineer, Southern Company; and Bryan Beischel, Engineer, Turner Construction Company

Are you "LinkedIn", a regular "Facebook" surfer or a "MySpace" addict? If you (and your company) aren't up to speed on these latest trends, you may be missing out on effective and relatively easy ways to attract the next generation of employees. In this presentation speakers explained how new talent wants more out of an employer than just a paycheck—they want an employer with integrity, social responsibility, and the ability to provide work/life balance—and they also showcased why these new workers are vital to a company's success, and how to find, interview and hire them!

### Sustainability: The Owners' Role from the Architects Perspective by Markku Allison, Resource Architect, American Institute of Architects; and Pam Tuschner, Managing Partner, WWCOT, Mills Architects

In this session Allison and Tuschner made a "case for change" by explaining that 40

percent of energy consumption in the United States is consumed by buildings; not vehicles as most citizens assume. As owners start to see the benefit of sustainable buildings though, it will be difficult for them to not consider implementing sustainable strategies. The presentation showcased the new Adobe Systems building in San Jose, CA. Here are the details:

#### Smart Irrigation System

First cost: \$3,600

Annual savings: \$10,000 per year

#### Retrofitting parking garages with fluorescent lighting

First cost: \$157,000

Annual savings: \$100,000 per year

#### Monitoring system on chillers

First cost: \$1,500 reprogramming fee

Annual savings: \$43,000 per year

#### Overall Retrofit:

First Cost: \$12,000,000

Rebates received: \$350,000

Annual Savings: \$1,000,000/year

(reduced energy and water) ●



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# "FORE" get Your Troubles... It's Time to Golf!

The Conference's Monday morning golf tournament got attendees into the swing of things





Congratulations to these expert golfers, winners of the tournament! From left to right: Mark Luegering, Nick Rosian and Kurt Bouley, all from Messer Construction Company; and Kim Combs, Jr., Fluor Power Services.

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The Pete Dye Resort Course is one of the area's loveliest, but toughest courses. The rolling fairways, water hazards, and four sets of tees provide a challenge for golfers of all skill levels.

Diabolically Dye, the course is distinguished by hidden pin placements, carries over water, pot bunkers, elevated tees, and railroad ties. This 6,706-yard, par 70, award-winning championship course is just steps away from the resort, and as such shares the same majestic mountain views. ●



Photos courtesy of The Westin Mission Hills Resort & Spa.

# Exhibit Hall Re-cap

The CURT National Conference featured some of the biggest industry associations and suppliers, all showcasing their organizations, products and technologies. They were:

Associated Builders and Contractors  
 AGC of America  
 American Institute of Steel Construction  
 American Society of Professional Estimators  
 AT&T  
 Bigge Crane & Rigging Company  
 Brandenburg Industrial Service Company  
 CareerSmith, Inc.  
 ClickSafety  
 CMiC  
 Crowell & Moring LLP  
 DBO2 Inc.  
 e-Builder, Inc.  
 FTI Consulting Inc  
 Hill International, Inc.  
 Houston Area Safety Council  
 Hydra-Stop  
 Industrial Info Resources  
 International Masonry Institute/  
 International Union of Bricklayers  
 JH Kelly  
 Latista Technologies  
 Lauren Engineers & Constructors  
 Mammoet USA  
 Marvel Union Office Furniture

MOST  
 MWG Apparel Corp.  
 Navigant Consulting  
 National Association of Women In Construction  
 National Commission for the Certification of Crane Operators  
 NCCER  
 NECA-IBEW NIMCC  
 Nooter Construction Company  
 NorthStar Consulting

Painter & Allied Trades LMCI  
 Primavera Systems  
 Process Industry Practices (PIP)  
 Safety Council of LCA  
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*"Crowell & Moring has participated in the Construction Users Roundtable National Conference since 2002. This organization provides us with the opportunity to spend substantive one-on-one time with the decision makers from major companies. The opportunity to present quality material to this group of people coupled with the interaction made possible through the many well-run networking events, results in genuine relationships that create significant business development opportunities."*

Randall L. Erickson,  
 Crowell & Moring LLP, Orange County  
 Office Administrative Partner and  
 Construction Practice Group Co-Chair

# ConsensusDocs 300:

## A Collaborative Approach to Project Design and Construction

By **Teresa L. Magnus, CEO, Vulcan Insulation Co., LLC; Edward J. (“Ned”) Parrott, Watt, Tieder, Hoffar & Fitzgerald, L.L.P.; and Vivian Katsantonis, Watt, Tieder, Hoffar & Fitzgerald, L.L.P.**

The release in 2007 of the ConsensusDocs represents a striking change in the landscape of standard form construction agreements. ConsensusDocs is a set of more than 70 standard contract forms, created by a wide group of construction industry associations, which can be used to address the spectrum of contracts required for the completion of a construction project. One such agreement is ConsensusDocs 300, *Standard Form of Tri-Party Agreement for Collaborative Project Delivery*, which is a collaborative agreement negotiated and signed by the owner, contractor and designer before the project gets underway. The purpose of this agreement is to have all key parties work together toward a shared goal using a collaborative decision-making process and giving each party a financial stake in the project’s success. It is believed that the collaborative agreement can create dramatic new efficiencies in project delivery.

Implementation of the Tri-Party Agreement should provide significant benefits to the owner, contractor and designer. Initially, when the design is sufficiently complete, the owner, designer and contractor collaboratively agree on a Project Target Cost estimate. The Project Target Cost represents the total cost to the owner for the design and construction of the project, including all design costs, the contractor’s cost of the work, all contingencies, general conditions and the contractor’s fee. In addition to establishing the owner’s total costs up front, the Tri-Party Agreement also includes a provision for allocating amongst the parties any savings realized on the

project, and, if desired, any costs in excess of the Project Target Cost. Implementation of the Project Target Cost early in the project, in conjunction with savings/loss allocations, allows an owner to accurately set its cost expectations while also providing the designer and contractor incentives to avoid additional expenses, thereby lowering the owner’s risk of the cost of the project ballooning out of control. With all parties sharing equally in project savings, project wide cooperation has been shown to increase significantly.

The collaborative structure established during the project planning phase continues through the design and construction phases through the creation of a “Management Group.” By executing the Tri-Party Agreement, the owner, designer and contractor agree to create a core team to come to a consensus on all decisions which arise on the project; although, if the group fails to come to a consensus, the owner retains the right to make a final determination. This collaborative decision-making process, in conjunction with the incentive clauses addressed above, will reduce the number of disputes which typically arise on a project, alleviating the adversarial relationships which often form during a project.

Another important issue for all parties in executing a construction contract is risk allocation. The Tri-Party Agreement allows the parties to choose between a traditional approach or a non-traditional approach to risk allocation. Under the “traditional” Tri-Party approach, the parties remain liable for their

own negligence, breaches of contract and breaches of their warranty obligations. This approach also includes an option to establish a specific dollar figure for limitation of liability for the designer and contractor. The “non-traditional” Tri-Party approach is essentially a “safe harbor” provision in which the parties agree to release each other from liability or damages resulting from the collaborative decisions made by the Management Group.

As stated, the Tri-Party Agreement aligns parties’ interests and thereby limits as much as possible disputes between the parties. If a dispute occurs, and in line with the collaborative nature of the Tri-Party Agreement, prior to resorting to mediation, arbitration or litigation, the parties are required to take part in good-faith discussions and, if those fail, to submit the dispute to the Management Group. If the dispute remains unresolved, it is subject to a mitigation procedure, specifically a Project Neutral or Dispute Review Board, if one of those options is selected in the Agreement, and to non-binding mediation if neither mitigation procedure is selected. Only after attempting to resolve the dispute through these non-binding steps may the parties utilize binding arbitration or litigation.

The ConsensusDocs standard form agreements, such as the Tri-Party Agreement, bring together the traditionally fragmented groups involved in a construction project: the owner, the designer and the contractor. Through this collaborative framework the ConsensusDocs can provide owners with the legal protection they require while also paving a smooth road for project completion. ●

# AIA Contract Documents: The Best Option

By Timothy Twomey, AIA, Esq.

For 120 years, AIA Contract Documents have defined the relationship and terms involved in design and construction projects. During this time, AIA Contract Documents have been the primary national source of standard form documents, both reflecting and defining standard industry practices. Many of the concepts, indeed even some of the language, contained in other standard forms, government contracts and custom-drafted documents, can be traced back to AIA standard form documents.

The AIA develops its agreements and contracts with input from owners, contractors, architects and engineers, so that the interests of all parties involved in construction projects are represented. Because of their history and expertise, AIA Contract Documents provide users with the most comprehensive program, including documents and forms that reflect current industry practices and which fairly balance interests.

According to the results of the AIA's 2008 Market Surveys Report, which gauges the industry's opinions and ongoing experience with AIA Contract Documents, one of the top perceived benefits of AIA Contract Documents is that they are widely-accepted in the construction industry. Of the entire sample of lawyers, contractors, owners, architects and developers, 89 percent agreed that AIA Contract Documents are widely-accepted in the construction industry. This is a benefit that is bolstered by findings that the respondents' choice is to use standard documents that are accepted across the industry.

Other top benefits are that using AIA Contract Documents saves time, and that the documents are fair and balanced for all parties. Two-thirds of respondents, including 82 percent of commercial contractors, agreed that the documents are written to be fair and balanced for all parties, and nearly 8 in 10 construction law attorneys use the documents to save time. Because AIA

Contract Documents software is based on the widely-accepted Microsoft® Word platform, users can easily create, edit, share, track changes and manage documents.

**As the design and construction industry changes, AIA Contract Documents will continue to be most stakeholders' first choice for standard contract documents because they are the most widely accepted across the industry, have been written to be fair and balanced and provide an ease-of-use that is unparalleled by other standard form documents.**

AIA Contract Documents also define an equitable allocation of risk and responsibility. They are therefore subject to uniform legal interpretations and conform to common and statutory law adopted in the majority of jurisdictions so as to be predictably enforceable. Additionally, AIA Contract Documents clearly define duties and responsibilities of the parties, using language that is unambiguous and can be comprehended by users and interpreters (courts and lawyers).

Furthermore, the AIA understands that the design and construction industry is evolving, and it continues to light the way by creating documents and resources that are necessary to lead the industry in new practices and project delivery approaches. Recent examples include the industry's leading Integrated Project Delivery: A Guide, a 2007 publication written in conjunction with AIA's California Council, that provides

information and guidance on the principles and techniques of Integrated Project Delivery (IPD). In 2007, AIA Contract Documents also released a new Digital Data Protocol Exhibit (E201-2007) to assist parties in structuring and organizing their electronic document sharing processes. Additionally, AIA released two new families of IPD agreement documents in May 2008 to structure the implementation of IPD principles.

Most recently, in October 2008, AIA released a new Building Information Modeling Protocol Exhibit (E202-2008). The E202-2008 was written by industry practitioners as a practical tool for managing the use of BIM across the entire project, facilitating the establishment of protocols, expected levels of development and authorized uses of BIM models. For the first time in the industry, this new AIA tool effectively allows users to work in partnership and assign responsibilities to successfully manage a BIM model.

As the design and construction industry changes, AIA Contract Documents will continue to be most stakeholders' first choice for standard contract documents.

Perhaps Jim Bedrick, Vice President of Virtual Building and Design at Webcor Builders in San Mateo, California, says it best: "Regardless of what others say about AIA Contract Documents, there's one thing that can't be disputed, they are time tested and have kept up with changes occurring within the building industry which brings a level of confidence to any construction project. Even those who use in-house contracts and agreements often use AIA Contract Documents as a basis to work from." ●

*Timothy Twomey, AIA, Esq. is the Immediate Past Chair of the AIA Documents Committee, and is Principal and General Counsel at Shepley Bulfinch Richardson and Abbott, Inc.*

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