

Construction Industry Institute **2009** Annual Report



**Leadership for the Next Generation**

## CII Members Lead the Next Generation

In 2009, CII turned its attention to the industry's current and future workforce needs—to how CII members are preparing for construction's next generation. For many years, CII research has explored ways the industry can and must adapt to global currents, particularly to recent and expected shifts in workforce demographics. With a range of focus extending from project professionals to executive leaders, CII's research-based professional development initiatives help CII member organizations create the best programs for finding, training, and retaining the right people. These initiatives equip today's and tomorrow's CII members with the knowledge and tools they need to face workforce challenges.



photo courtesy of Chevron

In a Chevron *Horizons* Program class, young employees prepare to deliver a presentation on facilities engineering processes and equipment.

Professional development is fundamental to CII's efforts at disseminating the knowledge it creates. CII workshops and publications provide member organizations with the most up-to-date research on creating cohesive, technologically advanced, performance-oriented project teams.

At the 2009 CII Annual Conference: Leadership for the Next Generation, keynote speaker, Mike Illane of Chevron, spoke about

people development as a priority at his company. In his speech, he described the Chevron *Horizons* program, a professional development program focused on the first five years of an employee's career. *Horizons* classes develop employee competency through technical training, assignments, and mentoring. A competency-based program, *Horizons* targets the necessary skills for professional growth.

**Cover image:** Employees for CII member, CH2M HILL, work on the Colorado Springs Metro Interstate Expansion (COSMIX) project.

CII member organizations know that to have a strong and reliable industry workforce, they must develop integrated plans that include recruitment strategies, professional development opportunities, and attention to corporate culture.

CH2M HILL, a global engineering, construction, and operations firm, proactively recruits from multicultural engineering programs at 12 universities. Offering a variety of internships and new-graduate

opportunities, CH2M HILL partners with these institutions to seek students who are the best fit for the firm. These strategic relationships involve actively supporting student chapters of the professional diversity associations that CH2M HILL leverages for professional hiring. The company also strives to offer employees challenging projects, professional development opportunities, and the ability to maintain a work/life balance.

cover photo courtesy of CH2M HILL

# CONSTRUCTION INDUSTRY INSTITUTE

## OVERVIEW

The Construction Industry Institute, based at The University of Texas at Austin, is a consortium of more than 100 leading owner, contractor, and supplier organizations from both the public and private arenas. These organizations have joined together to enhance the business effectiveness and sustainability of the capital facility life cycle through CII research, educational initiatives, and industry alliances. A research organization creating a wealth of expert knowledge and practical information, CII provides vital leadership to the engineering and construction industry.

## PURPOSE

The purpose of CII is to measurably improve the delivery of capital facilities.

## VISION

CII is a leader in the construction industry, creating and implementing research-based knowledge that measurably improves the effectiveness and sustainability of capital facilities delivery. The increased business success CII member organizations experience prompts participating industry leaders to make breakthroughs in the life cycle value of capital facilities.

## MISSION

CII creates global, competitive, and market advantages for its members through its research-based, member-driven creation of knowledge and CII Best Practices. The institute's ability to disseminate this knowledge and assess its implementation gives members a decisive industry edge. Employees of CII member organizations cooperatively engage with leading academics to generate CII knowledge; this unprecedented partnering of industry and academia creates the perfect forum for investigating the most significant opportunities for industry improvement. Participating industry employees and academics all benefit from the professional development and career advancement this collaborative effort provides.

## ACCOMPLISHMENTS

Today, the Construction Industry Institute can proudly look back on 26 years of accomplishment. The institute's most significant achievements include the following:

Conducting 274 research studies providing significant value to the industry.

Documenting 14 Best Practices that have become the norm for the industry's procurement of capital facilities.

Dramatically improving the overall safety performance of the construction industry through research on and promotion of a zero-accidents approach.

Operating a benchmarking program that allows member organizations to measure their performance against the highest industry standards. The CII database is composed of 1,931 projects totaling more than \$110 billion.

Producing a significant body of educational materials used to teach undergraduate and graduate courses at universities throughout North America and around the world; these materials are also used in continuing education programs around the country, both in a traditional classroom context and online.

Supporting numerous graduate students in achieving master's and doctoral degrees by underwriting applied research.

Expanding membership from the original 28 charter members in 1983 to over 100 owner, contractor, and supplier member organizations today.

CII is recognized the world over as a positive industry force, dedicated to improving the business effectiveness and sustainability of capital facilities delivery. As the organization has grown, so have its processes and procedures. While its results and products are available to all, CII focuses on its members; this member focus is especially important in the fragmented and highly competitive engineering and construction industry.

## CHAIRMAN'S REMARKS

Looking back at the challenges that CII and the industry faced in 2009, I am encouraged by how strongly we weathered the storm, and by how well prepared we are for whatever 2010 will bring. Despite the unprecedented uncertainty created by the financial crisis, our focus on providing leadership for the next generation and on delivering value to our members allowed us to achieve several noteworthy accomplishments. And as we emerge from the difficult times, I am pleased to see that our membership remains steady and that the annual conference continues to draw top leaders from industry and academia.



As a direct result of the efforts of the outstanding industry professionals and academics that comprise CII, we had several key accomplishments last year:

We implemented a new strategic plan that, through performance indicators and metrics, targets key result areas and strategic objectives to track committee performance and member value.

Seven research projects are closing out, eleven are still in progress, and we opened the gate on four new ones.

We joined a collaborative effort with the National Academy of Construction on several industry initiatives.

We entered into another collaboration with the University of Houston on its process and industrial construction degree.

In order to expand and improve the relationship between industry and academia, we recruited new members onto the Academic Committee, and started two new studies. These studies address 1) what the industry will need in a construction industry graduate in the future, and 2) the applicability of CII products in the college classroom.

We are also leveraging the success of the CII Best Practices Course—an innovative class that is taught by leaders from CII member organizations—to build up our future industry leaders. At last count, 12 universities are participating in the webcast course, with nearly 200 students enrolled. This adds to the number of universities that already include CII Best Practices in their course curriculums.

Looking back on 2009, I can only say how proud I am to be a member of this remarkable organization. Having been CII Chairman for the past year has given me wide and deep perspective on how much the CII mission means to the industry. We solve problems, we develop leaders, and we cooperate to make a better, longer lasting, and sustainable contribution to the world. It is crucial that every individual do his or her part to make our work together possible. So as I sign off as 2009 Chair, I urge you to participate, communicate your needs, and be a leader in CII.

Thank you.

John W. Dalton, Sr.  
Mustang  
CII Chairman, 2009

## DIRECTOR'S REMARKS

As I write this note to the CII membership, the global engineering and construction industry continues its decline: recent reports count 1.9 million U.S. construction jobs lost since December 2008, and put the U.S. construction unemployment rate at 24.7%. We haven't seen such daunting industry statistics since before CII's founding, yet we continue steadily toward our purpose of measurably improving capital project delivery.



Seven research projects reported out at the 2009 Annual Conference, with topics ranging from refreshments of two CII Best Practices—Quality Management and Materials Management—to one on improving capital delivery through information integration and another on craft productivity (the first report-out from CII's innovative six-year productivity research program). CII also initiated five new research teams in 2009. Three standard research projects were kicked off in the fall: *Enhanced Work Packaging—Design through Workface Execution*; *Innovative Project Delivery Processes*; and *Applicability of CII Best Practices by Industry Sector and Project Type*. Also, the CII Academic Committee initiated two special research projects: *Tomorrow's Construction Industry Graduate* and *CII Products and Academic Applicability*. These special studies will further our mission of creating vital industry knowledge and enable us to better understand and ultimately improve the important link between academia and industry.

CII's knowledge dissemination efforts were also strong in 2009. Highlights include successful Performance Improvement Workshops in the spring and fall, and the interesting case studies at the annual conference presented by Saudi Aramco on pitfall prevention and by the U.S. Department of Energy on the CII Project Health Indicator. The conference report-outs of the Implementation Strategy Committee and the Professional Development Committee were among the highest rated programs at the event. Most exciting of all our dissemination efforts was our expansion of the graduate-level CII Best Practices course. Taught by executives from CII member organizations, the course gave 186 graduate students from 12 universities important real-world insight into CII practices and Best Practices. I believe this partnership with the academic community will be key to developing the young leaders who will sustain our industry in the future. We are already working to expand the course to reach over 300 future construction industry leaders at 20 universities in the fall of 2010.

Our research on creating new performance metrics for engineering, procurement, and construction contractors in the offshore oil and gas industries moved forward in 2009 as we opened our first Performance Assessment Laboratory (PAL) at the Universidade Federal Fluminense in Brazil. From this collaboration and other work with the pharmaceutical/biotechnology benchmarking team, CII envisions more PALs at other select universities worldwide. Gathering data on performance—a complex and well developed research methodology—is critical to CII's mission to measurably improve capital facility delivery. Launching the Brazil facility is a big step toward realizing our global benchmarking vision.

In 2009, CII also completed two years of collecting data on CII Best Practices implementation, and the results of this research were recently compiled to make the CII Value of Best Practices Study. The study makes it clear that effective best practice implementation improves project outcomes. This is not surprising, but the study further strongly links organizational culture, the responsibility of top leadership, and effective practice implementation. It finds an undeniable relationship between the organization's active upper-level support of implementation and best-in-class capital project performance.

I know you will enjoy reading about CII's 2009 accomplishments in this annual report. You should also feel proud. Each of you has contributed greatly, and CII is indebted to you. It is only through your efforts that CII can continue its mission to improve this great industry.

Thanks to you, CII is leading the way.

Wayne A. Crew  
Director

## CII MEMBER ORGANIZATIONS

### Owners

Abbott	Progress Energy	CDI Engineering Solutions
The AES Corporation	Rohm and Haas Company	CH2M HILL
Air Products and Chemicals	SABIC - Saudi Basic Industries Corporation	CSA Group
Air Liquide	Sasol Technology	dck worldwide
Alcoa	Shell Global Solutions US	Day & Zimmermann International
Ameren Corporation	Smithsonian Institution	Dresser-Rand Company
American Transmission Company	Solutia	Emerson Process Management
Amgen	Southern Company	Entech Solar
Anheuser-Busch InBev	Sunoco	Fluor Corporation
Aramco Services Company	Tennessee Valley Authority	Foster Wheeler USA Corporation
Archer Daniels Midland Company	Tyson Foods	GS Engineering & Construction Corporation
BP America	U.S. Architect of the Capitol	Grinaker-LTA
Barrick Gold Corporation	U.S. Army Corps of Engineers	Gross Mechanical Contractors
Bristol-Meyers Squibb Company	U.S. Department of Commerce/ NIST/Building and Fire Research Laboratory	Hargrove and Associates
CITGO Petroleum Corporation	U.S. Department of Energy	Hatch
Cargill	U.S. Department of Health & Human Services	Hill International
Chevron	U.S. Department of State	Hilti Corporation
Codelco-Chile	U.S. General Services Administration	JMJ Associates
ConocoPhillips	U.S. Steel	Jacobs
Constellation Energy	Vale	KBR
DFW International Airport		Kiewit Power
The Dow Chemical Company		The Lauren Corporation
DuPont		McDermott International
Eastman Chemical Company		M. A. Mortenson Company
ExxonMobil Corporation		Mustang
General Motors Corporation	<b>Contractors</b>	R. J. Mycka
GlaxoSmithKline	AMEC	Oracle USA
Hovensa	AZCO	Parsons
Intel Corporation	Adolfson & Peterson Construction	Pathfinder
International Paper	Aker Solutions	Pegasus Global Holdings
Kaiser Permanente	Alstom Power	S&B Engineers and Constructors
Kraft Foods	Atkins Faithful & Gould	SNC-Lavalin
Eli Lilly and Company	Autodesk	The Shaw Group
Marathon Oil Corporation	BIS Frucon Industrial Services	Siemens Energy
NOVA Chemicals Corporation	Baker Concrete Construction	Technip
National Aeronautics & Space Administration	Barton Malow Company	URS Corporation
Naval Facilities Engineering Command	Bateman Engineering	Victaulic Company
Occidental Petroleum Corporation	Bechtel Group	Walbridge
Ontario Power Generation	Bentley Systems	The Weitz Company
Petroleo Brasileiro S/A - Petrobras	Black & Veatch	WorleyParsons
Praxair	Bowen Engineering Corporation	Yates Construction
The Procter & Gamble Company	Burns & McDonnell	Zachry
	CB&I	Zurich
	CCC Group	

## CII: THE KNOWLEDGE LEADER FOR PROJECT SUCCESS

Having begun in 1983 with only 28 charter members who shared the CII vision, the institute is now recognized in the engineering and construction industry as the knowledge leader for project success. CII has four core knowledge processes: creation, dissemination, assessment, and management.

**Knowledge Creation** – CII research teams—groups that include academic investigators and employees of both owner and contractor organizations—generate best practices and breakthroughs for the construction industry. CII Benchmarking & Metrics processes create additional knowledge, producing ongoing applied research that establishes industry norms for construction performance.

**Knowledge Dissemination** – Knowledge created by CII is disseminated to institute members and to other organizations and individuals in the engineering and construction industry. CII distributes this knowledge through research publications, implementation guides, educational materials, workshops, and conferences.

**Knowledge Assessment** – CII Benchmarking & Metrics collects, analyzes, and assesses the impact of CII knowledge as it is initially implemented and integrated into member organizations' work processes. Once proven through member benchmarking, the industry at large incorporates this knowledge into its capital project work processes.

**Knowledge Management** – Since 1983, CII has produced over 475 research documents and hundreds of other presentations and publications. Knowledge management adds value to CII by organizing and facilitating access to CII's extensive body of knowledge. Establishing CII Communities of Practice—virtual interest groups that share and develop knowledge—is another way that knowledge management advances the CII mission.

Through these knowledge processes, CII advances industry knowledge and fulfills its mission of enhancing the business effectiveness, sustainability, and global competitiveness of CII members.



## KNOWLEDGE CREATION

### Research

As the mainstay of the institute, research at CII follows a process guided by the CII Research Committee. Composed of sixteen senior industry representatives and three leading academic researchers, the committee meets a minimum of four times a year. At one of these meetings, the committee implements a topic generation process through which it identifies key engineering and construction issues confronting the capital facilities delivery industry. Once the new topics have been generated, the committee solicits input from the CII Board of Advisors to help prioritize them and to determine the allocation of CII resources to the universities chosen to do the research.

Through a rigorous RFP process, the committee obtains proposals for research on the yearly topics from the most qualified academic researchers in North America. Upon selection of these investigators, the committee sponsors a 15- to 20-member industry-led research team, staffed by CII member organization employees, to work with the academics toward finding practical solutions for the industry. The committee annually initiates approximately five to six new research teams to address topics from three categories of research: best practice/core improvement; current and emerging trends; and strategic and future topics. These teams typically work for two years to conduct their research, prepare publications that document their findings, and report out at the CII Annual Conference.

### Research Teams

The following seven research teams reported their findings at the 2009 CII conference:

Craft Productivity Research Program (University of Waterloo, University of Kentucky, and The University of Texas at Austin)

Enhancing & Expanding Innovation in the Engineering & Construction Industry (University of Colorado at Boulder)

Estimating as a Competency in Capital Projects (Oklahoma State University and University of Kansas)

Quality Management Best Practices Update (University of Arkansas and University of Florida)

Adaptation of Shipbuilding Production Systems to Construction (San Diego State University and University of Washington)

Global Procurement & Materials Management Best Practices Update (The University of Texas at Austin and Baylor University)

Information Integration to Improve Capital Project Performance (The University of Texas at Austin)

After the conference, CII shifted its focus to the active research teams scheduled to report out at the 2010 annual conference. These teams will address the following topics:

Reimbursable Contracts (The University of Texas at Austin and The Pennsylvania State University)

Optimizing Jobsite Organization (The University of Texas at Austin)

Globalization (Columbia University and The Pennsylvania State University)

Product Integrity Concerns in Low-Cost Sourcing Countries (University of Florida and Tsinghua University (China))

Industrial Engineering/Manufacturing Techniques for Enhancing Construction Project Performance (Clemson University)

A Standardized Approach to Identifying and Defining Owner Value Interests and Aligning the E&C Response (Texas A&M University)

Project Definition Rating Index (PDRI) Tool for Infrastructure Projects (The University of Alabama)

Real-Time Proactive Work Zone Safety in Construction (University of Florida and Georgia Institute of Technology)

Craft Productivity Research Program – Phases I-V (six-year program) (University of Waterloo, University of Kentucky, and The University of Texas at Austin)

Project Site Leadership Role in Improving Project Safety (Virginia Polytechnic Institute and State University and University of Kentucky).

Beyond its focus on these active teams in 2009, CII also kicked off three new research teams:

*Applicability of CII Best Practices by Industry Sector and Project Type* (Texas A&M University)

*Innovative Project Delivery Processes – Is There a Better Way?* (University of California at Berkeley and University of Washington)

*Enhanced Work Packaging: Design through Work Face Execution* (The University of Texas at Austin).

While research topic development, research team resourcing, and research team start-up are the major activities of the Research Committee, during 2009, the committee also established an ad hoc subcommittee to reexamine the CII research process with particular emphasis on continuous improvement. This quality team will scrutinize the entire CII research process—one that has evolved over the years—and make recommendations concerning research team expectations, requirements, resource issues, and constraints. While the view remains that CII research is unique and delivers applied research findings that are instrumental to improving the industry, the committee continues to seek improvement to enhance member value and to contribute to the advancement of industry knowledge.

### **Breakthrough**

In 2009, the CII Breakthrough Strategy Committee (BTSC)—a group charged with keeping CII abreast of innovations and advances in the industry—authored the following four white papers:

*Delivering 3D Information to the Craft Worker*

*Serious Gaming in Construction*

*Effortless Automated Progress Tracking*

*Weld-less and Quick Connecting Systems*

The BTSC presented these white papers at the fall 2009 meeting of the CII Research Committee for consideration on the 2010 CII research slate. Earlier in the year, the Research Committee proposed a BTSC white paper on “Biomimicry in Construction” as a one-year research project. However its fate became a matter of funding, and it was denied. Similarly, the CII Executive Committee approved the BTSC’s proposal for a CII Scholar Program in 2009. This program was designed to show students the varied aspects of the construction industry and to encourage them to explore possible careers in construction. The program was scheduled to begin in the fall, but was also cancelled due to lack of funding.

The BTSC also began development of four additional white papers in 2009, and continues to utilize innovative meeting topics, along with creativity visits and presentations designed to stimulate ideas and thinking.

### **Academic**

The CII Academic Committee is the primary forum within CII for the academic community. The duties of the Academic Committee include designating subject matter experts in support of the research process, identifying and grooming young academic researchers for success on CII research projects, and helping CII ensure that its research is competently done within the classic research framework.

In 2009, the Academic Committee had its busiest year to date, starting two formal studies to reinforce the already strong relationship between CII and the academic community. The first study, “CII Products and Academic Applicability” is being conducted jointly by the University of Alabama and Auburn University to investigate the degree of use of CII products in the classroom for both graduate and undergraduate curriculums. The second study is being conducted by Texas A&M University and is entitled “Tomorrow’s

Construction Industry Graduate – What Does the Construction Industry Need?” This study seeks to identify the skill set that will be required to support the capital project delivery process for new professionals entering the workforce in 2015. Each of these studies will last about one year and will support both the academic curriculum and industry needs.

Other Academic Committee activities in support of CII included the coordination of Dr. Iris Tommelein, Director of the Project Production Systems Laboratory (P<sup>2</sup>SL) at the University of California, Berkeley as the non-CII research presenter at the 2009 CII Annual Conference. The committee’s other conference support activities included sponsoring the conference poster session, the yearly CII venue for which the

academic community nominates non-CII research for poster presentation during the conference. The 2009 event was the most successful to date, with thirty-three posters nominated and ten selected for conference presentation. This win-win event exposes CII participants to valuable non-CII-sponsored research while introducing 10 young industry academic researchers to CII research.

The Academic Committee further promoted CII research in 2009 by issuing a call for papers for a special CII session to be held next spring in conjunction with the American Society of Civil Engineers Construction Research Congress in Banff, Alberta. This session will feature CII research at the premier academic forum for construction industry research in North America.

photos courtesy of ACE Mentor Program of America



Students in the Los Angeles ACE Mentor Program\* participate in group exercises that teach engineering and construction principles. CII member organizations, URS and Parsons, support the Los Angeles ACE affiliate.

\* The ACE Mentor Program of America is a non-profit organization that, through volunteer mentoring, works to give high school students career opportunities in architecture, construction, and engineering and related areas of the design and construction industry—ACE is an acronym for architecture, construction, and engineering. ACE also provides scholarship opportunities for talented students from all backgrounds. Pictures were unavailable for the following ACE affiliates supported by CII member organizations: San Antonio ACE Mentor Program, sponsored by Zachry; Washington, D.C. ACE Mentor Program, sponsored by the U.S. General Services Administration; Chicago ACE Mentor Program, sponsored by Mortenson; Denver ACE Mentor Program, sponsored by Mortenson; Nashville ACE Mentor Program, sponsored by Fluor; Grand Rapids, Michigan, ACE Mentor Program, sponsored by URS; New Jersey ACE Mentor Program, sponsored by CH2M HILL

## KNOWLEDGE DISSEMINATION

### Implementation

The mission of the Implementation Strategy Committee (ISC) is to promote CII members' implementation of CII practices. To this end, the ISC designs CII activities and educational opportunities to give members hands-on experience at implementing the CII knowledge and work practices that improve project performance. In 2009, the committee sponsored two highly successful Performance Improvement Workshops (PIWs): one in the spring, held in Scottsdale, Arizona, and the other in the fall, held in Houston, Texas. The workshops enable members to hone their CII Best Practice implementation skills and to learn about new CII products; they also provide networking opportunities for ongoing implementation support. The combined attendance for the two popular events was 147 participants.

The committee also mentors the members participating in the CII Implementation Champions Program and facilitates the web-based Implementation Tool Box. The tool box details CII implementation planning, has contact information for CII staff support, and provides website links to products and conference presentations.

In 2009, the committee sponsored a study of the implementation challenges and approaches of CII member organizations. This research, *The Role of Executive Support in Implementation Champion Success*, was completed in 2009 by Research Team 246, The Implementation Planning Model Research Team. The study showed that when executive sponsors and implementers have divergent perceptions of the implementation challenges they face, the success of their implementation efforts is threatened. It provides results of organizational surveys and gives guidance on supporting implementation.

The team also released the Implementation Assistant Tool to benefit implementers of CII practices. This online tool allows implementers to create implementation plans based on the guidance

provided by Implementation Resource 246-2, *The Implementation Planning Model: Steps to Success*. With the tool, implementers can initiate and track implementation plans, establish milestones, and use metrics for effective implementation. The tool also enables managers of implementation initiatives to monitor their progress.

At the 2009 Annual Conference, CII presented the Implementer of the Year Award to Gregory A. Kanteres of Solutia, Inc. The award recognizes outstanding achievement in the implementation of CII practices by member organizations. Kanteres' focus on front-end planning and safety has greatly improved his organization's project execution process, on both domestic and international projects. He has also worked to ensure that the ethical standards Solutia maintains in its U.S. operations have not been compromised internationally.

### Professional Development

The mission of the Professional Development Committee (PDC) is to enable implementation of CII research, plan future educational opportunities for CII members, create outreach programs, evaluate trends in industry education, and develop new educational vehicles. Participation in key CII programs and events enables participants to earn professional development hour credits to fulfill the Project Management Professional (PMP) Continuing Certification Requirements (CCR), a credential regulated by the Project Management Institute (PMI).

In response to the Board of Advisors' interest in professional certification, the PDC spearheaded an initiative seeking an alliance with the Construction Management Association of America (CMAA), a widely recognized certification agency for construction managers. This effort culminated in a joint meeting of CII and CMAA leaders in November at which they established a path forward on creating an alliance in 2010. Such an alliance is a part of CII's ongoing efforts to expand its influence in the industry.

**Education Modules**

The PDC sponsored and developed three new education modules in 2009. Education modules are developed to assist companies with in-house training and presentations; they are designed by industry experts and adult learning instructional designers using CII original research. The three new education modules covered front end planning, the Project Definition Rating Index (PDRI) for building projects, and the Project Definition Rating Index (PDRI) for industrial projects.

**Online Education Program**

In addition to its classroom-based programs, the committee oversees the CII online education program. Members and non-members alike can access the CII curriculum and benefit from fully interactive and professionally developed online courses. The current online curriculum covers partnering, development and alignment of project objectives, constructability, construction safety,

planning for start-up, pre-project planning, and scope control and change management.

The PDC also facilitates an online resource plan—the CII Professional Development Continuum—to help organizations plan the career development of new construction project managers. The continuum illustrates how CII publications, education modules, online courses, and instructor-led courses taught by CII Registered Education Providers address competency areas across the project life cycle.

**Web Seminars**

During 2009, the PDC developed and successfully presented a four-part live web seminar series on the Project Delivery and Contract Strategies Tool, featuring Dr. Huanqing Lu, an associate professor in the Department of Construction at East Carolina University. Each one-hour part included a live question-and-answer session. Over 25 organizations participated in this event.



photos courtesy of ACE Mentor Program of America

Students in the New York City ACE Mentor Program affiliate work together to transplant the home plate from the old Yankee Stadium (at right) to the new stadium. The New York City ACE affiliate is sponsored by CII member organizations, CH2M HILL and Parsons.

### Registered Education Provider Program

The Registered Education Provider Program, now in its fourth year, provides CII members and the general public with a qualified corps of instructors available to teach CII principles and methods at member organization facilities and other venues.

### CII Best Practices Course

The PDC also oversaw the transition of the CII Best Practices course as it moved its headquarters from Virginia Polytechnic Institute and State University to The University of Texas at Austin. The 2009 course contained eleven modules: Module 1 focused on Implementation of CII Research; Module 2 covered PDRI (Project Definition Rating Index); Module 3 looked at Zero Accidents Techniques; Module 4 explored Alignment; Module 5 addressed Constructability; Module 6 explained Equitable Risk Allocation; Module 7 went over Lessons Learned; Module 8 investigated Materials Management; Module 9 taught Change Management; Module 10 modeled the Project Health Indicator (PHI); and Module 11 gave instruction on Benchmarking & Metrics.

Eleven other universities participated in 2009 through the course's distance learning format. The distance learning sites were Auburn University, Colorado State University, Florida International University, Iowa State University, The Pennsylvania State University, Texas A&M University, University of Houston, University of Kentucky, University of New Mexico, Vanderbilt University, and Virginia Polytechnic Institute and State University. One-hundred-eighty-four students participated.

### CII Executive Leadership Course

This course—an in-residence training on the leadership skills needed for tomorrow's top capital facilities positions—is a collaborative effort between CII and The McCombs School of Business at The University of Texas at Austin. It is normally conducted in January and presented to Fortune 500 and ENR 400 executive candidates. The program enhances the executive leadership capabilities and strategic business skills of future industry leaders. Industry leaders and renowned

McCombs School professors give participants business, management, and financial insight into the capital assets business; within this intensive learning community, participants build collaborative relationships with peers across the industry. Twelve distinguished professors from the McCombs School and 13 prominent executives from the engineering and construction industry provide more than 100 hours of classroom instruction. In 2009, 20 students from 13 member companies participated in the three-week course.

### Awards

In 2009, the PDC recognized faculty and higher education programs with two new awards. The CII Distinguished Professor Award recognizes full-time or adjunct faculty who incorporate published CII research findings in the courses they teach. The 2009 awardees were Professors Carlos H. Caldas (The University of Texas at Austin), Paul S. Chinowsky (the University of Colorado at Boulder), Jesus M. de la Garza (Virginia Polytechnic Institute and State University), Sanjiv Gokhale (Vanderbilt University), and William J. O'Brien (The University of Texas at Austin). The second new award, the CII Curriculum Partner Program Award, recognizes higher education programs that incorporate published CII research findings in their curriculum. The initial recipients of this award were the engineering departments at Vanderbilt University and Virginia Polytechnic Institute and State University.

At the 2009 Annual Conference, the PDC recognized Aker Solutions US, Inc. with an award for outstanding contributions to professional development. Aker Solutions has recently implemented a unique initiative for learning and development through its *Leaders as Teachers* program. This program's multidisciplinary curriculum encourages all managers to establish a culture of continued learning and development within their organizations. It also incorporates the best practices of leadership through hands-on involvement. It has not only fostered an atmosphere of learning, but it has also led to improved employee retention and engagement.

## KNOWLEDGE ASSESSMENT

### **Benchmarking & Metrics Research**

The CII Benchmarking & Metrics (BM&M) Program performs a crucial part of the CII mission of creating knowledge to measurably improve the capital facility delivery process, i.e., the measurement of how CII Best Practices improve that process. When CII member organizations join the program, they add data from their projects to the CII benchmarking database. As more projects are benchmarked, the database grows; the more the database grows, the better the CII research process becomes. In 2009, BM&M added over 750 new projects to the database, published several reports and articles, began development of an industry-specific set of metrics for the healthcare sector, and realized the first phase of its long-term plan to establish CII benchmarking programs at universities around the world.

Three CII Benchmarking Associates training sessions were held during the year for member organization employees who are responsible for entering their employers' data into the CII BM&M system. The sessions were held in San Antonio, Texas; Abbot Park, Illinois; and Houston, Texas.

At the CII Annual Conference, the 2009 CII Benchmarking User Award for an owner organization was presented to General Motors. The winner of the award in the contractor category was BE&K (a KBR Company). Both companies won for their large, sustained benchmarking programs.

### **Benchmarking & Metrics Database**

The BM&M Program added 154 new projects to the CII database in 2009—nearly twice the number of new projects added in 2008—bringing the total to 1,931 benchmarked projects with a total installed cost of approximately \$110 billion. BM&M publications included the annual safety report, a report to the Construction Owners Association of Alberta (COAA) on Canadian oil sands projects, and a report for the National Institute of Standards and Technology (NIST) on the impacts that best practices and technologies have on capital project productivity. Also, members of the BM&M and

research staff co-authored and published three refereed journal articles. Lastly, a graduate research assistant (GRA) working in the program received her Ph.D. in civil engineering in May.

In an effort to expand the program, BM&M staff met regularly with executives from leading pharmaceutical organizations in 2009 to develop the industry-specific framework and metrics necessary for benchmarking facility delivery in the healthcare sector. Since that early phase, the pharmaceutical metrics team has completed its fifth round of data collection. As a result, the pharmaceutical database now contains 199 projects and is widely regarded as the leading benchmarking program for this part of the industry. One BM&M staff member wrote a journal article on the development of this database, and made several presentations on it at various conferences around the country.

Phase II of the benchmarking study on Canadian oil sands projects for COAA began in late 2009 with the development of additional metrics. Forty-five projects currently make up the database for this study. One significant development of the COAA project in Phase II will be the creation of the metrics necessary to benchmark pipelines.

### **Performance Assessment Laboratories**

Another benchmarking effort, the Upstream Oil & Gas Project, made substantial progress in 2009 with the launch of CII's NextGen Benchmarking System software on a dedicated server at the Universidade Federal Fluminense (UFF) in Brazil. Principal investigators Dr. Stephen Mulva, Dr. Carlos Caldas, and Dr. Christopher Jablonowski worked with leading industry firms to establish this program for benchmarking offshore oil and gas facilities in South America. Called a performance assessment laboratory (PAL), the UFF program stands to improve construction projects in a part of the energy sector in which facility delivery has historically been difficult to measure. The first of several planned labs, the Brazilian PAL reflects CII's expanding role in improving an increasingly global industry.

## KNOWLEDGE MANAGEMENT

The CII Knowledge Management Committee (KMC) enables members to leverage collective industry wisdom through their access to the CII Knowledge Structure—a systematic online categorization of CII research products. The committee manages and maintains the structure and is responsible for approving all changes to it, including new product placement and archiving. The committee also seeks to identify emerging CII Best Practices from ongoing CII research.

In 2009, KMC members focused on and conducted 65 product reviews to assess the currency of older CII publications. Together with the Safety and Sustainability Communities of Practice, the committee also recommended the following five research topics for consideration on the 2010 CII research slate:

*Driving to Zero with Safety Leading Indicators*  
(Safety COP)

*Metrics and Tools for Cost-Effective Sustainable Capital Facilities* (Sustainability COP)

*Quantifying Risk and Uncertainty* (KMC)

*Quantifying the Impact of Project Changes* (KMC)

*Team Building Best Practice Refresh* (KMC)

### **Communities of Practice**

In 2009, the KMC expanded CII's Communities of Practice (COPs)—groups whose members share a concern about or a passion for an industry topic or practice area. COPs provide a virtual

environment in which over 200 members deepen their knowledge and understanding through ongoing interaction and collaboration. The six established COPs address the following topics:

Safety

Sustainability

Globalization

Partnering

Modularization

Building Sector.

In addition to these standing COPs, two new COPs on information management and front end planning were successfully launched in 2009. To improve COP awareness and to facilitate knowledge sharing, the committee launched a series of web pages tailored to COP member needs. These web pages include each COP's purpose, charter, key contacts, member roster, and enable COP members to download knowledge-share deliverables.

### **CII Website**

Other 2009 KMC activities included the launch of CII's new Google Appliance—a search engine and analytics tool that improves members' ability to search the CII website and improve CII staff's ability to perform detailed web page traffic analysis.



## SPECIAL COMMITTEES

### Membership

The Membership Committee is responsible for executing the membership process, including recruiting and member retention. Of particular interest to the committee are assessing member participation (in CII events and core processes) and maintaining owner-contractor balance. In 2009, the committee focused on member retention, developed a “Member Corner” concept for the CII website (to be launched in 2010), and proposed an improved new member orientation process to promote early involvement and engagement. The *CII Value and Satisfaction Survey* was developed and launched by the committee. The survey will be conducted annually to provide CII with valuable member feedback. The committee reports on its activities at the biannual Board of Advisors meetings.

### Branding Implementation

The Branding Implementation Committee’s (BIC) purpose is to promote CII knowledge leadership by improving awareness of CII events and products throughout the industry. In 2009, the committee guided the implementation of CII’s brand identity into all communications and publications, while continuously improving the messaging, look, and feel of the CII website. The launch of CII’s updated website at the end of 2008 marked the transition to a new look that included numerous improvements in functionality, style, and navigation.

The BIC developed and implemented its 2009 communications plan, with an emphasis on publications, eNews articles, annual conference communications, and press releases. In addition, the committee launched its Media Center on the CII website to facilitate media access to CII. BIC efforts will continue to focus on developing consistently branded CII communications, expanding media coverage of CII’s events and its increasingly global activities, increasing media references to and research citations of CII knowledge, and improving the CII website.

### Annual Conference

At the 2009 CII Annual Conference—themed “Leadership for the Next Generation”—the CII Annual Conference Committee engaged speakers and showcased research reflecting the institute’s commitment to developing a productive, well trained workforce now and in the decades ahead. Jim Miller, President & CEO of Aker Philadelphia Shipyard, served as conference chair. Keynote speakers included the following: Dr. Marianne Jennings, Arizona State University; Mike Illane, President & General Manager of Chevron’s Project Resources Company; Mike McKelvy, President of the Government, Environment & Nuclear Division of CH2M HILL; Asieh Mansour, Managing Director and Chief Economist for RREEF; and David Wyss, Chief Economist at Standard & Poor’s.

Award-winning high school students from the Sacramento ACE Mentoring Program presented on the defunct power plant they redesigned as a museum. Also, graduate engineering students from universities across North America presented posters of their non-CII research. This year’s guest academic speaker was Dr. Iris Tommelein of the Project Production Systems Laboratory at the University of California at Berkeley.

CII also recognized Paul Campbell as the fifth recipient of the Richard L. Tucker Leadership and Service Award at the 2009 conference. Campbell currently serves as a Senior Vice President of Mortenson Construction. For nearly 13 years, Paul has been involved in many key CII initiatives and has consistently advocated CII principals and practices in his professional life.

### Strategic Planning

In 2009, CII began the implementation of a new strategic plan. Unique to the new plan is the CII Scorecard, an assessment tool focused on five key result areas: industry leadership, stakeholder value and satisfaction, participant value and satisfaction, CII process and product improvement, and fiscal responsibility.

## PROCESS INDUSTRY PRACTICES

For the past 17 years, Process Industry Practices (PIP) has developed standardized practices that are used in eight engineering disciplines for the engineering, procurement, construction, and maintenance of process facilities around the world. An independently funded industry consortium that has grown under the CII umbrella, PIP published its revised Strategic Plan in 2009. The plan articulates a new vision for the organization: “Progressive owner, engineering and construction companies all use PIP’s global Practices ‘as is,’ creating value by minimizing Total Cost of Ownership (TCO) and by facilitating knowledge capture.” The plan includes five strategies to ensure that PIP continues to be recognized within the process industry while it encourages the use of its practices in related industries. Because developing PIP Practices involves harmonizing member companies’ internal standards, these practices are applicable to the needs of numerous process industry non-members and to those of other companies in related industries around the world. PIP has now published more than 465 practices, representing over 93 percent of the total identified for publication.

Currently, a total of 101 companies—members, subscribers, and licensees—regularly access PIP’s harmonized practices. There was a net growth of five members to the consortium in 2009.

In addition to the global reach of our members, PIP subscribers include companies in Argentina, Australia, Bahrain, Canada, Egypt, Saudi Arabia, South Africa, Trinidad & Tobago, and The Virgin Islands. PIP Practices have been sold to companies in countries throughout Europe, Asia and the Far East, and South America. Many others obtain PIP Practices through distribution licenses with IHS and Thomson Reuters/Techstreet.

The enthusiastic participation of member company volunteers has been key to the increasing awareness, acceptance, and use of PIP Practices. PIP continues to make significant progress at updating and revising the practices; the introduction of electronic-entry data sheets has been critical to these gains. Much progress is also being made on the PIP initiative to electronically deliver important piping material and valve specifications to clients, an effort that will be fully implemented in 2010.

PIP adoption and implementation metrics show that member companies use PIP Practices more and more every year. Recent member success stories highlight how using the practices results in significant savings, early project completion, and new business opportunities. Members continue to report considerable savings in the development and maintenance of internal standards and in the application of new initiatives related to PIP Practice use. The result is less redesign and rework and more efficient interfacing between industry participants.

**Members - Owners**

3M Company  
 Aramco Services  
 Archer Daniels Midland  
 Arkema  
 BP  
 Celanese  
 Chevron  
 CITGO  
 ConocoPhillips  
 DuPont  
 Eastman Chemical  
 Evonik Degussa  
 Flint Hills Resources  
 FMC  
 Hexion Specialty Chemicals  
 Holly Corporation  
 Honeywell  
 Huntsman  
 Kemira  
 Monsanto  
 Occidental Oil & Gas  
 Pasadena Refining  
 PPG  
 REC Silicon  
 Rentech Inc.  
 Rohm and Haas  
 SABIC  
 Shell Oil  
 Sinclair Oil  
 Solutia  
 Sunoco  
 Tesoro  
 UOP  
 Western Refining

**Members - Contractors**

Aker Solutions  
 BE&K (a KBR Company)  
 Brinderson  
 Burns & McDonnell  
 CB&I  
 CDI Engineering  
 CH2M HILL

Chemtex International  
 ENGlobal  
 Fluor  
 GE Energy  
 Jacobs  
 KBR  
 Merrick and Company  
 Middough  
 S&B E&C  
 Shaw E&C Group  
 SNC-Lavalin  
 Technip  
 URS Corporation  
 WorleyParsons

**Subscribers**

AESA  
 Agrium  
 Ambitech Engineering  
 Anderson Development  
 Bahrain Petroleum Co. (BAPCO)  
 BHPBilliton Nickel West  
 Carboline  
 ChevronPhillips Chemical  
 Coffeyville Resource Refining and  
 Marketing LLC  
 Emerson Process Control  
 ENPPI-USA  
 Harvest Operations Corp.  
 HOVENSA  
 IMAGE CES  
 INVISTA S.à r.l.  
 Kraton Polymers  
 L-Con Engineers & Constructors  
 Lloyd Engineering  
 ONEOK  
 Petroleum Company of Trinidad &  
 Tobago  
 Plasco Energy  
 Sasol  
 Saudi International  
 Petrochemicals Co.  
 (SIPCHEM)  
 Seadrift Coke

Sherwin Williams  
 The Williams Companies  
 University of Texas at Austin  
 Valero  
 World GTL

**Licensees**

API  
 ASME  
 Autodesk  
 Bentley Systems  
 Codeware  
 ConcepSys Solutions  
 IEEE  
 IHS  
 Intergraph  
 ISA  
 National Institute of Building  
 Sciences  
 National Insulation Association  
 Pi/FlexPlant  
 St. Paul Technical College  
 Techstreet/Thomson Scientific  
 Texas A&M-Corpus Christi  
 University of South Dakota

## THE CARROLL H. DUNN AWARD OF EXCELLENCE

*The Carroll H. Dunn Award of Excellence is the highest recognition bestowed by the Construction Industry Institute. The award, established in 1985, bears the name of the original recipient, the late Lt. Gen. Carroll H. Dunn, U.S. Army. The purpose of the award is to recognize an individual who has had singular and notable responsibility for significant advancements in improving the construction industry.*

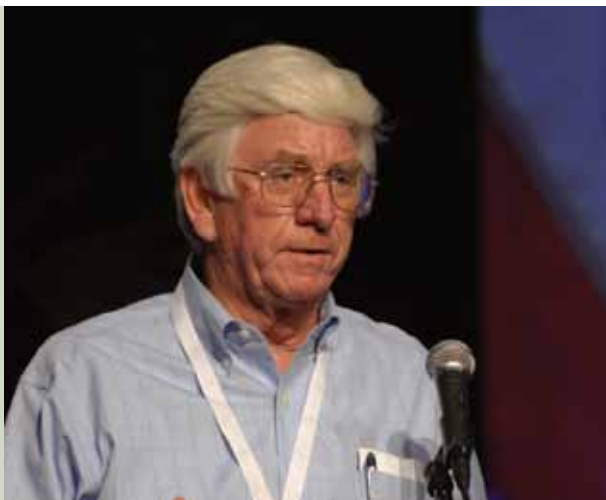
### **Charles H. Thornton**

The CII Executive Committee selected **Charles H. Thornton**, Ph.D., P.E., as the 2009 recipient of the Carroll H. Dunn Award of Excellence. Charlie has expressed his creativity, tenacity, and work ethic in the brilliant structures he has created around the world for nearly half a century. Through his life's work—and through his support of young talent—Charlie has advanced the industry and elevated its standard of excellence. For these reasons, he has exceeded the criteria for the Dunn Award.

Charlie got his first paying job at the age of 14 as a bricklayer's apprentice and, by 22, he was a journeyman bricklayer. Charlie went on to earn a B.S.C.E. degree from New York City's Manhattan College and his M.S.C.E. and his Ph.D., both from New York University, also in New York City. While earning his master's degree and Ph.D., Charlie worked at a structural engineering firm.

His first big challenge was as the engineer of 14 pavilions for the 1965 World's Fair. He later served as structural engineer for the award-winning American Airlines superbay hangars in Los Angeles and San Francisco. In 1977, Charlie and Richard Tomasetti purchased the company at which they worked, re-naming it Thornton-Tomasetti. Today, it is an international consulting firm, providing engineering services, failure analysis, hazard mitigation, and disaster response services. Over the years, Charlie has served as an expert witness in the area of collapse and structural failure analysis. He has also played leading roles in the investigations of several high-profile collapses around the country, most notably the 1996 Oklahoma City federal building bombing and the 2001 World Trade Center attack.

In 1995, Charlie founded the ACE Mentor program, the non-profit organization featured in this report. A mentoring network that offers guidance and training to inner city high school students in architecture, construction, and engineering in cities across the U.S., ACE currently has 3500 mentors helping more than 10,000 students go through the program. More than 50,000 students have graduated from it.



Accepting the 2009 CII Carroll H. Dunn Award of Excellence for his lifetime achievement in the industry, Charlie Thornton reflects on his experience as an engineer and on his support of young people interested in careers in construction.

## TUCKER LEADERSHIP AND OTHER CII AWARDS

In addition to the Dunn Award, CII recognized excellence among its members and academics by presenting the following awards in 2009:



### **2009 Richard L. Tucker Leadership & Service Award**

*The Tucker Award recognizes individuals who contribute significantly to the advancement of the CII mission and to the success of*

*CII as an organization.*

CII selected **Paul V. Campbell** as the sixth recipient of the Richard L. Tucker Leadership & Service Award. Campbell currently serves as a Senior Vice President of Mortenson Construction, having been with the firm since 1974. As a member of the Senior Leadership Team, Paul oversees a variety of Mortenson's business services, including risk management, information technology and systems, legal, procurement, equipment and supply management, and labor relations.

For nearly thirteen years, Paul has been involved in many key CII initiatives and has consistently advocated CII principals and practices in his professional life. He has been on the Board of Advisors since 1996, and has held long-term positions on the Executive Committee, the Strategic Planning Committee, and several core

process groups and other committees. Paul's leadership and his contributions to CII have made a lasting and meaningful impact. In his considerable efforts to develop and implement CII products, he has become a role model for CII leadership and membership.

### **2009 Distinguished Service Awards**

*These awards recognize individuals who have generously contributed their time and talents to the advancement of the CII mission.*

Presented at the Spring 2009 CII Board of Advisors meeting, were:

**Joan M. Dodd**, TVA

**John R. Hewitt**, Aker Solutions

**John Nobles**, Burns & McDonnell

**Dennis A. Schroeder**, BE&K/KBR

**Arthur A. Stout**, Intel

**Lowell Wiles**, Jacobs

Presented at the Fall 2009 CII Board of Advisors meeting, were:

**Carol P. Arnold**, DuPont

**William C. Beck**, WorleyParsons

**John R. Fish**, S&B Engineers & Constructors

**Keith D. Manning**, Zachry

**Harold L. Yoh III**, Day & Zimmermann

Charlie Thornton stands onstage with the students from the Sacramento ACE Mentor Program who presented at the CII Annual Conference. The students spoke about their project to redesign a defunct PG&E power plant as a museum. Thornton founded the organization in 1995.



### **Outstanding CII Researcher Award**

*This award recognizes an author of completed CII research that significantly contributed to the improvement of the construction industry.*

CII named **Carlos Caldas**, The University of Texas at Austin, as the fifteenth recipient of the 2009 Outstanding CII Researcher of the Year Award.

### **Outstanding CII Implementer Award**

*This award recognizes a significant contribution to enhancing the implementation of CII Best Practices and research findings.*

CII selected **Greg Kanteres**, Solutia, as the ninth recipient of the 2009 Outstanding CII Researcher of the Year Award.

### **CII Benchmarking User Award**

*This award recognizes an owner member organization and a contractor/supplier member organization that contribute to and make exceptional use of CII Benchmarking.*

**General Motors** (GM) is a two-time winner (2001 and 2009) of the CII Benchmarking User Award for owners. **BE&K** is a three-time winner (2001, 2005, and 2009) of the CII Benchmarking User Award for contractors.

### **CII Professional Development Award**

*This award recognizes exceptional commitment to the development of construction industry professionals by an owner or contractor/supplier member organization.*

**Aker Solutions** won for its *Leaders as Teachers* program, a unique multidisciplinary initiative that encourages managers to establish a culture of continued learning and development within Aker.

### **2009 CII Distinguished Professor Awards**

*The Distinguished Professor Award recognizes full-time or adjunct faculty who incorporate published CII research findings into their courses.*

**Dr. Carlos H. Caldas** – Associate Professor, the Department of Civil, Architectural, and Environmental Engineering at The University of Texas at Austin.

**Dr. Paul Chinowsky** – Associate Professor, the Department of Civil, Environmental, and Architectural Engineering at the University of Colorado at Boulder.

**Dr. Jesus de la Garza** – Professor, the Department of Civil Engineering at Virginia Polytechnic and State University.

**Dr. Sanjiv Gokhale** – Professor, the Department of Civil and Environmental Engineering at Vanderbilt University.

### **2009 CII Curriculum Partner Program Awards**

*The Curriculum Partner Program Award recognizes higher education programs that incorporate published CII research findings in their curriculum.*

**Vanderbilt University** – Vanderbilt's graduate degree program offers advanced degrees in civil engineering (M.S. and M. Eng.) with a concentration in construction management.

### **Virginia Polytechnic Institute and State**

**University** – Virginia Tech's Vecellio Construction Engineering and Management Program (VCEMP) offers students opportunities to acquire expertise in all phases of the construction life cycle.

photos courtesy of MIT Sloan School of Management  
Sustainability Laboratory



At the end of each spring semester, students at the Massachusetts Institute of Technology's Laboratory for Sustainable Business—commonly known as S-Lab—share the findings from their class projects with the entire MIT Sloan community at a poster session. CII invited S-Lab students to make special presentations of their projects to the spring CII Board of Advisors Meeting in Cambridge, Massachusetts. Their projects ranged from helping develop sustainability metrics at General Motors to designing a sustainable city in Florida.



photos courtesy of ACE Mentor Program of America

**Top:** URS, a CII member organization, sponsors these and other students who participate in the San Francisco ACE Mentor Program. **Bottom right:** Students in the ACE Mentor Program in Kansas City, Missouri, visit a construction site. The U.S. Army Corps of Engineers, a CII member organization, supports this regional ACE affiliate. **Bottom left:** The Corps also supports the students in the Northeast Florida ACE Mentor Program. These students are visiting a hospital construction site in Jacksonville.

## RESOURCES

### Sources and Uses of CII Resources (\$000)

Sources		Net
<b>BEGINNING BALANCE</b>		
Carried Forward from 2008 Reserve	2022 750	<u>2772</u>
Membership Dues		<u>3,618</u>
Product Sales Revenue	102	
Production & Sales Expense	<u>(149)</u>	<u>(47)</u>
Other Sources (e.g., PSP)		<u>341</u>
<b>Total Sources</b>		<u><u>3,912</u></u>
<b>USES</b>		
Programs		
Research	1,984	
Implementation	237	
Education	228	
Knowledge	54	
Benchmarking & Metrics	927	
Alliances	12	
Executive Leadership Program	396	
Breakthrough	<u>19</u>	
	<u>3,857</u>	
Benchmarking & Metrics Revenue	<u>(437)</u>	
Other Program Revenue	<u>(330)</u>	<u>3,090</u>
Conferences		
Annual Conference	<u>664</u>	
	<u>664</u>	
Attendance Fees	<u>(451)</u>	<u>213</u>
Supporting Activities		
Support of Members & Director's Groups	732	
Academic Committee	24	
Other Activities	<u>103</u>	
	<u>859</u>	
Supporting Activities Revenue	<u>(76)</u>	<u>783</u>
Information Systems		
	<u>182</u>	<u>182</u>
General Expenses		
Administration	396	
Other Activities	<u>162</u>	
	<u>558</u>	<u>558</u>
<b>Total Uses</b>		<u><u>4,826</u></u>
<b>Net</b>		<u>(914)</u>
<b>ENDING BALANCE</b>		<u><u>1,857</u></u>



## **C I I S T A F F**

### **Director**

Wayne Crew

### **Associate Directors**

Kim Allen, Knowledge Management  
Manuel Garcia, Knowledge Dissemination  
Dr. Stephen Mulva, Knowledge Assessment  
Dr. Steve Thomas, Knowledge Creation

### **Staff**

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Jana Shinn, Administrative Associate  
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Jewell Walters, Executive Associate  
Stevan Wilsan, Senior LAN Administrator  
Hong Zhao, Senior Systems Analyst



photo courtesy of Mustang

Because CII member organizations have offices and operations worldwide, they develop programs to give their employees a global perspective. Each year, Mustang, a global engineering firm based in Houston, Texas—and headed by CII’s 2009 Chairman, John Dalton—sends its young American engineers to work for a year in either London or Aberdeen, Scotland.

The program gives them experience in new cultural settings and on different types of projects. Pictured above are exchange engineers from Houston, pictured in Aberdeen with Mustang’s Upstream Regional Manager for Europe, North Africa, and the Middle East (second from left).

*In memoriam*

Louis Garbrecht, Jr.  
CII Chairman, 1984

Arthur A. Stout  
CII Annual Conference Chair, 2006



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**Construction Industry Institute**

3925 W. Braker Lane (R4500)

Austin, TX 78759-5316

Phone 512/232-3000

Fax 512/499-8101

[www.construction-institute.org](http://www.construction-institute.org)