Design-Build leads industry innovations

By Melanie Maxcey

Cost, quality and time are three of the driving factors behind the growing use of design-build in the arena of project delivery, said James Broaddus, president and CEO of the Design-Build Institute of America (DBIA), at the recent Rowlett 2000 Conference held on the subject at Texas A&M University.

The conference, sponsored by Texas A&M's CRS Center and DBIA, was also sponsored by the design-build professional interest area of the American Institute of Architects.

"Design-build is an innovative approach to product delivery. It is a team of qualified design and construction professionals operating under a single contract," he explained to an audience of contractors, architects, engineers and students.

"Does it cost less?" asked Broaddus.

"What owners tell me is they get more building for their expectation — in square footage and in features."

And not only is design-build changing what owners get, it's changing the way those in the industry are operating.

Al Simmons, AIA, is president and CEO of Gneebro Simmons & Cowan in Austin. His firm has completed more than 25 design-build projects over the last eight years, totaling more than two million square feet for technology manufacturers, universities, laboratories, banking institutions and cargo and parking facilities.

One of design-build's biggest advantages, Simmons believes, is that it can give some firms the chance to develop unique and rewarding partnerships between designers and contractors — even eliminating the adversarial element in a relationship where one typically works for the other.

"We prefer to form separate design-build companies with the contractors, where the architect owns 50 percent and the contractor owns 50 percent. Being equal partners has really changed both of our philosophies about the way we do projects."

There is a clear separation of professional liability insurance and bonding issues, he added, and everyone participates at the beginning of a project. By establishing a relationship between the partners and the owner, project delivery processes and approaches are set and a balance in scope, quality, cost and time is created.
"Our design and construction change orders are significantly reduced in this process," Simmons said.

Tanya Matthews, AIC, senior vice president and director of design-build development for Parsons Brickerhoff Constructors, Inc. of Virginia, estimated that about 35 percent of today’s projects are design-build, 10 percent are construction management and the rest are traditional design-build.

She expects that to change. According to her figures, by the year 2015, design-build and design-bid-build will flip-flop in popularity.

Design-build also means a single point of responsibility, and Matthews said owners are beginning to see that advantage.

According to a Construction Industry Institute study, design-build cost six percent less than design-bid-build projects and the project time was 33 percent faster.

"Design-build projects are becoming more complex, and this method allows more integrated solutions that include financing, operation, maintenance and/or ownership," she said.

Simmons agrees, saying that design-build has gotten his firm "out of the box," stretching them into new areas.

Much of that change revolves around the high technology industry in and around Austin.

"We are heavily involved with several clients in finding financing," he explained. "We’re also recruiting high technology industries for our communities, and industries want us to find the right communities for them."

Tom Regan, dean of the Texas A&M College of Architecture, called design-build one of the most significant developments in the industry in recent years and stated that courses at the college were reflecting that change.

"The school has both design and construction disciplines, making it one of the few colleges in the country able to offer an integrated design-build curriculum," he said.

The John Miles Rowlett Lecture Series is funded by an endowment from the founders of the architecture firm CRS and Virginia Rowlett, John Miles Rowlett’s widow. He was a founding partner of CRS, formerly the largest architecture firm in the country.

The CRS Center Newsletter is published twice each year to promote the programs and activities of the CRS Center, one of seven research centers and laboratories within the Texas A&M University College of Architecture.

Endowed in 1991 by the firm of CRSS Inc. and the University, the center’s mission is to improve the quality of business practice and management in the planning, design and construction industry. Though no longer in existence as a result of the divestiture of its various components in 1995, the firm’s goals are being carried forward at the CRS Center.

In addition to serving as an archive for the slides, photographs, video and audio tapes, articles, business and personal records of the firm, the CRS Center also conducts external research and sponsors various programs benefiting faculty, students and researchers.

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Yunsik Song ... Research Assistant
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the nation and in several foreign countries. If you would like to join us in reading one of Bill Caudill’s "TIBs" every Monday morning, just send an e-mail message to <crscenter@taz.tamu.edu> and we will add you to the list.

Congratulations go out to CRS Center Faculty Fellow Dr. Mark Clayton, who was recently elected president of the Association for Computer Aided Design in Architecture. During this past year Mark has participated in helping to create standards for the facility management industry through his involvement in the International Alliance for Interoperability. In addition, his research was accepted for presentation and publication at the prestigious CAAD Futures ’99 Conference. Good work, Mark.

The Center has had another great year and we have the publication to prove it! The 1999 Annual Report is ready. Let us know if you would like a copy.

Keep in touch by visiting the CRS Center Web site at <http://crscenter.tamu.edu> and I hope to see everyone at the Rowlett 2001 Conference and CRS Reunion!
IFMA donates $10,000 to FMIAC

Stories by Melanie Maxey

The International Facility Management Association Foundation and the IFMA Houston Chapter recently donated $10,000 to the Facility Management Industry Advisory Council.

The advisory council was created to support the new Facility Management Certificate program in the College of Architecture at Texas A&M University. According to Dr. Robert Johnson, chair of the certificate program, the program was created partly due to interest of faculty and students and partly because of needs of the facility management industry.

"Facility managers supervise many aspects concerning the buildings, grounds and services associated with an organization.

"They need to know about issues such as architecture, computer and telecommunications systems, interior design, real estate acquisition and disposition, construction project administration, energy management, mailrooms and others."

In order to manage these elements, facility managers must be experts in a number of fields, including business administration, architecture and the behavioral and engineering sciences.

In Johnson’s view, “the program could become a major resource for the profession in Texas and the entire South Central United States. A fully developed program would provide a source of qualified, educated employees for the profession.”

“It would also make available an additional opportunity for professionals to update their skills, knowledge and credentials that are demanded in our fast-changing workplace.”

Facility Management Industry Advisory Council up and running

In support of the Facility Management Certificate Program, the Facility Management Industry Advisory Council was created in November 1999 as a partnership between professionals and Texas A&M University.

“Our mission is to advance the facility management profession by offering distinctive, preeminent and interdisciplinary educational, research and service programs,” said Dr. Robert Johnson, chair of the certificate program.

To date, FMIAC has held three meetings on the Texas A&M campus.

“We’re in the discussion phase for determining our by-laws, membership dues and programs the advisory council might want to undertake,” Johnson said.

At the February meeting, it was decided to create the Facility Management Industry Advisory Council Graduate Scholarship in the amount of $1,000.

“We’re very excited about the council because it has so much potential.”

Founding industry members of the advisory council are: Manny Fernandez, Bernadette M. Heller, Claud Kissman, Rick Nelson, Stephen Moskowitz, John C. Norton and Ralph E. Sterle, CFM.

Charles Lawrence named distinguished alumnus at UT

Charles Lawrence became one of four distinguished alumni at the School of Architecture of the University of Texas.

Charles Lawrence made a name for himself locally, nationally and internationally as one of the top designers for CRS in Houston.

He graduated from UT in 1951 and retired from the firm in 1983 after 30 years of exceptional service.

He was elected a Fellow of the AIA in 1973 and named Outstanding Officer of CRS in 1977.

He is on the Advisory Committee of the School Construction Systems and has been a visiting professor of architecture at universities in Houston. He is currently a design principal for Canatxx Energy Ventures.

He and his wife Nancy live in Houston. They have four children.
Ge Xia new CRS Ph.D. Scholar

By Sarah O’Brien

Ge Xia is the new Ph.D. scholar for the CRS Center.

Born in South China, Xia graduated from Toanghi University in Shanghai in 1998 with a bachelor’s degree in architecture. He came to Texas A&M for a variety of reasons, including the interesting research being conducted here in the field of architecture.

“I am very interested in computer applications in architecture and this field is pretty advanced at Texas A&M,” Xia says.

His first semester was in the fall of 1999. He says he has enjoyed his time in College Station so far.

“I enjoy my studies and work here,” Xia says. “The research and work environment here is pretty good. I study how to make good use buildings. That includes how to maintain and operate different systems within buildings like air conditioning systems.”

He hopes to receive his master’s degree in May of 2001 and his doctorate in May of 2004.

Right now Xia is mainly focusing on the impact of Internet and e-business on the facility management industry.

After graduation, he hopes to do research and have an educational career in the industry.

“My dream job is to work for a consulting company and provide my expertise in facility management and information technology,” Xia says.

He says his past experience has helped prepare him for graduate school and for success in achieving his future goals.

“My background in architectural design helps a lot with my research here,” he says.

Xia adds that although he used to focus on design, now he is more interested in the management and information technology side of the field.

Yunsik Song creates new prototype using Web technology

By Sarah O’Brien

CRS Center research assistant Yunsik Song has been all over the world in pursuit of an education. But in August 2000, the journey that has taken him from Seoul, Korea, to College Station, Texas, may be over. Song hopes to receive his doctorate in architecture from Texas A&M University in just a few short months.

Song says he chose the field of architecture for many reasons, but mainly because it gives him the chance to be creative.

“Architecture can turn a human’s imagination into reality,” he says.

Song says Texas A&M seemed to be a perfect fit for him.

“I chose A&M because it has excellent computing facilities, excellent faculty and staff and many other useful resources,” he says. “It is also a really good place to conduct research.”

Song says he is currently writing his dissertation and looking for a teaching position. His dissertation is titled “Developing a Prototype System for Delivering Building Information for Operations Using Web Technology.”

“I wanted to make a solution to the current problems in delivering building information for operations,” he says.

Song found that current emerging Web technology is a good solution to solving the problems of delivering information.

“When designers and engineers are writing a building document,” he says, “they are writing it in a way that is not practical for facility management.”

Song adds that most of the information in design and construction documents is
‘Prince’ receives Jefferson Award

By Melanie Maxcey

HOUSTON — CRS founding partner William M. Peña, FAIA, will be the first architect to receive the Thomas Jefferson Award at Celebrate Architecture, scheduled for Friday, 14 April.

Peña, once dubbed the “prince of programming,” is being recognized for his pioneering work.

“As a practicing researcher, he advanced architectural programming to a sophisticated, analytical science benefiting both architects and clients,” said Martha Murphree, executive director of Houston’s AIA chapter. “He gave the profession the analytical tools demanded by the complexities of design problems and to the clients, the communication techniques to make their needs known.”

But according to Peña, his work wasn’t always held in such high regard.

“CRS pioneered in programming and it wasn’t always easy — we called for the separation of programming and design — an anathema to an architect. They didn’t call me ‘prince of programming’ in those days. They called me four letter words.”

In 1950, Peña programmed his first project. By the time he retired in 1984, he had personally participated in the programming of more than 400 — one-third of all CRS projects completed in 38 states and nine foreign countries.

After 20 years of practice, he developed the architectural programming process into what is now known as “problem seeking,” or distinguishing the wants from needs of clients and anticipating difficulties and solutions before the design stage. In 1969, he co-authored a book by the same name. “Problem Seeking” is now in its fourth edition and the publication has become a standard text in architectural programming courses.

Born in Laredo, Peña dreamed of being a journalist. He was the editor of his high school newspaper and spoke Spanish.

“I was already enrolled in college in Colorado. … My plan was to take enough courses in foreign service to be a foreign correspondent.”

However, his older brother Gustavo Peña had other plans for him.

“My brother had just graduated from Texas A&M and his roommate was an architecture major. He said ‘you’re just like him.’ So I quickly enrolled at A&M and I liked it,” Peña recalled.

At Texas A&M, one of Peña’s teachers was Bill Caudill, founder of CRS. Though CRS would grow to be an international architecture, engineering, project management and construction firm, when Peña finished his fifth year in 1948, Caudill had no draftsmen. Peña hired on and was a partner a year later.

Peña discovered that he was also a teacher. He went on to share his programming expertise with many young professionals at CRS, and before he retired, he had conducted programming workshops and lectured at more than 100 professional, corporate and academic sessions.
not appropriate or it is missing altogether.

"This does not help the facility management do their jobs," he says.

So Song developed a structure and content guideline for building information documents.

It is a prototype system that automatically collects various building information and combines it to create a document for the facility operators, he says.

"The information the system collects is really like an operations manual," Song says. "It can give us information about such things as the air conditioning system, operation procedures, product specification and design intention."

The system is called Just-in-Time and uses current Web technology to gather the necessary information to complete the documents.

Song has also received much recognition for his research in architecture.

"The technical committee for the Association for Computer Aided Design in Architecture (ACADIA) chose my paper to be in the special issue of the ‘Automation in Construction’ journal," he says.

Only 10 papers make it into the special edition of the journal each year, so Song regards this as a special honor.

After graduating in August, Song plans to teach and conduct research in the building information management field.

"I would like to teach in any place in the U.S. where there is a good environment for research," he says.

Song is scheduled to present his current research paper this May at the CAADRIA 2000 conference in Singapore.

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AWARD FROM PAGE 5

"Bill Caudill taught us to share, to publish, to be open. He taught us that we had no professional secrets that we wanted to keep from other architects. We were professing modern architecture and that was important to us — we were proselytizing it — in our own little way we felt like we were doing our job of introducing modern architecture wherever we went."

Peña retired officially in 1984 but worked into the early 1990s as a consultant to CRS and to the fourth edition of "Problem Seeking."

Calling himself "an antique," Peña said that at 81, he is still going strong.

"People think I retired and have nothing to do — I have doctors and dentists visits, luncheons with the people I know, even breakfast. There's my car to take care of and daily chores."

Peña said he felt extremely honored to be the 2000 Jefferson Award recipient and is looking forward to attending the event.

Always the team player, Peña feels his family and his professional mentors have more to do with his success than he himself.

"You know, my father was 91 or so when we published "Problem Seeking" in 1977 and he had some sort of stroke. He grasped it to his chest and nodded — he was very proud that I had written a book. "My parents were proud of all of us — my two brothers and I were the first in our family to graduate from college. We all fought in the war and had successful careers. They were successful parents."

The Jefferson Award was created in 1993 in celebration of the inventive spirit and in commemoration of the 250th anniversary of Thomas Jefferson's birth.

Named in honor of the only U.S. president to be an architect, the award is given annually to an individual who has demonstrated the creativity, expansive vision and renaissance approach to the public good exemplified by Jefferson.

Previous recipients include Dr. Michael DeBakey (medicine); George Mitchell (land development); Jack and Laura Lee Blanton (philanthropy); Linda Ellerbee (journalism); Larry McMurtry (literature); and Eleanor Tinsley (politics).}

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Pre-Registration
The Legacy of CRS:
2001 Rowlett Lecture

The Rowlett Lecture Series and CRS reunion is planned for February 2001. Please send this pre-registration form in to help us plan for the event.

For additional information, please visit the CRS Center site at <http://rowlett.tamu.edu>.

☐ Yes! I’m planning to attend. Put me on your mailing list.

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FM scholarship awarded to Millican’s Guy Cooke

By Melanie Maxcey

Guy Cooke of Millican was awarded the first Facility Management Industry Advisory Council Graduate Scholarship by the College of Architecture’s Facility Management Certificate Council.

Cooke is pursuing a master of construction science while working full time for the Texas A&M University System as the assistant director of the Facilities Construction Division.

He also teaches a freshman-level class in construction management.

The $1,000 graduate scholarship was created to assist students studying facility management.

Cooke believes learning more about facility management will help him to better administrate construction projects because he will understand the perspective of facility managers.

“Facility managers are the customers and through this I can provide better customer service,” said Cooke.

Cooke added that receiving the scholarship was unexpected.

“I support IFMA and what the organization does. I have used it as a resource in my other classes and this was a pleasant surprise,” he said. ■

Wallie Scott Jr. named an outstanding Ag

By Shana Hutchins

Wallie Scott Jr. ’43 (BARCH) was honored 7 April as one of Texas A&M University’s College of Architecture Outstanding Alumni.

He was a founding partner of Caudill Rowlett Scott (later CRSS Inc.) of Houston.

Born in Louisiana, he grew up in Port Arthur, Texas, and served as a First Lieutenant in the Army Signal Corps during World War II.

During his 41-year career with CRS, Mr. Scott became renowned as a master of the client interview process.

Mr. Scott was inducted as a Fellow of The American Institute of Architects in 1972 after having served as president of the AIA Houston chapter in 1964.

A past member of the Texas A&M College of Architecture Advisory Council, Mr. Scott is being recognized with this award posthumously. ■

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She teaches a senior level labor relations and leadership class, an introduction to facility management course and a course in supervision of the construction workforce.

“All of my classes have a leadership component because leadership, and the things that make up leadership like ensuring quality, is a real issue for graduates,” she added.

Much of her research focuses on accelerated craft training. She feels that construction leaders must find ways to get skilled laborers through the apprenticeship process faster to keep up with construction demands.

But at the top of her priority list is being a good teacher.

“I love teaching and I love being with my students. I can help them learn the practical side and they can apply it on the job.”

Hynds earned a bachelor’s in sociology, a master’s in industrial relations and a doctorate in industrial technology.

“We are very pleased to have Dr. Hynds become a CRS Center Fellow,” Johnson said. “Her research and teaching interests in facility management and leadership are an excellent fit with the mission of the CRS Center.”

Hynds is a public trustee of the National Association of Women in Construction Educational Foundation, certified instructor for the National Center for Construction Education and Research, and member of the Associated Builders and Contractors.

She has been named Outstanding Professor, Kappa Kappa Gamma, Favorite Professor, Alpha Gamma Rho and received the Montague Center for Teaching Excellence Scholar award from Texas A&M and the State of Indiana Governor’s Award for Energy Programs. ■
Just one of the fellas ....

Construction Science department's Toni Hynds named new CRS Faculty Fellow

By Melanie Maxcey

Dr. Toni Hynds was recently named Faculty Fellow for the CRS Center, announced Dr. Robert Johnson, center director.

Created in May 1998, the CRS Center Fellows program is designed to help build a supportive intellectual environment and research infrastructure for faculty, graduate students and professionals whose interests are compatible with those of the Center, explained Johnson.

Hynds is an assistant professor in construction science department at the Texas A&M University College of Architecture.

"It was very much an honor to be asked to be a faculty fellow in support of the CRS Center," Hynds said. "The center’s emphasis on facility management will provide wonderful opportunities for us to work together."

Hynds came to the College in 1997 from Purdue University, and has held a variety of academic positions since 1979.

But it is also her "real world" experience that makes Hynds unique. She worked for Delco Electronics Corporation, a division of Hughes/General Motors for five years.

She held positions as a project coordinator and later as a technical training supervisor responsible for more than 7,000 employees.

She has experience working with unions and also skilled trade professionals.

Hynds also enjoys consulting, working on projects with Chrysler Motors Corporation, Delco; Sparton Engineering, Haynes International, Inc., Bridgestone/Firestone, Sparton

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