Korn Award goes to paper on behavior of dapped ends of prestressed concrete thin-stemmed members


Amir Botros


Gary Klein


Gregory Lucier


Sami Rizkalla


Paul Zia

Amir Botros, Gary Klein, Gregory Lucier, Sami Rizkalla, and Paul Zia received the Martin P. Korn Award for their paper titled "Dapped Ends of Prestressed Concrete Thin-Stemmed Members: Part 1, Experimental Testing and Behavior," which was published in the March–April 2017 issue of *PCI Journal*. The Martin P. Korn Award is given to the best design or research paper appearing in *PCI Journal* during a single year.

The paper describes the behavior of dapped ends of prestressed concrete thin-stemmed members based on an extensive experimental program conducted to identify the most effective reinforcement schemes and develop design guidelines for dapped ends. Experimental research findings presented in this paper were used to develop design guidelines that are presented in a companion paper.

Each end of 10 full-scale single-tee prestressed concrete beams with dapped ends was tested to failure (20 tests in total). Six different reinforcement schemes were investigated in the experimental program: vertical L, inclined L, vertical Z, custom welded-wire reinforcement, vertical C, and CZ schemes. The experimental program also examined the influence of several parameters believed to affect the behavior, including the prestressing of the nib, concrete strength, web shear reinforcement, nib height, and splice length of the hanger reinforcement. The experimental results indicated that the extent of cracking at service load, the ultimate strength, and the failure mode are influenced by the reinforcement arrangement at the dapped end. Service load cracking can be controlled to acceptable levels through proper design and detailing of the reinforcement within the end region.

Parking structure paper receives 2017 Lyman Award


Maher Tadros


Kromel Hanna


Nader Jaber


Jenna Hansen

Maher Tadros, Kromel Hanna, Nader Jaber, and Jenna Hansen received the Robert J. Lyman Award for the best construction, production, or erection paper appearing in *PCI Journal* during a single year. The paper, titled "Transversely Posttensioned, Pretopped Box-Slab System for Precast Concrete Parking Structures," was published in the March–April 2017 issue of *PCI Journal*.

Precast concrete parking structures have proved their cost-effectiveness, speed of construction, and architectural elegance. The dominant precast concrete joist product in the United States for parking structures is the double tee. Research over the past 40 years has focused on improving the cost-effectiveness of double tees by increasing their width from 8 to 10 to 12 ft (2.4 to 3.0 to 3.6 m). Recently a 15 ft (4.5 m) wide double tee was introduced in some U.S. regions. Another

active area of research has been to make the reinforcement of the spandrel beams simpler. This paper offers a precast concrete pretopped box slab with a wide top flange. The slab has a total depth of 24 in. (610 mm), compared with the corresponding 30 in. (76 mm) double tee, and a top flange width of 8 to 16 ft (2.4 to 4.9 m). The 12 ft wide, 24 in. deep pretopped box slab is expected to replace the 12 ft wide, 30 in. deep double tee, and the 16 ft wide, 24 in. deep pretopped box slab is expected to replace the 16 ft wide, 30 in. deep double tee. This research shows that the new shape requires fewer strands than the double tee, and it theoretically and experimentally performs well. When considered in the total–precast concrete system described in the paper, it is expected to be competitive on both an initial and life-cycle cost basis. This paper also offers an innovative transverse posttensioning system to render the joints maintenance free and to eliminate the need for sealants, which have inspection demands and require occasional replacement. Details are given on how to get the joints precompressed while keeping the construction steps simple.

Botros, Andrews, Holloway get Nasser young author award

Amir Botros

Blake Andrews

Kurt Holloway

Amir Botros, Blake Andrews, and Kurt Holloway received the George D. Nasser Award for their paper titled "Dapped Ends of Prestressed Concrete Thin-Stemmed Members: Part 2, Design," which was published in the March–April 2017 issue of *PCI Journal*. The George D. Nasser Award recognizes authors 40 years of age or younger who write outstanding *PCI Journal* papers on design, research, production, or construction. Gary Klein was a coauthor of this paper.

This paper describes the design of dapped ends of prestressed concrete thin-stemmed members based on an experimental program conducted to identify the most effective reinforcement schemes and develop design guidelines for dapped ends. The testing was part of a research program that included 20 full-scale tests and extensive finite element modeling. The experimental program, under which promising reinforcement schemes and key parameters were tested, is described in a companion paper. This paper describes the development of design guidelines for dapped thin-stemmed members based on analytical studies and an experimental program.

Several modified design practices for dapped double tees are recommended. Recommendations for control of cracking in the end region are also discussed.

Zollman Award goes to paper on UHPC in precast bridges

J. P. Binard

J. P. Binard received the Charles C. Zollman Award for the best state-of-the-art precast and prestressed concrete paper appearing in *PCI Journal* during a single year. His paper "UHPC: A Game-Changing Material for PCI Bridge Producers" was published in the March–April 2017 issue of *PCI Journal*.

Ultra-high-performance concrete (UHPC) has become a prominent subject in the construction industry—particularly the precast, prestressed concrete industry—for connections of components, as well as various pilot projects using prefabricated components. The well-documented and researched material characteristics of UHPC offer a new suite of bridge solutions that have yet to be fully implemented by PCI producers.

Inspired by Dura Technology founder and chief executive officer Yen Lei Voo, six PCI representatives in conjunction with the *fib* (International Federation for Structural Concrete) Task Group 6.5, Precast Concrete Bridges, took a TechnoQuest trip to Malaysia, where they investigated Voo's company. The purpose of the visit was to observe a facility solely focused on fabricating UHPC components for bridges and other heavy civil structures. The idiosyncrasies of the manufacturing facility illustrated many similarities to the current means and methods of fabrication in the United States by PCI bridge producers, aside from the material difference. The observations of the group, both in terms of means and methods as well as possible advantages for future endeavors in the United States, are presented in the paper.

Taylor named PCI's new CFO


Beth Taylor

Beth Taylor joined PCI as the new chief financial officer on July 24. Taylor will assume responsibilities for all PCI financial and accounting functions, as well as oversee human resources and information technology for PCI.

She comes to PCI with more than 30 years of experience in the association and not-for-profit sector, most recently as chief operations officer at the Chicago, Ill.–based American Marketing Association (AMA), where she oversaw human resources and information technology operations as well as the financial functions. Prior to being promoted to COO, she spent six years as AMA's CFO.

Taylor has a degree in finance and marketing from the University of Iowa in Iowa City and an MBA from the University of Illinois at Chicago. She is a registered CPA and has earned the Certified Association Executive credential from the American Society of Association Executives.

Schaedler joins PCI as executive assistant


Arelys Schaedler

Arelys Schaedler started at PCI as executive assistant to Bob Risser, PCI president and CEO, July 17. In this role, she will be assisting and coordinating with the president's office, the PCI Board of Directors, and PCI committees and performing duties related to PCI events and awards.

Schaedler comes to PCI from the International Warehouse Logistics Association in Des Plaines, Ill., where she spent the past four years, most recently as office coordinator. She earned her bachelor of science degree from Full Sail University in Winter Park, Fla.

Meyer tapped as new PCI membership coordinator


Marianne Meyer

Marianne Meyer has been named PCI's new coordinator of member services. She started July 24 and will be coordinating the association's membership growth, retention, and member services.

Meyer is proficient in business-to-business sales with vast vendor and customer relations and retention experience and has worked collaboratively with all levels of organizations, from executives to subcontractors. She comes to PCI from the hotel renovation industry, specifically performing project management and procurement of domestic furniture, fixtures, and equipment and operating supplies and equipment. She has also been a business owner and worked in multimedia and print.

"What I most look forward to is interacting with our members and getting acquainted on a personal level to ensure I deliver impactful benefits that work for all of our members," Meyer says. "Life has taught me all anyone really wants is to be heard. It's my goal, to listen, respond, and react."

Meyer received her BS in apparel and textile merchandising, formerly family and consumer sciences, from Western Illinois University in Macomb.

Architectural Certification Committee formed

A new Architectural Certification Committee was formed on the recommendation of a PCI task group of Architectural and Plant Certification Committee members working with five leading design architects. The committee will finalize categorizing different levels of architectural precast concrete certification and will take advantage of the PCI Certified Erector Program to meet the construction industry's requests. The new committee met October 5 at the PCI Committee Days and Membership Conference in Rosemont, Ill. For more information, contact Roger Becker at rbecker@pci.org.

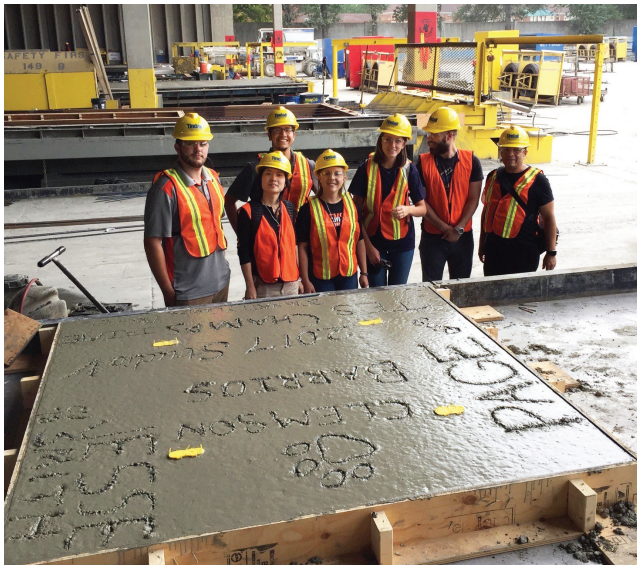
New PCI website launched

September 1, PCI rolled out the new pci.org. The new website was designed to be easier to use, including a more-intuitive responsive design. It also includes the launch of PCI's new Precast Builds marketing campaign.

PCI.org functionality will continue to be added to over the next 12 months in phases, with more content available, especially in the Members Only section.

In order to gain access to the whole site, PCI members need to register their email addresses. After that, members can reset their passwords. For any questions if you need help logging in, contact membership@pci.org.

PCI Foundation gives Clemson students hands-on experience at Tindall plant in Spartanburg



As part of their PCI Foundation Precast Studio, students from Clemson University in Clemson, S.C., build and finish a precast concrete panel at Tindall Corp.'s Spartanburg, S.C., plant. Courtesy of Carlos Barrios.

Carlos Barrios, recently tenured associate professor in the School of Architecture at Clemson University in Clemson, S.C., brought students from his fall 2017 precast studio to Tindall Corp.'s Spartanburg, S.C., plant to spend a day getting hands-on experience with precast concrete.

The group of students was hosted by Tindall's vice president, David Britt. After receiving instruction about precast concrete, the students built forms with a variety of finishes, placed the concrete, and, once the concrete cured, stripped the panels.

This type of experiential learning is something that the PCI Foundation has encouraged in the 10 years since it began sponsoring education programs at universities. By moving beyond theory to the realm of learning by doing, students get firsthand experience with topics they are initially taught in the classroom. Studies have shown that this type of activity plays an important role in students' ability to retain concepts and ideas. Experiential learning is also about applying the concepts students already know to real situations.

—Marty McIntyre

PCI notifies public of standards under development

PCI's American National Standards Institute–approved procedures require notification of the public through suitable media of the initiation and scope of activities expected to result in new or revised PCI standards. Following is a list of proposed new PCI standards:

- *Manual for Quality Control for Plants and Production of Structural Precast Concrete Products* (PCI MNL-116)
- *Manual for Quality Control for Plants and Production of Architectural Precast Concrete Products* (PCI MNL-117)
- *Manual for Quality Control for Plants and Production of Glass Fiber Reinforced Concrete Products* (PCI MNL-130)
- *Standard for Glass-Fiber-Reinforced Concrete Panels and Decorative Units* (PCI MNL-128)
- *Design for Fire Resistance of Precast Prestressed Concrete* (PCI MNL-124)
- *Tolerance Manual for Precast and Prestressed Concrete Construction* (PCI MNL-135)
- *Manual for Design, Manufacture, and Installation of Prestressed Concrete Piling* (JR-382)

Directly and materially affected interests wishing to receive more information or to submit comments are requested to contact PCI at standards@pci.org.

Research shows how architects, specifiers use digital media right now

PCI collaborated with Architectural Research Associates to conduct research to determine how architects and specifiers are using the internet and new and emerging media.

On average, respondents spend about 23 hours per week using the internet, of which 64% is for work-related items. Nine out of ten respondents say they have used a manufacturer's website in the past 12 months. The research lists the importance of various types of website content.

To request a copy of the complete report, please email marketing@pci.org.

Looking back at 10 years of education projects: What's our return on investment

Marty McIntyre
PCI Foundation
Executive Director

What started 10 years ago as one architecture studio at the Illinois Institute of Technology has blossomed into an amazing education program that now includes 19 schools of architecture, civil and structural engineering, and construction management programs. The investment in each of these programs (which were formerly known as studios, but have now morphed into more all-encompassing "education projects") is enormous—not only in terms of the dollars invested in each school by the PCI Foundation but also the time, talent, and treasure brought to bear on the projects by the local partners who get involved on each and every program.

As I look back on the history of the programs—and the evolution of the PCI Foundation—some of the benefits to our industry are apparent right away. Each year, I survey students who have been in the program to learn about how they view their precast concrete experience. Most of them tell us that they have an excellent experience through the PCI Foundation program, and a theme throughout many of the comments is that the precast concrete program is often the highlight of a college career. Answers like this University of Southern California student's are not at all unusual. "I think it was a very educational studio and was very well organized. The trips to the precast plant were very motivating and inspiring throughout the semester. The hands-on experience is definitely a must for the coming years!"

For many of the students, their time learning about precast concrete will affect the choices they make while seeking positions after college. Eighty-four percent say they plan to design with precast concrete, and 64% say they will seek work with a firm that typically designs with precast concrete. Sometimes, once they leave school, past students find unexpected ways that the program was helpful. "I do actually use what I learned in Doug Noble's studio," says Nicolle Landowski of IA Interiors. "I learned about the limitations and best uses of precast. Now I am working in Silicon Valley mainly doing offices that are steel construction, but we have quite a few labs/warehouses that are precast concrete construction that are being converted into nice offices. It was helpful to learn because now when we detail/modify the precast shell of the building, I have an understanding of how it was made, what its limitations are, and what we can do. Also, it was helpful in the past when doing multifamily housing, as they typically used precast elements for the parking lots. And we have been using precast concrete elements a lot in interiors for offices. I was just on a project where we cast the reception desk in concrete sections because of its unique form."

In one case, a student who graduated in May from the University of Michigan contacted his local partner in July looking for a precast concrete project he was working on. The turnaround from student to specifier isn't always so quick, and yet we are finding many stories similar to this one from other graduates. In other cases, students have gone directly from school to work with the precast concrete industry. Wells Concrete has hired at least two graduates from the Minnesota State University, Mankato, program.

Another benefit of using the PCI Foundation program is the number of students we are able to reach through the schools. While the number of students who have been directly involved with programs is just over 1200, the number of students who participate in activities before and after the grants are complete is more than 2100. This is because some students who may not be enrolled in precast concrete classes often tag along for industry tours or lectures, and these programs typically continue even after the grant is complete.

One of the elements of our programs that the PCI Foundation has gotten much better at over the past 10 years is working with schools to keep a program rolling after the grant has ended. This often takes effort on the part of the local partner and interest from the professor, who sees how his or her students have benefitted over the course of the program. Currently, 50% of the programs continue at the same level once the grant is complete, and 75% of programs carry on at some level, either by continuing to include tours, speakers, or other precast concrete materials or by continu-

ing to include precast concrete instruction within other curricula, such as materials classes.

Memorable experiences gained in the PCI Foundation programs and the relationships students form with our industry have led graduates to look for careers where they can use what they learned about precast concrete, specify precast concrete projects once they are out, go to work for the precast concrete industry, and carry on a legacy for our industry like nothing we saw in education prior to the first studio starting 10 years ago. The return on investment is amazing.

Arizona, Minnesota schools to receive foundation support

The PCI Foundation Trustees recently accepted two new proposals for PCI education programs. At the beginning of 2018, the University of Arizona (UA) in Tucson and the University of Minnesota Duluth (UMD) will join the list of programs supported by the PCI Foundation.

The UA program will be coordinated by Robert Fleischman, civil engineering professor, in conjunction with the College of Architecture, Planning, and Landscape Design. The UA PCI Foundation studio will create new precast concrete–related content to be integrated across the civil engineering, architecture, and architectural engineering degree programs. This content will appear as new learning modules, primarily for undergraduate upper division and graduate coursework technical electives.

An industry champion, Dawn Rogers of Coreslab Structures (ARIZ), will coordinate the industry involvement. Other UA personnel involved with the program will include Dean Papajohn, Hongki Jo, Cac Dao, Ray Barnes, Michael Kottke, and Katt Hobhani. Outside professionals who will be involved in the program include Ted Buell of architecture firm HDR and David Zaleski of the Pima County Department of Transportation (Arizona).

For the UMD, the focus will be on resilient precast concrete. Ben Dymond, assistant professor in the Department of Engineering, will coordinate the program in conjunction with the Department of Civil Engineering, the Department of Mechanical and Industrial Engineering, and the MBA program. John Saccoman of Molin Concrete Products will be the industry champion for the program. This multidisciplinary educational program aims to combine the traditional approach to concrete engineering education with cutting-edge knowledge related to sustainability and business management.

The program will include new content in four courses taken during students' junior and senior years. Once students complete the courses, they will have a special pullout on their transcript noting their special interest in resiliency and precast concrete design. All students in the department will be exposed to some precast concrete curriculum. This curriculum will be cotaught by Alison Hoxie, a mechanical engineer specializing in thermal efficiency and sustainability. Students will work with a professor or business mentor on their projects, which may involve research and analysis of resiliency in precast concrete.

Students who successfully complete all four courses will receive a UMD Certificate and a line on their transcript denoting completion of the Precast Engineering Program.
—Marty McIntyre

PCI Foundation After Dark event to be casino themed

The PCI Foundation After Dark event will take on a new spin at the 2018 PCI Convention and National Bridge Conference at the Precast Show as a casino night.

The evening will feature a variety of casino games, along with a hosted bar and desserts. Participants will play for tickets that can be used to enter to win a variety of raffle prizes. In addition to casino games, a small silent auction will feature a few auction favorites.

Nancy Peterson of Rocky Mountain Prestress will chair the event. "Having an opportunity not only to mingle with friends from PCI but also have some fun and raise money for a great cause should make this a must-attend event," Peterson says.

The PCI Foundation casino night will take place from 9:30 to 11:30 p.m. Friday, February 23, at the Hyatt Regency Denver, where the convention is being held. Tickets are $125 and may be purchased with your PCI registration, at the registration desk, or at the door. The evening is made possible by sponsors Hamilton Form, BASF, and Thermomass.

—Marty McIntyre

PCI releases 2016 Sustainable Plant Performance Report

PCI recently released its 2016 Sustainable Plant Performance Report, which reflects data collected in the first two years of the program ending December 2016. The report includes moving averages for the industry during this period.

The goal of the North American Precast Concrete Sustainable Plant Program (NAPCSPP) is to benchmark the precast concrete industry's impact on the environment in the areas of global warming, energy, water use, waste, dust, and noise generation. Ultimately, the precast concrete industry is striving to reduce the environmental impact at the manufacturing level while creating a culture of sustainability.

The PCI Life Cycle Assessment study for Commercial Buildings (2013) helped identify where the industry can improve its impact at the manufacturing stage of the life cycle, with a goal to positively influence the impact at the end of a project's life.

Participating plants are assigned unique identification numbers to maintain confidentiality. For more information on the NAPCSPP, contact Emily Lorenz, PCI's director of sustainability, at elorenz@pci.org.

Maguire named 2017 PCI Educator of the Year

The Educational Activities Council selection committee, chaired by Glen Switzer of Durastress, named Marc Maguire of Utah State University (USU) in Logan the 2017 PCI Educator of the Year.

Marc Maguire

Maguire has been an assistant professor at USU since 2013 and has demonstrated sustained activity within PCI since he joined at that time. He has served on the Journal Advisory Committee, Precast Wall Panel Committee, and Bridges Committee. Before Maguire's arrival at USU, there were no prestressed concrete or civil engineering materials classes in the curriculum, but he has now implemented them. In addition, he has funded 20 graduate students, 20 undergraduate students, and one postdoctoral researcher, all focusing on concrete research. He was the USU Civil and Environmental Engineering Undergraduate Research Advisor of the Year in 2015 and Graduate Mentor of the Year in 2016. Maguire also received a Daniel P. Jenny Fellowship to study partial composite action in concrete sandwich panels and is working with the Portland Cement Association on thermal and structural efficiency of concrete sandwich panels.

He was presented with the award October 6 during PCI's awards luncheon at the 2017 PCI Committee Days and Membership Conference in Rosemont, Ill.

Kahn named 2017 PCI Distinguished Educator

Lawrence Kahn

The Educational Activities Council selection committee, chaired by Glen Switzer of Durastress, named Lawrence Kahn of Georgia Institute of Technology in Atlanta PCI's 2017 PCI Distinguished Educator.

Kahn is professor emeritus in the School of Civil and Environmental Engineering at Georgia Tech. He joined the school in 1976 and retired in 2015, but he continues to teach prestressed concrete, conduct research, and teach in the international program at Oxford University in England. Kahn principally taught structural design and analysis classes and was heavily involved in experimental research dealing with the performance of high-strength prestressed concrete highway bridges and bridge components, the development of high-strength lightweight concrete for pretensioned bridge girders, the development of corrosion-resistant prestressing strands and durable concrete for marine piles, earthquake resistance and strengthening of poorly detailed reinforced concrete and unreinforced brick masonry buildings, and repair and rehabilitation of structural concrete and masonry.

Kahn is active in the American Concrete Institute (ACI), where he serves on the Technical Activities Committee; Committee 562 (Repair Code), of which he is the immediate past chair; 546 (Repair); and 364 (Rehabilitation). He is a fellow of ACI, the American Society of Civil Engineers, and the Masonry Society and is a member of the International Concrete Repair Institute and the Structural Engineers Association of Georgia. Before coming to Georgia Tech, he was a structural engineer for the U. S. Naval Civil Engineering Laboratory in Port Hueneme, Calif., for four years and for Bechtel Corp. in San Francisco, Calif., for one year. He holds degrees from Stanford University in California, University of Illinois at Urbana-Champaign, and University of Michigan in Ann Arbor.

He was presented with the award October 6 during PCI's awards luncheon at the 2017 PCI Committee Days and Membership Conference in Rosemont, Ill.

Daniel P. Jenny

Dan Jenny, retired PCI technical director and Medal of Honor recipient, died August 3, 2017. He was 95.

Jenny spent 24 years on the staff of PCI as technical director, research director, and vice president.

In a 2009 interview for *PCI Journal*, Jenny said that his love of engineering began as a child watching his father work on railroad construction crews in Milwaukee, Wis. As he got older, he took extra courses in science and math to put him ahead, ensuring that he would be accepted to Marquette University's five-year co-op civil engineering program in 1939, where he coincidentally wound up being supervised by his father.

World War II was going on when Jenny completed his degree, and in 1943, two weeks after graduation, he joined the Navy, where he spent three years supervising installments of guns, radar, and electronic equipment at the Boston Naval Shipyard. His military experience landed him a job with Fluor Construction when he got out in 1946, and it gave him the opportunity to go back to school on the GI Bill in 1948 to pursue a master's degree in civil and structural engineering at the University of Minnesota.

His professional career spanned 41 years, during which he worked for three different trade associations, the Portland Cement Association (PCA), the Shale Clay and Slate Institute, and PCI. When Jenny graduated in 1949, there weren't many jobs for advanced civil engineers, so he got a letter of recommendation from a professor who sent him to the PCA in Skokie, Ill., with the suggestion that the organization might recommend him to a local engineering firm. Jenny ended up receiving a job offer from PCA to be its new structural engineer with the Structural and Railways Bureau. While at PCA, he was introduced to prestressed concrete. His mentor there, Thor Germundsson, developed early design procedures for prestressed concrete that he shared with field engineers in seminars.

After 11 years with PCA, four of them in the association's Washington, D.C., office, he got another job in Washington working for the Shale Clay and Slate Institute for six years.

Around that time Bob Lyman, then director of PCI, was spending some time in Washington and was looking for a technical director. He and Jenny met at a trade association event, where Lyman asked Jenny to recommend a possible candidate, but Jenny had other plans. By the end of 1966, he was working with PCI in Chicago, Ill.

Over the next two and a half decades, Jenny helped shape the association, developing quality-control and safety manuals and working to put on the annual convention. He also helped expand the technical committee structure and added more committees. Then, in 1971, he compiled the first *PCI Design Handbook*.

Jenny later went on to become PCI's research director, and in 1987 he was named acting executive director for a term. He retired from his job as research director and vice president from PCI in 1990 at the age of 69 and stayed active in the association for several more years.

In 2014, Jenny received the PCI Medal of Honor, the industry's most prestigious award. He was named a Fellow in 1994 and a Titan of the Industry in 2004. He was the recipient of the PCI Medal of Honor, the industry's most prestigious award.

In 1971, PCI created the Daniel P. Jenny Research Fellowship in his honor. The goal of the Daniel P. Jenny PCI fellowship program is to engage the interest of young engineering students in the precast concrete industry while providing a research experience of value to both the student and the precast/prestressed concrete industry. Since 1971, PCI has awarded 144 fellowships to more than 50 different universities.

2016/2017 Big Beam winners announced

The Judging Committee recently selected the winners of the Engineering Student Design Competition, also known as the Big Beam Contest. PCI's Student Education Committee (Sergio Breña, chair) organized the Big Beam Contest (sponsored by Sika Corp., PTAC, and *Aspire* magazine) and assigned the judging committee (Richard Miller, chair). The objective is for teams of students to fabricate and test a precast/prestressed concrete beam with the help of local precast concrete PCI producer members. Prizes are awarded to the top 20 performers in consideration of efficient design, highest load capacity, and other categories.

Entries were ranked by total number of points earned, and the first-place team was from Saint Martin's University in Lacey, Wash.

The 2016/2017 Big Beam videos are posted online at http://bit.ly/2zgsA6j.

Overall results

Place	School	Faculty advisor	PCI producer	Student team	Points	Award
First	Saint Martin's University (Kraken Again); Lacey, Wash.	Jill Walsh	Concrete Technology Corp.; Tacoma, Wash. (Austin Maue)	Cameron Reece, William Miller, Paul Rumbles, Jarad Roschi, Joel Rogers, Clarinda Marion, and David Rowland	61.75	$2000 plus other prizes
Second	Oregon State University; Corvallis, Ore.	Keith Kaufmann	Knife River Prestress; Harrisburg, Ore. (Dusty Andrews)	Madhav Parikh, Thomas Fruin, Kolton Mahr, Spenser Maunu, Makenzie Ellett, and Andy Truong	61.25	$1750
Third	Missouri University of Science and Technology; Rolla, Mo.	John Myers	Coreslab Structures Inc.; Marshall, Mo. (Scott Fitzgerald)	Eli Hernandez and Hayder Alghazali	58.50	$1500
Fourth	Iowa State University; Ames, Iowa	An Chen	Forterra Pipe and Precast; Tacoma, Wash. (Austin Maue)	Nathan Ryan, Chris Levandowski, Jacob Eull, and Conner Schaeffer	57.25	$1250
Fifth	Red River College (Team Danger Zone); Winnipeg, MB, Canada	Robin Hutchinson	Lafarge Canada Inc.; Winnipeg, MB, Canada (Ifan Lim)	Justine Helbren, Dylan DesJarlais, Kristen Cartman, and Kevin Jury	56.25	$1250
Sixth (tie)	Northern Arizona University; Flagstaff, Ariz.	Robin Tuchscherer	Tpac (a Kiewit Western company); Phoenix, Ariz. (Vincent Rossi)	Mohammed Alradhi, Qusai Al Ghalbi, Kacy Aoki, and Rick Wilson	54.50	$1000
Sixth (tie)	United States Military Academy; West Point, N.Y.	Major Lyle R. Milliman	Blakeslee Prestress Inc.; Branford, Conn. (Rick Fitzgerald)	Gbenga Olaolorun and Evan Pape	54.50	$1000
Eighth	University of Minnesota Duluth (team 1); Duluth, Minn.	Ben Dymond	Molin Concrete Products; Lino Lakes, Minn. (Paul Kourajian)	Muhammad Bajwa, Colton Moore, and Corey Schlosser	54.00	$1000
Ninth	University of South Florida (team 1); Tampa, Fla.	Rajan Sen	Standard Concrete Products; Tampa, Fla. (Ryan Cartwright)	Asad Elmagarhe, Walid Elsiwi, Kai Zhu, Poe Poe Hlaing, and Jaydeep Ghorpade	53.25	$1000
Tenth	University of Missouri–Kansas City; Kansas City, Mo.	Ganesh Thiagarajan	Coreslab Structures; Kansas City, Kans. (Terry Fleck)	Phanindra Kumar Kosaraju, Akash Ashok Iwalekar, Scott Jackson, and Aaron Lee	52.00	$1000
Eleventh	University of Washington (Project Atlas); Seattle, Wash.	John Stanton	Concrete Technology Corp.; Tacoma, Wash. (Austin Maue)	Bowei Liang, Jordan Miyahara, Rayna Mumbower, Gun Woo Park, Rui Xue, and Jon Zhdanov	51.25	$500

Place	School	Faculty advisor	PCI producer	Student team	Points	Award
Twelfth	Minnesota State University, Mankato; Mankato, Minn.	Farhad Reza	Wells Concrete; Wells, Minn. (Dustin Jones)	Alex Fiebiger and Abdul Nabiev	50.25	$500
Thirteenth	Lehigh University (team 1); Bethlehem, Pa.	Clay Naito	J & R Slaw Inc.; Lehighton, Pa. (Jeremy Klotz)	Alia Amer, Yixin Chen, and Safwan Waheed	49.25	$500
Fourteenth	University of South Florida (team 2); Tampa, Fla.	Rajan Sen	Standard Concrete Products; Tampa, Fla. (Ryan Cartwright)	Sarah Mobley, Hani Freij, Juan Rivera, and Ajay Gulati	47.75	$500
Fifteenth (tie)	Lehigh University (team 2); Bethlehem, Pa.	Clay Naito	J & R Slaw Inc.; Lehighton, Pa. (Jeremy Klotz)	Christian Consalvo and Meridith Meyer	46.50	$500
Fifteenth (tie)	University of Minnesota Duluth (team 2); Duluth, Minn.	Ben Dymond	Molin Concrete Products; Lino Lakes, Minn. (Paul Kourajian)	Matthew McDermott and Bryce Hansen	46.50	$250
Seventeenth	California State University, Sacramento; Sacramento, Calif.	Eric Matsumoto	Clark Pacific; Woodland, Calif. (Chase Wells)	Jonathan Mougharbel, Meagan Yoeono, Tashley Covington, Robert Denison, Mingshen Chen, and Kyle Lundblom	46.25	$250
Eighteenth	Western University (team 2); London, ON, Canada	Aiham Adawi	Prestressed Systems Inc.; Windsor, ON (Anil Mehta)	Paige Newman, Andrea Hamilton, Kenny You, Maria Garcia, Sara Hanbali, Asif Rajani, Connor Zarglis, and Sara Sago	45.75	$500
Nineteenth (tie)	University of North Carolina at Charlotte; Charlotte, N.C.	Brett Tempest	Prestress of the Carolinas; Pineville, N.C. (Dana Pearson)	Islam Elsayed, Gregory Loflin, Luis Paredes, Jeffrey Poe, Edward Powers, Caitlin Purvis, Houston Sims, and Edgar Torres	45.50	$250
Nineteenth (tie)	Western University (team 1); London, ON, Canada	Aiham Adawi	Prestressed Systems Inc.; Windsor, ON, Canada (Anil Mehta)	Ethan Barrand, Tyler Barrand, Tamer Ellaw, Brigette McMillan, Brianna Hall, Mohamed ElGendy, Zhi Nan Wu, Houtan Mesbahi, and Holly Liu	45.50	$250

Best report

The judging committee considers the overall presentation of the report when deciding on a best report winner. In addition to verifying that the report contains all of the requested sections and required signatures, judges look for clear presentation of data, a professional look and formatting, and an overall well-written report.

Award	School	Faculty advisor	PCI producer	Student team	Award
Best report	Oregon State University; Corvallis, Ore.	Keith Kaufmann	Knife River Prestress; Harrisburg, Ore. (Dusty Andrews)	Madhav Parikh, Thomas Fruin, Kolton Mahr, Spenser Maunu, Makenzie Ellett, and Andy Truong	$500

Best video

Contest requirements include a video taken of the beam being tested. Teams are encouraged to be as creative as they wish when preparing the final video. Videos with a storyline related to the Big Beam Contest are clear standouts, and the judging committee may elect an entry to receive a best video award.

Award	School	Faculty advisor	PCI producer	Student team	Award
Best video	Western University (team 1); London, ON, Canada	Aiham Adawi	Prestressed Systems Inc.; Windsor, ON, Canada (Anil Mehta)	Ethan Barrand, Tyler Barrand, Tamer Ellaw, Brigette McMillan, Brianna Hall, Mohamed ElGendy, Zhi Nan Wu, Houtan Mesbahi, and Holly Liu	$500

PCI Calendar

Events

For the most current information on PCI events, visit http://www.pci.org/events.

PCI West Winter Board Meeting Las Vegas, Nev.	January 23, 2018
PCI Mountain States Winter Board and Membership Meeting Las Vegas, Nev.	January 23, 2018
PCMA of Texas Winter Board Meeting Austin, Tex.	February 15–19, 2018
2018 PCI Convention and National Bridge Conference in partnership with The Precast Show Colorado Convention Center, Denver, Colo.	February 20–24, 2018
2018 PCI Summer Conference New Orleans, La.	June 7–11, 2018
The Tour 2018 Bloomington, Minn.	September 18–21, 2018
2018 PCI Committee Days and Membership Conference Leows Chicago O'Hare Hotel, Rosemont, Ill.	October 10–13, 2018
2019 PCI Convention and National Bridge Conference in partnership with The Precast Show Kentucky International Convention Center, Louisville, Ky.	February 26–March 2, 2019
2019 PCI Committee Days and Membership Conference Loews Chicago O'Hare Hotel, Rosemont, Ill.	October 2–5, 2019
2020 PCI Convention and National Bridge Conference in partnership with The Precast Show Fort Worth Convention Center, Fort Worth, Tex.	March 3–7, 2020

PCI personnel training and certification schools

If you have any questions about the Quality Control School schedule or need help completing a registration form, please contact PCI's education manager, Sherrie Nauden, at snauden@pci.org or (312) 360-3215. Registration forms are available at http://www.pci.org/schools.

Level I/II	December 5–7, 2017 January 22–24, 2018	Nashville, Tenn. Las Vegas, Nev.
Level III	December 7–10, 2017	Nashville, Tenn.
CFA	December 5–7, 2017 January 22–24, 2018	Nashville, Tenn. Las Vegas, Nev.
CCA	December 8, 2017	Nashville, Tenn.

Compiled by K. Michelle Burgess (mburgess@pci.org)