

## FROM PCI HEADQUARTERS

### PCI honors California project with 2021 Sidney Freedman Craftsmanship Award

The University of California San Francisco Housing at the Tidelands has been honored with PCI's 2021 Sidney Freedman Craftsmanship Award. The annual award recognizes PCI-certified plants for excellence in manufacturing and craftsmanship of architectural precast concrete and glass-fiber-reinforced concrete (GFRC) structures and individual components.

Judges selected Clark Pacific's plant in Fontana, Calif., for its work on the two 6-story buildings on the college campus. The innovative project features 545 flat precast concrete and sculpted GFRC panels. To minimize solar heat gain, the buildings feature horizontal and vertical sunshades built directly into the GFRC panels on the sun-facing elevations, which will

maintain temperatures consistently 2°F to 4°F cooler than a flat facade.

"This project displays impressive attention to detail with formwork and forming material that translates to an elegant structure," says one juror. "Color uniformity, especially on the red tones, stands out. Geometry and color differences from the exterior to the courtyard creates a welcoming contrast."

"The Tidelands is a wonderful example of what can be created when we work together," says Doug Bevier, project manager at Clark Pacific. "From the very start, working with the community to ensure the building aesthetically fit in with the Dog Patch neighborhood, architect Kieran Timberlake conducting heat and sun studies, resulting in the billows being incorporated into the overall design to reduce the solar heat gain, to weekly design charrettes to ensure the final design stayed within the owner's budget, this was truly a collaborative effort."

The award is named after Sidney Freedman, retired PCI director of Architectural Systems, who was a leading voice in precast concrete architectural design for more than 43 years with the organization.

### PCI brings on new education, publications coordinator

PCI has hired a new education and publications coordinator. Lauren Bell started on November 29.

In this role, Bell coordinates knowledge management activities, including supporting the education and bookstore managers, educational committees, and education events, and serves as primary administrator of the PCI eLearning Center. Bell will also assist members in registering for courses and helping them get their certifications and course credits.

"I worked my way through education and found myself enjoying the administrative side best," Bell says. "That led me



The University of California San Francisco Housing at the Tidelands received the 2021 Sidney Freedman Craftsmanship Award.

### 2021/22 BIG BEAM CONTEST CALL FOR ENTRIES

The PCI Student Education Committee is inviting entries from students to participate in the Engineering Student Design (Big Beam) Competition for the 2021/22 academic year. Each student team must work with a PCI producer member to build a precast, prestressed concrete beam that is 20 ft (6 m) long. The beams will be tested and prizes awarded for best performance in the stated areas. Students must discuss both the structural design and the concrete mixture proportions for the beam. For more information, visit <https://www.pci.org/BigBeam>. All intending to submit a report must submit an application online at <http://www.pci.org/bigbeamapp>. Final reports are due to PCI by July 15, 2022.

to logistics and program administration, which seemed to be a perfect fit for what PCI was seeking in their new coordinator.”

Bell has a bachelor of arts in American literature from the University of Illinois at Chicago and a master of arts in teaching from National Louis.

## 2021 Korn award goes to paper on seismic reinforcing bar, foundation connections

The 2021 Martin P. Korn Award was presented to Theresa C. Aragon, Yahya C. Kurama, and Donald F. Meinheit for their paper “Behavior of Ductile Short-Grouted Seismic Reinforcing Bar-to-Foundation Connections under Adverse Construction Conditions,” published in the July–August 2020 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 an experimental investigation of the cyclic uniaxial behavior of a grouted reinforcing bar-to-foundation connection that can develop ductility under seismic loading even when constructed with adverse conditions.

Aragon is a faculty member in the School of Math, Science, and Engineering at Central New Mexico Community College in Albuquerque, N.Mex.; Kurama is a professor in the Department of Civil and Environmental Engineering and Earth Sciences at the University of Notre Dame in Notre Dame, Ind.; and Meinheit is a principal at Wiss, Janney, Elstner Associates Inc. in Chicago, Ill.

## Paper on interface shear experiments receives 2021 Zollman award

Otgonchimeg Davaadorj, Paolo M. Calvi, and John F. Stanton received the 2021 Charles C. Zollman Award for the best state-of-the-art precast concrete paper appearing in *PCI Journal* during a single year. Their paper “Shear Stress Transfer across Concrete-to-Concrete Interfaces: Experimental Evidence and Available



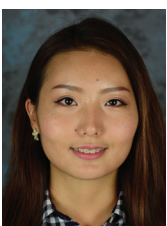
Theresa C. Aragon



Yahya C. Kurama



Donald F. Meinheit



Otgonchimeg Davaadorj

Strength Models” was published in the July–August 2020 issue of *PCI Journal*.

In their paper, the authors present results of a database of interface shear experiments collected from the literature and analyzed to identify the main parameters affecting the strength of concrete-to-concrete interfaces subjected to shear loads. The database included 509 push-off and pull-off specimens. The paper goes on to gauge the reliability of major international codes and interface strength models.

Davaadorj is a former master’s student in structural engineering in the Department of Civil and Environmental Engineering at the University of Washington, Seattle; Calvi is an assistant professor in the Department of Civil and Environmental Engineering at the University of Washington, Seattle; and Stanton is a professor in the Department of Civil and Environmental Engineering at the University of Washington, Seattle.



Paolo M. Calvi



John F. Stanton

## Authors of UHPC flexural design paper win 2021 Nasser award

The 2021 George D. Nasser Award goes to Chungwook Sim, Maher Tadros, David Gee, and Micheal Asaad for their paper “Flexural Design of Precast, Prestressed Ultra-High-Performance Concrete Members,” which was published in the November–December 2020 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.

The authors propose flexural design guidelines for precast, prestressed concrete members made with concrete mixtures developed by precasters to meet minimum specific characteristics qualifying it to be called PCI ultra-high-performance concrete (PCI-UHPC). The paper examines numerous aspects of UHPC design and evaluation and includes a fully worked-out



Chungwook Sim



Maher Tadros



David Gee



Micheal Asaad

example of a 250 ft (76.2 m) span decked I-beam of optimized shape.

Sim is an assistant professor in the Department of Civil and Environmental Engineering at the University of Nebraska–Lincoln. Tadros is a founding principal of e.Construct USA LLC, Gee is a structural engineer with e.Construct, and Asaad is a senior structural engineer with e. Construct, specializing in UHPC and bridge engineering. He has received awards for contributions to the American Concrete Institute and ASTM International.

## Project Precast student applications due January 28

The PCI Foundation is bringing back Project Precast after a one-year hiatus due to the COVID-19 pandemic. Students who want to be considered for a team slot in this design competition may apply until January 28, 2022.

Applicants who are chosen to be on a team will have all expenses paid for four days and three nights in Kansas City, Mo., in conjunction with the PCI Convention at The Precast Show.

Prizes include \$3000 for the winning team and \$1500 for the people's choice team. For more information, visit <https://www.pci-foundation.org/students>, and the student application is at <https://www.surveymonkey.com/r/N6K32Z3>.

Show attendees are encouraged to check out the student team presentations starting at 2 p.m. on Friday, March 4, at the convention.

## New sponsor joins Project Precast for 2022

This year, Project Precast 2022 will have six student teams competing, an increase from five teams in 2020. Wells Concrete joins as a new sponsor and will mentor its team of architecture, engineering, and construction management students.

Clark Pacific, Coreslab Texas, Metromont Corp., The Consulting Engineers Group, and Tindall Corp. are continuing sponsors. Clark Pacific sponsored and mentored the winning team in 2020. This is the third year for Project Precast.

## Redondo secures first PCI-certified plant AC157 accreditation

Redondo Manufacturing in Converse, Tex., recently became the first PCI-certified plant to be accredited to the International Accreditation Service (IAS) AC157 “Accreditation Criteria for Fabricator Inspection Programs for Reinforced and Precast/Prestressed Concrete” under PCI’s bilateral agreement with IAS.

Section 1704 of the 2021 International Building Code states that special inspections are required of fabricated structural, load-bearing members unless an approved fabricator is used. Section 1704.2.5.1 states that “Approval shall be based on review of the fabricator’s written fabrication procedures and quality control manuals that provide a basis for control of materials and

### DANIEL P. JENNY FELLOWSHIP CALL FOR APPLICATIONS

>> Applications for the Daniel P. Jenny Research Fellowships during the 2022/23 academic year are now being accepted. These fellowship awards of up to \$40,000 engage engineering students in precast related research, introduce students to supporting producers, and provide valuable improvement and development for the entire precast concrete industry. MS degree candidates conducting research related to precast concrete are preferred, but PhD program candidates will also be considered.

Applications are due January 14, 2022. Complete information is available at <https://www.pci.org/JennyFellowship>.

### 2022 IRWIN J. SPEYER YOUNG ENGINEER AWARD CALL FOR NOMINATIONS

>> The Irwin J. Speyer Young Professional Engineer Award honors the legacy of Irwin J. Speyer by recognizing young professional engineers who have made significant contributions to PCI during their early careers and who demonstrate their intent to continue serving the precast concrete industry as Speyer did during his career. The award will be presented September 21-23, 2022, at the 2022 PCI Committee Days in Rosemont, Ill. Complete award details and the official nomination form are available at <http://www.pci.org/PCI/About/Awards/Speyer-Award>. Nominations must be submitted by May 1, 2022.



workmanship, with periodic auditing of fabrication and quality control practices by an approved agency or the building official.”

AC157 accreditation provides a mechanism to become an approved fabricator without requiring approval of the building official on each project. Through PCI’s agreement with IAS, AC157 accreditation is available to PCI-certified plants for about half of the cost of going through IAS directly and without substantial additional requirements. The process includes completing an application and a cross-reference checklist of the quality system manual to AC157 requirements and submitting the required IAS fee. Minor revisions to the quality system manual will be required to incorporate specific IAS program references. AC157 also requires two 2-day audits, so additional audit fees may be necessary for plants receiving 1-day audits. More information and an application can be found in the Plant Certification section of the PCI website at [https://www.pci.org/PCI/PCI-Certification/Plant\\_Certification/IAS-AC157.aspx](https://www.pci.org/PCI/PCI-Certification/Plant_Certification/IAS-AC157.aspx).

## PCI hosts UHPC workshop

On September 21, 2021, PCI hosted a daylong workshop on the implementation of ultra-high-performance concrete (UHPC) in precast concrete components. The workshop covered UHPC material selection for nonproprietary mixture designs, characterization, and quality control testing of UHPC; production and fabrication considerations of precast UHPC components; and design aspects for precast UHPC applications. PCI has created a webpage for members with

information on UHPC at [https://www.pci.org/PCI/Members\\_Only/Technical\\_Resources/UHPC.aspx](https://www.pci.org/PCI/Members_Only/Technical_Resources/UHPC.aspx).

## 2022 Professors Seminar to be held in May

Hosted by the PCI Foundation, Georgia/Carolinas PCI, and Kennesaw State University (KSU), the annual Professors Seminar will take place May 18 to 20, 2022, at KSU’s Marietta, Ga., campus. Professors currently teaching a precast studio or who previously taught precast concrete are welcome. Any school interested in learning more about obtaining grant funding for a new precast studio are invited to apply to attend. Contact Marty McIntyre, PCI Foundation’s executive director, at [MartyMci@PCI-Foundation.org](mailto:MartyMci@PCI-Foundation.org) for details.

## 2021/22 Mertz fellowship awarded to Willis

The PCI Transportation Activities Council and the PCI Research and Development Council have awarded the 2021/22 Dennis R. Mertz Bridge Research Fellowship to Gabrielle Willis for her proposal, “Structural and Geotechnical Performance Evaluation of UHPC Pile Foundations and Components.”

## 2022 PCI EDUCATOR AWARDS CALL FOR NOMINATIONS

>> PCI’s educator awards program recognizes the work of academic professionals who exhibit a commitment to precast concrete in their graduate and undergraduate classrooms. Nominations must include recommendation letters, an updated curriculum vitae or resume, and additional information. PCI Distinguished Educator and PCI Educator Awards are available. The awards will be presented at the 2022 PCI Committee Days, September 20–24, 2022, at the Loews O’Hare in Rosemont, Ill., and nomination forms must be submitted by July 1, 2022. Nomination forms are available online at <https://www.pci.org/EducatorAward>. For more information about the educator awards program, contact Sherrie Nauden, continuing education senior manager, at [snauden@pci.org](mailto:snauden@pci.org).

## 2022 SIDNEY FREEDMAN CRAFTSMANSHIP AWARD CALL FOR ENTRIES

>> PCI is accepting entries for the 2022 Sidney Freedman Craftsmanship Award. Launched in 2012, the award recognizes PCI-certified plants for excellence in manufacturing and craftsmanship of architectural precast or glass-fiber-reinforced concrete structures and individual components. Any kind, size, or type of structure and/or element may be entered. Judging is based on success in overcoming obstacles to production, solutions to formwork or finishing challenges, and quality of individual units. Therefore, entries should include source documents, shop drawings, production photos as well as finished project photos to fully demonstrate the complex solutions implemented for the project. For more information, visit <http://www.pci.org/SFCA>. The deadline for all entries is July 1, 2022.

Willis, who attends the University of Alabama in Tuscaloosa, will be advised by Sriram Aaleti, an associate professor in the Department of Civil, Construction and Environmental Engineering at the University of Alabama. The project is supported by Standard Concrete Products with additional support from Precast Systems Engineering, FACCA Inc., and Mueser Rutledge Consulting Engineers PLLC.

In her application, Willis wrote, "If we were able to better understand the structural aspects of UHPC foundation elements including how they resist and transfer loading, how they are installed, and how their performance is affected by their structural cross section, materials, and splices/connections, we could further precast industry's capabilities in developing/providing creative and effective foundation designs."

The Mertz fellowship was established in 2017 in memory of Dennis R. Mertz, a professor of civil engineering at the University of Delaware and one of the principal investigators who developed the *AASHTO LRFD Bridge Design Specifications*, to connect students and faculty with precast concrete producers and industry experts to advance research in bridge and transportation-related precast concrete applications.

## Educator of the Year Awards go to Garber, Shea

David Garber and Matthew Shea were both named 2021 PCI Educator of the Year.

Garber is an associate professor in the Department of Civil and Environmental Engineering at Florida International University (FIU) in Miami and director of workforce development for the university's Accelerated Bridge Construction University Transportation Center. He is a member of the PCI Student Education Committee and has conducted several large-scale experimental and analytical precast concrete and accelerated bridge construction research projects.



David Garber

Shea is a clinical teaching assistant professor of architecture in the area of architectural design at the College of Architecture and Planning at the University of Colorado Denver. His scholarship focuses on architectural design pedagogy and the material culture of architectural production, including the interrelationship between culture and the artifacts and systems of architectural production.



Matthew Shea

## Andrews recognized with Irwin J. Speyer Young Professional Award

Dusty Andrews received the Irwin J. Speyer Young Professional Award, recognizing a PCI member who serves on at least one PCI committee and is a registered professional engineer or structural engineer for less than 15 years. Andrews, engineering director with Knife River Prestress in Harrisburg, Ore., was honored for his extensive work and commitment to PCI and the precast concrete industry. The award was presented in September at the 2021 PCI Committee Days.



Dusty Andrews

## Norman L. Scott Award goes to Cleland

Ned Cleland received the Norman L. Scott Professional Engineer Award, which recognizes an engineer who exhibits the personal and professional character that precast concrete icon Norman Scott exemplified. Cleland is founder and president of Blue Ridge Design Inc., a specialty structural



Ned Cleland

## 2022 T. HENRY CLARK AWARD CALL FOR NOMINATIONS



Nominations for the T. Henry Clark Award, to be presented at the 2022 PCI Committee Days, September 20-24, 2022, at the Loews O'Hare in Rosemont, Ill., should be submitted to [qualityprograms@pci.org](mailto:qualityprograms@pci.org) by June 1, 2022. The T. Henry Clark Award nomination form is available at <https://www.pci.org/PCI/About/Awards/Clark>.

The T. Henry Clark Award was established to recognize an individual, group of individuals, or firm that has delivered a resource that improves or enhances the quality of precast concrete products or processes.

T. Henry Clark believed in quality and quality processes, and this award is to recognize those who create or promote quality in a way that would have made him proud.

For more information, contact Gary Wildung, the Quality Activities Council chair, at [gary.wildung@fdg.colorado.com](mailto:gary.wildung@fdg.colorado.com) or Mike Kesselmayer, PCI managing director of quality programs, at [mkesselmayer@pci.org](mailto:mkesselmayer@pci.org).

engineering firm in Winchester, Va. He has served on many PCI committees and councils and has designed or directed the design of more than 350 parking structures. He was named a PCI Fellow in 2001 and was a PCI Medal of Honor recipient in 2019. The award was presented in September at the 2021 PCI Committee Days.

## Girder Stability Subcommittee receives Leslie D. Martin Award

Members of the PCI Girder Stability Subcommittee, which authored the *User Manual for Calculating the Lateral Stability of Precast, Prestressed Concrete Bridge Girders* (CB-04-20), received the 2021 Leslie D. Martin Certificate of Merit Award, which recognizes a PCI-published document judged to be technically outstanding and worthy of special commendation. Members were committee chair Richard Brice, J. P. Binard, Reid Castrodale, Dave Chapman Jr., David Deitz, Roy J. Eriksson, Antonio M. Garcia, Keith Kaufman, Brent Koch, Todd Lang, Z. John Ma, Austin Daniel Maue, Richard Miller, Glenn Myers, Gregg Reese, and Steven L. Schwarz. The award was presented in September at the 2021 PCI Committee Days.

## USC team wins AIA LA Design Award for Carapace project

With more than 500 attendees in the new SoFi Stadium in Inglewood, Calif., the University of Southern California (USC) PCI Foundation precast studio team was honored for work that has been three years in the making.

Doug Noble, associate professor in the USC School of Architecture, Karen Kensek, professor of practice and ACSA Distinguished Professor at USC, and their students received the 2021 American Institute of Architects Los Angeles Design Citation Award.

"The project has a double-curved geometry and diagrid structure," Noble says. "It is 2 in. thick at the critical location. It was entirely prefabricated so we could transport and install it in one day without a construction jobsite. We are placing it in a United States National Park. The students used just one clever mold to cast five panels of three different types. It is located in the highest seismic zone and has a proportionally very high roof overhang. It uses performance-based parametric modeling to reduce the overhang weight. The project was paperless, almost, and students were engaged at every step. We used computer models to drive CNC milling machines on

## 2022 FOCUS ON COLLABORATION DRIVES PCI FOUNDATION PROGRAMS

>> Why reinvent the wheel when you can learn from your partner?

The PCI Foundation is kicking off 2022 by focusing on one of the things we do best: collaboration. There would be no PCI Foundation without it, and the programs we hold would be small compared with what they are without the personal involvement of our industry—both PCI members and our customers—taking part in them.

I want to share an example of how programs have really excelled at collaboration this year. In my own region, the professors at Clemson University and Kennesaw State University have very different precast concrete programs, different students, and even different industry mentors. And yet they saw value in working together this year for a new set of workshops.

During the fall semester, Clemson students drove to Kennesaw State to begin a new collaboration between the schools. The students brought their presentation boards and physical models of a project where they analyzed the work of Tadao Ando, who is renowned for cast-in-place concrete.



Greg Force  
PCI Foundation  
Chairman

As a case study, the Clemson students showed how to go about designing those buildings if they were precast concrete.

They introduced that type of methodology to the Kennesaw State students, and then students went around in groups. Four or five students, two faculty members, and Ray Clark, the Georgia/Carolinas PCI director, gave input to the students. Then they left the exhibit up for two weeks.

The Kennesaw students then traveled to Clemson University for a formliner workshop presented by Marshall Walters of Architectural Polymers Inc. First, Walters gave an online talk to both Clemson's and Kennesaw State's students before the workshop.

This collaboration began when the professors met while traveling to the PCI Convention in New Orleans, La., in March 2021 and was later cemented at the Professors Seminar in Sacramento, Calif. The PCI Foundation has seen the value in having professors meet face to face to exchange ideas and gather input from other studios. This year we added a grant to help them travel between schools to further facilitate that collaboration.

We look forward to the fruits of future collaboration.



campus to make the mold. And it is pink—color calibrated to the sunsets at Joshua Tree National Park!”

## Harris named 2021 T. Henry Clark Award recipient

Carl L. Harris was presented the T. Henry Clark Award at PCI’s awards luncheon during PCI Committee Days in September. This award was established to recognize an individual, group of individuals, or firm that has delivered a resource that improves or enhances the quality of precast concrete products or processes. T. Henry Clark was a believer in quality and quality processes. This award recognizes those who create or promote quality in a way that would have made Henry proud.



Carl L. Harris

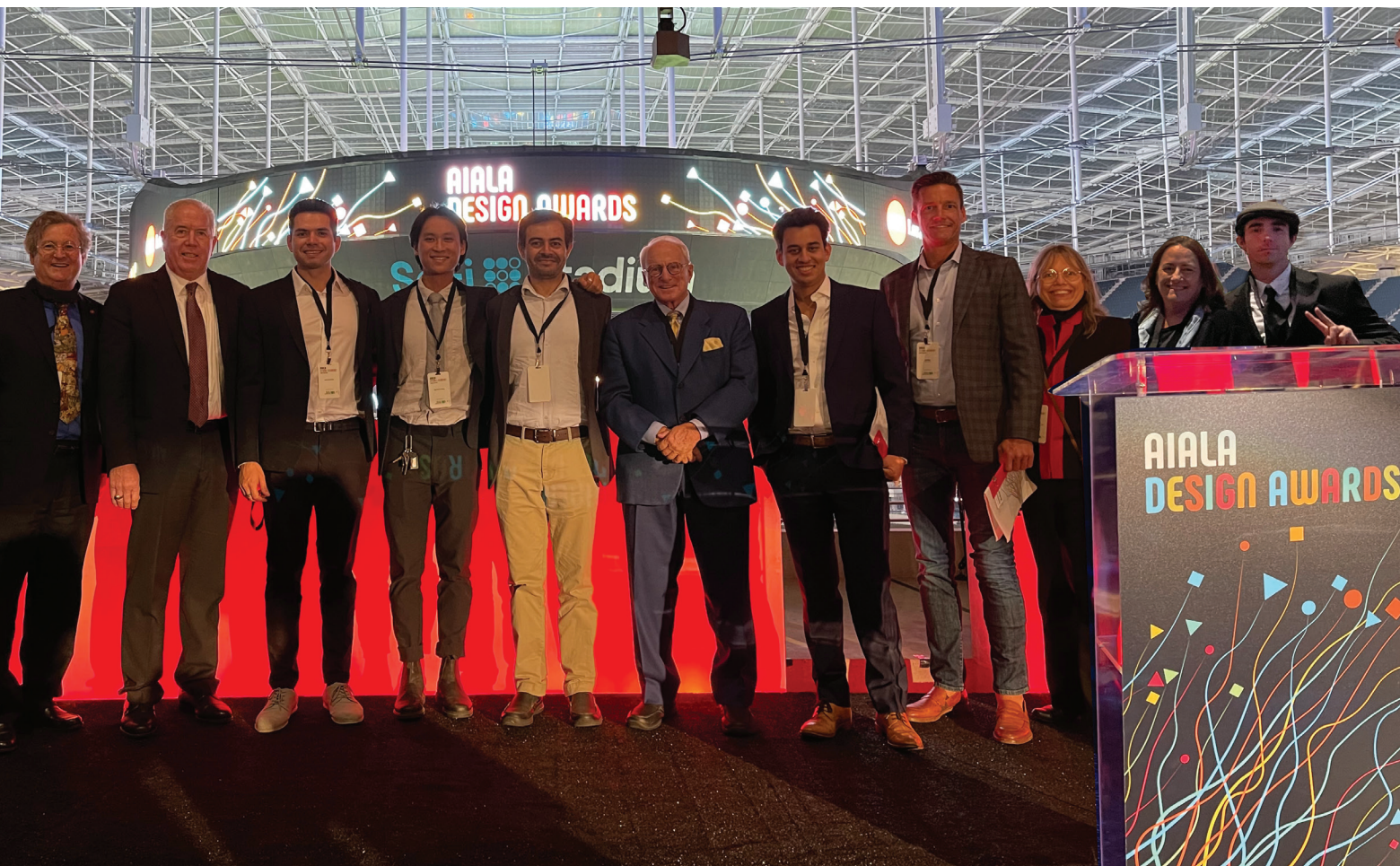
Harris is the cofounder and the current president of Carl Harris Co. Inc., a PCI-certified precast concrete and structural steel erector in Wichita, Kans.

A highly respected expert in the areas of precast concrete erection and safety processes, Harris has been actively involved in PCI for more than 20 years and was a driving force in developing the PCI Erector Certification Program.

His committee work includes chairing the Erector and Erectors Certification Committees, as well as membership in the Tolerances Committee, the Quality Personnel Training and Certification Committee, the Erector Safety Task Group, and the QA Supplier Committee. In addition, he is a PCI certified field auditor and certified company auditor as well as senior auditor for the Erector Certification Program. He has also presented many educational webinars for producers and erectors on behalf of PCI.

Harris’s peers and colleagues describe him as an excellent and approachable professional and teacher who is committed to advancing our industry in the areas of worker safety and construction quality.

From left, Doug Noble, associate professor in the University of Southern California (USC) School of Architecture; Brad Williams of Clark Pacific; Michael Gonzalez Haik, Ivan Wan Lim Wong, and Iván Alberto Monsreal Piñón of the USC School of Architecture; Jim Voss of JVI Inc.; Macky Lopez of the USC School of Architecture; Matt Miller of Clark Pacific; Karen M. Kensek of the USC School of Architecture; Ruth Lehmann, director of PCI West; and Zachary Bergmann of the USC School of Architecture. Courtesy of PCI Foundation.





## Collaboration hallmark of PCI Foundation Studios

Clemson University in South Carolina and Kennesaw State University (KSU) in the Marietta, Ga., are setting precedent with their cross collaboration.

The first Clemson and KSU joint workshop, which focused on architectural polymers, recently finished its first collaboration, with students and faculty traveling to each other's schools. Marshall Walters from AP Formliner headlined the Clemson in-person exchange. Clemson's Michael Carlos Barrios Kleiss and KSU's Liz Martin-Malikian are leading the collaboration.

"This shows how we can leverage our commitment to advance our academic work through partnerships among our Studio Nation programs," Kleiss says.

More joint workshops between the universities are planned for 2022.

## EPP participants recognized

Twelve PCI-certified member plants were recognized for their commitment to continuous quality improvement through participation in PCI's Exceptional Precast Practices (EPP) program at PCI's awards luncheon during PCI Committee Days in September.

The EPP program is a voluntary, continuous quality improvement tool developed specifically for the precast concrete industry by PCI's Quality Enhancement Committee. The

program offers both a road map for improvement efforts and milestones for measuring progress.

Here is how this voluntary program works: a plant fills out the self-assessment survey for each of the seven sections/modules: productivity, personnel, safety, field operations, sales and marketing, sustainable plant, and concrete. This process allows the plant not only to benchmark where they are today but also to review programs of proven worth that other PCI plants find valuable.

That process allows plant personnel to decide on a road map for the future. If this process is managed well, that road map becomes the goals and programs for improvement and it provides the basis for accountability for achievement. The plant's benchmark score allows plant personnel to actually measure progress from year to year. There is no minimum score required. This is not a contest. Scores will not be published. There is no overall winner. All participating plants are provided with an annual certificate of participation and are recognized at the PCI Committee Days.

The 2021 participating plants were Atlanta Structural Concrete Co., Buchanan, Ga.; Conewago Precast Building Systems, Hanover, Pa.; Gate Precast Co., Ashland City, Tenn.; International Concrete Products Inc., Germantown, Wis.; Mid-States Concrete Industries LLC, South Beloit, Ill.; Nitterhouse Concrete Products Inc., Chambersburg, Pa.; Northeast Prestressed Products LLC, Cressona, Pa.; Prestressed Casting Co.—Springfield Plant, Springfield, Mo.; Smith Midland Corp., Midland, Va.; Standard Concrete Products Inc., Atlanta, Ga.; Standard Concrete Products Inc., Savannah, Ga.; and Wells Concrete, Albany, Minn.

**Clemson University and Kennesaw State University (KSU) students meet together on the KSU campus in Marietta, Ga., in the two-story glass gallery part of the school's architecture building. Courtesy of PCI Foundation.**





## New PCI Personnel CMS Launched in November

PCI launched its new personnel Certification Management System (CMS) in November. With the implementation of the new CMS, many of the functions traditionally handled via paper have now been converted to an online format. The new system includes online processes for certification application, proctor registration, and proctored exam requests. Links to the exam and, for successful candidates, access to their certificates are also part of the system.

Concurrent with launching the new CMS, the personnel certification section of the PCI website has been enhanced and greatly expanded. Users should find easier access to the information they need for certification as well as instructions for use of the new CMS.

The goals of the new CMS are to provide easier access to all aspects of the personnel certification system, to streamline processes, and to eliminate the need for paper, including paper exams. This is a major change to the methods that PCI has used for many years.

In November 2020, PCI implemented phase 1 of the CMS transition to online exams for PCI levels 1, 2, and 3 and the glass-fiber-reinforced quality control technician/inspector certifications. The certified field auditor (CFA) and certified company auditor (CCA) exams are being revised to be in multiple choice format and will be added to this process once they are completed.

The next phase of the CMS will include online CFA and CCA exams, certification expiration reminders, and a method for online verification of certification status. Planning for this phase is already underway, with implementation scheduled for 2022.

## UMKC Team 2 wins 2021 Big Beam Contest

The University of Missouri–Kansas City (UMKC) Team 2 has won the 2021 PCI Engineering Student Design Competition, also known as the Big Beam Contest.

The national competition, which is in its 21st year, teaches college students important structural engineering skills in an applied learning environment.

Teams of students and a faculty advisor designed, built, and tested a 20 ft (6 m), precast, prestressed concrete beam, and local PCI-certified precast concrete producers acted as mentors to the teams. Entries were judged on a variety of criteria, including the beam's performance in stress tests that simulate the types of real-life conditions that structural building and infrastructure components must endure to ensure life safety and the quality of the team's analysis, reports, and video overviews of their projects.

"It is a great experience just to participate in this outstanding competition," said Thiagarajan Ganesh, a civil engineering professor at UMKC and professor of civil engineering. "I have coaxed and encouraged students to participate in it just for the learning experience alone, which itself adds so much value to the overall prestressed concrete knowledge to the students. At the University of Missouri–Kansas City, we have been very fortunate to have the enthusiastic support of our local sponsor every time we approach them and are grateful for their help."

Fewer teams than usual entered this year because of the pandemic. The winning team will be recognized in March at the 2022 PCI Convention in Kansas City, Mo.

The 2021 Big Beam Contest was sponsored by ALP Supply and PCI's Aspire magazine. Cash prizes of up to \$2000 are awarded to the top performers in efficient design, highest load capacity, and other categories.

### PCI TECHNICAL INTERNSHIP OPPORTUNITY AVAILABLE

>> PCI is looking for an enterprising and well-qualified technical intern to assist the PCI Technical Services team. This individual will support the development of technical resources on precast concrete and will gain a unique experience advancing the institute's body of knowledge. If you are interested or know an engineering student who may be interested in a full-time internship with PCI, please review the opportunity at [http://pci.org/PCI/News-Events/Precast\\_Careers/PCI\\_HQ.aspx](http://pci.org/PCI/News-Events/Precast_Careers/PCI_HQ.aspx).

### NORMAN L. SCOTT PROFESSIONAL ENGINEER AWARD CALL FOR NOMINATIONS

>> The Norman L. Scott Professional Engineer Award honors the legacy of Norman L. Scott by recognizing professional engineers who have made significant contributions to PCI, the American Concrete Institute, the precast concrete industry, and the engineering profession at large. The award will be presented September 21–23, 2022, at the 2022 PCI Committee Days in Rosemont, Ill. Complete award details and the official nomination form are available at [http://pci.org/PCI/About/Awards/Norman\\_L\\_Scott](http://pci.org/PCI/About/Awards/Norman_L_Scott). Nominations must be submitted by May 1, 2022.

**First place: University of Missouri–Kansas City (Team 2); Kansas City, Mo.**

**Faculty advisor:** Ganesh Thiagarajan  
**PCI producer:** Coreslab Structures (Terry Fleck); Kansas City, Kans.  
**Student team:** Jose Luis Ramirez and Juan Carlos Plasencia Chinchay  
**Award:** \$2000, plus other prizes

**Second place: Northern Arizona University (The Reinforcers); Flagstaff, Ariz.**

**Faculty advisor:** Robin Tuchscherer  
**PCI producer:** TPac, an EnCon Company (Gabriella Wilson); Phoenix, Ariz.  
**Student team:** Elena Mae Reyes, Jacquelyn Crowley, Natalie Noroian, and Nicole Neilson  
**Award:** \$1750

**Third place: Lehigh University; Bethlehem, Pa.**

**Faculty advisor:** Clay Naito  
**PCI producer:** High Concrete (David Schneider); Denver, Pa.  
**Student team:** Jacob Graham, Brian Perhamus, and Joshua Gordon  
**Award:** \$1500

**Keith Kaufman Award for Best Report: California State University, Sacramento (Herky's Big Freakin' Beam); Sacramento, Calif.**

**Faculty advisor:** Eric Matsumoto  
**PCI producer:** Clark Pacific (Brian Bertain); Woodland, Calif.  
**Student team:** Anton Sta. Maria, Nayef Al-Fayiz, Nour Hojeij, Javier Gaytan, Garrett Hope, Vadim Gritsak, and Shaira Soliva  
**Award:** \$500

**Best Video: Lehigh University; Bethlehem, Pa.**

**Faculty advisor:** Clay Naito  
**PCI producer:** High Concrete (David Schneider); Denver, Pa.  
**Student team:** Jacob Graham, Brian Perhamus, and Joshua Gordon  
**Award:** \$500

To see the student videos, please visit [https://www.youtube.com/channel/UCBV2K1BGaopHHM9Thk\\_-dfw/featured](https://www.youtube.com/channel/UCBV2K1BGaopHHM9Thk_-dfw/featured).

The remaining finishers are listed in alphabetical order. All teams received awards of \$1000 and \$1250.

**Florida International University (Team 1); Miami, Fla.**

**Faculty advisor:** David Garber  
**PCI producer:** Coreslab Structures (Luis Compres); Miami, Fla.  
**Student team:** Ryan Ocampo, Carlos Sosa Cardenas, Cesar Tapia, Dionisio Jimenez, Eryc Martinez, Leana Lu, and Shannon Stever

**Florida International University (Team 2); Miami, Fla.**

**Faculty advisor:** David Garber  
**PCI producer:** Coreslab Structures (Luis Compres); Miami, Fla.  
**Student team:** Victor Fundora, Edward Ortiz, Ma'al Abuhamid, Jonathan El Hajj, Raine Ortuzar, and Luke Shafer

**University of Missouri Kansas City (Team 1); Kansas City, Mo.**

**Faculty advisor:** Ganesh Thiagarajan  
**PCI producer:** Coreslab Structures (Terry Fleck); Kansas City, Kans.  
**Student team:** Nick Shifflett, Logan Chamberlin, Christopher Bryan, and Cristobal Hernandez

## PCI's CALENDAR

### Events

PCI event details are subject to change. For the most current information, visit <https://www.pci.org/events>.

<b>Marketing and Technical Activities Council Meetings</b> The Biltmore Miami-Coral Gables, Coral Gables, Fla.	January 5-8, 2022
<b>PCI West 2022 Annual Board Meeting at World of Concrete</b> Las Vegas Convention Center, Las Vegas, Nev.	January 19, 2022
<b>PCI Mid-Atlantic Winter Membership Meeting</b> The Hotel at Arundel Preserve, Hanover, Md.	January 28, 2022
<b>2022 PCI Convention at The Precast Show</b> Loews Kansas City Hotel, Kansas City, Mo.	March 1-5, 2022
<b>PCI Northeast Spring Meeting</b> Saybrook Point Resort, Old Saybrook, Ct.	April 26-April 27, 2022
<b>2022 PCI Productivity Tour</b> TradeWinds Island Grand Resort, St. Petersburg, Fla.	May 9-11, 2022
<b>PCI Central Region 2022 Spring Event</b> St. Louis, Mo.	May 10-11, 2022
<b>PCI Board of Directors and Committee Meetings</b> Westin New Orleans, New Orleans, La.	June 7-10, 2022
<b>PCI Central Region 2022 Summer Event</b> Florence, Ind.	August 23-24, 2022
<b>2022 PCI Committee Days</b> Loews Chicago O'Hare Hotel, Rosemont, Ill.	September 20-24, 2022
<b>PCI Northeast Annual Meeting</b> The Williams Inn, Williamstown, Mass.	October 4-5, 2022

## PCI personnel training and certification schools

Quality Control School event details are subject to change. If you have any questions about the Quality Control School schedule or need help completing a registration form, please contact PCI's continuing education senior manager, Sherrie Nauden, at [snauden@pci.org](mailto:snauden@pci.org) or (312) 360-3215. Registration forms are available at [https://www.pci.org/qc\\_schools](https://www.pci.org/qc_schools).

<b>Levels I and II</b>	January 17-19, 2022 January 31-February 2, 2022 February 7-10, 2022 April 19-22, 2022 July 18-21, 2022	Las Vegas, Nev. Harrisburg, Pa. online online online
<b>Level III</b>	March 14-17, 2022	online
<b>Certified Field Auditor</b>	January 17-19, 2022 May 16-18, 2022	Las Vegas, Nev. online
<b>Certified Company Auditor</b>	May 19, 2022	online

Compiled by K. Michelle Burgess ([mburgess@pci.org](mailto:mburgess@pci.org)) 