

Field quality audit reports, erector's post-audit declarations due July 15

PCI must receive field quality audit reports and the associated erector's post-audit declarations no later than July 15 for the first half of the calendar year and January 15 for the second half of the year. The PCI Erector Certification Program requires that a field quality audit be performed of each primary erection crew during each half of the calendar year if that crew was involved in the erection of precast concrete products for more than 60 working days. If the crew did not work enough days to meet this threshold, the erector must provide a letter to that effect. This is a certification requirement and necessary for certification renewal.

PCI staff will follow up with those who do not submit the audits by the deadline. If contacted, please provide this information as soon as possible. If they have been performed but not yet submitted, please do so as soon as possible. If you have questions about this requirement, please email audit@pci.org.

PCI releases new design and brand guidelines

The PCI marketing and production departments have released the third edition of "PCI Design and Brand Standards," which was developed to help users understand and communicate the PCI brand identity consistently and in a way that distinguishes PCI from the competition. PCI requests that chapters, members, and event vendors have a general understanding of PCI's design and brand standards and how

to use the PCI brand appropriately in documents, advertisements, manuals, collateral, and any other instance involving the PCI brand.

Most of the PCI logos are now registered marks, which use ®. The registered mark has legal bindings and additional benefits over the trademark, which uses ™. Using the registered mark properly is key to protecting the mark. The PCI logos cannot be dissected or altered and used to create individual or user-specific logos. PCI's plant certification and erector certification logos can be used by those who are certified. The appropriate logos come directly from the certification department and are sent to newly certified plants.

Usage is defined and those guidelines can be found in the brand standard at https://www.pci.org/PCI_Docs/Design_Resources/About_Precast/Brand_Standards.pdf. For more information on PCI branding, contact Becky King, PCI's marketing manager, at bking@pci.org.

PCI names Horton events and administrative services coordinator

As of April 1, 2019, Bronwyn Horton joins the PCI staff as administrative services coordinator. In this role, she supports the departments within the administrative division of PCI, including events, membership, finance, human resources, and operations.

Horton will be onsite for the PCI Convention in partnership with The Precast Show and PCI Committee Days and Technical Conference featuring the National Bridge Conference, as well



Bronwyn Horton

2020 PCI MEDAL OF HONOR CALL FOR NOMINATIONS

The PCI Medal of Honor award was established to honor a person who has made extraordinary contributions to PCI and the precast/prestressed concrete industry. The nominees for the Medal of Honor shall have made a highly significant contribution to the precast concrete structures industry and shall have demonstrated a sincere continuing interest in the institute. The award will be present-

ed at the 2020 PCI Convention in partnership with The Precast Show, March 3-7, 2020, in Fort Worth, Tex. Visit https://www.pci.org/Submission_Center for more information and nomination criteria. Nominations are being accepted through by August 2, 2019, and should be sent to Arellys Schaedler, PCI's executive assistant, at aschaedler@pci.org.

as other smaller meetings. She is also available via telephone and email for members to submit their event queries. PCI initially brought Horton on to help with accounting and filing needs, eventually expanding her role to include events. Her previous experience includes working as an operations and events coordinator for Common Ground Church in Cape Town, South Africa.

Horton has a BA in live performance from the AFDA Film School in South Africa and spent the beginning of her career in musical theater.

Daniel P. Jenny Research Fellowship awards announced for 2019/2020

The PCI Research and Development Council (Greg Force, chair) has awarded four Daniel P. Jenny Research Fellowships for the 2019/2020 academic year. The students awarded fellowships are Hannah Dillingham, Thomas Mander, Shane Oh, and Rongxuan “Raphael” Wang.

The Daniel P. Jenny Research Fellowship program connects professors and students with industry experts to advance research in precast concrete. It is a unique experience where both industry and academia benefit from the interaction.

Buckling Restrained Braced Frames in Precast Structures: Initial Investigation of Connection Behavior: Hannah Dillingham

University: Clemson University in Clemson, S.C.

Faculty advisor: Laura Redmond

Supporting producers: Metromont Corp. and Tindall Corp.

Additional support: Structural Design Group

In her application Dillingham wrote, “The prospect of being involved in a project that could impact the precast industry and practicing engineers in such ways is exciting.”



Hannah Dillingham

Unified Blast Response Limits for Precast Concrete Wall Panels: Thomas Mander

University: University of Texas at San Antonio

Faculty advisor: Adolfo Matamoros

Supporting producer: Tindall Corp.

Additional support: Baker Engineering and Risk Consultants Inc.

In his application Mander wrote, “I am motivated to bring my practical experience



Thomas Mander

into a research setting, as I understand the present deficiencies and see the need to improve current precast design practice.”

Precast Buckling Restrained Braced Frames for Seismic Regions: Shane Oh

University: Faculty advisor: Yahya “Gino” Kurama

Supporting producers: Metromont Corp. and Clark Pacific

In his application Oh wrote, “I realized that the benefits of precast concrete over cast-in-place concrete, such as better quality control and shorter construction time, would allow research of precast concrete frame bracing systems to have a greater impact on construction costs.”



Shane Oh

3D Scanning for Process Monitoring and Quality Control in Precast/Prestressed Concrete Industry: Rongxuan “Raphael” Wang

University: Virginia Polytechnic Institute and State University in Blacksburg, Va.

Faculty advisors: Xiaowei Yue and Zhenyu “James” Kong

Supporting producers: Tindall Corp. and Unistress

In his application Wang wrote, “With a combined strength of 3D scanning expertise and data analytics skills, I felt very confident to be a part of this team.”



Rongxuan “Raphael” Wang

PCI Foundation creates two new awards

The PCI Foundation has recognized two qualities that make some of our programs outstanding: a good partner relationship and community development. A good partner relationship always means a stronger overall program, and community development brings together some of the most interesting partnerships we have seen. To recognize these qualities in some of our programs, the PCI Foundation Board of Trustees has created two new award programs.

The success of every PCI Foundation program is grounded in the dedication and support of local industry partners working in collaboration with engaged universities. The PCI Foundation Partner of the Year Award recognizes an individual who has shown exemplary leadership by facilitating experiential learning opportunities for students; has built a relationship with a school, its professor, and students by virtue of his or her work; and serves as a model to other partners in collaborating with others.

To be eligible for the PCI Foundation Partner of the Year Award, the partner must have worked with at least one school

during the previous school year and must have facilitated programs with students in PCI Foundation–funded or previously funded programs either on or off campus. The successful partner should have displayed significant effort, made a meaningful contribution, and supported students and professors. This could be demonstrated through activities such as lectures, tours, Big Beam Contest, adopting students, or assisting with large projects.

Some of the most successful programs that use PCI Foundation grants include community engagement—either by bringing a student project into the community or bringing the community into the school for further educational opportunities. To be eligible for the PCI Foundation Community Engagement Award, a professor or professors must have worked with one or more community or constituent groups during the previous school year on or off campus to provide community engagement opportunities for students. The university and community will have collaborated to exchange knowledge. For this award, the successful professors should have displayed significant effort, made a meaningful contribution, and supported students and the community.

The deadline for nominations is September 15, 2019, and winners will be recognized with a trophy.

For more information, please contact Marty McIntyre, PCI Foundation executive director, at martymci@pci-foundation.org or visit PCI-Foundation.org.

Work on enhancement of PCI Architectural Certification Program continues

The digital revolution in design and construction has created new aesthetic and performance demands for wall systems in many projects being built today. In response, PCI consulted with interested stakeholders in the design communi-

ty and is now working on proposed modifications to enhance the current PCI Architectural Certification Program.

Members of the Architectural Certification Committee continue their work on changes intended to replace the current A1 certification with four new categories. The effort is intended to better align design community expectations with plant production capabilities. The additional certification categories will provide enhanced precast concrete products to meet the aesthetic, installation, and performance demands for projects with more complex BIM-generated exterior envelope requirements.

The new program includes AA, AB, AC, and AD categories to replace the current A1 architectural certification. AA and AB will include enhanced detail and finish requirements. Category AC will remain essentially the same as the current A1 designation, while the new AD provisions would match those currently required in the CA and BA categories.

Once a project requiring AA or AB certification is completed, the design and construction team will be surveyed to gain insight into their perceptions of the performance of the precast concrete producer for the project. In addition, for AA certification, auditors will conduct a site inspection of at least one completed project annually to assess overall appearance and installed quality. A review committee will be established to make certification recommendations to PCI Quality Program staff based on the results of audit reports and documentation required for each category. A separate appeals board will be created to provide a process for certified producers to appeal disputed certification recommendations.

Subcommittee task groups are working to have the detailed provisions of the program finalized to permit the rollout of initial certifications effective July 1, 2020.

PCI-certified plants should expect a complete package of information in August outlining the full scope of the new PCI Architectural Certification Program. Please contact Mike Kesselmayer, PCI managing director of quality programs, at mkesselmayer@pci.org for more information about the pending program improvements.

2020 MARIO J. BERTOLINI LEADERSHIP AND INNOVATION AWARD CALL FOR NOMINATIONS

>>> To honor the legacy of Mario J. Bertolini, an icon of the precast/prestressed concrete industry, PCI established the Mario J. Bertolini Leadership and Innovation Award. Bertolini was president of a major precast concrete manufacturer for many years and chairman of PCI in 1989. The award will be presented next at the 2020 PCI Convention in partnership with The Precast Show, March 3–7, 2020, in Fort Worth, Tex. Nominations for this award should include a

letter identifying the specific characteristics and qualifications of the candidate, including examples that meet the award criteria. The official nomination form must be completed and included with this letter. A nomination form is available at https://www.pci.org/Submission_Center. For more information, contact Arelys Schaedler, PCI's executive assistant, at aschaedler@pci.org. Nominations are being accepted through August 2, 2019.

PCI Foundation's Pig on the Run barbecue contest takes off in August

The PCI Foundation is now signing up precast concrete industry plants and suppliers across the United States for its fifth annual barbecue fundraiser.

"Make no mistake, this annual event is about more than the money raised," says Marty McIntyre, PCI Foundation executive director, "it's about the pride of winning and ownership of the prized concrete pig. This pig even comes with an engraved plaque on the base."

The winner will be featured in the Pig on the Run on the PCI Foundation's home page. To register, go to PCI-Foundation.org. Registrants will be sent a package of materials with dozens of ideas and instructions on hosting a barbecue to raise funds for the PCI Foundation. Contestants choose a date between August and October to host their events and can invite employees, vendors, and friends. After the barbecue, submit the details requested in the informational package.

To register, click on the picture of the concrete pig on the PCI Foundation's website.



This concrete pig trophy will go to the winner of the 2019 PCI Foundation Pig on the Run barbecue contest. Courtesy of Marty McIntyre.

PCI Foundation seeks team sponsors for Project Precast

The PCI Foundation is seeking team sponsors for the 2020 Project Precast Competition. The two-day design competition will take place next March during the 2020 PCI Convention in partnership with The Precast Show in Ft. Worth, Tex.

The competition pits five teams of three students (architectural, engineering, and construction management) designing a small precast concrete project. Each team is guided by a mentor from a sponsor who meets with them and helps them formulate their project. The team mentors select the type of project that will be built in September during 2019 PCI Committee Days and Technical Conference featuring the National Bridge Conference in Rosemont, Ill., though the students do not learn about the type of project or meet the other team members until the convention begins.

Students apply to take part in the competition, mainly from schools that have a PCI Foundation-sponsored program. Team mentors view the student applications and choose which students they would like to work with in a team draft similar to the NFL draft. Mentors are also allowed to recruit students by encouraging them to apply for the competition, though there is no guarantee that they will get that particular student in the draft.

The cost to sponsor a team is \$5000. For more information about taking part in this competition, contact Marty McIntyre, PCI Foundation executive director, at martymci@pci-foundation.org or (708) 997-7465. A video of how the competition works is available at the PCI Foundation website at PCI-Foundation.org.



From left, Jairo Laverde of Washington University in St. Louis; Ismail Kuzucu of the University of Arizona; Mike Malsom, the team mentor; and Taili Zhuang of Washington University work on the details of their 2019 Project Precast design as members of the 2019 Construction Engineering Group team. The team received honorable mention at the PCI Convention in partnership with The Precast Show in Louisville, Ky. Courtesy of Bill Brymer.

Michigan students show final PCI Foundation studio work

Digital technologies master's degree students taking part in the PCI Foundation–sponsored studio at the University of Michigan in Ann Arbor showed their final work during the last week of April.

This studio has a twofold agenda of developing a relationship with the precast concrete industry while also teaching advanced-level students about digital fabrication. Unlike many of the studios that the PCI Foundation works with, the outcome of this course focuses on full-scale architectural components, rather than the structural or architectural design of a project.

This capstone studio in the post-professional, research-based master of science degree in digital technologies is positioned to get students to consider the design and production of precast concrete architecture as a form of advanced building research. Through the course and the program, students engage the full breadth of resources available at A. Alfred Taubman College of Architecture and Urban Planning, leveraging the power of computationally based design and numerically controlled machines for new methodologies, materials, and systems of production.

Some of the projects were large enough that they had to be built in the yard, rather than inside the studio. The projects included robotic placement of components, a sewn fabric panel that was then built into a retaining-wall-like structure, a glass-fiber-reinforced concrete structure that used heat-shrunk vinyl as the formwork, three-dimensional (3-D) knitted formwork that used pneumatic balls and varying gauges of yarn to create a variety of shapes in the formwork, a modular two-sided planter component, and a 3-D–printed flexible mold that needed no form release agents. Although



Zach Morrison of Kerkstra Precast checks out a student project in April during the final review of the PCI Foundation–sponsored studio at the University of Michigan in Ann Arbor. Courtesy of Marty McIntyre, PCI Foundation.

some of these projects built on work completed in the program in previous years, others, such as the 3-D knitted panel, had never been done before.

LEADERSHIP PCI CALL FOR NOMINATIONS



PCI's flagship leadership program, established on the occasion of PCI's 50th anniversary, is opening the nomination period for the next Leadership PCI class. Each year a class of about 12 outstanding individuals is selected from candidate nominations submitted by PCI member organizations. Each new class begins at the PCI Convention, during which class members take part in program initiation, committee meetings, and other convention activities. During the subsequent year, class members are committed to a program of development activities, culminating in a graduation ceremony at the subsequent convention.

The next class starts at the 2020 PCI Conven-

tion in partnership with The Precast Show, March 3–7, 2020, in Fort Worth, Tex. Any PCI member organization can submit a candidate for Leadership PCI by completing and submitting an application, available in the Members Only section of PCI.org. Applications are due by September 1, 2019.

The program fee is \$2500 per participant. By submitting a nomination form, the sponsor agrees to be billed the program fee should his or her candidate be accepted into the program. The program fee is due before the 2020 PCI Convention. For more information about the educator awards program, contact Trice Turner, business development manager, at ttturner@pci.org.

LET'S PLAY "WHAT IF?"



Your PCI leadership has initiated a new strategic plan that recognizes the high priority of educating students about the joys of building with precast/prestressed concrete. Taking note of this welcome development, it might be fun to play a game of "What if?"

What if . . . in the early days of PCI history (the 1950s and 1960s), our founders would have recognized the value of partnering with academia on our wonderful journey into the world of creating precast/prestressed concrete? Think of the input that architectural and engineering schools might have provided along the way, researching and developing new and better products and systems to propel precast/prestressed concrete into the forefront of the construction industry. What a different industry we would have today! But they were way too busy simply trying to survive with this new way of building things, which is totally understandable. If they could have seen into the future of our industry then and seen the success your PCI Foundation is having today with spreading the word about precast/prestressed concrete



Jim Voss
PCI Foundation
Chairman

and how professors and students are embracing our concepts, there is good reason to believe that we could have grown to be a much larger industry than we are today. But let's not look backward. Let's look forward.

What if . . . we choose to create *new* opportunities? The good news is that your PCI Foundation has created a kind of do-over to address the missed opportunities of years past. This strategy consists of establishing and nurturing a strong and vibrant relationship with academia for the very desirable purpose of perpetuating the infusion of new young talent into our industry.

What if . . . college professors of architecture and engineering were welcomed and embraced in our industry as the deserving partners they are for our overall growth? If *all* of us could unite behind this concept, it's safe to assume that our stated strategic goal of "acquiring and retaining young talent" would be quickly realized.

What if . . . we *all* made the commitment to opt in for a contribution to the PCI Foundation—this year and every year! Your PCI Foundation wants to do its part to help build a stronger, sustainable, more successful industry.

The PCI Foundation is us! Help us! Help us!

Two new CEU articles available online from PCI

PCI is offering two new continuing education unit (CEU) articles published in *Architect* magazine. They are companions to PCI's live presentations that were presented in June at the American Institute of Architects' 2019 National Convention in Las Vegas, Nev. The articles explore recent innovations in precast concrete to improve the versatility, efficiency, and resilience of plant-produced building systems.

The "3D Printing Automates Precast Concrete Fabrication Process in Large Mixed-Use Development" course examines how the precast concrete industry and Oak Ridge National Laboratory are collaborating on a research project that will advance building envelopes using lightweight, more energy-efficient precast concrete insulated wall panels. The "Optimize Wall Panel Performance with Next Generation Precast Concrete Insulated Wall Panels" examines precast concrete and explore a case study where three-dimensional printing technology was used to fabricate precast concrete forms for concrete panels on a large mixed-use project in Brooklyn, N.Y.

To access the articles, go to https://www.pci.org/PCI/News/Whats_New/2019/MayCEU.

New PCI Foundation student engagement initiative to launch fall 2019

The PCI Foundation will launch a new initiative this fall to better engage students with the foundation and PCI members and encourage them to become PCI student members.

Each student who takes part in a PCI Foundation-sponsored program will receive an invitation to fill out a special membership form for PCI student membership. In addition to student membership, each student will receive a PCI Foundation hard hat and other items from PCI Foundation donors that will teach them about the precast/prestressed concrete industry.

When PCI members visit a student classroom or when students visit a member plant or office, the PCI Foundation encourages them to provide the students with a unique sticker that they can add to their PCI Foundation hard hat. The hard hat will represent all the people and places they encountered while learning more about precast/prestressed concrete.

PCI Foundation donors are encouraged to donate items to contribute to the student swag bags. Any product that is already used as a promotional item or a small product that is appropriate for a college student may be contributed. To learn more about reaching students through the swag bag initiative, contact Marty McIntyre, the PCI Foundation executive director, at marty@pci-foundation.org or (708) 386-3715.

New Flowable Concrete/ SCC Qualification and Testing Frequency Form available

Flowable concrete and self-consolidating concrete (SCC) require specific testing during the initial qualification of mixture designs and the subsequent production testing. Noncompliance with these requirements is a frequently cited nonconformance during plant audits of PCI-certified plants. The Quality Enhancement Committee has developed a tool to help plants comply with these requirements.

The Flowable Concrete/SCC Qualification and Testing Frequency Form, available under Quality Assurance Resources in the Members Only section of PCI.org, provides a summary of the testing that is required during initial mixture design qualification and the frequency of testing required during subsequent production testing. The form has also been developed as an aid for recording the required parameters for each mixture following mixture design preparation, which can then serve as a reference for quality control personnel during the daily production testing of the concrete. Plants are encouraged to distribute a copy of the completed form to quality control staff and to retain a copy in their quality files.

Shear friction study available

The Missouri University of Science and Technology in Rolla has completed research examining shear friction prediction models. The work was commissioned by PCI under the Daniel P. Jenny Research Fellowship program. The final report has been posted in the Members Only section of the PCI website at PCI.org.

2020 PCI FELLOWS CALL FOR NOMINATIONS

>> The PCI Fellows recognition is awarded to individuals who embrace the values of the institute, who have provided continuous outstanding contributions to the U.S. precast/prestressed concrete industry, and who have demonstrated exceptional service to PCI. Service to the industry may be considered in the areas of education, research, design, and/or production. PCI is accepting nom-

inations for PCI Fellows, to be awarded during the 2020 PCI Convention in partnership with The Precast Show, March 3–7, 2020, in Fort Worth, Tex. The nomination form is available online at https://www.pci.org/Submission_Center. For more information, contact Arelys Schaedler, PCI's executive assistant, at aschaedler@pci.org. Nominations are being accepted through August 2, 2019.

2020 PCI DESIGN AWARDS CALL FOR ENTRIES

>> The PCI Design Awards program recognizes design excellence and construction quality using precast concrete. Be a part of the search for excellence and submit your precast concrete projects today.

The 2020 PCI Design Awards submission site opened on May 20, 2019. Visit http://www.pci.org/About_PCI/Awards/PCI_Design_Awards/ for complete information, including this year's categories and submission guidelines, or to make a submission.

Entries are accepted in two primary categories: buildings and transportation structures. In addition to buildings and transportation, there are

special awards categories: the Harry H. Edwards Industry Advancement Award, the All-Precast Concrete Solution Award, the Sustainable Design Award, and the Building Information Modeling (BIM) Award.

August 19, 2019, is the submission deadline, and winners will be notified in November.

All winning projects will be showcased at the 2020 PCI Convention in partnership with The Precast Show, March 3–7, 2020, in Fort Worth, Tex., and will be included as an article in *Ascent*.

For more information, contact or Becky King, PCI's marketing manager, at (312) 360-3201 or bking@pci.org or PCIDesignAwards@pci.org.

PCI CALENDAR

Events

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

2019 PCI-IW Summer Membership Event Lake Geneva, Wis.	July 22-23, 2019
PCI Midwest Summer Meeting Lincoln, Neb.	August 21-22, 2019
PCI Central Region 2019 Summer Event Belterra Casino & Resort, Florence, Ind.	August 27-28, 2019
PCI West Fall Board Meeting Irvine, Calif.	September 26, 2019
PCI Northeast Annual Meeting Equinox Resort, Manchester, Vt.	September 11-12, 2019
2019 PCI Committee Days and Technical Conference featuring the National Bridge Conference Rosemont, Ill.	September 25-28, 2019
2020 Annual PCI West Board Meeting at World of Concrete Las Vegas, Nev.	February 5, 2020
2020 PCI Convention in partnership with The Precast Show Ft. Worth, Tex.	March 3-7, 2020
2020 PCI Committee Days and Technical Conference featuring the National Bridge Conference Rosemont, Ill.	September 23-26, 2020
2021 PCI Convention in partnership with The Precast Show New Orleans, La.	February 23-27, 2021
2021 PCI Committee Days and Technical Conference featuring the National Bridge Conference Rosemont, Ill.	September 22-25, 2021

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 continuing education senior manager, Sherrie Nauden, at snauden@pci.org or (312) 360-3215. Registration forms are available at <http://www.pci.org/schools>.

Level I/II	August 28-30, 2019 September 17-19, 2019 October 21-23, 2019	Rosemont, Ill. Edmonton, AB, Canada Orlando, Fla.
Level III	August 27-30, 2019	Rosemont, Ill.
CFA/CCA	July 29-31, 2019	Nashville, Tenn.

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