

# The Power of



 **FOUNDATION**

Annual Report  
**2016**

## Celebrate The Power of

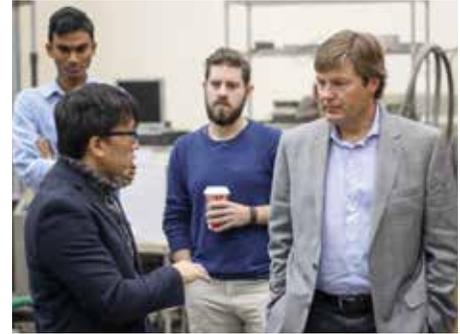


The local partner works with the professor to create a program that is both one-of-a-kind and has character and content that will benefit both the school and the local partner. These relationships will be sustained even after the PCI Foundation involvement and investment is finished. The local partner will be the first to learn of innovations, will have access to future architects, engineers and even precast industry workers, and will influence how precast is taught to local customers for years to come. – Dean Gwin, Gate Precast

Students at South Dakota State University.

The PCI Foundation provides grants for educational initiatives focused on state-of-the-art innovative approaches to the integrated use of precast concrete design, fabrication and construction. It is an independent 501(c)3 and has provided support for programs at schools of architecture, engineering and construction management. Since 2007, the PCI Foundation has sponsored learning programs at schools of engineering, construction management and architecture.

# Letter from the Chairman



## What do we mean by “The Power of 10”?

A few weeks ago, I visited our program at the University of Texas at Arlington along with Michael Trosset of Gate. Brad Bell, the architecture professor who runs the program, shared that PCI Foundation program has “tentacles.” While the studio began with one concept, precast has made its way into other aspects of the university in fact, Shih-Ho Choo and Jean Gamarra of UTA’s Civil Engineering department have been very involved with the program. It has grown in terms of the research the school is doing, partnerships with local industry, relationships with other schools, curriculum taught earlier in the program, and students whose education is touched by precast in ways it never was before. That ability to take one program and multiply it exponentially is what we are celebrating with the Power of 10.

Ten years ago, we funded our first studio at the Illinois Institute of Technology with Associate Professor Tom Brock and a new concept in precast education was born. In one of the most challenging economies our industry has ever faced, the PCI Foundation continued to grow its programs. In just 10 years, we have awarded more than \$1 million in grants to fund precast concrete education programs in nearly every US region. Each one of the studios has a signature style and each one depends on the local precast industry for support and education.

In the last 10 years, we have worked with 15 universities, in schools of architecture, engineering and construction management. There have been a total of 28 professors who have worked on the programs, and 1,050 students now have an excellent background in precast concrete. Countless other students and design professionals have touched the precast industry through tours, lectures and project review thanks to local partner investment in these programs.

During 2016, we worked with 10 schools, which you will learn about here. You will have a chance to meet students from many of them during the PCI Convention by visiting the poster sessions on the show floor. Last year we had more than 20 students attend convention along with their professors.

This annual report celebrates our 10th year providing strong and solid precast concrete education to a new generation of builders and designers. I can’t wait to see what the next 10 years will bring.

*Dean Dwin*

These students have experienced the entire process: designing panels, drawing tickets, building forms, fabricating pieces, finishing panels and erecting the finished product. Our engineers and manufacturing personnel have enjoyed the interaction as much as the students have. It has truly been a very fun adventure and results in these young professionals entering the market with a better understanding and comfort level with precast concrete. That's a good thing for everyone. – Tom Kelley, Gage Brothers

## Leading The Next

# 2016 PCI Foundation Trustees

The work of the PCI Foundation is carried out by its Board of Trustees, a dedicated group of individuals interested in expanding precast concrete educational programs by working with schools of architecture, engineering and construction management.

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**Martha H. McIntyre**



The PCI Foundation relies on members of the precast concrete industry to fund its programs. Thanks to the many generous donations we have received, we have been able to grow successful, interesting and meaningful educational programs in conjunction with a number of prestigious universities.

We are on the brink of even greater success should we obtain more support. To make a donation to the PCI Foundation, visit our website ([pci-foundation.org](http://pci-foundation.org)) or call Marty McIntyre at 708-386-3715.

A photograph showing three construction workers in safety vests and hard hats (blue and green) working on a precast concrete panel. One worker in the foreground is using a tool to finish the surface of the panel, which has a wavy, textured pattern. Another worker is visible in the background, also working on a similar panel. The scene is set in a brightly lit industrial or construction environment with yellow walls.

## Empower The Next

The Clark Pacific visit counts among the most informative experiences within my time at USC. The team was able to demonstrate how the architectural and structural benefits of precast concrete allow architects to create ambitious spaces with lower environmental impact, cost and consistency than cast-in-place concrete.  
– Sean Gowin, University of Southern California

# PCIF Industry Partners-Program Participation

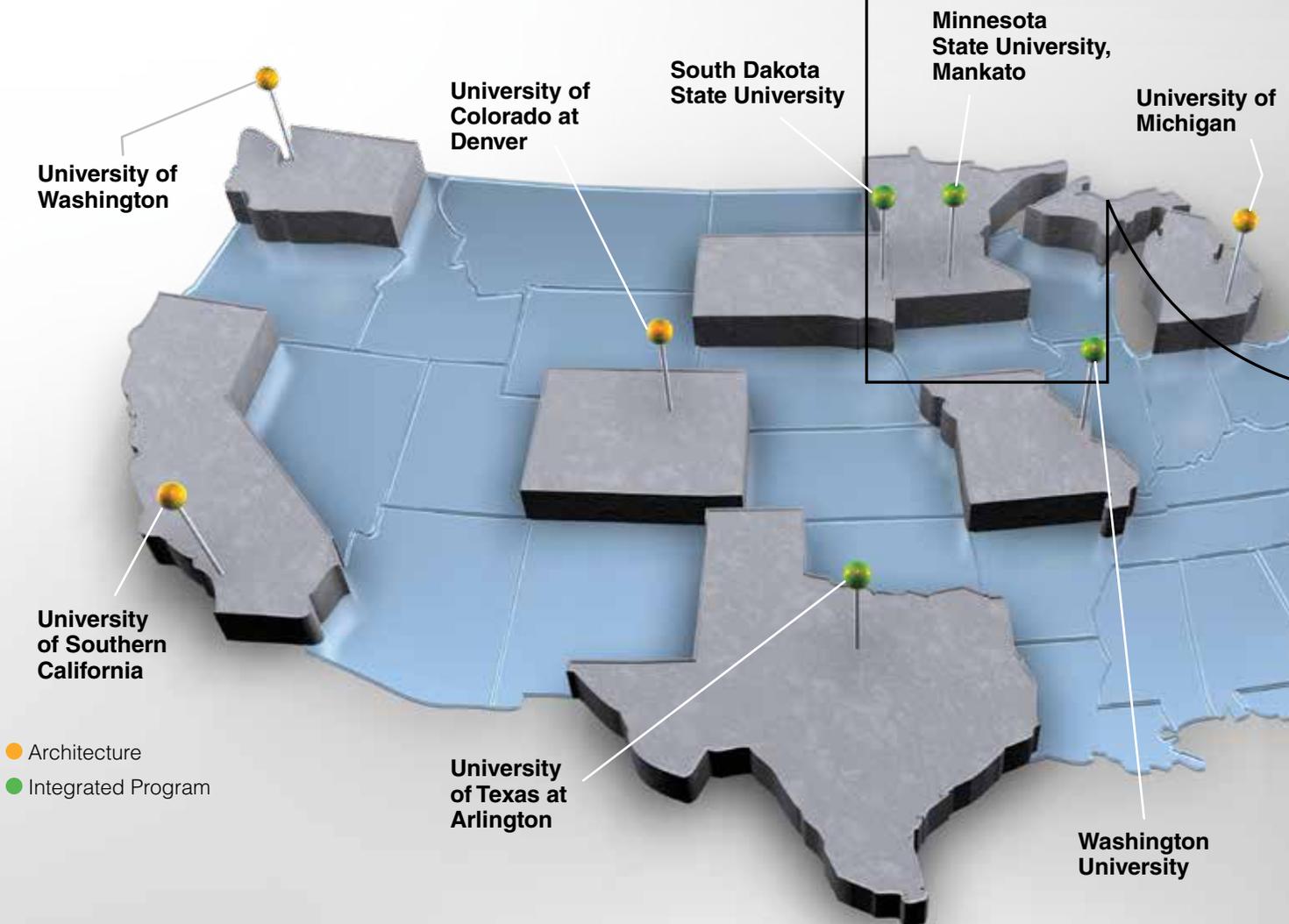
The first element of any successful PCI Foundation grant application is the partnership between a school and either a PCI region or a PCI member who will work with the school to ensure that there is always good collaboration between school and industry. The local partner works with the professor to help navigate PCI meetings and programs, enables student access to local plants and jobsites and often recruits supplier associates to contribute their expertise.

The importance of this partnership is immeasurable. A team works together to ensure a large program of national scope meets the needs of both the school and the local region. The work starts a long time before the students get to the classroom—the partners must educate each other about their goals and objectives in order to fully take advantage of all each has to offer.

During 2016, the following companies provided in-kind support to the programs being funded by the PCI Foundation.

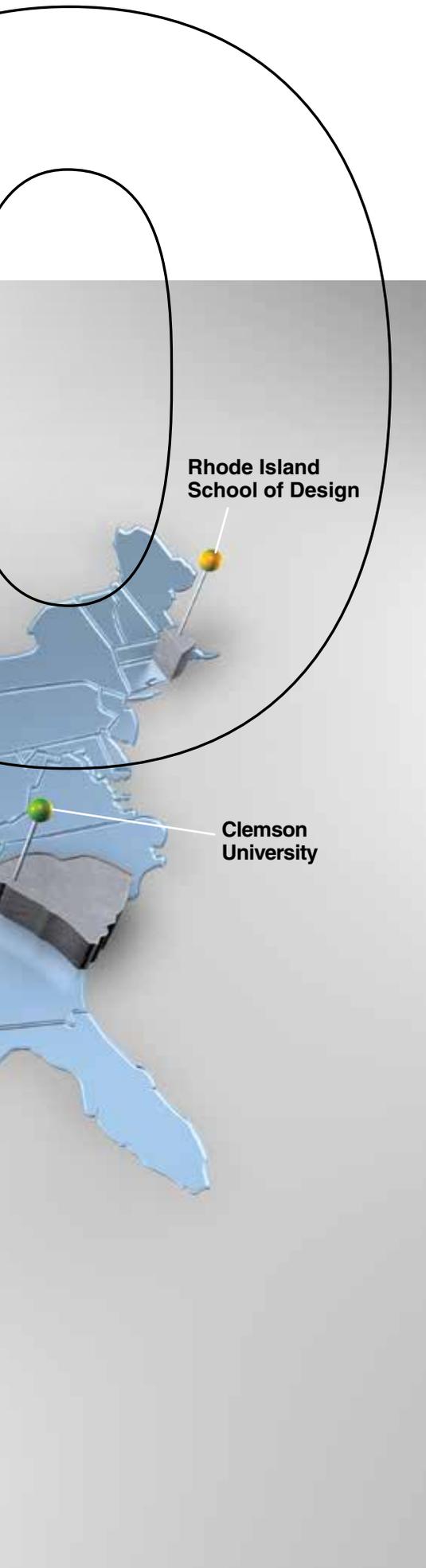
- **Architectural Polymers**  
*Palmerton, Pennsylvania*
- **BergerABAM**  
*Seattle, Washington*
- **Bethlehem Construction Inc.**  
*Wasco, California*
- **Blakeslee Prestress Inc.**  
*Brandford, Massachusetts*
- **Clark Pacific**  
*West Sacramento, California*
- **Fontana, California**  
*Irwindale, California*  
*Woodland, California*
- **Concrete Tech**  
*Tacoma, Washington*
- **Con-Fab California**  
*Lathrop, California*  
*Shafter, California*
- **Coreslab Structures (CONN) Inc.**  
*Thomaston, Connecticut*
- **Coreslab Structures (LA) Inc.**  
*Perris, California*
- **Craig Gaulden Davis**  
*Greenville, South Carolina*
- **CTU Precast**  
*Olivehurst, California*
- **DeVita & Associates**  
*Greenville, South Carolina*
- **DLR Group**  
*Seattle, Washington*
- **Ductal / Lafarge Holcim North America**  
*Reston, Virginia*
- **Dukane Precast**  
*Aurora, Illinois*
- **Encon United**  
*Denver, Colorado*
- **Encon Washington**  
*Seattle, Washington*
- **Enterprise Precast**  
*Kansas City, Missouri*
- **Gage Brothers**  
*Sioux Falls, South Dakota*
- **Gate Precast**  
*Hillsboro, Texas*  
*Oxford, North Carolina*  
*Winchester, Kentucky*
- **Gensler**  
*Los Angeles, California*
- **Georgia/Carolinas PCI**  
*Atlanta, Georgia*
- **Hamilton Form**  
*Fort Worth, Texas*
- **International Precast Solutions, LLC**  
*River Rouge, Michigan*
- **JVI Inc.**  
*Lincolnwood, Illinois*
- **KCCT Architecture**  
*Washington, DC*
- **Kerkstra Precast**  
*Grandville, Michigan*
- **Knife River**  
*Harrisburg, Oregon*
- **KIE-CON**  
*Antioch, California*
- **LS3P Associates**  
*Greenville, South Carolina*
- **Metromont Corporation**  
*Greenville, South Carolina*
- **Mid-State Precast**  
*Corcoran, California*
- **Oldcastle Precast**  
*Perris, California*  
*Spokane, Washington*
- **Olympian Precast, Inc.**  
*Redmond, Washington*
- **PCI Central**  
*Brookville, Ohio*
- **PCI of Illinois & Wisconsin**  
*Chicago, Illinois*
- **PCI Midwest**  
*Bloomington, Minnesota*
- **PCI Mountain States**  
*Englewood, Colorado*
- **PCINE**  
*Belmont, Massachusetts*
- **PCMA of Texas**  
*San Antonio, Texas*
- **Rocky Mountain Prestress**  
*Denver, Colorado*
- **St. Louis Prestress**  
*Glen Carbon, Illinois*
- **Stresscon**  
*Colorado Springs, Colorado*
- **Structurecast**  
*Bakersfield, California*
- **Thermomass**  
*Boone, Iowa*
- **Tindall Corp.**  
*Spartanburg, South Carolina*
- **US Formliner**  
*Athens, Georgia*
- **Vector Structures**  
*Seattle, Washington*
- **Walters & Wolf Precast**  
*Volga, South Dakota*  
*Fremont, California*
- **Wells Concrete**  
*Albany, Minnesota*  
*Rosemount, Minnesota*  
*Wells, Minnesota*
- **Willis Construction Co., Inc.**  
*San Juan Bautista, California*

## 2016 Sponsored Studios



The biggest thing that I learned from Big Beam is that one must always consider practical restrictions beyond those that are accounted for in design calculations, when determining the dimensions of a prestressed/precast member to ensure an efficient and feasible product from paper to production. —Alex Fiebiger, Minnesota State at Mankato

# 2016 in Review



## PCI Foundation Celebrates 10 Years of Education Programs

2016 marked the 10th anniversary of educational programs sponsored by the PCI Foundation. It was the busiest year ever in terms of dollars granted and students and professors involved in our programs.

The PCI Foundation sponsored 10 studios during 2016. This was our most active year to date, and we had programs that spanned across the U.S. They included programs in architecture, engineering and construction management. We worked with 18 professors who had about 200 students in their programs and we provided about \$235,000 in grants.

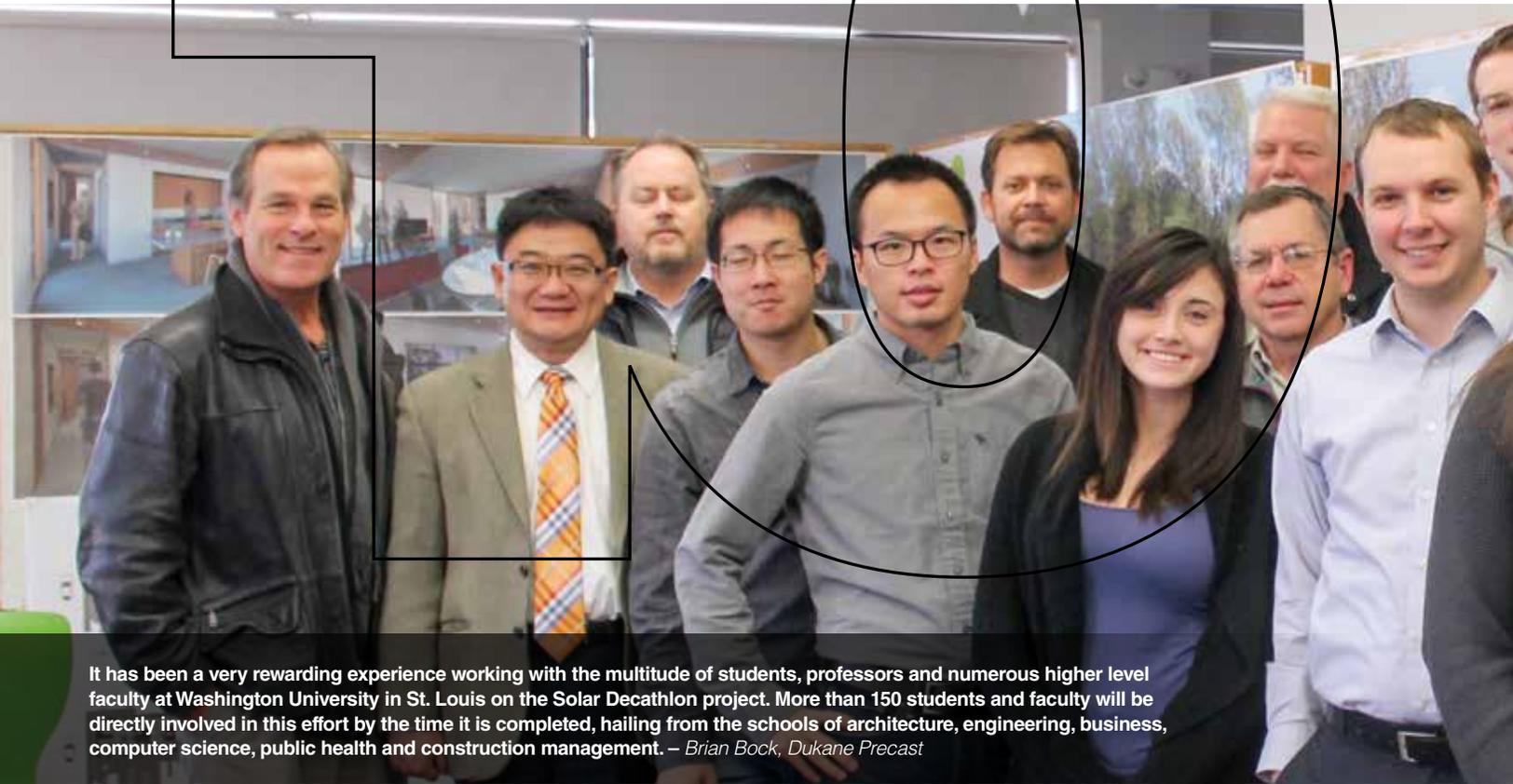
### In the Classroom

During 2016, we sponsored programs at the following schools.

- Clemson University, Clemson, South Carolina
- Minnesota State University at Mankato, Mankato, Minnesota
- Rhode Island School of Design, Providence, Rhode Island
- South Dakota State University, Brookings, South Dakota
- University of Colorado, Denver, Colorado
- University of Southern California, Los Angeles, California
- University of Michigan, Ann Arbor, Michigan
- University of Texas at Arlington, Arlington, Texas
- University of Washington, Seattle, Washington
- Washington University, St. Louis, Missouri

In addition to working with professors at the schools, we also create programming to introduce them to the precast industry. Professors and students are able to come to the Precast Show and PCI Convention. Other programming included hosting a professors seminar for current and new professors and laying the foundation for a new internship program.

## Great Things This Year



It has been a very rewarding experience working with the multitude of students, professors and numerous higher level faculty at Washington University in St. Louis on the Solar Decathlon project. More than 150 students and faculty will be directly involved in this effort by the time it is completed, hailing from the schools of architecture, engineering, business, computer science, public health and construction management. – *Brian Book, Dukane Precast*

# 10 Great Things School Partners Did This Year

## 1. Meet one-on-one with students

*Jason Lien from Encon United* spent quantity and quality time with students at the University of Colorado Denver this year. Not only did he provide multiple lectures to give students a working knowledge of precast, he also sat in the classroom and conducted one-on-one desk critiques that further broadened the students' technical abilities to design in precast.

## 2. "Adopt a Student" from a studio

Members of the *PCI West* chapter each adopted at least one studio student from the University of Southern California. In many cases, the plants sent staff to the studio reviews. They invited students to meet them, and some even invited and paid for travel expenses for their student to visit their plant.

## 3. Have "open office hours"

*Gage Brothers* in Sioux Falls, SD opens up its plant on Fridays to studio students who are taking part in the Precast Studio. In this class, the students are working on a small project to be built in partnership with *Volga*, South Dakota. Students can come in and have their questions answered and learn more about the building process during these special times.

## 4. Gives hands on demonstrations

*Ray Clark of US Formliner* spent time in the classroom teaching students about mold making and helped them understand how custom molds translate to one-of-a-kind pieces. From there, students better understood mirror images, and how shapes and forms can fit together in their designs. *Metromont* and *Tindall* invite *Clemson* students out for a one-day plant tour on alternating years. At both plants, students are provided the opportunity to conduct a panel/forming exercise that gives them an opportunity to better understand the fabrication process.

## 5. Supporting student designs

The focus on the studio at the University of Michigan is digital fabrication. Students visited *Kerkstra Precast* in Grandville, Michigan to get ideas on current manufacturing processes. Then, representatives of *Kerkstra* and *International Precast Solutions* in River Rouge, Michigan helped evaluate student projects during the mid-term and final reviews.



## 6. Provide products for real projects

When the Washington University students in St. Louis participate in the 2017 Solar Decathlon, their project will include precast concrete from several precast plants, including *Dukane Precast*, *Gate Precast*, *St. Louis Prestress*, *Ductal/Lafarge Holcim North America*, *Enterprise Precast* and *Thermomass*.

## 7. Shares “real world” project from start to finish

*Gregg Jacobson* from *Wells Concrete* not only spends time lecturing and working with construction management and engineering students at Minnesota State at Mankato, he helps provide context by sharing an actual project. The students have a chance to experience the project process from initial plans to finished build out.

## 8. Coordinate industry cooperation

In areas where there is a PCI Chapter, the job of coordination partnerships with the school typically falls to the regional director. But in the Washington State, there is no chapter, so *Catrina Walter* of *BergerABAM* jumped in and coordinated with all the industry partners in the area and the University of Washington to help ensure that the industry was represented at the school.

## 9. Creating research partnerships with the school

When working with a school, there are often partnerships formed that go beyond the studio program. At the University of Texas at Arlington, *Gate Precast* has forged a relationship with the college that now includes some of the research Gate needed on new products.

## 10. Working with students beyond the studio

When the students from the studio at the Rhode Island School of Design travel to visit *Blakeslee Prestress* in Branford, Connecticut they add students from required courses earlier in the sequence so about 50 students attend the tour. This gives some great basic background on precast design to all the architecture students, not just the few reached as part of the sponsored studio.

## Landing Places This Year

### Wells Concrete

Maple Grove,  
Minnesota

### Solomon Cordwell Buenz

Chicago, Illinois

### Gensler

New York,  
New York

### AECOM (URS Legacy)

Fort Mill,  
South Carolina

### Dwell Design Studio

Atlanta, Georgia

### Kimley-Horn Associates

Orange County,  
California

### ENCLOS

Los Angeles,  
California

### CallisonRTKL

Dallas, Texas

### NASA Structural Dept.

Orlando, Florida

### Zahner

Kansas City, Missouri

# 10 Places Graduates Are Working

Young professionals are often on the move and few stay in one place very long while they develop their careers. This makes finding and keeping track of graduates from PCI Foundation sponsored programs a challenge. However, in the last year, we have tracked many of the students after they leave school. Here are 10 examples of places they are now employed:

1. **CallisonRTKL**, Dallas, Texas
2. **NASA Structural Dept.**, Orlando, Florida
3. **AECOM (URS Legacy)**, Fort Mill, South Carolina
4. **Solomon Cordwell Buenz**, Chicago, Illinois
5. **Kimley-Horn Associates**, Orange County, California
6. **ENCLOS**, Los Angeles, California
7. **Wells Concrete**, Maple Grove, Minnesota
8. **Gensler, New York**, New York
9. **Dwell Design Studio**, Atlanta, Georgia
10. **Zahner**, Kansas City, Missouri

Location	Number of Graduates
Hartford, CT	1
St. Augustine, FL	1
Gainesville, FL	1
Sioux City, IA	1
Boston, MA	1
Detroit, MI	1
Maple Grove, MN	1
Rochester, MN	1
Raleigh, NC	1
Albuquerque, NM	1
San Antonio, TX	1
Denver, CO	2
Orlando, FL	2
Wells, MN	2
Kansas City, MO	2
Richmond, VA	2
Miami, FL	3
Minneapolis, MN	3
Portland, OR	3
Providence, RI	3
San Diego, CA	4
Milwaukee, WI	4
Chicago, IL	6
Greenville, SC	6
Madison, WI	7
San Francisco, CA	10
Charlotte, NC	10
Jacksonville, FL	12
Seattle, WA	12
Dallas, TX	17
New York, NY	19
Newark, NJ	29
Los Angeles, CA	52
Foreign	11



**At Wells, we think the payback on this investment is exponential. We are already starting to get our investment back. If we get 20 graduates per year going into the local job market with a strong knowledge of precast and just one of those students brings us back just one project - our investment has paid for itself. – Dan Jutunen, Wells Concrete**

Thoroughly enjoyed the prestressed concrete class that Dr. ElSafty taught. I learned a lot from him. He is a terrific professor. Now I'm finishing my Naval career and in the middle of my MBA here in Oklahoma. Every time I pull into the parking garage for classes, I remember those prestressed classes and what I learned with him. – Luke Hosman, University of North Florida



**Celebrate The Power of**

# The Programs

## Professors Seminar

The PCI Foundation, along with PCI West and University of Southern California, sponsored a professors seminar June 1 through 3 in early June that gave 14 professors of architecture, engineering and construction management helpful background to teach precast concrete programs. Fourteen professors, two regional directors, and six PCI associate and producer members spent three days both in the classroom and in the field experiencing a program that included not just theory, but also design, production, erection and finished precast projects.

Speakers for the program included PCI Certified plant personnel, architects from Gensler, professors from current programs, and project owner (USC). The attendees visited the Clark Pacific plants in Irwindale and Fontana where Brad Williams provided an in-depth tour. Next the group visited a finished precast project (The Broad Museum) and heard about Willis Construction Co.'s fabrication of the "veil" of glass fiber reinforced concrete. On the last day, the group toured the project site for the University Village that Coreslab Structures (LA) fabricated.

Professors who attended the program were not only from schools where PCI Foundation is currently active, but also other schools interested in possibly starting more robust precast programs.

## Student and Professor Convention Sponsorship

Each year, the PCI Foundation works to ensure that students and professors involved in our programs have the opportunity to attend the PCI Convention. Students are offered the opportunity to display a poster of their work during the poster session on the Precast Show floor. At the 2016 Convention, attendees were able to see everything from a project at the top of Pike's Peak to new digital fabrication technology.

Professors typically provide an education course during the convention that highlights what their students are learning and how they are approaching the subject of precast.

Students and professors also take advantage of the opportunity to visit the precast suppliers on the show floor and sit in on some of the education sessions that are offered.

## Internship Program

During 2016, the PCI Foundation and NPCA Foundation began working together on a new program to assist members of PCI and NPCA who wish to start or continue student intern programs. The scope of the project includes:

- To develop internship program template that company can adapt to their individual needs.
- To provide guidance on how to identify internship best practices and effective tools for training interns.
- To provide a plan to educate companies on how to enrich an internship program and help our industry communicate and market the program to student audiences.
- To build a program in modules so other industry partners, such as associate members, can be added at a later time.

During 2016 the task force hired a consultant to help build this program and work is currently underway. Expected distribution of the program is during 2017.



I was working in a large multinational corporation doing architecture and construction before coming to University of Michigan. When I was working, we had to deal with a lot of production drawings and fabrication drawings, and which fueled my interest in the making of these products. I wanted to be on the other side of the job, and know more about fabrication and production rather than just drawings.” – Amogha Krishnaiah, University of Michigan



Education To The Power

# Education Projects

The cornerstone of the PCI Foundation's work is its Education Program (also known as the studio program). During 2016, programs took place at the following schools:

## **Clemson University**, Clemson, South Carolina

Architecture and Civil Engineering | Grant Dates: 2014 - 2017

Clemson University's architectural precast design studio, titled *Precast Performative Morphologies* has completed its third year in partnership with the PCI Foundation, Georgia/Carolinas PCI and precast producers Metromont and Tindall. The 2016 studio course incorporated several short projects: 1) converting a Tadeo Ando cast-in-place concrete design to precast concrete for understanding of panelization, shipping constraints etc., and 2) a graphic tessellation exercise to understand repetition and economical variation that can be accomplished with juxtaposition of simple geometric shapes. These initial exercises along with introductory lecture on the basics of precast/prestressed concrete design; form liner workshop (US Formliner); precast plant tour and panel fabrication exercise; and field trip to Washington, DC, help inform the students for their more in-depth project 3) Precast Morphology - design of an embassy building in Washington, DC. The architecture students also had structural engineering students, from the prestressed concrete course in the Clemson Civil Engineering department, provide weekly consults on their design development. A highlight of the class for many of the students was their presentation of their final designs made to principals of Washington DC architecture firm KCCT at their DC office with invited facility architects from the US Department of State.

Partners: **Georgia/Carolinas PCI** | Professor: **Dr. Michael Carlos Barrios Kleiss, PhD**

## **Minnesota State University, Mankato**, Mankato, Minnesota

Engineering and Construction Management | Grant Dates: 2014 - 2017

For the precast concrete industry, the idea of design-build is a natural. Because precast concrete is an engineered product designed specifically for each structure, there have always been elements of partnership in precast concrete projects. One program receiving a grant from the PCI Foundation and capitalizing on that partnership is the Precast Program at Minnesota State University, Mankato, a collaboration between the Construction Management and Civil Engineering programs that has just finished the third year of a four-year grant from the PCI Foundation. While each program has its own classes and focus, they come together for multiple tours and guest speakers, as well as for a Building Information and Modeling (BIM) course housed in the Construction Management department. Both programs work with staff from Wells Concrete in Wells, Minn., to ensure that students have an opportunity to learn from projects currently underway by studying precast design, learning about how BIM is used for the project, seeing the fabrication process, learning from staff working on the project and seeing the project erected.

Partners: **Wells Concrete** and **PCI Midwest** | Professors: **Farhad Reza, Ph.D., P.E.** and **Mohamed F. Diab MBA, PHD, A.M.ASCE**

## **University of Michigan**

Architecture | Grant Dates: 2016-2018

Looking at the student projects for the *University of Michigan's Capstone in Digital Technologies: Investigations in Precast Concrete* is like starting up a time machine to look at the future of the precast industry. This studio, which is part of the Masters of Science in Digital Technologies, is intended to engage students with the precast industry and is the capstone studio in the post-professional, research-based degree. It is unlike some of our other programs that are more focused on the architectural design rather than the manufacturing process. This studio is poised to consider the design and production of precast architecture as a form of advanced building research. The students use the resources available in the digital lab that allows them to leverage the power of computationally-based design and numerically-controlled machines toward new methodologies, materials and systems of production. For the precasters involved with this project, Kerkstra Precast and International Precast Solutions, the students' work was challenging and engaging - unlike what we typically see produced, but new ideas that can unleash the possibility for new uses of precast concrete. Students' work was dramatically different, not only in terms of the equipment used to create it, but also in the final design look and possible uses for the future. They developed folding concrete that could be shipped flat, used shrink wrap techniques to create the mold, and robotically cut 3-D molds creating variable cast elements.

Partners: **Kerkstra Precast, International Precast Solutions, LLC, PCI Central** | Professors: **Glenn Wilcox**

Prior to the studio's introduction, there was effectively nothing on precast concrete being taught in material-sciences classes, they only really addressed cast-in-place concrete. It's been a pretty dramatic change since then. It's not only become a focus in the studio course but also part of the general curriculum, including second-year students through graduate students. – Doug Noble, University of Southern California



## Education To The Power

# Education Projects (continued)

## **South Dakota State University**, Brookings, South Dakota

Architecture | Grant Dates: 2013 - 2016

Each class at South Dakota State University works with a local rural town - spending a couple years both mapping out the town and learning more about where there might be an architectural need. The culmination of the work finishes with the Precast Studio, when students design and then build a small project. In 2016, the class researched the small town of Volga, South Dakota to determine what type of structure would best suit it and then created a spatial model of the town. The project chosen by the students is a 14-foot high structure that includes several V shapes. The base of the Vs are extended on both sides so people can sit or lean on them. In the top left-hand corner of the structure, signage for the town can be placed. Gage Brothers will produce the structure. The Volga project is set in the heart of downtown, a site where the town gathers for parades and ice cream socials.

Partner: **Gage Precast** | Professors: **Brian Rex** and **Federico Garcia Lammers**

## **University of Colorado Denver**, Denver, Colorado

Architecture | Grant Dates: 2016 - 2018

It takes some savvy students to take on a challenging studio project that combines a high summit that represents American heritage with the intricacies and challenges that the Rocky Mountains provide. Professor Matt Shea and the students in his PCI Foundation sponsored studio took on these challenges at the University of Colorado Denver School of Architecture during their spring studio. Like many studios, the students took on a design that had some very real-world implications although on a hypothetical project. The Friend's of America's Mountain - a group supporting Pikes Peak - interacted with the students and acted as the client for the project. Jason Lien from Encon United had weekly sessions for part of the semester, in addition to several lectures. Students toured the Rocky Mountain Prestress Plants, and had guests from both companies at its mid-term and final reviews. The students in the course are part of the masters program and took this studio as the fourth studio in the six-semester sequence. Next year, the students will take on a ski village project at the Arapahoe Valley.

Partners: **Encon United**, **Rocky Mountain Prestress**, and **PCI Mountain States** | Professors: **Matthew Shea**

## **University of Southern California**, Los Angeles, California

Architecture | Grant Dates: 2014 - 2017

The USC School of Architecture continued their engagement of the PCI Foundation studio with Joshua Tree National Park. Students not only work with staff from the National Park Service, they also spend time with precast concrete producers in the area to gain understanding of precast concrete design. Each student has a precast company from the region sponsor him or her and ensure that they get personal attention during their studio time. In addition to the studio work, USC hosted a façades conference with several papers and presentations by PCI members and was the site of the 2016 PCI Foundation Professors Seminar. During the final year of their grant, the professors plan to design and build a full-size precast concrete building facade for use at the Park.

Partners: **PCI West** | Professors: **Doug Noble, Ph.D.** and **Karen Kensek LEED AP, BD+C**

## **Rhode Island School of Design**, Providence, Rhode Island

Architecture | Grant Dates: 2014 - 2016

Headed by assistant professor Brett Schneider and professor of architecture Jim Barnes, the precast studio at the RISD (referred to as "RIZ-dee" by many) is a design studio of a new kind launched in 2014 working with the PCI producers in the northeast region. Both sides approached the studio a little wary of how it would unfold. PCI is known for its strong engineering approach to design, while RISD has a rich design history and is one of the oldest and best-known colleges of art in the U.S. Now in its third year, both sides are finding surprises and delight in working with one another to create a new kind of architecture studio. The studio itself varies from the approach of other programs that have been sponsored by the PCI Foundation that have taken a more traditional approach to a design studio. Instead of focusing on the architectural design of a structure using precast components, RISD students concentrate on the product itself and look at ways to innovate the design and fabrication of the product - very much in keeping with the school's Industrial Revolution roots. Called *1:1 Precast* focuses on a combination of researching the conventions of precast concrete and physical experimentation to move beyond and question these conventions.

Partner: **PCI Northeast** | Professor: **Brett H Schneider, Jim Barnes**

## Education To The Power



What I noticed this year when I taught the studio was that the students had all these precast projects they were designing spread all around the room. Each year we are reaching further through the studio. It is really starting to get legs and getting students engaged in the program. They are buying into concept about designing with precast. – Ray Clark, US Formliner

# Education Projects (continued)

## University of Texas at Arlington

Architecture | Grant Dates: 2014 - 2016

Students at the University of Texas at Arlington (UTA) working with Associate Professor Bradley Bell have taken advantage of opportunities to work with local precasters in order to use their time to advance precast concrete material technology and material innovation. The innovation begins with a trip to the Gate Precast plant in Hillsboro, Texas, where students see today's state of the art fabrication methods. In addition, the class has also introduced a trip to Hamilton Form, located in Ft. Worth, Texas to observe the production of large-scale formwork production. From there, they use new technologies and digital fabrication methods to research new materials and methods that might, in years to come, change the way precast is fabricated.

*Performative Precast* is a three-year program of integrated design and seminar courses for upper and graduate level students. The design studio course is taught in the fall and the seminar course takes place in spring.

Manifold Concrete Systems is a graduate design studio course focusing on the implementation of applied research methods as a means to explore new developments in performative architectural components. Specifically, these components, regardless of scale and functional application, synthesize the interaction of the material properties, geometry and contextual forces. Furthermore, these components leverage the use of precast concrete means and methods to conduct research. Students undertake a demanding semester-long project following specific research methodology resulting in quantifiable results for the purpose of application and future development.

Partners: **Gate Precast, Hamilton Form, PCMA Of Texas** | Professor: **Bradley Bell**

## University of Washington

Architecture | Grant Dates: 2016 - 2018

The 2016 PCI Foundation Studio was organized around the topic of "casting and recasting" - adapting precast construction to accommodate potential new uses. This studio challenged students to design a precast concrete building that converts from a parking garage to a community-oriented building. Like urban warehouses that have been first colonized by artists and then converted to condominiums, parking garages have a potent adaptability. Anticipating the near future, the studio project used the modularity of precast concrete to build the pragmatic terrain of a parking garage, which can be recast by the simple occupation of the spaces, incrementally repurposing parking stalls into homes, workshops, community spaces and gardens. The studio aimed to educate students on the design, construction and use of precast concrete buildings and encouraged students to explore new potential directions. The studio was offered as *Architecture 501*, which is commonly known as the "tectonic studio" because of the intensive focus on design development, materials and structures.

Partners: **BergerAbam, Encon Washington, Knife River, Oldcastle, Concrete Tech, Olympian** | Professor: **Tyler Sprague**

## Washington University

Architecture | Grant Dates: 2016 - 2017

Representatives from four precast companies, two precast engineers, and several students from the Washington University St. Louis 2017 Solar Decathlon team came together to work on details of the precast concrete house that will be entered in the competition during the end of the Fall 2016 semester. The U.S. Department of Energy Solar Decathlon is a collegiate competition made up of 10 contests that challenge student teams to design and build full-size, solar-powered houses. The winner of the competition is the team that best blends design excellence and smart energy production with innovation, market potential, and energy and water efficiency. The contest is scheduled for the fall of 2017 in Denver. Washington University has group of four full-time faculty from Architecture and Engineering working on different aspects of the project. They have instructed close to 100 architectural and engineering undergraduate and graduate students through the solar decathlon projects. The solar decathlon project demonstrates great collaboration between academia and industry. Washington University is one of 14 schools taking part in the decathlon. Once the competition is finished, the house will be rebuilt on campus as part of the International Center for Advanced Renewable Energy and Sustainability (I-CARES) on campus. It will be studied by groups of students from several colleges, including the business school and school of public health.

Partners: **Dukane Precast, PCI IL & WI, St. Louis Prestress, Gate Precast, Enterprise Precast, Thermomass**  
Professor: **Hongxi Yin, Pablo Moyano Fernandez**



**A Force To The Power of**

# Medal of Honor: Jim Voss

There are few people in our industry who have done more to advance our work than Jim Voss. Since he founded JVI in 1981, he has not only promoted his company, but also worked to enlarge and improve the entire precast industry. So it is no surprise that a man who has given so much to our industry was honored with the PCI Medal of Honor during the 2016 PCI Convention.

One of his crowning achievements came in 2001 when he worked to establish the PCI Foundation (PCIF). Not content to simply offer scholarships, Jim and the PCIF trustees worked to expand the traditional role of an association foundation. Since that time, the foundation has done remarkable work.

Three of Jim's friends, Chuck Magnesio, Greg Gibbons and Gary Wildung came together to honor Jim's work by soliciting donations to the PCI Foundation celebrating his Medal of Honor. Together with other friends, they raised \$31,382.50 for the Foundation.

## **Jim Voss Medal of Honor Fund Donors**

Todd Adams	Simon Harton	William Nickas
Jim Ahtes	Patrick Hynes	Dawn Parker
Anonymous	Tom Kelley	Chuck Prussack
Douglas Bauer	Ed Knowles	Bob Risser
Patrick Carlin	Greg Krause	Salmons PC
Mark Cerminara	Jason Krohn	Larbi Sennour
David Chapin	Bo Kuszniir	Rita Seraderian
Rebecca Coleman	Mike Lanier	Joel Sheets
Ted Coons	Leader Graphic Design	William F. Simmons III
Thomas & Marie D'Arcy	Chuck Magnesio	Jim Sirko
John Dobbs	Robert S. McCormack	Doug Sutton
Peter Finsen	Martha H. McIntyre	Glen Switzer
Greg Force	Don Meinheit	Richard Taylor
Dean Frank	Richard Miller	Kim Wacker
Greg Gibbons	Jeff Moehle	Bradley Williams
Leon Grant	Doug Mooradian	Heidi Ziemann

The class gave me knowledge of new materials and products applicable to my current position. This was done not only through traditional methods of teaching, but also through hands on interaction with the product and process of creating it. I was fascinated by the many methods and uses of precast, as well as it's efficiency. – Nicole Branola, Clemson University



**Celebrate The Power of**

# Fundraising Events

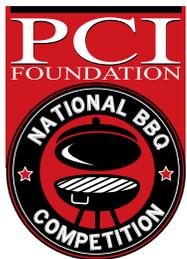
The three fundraising events held for the PCI Foundation during 2016 were the "After Dark" party during the PCI Convention, the "Concrete Chefs" dinner held during Committee Days and the Barbecue Competition.

## After Dark

The annual "After Dark" gathering brought together supporters of the PCI Foundation for a nightcap and some fun. Sponsored by BASF, Hamilton Form, and Thermomass, the program raised about \$15,000 from attendees, and an additional \$10,000 from the "Best of the Silent Auction" that took place at the same time. After Dark was a great time for industry sponsors to meet and greet professors from our programs while kicking back for a moment at convention.

## Concrete Chefs

A great tradition of culinary excellence and industry camaraderie continued this year when the Concrete Chefs prepared dinner for the attendees of the PCI Committee Days. This year, the program was set up as a fundraiser for the PCI Foundation and brought in about \$8,000 in donations. The dinner, hosted by Jim Voss of JVI, capped off one of the best attended Committee Days in several years. This year's cooks included Tom D'Arcy, Bob Vitelli, Jim Voss, Ted Coons, and Dick Taylor. PCI committee members were bussed to the dinner held at JVI's offices in Lincolnwood, IL.



## PCI Foundation Barbecue Competition

A total of 1,585 people celebrated the PCI Foundation National BBQ competition during September and early October 2016. In only its second year, the program raised \$63,155.90 - beating the goal of raising \$50,000 in one year. Plants who take part in the program register their party and then send in the results to the PCI Foundation. This year, the largest donation made on behalf of a barbecue was from the Gate Precast plant in Winchester, Kentucky. Steve Schweitzer, VP of Operations at the Plant, oversaw the event.

In addition to naming the Gate Precast Winchester as the overall the following plants received notice:

- Most Unique Menu Item: **Gate Precast - Hillsboro**—Smoked Alligator
- Family and Friends Award: **Gate Precast Monroeville**
- Most Meat Grilled: **Gate Precast Monroeville**
- Student Attendees Award: **Wells Concrete**

## Celebrate The Power of



### **What is the Leadership Circle?**

Some of the most committed donors have stepped up in the last 10 years to help the PCIF become exceptional. We are grateful for their generosity and feel it is important to recognize supporters who have contributed to the PCI Foundation's success over time. To that end, we have singled out a "Leadership Circle" to recognize the cumulative giving of the select few who have carried the largest share of the PCI Foundation through its humble beginnings to our current robust programs.

# Leadership Circle

## Individuals

### Gold (\$25,000 to \$49,000)

James R. Voss

Gary Oakes

Jim Sorensen

### Silver (\$10,000 to \$24,999)

Ned Cleland

Thomas & Marie D'Arcy

Greg Force

Bruce Hartup

Daniel Jennys

Ed Knowles

Robert H. Konoske

Ed Knowles

Clyde Poovey

Mike & Diane Malsom

Donald & Ginny Rath

### Bronze (\$5,000 to \$9,999)

Donald L. Faust, Jr.

Neil M. Hawkins

Thomas Hsu

Patrick and Rhonda Hynes

Michael & Ginger Lanier

Robert S. McCormack

Christopher & Tina Pastorius

William F. Simmons III

Doug & Ellie Sutton

Richard & Judy Taylor

### Givers (\$1,000 to \$4,999)

Todd & Cathy Adams

Douglas Bauer

Roger Becker

David Chapin

Matt Cherba

Lynn and Ted Coons

Bill Daily

John Dobbs

Peter Finsen

Skip Francies

Greg Gibbons

Leon H. Grant

Dean Gwin

Dave Jablonsky

Billy Jolly

Tom Kelley

Bo Kusznir

Michael W. Lee

Chuck Magnesio

Tom & Connie McEvoy

Martha H. McIntyre

Donald E Meinheit

Marianne Methven

Richard Miller

Peter Ollman

Leonard Perlmutter

Chuck Prussack

A. J. Sassaman

J. Seroky

John Stanton

James Toscas

Hulmuth & Mary Lou Wilden

Gary Wildung

Chuck Wynings

Paul Zia

## Corporate Givers

### Platinum Circle \$500,000 plus

Gate Precast

### Gold Circle \$250,000 to \$499,999

Coreslab Holdings US Inc.

Encon United

JVI Inc.

Shockey Group, The

### Bronze Circle to \$50,000 - \$149,999

BASF Construction Chemicals Inc.

Blakeslee Prestress

Charles Pankow Foundation

Clark Pacific

Consulting Engineers Group, The

Hamilton Form

Metromont Corp.

Oldcastle Precast Building Systems

Ross Bryan Associates

SIKA

Spancrete

Tindall Corp.

Wells Concrete

*Cumulative Donations Received*

*January 1, 2001 - December 31, 2016*

# 2016 Donations

All donations received between January 1, 2016 and December 31, 2016

## Individual Donors

### SILVER (\$10,000 to \$24,99)

Mike Malsom

### Bronze (\$5,000 to \$9,999)

Thomas Hsu

Jim Voss

### Copper (\$1,000 to \$4,999)

Todd & Cathy Adams

Douglas Bauer

David Chapin

Matt Cherba

Lynn and Ted Coons

Thomas & Marie D'Arcy

John Dobbs

Greg Force

Greg Gibbons

Leon H. Grant

Dean Gwin

Neil Hawkins

Patrick and Rhonda Hynes

Daniel Jenny

Billy Jolly

Tom Kelley

Ed Knowles

Bo Kuszniir

Charles Magnesio

Martha H. McIntyre

Marianne Methven

Peter Ollman

Chuck Prussack

Anthony Sassaman

J. Seroky

William F. Simmons III

Jim Sirko

John Stanton

Richard & Judy Taylor

James Toscas

Paul Zia

### Contributor (All other donations)

Jim Ahtes

Anonymous

Paul Arthur

Mary Jane Bertolini

Jeff Bishop

Sergio Brena

Krista Brown

Joseph Bunkers

Scott Canfield

Patrick Carlin

Mark Cerminara

John Cerva

Ray Clark

William J. Clayton

Rebecca Coleman

Brandi Combs

Todd and Christina Culp

Ben Dalsing

Art DeVecchis

Evelyn Dickerson

Dan Eckenrode

Peter Finsen

Skip Francies

Dean Frank

James Gerloff

Matt Graf

Tom Hailey

Simon Harton

Amy Holliday

Bill Henderson

Catherine Hutto

Gregg Jacobson

Calvin Jones

Matthew Johnson

Paul Kourajian

Greg Krause

Jason Krohn

Kenneth E. Kruse

Mike Lanier

David Larsen

Chris Lechner

Jim Lewis

Don Little

Emily Lorenz

Robert S. McCormack

James McDaniel

Donald E. Meinheit

Alexander Mihaylov

Henry Miller

Richard Miller

Pete Mitchell

Jeff Moehle

Doug Mooradian

Chris Mosley

David Nasser

William Nickas

K. Michael Norwood

Monty Overstreet

Dawn Parker

Kevin Parris

Patty Peterson

Charles Pizzano

Kimberly & Gary Pooley

Tauna Prince

Don Raths

Gregg Reese

Bob Risser

Brenda Rivera

Dr. Henry G. Russell

John Saccoman

Anthony Sassaman

Greg Saterdalen

Kevin Schrock

Steve Schweitzer

Larbi Sennour

Rita Seraderian

Joel Sheets

Edith Smith

Mickey Stephenson

W. J. Stonebraker

Mike Strain

Doug Sutton

Glen Switzer

Roksana Taghizadeh

Harry A. Thompson

James Thompson

Diep Tu

Dewey Turbeville

Trice Turner

Joseph Tuttle

James Valent

Kim Wacker

Michael Wagner

Kristopher WalkFaust

Catrina Walter

Brian Webb

Matthew Westgaard

Jeff White

Bradley Williams

Heidi Ziemann

## Corporate Donors

### Partner (\$250,000 to \$499,999)

JVI Inc.\*

Wells Concrete\*

### Sponsor (\$100,000 to \$149,999)

Coreslab Holdings US, Inc.\*

### Advocate (\$50,000 to \$99,999)

BASF \*

Consulting Engineers Group, The\*

Encon United

Hamilton Form \*

Kerkstra Precast, Inc.\*

Sumiden Wire Products Corp.\*

### Supporter (\$25,000 to \$49,999)

Clark Pacific

Gate Precast Company

Illini Concrete Company of Illinois\*

Prestressed Casting Co.\*

Tindall Corp.

### Leader (\$10,000 to \$24,999)

PCI Of Illinois & Wisconsin\*

Precast Services

### Friend (\$5,000 to \$9,999)

Central Atlantic Bridge Associates

Cresset Chemical Co.

FDG

Gibbons Erectors Inc.

International Precast Solutions, LLC

### Contributor

Action Bolt

Advanced Formliners

Ben Hur Construction

Brown Transport

Byrne Enterprises, LLC - Ashcroft Saws & Tools

Cemex

Chicago Contractors Supply

Cox Machinery

CPI International/Judi Taylor

Dynamic Color Solutions

E.E. Marr Erectors, Inc.

Fister Quarries

GCP Applied Technologies

Gott Caulking

Knife River

Kwik-Set Fasteners

Leader Graphic Design

McRay Crane

Midway Supply Company, Inc.

Parking Consultants, LLC

PCI West

Precast Services

Pyles Transport

RC Cast

Ross Bryan Associates, Inc.

RTS Financial

Ryan Transportation

Salmons P.C.

Shuttlelift

Spancrete

Specialty Concrete Services, Inc.

Suwannee American Cement, LLC

Thermomass

White Cap

### In memory of Linda Voss

Mary Jane Bertolini

Encon United

Don Little

Parking Consultants, LLC

PCI West

John Saccoman

Spancrete

### In honor of Alan Mattock

A memorial scholarship is being created in honor of Dr. Alan Mattock of the University of Washington. Contributors to the scholarship include:

Neil Hawkins

Thomas Hsu

Henry Russell

John Stanton

Paul Zia

*\* Signifies a multi-year pledge*

The Power of

# Join the Team

## Celebrate The Power of



PCI Foundation Trustees Todd Adams and Jim Voss of JVI and Marianne Methven of Hamilton Form coordinated the most successful donor campaign for individual donors in the history of the PCI Foundation. For “Join the Team” those donors who signed up before and during Committee Days to make regular contributions became “Team Members” and received a PCI Foundation team jersey donated by JVI to wear to the Concrete Chefs dinner.

Most of the donors signed up with a credit card that will be charged automatically at intervals chosen by the donor. Thanks to this program, the PCI Foundation received pledges from donors with a promise of \$28,554 annually.

### Team Captains:

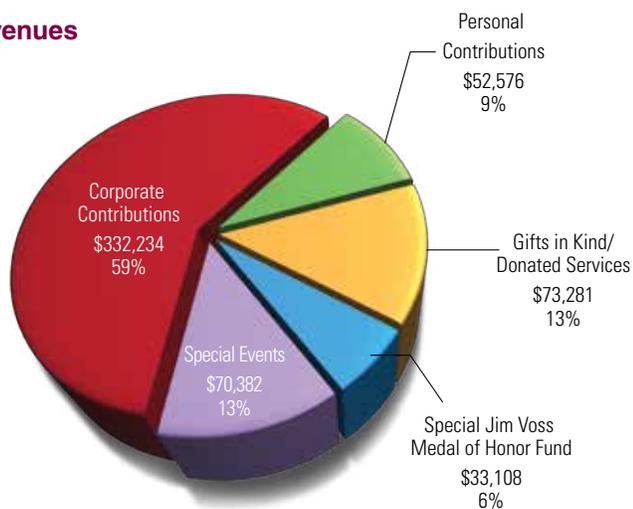
Todd Adams	Peter Finsen	Pat Hynes	Bo Kusznir	Rita Seraderian
Keith Allen	Greg Force	Jason Krohn	Emily Lorenz	Glen Switzercomx
Dusty Andrews	Dean Gwin	Ken Kruse	Marianne Methven	Jim Voss

### Donors who “Joined the Team” during 2016:

Todd Adams	Dan Eckenrode	Jason Krohn	Charles Pizzano	John Stanton
Paul Arthur	Peter Finsen	Ken Kruse	Tauna Prince	Mike Strain
Jeff Bishop	Greg Force	David J. Larsen	Bill Ray	Doug Sutton
Sergio Brena	Skip Francies	Chris Lechner	Gregg Reese	Roksana Taghizadeh
Krista Brown	Dean Frank	Jim Lewis	Bob Risser	Richard Taylor
Joseph Bunkers	Sid Freedman	Emily Lorenz	John Saccoman	Deip Tu
Colin Butler	James Gerloff	Martha H. McIntyre	A.J. Sassaman	Trice Turner
Scott R. Canfield	Greg Gibbons	Marianne Methven	Greg Saterdalen	Joseph Tuttle
John Cerva	Matt Graf	Alexander Mihaylov	Kevin Schrock	Kim Wacker
David Chapin	Dean Gwin	Richard Miller	Rob Schrock	Michael J. Wagner
Matt Cherba	Amy Holliday	Jeff Moehle	Jim Schroder	Kristopher WalkFaust
Ray Clark	Pat Hynes	Chris Mosley	Rita Seraderian	Catrina Walter
Brandi Combs	Gregg Jacobson	David Nasser	J. Seroky	Matthew Westgaard
Tom D’Arcy	Tom Kelley	Monty Overstreet	William F. Simmons III	Jeff White
Ben Dalsing	Les Kempers	Chris Pastorius	Jim Sirko	Heidi Ziemann
John Dobbs	Paul Kourajian	Patty Peterson	Edith Smith	

# Financial Highlights

## Revenues



Revenue	Unrestricted	Restricted	Total
Contributors - Corporate	\$322,034.00	\$10,200.00	\$332,234.00
Contributors - Personal	\$43,576.00	\$9,000.00	\$52,576.00
Gifts in Kind / Donated Services	\$73,281.00		\$73,281.00
Special Jim Voss Medal of Honor Fund	\$33,108.00		\$33,108.00
Special Events	\$70,382.00		\$70,382.00
<b>Total Revenues</b>	<b>\$542,381.00</b>	<b>\$19,200.00</b>	<b>\$561,581.00</b>

Expenses	Unrestricted	Restricted	Total
Program Services	\$405,079.00	\$5,000.00	\$410,079.00
Support Services	\$153,692.00		\$153,692.00
Special Events	\$10,037.00		\$10,037.00

**Total Expenses**    **\$568,808.00**    **\$5,000.00**    **\$573,808.00**

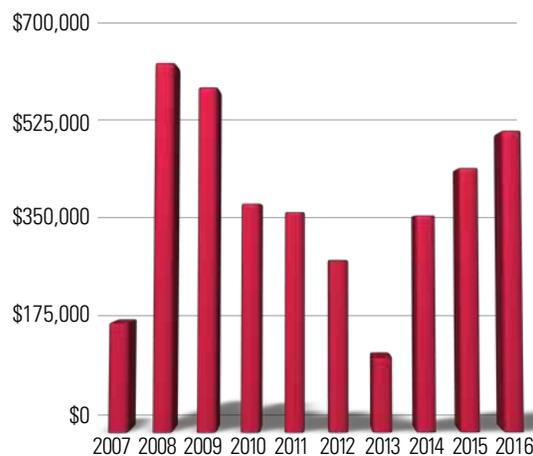
Assets	Unrestricted	Restricted	Total
Cash	\$656,322.00	\$14,200.00	\$670,522.00
Investments	\$822,647.00		\$822,647.00
<b>Total Assets</b>	<b>\$1,478,969.00</b>	<b>\$14,200.00</b>	<b>\$1,493,169.00</b>

## Liabilities & Fund Balances

Current Liabilities		
Accounts Payable	\$0.00	\$0.00
Payroll Liability	\$433.00	\$433.00
<b>Total Current Liabilities</b>	<b>\$433.00</b>	<b>\$433.00</b>

Long-Term Liabilities		
2017 Grant Commitments	\$170,000.00	\$170,000.00
2018 Grant Commitments	\$75,000.00	\$75,000.00
<b>Total Long-Term Liabilities</b>	<b>\$245,000.00</b>	<b>\$245,000.00</b>
<b>Total Liabilities</b>	<b>\$1,723,969.00</b>	<b>\$1,738,602.00</b>
<b>Fund Balances</b>	<b>\$1,233,536.00</b>	<b>\$1,247,736.00</b>
<b>Total Liabilities &amp; Fund Balances</b>	<b>\$1,478,696.00</b>	<b>\$1,493,169.00</b>

## 10 Years of Donations



## 10 Year Picture of Donations

The funding for the PCI Foundation comes solely from donors and not from dues to PCI.

Year	Total Donations	Year	Grant Dollars	Grant Recipients
2007	\$175,900.00	2007	\$20,000.00	1
2008	\$603,306.00	2008	\$20,000.00	1
2009	\$562,680.00	2009	\$52,000.00	3
2010	\$370,365.00	2010	\$77,000.00	4
2011	\$356,655.00	2011	\$71,000.00	4
2012	\$276,925.00	2012	\$73,000.00	4
2013	\$119,675.00	2013	\$118,395.00	6
2014	\$351,487.00	2014	\$183,395.00	8
2015	\$429,627.00	2015	\$148,395.00	6
2016	\$491,199.00	2016	\$233,395.00	10

This chart reflects the total number of schools receiving grants per year from the PCI Foundation.



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