Winners of Annual PCI Big Beam Competition Announced

CHICAGO, October 19, 2020 – The Precast/Prestressed Concrete Institute has announced that the University of Notre Dame, Team 2, won first place in PCI’s 2020 Engineering Student Design Competition, also known as the Big Beam Competition.

The national competition, which is in its 20th year, teaches college students important structural engineering skills in an applied learning environment they will use throughout their precast concrete construction careers.

“I have been fortunate to be a part of the PCI Big Beam competition as a student, teaching assistant, and instructor,” said Robert Devine, faculty advisor of the winning team. “In all of these roles, I have found that this project is special because it allows the students to put the lessons they learn in class to the test and see their design become a reality. We are also fortunate at Notre Dame to have excellent support from local contractors and material suppliers.”

“As a member of the mix design team, I got to learn about the iterative process of design and about working with different teams of people to coordinate a common goal,” added Barret Lee.

The competition involves teams of students and their faculty advisors designing, building and testing a 22-foot, precast concrete beam. Local precast concrete producers provide students with ongoing mentorship. Project entries are judged on a variety of criteria, including the beam’s performance in stress tests that simulate the types of real-life conditions structural building and infrastructure components must endure to ensure life safety, as well as the quality of their analysis and reports and a video overview of their project.

“Student education and outreach are an important part of PCI’s programs,” said PCI President and CEO Bob Risser. “The students are quite literally our future as an industry. The hands-on nature of the Big Beam competition and familiarity with prestressed concrete will be invaluable to the participants as they proceed...
through their careers. I especially congratulate the winners and all the participants for being able to submit entries through the many challenges presented by COVID-19 this year.”

PCI’s ASPIRE magazine sponsored the 2020 competition. Cash prizes of up to $2000 are awarded to the top performers in efficient design, highest load capacity, and other categories.

Fewer teams than usual entered this year because of the pandemic. Each team should be recognized for participating under challenging conditions.

Overall Results

**First place: University of Notre Dame (Team 2); Notre Dame, Ind.**
Faculty advisor: Robert Devine  
PCI producer: Strescore, Inc.; South Bend, Ind. (Adam Reihl)  
*Student team: Zack Lescowitch, Kyle Mutschler, Athena Clare Richards, Lily Polster, Marie Bond, Barret Lee, Nic Saladino, Audrey Cross, Naomi Foster*  
Award: $2000, plus other prizes

**Second place: University of Notre Dame (Team 1); Notre Dame, Ind.**
Faculty advisor: Robert Devine  
PCI producer: Strescore, Inc.; South Bend, Ind. (Adam Reihl)  
*Student team: Michael Havrilla, Claire Gasser, Peter Jachim, Gabriel Brown, Annalena Bellm, Celine Castillo, Erin Olsen, Kevin Deye*  
Award: $1750

**Third place: Lehigh University (Team 2, King Beam); Bethlehem, Pa.**
Faculty advisor: Clay Naito, PhD, PE  
PCI producer: Northeast Prestressed Products; Cressona, Pa. (Gary Lehman)  
*Student team: Logan King, Kinga Kuczynski, Louis Lin*  
Award: $1500

Remaining finishers, in alphabetical order. All teams received awards of $1000 and $1250.

**Colorado State University (Ram Strand); Fort Collins, Colo.**
Faculty advisor: Rebecca Atadero, PhD, PE  
PCI producer: EnCon Design; Denver, Colo. (McKenzie Flaherty)  
*Student team: Kenny Bui, Javon Anderson, Charlie Davis, Sydney Schwartz, Hugo Lezama, Juan Soltero*

**Lehigh University (Team 1); Bethlehem, Pa.**
Faculty advisor: Clay Naito, PhD, PE  
PCI producer: Northeast Prestressed Products; Cressona, Pa. (Gary Lehman)  
*Student team: Jackson Cooney, Rachel Hamburger, Pawat Rithipreedenant*
Northern Arizona University (The Big Beam Theory); Flagstaff, Ariz.
Faculty advisor: Robin Tuchscherer, PhD, PE
PCI producer: TPac (an Encon Company); Phoenix, Ariz. (Gabriella Wilson)
Student team: Carl Wilson, Sarah Rzeszut, Christopher Chapman, Demian Perera, Haitham Murad

Keith Kaufman Award for Best Report

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

Lehigh University (Team 2, King Beam); Bethlehem, Pa.
Faculty advisor: Clay Naito, PhD, PE
PCI producer: Northeast Prestressed Products; Cressona, Pa. (Gary Lehman)
Student team: Logan King, Kinga Kuczynski, Louis Lin
Award: $500

Best Video

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

Lehigh University (Team 1); Bethlehem, Pa.
Faculty advisor: Clay Naito, PhD, PE
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Student team: Jackson Cooney, Rachel Hamburger, Pawat Rithipreedanant
Award: $500

To see the student videos, please visit PCI’s Big Beam Channel on YouTube.

About PCI

Founded in 1954, The Precast/Prestressed Concrete Institute (PCI) is a technical institute for the precast concrete structures and systems industry. PCI develops, maintains, and disseminates the Body of Knowledge for the design, fabrication, and construction of precast concrete structures and systems. PCI develops consensus base standards, industry handbooks, quality assurance programs, certification, research and development projects, design manuals, continuing education and periodical publications. PCI members include precast concrete producers, erectors, suppliers, professional engineers and architects, educators, students, and industry consultants who complement the wide range of knowledge of precast concrete. For more additional information, visit pci.org.