

PCI Design Awards Buildings Submission Guidelines

The following information will be required for all submissions. Any Submittal with missing information will be disqualified.

- 1. Enter all information for your submission via the Design Awards submission site or visit our PCI website.
- 2. For each question on the page, you may type information directly into the blanks or cut and paste text from an MS Word document.
- 3. The "*" means the information is required in order to make a submission. These fields must have a selection made in order to save the submission.
- 4. You may return to your submission to make changes or add information until the entry deadline. Simply enter your password in the section titled "For Submitters" on the left side of the submission site.

Generic Title of Project

Enter a generic name for the project such as "K-12 School" or "Office Building."

Please avoid using anything that could link the project to a location or company in this section as the judges will receive this information.

Structure Details

The judges will **NOT** be able to see this information.

Enter the actual project title as you would like it to appear on an award and promotional materials. Enter the location information for the project site.

Submitter

This is the primary contact for the award entry, which should be the architect. This person will receive all correspondence in relation to the Design Awards.

Other Contacts

Architect – If same as submitter above, please re-enter all information.

Precast Concrete Producer– Precast concrete manufacturer, PCI Certified- <u>If same</u> as <u>submitter above</u>, <u>please re-enter all information</u>.

Owner – Current owner of the structure

General Contractor – Prime contractor

Precast Concrete Specialty Engineer – Lead engineer or consulting engineer that designed the precast concrete

Structural Engineer of

Record- Project Engineer of

Record-

PCI Associate/Supplier Member-

PCI-Certified Erectors-

Additional team member – If another company, such as another precast concrete producer, was involved, please add their information here.

NOTE: If additional people/companies need to be listed, contact PCIDesignAwards@pci.org

Submission Category

Select the primary use category of the structure from the pull-down list.

If your project is located outside of the United States, you must select <u>IB - International Buildings Structure</u>.

Note: Judges will review all projects and may elect to move your submittal into another category.

Project Description

Provide an overview of the project, highlighting why precast concrete was selected for the project, what challenges did the project have and how did precast solve those challenges, were there any specific project goals that precast concrete help meet and what advantages did precast concrete offer for the project. **Please do not use the actual name of the project in this section.**

Example:

A Fun, Dynamic School in the International Style

Since its approval in Ohio in 2004 as an alternative to cavity wall construction for schools, precast has been used in more and more elementary schools where sandwich wall construction provides superior performance and occupant comfort. This K-8 magnet school is built in the international style in keeping with its focus as an academy for languages including Arabic, Russian, Japanese, Chinese, and English as a Second Language.

The 85,500 sq. ft. school is built on the site of a 1960's complex of five buildings covering 127,000 square feet. Very different from the nondescript facilities it has replaced, the new school sports bright red and blue accent tiles and window frames, and houses classroom and other spaces rationalized to its curricula. The architect notes that the design team made efforts to keep the design simple, sleek, and high-style, and that the school could have been built anywhere in the world and still fit in. 650 schoolchildren occupy the new building.

Decorative, Thermally Efficient Sandwich Wall Panels

The school makes use of load-bearing continuous insulation 3-2-6 sandwich wall panels delivering a composite steady-state R-value of 13. Enclosure is accomplished with 42,100 square feet of sandwich wall panels. The panels' thick supporting interior wythes are steel- trowel finished and painted, eliminating drywall and the dust associated with finishing it. The interior wythes also contribute thermal mass, helping to cool the building in the warm months and retain heat in the winter. Carbon fiber shear trusses connect the interior and exterior wythes while preventing thermal transfer.

The building includes 70,000 square feet of hollow-core plank; all stairs are also precast. A colorful steel roof covers the gym and media center.

Contrasting bands of sandblasted and heavy aggregate finishes achieved with retarder add fun and excitement to create a fresh, dynamic facade. A "growth band" is cast into the panels and widens across the outside face of the wedge-shaped media center, which is located next to the front entrance. The media center is the focal point of the project, with a dramatic interior angle space filled with color. Precast easily accommodated the patterning through simple and inexpensive adjustments within the formwork. All around the building, red tiles accentuate the structure's horizontal lines while double rows of blue tiles turn the precast joints into a new design element.

Precast Plasticity

The architect also notes that precast allowed the design team to play with colors and textures, maintaining a simple yet still attractive building.

They were able to gain economies through repetitive patterning, and to use scale and massing to keep the building interesting and not overwhelming to the kids. The mass at the gym is a backdrop for the other pieces. The media center adds mass at the side; the administrative wing adds a one-story mass with a three-story structure next to it. The architect comments that with the massing of elements, you would never realize the building is as big as it is.

Precast provided fast enclosure, which controlled moisture and allowed the project to stay on track and open on time despite schedule delays. Electrical conduits for interior and exterior fixtures and outlets were cast into the panels, reducing the opportunity for confusion and delays after erection.

The nighttime image of the school is equally dynamic, with a huge impact on safety in the neighborhood. Lights are positioned to follow the growth band, throwing columns of illumination on the exposed aggregates in the precast. With its fun, dynamic design and interior comfort assured by thermally-efficient precast sandwich wall panels, this school is sure to promote learning and reduce absenteeism for the kids who attend.

Project Cost Data

Enter total cost of project in dollars to the nearest \$100,000, without property costs. Enter total square footage of the project (what is listed on the building permit).

Schedule Information

Provide the project schedule from schematic design through occupancy. Additional information is helpful, such as erection time of the precast, design phase time, design assist schedule, and comments about whether precast concrete saved time on the project (for example, compared with another building material).

Example:

Project Construction Start Date: May 2015

Project Completion: January 2017

Precast manufacturing: July 12, 2015, to February 7, 2016

Precast erection: November 2015 to March 2016

Project was completed in 20 months. Precast erection was completed in 6 months. The use of thin brick conservatively saved three months of additional time on the critical path to enclose this building relative to traditional hand laid brick.

Key Design Challenges

Provide details of any design challenges of the project, especially highlighting how precast contributed to overcoming them. How did precast concrete building materials systems address the design objectives, aesthetic goals, and strategies of the project?

Example:

"The project required 60-foot clear spans for open office space, we used precast concrete double- tees to accomplish...."

Innovations/Accomplishments

Describe any unique innovations or accomplishments here that make your project stand apart from others. Please make sure to note any innovative materials used.

Example:

"The precast concrete producer was able to install the electrical conduit, insulation, and windows at their plant, hence saving time on the project site...."

Project Details

Precast concrete components summary – Provide a summary of the precast concrete components used in the project, including quantity. Were there any cost savings using precast concrete? Was precast concrete compared to other building materials? If so, how did it compare to precast concrete?

Example (Not from a real project):

Overall there were 725 pieces of precast concrete, approximately 270,000 square feet in total.

Summary of pieces

- (200) 10-foot x 24-inch x 70-foot double tees
- (300) 10 x 30-foot insulated (XPS) sandwich wall panels
- (75) 24 x 24-inch precast concrete columns, 3144 linear feet
- (150) architectural wall panels, (various sizes), approx. 30,000 square feet

Describe the Finishes used – Provide a list of the various finishes used on the project (e.g. form finish, sand-blast, thin-brick, granite veneer, etc.)

Structural frame – Select from the options box which material was used for the majority of the structural frame system of the project, not including the foundation. If more than one material was used, such as cast-in-place and steel, then select "hybrid."

Number of stories – Enter the number of stories of the project.

Project Delivery Method – select best option from drop down menu (e.g. design-build, IPD).

Was BIM used - enter "yes" or "no".

Please elaborate and provide more details on how precast concrete was used to meet project goals – how did precast concrete help to accomplish goals set by the owner, architect, etc.?

If ultra-high-performance-concrete (UHPC) was used on this project, please elaborate and provide more details on how UHPC was used on this project – provide all details on UHPC that was used on this project.

Precast, Prestressed Concrete Attribute Keywords – select all attributes (keywords) that precast, prestressed concrete contributed to apply on the project. Then provide

more details in the box.

Example:

"The precast concrete sandwich wall panels provided continuous insulation with an effective R- Value of R-22. The envelope system also provided a continuous air-barrier, as well as a vapor barrier.

The exterior precast walls are loadbearing, thereby eliminating exterior columns and increasing floor space...."

Special Awards

The projects submitted in this category **must be located in the United States** in order to qualify. This section is not mandatory, and you may select none or all of the categories.

In the submittal portal please place a check mark next to the special awards that you are entering your project in. Please keep in mind that you must show the jury why your project should be considered for your selected special award(s) beyond your initial submission (Buildings or Transportation).

Harry H. Edwards Industry Advancement Award

Submitters may also choose to have their projects considered for the Harry H. Edwards Industry Advancement Award. The purpose of this award is to showcase fresh, uninhibited concepts that hold the potential to move the industry to the next generation of technology for industry, materials, products, processes, and applications.

All-Precast Concrete Solution Award

Submitters may also choose to have their project considered for the All-Precast Concrete Solution Award. This award recognizes the structure in which the owner's needs were best achieved by the selection of an essentially all–precast, prestressed concrete system.

Building Information Modeling (BIM) Award

Submitters may also choose to have their project considered for the Building Information Modeling (BIM) Award. This prestigious honor is awarded to a PCI Member for utilizing BIM in their everyday work practices. The Award represents a comprehensive use and implementation of BIM and BIM technology. Submissions should incorporate the use of BIM for 3D CAD coordination and clash detection as well as the use of 3D CAD data for manufacturing and scheduling. Winning entries will demonstrate the highest level of 3D CAD data reuse through project and business management tools in addition to CAD/CAM technologies implemented in the manufacturing and installation environment.

The winner of the BIM Award represents an entry having utilized all the available technological resources to refine the delivery process of a precast, prestressed concrete system.

Please provide the following:

- 1. Photos of any of the BIM tools specified as used in the software information
- 2. Photos of the production and erection process utilizing CAD/CAM technologies specified as used in the CAD/CAM group
- 3. Photos of utilization of Virtual/Mixed/Augmented Reality
- 4. Photos of the completed project

Sustainable Design Award

Submitters may also choose to have their projects considered for the Sustainable Design Award. PCI seeks to promote green building and infrastructure, which incorporates environmental considerations in every phase of the process, including design, construction, and operation. The purpose of this award is to encourage the construction of responsible, innovative designs that are sensitive to the environment while meeting the needs of the public, owner, or occupants. Projects need not be LEED certified to qualify.

- 1. List all green goals or owner project requirements for this project and a short explanation of how they were achieved.
- 2. Submit a short narrative on any green/sustainable modifications to your typical plant processes and procedures that were required for this project.
- 3. Provide a breakdown of all LEED points achieved (if applicable) in this project, as well as a short description of any points that precast concrete contributed to the attainment of.
- 4. Describe the sustainable attributes that precast concrete added to the project.
- 5. Describe any up-front and ongoing collaboration among team members.
- 6. List any lessons learned related to working on a sustainable project.

Keywords/Topics:

construction)

Submitters will choose all keywords/topics that apply to their project.

Improved thermal performance/reducing energy consumption
Increased open space of floor plate (e.g. reduce no. of columns, obstructions, etc.)
Aesthetic versatility (helped meet project's aesthetic requirements)
Improved storm resistance
Helped meet sustainability
goals Improved fire resistance
Improved safety and security to
occupants Cost-Benefit
Improved blast resistance
Minimized construction site disturbance (e.g. tight site)
Increased service life/durability
Contributed to improved IEQ (e.g. no mold, no VOCs, rapid

Aesthetic versatility (helped meet project's aesthetic requirements)

enclosure...) Structural versatility (precast used as at least part of

the structural system) Accelerated construction (speed of

Reduced long-term life-cycle costs
Resilient design
Ultra-high-performance concrete (UHPC)

Image (Photo) Uploads

This is one of the most important sections, since the jury will not be able to visit your project in person. You must submit a minimum of five photos of your project, and no more than 10 photos. **No pdf or word documents of photos will be accepted.** Photos must have a resolution of at least 900 x 1200 pixels for a 3 in. or 4 in. photograph.

These photos must convey aesthetic details to the jury as well as structural integrity; capture any uniqueness of your project; show the big picture, such as how the project fits into its surroundings; phases of the project; and **highlight the precast concrete**. Professional photographs are highly recommended. You should also submit drawings and details. Most submissions include: Floor plans, site plans, BIM models, and drawings may be printed and scanned into one or a few documents instead of uploading them individually. **It is highly recommended that you include at least one in-process construction photo**.

Please include a caption/description for each image you upload in the entry field titled "Image X description".

Image Licenses Request Forms

Please upload your **completed** image license request form, which must be signed by each photographer or non-professional providing pictures for your submission. (Including cell phone photos). If all photos are taken by a single individual, you can submit a single image license form. Please ensure the Image Name/Description on the Image License Request Form matches each image description provided for each image submitted.

All submission must be made electronically. If you have any difficulty, questions, contact PCIDesignAwards@pci.org. Thank you and we look forward to your submission!