

2016 SIPA Building Excellence Awards



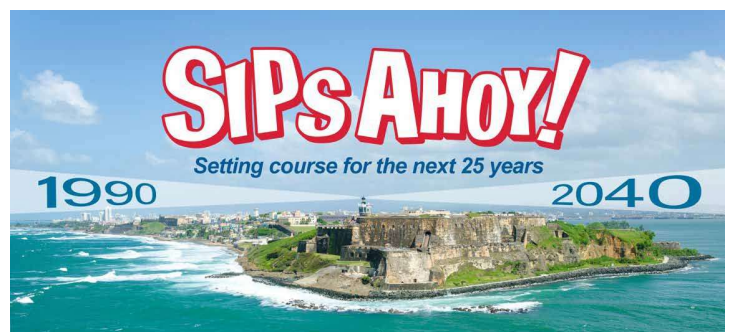
Official Entry Form

APPLICATION DEADLINE: *March 4, 2016*

The Structural Insulated Panel Association (SIPA) is hosting the fourteenth annual Building Excellence Awards to recognize association members that build exemplary projects using structural insulated panels (SIPs). The competition allows SIPA members to showcase their best work while demonstrating the design flexibility, sustainability and energy efficiency possible with SIP construction.



**Structural Insulated
Panel Association**



*Winning entries will be showcased at the 2016 SIPA Annual Meeting in
Puerto Rico, April 4 - 6, 2016*



Homes and commercial buildings completed between January 1, 2015 and December 31, 2015 are eligible.

Award Categories:

- Single Family Homes over 3,000 sq. ft.
- Single Family Homes under 3,000 sq. ft.
- Multifamily
- Agricultural
- Commercial/Industrial/Institutional Buildings under 10,000 sq. ft.
- Commercial/Industrial/Institutional Buildings over 10,000 sq. ft.
- Renovations (*residential or commercial, includes additions and retrofit insulated panels*)
- Affordable Housing (*excludes multifamily, home ownership cost must be at or below 30% of median income for location*)

Who is Eligible?

- The submitting company must be a current SIPA member in good standing
- Structural insulated panels must be used on a minimum of 50% of the building envelope, determined by square footage of exterior walls and roof
- The SIPs used on the project must be provided by a SIPA member manufacturer
- Installers, designers or other parties involved in the project who are not SIPA members will not be recognized in awards materials. However, builders or architects may apply for membership with their entry, but must be full members in good standing prior to the closing date for the entry to receive recognition.
- Project must be completed between January 1, 2015 and December 31, 2015

Winning Entries

- One winner will be chosen from each category. From the category winners, an Overall Competition Winner and a Runner-Up will be named.
- Judges may hand out Honorable Mentions at their discretion
- Winners will be recognized at the 2016 SIPA Annual Meeting & Conference in San Juan, Puerto Rico
- SIPA will promote the winning entries on the SIPA website and issue a press release to outside media

Guidelines

- Member companies may make multiple entries, but a separate entry form must be completed for each entry
- SIPA has the right to use the photos to promote SIPs to the construction industry. All entries will be displayed on the SIPA website.
- The deadline for entries is March 4, 2016. All entries must be received at the SIPA office on or before that date.

The following information and documentation is REQUIRED. Entries without the required items will not be considered.

- Completed and signed application
- A minimum of two photos showing different views of the completed project
- Photographs must be submitted in digital form and be at least 2400 x 3000 pixels, or 8" x 10" at 300 dpi
- Residential projects must have a HERS Index calculated by a RESNET certified home energy rater. Commercial projects must present other documentation of energy efficiency.

Additional documentation is not required but is highly recommended to give the judges a clear picture of the project's overall design, sustainability, systems integration, and energy efficiency.

- Additional photos showing the construction process and SIP installation
- Documentation of energy efficiency, such as a HERS report, blower door test results, utility bill data, or infrared thermography
- A thorough description of energy-efficient technologies other than SIPs, as well as other innovative or sustainable features
- Comments from the building owners regarding their satisfaction with the building
- A floor plan of the project. A single page line drawing no larger than 17" x 22" in size is sufficient. Please do not send full blueprints.



Judging Criteria

Each entry will be judged on the following criteria:

- Energy efficiency (quantified by HERS Index and other data)
- Design and structural engineering innovation
- Creative use of SIP construction
- Environmental sustainability

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PARTICIPANT INFORMATION

Company Name: Premier SIPS

Contact Name: Becky Susan

Address: 19727 57th Ave. E.

City: Puyallup

State: WA

Zip: 98375

Phone: 800-275-7086

Email: becky.susan@insulfoam.com

Website: www.premiersips.com

CATEGORY ENTRY (check one category)

☐ Single Family Homes (over 3,000 sq. ft.)

☐ Commercial/Industrial/Institutional Buildings under 10,000 sq. ft.

☐ Single Family Homes (under 3,000 sq ft.)

☒ Commercial/Industrial/Institutional Buildings over 10,000 sq. ft.

☐ Multifamily

☐ Renovations

☐ Agricultural

☐ Affordable Housing

PROJECT INFORMATION

Project Name: Rocky Mountain Institute Innovation Center

Address: 22826 2 Rivers Rd

City: Basalt

State: CO

Zip: 81621

Date completed: December 2015

Total cost of project (exclusive of land): \$569/SF for core & shell

Dimensions of building (all floors of multi-story building):

15,600 sqs ft., 2-story building, total envelope area of over 30,000 sq. ft.

Total sq. ft. of conditioned space:

15,610 sq.ft., 2-story office building

BUILT BY (if different than applicant)

Company Name: JE Dunn Construction

Contact Name: Will Peterson

Phone: 816-474-8600

Address: 1001 Locust Street

City: Kansas City

State: MO

Zip: 64106

PANELS MANUFACTURED BY (members only)

Company Name: Premier SIPS

Continued

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DESIGNED BY (if different than applicant – SIPA will only recognize members)

Company Name: ZGF Architects

Contact Name: Justin Brooks

Phone: 503-863-2234

Address: 1223 SW Washington St., Suite 200

City: Portland

State: OR

Zip: 97205

Please answer each question with as much detail as possible to help in the judging process.

Attach additional sheets if necessary.

Describe the end use of the building:

Office building and convening center, accommodating 50 staff, plus 80 people in the convening space. Office space will serve as a living lab, a tool to teach the industry lessons on high performance building through how the building was designed, constructed and operated, share best practices and what lessons were learned in the process. RMI wanted to ensure that this building is easily replicable for the construction of more net-zero office buildings in the near future. The building size is similar to 90% of U.S. office buildings.

How did SIP construction help you get this job?

SIPS were chosen for their dual benefit of superior insulation and extreme air tightness. SIPS were able to control temperature and ensure that heat stays where it should. SIPS combined with strict construction details helped provide a air tight design for improving energy efficiency, requiring less heating and cooling.

12" SIPS Walls

SIP wall thickness and core material:

12" SIPS Roof + 4" Nailbase

SIP roof thickness and core material:

Describe the benefits of using SIPS on this project. Did SIPS help save time, labor, construction costs, or energy?

ENERGY: SIPS are one element of the energy efficient design to insulate against the elements and helped the project achieve net zero energy status. The Innovation Center uses 74% less energy than the average building in this climate (determined by Energy Star). COMFORT & IAQ: The foot-thick SIPS hold inside temperatures at comfortable levels. The tightness of a SIP building envelope prevents air from gaining access to the interior of the building except in controlled amounts. A controlled indoor environment is both healthy and comfortable

Describe any innovative design elements or structural engineering involved:

- 1.) Curved SIP Wall Panels were used as part of the Biophilic design concept.
- 2.) Interior Walls: BioPCM Thermal Storage Mats were installed to add thermal mass and heighten insulation.
- 3.) Exterior Walls: Elastic air/water barrier was applied to the whole exterior of the building to bridge cracks and seal around penetrations, creating a continuous, monolithic air, vapor and water barrier.

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Please list any certifications the project received, such as ENERGY STAR, LEED, National Green Building Standard, or local green building programs. Only list certifications that are completed:

- 1.) PassiveHouse Certified (largest office building in the United States to achieve this)
- 2.) PHIUS+ Source Net Zero Project, Earns all 19 LEED energy points
- 3.) Exceeds Architecture 2030 Challenge Goals

HERS Index (residential projects):

Blower door test results (ACH50) (residential projects): 0.36ACH

Energy use intensity in kBtu/ft² (commercial projects): 17.2 IBtu/sf

Describe the HVAC system used on the project:

- 1.) No centralized HVAC, furnace or boiler is integrated
- 2.) Passive solar techniques are used to heat and cool the building.
- 3.) The only mechanical systems in the building are for venting and a backup for heating (which is equivalent to roughly 16 hairdryers).
- 4.) Temperature Controlling system (Hyperchair) where individuals can control heating and cooling from the comfort of their chair.

Describe any other energy-saving materials used in the building envelope other than SIPs. List U-values of windows used and the R-value of any insulation materials.

- WINDOWS: 1.) Quad-paned sandwiched, contain 2 layers of glass and 2 HeatMirror films. Cavities are filled with highly insulating Krypton gas.
- 2.) R-value of 13.2 (U-value of 0.076).
 - 3.) Operable windows move fresh air throughout building. On summer nights, window will open automatically to let in air that will cool the building during warm days
 - 4.) CO₂ detectors that will automatically open windows if CO₂ levels get too high

Please list any energy-efficient products or design features, such as lighting, hot water heating, appliances, passive solar:

- 1.) Oriented to maximize daylighting while minimizing solar heat gain, while the floor is thicker than structurally necessary to a heat repository.
- 2.) Rainwater harvesting and swales are used to slow and filter water while preventing flooding
- 3.) Building is 'graywater-reuse-ready' once the CO State updates their laws to allow non-potable water reduce for toilets (hopefully this year).
- 4.) Utilize daylight as the primary light source: light shelf in ceiling reflects light into space of building, cutting down need for artificial lighting.
- 5.) Elevator runs on vegetable oil.
- 6.) South wall is protected by outdoor operable venetian blinds that shield it from summer heat.
- 7.) Motion sensors detect empty rooms and turn off unused lights

Were any solar panels installed on the project? If so, indicate the size of the system:

- 1.) 83 kw Solar-electric photovoltaic system mounted on the roof and generates approximately 114,000kWh
- 2.) Powers the entire building plus five electric vehicles

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Please list any sustainable materials or design features not listed above, such as recycled materials, low-VOC finishes, landscaping, etc.:

1.) Cross-laminated timbers were used to minimize use of whole timbers & concrete
2.) Biophilic Design to improve employee alertness, energy levels, increasing productivity and satisfaction.
Features include: * interior plants * nature inspired art * site orientation & windows * curved SIP walls * natural building materials * diffuse light * natural colors * green wall

Any additional comments on the project:

Due to photo licensing restrictions- photos will be sent directly to SIPA contact listed on application (maryjane@sips.org). Photos will come from Megan Donaldson, ZGF Architects

CHECKLIST

- ☒ My company is a SIPA member. Panels for this project were manufactured by a SIPA member.
- ☒ I have answered ALL the questions completely
- ☒ I have enclosed the two required electronic images of the completed project meeting the requirements stated in the SIPA Building Excellence Awards guidelines
- ☒ I have indicated the HERS Index as determined by a RESNET certified home energy rater (residential projects)

PLEASE CONFIRM: I have read and understand the rules for this competition. This entry is structural insulated panel construction as defined in the SIPA Building Excellence Awards guidelines. I understand by making this submission that my pictures will be used by the Structural Insulated Panel Association (SIPA) to promote the use of structural insulated panels. I hereby give permission to SIPA to use the enclosed pictures for any use they see fit in that endeavor. I understand that where possible, SIPA will give credit for pictures used to my company as listed above.

Rachel Wood

Digitally signed by Rachel Wood
DN: cn=Rachel Wood, o=Insulfoam, ou=Premier SIPS,
email=rachel.wood@grouppilman.com, c=US
Date: 2016.03.02 17:06:17 -05'00'

Signature:

Feb 28, 2016

Date:

Entries that do not contain all required materials or are received after **March 4, 2016** will not be considered

Complete application and submit electronically to maryjane@sips.org

Or send hard copy applications to SIPA office:
P.O. Box 39848, Fort Lauderdale, FL 33339



BUILDING EXCELLENCE AWARD SPONSOR

