

2016 SIPA Building Excellence Awards



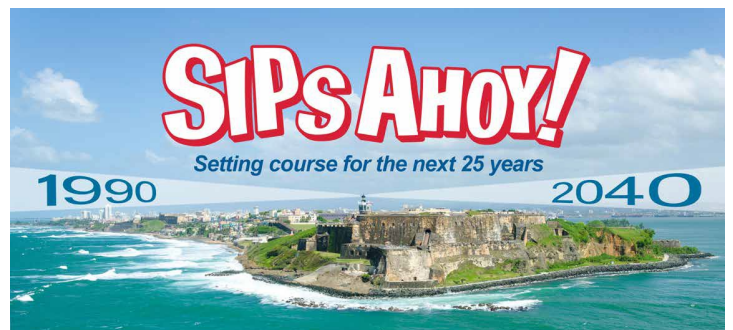
Official Entry Form

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: CVH Inc. / Zero-Energy Plans LLC

Contact Name: Ted L. Clifton

Address: 107 S. Main St. Suite G101

City: Coupeville

State: WA

Zip: 98239

Phone: 360-678-7000

Email: cvh@whidbey.net

Website: www.zero-energyplans.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: Port Hadlock Custom Residence

Address: 76 Edgewater Ct.

City: Port Hadlock

State: WA

Zip:

Date completed: May 2015

Total cost of project (exclusive of land): \$527,600

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

1,784 sq ft, 2-bedroom, 2-bath home

Asking price/purchase price (Affordable Housing only):

Total sq. ft. of conditioned space:

1,784 sq ft

BUILT BY (if different than applicant)

Company Name: CVH Inc. / Zero-Energy Plans LLC

Contact Name: same as above

Phone:

Address:

City:

State:

Zip:

PANELS MANUFACTURED BY (members only)

Company Name: Premier SIPS

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

Company Name: Zero-Energy Plans LLC

Contact Name: same as above

Phone: _____

Address: _____

City: _____

State: _____

Zip: _____

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:

Net-Zero 2-bedroom custom home

How did SIP construction help you get this job?

Home builders had a beautiful piece of property overlooking a marina on Puget Sound, west of Seattle. An architect had already drawn up plans with most of the window area facing north for the view. Clifton was hired as the builder. The home builders did not come asking for a zero energy home, but the husband, wanted SIP construction that Clifton uses. "Once I told them that we could do zero energy construction in their price range, they knew that is what they wanted," said Clifton.

6.5" Walls

SIP wall thickness and core material: _____

10.25" SIPS

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?

The SIP construction provided an airtight structure for the home, which tested at 1.7ACH50. As well as helped the homeowner with projected energy cost savings (annual savings of \$1,553)

Describe any innovative design elements or structural engineering involved:

- 6.5" SIP walls provide an R-25 insulation value with no thermal bridging. The walls are rapped in corrugated house wrap to provide a slight air gap and drainage plane behind the fiber cement siding. Roof is 10.25" SIPS (R-40); all cathedral ceilings, except small mechanical attic above the master closet and master bath, and another small attic over the guest bath, all within the building envelope. Standing-seam steel roofing. Garage is framed with raised-heel trusses and R-38 ceiling insulation - Builder installed a dense slip sheet under the flooring so it became part of the thermal mass of the concrete floors, which also has 4 inches (R-20) of rigid foam underneath floor slab. 11.75" Insulated concrete form (ICF), concrete-filled foam block walls formed the foundation walls down to the footer which is 12" below slab base, providing R-23 of insulation and a thermal break around the slab, which held the radiant floor heating coils.

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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:

- Certified to DOE's Zero Energy Ready Home Program, meeting all requirements of ENERGY STAR Certified Homes Version 3.0 and the U.S. Environmental Protection Agency's Indoor airPLUS as well as the hot water distribution requirements of the EPA's WaterSense program and the insulation requirements of the 2012 International Energy Conservation Code.

HERS Index (residential projects): -9

Blower door test results (ACH50) (residential projects): 1.7ACH50

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

Describe the HVAC system used on the project:

- HVAC: Air-to-water heat pump (COP 4.1), radiant floor heat. No active cooling is required, except for the night ventilation cooling. Ventilation cooling with 240 cfm fresh air intake fan with MERV 19 HEPA filter that is directed to bring air into the home via a fresh air duct. This air flow is balanced with a matching 240-cfm range hood fan. A damper on the fresh air intake allows air in but not out. A 24-hour programmable timer allows the fan combination to operate in the early morning hours during periods of hot weather to cool off the home at a very low cost of operation. The system will replace all the air in the home in less than 1.5 hours, at a cost of about 2cents a day. When the system is not actively running, it provides a filtered passive pathway for fresh air to enter the home when a bath fan runs. The guest bath fan is set to run continuously at 40 cfm to meet the ASHRAE 62.2 requirement. The in-coming air is distributed through ducts (all within the conditioned space) to each bedroom and the main living area.

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: Triple-pane, argon-fill, triple low-e coating. U-factors range from 0.14 to 0.17, and the solar heat gain coefficients also vary depending on which direction the window is facing, with values ranging from 0.22 to 0.51. The triple-low-e, low SHGC windows on the north side reflect most of the winter sun back into the north-facing rooms. Total glazing area was kept to just 15%, mostly by reducing east - and west-facing glass to near zero.

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

- Stained concrete floors has a thermal resistance of R-1 per foot so it transfers heat fairly quickly, a principal Clifton used for passive solar heating within the home. The thermal mass also provides a heat sink for cooling during the day. - Lighting: Near 100% LED, some CFL. - Appliances: ENERGY STAR clothes washer, dishwasher, refrigerator; 2 ceiling fans. -Water Conservation: All EPA WaterSense fixtures; yard is xeroscaped for zero irrigation.

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

7.56 -kW PV, made in WA for incentives. 6-year payback due to the state production credits. Home produces enough electricity to power the home and electric car with zero annual electric bills

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

--Electric car-charging circuit in garage. -No-VOC paints. - Low-VOC caulks and adhesives. - House is engineered to withstand an 8.0 magnitude earthquake. - Outside: rain gardens help to infiltrate storm water back into the aquifer while reducing watering requirements and plants were chosen that need no extra watering after the first season.

Any additional comments on the project:

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 16:50:43 -05'00'

Signature:

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



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