

Application

PARTICIPANT INFORMATION

Company Name: Foard Panel
Contact Name: Lisa Ford
Address: PO Box 185
City: W. Chesterfield
State: NH Zip: 03466
Phone: 800-644-8885
Fax:
Email: lisa@foardpanel.com
Website: www.foardpanel.com

CATEGORY ENTRY (check one category)

- ☐ Single Family Homes (over 3,000 sq. ft.)
☒ Single Family Homes (under 3,000sq ft.)
☐ Multi-Family
☐ Agricultural
☐ Institutional / Industrial / Commercial
☐ Renovations

PROJECT INFORMATION

Project Name: Aspen Construction/Solomon Residence
Address: 868 Grassy Brook Road
City: Brookline
State: VT Zip: 05345
Date completed: December 30, 2009
Total cost of project (exclusive of land): \$215,000
Dimensions of building (all floors of multi-story building):
48' x 32' plus L-wing 21' x 33' (includes garage)
1849 sf three bedroom, 2 bath home, plus two-car garage

BUILT BY (if different than applicant)

Company Name: Aspen Construction Services, Corp.
Contact Name: Michael LaCroix
Address: PO Box 507
City: Bondville
State: VT Zip: 05340

PANELS MANUFACTURED BY (members only)

Company Name: Foard Panel Inc.

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

Company Name:
Contact Name:
Address:
City:
State: Zip:

PLEASE ANSWER EACH QUESTION WITH AS MUCH DETAIL AS POSSIBLE TO HELP IN THE JUDGING PROCESS

Describe the end use of the building (attach additional pages if necessary)

Single family residence - second home

How did SIP construction help you get this job?

Primary goal was energy efficiency, with a tight budget. SIP panels offered cost value and good R-value.

See Attached

Continued

Specify unique features of why the project is deserving of recognition (new construction techniques, customer problems solved, time / labor savings, financial savings, etc.)
SEE ATTACHED

What energy-efficient or green building products and / or techniques were incorporated into the building? Please list any local or national energy-efficient or green building certifications earned (ENERGY STAR, LEED, Built Green, etc.)?
SEE ATTACHED

51
HERS Index:

Which elements of the building (floors, walls, roof) were built with structural insulated panels? What thicknesses of SIPs were used?

All exterior walls - 8- 3/4 EPS dry wall clad panel.

Comments you would like in a news release on this building?
SEE ATTACHED

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 as defined in the SIPA Building Excellence Awards guidelines.

OPTIONAL

- ☒ I have enclosed photographs that display different stages of the building project
- ☒ I have enclosed a floor plan drawing (no larger than 17" x 22" in size)
- ☒ I have enclosed a letter from the building owner regarding the building project
- ☐ I have enclosed a list of local publications (name and full contact information) for press release distribution

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.

Signature: *Michael*

Date: 3-30-2010

Entries received that do not contain all required materials will be returned.

Entries received after Friday, March 26, 2010 will not be considered

Complete and return to the SIPA office:

P.O. Box 1699 Gig Harbor, WA 98335
For FedEx or UPS Deliveries ONLY:
6659 Kimball Drive NW, D-404
Gig Harbor, WA 98335
253.858.7472

FOR OFFICE USE ONLY

Entry Number _____

Date Received _____

Foard Panel Inc.
SIPA Building Excellence Award – 2010
Additional attachments for Aspen Construction/Solomon Residence

Built By:

Foard Panel Inc. provided structural insulated panels and installation services for this project. The project manager at Foard Panel is Pete Dunnigan.

The General Contractor for this project was:

Aspen Construction

Michael LaCroix

PO Box 507

Bondville, VT 05340

How did SIP construction help you get this job?

Foard Panel's ability to assist with panel layout, thermal performance and installation services was a significant reason for the contractor and homeowner to use SIPs. Foard's wall panels helped this building to achieve thermal performance levels needed to maximize the efficiency of its solar powered radiant heating system.

Specify unique features of why the project is deserving of recognition (new construction techniques, customer problems solved, time / labor savings, financial savings, etc.)

This home was designed with a systems approach to construction in order to exceed energy code requirements and include sustainable building practices. This was all achieved within budget. Foard Panel's technical team supported contractor efforts to maximize envelope performance and incorporate appropriate building science techniques. (See Customer Letter)

What energy-efficient or green building products and / or techniques were incorporated into the building? Please list any local or national energy-efficient or green building certifications earned (ENERGY STAR, LEED, Built Green, etc.)?

This home has received certification and awards through the state of Vermont. The owner also received a total of \$8,000 in state and federal energy efficiency cash rebates.

Certifications: **5-Star ENERGY STAR Plus** with a HERS score of 51

Awards: **Excellence in Housing Award and Environmental Excellence Award** in the category of Best Single Family Home under 2,000 square feet, from the Southern Vermont Home Builders and Remodelers Association.

Our blower door test results for the conditioned volume of 15,155 cu. ft.:

710 CFM50

2.8 ACH50

According to Efficiency Vermont, this is a better than average test result compared to all the homes tested in Vermont in 2009.

Energy Saving Applications

- 8 ¾" - EPS dry wall clad panel – R-33 for all exterior walls
- 18" blown-in cellulose in well-vented, cold attic – R-60
- 2" rigid foam insulation over 10mil poly vapor barrier installed under slab on grade and on exterior side of 4 foot frost wall, for R-10 insulation factor at the slab foundation.
- True passive solar design for maximum winter and minimum summer sun - the building was positioned true south as opposed to magnetic south a short roof was added at the living room gable end to achieve an important, true-passive solar feature to this south-facing wall. The size and slope of the roof was determined by the use of a program that anticipates the distribution of direct sunlight throughout the year, at different times of the day, as a function of the dimensions and positioning of the physical overhang.
- Integrated solar assisted domestic hot water and radiant floor heating
- The solar panels were adjusted to a slope of 60 degrees to maximize sun exposure
- Super insulated solar storage tank with double heat exchanger
- Energy Recovery Ventilation System
- Modulating, condensing, stainless, high efficiency backup boiler
- Polished concrete floor – maximize efficiency of radiant heat

Comments you would like in a news release on this building?

Foard Panel has been manufacturing and installing Structural Insulated Panels and nailbase products for 20 years. From their facility in W. Chesterfield, NH, they serve both commercial and residential builders throughout the greater Northeast. Foard's team of designers and engineers has brought innovative product choices to the industry and has helped develop building science techniques specifically for today's new technologies and sustainable design requirements.

This home built by Aspen Construction demonstrates how SIPs can provide an affordable and energy efficient wall system that exceeds basic ENERGY STAR® standards.

A quick synopsis of our SIP experience

24 March 2010

Deciding on SIP' as the basic structural component was easy. Within our set of objectives, two were especially important: 1) energy efficiency, and 2) budgetary compliance. Given the fact that conventional stick built framing dramatically reduced the proclaimed R values through thermal bridging and air infiltration, it was clear that a solid, integrated framework, unique to SIP structures, was the perfect solution. The option to select virtually any appropriate real R value, by specifying size and type of insulation, made the process of calculating likely thermal losses much easier. Additionally, by including drywall cladding on the interior of the SIP sandwich, we were able to minimize both time and labor costs during construction.

Following discussions with several SIP providers, we chose Foard in W. Chesterfield, New Hampshire. Our decision paid off. We found the folks at Foard readily available to assist in design and technical questions. We had direct access to their engineers when needed. Their feedback was always, timely, courteous and highly professional. We provided Foard with a computer output showing the location and dimensions of our framework including all windows and doors. After several iterations, involving clarification and adjustments, we received their final plan. The panels were cut and assembled in their facility, then transported to our site on time, and in an incredibly orderly and compact fashion. Assembly took about two days, and proceeded without incident.

Foard was the major contributor to our certified, energy efficient home. Our solar assisted domestic hot water and hydronic radiant floor heating were perfect complementary technologies, housed within the super-well insulated framework provided through the use of structured insulated panels. I doubt that the range of supporting energy saving technologies, could have achieved the same level of effectiveness without being embedded within an SIP structure. "Green" really begins with SIP.

Norman B. Solomon
842 Grassy Brook Rd.
Brookline, VT 05345
802 348 9300