

SIPA Building Excellence Application (Page 1 of 4)



PARTICIPANT INFORMATION

Company Name: Loxley Hawk, Inc.
Contact Name: David Lars Butler
Address: 1844 Northwestern Pkwy
City: Pace State: FL Zip: 32571
Phone: 850-336-9000
Email: david@loxleyhawk.com Website: http://www/loxleyhawk.com

CATEGORY ENTRY (check one category)

- | | |
|--|---|
| <input type="checkbox"/> Single Family 'Small House' under 900 sq. ft. | <input type="checkbox"/> Commercial/Industrial/Institutional Buildings under 10,000 sq. ft. |
| <input checked="" type="checkbox"/> Single Family Homes over 3,000 sq. ft. | <input type="checkbox"/> Commercial/Industrial/Institutional Buildings over 10,000 sq. ft. |
| <input type="checkbox"/> Single Family Homes under 3,000 sq. ft. | <input type="checkbox"/> Renovations |
| <input type="checkbox"/> Multifamily | <input type="checkbox"/> Affordable Housing |
| <input type="checkbox"/> Agricultural | <input checked="" type="checkbox"/> High Performance (multiple category entry permitted) |

PROJECT INFORMATION

Project Name: Smart Home Pensacola
Address: 837 Bayshore Dr
City: Pensacola State: FL Zip: 32507
Date completed: CofO October 11, 2019
Total cost of project (exclusive of land): \$2+Million
Dimensions of building (all floors of multi-story building):
Ground Level 48'x84' (open)
1st Floor 48'x84' Total 36'x72' Condition Area
Asking price/purchase price (Affordable Housing only):

Total sq. ft. of conditioned space:

~~4032~~ 3342

BUILT BY (if different than applicant)

Company Name: Loxley Hawk, Inc.
Contact Name: David Lars Butler Phone: 850-336-9000
Address: 5677 Tilubo Lane
City: Pace State: FL Zip: 32571

PANELS MANUFACTURED BY (SIPA members only)

Company Name: Fischer SIPs - Louisville, KY 40203SIPS

Continued

SIPA Building Excellence Application (Page 2 of 4)



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

Company Name: SIPS Development - Fischer SIPs

Contact Name: Damian Pataluna

Phone: 502-774-5644

Address: 1844 Northwestern Pkwy

City: Louisville

State: KY

Zip: 40203

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:

LEED Certified, Passive Solar, Energy Efficient, Energy Star, Fortified, Net Zero Residence for Mr. and Mrs. Switzer.

How did SIP construction help you get this job?

In the beginning we evaluated 3 types of building materials, ICF, SIPs, and Conventional 2x Framing with Foam Insulation.

Overall, SIPs won out for the value added to the project; namely savings on foundation (Elevated Concrete Deck on Pre-Stress Piles) due to weight reduction over ICF. Value to us on Waste Management. Diverted waste due to RTA project.

Energy Efficiency due to increase insulation values, especially performance values.

Fortified Construction - (160 MPH 3 sec gust, nominal 124 MPH, Exposure D)

SIP wall thickness and core material: 8-1/4"

SIP roof thickness and core material: 12-1/4"

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

Speed of Construction - Time saved about 3.2 weeks over ICF and 2 weeks over 2x Construction.

Insulation value of SIPs added to our achieving our Net Zero Goal

Describe any innovative design elements or structural engineering involved:

Passive Solar - allowed for daylighting while rejecting heat in the Summer and allowing for Solar heat gain in the Winter.

24' EuroWall bifold door was installed using a designed SIP header system. This allows the owners to open the living room to the open air deck and transition the living spaces into one big area.

SIPA Building Excellence Application (Page 3 of 4)



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

LEED - on track for Platinum.

Energy Star

Passive House

Water Sense

Energy Ready Net Zero Home

HERS Index (required only for High Performance Category and recommended for residential projects):

HERS -38 with Solar

Blower door test results (ACH50) (required only for High Performance Category and recommended for residential projects):

ACH50 = 2.51

Energy use intensity in kBtu/ft² (required only for High Performance Category and recommended for commercial projects):

Cooling Geothermal Heat Pump kBtu/hr 50.8 EER 18.30

Heating Geothermal Heat Pump kBtu/hr 38.2 COP 5.34

Describe the HVAC system used on the project:

Geothermal Heat Pump with Heat Recovery Buffer Tanks. Rejected heat is captured and is use to supplement the Heat Pump Water Heater Unit. We deliver 107 to 115 degree water to HP Water Heater to assist in getting us to 130 degree discharge temperature.

While this home is not sub metering the HP Water Heater - Gulf Power, our local utility, has monitored this system and have estimated \$3 to \$4 per month in energy cost. (based on \$0.11 per

Describe any other energy-saving materials used in the building envelope other than SIPs. List U-values of windows used and the U or R-value of any insulation materials. (judged only for High Performance Category)

Widows (693.5 sqft)

a. U-Factor U=0.29 - 337.5 sqft - SHGC=0.19

b. U-Factor U=0.34 - 192.0 sqft - SHGC=0.30

c. U-Factor U=0.37 - 124.0 sqft - SHGC=0.20

Please list any energy-efficient products or design features, such as lighting, hot water heating, appliances, passive solar (judged only for High Performance Category):

Noted - Water Heating is accomplished by using a Heat Pump Water Heater along with 2 supplemental buffer tanks to capture rejected heat created by Geothermal HVAC System operations.

House is built using Passive Solar Designs - Rebecca Bryant Architect (WaterShed 302 Magnolia Avenue, Fairhope, AL 36532 is Certified in Passive Homes Designs.

Were any solar panels installed on the project? If so, indicate the size of the system (judged only for High Performance Category):

We installed a 23.76kW DC solar array. Using LG Neon 330 Watt Solar Panels we have 6 strings of 12 panels. SolarEdge Inverter's and RUSU LitION batteries are used to off-set power requirements of the home. We also have engaged with the local power company, utilizing Net Metering and a tool to store any over production during the day to use in the evenings when solar income is exhausted.

SIPA Building Excellence Application (Page 4 of 4)



Please list any sustainable materials or design features not listed above, such as recycled materials, low-VOC finishes, landscaping, etc. (judged only for High Performance Category):

In the very early concepts of this project, Loxley Hawk, Inc. was hired to lovingly de-construct a home on the property that was built in 1902. We salvage approximately 60-70 of the home and incorporated materials back into the new construction. For example the main entry steps were salvaged and re-built in the new house, along with fireplace mantles, doors, wainscot paneling, and the framing timbers we used to construct the Heart Pine floors. These timber are know to be original old growth wood and are estimated to be 400 top 500 years old.

Any additional comments on the project:

This project has been an extremely fun and challenging project to pull off. The owners have be great to work with and value the energy efficiency, and re-purposed materials used to build have added so much character to this project, making a one-of-a-kind stand alone.

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

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:

David Lars Bick

Date:

1-7-2020

Entries that do not contain all required materials or are received after **January 11, 2020** will not be considered

Complete application and submit electronically to info@sips.org

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



**Structural Insulated
Panel Association**