



Stoland Farmhouse Addition

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Participant information

Enercept, Inc.
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Category

Renovations

High Performance: No

Project information

Stolhand Farmhouse Addition
3613 W. Oakland
Ponca City, OK 74601

Date Completed: Spring 2018

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

Dimensions for new living area: 54 x 48

Total sq. ft. of conditioned space:

Addition: 2,592 sq. ft., existing farmhouse: 1,150 sq. ft. = 3,742 sq. ft.

Built By (if different than applicant)

Backside of NoWhere, LLC

Bob Evans

PO Box 241

Prague, OK 74864

Panels Manufactured By

Company Name (members only): Enercept, Inc.



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Designed By (if different than applicant
Darrell Stolhand (homeowner)
Darrell Stolhand
3613 W Oakland
Ponca City, OK 74601

Total sq. ft. of conditioned space: Addition: 2,592 sq. ft., existing farmhouse: 1,150 sq. ft. = 3,742 sq. ft.

Describe the end use of the building: The Stolhand Farmhouse Addition more than doubled the living space to an existing farm home. The new area enhanced the modest farmhouse by adding a great room, dining room, kitchen, master suite and storage.

How did SIP construction help you get this job? The owner, is also the owner of an HVAC business. He specifically requested SIPs to improve thermal protection on the farmhouse (SIP roof panels were installed over the existing roof) and for his new addition. SIPs also provided a cohesive design to the add-on, and the ability to span 20+ feet without additional framing.

SIP wall thickness and core material: 6" walls with solid EPS insulating core
SIP roof thickness and core material: 10" roof with solid EPS insulating core

Describe the benefits of using SIPs on this project. Did SIPs help save time, labor, construction costs, or energy? The builder, Bob Evans, said that using SIPs on this project saved him roughly 35 days (and numerous hours) of construction time spent on this project. The owners sold their previous residence earlier than expected, and had to move into the small original farm house during construction. The ability to frame the addition quickly was very important.

Describe any innovative design elements or structural engineering involved: The stem wall foundation on new construction utilized SIP basement panels to maintain thermals in the crawl space, this was also beneficial in making the floor surface more comfortable. The basement panels also allow for easy access to plumbing and other utility fixtures.

Describe the HVAC system used on the project: The HVAC system is a Carrier Greenspeed variable capacity hybrid heat pump. HP SEER is 19 with a HSPF 13. The Carrier furnace is a 98.5% modulating gas furnace. Both the heating and cooling equipment modulate the capacity's to match the current home demand requirements. The home air quality is achieved through a Carrier Infinity Air Purifier which has a MERV 15 filter and kills air borne viruses, bacteria and mold spores. The system controller is an Infinity WIFI thermostat that completely integrates temperature, humidity and ventilation as well as tracking energy cost.

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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) n/a

Please list any energy-efficient products or design features, such as lighting, hot water heating, appliances, passive solar (judged only for High Performance Category): The clerestory windows provide abundant natural light in the new kitchen, dining and great room. LED lighting was exclusively installed in the addition and replaced incandescent bulbs in the existing home. New, energy-efficient appliances were installed in the kitchen.

Were any solar panels installed on the project? If so, indicate the size of the system (judged only for High Performance Category): No

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): n/a

Any additional comments on the project: The design included 12x12 aged cedar timber frames in the kitchen, dining and great rooms. Concrete log siding and natural stone finish the exterior. The owners absolutely love their new home! They are happy to open their doors and share the positive building experience with anyone. Mr. Stolhand also installed the HVAC system in the Oklahoma Equine Hospital (also entered in the 2019 SIPA Building Excellence Awards).

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