

### **Classic Competition**



#### **Participant information**

Enercept, Inc.

Charlie Ewalt-Roberta Bartel-Neal Mack

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**Category:** Single Family Homes (under 3,000 sq ft.)

High Performance: No

**Project information** 

Eng Residence Arlington, SD 57212

Date Completed: 04/2017

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

47' x 29' main level 32' x 19' second level 28' x 29' lower level walk out

Total sq. ft. of conditioned space: 2,783 sqft

#### **Built By (if different than applicant)**

JBar Construction Specialties, LLC. Josh Barber 2301 Research Parkway Brookings, SD 57006

Panels Manufactured By: Enercept, Inc.







### **Eng Residence**



Designed By (if different than applicant - SIPA will only recognize members)

JBAR Construction Specialties, LLC. Josh Barber 2301 Research Parkway Brookings, SD 57006

Total sq. ft. of conditioned space: 2,783 sqft

#### Describe the end use of the building:

This beautiful rustic/modern home combines lake and golf course living. It is a three bedroom, tri-level, single family residence.

#### How did SIP construction help you get this job?

The home owner had done extensive research on SIP technology. Based on his research, he knew that he wanted to enclose their home in SIPs. The homeowner was familiar with JBAR Construction, well known in the area for experience with SIP/Post and Beam construction. this combination gave the owner the look and feel of timber frame construction for a smaller investment.

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

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

The construction of this home began in the fall, so much of this home was built over the winter months. Having the fast close-in time with SIPs provided early protection for the decorative Post and Beam construction. The land around the home is open and prone to strong winds. The SIPs provided superior strength and protection from the strong winds off the lake and surrounding prairie golf course.

#### Describe the HVAC system used on the project:

This home is heated with an Air-to-Air Heat Pump. The primary heat source is backed up with a propane furnace. Because of the tightness of the building envelope, a two-ton variable speed heat pump has sufficiently met their needs.

#### Any additional comments on the project:

The home was built using locally sourced products for the posts and beams and the high performance/high reflecting steel used on the roof. The windows on the lake side of the home, along with the covered deck provide natural protection form the summer sun and optimal passive solar heat in the winter. The windows also offer ample natural light for the main living area and walkout lower level. The large stones used to protect the landscaping and shoreline came from a local source. They used energy efficient Marvin Integrity windows and 100% LED lighting throughout the home.

Lake view





Staircase detail





Street view





### Construction





### Construction





### Elevations



