

Participant information

Premier SIPS
James Hodgson
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Puyallup, WA 98375
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Category

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

High Performance:

Yes

Project information

Dalgliesh Residence
Not disclosed
Anacortes, WA 98221

Date Completed:

May 2019

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

Irregular, 58'x39' not including garage

Total sq. ft. of conditioned space:

1,861 sq. ft.

Built By (if different than applicant)

Clifton View Homes
Ted Clifton
18504 Canyon Road East
Bellingham, WA 98225

Panels Manufactured By: Company Name (members only):

Premier Building Systems

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

Zero Energy Plans
Ted Clifton
18504 Canyon Road East
Puyallup, WA 98375

Describe the end use of the building:

Residence

How did SIP construction help you get this job?

You could not have built this home by any other means at anywhere near the same price. Not

only were we able to provide an exceptional design, but we have also provided a zero-energy-ready home, as certified by the US DOE.

SIP wall thickness and core material:

6" GPS, 2,614 sf net

SIP roof thickness and core material:

10" GPS SIPS, 3,200 sf net

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

This was a very difficult site, with very little room to store materials on-site. The use of SIPS allowed us to bring in a very compact set of wall panels, install them, and then bring in the triangle-shaped roof panels, install in the roof in just one day, including the roof beams. You would have been there for weeks trying to stick-frame this roof, and would not have even been able to meet the ventilation requirements for a vented roof system. Though not required in this location, the home also meets the requirements for the Wildlands-Urban Interface Code.

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:

Energy Star, US DOE Zero-Energy Ready Home, US EPA Indoor-Air-Plus.

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

HERS 44 w/o solar panels, -12 with solar panels

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

1.06 ACH 50

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

12.964 total, including lights

Describe the HVAC system used on the project:

The Chiltrix CX34 Air-to-Water heat pump provides both heat and hot water. The heating system is in-floor radiant, with a 3" slab over the wood sub-floor. There is a 50-gallon domestic hot water storage tank that is heated initially by the Chiltrix, and kept warm using resistance electric elements. The over-all COP is 3.92.

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)

Window are all triple-pane, triple-low-e from Vinyltek in Canada. The U-values range between .14 for picture windows, and .17 for hinged glass doors and casement style windows.

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

100% of lighting is LED, cooktop is induction, one of the two ovens is a steam oven, which

allows some types of foods to cook at a much lower temperature for a lower time. DW, W&D are all the lowest energy-use Energy Star units we could find in their categories. 100% of the water for this home comes from the rain water that lands on the roof. The cost (energy use) of treating and storing this water is less than the cost of pulling water up from the ground and treating that water.

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

The 9.45 kW solar panel system is scheduled to be installed next week, before the end of the year, to get the maximum tax credit.

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):

100% of sealants and finishes are zero-VOC, making this house a "quadruple zero"; Zero VOC, Zero-Energy, Zero Water, and Zero Carbon Footprint during its operational lifetime. 100% of landscaping is native plants, requiring little watering in the first year, and virtually none thereafter.