



Photo courtesy of Megan Kramer Consulting

Passive Design Promotes Energy Savings in Washington

[Megan Kramer Consulting](#) partnered with [WoodRidge Custom Homes](#) to build an energy-efficient property for homeowner Shane Philpot. The project qualified for incentives through [Puget Sound Energy's Performance Path program](#) and was built with passive design elements in mind.

The Right Thing To Do

During the design of the home, homeowner Shane Philpot received information from WoodRidge Custom Homes about the benefits of building an energy efficient home. Shane was interested in energy efficiency for the benefits to the environment, the long-term cost savings involved with building an efficient home, and for the ability to maximize on savings without adding a cooling system. To meet the homeowner's needs, the builder constructed a custom-built home with passive design elements. For builders and homeowners interested in exploring passive design, this project serves as an example of how passive design elements can be introduced into a project while not being fully passive house. Shane worked with the builders to include other measures that were not part of the original project plans.

In addition to the benefits of selecting energy efficient options, Shane noted: "We have been pleasantly surprised by other benefits that weren't part of our original decision making. For example, the energy efficient windows, insulation, and radiant heating have had a noticeable effect on the overall comfort of our home, both in terms of temperature, and also sound proofing."

For Shane, adding energy efficiency into the project plan was the right thing to do, and making decisions that benefit the environment was top of mind when constructing his home.

BUILDER

WoodRidge Custom Homes

RATER

Megan Kramer Consulting

UTILITY

Puget Sound Energy

LOCATION

Cle Elum, WA

YEAR BUILT

2020

ENERGY SAVINGS

25% Above Code

TOTAL BUILDER INCENTIVES

\$1,500

HOME FEATURES

- ENERGY STAR® Appliances
- LED Lighting
- Smart Thermostat
- Hydronic Radiant Gas Boiler
- R-25 Insulated Walls

"As a builder, we care deeply about the clients we build for, the community we build in and the environment that surrounds us. Building energy efficient homes is a perfect way for us to take care of all of those things."

CLIFF MELBY, MANAGING PARTNER AT
WOODRIDGE CUSTOM HOMES

Learn more

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Passive Design Elements Lower Energy Costs

The property includes numerous energy-efficient measures. Most notably, WoodRidge Custom Homes installed R-25 insulated walls. The walls reduce the energy required to heat and cool the home during the changing seasons. In addition to energy efficiency, the wall insulation helps soundproof the property.

Shane decided against installing a cooling system. Therefore, having highly insulated walls, among other upgrades, helps passively cool the home. To further enable passive cooling, Shane is currently looking into different window coverings to keep the home cool in the summer.

Another upgrade installed at the property was a radiant floor heating system combined with hot water. The combined system works to heat the home and provide domestic hot water. The system is extremely efficient and added to the home's energy savings.

Finally, high-end energy-efficient refrigerators and dishwashers at the property further reduced the overall energy costs.

All upgrades at the property work together to achieve 25% more energy savings compared to a home built to the Washington State Energy Code.

View the [Top 10 Best Practices for Today's Homebuilder](#), an on-demand training from BetterBuiltNW, to learn about the latest techniques to build energy efficient homes. Builders looking to start incorporating passive design elements in their projects can learn more about passive building strategies at [PHIUS](#).



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