

R-2000 Net Zero Energy Ready Home

Vancouver, British Columbia, Canada



Insulspan® SIPs top British Columbia's first home meeting the 2012 R-2000 Standard

Arthur Lo has been building energy-efficient homes for over 17 years. His Vancouver-based company Insightful Healthy Homes has certified all their projects through Natural Resources Canada's R-2000 program, offering homebuyers a high degree of energy efficiency and a solid return on their investment. But his latest project takes this philosophy a step further—a 2,400 sq. ft. home that is net zero energy ready and the first home in British Columbia to meet the new 2012 R-2000 Standard.

Meeting the requirements of the new R-2000 standard is not easy. The 2012 version is twice as efficient as its predecessor, requiring special attention to the building envelope to limit heat loss. Lo designed the 2,400 sq. ft. net zero energy ready home with double stud walls and the Insulspan® Structural Insulating Panel (SIP) System for the roof to cut heating and cooling costs.

Lo specified 10-inch-thick Insulspan SIPs for their continuous high R-value insulation and exceptional air sealing. Unlike traditional wood framing systems, the Insulspan SIP System avoids thermal bridging of wood framing members by providing uninterrupted insulation. And the large ready-to-assemble sections greatly reduce the possibility of air leakage to the outside.



"Among all the measures to achieve energy efficiency, insulating the exterior walls and roof is our first priority," said Lo. "We had to build a vaulted ceiling and I can say that the Insulspan system is the only solution to meet our insulation requirements for a vaulted ceiling."

The home's thermal performance was further enhanced with fiberglass frame triple-pane windows, a well-insulated crawlspace, and durable metal roofing that reduces solar heat gain. A solar thermal system supplies domestic hot water and wiring is in place for a photovoltaic system capable of producing as much energy as the home consumes.

"Arthur has shown how building with the Insulspan SIP System can result in a higher quality home, a healthier living environment and longterm utility savings for homeowners," said Insulspan SIPS Sales Manager Dave Stevenson. "It is a perfect solution for progressive builders like Arthur looking to meet the new R-2000 standard, reach net zero energy and reduce the environmental impact of their homes."

