Independence Energy Homes

Customer Success Story

Autodesk® Revit® Building
Autodesk® DWF™ Viewer

"We're committed to using Revit Building on all of our future projects. It's definitely given us a strategic advantage."

Stephanie Horowitz
Vice President of Custom Design
Independence Energy Homes

Fundamentally different design.

For help producing zero energy homes that generate more energy than they consume, Independence Energy Homes standardized on Autodesk® Revit® Building design and documentation software.

Project Summary

Imagine designing a home that will have no utility bills. High-quality construction. And a healthy living environment built with carefully selected materials. It isn't hard to do. And it doesn't have to cost a fortune. In fact, Boston-based architecture, engineering, and design consulting firm Independence Energy Homes (IEH) does it every day. The firm has its roots in the 2005 Cornell University Solar Decathlon team. "All of the cofounders of IEH were on the team," says David Wax, CEO. "Over the last year that we were preparing for the competition, we did a pretty innovative thing. We created the foundation for a company so we could take what we learned and spin it off into a business." Their research payed off. "Not only did we place second overall, but we were able to develop an advanced design that results in a zero energy home—at a cost that is competitive with a traditional, nonsolar home."

The Challenge

"That experience taught us to approach design in a fundamentally different way," says Wax. "We view the architects, engineers, and financial analysts all as designers—each with an equal role." To help them turn this collaborative vision into reality, IEH sought a software tool that would allow all three disciplines to seamlessly share information, ideas, and analysis.

A Unifying Technology

"Autodesk Revit Building was clearly the most promising option," says Stephanie Horowitz, cofounder and Vice President of Custom Design. "We felt that it would be the industry standard and wanted to get behind it."

High-Powered Design

After adopting the new software, IEH put it to the test on the 362-acre Shenandoah Springs Development in Rancho Mirage, California. "There will be more than 300 solar-powered single family homes," says Horowitz. "We're providing design and energy consulting to the project architect."

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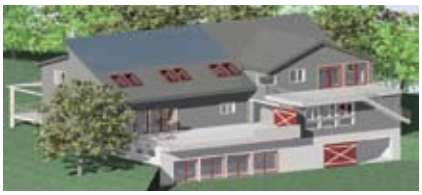

Independence Energy Homes consults on, designs, and builds ultraefficient, cost-effective, zero energy homes. Using Autodesk Revit Building, they have been able to

- *Improve communication with clients*
- *Produce detailed drawing sets earlier*
- *Seamlessly share data with sophisticated energy analysis applications*
- *Compare multiple design alternatives to optimize energy performance*
- *Win more business*

The Solution

"Revit Building delivered all the things we expected—interoperability, drawing set management, and building information modeling," says Horowitz. "But we didn't expect how much it would facilitate communication."

Improve Client Relationships

"We ask our clients to download Autodesk DWF Viewer," says Horowitz. "We can now have phone discussions to discuss the designs—using 2D drawings or the 3D building information model created in Revit Building. Our clients can rotate the model, drag the roof off, look into spaces. It's been very effective."

Get Results Faster

"Revit Building has also enabled us to produce a more detailed drawing set earlier in the game," says Horowitz. "That's improved our client relations too, because they can see something that looks like a house sooner, rather than later."

Effortlessly Share Data

"We've already linked Revit Building with eQuest, the energy modeling program we're using on the Shenandoah project," says Horowitz. "And we're working on integrating Fluent Air Pack to help us better model airflow and temperature. Our goal is to be able to use all three applications seamlessly."

Optimize Designs

"By linking Revit Building with the other programs that we use, we're able to work through and test our designs in a reasonable amount of time," says Wax. "For example, we can quickly test four different window and shading options and see which one offers the best performance."

Stay Ahead of the Competition

"I think we're also able to accomplish a lot more than our competitors," says Horowitz. "When we pick a certain window, we won't be left wondering what would have happened if we'd picked a slightly less efficient one. Revit Building, combined with the other software we use, has made it very easy to figure out how much money the homeowner will save."

Finish Projects Faster

One of the firm's other Revit Building projects is a single-family home in Connecticut that is designed for LEED™ platinum certification. "When we originally allotted time, we didn't understand the full capabilities of Revit Building," says Horowitz. "Now, I anticipate that our construction documents will be completed ahead of schedule on the project."

The Result

"Revit Building definitely fits with the strategic direction of IEH," says Wax. "As we grow, we're planning on taking what we learn from designing our own homes and from our consulting to become residential real estate developers. Revit Building will enable us to perform in-house all of the zero-energy designs and decisions that most developers have to outsource to firms like us. That'll give us a tremendous strategic advantage. We'll be able to design and build better homes for less money than other developers."

To learn more about Autodesk Revit Building, visit www.autodesk.com/revitbuilding. For more information about Independence Energy Homes, visit www.ZeroEnergy.com.

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