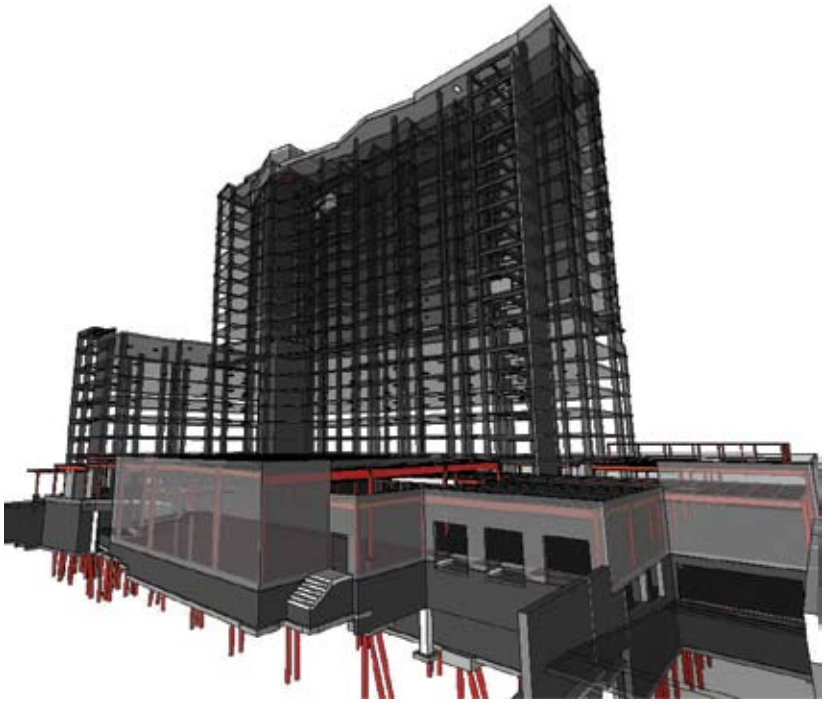
Ericksen Roed and Associates, Inc.

Customer Success Story

Autodesk® Revit® Structure
DWF™



"Revit Structure is definitely a part of our future—and there's no question it's going to bring us repeat business, In fact, we have already been named to more design teams by virtue of our expertise in Revit Structure. And there's absolutely been an increase in customer satisfaction."

David Pluke
Principal and VP of Technology
Ericksen Roed and Associates, Inc.

Capitalize on new business opportunities.

Using Autodesk® Revit® Structure software, Minnesota engineering firm Ericksen Roed and Associates, Inc., improves structural documentation, builds stronger client relationships, and wins new business.

Project Summary

Ericksen Roed and Associates, Inc. (ER&A), is a full-service structural engineering firm based in St. Paul, Minnesota. Founded in 1984, the firm today employs a staff of 60 engineers, technicians, and administrators who specialize in a variety of facility types—from government and educational institutions to aircraft hangars, churches, high-rise office complexes, and detention centers. Construction costs can range from a few thousand dollars to more than $100 million. Recently, ER&A adopted Autodesk Revit Structure. "We'd been watching building information modeling for several years but were unable to find a structural design product that did what we needed," says David Pluke, principal and VP of Technology. "When we saw the demo of Revit Structure, we knew that there was finally a solution." Since adopting the new software in July 2005, ER&A has begun eight major projects and already completed construction documents on five of them.

The Challenge

One of those projects was the Westin Galleria Hotel and Condominium complex in Edina, Minnesota. "That project consisted of a 446,000-square-foot, 18-story post-tensioned structure with low-rise steel, ballrooms, a small convention area, and two levels of below-grade parking," says Jamie Richardson, senior structural designer at the firm. "There was also a connecting tunnel to a stand-alone parking structure."

Impressive Size

"That project went out for construction documents three weeks ago," says Richardson. "And at this point in the design phase, it's basically complete. I'd say it is probably the single most impressive project we've completed using Revit Structure so far, in terms of square footage, complexity, and accuracy."

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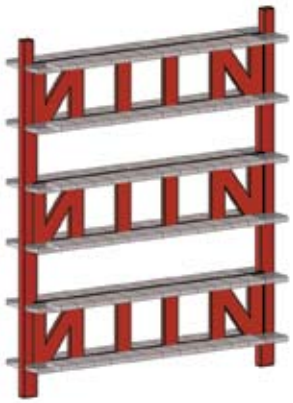

"Revit Structure has become the primary tool for marketing our patented ER-POST System to new clients. The system, which utilizes precast concrete trusses, has the capability of spanning substantial distances without adding depth to the structure. It can eliminate the interior columns, allowing space planners tremendous flexibility. However, in the construction industry, many clients are reluctant to specify new products. Revit Structure models help our clients and their customers visualize the system and how their structure will go together. With this understanding, the flexibility allowed to designers and owners becomes obvious. A structure designed using traditional methods looks like a pincushion in the Revit models, compared to the same structure using the ER-POST System. When clients see that, it's usually a pretty quick decision."

Michael DeSutter
Partner and Vice President
Ericksen Roed and Associates, Inc.

The Solution

"For example, using Revit Structure, we found out right away that our battered piles were hitting each other in some areas," says Richardson. "Being able to spin the model around and see it in an additional dimension really helped us catch all that potential interference."

Find Problems Earlier

"We also noticed some issues with headroom in the ramp," says Richardson. "A wall had been moved in plan, but the section hadn't been updated to match. With Revit Structure, we caught the headroom conflict much earlier in the coordination process. It saved us weeks of work later on."

Get Higher-Quality Documents

"We're also better able to detail our projects because we can model the structure as it will actually be built," says Richardson. "That allows us to cut a section anywhere in the project and immediately have about 80 percent of the detail drawing. The rest is just adding dimensions, annotations, and detail components, as well as some general cleanup. We end up with a much higher-quality set of documents."

Win More Business

Revit Structure also provides many opportunities for closer collaboration with architects. "A lot of architectural firms are looking for structural firms like us that can collaborate on a Revit project," says Richardson. "We get a lot of projects because of that."

Collaborate More Effectively

"In many cases, we're able to use the architect's model to start our structural model," says Richardson. "Normally all we get is a 2D drawing—a floor plan. Now, we're able to actually cut a section and see what they're thinking—and where we can put our structure. Plus, when we link it to our structural model, we're able to build our stuff inside theirs. In the past, we never would have been able to do that this early in the project."

Share Designs with Anyone

With Revit Structure, exporting the building information model to the DWF™ file specification is easy. "Then, anybody can view them," says Pluke. "It also helps in the coordination of some of our projects too. For example, you can send out a DWF of shear walls and the client can spin it around and see exactly where the walls are, where the openings are, and how the columns intertwine."

Try New Things

"Soon, we plan on using the information in the Revit Structure model to create shop and fabrication drawings—instead of passing them off to a fabricator," says Pluke. "We already do that in precast concrete right now but want to expand into steel. That way we'll be able to remain involved in projects for a longer period of time—and generate more revenue."

The Result

"Revit Structure is definitely a part of our future—and there's no question it's going to bring us repeat business," says Pluke. "In fact, we have already been named to more design teams by virtue of our expertise in Revit Structure. And there's absolutely been an increase in customer satisfaction."

To learn more about Revit Structure, visit www.autodesk.com/revitstructure. Or, find out more about Ericksen Roed and Associates, Inc., and its patented ER-POST™ System at www.ericksenroed.com.

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