# Working the Way Architects Work

## MVE finds continued success with BIM

By Greg Aragon

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The Oxnard Community College Performing Arts Center is using BIM for its structural and mechanical equipment.

**MVE Institutional** made a serious shift about five years ago from computer-aided drafting to the use of building information modeling in the design of its projects.

The Irvine-based firm has not looked back since.

"BIM is truly a three-dimensional program, and we saw it as a great tool to help us look at building as a whole and study different options," says Bill Koster, a principal at MVE Institutional. "And as we make changes, it updates all the different components at the same time. It works the way architects work."

Koster says the REVIT architectural software by Autodesk has worked so well that today every architect in his company uses it.

But MVE is not alone.

"The AEC Industry is undergoing a paradigm shift more significant than the shift from manual drafting to CAD," says Jim Lynch, Autodesk senior vice president of architecture, engineering and construction solutions. "Reliance on paper-based representation is coming to an end; BIM is breaking down barriers and bridging communication between extended design and construction teams, providing them with consistent, reliable information."

Bill Koster

Lynch says that at the AIA 2008 National Convention and Design Exposition in May, Autodesk sold more than 300,000 copies of the REVIT software platform for BIM. He says this represents a 200 % increase in copies over the past two years.

Koster says the best thing about BIM is that it greatly improves his company's ability to coordinate design drawings, while at the same time getting consultants more involved in the process.

"We can bring their BIM models into our BIM models and look for interference; look for places where maybe beams conflict with ductwork or where the engineer didn't >>

BIM was used to figure out the massing and exterior detail for phase three of the recently-completed Plaza Irvine project.

quite understand our design intent," he says. "And we can better see how they are interpreting our model and really coordinate how the engineer's systems work with our buildings."

MVE Institutional utilized BIM on the $21 million Performing Arts Center at Oxnard Community College in Oxnard, which broke ground in July and is scheduled for completion in 2010. Designers not only used REVIT on the project's main structure but also to model the building's structural and mechanical equipment, lighting systems and catwalks.

MVE also used BIM on phase three of Plaza Irvine, a 15-story tower in Irvine, which was completed this summer. The project is part of the overall three-phase, $250 million Plaza Irvine project, developed by Irvine-based OWR Development and Geoffrey H. Edmunds.

"We used REVIT on phase three to model the building and figure out the massing and exterior detail," said Luis Arambula, MVE associate partner, and project architect for Plaza Irvine. "It helped us visualize the project in 3D and find unusual conditions that sometimes don't get noticed when you are working in 2D plans and elevations."

One unusual condition that was discovered by using BIM involved cornices that were conflicting with window openings and pre-cast panels, he said.

"Thanks to REVIT, we able to re-space out the windows to allow enough room for the cornices," said Arambula. "When you are designing a cyber building, you get to see [these issues] first, before you get a call from a contractor with a real cornice that is returning and crashing into a building."

Phase one and two of Plaza Irvine, each a 15-story tower project, opened last year. <<