

Getting comfortable: How Crate & Barrel piloted BIM

Since 1962, when it began as a family business, Crate & Barrel has offered high-quality home furnishings and accessories at affordable prices. John Moebes, an architect, is director of construction for Crate & Barrel. He led the company's transition to Building Information Modeling (BIM) with Autodesk® Revit® Architecture software. Crate & Barrel's in-house architectural and construction departments have used BIM on all projects since 2006.

Q: How, when, and why did Crate & Barrel begin its transition to BIM?

John Moebes: We transitioned to BIM with a series of pilot projects beginning in 2004. We saw BIM as a way to increase our understanding of the building before it was built. At the time, BIM was quite new, so we decided not to implement everything on one project at one time, instead we decided to master BIM over a several projects.

Q: What project served as your first BIM pilot, and how did you select it?

Moebes: Our first BIM pilot project was a Crate & Barrel store in West Hartford, Connecticut. It was a very complex two-story building that was part of a mixed-use development. The building featured an ambitious exterior façade with sunscreens, canopies, and a curtain wall. In the end, we found that having a model actually helped overcome the challenges of the exterior in ways that would have been impossible with 2D design.

Q: What lessons did you learn about selecting pilot projects?

Moebes: We selected the West Hartford store because it was our next project, and we were eager to get rolling with our implementation of BIM. But in retrospect it might have made more sense to start with a smaller project. That said, an "ideal" pilot candidate can be hard to find, and I don't think it makes sense to wait too long. When most projects have tight budgets and aggressive schedules, I'd at least recommend avoiding running a BIM pilot on a project with an ultra-aggressive schedule.

Q: What other advice would you give about running a pilot to someone in the early stages of their transition to BIM?

Moebes: Focus your team on the deliverable. BIM opens up a new world of possibilities, but you won't be able to explore them all on a single project. Getting too deep into functionality that's not essential on the first project could get you off track. So if your deliverable is construction details, don't spend much time, if any, with energy analysis on that first project. Master the most important aspects of BIM for your business first and then build on that with future projects.

Q: Thinking about your pilot project, were there any instances on that project that drove home the value of BIM?

Moebes: Yes. I mentioned the sunscreens and exterior elements. They were quite complicated, but integral to the design intent. You really couldn't understand and convey the scale of the louvers, canopies, and sunscreens in a 2D elevation drawing. Seeing them in the 3D model helped us understand how important they would be to the success of the project. The complexity is something you could have conveyed with a sketch or watercolor, but those lack the intelligence of a model. When you make a change,

you'd have to do a new illustration. As designed, the sunscreens were going to be extremely expensive. BIM made it easier to value-engineer them and analyze and visualize the implications of the changes. Stakeholders could see how modifications, like changing the dimensions of a piece of steel, would impact the feel and cost of the building.

Q: Having used BIM for about a decade, what do you see as the top benefit of BIM?

Moebes: For us as an owner, we're seeing near-term and long-term benefits. Near-term, BIM makes it easier to develop and win buy-in for a concept. With a model, you can communicate so much so much more quickly. We're also able to create clearer deliverables faster. The big longer-term benefit is the ability to better forecast a building's performance over its lifecycle.