

# Three ways BIM boosts building design communication



BIM can facilitate better communication with an extended project team, clients, and building owners, and support public outreach and approval processes.

## **Provide more than pretty pictures**

3D photorealistic visualizations and walk-throughs generated with BIM can make it easier for people to truly comprehend a building's appearance, how it fits in existing surroundings, as well as how people will interact with it. But the value of communication facilitated by BIM goes beyond sharing stunning visuals. Lee Kopsaftis Director of AEC Services at DLB, a New Jersey-based engineering firm acknowledges, "There's definitely a 'wow' factor when clients (and prospective clients) see the renderings and walkthroughs we've created. But from our vantage, these visualizations are simply the best way to communicate a design and provide superior engineering design services."

Kopsaftis explains, "Our clients are paying much more attention to their capital projects and investments, which is changing how we engage with them." As such, DLB places extraordinary emphasis on the importance of effective

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communication to ensure its clients are informed and educated, expectations are met, and surprises are avoided. But communicating complicated design strategies can be challenging, especially when dealing with non-technical project stakeholders, and this is where the value of BIM for communication is most apparent. Renderings and animations bring the virtual project to life for DLB's clients, and also help the firm identify spatial constraints early on in the design—making downstream coordination easier. Continues Kopsaftis, "BIM and project visualizations help us convey technical aspects of our engineering designs to our clients and help them better understand those designs, and this visual collaboration enables us to translate their needs into optimal solutions."

SERA Architects, Inc. of Portland, Oregon used Autodesk Revit and 3ds Max software throughout the design process to help create project visualizations that enhanced communication and improved feedback. "Model-based visualizations helped everyone—regardless of their technical background—to quickly get an understanding of the accelerated development of the building and the tenant spaces," says Crawford Smith, BIM Specialist.

### Visualizations help clients and owners evaluate options

SHoP Architects of New York, in working on an Innovation Hub project located in Botswana created 3D renderings of its design concepts to help communicate their design ideas. William Sharples, Principal and SHoP, says, "BIM helped us use the power of visualization to bridge time and distance."

Early in the project, SHoP hosted a meeting with client representatives in New York, and showed them some Revit models with various options. By reviewing the model in 3D, the client was able to see the intent of the design more clearly and provide feedback more quickly. The clients were able to better visualize not just how the building would look, but also how the design team from SHoP envisioned many of the materials coming together.

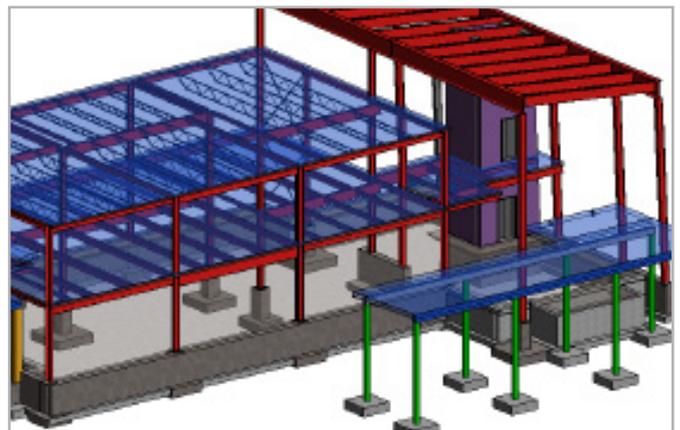
"We appreciate the visualizations SHoP is providing on the project," says David Tsheboeng, Executive Director of property development for the project. "Being able to share 3D models of the building with leaders in Botswana has helped keep enthusiasm high for the project. However, the value is not just about seeing what the building may look like. We are impressed by how much intelligence about the

project SHoP can glean from the models. For instance, they can tell us how design choices might affect the amount of materials required to complete the project. So, we know more, sooner, about how choices may impact the final result."

### Better decision-making

Smith of SERA Architects notes that "Autodesk BIM solutions helped make it easier to produce design visualizations that speed up design decisions".

Heerim Architects and Planners of Seoul, Korea used Autodesk software to review the design of the passenger terminals for the Busan Harbor International Passenger Terminal project—particularly the complicated installation of a catwalk and baggage handling system. Model-based collaboration and project visualizations helped the design team, the client, and other project stakeholders better understand the overall design for improved and more efficient decision making.



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Schneider Building Engineers of Kelheim, Germany cites the visualization capabilities of Autodesk solutions. "In communications with our customers, visualization was very important in presentations both in the proposal phase when we want to win the bid for a project, as well as when the project is underway to confirm details with customers," said Josef Schneider. "With Autodesk solutions, we can very quickly create very good visualizations. Our clients can view near-realistic renderings that accurately represent design options and can make better decisions on the basis of the 3D model."