

## **BIM-The Standard for Healthcare Design**

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Building Information Modeling (BIM) software is a tool used to generate the design of a space, while enabling a high level of coordination of the building elements between users—architects, engineers, and owners. The benefits of utilization are enormous, and Hospital Owners are catching on.

In 2006, the United States Government Services Administration (GSA) initiated a BIM mandate which requires the utilization of BIM technology for all new government building projects. Now, Wisconsin, Texas and Ohio require the use of BIM for all new construction, addition and renovation projects with total project funding value of around \$2.5-\$5 M or greater; as well as “encouraging” but not “requiring” BIM on all other projects. Using BIM, we are experiencing the many advantages that government projects and a few states enjoyed for the past five years. Will the growing trend become the standard for healthcare building design?

### ***A Clear Benefit to the Owner***

Building Information Modeling helps bridge the communication gap between designers and the owners, or users of a space. During collaborative design sessions, we find that some healthcare team members simply cannot understand context and design intent by viewing 2D drawings. We can describe positive and negative implications of a design, but “flat” information does not resonate as clearly as visually demonstrating the impact. With the use of BIM’s innate and interactive 3D capabilities, healthcare professionals, who are users of the spaces, can better visualize the planned area.

Ideas can be instantly explored and evaluated when the healthcare team can see the impact of their preferences in design or changes they are requesting in their own space. The outcome is meaningful and productive discussions are occurring with the team; this is leading to a better planned utilization of space. By simply being able to better visualize the space, we can identify and eliminate bad working habits and work flow errors by literally *walking* the users through the designed layout using BIM.

We feel that this technology is breaking down traditional personnel workplace barriers that may otherwise inhibit design choices. By encouraging open debate with users, they eventually agree as a team on what will best suit their needs. There is a more unified sense of satisfaction among healthcare teams as they experience the design of a space in 3D.

To Hospital Owners, the “Final Frontier of BIM” has become one of the most logical advantages of adopting this technology. As architects and engineers generate a data rich representation of the facility, they are creating a reliable and accurate facility management tool. When a model is developed with “facility management” in mind, Hospital Owners and users, can have instantaneous access to the facility’s spatial information; furniture and equipment manufacturer data; area calculations; cost center analyses; occupancy and fire evacuation plans; and so on.

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Building Information Modeling technology will be the standard for healthcare design because Hospital Owners will come to expect the best when it comes to designing and managing their facility. BIM elevates the design process and improves the relationship of a space with its design and users. The benefits of BIM technology are on-site, interactive and immediate; allowing for *effective* facility planning, design and information management.

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