

Construction & Technology

Building Before You Build with BIM

Imagine saving hundreds of thousands of dollars by virtually mapping out possible construction conflicts before field construction begins. Now, imagine virtually walking through a building before a shovel even pierces the earth. It can sound futuristic, but this virtual world is a daily reality in construction management at S. M. Wilson. Using Building Information Modeling (BIM) software construction teams are designing, planning and managing today's increasingly complex construction projects.

What does BIM do?

- Increases project visualization
- Provides enhanced costing estimating
- Allows for more accurate scheduling and timing
- Creates an arena for clash detection
- Improves constructability
- Allows real-time coordination and communication between all team members

Software:

Revit

AutoCAD

Navisworks

BIM software provides data-rich 3D/4D models of buildings and sites which improve project coordination and help prevent unforeseen conflicts, changes, and scheduling delays before and during construction. These integrated visuals also enhance building definition and design intent, clarify project scope and enable special coordination among all the project team members, whether in the office or in the field. BIM can be used from pre-construction through project coordination for a better understanding of the project by everyone involved at any stage, and improves overall project quality and efficiency.

Simply... BIM allows S. M. Wilson to build before we build. By virtually mapping out a project, we are able to save time, money and provide models for our client's use.

IKEA St. Louis

Through the BIM process on the IKEA St. Louis project, millions of dollars of MEP and Fire Protection utilities within the building were coordinated over a six month time frame.

The loading dock and warehouse were designed with ESFR sprinkler heads that had very strict clearance requirements. BIM allowed our team to manage several different scenarios and ultimately, two unique clearance zones (illustrated in opaque white) were created to detect violations between other above ceiling objects and the sprinkler heads.

Using BIM, all of the changes needed were done virtually before ductwork and pipe was fabricated, without cost or schedule impact. Had BIM not been implemented, rework in the field would have cost hundreds of thousands of dollars plus loss of time and quality of work.

