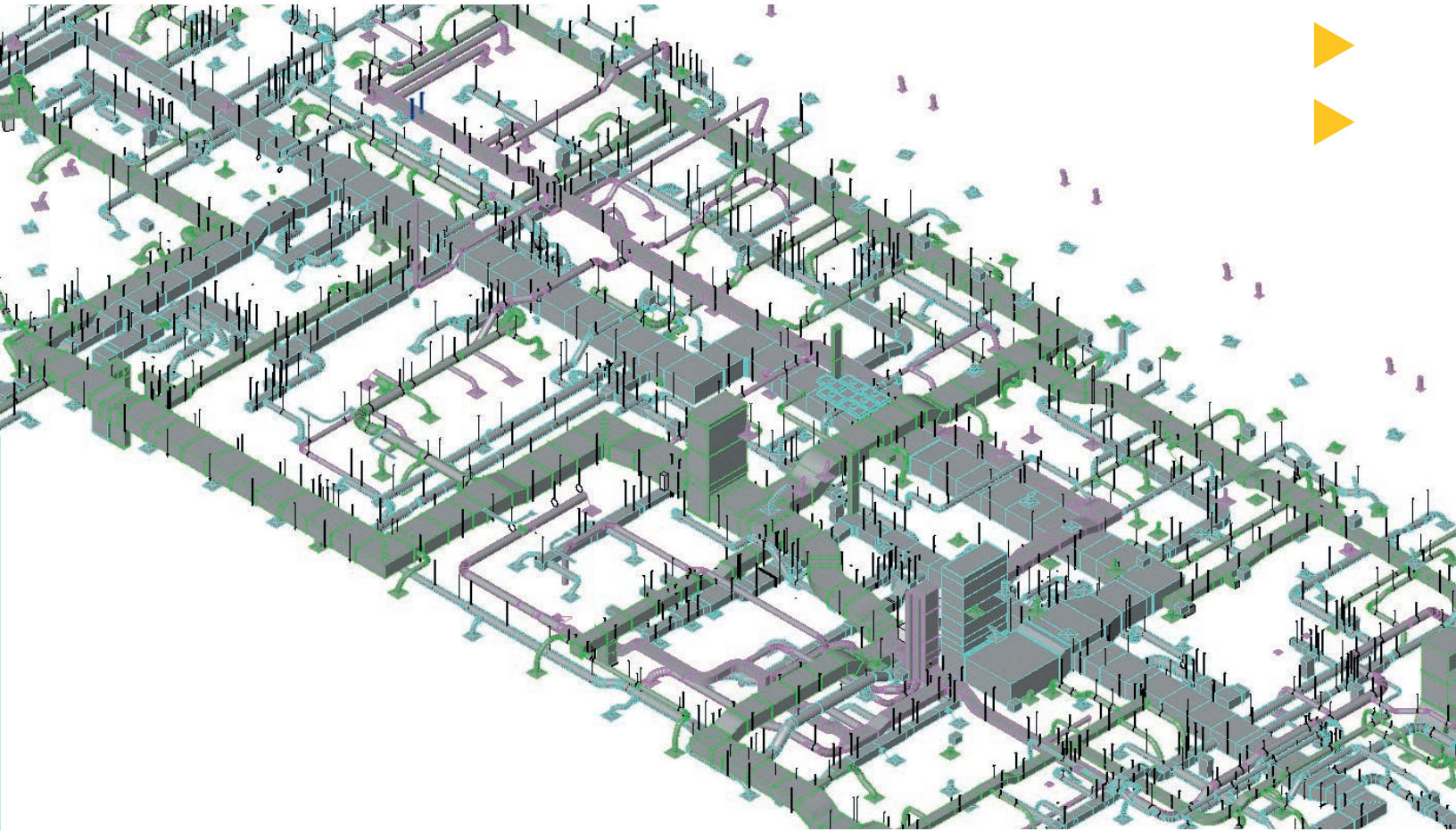




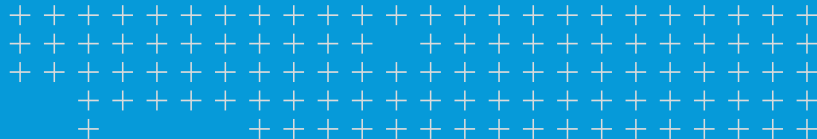
Bright Sheet Metal leverages Trimble SysQue



Bright Sheet Metal
leverages Trimble SysQue
to better collaborate with
other trades, identify
potential clashes and make
changes on-the-fly

Solution

Trimble® SysQue®



overview

Bright Sheet Metal Company is a full-service HVAC contractor specializing in sheet metal ductwork and metal fabrication. The Indianapolis-based firm focuses on custom sheet metal design, fabrication, installation and services for heating and ventilating for commercial, residential and industrial markets. Founded in the mid-1950s, Bright Sheet Metal's mission is to manufacture and install ductwork systems that meet and exceed customer expectations for quality and service.



Location
INDIANAPOLIS, USA



THE CHALLENGE

Rance Pearson, BIM director for Bright Sheet Metal, explains that before SysQue, his team would generally receive a mechanical model from an engineer, which was usually at LOD 200. Then, they'd have to redraw the model to include all their ductwork and to apply their standard connections, seams, etc. to bring it to construction-ready LOD 400. That process would generally take three or four weeks. The team was looking reduce model coordination time and cut the amount of time required to bring the model to LOD 400 for reliable fabrication and field installation.



CREATING DATA-RICH MODELS – IN DAYS NOT WEEKS

To streamline the design-to-fabrication workflow and optimize trade coordination, Bright Sheet Metal uses Trimble SysQue. Today, instead of taking plans that were designed in Autodesk Revit and then rebuilding them in AutoCAD, Rance Pearson and the Bright Sheet Metal design team can use SysQue to update models from LOD 200 design to LOD 400 building it all within Autodesk Revit. His team can share files in the same platform and coordinate the model with other trades based on real, manufacturing-specific content. The platform also enhances modeling of ductwork with real duct fittings content with Revit MEP family management to include round, rectangular and oval. He can convert generic Revit out-of-the-box content to SMACNA or DW144 specifications, which also shortens the amount of time it takes to create competitive bids. This has reduced the lead time needed to develop a coordinated model from three to four weeks, to two to three days.

“Having mechanical equipment families that are so detailed and accurate direct from the manufacturer saves so much time,” said Pearson. “Being able to have a model that includes design specs that actually match to fabrication and installation standards has been fantastic.”



SYSQUE WORKFLOW IMPROVES DESIGN COORDINATION, FABRICATION AND INSTALLATION

He explains that using SysQue in Revit has helped Bright Sheet Metal coordinate much more effectively with other trades during the fabrication and design process.

“SysQue is the key to all of this,” said Pearson. “It allows us to show accurate dimensions and gaps and all that needs to be represented and coordinated in a 3D model. We can place everything in the model, such as hangers which require a huge amount of coordination, and then easily take those points and shoot them with the Total Station. It makes the product we deliver to the owner so much cleaner and validated.”

For a recent pharmaceutical manufacturing build, Bright Sheet Metal worked closely with a full-service mechanical contractor North Mechanical using a centralized 3D model. Pearson explains how both firms used SysQue in Revit to collaborate, identify potential clashes and make necessary changes.



“When working with our mechanical piping and plumbing contractor we’d get into a meeting and I could make my adjustments, refresh my model and his piping would show up almost immediately,” said Pearson. “We could share points for our hangers, or if we had our total station out there we could shoot them because it’s the same system and all based on the same coordinates. Essentially we could solve a problem very quickly.”

KEEPING UP WITH ARCHITECTURAL DESIGN CHANGES

Pearson explains that one of the biggest issues in any large-scale project is the challenge of hitting moving targets, such as ceiling location or ceiling height, which are always changing after an architectural change is made.

“That’s the brilliance of having software that works in Revit,” said Pearson. “Drawing takes a significant amount of time using an outdated tool like AutoCAD, but the biggest efficiency gains are when it comes to making design changes. Without SysQue we couldn’t work in the Revit environment or make edits at the pace that we need.”

Pearson believes the ability to turn the model around to the owner that much faster is a significant competitive advantage.

RESULTS

- ▶ Data-rich models in days not weeks. With SysQue, Bright Sheet Metal designers can easily update models with LOD 200 to LOD 400 all within Revit. This reduces time needed to develop a coordinated model from three to four weeks to two to three days.
- ▶ Coordination with other trades. Can use SysQue in Revit to collaborate, identify potential clashes and make necessary changes on-the-fly in real time during design review meetings.
- ▶ Can make changes fast. Bright Sheet Metal can make changes in Revit using SysQue and turn that around to the owner in a fraction of the time, saving time and money.

“In all it comes down to time and money,” said Pearson. “Instead of turning that model around in two or three days, we can make the changes immediately and that efficiency gain helps us move on to the next task, respond faster to what the customer needs all while keeping the project moving forward.”

Rance Pearson,
BIM director for Bright Sheet Metal,

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