Taking ownership

Anova drives efficiencies in its quality and safety management workflow with Autodesk BIM 360 Field

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— John Andrews
Vice President of Marketing
Anova Technical Services

Project summary

The increasing complexity of modern day engineering and construction projects often requires specific skills and expertise that fall outside the capabilities of many construction firms. Enter Anova Technical Services, a professional services firm that fills the need for highly specialized skills in program management, quality management, safety, and technical services. To help take its skills to the point of construction more easily, Anova turned to Autodesk® BIM 360™ Field.

Anova based in Indianapolis, Indiana, serves industry leaders around the world in a variety of sectors, including pharmaceutical, chemical, medical devices, food processing, health care, and government. Explains John Andrews, Anova’s vice president of marketing, “Our specialty is construction quality assurance and construction safety management. We focus on the owner’s perspective, with full-scale program management services that fill in the expertise gaps to create a seamless construction process. By making our staff more efficient in the field with Autodesk BIM 360 Field, we have been able to give our owners new insights that help accelerate project delivery.”

The challenge

From 2004-2007, Anova was managing a quality assurance program on a large Indianapolis-based pharmaceutical firm’s new 555,000-square-foot biotech research facility. As Andrews explains, field data management was handled using a combination of traditional paper-based methods and a Microsoft® Access® database for report writing. “Our quality and safety teams would be at the job site with a roll of drawings, spec book, camera, clipboard, and a generic checklist,” he says. “They would make observations and document issues by hand. All of that field data, including photos and drawing markups, had to be manually inputted into a database developed by Anova to run the reports for our project status meetings.”
Anova achieves streamlined field data management with help from Autodesk BIM 360 Field

During this time, technology was changing, and 3D Building Information Modeling (BIM) was becoming available via mobile devices. BIM is an intelligent model-based process that helps owners and service providers achieve business results by enabling them to explore building design and construction before breaking ground. Anova realized the potential advantages of bringing BIM collaboration and reporting to the point of construction. Anova began migrating from a paper-based program to a software-based platform as early as 2002. After working with multiple software platforms, it eventually selected Autodesk® BIM 360™ Field cloud-based field management software (formerly Vela Systems) for its ease of use and service and support.

The solution
In 2009, Anova adopted Autodesk BIM 360 Field on Apple® iPad® mobile devices. Autodesk BIM 360 Field helps streamline field data management with checklists for quality assurance (QA)/quality control (QC), safety, commissioning, a project-based document library, issue creation/sign-off, and tracking functionality. Almost immediately, Anova noticed that the field staff spent less time documenting issues and writing reports. “Autodesk BIM 360 Field got our people mobile,” says Andrews, “It has been a great success. We wanted to make our people more productive by allowing them to spend more time in the field. Now, they can stay in the field and log issues or update checklists and inspections. It takes less time for them to accomplish the same tasks.”

According to Andrews, Anova has been able to pass these cost savings on to its clients. He says, “Autodesk BIM 360 Field helps us save time—and that translates into notable cost savings for our clients. Our subject-matter experts are expensive and to have them spend half of their day working on memos isn’t a great use of their time. Now they are armed with a powerful field tool that enables them to deliver their project-tailored safety and quality programs more effectively.”

Greater visibility into the field
As a cloud-based service, Autodesk BIM 360 Field helps to provide the entire project team with real-time visibility into field issues, tasks, and status reports from almost anywhere—a feature that Anova’s clients particularly appreciate. Says Joe Brown, safety and quality director with Anova, “Our owners really like having remote access to Autodesk BIM 360 Field. They like the convenience of checking on a job in Hawaii from an office in Indiana. It is a big improvement from our old spreadsheets. The reports in Autodesk BIM 360 Field can include photographs, detailed drawings that are marked up with comments, and date and time stamps—a wealth of data.”

Field staff quickly complete checklists and inspections at the job site and easily share the latest information with other project team members. The more streamlined workflow is not only bringing increased efficiencies, but new opportunities for learning as well.

“Our inspectors each have their own field of expertise,” says Andrews. “Autodesk BIM 360 Field encourages communication between them because they can access the document library, read each other’s reports, and collaborate with other experts. In the process, they have learned a great deal by having that complete access.”

Accelerated workflow
Field personnel take job site photos, marking them up and attaching them to locations with virtual pushpins to convey project issues quickly. “Our people are really taking advantage of this feature,” explains Brown. “They’ll take multiple pictures and document issues. An image says much more than any written report.”

The issues and punch list capabilities in Autodesk BIM 360 Field have improved accountability for both contractors and subcontractors. “It gives us greater visibility into their progress,” says Andrews. “Our field staff members understand that the list must be completed by the next progress meeting. The goals are clear and everyone can track their performance. Our subcontractors also use Autodesk BIM 360 Field to help manage their own tasks and communicate with their teams.”

Anova reduced project schedules by creating customized QA checklists that include incentives for contractors who complete tasks within a predetermined time frame. Explains Brown, “Autodesk BIM 360 Field enables us to build incentives into our field data management processes. It’s worked out very well. The owners are very happy that we can shorten our overall project schedule.”

More proactive safety programs
Autodesk BIM 360 field helps the firm to streamline job site inspections and create accurate, consistent, and auditable safety programs. Additionally, it has enabled Anova to become more proactive in helping its clients reduce injuries and safety risk. “Tracking incidents is fine,” says Andrews, “but we found that with Autodesk BIM 360 Field, we can leverage the data in the audit logs and reports to be more proactive about job site safety.”

“Safety management is not just about capturing issues and creating safety audits,” Brown says. “It’s what we do with that data. For example, we track all types of potential safety issues—from ladders and fall protection, to confined spaces. Each week, I pull that data and create Excel charts showing our top safety issues. The next week we see those issues drop completely off our audit. Having the ability to use the data in Autodesk BIM 360 Field is huge.”

The result
Since Autodesk BIM 360 Field and iPads have replaced the long trek from the job site to the trailer, Anova has made significant productivity and efficiency improvements in field data management. Autodesk BIM 360 Field is now being used on all of the firm’s QA and safety programs. “If we are there, we are using it,” says Brown. “Autodesk BIM 360 Field has really helped to accelerate our processes. And we believe there’s tremendous potential for the future.”

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Safety and Quality Director
Anova Technical Services

Image courtesy of Anova Technical Services