

Company
Granger Construction

Firm size
<500

Firm type
General contractor

Revenue
\$204 million

Focus areas
Commercial, Institutional

HQ
Lansing, MI, US

Phase



DESIGN



PLAN



BUILD



OPERATE

Capabilities
■ **Coordination**

Outcome



Cost



Quality



Schedule

How Cloud-based Coordination Helped Granger Construction Keep a Complex Project on Budget and Schedule



Image courtesy of Granger Construction.

Granger Construction's [Granger] motto is 'advance the art of building'—with a strong emphasis on utilizing technology to differentiate its brand and how it builds. In need of a deeper level of coordination to ensure a complex hospital project stayed on budget and schedule, Granger turned to Autodesk BIM Collaborate within Autodesk Forma (formerly Autodesk Construction Cloud) to improve collaboration and communication, resolve issues faster, and streamline efforts across all project partners.

\$68 million

Budget

127,000

Square foot construction

Deeper collaboration needed during coordination on a complex hospital project

The state of Michigan contracted Granger Construction to replace Caro Psychiatric Hospital's aging facility with a \$68 million, 127,000 square foot construction, bringing all services under one roof to better support the facility's long-term psychiatric care needs.

Granger had initially been using Navisworks for project coordination, but when extra bracing and framing were introduced into the project, Granger decided to utilize the robust capabilities of BIM Collaborate to improve multi-trade engagement and communication within the coordination process.

"Without BIM Collaborate, we would have had challenges identifying where those additional supports would have been put in place," says Darrah Leach, VDC manager at Granger Construction. "This would have sidetracked our whole coordination effort causing budget overruns and schedule delays."

Using the cloud to streamline the coordination process across multidisciplinary teams

The hospital's campus was spread across four buildings and included prefabrication and structural steel elements. The pre-engineered components required significant coordination on the project, particularly with the metal trusses and bracing requiring close coordination with ductwork and piping.

Using BIM Collaborate, Granger's team was able to section the buildings, allowing the team to focus their efforts together, building by building.

"Because the solution is cloud-based, anyone with permission can easily clear their clashes without having expertise in Navisworks," Leach explains. "It's all instant and automated, which helps the team stay accountable without my interference and allows us to have a more meaningful discussion about what needs to be done."

With a simple, intuitive interface, BIM Collaborate makes coordination accessible for all team members rather than relegated to a specialist role, freeing up the BIM manager to work on high value issues. Regardless of their location, project partners using BIM Collaborate can quickly collaborate and engage—from architects and trades to VDC experts and project managers. Everyone involved can work within the same environment, sharing live data.

Greater transparency drives more accountability to keep projects on budget and schedule

By utilizing BIM Collaborate for the Caro Psychiatric Hospital project, all communication is maintained in one location and in real-time and features automatic clash detection—expediting the resolution of potential issues.

"When everyone has access to the same thing, there's no confusion about what file we're supposed to be using," says Leach. "This is especially helpful in giving access to people who may not be able to make a meeting; even if they're working in a completely different time zone, they can update the model, and I can see it."

BIM Collaborate allows Granger to get to a clash resolved model faster. Involving subcontractors earlier in the process saves time by enabling them to "self check" their work as they go—padding the coordination timeline and helping them to deliver quality models.

"Getting the plans in front of the subs earlier moves the process along faster," says Leach. "When they push notifications from Autodesk Revit into BIM Collaborate, I can immediately review, remove clashes, and change the status. Cloud-based coordination keeps us on track with schedule and budget."

With BIM Collaborate, Granger can engage the entire project team in the coordination process, resulting in continuous collaboration and deeper accountability. This simplified approach saves time, increases quality, and reduces costs to deliver better projects to its customers.



Image courtesy of Granger Construction.

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-Darrah Leach
VDC manager, Granger Construction