



DEEP DIVE

Dotted Line: 4 answers to common collaboration hiccups

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This feature is a part of "The Dotted Line" series, which takes an in-depth look at the complex legal landscape of the construction industry. To view the entire series, [click here](#).

Collaboration among multiple stakeholders is nothing new in the construction industry, but more and more contractors are solidifying relationships through integrated project delivery methods such as those completed through joint ventures and design-build systems that require teamwork from design through punch out. No matter how a contract is structured, owners, general contractors, architects, engineers, subcontractors and even sometimes major material or equipment suppliers must find common ground to achieve the project's end goal.

However, there are a number of challenges associated with a highly collaborative construction process. Here are ways the key players can overcome the obstacles and make managing the collaborative process easier.

1. Decide who's in charge

An official collaborative arrangement means all major players get a say, but what happens when there's a stalemate around a design or building issue?

According to Brad Meltzer, president of Plaza Construction, the entity that provides the financial guarantees for the project has the most say in regard to design and implementation. Even on design-build projects, he said, the owner or developer typically prepares a “design narrative” on which companies can bid, creating a certain level of understanding as to what the project is all about. In some cases, the owner establishes the framework for the entire project, which makes it very similar to a design-bid-build project in that respect.

However, even with a collaborative delivery method, each party tends to stick to traditional roles, Meltzer said.

Randy Burns, senior design manager at McCarthy Building Companies, said the parties typically set operational rules that govern the project before the scope of work begins. “It’s important to establish early protocols,” he said, “that empower people in day-to-day activities.” Setting a clear hierarchy of authority also helps when the processes and procedures are different than the ones some parties are used to.

“We know that 100% of projects that start poorly end badly,” said Mark Konchar, senior vice president and chief innovation officer at Balfour Beatty.

No matter the delivery method, Balfour Beatty almost always implements its SmartStart program at the beginning of a project, Konchar said. The strategy seeks first to align team members in every aspect of the project, including behavior, values, governance and scheduling, and then to engage in collaborative planning in order to come up with a project strategy. If the contract allows for such early involvement, Balfour Beatty also believes in being proactive during the design phase design, ensuring that lean management methods, safety, constructability and lifecycle costs are taken into consideration. Finally, the company endeavors to create the support structures necessary that will see the project through its entire lifecycle.

If a proper collaborative environment is not established within the first 100 days of a project, Konchar said, the rest of the job tends to be bumpy for the project team.

2. Implement technology

Establishing systems to ensure an open flow of accurate and timely information is a major challenge, so many contractors involved in collaborative project delivery methods turn to technology for help, with tools running the gamut from simple to complex.

Burns said McCarthy has found Microsoft OneNote — which is free and pre-installed on many new desktop and laptop computers and mobile devices — useful through the pursuit phase. It also gives team members easy access to information and the latest project decisions in real time.

McCarthy also uses the multi-platform, cloud-based Revizto software to collaborate via digital drawings. “Everyone can see on a 3D model, from preconstruction through construction, why decisions were made,” Burns said.

McCarthy also employs other tools like Autodesk’s Revit building information modeling software and document-markup and sharing software Bluebeam Studio. But for streamlined collaboration, the trend is toward the simplicity offered by programs like OneNote.

Another hindrance a team can overcome with technology, Burns said, is the duplication of record-keeping in multiple databases. Some owners might push back a little and insist on using the tools they already have, he added, but it's better to unify parties' systems when possible.

One system that Balfour Beatty has found helpful is Huddlewall by Hoylu, a “big room” technology with multi-screen, interactive and editable display capabilities. Huddlewall, Konchar said,

allows for design and presentation reviews and large, collaborative work sessions. The players who can't come to in-person sessions can join via remote access. "It's an invaluable tool to get one version of the truth," he said.

Collaboration rooms, Konchar said, are also beneficial because they eliminate "all the back and forth and questioning and guessing" about the project's status.

Plaza is fully integrated with BIM tools, but Meltzer said PlanGrid has been particularly valuable for real-time plan updates from the field. It also makes the punch-out process easier because parties can communicate and view the punch list live. In the days of static Excel spreadsheets, he said, it could take days to walk a project and assemble a punch list.

Meanwhile, the CMiC project management and accounting system, Meltzer said, has allowed Plaza to integrate documents like requests for information, shop drawings and meeting minutes into the same platform with pay requisitions and other financial components of the project.

3. Involve subcontractors early

With increased collaboration comes more partners, including subcontractors that might not be used to taking on an early role or having influence over design and other strategic issues. But, Burns said, subcontractors can make design suggestions during and after the competitive bid process that can help reduce costs, given their trade expertise.

"One of the things we've found is that the earlier we can involve sophisticated subcontractors in assisting us and the design team in working through construction details, scheduling issues and understanding long-lead items, the more successful the project is," Meltzer said. "I think the subs ... want to be part of the process when the contract methodology allows for that."

If a sub is uncomfortable with taking a big role in the project, Konchar said, then an arrangement like design assist might be a better choice. But Balfour Beatty has found most subs are “eager and waiting for that opportunity.”

In addition, owners are sometimes new to true collaboration with the whole team and might need guidance on how to participate so that the schedule or other metric isn’t negatively affected.

One of the hardest parts about the construction business, Meltzer said, is trying to get a decision from an owner without pushing too hard. “Ultimately, you do so in a way that allows them to understand how their lack of decision-making is going to affect them later on,” he said. “Then they start to appreciate you as a partner in the deal.”

Effective communication with a client has nothing to do with technology, education or project management rules, Meltzer added. “It’s understanding how to deliver information to your client.”

4. Avoid personality conflicts

Even in the best of environments, some people just don’t get along. Add to that the high-stakes pressure of a multimillion- or billion-dollar project and it’s a recipe for disruption.

Konchar said firms put their best people on collaborative projects, but it’s possible that some individuals just won’t mesh. From day one, he said, all team members need to be integrated, and the level of smoothness with which that process happens will govern how well the deal unfolds.

If trying to make team members see how their actions affect the rest of the group fails, Meltzer said, sometimes it’s necessary to make a staff change. “Make the decision swiftly and head on,” he said, “and usually the outcome has a net positive effect on the [rest of] the team.”

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