

Changing Attitudes: Encouraging Integrated Project Delivery

For those of us who love creating buildings, the current adversarial state of project team relationships can be discouraging. Architects, general contractors (GCs), construction managers (CMs) and owners need to work together to share project information, risks and rewards. Through collaboration, the roles of team members can be reinvented, and thus the entire business model can be changed.

Often frustrated by the restrictions of traditional delivery methods such as design-bid-build, architects, CMs and GCs have been looking at alternate ways of working together, particularly Integrated Project Delivery. According to the American Institute of Architects' California Council, Integrated Project Delivery can be defined as a project delivery process that "collaboratively harnesses the talents and insights of all participants to reduce waste and optimize efficiency through all phases of design, fabrication and construction" (available at <http://www.ipd-ca.net/>). Integrated Project Delivery principles can be utilized in conjunction with a variety of contractual agreements and delivery methods.

Integrated Project Delivery is based on the following principles:

- Trust-Based Relationships;
- Early involvement of trades in the project;
- Common communication platform;
- Providing the best person for the job;
- Team understanding of all communication venues;
- A shifting of compensation to align with the level of effort; and
- Clearly identified team roles and methods for accountability.

The introduction of Building Information Modeling (BIM) is helping to facilitate this "change" even further with its ability to create greater information sharing for all team members. Building Information Modeling programs not only model the building, they also create a database that can capture all the information about a building. This information is used during design and construction, as well as after completion to assist in building management. The collaborative environment enhanced through the use of BIM also acts as a catalyst to improve communication between architects, GCs, CMs and owners.

By familiarizing themselves with Integrated Project Delivery and the improved outcomes that this process can bring to their projects, owners and their team members

will greatly benefit by reinventing their relationships and abolishing any antagonism. The objective for incorporating the Integrated Project Delivery principles is to bring mutual respect and trust; improved communications; clearly defined goals and standards; and optimized performance to a project.

The central tenet of Integrated Project Delivery is early cooperation and collaboration. In traditional delivery methods, architects handle the first steps of the process and then pass their designs to the contractor, who must independently determine how the designs can be implemented. By using an Integrated Project Delivery approach, an intense level of cooperation and coordination is reached early during the design process. Contractors can provide early feedback on the project to ensure that it can be realistically executed without altering the integrity of the design.

Although team members using Integrated Project Delivery must learn to work with new methods and technologies, the most difficult adjustment that will occur is a shift in attitude. Not only do architects, GCs and CMs need to be able to work as partners with the owner, they also need to be able to have an open dialogue and share ideas with all project collaborators, leading to overall team success.

To successfully facilitate a project using Integrated Project Delivery principles, owners must bring together a team where everyone is mutually committed to collaboration and the goals of the project. They should first identify the business model and the important roles that should be filled from the onset of the project. The principles of Integrated Project Delivery can be incorporated whether the contractual relationship on a project is design-bid-build, design/build, CM at Risk or any other delivery method, creating an approach that is mutually beneficial to owners, architects, GCs, CMs and subcontractors.

When implementing Integrated Project Delivery principles, owners and their core team members should seek the expertise of various subcontractors during the early development of design concepts. In fact, many subcontractors are more willing to work within an integrated team approach than they would be within a traditional model because they know that they will be able to help influence decisions. For teams applying the principles of Integrated Project Delivery, this can mean a more talented pool of subcontractors from which to choose. Public agencies should also be encouraged to participate from the beginning, since their cooperation can aid in design issues related to building department and zoning requirements.

In addition to subcontractors and public agencies, the core team may want to involve equipment suppliers or manufacturers early in the process. For example, with laboratory and technology facilities, equipment size and shape

can greatly influence the design. Early involvement can help to eliminate changes that would occur during construction in order to accommodate equipment.

Because the architect and contractor collaborate earlier in the planning and design process when applying principles of Integrated Project Delivery, and implementation decisions are being made early, the traditional method of compensation must be altered to align with the services provided. Therefore, just as architects and contractors must change their thinking to work on an Integrated Project Delivery project, owners must alter their attitudes about payment timelines. This change in attitude can lead to better control over project costs, since most of the coordination issues that would arise during construction are resolved during the detailed design process when incorporating Integrated Project Delivery principles.

When team member and delivery model selections are made early in a project, the contract can define each participant's role and level of accountability. When utilizing Integrated Project Delivery, there may be contract language that is ultimately beneficial for the owner, architect, contractor and CM because the contract addresses the process of risk and reward for the team. The high level of collaboration means that contracts often stipulate that incentives are awarded on the basis of the team meeting project goals—including the schedule and budget—instead of the performance of individual team members. Therefore, the team will share proportionally in the money earned and quality achieved.

By following an Integrated Project Delivery optimized model, owners and team members will realize added value to their project, which can be attributed to:

- A better understanding of the design amongst the contractor and subcontractors, resulting in a superior implementation effort;
- On-time or early project completion because the schedule is determined with input from all parties and issues are identified and solved before they become problems;
- The shifting of a defensive construction administration process to a quality improvement process;
- Reduced administrative efforts by all parties, since the subcontractors' submittals have been integrated early; and
- An opportunity for the utilization of prefabricated materials, if a vendor is involved at the beginning of the process.

Architects, GCs and CMs have recognized the flaws in traditional building methods and are working to adjust their thinking and improve the building industry. Owners and society will be great beneficiaries of these improvements because they will receive superior service and higher quality projects. To implement the use of Integrated Project Delivery principles into projects, owners must take the time to learn about their options and determine how a project team using these principles can best benefit their project goals.

About the Author

Pamela Tuschner, AIA, is the managing partner of the Riverside and Palm Springs, California offices of WWCOT. With more than 20 years of experience, Tuschner is a leader in both the profession of architecture and the community. She currently serves as the President of the American Institute of Architects' California Council (AIACC), and as co-chair of the ACE Mentoring Program for the Coachella Valley, which provides guidance and opportunities to high school students interested in the architecture, construction and engineering industries. For more information, please visit www.wwcot.com.