



Architects and Engineers Planning on a New Project

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# Design-Assist: The Good, The Bad & The Ugly

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[Steven Nudelman \(/authors/13-steven-nudelman\)](/authors/13-steven-nudelman)

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It is an age-old dilemma in the construction industry: How do you construct a project properly, on time and under budget? To achieve these reasonable, yet-lofty goals, owners have a wide variety of project delivery systems from which to choose. Many owners adhere to the traditional design-bid-build model, while others prefer to fast-track projects with design-build.

This month we explore a relatively new, entirely different project delivery system that is becoming more and more popular: design-assist.

### **What is Design-Assist?**

In a design-assist delivery system, before the overall project design is completed, one or more subcontractors are hired to collaborate with or “assist” the design professional(s) or construction manager in developing the design and construction documents. The subcontractors may be retained directly by the owner, or they may be hired by the construction manager — typically at risk (CMAR).

The design-assist approach differs from the traditional design-bid-build system in which the design team works separately from the construction team. In the design-bid-build scenario, the design is completed, design documents are turned over to the CMAR, who then bids out the project to the trade subcontractors.

Under this traditional system, the subcontractors are separate from and essentially outside of the design process. Thus, if there are problems during construction, the communication moves “up and down the chain.”

For example, when the subcontractor experiences a problem in the field, it typically sends a Request for Information (RFI) to the general contractor (GC) or CMAR. The GC/CMAR then sends the RFI over to the architect, who may either answer it directly or further transmit it to the appropriate subconsultant (engineer) for a response. Once that engineer develops the answer to the RFI, it sends the answer back to the architect, who sends the answer back to the GC/CMAR, who ultimately sends the answer back to the inquiring subcontractor.

This process often results in delays and increased costs, documented as change orders, emanating from the subcontractor in the field as well as the GC. Moreover, this problem — and associated expense and delay — is magnified when many RFIs are issued over the course of construction.

On the other hand, during the design-assist process, the subcontractors are hired early on to collaborate with the design professionals in the development of the project design. The project team works together; the subcontractors assist the architect and/or engineers with input as the design is developed.

It is important to note that the subcontractors do not engage in design, and they do not assume design liability. Indeed, carefully crafted design-assist contract documents reflect that the subcontractor expressly avoids design liability.

## **The Team and Contract Documents**

The design-assist team consists of the design professionals (architect and/or engineering consultants) and the trade subcontractors (whose work is the subject of the design-assist process). A wide variety of trade subcontractors are suitable for design-assist, including but not limited to electrical, HVAC, fire protection, plumbing, structural steel and finish carpentry.

As far as contract documents go, the overall construction project is likely to be cost-plus with a guaranteed maximum price, mainly because the overall design is not fully developed at the contracting stage.

The design-assist contracts could take on a variety of forms. In some cases, the owner contracts directly with each member of the design-assist team (GC/CMAR, architect and subcontractors). Alternatively, the owner could contract directly with the architect and the GC or CMAR. The GC/CMAR then contracts with the trade subcontractors.

The scope of work for the design-assist contracts could cover both design-assist and construction services for the whole project. However, it is cleaner to have separate contracts with separate scopes: one contract limited to design-assist services and the other contract for construction services.

The form of the design-assist contract is critical so that the responsibilities of each team member are spelled out in clear language. As of this writing, the American Institute of Architects (AIA) has not developed a specialized form in the AIA family of contract documents. However, the contractor-driven alternative, ConsensusDocs, has developed such a specialized form: ConsensusDocs 541 (2019), "Addendum to Agreements Between Owner and Construction Manager and Between Owner and Design Professional for Design Assist Services."

This addendum is intended to be used in conjunction with ConsensusDocs 500 or 510 (Owner-CM at Risk) and ConsensusDocs 240 (Owner-Design Professional) standard forms where the owner wishes to implement a design-assist team and strategy. Even though these are preprinted forms, they likely still require modification by a construction attorney to suit the specific project at hand.

## **The Design-Assist Plan**

The design-assist contract documents are critical to the entire process. They must accurately reflect the plan that has been developed by the owner, GC/CMAR, design professionals and subcontractors.

How are these parties going to collaborate and communicate? What aspects of the project will involve design-assist services? What is the timing for performance? What is the scope of work being done by the trade subcontractor(s)? What level of input will the subcontractors have in the overall

design process? These are the questions that must be answered by the design-assist contract documents.

Ideally, at the conclusion of the design-assist process, the design and construction documents are finalized, signed and sealed by the design professionals.

## **Benefits**

The design-assist process offers several benefits to the owner. First, it brings the subcontractors into the design process earlier — increasing efficiency, providing more accurate pricing, faster construction and better communication.

As a result of this improved communication early on, the overall number of RFIs is reduced and, consequently, there are fewer change orders (i.e., increased costs and project delays). This benefits the project overall, achieving a lower cost, more accurate scheduling and better constructability.

Although the design-assist delivery system could be used on almost any kind of project, large or small, simple or complex, it is best for projects involving complex design or specialty components or systems. Good examples would be hospitals, warehouses with cold storage facilities, wastewater treatment plants and chilled water plants.

In each of these projects, early design collaboration is likely to benefit the entire project. Projects that would not benefit from early design collaboration, such as big-box stores or plain warehouses, would not be ideal for a design-assist approach.

## **Potential Problems**

While the design-assist system offers owners several benefits, there are potential problems as well. These range from higher prices, added costs, lengthier design phase, subcontractor management and, perhaps most important to the author — design liability.

When there is increased collaboration (early on) among the architect, engineers, trade subcontractors and GC/CMAR, project responsibility may become murky. Who is responsible for what aspect of the design? That is the million-dollar question. It is best answered by well-drafted design-assist contract documents. These contracts should spell out precisely the responsibilities of each of the players — often achieved through a responsibility matrix.

This matrix clearly sets forth the roles, obligations and, perhaps most importantly, the deliverables from each member of the design-assist team. Subcontractors do not want to be concerned that their role in the design-assist process could somehow make them liable for design errors and omissions.

It is critical that the contract documents indicate — in crystal clear, unambiguous language — that the design professional maintains sole responsibility for the design of the project as reflected by their signature and seal on the applicable plans and specifications.

In addition, it is very important for the subcontractors involved in design-assist to discuss insurance coverage for the project with their insurance agent. The insurance agent should review the proposed design-assist contract to help the subcontractor determine whether it is appropriate to obtain

a contractor's professional liability policy or an artisan contractor's errors and omissions policy (to name just two examples).

The design-assist project delivery system is still relatively new and evolving. Before any member of the design-assist team undertakes such a project, they should understand their responsibilities and scope of work, make sure their contract documents accurately reflect the same, have these contract documents reviewed by a construction attorney, and address the issue of insurance coverage with their agent.

If diligent subcontractors take these steps before committing to a design-assist project, they will minimize their exposure and overall legal liability.