PHOTOGRAPHY BY MATTHEW ANTROBUS/GETTY IMAGES

all for one

The design-build delivery method is changing the way designers work.

BY LATOYA NELSON

design-build is a rapidly emerging project delivery system

that has the potential to shape the future of the design and building industries. The turnkey delivery system increases flexibility and efficiency in the construction process, which means that design-build is becoming increasingly popular among designers, contractors, builders and building owners.

Most projects constructed in the 20th century followed the design-*bid*-build process. This includes many private projects and nearly all civil projects. In this model, the contractor and designer work separately. The client contracts the designer to complete 100 percent of the design, and the project then is sent to bid. The contractor with the winning bid takes responsibility for construction, the designer is responsible for quality of design and the owner is responsible for managing the process. Many owners have expressed dissatisfaction with design-bid-build over the years, citing overrun budgets and changing orders (alterations of the originally contracted bid) that frequently result from its vertically integrated approach.

The design-build delivery method, on the other hand, is built on an integrated approach. It provides a single contract for design, construction and many times the financing, lease and property management services. This encourages the construction phases of the project to be concurrent and for designers, engineers and architects to become involved with the builder in the beginning of the process. A fixed price is established, and a contractor is selected based not on the lowest bid but on qualifications – or best value selection. Here, the design-builder (the contractor in most cases) is responsible for the architects, engineers and the at-risk contractor. "The single greatest advantage is the time saved in the overall process," says Civil Engineer Thomas Hurley. "And time is money."

MAY THE BEST SYSTEM WIN

In a 2004 study of national project delivery systems conducted by design and construction firm ZweigWhite, the Independent Construction Industry concluded that design-build was "the most economical, efficient project delivery system."

When compared to other traditional methods such as design-bid-build and construction management, design-build was as much as 12 percent faster in construction and 33 percent faster in delivery. Design-build eliminates change orders, thus eliminating the time it takes to complete and approve them. Unlike design-bid-build, where the contractor does not review construction documents until the design is complete, design-build requires the contractor to be involved throughout the entire process. This reduces miscommunication, errors and unexpected claims, leading to a more streamlined delivery.

when compared to other traditional methods, design-build was as much as 12 percent faster in construction and 33 percent faster in delivery.

This process also reduces cost, as evidenced in ZweigWhite's other comparison. In this category, design-build under-bid by as much as 6 percent compared to its counterparts. In fact, 70 percent of the firms surveyed believed that design-build projects were more profitable than traditional projects. "It saves money in that the design-builder can fast-track the construction and purchase materials as soon as design decisions are made," Hurley says. "Under a normal design-bid-build, the contractors have no information about the project until the final Request for Proposal is issued."

THE BIG PICTURE

As with any real-life application, design-build does have its disadvantages. Chief among them is its reliance on performance specifications, which provide the owner with a complete picture of product choices by outlining the positive and negative aspects of those products. The intent is to decrease the time it takes to choose such products, as well as open the door for on-the-spot innovation. Different disciplines may perceive positives and negatives differently, however, which can cause the system to sometimes backfire. A contractor could select a product for its profit margin, for instance, rather than its suitability to the client.

"The faster turn-around is not bad, but it does mean that early decisions made in the pre-planning and programming phases of the project must be accurate and well thought-out," says Washington, D.C., Interior Designer Toni Ayers. "Due to rapid construction schedules involving early structural or site issue, there is little flexibility for changes down the road – even if those changes may have greatly enhanced the project."

WHAT'S NEXT

Regardless of its pros and cons, design-build inevitably will become a part of designers' lives. Many states are passing legislation to regulate and acknowledge this method. "These bills allow for different types of legal arrangements, such as the contractor hiring the architect or designer," says Bruce Goff, IIDA, Principal of Reno Nevada's Bruce Goff Design Group.

This presents an opportunity for design firms to grow by acting as integrated design-build firms. To capitalize on the change, design firms must position themselves as leaders, taking on greater risk and obtaining contractor and architectural licenses within the organization. They must qualify for additional insurance, such as general liability and worker's compensation, garner performance and payment bonding and possibly beef up employment and equipment. This will increase overall operating expenses, but – if managed correctly – could also increase revenues and projects.

Even amid all of these imperatives, designers' biggest challenge will be to develop new skill sets: in business administration, marketing, estimating, scheduling and construction logistics. In the end, it's for the benefit of the industry's integrity, creativity and continued growth. "For designers it is a great thing," Goff says. "The lead times are shorter, the end dates never change, and we can be retained by a contractor in states where we don't have the legal right to work on projects."

See p. 50 for a CEU exercise on design-build.

design-build DNA

Design-build contracts typically consist of any the following alignments:

- Integrated design-build firm: in-house architect/interior designer/engineer/contractor
- Design-build joint venture: architect firm/engineer firm/interior design firm/general contractor
- Architect/engineer as prime contractor and general contractor as sub contractor
- General contractor as prime contractor and architect/engineer as sub contractor

IIDA ceu

all for one

Adapted as an exercise by Heather Jakusz, Director of Education and Professional Development

exercise:

1) What are some of the significant pros and cons of the:
   a. design-bid-build process?
   b. design-build process?

2) Is the design-build method better suited for certain specific areas of interior design (residential, government, healthcare, etc.) than others? Which areas, and why?

3) How do you think the industry's push toward this method will affect smaller design firms that do not already employ architects and contractors?

4) Will the change in competition hinder or enhance creativity in the industry? Why?

instructions:

Individuals who read this article and complete the series of questions above are eligible to receive continuing education credit (CEU), as approved by IIDA. Completed exercises should be returned to IIDA via:

mail IIDA Education Department c/o PERSPECTIVE CEUs
13-500 Merchandise Mart
Chicago, IL 60654-1104 USA

fax IIDA Education Department
C/O PERSPECTIVE CEUs
312.467.0779

e-mail ceu@iida.org

There is a $12 NCIDQ registration fee to register and obtain CEU credit.

This course has been approved for 1 hour of continuing education credit (0.1 CEU). Upon returning a completed exercise to IIDA, registration information will be forwarded to you. If you have any questions, contact the IIDA Education Department at 312.467.1950 or toll-free at 888.799.IIDA.