The design-build method of project delivery, where owners enter into a single contract with an entity responsible for both designing and constructing a project, dates back to the construction of the earliest and most famous structures in human history.

Throughout the millennia, up until only a few hundred years ago, virtually every project was built as a design-build project. In New York, this includes the Brooklyn Bridge and most of the New York City Subway System.

However, while design-build has been around for a long time, it has not been a popular mode of project delivery for the private sector in the last century. In recent times, it was used by the federal government after World War II and it has slowly been working its way back into the private sector.

As with many things, what was once old is suddenly relatively new again. Today, design-build is seen as an emerging new trend, a modern option for owners seeking viable alternatives to the “traditional” concept of design-bid-build, where separate design professionals are contractually responsible for design, and construction contractors have independent responsibility for construction.

The use of design-build project delivery has been hampered by state laws and professional ethical rules, but recent legislation in New York may drastically increase the potential for design-build in the public sector.

**Design-Build Legislation**

For the past several decades, New York design-build has enjoyed increased, yet limited, use and acceptance. Wick’s Laws requiring separate general contracts for plumbing, heating, ventilation and air conditioning, and electrical work, and other laws have restricted the use of design-build in New York.

Further, the New York State Education Department, which oversees the professions of engineering and architecture, has taken the position that design-build is not legally permissible in New York. In contrast, the New York Court of Appeals, the highest court in the state, has opined that design-build is legal in New York under certain conditions.

With regard to certain public projects, the law in New York has been changed with the passage of the 2011 New York Works Infrastructure Fund Act. Signed into law by Gov. Andrew Cuomo in December 2011, the Infrastructure Fund Act represents a significant legislative expansion of design-build’s availability.

Under this innovative legislation, authorization to utilize design-build for projects was granted to a limited number of state agencies for transportation and infrastructure projects. Subsequently, the governor’s proposed budget for 2013-2014 hopes to further expand the design-build system and make it available to virtually all New York state agencies, excepting only the New York city and state universities.

The new budget will also expand use of the design-build-finance system, where a single contract for the design, construction and financing of a project is executed with another entity. Of course, the impetus for this shift, as with most construction innovations, is purely economic.

There is a good argument that for certain types of construction projects, the design-build project delivery system allows for significant savings. Those savings come with other potential risks and so anyone contemplating design-build should be aware of the benefits as well as the disadvantages.

**Advantages of Design-Build**

The claimed advantages of design-build generally, and not just for public projects, are several and include:

### Cost and Quality Control

The proponents of design-build claim that it reduces costs for the owner, who does not need to provide a full set of biddable documents for the contractors bidding on a project. Furthermore, the proponents claim design-build saves time and money for owners by shifting the risk and amount of design error claims and construction cost overruns to the design-build team.

### Single Point of Contact

The proponents of design-build claim that its contracts streamline communication by creating a single point of contact between owners and design-builders. The proponents claim this reduces
headaches for owners who would otherwise find themselves in the middle of designer and contractor back-and-forth, while also allowing the contractors and their design professionals to work out their issues directly.

Additionally, it is argued, a single point of contact between owners and designer-builders reduces warranty gaps and can help substantially reduce the threat of potential liability against owners.

**Faster Completion Times**

Design-build provides crucial time-saving measures — an especially important consideration for transportation, bridge and thruway projects, but clearly a benefit for any project. Design-build projects are built with “overlap,” allowing simultaneous design and construction, without losing time submitting and reworking plans for builders.

The Design-Build Institute of America claims that the incorporation of design-build project delivery will reduce the construction time of major infrastructure projects by nine to 12 months. On average, design-build projects may be completed 33 percent faster than projects utilizing other methods of project delivery.

**Greater Innovation and Flexibility**

Proponents also argue that by making a single entity responsible for the design and construction of a project, design-build affords that entity more room for innovation and creativity in planning a project — after all, the designer will be well familiar with both the possibilities and limitations of constructing its design.

**Disadvantages of Design-Build**

The potential disadvantages of design-build are also several and they include:

**Loss of Quality Design**

The argument here is obvious to those who are not proponents of design-build. In the design-build model, due to financial realities, most often it is the contractor who heads the design-build entity. The contractors are not motivated by design but by building something in such a fashion as to maximize profits. In essence, building something faster and at low-cost. That approach is often inconsistent with high-quality design and hence the design-build model may not be the best choice when there is a premium placed on quality of design.

**Loss of Independent Overview of the Project**

One of the prime functions of the design team during the construction phase of a project is the role that the designers play in checking the overall construction quality for adherence to the design intent of the design team for the ultimate benefit of the owner and the project. If the design team is retained by the contractors, won’t this inhibit the ability of the designers to perform this vital function? That is one of the issues.

**General Diminution in Quality**

Similarly, if the contractors are motivated by profit, they may be relatively unchecked by the design-build team whom they retain in the design-build project delivery scheme. Isn’t it logical to assume that when quality issues conflict with cost issues for the contractors, then cost concerns will tend to outweigh quality concerns, especially where the design team will be somewhat constrained when weighing in as a counterbalance to cost over quality.

**Conclusion**

In a departure from past adherence to the “traditional” design-bid-build method, New York seems poised to fully accept design-build as a viable alternative project delivery method. Especially in the aftermath of Hurricane Sandy, the quick and efficient rehabilitation of New York’s transportation arteries is paramount — and design-build may provide a more cost-effective method on public projects (from a cost perspective).

However, design-build comes at a cost, which must be appreciated and factored into any decision to use this project delivery method. ■

Thomas O’Neill, Summer Associate, contributed to this article.

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