WATER DESIGN-BUILD COUNCIL

Facilitating productive and collaborative relationships
between service providers and owners

STATES' USE OF PROGRESSIVE DESIGN-BUILD FOR WATER PROJECTS IN THE U.S. HAS DOUBLED SINCE 2012

Linda Hanifin Bonner, Ph.D, CAE
Executive Manager, Water Design-Build Council[1]

In 2012 the Water Design-Build Council produced a new **Procurement Guide for Progressive Design-Build Projects** for use by the water industry for infrastructure projects. The WDBC also released the findings of a separate research study reporting that legislative statutes in 13 key states randomly selected throughout the United States were a serious impediment to furthering the use of progressive design-build as a delivery method for water and wastewater infrastructure projects.

The 2012 study also examined whether or not the enabling legislation in these states allowed progressive design-build projects to occur for water projects sufficiently, as compared to other public works programs.

An important result from the study was the understanding that controlling principles of state legislation affecting the overall use of design-build project delivery also attributed to the various nuances and inconsistencies in language that precluded the use of progressive design-build delivery.

The results of the Water Design-Build Council's 2014 study show the legislation in those same states permitting the use of progressive-design-build have changed dramatically in just two years.

All of the states revisited in the 2014 study – as well as others researched in the newer study – show that legislation not only now exists, but is continuing to change throughout the United States that permits municipal governments and entities to use progressive design-build delivery for water infrastructure projects.

WHAT IS DESIGN-BUILD?

"Design-build" is the overall description for the use of a collaborative approach that allows state and municipal agencies to contract with a single entity for both the design and construction of its water or wastewater infrastructure projects.

The Water Design-Build Council's 2012 Customer Satisfaction Survey found that using a design-build delivery method is more efficient, as it streamlines an agency's procurement process and establishes stronger communication between agencies and contractors. In addition, an overall project control point established through the use of progressive design-build. The results are significant cost savings, reduced timelines and quality project outcomes.

Under the design-build delivery method, the municipality or water agency contracts with one design-build firm, which serves as a single point of accountability – from initial design through construction delivery and performance testing. This contracting process also clarifies who assumes the risks of errors and significantly minimizes the likelihood of costly change orders – this is usually the result of either the design firm's errors or omissions, or the contractor's misinterpretation of design documents. The state or local water agency has two basic approaches to use for design-build in terms of the procurement and contracting processes: the fixed-price model and the progressive model.

www.waterdesignbuild.com
lhanifin@waterdesignbuild.org | phughes@waterdesignbuild.org
(410) 798-0842 | PO Box 1924, Edgewater, MD 21037

Of the states examined, the following all now have major water infrastructure projects underway using progressive design-build delivery:

- **Arizona**
- **Colorado**
- **Florida**
- **Georgia**
- **Illinois**
- **Indiana**
- **Maryland**
- **New York**
- **North Carolina**
- **Ohio**
- **South Carolina**
- **Tennessee**
- **Texas**
- **Virginia**
- **Washington**

As this study for the Water Design-Build Council was being completed by the Denver law firm of Polsinelli, the state of California passed legislation enabling the use of design-build, as well. However, the legislation in its current form may incur some limitations in jurisdictions desiring to pursue various forms of water infrastructure projects.

According to the Polsinelli's project manager, Elizabeth Phillips, there are nuances within the California law that affect the use of progressive design-build for different water infrastructure projects.

> ***"Local agencies may use design-build for the construction of county sanitation wastewater treatment facilities, regional and local wastewater treatment facilities, solid waste facilities, and water recycling facilities. These projects do not include the construction of water resource facilities and infrastructure, and therefore do not appear to include water treatment, such as desalination.***
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> ***With respect to whether the legislation authorizes progressive design-build or requires a fixed price, the legislation authorizes a two-stage selection process where agencies may short list design-build entities based on qualifications and then issue RFPs to those qualified entities. The legislation permits agencies to award the design-build contract based on either low bid or best value. If low bid selection method is used, a lump sum bid is required.***
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> ***However, if the best value selection method is used, then a lump sum bid is not required and the contract is awarded to the design-build entity offering the best value to the public. Under the best value selection method, the procuring agency must consider price – unless a stipulated sum is specified – but the agency can determine how much weight to give the price and the legislation expressly provides that the contract may be awarded based on a tradeoff between price and other specified factors. In addition, local agencies may request proposal revisions and hold discussions and negotiations with entities submitting proposals.***

The California legislation does not discuss modifications to contracts or to estimated costs. It is possible that the state could enact rules or regulations that provide more guidance on those issues."

These findings also show a dramatic increase in the past two years in state legislation to permit the use of progressive design-build due to the collaborative advantages the process offers.

The use of progressive design-build for utility and agency water infrastructure projects facilitates a strong collaborative procurement and delivery approach, in which the owner selects the design-builder primarily on qualifications. Then, on a contractual basis, the owner authorizes the firm to proceed with preliminary design and other preconstruction services. The advantage is that a water utility management team can evaluate a broad spectrum of decisions for innovative solutions to use advanced technology with the design-builder during design and preconstruction period of the project.

More importantly, in a collaborative setting with the design-builder, the project team is able to make informed and timely decisions regarding design concepts, technology selections, quality of materials and other important factors that ultimately have the most impact on the overall cost of the project. Previously, because of older regulations established by state governments, the use of progressive design-build faced increased challenges.

CONCLUSION

What does this information mean to municipalities and agencies that want to use progressive design-build as a project delivery method? It means that because of the demonstrated strengths in the collaborative process that use in progressive design-build has become more widely accepted. Further, it reinforces the premise that design-build delivery for the water infrastructure is no longer an "alternative" method.

At the same time, owners and municipal agencies need to consult with their own counsel to determine their level of authority and the applicable rules for their procurement process. The Water Design-Build Council can provide general information and guidance, but overall municipal and special district owners must take it upon themselves to know their own regulatory statutes and level of authority.

[1] *The Water Design-Build Council is a nonprofit education organization whose mission is education in the development and rehabilitation of the water and wastewater infrastructure through the use of design-build delivery methods. WDBC headquarters are located in Edgewater, MD.*