

## PROCUREMENT TRENDS

# Design-build sheds its 'alternative' status as client uptake advances to the next level

A steady rise in the proportion of US water projects procured using design-build delivery has gone hand in hand with a trend towards increased collaboration between client and contractor. Who are the real winners in this evolving market segment?

The first in-depth report into the design-build market for water and wastewater projects in the US – published earlier this month by the Water Design-Build Council – forecasts that design-build will account for 11% of total project spending in the sector by 2021, up from 9% in 2016.

This equates to an annual projected spend of \$9 billion, with advanced wastewater treatment projects set to dominate the mix, as clients look for greater levels of risk transfer on increasingly complex projects, whilst frequently facing ambitious delivery timetables driven by regulatory deadlines.

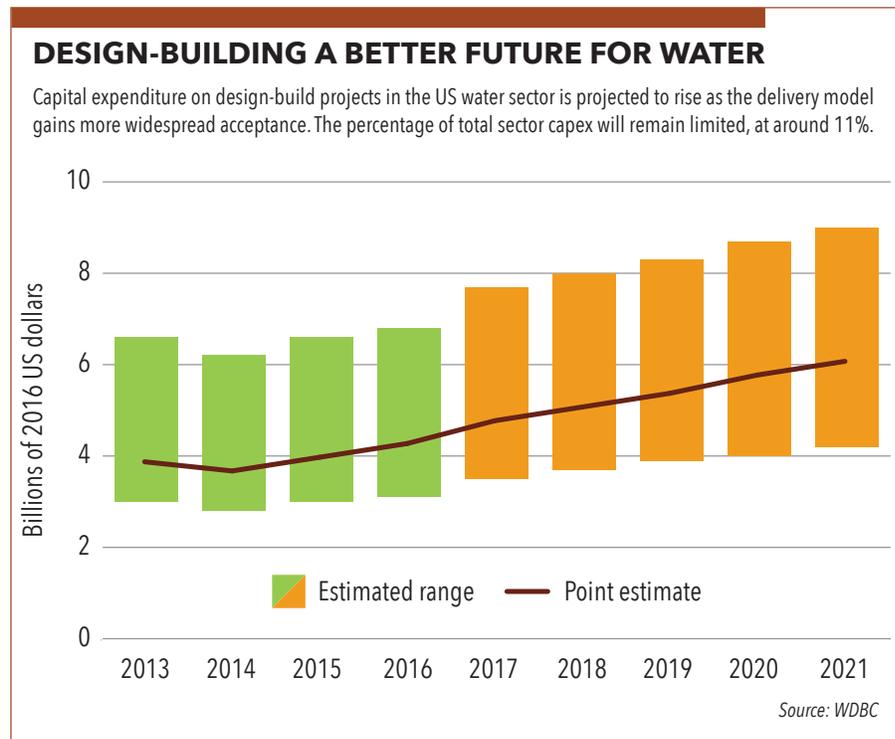
Cultural inertia, and the consequent need to educate clients about the advantages of the procurement method, remains the single largest impediment to the more widespread adoption of design-build delivery, although the report's authors believe there is significant justification for doing away with its 'alternative delivery' tag.

"I think we've reached a tipping point," said Steve Gates, a senior vice president at Brown and Caldwell who also serves as first vice president of the WDBC. "Conversations ten years ago with stakeholders would be along the lines of: 'here's something new to think about,' and the question on the other side of the table was, 'why?'. Now the question on the other side of the table is, 'how?'"

With the annual run rate of water and wastewater projects contracted in the US using design-build delivery now consistently above 100, more and more clients are looking to streamline the delivery of their infrastructure by procuring services from a single provider.

"The three things that owners are looking for with design-build are cost, risk and delivery time advantages," explained Ken Rubin of Rubin Mallows Worldwide, which carried out the research on behalf of the WDBC, together with the University of North Carolina.

"We've wrung about as much environmental improvement as we can out of the system at low cost, and the next increment of advancement is orders of magnitude



more expensive per unit of environmental quality achieved. Markets naturally tend to look for more efficient solutions under these circumstances, and that has resulted in a greater uptake of projects delivered through alternatives to design-bid-build."

Gates also cited pent-up demand for infrastructure investment as an additional driver for choosing design-build, as public authorities look to reduce their risk exposure and play catch-up after the drop in spending precipitated by the Great Recession. "There is a recognition by sophisticated owners that the design-build method manages project risk more effectively, and design-build has consistently and routinely demonstrated that delivery schedules can be expedited," he told GWI.

### Progressive or regressive?

The data collected for the report includes projects delivered using "progressive" design-build procurement, which does not

guarantee a fixed price from the outset, but relies on a more collaborative approach in which the client is more closely involved in the design process.

"With only a relatively small number of owners willing to give up the responsibility for operations, progressive design-build allows a much greater opportunity for owner engagement in the details of design and construction, so they end up with something that they are comfortable owning and operating," Gates explained. "That is an important driver for owners to move in the direction of progressive design-build."

"It's a method that brings out the best in design-build, and the best aspect of design-build is collaboration. In a fixed-price setting, there's more opportunity for arguments, whereas in progressive, you're working together on every last detail of the design, and there's a much lower probability that there will be a misalignment between the expectations of the owner ►

and what's provided by the design-builder," he explained.

### Upside down

While the collaborative nature of progressive design-build has the potential to wring out additional risk factors from a project, the corollary of this is that it reduces the upside potential for contractors.

"In a fixed-price setting, if the design-builder manages a risk and that risk's not realised, the project profit can increase. With progressive design-build, the owner and design-builder collaborate to wring risk out of the project and assign responsibility to the party best able to manage each risk. As a result, project costs are more predictable, but that provides less upside profit potential to the design-builder. Generally speaking, there's less downside risk to the design-builder and the owner with progressive, but there can also be less upside."

Progressive design-build can also mean that the client may end up paying above the odds versus a traditional fixed-price DB contract, although Gates argues that this need not affect levels of client satisfaction.

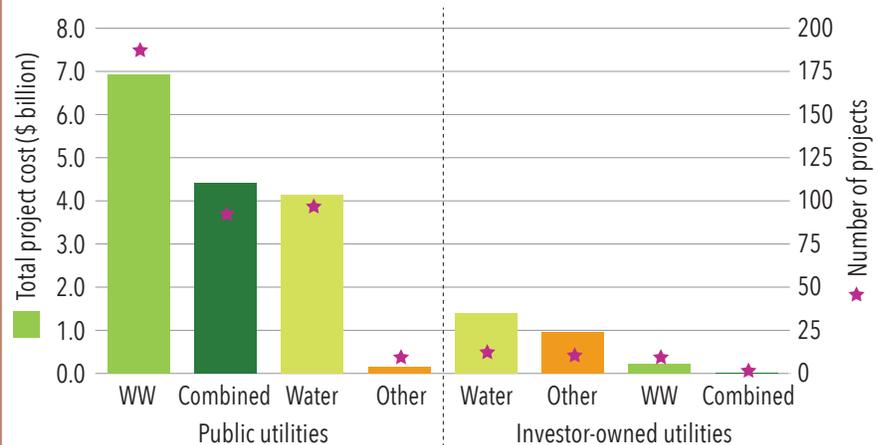
"Some owners worry that they might lose cost leverage with progressive design-build because the cost of work is negoti-

ated, not publicly bid. Best practice for progressive design-build requires all material and equipment to be competitively procured from pre-qualified sources, with no opportunity for hidden costs," he explained.

"Owners we know who have completed progressive design-build contracts generally believe the inherent collaboration among all parties got them exactly the project they wanted, at a fair price." ■

## US WATER DESIGN-BUILD PROJECT ACTIVITY (2013-2016)

Advanced wastewater treatment projects have accounted for the lion's share of the capital outlay for design-build projects in the last four years. Increased project complexity means this trend is likely to continue.



Source: WDBC

## WATER P3S

# Getting collaborative about P3 delivery in water

Introducing a progressive element into the delivery of P3 projects in the water sector could stimulate more deal flow by offering clients a greater say in a project's outcome. The concept is not popular with everyone.

The concept of introducing a progressive element into privately financed water projects in the US is beginning to gain traction, as players look for new ways to convince public sector officials about the benefits of the delivery model.

Although there is no precedent of a US water P3 being delivered using a progressive design-build model, an increasingly collaborative approach on projects in other spheres of social infrastructure, such as the Long Beach Civic Center and the US Merced 2020 Project, has resulted in optimised projects with lower budgets – and happier clients.

"I think the day of the hard-bid P3 is over, at least in water and wastewater, and we've been really encouraging cities to consider a progressive approach to P3," said Megan Matson, a partner at Table Rock Capital, which financed the municipal water and wastewater concession in

Rialto, California.

"What is really appealing to people is having a qualifications-based selection at the front end, and then having the team in the room with all the technical expertise of both the existing public sector leadership and the P3 team, and then working out, over time, the best possible technical and financial solution, before the final go/no-go decision is made by the council. It's the classic progressive design-build format, but with the P3 overlay," she explained.

Embedding a progressive design-build procurement strategy into an existing concession has already paid dividends in Rialto, Matson argues. "We have a progressive design-build within the Rialto concession, and it's really worked," she told us. "The city came into the concession with a concept for the major plant upgrade, but it just wasn't a solution that fit. The AECOM/Lyles team reconfigured it to hit the same performance outcomes, but through plant

consolidation, reducing the budget from \$46 million down to well below \$30 million, and with significant annual cost savings in the operations that dropped straight back through to the city."

The greater level of involvement by city staff in a progressive process can also lessen some of the initial trepidation around what is frequently an unfamiliar delivery method.

"I think the progressive model is a great model. It allows for increased communication and collaboration every step of the way, and it also allows cities and utilities some level of comfort, as there are off-ramps," said Francesca McCann, business development director at Infrastructure Management Group, part of Black & Veatch. "I think it will help move P3 forward, and from the conversations we've had around it, there has been greater receptivity, because it decreases the fear a little bit," she told GWI. ■