



OHIO DEPARTMENT OF TRANSPORTATION

District 12

ODOT's Design-Build Construction Plan Capitalizing on Time, Quality, Innovation, and Cost Saving Benefits for Ohio

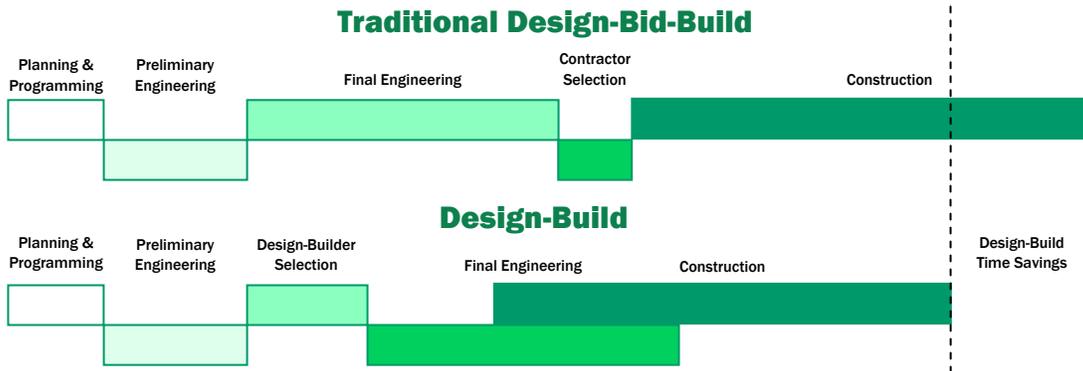
Across the country, the use of design-build construction planning has been steadily increasing since the early 1980s, and has gained great acceptance on state and federal transportation projects - ranging from new highways to major bridge reconstructions - since the mid-1990s. The U.S. Department of Transportation and the Federal Highway Administration (FHWA) have approved and funded hundreds of design-build projects since 1990, offering states a fully recognized highway project delivery alternative.

Simply put, design-build project delivery combines the design and construction of a project in one competitively-bid contract.

For the majority of traditional highway and bridge projects in Ohio, ODOT still believes a standard design-bid-build construction plan continues to offer the best methods for delivering projects, especially smaller, conventional projects (maintenance and rehabilitation projects). However, the ability for ODOT to expand its use of a design-build approach would allow the state to capitalize on improved project timing, reduced costs, clear quality control and enhanced innovation opportunities. By using a "best-value" procurement process, ODOT will also be able to ensure a fair, transparent process which delivers the greatest return on taxpayer investment.

Improving Project Timing

Design-build construction typically yields an overall shorter delivery of a project to the public due to the overlapping of design and construction activities. The overlapping also reduces the likelihood of project delays, as construction work is on-going. Under FHWA's approved process, the Florida DOT found a 37% time-savings on its design-build projects. The American Association of Highway and State Transportation Officials (AASHTO) endorses design-build construction as well-established method of project delivery.



Reducing Project Costs

With projects built in a shorter time frame, the costs for construction are typically lower, due in part to avoiding increased construction cost inflation. Over the past four years, ODOT has seen a 44% compounded increase in construction cost inflation. By reducing a project time, even by one construction season, the state could see a reduced overall cost. Also in a design-build project, the total cost of a project is set earlier in the development process, offering greater flexibility to reduce costs by implementing changes in the design, even while construction is ongoing.

Since a design team is charged with developing plans for a specific contractor, they can design to the contractors strengths, expertise and equipment, which will reduce time and costs.

Demanding Clear Quality Control

Design-build projects must follow the same design standards, manuals, and guidelines used by FHWA and ODOT. The design-build process does not skip any of the state or federally-required steps, including important environmental, oversight, and public involvement processes. By using a "best-value" procurement process, designers can be rewarded for designing and constructing projects that are above minimum standards and often make choices that increase the value of a project without increasing the cost.

Enhancing Innovation Opportunities

Inherent to the design-build process is the early involvement of the contractor. Interjecting contractor knowledge early into design can foster creative engineering and construction solutions. Perhaps the largest opportunity for innovation on design-build is in the staging of construction and the maintenance of traffic. Design-build projects have the great ability to lessen the impact on the traveling public by shortening overall project and construction schedules.

Ensuring a Fair and Transparent Process

ODOT's design-build procurement process must be a fair and equitable system that gives the department a logical method to establish which proposals have the highest probability of successfully completing a project at the most favorable overall cost, highest quality, and greatest return on taxpayer investment.

Prequalification: All consultants and contractors must go through the process of becoming prequalified with the department. This is accomplished through applying to ODOT's offices of Consultant Services and Contracts. The requirements for the various areas of prequalification vary greatly based on the type of prequalification. Contractors and consultants that will design and construct ODOT projects would be required to be on these lists regardless of Ohio choosing to utilize design-build or the traditional design-bid-build process.

Business Diversity: The advent of design-build delivery has raised concerns that small firms may be unable to participate on design-build teams, particularly as a prime contractor, due to the increased scope and scale of these contracts. However, national surveys indicate that the percentage of design-build project funds going to small businesses was about the same on average as for traditional design-bid-build projects. These results suggest that small businesses were not disadvantaged, and that design-build contracts spread more of the design work among sub-consultants than comparable design-bid-build contracts, which should be a positive feature for small business enterprises.

Best-Value Procurement: A "best-value" procurement process would allow the department to select and award projects to a design-build team based on several factors including qualifications of the design-build team, overall project cost, project delivery timing and impact to traveling public, quality of proposal and work, and proposed design alternatives. In contrast to the current design-build procurement process which awards contracts based solely on a quantitative process (lowest bid), the proposed "best-value" procurement process will ensure the greatest return on taxpayer investment while still maintaining cost controls and high quality standards.

Traditional Design-Bid-Build Procurement

Design Work
awarded 100% on
Qualitative Selection Process

Build/Construction Work
awarded 100% on
Quantitative Selection Process
(lowest bid)

Current Design-Build Procurement

Design and Build/Construction
awarded 100% on
Quantitative Selection Process
(lowest bid)

Best Value Design-Build Procurement (proposed)

Design and Build/Construction
awarded on combined
Qualitative and Quantitative
Selection Process

Scoring Includes:

- Design-Build Team Qualifications
- Overall Project Cost
- Time - Project Delivery and Impact to Traveling Public
- Quality
- Design Alternatives