# **Advantages of Design-Build vs. Design-Bid-Build**



Choosing the project delivery method is one of the most important decisions clients/owners and developers make on building projects. The two most common delivery methods — design-build and design-bid-build — offer different relationships and levels of accountability.

Client/owners can significantly increase the value of their project by understanding the differences and risks involved and making the right choice to meet their goals.

## **Design-Bid-Build**

Design-bid-build is the "traditional" method of project delivery, and follows a very linear path.

In the design phase, the client/owner contracts with a firm or consultant to design the building. Once the design is final, the client/owner gets bids from general contractors, and the build phase begins. The three phases are consecutive – they are completed independently by separate entities. The client/owner must manage separate contracts and complete each phase before the next one begins. During construction, change orders and surprises can cause issues between the designer and contractor. These can lead to cost overruns, schedule delays and even litigation.

# **Design-Build**

Opus' founder Gerry Rauenhorst observed these disconnects more than 60 years ago. Rauenhorst knew there had to be a better way. He decided to hire architects, engineers, designers and contractors all under one roof. He made them employees of his company, so they were all working as one team toward the same goals and on the same projects from beginning to end. Rauenhorst made formerly independent functions dependent upon each other, pioneering the design-build project delivery method.

With design-build, the client/owner signs one contract with one firm to manage design and construction. There is one single point of responsibility, and there are no hand-offs from one firm to another.

Design-build is more fluid and collaborative than design-bid-build, and that yields better results.

Decades of research consistently show the benefits of design-build compared to design-bid-build, including the following from the <u>Design-Build Institute of America<sup>1</sup></u>:

- 102% faster
- 3.8% lower growth in costs
- 36% faster construction speed
- 1.7% less growth in schedule

Design-build is the fastest-growing, most popular delivery system in the United States.

Opus' design-build model brings more value to clients by delivering better quality buildings faster while minimizing costs. With significant time and effort spent upfront by all necessary parties collaborating to ensure the design is accurate, change orders and surprises inherent to the construction process are eliminated (unless the client changes the project's scope), making the initial bid more accurate.





"As a design-builder, we have the ability to manage the design process in tandem with cost, schedule and quality expectations to deliver the desired result," said Jeff Smith, Regional Vice President of Construction for Opus. "When you split up the team, you lose the ability to influence both the design and construction operations in the same way."

Decades of design-build expertise positively impact every Opus project, including Jules on 3rd and Bosch Automotive Service Solutions.

## Jules on 3rd

Located in fast-growing Boise, Idaho, <u>Jules on 3rd<sup>2</sup></u> is an upscale, eightstory, multifamily building with 173 units and covered interior parking. The developer originally chose the design-bid-build model. When the project went significantly over budget and the general contractor wouldn't guarantee the price, the developer asked Opus to take over.

"We became the architect and structural engineer of record and contractor on the project," said Smith. "We worked with the original design concept but incorporated refinements that added value, saved the developer over \$1 million and reduced the construction timeline."

Opus was able to turn the building over for leasing six weeks early. Several tactics were involved.

Opus started by optimizing the building's structural concrete frame by rightsizing the footings and eliminating multiple unnecessary concrete beams and rebar mats.

Opus architects also changed the framing scheme to accommodate wood trusses for framing the floor. It simplified wall construction and enhanced the design aesthetic for the apartments by allowing mechanical and electrical services to be routed in the cavity space instead of being exposed. The truss system not only saved money, but also streamlined installation of the mechanical, electrical and plumbing (MEP) systems.

Opus designed electrical panels to meet the needs of each apartment unit instead of a one-size-fits-all approach and selected cost-efficient lights and electrical devices throughout the building to enhance the design aesthetic at a reduced cost.



And in lieu of component-built balconies, Opus further reduced costs by using pre-manufactured balconies.

"Our design-build process is built around helping our clients make informed decisions," said Smith. "Whatever the client's goals are – be it a fast schedule, low price, high-end design, super-efficient MEP systems, or something else our process is built to deliver on those goals."

### **Bosch Automotive Service Solutions**

With growth on the horizon, <u>Bosch Automotive Service Solutions</u><sup>3</sup> enlisted Opus to deliver a 265,824-square-foot, build-to-suit warehouse and distribution center in Owatonna, Minn.

Bosch was on a very tight timeline and needed the building in less than 10 months. As developer, design-builder and architect, Opus expedited the process, completing the building exactly as required in just nine months, despite an unstable environment amidst the pandemic.

THE OPUS ADVANTAGE DESIGN-BUILD: Bosch Project

In the design-build model, the phases of design are more compressed and overlap to maximize efficiency and effectiveness.



DESIGN - BID - BUILD: Bosch Pr

In the traditional model, hand-offs between the different firms take more time and require more time managing the various firms and contracts.





"We signed a construction contract on July 31, 2020, and Bosch took occupancy April 15, 2021," said Michael Anthony, Project Executive for Opus. "In just nine months, we designed and built a nearly 300,000-square-foot, customized turn-key production facility for them. Had it been a design-bid-build scenario, the project would have taken well over a year."

Constant collaboration and dialog were key to meeting the compressed schedule.

"We all work together from project to project and that makes all the difference," Anthony said. "When issues arise, we get answers immediately. We don't have to wait days or even weeks for another firm to respond like they do in the design-bid-build world. We can simply pick up the phone or walk down the hall to resolve the issue immediately."

"Flexibility for sequencing activities was also important. We knew there wouldn't be a lot of time in the spring to complete site activities before we needed to deliver the building. So, we poured concrete way ahead of schedule – before winter and before the building was even set. We put what was typically at the end of the project at the beginning to ensure we could meet the delivery date."



Research conducted in 2018 by the <u>Construction Industry Institute</u> supported benchmark research they conducted 20 years ago showing that design-build projects consistently deliver projects more efficiently.

**The bottom line?** Design-build projects continue to deliver faster with improved value and greater reliability with regard to cost and schedule performance, even as projects have evolved in complexity through multiple economic cycles over the past two decades.

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