

# **New Construction Strategies Radio Interview With John Giachino**

**President of DBIA Florida Chapter & Principal of Boyle Engineering**

Welcome to New Construction Strategies. I'm your host Ted Garrison. Today, I'm visiting with John Giachino. He's the President of the Florida Chapter of the Design Build Institute of America and a principle in Boyle Engineering Corporation. Welcome, John.

- 1) Since everyone in the industry seems to have their own name for various processes, would you please explain what you mean by a Qualification Based Selection Process with two distinct steps?**

First I want to point out that what I'm talking about today is not the two-phased Federal Acquisition Regulation (FAR) Qualification Based Selection (QBS) Design-Build (DB) process.

Before I get into it, let me start by defining design-build. DB is a method of project delivery in which the owner executes a single contract with one entity to provide architectural engineering or design and construction services. The KEY to DB project delivery is summarized in three thoughts – collaboration, communication and a single source of responsibility. Conventional Design-Bid-Build (DBB) delivery does not provide for these three concepts to play effectively into project delivery.

Since the 1940s, the private sector has successfully used DB in the US for a range of projects, including industrial plants, hospitals, office buildings, retail centers, hotels, etc. The public sector, while still predominantly using DBB delivery, now uses DB for public housing, educational facilities, infrastructure including roads, water and wastewater utilities, public recreation facilities and a host of other projects. Here in Florida, in a single twelve-month period, public sector agencies issued RFQs for more than 200 projects using the design-build approach. However, I should point out that a few states do not recognize and allow public owners to use the DB delivery method. My organization, the Design-Build Institute of America, is working hard to enable legislation in these states and make the DB delivery method easier in yet other states that do allow DB in the public sector with some constraints, such as allowing for QBS processes.

Let me differentiate the process you are asking about from the two-phased process most are familiar with as defined in the FAR.

Using the FAR process, phase 1 provides for solicitation of proposals presenting technical approach, qualifications, specialized experience, capability to perform, past performance and other appropriate factors. A short list is determined from these submittals.

Phase 2 submittals typically include technical and price proposals, which are evaluated separately. Weighting factors are often prescribed between elements of the technical and price proposals. The preferred design-builder is the firm that scores the highest combined score on technical approach and price. So, in a sense, really what we have is competitively bid DB, which can fall short of reaching all of the owner's expectations and also shapes the relationship between the owner and design builder. It does provide for forward pricing and early transfer of cost risk.

This procedure is attractive to public owners who often feel they have a fiduciary responsibility to include cost as a competitive element. As I just mentioned, this process allows for early cost recognition but may detract from the primary focus of obtaining the services of a high performing contractor that can offer innovative solutions and can deliver a high quality result.

Now let me describe the two-Phased QBS DB process I am talking about. This process allows the owner to first focus on selecting a high performing contractor who is offering innovative solutions and has the demonstrated ability to deliver a high quality result using an experienced project team. The design builder determined by the owner to be best suited is selected and a single contract for design and construction is negotiated. In two-phased DB, the contract has two distinct phases with corresponding prices – one phase for design and another for construction. Or separate contracts can be negotiated for each phase.

The design builder designs the project with the owner's input during the first phase of the project. The project is built during the second phase.

I might point out that the two-Phased QBS design-build process I'm talking about is being used today. In 2001, Barry Molar, Manager of the Airports Financial Assistance division of the US DOT Federal Aviation Authority piloted the two-phased QBS DB process. Seven projects were constructed under the pilot program: two of note were a taxiway at Atlanta's Hartsfield Airport and a people mover at Orlando's airport.

**Follow up question: We often hear the term Performance Based bidding. Would you please explain the difference between Qualification based and performance based including what you mean by performance? (If you miss something I will ask a further follow up question.**

Let's separate the means by which an owner selects a design-builder from the manner in which the owner specifies and then measures contractor performance.

I have just described a couple of approaches that owners can use to select the preferred provider. QBS is one of these approaches.

Now aside from the selection process but part of the project basis is the manner in which the owner specifies the intended project result. A performance-based project specification can be a highly prescriptive one – one that we are all familiar with – in which the owner provides a design criteria package or a bridging document. This criteria or bridging document specifies exactly what is to be built.

Performance-based specifications can also leave the final solution to the design builder. In this approach, what I call the “black box solution”, the owner provides certain less prescriptive requirements. Let me use an example. Let’s say the owner needs a water treatment plant. The project’s performance-based specification could be to build a plant that treats raw water of a certain quality to produce a treated water of a certain quality and quantity. The solution is left up to the design builder as long as it meets the “black box” performance criteria.

I should point out that the black box solution couldn’t be used in every project situation. It works with a water plant, but doesn’t work with projects that are “aesthetic” in nature. As an example, you probably wouldn’t use the black box approach to build a high rise condo or 20 miles of four-lane highway. A very prescriptive spec is necessary in such projects.

Both the FAR two-phased QBS DB approach or the approach I’ve just described where design is considered the first phase and construction the second can be based on prescriptive or performance-based specifications.

## **2) So what are the benefits of this approach for the client?**

Well, let’s see.

It’s easier to select high performing design builders.

The owner has better control over the delivery process.

This approach provides for the most collaborative and communicative DB project.

One thing an owner pays for when using DB is an innovative solution. When using black box performance based specs the approach provides for innovation and brings the design builder’s experience into full play, which should result in the owner being able to focus on innovation while yet remaining watchful of project cost.

Let me address the cost issue, which is ever present in the owners’ minds. My experience is that basically, a one million dollar solution is a one million dollar solution. When design builders come up with the same solution, then cost is really removed from the competitive process since contractor A’s bid will be very close to contractor’ B’s bid. Here’s an example.

A public agency in the Florida Keys issued a RFQ for design-build of a centralized wastewater system. The agency requested proposals from several design builders that it short listed from the prequalification stage. The RFP, which required separate technical and price proposals, was highly prescriptive. So, at the end of the day, the basis of the two proposals received by the agency basically contemplated the same solution. The agency changed some of the design criteria during the proposal process but once again the two proponents that submitted proposals were offering the same solution. The two prices came back within two percent of one another on a \$180 million dollar DB project. It's not often that this close range is matched in DBB projects. So there is value to using highly prescriptive specs in DB projects.

Now, in a negotiated scope and pricing scenario like black box two-phase QBS DB, there could likely be differences in cost but those differences are related to differing solutions. The owner gets to select the best solution.

Time to delivery is another consideration one must think about. This selection part of the project I just described took nearly six months from initial RFQ to just the selection of the preferred provider, which points out another potential benefit of two-phase QBS selection. QBS selection is a potentially much faster procurement process and the project gets built sooner.

## **2) So how does this process work to deliver these benefits to the client?**

As I mentioned, the owner first focuses on selecting the best qualified contractor by evaluating qualifications, specialized experience, capability to perform, past performance and by the conceptual solutions offered by the competitors. Short listed firms are then typically interviewed and then the owner selects the most qualified design builder. This completes the QBS part of the process.

A contract for professional services that also provides for establishment of a Guaranteed Maximum Price (GMP), lump sum or cost plus fee for the project is then negotiated. This contract provides for two distinct phases or could be two separate contracts – one for design and another for construction. Project design is completed during Phase 1. At some predetermined point during Phase 1, the project fee is negotiated. This can occur anywhere between 60 and 90 % design. Setting the project fee later in the design cycle allows more owner input and more collaboration on the final solution.

In addition to the owner obtaining more input, the project fee is set at a time when the project is closer to actual construction. The value of transferring cost risk at this stage versus during the initial proposal stage is understandable. The design-builder, working with the owner, can design and deliver exactly what the owner wants. Cost risk can be more equitably allocated resulting in lower

contingencies carried by the design-builder and lower overall project costs. The owner is more in control of the process.

The second phase is the construction phase of the project. The project fee has been cast in concrete, as it were, and various risks have been assigned to the party best able to mitigate those risks.

That is how the two-phase QBS DB process works and delivers bigger benefits.

**4) How would you differentiate this approach from other common delivery systems, such as design-bid-build, CM at risk, and design-build?**

DBB is probably the most prevalent delivery method being used today, particularly in the public sector. The owner selects the AE and executes a contract for design. The AE provides bidding documents and the owner bids out the construction. The advantages of this process are that the owner has input during the design phase and the award goes to the low bidder. But is awarding to the lowest bidder the best thing? I remember one of the Gemini astronauts being asked what concerned him the most. He replied that he was concerned that the lowest bidder built the rocket and capsule he was about to man! A major disadvantage is that when problems arise and change orders start coming in, a lot of finger pointing can occur between the AE and the contractor. The owner ends up as the monkey in the middle and often ends up paying more.

The Construction Manager At Risk (CMAR) delivery method is an alternative procurement process similar to long-standing private sector construction contracting. It allows the client to choose the construction manager before the design stage is complete. The construction manager (CM) is typically chosen based on qualifications, and then the entire operation is centralized under a single contract. The architect/engineer and CM work together in order to cultivate and assay the design. Then, the CM gives the client a guaranteed maximum price, and coordinates all subcontract work.

What I am talking about here is design-build, just with a two-phased approach. One contract, a single source provider, same guarantees as with traditional DB, separate phases for design and construction. One major difference is that rather than setting the GMP during the proposal phase, it is set later in the project cycle. Considering the current challenges faced by the construction industry related to ever and rapidly increasing cost of materials and skilled labor shortages, setting price and transferring cost risk later in the project cycle benefits both the owner and design builder and results in lower overall cost. The other departure is that design and construction are addressed separately contractually.

I should point out that design builders using this approach are quite willing to open their books to the owners, providing transparency. Unlike conventional

DBB, change orders, although they can still occur, are typically driven by owner requests or changes rather than those demanded by the contractor. And, at the end of the day, there's only one party the owner needs to grab by the necktie if problems occur.

**5) What do you see in the future for this two-step award process and why?**

I see a bright future for this process. More owners are focusing on innovative solutions rather than low bid. As an example, the City of Jacksonville, FL is currently using the process I've described to build its 400,000 square foot courthouse complex. But there are some impediments, too. As I mentioned, some states still do not allow design build project delivery at all. New York is an example of this. Some localities do not yet embrace the DB delivery method. Another challenge is changing the mindset of public owners who are accustomed to the DBB delivery method. DBB is sort of like their favorite frayed yet comfortable sweatshirt that they've worn for so long and are reluctant to cast off. Then there is the owner issue of feeling the pressure to make price a competitive element of selecting the design builder. Let's face it. We all have that need sort of ingrained in us. When I buy consumer goods, I'll admit, I shop the price. But we have to continue to the education process to show the value of negotiating work rather than competitively bidding it and recognize that in building a project, we're not buying a sedan with a six speaker sound system, eighteen inch aluminum wheels and cruise control.

So what we're talking about here is establishing a negotiated relationship between the owner and design builder based on trust, collaboration, communication and common goals.

**6) Dean Kashiwagi of Arizona State University says that negotiated work is unstable because there is always someone proclaiming that we could have gotten a lower price if we bid the work?**

I'd have to agree with Dean that there is always going to be someone who claims they can do it cheaper. But I ask the question is cheaper better? Ask yourself does the owner sacrifice quality, speed to delivery, collaboration, and the other benefits we've just discussed when bidding project price competitively? I'll go back to what I said a minute ago. A million dollar fix is a million dollar fix when provided by high performing contractors. As I travel around the state talking to owners as president of the DBIA FI Chapter, I regularly urge them to remain focus on innovative solutions.

**Follow up question: How do you think we could evaluate subcontractors to insure that clients receive the best value possible?**

We can use many of the same measurements we use to evaluate contractor performance on conventional DBB projects. These include; compliance with key

contract provisions (e.g., subcontracting programs, labor standards, safety standards, reporting requirements conformance to specifications and to standards of good workmanship; application of requirements and guidance; innovation; planning; responsiveness; communication; teamwork and cooperation; adherence to contract schedules, including the administrative aspects of performance; containment and forecasting of costs; health, safety and environmental performance; history of reasonable and cooperative behavior and overall business-like concern for the interests of the customer; and, maybe most importantly, measuring service to the end user of the project.

As always, such evaluations must consider the complexity of the project. And keep in mind that when evaluating contractor performance each assessment or evaluation is based on objective facts and is supported by program and contract management data, such as cost performance reports, customer comments, quality reviews, technical interchange meetings, financial solvency assessments, construction/production management reviews, contractor operations reviews and functional performance evaluations.

**7) What have I missed that is important, John?**

I think you've asked the right questions today, Ted. I hope our owner listeners out there will think about their upcoming projects and select an appropriate one to apply the two-phased QBS DB approach. I acknowledge that, as the car commercial said what I'm talking about here, "Is not your father's Oldsmobile", but remember, they're not making Oldsmobile's any more. The market is moving on and embracing new DB variations. I suggest that it's time for owners to try innovative DB approaches on their projects. Sort of kick the tires, if you will.

**8) John, we are almost out of time, so what final thought would you like to leave our audience with today?**

It is important to understand that what I am talking about here is in every sense DB and is basically consistent with the FAR two-phased QBS DB approach. What I'm suggesting that owners think about is the advantages of setting the GMP later in the project cycle by using the phased design and construction approach. For owners that regularly use DB, this is a relatively small leap of faith for them to make and, in my opinion, promotes an even better business and working relationship between the owner and design builder. A relationship based on trust, collaboration, communication and common goals.

**John, thank you for taking time out of your valuable schedule to visit with me today. I'm sure you opened a few eyes about how to improve their projects. Thank you, John.**

Thank you, Ted.

