



*Design Build raises the bar to another level of estimating expertise.*

# Design Build Estimating

**Electrical contracting, which encompasses projects of a variety of types and sizes, is a complicated business. Electrical estimating, a key element of an electrical contractor's business, is a science that requires training and experience in all the aspects that contribute to a properly and accurately prepared estimate.**

Design build typically refers to a construction process where final design and construction are performed by an integrated team as opposed to the traditional design-bid-build delivery where the owner or a designated architect/engineer designs the project and awards the job to the lowest bidder.

One must start with determining the power requirements of the job. Since service and feeders is one of the major systems, it is advisable to do a complete engineered riser layout with conduit and wire sizes, along with a voltage drop calculation. This requires that the estimator have an understanding of Article 220 of the NEC and voltage drop calculations. There are software programs on the market today that can aid the estimator in this task.

## **A SERIES OF CHECKPOINTS SHOULD BE CONSIDERED SUCH AS:**

1. Quantify the service and feeders and establish costs. This can be a full formal estimate or optionally use a per-foot unit price. This information will be used to establish the accuracy of the square foot values which are used to calculate the proposed budget. In addition to being a sales tool, this will also serve as part of the engineering documentation to help build the customer's confidence in your company.
2. Check with your vendors for pricing on systems such as Fire Alarm, Security and other Fixtures. The vendor may already have readily available preliminary numbers which can be applied to this project.
3. Consult with the customer with respect to any special equipment requirements. Develop a needs list so you will have an understanding of the customers expectations and concept of the finished product.

You should now have enough information to proceed with the Budget Phase. The Budget Phase does not require a full set of completed design drawings, as this will be done when the project is underway.

Some contractors have pre-established unit pricing for various systems and installations, while others may use total job square foot values. Since this is only a budget, either method will be adequate for

this phase of the Design Build process. Another option is to use both methods. This will give you a low and high range for the budget, therefore, it may be necessary to use a combination of both methods.

When using the unit price method, create a detailed list of all the equipment the customer has given you and apply a unit price to each. It may be necessary to do a formal estimate on installations that are unique or special. Include the service and feeders and any other systems or installations required for a complete job.

The square foot method will require the use of historical job cost or estimating information for the type of job being estimated. Compare each system's calculated square foot values to your company's data and adjust the budget accordingly.

According to the Design Build Institute of America, 70% of design build contractors believe that design build projects are more profitable than "traditional" projects. Integrated contractors expect 80% of their revenues to be from design build projects in 10 years, and 80% of all contractors surveyed predict an increase in the use of design build over the next 5 years. (*Zweigwhit's 2004 Design Build Survey of Design & Construction Firms*)

The Design Build process allows construction to begin almost immediately after the project is awarded and as the initial design packages are completed rather than waiting until the entire project is completely designed. Being able to begin construction as phases of the project's design are released means that those jobs are typically completed ahead of schedule and below budget... the perfect scenario for successful Design Build!



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