I’d like to begin this article espousing the romance and intrigue of construction estimating . . . but I can’t. It doesn’t have any romance and intrigue. It’s painstaking and methodical work. But if you apply the right methods, even a construction estimate can give back some small rewards.

I’ve been creating construction estimates for more than 20 years and, I know it sounds dull, but I still get a rush from being the (hopefully narrow) low number on a competitively bid project. It’s still nice to go home in the evening after winning a bid and proudly present the victorious results to your wife, kids, dog and anyone else who will listen. Then, of course, there’s the obligatory period where they must tell you what a genius you are, how indispensable you are to the company, etc., etc.

These days, I’m mostly involved with commercial construction, so most of the following guidance revolves around commercial work. The same practices and methods, however, can be applied quite successfully to residential estimating.

The Process

Let’s break down the estimating process into six steps:

- Setup and organization.
- Bid invitations/information distribution.
- In-house estimates and takeoffs.
- Receiving quotes and verifying scope of work.
- Data compilation/spreadsheet summary.
- Presenting the result (the bid form).

Setup and Organization

You’ve often heard that the most important part of a building is the foundation. The same holds true for estimating. Thor-
oughness and special attention to detail in the beginning pay dividends later on.

The first thing I do is take time to actually read the plans and specs. Don’t laugh. We’ve all worked with people (or we may be those people) who gloss over the plans and assume they understand the project simply because they’ve “seen jobs like this before.” Obviously, it’s only a matter of time before mistakes happen. Spending an hour (preferably undisturbed) absorbing the overall intent and scope of the project is an invaluable and integral step in the estimating process—yet it is one that is often neglected.

Next, I open the specifications (if provided separately) and read through the Construction Specification Institute’s Division 1, “General Requirements,” for pertinent information about the bid. The bid invitation, time and location of the bid letting, table of contents, bid instructions, insurance/bonding requirements, warranty/close-out information and much more are generally found in this division.

The information in Division 1 points the estimator to many of his indirect job costs. These are costs that are incurred by the contractor but are not physically and directly connected to the actual construction of the building. You may consider these items to be the cost of doing business. The remaining is CSI divisions refer to individual trades and disciplines, such as concrete, painting or drywalling, and they contain more information regarding the actual construction of the building/project. The items addressed in these divisions are generally referred to as direct or hard-job costs. All costs, direct or indirect, must be accounted for by the estimator—telephone bills require the exact same, green money as a carpentry bill.

Next, having long succumbed to “cybergeek-dom,” I create a summary spreadsheet on the computer. Spreadsheets save immeasurable time and effort over hand-written summaries. Once you’ve mastered them, they definitely make you more efficient, accurate and, in the long run, more competitive.

I set up my spreadsheets in CSI order, very similar to the table
of contents of the specification manual. In the first three columns, I include the CSI division number, description of the item being bid, the sub or supplier whose quote I’ve included. The next four columns hold the costs. I break them down into labor, material, subcontractor/equipment and a line-item total.

Remember, this is a summary sheet. The actual material and labor estimates are done elsewhere on separate and more detailed, sheets, or are taken from subcontractor and supplier quotes. As information is gathered and addenda is received, your summary spreadsheet is changed and updated.

Networking and Information Distribution

Now it’s time to contact the players. Most construction companies (unless they’re very large) do some in-house work. In-house work is performed by the company’s own workers with the balance of the project being outsourced to subcontractors, suppliers and other interests. These outsourced companies are the ones that need to be solicited for bid proposals.

It sounds like easy work, but the logistics of “getting the word out” can be quite challenging. I’ve tried many methods over the years, (telephone, postcards, advertising, etc.) but nothing seems to work better and faster than the faxed requests that I do now.

With the advent of fax software programs (the kind where you can from your computer), it’s a relatively straightforward affair to set up a database of prospective bidders, create a “bid request” memo, click on to whomever you wish to request bids from and hit “send.” The requests are faxed automatically while you switch screens to another application.

But, as simple as that was, you’re not out of the woods yet. Once the participants are notified, they’ll want plans. Anyone in this business knows what a pain in the neck the plan-distribution process can be. Reproduction costs, clerical time and the pure physical bulk of the packages can offer major encumbrances to getting the information into everyone’s hands.

But there are ways to get around some of these obstacles. First, there are plan rooms with locations all over that offer...
plans and specifications on local and regional projects for public inspection. Often, the bidder has to do the takeoff right there in the building, but some plan rooms let you check out the documents overnight or on the weekend. Many also offer their services on-line for a fee.

Other options include having the sub/supplier acquire the documents directly from the architect (often entailing a deposit); reducing the size of the original plans on your photocopier and then faxing them (requiring office time); leaving a master copy of the plans at a local copy service and having the sub/supplier pay for their own copies; setting aside a plan room in your own office where they can come to do takeoffs. You’re only limited by your imagination. Choose whatever works best for you and your situation.

**Subcontractor/Supplier Quotations**

If you’ve been in this business for more than 10 minutes, you’ve no doubt discovered the importance of getting a proposal in writing. Verbal promises and commitments usually end up floundering in a sea of “selective memory” as a project is being built. It truly is best for all parties to have the agreement spelled out on paper.

When it comes to the subcontractor/supplier proposal itself, the most important job for the estimator is to determine whether the bidder has provided a complete scope of work or the cost quoted. For instance, does the mechanical quotation include gas piping? Bath exhaust fans? Wall louvers? If you don’t see it or you aren’t sure, call and check.

Some other thoughts regarding subcontractor/supplier quotations:

Never “shop” a quotation to another sub or supplier. “Shopping” is when you leak numbers to one of your bidder’s competitors. Besides the legal and ethical issues this raises, it’s just
bad business. People talk to each other in this business, and you’ll eventually be found out. When you are discovered, companies will either not bid to you or bid higher to you. Either way, of course, you lose.

Check to make sure you and your subs and suppliers have seen all addenda, alternates and unit prices.

If you receive a proposal from someone new, call them and ask about the company, and ask for references. Good business people realize you’re simply protecting your interests, not grilling them.

If you need a breakdown, call and get it. Now, some companies don’t like breaking down their numbers, but sometimes it’s necessary. If they really want to work with you, they’ll cooperate.

If you have other people in your office taking phone quotations (especially on bid day), besides taking the base bid number, make sure they know to ask the company name, phone number, contact person, pricing on any addenda or alternates, if tax is included and anything else you consider important. The phone number is particularly relevant. It’s often necessary to call a bidder back to check a fact. On a hectic bid day, the last thing you have time for is to search for someone’s phone number.

**In-House Estimates and “Takeoffs”**

Line items on your summary sheet that are not addressed by a subcontractor or supplier proposal will likely be filled with your own in-house labor and material estimates. In our office, we work up line-item estimates on excavating, concrete, carpentry and anything else that we feel we can handle with our own crews.

I love computers, and I’ve used a lot of (expensive and inex-
pensive) estimating programs over the years (along with a veritable cornucopia of rolling digital scales, x-y axis digitizer and tables, etc.), but I never really found them suitable for my day-to-day estimating. They always seemed to end up being too cumbersome, conservative and time-consuming, particularly when it came to updates and customizing. They are also too unreliable and unrealistic with results (Would someone actually do the work for this price?).

I’m sure there are some excellent software packages out there, but right now I mostly use the computer for my own custom estimating spreadsheets by trade, final estimate summary spreadsheets, word processing, correspondence and on-line applications.

Data Compilation and Summary

Now that you have all your in-house takeoffs and sub and supplier quotations accounted for, all you have to do is enter them and add them up, right? Well, kind of Did I mention that most all numbers don’t come until the last (bid) day? Sometimes the last hour?

Or that many of the numbers you now have will change before the bid is finished? Or that the proposals come in so rapidly and frantically over fax, phone and in person that you can hardly remember your own name? The point is to stay calm. Address and extinguish questions as rapidly and as efficiently as possible.

The answers may not be perfect, but they’ll do. The deadline is drawing closer, and you need to move on. Considering the enormous amount of information being assembled, delineat-
ed and evaluated, you’ll be amazed at how well you did after you’ve finished.

One quick note: For you spreadsheet users, make it a habit to check the formulas on your spreadsheet to ensure they’re calculating correctly. During the firestorm of preparing the estimate, you no doubt added, deleted and moved lines around.

Sometimes you slip and don’t carry the formulas from one line to another, causing the line and column summaries to be inaccurate. Do I (or your boss) need to explain why the $24,500 line item that should have been $245,000 could cause some stress?

**Presenting the Results**

When it comes to presenting your proposal, the good news is that the bid form is commonly supplied in the bid package. Of course, they’re mostly geared toward general contractors, but even the sub or supplier can (and should) use the form as an outline.

Most bid forms require that the submitter fill in all the blanks. If you have nothing to put in a particular space, don’t leave it blank. Type in “N/A” or whatever is appropriate. Also, check the addenda you’ve received to see if there’s a new bid form. This actually happens quite often and could be the difference between being accepted or rejected. The same applies to any new alternates or unit pricing that may have been added during the bid process. Check to make sure you’ve received all the addenda.

Other things to consider include subcontractor listings, minority requirements, bonding and insurances, corporate resolutions, prevailing wage compliances and much, much more.

When in doubt, call the architect or owner (if you’re a general contractor) or the general contractor (if you’re a sub or supplier). The last thing you want to do is put all that work into the estimate, only to have it thrown out due to a bid-form technicality. This does happen.

Even if the owner is lenient about the bid form requirements, I’ve encountered a number of competitive companies that will review all the bid forms after the letting, hoping to find a reason for disqualification of a competitor (particularly if you’re first and they’re second). Be careful.

This information is just the tip of the iceberg. Ultimately, the best information, methods and skills for creating a winning estimate are acquired only through years of experience. This includes experience in success and failure. But keep it up. By adapting some of the advice we’ve discussed, you’ll be well on your way to estimating and competitive-bidding success—and with it, more building projects. Then the only problem you’ll have is how to build them! (well, that’s another article).

**About the Author**

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