

Control Costs With a Purchasing System

by Joe Stoddard

For the past several columns we've been talking about the importance of gross profit and contribution margin, or the amount that each job "contributes" toward overcoming your annual fixed overhead expenses and reaching your profit target. Using a purchasing system is probably the single best way you can improve these numbers for your company.

First, let's consider how a typical project proceeds without a purchasing system. After going out and "looking at the job," you're expected to conjure up a price that will get you the sale, hopefully at the markup and margin you've budgeted. Armed with sketches, photos, "bids" from subs and suppliers, cost books, a historical job or two, and some WAGs, you add up the numbers the best you can, apply your markup, generate your proposal, and — you hope — sell the job. (Of course, you do all this for free.)

Selling the job is the easy part. Now you have to produce it, at the cost and in the time frame you estimated. Good luck! In no time, complications arise. Second day in, your backhoe guy overdigs the hole. What was the mason supposed to do, pour footings on disturbed soil? So you've just added three or four truckloads of unbillable gravel and trucking to the job cost. Next, you find out your lumberyard didn't include delivery in its price quote — with gas prices up, it can no longer afford to deliver for free. Worse yet, the "quotes" you're counting on don't commit anyone to anything. The lumberyard might guarantee its prices for 90 days, but only for what it puts on the sheet.

Little by little your 35 percent gross margin is whittled down to 15 percent or less, and the schedule is headed in the wrong direction. You didn't say anything about needing the hardwood floors completed in four days; the installer had to let most of his laborers go and is now working alone, so the painters will have to work around him. Ditto for the cabinet guy — he'll let you know when he's ready to deliver. Instead of the nine weeks you'd planned, the job is now on track to take 14 or 15, and at a fraction of your planned profit margin.

A Better Way

A good purchasing system replaces this "bid-quote-contract-invoice" process with a set of documents and procedures that spell out two things: exactly what it is you're

buying, and everything the subs and suppliers need to know to get their job done — and to get paid for their work.

The great advantage of a purchasing system is that, whenever possible, you agree before the job starts on a firm price, on who is doing the work, and on when it is to be completed.

Documents required. A purchasing system requires three documents for each vendor and phase of work:

- A purchase order or work order (PO/WO)
- A scope of work for each PO
- Vendor/trade agreements for each sub and supplier

Purchase/work order. The PO/WO itself is a binding contractual agreement that describes precisely what it is you're purchasing and how much you're going to pay for it. Some computer systems differentiate between materials-only (PO) and anything involving installation labor (WO). For our purposes I'm simply going to call all of them "purchase orders" — POs.

In manufacturing or retail applications, a PO is just an accounting transaction: You agree to purchase n widgets for your factory or store for x dollars. But for a contractor, a PO can also be an important tool for scheduling and communication between the office and the field. For that reason, your ability to add extra notes and comments to the form is critical — for example, how to use the materials on the PO ("2x12-24ft., for rafters, not blocking"); where to park and unload; and any other policy you want to enforce on that specific job.

Scope of work. While the PO describes *what* you want done, the scope of work describes *how* you want it done. Think of scopes as written assembly instructions for your projects. They're specific to a particular job but can often be re-used from one project to another with minor editing. They should follow your POs one-to-one, right down to your payment points. For example, if you're giving a framer three payments — first floor complete, second floor complete, roof system complete — your framing scope of work should be organized the same way, describing exactly what is expected to be completed at each payment point.

Vendor and trade agreements. In addition to POs and scopes, you should have on file a "blanket" vendor or trade agreement (meaning it covers you across multiple jobs) for

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each supplier and subcontractor. These agreements convey general company policy, in much the same way that a company manual does for your employees.

For suppliers, a vendor agreement might spell out discount terms you've negotiated for the year, how you want your deliveries stacked (last on, first off, no rollback deliveries for fragile materials), and your policy regarding purchase orders issued from the field ("no PO over \$1,500 will be honored without written approval of the company owner").

For subcontractors, the trade agreement clarifies everything not covered on the PO or scope of work. Anything that could affect your costs or your subs' ability to be paid for their work should be covered and agreed upon before starting the project, so there are no misunderstandings later. Here are some examples of what should be addressed:

- equipment (generators, temporary heat) and safety gear the subs are to provide
- required insurance coverage
- hours your job sites are available

- how you want surfaces protected
- what constitutes "broom clean" and "maid clean"
- who in your company can authorize extra work, and what happens if work is done without prior authorization (they don't get paid)

Putting the System to Work

So how does the system actually work? The first steps are very similar to what you're probably doing now. You'll either solicit bids from subcontractors or you'll know enough about your costs to "bid them in" based on pre-agreed rates. If the drywaller has agreed to work on all your standard jobs for \$1 per square foot turn-key and the job measures 5,000 square feet, his price for that job should be \$5,000.

Buyout and releasing POs. Here's where things start to change. When you're ready to put the job into production, instead of each of your vendors sending you a contract, you issue each of them a PO with all of the pricing filled in. Selecting vendors is commonly called "buyout" and the act of sending the POs is called a "PO release."

The POs can be either "lump sum" ("drywall hang/finish, complete per plans and specifications, 123 Anywhere St., for \$5,000 complete") or they can be detailed at line-item level. If you use a mixture of in-house labor and subs, you would release an "internal

Purchase/Work Order- Framing Labor
Number: 3790-ACME-01

ISSUED FROM: XYZ Builder, Inc. 200 Industrial Avenue Houston, TX 77019 Office: (800) 333-3333 Fax: (800) 777-7777	ISSUED TO: Acme Framers 400 Main Street South Houston, TX 77587 Office: (800) 444-4444 Fax: (800) 999-9999
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For work or supplies to be provided at the following property:

PROPERTY: 3790 Any Street BUYER(S): Mr. and Mrs. Anybuyer

LOT	BLOCK	SECTION	LEGAL DESCRIPTION
1,2,3	11		

JOB CODE NUMBER: 3790	MEAS	QTY	%	UNIT PRICE	TOTAL
9/28/2010 Line #: 3790-3150B-806			15.0%	\$89,385.00	\$13,407.75
3150 Framing Labor	Budgeted		Tax %: 0.00%	W/Tax	\$13,407.75
Short Title-> 1st Floor Walls					

Delivery: 10/20/10 Start Work: 10/20/10 Completion: 10/26/10

1st FLOOR WALLS & HEADERS INSTALLED

- All FIRST FLOOR WALLS will be install per plans.
- Install sill saver under all bottom plates in living area (2 plates).
- Glue all headers.
- All stiff backs are set 18" off center for lighting and AC.
- Stair risers to allow for finish floor, equal distance between treads, per code.
- Slope all window sills 10 degrees.
- Verify RO's for doors. Return drywall doors require thicker jambs, larger RO's.
- Electrical outlet boxes 2-1/2" wide will be center-lined under each window as applicable.
- Notch bottom of studs to expose anchor bolts for inspector.
- Main stairs built to receive 1-1/4" treads, rear stairs built to receive 3/4" treads.

TOTAL AUTHORIZED AMOUNT \$13,407.75

This Work Order authorizes you to provide the described work and/or material at the Property shown for the Total Authorized Amount.

RULES FOR PAYMENT:

- For payment, superintendent will approve each Work Order work is completed. No invoice or draw required.
- Send any questions about payment to bill@aedwards.com.
- Payment will be amount shown on this Work Order. Any additional amount for Change Orders must be approved in writing by Builder or Project Manager.
- Subcontractor will clean site and dispose of all trash and scrap lumber in builder supplied dumpster.
- Framing contractor will order all material through Project Manager only.
- Framing contractor will verify amounts delivered for each delivery, counting all lumber and giving delivery list Manager. Notify Project Manager of any shortages.
- Framing contractor will cover all material each evening with builder supplied poly.
- Framing contractor will follow all Engineer's specifications and building pattern.
- Contractor must be on job for all City and Engineer inspections
- PLEASE NOTE START & COMPLETION DATE OF YOUR WORK ON THIS WORK ORDER.

Above work to be performed under conditions specified.

Builder Signature _____ Contractor _____

Numbering system references vendor

Directions to site can be added if needed

Pricing appears on copy given to supervisors with budget authority; should be blacked out on copies distributed to trades

Short form of scope of work provides instructions for tradespeople on site

Key excerpts from vendor/trade agreement that must be met for payment to be approved

Signature lines, indicating a binding agreement between parties

This subcontractor purchase order (created by a veteran Texas builder using CHS, a software management tool for custom builders) has notes that tell the framers how to stage and install materials, including specific details addressing questions that might arise when their supervisor is not on site. Distributing copies of the purchase order — with pricing deleted — provides an excellent opportunity to get this information into the hands of the people who are actually doing the work.

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PO” listing your company as the vendor for those in-house tasks. In that case, the labor dollars would not be locked down, but it’s still a very good budget control tool for your project manager.

Starts package. The set of POs for a particular job and the complete set of scopes of work are given to the lead carpenter or project manager as part of his or her project “starts package.” This can be a physical stack of paper copies, a single “open PO” summary report, or electronic copies. If your PM or lead carpenter has budget responsibility, you leave the prices visible. If not, prices can be blocked out.

Scheduling with POs. Generally, POs should be set up as “one task — one PO.” This does generate a larger number of POs for each job, but an advantage to doing it this way is that the POs, arranged in rough chronological order of the actual job (#001 Clear and Grub, #075 Interior Millwork, #151 Final Cleanup), constitute a very workable scheduling template.

Acceptance and payment. As the job progresses, the PM or lead carpenter inspects the work and approves each PO for payment. Because every PO is associated with a task and vendor before the job starts, there’s no tedious “coding” of incoming invoices required. In fact, invoices aren’t needed at all, which saves time for everyone. Vendors simply reference the job and PO number, and you pay them whatever was pre-agreed. Job costing is automatic too, and — barring any variances — the current job costs will match the estimate. This one change can save up to the equivalent of a half-time clerical position for a typical remodeler with a million-dollar volume. And it will greatly reduce undocumented “cost creep” on your jobs.

Changes and Variances

No matter how good your purchasing and production controls are, sooner or later you’ll need additional material or labor not included in the original set of POs. When that happens, a variance purchase order (VPO) must be written and approved. Change orders are requested by the customer and are usually billable, but if it’s a variance caused by an estimating mistake, bad materials, theft, bad weather, or something else, the VPO becomes a valuable tool for documenting what happened so you can avoid the error next time around — before it ruins your financial performance for the year.

That’s a purchasing system in a nutshell. Of course, the devil is in the details, and when you’re dealing with dozens of independent-minded subs and suppliers, it takes some effort to get the system up and running and everyone participating. In the case of a well-oiled purchasing system, the results will be well worth the effort.

JLC contributing editor **Joe Stoddard** moderates the *Business Technology forum* at jlconline.com.