

GETTING Change Orders UNDER CONTROL

Custom residential design is a complex creative process involving the homeowner, designer, and builder. It takes time and it's unreasonable to expect every decision to be made before construction begins. Change orders provide a way to fine-tune the big decisions.

by Dee Bailey

For the clients, a change order may

be the last chance to get what they really want. For the contractor, change orders mean increased revenues without a lot of trouble. After all, the crew is already on site working. All you have to do is write the changes up and manage them properly.

In my company, which has separate sales, management, and production teams, change order management has involved establishing good procedures, then assuring that everyone understands and follows these procedures. Other companies may be smaller and less complex, but the same basic procedures are just as necessary.

Defining Change Orders

What is a change order? Is it any deviation from written specs and drawings or is it only additional work? Regardless of what a company's policy is, there has to be a definition that the whole team understands and agrees on. At my company, change orders include all deviations from the original scope of work, plus all clarifications of job specs. Apart from assuring that clients pay for extra work, this comprehensive definition protects the company from the



An effective change order procedure
ensures fair payment for additional work

conflicts that often arise from undocumented verbal agreements. With so many decisions being made during a job and so many chances for decisions to conflict with one another in unanticipated ways, documentation is the only way to manage this information and avoid being wrongly blamed. Clearly defining what constitutes a change order is essential to setting up a system that prevents you from doing unpaid work.

One way to better understand how change orders affect a contracting business is to track them as a percentage of sales. Historically, they have represented

10% of the total sales volume in my company. That percentage breaks down into the categories in the chart in Figure 1.

From top to bottom, the list goes from the easy-to-handle change orders to the hard-to-handle ones. Clarifications, additional requests, and deletions are all decisions that the client makes voluntarily. They are easy to agree on. Hidden problems, such as unknown code violations or unknown constraints, can be more difficult. Clients often resent local building codes forcing them to perform extra work or subcontractors insisting on higher than expected costs due to some unforeseeable problem. Forewarning clients

about these potential situations lessens their shock when one actually happens.

The final category, designer or architect errors and omissions, is the most difficult category to handle. Good will between a contractor and a customer can evaporate quickly. Clients may feel betrayed and think that expensive extra work should have been foreseen by the builder before work began. Often, in order to preserve customer relations, companies have to absorb the cost of problems that should have been foreseen. Fortunately, a solid change order procedure helps to eliminate these project planning problems in the future. The key is to use past change orders to learn from mistakes and improve future work.

The Original Contract

The original contract for a job must clearly set out the scope and cost of agreed upon work. It also has to clearly define what change orders are and the procedure for how they are processed. In addition to a change order clause in our standard job contract (Figure 2), our project specifications include clear language stating that work beyond the defined specifications will only be performed after receiving a signed change order. For example, specifications for a kitchen remodeling job would include a clause stating: *We will make every attempt not to damage the drywall of an adjoining room. However, if nail pops occur, we will write a change order for drywall repair and paint.*

To ensure that clients understand the change order process, we also give them a one-page handout that describes change orders. We read through this with the clients and have them sign it before work begins (see “What’s a Change Order?”). While it may be easy for a client to miss the change order clause in the original comprehensive contract, they can’t fail to at least look over this explanatory page — after all, they have to sign it.

Later, as a job develops, we introduce clients to the process by writing up clarification change orders for items such as paint colors or new locations for light

Figure 1. Change orders may stem from a variety of causes. Additional requests, deletions, and clarifications present no problems for clients; hidden conditions and design errors are a tougher sell.

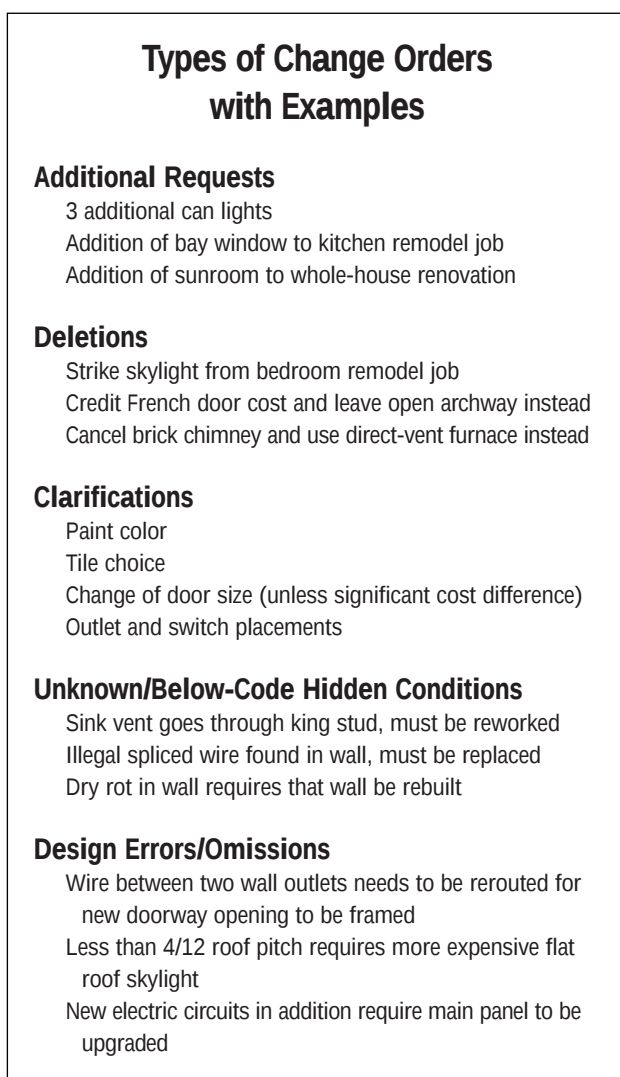
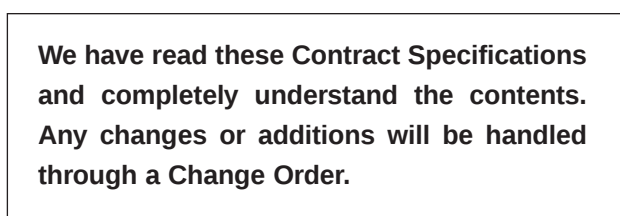


Figure 2. This simple clause makes the change order process a part of the original contract.





HARRELL REMODELING, INC.

Complete Residential Design/Build Services

In addition to carefully spelling out the scope of work and including a change order clause in the original contract, Harrell Remodeling also presents clients with this explanatory page, which clients must read and initial.

What's a Change Order?

While every effort has been made to create a contract that fully represents the entire scope of work at this time, Harrell Remodeling, Inc. (HRI) has found that by the end of a project, the work that has been performed often exceeds and/or is different from the original scope of work. The format that is used to manage this process is called a Change Order.

Change Orders, or Additional Work Authorizations, are legal documents that combine with the original contract to describe one of three conditions discovered during the course of a project: Clarifications, Deletions or Additional Requests. Following is a description of each of these types of conditions:

Clarifications

These are used to specify a product, color, sheen, dimension or other qualifying aspect of an item that was described in the contract as "exact paint color to be determined," or "owner to indicate exact placement of the shampoo niche with the carpenter after demolition," etc. There is no financial impact to the contract with a Clarification.

Deletions

These are used when there has been a reduction in either scope or cost of the project. For example, if while remodeling a bath for which the contract reads, "HRI to provide and install a mirror above the vanity," the client discovers a perfect accent mirror that they want to use instead of the one called for in the contract, the lead carpenter on the job (or the production manager) will write a change order stating: "HRI to delete from the contract the provision of a mirror. Instead, HRI to install a new, owner-provided mirror." Then a credit for the amount of the mirror will be deducted from the overall cost of the project.

Additional Requests

These are used for a variety of reasons: the client has thought of some additional work to be done or has requested an upgrade from one type of material to a more expensive material; the building department has an additional requirement that is code- or safety-related that will involve more work; or during the course of the project, an unknown or below-code condition is discovered that was not knowable prior to the start of the project (existing below-code framing in a wall that was opened up, wiring in a wall opened where a recessed cabinet or window is to be installed, for instance). Whenever possible, the exact cost of an Additional Request will be calculated and presented as a fixed number. However, sometimes the final cost cannot be pre-determined (as in dry rot repair), in which case the Additional Request will be represented on a time & materials basis.

Usually, change orders represent 8% to 10% of the original contract price. In older homes, typically change orders are somewhat higher.

Lead carpenters are equipped to handle most aspects of change orders, with the production manager overseeing the entire process. If there are design issues, the sales department will be asked for input. Drawings are included (when appropriate) and need to be initialed, also.

switches. These do not affect the budget but become part of the written history of the job. Clarification change orders get the client used to the process and quell the fear that change orders always mean more money.

Writing the Change Orders

Changes need to be identified and described, then processed into a formal change order signed by all parties before the scope of work is changed. This ensures that clients and subcontractors agree with you concerning any cost adjustments and schedule delays caused by change order work, both of which should be spelled out in the paperwork you use (Figure 3). Include in all change orders a clause stating that any additional work must be done at the same time as the original scope of work for the price to be valid.

At my company, our charges to clients for change orders include administration time, material cost, work crew time and subcontractor cost, and a full profit margin. To ensure that clients will meet their end of the bargain, we require a 50% deposit before change order work begins and the balance when it is complete. On deletion change orders, only the actual labor and material costs are deducted from the original contract price. Markup and profit are not deducted because the company has already spent time planning for the work and must recover these overhead costs.

Including Subs in the Process

Subcontractors play a crucial role in effectively managing change orders. Frequently, the scope of work has changed from their original estimate to the actual signed contract. The best strategy is to document all estimates and later verify the scope of work when awarding the contract. We use a subcontractor agreement form and send copies of the signed specifications and drawings. Once the work is underway and we have to estimate costs for change orders, we send additional work order or work clarification forms (Figure 4) to each subcontractor affected by a given change order. These verify cost

and scope of work, and are accompanied by a copy of the signed change order we wrote for the client. This way all parties have the same information.

Although changes in the scope of work usually involve two paper trails, one with the client and another with a subcontractor, the work involved doesn't have to be as time consuming as it sounds. Often, a subcontractor at work on a job site will identify a needed change order. Our lead carpenter then alerts the company office. After a simple phone call between our office and the client, we often fax the change order paperwork to the lead carpenter, who

then gets signatures from both the client and the subcontractor. The client then gives the lead carpenter a check for 50% of the additional charge. At that point, the lead carpenter gives the okay to the subcontractor and work proceeds.

For smaller companies where the company owner works on site, this process may be even quicker as it may only involve getting a clipboard out from behind the truck seat and filling out generic change order forms.

Tracking Change Orders

A computer spreadsheet makes it easy to generate a monthly change order

Figure 3. The completed change order specifies the type of change, the scope and cost of the new work, and the additional time added to the schedule.

report that covers all ongoing jobs. This report provides critical feedback that sales and production teams can use to improve future work. For example, they can identify aspects of work that should be sold up front as opposed to other aspects that need to be caught in the field. By tracking past and current jobs, you can continually weed out estimating problems and avoid predictable change orders in the future.

It is also easy to project the average amount that will be spent on change orders in future jobs so you can inform clients about how much additional work to expect.

On larger jobs, we sometimes take this idea one step further and arrange for a contingency fund to be set aside for anticipated change orders. We calculate the size of this fund based on the average percentage made up by change orders on similar jobs in the past. With a contingency fund, clients don't have to cut checks as each added-cost change order arises. Instead, they just sign the change order and thereby consent to releasing the funds.

Clean Sales Package

Change orders should not be used as a way to make up for oversights. The

client is relying on your expertise to foresee potential problems and to know your local building department requirements. For the 2% of our change orders that are for unknown conditions, we ask the production team to judge which ones could have been caught by the sales team, such as moving electrical wires for a new skylight opening or planning for the 3-foot landing for an exterior door. Change orders for these types of overlooked or forgotten items are harder to sell, more contentious to collect on, and risk the good will of the client.

Our job-site production teams alert the company office when change orders are the company's fault. Feedback from the production team is added to the software template we use when writing up project specs. As this template improves, so does our performance on future jobs. A good change order system helps us to continually learn from our experiences.

Educate the Crew

The production team must be given the pertinent information for the job if a company wants to be successful in capturing change orders. Once the job begins, the on-site crew becomes the face of your company and the front line for selling. They must know the exact scope of work so that they can catch what has not been covered. Signed contract specifications, drawings, and subcontractor agreements should be relayed to the person in charge of each job. If this person lacks the essential information necessary to determine when change orders are needed, the entire change order system will function poorly, or not at all.

In addition, it should be clear whose responsibility it is to price and approve change orders. What happens when a client says, "While you're here, could you just do so and so?" Carpenters need to know how to respond to these requests. Role-play for practice, if necessary, keeping in mind that the overarching goal is to avoid job-site drama that can quickly sour the relationship with a client. This requires that lead

SUBCONTRACT ADDITIONAL WORK ORDER

FROM: Harrell Remodeling, Inc. 103 Gilbert Avenue Menlo Park, CA 94025 License #: B479799	DeMarco Bros. Tile Sub. Additional Work Order #: 1 Additional Work Order Date: 2-13-98 Project C.O.#: 3 Robbins Kitchen 1285 Trinity Dr. MP
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Original Subcontract Amount:	\$2,320.
Total of Previous Additional Work Orders:	0.
Total before this Additional Work Order:	\$2,320.
Amount of this Additional Work Order:	-356.
Revised Subcontract Amount:	\$1,964.

The original Construction Subcontract Agreement is hereby modified and amended by the following deviations from original plans and specifications:

Delete the tile counters and splash. Instead, provide and install:

- The field tile is to be 6" x 6" "French Provincial" (Florida Tile #29-702 PW) in a matte finish.
- The decorative liner for the long wall (only) is to be 6" x 6" "Spring Vine" #99 (painted on #29-702 PW).
- The decorative mural behind the cooktop is to be "Flower Basket" #99 (again, painted on #29-702 PW).
- Grout width is to be tight (1/8"), grout color is still to be determined.
- The tile behind the microwave is to be 6" x 6" "French Provincial" (Florida Tile #29-702 PW) in a matte finish.
- There is to be a single row of be 6" x 6" "French Provincial" (Florida Tile #29-702 PW) on the nook side of the peninsula.

It is mutually agreed that for such change the contract price is decreased by \$356, (three hundred fifty six dollars) payable with the payments due under the Original Construction Subcontract Agreement.

All other provisions of the original contract and agreement shall remain in full force and effect, without change because of the above deviations.

Harrell Remodeling, Inc.	Subcontractor:
Signed: _____	Signed: _____
Dated: _____	Dated: _____

Figure 4. The subcontractor's additional work order gives notice of any changes involving subs, and ensures that any cost differences are accounted for in the sub's price.

carpenters and work crews always act maturely and respectfully towards clients, even when awkward change order situations arise.

For change orders that involve design decisions, the salesperson or architect should be involved. However, if the lead carpenter is trained to listen, he or she can gather most of the information needed.

A past client recently confided that there were times when it was hard for her to ask for changes because she knew of the extra work it caused. This was a good reminder that if we want to convert change orders into additional busi-

ness, we need to be approachable and open to the evolving decisions of clients. As long as they are willing to pay for the additional work and endure the schedule setbacks, we should be enthusiastic and not impatient or judgmental about their choices. Having the lead carpenter relay information and insights from the field to the designer can expedite the process.

When Changes Require Separate Contracts

At some point, a change order can greatly exceed the original scope of work and require an additional con-

tract. The basis for making the decision to write up a separate contract will probably be slightly different in every company. Two common guidelines I use relate to building permits and the amount of the additional work relative to the size of the original contract. I tend to prefer rolling additional work into an existing contract through change orders. However, if a building department will not issue me a revision on a building permit and instead requires a new permit, then I usually write up the additional work as a separate contract. Also, if the cost of proposed additional work will greatly inflate the overall project cost, I would also elect to prepare a separate contract.

On an \$80,000 kitchen remodeling job, for example, I would probably agree to a \$20,000 change order to roll a bed/bath remodel into the original contract. However, if the additional work began to grow far beyond 25% of the original contract price, then I would insist on a separate contract. Much of this decision depends on issues such as how the payment schedule of the original contract is altered by a change order and how this might affect your project cash flow.

Making the Process Work

A change order system is useless if work is done before it is authorized. Training carpenters and subcontractors to get approval is key, as is communicating well with clients. Educating the clients about change orders includes notifying them that additional work requires additional time. Accurate estimates also take time, but should be turned around as quickly as possible to keep the flow of work going. One alternative for small changes is to give carpenters a change order pad in triplicate form (Figure 5) that they can use to write up changes on the spot. Again, train your crew to get approval of price and wording before proceeding.

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CHANGE ORDER # 2
P.O. APPROVAL 9708201

We agree to make change(s) or perform additional work at the request order of:

Name	CYNTHIA AND MARK ROBINS	Date	8/14/98	Job No.	97082
Address	201 SHADY LANE	Date of Existing Contract	6/11/98		
City, State, Zip	MENLO PARK, CA 94025	Job Phone	650-324-9265		

hereinafter referred to as Owner, for work performed at premises set forth above. It is proposed to make change(s) or perform additional work as follows:

PER REQUEST OF THE MENLO PARK BUILDING DEPARTMENT, HRI TO PROVIDE AND INSTALL AN ADDITIONAL DUPLEX RECEPTACLE IN THE KITCHEN BACKSPLASH.

Additional work specified above becomes part of and is to be performed under the same conditions as the existing contract between Contractor and Owner.

ADDITIONAL PRICE 700	OWNER'S ACCEPTANCE All foregoing terms, specifications and conditions are hereby agreed to. Owner: Cynthia Robins Date: 8/14/98	CONTRACTOR'S ACCEPTANCE Additional work to start on 8/14/98 and be completed on 8/15/98 HRI Representative: Dee Bailey Date: 8/14/98
DEPOSIT		

Figure 5. For small changes, the lead carpenter can use a simplified change order form as long as the pricing is approved by the main office.

Dee Bailey is a licensed general contractor and production manager with Harrell Remodeling in Menlo Park, Calif.