

# Managing the Contingency Allowance

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## SUMMARY

A contingency is a predetermined amount or percentage of the contract held for unpredictable changes in the project. A contingency is a helpful risk management tool that financially prepares owners for addressing risk within the project. Contracts provide for contingencies to pay for unknown conditions such as price escalation of a product; design changes in scope or due to errors and omissions; or necessary construction changes that are realized on site during construction. Owners should strive to provide a healthy contingency to the project to address risk related issues. If managed properly, a contingency can provide a safeguard for the designer, contractor, and owner to complete the project on budget.

## WHY A CONTINGENCY ALLOWANCE?

*The Architect's Handbook of Professional Practice* clarifies a contingency allowance as the amount, or percentage, included in the project budget to cover unpredictable changes in the work or items of work. It serves three core purposes:

- To account for errors and omissions in the construction documents
- To modify or change the scope of the project
- To pay for unknown conditions

Each project should include an owner's, contractor's and designer's, contingency, all with the same objective: to complete the project on budget. Each type of contingency will address different aspects of the whole project.

## THE OWNER'S CONTINGENCY

There is no such thing as a one-size-fits-all amount for the owner's contingency. Applying a standard amount to each project can lead to cost overruns, accusations, and litigation. It is highly recommended that owners develop an internal process to evaluate project contingency needs. It is important to adequately establish an allowance of the right size, neither too low nor too high.

It is nearly impossible to produce a *perfect* set of construction documents, leaving room for errors and omissions. Frankly, it is amazing how few errors and omissions are in any given set of documents. In my observation, most errors and omissions amount to less than 5 percent of a project's budget. An owner's program inevitably changes, if only slightly, during the life of a project, and changes or modifications to the scope of work occur in response to internal programmatic changes. The contingency is one way to prepare for changes in scope or errors and omissions.

Another aspect important to the owner's contingency is to account for risk. Risk is created when some aspects of the project are unknown or when certain project elements are likely to cause concern.

## A case in point: the Utah State Capitol Building

The level of risk depends on the number of unknowns when the project is budgeted and/or any project-specific issues such as the prospect of political entanglements, as noted in the Utah State Capitol Building project.

In this case, the owner's contingency was based on the users' (state legislature's and executive branch's) needs and the volatility of the project program. Before selecting the architect and the construction manager (CM), the owner (the Architect of the Capitol) carefully defined the project scope using project definition documents. Based on these documents, the Architect of the Capitol determined 3 percent as the factor for the program/design portion of the contingency.

Selective demolition performed by the CM uncovered many unknown conditions within the Capitol, so by the time the guaranteed maximum price (GMP) was presented, unknown conditions had been greatly reduced and 2 percent was an adequate contingency for the risk portion. The owner added 1 percent to account for possible political factors. The total owner contingency, therefore, was 6 percent (3 percent possible scope changes + 2 percent risk + 1 percent politics).

**Next steps: Good contingency management**

Once the owner determines the contingency, the next step is to manage it appropriately. All three parties—owner, contractor, and architect—may view the contingency differently, causing management concerns. The issues can be limited if all parties understand the purpose of the contingency and how it relates to their respective roles in the project.

Contingency funds are to be used, first, to complete the scope or deal with unknown conditions. Many owners make the mistake of adding scope with their contingency. Architects should make sure the documents are as complete as possible and understand that the contingency is not a method for addressing late design decisions.

The owner's primary management risk is from the contractor. Once the contract is signed and the work begins, the creation of change orders is the most contentious act on any construction project. This is where hurt feelings develop and where litigation stems from. Owner contingency not managed properly during construction can result in cost overruns and unnecessary losses.

The contractor does not earn a fee on change orders. When a contractor receives a fee on a change-order equal to or less than the fee percentage they are earning for the project, they have little or no incentive to scrutinize the subcontractor's change orders. It is difficult for anyone but the contractor to determine the price of a change order. Allowing the contractor to receive a fee on change orders places the most honorable of contractors in a compromising position. The only time a fee should be paid on a change order to a CM or contractor is when there is a real and tangible change to their work which seldom occurs. Change orders can erode the contingency a little at a time unless the owner requires the CM or the contractor to provide consistent documentation.

**Documenting the change-order process**

The owner should establish a process to monitor the contractor to ensure that each change order is properly reviewed. A proposed change order (PCO) is a way to document this process. It gives everyone a chance to review the requested change. The PCO should state that all affected subcontractors have reviewed it. Once signed, the change-order amount is the only cost associated with that specific work. No additional cost can be presented to the owner. If there are additional costs, the contractor can use the contingency to pay for them, but not the owner.

A construction change directive (CCD) can be used when time is critical, the team knows the change will occur, and it is just a matter of determining the cost. This process should be priced as if it were a PCO and recorded in a PCO log.

**THE CONSTRUCTION CONTINGENCY**

It is not unusual for a contractor to need to move a wall or an opening or to otherwise modify plans for a host of reasons. The construction contingency allows this type of flexibility, and the owner should not view it as lost cost but as a tool to complete the project within the budget. The use of a contingency for the contractor's needs varies with the type of delivery method.

**Design-bid-build.** The contingency is most difficult to manage in the design-bid-build process. In fact, it is nearly impossible to manage with full control, due in part to the bidding process. The contractor who makes the most mistakes in the bidding process is typically low and may or may not have held onto enough contingency to complete the project. Therefore, the construction contingency should be higher for design-bid-build. One way to better handle this situation is to insert a contingency amount into the bid documents or tell the bidders in the bid documents that a contingency will be negotiated at the time of award.

**Design-build.** Depending upon how the design-build delivery is organized, the contingency can be negotiated with the contractor as a percentage of the work or as a lump sum. Design-build contingency structures depend on contractor selection, whether based on a bid or on a GMP determined during a qualifications-based selection (QBS) process. When determining a contingency for the contractor, the owner should consider the project's level of risk. A range of 5 percent to 10 percent is common, based on the level of risk, difficulty, and complexity the contractor will face. The contractor should have full control of the contingency and should be able to use it as needed. Proper management would require the contractor to give the owner a quarterly report of how much of the contingency has been used and for what purpose. This level of accountability will keep everything on the up and up, especially in a public project.

**CM/GC.** The CM and/or general contractor (CM/GC) delivery methods are flexible and provide an excellent opportunity to work with the contractor to deal with a contingency. The contingency can be established in a number of ways. The CM and/or GC is typically selected using a QBS selection process involving a fee-based proposal. It can also include

submittal of a management plan, schedule, and general conditions. The owner can request that the management plan include a budget estimate for the project; within the budget estimate, the owner can stipulate a healthy contingency amount based on risk assessment, communication with the contractor, and/or looking at similar projects within the industry.

Any remaining contingency is the owner's, not the contractor's. This gives the contractor incentive to use the contingency responsibly. The contract should require periodic reviews of the contingency to evaluate levels of risk and provide information regarding the release of the contingency back to the owner. This should be a mutually agreed-upon concept. The CM and/or GC should assess their risk on the job throughout the project. It makes little to no sense for the contractor to hold more contingency than is required by the current level of risk at any point during the project. Both of these management tools—the review of the contract and the release of unused funds—should be spelled out clearly in the contract and understood by both parties.

### DESIGN CONTINGENCY

The design contingency amount usually ranges from 5 percent to 10 percent of the overall construction cost. The owner should include this cost directly in the project budget. The design contingency should not be created by reducing the project budget by 5 percent to 10 percent but should be an additional amount that the owner holds for the architect's use to ensure that all desired scope is covered.

As the project evolves, the contingency is drawn upon by the owner and added to the project. This should be a process of checks and balances in which both owner and architect work together to determine when to use the contingency.

The design contingency should not be used to accomplish the original scope of the project unless it is clear to all concerned that the original budget

- Did not address all project needs appropriately
- Did not recognize the potential for price changes in the market place from the time the budget was finalized
- Assumed, as the project developed, that more would be known about the project than was known at the time the budget was established

The last issue—of project information availability—typically causes most project budget issues.

In general, the design contingency should be used

- To resolve unforeseen issues during the initial period of design
- To provide balance between the scope and initial budget if problems occur, thus eliminating “cost cutting” that can reduce both the scope and the quality of the project
- To enhance the project as recommended by the architect and agreed upon by the owner during the design phase to eliminate “scope creep”

Cost estimating is more of an art than a science. Seek advice, when needed, from a cost consultant or CM during the programming and design phase.

After the design is finalized and as the architect is creating construction documents, if any project pricing issues arise, the owner should use the outside estimator or CM to assist the architect in valuing the cost of the work. During this phase, the design contingency should correct any budget deficiencies or unknowns—again, only with the owner's approval.

Once the documents are complete, use of the design contingency should vary by delivery method.

**Design-bid-build.** The remaining contingency should revert to the owner to cover changes in the work that the contractor will identify. It can be used during the bidding phase to allow the architect flexibility in review and approval of submittals as well to accommodate for changes or problems identified in the documents by the bidders.

**Design-build.** If the design contingency is not fully used, it can either be returned to the owner to be used in managing the owner's contingency or can be transferred (by contract) to the contractor's contingency for the completion of the project.

**CM/GC.** In CM/GC delivery, the most flexible of the three basic delivery methods, the design contingency can be extended into the construction phase. Here, the contingency should be used to give the architect enough flexibility to work out design issues during construction.

### Effective management of the design contingency

When using a design contingency, the owner should appropriate approximately 20 percent in the design phase, 30 percent in the design development phase, and 50 percent or less in the construction document phase of the original amount of design contingency. This should be spelled out in the contract between the owner and the architect or design-builder.

When the design contingency is managed properly, the owner is involved in the decision making of the

project and can address all project needs while also encouraging the architect to pursue environmental design, sustainability of materials, and other intangible elements of a project. It gives the designer flexibility to explore ideas that will add value to the owner as well as the ability to complete project scope, all within an approved budget.

### About the Contributor

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### RESOURCES

#### More Best Practices

The following AIA Best Practices provide additional information related to this topic:

- 13.04.03 Elements of Realistic Project Budgets
- 13.04.01 Managing Design Project Costs

#### For More Information on This Topic

See also "Project Controls," by Lowell Getz, CPA, and Frank A. Stasiowski, FAIA, *The Architect's Handbook of Professional Practice*, 13th edition, Chapter 14, page 444.



See also the 14th edition of the *Handbook*, which can be ordered from the AIA Bookstore by calling 800-242-3837 (option 4) or by email at [bookstore@aia.org](mailto:bookstore@aia.org).



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#### Key Terms

- Practice
- Business planning
- Quality control programs
- Project management guidelines