

**SIXTH ANNUAL  
SOUTHERN SURETY AND FIDELITY CLAIMS  
CONFERENCE  
APRIL 20-21, 1995**

***THE END GAME  
PROJECT MANAGEMENT DURING THE CLOSE OUT  
PHASE***

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## INTRODUCTION

For the purposes of this paper, let us call THE END GAME that last stage of a project running from the completion of bulk construction to final acceptance. Most people recognize that substantial completion represents a major phase change in the life of the project. The point of this paper is that the nature of the project changes well before the time of substantial completion and the project team needs to adapt to the changed environment to successfully close out the project.

During the earlier stages of a project, contractors and subcontractors are pushing to get access to their work, answers to their questions and approval for their progress - so they can get paid. As you all know full well, cash flow management is a vital part of a contractor's life, and the need to maintain a positive cash flow provides a powerful performance motivator to all of the contractors on site.

When the project nears completion, the cost of those last few percentage points of progress exceeds the benefits of properly completing the work and the motivation, which has driven the program up to that time, disappears. This is one of the clearest indications that THE END GAME has begun.

Another characteristic of THE END GAME involves the relationships of the parties. At the beginning of a project, all of the participants are anxious to please, filled with hope and good intentions. By the middle of the project, much of that unfounded optimism has disappeared, but the parties still see more to be gained by cooperating than by feuding. By the time THE END GAME begins, months of adversarial relationships have taken their toll. Every issue has an emotional history and the antagonists have become defensive and suspicious of each other.

Why should sureties be interested in THE END GAME? The project is virtually finished at that point and the sureties exposure is approaching zero. You all know the answer. Defaults occur so frequently in the final stages of a project that those of us who work in bond claims find that we have become experts in closing out a project and hardly remember how to get one started.

## EMOTIONAL ISSUES

Project burn out is a phase frequently heard during THE END GAME. The parties are physically, emotionally and financially drained. The Architect has lost confidence in the contractor's ability to complete. The contractor is convinced that the drawings and specifications are hopelessly deficient and that the architect and/or engineer (A/E) is trying to shift responsibility for the poor design onto the contractor. The owner is fed up with both the A/E and the contractor and cannot begin to sort out the conflicting claims and counterclaims of the antagonists.

If, in a misguided attempt to appease the other parties, the contractor has not been filing timely notices of potential claims, it will usually begin doing so at this time. Experienced owners will not overreact to these notices, however less sophisticated parties will feel anger and outrage and may respond with counterclaims. The fragile fabric that has bound the parties until now will often be torn by such conflicts.

When owners and A/E's feel threatened by contractors, or when general contractors feel exposed to subcontractors, the threatened party may take defensive measures such as withholding payments, exaggerated accusations or even a preemptive termination.

Despite the bad feelings which often characterize THE END GAME, the parties usually hang together and complete the project. What factors tend to dampen the hostility and preserve some measure of cooperation?

The Owner needs to get the project into beneficial use.

The A/E needs to stop spending money on the project.

The contractor needs to get paid.

If any of these factors is not present, project closeout will be very difficult. If the Owner doesn't need the project - or worse - doesn't want the project, there will be no incentive for the owner to reasonably settle the many outstanding issues which have accumulated during the job. If the A/E is either not spending money, or is being reimbursed for its expenditures, it will not be motivated to resolve design issues quickly. If the contractor is overpaid, or, more likely, is convinced that it will not get paid, it will shift its resources to projects which can generate cash.

### **RFI's and CHANGE ORDERS**

Delayed responses from the A/E to the contractor's requests for information (RFI's) create serious problems for the contractor during THE END GAME, because the contractor has fewer areas to which it may shift its trades while awaiting answers to its questions. Most issues will impact the critical path by this point in the life of the project. Questions that have been outstanding for a long time must be resolved without further delay.

Administrative delays, unclear questions and unresponsive answers render the usual letter writing approach unsuitable for resolving issues during THE END GAME. Faxes and conference calls can be useful. However, we have found that frequent, well structured meetings are required to deal with technical and commercial issues, which are long-standing, complex or urgent. Decision makers from the owner, A/E and contractor need to attend these meetings. Agenda items must be collected from all parties and distributed in advance of the meeting. Decisions must be recorded and followed up. A RFI register must be maintained to insure that all questionable issues are resolved and to establish the dates on which the contractor raised the issue and when the A/E provided an acceptable response.

There are usually a number of change order issues which must be resolved during THE END GAME. The contractor will have a list of "constructive" change orders which should be negotiated or dropped. Change orders which were directed on a time and material basis because the parties could not agree on a firm price should be converted to firm price. Potential change orders raised by any of the parties should be executed or abandoned. If the contractor has not kept up a register of all change order issues, such a document should be prepared now to support these settlement discussions. The register should include the date that the change order was first proposed so that the impact on other work can be properly evaluated. The register should also show when the contractor submitted its quotation and when the change order was executed. These dates will be needed to analyze delays resulting from the changes.

The change order situation changes drastically if a surety becomes involved. Unlike the contractor which may willingly accept late change orders to improve its profit and/or its relationship with the owner, the surety is anxious to close out the bonded work and is not too concerned about the owner's reaction. The surety will often resist or reject late changes which are not mandated by the performance bond coverage.

### **PRELIMINARY PUNCH LISTS**

Another clear indication that THE END GAME is in progress, is the shift in emphasis from production to punch listing. Responsible contractors will initiate this phase with preliminary inspections and punch lists of their own work and the work of their subcontractors. Irresponsible contractors will rely on assertions from their superintendents and subcontractors that the work is complete and will present areas and systems to the A/E for final inspection which are manifestly incomplete or unacceptable. They may also pressure the A/E into accepting the work or risk delay and interference claims. Such tactics are usually counterproductive.

### **PUNCH LIST MANAGEMENT**

The bad news about punch lists is that they can be voluminous, discouraging, time consuming and can easily eat up what little profit is still available to the contractor by this time. The good news is that, if the contractor gets on with clearing the punch list rather than complaining about it, the work goes quickly and the goal of completion is brought within reach. The key word here is responsibility.

The responsible contractor aims to deliver the product described in the contract documents. That contractor identifies and clears most of the potential punch list items before presenting its work for inspection. The responsible A/E inspects with an eye toward the codes, standards and local practices and does not try to squeeze more out of the contractor than the parties had bargained for. Responsible superintendents and subcontractors diligently clear the punch list items assigned to them.

Spreadsheets can be a powerful tool for managing punch lists. Each punch list item is entered into the spreadsheet in an abbreviated format on a single line. Columns are provided to reference the original punch list item and to identify the system or space and the superintendent or subcontractor responsible for clearing the item. A column can also be provided to identify the

status of the item, i.e., not started, in progress, completed and cleared.

The spreadsheet can be sorted by space or system or whatever grouping is appropriate and by responsible party. The space, system, area, etc. sort gives the contractor a clear picture of its progress toward completing and handing over sections of the work. The responsible party sort is used to assign responsibility for correcting the defect and gives the work crews a clear, manageable handle on what must be done. A status sort gives the contractor a good overall indication of its progress. Computerizing the punch list makes it easy to add and delete items and gives the responsible parties a sense of accomplishment as the lists are updated.

The punch list needs to be viewed as more than a compilation of minor defects. All of the outstanding issues should be directed towards resolution during THE END GAME. The trade offs and compromises which make a final acceptance possible, will include some punch list items as well as more substantive issues. Compromising a difficult punch list item can result in a win-win situation. The contractor avoids a costly and delaying correction and the owner gets something which it regards as more important than the corrected deficiency.

During these final negotiations, the general contractor must take care of the legitimate claims of its subcontractors. There is a strong tendency for G/C's to cut a deal with the Owner without regard for the subcontractor's damages. Some Owners and Architects will encourage this practice to divide the opposition and reduce their own exposure. If the subcontractor subsequently brings an action against the general, the general may have no recourse against the party that was truly responsible for the loss.

### **CONTRACTOR'S OFFICE ADMINISTRATION**

If the contractor's files have not been maintained in a neat and orderly fashion during the production phase of the project, this must be done during the final phase. Little real progress can be made toward resolving disputes and raising claims unless the project files can provide documentary support. It is also important to archive the files of key personnel before they are demobilized.

Special files should be established to support all existing and potential claim issues so that these matters can be pursued by attorneys and consultants after the project team has scattered.

The contract financial status needs to be nailed down during THE END GAME. Outstanding extra work and back charge issues must be quantified to get a handle on receivables, and the subcontractor and supplier accounts need to be conformed.

### **SCHEDULING**

Scheduling during the final stages of a project is very different from the scheduling done during the production periods. The sequencing of activities during the bulk construction phase is dictated by the logic of efficient construction and deals with relatively long term activities. During the finishing phase the schedule is usually driven by access to work areas. The activities are more specific and involve fewer resources.

During the punch list phase, the schedule is driven by the hand over program and the need to provide individual work crews with enough work to justify the cost of setting up and demobilizing. The activities are usually very brief and numerous and cannot be adequately described by the networks and Gant charts used during the earlier phases.

The computerized punch lists described above can form the basis of a punch list schedule. The list can be sorted by area and by discipline or subcontractor. A bar chart set up on a daily basis with a 14 or 21 day look ahead for each punch list item will serve as a schedule. The ease of adding, deleting and changing a spreadsheet schedule makes this a very handy approach.

## **SUBCONTRACTOR RELATIONS**

The relationship between the general contractor and its subcontractors undergoes a profound change during THE END GAME. As mentioned earlier, the cash flow motivators which keep the subcontractors pushing their work during the bulk construction phase are no longer present during the punch list phase. Punch list activities are inherently inefficient, so the cost of clearing deficiencies greatly exceeds the financial benefits of doing the work.

This situation is made worse by the common practice of front end loading the schedule of values. By the time THE END GAME begins, the subcontractors have been paid most of their contract value, leaving retention as the only carrot left in the general contractor's bag. How then does the general contractor get reluctant subs to return to the job to clear their punch lists?

The wise general contractor will recognize that the cost of mobilizing and demobilizing punch list crews will be a major factor in the subcontractor's decision to work off its punch list. Rather than demanding work on a piece meal basis to support the immediate turn over schedule, the general contractor should try to arrange for enough work to keep the subcontractor's crew busy for a complete day, or for a few days in sequence if long travel is involved.

The general can also insure that the prospect of releasing or reducing retention is real to the subcontractors. If the subs feel that the carrot is going to stay in the bag for a few years, no amount of persuasion will induce them to assign resources to finish the final few items of their work. Rewarding a subcontractor who clears his punch list and completes his close out requirements in a timely fashion sends a powerful message to the other subs.

Unfortunately, there will usually be a few subcontractors who refuse to finish or correct their work because of disputes or financial difficulties or more profitable work elsewhere, etc. The reasons are many but the solution tends to be the same. The general contractor must get unpleasant. Threatening to do the work at the risk and expense of the subcontractor is often enough to compel performance, if the threat is credible.

If the general's project manager is known to be a reasonable person, it may be necessary to introduce a home office "bad guy" to get the message across to all reluctant parties that something really painful is going to happen to them, if they get in the way of final completion and acceptance. If the unresponsive subcontractor is bonded, a letter to its surety will often get the attention of the sub's decision makers, or if the subcontractor values his relations with the Owner, a word from the Owner or Architect will usually do the trick. The message here is that

during THE END GAME, the reasonable and cooperative approaches that are so important to the earlier stages of the project must sometimes be replaced by unpleasant, demanding and somewhat unreasonable attitudes.

### **THE END GAME DEFAULT**

The difference between the contract balance and the cost of a replacement contractor is at its greatest during THE END GAME. By this time in a project cycle, most of the available funds have been drawn and many of the quality problems have been covered over. Relet bidders will be aware of hostile attitudes and concerned about latent defects and inefficient working conditions. The cost to complete can run three to four times the contract balance. What options are available to the surety under these conditions?

#### **RELET THE WORK**

If relet contractors are available and willing to complete the work for a reasonable firm price, the surety is usually well advised to relet the work.

#### **SUPPORT THE PRINCIPAL**

If the Principal is still a viable and capable contractor and a secured indemnitor, - and if the working relationships on site have not broken down completely, - and if adequate financial controls and site monitoring can be established, - the surety may elect to support the principal.

#### **BUY BACK THE BOND**

If the estimated bond loss approaches the penal sum of the bond, or if the owner wishes to arrange for completion on its own for a reasonable amount, it may be possible to buy back the bond.

#### **RESERVE RIGHTS AND DO NOT RESPOND**

The probability of a termination being wrongful grows as the project nears completion. Some would say that performance under the contract to the point of substantial completion should preclude termination altogether. In any event, if the Principal has completed the earlier phases satisfactorily and is terminated with only punch list work remaining, the surety may decide to not respond to the default.

There are legal and practical dangers inherent in this approach. A suit by the obligee is the most obvious legal danger. A practical danger which we see quite often is that when the obligee completes the punch list at the surety's expense, the quality standards will be unreasonably high and other work such as design improvements and owner wish lists will get done on the surety's account as well.

## **NONE OF THE ABOVE**

The Principal who has been terminated during THE END GAME is often exhausted - physically, emotionally and financially wiped out by the struggle up to that point. The best site people have left for greener pastures and the ones that remain are bitter and afraid. The owner and architect are gleefully awaiting the arrival of Mr. Deep Pockets Surety to restore their financial well being, and the potential completion contractors are either too busy and do not want the work, or not busy enough and desperate for a big score. The surety is looking at a large, open ended loss and none of the usual containment options are available.

## **THE TIGER TEAM**

Forcon was recently requested by a surety client to step into a situation such as described above. This was not a consulting assignment. We were asked to take over the site management of a defaulted contractor who was being supported by the surety, and complete the work in the name of the contractor and on behalf of the surety. We call this our Tiger Team option.

The Forcon tiger team is comprised of construction engineers and managers with extensive experience in project management and surety bond claims. The team includes a project manager in overall charge, a project engineer to handle technical issues and contract and office administration and a general superintendent to supervise the field forces. Part time specialty engineers are used to complement the team so that all of the necessary engineering disciplines are represented. Qualified employees of the principal who were not previously assigned to the site may also be used, and one representative from the former site organization is kept on, in the background, to provide continuity.

The tiger team seizes the initiative on their first day and doesn't let go until the job is complete. This is quite a shock for the owner, architect and engineer who had grown used to beating up on a broken, defensive contractor. It is also a shock to the subcontractors and suppliers who had become used to calling their own shots, and to all the parties who thought a well financed surety was going to come in and simply throw money at the problem.

However, this is an expensive solution. The first part of seizing the initiative is deciding what to do. The rest of that approach is doing it - and that costs money. The pervasive defeatism which invades a job gone bad, must be replaced with confidence that the new team can do what could not be done before. Ancient disputes must be compromised. Employees of the owner, architect, engineer, subcontractors, inspectors etc. who were planning to make a career out of this project must be disabused of that notion.

One benefit to this approach that we had not anticipated, was the fact that our surety consultants are all experienced claims consultants as well. The principal's adversaries are initially angry to learn that a nest of claims artists has been tossed into their midst, but they soon become reasonable when they realize that this is a new ball game, and that there is a price to be paid for past mistakes and future interference.

Turning a project around with a highly qualified team of professionals costs money and should not be undertaken unless the surety is convinced that less drastic measures will not be able to contain the loss. One cost that is not easily definable is the cost that will not be incurred in litigating the situation where Surety does nothing or turns the matter over to the Obligee. We like to refer to this as the unknown cost of the road never traveled.

This may all seem like a pitch for new Forcon services, and I will admit that we had something like that in mind when we put the first tiger team together. Since then we have learned that the cost of this approach, to our clients as well as ourselves, is high.

We know that supporting the principal or a T&M relet situation can turn into a money hemorrhage, and a costly closure is better than an open ended loss. We are not always certain that our clients understand that. We prefer that the surety's money be spent in a situation where the overall savings are more obvious.

The high cost for us comes from tying up consulting resources on relatively long assignments. The tiger team will usually be involved in an intense, stressful environment for three to six months, during which time they are unavailable for other work. This new service could threaten our core business so we are not actively marketing the tiger team approach. We did, however, want to let you know that this option may be appropriate in certain situations, and we might be able to help if you find yourself in one of those situations.

The relationships, incentives and attitudes of the parties undergo a profound change during THE END GAME, and the management of the project needs to change as well. Contractor defaults during this time should be rare, because performance under the contract is virtually complete, and yet they are common. The principal may be unable to complete, even with support, and relet contractors may be unavailable or too costly. We hope our company friends do not find themselves in this situation, but if you do, and if the loss exposure is high, a tiger team may be your best option.

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