

RFIs and Shop Drawings

How to Manage Risk and Reduce Liability

By David J. Hatem, PC and Peter C. Lenart, Esq.

We are all aware of today's challenging economic times. Projects are suffering and companies that design and engineer projects are finding that clients want more for less. Contractors are similarly squeezed and taking on projects with slimmer and sometimes nonexistent profit margins. These factors, in combination with the increasingly aggressive construction claims environment, make it more important than ever for engineers and design teams to manage potential risk in every aspect of a project's development. Two notable areas where such enhanced management is warranted are Shop Drawings and Requests for Information (RFIs). These components of a project are already a frequent source of tension between contractors and those on the design and engineering side of projects. There is every reason to believe that this tension will increase as Projects showing signs of difficulty cause parties to manufacture a document trail in a thinly veiled effort to shift blame. It is thus important to remember exactly what RFIs and Shop Drawings are, and for what exactly each participant in the building process is responsible.

Shop Drawings

Shop Drawings are defined by the Engineers' Joint Contract Documents Committee (EJCDC) in its Form No. 1910-8, *Standard General Conditions*, for the construction contract as: All drawings, diagrams, illustrations, schedules, and other data or information, which are specifically prepared or assembled by or for contractor and submitted by contractor to illustrate some portion of the work.

The AIA view is similar with AIA Document *General Conditions* of the contract for construction, which refers to Shop Drawings as "graphic or written descriptions of the work which the contractor intends to perform to meet its contractual obligations for the project, subject to the architect's or engineer's approval."

The major risk management issue regarding shop drawings is not how they are defined, but rather who actually produces them, who is responsible for the content, and what is the scope and significance of review comments. While design professionals and engineers know that shop drawing production is the contractor's responsibility, design professionals often windup generating some portion of the shop drawings. Unless this task is specifically delineated in a governing agreement, design professionals and

engineers should not generate shop drawings, especially in areas relating to the means and methods of construction. Doing so creates additional liability, as the contractor and subs then have even more reason to say, "We did it this way because the design team or engineer told us to." A more simple reason to avoid doing shop drawings is to avoid doing the contractor's work for free. Members of a project's design team and its engineers sometimes permit their commitment and their exuberance for a project to blur the lines of those items for which they are responsible. A better way to be helpful is to set a schedule for the submission of shop drawings and making certain that it is adhered to.

A time honored and practical, albeit pre-BIM, shop drawing management technique involves color coding. The contributions, changes, and comments by the contractor and each subcontractor are added in a unique pre-assigned color, which makes it easy to see where each change or notation on a shop drawing originated. It also allows the architect or engineer to assess quite easily who on the building team has reviewed and contributed to the shop drawings. This system gives the reviewer a low-tech way to check up on the contractor and the subs, and permits him an easy way to follow up with a particular discipline's changes or notations. This system also allows the reviewer to return shop drawings after only a quick glance when it is apparent that they are not ready for the design professional's review.

Contract documents should define roles and responsibilities as shop drawings process and define the scope of the design professional's review. It is also important to note that just because an architect or engineer approves or stamped shop drawings does not make him or her responsible for their content. A reviewer's obligation is a practical one, such as to make certain that multiple fixtures are not occupying the same space. A reviewer's approval merely indicates that the contractor and sub-disciplines have crafted what appear to be jointly coordinated and workable drawings. The scope, meaning and limitations of that review should be spelled out in the construction contract's general conditions. It is a good practice to reiterate the essence of these limitations on the design professional's shop drawing review stamp.

Perhaps the most useful tool in facilitating an adequate shop drawing process relates to proper communication. Preconstruction meetings are

exceptionally useful in agreeing to schedules and in defining responsibilities. Such meetings give design professionals and engineers the opportunity to reinforce the contractors' and subcontractors' responsibilities pertaining to the shop drawing process. By emphasizing the contractors' dominant role in producing shop drawings at preconstruction meetings, a project can avoid the often frequent occurrence mid-project of a contractor at odds with a design professional or engineer by claiming that "everybody thought" that the architect or engineer would create the shop drawings. Design professionals and engineers should use these meetings to make clear that they will review shop drawings, but not generate them. These meetings are also a good opportunity to assign the various colored markers described above, and maybe even hand out a box of Sharpies in various colors to the contractor and each subcontractor in attendance. This planning function is effective, it establishes expectations, and it significantly reduces disagreements and claims down the line. It is also essential that shop drawings always be reviewed in a timely fashion in order to minimize and avoid delay claims.

Requests for Information (RFIs)

RFIs are the mechanism which allows contractors and sub-contractors to raise questions and receive answers regarding drawings and specifications provided by the design professional. RFIs are contractor generated. The contractor's need to clarify or resolve any ambiguity in certain elements of the design is an important part of the design process. While this process can be abused by contractors who are attempting to bring about change orders – and thus additional revenue – design professionals should encourage the RFI process, and make every effort to see that it is run in an organized and efficient manner.

It is essential that the design professional or engineer maintain a log of RFIs. The log should indicate the date the RFI was received, the subject, the identity of the requestor, the date the RFI was responded to, and a description or code detailing how the RFI was resolved. Frequently, the RFI raises a question about something which is addressed clearly in the design professional's or engineer's drawings. In this circumstance, the RFI can be responded to quickly with a reference to the appropriate schematic. If a more detailed response is required, the design professional or engineer should conduct

a type of RFI triage so that the RFI with the greatest potential to stop work, and thus result in a delay claim, is addressed first. Also, with detailed RFI issues, it often helps to meet with the requestor to make certain that the issues in question are properly understood. A formal resolution can then be issued following a hopefully productive meeting on the subject.

Design professionals and engineers should maintain a spreadsheet or database of a project's RFIs which permits the compiled information to show not only actual response time for each RFI, but the average response time for all RFIs on a given project. It is also helpful to be able to show, from each RFI's resolution code, what percentage of RFIs were resolved by references to the drawings, as opposed to the necessity for a change order. Construction lawyers like to emphasize the number of RFIs on a project in order to insinuate that the drawings were flawed. By organizing RFI information as suggested above, a design professional or engineer can have ready access to information which may show that over 60% of a project's RFIs were resolved by virtue of the answer appearing on the original drawings. Organizing RFI information is thus a useful tool in managing risk, as it has the potential to defeat claims in their earliest stages in addition to being an effective tool in defending a formal claim or litigation.

There is a recent trend which suggests that RFIs should be defined narrowly in project

contracts, and that design professionals and engineers should return, unanswered, any RFI which does not meet that narrow contract definition. This method of addressing RFIs is highly inadvisable. Design professionals and engineers should encourage questions and should be available to lend their expertise as needed to offer guidance on a project. By returning a Request For Information as somehow nonconforming, relations with the contractor or sub will suffer, the question does not get answered, and delay may result. The contractor or sub will then blame the design professional or engineer for being uncooperative and non-responsive. It is a far better risk management approach to refine and ultimately answer an imperfectly phrased RFI than it is to let a likely small issue grow into a much larger disagreement.

Conclusion

As the above examples demonstrate, design professionals and engineers can assist in having projects run more smoothly while at the same time managing their potential risk on a project. It is well worth the effort to define procedures and responsibilities at preconstruction meetings, and enforce them consistently throughout the course of a project. Design professionals should be fair, but firm, in their handling of shop drawings and they should not hesitate to return shop drawings which do not appear ready to be reviewed.

With RFIs, the design professional must welcome questions and resolve quickly those items where the issue is resolved clearly in the drawings. Maintaining a log and spreadsheet as you go is effective in organizing and managing data, and is much easier than trying to recreate this information after a project is completed and when a claim or litigation arises.

Design professionals and engineers have the knowledge, experience, and tools at their disposal to manage project risk effectively. It is good business to focus on using these skills on every project in a proactive manner in order to reduce claims and lawsuits. Adopting the small changes and suggestions appearing in this article could have a significant positive impact on a project's claim or delay landscape, and thus are worth implementing. ■

David J. Hatem, PC, is the founding Partner of the multi-practice law firm Donovan Hatem LLP. He leads the firm's Professional Practice Group, which represents engineers, architects, and construction management professionals. Mr. Hatem can be reached via email at dbatem@donovanhatem.com.

Peter C. Lenart, Esq. is a Senior Litigation Associate in the Professional Practices Group at Donovan Hatem LLP. Mr. Lenart can be reached via email at plenart@donovanhatem.com.

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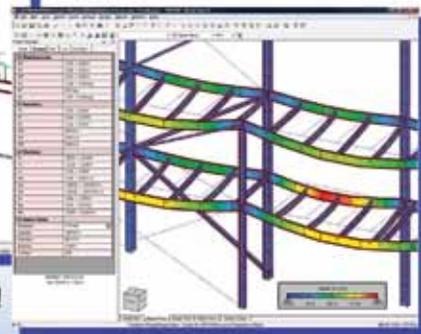
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