

Avoiding problems through construction documentation (part one)

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By Norman F. Jacobs Jr., CSI, CPE on November 6, 2015

Prudent project documentation is the backbone of construction problem avoidance. It provides a history of events, actions, and inactions during the execution of the contract work; it reflects the parties' intention and performance. Essentially, documentation provides the 'plan' for accomplishing the work, a history of contract modification and interpretations, and changes to the [critical path method \(CPM\) schedule](#) resulting in change orders. The benefits derived from having proper documentation include facilitation of effective management practices and providing a base for avoiding and resolving disputes.

The astute project manager uses detail documentation to support good management practices that confirm conditions encountered, directions received, expressed objectives, and actions required, contemplated, and taken. Unambiguous documentation maintained during the project can facilitate claim avoidance by supporting the resolution of disputes, as this [two-part article](#) series explores.

Insightful project managers must manage the documentation of the following items:

- contracts;
- insurance policies;
- submittal log;
- daily reports;
- correspondences;
- e-mail and fax;
- payments;
- CPM schedule (including all monthly updates);
- photos;
- meeting minutes;
- change orders;
- payrolls;
- requests for information (RFIs);
- architect's site visits reports;
- as-built drawings;
- equipment logs;
- bid estimates; and
- testing reports.

What is construction documentation? As paraphrased from *Webster's Collegiate Dictionary*, the noun "document" is described as having the following two Latin roots: [1] documentation [official paper, lesson, proof], and [2] docere [to teach]. It is defined in the following manner:

a: proof, evidence; b: an original or official paper relied on as the basis, proof or support of something; c: something [as a photograph or a recording] that serves as evidence or proof; 2a: a writing conveying information.

The vast majority of construction documentation starts as a writing or graphic to convey information. Therefore, it is vital the originators of such documentation be aware their creation may rise (or sink) to the role of proof or evidence in litigation. Construction documents are varied and have many purposes, but they should never be enigmatic. Delay, for example, can be documented with time impact analysis (TIA), CPM schedule monthly updates, and narrative reports.

Rules for documentation

There can be negative factors in presenting project documentation. Research through internal memoranda often discloses information critical to the mode of operation of the organization. Therefore, it is important to keep in mind certain rules for the maintenance of proper records for future projects.

1. *Be factual.* Written project documents should be factual and to the point. Speculation of unsupported allegations should be avoided.
2. *Be precise.* Letters, memos, and reports should be written with sufficient precision so a third party reviewing the document without the benefit of a substantial factual background will not misconstrue the intent of the document.
3. *Be complete.* Every change, correction of a deficiency, explanation, or rebuttal of a problem area should be recorded—particularly if the topic of deficiencies or alleged deficiencies has been raised. For instance, how does one document RFIs?
4. *Be impersonal.* Unnecessary or unjustified remarks concerning the competence or motives of others should be avoided.
5. *Be careful in comments.* It is important to be just as diligent and measured in writing comments on documentation one has received.

Being the largest industry in the United States, the construction industry has suffered through the years from several uncontrollable factors, including inefficiency, complexity, and management variables. Typically, a construction project has three principal participants—the owner, the designer, and the contractor—before expanding rapidly in size as support and assistance with consultants, lenders, sureties, insurers, subcontractors, suppliers, vendors, lawyers, and government agencies. Interacting with this team are several other parties who have sufficient influence to have an impact on the outcome of the project.

Coupled with this participant diversity are a project's unique time-cost pressures, which are unlike those of any other industry because of many variables having an impact on the team's productivity and performance. Although common goals and objectives are shared by the players at commencement of the project, these participants are often forced to follow their self-interests survival and economic [preservation](#).

This fragmentation provides a natural breeding ground for problems and disputes; making proper and accurate documentation all important. When left unsettled, disputes usually lead to costly and disruptive claims that delay construction progress and divert valuable management resources from productive project administration and control to preparation of evidence and participation in litigation.

With timely documentation, the owners, architects, and contractors can monitor and manage a project in such a way as to anticipate potential problems, delays, and impacts as they occur—this helps them resolve such issues successfully. It is imperative all project managers be problem-oriented while maintaining documentation during construction to identify and react to problems that may impact the contract price or performance time.

Items that must be critiqued in order to manage project documentation include:

- changes to specifications and plans (*i.e.* change orders);
- lack of meticulous CPM planning;
- out-of-sequence activity starts;
- no project management communication;
- lackadaisical attitudes to documentation;
- low team spirit;
- delayed approval of shop drawings (log will document)

- timely and adequate inputting of CPM schedule updates;
- untimely response to information requested;
- differing site conditions;
- interference by other contractors or owner;
- abnormal weather and climatologic data;
- transportation or material delivery delays;
- unusually severe inspections;
- critical material shortages;
- labor shortages;
- defective or deficient plans and specifications;
- no enigma management;
- lack of parameters as to game plan;
- people with whimsical and procrastination as to documentation;
- inadequate submittal log management;
- poor project meeting minutes;
- daily reports that lack detail information;
- logs of telephone conversations; and
- coordination meeting minutes lacking detail.

One special tool for proper documentation is the project CPM schedule, which documents the start and completion dates of every activity. Construction schedules provide a major source of project documentation. The owner, through the specifications, notifies the contractor that time is of the essence. Further, the specifications require the contractor to submit a schedule meeting both the completion date, as well as the intermediate milestone dates. Schedules help with problem avoidance.

In the [second part of the series](#), this author will offer a checklist of the types of construction information that assist in establishing entitlement and damages when a project faces disruption or delay. It will also explore ways to improve documentation.

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