

### **Drawing What the Governing Authorities Require for Granting Approvals**

Prior to actual construction, the technical portions of construction documents are typically reviewed by governmental agencies charged with ensuring public health and safety. These may be municipal building departments, or a state agency such as the Bureau of Buildings and Construction at the local Department of Community Affairs. The submitted documents are reviewed for compliance with applicable building codes. Once approved, the documents are released for construction, and the party executing the construction can then obtain a building permit. Proceeding without valid approvals is *never* a good idea.

To facilitate expeditious review of the documents, they should include the type of information that is germane to a review of code issues. Very often codes specifically ask for such information to be included on the drawings rather than stashed away in the project manual. The items necessary for a review of code issues include:

- *Use group classification of the building*
- *Type of construction and fire resistance rating of building elements*
- *Height and area limitations for the type of construction selected*
- *Detailed requirements for fire resistance and fire protection systems*
- *Energy conservation compliance*
- *Interior environment, including accessibility, egress, and interior finishes*

It is useful to include much of the above information in one place in the set. For most buildings, it is possible to include annotated, reduced-scale floor plans and tabulated code compliance data on a single sheet. Special sheets or CADD should be set aside for code information.

### **Doing Only What We Owe Our Clients**

It is very important throughout the design and documentation process to keep in mind the scope of services agreed on between the architect, the designer,

and the client. The nature of the design and its complexity and extent must meet the client's expectations, without needlessly exceeding them. There is a direct correlation between the intricacy of design and the amount of time required to document it on the drawings. This is true for a design that has many special features and one that attempts to bring together materials and building systems in unusual and innovative ways. Frequently, fees agreed on cannot accommodate the added effort necessary to document such high design level. Everyone involved on the project team needs to be aware of this and exercise an appropriate level of self-discipline.

This is also true in relation to any alternate designs that the client would like to have the architect/designer document. Typically, alternates are included in the bidding documents primarily to allow the client to receive bids on several possible project scopes or levels of quality—and thus meet the client's budget. As such, they are there largely for the client's convenience, and generally, they are not included in the basic scope of services. Before including alternates in the working drawings, it should be ascertained by the project team whether this work is part of the services we are actually obligated to perform.

### **Drawing What the Contractors Need**

Another guiding principle for working drawings is to provide *sufficient* information regarding design intent. "Sufficient" can be described as adequately depicting and describing *every* design aspect of the project *once*. It has been witnessed that construction problems (and, unfortunately in many cases as a direct consequence, litigation problems) arise when the drawings do not show enough, when they show too much, or when they are just plain incorrect.

Repetition within the drawings or the specifications goes beyond the requirements of the designer/owner agreement, and furthermore, creates the potential for conflict, error, inconsistency, and confusion. The ideal set of construction documents would show the full extent of every item and its interface on drawings only once, with clear cross-referencing and coordination with specifications. Thus, someone unfamiliar with the project would be able to find all the necessary information without the need for outside interpretation. While this ideal is just about impossible to achieve in real life, all project team members should strive to come as close to it as possible.