

For the Client

Change Orders

By Paul Genecki

Senior vice president, Victor O. Schinnerer & Company, Inc.

The use of change orders is a basic, as well as a common element of the design and construction process in the United States. While every client and engineers wants plans and specifications to be carefully coordinated and unambiguous, the reality of the situation is that it is not cost-effective for a client to pay an engineer for the extraordinary level of service necessary to achieve a "perfect" set of instruments of service. The time and expense to perform extraordinary rechecking of every item of the plans and specifications, investigate in detail any and all unknowns at the project site, and to insure no ambiguities are present in a set of plans and specs would cost clients significantly more than the current cost of preparing plans and specs using the reasonable and prudent standard of care. The current design practice standard of preparation of the plans and specs has been generally accepted as an appropriate trade off between costs versus benefits to the clients. No matter how extensive design services may be, certain aspects of the design will require modifications during construction to reflect conditions at the construction site.

Construction is not manufacturing; there is no ability to refine the project through prototypes, destructive testing, and redesign. Reasonable practice involves a certain level of flexibility in the development of a project as it moves from final

design through the construction process so that change will improve the outcome. The process is such that any need for a change order should be identified as quickly as possible. The change order should be based on a prescribed process to determine time and cost, and the actions should be carried out in a timely manner to prevent delay of the project.

A certain amount of imprecision is to be expected in the design documentation. Construction contract documents are prepared by design professionals who are held to a legal standard of exercising ordinary care and reasonable judgment in designing, drawing, and specifying project requirements. This legal standard however, does not impose a standard of perfection on architects and engineers nor does it require them to warrant that the documents they prepare will be without fault or fit for a particular purpose. In the performance of professional services before and after construction, the application of professional judgment is required. As a result, no set of construction contract documents can be expected to be absolutely complete or perfect in the literal sense of those terms. A certain number of ambiguities and inconsistencies are to be anticipated, and are a normal part of the process.

Contractors are required by the standard general conditions of construction contracts (between the owner and the contractor) to perform work and to furnish materials and equipment that reasonably could be inferred from the contract documents (plans, specs, contract, etc.), or from prevailing custom or trade practices as being required to produce the intended result whether or not specifically designated. Change order requests are to be

expected in such a system. Indeed, change orders often are necessary to accomplish changes desired by the client during construction.

It would be a very rare project that required no changes in the construction contract documents after they are executed by the owner and contractor. Most changes are not the result of some fault on the part of a party to the project; they are due to the complexities of construction, unforeseen conditions, changes in the owner's requirements after construction begins, and of the readily understood and anticipated factors. By using a system of change orders, changes can be accomplished in an efficient and orderly manner.

It is important that clients, engineers, and contractors have a common understanding of how the change order process works and of the need for strict adherence to the process, prior to initiating a construction project. Under the standard general conditions, an engineer has the obligation to review change order requests objectively and in a timely manner. The contractor has the obligation to provide adequate documentation as required by the general conditions of the contract. No change involving any increase in cost or extension of time is to be authorized without the written modification to the construction contract evidenced by the change order. Strictly following a rational change order procedure will reduce the potential that change orders have for generating unnecessary misunderstandings and conflicts and will help avoid unmet expectations in the design and construction process.



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