

For the Client

The Value of Qualifications-Based Selection to the Client

By Arthur Schwartz, NSPE General Counsel

Among the most important decisions a client will be required to make is the manner in which the client selects the engineering firm to perform the services being procured. In selecting an engineering firm, the client must always recognize that it is not acquiring a predetermined product. Instead, it is acquiring the professional engineering skill, talent, and effort necessary to achieve the client's ultimate objective.

Black's Law Dictionary defines "engineering" as the "art and science by which mechanical properties of matter are made useful to man in structures and machines." As defined, engineering is as much as an art as it is a science.

Given the same goals of any client's project, different engineers will come up with different solutions (designs) based upon their individual ingenuity, innovativeness, past experience, familiarity with equipment and brand reliability and operability, available design hours, and other factors (the "art" of engineering). Just as the public has come to recognize that not all physicians are equal and that, given the same set of symptoms, different physicians will invariably offer different opinions and recommendations (though all based upon applicable science), the same is true of engineers.

Moreover, by using his or her talents effectively to serve the client's needs, the engineer better serves

the public as a whole.

When a client participates in an active dialogue with the engineering firm, an understanding can usually be reached between the engineering firm and the client about the precise scope of services the engineer will be required to perform in order to meet the client's objectives. In this connection, it is critical for the client to view the design cost in the perspective of the total project cost over the useful life of the facility (life-cycle cost).

If one considers, for example, a college dormitory, and examines the total cost over its estimated economic life of 50 years, it can be demonstrated that furnishing, operating, maintaining, and repairing the facility represents about 65% of the life-cycle cost, construction represents about 33% of the life-cycle cost, and the design represents less than 2% of the life-cycle cost. Yet the design effort has a crucial influence, either positive or negative, upon both the 33% construction costs and the 65% furnishing, operating, maintaining, and repairing costs.

Experience has shown that the design fees invested at the "front end" have a tremendous "leveraging effect" for the client on the resulting life-cycle cost. Because of this leveraging effect, it is vitally important for the client to obtain the highest possible technical quality in the design effort.

A client that seeks to obtain a savings by reducing design costs without regard for technical quality, risks losing the benefit of the leveraging effect, with the impact being felt over the entire life-cycle of the project, most likely in the form of higher costs. It is

a classic example of a client being "penny wise, but pound foolish."

Recognizing these key factors, many public and private clients have established competitive procedures whereby engineering firms compete solely on the basis of technical qualifications. Under those procedures, the client selects the engineering firm that is best qualified technically to undertake the project.

These procedures provide numerous safeguards to ensure that the process is conducted in a fair and reasonable manner and in the client's best interests. In particular, public clients often use a board of three or more professional personnel to consider the qualifications of interested engineering firms and to develop a list of firms, based upon their technical qualifications, for further consideration.

The board then considers the qualifications of these firms in greater detail and conducts individual interviews to evaluate technical competence. Based upon these evaluations, the board then develops a selection list, ranking three or more firms, with the firm considered "most highly qualified" at the head of the list. These actions usually are also subject to higher-level review and approval.

Once the selection list has been compiled and approved, the client provides the top-ranked engineering firm with a description of the scope of work, and only then is the firm requested to submit a fee proposal. As noted earlier, this dialogue is critical.

The engineer, through his or her questions, may stimulate the client to consider new and different

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technical approaches to meet the basic requirements. Through this meaningful dialogue, the project requirements are refined and agreed upon. Only after a mutual understanding has been achieved, and only after the client makes clear what is expected of the engineering firm, is the client in a position to consider price in its proper perspective.

Negotiations then proceed with the objective of reaching an agreement on a fair and reasonable price for the engineering services. Through the negotiation process, differences between the client's estimates and the engineering firm's estimates are identified, discussed, and resolved. Generally, there are further adjustments and refinements of project requirements during this exchange. Finally, a price for the engineering services is agreed upon.

If the client and the engineering firm are unable to reach an agreement on a fair and reasonable price (an occurrence that certainly can and often does happen), the client ceases negotiations with the top-ranked firm and undertakes the same procedure with the firm ranked "second most highly qualified," continuing the process until an agreement is reached.

These basic procedures have served both public and private clients for many years, helping to ensure that the client obtains high-quality engineering services on a competitive basis at a fair and reasonable price. This process also supports the mutual interests of the client and the engineering firm. The client's interests are served by obtaining the highest value-added services, and the engineering firm is

highly motivated to provide the highest-quality services because, in doing so, the firm maximizes its opportunity to perform more work for the client in the future.

In sum, qualifications-based procedures for procuring engineering services have been carefully conceived and have proved successful both through the test of time and as evidenced by the number of satisfied clients. These procedures have long been used by the federal government and virtually all state governments for the procurement of architectural and engineering services. They have been incorporated into the American Bar Association's *Model Procurement Code for State and Local Governments* and the *ABA Model Procurement Ordinance for Local Governments*.

The process achieves successful, high-quality results on a cost-effective basis, with projects completed within budgets and ultimately experiencing lower costs over the life-cycle of the project. It is no wonder that public and private clients generally use a qualifications-based selection procedure when procuring engineering services.