

The Value of Qualifications Based Selection to the Client

By Arthur Schwartz, NSPE Deputy Executive Director and 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 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 above, 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 (e.g., 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 (yet still based upon applicable science), the same holds true of engineering.

Moreover, by using his or her talents to effectively 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, a mutual understanding can 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 (i.e., life cycle cost). If one considers, for example, a college dormitory, and examines the total cost over its estimated economic life of fifty 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 costs and the design represents less than 2% of the life-cycle costs. Yet the design effort has a crucial influence, either positively or negatively, 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 costs. 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...”

Because of the realization of these key factors, many public and private clients have mandated 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 those firms based upon their technical qualifications for further consideration. The board then considers the qualifications of the firm in greater detail and conducts individual interviews to evaluate technical competence. Based upon these

evaluations, the board then develops a selection list of ranking three or more firms with the firm considered “most highly qualified” at the head of the list. These actions are usually also subject to a higher level review and approval.

Once the selection has been approved, the client provides the 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 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 at 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 does happen), the client ceases negotiations with the first ranked firm and undertakes the same procedure with the firm ranked “second most highly qualified”, and continues the process until an agreement is reached.

These basic procedures have served both public and private clients for a number of years. They help to ensure that the client obtains high quality engineering services on a competitive basis at a fair and reasonable price. It also allows the coincidence of interest between the client and the engineering firm. The client’s interests are served by obtaining

the highest value added services; the engineering firm is highly motivated to provide the highest quality services because in doing so, the firm maximizes their opportunity for future work for the client.

In sum, qualifications-based procedures for procuring engineering services have been carefully conceived and have been proven successful through the test of time and as evidenced by the number of satisfied clients. These procedures have long been used by the federal 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.