

Qualifications-Based Selection (QBS)

For the Procurement of Professional
Architectural-Engineering (A/E) Services



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EXECUTIVE SUMMARY

Twenty years ago, the New York State legislature passed a law requiring all state agencies to use the qualifications-based selection (QBS) process when contracting for architectural, engineering, and surveying services. The New York State law, however, does not cover local jurisdictions, and New York City continues to use low price as its primary method of selecting architectural and engineering contractors. A recently introduced initiative (Initiative No. 523-A) attempts to address this discrepancy and bring the city into line with state policy. The introduction of this initiative has generated a lot of interest and discussions among affected parties, with the City Administration and city engineers' unions opposing it, and several engineering groups supporting it including the New York State Society of Professional Engineers (*NYSSPE*), the American Society of Civil Engineers (*ASCE*), the New York City Building Congress, the New York Association of Consulting Engineers (*NYACE*), and the General Contractors Association (*GCA*).

This report contains a study of current practices for the procurement of professional Architectural/Engineering (A/E) services in New York City, and addresses some of the claims put forward by proponents and opponents of QBS (Sections 2.2.1.2 - 2.2.2.5). The study is based primarily on information provided by New York City's Mayor's Office of Contracts during a Public Hearing on QBS (December 1999), and additional information from A/E firms on a representative data sample from the original data (Sections 4.1-4.5). Due to the limited scope of work and the time constraints for this study, the analysis is only limited to a short-term, and not a life-cycle, cost analysis. The report also contains quantitative information from past comparison studies of QBS vs. competitive bidding (Section 2.3.2.1).

Below are some of the concluding statements, based on the aforementioned data analysis and supplementary information (an extended list of concluding observations can be found in Section 5.1, page 62):

The data presented by the City's Chief Procurement Office (December 1999) in support of the current practices is misleading, for (1) it includes a variety of projects not qualified as "Professional A/E Services" and, (2) it puts forward a definition of "Estimated Cost Savings" that ignores the outcome of the bid process (i.e. what happens to a project awarded to a low bidder that generates change orders that negate any presumed savings due to bidding?).

Even though the frequency of reported contracts combining both best technical proposal and lowest price is relatively high, the fact that the awards were based on competitive bidding negates the technical qualifications of the winning firm. In other words, even if the best technically rated firm was selected, the firm won the contract on the basis of being the lowest bidder, and thus most of the disadvantages that come with bidding still exist.

The reported "Estimated Cost Savings" due to competitive bidding are misleading, since they fail to address the impact of the award to the final total project costs. Since the main cost issues in a project are not engineering costs, but life-cycle costs, construction extras, litigation etc., the reported "Estimated Cost Savings" are just presumed immediate

savings bearing the potential of escalating to major short-term (construction, litigation, etc) and long-term (life-cycle) expenditures.

The majority of the contract awards presented (72.6% by value) is for “Non-Professional Services” (as defined in Section 4.2). The remaining 27.4% can be further reduced if one excludes “Sole-Source” contracts (1.1%), thus resulting to professional A/E services being approximately 26.3% of the reported total contract value.

A direct corollary of this erroneous inclusion of “Non-Professional Services” in the analysis is the fact that 78.3% of the reported estimated cost savings (\$61,277,432) are assumed cost savings associated with “Non-Professional Services”, and thus shouldn't be included.

The highest average cost savings were realized on “Inspection” contracts (bids are for man-hours and hourly salaries), whereas the lowest average cost savings were realized on projects for which the design services were bid (bids are for total design (DOT) and design by other agencies). This may be an indication of the discrepancy in the quality and level of personnel and salaries between competing firms, and thus of the quality of services received by the Agency.

The value of change orders for some of the projects analyzed is extremely high (in one case almost doubling the value of the original contract).

The high value of contract change orders for some of these projects indicates an erroneous approach to these projects by the responsible Agencies, in the sense of either (1) not clearly defining the scope of work a-priori, or (2) adding to it and significantly altering the original contract, or (3) rushing into the development of the subject projects without really knowing what the projects entailed.

Some agencies seem to be better in managing their projects and better defining the scope of work in advance, whereas other agencies are acting less responsibly. The cases of two projects exhibiting 90% and 38% increase in costs due to scope changes are quite interesting.

The way the projects progressed, may indicate a fault in the award process that can be exploited by the participants: a low bid for a “fuzzy” scope of work which later leads to change orders as the scope of work gets refined and finalized, and other tasks are added to the original contract.

The study supports some of the principal arguments put forward by proponents of QBS, whereas it is inconclusive on some arguments not covered by the study's limited scope of work.

Among the arguments supported by the study and past literature on the subject, the most important are the following (reference sections are in parentheses):

- The QBS selection method was documented in past literature (the case of Maryland vs. Florida) to result in about one half the cost of selection and design, and about one half the administrative cost, while delivering projects in about three quarters the time of the (apparently) price - dominated "quality and price" selection method (Section 2.3.2.1).

- One of the principal reasons in support of QBS procedures for procuring A/E services is the lack, at the time of selection, of a definitive scope of work for such services and the importance of selecting the best-qualified firm. Since the scope of work is not well defined, proposals are not comparable in scope. Lower cost designs often do not take into account the full scope of the project and can result in higher design and construction costs (Sections 4.4.1, 4.4.2, 4.5).
- Similarly, competitive bidding may result in “presumed” cost savings at the time of award, but the short-term (construction phase) and long-term costs (life-cycle) may increase the original costs significantly (Sections 4.4.1, 4.4.2, 4.5).
- Competitive bidding gives rise to scenarios where consultants knowingly “low-bid” a job with a poorly defined, or fuzzy, scope of work expecting significant scope modifications and additions to the original contract (Sections 4.4.1, 4.4.2, 4.5).
- QBS reduces procurement efforts. Rather than spending long periods of time developing a very narrow scope of work to allow line-item comparisons between “bids”, owners can focus on identifying qualified firms (in a fraction of the time), and then jointly develop a suitable scope of services and estimated fees (Section 2.3.2.1).

Based on the aforementioned findings, it can be concluded that QBS offers significant advantages over competitive bidding and it should be the preferred method for the procurement of professional A/E services. QBS not only ensures that the most qualified firm is selected for each project, but it is also cost-competitive and has the best potential to reduce long-term project costs.

For access to the full report please contact the New York State QBS Council.