There is a “Best Practice” for Hiring Engineering Firms

Public sector experts emphasize qualifications and long-term savings for taxpayers

*The National Guide to Sustainable Municipal Infrastructure (InfraGuide)* released the Best Practice for Selecting a Professional Consultant promoting the principles of qualifications-based selection (QBS) rather than priced-based selection as a method for selecting professional engineers and other consultants. This Best Practice was developed predominantly by the public sector for the public sector based upon extensive interviews and research.

Adopting the Best Practice encourages innovation, lifecycle cost savings and sustainability

Adopting the Best Practice encourages innovation, lifecycle cost savings and sustainability by selecting the right engineering team - resulting in better value to taxpayers. In developing the current Best Practice for procurement, *InfraGuide* concluded that the long-term savings that can be gained from selecting engineering services using the principles of QBS are far more significant than short-term savings provided by the lowest-price design. *InfraGuide* recognized that improving public infrastructure is a long-term and sustainable investment in a municipalities’ economic, social and environmental quality of life.

The Association of Consulting Engineering Companies | Canada (ACEC) is a business association representing nearly 500 consulting engineering firms. Consulting engineering is a $21.4 billion a year industry that employs 100,000 Canadians.
Decisions made during the project planning and design have ramifications over the entire service life of a project. The public will have to live with those decisions for decades, even generations. An appropriate investment in professional services at the onset of a project can potentially reduce capital, maintenance and operating costs while improving reliability and extending service life. Conversely, reducing the investment at the design stage can result in significant higher capital, operating and maintenance costs throughout the service life of the project.

InfraGuide was a collaboration of the Federation of Canadian Municipalities, Infrastructure Canada, the National Research Council and the Canadian Public Works Association, to help municipalities make informed decisions and promote sustainable infrastructure investment. InfraGuide created both a national network of experts and a collection of published best practice documents for use by municipal decision makers and technical personnel in public and private sectors. InfraGuide published over 50 Best Practices.

Benefits already being realized

Procurement methodologies consistent with the Best Practice proposed by InfraGuide are already in use in many public sector organizations throughout the United States and Canada, including the province of Quebec where it was mandated by law. “Selecting the right team based on qualification, not lowest price, ultimately provides the best value for the best return on investment,” Peter Steblin, former general manager and implementer of QBS at the City of London.

InfraGuide’s Best Practice is also important to the consulting engineering sector, allowing engineering firms to provide the necessary resources to meet their client’s expectations, to innovate and to add value. To taxpayers, this means better services and savings.

It is time to take action

Still, in order for taxpayers to realize the benefits of the Best Practice, the public sector must demonstrate leadership by adopting Best Practice. For its part, the consulting engineering sector will then have the necessary resources to ensure taxpayers receive the best possible return on infrastructure investments.

“The Best Practice focuses on long-term value that results in savings for the taxpayer.”

Our economic, social and environmental quality of life is directly related to the state of our public infrastructure.

Therefore, when public sector infrastructure experts from across Canada conduct one of the most extensive reviews of procurement practices ever undertaken in this country, we should take notice. When they make such strong and specific recommendations, we should act – and implement the InfraGuide Best Practice for Selecting a Professional Consultant.

The Association of Consulting Engineering Companies (ACEC) is made up of 12 provincial and territorial member organizations. For more information on how to reach our member organizations, please visit “Who We Are” at www.acec.ca.
The InfraGuide “Best Practice” for Selecting a Professional Consultant

“it is unwise to pay too much, but it is worse to pay too little. When you pay too little, you sometimes lose everything because the thing you bought was incapable of doing the things you bought it to do.” – John Ruskin (1819-1900)

Executive Summary

This executive summary is excerpted from the InfraGuide to Sustainable Municipal Infrastructure: Best Practice for Selecting a Professional Consultant.

The quotation above by John Ruskin captures the reality faced by public officials engaged in commissioning the services of the professional consultants. Often cheapest price gets mistaken for best value. The need to re-introduce the concept of value to procurement of consulting services was the impetus for this document. The best practice was written for four primary audiences:

- **Decision makers**: senior staff responsible for administrative policy and processes;
- **Technical staff**: those responsible for implementing policy and administrative processes;
- **Procurement staff and auditors**: those responsible for conducting or monitoring procurement processes; and
- **Policy makers**: primarily elected officials.

Adoption of this best practice will create a common ground of understanding between professional consultants and governments seeking their services. The knowledge that a fair and transparent process is being used, in which all proponents are given proper consideration, should contribute to reducing the tendency for consultants to seek advantage by lobbying senior and elected officials.

There is a large body of knowledge on worldwide practices to select professional consultants. The most common method recommended is qualifications-based selection (QBS). This procedure facilitates selection of professional consultants based on their qualification, experience and competence as it relates to a particular agreement. The United States Brooks Act, enacted in 1972, requires all federal procurement of architectural and engineering services to incorporate QBS. Forty-seven states and many local jurisdictions have adopted similar legislation since.

The procurement of goods and services in the Canadian public sector is most often obtained through a public tendering process. Government purchases are guided by policies designed to ensure transparency and value. The product of service is described in detail in a tender document and sealed bids are invited. The lowest bid normally receives the contract. This approach is not appropriate for professional consulting services because it is frequently not possible to provide sufficient detail about the services required to ensure that all firms are bidding on equal footing. This is because part of the undertaking may be an exploration for the most appropriate solution.

The most appropriate solution is not necessarily the cheapest design solution. Furthermore, the consultant’s ability to devise the most appropriate solution depends on expertise, training, and most importantly, experience. It follows that purchasers wishing to identify the most appropriate solution should implement a selection process that:

- leads to the selection of the individual or team that is best qualified to undertake the particular assignment, and
- employs the experience of this team to develop the scope of services to ensure that all opportunities for adding client value are provided for within the project.
This approach does not preclude the consideration of price in the process. Rather, it encourages consideration of price within a more meaningful context by bringing the fee into the equation after the scope of work has been jointly established and agreement reached with the top-ranked firm. Understanding the relative contribution to overall costs 1) engineering required to solve a problem, 2) the cost of construction, and 3) the future operation and maintenance costs of the solution, underlines why it is so important to start with the “right” or “best” consultant.

“Engineering design” typically represents 1-2 percent of the overall lifecycle cost of a project, with construction accounting for approximately 6-18 percent of the cost. The remaining 80-93 percent of the cost, is accounted for by the operations, annual and capital maintenance, and decommissioning. This cost relationship is apparently well understood by engineers working in the public sector, but its consequences may not be applied during the tendering process. The appeal of the lowest-price design solution appears to override the value that can be gained from considering lifecycle costs.

**Best Practice Principles**

This Best Practice incorporates principles that ensure a sound and fundamentally fair process and one that will achieve the goal of adding the greatest value for the client.

The recommended consultant selection practice is a competitive qualification-based process that is principle-based and meets the following objectives:

• selecting a consultant who is best qualified for a specific project, and
• providing a client the benefit of the consultant’s skills, knowledge and experience to jointly develop scope of services that considers all opportunities for adding value.

The recommended method encourages clients to view consultants as “trusted advisors” who share their priorities and interest in achieving the best outcomes for their project. The Best Practice diverges from price-based selection practices in that it frees consultants to demonstrate how they can add maximum value to a client’s project rather than focusing on how to minimize their fees to ‘win’ an assignment.

For more information on the implementation of the *InfraGuide* Best Practice please contact ACEC President John Gamble, P.Eng. at jgamble@acec.ca.