



YPG Quarterly Newsletter

(Quality Based Selection and Procurement Processes)
Spring 2014

The value of consulting services is realized over the life of a project. The majority of a project lifecycle cost is associated with operation and maintenance. A higher initial investment in engineering fees for consulting services at the start of a project can realize substantial savings throughout a project's service life.

An awareness is needed by owners and taxpayers of the value that consulting engineering services provide. When building a winning team, a manager does not select the players who will play for the least amount of money. On the contrary, they vie for the highest paid players to win. In the same regard a winning project relies on a qualified team that is able to work within reasonable budgets.



This newsletter will focus on the way the services of consultants are procured. We will discuss the true spirit of Quality Based Selection (QBS) and the affects the Northwest Partnership Trade Agreement (NWPTA) has had on the practice of QBS in the western provinces.

Additionally, an understanding of a potential or existing client's procurement process is useful for the practice of consulting engineering. In particular, the weighting of the fee portion of a proposal can determine if a project is worth pursuing. In researching your client's procurement process you may learn the limits of sole sourcing and what the monetary threshold values are for changes in the procurement process.

We have summarized the procurement process for the Ministry of Transportation and Infrastructure and Metro Vancouver in order to provide examples of current procurement practices by two of the largest clients of British Columbia consulting engineering firms. Their approaches include a review of technical capability and experience in different capacities and a weighting of a fee component of a proposal.

We hope you enjoy this newsletter. Please feel free to get in contact with us for more information about any of these activities or to get involved! You can find us on Facebook, Twitter, or through email at info@acec-bc.ca.

Mark Byram, P.Eng. ACEC-BC YPG Provincial Chair

Also in this edition:

- QBS
- NWPTA & QBS
- Procurement of Professional Consultant
- ACEC-BC YPG Award

Qualifications-based Selection (QBS)

Stephen Bean, M.Eng, P.Eng, Principal / Victoria Branch Manager, Thurber Engineering Ltd.

The procurement of goods and services in the Canadian public sector is usually obtained through a tendering process where the lowest bid is typically selected. This process may be appropriate for buying commodities but it is not appropriate for procuring professional consulting services. There is usually insufficient detail about a specific project to ensure that all firms are bidding on the same scope of work because often times some form of exploration must take place to arrive at the most appropriate solution. Engineering design typically represents 1 to 2% of the overall life cycle cost of a project. About 80 to 90% of the lifetime asset cost consists of operations, maintenance and decommissioning. The remaining portion is construction costs. The life cycle and construction costs can be significantly reduced by good engineering design and therefore it does not make any sense to hire a design consultant based on the lowest price.

There are many different practices used throughout the world to select professional consultants. The most common recommended method is qualifications-based selection (QBS). QBS is an often misused term that is generally used to define a procurement process that involves the selection of professional services based on qualifications rather than price. The National Guide to Sustainable Municipal Infrastructure (InfraGuide) has published a [Best Practice for Selecting a Professional Consultant](#). This document is supported by ACEC-BC, is available on the website and was used as the basis of this article.

True QBS involves the following steps:

- Owner prepares a Request for Qualifications based on general project requirements.
- Firms submit qualifications (both technical and non-technical).
- Owner evaluates and ranks the submittals.
- Owner selects the best qualified (highest ranked) firm.
- Owner and highest ranked firm jointly develop an appropriate detailed scope of work.
- Owner and selected Consultant jointly negotiate fee for the agreed scope of work.
- Owner awards contract (if fee cannot be agreed, Owner goes to second ranked firm).

The key element in QBS is that the scope of work is developed by both the Owner and the Consultant. This allows the Owner to benefit from the Consultant's knowledge to develop an appropriate scope of services and allows the Consultant to demonstrate how they can add value to a project rather than focusing on how to minimize their fees to "win" the job. Other procurement methods such as the "two envelope" system and BC MoTI's e-RISP system are certainly an improvement over the lowest price system but they are not true QBS.

Unfortunately, QBS is not widely implemented in British Columbia since it appears easier to justify objectively on the basis of the lowest quoted fee. We believe that the North West Partnership Trade Agreement (NWPTA) has also led to some public service clients believing that the agreement obliges them to seek the lowest price. QBS is mandated in 47 of the 50 US States, for Federal procurement (Brooks Act, 1972), and many local US jurisdictions have also adopted it. QBS has also been adopted for Provincial procurement in Quebec in 2008 after fall-out from the Laval overpass failure. It is an issue that ACEC-BC has been pursuing for many years. We must continue to lobby municipal and

provincial governments to stop using tendering language during the consultant selection process and to adopt QBS which includes the ability to negotiate a fair price for engineering services.

The New West Partnership Trade Agreement and how it inhibits the use of Qualifications-Based Selection for the Consulting Engineering Industry

Chris Newcomb, P.Eng, VP & Surrey Branch Manager, McElhanney Consulting Services Ltd.

The provinces of British Columbia, Alberta and Saskatchewan co-signed the New West Partnership Trade Agreement (NWPTA) in 2010, replacing the former Trade, Investment and Labor Mobility Agreement (TILMA). The NWPTA's stated purpose is to remove trade barriers and increase the flow of goods, services and people between provinces by liberalizing investment, encouraging labor mobility, and regulating procurement. The NWPTA obliges all provincial and municipal government agencies within the three provinces to abide by its regulations, but it does not apply to private sector clients.

The western consulting engineering associations support the principles of the NWPTA, but oppose certain aspects of the procurement regulations, because they inhibit (but do not prohibit) the use of Qualifications-Based Selection (QBS), the internationally-recognized best practice for procurement of engineering services.

As many of you know, QBS is a transparent process for selecting the best-suited engineering firm for any project, then negotiating a reasonable fee for a design that will offer best value to the client and protect the public interest over the life-cycle of the project, including design, construction, operations, maintenance, and eventual upgrading or de-commissioning. QBS was developed in response to the alternative of auctioning engineering assignments to the lowest bidder, resulting in sub-optimal designs, inadequate construction supervision, increased life-cycle costs, poor value for the client and/or taxpayer, and compromised public safety such as in the Save-On Foods disaster in Vancouver (1988) and the collapse of the Laval Bridge in Montreal (2006).

It is no coincidence that Quebec introduced QBS for provincially-funded projects shortly after the Laval Bridge disaster. It is also noteworthy that, at the Charbonneau corruption enquiry into the Quebec construction and engineering industries, there was testimony that corruption was limited to municipal projects, because the transparency requirements of QBS prevented corruption at the provincial level. The USA has mandated the use of QBS for government-funded projects since 1972.

One of the objectives of the NWPTA is to enable goods and services to be procured without favoring local providers. It describes a procurement process that prohibits the use of any criteria that could be interpreted as favoring the local firm. These criteria have been interpreted to include: knowledge and understanding of the project worksite, including soil behavior; underground utilities and other obstructions; surface and underground drainage; traffic and pedestrian safety and behavior; snow, wind and earthquake loadings; and environmental and socio-economic sensitivities. The prohibited criteria also include understanding of the client's objectives, interaction with other projects, response time to safety or economic concerns during construction, and limiting the carbon footprint of the engineer's travel. ***Unfortunately, these prohibited criteria are the very ones a government client should be using in a QBS selection process.***

Another requirement of the NWPTA is that all firms within the agreement area must be permitted to compete for every project above a threshold value of \$75,000. Government clients, swamped by large numbers of proposals, lack the resources to carry out proper evaluations, and resort to price-based selection, the very antithesis of QBS. ***The consequence is that large numbers of consulting***

firms collectively waste far too much time and money competing for projects with very low fees.

For years, the consulting engineering associations of British Columbia, Alberta and Saskatchewan have been lobbying their respective governments to exempt engineering procurement from the NWPTA, but without success. ***The three associations have now adopted a new tactic to neutralize the damaging effects of the NWPTA, and have turned their attention to lobbying for provincial QBS legislation for government-funded projects, following the precedents of Quebec and the USA.***

Procurement of Professional Consulting Services in Public Sector

Tijana Smiljanic, P.Eng. ACEC BC YPG Provincial Communications

As discussed in the previous articles, qualifications-based selection (QBS) is the preferred method by the consulting engineering associations for selection of professional consultants. Since there are many different practices used to select professional consultants in the public sector, the following will provide a summary of procurement practices for two of the government agencies in BC, including Ministry of Transportation and Infrastructure and Metro Vancouver. The summaries provided below are based on review of public information posted by the organizations.

Ministry of Transportation and Infrastructure

Ministry of Transportation and Infrastructure (MoTI) is responsible for transportation planning and policy, highway construction and maintenance, commercial vehicle safety and inspections, port and airport development, infrastructure grants, and major capital project management. To execute its projects, MoTI has two methods of procuring consultants:

- e-RISP system (Registration, Identification, Selection and Performance) for engineering and technical contracts valued at less than \$1.0M; and
- BC Bid (Bid on Government Contracts) to access, create, browse and compete on public sector opportunities generally valued greater than \$1.0M.

Both methods include a web-based application where a consultant needs to register to have online access to opportunities.

The following is an overview of the process for e-RISP system:

- Consulting firm registers with e-RISP;
- Employees of the firm submit relevant experience to MoTI adjudicators for qualifications acceptance;
- When an assignment is proposed by MoTI, consulting firms that have the experience matching the criteria are contacted to submit an online response, also known as RFEI (Request for Expression of Interest) for short listing of commonly 3 firms;
- Shortlisted consultants are then notified to submit a two envelope detailed proposal and fee estimate through a RFP (Request for Proposals);
- Preferred proponent is selected and fee estimate for that consultant only is opened and final scope, schedule and fees are negotiated.

The following is an overview of the process for the BC Bid system:

- Consultant monitors opportunities listed on BC Bid website for projects that suit their area of expertise;
- A Request for Qualifications (RFQ) is responded to by the consultant for short listing process of commonly 3 to 6 firms;
- Short listed consultants are requested to submit a two envelope detailed proposal and fee estimate through a RFP;
- Preferred proponent is selected and fee estimate for that consultant only is opened and final scope, schedule and fees are negotiated.

In order to reduce the amount of proposal writing and review, MoTI has developed 'As and When' consulting contracts. The e-RISP system is used to select a consultant for provision of a specialized service. For example, MoTI may award a consultant with 'As and when Required Traffic Engineering Services' contract. However, MoTI do not necessarily have funds set aside specifically for that 'As and When'. Instead, the contract provides a set period of time and maximum total fees, and any assignments related to the specialized service that arise during the set period of time and up the maximum total fee are awarded to the consultant. The contract is usually limited to 1 to 2 years and can range from \$0.5M to \$2.0M in total fees. When an actual assignment is identified it has its own funding which is applied to the 'As and When' contract. The full contract amount may not be used depending on the amount and value of the projects that are assigned to the 'As and When'. Essentially consulting companies are writing only one proposal that could yield several smaller assignments over the set period and up to the budget limit established in the 'As and When' contract. On the downside, if the time limit expires or if no funds are available consultant may not receive any work from the 'As and When' contract.

Metro Vancouver

Metro Vancouver (MV) is the regional government for the Lower Mainland, representing 21 municipalities. It delivers services, has planning and regulatory responsibility for the region, and provides an opportunity for the discussion of issues at the regional level.

For Metro Vancouver the primary objectives in the procurement of goods, services and construction, shall be the attainment of value for money, following a process that is transparent and non-discriminatory and supports the commitment to sustainability. The following is a summary of MV's procurement methods, based on the value of the contract:

- Contract may be sole sourced when the contract does not exceed \$5,000 in value. In addition to the value, contract may also be sole sourced if:
 - Goods, services or construction are urgently required and delay would be injurious to the public interest; or
 - Only one party is available and capable of performing the contract.
- Informal request by private invitation will be conducted to obtain three bids for contracts that are expected to exceed \$5,000 but less than \$75,000 for goods and services and less than \$200,000 for construction.
- Formal competitive procurement process will be conducted if the value of the resultant contract or contracts is expected to exceed \$75,000 for goods and services and \$200,000 for construction. The competitive process shall be publicly advertised, primarily on MV and BC Bid websites. The threshold values are in step with the New West Partnership Trade Agreement (NWPTA).

Evaluation Process of Formal Competitive Procurement Process:

Metro Vancouver will evaluate all proposals received through the formal competitive procurement

process. Any or all proposals will not necessarily be accepted. Evaluation criteria and typical relevant weightings are as following:

- Technical Criteria (60% of overall score)
 - Demonstration of understanding of project scope, schedule and consistency of project methodology with project requirements
 - Experience and capability of firm and staff in similar assignments
 - Reference checks
 - Availability of staff for the project
 - Adequacy of Proposed Effort
 - Sustainable Content: information contained in declaration of environmental practices and declaration of social practices in addition to extraordinary environmental and social impacts
 - Timeframe for completion of work from notification to proceed
- Fees and Other Commercial Consideration (30% of overall score)
 - Total proposed price
 - Deviations to proposed contract
- Sustainable Content (10% of overall score)
 - Environmental - The Proponent's particular environmental impacts as presented in their Proposal including the care and diligence exercised in the selection of their subcontractors and suppliers; the relevance and materiality of any information contained in the Declaration of Environmental Practices.
 - Social - The Proponent's particular social impacts as presented in their Proposal including the care and diligence exercised in the selection of their subcontractors and suppliers; the relevance and materiality of any information contained in the Declaration of Social Practices.

Metro Vancouver's goals are to encourage innovation and creative business solutions, ensure the attainment of value for public funds or resources, and to provide ways for qualified proponents to have the opportunity to do business with MV and to be treated fairly. For these reasons, MV also welcomes thoughtful, non-traditional, value-added ideas in the form of *unsolicited proposals*. The unsolicited proposal is one that is not the result of either a public advertisement or an informal request by MV.

An unsolicited proposal may proceed through the following four stages:

- Stage 1 - Upon receipt of an unsolicited proposal, MV may vet the proposal based on the information received to determine if further investigation is warranted.
- Stage 2 - If it is determined that the proposal warrants further review, MV may assign staff to investigate.
- Stage 3 - If the proposal is evaluated favourably, prior to negotiations and award of a contract, MV will advertise a *Notification of Intent to Contract*.
- Stage 4 - If the *Notification of Intent to Contract* does not result in any viable objections, MV may negotiate with the proponent to reach mutually acceptance contract terms and conditions.

Evaluation of Unsolicited Proposal:

During the evaluation/investigation of an unsolicited proposal, MV may take into account, but is not limited to, these considerations:

- the uniqueness or innovation of the proposal
- technical merits
- need
- availability of funding
- costs/benefits
- qualifications and experience of the company submitting the offer
- sustainable aspects as defined above



ACEC-BC Young Professional Award

Congratulation to our very own **Allison Clavelle** for winning the ACEC-BC Young Professional Award. Allison has been the chair of the ACEC-BC YPG Provincial Committee for the past two years and continues to be involved with the group providing guidance and support.

Allison pursued a bachelor's degree in international relations while at the same time pursuing her engineering degree. In addition to her degrees, Allison has a LEED AP certificate and was certified by the International Association for Public Participation, clearly demonstrating her passion for communications.

Over the past 8 years Allison's involvement in transportation planning has included increasing responsibility in transit studies, goods movement, policy development, traffic safety and environmental sustainability. She has also provided strong technical leadership on a variety of projects.

Outside of her professional life, Allison has also been giving back to her community as a volunteer with the Girls and Boys Club tutoring an elementary school-aged child in the subject areas of math and science.

2014 Breakfast Seminars

Below is a partial list of upcoming Breakfast Seminars for each ACEC-BC YPG region. Please note that this information could change in the future, so please visit the [Events Calendar](#) for updates.

Lower Mainland Group

17-Jun-2014	Speaker: Mike Harcourt (Former BC Premier, Vancouver Mayor and City Councillor) Topic: Leadership and Sustainability
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Vancouver Island Group - Victoria

30-May-2014	Speaker: Rudi van den Broek, (Canadian Infrastructure Advisors) & Malek Tawashy, (Lark Projects Ltd) Topic: Design-Build Communications
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Okanagan Group - Kelowna

29-May-2014	Speaker: Dr. Mark Holder (Associate Professor, University of British Columbia) Topic: The Science of Happiness
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Social Media

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Follow us on Twitter: @acecbc



Join our group on LinkedIn: ACEC British Columbia Young Professionals Group, or



Check out our webpage: <http://www.acec-bc.ca/young-professionals>.

Young Professional Liaison

Want to keep your company and yourself informed about ACEC-BC YPG events and updates? Become a Young Professionals liaison! We are looking for one representative from each member firm to act as a liaison between their company and the APEGBC Young Professionals Group. Please email us at ypg@acec-bc.ca to become your firm's ACEC-BC YPG liaison.