



Consulting Engineers of Alberta

Guidelines for Municipalities:

Selecting Your Professional Services Team

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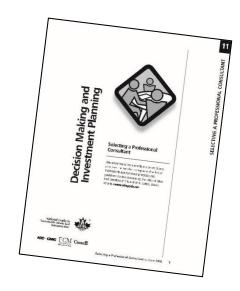
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1.0 Introduction

The selection of the best suited and most qualified engineering consultant and correctly scoping the design phase, are key to the ultimate success of any project. This selection is one that a municipality must make with a clear and complete understanding and knowledge of the process and the project requirements. To deliver an engineering assignment on time and within budget while meeting the client's expectations requires a well qualified, experienced, professional team. Correctly scoping their work allows them to add value by producing efficient designs, intended to lower construction and operating costs.

The challenge of procuring the right consulting engineering firm for the job is a national issue that has been recognized by the federal government, the National Research Council and the Federation of Canadian Municipalities. Together they have created a national guide on best practice to sustainable municipal infrastructure. This guide, entitled "InfraGuide, Decision Making & Investment Planning: Selecting a Professional Consultant – June 2006" answers many of the questions municipalities have.

InfraGuide outlines a process of procurement for professional services that is commonly referred to as Qualifications Based Selection (QBS). QBS has been used in the United States since 1972 when the federal government, through the Brooks Act, mandated the process for procurement of consulting engineering and architectural services for federally funded projects. Subsequently 46 state governments have adopted their own versions of the Brooks Act. In 2022, a study commissioned by ACEC-U.S. and the American Public Works Association demonstrated that QBS projects had cost and schedule savings compared to other methods of procurement.



QBS was developed to provide a basis for procurement of consulting engineering services. Price is still an important component of procurement; however, it should not be one of the first factors considered when selecting knowledge-based services, such as engineering. The primary consideration should be qualifications such as personnel and team/corporate experience, local knowledge, innovation, past performance, schedule, availability, and/or other criteria that is important to the client and project. After identification of the best team based on these factors, the municipality can negotiate an appropriate scope and fee.

QBS has been used in Canada for many years. The City of Calgary reports starting with QBS in the mid-1970's. It has been used by other public sector entities in varying degrees and has been found to provide significant benefits resulting in better projects, more innovation, better cost control with fewer cost overruns and higher levels of satisfaction during the complete process. In 2021, the University of Alberta completed a study of Alberta projects entitled "Impact of Qualifications-Based Selection of Engineering Services on Project Outcomes". Key findings included significant reductions in design and construction costs.



Upfront procurement decisions have a significant impact on not only the cost and quality of the project's design and construction phases but also on the long-term operations and maintenance costs of infrastructure assets. A 2022 study by the Construction and Design of Alliance of Ontario confirmed the importance of project owner commitment to upfront investment in pre-project planning and design stages, especially in scope definition to reduce potential costly subsequent issues during project delivery.

Consulting Engineers of Alberta (CEA) believe that a QBS selection process based primarily on the qualifications, methodology and experience of the engineering team allows consulting engineers to bring the best value to the client, tax payers, and all Albertans. This sentiment has been adopted by the Association of Consulting Engineering Companies Canada (ACEC) and all their constituent organizations.

The QBS process has been proven to be compliant with both interprovincial and federal trade agreements. It is also a procurement process recommended by the Association of Professional Engineers and Geoscientists of Alberta (APEGA) in their 2022 Professional Practice Guideline entitled "Selecting Engineering and Geoscience Consultants".

Links to all of the above noted studies and documents are included later in this document under "Further Reference Information".

2.0 The Procurement Challenge

Many municipalities wrestle with the process of procuring professional consulting engineering services. Many are challenged to appropriately prepare a strong Request for Proposal (RFP) or to evaluate responses due to limited staff or suitable expertise.

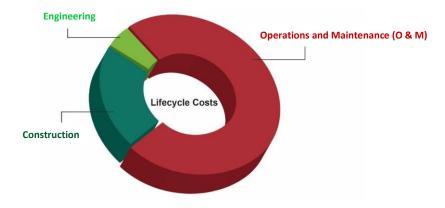
The result is that engineering services are often procured with a primary focus on price. On the surface, price appears to be easily understood and easily defensible to management, councils and funding authorities. Unfortunately, reducing costs at the front end can lead to increased overall costs when construction and operations are considered. While the price of engineering services is important, more important is that they have the right scope and time allotted to prepare efficient designs, considering long term factors like operational efficiencies and environmental impacts.

After consulting engineering services are chosen based upon lowest price, challenges often begin to appear. The 2021 study by the University of Alberta (U of A) found that, on average, the design costs when engineers are selected on the basis of price were 27% over budget, compared to <1% variation on QBS projects. This issue may relate to scope changes, increased costs related to scope changes, time delays, reduction in quality, lack of innovation and general cost over-runs. These challenges can be mitigated with a more appropriate procurement process that results in the selection of the most qualified consulting engineering team for the project, and then agreeing on an appropriate scope and budget.

The complete life cycle cost of the infrastructure is also an important consideration. There is much more to an infrastructure project than just the initial design costs. Life cycle costs include not only the initial costs of planning, developing and constructing an infrastructure project: they include the operational, maintenance and other recurring costs that relate to a project during its complete lifecycle. The cost of consulting engineering services is small compared to construction and even smaller when compared to operational and maintenance costs – often less than 2%.

The work done in the design phase greatly influences the complete life cycle cost. Correctly scoping the design phase means time spent making good engineering decisions at the beginning, considering alternatives, and looking for innovative solutions can significantly reduce construction costs of a project, as well as operating and maintenance costs down the road.

The U of A study referenced above found the average construction costs (compared to budgets) to be 11% higher when the engineering is procured based on price. Similar data for operations and maintenance costs are not available, but one would expect similar trends.





3.0 What is Qualifications Based Selection

QBS is an objective, flexible and competitive process for obtaining professional engineering services. It is a step-by-step process that facilitates the selection of the best qualified and most compatible firm for a specific project. The QBS process is helpful to those that regularly procure consulting engineering services, as well as one-time users with little or no practical experience working with consulting professionals.

QBS provides owners with a selection process that is straightforward and easy to implement, is objective and fair, can be well documented, and is open to audit.

The key components of QBS are:

- Selection of the most qualified team for the selected project, and
- A mutually developed and agreed upon scope of work, schedule and budget.

3.1 Selection of the Most Qualified Team

Selection of a professional consulting engineering firm is based on the qualifications and competence of the firm in relation to the scope and needs of a particular project. Candidates must compete on the basis of their:

- Technical Competence
- Prior Performance
- Methodology
- Technical Skills, and
- Available Project Personnel

Firms are reviewed based on the personnel that will actually work on the project so that owners can test the compatibility of the working team with their objectives.

3.2 Mutually Developed Scope of Work

The owner and the consulting engineering team work in collaboration to determine the project's scope. The process encourages the owner to express their intentions for the project so that the design professional can gain more specific understanding of the project. Mutual development of the scope of work encourages in depth communication at the precise time when it is most beneficial to the project, thereby eliminating any unnecessary assumptions and misunderstandings. This assists in increased cost certainty with respect to the design process.

3.3 Benefits of QBS to the Owner

With QBS, the owner achieves higher quality projects. Benefits include:

- Potentially significant life-cycle cost savings: including reduced construction, operating and maintenance costs.
- Cost savings in the process of hiring the consulting firm and determining a proper project scope.
- Appropriate scope definition before price is discussed.
- Cost savings and reduced time delays during the project due to reduced scope changes from better initial scope definition.
- The owner has total control over the competitive process.
- A collaborative professional relationship with all its advantages.
- A good team effort for the project, partly because good communications are generated from the onset of the project.

3.4 Benefits to the Consulting Engineering Firm

- QBS emphasizes value for money. Consulting Engineers are provided opportunity to explore innovative approaches and alternative methods with regards to the project.
- The mutually developed scope of work reduces unnecessary assumptions which the consulting engineer commonly has to make under a price-based method.
- The interests of the consulting engineer, bringing value to the overall project, are aligned with the owner.



4.0 The Process

The project size would typically influence the number of steps in the selection process. Projects can be divided into small, medium and large measured by their complexity and expected fee value. Typically, small projects in the municipal sector may be defined as having professional fees of less than \$75,000, medium \$75,000-\$200,000 and large over \$200,000. These ranges are subjective depending on the business sector concerned, the frequency of contracts awarded, the size of the client or project, the complexity of the specific project, and the size of companies operating in that sector.

Figure 1 on page 8, provides a flow chart for the recommended process to select a consulting engineering firm depending on the size of the project.

4.1 Small projects under \$75,000 in fees

For smaller projects under \$75,000 in fees, current trade agreements permit contracts to be awarded by government entities on a sole sourced basis. It is generally not efficient to follow a full procurement process for these smaller projects, and it is recommended that these be either sole sourced or that a maximum of three firms be selected to compete in a simplified version of the process detailed below. To find the best qualified consulting engineering firm, CEA recommends seeking referrals from comparable clients, and obtaining other references.

4.2 Medium and Large sized Projects

For medium to large sized projects, a multi-stage QBS process will yield significant benefits for municipalities. The process described below can be simplified where appropriate for medium sized projects. The process starts with a municipality deciding to retain an engineering consultant to undertake an infrastructure project.

- The municipality issues a Request for Qualifications (RFQ). The RFQ includes a brief outline of the
 general scope of work for the project and the expectations of the municipality. The RFQ is posted in
 accordance with trade agreement requirements. The municipality indicates that the three best qualified
 firms will be selected and asked to respond to a more detailed RFP using the QBS process for ultimate
 selection of the consultant for the work.
- 2. Interested consulting engineering firms submit a response to the RFQ. In general, the RFQ process involves evaluating the qualifications and experience of the different engineering consultants on comparable projects. It is also an opportunity for the municipality to review each consultant's proposed key staff and their qualifications; the team's structure; available resources; project experience and client references. These are evaluated by the municipality and a short-list of three of the best qualified firms is created.
- 3. The three short-listed firms are then invited to respond to a Request for Proposal (RFP). In the RFP, the municipality will broadly define the scope of services and terms of reference and the pre-qualified consultants will submit a project specific proposal. Proposals are evaluated against criteria outlined in the RFP and are ranked by score. The consulting assignment should be awarded on the basis of the highest score. The municipality's needs are best met when the "most qualified" consultant is selected on the basis of its qualifications, skills, experience, understanding of the project assignment, and proposed methodology. A municipality may choose to interview all three of the project proponents during this phase if it will help with their decision-making process.

- 4. Once the most qualified consulting engineering firm is selected, the municipality and the selected firm sit down to thoroughly develop the scope of work. This is a critical time because it provides an opportunity to discuss options, priorities, project and lifecycle costs, innovation, integration with related infrastructure and other factors which may affect the scope of work. Once the scope of work is clearly defined and understood by both parties, the consulting engineering firm will submit a fee proposal based upon the mutually agreed scope of work.
- 5. Based on the fee proposal the municipality and the selected consulting engineering firm may need to sit down and negotiate a satisfactory price for the agreed upon scope of work. If an agreement on fees cannot be reached, the municipality terminates the discussion and repeats the scope of work and fee discussion with the next most qualified firm. Experience has shown that this step is seldom ever required. Typically, the engineer's fee represents less than 2% of the life cycle costs of an asset, yet quality engineering in all stages of a project can reduce construction costs and provide significant operating and maintenance savings.

Summary of Selection Process:

- 1. Use RFQ process to develop shortlist of three qualified consultants
- 2. Develop Terms of Reference with general scope and evaluation criteria
- 3. Request proposals from the three shortlisted firms
- 4. Evaluate and rank proposals against criteria
- 5. Select highest ranked firm and meet to jointly define scope
- 6. Based upon agreed scope, firm submits fee proposal
- 7. Negotiate fees and scope modification if necessary
- 8. Award assignment based upon agreed scope and fees



Figure 1: Recommended Process for Selecting a Consulting Engineering Firm Small Projects Medium Projects Large Projects Fees Less than 75K Fees from 75 to 200K Fees Greater than 200K Owner Owner Use RFQ Guidelines defines request consultant scope of work Stage 1 - RFQ to prepare scope of work RFQ invitation - Mandatory Submission Instructions to proponents requirements Advertising of RFQ (APC Format requirement CEA, If estimated fees are greater Municipal Websites) than 75K then use RFQ Guidelines Optional Interview Process* Owner to sole source or select a maximum of 3 consultants to Owner to evaluate submissions on set criteria and short list a submit proposals for a defined maximum of 3 proponents to submit a more detailed proposal* scope of work Owner to notify all proponents of the evaluation* Owner evaluates proposals and selects most qualified consultant Stage 2 RFP - Technical Owner and consultant set detailed scope in partnership and RFP invitation - RFP Format consultant submits fee proposals RFP Mandatory Requirements- Terms of Reference Owner and consultant execute **Optional Interview Process** Professional Services Agreement (PSA) Owner to evaluate proposal submissions on set criteria Stage 3 - Fee Estimate Highest scoring proponent develops detailed scope and schedule in partnership with owner and submits fee proposal Should fee negotiations with highest scoring proponent be unsuccessful the owner to go to the next highest scoring proponent Stage 3 - Fee Estimate

Client to execute PSA and notify all proponents on the award of the work

^{*}These tasks can be removed should the Owner decide to combine Stages 1 and 2 for medium size projects, with one successful firm selected following a more detailed RFQ

5.0 Guidelines for Developing the RFQ (Request for Qualifications)

RFQ documents should include standard information as outlined below. The document should clearly state that it is a Request for Qualifications (RFQ) and not a Request for Proposal (RFP). Be sure to include the project title, and each project should be assigned a unique RFQ number.

5.1 Request for Qualifications Invitation

The invitation section, at minimum should include, but is not limited to, the following items:

- Closing Date The date, time, and location at which the RFQ is due for submission must be clearly stated, including the full mailing address and contact person where applicable.
- Delivery Method The acceptable methods of delivery should be outlined, including hard copies, fax copies and PDFs by e-mail. Disclaimers should be included relating to the late delivery of RFQ documents stating that under no circumstances will late submission of qualifications be accepted.
- Questions or Inquiries A contact person(s) should be provided, including phone number, fax number and e-mail address where proponent inquiries can be directed. A deadline for inquiries should also be outlined.
- Schedule A list of dates should be provided, where applicable, including the Issue Date, Close of Questions, Proposal Closing Date, Interview Date and Award Date.
- Project Background Provide a general or detailed description on the required services or proposed project.

5.2 Instructions to Proponents

At minimum the instructions to the Proponents should include, but is not limited to, the following items:

- Documents The required number of printed RFQ documents to be submitted should be stated: including number of unbound originals (if required), bound copies and/or electronic versions.
- Conflict of Interest The Proponents must represent and warrant that there is no actual or perceived conflict of interest. The municipality should outline specific terms of what constitutes a conflict of interest.
- Addenda The outline of how any addenda will be distributed and instructions as to whether the addenda or acknowledgements of the addenda should be included in the final submission.
- Discretion, Rejection and Cancellation The RFQ should also state that the municipality is not bound to
 accept any submission and may decide to cancel the RFQ process at their discretion for any reason. A
 municipality is not obligated to accept submissions that are unsigned, incomplete, conditional, illegal,
 unbalanced, and obscure or contain irregularities.
- Submission Costs The RFQ should state that the municipality is not responsible for any costs, expenses, losses, damages or liability incurred by the Proponents in responding to the RFQ.



5.3 RFQ Submission Requirements and Proponent Qualifications

5.3.1 Mandatory Submission Requirements

The RFQ should clearly spell out the mandatory requirements that must be satisfied by each proponent (BOTH prime and sub-consultants) submission such that the proponent will qualify for technical evaluation. Mandatory requirements may include, but are not limited to, such details as:

- Organization Background Minimum years of corporate experience, organizational charts, office location, and number of employees.
- Professional Accreditation Proponent must be registered with the Association of Professional Engineers and Geoscientists of Alberta (APEGA) and licensed to practice engineering in Alberta
- Health & Safety Proponent may be required to outline safety processes they have in place that are relevant to the scope of work
- Project/Quality Management Systems Proponent should have systems to control schedule, costs, and quality
 of work.
- Organization Composition and Qualifications Engineering services provided, qualifications, local knowledge and relevant past projects.
- Project Team Composition and Qualifications Names, qualifications and project experience of key project staff, including relevant past performance as a team.
- References Project information and contact information from past projects.

5.3.2 Format

The submission format, sequencing and expected content should be described in sufficient detail so that the municipality is clear on their expectations. This may include, but is not limited to, items such as a title page, executive summary, table of contents, proponent profile, project understanding, project plan and schedule, project team, assumptions, equipment & resources, experience & qualifications.

The format may also include, but is not limited to, allowable paper size(s), minimum font size, minimum margins, preference for double siding and page limits. The proposal page limit should be in proportion to the complexity of the project.

5.3.3 Optional Interview Process

The technical evaluation team, on behalf of the municipality, may elect to interview a short list of the proponents to address any questions or clarifications that are required. Proponents are responsible for all of their own costs associated with the interview process. Interviews should be conducted within the shortest possible timeframe (days, not weeks of each other) as not give an advantage to any proponent. Upon completion of the interviews, the evaluation team may elect to adjust proponent scores.

6.0 RFQ Evaluation

6.1 Stage One: Mandatory Requirements

The municipality should examine all submissions to ensure they are complete and have met all mandatory requirements. The municipality should disqualify any submission that does not meet 100% of the mandatory requirements.

6.2 Stage Two: Technical Evaluation

Submissions that have successfully met the mandatory requirements should be evaluated using a weighted evaluation scoring method, as outlined in table in Section 6.3. This process should proceed, even if there is only one received proposal. The Proponents' responses to the various technical requirements, as outlined in the table below, will be evaluated by the technical evaluation team and assigned a value for each criterion. The numerical value for each score should be a whole integer (25 out of 30, not 25.5 out of 30). The sum of the scores for all the criteria represents the technical score. To be considered further, Proponents must achieve a minimum technical score of fifty (50). It is recommended the municipality disqualify any submissions scoring below fifty (50) points. The technical evaluation team may elect to conduct Proponent interviews prior to establishing the final technical score, as outlined in Section 5.3.3.



6.3 Proposed RFQ Evaluation Criteria

Table 6.1: Proposed RFQ Evaluation Criteria

Item	Criteria	Recommended Score
1	Firm Qualifications Assessment factors may include but are not limited to: • Management systems • Quality control • Safety • Cost control • Subconsultant experience and working relationship • Firm's projects of similar nature • Current relevant experience of firm • Environmental Policies • Social Policies	20-40
2	Proposed Consulting Team Members and their Qualifications Assessment factors include but not limited to: • Availability / current workload • Key staff identified (assured for the project) • Resume • Years of experience • Professional accreditation/awards • Necessary experts (civil, landscape, hazmat, costing, etc.) • Relevant experience as a consulting team • All required disciplines included	30-50
3	References. Assessment factors include but not limited to:	10-30
	Maximum Total Weight	100

7.0 Request for Proposal (RFP) Guidelines

Once a short-list of three qualified proponents has been created a detailed proposal should be requested. RFP documents should include standard information as outlined below. The document should clearly state that it is a Request for Proposal (RFP), include the project title, and each project should be assigned a unique RFP number.

7.1 Request for Proposal Invitation

The invitation section to include, at minimum, but not limited to, the following items:

- Closing Date The date and time at which Proposals are due for submission needs to be clearly stated, including a
 full mailing address and contact person, where applicable. Typically, proponents are to be given a minimum of three to
 four weeks to respond to an RFP, depending on the complexity of the project.
- Delivery Method The acceptable methods of delivery should be outlined, including hard copies, fax copies and PDFs by e-mail. Disclaimers should be included relating to the late delivery of the RFP document stating that under no circumstances will late proposals be accepted.
- Questions or Inquiries A contact person(s) should be provided, including phone number and e-mail address where proponent inquiries can be directed. A deadline for inquiries should also be outlined.
- Request for Proposal Documents A detailed list of the documents available for the Proponents to review should be provided, including the RFP document and any other reports and/or drawings.
- Request for Proposal Schedule A list of dates should be provided, where applicable, including the Issue Date, Close of Questions, Proposal Closing Date, Interview Date (if required) and Award Date.

7.2 Instructions to Proponents

The instructions to the Proponents to include, at a minimum, but is not limited to, the following items:

- Documents The number of printed RFP documents required should be stated: including the number of unbound originals (if required), bound copies and/or electronic versions.
- Validity Period The validity period represents the duration over which the proposals remain valid and irrevocable, usually 60 days. In effect, the Proponents are warranting that the municipality has the right to accept their proposal and require the Proponent to enter into a Professional Services Agreement (CCDC 31 Service Contract Between Owner and Consultant is recommended). This is provided that written notice is given by the municipality to the successful Proponent prior to expiry of the validity period.
- Conflict of Interest The Proponents must represent and warrant that an actual or perceived conflict of interest does not exist. The municipality should outline specific terms of what constitutes a conflict of interest.
- Addenda The municipality should outline how addenda will be distributed and instructions as to whether the addenda or acknowledgements of the addenda must be included in the final Proposal.
- Discretion, Rejection and Cancellation The RFP should also state that the municipality is not bound to accept any proposal, and may cancel the RFP at their discretion, including if there is insufficient response. The municipality is not obligated to accept proposals that are unsigned, incomplete, conditional, illegal, unbalanced, obscure, or those that contain irregularities.
- Proposal Costs The RFP should state that the municipality is not responsible for any costs, expenses, losses, damages or liability incurred by the Proponents in responding to the RFP.



7.3 Proposal Requirements and Proponent Qualifications

7.3.1 Mandatory Proposal Requirements

The RFP should clearly spell out the mandatory requirements that must be satisfied by each Proposal (for BOTH the prime and subconsultants) such that it will qualify for technical evaluation. Mandatory requirements may include, but are not limited to, such details as:

- Minimum years of individual or corporate experience in a specific project category.
- Health & Safety Proponent may be required to outline safety processes they have in place that are relevant to the scope of work
- Project/Quality Management Systems Proponent should have systems to control schedule, costs, and quality of work.
- Project Team Composition and Qualifications Names, qualifications and project experience of key project staff, including relevant past performance as a firm/team.
- Project Comprehension and Methodology A description of the Proponent's proposed work program, including schedule, milestones and billing dates.
- Relevant Project Experience and Past Performance Some of this information was included in the RFQ submission and may
 not be needed here except to highlight specific proposal issues.

7.3.2 Proposal Format

The Proposal format, sequencing and expected content should be described. This may include, but is not limited to, items such as a title page, executive summary, table of contents, proponent profile, project understanding, project plan and schedule, project team, assumptions, equipment & resources, experience & qualifications.

The format may also include, but is not limited to, allowable paper size(s), minimum font size, minimum margins, preference for double siding and page limits. The proposal page limit should be in proportion to the complexity of the project.

7.3.3 Optional Interview Process

The technical evaluation team, on behalf of the municipality, may elect to interview some or all of the Proponents to address any questions or clarifications that are required. Proponents are responsible for all of their own costs associated with the interview process. Upon completion of the interviews, the evaluation team may adjust Proponent scores.

7.4 Terms of Reference

The Terms of Reference typically describes what is expected of the Proponent and may include, but is not limited to, the following:

- Project background
- Overall project description
- Project objectives
- Information to be provided by municipality
- General scope of work
- Responsibilities
- Completion date and deliverables
- Standards and guidelines
- Billing procedures
 - Progress reports
 - Frequency and location of meetings
 - Consultant evaluation procedures (during and after project). Provide evaluation criteria if available/established.



8.0 Evaluation of the RFP

The QBS process will enable the municipality to retain the most qualified engineering firm for the job. Where possible, a technical evaluation team, consisting of two or more employees familiar with the proposed project, should undertake the proposal evaluation. In general, the evaluation criteria in proposals should be based on information the proponent provides on its project team, project comprehension or methodology, and relevant project experience. If the proponent is proposing to use a subconsultant(s) on the project, information relating to the Subconsultant(s) should be incorporated within the evaluation criteria.

8.1 Stage One: Mandatory Requirements

The municipality should examine all proposals to ensure they are complete and have met all of the mandatory requirements.

8.2 Stage Two: Technical Evaluation

Proposals that have successfully met the mandatory requirements should be evaluated using a weighted evaluation scoring method, as outlined in Section 6.3 This process should proceed, even if there is only one proposal received. The Proponents' responses to the various technical requirements, as outlined in the table below, will be evaluated by the technical evaluation team and assigned a value for each criterion. The numerical value for each score should be a whole integer (25 out of 30, not 25.5 out of 30). The sum of the scores for all the criteria should represent the technical score. The technical evaluation team may elect to conduct Proponent interviews prior to establishing the final technical score.

8.3 Stage Three: Identification of Successful Proponent

The scores are added together to arrive at a total score. The successful Proponent should be the Proposal with the highest total score.

The municipality should advise the successful Proponent in writing of acceptance of their Proposal. The successful Proponent will then meet with the municipality to review, discuss and confirm final scope and then negotiate a fee satisfactory to both parties which is appropriate for the defined scope of work.

Table 8.1: Evaluation Table for Proponents' Responses to The Various Technical Requirements

Item	Evaluation Criteria	Recommended Score
1	Project Team Composition and Qualifications Assessment factors include, but are not limited to: Key personnel and roles & responsibility identified Key personnel years of experience Professional accreditation Assignment of resources Past relevant performance as a firm/team Necessary disciplines and experts included Breakdown of project tasks by discipline and appropriate discussion Organization chart, including responsibility and lines of communication	20-40
2	Project Comprehension and Methodology Assessment factors include, but are not limited to: Clarity and organization of submission Understanding of desired project outcomes Project properly described and pertinent issues addressed Clear indication of included & excluded services, optional services and services performed by others Deliverables identified for each task or phase Schedule Integration of subconsultants or specialists services Approach to schedule, budget and quality control Approach to conflict resolution Innovation	30-50
3	Relevant Project Experience and Past Performance Assessment factors include, but are not limited to: Firm/team design projects of similar nature and scope, including senior and project personnel, in past five years Demonstration of local knowledge Scope of services rendered, project objectives, constraints, deliverables Strength of client references (may be checked at municipality's discretion), three specific and relevant projects provided Relevant project awards Explanation of relevant project budget and schedule variations and how they were managed	10-30
	TOTAL:	100



9.0 Fee Negotiation

9.1 Setting the Detailed Scope of Work

This is where the partnership begins. The goal is to have the successful consulting engineering firm collaborate with the municipality to achieve the maximum benefit for the municipality. Once the proponent is selected it is important to sit down together and thoroughly review the scope of work, work plan, scheduling and other project related issues.

Often through discussion innovative ideas, alternative approaches, and new technology can be discussed and explored which may reduce initial cost or long-term maintenance. Other factors that can affect the project may also be identified. This definition of the actual scope of practice may lead to significant cost savings and most importantly a reduction in scope changes. Once the well-defined scope of work is fully understood and accepted by both the municipality and the consulting engineer an appropriate fee can be established.

9.2 Determining Fees

The proponent now submits a fee proposal for the scope of work that will be undertaken. The municipality may request the information be provided in a specific format. Some considerations may be:

- Scheduling -- how the work will be scheduled throughout the project including who will be involved in each phase of the project
- Progress billing -- information about how the budget will be handled
- Budgeting controls related to the project

When the proponent presents the fee information to the municipality the municipality may either accept the fee as quoted or negotiate a different fee. A different fee may involve a reduction of fees or a change in scope of work with resulting change in fees.

It is important to note that design represents only a fraction of lifecycle costs of an asset or investment. Therefore, to fully appreciate "fee", one must differentiate between the short term "expense" of the necessary service and the "value" brought by the proposed solution and its proponent. This can be measured in a number of ways: reduced maintenance, enhanced lifecycle, greater effectiveness, fewer future upgrades, to name a few.

9.3 Rejecting Fee or Cancellation

A municipality is not obligated to accept any proposal or fee. In the unlikely event that agreement cannot be reached on a suitable budget for the scope of work the municipality can indicate to the proponent that negotiations are concluded and discussions with another proponent will be undertaken. The municipality will then discuss the scope of work with the new proponent (the second most qualified firm as identified by the RFP evaluations) and subsequently negotiate a satisfactory fee arrangement.

At all times the municipality has the option of cancelling the project or of issuing a new RFQ.

9.4 Confidentiality

Information provided by proponents on a proposal or through the determination of the scope of work should be considered commercially sensitive intellectual property and should be treated as such. The municipality should keep all information provided in the proposals confidential and should not take the liberty of mixing ideas from one proponent with those of another without the prior agreement of both parties.

At the same time the consulting engineer will treat all information about the municipality and the project as proprietary to the municipality unless otherwise agreed between both parties.

10.0 Qualifications Based Selection Management Tips for Municipalities

10.1 Create an Evaluation Team

If you have the appropriate personnel resources in your municipality, create a technical evaluation team to oversee the QBS process. This team should be fully aware of the nature of the project, the desired outcomes, and the technical issues that may be considered.

As an option, an external technical expert could be added to the evaluation team. This process adds objectivity and knowledge to the selection process.

In Alberta the Consulting Engineers of Alberta (CEA) are available to provide names of suitable people to serve on evaluation teams. These individuals will usually be retired consulting engineers or municipal engineers with a great deal of experience in the type of project being undertaken. Call the Registrar at CEA for a list of names.

10.2 Minimize Duplication

A municipality may wish to maintain a list of consulting engineering firms which have submitted on previous RFQs. To do so, municipalities should invite consulting engineering firms to submit a list of qualifications that will be maintained on file. When RFQs are issued the firms on the list would only provide supplementary information or indicate they wish to be considered. It would be the responsibility of the engineering firm to ensure their information was current. An RFQ may still have to be issued to be compliant with trade agreements and submissions from non-listed firms would have to be considered.



11.0 Why Qualifications Based Selection

Qualifications Based Selection (QBS) provides substantial benefits to those who procure consulting engineering services. QBS is a process whereby the first consideration of the procuring agency are the qualifications of the potential consulting engineering firm chosen for the project.

Benefits

- 1. QBS appropriately engages the most qualified consulting engineering firm for the project resulting in maximum benefits for the client.
- 2. Fees remain a critical component of the selection process but they are not the initial or only criteria.
- 3. During the fee negotiations the consulting engineering firm offers advice and clarifies all the project's specifics. The net result is a reduction or elimination of cost overruns that typically result from unclear or misunderstood project scope.
- 4. QBS simplifies the procurement of consulting engineering services resulting in reduction of costs for both the project's proponent and the provider of services.

12.0 Further Reference Information

Consulting Engineers of Alberta

http://www.cea.ca

The Association of Professional Engineers and Geoscientists of Alberta

https://www.apega.ca/docs/default-source/pdfs/consultants.pdf

QBS Canada

https://qbscanada.ca

ACEC Canada

https://www.acec.ca/advocacy/yes2gbs.html

Engineers Canada

https://engineerscanada.ca/sites/default/files/public-policy/positions_qualifications_based_selection.pdf

American Consulting Engineers Council

https://program.acec.org/qbs-resources-portal

Royal Architectural Institute of Canada

https://raic.org/raic/qualifications-based-selection-qbs

Canadian Consulting Engineer

http://www.canadianconsultingengineer.com/news/engineering-canada-s-future/1000199344/

The Association of Manitoba Municipalities

http://www.amm.mb.ca/download/presentations/Qualifications-Based-Selection.pdf

CCDC 31 – Service Contract Between Owner and Consultant

https://www.ccdc.org/document/ccdc31

Appendix A I

Project Description Form

Template #1 (For Internal Use Only)

Municipality					
Name of Municipality:					
Contact Person:					
Contact's Mailing Address (Street):				
City:		Province:		Postal Code:	
Telephone Number / Ext:			Fax Number:		
Email Address:					
Project Description					
Project Name:					
Project Location:			Municipality's Project	t No.:	
Provide a short project desc	cription so the con	nsultant can understan	d the scope and extent	of the project.	
Consultant Selection	n Process				
RFP Process: Sole Source RFP Process Inviting 3 RFQ Process Short List		RFP Process			
Pre-Engineering We	ork				
Provide any information regarding any previously completed studies, surveys, feasibility and/or pre-design work relative to the project. Timeline of Project					
	ate construction	start and completion d	ates or any other pertin	ent dates required	
Indicate engineering start date, construction start and completion dates or any other pertinent dates required. Approval Requirements					
Outline internal/external approvals (i.e. funding approvals, environmental approvals, legislature approvals, council approvals etc.) that will be necessary.					
Additional Require	ments and / o	or Conditions			
List any additional or unique requirements or considerations that will affect the project.					

Project Description Form

Template #1 (For Internal Use Only)

Time Frame for Consultant Selection						
Name of Project: Municipality's Project No.						
Target Date	Task#	Description of Task				
	1	Identify needs and develop scope of work and timeframe for consultant selection				
	2	Issue to invited consultants a memorandum or place advertisement requesting "Request for Qualifications" (RFQ) from consultant (Complete Template #2)				
	3	Deadline for receipt of "Request for Qualifications" (RFQ)				
	4	Review and evaluate "Request for Qualifications" submissions				
		(Complete Template #3)				
	5	Develop evaluation criteria of "Project Proposals" and interviews				
	6	Issue memorandum requesting short-listed consultants to submit a "Project Proposal" and attend an interview (Complete Template #4)				
	7	Set deadline for receipt of "Project Proposal"				
	8	Issue memorandum to all consultants who submitted a "Request for Qualifications" who were not short-listed. (Complete Template #5)				
	9	Issue "Request for Proposal" (RFP) document to short listed consultants (Complete Template #6)				
	10	Review and evaluate RFP submissions				
		(Complete Template #7)				
	11	Hold interviews with short-listed firms, at times and locations previously communicated. (Complete Template #8)				
	12	Complete the Summary Evaluation Sheet				
		(Complete Template #9)				
	13	Enter into agreement. Contract is reviewed, negotiated as required and signed (Complete Document 31, Standard Client/Consultant Agreement)				
	14	Send memorandum to all consultants short listed but not selected (Complete Template #10)				
	15	Project proceeds				

Request for Qualifications (RFQ) Form Template #2

Project Information					
Project Title:	R	RFQ Number:			
Project Description:					
Client Information					
Client Information		Occident Barrage			
Name of Client/Organization:		Contact Person:			
Mailing Address (Street):	Province:		Postal Code:		
City:	Province:	Fax Number:	Postal Code:		
Telephone Number / Ext: Email Address:		Fax Number:			
Invitation					
You are invited to submit your qualifications to	o provide engineerir	ng services for the above	noted project.		
Closing Date	_				
RFQ Due Date:	Time:		Location:		
Contact Person (if different from th	ne above)				
Name:					
Contact Person Mailing Address (If Applicable	e)				
Street:					
City:	Province:		Postal Code:		
Telephone Number / Ext:		Fax Number:			
Email Address:					
Delivery Method					
The following indicates the acceptable methods of delivery:					
Hard Copies Required					
Fax Copies Allowed? Yes No					
PDF Copies Allowed? Yes					
Disclaimer: Under no circumstances will late Proposals be accepted.					

Request for Qualifications (RFQ) Evaluation Form Template #3

G	eneral Information			
Pro	oject Name:	Date:		
Consultant Name:		Time:		
Re	viewer Name:			
Pr	oject Evaluation			
	aluation Criteria	Maximum	Score	
1	Firm Experience		I	
1.	Management Systems (Quality Control/Safety)			
2.	Cost Control			
3.	Subconsultant Experience and Working Relationship			
4.	Firms' Projects of a Similar Nature			
5.	Current Relevant Experience of Firm			
6.	Environmental Policies			
7.	Social Policies			
8.				
9.				
	Total	20 - 40		
2	Proposed Consulting Team Members and their Qualificat (Based on resumes for assigned staff and consultants.)	ions		
1.	Availability / Current Workload			
2.	Key Staff Identified (assured for the project)			
3.	Professional Accreditation / Awards			
4.	Necessary Experts			
5.	Relevant Experience			
6.	All Required Disciplines Included			
7.				
8.				
	Total	30 - 50		
3	References and Experience (Based on the list of similar projects or relevant experience provided	with the submission.)	
1.	Quality of Service			
2.	Ability and Effectiveness of Project Leadership/Management			
3.	Communication			
4.	Willingness to Assign New Work to Consultant Team			
	Total	10 - 30		
Gr	and Total	100		

Memorandum to Short-Listed Consulting Engineers

Template #4

General Information			
Project Title:	RFQ Number:		
Short-List of Consulting Engineers			
For your information the following consultants have been short-listed and have been asked to submit "Project Proposals and attend an interview.			
Consulting Firm Name	Interview Date and Time		
Final Consultant Selection Procedure			

- 1. A Request for Proposals (RFP) will be provided to the above list of consultants detailing the project further.
- An interview with each consultant will be conducted and included in the ranking of each proponent.
 At the conclusion of the interviews, consultants will be ranked in accordance with the scores attained from their Project Proposal and Interview.
- 4. If contract terms cannot be reached, negotiations with the first-ranked consultant will be abandoned and the consultant ranked second will be invited for contract negotiations.

Memorandum to Consulting Engineers – Not Short-Listed

Template #5

То:	Name of Consultant			
	Name of Consulting Engineering Firm			
From:	Name of Client/Owner			
	Title			
Re:	Status of Consultant Selection Process			
	Project Name, Project Number			
Acknowle	dgement of your Submission			
Client/Name of Company wishes to thank you for submitting your qualifications for the above noted project. Unfortunately your firm has not been short-listed.				
Although you were not selected, we appreciate your interest in our project and the resources spent on the preparation of your response to the "Request for Qualifications"				
List of Co	nsulting Engineers Short-Listed			
For your inform	For your information, the following practices have been selected to submit "Proposals" and attend an interview:			

Request for Proposal (RFP) Template #6

То:						
From:						
Re:	Request for Proposal and Interview Process					
	Project Name:					
	Project Number:					
Request for	Proposal Invitatio	n				
	in the Consultant selection			ed project. To satisfy the recent and submit a detailed Propo		
Closing Date						
RFP Due Date:		Time:		Location:		
Contact Person	1					
Name:						
Mailing Address	(Street):					
City:		Province:		Postal Code:		
Telephone Num	ber / Ext:		Fax Number:			
Email Address:						
Delivery Metho	d					
The following inc	dicates the acceptable met	hods of delivery:				
Hard Cop	ies Required					
Fax Copies Allov Yes No						
PDF Copies Allowed/Required? Yes						
Disclaimer: Under no circumstances will late Proposals be accepted.						
Questions or In	quiries					
Contact Name F	or Inquiries (If Different fro	m the above):				
Telephone Num	ber / Ext:		Fax Number:			
Email Address:						

Request for Proposal (RFP)

Template #6

5. Sign Contract

6. If you cannot agree, repeat with number two ranked submission

Request for Proposal Documents		
The RFP documents shall be the basis upon which Proposals shall be submitted and shall consist of the following:		
List documents available for client review.		
2.		
3.		
4.		
5.		
RFP Schedule		
Activity	Date	
Issue Date		
Close of Questions		
Closing Date		
Interview Date		
Award Date		
Instructions to Proponents		
Documents: Submit mandatory requirements together with request for prop	posal submission materials.	
Proposal Validity: Proposals shall be valid for a period of days from the C	losing Date.	
Conflict of Interest: Proponents must represent and warrant that a conflict of interest: The following terms constitutes a conflict of interest:	est does not occur.	
Addenda: Where necessary, questions and inquiries shall be responded Documents. Any Addenda issued prior to the closing date will		
Discretion, Rejection and Cancellation: Name of Client/Company is not bound to accept the lowest co discretion, including if there is insufficient response. Name of that are unsigned, incomplete, conditional, illegal, unbalanced	Client/Company shall not be obligated to accept Proposals	
Proposal Costs: Name of Client/Company is responsible for any costs, expens responding to the RFP.	es, losses, damages or liability incurred by the Proponents in	
Negotiations and Fees: 1. Meet with the number one ranked submission to jointly de 2. Based on agreed scope of work, submit fee proposal 3. If necessary, negotiate fees and any scope modifications 4. Submit final fee together with the defined scope of work	efine and review scope	

Request for Proposal (RFP)

Template #6

Proposal Requirements and Proponent Qualifications

Mandatory Requirements:

Proposals must comply with the following requirements in order to be considered by Name of Client/Company:

- 1. Edit, Add or Delete as Necessary: The Proponent is registered with the Association of Professional Engineers and Geoscientists of Alberta (APEGA) to practice engineering in Alberta.
- 2. The Proponent has a safety Certificate of Recognition (COR) from the Alberta Construction Safety Association (ACSA) or other certifying partner, or

is in the process of obtaining one as demonstrated by a Temporary Letter of Certification (TLC) from the ACSA or other certifying partner.

Project Team Composition and Qualifications:

The Proposal should include the following at minimum:

- 1. Key personnel and roles & responsibility identified
- 2. Key personnel year of experience
- 3. Professional accreditation
- 4. Assignment of resources
- 5. Past relevant performance as a firm/team
- 6. Necessary disciplines and experts included
- 7. Breakdown of project tasks by discipline and appropriate discussion
- 8. Organization chart, including responsibility and lines of communication.

Project Comprehension and Methodology:

Proponents should provide a clear, well organized and comprehensive narrative that includes at minimum:

- 1. Understanding of desired project outcomes
- 2. Proper project description and addresses pertinent issues
- 3. Clear indication of included and excluded services, optional services and services provided by others
- 4. Deliverables identified for each task or phase
- 5. Schedule
- 6. Integration of sub-consultants or specialist services
- 7. Approach to schedule, budget and quality control
- 8. Approach to conflict resolution
- 9. Innovation.

Relevant Project Experience and Past Performance:

The Proposal should include the following at minimum:

- 1. Firm/team design projects of similar nature and scope, including senior and project personnel in the past five years
- 2. Demonstration of local knowledge
- 3. Scope of services rendered, project objectives, constraints and deliverables
- 4. Strength of client references from three specific and relevant projects
- 5. Relevant project awards
- 6. Explanation of relevant project budget and schedule variations and how they were managed.

NOTE: Requirements in this category should be more specific that the RFQ, and not duplicate information provided in the RFQ.

Pro	oposal Information:	
Pro	oposals should contain the following information in order to be considered by Name of Client/Company:	
1.	Cover Page	
2.	Executive Summary	
3.	Table of Contents	
4.	Section on Project Team Composition and Qualifications	
5.	Project Comprehension and Methodology	
6.	Relevant Project Experience and Past Performance	
7	Other	

Request for Proposal (RFP)

Template #6

Proposal Format:

Allowable paper size(s), minimum font size, minimum margins, preference for double siding and page limits.

Project Proposal and Interview Scoring Criteria

- 1. Final selection will be based on a combination of the scores attained from both the Project Proposal Evaluation and the Interview (if necessary).
- 2. Attached is a copy of the Evaluation Criteria that will be used to assess each Proposal.
- 3. Attached is a copy of the Interview score sheet.

Request for Proposal (RFP) Evaluation Form Template #7

Ge	eneral Information				
Pro	Project Name: Date:				
Consulting Engineer Name:			Time:		
Rev	viewer Name:				
Dr	oject Evaluation				
		unto.			
1.	Mandatory Requirements to	he mandatory requirements associated with	_	_	
١.	the project	me manuatory requirements associated with	YES 🗌	NO 🗆	
			Proceed with Scoring the Proposal	Disqualify the Proposal	
Eva	aluation Criteria		Maximum	Score	
2	Project Team Compos	sition and Qualifications			
1.	Key personnel and roles & ro	esponsibility identified			
2.	Key personnel years of expe	erience			
3.	Professional accreditation				
4.	Assignment of resources				
5.	Past relevant performance a	s a team			
6.	Necessary disciplines and e	xperts included			
7.	7. Breakdown of project tasks by discipline and appropriate discussion				
8.	Organization chart, including responsibility and lines of communication				
		Total	20 - 40		
3	Project Comprehension	on and Methodology			
1.	Clarity and organization of s	ubmission			
2.	Understanding of desired pro	oject outcomes			
3.	Proper project description ar	nd addresses pertinent issues			
4.	Clear indication of included a services provided by others	and excluded services, optional services and			
5.	Deliverables identified for ea	ch task or phase			
6.	Schedule				
7.	Integration of sub-consultant	ts or specialist services			
8.	Approach to schedule, budg	et and quality control			
9.	Approach to conflict resolution	on			
10.	Innovation				
		Total	30 - 50		
4	Relevant Project Expe	rience and Past Performance			
1.	Firm/team design projects of and project personnel in the	f similar nature and scope, including senior past five years			
2.	Demonstration of local know	ledge			
3.	Scope of services rendered, deliverables	project objectives, constraints and			
4.	Strength of client references	from three specific and relevant projects			
5.	Relevant project awards				
6.	Explanation of relevant projethey were managed	ect budget and schedule variations and how	40.00		
		Total	10 - 30		
		Grand Total	100		

Request for Proposal (RFP) Interview Evaluation Form

Template #8

Ge	eneral Information				
		determine whether the client and the consulting engine those concerns and the overall "chemistry" of the clie		• •	
Project Name:			Date:		
Consulting Engineer Name:			Time:		
Re	viewer Name:				
Int	terview procedures				
Coi	nsulting Engineers invited to att	end and interview should be prepared to address the f panel has completed their questions and if time is ava		s from the Consulting	
Ev	aluation Criteria		Maximum	Score	
1	Understanding of the	e Project	Waxiiiiuiii	Score	
1.		rstands the scope of the project brief and the			
2.	Consulting Engineer under	rstands the project constraints/opportunities			
Consulting Engineer's understanding of other client related issues					
		Total	30		
2	Project Team and Co	onsultants			
1.	Related project experience personnel assigned to this	e, ability and capacity of proposed key project.			
2.	Related project experience the client.	e, ability and capacity of the "Lead Liaison" to			
3.	Related project experience	e, ability and capacity of proposed consultants.			
		Total	30		
3	Overall Impression				
1.	Ability to express ideas				
2.	Ability to manage the proje	ect team			
3.	Ability/past experience wo	rking with the client			
4.	Communication/listening s	kills			
5.	Ability to be flexible/adapta	able			
6.	Consulting Engineer's responding practice for this project	oonse to the question: "Why should we select ot?"			
		Total	40		

Grand Total

100

Request for Proposal (RFP) Summary Evaluation Form

Template #9
For Internal Use Only

General Information						
Project Name:	ect Name: Name of Compiler:		Date:	Date:		
This form is intended to be use Proposal" and attended the "Ir		es of all proponen	ts that submitted to	the "Request for C	Qualifications", "Re	quest for
☐ Request for Qualif	ications Summar	у	Date of Re	view		
☐ Request for Propo	☐ Request for Proposal Summary Date of Review					
☐ Interview Summar	у		Date of Re	view		
Total Combined So	core					
	Engineeri	ng Firm A	Engineer	ing Firm B	Engineeri	ing Firm C
	Technical Score	Interview Score	Technical Score	Interview Score	Technical Score	Interview Score
Name of Reviewer #1						
Name of Reviewer #2						
Name of Reviewer #3						
Name of Reviewer #4						
Name of Reviewer #5						
Total Score						
Ranking						
Comments						

Memo to Consulting Engineers Shortlisted but not Selected

Template #10

То:	Name of Consulting Engineer
	Name of Contact Person
From:	Name of Client/Owner
	Name of Contact Person
	Title
Re:	Completion of Consulting Engineer Selection Process; Project Name, Project Number

Ranking of Consulting Engineers Responding to RFP

Name of Client/Company has completed the process for professional services for the above mentioned project.

Although your firm were not selected, *Client / Name of Organization* express our sincere appreciation for your time, effort and interest on our behalf.

It has been our objective to select the firm whose qualifications and experience best suits our needs for this project. The evaluation results of the selection committee ranks the firms interviewed in the following order:

Rank	Engineering Firm Name
1	
2	
3	

Ranking of Consulting Engineers Responding to RFP

We have now entered into contract discussion and negotiations with Highest Ranked Consulting Engineer