

RISP

Registration, Identification, Selection and Performance

Policy and Procedures Manual



Ministry of
Transportation
and Infrastructure

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1.0 INTRODUCTION

This manual describes the British Columbia Ministry of Transportation and Infrastructure's (MoT) Registration, Identification, Selection and Performance Evaluation, or RISP, program for consultants providing engineering, technical and environmental consulting services on roadway projects. The purpose of this manual is to help readers understand the policies and procedures that govern RISP.

1.1 What is RISP?

The RISP program exists to assist in the selection of consultant firms for the ministry's engineering, technical and environmental contracts of an estimated value less than \$1 million. RISP is administered through the ministry's headquarters in Victoria. The online computer system supporting RISP is called e-RISP. The information about engineering, technical and environmental consulting firms is stored and processed in a manner that ensures confidentiality and fairness in selecting candidates for ministry assignments on Ministry of Transportation and Infrastructure projects. For more information on RISP, please visit the ministry site at:

<http://www.th.gov.bc.ca/erisp/home.htm>

1.2 Why was RISP created?

RISP exists in order to ensure fair, efficient and equitable selection of consultants for ministry contracts. The program was created to satisfy three specific contracting requirements in the engineering, technical and environmental consulting areas:

- The ministry's practice in selecting and hiring engineering, technical and environmental consultants is efficient and effective;
- There is equitable and open access to ministry business for all pre-qualified firms; and
- The ministry must be compliant with the Trade, Investment and Labor Mobility Agreement (TILMA) and the New West Partnership Trade Agreement (NWPTA)

1.3 Quality Management

Forming the foundation of the RISP system is the ministry's commitment to high standards of highway planning, design and construction as well as to the protection of the environment. Safe, cost effective, efficient and environmentally sustainable highways require engineering and other professional services that are excellent, innovative and complete. In order to ensure that roadway related consulting firms providing services to the ministry share these values, the ministry requires firms to sign a Quality Management Accord that outlines specific commitments in the area of quality work, reference materials and performance evaluations.

The Quality Management Accord was developed as a joint project by BCMoT and representatives of the Association of Consulting Engineers of British Columbia (ACEC-BC). The full text of the of the Quality Management Accord is provided on the Ministry's RISP website at : http://www.th.gov.bc.ca/erisp/documents/Quality_Management_Accord.pdf and is shown in appendix 3.9 of RISP Consultants' Selection Process Manual.

1.4 Who is Responsible for RISP?

The ministry's Engineering Branch, at headquarters, is responsible for RISP policies and procedures. The ministry's Information Management Branch (IMB), at headquarters, is responsible for providing support services to build, maintain and update the RISP application.

There are three positions in Engineering Branch that are responsible for RISP:

1. The Chief Traffic, Electrical, Highway Safety and Geometric Standards Engineer is responsible for RISP policy decisions and funding on RISP system upgrades;
2. The Senior Geometric Standards Engineer is responsible for day-to-day RISP management decisions and for answering RISP questions that require engineering and technical knowledge;
3. The RISP Administrator is responsible for the overall day-to-day operations of RISP and recommends improvements to the system. This position provides RISP operational and registration advice, other than that of an engineering or technical nature, to ministry RISP users and consultants. The RISP Administrator also produces reports on RISP utilization and quality performance at the request of the ministry's senior management, and for posting content, data, etc. on the Internet. The RISP Administrator performs random audits on the use and performance of RISP to ensure users conform to RISP policies.

The RISP Administrator reports to the Senior Geometric Standards Engineer, who in turn reports to the Chief Traffic, Electrical, Highway Safety and Geometric Standards Engineer on matters requiring senior management, executive decisions or approvals.

The following additional ministry personnel also have roles and responsibilities relating to RISP:

- RISP Operators are ministry staff in specific regional offices who have access to the RISP system to process RISP selections and assist the Requestor throughout the RISP selection process. RISP operators enter information into RISP including contract award details, completion and performance evaluation pertaining to specific RISP selections.
- RISP Requestors are ministry project management staff who need to hire consultant services using RISP;
- RISP Evaluators are ministry staff who participate as part of a project team which reviews and scores consultants' responses to Requests For Expressions of Interest (RFEIs) and Request For Proposals (RFP) responses.
- RISP Lead Adjudicators - there are 18 lead adjudicators who prequalify consultants and are responsible for reviewing RISP applications from consulting offices in engineering, environmental and transportation related fields. These lead adjudicators each have several assistant adjudicators. For the list of the 18 specialized fields and work categories, please reference the RISP Adjudication Criteria by field.

1.5 How does RISP work?

There are several steps involved in the use of the RISP program:

- Register professional and technical employees into the RISP system;
- Identify companies able to do specific types (categories) of work based on adjudicated employees in consultant offices;
- Select potential consultants based upon prequalification results; and
- Perform consultant evaluation on completed contracts.

Listing of RISP Selections

The RISP web site provides regularly updated information on selections and awarded contracts. These are listed according to ministry region at the following Internet address:

<http://www.th.gov.bc.ca/erisp/selections.htm>

2.0 RISP OVERVIEW

RISP is the electronic system that supports the RISP program's policies and procedures. It contains information on consultants' offices that are pre-qualified and registered to provide consulting services on ministry's projects.

When RISP is used as the selection for contracts up to \$50,000, a Local Minor Works Services Contract is prepared. For contracts valued between \$50,000 and \$1,000,000 a Consulting Services contract is prepared.

2.1 Registration

Professional, technical and environmental consulting firms must register and pre-qualify within RISP to be eligible for ministry contracts up to \$1 million. (Please keep in mind that in any RFEI response "Part A" and "Part B" are composed of successfully adjudicated employees. "Part C" is composed of consultants or employees not adjudicated in RISP. "Part A", "Part B and "Part C" form what is defined as "key team" members.)

2.1.1 How to Register

To register, consultant offices must:

- Obtain a Business BCeID (For instructions on how to obtain a BCeID, visit the BCeID website at <http://www.bceid.ca>;
- Go to the RISP website at <http://www.th.gov.bc.ca/erisp/home.htm> and click on "RISP Logon". You will be prompted to login to RISP using your BCeID.

Registration is comprised of three parts. Together, the 3 parts is known as your "office profile":

Part 1 - Basic company information;

Part 2 - Employees, their categories of expertise and relevant, completed project experiences;

Part 3 - List of work categories the office is applying for and the preferred contract dollar amount for each category.

Once a consulting office has completed RISP registration and submitted its office profile electronically to the ministry, the RISP administrator will verify that the RISP registration information was completed correctly and validate that the office's professional employees are in good standing with EGBC. Validated offices are then sent to the appropriate adjudicators for consideration.

2.1.2 Adjudication

Based on pre-defined adjudication criteria, RISP Adjudicators will then accept or decline the employee's work experiences and associated RISP categories. As employees and categories become accepted during the adjudication process, they will be immediately activated for relevant opportunities. The consultant's office will be notified via e-mail once all adjudications are complete.

2.1.3 Adjudication Criteria

For a full listing of adjudication criteria, please refer to the RISP Category Criteria by Fields and the Category Glossary - Professional and Technical Section.

2.1.4 Appealing an Adjudication Decision

When an adjudicator declines an experience or category for an employee, he/she will enter the reason which can be read by the office. Prior to initiating an appeal, the office contact should verify whether the experience or category submitted is relevant to the adjudication criteria. If the office decides to appeal, the office contact must advise the RISP Administrator in writing by emailing risp.administrator@gov.bc.ca.

Requests for appeal will be reviewed by the appropriate lead adjudicator for their response. The lead adjudicator will prepare a formal response with a decision and supporting explanation. If a consultant firm is dissatisfied with the result of an appeal, they must inform the RISP Administrator in writing. The ministry's Chief Engineer will review the appeal and make a final decision.

2.2 Identification – Entry into the RISP Database

Once a submission has been adjudicated, the office is available for opportunities in accepted categories. The office details, employees and their experiences, and the office's adjudicated categories comprise the office profile.

2.2.1 Keeping your Office Profile Up-to-Date

It is important to keep your office profile up-to-date. When a registered employee leaves or when a new employee is hired, you must update your employees and their experiences (Part 2) to ensure your office categories (Part 3) accurately reflect your current capacity. Outdated or inaccurate office profiles will negatively affect RISP opportunities.

In some cases, the RISP Administrator may contact offices notifying them of outdated or inaccurate office profiles, requesting the office profile be updated. If a notified office does not respond to the RISP Administrator's request, the RISP Administrator has the authority to make the office inactive, suspending the office from future RISP opportunities until the office profile is updated and accurately reflects the offices' resources.

2.2.2 Office Types: Main versus Local Office

In RISP, the "main" office is the head office of the firm, while "local" offices are the firm's branch offices. Firms can only claim one office as their "main" office. The main office is used in searches for province wide opportunities, while local offices are used in searches for regional and local opportunities. The "main" office's address and office contact will be used for all communications regarding province wide opportunities. For search purposes, if the firm has only one office, this office serves as both the "main" office and the "local" office. For province-wide opportunities, the "main" office is considered to be the sum of the firm's "local" offices. This includes staff, their accepted RISP categories, and approved dollar amounts from all "local" offices.

2.2.3 Geographic Preference

In RISP, there are 5 regions and 28 local services areas defined. Please refer to appendices 3.6 and 3.7 for RISP geographic area rules and map.

When consulting services are estimated at \$75,000 or less, geographic preference is applied. RISP will initially search for "local" offices, expanding out to surrounding area for additional qualified offices.

2.2.4 Professional versus Technical Categories

All employees can apply for “technical” categories. Employees with Professional Engineer (P.Eng.) designation and active members of the Engineers and Geoscientists BC (EGBC) can apply for “professional” categories.

The only exception to the “professional” category rule is for Design Technicians and Engineers-in-Training (EIT). Their design experience in the 05-xx (Professional Design) categories may be accepted, allowing them to contribute to their office’s capacity in that category.

In the Category Glossary, professional categories are marked as “P” and have a last digit after the hyphen that is an even number (example: 05-72). Technical categories are marked as “T” and have a last digit after the hyphen that is an odd number (example: 06-45).

2.2.5 Office Employees and their Experiences

The office employee portion of the office profile (Part 2 screen) contains employee information such as their name, professional designation, employment status and experiences associated with RISP categories. With the exception of the office or alternate contact, an employee can only be registered in one RISP office.

2.2.6 Office Categories

The office categories portion of the office profile (Part 3 screen) contains the list of categories an office has applied for (through its employees) and the adjudicated dollar amount for each category.

2.3 Selection

2.3.1 Selection Process

When the ministry is looking to award a contract using the RISP system, a RISP Requestor initiates a selection request and assigns it to the regional RISP operator in the ministry region where the project is located or managed.

For consulting work estimated at \$75,000 or less, the RISP selection algorithm shortlists one RISP consultant offices that is approved with the capacity in the category or categories of this selection for each contract the ministry wishes to award. The shortlisted office or offices are then contacted by the Requester who gives them the project’s description and the scope. The RFP is issued to the shortlisted office if that office wishes to submit a proposal. If that office is unable to submit a proposal, the requestor will have their operator “reject” the selection and “reselect” a new office.

For a selection request that totals more than \$75,000, the RISP software compiles all qualified registered “main” offices (within BC, Alberta and Saskatchewan). If not enough offices qualify for this selection, all of the qualified offices are invited to submit a proposal. If enough offices qualify, the Requester is required to complete a Request for Expression of Interest (RFEI) in RISP and all qualified “main” RISP office are invited to submit an RFEI response by the RISP system.

After the submission deadline for an RFEI, the Requestor and their evaluation team evaluates each RFEI response individually and as a group to determine the top ranked offices to be shortlisted for an RFP.

- (i) Part A, Part B and Part C in the RFEI response form what is known as the “key team” members. “Part A” and “Part B” in the RFEI response must be made up of successfully adjudicated employees. “Part C” in the RFEI response must be made up of consultants or non-adjudicated employees.
- (ii) “Key team” members must not change between the RFEI, the subsequent RFP, and the work assignment without written approval by the Ministry. Changes on the key team members between the RFEI and the RFP response may result in disqualification of the consulting firm.

2.3.2 Selection Rules

2.3.2.1 For selections estimated at \$75,000 or less

The system uses a rotational stacking rule combined with a geographic rule to determine the shortlisted offices to invite to respond to an RFP. Appendix 3.6 contains the sequences for expanding the search area and appendix 3.7 has the map of RISP geographic areas.

The geographic area is used to find offices as close to the project’s location as possible. In addition, categories are defined as “local”, “regional” or “provincial”. For these categories, the system initially searches only for qualified offices that are within the “local” or “regional” area, and then expands as necessary to locate all qualified firms. Many categories are defined as “provincial,” and in these cases the search includes only the “main” office from each firm registered within the province and then expands as necessary to the “main” office of out-of-province firms.

Some categories may be defined as “regional,” which would begin the search within a regional area that includes several local areas.

For each selection where work is estimated at \$75,000 or less, RISP creates an ordered stack of actively registered firms according to the following rules (selection algorithm):

- All offices qualified in this selection’s categories and amounts are initially considered
- Offices are divided into sub-stacks according to their location relative to the geographic area of the selection (refer to appendix 3.6 for the RISP geographic area rules for selection);
- Within each of these sub-stacks the offices are re-ordered according to the following rules:
 - The last date it was awarded a contract for any of the fields of expertise in this selection, with firms that have gone longest without a contract being ordered first;
 - Offices with a pending count (as defined below) are then moved down in the sub-stack; with the lowest count being ranked first and the highest count last;

- Any qualified office that has a bonus point for one of the category fields in this selection (defined in section 2.5) and with a pending count of zero is moved to the top of the sub-stack.

The “pending count” is a number that is initially set to zero for each specialty field the office is registered in. The pending count for the field or fields included in a RISP selection request is then increased by one, each time the office is shortlisted for that or these fields of expertise. The pending count is reduced by one for the office or offices included in the selection as soon as an award is made for this particular selection, or when the office decides to not submit a proposal, or if the selection is deselected (canceled).

If the top ranked office happens to have a penalty point for one of the category fields in the selection (defined in section 2.5) the system skips that office and shortlists the next office on the stack. The penalty point for the skipped office is reduced by one and that office is notified it was skipped in a selection because of a penalty point.

The ministry representative who requested the selection will contact the office shortlisted by RISP using the registered contact information entered in RISP.

If the selected consultant is not available to submit a proposal or if the ministry representative has not been able to make successful contact with the shortlisted office within two business days, the shortlisted office may be rejected from the selection (without any penalty) and the next office in the selection’s stacking order is shortlisted by RISP.

2.3.3.2 For selections estimated at more than \$75,000

All registered RISP “main” offices that qualify for the selection category or categories as well as the selection amounts will receive an invitation to respond to an RFEI. The consultants’ responses to the RFEI are evaluated by ministry staff and the top scoring offices are invited to respond to an RFP competition.

2.3.3 RFEI Process

For selections using the electronic RFEI process (consulting work estimated at more than \$75,000 and enough offices qualify), the selection is in two stages:

1. All qualified RISP “main” offices receive the RFEI invitation
2. The top scoring offices are shortlisted amongst those offices that responded to the electronic RFEI. These top scoring offices will be invited to submit an RFP response. For Engineering and Technical Services contracts, the contract manager should determine whether or not the Schedule D Special Conditions (Engineering Assignments) H0461d, which contains additional clauses specifically related to the provision of engineering assignments, will be required, so that this schedule can be attached as a sample in the RFP package.

Note: The ministry does not debrief on the outcome of RFEIs. Debriefing on RFEI responses would be very time-consuming as all consultants who did not make the shortlist could request a debriefing. This would result in significant cost and time to the Ministry. However, in the RFP stage, the Ministry is willing to provide debriefing upon request. This is consistent with the approach used by BC Bid.

2.3.4 Multiple Award Opportunities

For opportunities where the exact same scope of work, categories and estimate fee levels are applied, but more than 1 consulting firm is required, instead of initiating multiple single selections, a “multiple-award” opportunity is initiated. Multiple awards opportunities can apply to both \$75,000 or under and more than \$75,000 selections.

For multiple awards opportunity that is initiated for \$75,000 or under, the number of offices shortlisted will equal the number of contracts to be awarded.

For multiple awards opportunities greater than \$75,000, the RFEI process is still required, but the number of offices shortlisted will equal two times the number of contracts to be awarded. For example, if 3 contracts are to be awarded, the top 6 offices will be shortlisted.

Note: For a single award RFEI opportunity, 3 offices are still shortlisted.

2.3.5 RISP Procedure for Awards

When an office is awarded a project, RISP is updated by the RISP operator to show which company was successful in their proposal bid, the award date and the final negotiated contract amount. The date of the award is also recorded in the awarded office’s listing under the specific field and fields of the work (last award date).

2.3.6 Contract Administration and Completion

Once a project has completed, a Consulting Services Contract Completion Certificate H0191 is signed off by the Requestor or Project Manager. RISP is updated by the RISP operator using the information provided on the completion certificate e.g., completion date, total contract value including amendments and the final RISP Performance Evaluation Score.

This completes the performance evaluation process and completes the contract in RISP.

See section 2.4 for a description of this process.

2.3.7 Insurance

The ministry sets insurance requirements based on the type of contracted work and the identified risks. The ministry will not enter into a contract with a firm that does not have the required insurance coverage.

The ministry uses two tools associated with risk management:

- Risk Review Sheets
- Insurance Specifications

For consulting services, the Risk Review Sheet H0056 should be used. The completion of this form leads to the identification of risk, its extent and how to manage it. The process also determines which insurance specification will be used:

- INS - 80 For third-party liability cover
- INS - 132 For third-party liability with professional liability coverage (contract to be sent to Insurance & Bonds for compliance review)

When considering the sums insured, the Commercial General (Third-Party) Liability Matrix (attached to the H0056) should be utilized as a guide. The matrix provides SOME examples for assistance but is not inclusive. Each time a contract is prepared, consideration of the

risk exposures inherent in the work should be considered. Insurance limits range from \$2M - \$10M+ based on low, medium, high and extreme level of risk. There is a historical approach for determining professional Errors & Omissions liability (E&O) coverage:

- 1-3 Engineers = \$250,000
- 4-9 Engineers = \$500,000
- 10+ Engineers = \$1,000,000

However, these are guidelines, and the potential loss should be reviewed. For example: complex and high-risks works may be undertaken by 1-2 engineers and straight-forward lower risk works undertaken by a firm of 10+ engineers. If the risk review indicates that increased coverage is required, this can be increased accordingly. This coverage can be expensive, so it is essential to estimate accurately.

The requirements must be provided to the RISP proponent at the time they are contacted with the project information, to ensure all associated costs are included in the bid.

2.4 Performance Evaluation

Evaluation of consultant offices (See: H0503 - Consultant Performance Evaluation in Appendix 3.8) is undertaken in order to provide an objective assessment of a consultant's performance during a project. This allows the ministry to develop an overall past performance rating on the services of individual consulting offices. This information is used as part of the process of selecting consultants and will be considered in evaluating future proposals. The assignment performance rating is given to the RISP office which was awarded the contract through a RISP selection process whether or not a sub-contractor was involved. The ratings apply only to the category field or fields used in the RISP selection (i.e.: planning or structures and so on).

Performance evaluation scores are recorded for each RISP office as contracts are completed for the ministry. The final performance evaluation rating for the three most recent completed contract assignments in the current assignment's field(s) will be used in the algorithm used by the RISP system to select offices or to evaluate responses to an RFEI. The performance evaluations scores may also be used for adjudication of the office registration and for approving pre-qualified contract limits in part 3 of the office's registration. The Performance Evaluation procedures are described in section xxx.

2.4.1 Performance evaluation for opportunities estimated at \$75,000 or less

The rating scale goes from 1 to 5 by increments of 0.5. A final contract assignment rating of 4.0 or greater (\geq) results in a bonus point of 1 being assigned to the office for the work category field or fields for which the RISP selection was done. A RISP office with a bonus point in a certain category field or fields is ahead of all offices that have no bonus points for the next selection using these fields within the geographic area of the selection (RISP selection algorithm). The bonus point is reduced by one point each time the office is shortlisted in the specific field or fields that the bonus point applies. A final rating of less than ($<$) 2.0 allocates a penalty point to the office for the category field or fields used in the selection. A RISP office with a penalty point in a category field is skipped the next time its turn comes up in a RISP selection using this field. The penalty point is then removed and the office is informed.

2.4.2 Performance evaluation for opportunities estimated at more than \$75,000 (RFEI process)

The three most recent performance ratings received by the consultant (for either the “main” or “local” office(s)) in RISP selections for the same field(s) of work are used in the evaluation of the consultant’s RFEI response. Offices receive a neutral performance rating (3.0 out of 5) if they do not have any performance ratings in this RISP selection’s field(s). Offices that have less than three performances for the field(s) are awarded a neutral performance for the missing performance(s). More recent performances are weighted higher. Performances received for higher RISP contract completion amounts are also weighted higher.

The following formula is used:

$$2.5 * [(1st\ score - 3.0) * 0.5 * 1st\ completion\ weight + (2nd\ score - 3.0) * 0.3 * 2nd\ completion\ weight + (3rd\ score - 3.0) * 0.2 * 3rd\ completion\ weight]$$

Completion Weight Values:
 1 if completion value <= \$100k
 3 if completion value > \$100k and < \$500k
 6 if completion value >= \$500k and < \$1M

2.4.3 Past Performance Score Calculation Examples

Office A	1st most recent work	2nd most recent work	3rd most recent work	Score
Completed Contract Amount	\$350,000	\$150,000	\$795,000	7.6 rounded at 8
Performance Rating	3.7	3.2	4.5	

Office B	1st most recent work	2nd most recent work	3rd most recent work	Score
Completed Contract Amount	\$650,000	\$95,000	Not available	7.3 rounded at 7
Performance Rating	3.9	3.7	-	

Office C	1st most recent work	2nd most recent work	3rd most recent work	Score
Completed Contract Amount	\$150,000	\$695,000	\$85,000	3.4 rounded at 3
Performance Rating	3.2	3.5	3.7	

2.4.4 Performance Evaluation Process

The evaluation process is carried out by ministry representatives (Evaluators and one Requestor for a minimum of three representatives) who has a role in the acceptance of the consultant's deliverables and is familiar with the ministry's evaluation procedures. The evaluator should establish that the content of the performance evaluation form is appropriate for the type of assignment and services being delivered by the consultant. At the beginning of the assignment, the evaluator and the consultant's representative who is responsible for the work should agree on the weightings used in the form and on the number of performance evaluations as well as the process for carrying out the evaluation.

The H0503 - Consultant Performance Evaluation form (included in appendix 3.8. of this document) allows the ministry to measure both the quality of the deliverables and the project management skills of the consultant. It identifies important milestones and their respective dates, scope changes and their impact on the schedule and project costs.

2.4.5 Performance Evaluation Procedure

The terms of reference of the contract will define meetings known as evaluation meetings at which the performance attributes' ratings of the most recent performance evaluation form will be reviewed. At the initial project meeting, the evaluator and the consultant's representative will discuss and reach agreement on the use of the performance evaluation form.

Questions on the evaluation form cover how a specific work attribute (such as quality management or delivery management) is performed by the consultant. Each attribute is given a weighting (to total 100 per cent for all attributes) that represents its relative importance to the part of the work being evaluated. Performance evaluation questions most applicable to the project and the weightings of each attribute will be identified by the evaluator, and an agreement will be reached that the contract deliverables will be rated using these questions at subsequent evaluation meetings.

A new evaluation form is completed at each evaluation meeting to evaluate the consultant's work performance since the previous evaluation meeting. The contribution of each form as a proportion of the final or total completed assignment rating depends on the importance of the part of the work that is being evaluated in relation to the total deliverables under the contract.

At the last evaluation meeting, the final performance evaluation form is completed and a final assignment rating is computed by multiplying each of the deliverable ratings from all of the evaluation forms by their respective proportion of the final rating, then adding these results. The final overall performance rating is provided to the Consulting Engineering Firm for its review and acceptance. Consultants are given 30 days to review and respond to their performance evaluations. After that grace period, the achieved scores remain firm and the final assignment rating is sent to the regional RISP Operator to be entered in the RISP database.

2.4.6 Disputes

If a dispute occurs between the evaluator and the consultant's representative over any matter related to the performance evaluation, the Regional Manager of Professional Services - Engineering shall act as a mediator. If the dispute cannot be resolved in this way, the Regional Manager of Professional Services/ Engineering shall report to the ministry's Chief Engineer, who will act as the final mediator.

2.4.7 Use of Results

The performance evaluation form is a reporting document. All completed and signed performance evaluation forms are part of the ministry's contracted assignment file. The content of such forms is confidential information, and should be substantiated by appropriate documentation such as the consultant's work deliverables, records of communications between the ministry's representatives on the contract, and the consultant's representative, and any other relevant contract record that relates to the quality of the work. The final rating for the RISP contract is entered in RISP and is applied to the RISP office that was awarded the contract.

3.0 APPENDICES

Appendix 3.1 CATEGORY GLOSSARY – PROFESSIONAL AND TECHNICAL

Important Notices About Category Types

PROFESSIONAL vs TECHNICAL CATEGORIES:

Only members of the Engineers and Geoscientists BC (EGBC) can apply for Professional Categories (these are categories that have an even number after the dash, such as 01-32 and marked with P in column 2 on the Glossary). The only exceptions are the design categories that start with 05 before the dash (such as 05-66). For the design categories, experienced design technicians and design EITs may enter their design experiences for the appropriate design categories (Technical or Professional) in part 2 of the application. These experiences may be approved if they meet the adjudication criteria. The technical employee and EIT will not be approved for these Professional categories but their approved Professional category experiences will count in approving the office's requested maximum preferred contract amount.

GEOGRAPHICAL CATEGORY TYPES:

The rule described here is applied only for consulting work estimated at or below \$75,000. RISP categories are classed as Provincial, Regional or Local. Local categories (marked with L in column 1) and Regional categories (marked with R in column 1) cover services which by their nature require either a rapid response, familiarity with local conditions, or other reasons for having these consulting services to be available close to the site or the Ministry's office where the contract is managed. A Local search starts with one of the 28 Ministry of Transportation and Infrastructure (BCMOT) Maintenance Service Contract Areas, expanding if necessary to the surrounding Contract Areas if no matches are found. A Regional search starts with one of the five RISP regions, expanding if necessary to the surrounding Contract Areas if no matches are found within the first region. Provincial categories (marked with Pr in column 1) cover services which can be provided by any qualified RISP registered firm in or out of the Province, hence the search criteria are Province wide then out-of-Province. For more information, refer to the document on the "RISP Business Rules" and the RISP Local and Region Areas map. For more information, refer to the document on the "RISP Business Rules" and the map of RISP Geographic Areas in Appendices 3.6 and 3.7 of the RISP User Manual.

Please note:

- In column 1: “L” indicates a local category
 “R” indicates a regional category
 “Pr” indicates a provincial category.
- In column 2: “P” indicates Professional categories which have even second numbers
- In column 3: “T” indicates Technical categories which have odd second numbers in column 3

01 Series			BRIDGE & STRUCTURAL CONSULTING & INSPECTION
			Bridge Design Additional to the development of conceptual and design, the scope of work generally includes the production of detailed engineering drawings, contract specifications and cost estimates.
Pr	P	01-10	Provide conceptual/detailed design for complex long span structures (suspension, cable-stayed, hinged arch). Must have P.Eng. membership in EGBC.
Pr	P	01-12	Provide conceptual and detailed design for intermediate to long span structures. Must have P.Eng. membership in EGBC.
L	P	01-14	Provide conceptual and detailed design for short-span structures Must have P.Eng. membership in EGBC.
L	P	01-16	Provide conceptual and detailed design for culverts, retaining walls and miscellaneous structures. Must have P.Eng. membership in EGBC.
Pr	T	01-17	Structural Drafting Services The scope of the work would include the development of bridge contract drawings from engineering sketches with dimensions, details and quantities.
			Seismic Retrofit Engineering The scope of work generally includes the seismic assessment and strategy, development of conceptual and detailed designs, engineering drawings, and contract specifications and cost estimates.
Pr	P	01-18	For long-span structures (suspension, cable stayed and hinged arch structures, etc.). Must have P.Eng. membership in EGBC.
Pr	P	01-20	For intermediate to long span structures. Must have P.Eng. membership in EGBC.
Pr	P	01-22	For short-span structures. Must have P.Eng. membership in EGBC.
Pr	P	01-26	Bridge Deck Rehabilitation Includes condition surveys for the structure, the preparation of tender documents for bridge deck overlay, cathodic protection, or full deck replacement. The scope will also include the design for removal and replacement of deck joints and deck railings where required. Must have P.Eng. membership in EGBC.
Pr	T	01-27	Deck Condition Inspection The work includes inspection of the deck surface utilizing methods such as visual inspection, chain drag, half-cell survey, concrete coring with chloride and petrography analysis. Provide an inspection report that can be utilized in developing designs and tender documents for bridge deck re-surfacing.

01 Series			BRIDGE & STRUCTURAL CONSULTING & INSPECTION
Pr	T	01-29	Wood Truss Structure Inspection The work is limited to inspection of the truss members using visual inspection and wood boring and probing techniques to record section loss.
Pr	T	01-31	Steel Structure Coating Inspections The work consists of inspection of all types of coatings using visual, non-destructive and destructive techniques to evaluate both new and old coating systems. Minimum qualifications are NACE Level 1.
			Bridge Rehabilitation Design Perform condition inspections on structures, develop detailed designs and prepare tender documents for repair or replacement of components.
Pr	P	01-32	For long-span structures (suspension, cable stayed and hinged arch structures, etc.) Must have P.Eng. membership in EGBC.
Pr	P	01-34	For intermediate to long span structures. Must have P.Eng. membership in EGBC.
L	P	01-36	For short-span structures. Must have P.Eng. membership in EGBC.
Pr	T	01-39	Underwater Bridge Inspection Projects consist of inspecting underwater components of all types of substructure elements, utilizing visual and non-destructive testing. Minimum qualifications are certification as a bridge inspector or a Professional Engineer with bridge experience. Inspectors must also be certified divers.
Pr	P	01-40	Forensic Analysis Review structures subject to either damage or failure due to vehicular impact, prepare recommendations on the cause for insurance claims purposes, and provide expert testimony as required. Must have P.Eng. membership in EGBC.
Pr	P	01-42	Structural Instrumentation – Analysis and Design The scope of work includes providing a full, global Finite Element Model of the structure, calibration through acceleration based ambient vibration tests on the structure; non-linear evaluation of the structure under specified seismic events; development of seismic mode shapes, a condition assessment that identifies critical changes in the structure and potential compromises to the structural integrity, identification of the ultimate failure mechanism of the structure; determination of the appropriate sensors and layout to measure the required seismic and structural health parameters of the structure and data delivery mechanisms to provide real-time (streaming) to multiple recipients and integrate with the Ministry’s Smart Infrastructure Monitoring System and networks.

01 Series			BRIDGE & STRUCTURAL CONSULTING & INSPECTION
Pr		01-43	Structural Instrumentation – Testing and Calibration While new seismic or structural health monitoring systems will generally be tested, calibrated and commissioned by the supplier, there may be occasions where this work will be required for Ministry directed installations. The project could also be for re-evaluation or upgrades of existing systems. The work in this category includes testing all equipment for component health and functionality including orientation, data transfer in the required protocols throughout the architecture to final recipients and remote configuring as required; ensuring the synchronized working of the seismic or structural health monitoring system under simulated conditions and the integration of the system with the Ministry’s Smart Infrastructure Monitoring System and networks.
Pr	P	01-50	Marine Structures Design and Rehabilitation To provide conceptual and detailed design complete with drawings, specifications and cost estimates for tender for dock (for marine vessels) and marine structures, including debris and impact protection systems. Must have P.Eng. membership in EGBC.
L	T	01-61	Project Supervision (Bridge / Structural)... to medium projects fee value < \$300,000 and capital cost < \$3 M.
L	T	01-63	Project Supervision (Bridge / Structural)... medium to large projects fee value > \$300,000 and capital cost > \$3 M.
L	T	01-65	Project Supervision (Concrete Bridge Deck Re-Surfacing).
05 Series			HIGHWAY DESIGN & SURVEY ENGINEERING
PLEASE NOTE:			Most of these categories are listed in the Professional Category Glossary (starting with 05-XX with XX being an even number.) Only RISP Offices with qualified Professional Engineers registered in British Columbia can be approved for these categories. Technicians, EITs and Engineers not registered in BC may list these categories to indicate their work experience in design and survey work in Part 2 of their application. However; RISP Offices can only apply for the highway design and survey engineering categories in Part 3 when there is at least one experienced Design Engineer that is listed their RISP application.
L	T	05-13	Field Survey for Transportation Design: Collection of planimetric & topographic details (including legal, underground utilities, aerial utilities, roadside utilities, transportation structures) for transportation design using GPS-RTK and/or Robotic Total Station. Establish corridor control. Layout of alignments, right-of-way, cut & fill, and proposed infrastructure. Build and deliver DTM/TIN surface in CAiCE and/ or Civil3D; electronic delivery of surface detail, underground infrastructure and cadaster in DWG and/or DGN format. Provide Quality Control on all collection and delivery. Survey collection and delivery to meet specification of BCMoTI General Survey Guide (http://www.th.gov.bc.ca/publications/eng_publications/survey/General_Survey_Guide.pdf). Delivery of data in NAD83-UTM and local map projection, elevation based on geodetic datum.

05 Series			HIGHWAY DESIGN & SURVEY ENGINEERING
Pr	T	05-15	Aerial LiDAR Acquisition and Topographic Mapping Delivery: Acquisition of LiDAR and photography from fixed or rotary wing platform. Delivery of digital 10 or 15cm orthorectified colour Orthophotography in ECW format; horizontal precision to distinct points will be less than 30cm when measured with GPS-RTK. Delivery of LiDAR point cloud in LAS and ASCII XYZ format; vertical precision on hard open surfaces will be less than 10cm when measured by GPS-RTK. Delivery of thinned planimetric and topographic data in BCoTI MTS file format for import into CAiCE and/or Civil3D. Delivery of data in NAD83-UTM and local map projection, elevation based on geodetic datum. Provide ground survey through use of GPS-RTK to establish corridor control and perform quality audits. (Reference material can be found within the BC MoTI General Survey Guide located at the following internet address: https://www2.gov.bc.ca/gov/content/transportation/transportation-infrastructure/engineering-standards-guidelines/highway-design-survey)
Pr	T	05-17	Aerial Photographic Acquisition and Topographic Mapping Delivery: Acquisition of photography from fixed or rotary wing platform. Delivery of hard copy and/or digital topographic mapping extracted by photogrammetric methodology. Delivery of hard copy and/or digital un-rectified and rectified photo mosaics. Delivery of thinned planimetric and topographic data in BCoTI MTS file format for import into CAiCE and/or Civil3D. Delivery of data in NAD83-UTM and local map projection, elevation based on geodetic datum. Provide ground survey through use of GPS-RTK to establish corridor control and perform quality audits. (Reference material can be found within the BC MoTI General Survey Guide located at the following internet address: https://www2.gov.bc.ca/gov/content/transportation/transportation-infrastructure/engineering-standards-guidelines/highway-design-survey)
L	T	05-19	Highway Design Drafting Services The scope of work generally includes the drafting of detail roadway design drawings in accordance with Ministry standard layout
			Highway Design – Less Complex Preliminary, functional, and/or detailed design assignments for less complex highway engineering projects. Projects are typically in rural flat or rolling terrain with minimal stakeholder, geotechnical, environmental, R/W, or access mgmt risks.
L	P	05-66	Small assignments under \$100,000
R	P	05-68	Medium assignments between \$100,000 and \$300,000.
Pr	P	05-70	Large assignments greater than \$300,000.
			Highway Design – Complex Preliminary, functional, and/or detailed design assignments for complex highway engineering projects. Projects typically have significant stakeholder, geotechnical, environmental, R/W, or access mgmt risks. Typical projects include work in: mountainous terrain; urban areas; major intersection improvements; interchange designs.
L	P	05-72	Small assignments under \$100,000.
R	P	05-74	Medium assignments between \$100,000 and \$300,000.
Pr	P	05-76	Large assignments greater than \$300,000.

05 Series			HIGHWAY DESIGN & SURVEY ENGINEERING
Pr	P	05-90	<p>Water Supply and Drainage Systems Analysis of existing water supply systems, design of new water supply and distribution systems. For the design of highway drainage systems, use either this category or any of the categories 05-72, 05-74 and 05-76.</p>
06 Series			FIELD SERVICES
			<p>Usual procedure for Multiple Category RISP Selections in the following category series:</p> <p>RISP selections using multiple 06-xx categories (such as 06-45 and 06-73, for a single project with both large grading and paving components) should not normally be done. Typically the RISP selection should be based on the 06-xx category that represents the largest portion of the work. This will allow firms to sub-contract services that they cannot provide internally. For exceptions to this procedure, contact the Lead Adjudicator.</p> <p>The primary exceptions to this multiple selection guideline will be:</p> <ul style="list-style-type: none"> • the Senior Project Supervisor and Construction Management categories (06-8x and 06-9x), where these categories give individuals of greater experience to oversee others from the normal 06-xx project supervision categories, and • for Day Labour Supervision with significant construction survey, when 06-6x may be used in conjunction with 06-11. <p>Where multiple categories are used with a single RISP selection, the aggregate fee cap is still \$1 million.</p>
L	T	06-11	<p>Construction Survey Provide construction surveys including: QA and quantity surveys; pick up of existing and As-built ground and details; material horizons; slope, off-set and shoulder stakes; setting/checking location of culverts, retaining walls, fencing, spot elevations, etc.; providing electronic survey data compatible with CAICE software in accordance with Ministry standards. <\$1.0 M fees.</p>

06 Series			FIELD SERVICES
			<p>Project Supervision Categories (Non-structural): 06-4x, 06-5x, 06-6x and 06-7x These categories are to provide project supervision services for highway grading and/or paving projects, including quality management, record documentation, survey and volume determination, cost control and reporting, and inspection services for compliance with drawings, standards and specifications. It will involve administration of the construction contract, liaison with other individuals and agencies, and will require provision of all equipment, vehicles and tools necessary to complete the work. On projects requiring a structural Project Supervisor, categories 01-61 or 01-63 are to be used.</p> <p>06-4x: Project Supervision – Roadway: This category is to provide project supervision services for roadway grading projects, including CAICE volume determination. The work will include paving and small structural elements (such as retaining walls and multiplate culverts) to a lesser extent. For supervision of projects with a high degree of complexity or risk, add a Senior Project Supervisor or Construction Manager by selecting 06-4x plus 06-8x or 06-9x. For projects valued at over \$10 million, select category 06-45 plus 06-84 or 06-93.</p> <p>06-5x: Project Supervision – Seal Coat/Micro-surfacing: This category is to provide project supervision services for seal coat, chip sealing, graded aggregates seal, and micro-surfacing projects. The work will include grading elements to a lesser extent.</p>
L	T	06-41	Project Supervision (Roadwork)...Small <\$0.5 Cap. Cost <\$01M fees
R	T	06-43	Project Supervision (Roadwork)...Medium <\$3 M Cap. Cost <\$0.5 M fees
Pr	T	06-45	Project Supervision (Roadwork)...Large >\$3 M Cap. Cost <\$1 M fees
L	T	06-51	Project Supervision (Sealcoating) < \$0.2 M Cap. Cost <\$0.1 M fees
Pr	T	06-53	Project Supervision (Sealcoating) > \$0.2 M Cap. Cost <\$1M fees

06 Series			FIELD SERVICES
			<p>06-6x: Project Supervision – Day Labour This category is for staff to provide project supervision and equipment selection, direction and monitoring on Day Labour construction. Must demonstrate the ability to plan and analyze work; select appropriate equipment; balance fleets; set and achieve challenging productivity targets; administer hired equipment; prepare and administer labour, equipment and materials supply contracts; maintain a safe and environmentally compliant site.</p> <p>Where survey and layout of the work is a substantial component of the work, category 06-11 may also be selected.</p> <p>06-61 (local): Generally a single person required. Equipment fleet would typically be 1-2 excavators, a loader, compactor, grader, and 6-10 trucks; Staff of 6-10, including labourers, flaggers and first aid.</p> <p>06-63 (regional): Generally a small team will be required - a project supervisor, with one or two assistants for inspection, surveying and QC, overseeing a larger fleet operating on multiple fronts.</p> <p>06-65 (provincial): A team of a project supervisor, assistants, surveyors, QC and administrative personnel are required, foremen potentially required. Extensive fleet, much of it provided under supply contracts which would include foremen, including all types of construction equipment (excavators, scrapers, dozers, compactors, graders, on- and off-road trucks, cranes, etc.)</p>
L	T	06-61	<p>Day Labour Supervision: Small - <\$0.5 M Capital cost - <\$0.1 M fees Typically one person providing service</p>
R	T	06-63	<p>Day Labour Supervision: Med - <\$2 M Capital cost - <\$0.5 M fees Typically a team prov. Services</p>
Pr	T	06-65	<p>Day Labour Supervision: Lrg - <\$5 M Capital cost - <\$1 M fees Typically a team prov. services</p>
			<p>06-7x: Project Supervision – Surfacing This category is to provide project supervision services for asphalt concrete paving projects (includes conventional, EPS, HIP, etc.). The work will include grading and structural elements to a lesser extent.</p>
L	T	06-71	<p>Project Supervision (Surfacing): Small - <\$0.5 M Cap. Cost - <\$0.1 M fees Typically one person providing service</p>
Pr	T	06-73	<p>Project Supervision (Surfacing): Medium - >\$0.5 M Cap. Cost - <\$1 M fees Typically a team providing services, including supervisor, lab people, profilers and inspectors</p>
			<p>Construction Management (P.Eng.)</p>

06 Series			FIELD SERVICES
Construction Management			<p>This category series is for a single professional Construction Manager to simultaneously oversee the work of multiple Project Supervisors (Professional or Technical; normally employed by other firms) on multi-discipline (grading, surfacing and/or structural) projects.</p> <p>Where professional quality management or certification is required on a single project or the project value exceeds \$7 - 10 million, the category may also be used to retain a Construction Manager plus a Project Supervision team from the same firm, in which case the RISP selection shall be for both this category and 06-4x or other suitable supervision category.</p> <p>Duties include record documentation, cost control and reporting, management of the construction project schedule and budget, administration of the construction contract, second-stage dispute resolution with the Contractor, arranging / facilitating and documentation of construction project team meetings, liaison with other Ministries, individuals and outside agencies, and provision of all equipment, vehicles and tools necessary to complete the work. Must have P.Eng. membership in EGBC.</p>
R	P	06-80	Construction Management Services by a P.Eng. <\$3 M Capital cost <\$0.1 M fees
Pr	P	06-82	Construction Management Services by a P.Eng. <\$10 M Capital cost <\$0.5 M fees
Pr	P	06-84	Construction Management Services by a P.Eng. >\$10 M Capital cost <\$1 M fees
			Construction/Project Supervision
			<p>Senior Project Supervisor - This category is for a single, non-professional, highly experienced Project Supervisor to oversee the work on one high-value or complex project, or simultaneously oversee multiple Project Supervisors (Professional or Technical; normally employed by other firms) on multidisciplinary (grading, surfacing, and/or structural) projects. [On structural projects requiring a Senior Project Supervisor, category 01-63 is to be used.]</p> <p>Duties include managing the project supervision services, ensuring consistency; providing construction quality assurance on the project supervision services; managing the inter-relationship of multiple individual construction project schedules and budgets; liaising with other consultants, other Ministries, individuals and outside agencies; arranging, facilitating and documenting construction project team meetings; ensuring BCMOT is fully informed on all project issues, including regular status reporting.</p> <p>Where the work is on a single project of higher complexity or with value in excess of \$7 - 10 million, this category may be used in conjunction with 06-45 to obtain a project supervision support team as well as the Senior Project Supervisor.</p>
R	T	06-91	Senior Project Supervisor's Services – Less complex project <\$100K in fees
Pr	T	06-93	Senior Project Supervisor's Services – Project of medium complexity \$100K to <\$500K in fees
Pr	T	06-95	Senior Project Supervisor's Services – Complex project \$500K to <\$1 M in fees

10 Series			GEOTECHNICAL / GEOLOGICAL / SOIL TESTING
L	T	10-07	Soil Mechanics – Field Investigations To supervise subsurface sampling operations involving soils and rock. This may also include arranging equipment access, preparation of logs and other records, installation of instrumentation, establishing exact site locations and elevations. For contracts less than \$100,000.
R	T	10-09	Same as 10-07. For contracts between \$100,000 and \$300,000.
Pr	P	10-10	Soil Mechanics / Investigation and Design Assignments may include field investigation, laboratory testing, design, reporting, recommending and construction monitoring or supervision of earthwork projects. Must be Qualified Professional member of EGBC.
Pr	T	10-11	Same as 10-07. For contracts greater than \$300,000.
L	T	10-13	Soil Mechanics – Laboratory Testing To conduct sophisticated soil testing to establish standards and reporting criteria. Testing and procedures may include Shelby tube extraction and sample logging, unconfined compression, consolidation shear box, tri-axial testing, etc. For contracts less than \$100,000.
R	T	10-15	Same as 10-13. For contracts between \$100,000 and \$300,000.
Pr	T	10-17	Same as 10-13. For contracts greater than \$300,000.
Pr	T	10-19	Project Supervision, Rock Slope Stabilization To provide project supervision services, including quality management, record documentation, cost control and reporting, inspection services for compliance with drawings, standard specifications, traffic management plans and compliance with WCB regulations. It will involve administration of the construction contract, liaison with BCMOT staff and or its delegates, liaison with utilities and agencies and project stakeholders. Project supervision will also include services for Day Labour slope stabilization construction including quality management, record documentation, inspection, work direction involving labourers and Hired Equipment and traffic management, and compliance with WCB regulation. Project Supervision will include the provision of all equipment, vehicles and tools, necessary to perform the above tasks.
R	P	10-20	Terrain and Natural Hazard Evaluation Assignments may include interpretation of air photos or other “remote” resources; field investigation to classify soils and rock for route selection; assessment of debris flow and other natural hazards; risk assessment and recommendations for mitigation; aggregate potential assessments; etc. - and designs of mitigation for hazard control or prevention. Must be Qualified Professional member of EGBC.

10 Series			GEOTECHNICAL / GEOLOGICAL / SOIL TESTING
Pr	P	10-30	Rock Slope Design and Stabilization Rock slope design / stabilization assessments for new rock cut construction and remedial stabilization of existing rock slopes; preparation of blast plans in support of new construction or remedial stabilization of rock slopes. The work may involve structural and geologic mapping; statistical analysis of structural data; assessment of local rock conditions, rock fall behaviour including accessing steep and difficult terrain possibly including the use of ropes to characterize site conditions and identify potential rock fall hazards; other field investigation necessary to properly characterize rock conditions and develop mitigation measures specifically for rock fall control along transportation corridors; any laboratory test/analysis to determine rock properties, global and local stability analysis, rock fall modeling, ditch configuration design preparing blast plans to minimize back- break and fly-rock, control vibration, and optimize fragmentation; assessment of ground vibration and air noise; and preparation of design reports describing work performed and recommendations developed. Must be Qualified Professional member of EGBC.
Pr	P	10-32	Rock fall Hazard Assessment and Slope Hazard Rating To perform rock fall hazard ratings along highway corridors through the application of specific procedures combined with solid engineering experience in a manner that will produce consistent and repeatable results. Work involves assessment and scoring of site factors related to slope rock fall hazard potential, geometric data, other data describing site conditions, conceptual remedial stabilization costs and entry of data in a database. Must be Qualified Professional member of EGBC.
Pr	P	10-40	Pavement Evaluation and Design Assignments may include field investigation, laboratory testing, design, reporting, recommending and construction monitoring or supervision of projects relating to pavement structure including base courses and surface. Must be Qualified Professional member of EGBC.
Pr	P	10-50	Groundwater Studies Assignments may include field investigation; laboratory testing, design, reporting, recommending and monitoring of groundwater related projects. Must be Qualified Professional member of EGBC.
R	T	10-41	Pavement Evaluation, Testing and Data Collection Conducting routine field testing and data collection using established standards and testing frequencies.
L	T	10-55	Geotechnical Drafting Services Scope of work generally includes preparation of drawings for bridge foundations, construction details, surveys/mapping and related data in accordance with Ministry standards.
L	T	10-61	Aggregate Prospecting and Supply Evaluation Scope of work generally includes field investigations, sample collection, evaluation of laboratory test results and preparation of gravel pit reports. For contracts less than \$100,000.
R	T	10-63	Same as 10-61. For contracts between \$100,000 and \$300,000.
Pr	T	10-65	Same as 10-61. For contracts greater than \$300,000.

10 Series			GEOTECHNICAL / GEOLOGICAL / SOIL TESTING
Pr	P	10-70	Earthquake Engineering Studies. Must be Qualified Professional member of EGBC.
Pr	P	10-80	Geophysical Investigations Includes seismic refraction and reflection; electrical and electromagnetic; ground penetrating radar or other geophysical field investigations; interpretation of results, recommendations. Must be Qualified Professional member of EGBC.
Pr	P	10-90	Contamination and Remediation Registration with EGBC and/or the Society of Contaminated Sites Approved Professionals of BC (CSAP) including CSAP registered Professional Agrologist, Registered Professional Biologist, and Professional Chemist is required to perform contaminated sites work commensurate with the BC Environmental Management Act. Work in this category may be completed by others under the supervision, sign and seal of an EGBC or CSAP registered professional who takes responsibility for that work. This work includes site investigation, material characterization, contaminant delineation, and the development and implementation of mitigative strategies (e.g. numeric or risk-based approaches) or designs. This type of work primarily relates to and is often a precursor to applications for BC MOE-issued Instruments such as Certificates of Compliance and Contaminated Soil Relocation Agreements, etc. Any design work will only be performed by a member of EGBC.
Pr	T	10-91	Rock slope-Survey and Modeling Provide detailed survey of rock slopes, including topographic detail, identification of major geological structural features in UTM coordinates, pickup of geologic boundaries, utility pole, fences posts, property boundaries; produce a DTM model and conduct 3-D modeling of rock slopes, structural features (including overhangs) to determine area/volume estimates, overlay mesh area estimates, locational positioning of other remedial measures and extrapolation of geologic features; preparation of front view plans, 3-D views, cross sections generally conforming to Ministry AutoCAD standards. Provide surveys for slope movement monitoring, establish back sights, establish new or rehabilitate existing optical prism targets, plot target positioning information on DTM model, develop time based cumulative vector displacement plots.
15 Series			MATERIALS TESTING & ENGINEERING
L	P	15-10	Soils Assignments may include laboratory and field testing using standard specification test methods, interpretation of results and recommendations on appropriate action. For contracts less than \$100,000. Must be Qualified Professional member of EGBC.
L	T	15-11	Soils and Aggregates Assignments may include laboratory and field testing using standard specification test methods, in-situ compaction measurement using nuclear methods. This also includes interpretation of results, recommendations on appropriate actions and preparation of pit development plans. For contracts less than \$100,000.
R	P	15-12	Same as 15-10. For contracts between \$100,000 and \$300,000. Must be Qualified Professional member of EGBC.
R	T	15-13	Same as 15-11. For contracts between \$100,000 and \$300,000.

15 Series			MATERIALS TESTING & ENGINEERING
Pr	P	15-14	Same as 15-10. For contracts greater than \$300,000. Must be Qualified Professional member of EGBC.
Pr	T	15-15	Same as 15-11. For contracts greater than \$300,000.
L	T	15-17	Sieve Analysis and Crusher Control To provide quality control and/or assurance on projects such as crushing operations where strict control of gradation is required. Testing shall conform to established standards. For contracts less than \$100,000.
R	T	15-19	Same as 15-17. For contracts between \$100,000 and \$300,000.
L	P	15-20	Asphaltic Concrete Mix Design, Testing and Evaluation Assignments may include design of asphalt concrete mixes; laboratory and field test using standard specification test methods; interpretation of results, recommendations. For contracts less than \$100,000. Must be Qualified Professional member of EGBC.
Pr	T	15-21	Same as 15-17. For contracts greater than \$300,000.
R	P	15-22	Same as 15-20. For contracts between \$100,000 and \$300,000 Must be Qualified Professional member of EGBC.
Pr	P	15-24	Same as 15-20. For contracts greater than \$300,000. Must be Qualified Professional member of EGBC.
L	T	15-27	Asphalt Concrete Field-Testing Conducting routine field tests according to established standards and testing frequencies. For contracts less than \$100,000.
R	T	15-29	Same as 15-27. For contracts between \$100,000 and \$300,000.
L	P	15-30	Portland Cement Mix Design, Concrete Testing and Evaluation Assignments may include concrete mix design, laboratory and field test using standard specification test methods, interpretation of results, recommendations. For contracts less than \$100,000. Must be Qualified Professional member of EGBC.
Pr	T	15-31	Same as 15-27. For contracts greater than \$300,000.
R	P	15-32	Same as 15-30. For contracts between \$100,000 and \$300,000. Must be Qualified Professional member of EGBC.
Pr	P	15-34	Same as 15-30. For contracts greater than \$300,000. Must be Qualified Professional member of EGBC.
L	T	15-37	Portland Cement Concrete Field Testing To provide on-site quality control services on plastic Portland Cement concrete such as slump measurement, temperature monitoring, air content and the sampling and preparation of laboratory test samples. For contracts less than \$100,000.
R	T	15-39	Same as 15-37. For contracts between \$100,000 and \$300,000.
Pr	T	15-41	Same as 15-37. For contracts greater than \$300,000.
L	T	15-45	Chemical Testing – Specification Compliance Scope is limited to the provision of non-interpretative chemical test data required for specification compliance. For contracts less than \$100,000.
R	T	15-47	Same as 15-45. For contracts between \$100,000 and \$300,000
Pr	T	15-49	Same as 15-45. For contracts greater than \$300,000.

15 Series			MATERIALS TESTING & ENGINEERING
L	P	15-50	Other Materials Laboratory and field tests on materials other than specified above using standard specification and modified test methods, interpretation of results, and recommendations on appropriate action. For contracts less than \$100,000. Must be Qualified Professional member of EGBC.
R	P	15-52	Same as 15-50. For contracts between \$100,000 and \$300,000. Must be Qualified Professional member of EGBC.
Pr	P	15-54	Same as 15-50. For contracts greater than \$300,000. Must be Qualified Professional member of EGBC.
L	T	15-55	General Materials Testing – Specification Compliance Scope is limited to the provision of non- interpretative physical test data required for specification compliance. For contracts less than \$100,000.
R	T	15-57	Same as 15-55. For contracts between \$100,000 and \$300,000.
Pr	T	15-59	Same as 15-55. For contracts greater than \$300,000.
Pr	T	15-65	Paint and Coating Systems Evaluation Assignments may include field and laboratory testing and assessment of paint and coating systems including bridge coatings and centerline paints; recommendations for inclusion of paints and coating systems in the Ministry’s Recognized Products List; project specific recommendations for coating systems for application to bridge structures; quality audit of contracts for application of coatings; advice and recommendations on long-term and project specific strategies for maintaining and rehabilitation bridge coatings.
Pr	T	15-71	Non-Destructive Weld Testing.
20 Series			TRANSPORTATION & HIGHWAY PLANNING
Pr	P	20-10	Transportation Study Work done in this category may be quite diverse, and can pertain to any aspects of transportation planning not captured in other specific planning categories. Applications may be rural or urban and may include multi-modal considerations. Must have P.Eng. membership in EGBC.
Pr	P	20-16	Project and Corridor Planning A sequence of activities involving problem identification and definition including constraints, development of alternatives, evaluation of alternatives (an MAE including B/C analysis), and recommendation of highway improvement actions using appropriate justification. This is performed in advance of design, but may require cooperation in a multi-discipline team including designers, various specialists, and external stakeholders. Outputs include project business cases and corridor management plans Must have P.Eng. membership in EGBC.

20 Series			TRANSPORTATION & HIGHWAY PLANNING
Pr	P	20-18	Advanced Business Case Development Although preparation of project business cases is also an expected output of category 20-16, category 20-18 requires a high degree of demonstrated expertise in: 1) performance analysis to identify performance problems and justify further analysis, 2) problem definition to show that the causes of the problem are well understood, 3) development of a number of relevant options (including phasing options where appropriate) based on good problem definition work, 4) option evaluation: B/C analysis and MAE presentation, and 5) risk analysis to identify the key sources of uncertain and assess their impact on the evaluation results. Must have P.Eng. membership in EGBC.
Pr	P	20-20	EMME2 Transportation Modeling Urban transportation demand modeling of current and future conditions using the EMME2 regional land use model, and comprised of trip generation, trip distribution, modal split and trips assignment. This involves developing new network scenarios or modifying existing, calibrating to available data, running the model and interpreting the results. Must have P.Eng. membership in EGBC.
25 Series			TRAFFIC ENGINEERING
Pr	P	25-10	Traffic Studies To provide an operational analysis of a highway corridor or highway segment with or without traffic. Recommendations will be the result of on-site observations, safety reviews, conflict analyses and capacity analyses, etc. These recommendations will center on revisions to: guide, regulatory, or warning signing; signal phasing; pavement markings; or minor geometric improvements including laning, curb radii or turn bay storage lengths, etc. Also included here are studies for pedestrian and cycling facilities. This category includes the performance of warrant analysis for different traffic control devices, including traffic signals and pedestrian crossings. Must have P.Eng. membership in EGBC.
Pr	P	25-20	Traffic Signal Analysis and Optimization These studies will involve detailed capacity and accident analyses. The results will be recommendations and design of efficient signal phasing; optimal timing plans and progression strategies based on sound engineering principles. Must have P.Eng. membership in EGBC.
Pr	P	25-30	Traffic Signs and Pavement Marking To provide the evaluation, design and recommendation for the installation of appropriate signing including warning, regulatory and guide signs, and pavement markings Must have P.Eng. membership in EGBC.
Pr	P	25-40	Traffic Micro-simulation Modeling This will involve the use of Synchro / Sim Traffic and TSIS micro-simulation software and other Ministry approved micro-simulation tools to model the traffic flow of roadway networks including signalized and non-signalized intersections in a corridor or network; and freeway operations (merge, diverge, weaving). Must have P.Eng. membership in EGBC.

30 Series			ROAD MAINTENANCE / REHABILITATION PROGRAM SERVICES
Pr	P	30-10	Avalanche Risk Assessment and Treatment Design Must have PEng. Membership in EGBC and Professional Membership with the Canadian Avalanche Association.
Pr	P	30-12	Road Maintenance Systems Development of reporting processes and systems / procedures, maintenance performance/materials standards and road infrastructure analysis management for quality assurance on maintenance contracts. Must have P.Eng. membership in EGBC.
			Pavement Rehabilitation
Pr	T	35-15	Preliminary Condition Analysis Pavement surface analysis.
Pr	T	35-17	Pavement Condition - Data Gathering Pavement surface conditions data gathering by manual and automated means. Excludes analysis and recommendations.
Pr	T	35-21	Detailed Surface / Roadway Studies Conditions of pavements, road structure and bridge decks.
Pr	T	35-23	Surface / Roadway Status Data Gathering The collection and collating of data on pavement, structures and bridge decks, excluding analysis and recommendations.
			Road & Bridge Rehabilitation
Pr	T	35-51	Infrastructure Asset Management Condition assessment and renewal investment planning for existing infrastructure (roads, bridges and other structures). Preparation of asset management reports including detailed condition assessment, remaining service life and treatment needs definitions, life cycle renewal options analysis, route(s) or network level financial need analysis for various investment strategies.
			Maintenance Auditing Services

30 Series			ROAD MAINTENANCE / REHABILITATION PROGRAM SERVICES
Pr	T	35-53	<p>Highway Maintenance Quality Auditing Service</p> <p>To provide quality auditing services on the road and bridge maintenance contractor's Quality Management Systems (QMS). The assignments will require acting as Lead Auditor when performing Regional Audits as part of the Ministry Quality Plan and Contractor Assessment Program (CAP) and will include:</p> <p>Reviewing the most recent version of the Ministry Quality Plan and CAP Manual to ensure understanding of the provincial criteria for audits, as the criteria may be amended from time to time;</p> <ul style="list-style-type: none"> - Coordinating schedule of audits with the audit team (at least one BCMOT staff must be on the team and a maximum of 2) and the contractors; - Reviewing the most recent version of the contractors' QMS; - Reviewing the Maintenance agreement between the Ministry and the contractor; - Meeting with Ministry personnel as required (pre/post audit meetings); - Giving notice to the contractor of the audit; - Performing the audit; - Completing the Audit Report; - Completing the Assessment; - Debriefing to District Management; - Providing all relevant documentation to the Regional Operations Technician.

45 Series			ELECTRICAL ENGINEERING
			ELECTRICAL DESIGN – Traffic Systems
Pr	P	45-10	<p>Street Lighting Design</p> <p>Design street lighting installations using the latest lighting analysis software packages, complying with the latest IES lighting Guidelines, and applying appropriate lighting engineering judgment.. Must have P.Eng. membership in EGBC.</p>
Pr	P	45-12	<p>Traffic Signal Design</p> <p>Design multi-traffic signal installations including performing site assessments, identifying deficiencies / requirements and ensuring compliance with MUTCD and Ministry standards. This will include designing, evaluating and recommending appropriate interconnection media for closed loop and multi-jurisdictional coordinated systems Must have P.Eng. membership in EGBC.</p>
Pr	P	45-14	<p>Lane Control Systems Design</p> <p>This category is no longer in use. Must have P.Eng. membership in EGBC.</p>
Pr	P	45-16	<p>Traffic Management Systems</p> <p>Evaluate, design and make recommendations on various Traffic Management System components such as dynamic message signs, CCTV / video systems, traffic monitoring systems (computerized and electronic systems to monitor queues, speed, flow and occupancy of vehicles on the roadway) and other components related to Intelligent Transportation systems. Must have P.Eng. membership in EGBC.</p>
			ELECTRICAL DESIGN – Electrical / Electronic Systems

45 Series			ELECTRICAL ENGINEERING
Pr	P	45-20	Equipment Design and Specification Evaluate, design and provide recommendations in report or technical specification form for miscellaneous electrical equipment such as light fixtures, traffic controllers, service, equipment, steel poles, etc.... Must have P.Eng. membership in EGBC.
Pr	P	45-22	Power Distribution and Emergency Backup Systems Evaluate, design and recommend appropriate service and emergency generation/ backup equipment; size and specify feeders, transformers, protection devices, transfer switches, etc... Must have P.Eng. membership in EGBC.
Pr	P	45-24	Specialized Electrical / Electronic Systems Evaluate, design and provide recommendations for telemetry, instrumentation and other specialized electrical and electronic systems such as communication for remote electronic equipment (open/closed signs, traffic counters, changeable message signs, etc.); control systems for pump systems, over height detection systems, fog sensors and other similar devices; prototype equipment used for traffic signal controller enhancements, fire signal controllers, special crosswalk controllers, preemption systems, etc... Must have P.Eng. membership in EGBC.
Pr	P	45-26	Bridge and Tunnel Electrical and Electronic Systems Evaluate, design and make recommendations for electrical and electronic systems for bridges such as deck heating, cathodic protection, swing bridge mechanisms and control, bridge signals, pier lighting, aircraft and navigational warning lights / signs, tunnel ventilation systems, fire suppression systems, and other related work. Must have P.Eng. membership in EGBC.
Pr	P	45-28	System Integration Evaluate, design, specify, develop, integrate, test and commission hardware and software systems (including communications). This includes the capability to modify commercially available software and hardware and develop new hardware and software as well as provide long term support, training and systems documentation. Must have P.Eng. membership in EGBC.
			General Electrical Services
Pr	T	45-31	Electrical Drafting The scope of work generally includes the drafting of electrical drawings for traffic signals, street lighting, etc., in accordance with Ministry standard layout.
Pr	T	45-33	Electrical Inspection To conduct inspection of new and rehabilitation electrical and signing installations in accordance with Ministry standards and practice.
Pr	T	45-35	Electrical Technical Services Management of drawings, inventory confirmation and data management, BC Hydro calculation / cost sharing agreements and other related technical services.
Pr	T	45-37	Electrical Standards Development Includes research, development, enhancement and documentation of electrical, traffic and sign design, construction, material, inspection and maintenance standards.
L	T	45-51	Project Supervision (Electrical) - up to \$ 250,000 cap. cost
L	T	45-53	Project Supervision (Electrical) - over \$ 250,000 cap. Cost

47 Series			ACOUSTICS ENGINEERING
Pr	P	47-20	<p>For vibrations audible or not caused by blasting, construction or traffic operations</p> <ul style="list-style-type: none"> • determining audible and geographical limits of vibration, • writing specifications limiting vibration, and • monitoring vibration and controlling operations to limit damages and other types of nuisance from vibrations.
Pr	P	47-22	<p>Community Noise Assessment</p> <p>Assess the community noise effects (applicability of the Ministry’s noise policy) of highway development proposals with the objective of avoiding traffic and construction noise impacts where feasible. Provide mitigation and compensation recommendations and design alternatives for unavoidable impacts. Typically involves working within a multi-disciplinary project team May require design and administration of public surveys and development and implementation of a citizen involvement program. Service contract may be requested to be on an “as-and-when-required” basis for a specified period of time (generally 1-2 years). Must have P.Eng. membership in EGBC.</p>
50 Series			ENVIRONMENTAL SERVICES
L	T	50-31	<p>Roadside Facility Design</p> <p>Develop conceptual design for safety rest area sites which identifies design parameters based on anticipated traffic volumes and site preservation measures and determine feasibility of securing a potable water supply and acceptable sewage disposal system. Provide contract documents including drawings, special provisions and cost estimates for parking, electrical, or solar power, a water delivery system, sewage system, grading and drainage details, building design, site furniture, planting, irrigation and maintenance.</p>
L	T	50-35	<p>Erosion and Sediment Control</p> <p>Develop and implement operations and procedures (may include contract drawings, special provisions and cost estimates) to mitigate erosion and sediment control problems associated with highway construction. These should utilize best management practices, combining the use of native plant material and physical structures.</p>
L	T	50-45	<p>Environmental Impact Assessment</p> <p>Assess the environmental effects of highway development proposals at the corridor evaluation level, route selection level, during refinement of the alignment and detailed design with the objective of avoiding impacts where feasible and providing mitigation and compensation recommendations for unavoidable impacts. Typically involves working cooperatively with a multi-disciplinary project team. Liaison and pursuing project approvals from environmental agencies will be required. May require development and implementation of a post-construction monitoring program. Service contract may be requested to be on an “as-and-when-required” basis for a specified period of time (generally 1-2 years).</p>

50 Series			ENVIRONMENTAL SERVICES
L	T	50-47	<p>Archaeological Resources</p> <p>Assess the effects of highway development proposals on archaeological resources with the objective of avoiding impacts where feasible and providing mitigation and compensation recommendations for unavoidable impacts. Typically involves working cooperatively with a multi-disciplinary project team.</p> <p>Requires liaison with First Nations, and may require the hiring of First Nation assistants to assist in the assessment. Obtain all permits and approvals to undertake work. May require development and implementation of a three-year post-construction monitoring program. May include construction monitoring. Service contract may be requested to be on an “as-and-when-required” basis for a specified period of time (generally 1-2 years).</p>
L	T	50-49	<p>Fish and Aquatic Resources</p> <p>Assess the effects of highway development proposals on fish and aquatic resources with the objective of avoiding impacts where feasible and providing mitigation and compensation recommendations for unavoidable impacts. Typically involves working cooperatively with a multi-disciplinary project team.</p> <p>Requires liaison with environmental agencies, and the acquisition and compliance with permits. May include the design of mitigation works to protect (sediment and erosion control), replace, rehabilitate, or restore disturbed aquatic habitats; including the preparation of contract documents (drawings, special provisions and cost estimates). May require the development and implementation of a post-construction monitoring program. Service contract may be requested to be on an “as-and-when-required” basis for a specified period of time (generally 1-2 years).</p>
L	T	50-51	<p>Terrestrial Wildlife Resources</p> <p>Assess the effects of highway development proposals on terrestrial wildlife resources with the objective of avoiding impacts where feasible and providing mitigation and compensation recommendations for unavoidable impacts. Typically involves working cooperatively with a multi-disciplinary project team. Requires liaison with environmental agencies, and the acquisition and compliance with permits. May include the design of mitigation works to replace, rehabilitate, or restore disturbed terrestrial habitats; including the preparation of contract documents (drawings, special provisions and cost estimates). May require the development and implementation of a post-construction monitoring program. Service contract may be requested to be on an “as-and-when-required” basis for a specified period of time (generally 1-2 years).</p>
L	T	50-53	<p>Rare and Endangered Flora / Fauna</p> <p>Assess the effects of highway development proposals on rare and endangered flora / fauna with the objective of avoiding impacts where feasible and providing mitigation and compensation recommendations for unavoidable impacts. Typically involves working cooperatively with a multi-disciplinary project team. Requires liaison with environmental agencies, and the acquisition and compliance with permits. May include the design of mitigation works to replace, rehabilitate, or restore habitats; including the preparation of contract documents (drawings, special provisions and cost estimates). May require the development and implementation of a post-construction monitoring program. Service contract may be requested to be on an “as-and-when-required” basis for a specified period of time (generally 1-2 years).</p>

50 Series			ENVIRONMENTAL SERVICES
L	T	50-55	<p>Environmental Monitoring</p> <p>Supervise and inspect operations and procedures at environmentally sensitive sites during construction period and ensure compliance with environmental designs, specifications, special provisions and all Federal and provincial regulations and standards. Represent the Ministry on environmentally related matters and liaise with environmental agencies, Project Supervisors and Contractors. May include the development and implementation of a quality management system for project environmental components. May require the development and implementation of a post-construction monitoring program, and the preparation of environmental monitoring completion reports or other project-related reporting. May include the acquisition of environmental approvals. May include the design and implementation of mitigation works to protect (sediment and erosion control) replace, rehabilitate, or restore disturbed habitats. May require the development and implementation of a multi-year post- construction monitoring program. Service contract may be requested to be on an “as-and-when-required” basis for a specified period of time (generally 1-2 years).</p>
L	T	50-57	<p>Vegetation Management</p> <p>Develop strategic plans for integrated vegetation management employing chemical, mechanical, cultural, and biological control methods for undesirable vegetation such as noxious weeds. Prepare and obtain approvals of pest management plans for herbicide applications. Administer contracts for vegetation management operations. Monitor contractor operations for compliance with contract and statutory requirements. Conduct field investigations to assess public noxious weed control requests and to collect information required for compliance with environmental approvals. Requires liaison with ministry staff, other agencies, non-governmental organizations, contractors and the public.</p>
L	T	50-59	<p>Noxious Weed Control</p> <p>Undertake the implementation of, and potentially the day-to-day operation for, mechanical, cultural, and/or biological control (in accordance with the ministry’s integrated Pest Management Plan) of noxious weed species on Ministry right-of-way. Service contract may be requested to be on an “as-and-when- required” basis for a specified period of time (generally 1-2 years).</p>
L	T	50-61	<p>Landscape Design and Management</p> <p>Typically involves working cooperatively within a multi-disciplinary team on projects to satisfy rural, sub-urban and/or urban landscape design standards. Produce a written report and preliminary level landscape design which indicates general planting layout, irrigation requirements, landscape grading and contouring, erosion control, slope stabilization measures and general maintenance requirements. Deliver landscape contract documents including drawings, special provisions, cost estimates and maintenance procedures document. May include the preparation or maintenance plans and construction or post-construction landscape inspection services. Service contract may be requested to be on an “as-and-when required” basis for a specified period of time (generally 1-2 years).</p>

50 Series			ENVIRONMENTAL SERVICES
L	T	50-65	Socio-Community Impact Assessment Assess the socio-community effects of highway development proposals with the objective of avoiding impacts where feasible and providing mitigation and compensation recommendations for unavoidable impacts. Typically involves working cooperatively within a multi-disciplinary team on projects of a multi-modal nature within either a rural or urban setting. May require design and administration of public surveys and development and implementation of a citizen involvement program.
L	T	50-69	Air Quality Undertake air quality impact assessments and modeling to describe the potential effects of a highway project on a regional and local (community) airshed, and recommend measures and practices to mitigate concerns. Major concerns usually relate to vehicular traffic and highway construction related pollutants, such as ozone, particulate matter, and green house gases. Identification of potential effects must consider the highway construction itself as well as any ancillary construction activities such as gravel production or use of detours during construction. Also may include issues related to operation and maintenance of the highway or a structure such as a tunnel. Must take into consideration traffic volumes as well as traffic idling and delays.
L	T	50-71	Environmental Project Coordination Provide a single environmental coordinator (or range of environmental specialists where required) to manage the environmental components of a multi-disciplinary project from inception to completion. Requires input into the planning, design, construction, and post-construction stages of the project. Requires liaison and communication with ministry representatives, external government agencies, external engineering and environmental consultants, and the public. Responsible for developing terms of reference for environmental studies, coordinating or undertaking environmental studies, obtaining environmental project approvals, coordinating or undertaking post-construction environmental monitoring programs. Service contract may be requested to be on an “as-and-when-required” basis for a specified period of time (generally 1-2 years).
L	T	50-73	Agricultural Land Assessment Manage the acquisition of approvals required for project activities affecting Agricultural Land Reserve property. May include preparation of agricultural land reclamation plans or designs. Specific cases may require a qualified Agronomist and/ or Agrologist. Requires liaison with other Ministries, government agencies and the public.
70 Series			HYDRAULICS
Pr	P	70-06	Culvert Hydraulics Hydrologic and hydraulic analysis leading to hydraulic design of culverts less than 3 m span including scour and erosion protection. The candidate must demonstrate experience with at least two structures. The experience must be recent (within last 5 years). Must have P.Eng. Membership in EGBC.

70 Series			HYDRAULICS
Pr	P	70-10	River Engineering Hydrologic and hydraulic analysis leading to hydraulic design of bridges, culverts >= 3m span, river training works, scour and erosion protection, grade control structures, flood control systems or debris control structures. The candidate must demonstrate experience with at least two structures one of them is a bridge. The experience must be recent (within last 5 years). Must have P.Eng. Membership in EGBC.
Pr	P	70-16	Mathematical Hydraulic Modeling Development, calibration and verification of mathematical models to conduct hydraulic analysis of bridges, rivers, streams and reservoirs. The experience must be recent (within last 5 years). Must have P.Eng. Membership in EGBC.
Pr	P	70-20	Physical Hydraulic Modeling Construction, testing, and analysis of physical hydraulic models of rivers, creeks, and reservoirs. The experience must be recent (within last 5 years). Must have P.Eng. membership in EGBC.
Pr	P	70-60	Coastal Engineering Analysis and design of bridges, wharfs or other engineering works subject to waves, tides and coastal processes. The experience must be recent (within last 5 years). Must have P.Eng. membership in EGBC.

85 Series			TUNNEL ENGINEERING
Pr	P	85-10	Cut and cover tunnel design. Must have P.Eng. membership in EGBC.
Pr	P	85-20	Tunnel ventilation design. Must have P.Eng. membership in EGBC.
Pr	P	85-30	Tunnel design in soft ground. Must have P.Eng. membership in EGBC.
Pr	P	85-40	Tunnel design in rock. Must have P.Eng. membership in EGBC.

87 Series			COST ESTIMATING
			Cost Estimating Services To provide a Lead Cost Estimator and the technical support to produce cost estimates for an assigned project in accordance with the Ministry's cost estimating guidelines and good cost estimating practice. The Lead Cost Estimator must have training in cost estimating or quantity surveying and considerable experience in: <ul style="list-style-type: none"> • project and program level cost estimating and control budget development • cost risk analysis and contingency management • developing cost estimates for a variety of technical and professional disciplines • alternate project delivery models.
Pr	T	87-51	Cost Estimating Services: Small projects, uni-disciplinary and somewhat complex
Pr	T	87-53	Cost Estimating Services: Medium projects, multi-disciplinary and somewhat complex.
Pr	T	87-55	Cost Estimating Services: Large projects, multi-disciplinary and highly complex.

87 Series			COST ESTIMATING
			<p>Cost Estimate Audit Services</p> <p>To provide a Cost Estimate Audit Leader and the requisite Team Members to conduct an audit of the cost estimate(s) for an assigned project. The Cost Estimate Audit Leader will design and conduct the audit to ascertain the quality of the estimate and supporting documentation in accordance with the assigned project's requirements, the ministry's cost estimating guidelines and good estimating practice.</p> <p>The Lead Cost Estimator must have training in planning and conducting audits, cost estimating or quantity surveying and considerable experience in:</p> <ul style="list-style-type: none"> • engineering quality systems • project and program level cost estimating and control budget development • cost risk analysis and contingency management developing cost estimates for a variety of technical and professional disciplines • alternate project delivery models. <p>The Team members shall be selected in accordance with requirements for the project in relation to the size, complexity and project delivery model. The Team Members must have training in cost estimating or quantity surveying and have experience in developing cost estimates in the discipline they represent.</p>
Pr	T	87-61	Cost Estimate Audit Services: Small projects, uni-disciplinary and somewhat complex.
Pr	T	87-63	Cost Estimate Audit Services: Medium projects, multi-disciplinary and somewhat complex.
Pr	T	87-65	Cost Estimate Audit Services: Large projects, multi-disciplinary and highly complex.
90 Series			MARINE ENGINEERING
Pr	P	90-10	<p>Marine Architecture and Survey: to survey vessels within the existing inland ferry fleet, make recommendations regarding repair or modification, and provide contract drawings and specifications.</p> <p>Must have P.Eng. membership in EGBC.</p>

95 Series			PROJECT MANAGEMENT SERVICES
			<p>Project Management Services</p> <p>To provide project management services for highly technical projects with significant external partnerships with other agencies or levels of government, comprised of a professional engineering Project Manager as well as the technical support necessary to assist with:</p> <ul style="list-style-type: none"> • creation / execution of a project plan in consultation with the BCMOT Project Manager, project team and stakeholders, • leading a multi-disciplinary project team comprising both BCMOT and consultant representatives to deliver the project within approved scope, schedule and budget, • liaising with other Ministries, individuals and outside agencies, • arranging, facilitating and documenting project team meetings, • monitoring project schedule and costs, • ensuring the BCMOT Project Manager is fully informed on all project issues, including regular status reporting, • management of project documentation, including printing and distribution of meeting minutes, reports, etc, • management of public presentation processes, including preparation of presentation materials, and • project cost management using the Ministry’s Capital Programming System (CPS).
L	P	95-10	<p>Project Management Services</p> <p>Small Projects - technically complex, low project cost. Must have P.Eng. membership in EGBC.</p>
L	T	95-11	<p>Project Management Services</p> <p>Small Projects – low complexity, low project cost</p>
R	P	95-12	<p>Project Management Services</p> <p>Medium Projects – more technically complex, higher project cost Must have P.Eng. membership in EGBC.</p>
R	T	95-13	<p>Project Management Services</p> <p>Medium Projects – more complex, higher project cost</p>
Pr	P	95-14	<p>Project Management Services</p> <p>Large Projects – high technical complexity, higher project cost. Must have P.Eng. membership in EGBC.</p>
Pr	T	95-15	<p>Project Management Services</p> <p>Large Projects – high complexity, and/or high project cost</p>
Pr	P	95-50	<p>Climate Resilience</p> <p>To provide climate resilience and adaptation approach services to support the planning, design, and management of transportation infrastructure including facilitating climate risk and vulnerability assessments, climate hazard impact analysis, design criteria</p>

			development and capacity building activities. RISP Offices can only apply for this category when there is at least one (1) experienced Professional Engineer (P.Eng.) or Professional Geoscientist (P.Geo.) registered with EGBC that is listed in their RISP application. The scope, scale, and complexity of assignments will vary.
Pr	T	95-51	Value Analysis / Value Engineering (VA / VE) To provide value analysis / value engineering team leadership, coordination of services, assemble the appropriate specialist VA/VE team members and prepare reports and recommendations.
Pr	P	95-60	Project Quality Audit Services

97 Series			ROAD SAFETY AUDIT
			Road Safety Audit Services Conducted in accordance with the Ministry's RSA policy, and TAC Guidelines. Must have P.Eng. membership in EGBC.
Pr	P	97-70	Safety Audit Team Leader To provide a single person to lead a team to conduct a road safety audit of an assigned project. The Team Leader will be required to advise the Ministry on the make-up of the team, to organize and carry out the audit, and to complete all necessary documentation. The Ministry will augment the balance of the team with internal staff or other contracted resource.
Pr	P	97-80	Road Safety Team To provide a Safety Audit Team Leader and the requisite Team Members to conduct a road safety audit of an assigned project. The Team Members shall be selected in accordance with requirements of the project in relation to size, complexity and staging. Team Members must have training in conducting road safety audits and have considerable experience in the discipline they represent. Must have P.Eng. membership in EGBC.

99 Series			OWNER'S ENGINEER
			Owner's Engineer Services Provision of senior multi-disciplinary engineering and technical advice to the Project Team, senior Ministry management and/or Executive, including provision of support to project procurement, public consultation and financial planning. These services include quality management advice and leadership to the Project Director, assistance with project scope and objective development, and representation of the Ministry on large partnership projects where another agency is delivering the work, as well as options analysis and alternative delivery strategy, preparation of engineering assignment terms of reference and proposal evaluation, preparation of construction contract specifications and project scheduling. These services will assist the Project Director with identification, analysis, coordination and implementation of the engineering and technical tasks and components of the project, including those related to design, construction and operation of the assets. The assignment may also include management of independent engineering contracts for the Ministry as well as sub-consulting support services, management of project engineering documentation, provision of project management services, provision of construction management services (both roadwork and structures), etc. Experience in putting together and leading multi-disciplinary engineering project teams is essential.
Pr	P	99-10	Owner's Engineer Services Small, less complex projects, or as BCMOT / Provincial representative. Must have P.Eng. membership in EGBC.
Pr	P	99-12	Owner's Engineer Services Medium, more complex projects, including full engineering support services. Must have P.Eng. membership in EGBC.
Pr	P	99-14	Owner's Engineer Services Large, highly complex projects, including full engineering support services and management of engineering design and other consultant assignments Must have P.Eng. membership in EGBC.

Appendix 3.2
RISP ADJUDICATION CRITERIA
by
FIELDS

Ministry of Transportation and Infrastructure or BCMOT

The following criteria apply to the adjudication of all RISP categories. Additional information on category-specific criteria follows.

Adjudication of consulting firms is on a “PASS” or “FAIL” basis. Firms must be registered in British Columbia. Firms that meet the “PASS” threshold must have staff identified in Part 2 of the RISP application form (Form H1095) who meet the specific requirements listed for the categories for which they are applying.

The following factors are taken into consideration in assessing the experience of a firm’s personnel:

Professional Qualifications

For some categories, specific professional designations or other qualifications are identified as required.

Number of Projects

In most categories, staff members must have completed a certain minimum number of projects in the category being evaluated. In some categories, relevant experience is restricted to relevant ministry experience because of the ministry’s specific requirements, while in other categories, comparable work for other clients is considered relevant.

Relevance of Projects

Only consulting work and knowledge that can be directly applied and relevant to highway projects will count in the evaluation. The application must clearly demonstrate that work experience meets all requirements for the category they are applying for. The past experience of staff members that is considered in the adjudication should involve experience with responsibilities that are normally assigned to staff having a senior level of technical knowledge and experience.

Value of Project Assignments

A minimum value of past projects is generally used to ensure that past work has been on projects of appropriate scale and complexity. Past work that is below the minimum value will not be considered relevant in the adjudication. Dollar amounts must indicate “design” costs; construction costs are not relevant.

Timeframe for Assignments

In most cases, each past project used in the adjudication process must have been performed within a specified number of years, in order to ensure that past work is relevant, given evolving techniques and technologies. For some categories, the timeframe is relatively long, as assignments in these categories are few and the technology and tools do not change substantially over time.

Location of past work

In some categories, experience with the unique terrain and circumstances of British Columbia is considered particularly important. For these categories, past experience must indicate knowledge and experience in dealing with the unique conditions of the province, and in some cases, the specific area of the project

Fields& RISP Categories	Category-Specific RISP Adjudication Criteria by Category
Bridge/Structural Engineering Professional Cat: (For these, must be P.Eng. member of EGBC): 01-10, 01-12, 01-14, 01-16, 01-18, 01-20, 01-22, 01-26, 01-32, 01-34, 01-36, 01-40, 01-42, 01-50 Technical Cat: 01-17, 01-27, 01-29, 01-31, 01-39,01-43, 01-61, 01-63, 01-65, 15-71, 35-51	Bridge / Structural Engineering 01-10 01-12 01-14 Must have professional engineer(s) currently active in the structural design of bridges who have been the design engineer of record for completed designs for these types of structures for highway/ roadway projects. Must be P.Eng. member of EGBC.
	01-16 Must have professional engineer(s) currently active in the structural design of culverts, retaining walls and miscellaneous structures who have been the design engineer of record for completed designs for these types of structures for highway/ roadway projects.
	01-18 01-20 01-22 Must have professional engineer(s) currently active in the structural analysis and design of bridges who have been the design engineer of record or completed designs for seismic retrofit of these types of structures for highway/ roadway projects. Must be P.Eng. member of EGBC.
	01-26 Must have professional engineer(s) currently active in the structural design of bridges who have been the design engineer of record for completed designs of bridge deck rehabilitation for highway/ roadway bridge projects, or must have professional engineer(s) currently active in materials engineering on bridge projects who have been the engineer of record for completed designs for bridge deck rehabilitation for highway/ roadway bridge projects Must be P.Eng. member of EGBC.
	01-32 01-34 01-36 Must have professional engineer(s) currently active in the structural design of bridges who have been the design engineer of record for completed designs of bridge rehabilitation for highway/ roadway bridge projects, or must have professional engineer(s) currently active in materials engineering on bridge projects who have been the engineer of record for completed designs for bridge rehabilitation for highway/roadway bridge projects Must be P.Eng. member of EGBC.
01-40 Must have professional engineer(s) currently active in the structural design or analysis of bridges who have been the design engineer of record for completed bridge designs for highway/ roadway bridge projects, or must have professional engineer(s) currently active in the structural design or analysis of bridges who have been the engineer of record or an expert witness involving detailed structural forensic analysis of damaged or failed highway/ roadway bridges. Must be P.Eng. member of EGBC.	

Fields & RISP Categories	Category-Specific RISP Adjudication Criteria by Category
	<p>01-42 Structural Instrumentation: Analysis & Design</p> <p>The consultant must have professional engineers currently active in the analysis and design of real-time seismic and structural health monitoring systems consisting of static and dynamic components and with experience with state-of-the-art electronic monitoring and data transmission equipment including wireless technology and fibre optics and their use in real-time structural health monitoring applications. The Ministry bridge structural health designs are primarily based on accelerometers but staff members must also be current with other sensors appropriate to the structure and the required measurements, including experience with ambient vibration equipment.</p> <p>Staff members must have completed at least three bridge structural health projects to client specifications within the past 5 years that involved all of the scope of this category, were in seismic hazard regions equivalent to Canadian S6-14 Seismic Performance Category 2 or higher and include demonstrated success. Staff members may request evaluation of significant post-graduate university assignments in lieu of one of the required projects. Staff experience must detail their roles and responsibilities within the project. The consultant must provide evidence of access to all relevant equipment and software to fulfill an assignment in this category.</p> <p>01-50 Must have professional engineer(s) currently active in the structural design of marine structures who have been the design engineer of record for completed designs for these types of structures. Must be P.Eng. member of EGBC.</p> <p>01-17 Must have technicians and/or technologists currently active in the structural drafting of detailed bridge drawings using AutoCAD, who have been the senior-level draftsman for completed designs for highway/ roadway bridges.</p> <p>01-27 Must have professional engineers or technicians/ technologists with current experience in completing bridge deck inspections, and must have field and laboratory equipment required for carrying out complete inspection of bridges using visual inspection, half-cell surveys, concrete coring, chloride analysis and petrography analysis, and must have professional engineers or technicians/ technologists with recent experience in preparing inspection reports that can be utilized in developing designs and tender documents for bridge deck resurfacing.</p> <p>01-29 Must have professional engineers or technicians/ technologists with current experience in carrying out inspection of wood truss members using visual inspection and wood boring and probing techniques to record section loss, and must have professional engineers or technicians/ technologists with current experience in preparing inspection reports for wood truss structure inspections.</p>

Fields & RISP Categories	Category-Specific RISP Adjudication Criteria by Category
	<p>01-31 Must have professional engineers or technicians/ technologists with current NACE level 1 certification and with current experience in carrying out inspection of all types of coatings using visual, non-destructive techniques and destructive techniques to evaluate both new and old coating systems on steel bridge structures, and must have equipment required for carrying out bridge coating inspections, and must have professional engineers or technicians/ technologists with current experience in preparing coating inspection reports for steel bridge structures.</p>
	<p>01-39 Must have technicians/ technologists with current certification as bridge inspectors who are also certified divers and who have current experience in carrying out underwater inspection of bridge or marine structures using visual and non-destructive testing, or must have professional engineers who are also certified divers and who have current experience in carrying out underwater inspection of bridge or marine structures using visual and non-destructive testing. Also must have professional engineers or technicians/ technologists who have current experience in preparing underwater inspection reports for bridge or marine structures.</p>
	<p>01-43 The consultant must have the appropriate professional and technical staff, currently active in the testing and calibration of real-time seismic and structural health monitoring systems in their own facilities as well as in-situ on bridges and consisting of static and dynamic components. The staff must have experience with state-of-the-art electronic monitoring and data transmission equipment including wireless technology and fibre optics and their use in real-time structural health monitoring applications and experience in evaluation and troubleshooting of data transmission to prescribed receiver protocols.</p> <p>Staff members must have completed at least three bridge structural health projects to client specifications within the past 5 years that involved all of the scope of this category, were in seismic hazard regions equivalent to Canadian S6-14 Seismic Performance Category 2 or higher and include demonstrated success. Staff members may request evaluation of significant post-graduate university assignments in lieu of one of the required projects. Staff experience must detail their roles and responsibilities within the project.</p> <p>The consultant must provide evidence of access to all relevant equipment and software to fulfill an assignment in this category.</p>
	<p>01-61 01-63 Must have professional engineers or technicians/ technologists with current experience as bridge construction inspectors or as bridge project supervisors who have been the senior technical person that carried out and was responsible for full time inspection/ supervision for the complete construction of these types of structures for highway/ roadway projects, and must have equipment required for carrying out the work.</p>

Fields & RISP Categories	Category-Specific RISP Adjudication Criteria by Category
	<p>01-65 Must have professional engineers or technicians/ technologists with current experience as bridge construction inspectors or as bridge project supervisors who have been the senior technical person that carried out and was responsible for full time inspection/ supervision for the complete construction of these types of structures for highway/ roadway projects, and must have equipment required for carrying out the work, and must have current experience in inspection/ supervision of concrete bridge deck resurfacing projects.</p> <p>15-71 Must have professional engineers or technicians/ technologists currently certified as Level 3 welding inspectors (CWB or equivalent) qualified to perform radiographic and ultrasound testing of welds who have current experience with weldment testing on bridge structures, and must have equipment required for carrying out radiographic and ultrasound testing of welds.</p> <p>35-51 Infrastructure Asset Management Firms must have professional engineers and/or technologists/technicians with current experience in carrying out inspections, preparing assessments and developing asset management reports for existing highway infrastructure (e.g. roads, bridges and other structures). Staff members must have completed at least three projects involving the development of asset management reports, multi-site needs analysis, or infrastructure financial needs analysis.</p>
<p>Highway Design, Survey and Mapping</p> <p>Professional Cat. (For these, must be P.Eng. member of EGBC): 05-66, 05-68, 05-70, 05-72, 05-74 05-76, 05-90</p> <p>Technical Cat: 05-13, 05-15, 05-17, 05-19</p>	<p>Important Notices:</p> <ul style="list-style-type: none"> • RISP work categories serve a dual purpose: 1) To register staff experience. 2) To select a consulting office. • Since the Ministry does not hire Design offices without a P.Eng. experienced in highway Design on staff, only Professional categories were created for Design categories. • Offices need a way to register the experience of their Design staff who are not P.Eng. or Limited Practice Member of EGBC. Therefore, offices are allowed to enter their Technicians' and EITs' experiences by using Professional design categories. These experiences can be "Accepted" or "Declined" by adjudicators; but the RISP software will not allow the Technician or EIT to be "Accepted". • The adjudicator should take into account all of the experience that was "Accepted" whether it is from Technicians, EIT and Engineers when considering approving a "Preferred Amount" for the office in Part 3. • Please ensure that your adjudicator assistants are aware of this procedure. • Headquarters RISP administration will be communicating with RISP offices to ensure that, from their end, they register all of their Design staff experiences in Design using the Professional Categories.

Fields & RISP Categories	Category-Specific RISP Adjudication Criteria by Category
	<p>For design engineers, technologists and technicians applying for design categories (05-series) that require knowledge and abilities in using Civil 3D or CAICE and AUTOCAD: You should CLEARLY specify your knowledge in using Civil 3D or CAICE and AUTOCAD when entering your work experiences in part 2 of the application. Failure to do so will result in being DECLINED for these categories.</p> <p>In May 2017, BC MOTI moved to using Civil 3D for its highway engineering projects; therefore, project experience using CAiCE alone, will only be acceptable until December 31, 2019. After this date, project experience must include Civil 3D in order to be adjudicated as “ACCEPTED”.</p> <p>Technologists and Technicians should indicate their applicable credentials, experience, and discipline of their relevant diplomas.</p> <p>Adjudication Criteria by Category</p> <p>05-66, 05-68, 05-70, 05-72, 05-74, 05-76</p> <p>For the above categories, the staff members must have completed three ministry projects within the previous five years or five municipal or other highway projects within the previous seven years.</p> <p>05-90 Water Supply and Drainage Systems</p> <p>05-13 Design Survey</p> <p>05-15 Topographic Mapping from Aerial LiDAR Scanning Sources</p> <p>05-17 Topographic Mapping from Aerial Data Collection Sources</p> <p>05-19 Highway Design Drafting Services</p> <p>For the above categories, the staff members must have completed three relevant projects within the previous five years.</p> <p>For 05-19 must demonstrate a working knowledge of AutoCAD.</p> <p>05-13 We look for evidence that the office possesses the hardware, software and skilled technicians to establish survey control through use of GPS-RTK; collect ground survey through use of GPS-RTK and/or Robotic Total Station; deliver DTM/TIN surface in CAiCE and/or Civil3D format; delivery of base plans in DWG and/or DGN format. Third party collection and/or processing will not be considered without documentation on managing those services to meet the specifications of category 05-13.</p> <p>05-15 We look for evidence that the office possesses the hardware, software and skilled technicians to acquire and deliver aerial LiDAR; Orthophotography; thinned planimetric and topographic data compatible with CAiCE and/or Civil3D; provide ground survey for purposes of auditing deliverables. Third party acquisition and/or processing of data will not be considered without documentation on managing those services to meet the specifications of category 05-15.</p> <p>05-17 We look for evidence that the office possesses the hardware, software and skilled technicians to acquire and deliver photogrammetric mapping; thinned planimetric data compatible with CAiCE and/or Civil3D; provide ground survey for purposes of auditing deliverables. Third party acquisition and/or processing of data will not be considered without documentation on managing those services to meet the specifications of category 05-17.</p>

Fields & RISP Categories	Category-Specific RISP Adjudication Criteria by Category
<p>Field Services</p> <p>Professional Cat: (For these, must be P.Eng. member of EGBC): 06-80, 06-82, 06-84</p> <p>Technical Cat: 06-11, 06-41, 06-43, 06-45, 06-51, 06-53, 06-61, 06-63, 06-65, 06-71, 06-73, 06-91, 06-93, 06-95</p>	<p>General Adjudication Criteria:</p> <ul style="list-style-type: none"> • Size and complexity of projects completed within the past five years, or up to 10 year for high-end categories such as Senior Project Supervisor and Construction Manager. Must be relevant to what the ministry intends in this category • Experience must detail the roles and responsibilities, not generalize, and use appropriate terms (e.g. “Inspecting” is not “project supervision”). Overstating qualifications will be sufficient grounds for rejection. • Whether work was for the ministry or a very similar organization. • Past project success. For any BCMOT project completed under a RISP selection, must provide the final evaluation score • Capital values and fees are guidelines only (except for the maximum \$1 million cap applicable to any RISP selection). Category descriptions and project complexity should be the overriding factor. <p>Category Specific Adjudication Criteria:</p> <p>06-8x: Construction Management (P.Eng.) - This category is for a single professional Construction Manager to simultaneously oversee the work of multiple Project Supervisors (Professional or Technical; normally employed by other firms) on multi-discipline (grading, surfacing and/or structural) projects.</p> <p>Where professional quality management or certification is required on a single project or the project value exceeds \$7 - 10 million, the category may also be used to retain a Construction Manager plus a Project Supervision team from the same firm, in which case the RISP selection shall be for both this category and 06-4x or other suitable supervision category.</p> <p>Duties include record documentation, cost control and reporting, management of the construction project schedule and budget, administration of the construction contract, second-stage dispute resolution with the Contractor, arranging / facilitating and documentation of construction project team meetings, liaison with other Ministries, individuals and outside agencies, and provision of all equipment, vehicles and tools necessary to complete the work.</p> <p>Requirements are:</p> <ul style="list-style-type: none"> • experience as a Project Supervisor, Senior Project Supervisor, or Construction Manager overseeing large multidisciplinary grading, paving and/or structural projects • experience with BCMOT Standard Specifications and Major Works Construction Agreement, application and interpretation consistent with Ministry practice • experience in Quality Management and ability to professionally certify such work • Geotechnical and highway design/management experience is an asset but is not sufficient unto itself

Fields & RISP Categories	Category-Specific RISP Adjudication Criteria by Category
<p>Field Services (continued)</p>	<p>06-80: [Regional] Moderate experience equivalent to 3 years. Demonstrated experience on a minimum of 2 BCMOT projects within the past 5 years</p> <p>06-82: [Provincial] Substantial experience, equivalent to 5 years. Successful experience as a Construction Manager under category 06-80, with RISP performance evaluation of 3.5 or greater; or extensive experience on similar work for other jurisdictions.</p> <p>06-84: [Provincial] Extensive experience, equivalent to 10 years. Successful experience as a Construction Manager under category 06-82, with RISP performance evaluation of 4.0 or greater.</p> <p>06-11: Construction Survey – [Local] Provide construction surveys including: QA and quantity surveys; pick up of existing and As-built ground and details; material horizons; slope, off-set and shoulder stakes; setting/checking location of culverts, retaining walls, fencing, spot elevations, etc.; providing electronic survey data compatible with CAICE software in accordance with Ministry standards.</p> <p>Requirements:</p> <ul style="list-style-type: none"> • 2 years demonstrated experience in construction surveys • knowledge of BCMOT survey standards • Understanding of survey techniques necessary for seamless DTM formation including overhangs • Must have an internal quality management program in place for ensuring the quality of their work. <p>Fees will be capped at \$20,000 per assignment until completion of at least two assignments with RISP evaluation scores of 3.2 or better, or demonstration of 2 years successful experience surveying to BCMOT survey Standards.</p>

Fields & RISP Categories	Category-Specific RISP Adjudication Criteria by Category
<p>Field Services (continued)</p>	<p>Project Supervision Categories (Non-structural): 06-4x, 06-5x, 06-6x and 06-7x</p> <p>These categories are to provide project supervision services for highway grading and/or paving projects, including quality management, record documentation, survey and volume determination, cost control and reporting, and inspection services for compliance with drawings, standards and specifications. It will involve administration of the construction contract, liaison with other individuals and agencies, and will require provision of all equipment, vehicles and tools necessary to complete the work.</p> <p>On projects requiring a structural Project Supervisor, categories 01-61 or 01-63 are to be used.</p> <p>Requirements:</p> <ul style="list-style-type: none"> • Experience in project supervision, ensuring consistency with BCMOT practices • Knowledge of BCMOT Standard Specifications and Major Works Construction Agreement, application and interpretation consistent with Ministry practice, with experience commensurate with the category level • Practical and technical knowledge of construction, including familiarity with grading, paving and small structural (such as retaining walls and multiplate culverts) aspects • Detailed knowledge in specific disciplines • Sound knowledge of Quality Management in project supervision services • Ability to: <ul style="list-style-type: none"> - manage individual construction project schedules and budgets, - timely and accurate surveying and quantity determination - liaise with other consultants, other Ministries, individuals and outside agencies, - arrange, facilitate and document project team meetings, - ensure BCMOT is fully informed on all project issues, including regular status reporting. <p>06-4x: Project Supervision – Roadway: This category is to provide project supervision services for roadway grading projects, including CAICE volume determination. The work will include paving and small structural elements (such as retaining walls and multiplate culverts) to a lesser extent.</p> <p>For supervision of projects with a high degree of complexity or risk, add a Senior Project Supervisor or Construction Manager by selecting 06-4x plus 06-8x or 06-9x. For projects valued at over \$10 million, select category 06-45 plus 06-84 or 06-93.</p> <p>Requirements:</p> <ul style="list-style-type: none"> • Practical and technical knowledge of grading construction, including familiarity with paving and small structural aspects of roadway construction • Timely and accurate surveying and quantity determination, including application of BCMOT CAICE standards.

Fields & RISP Categories	Category-Specific RISP Adjudication Criteria by Category
Field Services (continued)	<p>06-41: [Local] Moderate experience in construction supervision, equivalent to 2 years</p> <p>06-43: [Regional] Substantial experience in construction supervision (5 years), a RISP evaluation of 3.5 or better in category 06-41, or successful completion of three supervision assignments on BCMOT projects within the past 10 years.</p> <p>06-45: [Provincial] Extensive experience in construction supervision (10 years), a RISP evaluation of 4.0 or better in category 06-43, or successful completion of five supervision assignments on BCMOT projects within the past 10 years</p> <p>06-5x: Project Supervision – Seal Coat/Micro-surfacing: This category is to provide project supervision services for seal coat, chip sealing, graded aggregates seal, and micro-surfacing projects. The work will include grading elements to a lesser extent.</p> <p>Requirements:</p> <ul style="list-style-type: none"> • Practical and technical knowledge of seal coating and micro-surfacing materials and procedures • Knowledge of asphaltic cements, emulsions and admixtures • Experience in Quality Assurance and its application in End Product Specification contracts <p>06-51: [Local] Moderate experience in inspection of seal coat and/or micro-surfacing pavements (2 years) or 5 years in related paving contract inspection and administration</p> <p>06-53: [Provincial] Substantial experience in inspection of seal coat and/or micro-surfacing pavements (5 years) or 10 years in related paving and/or grading contract inspection and administration with 3 years in seal coating and/or micro-surfacing.</p>

Fields & RISP Categories	Category-Specific RISP Adjudication Criteria by Category
<p>Field Services (continued)</p>	<p>06-6x: Project Supervision – Day Labour: This category is for staff to provide project supervision and equipment selection, direction and monitoring on Day Labour construction. Must demonstrate the ability to plan and analyze work; select appropriate equipment; balance fleets; set and achieve challenging productivity targets; administer hired equipment; prepare and administer labour, equipment and materials supply contracts; maintain a safe and environmentally compliant site. Where survey and layout of the work is a substantial component of the work, category 06-11 may also be selected.</p> <p>Requirements are experience in:</p> <ul style="list-style-type: none"> • selecting, directing and administering construction equipment fleets (experience as a contractor preferred) • supervising grading and paving construction, including multiplate culverts, concrete block retaining walls • preparing and implementing construction-related plans: traffic, safety, quality management, environmental, etc. • Stakeholder liaison • familiarity with BCMOT hired equipment procedures <p>06-61: [Local] Generally a single person required. Equipment fleet would typically be 1-2 excavators, a loader, compactor, grader, and 6-10 trucks; Staff of 6-10, including labourers, flaggers and first aid. 3 years demonstrated experience.</p> <p>06-63: [Regional] Generally a small team will be required - a project supervisor, with one or two assistants for inspection, surveying and QC, overseeing a larger fleet operating on multiple fronts. 5 years demonstrated experience.</p> <p>06-65: [Provincial] A team of a project supervisor, assistants, surveyors, QC and administrative personnel are required, with foremen potentially required. Extensive fleet, much of it provided under supply contracts which would include foremen, including all types of construction equipment (excavators, scrapers, dozers, compactors, graders, on- and off-road trucks, cranes, etc.) 10 years demonstrated experience</p>
	<p>06-7x: Project Supervision – Surfacing: This category is to provide project supervision services for asphalt concrete paving projects (includes conventional, EPS, HIP, etc.). The work will include grading and structural elements to a lesser extent.</p> <p>Requirements:</p> <ul style="list-style-type: none"> • Practical and technical knowledge of asphalt pavements • Experience in Quality Assurance and its application in End Product Specification contracts <p>06-71: [Local] Substantial experience in inspection of asphaltic pavements (5 years)</p> <p>06-73: [Provincial] Extensive experience in inspection of asphaltic pavements (10 years)</p>

Fields & RISP Categories	Category-Specific RISP Adjudication Criteria by Category
<p>Field Services (continued)</p>	<p>06-9x: Senior Project Supervisor - This category is for a single, non- professional, highly experienced Project Supervisor to oversee the work on one high-value or complex project, or simultaneously oversee multiple Project Supervisors (Professional or Technical; normally employed by other firms) on multidisciplinary (grading, surfacing, and/or structural) projects. [On structural projects requiring a Senior Project Supervisor, category 01-63 is to be used.]</p> <p>Duties include managing the project supervision services, ensuring consistency; providing construction quality assurance on the project supervision services; managing the inter-relationship of multiple individual construction project schedules and budgets; liaising with other consultants, other Ministries, individuals and outside agencies; arranging, facilitating and documenting construction project team meetings; ensuring BCMOT is fully informed on all project issues, including regular status reporting.</p> <p>Where the work is on a single project of higher complexity or with value in excess of \$7 - 10 million, this category may be used in conjunction with 06-45 to obtain a project supervision support team as well as the Senior Project Supervisor.</p> <p>Requirements are:</p> <ul style="list-style-type: none"> • extensive experience as a Project Supervisor or Construction Manager overseeing large multidisciplinary (grading, surfacing and/or structural) projects • extensive experience with BCMOT Standard Specifications and Major Works Construction Agreement, application and interpretation consistent with Ministry practice • sound knowledge and experience in Quality Management <p>06-91: [Regional] Moderate experience equivalent to 10 years. Demonstrated experience with increasing responsibility and complexity on a minimum of 2 complex BCMOT projects within the past 5 years</p> <p>06-93: [Provincial] Substantial experience, equivalent to 15 years with 2 years at a Senior Project Supervisor level. Successful experience as a Senior Project Supervisor under category 06-90 with personal RISP performance evaluation of 3.5 or greater; or extensive experience on similar work with BCMOT or other jurisdictions.</p> <p>06-95: [Provincial] Extensive experience, equivalent to 20 years with 5 years at the Senior Project Supervisor level. Successful experience as a senior project supervisor or construction manager with the Ministry, or under category 06-92 with personal RISP performance evaluation of 4.0 or greater.</p>

Fields & RISP Categories	Category-Specific RISP Adjudication Criteria by Category
<p>Materials Testing</p> <p>Technical Cat: 10-07, 10-09, 10-11, 10-13, 10-15, 10-17, 10-41, 10-55, 10-61, 10-63, 10-65, 15-11, 15-13, 15-15, 15-17, 15-19, 15-21, 15-27, 15-29, 15-31, 15-37, 15-39, 15-41, 15-45, 15-47, 15-49, 15-55, 15-57, 15-59, 15-65</p>	<p>The firm must have access to an appropriate lab facility and equipment.</p> <p>For category 10-55, applicants must have geo-technical experience.</p>
<p>Rock Slopes Technology</p> <p>Technical Cat: 10-19</p>	<p>10-19 Project Supervision (Rock Slope Stabilization)</p> <p>Staff must have demonstrated experience performing project supervision on near vertical rock slopes or rock slope stabilization contracts on three Ministry projects within the previous three years. . Staff must have detailed knowledge of slope stabilization construction techniques including but not limited to; rock scaling, rock bolting and dcp anchoring, rock drilling, trimming (drilling and blasting of select or unstable rock outcroppings) grouting, shotcrete, slope meshing and rock net fencing. Staff must have experience and the capacity to access and descend (rappel) on high vertical slopes using ropes and climbing equipment. Staff must have experience working at heights and performing inspections from crane man-baskets, man lifts and suspended stagings. Staff must have completed training in cliff rescue and evacuation.</p>
<p>Geo-technical/ Geological and Pavement Engineering</p> <p>Professional Cat: (For these, must be a Qualified Professional member of EGBC): 10-10, 10-20, 10-30, 10-32, 10-40, 10-50, 10-70, 10-80, 15-10, 15-12, 15-14, 15-20, 15-22, 15-24, 15-30, 15-32, 15-34, 15-50, 15-52, 15-54.</p> <p>Technical Cat. 10-91</p>	<p>Only actual full-time design experience specific to the category is considered, as these categories are focused on design, as opposed to project management or construction.</p> <p>The Staff members must have completed at least 400 hours per year, per category, over the previous five years.</p> <p>British Columbia experience is preferred, as this indicates knowledge and experience in dealing with the unique conditions of the province. Similarly, firms with design engineering staff based full-time in the relevant area will benefit from their knowledge of local conditions.</p> <p>10-91 Rock Slope Survey and Modeling</p> <p>Staff must have demonstrated experience performing surveying and 3-D modeling for near vertical rock slopes or rock slope stabilization projects on three ministry projects within the previous five years. Staff must have experience modeling overhangs, performing 3-D surface area calculations, projecting 3-D geological features for volume calculations, producing 3-D rendered plans, producing digital terrain models, performing slope movement monitoring (including prism rehabilitation and interpretation of monitoring results), producing cumulative vector displacement plots, producing survey reports and have detailed knowledge of slope mesh draping characteristics.</p>

Fields & RISP Categories	Category-Specific RISP Adjudication Criteria by Category
<p>Contamination and Remediation</p> <p>Professional Cat: (For these, must be a Qualified Professional member as designated in category description): 10-90</p>	<p>Contamination and Remediation</p> <p>This category is focused on site investigation, material characterization, contaminant delineation, and the development and implementation of mitigative strategies (e.g. numeric or risk-based approaches) or designs and includes project management and/or construction. Practitioners must be a member of EGBC and/or the Society of Contaminated Sites Approved Professionals of BC (CSAP) including CSAP registered Professional Agrologist, Registered Professional Biologist, and Professional Chemist; those professionals not registered with CSAP may complete this work under the direct supervision, sign and seal of an EGBC or CSAP registered professional who takes responsibility for this work. Any design work will only be performed by a member of EGBC. Experience directly related to transportation infrastructure (e.g. road, rail, water, air, etc.) with a preference to linear transportation, particularly highway (or roadway), design, and operations, including any associated property acquisition and divestiture is preferred. Knowledge and experience in dealing with the unique conditions of the provinces is also preferred, as is a demonstrated knowledge of local conditions</p>
<p>Highway Planning</p> <p>Professional Cat: (For these, must be P.Eng. member of EGBC): 20-10, 20-16, 20-18, 20-20</p>	<p>Consultant staff proposed for any planning category must have hands-on experience during the previous five years, consistent with the RISP Category descriptions. This normally excludes those in supervisory-only roles. For categories 20-16 and 20-18, example reports must be submitted for review prior to adjudication. Category 20-16 experience can be work done for the ministry, or similar work done for another agency. Category 20-18 requires evidence of:</p> <ul style="list-style-type: none"> • work done for the ministry while the person was adjudicated in category 20-16, • the ability to analyze diverse and complex highway planning assignments, • the ability to complete work with minimal supervision by MoTI staff, • safety analysis in accordance with MoTI policy on using CPMs and CMFs, and • due diligence in ensuring that reports are provided on schedule and free of errors and omissions.

Fields& RISP Categories	Category-Specific RISP Adjudication Criteria by Category
<p>Traffic Engineering</p> <p>Professional Cat: (For these, must be P.Eng. member of EGBC):</p> <p>25-10, 25-20, 25-30, 25-40</p>	<p>25-10 – Traffic Studies Staff members must have completed a minimum of three studies, containing safety analysis, capacity analysis and warrant analysis. These three components, safety, capacity and warrants and/or combination thereof must be included in any or all of these studies. These studies/experiences must have been achieved within the previous five years with a minimum worth of \$5K each. Must identify the type of software used in the analysis.</p> <p>25-20 – Traffic Signal Analysis and Optimization Staff members must have completed a minimum of three studies, containing signal timing plans and/or signal progression plans, within the previous five years, worth a minimum of \$2,500 each. The three studies cumulatively must contain at least one instance of prepared and implemented signal timing plans and one instance of signal progression plan and implementation. The intent here is that actual signal timing plans have been prepared and the type of software and controller types/cabinets used must be identified.</p> <p>25-30 – Traffic Signs and Pavement Markings Staff members must have completed three studies, containing signing design and/or pavement marking design, within the previous five years, worth a minimum of \$2,500 each. The three studies cumulatively must contain at least one instance of signing design and one instance of pavement marking design.</p> <p>25-40 – Traffic Micro-simulation Modelling Staff members must have completed three studies, containing micro-simulation analysis, within the previous five years, worth a minimum of \$5K each.</p>
<p>Highway Operations</p> <p>Professional Category: (For these, must be a P.Eng. member of EGBC): 30-10, 30-12</p> <p>Technical Category: 35-15, 35-17, 35-21, 35-23, 35-51</p>	<p>30-10 Avalanche Risk Assessment and Treatment Design Staff members must have significant involvement at a senior level in at least two projects involving avalanche risk assessment and treatment for roadways. Staff member must be familiar with and use Guidelines for Snow Avalanche Determination and Mapping in Canada to determine Avalanche Risk Assessment and appropriate Treatments for protection or mitigation strategies for roadways.</p> <p>30-12 Road Maintenance Systems Staff members must have senior experience on at least one project developing a maintenance system for a large, complex highway inventory similar to the BC Provincial Highway system, including maintenance activities for all inventory features and a variety of climatic, geographic and demographic variation. This project must include developing maintenance processes, procedures, standards and specifications, including quality management systems, reporting systems and documentation systems.</p>

Fields & RISP Categories	Category-Specific RISP Adjudication Criteria by Category
	<p>35-15 Preliminary Condition Analysis</p> <p>Pavement Surface</p> <p>Staff members must have completed at least three projects involving the analysis of deficiencies of pavement surfaces or a total of three years experience in a position with responsibility for pavement surface deficiency analysis, including interpretation of collected data. Experience must be in an area with climate, geography and geology similar to British Columbia.</p> <p>35-17 Pavement Condition</p> <p>Staff members must have completed at least one project involving collection of pavement condition data or one year in a position responsible for collecting pavement condition data. Must have access to and be familiar with data collection techniques and equipment to be used such as FWD or Benkleman Beam, coring equipment, and labs.</p> <p>35-21 Detailed Surface/Roadway Studies</p> <p>Staff members must have completed at least three projects involving or three years experience in a position responsible for the analysis of roadway structures including surface, base, sub-base and bridge deck condition analysis. Experience must in an area with climate, geology and geography similar to British Columbia.</p> <p>35-23 Surface/Roadway Status Data Gathering</p> <p>Staff members must have completed at least one project or have at least one year of experience in a position responsible for collecting data on a variety of roadway surfaces, bases and sub-bases including dirt, gravel, pavement and bridge decks. Must have access to and be familiar with data collection techniques and testing equipment used in collecting information on road and bridge structures.</p>
<p>Maintenance Audit</p> <p>Technical Cat: 35-53</p> <p>THIS CATEGORY IS NO LONGER USED</p>	<p>35-53 Highway Maintenance Quality Auditing Services</p> <ul style="list-style-type: none"> • Must be able to provide certificate of completion for Lead Auditor training; • Experience in auditing against the ISO 9001:2000 standard; • Experience conducting 2nd or 3rd party audits; • Experience conducting audits on highway maintenance and/or construction contractors' QMS; • Must not have performed, within the last 12 months, an internal audit on the Quality Management System (QMS) of a maintenance contractor that is the subject of the work being offered.

Fields & RISP Categories	Category-Specific RISP Adjudication Criteria by Category
<p>Electrical Engineering</p> <p>Professional Cat: (For these, must be P.Eng. member of EGBC): 45-10, 45-12, 45-16, 45-20, 45-22, 45-24, 45-26, 45-28</p>	<p>45-10 Street Lighting Design</p> <p>Staff members must have completed three street lighting projects using lighting analysis software; each project shall be over \$5,000 and have been completed within the previous five years.</p>
	<p>45-12 Traffic Signal Design</p> <p>Staff members must have performed three NEW traffic signal designs, each over \$5,000 within the previous five years.</p>
	<p>45-16 Traffic Management Systems</p> <p>Staff members must have performed three Intelligent Transportation Systems (ITS) projects representing at least three different ITS technologies valued over \$25,000 within the previous five years.</p>
	<p>45-20 Equipment Design and Specifications</p> <p>Staff members must have completed three relevant electrical equipment design projects valued over \$5,000 within the previous ten years.</p>
	<p>45-22 Power Distribution and Emergency Backup</p> <p>Staff members must have completed three relevant power distribution or emergency backup design projects valued over \$5,000 within the previous ten years.</p>
	<p>45-24 Specialized Electronic / Electrical Systems</p> <p>Staff members must have completed three electrical or electronic systems projects incorporating three different technologies valued over \$5,000 within the previous ten years.</p>
	<p>45-26 Bridge and Tunnel Electrical and Electronic Systems</p> <p>Staff members must have performed three relevant designs valued over \$5,000 within the previous ten years.</p>
	<p>45-28 System Integration</p> <p>Staff members must have completed two complete System Integration Projects valued over \$25,000 within the previous ten years.</p>
<p>Electrical Technology</p> <p>Technical Cat: 45-31, 45-33, 45-35, 45-37, 45-51, 45-53</p>	<p>45-31 Electrical Drafting</p> <p>Staff members must have completed three ministry projects valued over \$1,000 within the previous two years.</p>
	<p>45-33 Electrical Inspection</p> <p>Staff members must have completed three ministry projects values over \$1,000 within the previous two years.</p>
	<p>45-35 Electrical Technical Services</p> <p>Staff members must have completed three relevant projects valued over \$1,000 within the previous two years.</p>

Fields & RISP Categories	Category-Specific RISP Adjudication Criteria by Category
	<p>45-37 Electrical Standards Development Staff members must have completed three traffic/electrical related standards projects valued over \$5,000 within the previous five years.</p> <p>45-51 Project Supervision (Electrical) – construction projects under \$250K Staff members must have completed three supervision projects valued over \$5,000 within the previous five years.</p> <p>45-53 Project Supervision (Electrical) – construction projects over \$250K Staff members must have completed five supervision projects valued over \$5,000 within the previous five years.</p>
<p>Acoustics Engineering Professional Cat: (For these, must be P.Eng. member of EGBC): 47-20, 47-22</p>	<p>Must be a practicing member of EGBC. Must have completed at least three assignments in this category of work in the last five years and have accepted related work experience.</p>
<p>Environmental Sciences Technical Cat: 50-31, 50-35, 50-45, 50-47, 50-49, 50-51, 50-53, 50-55, 50-57, 50-59, 50-61, 50-65, 50-69, 50-71, 50-73</p>	<p>50-31 Roadside Facility Design 50-57 Vegetation Management 50-59 Noxious Weed Control 50-61 Landscape Design and Management 50-65 Socio-Community Impact Assessment The staff members must have completed three specific projects in this area of expertise, each over \$5,000 in professional and/or technical fees, within the previous three years</p> <p>50-35 Erosion and Sediment Control 50-45 Environmental Impact Assessment 50-49 Fish and Aquatic Resources 50-51 Terrestrial Wildlife Resources The staff members must have completed three specific projects in this area of expertise, each over \$3,000 in professional and/or technical fees, within the previous three years.</p> <p>50-47 Archaeological Resources The consulting firm must have an archaeologist on staff who is eligible to hold archaeological permits in British Columbia. Staff members must have completed three specific projects in this area of expertise, each over \$1,500 in professional and/or technical fees, within the previous three years.</p>

Fields & RISP Categories	Category-Specific RISP Adjudication Criteria by Category
	<p>50-53 Rare and Endangered Flora/Fauna</p> <p>50-55 Environmental Monitoring</p> <p>50-73 Agricultural Land Assessment</p> <p>The staff members must have completed three specific projects in this area of expertise, each over \$2,500 in professional and/or technical fees, within the previous three years.</p> <p>50-69 Air Quality</p> <p>The staff members must have completed three specific projects in this area of expertise, each over \$4,000 in professional and/or technical fees, within the previous three years.</p> <p>50-71 Environmental Project Coordination</p> <p>The staff members must have completed three specific projects in this area of expertise, each over \$5,000 in professional and/or technical fees, within the previous two years.</p>
<p>Hydraulics</p> <p>Professional Cat: (For these, must be P.Eng. member of EGBC):</p> <p>70-06, 70-10, 70-16, 70-20, 70-60</p>	<p>The glossary of terms for the five professional categories, 70-06 “Culvert Hydraulics”, 70-10 “River Engineering”, 70-16 “Mathematical Hydraulic Modeling”, 70-20 “Physical Hydraulic Modeling” and 80-10 “Coastal Engineering” are explicit and self-explanatory.</p> <p>The pass/fail method is based on whether individuals identified in the consulting firm’s application have had relevant design experience in the specific categories. Work experience in the supervision of related construction projects is not considered as design experience in the specific categories.</p>
<p>Tunnel Engineering</p> <p>Professional Cat: (For these, must be P.Eng. member of EGBC):</p> <p>85-10, -85-20, 85-30, 85-40</p>	<p>Only actual full-time design experience specific to the category is considered, as these categories are focused on design, as opposed to project management or construction.</p> <p>The Staff members must have completed at least five projects (with a minimum of 400 hours billed on each project) over the previous five years.</p> <p>British Columbia experience is preferred, as this indicates knowledge and experience in dealing with the unique conditions of the province. Similarly, firms with design engineering staff based full-time in the relevant area will benefit from their knowledge of local conditions.</p>

<p>Cost Estimation</p> <p>Technical Cat: 87-51, 87-53, 87-55, 87-61, 87-63, 87-65</p>	<p>Demonstrated Experience</p> <p>The consultant will have employees with demonstrated experience based on the stated requirements for each category.</p> <p>For Cost Estimating Services:</p> <ul style="list-style-type: none"> • Staff members must have training in cost estimating or quantity surveying. • Staff members must have experience with project and program level cost estimating and control budget development. • Staff members must have experience with cost risk analysis and contingency management. • Staff members must have experience with developing cost estimates for a variety of technical and professional disciplines. • Staff members must have experience with alternate project delivery models.
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Fields & RISP Categories	Category-Specific RISP Adjudication Criteria by Category
	<p>For Cost Estimate Audit Services:</p> <ul style="list-style-type: none"> • Staff members must have training in planning and conducting audits, cost estimating or quantity surveying. • Staff members must have experience with engineering quality systems • Staff members must have experience with project and program level cost estimating and control budget development • Staff members must have experience with cost risk analysis and contingency management • Staff members must have experience with developing cost estimates for a variety of technical and professional disciplines • Staff members must have experience with alternate project delivery models. • Staff members must have experience with multi-disciplinary project teams.
<p>Cost Estimation</p>	<p>Type of Project or Assignment Experience</p> <p>Small Projects Project or assignment involved projects five kilometres or less in length through average rural conditions, or one kilometre or less through average urban conditions.</p> <p>Medium Projects Project or assignment involved projects ten kilometres or less in length through moderate rural conditions, or five kilometres or less through moderate urban conditions.</p> <p>Large Projects Project or assignment involved projects ten kilometres or greater in length in difficult or highly variable rural conditions or five kilometres or greater through complex urban conditions.</p> <p>Single Discipline (uni) Scope of work limited to a single discipline such as geotechnical design, highway design, bridge design, etc.</p> <p>Multiple Discipline (multi) Scope of work requires multiple disciplines with a high degree of co-ordination required.</p> <p>Moderate Complexity (somewhat) Assignment carried out within a two year time frame, was a standalone project or assignment, average technical complexity, few external approvals required, etc.</p> <p>High Complexity (highly) Assignment carried out in a multi-year time frame, requiring a high degree of coordination of delivery, sustained consultation / public relations required, political sensitivity, technically complex or highly variable, multiple external approvals required, etc.</p>

Fields & RISP Categories	Category-Specific RISP Adjudication Criteria by Category
	<p>Other Factors Component or attribute of project or assignment that increased the difficulty such as compressed time frame, change management issues, special technologies, etc.</p> <p>Currency of Experience Small and medium projects must have been completed within the previous five years, while large projects must have been completed within the previous ten years.</p>
<p>Marine Engineering Professional Category (For this category, must be P.Eng. member of EGBC): 90-10</p>	<p>Must demonstrate practical experience for at least four years working on assignments in Marine Engineering.</p>
<p>Project Management Professional Category: (For these, must be P.Eng. member of EGBC): 95-10, 95-12, 95-14</p> <p>Technical Cat: 95-11, 95-13, 95-15</p>	<p>The staff members' experience described in the application must apply to at least three distinct highway or bridge projects. On these projects, the duties of the staff must have been specifically to provide project management services to the identified project from initiation to completion, rather than responsibility for one discrete portion of the project (for example: design portion only). The ministry is looking for consultant project management support in leading multi-disciplinary teams through all phases of project development, design, and implementation; dealing with various stakeholders, regulatory agencies, and interest groups. Value of past projects should state total project value, as well as assignment value.</p>
<p>Climate Resilience 95-50</p>	<p>The staff member holds the Infrastructure Resilience Professional (IRP) credential or demonstrated equivalent experience and training. Equivalency includes experience and training in the use of requisite tools to assess future climate impacts, application of a systems approach to climate hazards on transportation infrastructure and networks, and strategies to reduce public risk resulting from a changing climate. Experience also includes designing, coordinating, and facilitating climate risk and vulnerability assessments of transportation infrastructure and networks, leading climate resilience guidance and criteria development, and expansion and implementation services. Participation as a team member only is not considered sufficient. The staff member must be registered as a Professional Engineer (P.Eng.) or Professional Geoscientist (P.Geo.) with EGBC. Preference will be given to recent and relevant project experience gained within the last four (4) years.</p>
<p>Value Analysis 95-51</p>	<p>The staff member or members should demonstrate experience, training and/or certification to indicate the capability of facilitating value analysis reviews of projects. Participation as a team member only is not considered sufficient. The staff member or members are not required to be a professional to qualify for this category.</p>

<p>Quality Auditing (For this category, must be P.Eng. member of EGBC): 95-60</p>	<p>The responsibilities of the relevant staff members must have been those normally assigned to staff having a senior level of technical auditing knowledge and management experience. Only consulting work and knowledge that can be directly applied and are relevant to highway projects will count in the evaluation.</p>
<p>Road Safety Auditing Professional Category: (For these, must be P.Eng. member of EGBC): 97-70, 97-80</p>	<p>The staff members should have conducted a Road Safety Audit similar to the formal process established by TAC, or another jurisdiction. Failing that, they must have formal training in RSA, similar to the Ministry of Transportation and Infrastructure’s five-day training provided in Jan/01, or current training being offered by TAC. If the application states that they “completed a safety review of the design. ” or other such words, that will not be deemed sufficient.</p> <p>To qualify for 95-70, an applicant needs to demonstrate that their designated staff member can “go it alone” as the leader. If not, they may still qualify for 95-80, provided they supplement their team with others who do qualify as team leaders.</p>

Fields & RISP Categories	Category-Specific RISP Adjudication Criteria by Category
<p>Owner's Engineer Professional Categories: (For these, must be P.Eng. member of EGBC): 99-10, 99-12, 99-14</p>	<p>The consulting firm's application is assessed against the definition of owner's engineer, as set out in the RISP Category Glossary. Key points that are assessed include the following:</p> <ul style="list-style-type: none"> • Whether the employees in question have experience in providing senior, multi-disciplinary engineering and technical advice on projects of a complexity consistent with the category (small and less complex, medium and more complex or large and highly complex). • Whether this experience includes the full range of owner's engineer activities, as described in the RISP Category Glossary. This requirement is not satisfied by having employees who have carried out design work, project management or simply served as part of a team that carried out owner's engineer tasks. • Whether the employees in question are seasoned engineers.

Appendix 3.3

RISP APPLICATION INSTRUCTIONS

RISP APPLICATION INSTRUCTIONS FOR OFFICES THAT PROVIDE PROFESSIONAL, TECHNICAL AND ENVIRONMENTAL CONSULTING SERVICES

Applications to the Ministry of Transportation and Infrastructure’s consultants’ registry are submitted through the RISP online software accessible on the Internet at:

<http://www.th.gov.bc.ca/erisp/home.htm>

To access RISP, the consulting firm must first obtain a BCeID. For instructions to apply for a BCeID, contact the RISP Administrator, Engineering Branch, Ministry of Transportation and Infrastructure (BCMoT) at: Tel. :(250) 387-5655 or risp.administrator@gov.bc.ca

The full application consists of:

1. PART 1 - Maintain Office RISP screen with a Cover Memo entered under “notes” at the bottom of the screen.
2. PART 2 - Employee Experience screen
3. PART 3 - Maintain Office Category Fields screen

Read the Important Information below.

IMPORTANT INFORMATION

- The information submitted in all three parts of this application will be used to adjudicate your Office’s qualifications within the Ministry’s RISP Consultant Registry System.
- The information contained on your application is subject to the laws and regulations of the FREEDOM OF INFORMATION AND PROTECTION OF PRIVACY ACT [RSBC 1996]
- A Separate application **MUST** be submitted by each branch office of the company that is applying for RISP.
- Applications submitted **MUST** be complete and accurate and accompanied by a Cover Memo included in the “notes” at the bottom of the Part 1 - Maintain Office RISP screen (refer to page 4, “Submitting the Application” for the required contents of the Cover Memo.)
- Incomplete applications will **NOT** be evaluated.
- This application **MUST** be completed online through the Internet by logging on the RISP software with the office’s BCeID at: <http://www.th.gov.bc.ca/erisp/home.htm>
- To logon RISP, your office **MUST** obtain a BCeID. Information on how to obtain a BCeID is available by contacting the RISP Administrator, Engineering Branch, BCMoT at: Tel. :(250) 387-5655 or risp.administrator@gov.bc.ca

GENERAL DEFINITIONS FOR COMPLETION OF RISP SCREENS

PART 1 – BASIC COMPANY INFORMATION

RSP100 - Maintain Office screen on the RISP software application.

- Legal Entity Name** Must use the same name as identified in the British Columbia Registrar's Office. In the case of a sole proprietorship, the owner's name may be used. The consulting contract will be using the same name that is entered as Legal Entity Name in Part 1 of the RISP registration.
- Street Address** The street address of the office must be entered. A P.O. Box number is not sufficient.
- Contact Name** This is the name of the individual whom you designate as your contact with the Ministry with respect to RISP communications.
- Main RISP Office** Refer to the definition in section 3.6 of the RISP Geographic Area Rules for Selection to determine main RISP office when setting up offices.
- Year Established** The year in which the applicant office began its consulting practice.
- Insurance** Evidence of the insurance coverage required by your contract must be provided prior to starting work on any BCMoT contract. Insurance specifications will be provided with the scope of work or services when you are selected as a candidate for a specific RISP contract. Evidence is to be provided by way of a duly-executed BCMoT Certificate of Insurance.
- Payments to the Contractor may be withheld and/or all work on the contract may be ordered to cease if the Contractor fails to obtain or maintain insurance as required or if the Ministry does not approve any insurance submitted to them and the Contractor does not comply with the insurance requirements of the contract. The Ministry shall also have the right, but not the obligation, to place and maintain such insurance in the name of the Contractor and the Ministry. The cost thereof shall be payable by the Contractor to the Ministry on demand, and the Ministry may deduct the cost thereof from any monies which are due, or may become due to the Contractor. In addition, failure to comply with the insurance requirements may result in the cancellation of your RISP privileges. Please contact the Manager, Insurance and Bonds with any questions regarding insurance at InsuranceandBonds@gov.bc.ca.
- Declaration** The RISP applicant (consultant) certifies that all information contained within this application is accurate to the best of his/her knowledge, and that this information will be used to register this Company with the BCMoT Consultant Registry System (RISP). The consultant also understands that registration in this system does not guarantee the availability or award of Ministry assignments, and hereby waive all claims resulting from system errors or omissions.

Offices registered in RISP must agree to and abide with the terms of the following documents:

- 1) Quality Management Accord as shown in Appendix 3.9;
- 2) The Terms of Use for the RISP software application as shown in Appendix 3.4

PART 2 – EMPLOYEE EXPERIENCE

RSP115 - Employee screen of the RISP software application.

Relevant employee experiences of all office staff that provide consulting services on BCMoT projects must be listed in part 2 registration screen on RISP as part of the office's registration.

A person can register in only one RISP office as an employee.

For each category that an employee is applying for, projects or supporting work experience must be listed in chronological order, starting with the most recent project. Ministry's adjudicators will be assigning a greater value to work done within the last five years and lesser value to work completed prior to the last ten years. The most relevant experience is that which is acquired on roadway project work, particularly within British Columbia. Work done for clients other than roadway agencies, firms or contractors may not be sufficient to qualify. Limit the list of experiences to five per category applied for by each employee.

Client	The client for whom the Company or employee was providing services.
Project	It is preferable that work experience be tied to an identifiable roadway project.
Fees Amount	The gross fees received from the client in exchange for the engineering services as defined in the listed project.
Capital Cost	The total value of the completed project for which the applicant office provided engineering services. An estimated amount may be acceptable, if you do not have the exact value.
Description	A short description of the project.
Responsibility	<p>A concise explanation of the nature of work, tasks and responsibilities undertaken by the individual for which the form is being completed. Generic descriptions of an entire engineering team's duties are not acceptable. Category codes must be supported by the description. Refer to the category description (Appendix 3.1. of the RISP Consultants' Selection Manual) and RISP Adjudication Criteria (Appendix 3.2.) to ensure that the information that you enter is appropriate to the category.</p> <p>Give a descriptive title of the employee as engineer, technician or professional for the purposes of the project or work experience (e.g., Highway Design Engineer, Bridge Designer, construction supervisor, Environmental Coordinator, etc.)</p>
Prime Consultant (Yes or No)	Indicate if the Company was engaged as the prime consultant or as a sub-consultant.

Category Codes Category codes are entered for each employee. Each category code entered must be supported by relevant working experience descriptions of the individual's role and responsibilities on the projects. The same project work experience can be used in applying for more than one RISP category. All category codes and their descriptions can be found in the RISP Category Criteria by Fields and the Category Glossary - Professional and technical section.

Important note: The experience for all categories that are applied for by each employee will be reviewed by Ministry adjudicators. Only members of the Engineers and Geoscientists BC (EGBC) can apply for Professional Categories (these are categories that have an even number after the dash, such as 01-32 and marked with P in column 2 on the Glossary). The only exceptions are the design categories that start with 05 before the dash (such as 05-66). For the design categories, experienced design technicians and design EITs may enter their design experiences for the appropriate design categories (Technical or Professional) in part 2 of the application. These experiences may be approved if they meet the adjudication criteria. The technical employee and EIT will not be approved for these Professional categories but their approved Professional category experiences will count in approving the office's requested maximum preferred contract amount.

PART 3 – PREFERRED CONTRACT AMOUNT

RSP180 - Maintain Office Category Fields screen on the RISP

PART 3 - RSP180 - Maintain Office Category Fields RISP screen is filled in by the office contact once all of the office's consulting employee experiences are entered in Part 2. The RISP system compiles in Part 3 the list of Work Categories that the office is applying for based on the categories entered for all of the office's employees in Part 2. The office's contact must enter the office's preferred contract amount for each category applied for. If you do not enter a value in the "Preferred" or "Requested change" category amount, the value will default to 5000 which is a low value. To estimate the office's "Preferred" or "Requested change" amounts for each category, refer to Appendix 3.10 Frequently Asked Questions about RISP.

SUBMITTING THE APPLICATION

Before the RISP contact presses the "SUBMIT" button on RISP, all three parts of the office's registration MUST be completed. The contract is then prompted by the software to summarize the circumstances of the office's application (for example: to register a new office; or to make personnel changes in part 2; or to change the Preferred Contract Amounts in part 3).

**ONLY THOSE APPLICATIONS AND CHANGES TO REGISTRATIONS
THAT ARE SUBMITTED ONLINE USING RISP WILL BE EVALUATED.**

Appendix 3.4

TERMS and CONDITIONS of USE

TERMS AND CONDITIONS OF USE

This electronic registry system for the Registration Identification Selection Performance (“RISP”) evaluation program, is a registry for consultants who provide engineering, technical and environmental consulting services on highway construction projects, (the “Service”) to the Province of British Columbia, as represented by the Ministry of Transportation and Infrastructure (referred to below as the “Province”, or “We” “Us” or “Our”).

PLEASE READ THE FOLLOWING TERMS AND CONDITIONS AND, IF YOU UNDERSTAND AND AGREE, THEN TICK ‘1 AGREE’ (OTHERWISE, TICK ‘1 DO NOT AGREE’) AT THE BOTTOM OF PAGE 2, FILL IN THE REMINDER OF THE FORM AND FAX BOTH PAGES 1 & 2 OF THE SIGNED FORM TO THE RISP ADMINISTRATOR AT (250) 387-7735.

SERVICE TERMS AND CONDITIONS

If you register with the Service, you understand and agree that:

1. You are responsible for ensuring that your registration information is complete, accurate, and current. In the event you update your registration information, We cannot guarantee or warrant the updated registration information can be processed by us within a specific time frame or for a specific work opportunity.
2. You have read, understood and agree to the RISP Policy and Procedures Guide and its appendices.
3. Personal information supplied to register with the Service (identifying information supplied by you to obtain a British Columbia electronic identification signature key for the RISP system and to be on the RISP database of consulting firms) is collected under the authority of section 26 (c) of the Freedom of Information and Protection of Privacy Act for the operation of the RISP program. This personal information will be used to identify RISP users and track the engineering qualifications, related firm expertise, staff and work capacity to work opportunities as they arise. Personal information supplied and identifying information from a RISP user will be used for the purpose of management of the work opportunities for engineering consultants. Personal information held by the Province may also be used by Ministry of Transportation and Infrastructure staff to contact RISP users for the purposes of correcting e-mail routing or other system delivery errors. For more information about how personal information is collected, used and disclosed, please contact the RISP Help Desk at (250) 387-5655.
4. We retain the copyright on all information made available to you through the Service. Reproduction is prohibited other than in accordance with the copyright notice, which forms part of these terms and conditions.
5. You should not rely on the Service as your exclusive method of learning about bid opportunities made available by us.
6. The Province is not responsible for damages arising from your use of this Service and any technical defect including inadequate functioning, breakdown, delay in the transmission of information, virus, e-mail send/receive delay or failure, or failure of accessibility originating from your internet service provider or our server failure.

7. If you have a valid British Columbia electronic identification signature key (“BCeID Key”) and you are attempting to enter the secured RISP website, you will be given three attempts to enter the correct BCeID Key sequence. You agree that, if, on the third attempt, the BCeID Key is incorrectly entered, the system will prohibit you from entering its secured area. You agree that your organization’s primary contact will be responsible for contacting the Service to reinstate a user account that has been suspended for whatever reason.
8. In the event the Service receives an electronic transmission from you that is infected with a virus or other electronic code that, in the sole opinion of the Province is considered harmful to the Service, the Service reserves the right to take action as deemed necessary to disinfect such electronic transmission. We will not be liable for any changes that may occur to the electronic transmission submitted by you, including rendering such transmission unreadable, as a result of the disinfecting process.
9. THE SERVICE IS PROVIDED “AS IS” WITHOUT WARRANTY OF ANY KIND, INCLUDING WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE. WE DO NOT WARRANT THE ACCURACY OR THE COMPLETENESS OF THE SERVICE, OR THAT THE SERVICE WILL FUNCTION WITHOUT ERROR, FAILURE OR INTERRUPTION.
10. NO ACTION MAY BE BROUGHT BY ANY PERSON AGAINST THE PROVINCE FOR ANY LOSS OR DAMAGE OF ANY KIND CAUSED BY ANY REASON OR PURPOSE INCLUDING, WITHOUT LIMITATION, RELIANCE ON THE FUNCTIONING OF SERVICE.
11. The Province may discontinue the Service without giving you notice.
12. The Province may amend these Terms and Conditions at any time by providing notice to you of the amended Terms and Conditions. Continued use of the Service after such notice constitutes your acceptance of the amended Terms and Conditions.
13. The Service is provided only for the purposes described on this web page and cannot be used for any other purpose.
14. Your use of the website and any dispute arising out of such use is subject to the laws of British Columbia.

I AGREE I DO NOT AGREE

Office Name as entered in RISP: _____

City: _____

Office RISP ID: _____

RISP Contact Name: _____

RISP Contact Signature: _____ Date: _____



Appendix 3.5 RISP INTERNET and APPLICATION SCREENS

Ministry of Transportation and Infrastructure Home Page

<https://www2.gov.bc.ca/gov/content/governments/organizational-structure/ministries-organizations/ministries/transportation-and-infrastructure>

Ministry of Transportation and Infrastructure

The Ministry of Transportation and Infrastructure plans transportation networks, provides transportation services and infrastructure, develops and implements transportation policies, and administers many related acts and regulations as well as federal-provincial funding programs, including the Building Canada Fund.

Featured Topics

- ▀ [DriveBC & B.C. Highway Webcams](#)
Online and toll-free phone service providing traffic, road, and weather conditions for the provincial highways.
- ▀ [Connect With Us On TranBC](#)
Road and driver safety, projects, transportation initiatives, new technologies and environmental issues.
- ▀ [Highway & Infrastructure Projects](#)
Learn about transportation and infrastructure projects in British Columbia.
- ▀ [Funding & Grants](#)
Find funding and grant opportunities for airport, cycling, and community transportation and infrastructure projects.
- ▀ [Pacific Gateway](#)
Canada's Pacific Gateway moves people and goods easily between North America and the world.
- ▀ [Transportation Acts & Statutes](#)
Transportation statutes, regulations and other helpful information.
- ▀ [Highway Traffic Data](#)
Traffic data to use to determine current traffic patterns and help predict future traffic trends.
- ▀ [Transportation Topic Index](#)
An alphabetical listing of subjects in the Ministry of Transportation and Infrastructure website.

Ministry Information

- ▀ [Ministry in the News](#)
- ▀ [Ministry Service Plan](#)
- ▀ [Ministry Annual Service Plan Report](#)
- ▀ [Ministry Contacts](#)
- ▀ [Ministry Reporting](#)

Minister



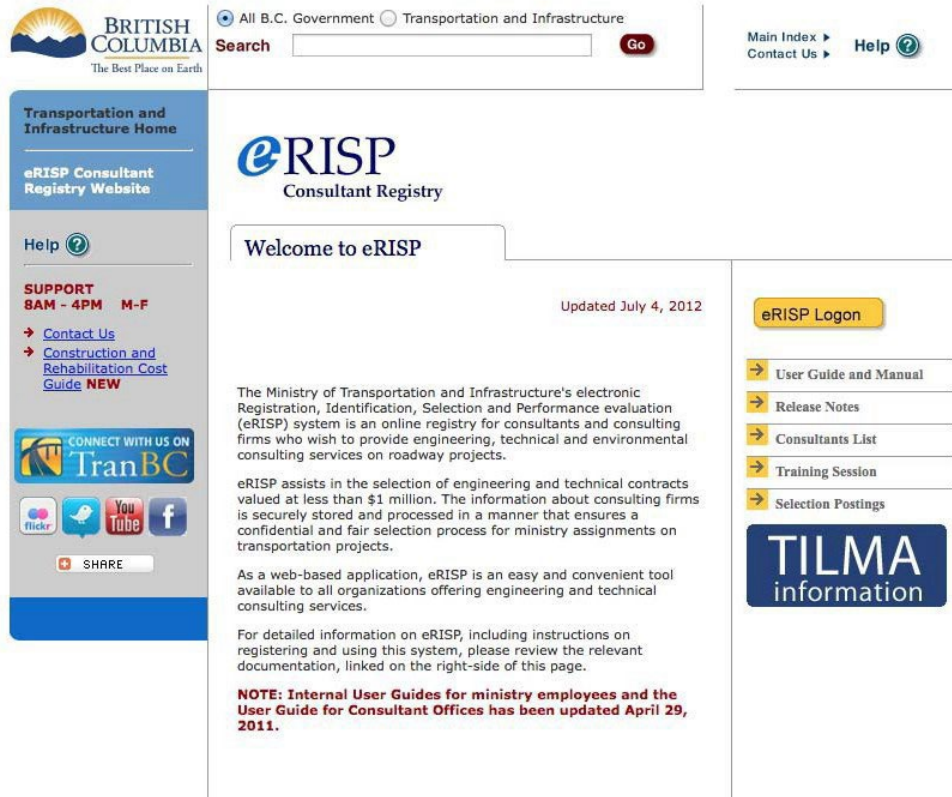
Honourable Claire Trevena

Minister of Transportation & Infrastructure

- ▀ [Biography](#)
- ▀ [Ministerial mandate letter](#)
- ▀ [Council appointment & oath](#)

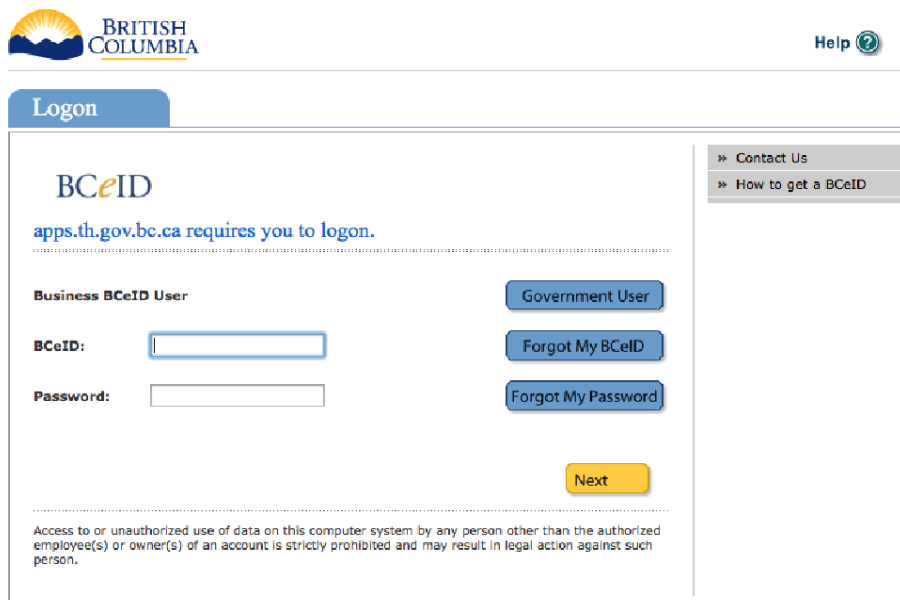
RISP Home Page

<http://www.th.gov.bc.ca/erisp/home.htm>



The screenshot shows the eRISP Consultant Registry Home Page. At the top left is the British Columbia logo. To its right is a search bar with a 'Go' button and radio buttons for 'All B.C. Government' (selected) and 'Transportation and Infrastructure'. Further right are links for 'Main Index', 'Contact Us', and 'Help'. The main content area features the 'eRISP Consultant Registry' logo and a 'Welcome to eRISP' message, dated 'Updated July 4, 2012'. Below this is a paragraph describing the system's purpose: 'The Ministry of Transportation and Infrastructure's electronic Registration, Identification, Selection and Performance evaluation (eRISP) system is an online registry for consultants and consulting firms who wish to provide engineering, technical and environmental consulting services on roadway projects.' This is followed by a paragraph explaining that the system assists in the selection of engineering and technical contracts valued at less than \$1 million, ensuring a confidential and fair selection process. A 'NOTE' states that internal user guides for ministry employees and consultant offices were updated in April 2011. On the right side, there is an 'eRISP Logon' button and a list of links: 'User Guide and Manual', 'Release Notes', 'Consultants List', 'Training Session', and 'Selection Postings'. At the bottom right is a 'TILMA information' box. The left sidebar contains a 'Transportation and Infrastructure Home' section with links to 'eRISP Consultant Registry Website', 'Help', and 'SUPPORT 8AM - 4PM M-F', including links for 'Contact Us' and 'Construction and Rehabilitation Cost Guide NEW'. It also features a 'CONNECT WITH US ON TranBC' section with social media icons for Flickr, Twitter, YouTube, and Facebook, and a 'SHARE' button.

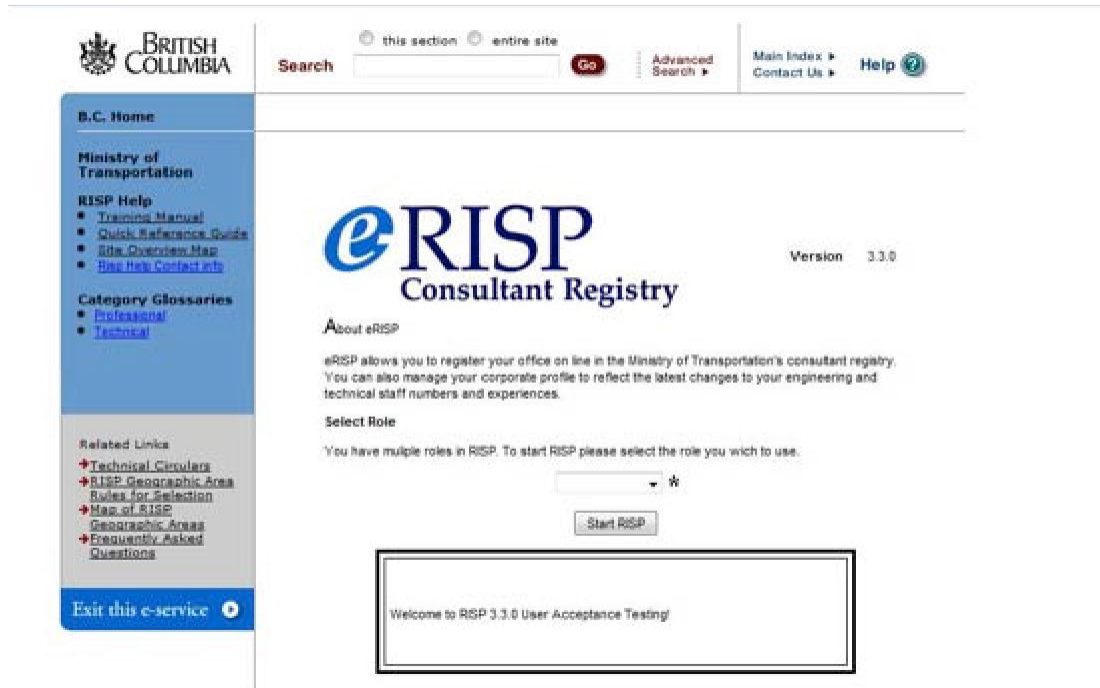
RISP Logon Page



The screenshot shows the RISP Logon Page. At the top left is the British Columbia logo. To its right is a 'Help' link. The main content area has a 'Logon' header. Below it is the 'BCeID' logo and the text 'apps.th.gov.bc.ca requires you to logon.'. There are two input fields: 'BCeID:' and 'Password:'. To the right of these fields are three buttons: 'Government User', 'Forgot My BCeID', and 'Forgot My Password'. Below the input fields is a 'Next' button. On the right side, there are two links: '» Contact Us' and '» How to get a BCeID'. At the bottom, there is a disclaimer: 'Access to or unauthorized use of data on this computer system by any person other than the authorized employee(s) or owner(s) of an account is strictly prohibited and may result in legal action against such person.'

RISP Application Front Page

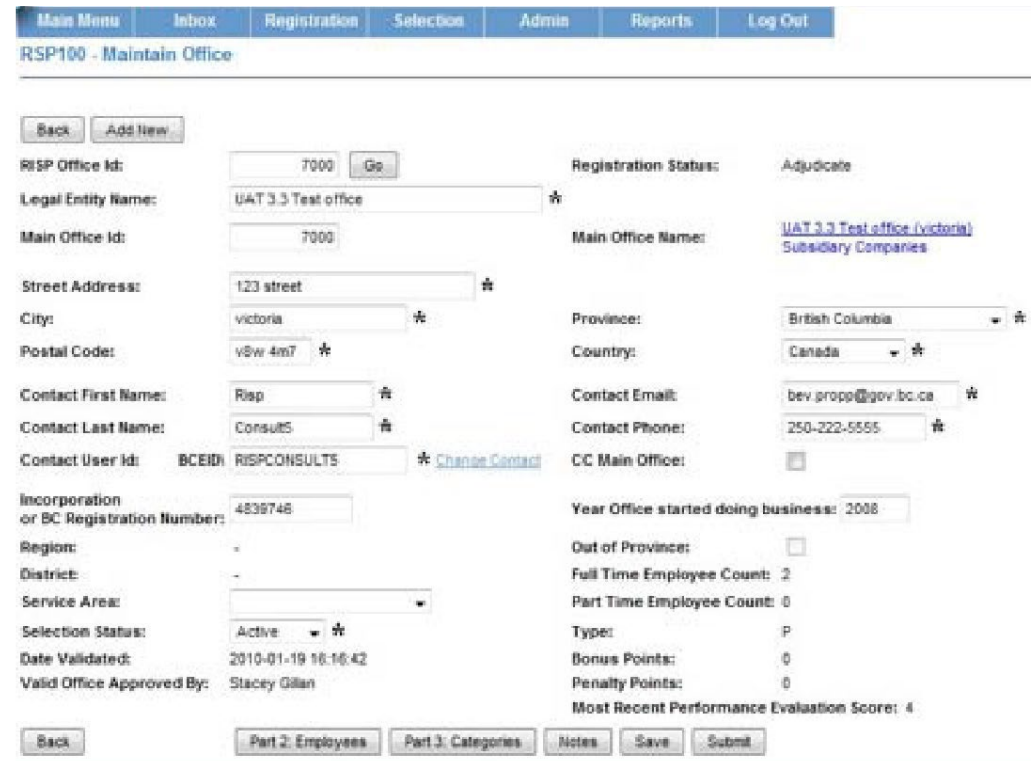
<http://www.th.gov.bc.ca/erisp/home.htm>



The screenshot shows the RISP Consultant Registry front page. On the left is a navigation menu with sections for 'B.C. Home', 'Ministry of Transportation', 'RISP Help' (with links to Training Manual, Quick Reference Guide, Site Overview Map, and Help/Contact Us), 'Category Glossaries' (Professional and Technical), and 'Related Links' (Technical Circulars, RISP Geographic Area Rules for Selection, Map of RISP Geographic Areas, and Frequently Asked Questions). The main content area features the 'eRISP Consultant Registry' logo and version '3.3.0'. Below the logo is an 'About eRISP' section explaining that users can register their office and manage their corporate profile. A 'Select Role' section includes a dropdown menu and a 'Start RISP' button. At the bottom, a box contains the text 'Welcome to RISP 3.3.0 User Acceptance Testing!'.

Part 1 – Office Contact & Information Details

<http://www.th.gov.bc.ca/erisp/home.htm>



The screenshot displays the 'RISP100 - Maintain Office' application screen. At the top, there is a navigation bar with tabs for 'Main Menu', 'Inbox', 'Registration', 'Selection', 'Admin', 'Reports', and 'Log Out'. Below the navigation bar, the page title is 'RISP100 - Maintain Office'. The main content area contains a form with various fields for office information. On the left side, there are 'Back' and 'Add New' buttons. The form fields include:

- RISP Office Id: 7000 (with a 'Go' button)
- Legal Entity Name: UAT 3.3 Test office
- Main Office Id: 7000
- Street Address: 123 street
- City: victoria
- Postal Code: v8w 4m7
- Contact First Name: Risp
- Contact Last Name: Consult5
- Contact User Id: BCEID: RISPCONSULT5 (with a 'Change Contact' link)
- Incorporation or BC Registration Number: 4839748
- Region: -
- District: -
- Service Area: (dropdown menu)
- Selection Status: Active
- Date Validated: 2010-01-19 16:16:42
- Valid Office Approved By: Stacey Gillan

 On the right side, there are additional fields:

- Registration Status: Adjudicate
- Main Office Name: UAT 3.3 Test office (victoria) Subsidiary Companies
- Province: British Columbia
- Country: Canada
- Contact Email: bev.propp@gov.bc.ca
- Contact Phone: 250-222-5555
- CC Main Office: (checkbox)
- Year Office started doing business: 2008
- Out of Province: (checkbox)
- Full Time Employee Count: 2
- Part Time Employee Count: 0
- Type: P
- Bonus Points: 0
- Penalty Points: 0
- Most Recent Performance Evaluation Score: 4

 At the bottom of the form, there are buttons for 'Back', 'Part 2: Employees', 'Part 3: Categories', 'Notes', 'Save', and 'Submit'.

Appendix 3.6

RISP GEOGRAPHIC AREA RULES for SELECTION

RISP GEOGRAPHIC AREA RULES FOR SELECTION

I. Application of the Geographic Area Rule:

For selections estimated at more than \$75,000, refer to paragraph B) in section 2.4.2.

For selections estimated at \$75,000 or less, the geographic rule is applied as described below.

II. Geographic Area:

The geographic area comes into play in the selection in two ways:

1) As a characteristic of the RISP work category.

2) In the area covered for the RISP office selection search.

Some categories are defined as “Local”. These “Local” categories are identified in the RISP Category Glossary in Appendix 3.1. The basic units for “Local” are the Maintenance Contract Services Areas. There are 28 “Local” areas. The Maintenance Contract Services Areas are illustrated on the map in Appendix 3.7. For “Local” categories, the selection search automatically starts with the Maintenance Contract Services Area where the project is located or managed and expands until a qualified RISP office is selected.

Some categories are defined as “Regional”. For these categories, the selection area starts within a RISP Regional Area. “RISP Regional Areas” are larger and are created by grouping several of the Maintenance Contract Service Areas as listed in the tables on page 2 and outlined within a pink border on the map in Appendix 3.6. “RISP Regional Areas” are used when expanding the Local Area search or when the search category is defined as “Regional”. There are five “Regional” areas. For “Regional” category searches, RISP selects from “Local” offices.

Most categories are defined as “Provincial”. For these categories, the search automatically starts within the Province and is limited to the list of RISP “main” offices as defined below in section III. If no offices are picked within the “Provincial” boundaries, then the search expands to “Out-of-Province”.

A broken blue line separates the three Ministry Regions on the map in Appendix 3.7.

II. Search Order

The basic rule is that the search starts with the basic geographic area as defined in section I above (either “Local”, RISP “Regional” Area or “Province”) and expands the search areas as defined in the tables on page 2. If the search starts within a “Local” maintenance service contract area, the search expands to adjoining maintenance service contract areas, then to “RISP Regional Areas”, then the whole Province and finally Out-of-Province. If the search starts with the whole Province, then the next search is Out-of-Province.

III Main and Local Offices

The “Main Office” is the amalgamation of the local RISP offices that belong to a firm or partnership. When the consulting firm registers its offices in the RISP Consultants’ Registry, it is asked to choose which one is the “Main” office for province wide selections. The RISP system defines this “Main” office by adding together all of the “Local” offices. That is the staff and the “Office Preferred Contract Capacities” of all the local RISP offices registered by the firm or partnership are rolled up into the “Main Office” registration.

RISP Selection Search Tables

LOCAL SEARCH TABLE			
1. South Coast Region	First Pass	Second Pass	Third Pass
Maintenance Contract Service Area Numbers	1	2	Go to first pass Area 1 in Regional Search Table
	2		Go to first pass Area I in Regional Search Table
	3	2	Go to first pass Area 1 in Regional Search Table
	4		Go to first pass Area II in Regional Search table
	5		Go to first pass Area II in Regional Search table
	6	7	Go to first pass Area II in Regional Search table
	7	6	Go to first pass Area II in Regional Search table
2. Southern Interior Region	First Pass	Second Pass	Third Pass
Maintenance Contract Service Area Numbers	8	6, 7, 13, 14, 15	Go to first pass Area III in Regional Search Table
	9, 10		Go to first pass Area IV in Regional Search Table
	11		Go to first pass Area IV in Regional Search Table
	12	10, 11, 13, 15	Go to first pass Area III in Regional Search Table
	13	8, 12, 15	Go to first pass Area III in Regional Search Table
	14	8, 15, 13	Go to first pass Area II in Regional Search table
	15	8, 13 14	Go to first pass Area II in Regional Search table
	16	14, 15	Go to first pass Area V in Regional Search Table
	17	16, 18	Go to first pass Area V in Regional Search Table
	18	17, 19	Go to first pass Area V in Regional Search Table

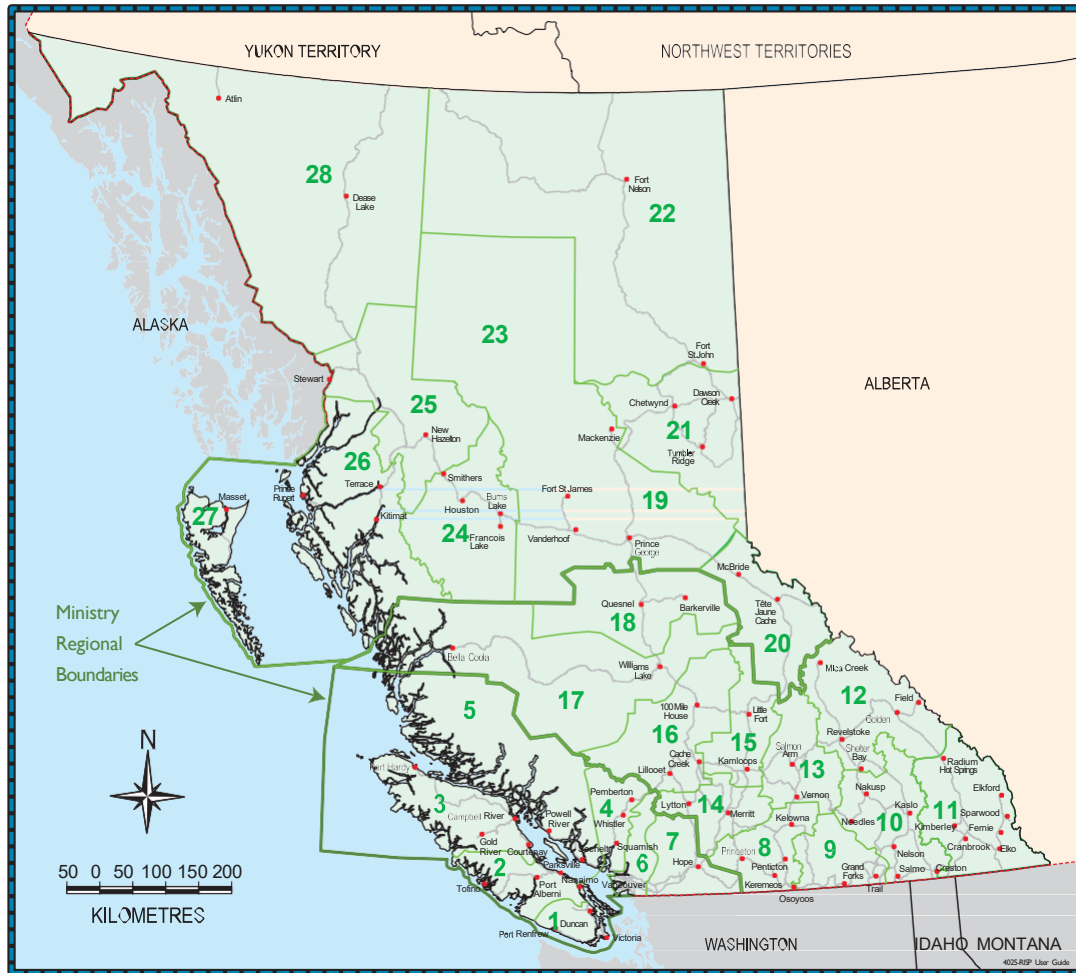
3. Northern Region	First Pass	Second Pass	Third Pass
Maintenance Contract Service Area Numbers	19	18, 17	Go to first pass Area V in Regional Search table
	20	17, 18, 19	Go to first pass Area V in Regional Search table
	21, 22	18, 19, 20, 23	Go to first pass Area V in Regional Search table
	23	19	Go to first pass Area V in Regional Search table
	24, 25, 26		Go to first pass Area V in Regional Search Table
	27, 28		Go to first pass Area V in Regional Search table

REGIONAL SEARCH TABLE				
Regional Area I	First Pass	Second Pass	Third Pass	Fourth Pass
Contains Maintenance Contract Service Area Numbers: 1, 2, 3	Area I	Area II	Province	Out-of-Province
Regional Area II	First Pass	Second Pass	Third Pass	Fourth Pass
Contains Maintenance Contract Service Area Numbers: 4, 5, 6, 7	Area II	Area I	Province	Out-of-Province
Regional Area III	First Pass	Second Pass	Third Pass	Fourth Pass
Contains Maintenance Contract Service Area Numbers: 8, 12, 13, 14, 15, 16	Area III	Area IV & V	Province	Out-of-Province
Regional Area IV	First Pass	Second Pass	Third Pass	Fourth Pass
Contains Maintenance Contract Service Area Numbers: 9, 10, 11	Area IV	Area III & II	Province	Out-of-Province
Regional Area V	First Pass	Second Pass	Third Pass	Fourth Pass
Contains Maintenance Contract Service Area Numbers: 17, 8, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28	Area V	Province	Out-of-Province	

Appendix 3.7

MAP OF RISP GEOGRAPHIC AREAS

B.C. Ministry of Transportation and Infrastructure - Maintenance Service Areas



Maintenance Service Areas

- | | |
|---------------------|--------------------|
| 1 South Island | 15 Thompson |
| 2 Central Island | 16 South Cariboo |
| 3 North Island | 17 Central Cariboo |
| 4 Howe Sound | 18 North Cariboo |
| 5 Sunshine Coast | 19 Fort George |
| 6 Lower Mainland | 20 Robson |
| 7 Fraser Valley | 21 South Peace |
| 8 South Okanagan | 22 North Peace |
| 9 Kootenay Boundary | 23 Nechako |
| 10 Central Kootenay | 24 Lakes |
| 11 East Kootenay | 25 Bulkley Nass |
| 12 Selkirk | 26 Skeena |
| 13 Okanagan-Shuswap | 27 North Coast |
| 14 Nicola | 28 Stikine |

RISP Regional Areas

- RISP Regional Area I
Contains Maintenance Contract Areas 1- 3
- RISP Regional Area II
Contains Maintenance Contract Areas 4-7
- RISP Regional Area III
Contains Maintenance Contract Areas 8, 12-16
- RISP Regional Area IV
Contains Maintenance Contract Areas 9-11
- RISP Regional Area V
Contains Maintenance Contract Areas 17-28

Appendix 3.8

CONSULTANT PERFORMANCE EVALUATION FORM

H-0503 Form – CONSULTANT PERFORMANCE EVALUATION

User's Instructions

1. A Deliverable Evaluation must be completed and signed at each scheduled Evaluation meeting.
2. Refer to the last page of the “Assignment Summary” worksheet (page 6) for the “ Rules for the Use and Completion of the Consultant Performance Evaluation”.
3. The form was designed for a maximum of ten deliverable evaluations. However, you will most often need to have less evaluation meetings.
4. The contract information that is entered at the top of page 1 of Deliverable Evaluation No. 1 is instantly copied in the worksheets of subsequent deliverable evaluations.
5. The form uses convenient drop down menus to enter the data and each completed deliverable evaluation is copied to the “Assignment Summary” worksheet.
6. For most contracts, you will use the evaluation attributes numbered one to six. Each attribute is composed of three sub-attributes. Enter N/A when you wish not to apply a specific sub-attribute.
7. For individual services contracts (such as construction supervision contracts), you may use only “Attribute 7. Individual Services” which has three sub-attributes. In this case the other six attributes cannot be used and must be marked “N/A”.
8. You may wish to modify some of the attributes (and sub-attributes) to make these more specific to the contract at hand. If you do so, ensure that the modified evaluation form is included with the call for proposal or at least reviewed and discussed at the contract’s kick-off meeting.
9. If you choose to modify the attributes’ (and sub-attributes’) descriptions, you may do so differently for any of the Deliverable Evaluation that you wish. However, in all cases you must not exceed six attributes with three sub-attributes per attribute. For a copy of the “Unprotected” H0503 form, contact the RISP Administrator, Engineering Branch.
10. If you use less than six attributes and three sub-attributes in a Deliverable Evaluation, do not delete the additional attributes but enter “N/A” instead for those attributes and sub-attributes that are not used.
11. For contracts using the RISP selection process, you are required to fill-in the Final Rating on from the “Assignment Summary” pages 5 (or 5a) in the box reserved for this on the Contract the Contract Completion form H0191. Send a copy of the form to the Regional RISP Operator who processed the selection.



CONSULTANT PERFORMANCE EVALUATION

Deliverable Evaluation No. 1

RISP Selection Number (if applicable): Contract Number:

Project Name:

Project Number:

Assignment Description:

RISP Category Codes (if applicable):

Consultant's Name & RISP ID (if applicable):

Consultant Representative:

Ministry Representative on the contract:

Evaluator: Same as above Check Box Or:

PERFORMANCE EVALUATION

Refer to page 6: "Rules for the use and completion of the Consultant Performance Evaluation"

Key: N/A = Not Applicable (Note: When N/A is used, the "average points" for that attribute will not include that specific element of the attribute.)

- 1 point = Performance totally unacceptable/Needs to be redone
- 2 points = Performance marginal/some improvement needed
- 3 points = Performance acceptable/meets requirements
- 4 points = Performance exceeds requirements/expectations
- 5 points = Performance exceptionally high

ATTRIBUTES (an inherent characteristic or quality)

1. Quality Management

		Points	Average Points	Weighting	Carry-forward
Quality Control	How effectively has quality control taken place for this assignment?	<input type="text" value="N/A"/>			
Quality Assurance	How effectively has quality assurance taken place for this assignment?	<input type="text" value="N/A"/>	<input type="text" value="N/A"/>	<input type="text" value="0%"/>	<input type="text" value="N/A"/>
Quality Management	How effectively and completely did the results address the Terms of Reference?	<input type="text" value="N/A"/>			

Comments:

2. Deliverable Management

		Points	Average Points	Weighting	Carry-forward
Schedule	How effective was the Consultant in meeting the schedule?	<input type="text" value="N/A"/>			
Management	How effectively did the Consultant manage the completion of this deliverable?	<input type="text" value="N/A"/>	<input type="text" value="N/A"/>	<input type="text" value="0%"/>	<input type="text" value="N/A"/>
Progress Reports	How timely was the Consultant in submitting Progress Reports?	<input type="text" value="N/A"/>			

Comments:

CONSULTANT PERFORMANCE EVALUATION Deliverable Evaluation No. 1

PERFORMANCE EVALUATION

Refer to page 6: "Rules for the use and completion of the Consultant Performance Evaluation"

Key: N/A = Not Applicable (Note: When N/A is used, the "average points" for that attribute will not include that specific element of the attribute.)

- 1 point = Performance totally unacceptable/Needs to be redone
- 2 points = Performance marginal/some improvement needed
- 3 points = Performance acceptable/meets requirements
- 4 points = Performance exceeds requirements/expectations
- 5 points = Performance exceptionally high

3. Communications

		Points	Average Points	Weighting	Carry-forward
Communications with the Ministry	How effective and appropriate were Communications with the Ministry?	N/A			
Communications with Other Agencies	How effective and appropriate were Communications with other agencies?	N/A	N/A	0%	N/A
Communications with the Public	How effective and appropriate were Communications with the Public?	N/A			
Comments:					

4. Changes/Issues Management

		Points	Average Points	Weighting	Carry-forward
Dealing with Issues	How effectively were issues and concerns identified, handled and resolved?	N/A			
Dealing with Scope Changes	How effectively were scope changes managed?	N/A	N/A	0%	N/A
Resolving Conflicts	How quickly and effectively did the Consultant handle conflict situations?	N/A			
Comments:					

5. Solutions & Recommendations

		Points	Average Points	Weighting	Carry-forward
Appropriateness	How effective and appropriate were the proposed solutions/recommendations?	N/A			
Creativity/Innovations	How creative/innovative was the Consultant in proposing solutions/recommendations?	N/A	N/A	0%	N/A
Value for Money	How well did the Consultant consider the impact of its recommendations on costs?	N/A			
Comments:					

CONSULTANT PERFORMANCE EVALUATION Deliverable Evaluation No. 1

PERFORMANCE EVALUATION Refer to page 6: "Rules for the use and completion of the Consultant Performance Evaluation"	Key: N/A = Not Applicable (Note: When N/A is used, the "average points" for that attribute will not include that specific element of the attribute.) 1 point = Performance totally unacceptable/Needs to be redone 2 points = Performance marginal/some improvement need 3 points = Performance acceptable/meets requirements 4 points = Performance exceeds requirements/expectations 5 points = Performance exceptionally high
---	---

6. Constructability

Cost Estimation	How effective was the Consultant's Cost Estimating Methodology?	Points N/A			
Construction Staging & Risk Evaluation	How appropriate and adequate were the Consultant's consideration of Construction Staging and associated Risks?	N/A	Average Points N/A	Weighting 0%	Carry-forward N/A
Permits and Approvals	How complete and timely were the Consultant's handling of permits and approvals?	N/A			

Comments:

7. Individual Services

(Note: When this attribute is selected, all other attributes No. 1 to 6 are not used)

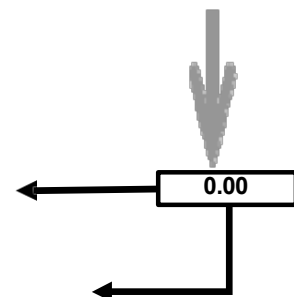
Communications	How effective, timely and appropriate were the Consultant's Communications?	Points N/A	Average Points N/A	Weighting 0%	Carry-forward N/A
Dedication	What the Consultant promptly available when needed?	N/A	N/A	0%	N/A
Results	How effective was the Consultant in providing timely recommendations and advice?	N/A			

Comments:

Total: (all applicable attributes carried forward)

Notes: 1) After the last performance evaluation is completed, the Ministry's and the consultant's representatives review and sign the "Assignment Summary" Worksheet on page 5 (and also 5a if there are more than five deliverable evaluation meetings).

2) The total is a rounded figure and may differ by plus or minus 0.01 from the sum of the individual attributes rounded and carried forward.





CONSULTANT PERFORMANCE EVALUATION Deliverable Evaluation No. 1

Acceptance of Deliverables

Completeness

Are all deliverables that were due for this scheduled evaluation meeting complete?

YES Check Box

NO Check Box

Have all requirements expected for the scheduled evaluation meeting been met?

YES Check Box

NO Check Box

If any of the two above items are partially complete, please state the percentages of completeness and the reasons in the comments block below:

Comments:

Large empty text box for comments.

Signature of the Ministry's evaluator::

Signature line for Ministry's evaluator.

Date:

Date line for Ministry's evaluator.

Overall comments:

Overall comments box for Ministry's evaluator.

Signature of the Consultant's representative:

Signature line for Consultant's representative.

Date:

Date line for Consultant's representative.

Overall comments:

Overall comments box for Consultant's representative.



Assignment Performance Summary

RISP Selection #:

Consultant's Name & RISP ID:

		Deliverable Evaluation #1		Deliverable Evaluation #2		Deliverable Evaluation #3		Deliverable Evaluation #4		Deliverable Evaluation #5	
		Points	Weight	Points	Weight	Points	Weight	Points	Weight	Points	Weight
ATTRIBUTES (an inherent characteristic of quality)											
1	Quality Management	N/A	0%	N/A	0%	N/A	0%	N/A	0%	N/A	0%
2	Deliverable Management	N/A	0%	N/A	0%	N/A	0%	N/A	0%	N/A	0%
3	Communications	N/A	0%	N/A	0%	N/A	0%	N/A	0%	N/A	0%
4	Change/Issues Management	N/A	0%	N/A	0%	N/A	0%	N/A	0%	N/A	0%
5	Solutions & Recommendations	N/A	0%	N/A	0%	N/A	0%	N/A	0%	N/A	0%
6	Constructability	N/A	0%	N/A	0%	N/A	0%	N/A	0%	N/A	0%
7	Individual Services	N/A	0%	N/A	0%	N/A	0%	N/A	0%	N/A	0%
		Deliverable Rating #1		Deliverable Rating #2		Deliverable Rating #3		Deliverable Rating #4		Deliverable Rating #5	
		0.00		0.00		0.00		0.00		0.00	
		Percent of Final		Percent of Final		Percent of Final		Percent of Final		Percent of Final	
		0%		0%		0%		0%		0%	

Note: The sum of percentages for all ratings, when the last deliverable rating is entered, must be equal to 100%: →

Enter the final rating on the H0191 Consulting Services Contract Completion Certificate and send a copy of the certificate to the RISP Operator.

Final Assignment Rating of completed evaluations:

This figure is the weighted average rounded to one decimal.

N/A

Acknowledgement of the **FINAL ASSIGNMENT RATING** after the last scheduled Performance Evaluation Meeting

Note: The signature of the consultant's representative below is to indicate that he/she has reviewed and discussed all of the completed performance evaluation at each of the performance meetings.

His/her signature is not to be construed as being in agreement with the Ministry's rating.

Ministry's Representative	Consultant's Representative
Print Name	Print Name
Signature	Signature
Date	Date

H0503 (2007/01)

RULES FOR THE USE AND COMPLETION OF THE CONSULTANT PERFORMANCE EVALUATION

<p>Purpose:</p>	<ul style="list-style-type: none"> • To provide an objective assessment of a consultant’s performance during a project. • To provide an overall performance rating on the contracted services consulting offices. • To provide base data that will eventually be used as part of the procedures for the selection of consultants and the evaluation of proposals.
<p>Responsibilities:</p>	<ul style="list-style-type: none"> • The Performance Evaluation form is to be completed and signed by a Ministry representative who has a role in the acceptance of the Consultant’s deliverables and is familiar with the Ministry’s evaluation procedures • The Evaluator should establish that the content of Performance Evaluation Form is appropriate for the type of assignment and services being asked from the Consultant. • At the beginning of the assignment, both the Ministry’s Evaluator and the Consultant’s representative who is responsible for the delivery of the completed work should agree on the content of the Performance Evaluation form and the process for completing the form.

<p>Procedures:</p>	<ul style="list-style-type: none"> • The Terms of Reference of the Contract will define those meetings known as Evaluation Meetings at which the performance ratings of the most recent Performance Evaluation Form will be a topic of discussion • At the initial project meeting, the Evaluator and the Consultant’s representative will discuss and reach an agreement on the use of the Performance Evaluation Form in accordance with the Terms of Reference of the Contract. Performance Evaluation questions most applicable to the project and the attribute weightings will be identified by the Evaluator and an agreement will be reached that the work and deliverables will be rated using these questions at subsequent scheduled Evaluation Meetings. • Questions on the Evaluation Form refer to how a specific work attribute (i.e.: Quality Management, Delivery Management and so on) was performed by the Consultant. Each attribute is given a weighting factor (totaling 100% for all attributes) which represents its relative importance for the part of the work being evaluated. • A new Evaluation Form is completed at each of the evaluation meetings to evaluate the Consultant’s work performance since the previous evaluation meeting. The contribution of each Evaluation Form as a proportion of the Final or total completed Assignment Rating is a function of the importance of the part of the work that is being evaluated in relation to the whole assignment deliverables. • At the last evaluation meeting, the final Performance Evaluation Form is completed and a Final or total completed Assignment Rating is computed by multiplying each of the Deliverable Ratings from all of the Performance Forms by their respective proportion of the final rating, then adding these results. • The Final Assignment Rating is entered in the completion form H0191 a copy of which is sent to the Regional RISP Operator who processed the selection to be entered in RISP.
<p>Ratings:</p>	<ul style="list-style-type: none"> • The Performance Evaluation Form is a reporting document. All completed and signed Performance Evaluation Forms are part of the Ministry’s contracted assignment file. The content of Performance Evaluation Forms is CONFIDENTIAL information and should be substantiated by appropriate documentation such as the consultant’s work deliverables, records of communications between Ministry’s representatives on the contract and the consultant’s representative and any other relevant contract record pertaining to the quality of the work.

Mediation:	<ul style="list-style-type: none">• The Regional Manager of Professional Services/Engineering shall act as a mediator should a dispute occurs between the Evaluator and the Consultant’s Representative over any matter related to the Performance Evaluation.• In cases where the dispute cannot be resolved in this first stage or if no resolution is achieved after two months of mediation at the regional level, the Regional Manager of Professional Services/Engineering shall report to the Chief Engineer who will act as the final mediator.
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Appendix 3.9

QUALITY MANAGEMENT ACCORD

QUALITY MANAGEMENT ACCORD ENGINEERING AND OTHER PROFESSIONAL SERVICES

BETWEEN: The Ministry of Transportation and Infrastructure of the Government of British Columbia (MoT),

AND Consulting Engineering firms providing services to MoT

HEREINAFTER REFERRED TO COLLECTIVELY AS THE “PARTIES”

WHEREAS: MoT has a legislative requirement to establish standards for highway design and construction in British Columbia, and

WHEREAS: the Parties recognize the importance that the highway system in British Columbia provide safe and efficient service in the movement of people and goods to support the economic development of the Province and well-being of the traveling public, and

WHEREAS: safe, cost-effective and efficient highways require engineering and other professional services exhibiting excellence, innovation, and completeness, and

WHEREAS: engineering and other professional services exhibiting excellence, innovation, and completeness increase the value of built infrastructure and reduce the lifecycle cost of construction, operation and maintenance, and

WHEREAS: Consulting Engineering Firms have control over their work and their sub-consultants, and are fully responsible for the quality of engineering and other professional services delivered, while MoT actively collaborates as a knowledgeable client, accepts the completed work and may conduct random audits, and

WHEREAS: the Parties are committed to delivering engineering and other professional services that consistently exhibit excellence, innovation and completeness and Consulting Engineering Firms are capable of meeting this need, and

WHEREAS: the conscientious implementation of an appropriate quality management process by each Consulting Engineering Firm and MoT working in partnership will facilitate excellence, innovation and completeness in the delivery of engineering and other professional services, and

WHEREAS: the Parties agree that engineering assignments should be directed to organizations that demonstrate excellence, innovation and completeness in the delivery of engineering and other professional services, as exemplified by the leading practitioners in the field, and

WHEREAS: the consulting engineering industry is an important contributor to domestic economic development in the Province of British Columbia, and, through the application of experience gained in British Columbia, the consulting engineering industry generates export income for the Province by providing high value professional services to international clients.

THEREFORE: the Parties hereby commit to the following:

QUALITY OF WORK

1. For each assignment, consulting engineering firms must have an effective, documented Quality Management System in place and be fully responsible for the Quality Control and Quality Assurance of their product.
2. A Quality Management System shall include the following:
 - (a) A demonstrated commitment by senior management to provide quality engineering and other professional services,
 - (b) A written work plan for each assignment, including management of the assignment, (c) A written Quality Plan for each assignment that is understood and used by the staff of the Consulting Engineering Firm, specifying quality management tasks, responsibilities, and documentation,
 - (d) Systematic, documented and effective communication between MoT and the consulting engineering firm, and
 - (e) Documented peer checking and independent concept reviews in accordance with EGBC Bylaw 14(b).
3. The Parties agree that the implementation of a Quality Management System and the production of work exhibiting excellence, innovation and completeness require the allocation of adequate time and resources, and that these are identified and agreed upon prior to commencement of each assignment.
4. When a project or series of related projects is subdivided into multiple assignments, then MoT will arrange for project coordination, definition of the project concept, and establishment of common standards.
5. At the outset of each assignment MoT will define its expectations of the Consulting Engineering Firm. Both MoT and the Consulting Engineering Firm will identify their respective representative for the assignment. These representatives will be accessible throughout the duration of the assignment to co-ordinate the responses of their organizations to recommendations, alternative proposals and directions received from the other Party.
6. The Parties agree that the purpose of implementing a Quality Management System is to achieve tangible benefits including those listed in Appendix 1.

REFERENCE MATERIALS

1. The Terms of Reference for each assignment shall identify the relevant reference materials required, including MoT Standards of Practice, Design Standards, Technical Circulars, MoT preferences and other Work Instructions. The Consulting Engineering Firm will ensure that it possesses the relevant reference materials at the start of each assignment. MoT will make all such materials available upon request.
2. Subject to all applicable laws, regulations, bylaws and rules, the Ministry Representative will provide the consulting engineering firm undertaking an assignment with access to up-to-date information on recent tendered unit prices for cost estimating purposes.

PERFORMANCE EVALUATIONS

1. For each assignment, RISP performance evaluations will be completed by MoT at defined milestones during the course of an assignment. Upon completion of the assignment, an overall performance rating for the consulting engineering firm for the assignment will be derived in accordance with the RISP performance evaluation rating system prevailing at the time.
2. The overall performance rating will be provided to the Consulting Engineering Firm for its review and acceptance. If an overall rating is in dispute, the Regional Manager of Professional Services / Engineering will act as mediator. In the event that the Consulting Engineering Firm is still unable to accept the overall performance rating, it may appeal to the MoT Chief Engineer, whose ruling shall be final.
3. Consulting engineering firms that are rated: exceeded expectations on an assignment, will be rewarded by being offered an earlier opportunity to participate in the next eligible assignment.

Conversely, consulting engineering firms that are rated unacceptable or improvement needed on an assignment will be assigned RISP penalty points in accordance with the RISP rating policy prevailing at the time. Penalty points will delay the next eligible assignment opportunity.

Those consulting engineering firms that receive unacceptable or improvement needed overall performance ratings will be required to submit documentation in subsequent proposals to demonstrate how their firm has rectified the deficiency in their ability to perform. The Ministry Representative has to be satisfied that the deficiency has been adequately addressed prior to awarding work to the consulting engineering firm.

4. MoT will review its consultant selection data base (RISP) from time to time to ensure that each consultant's adjudicated levels are commensurate with its performance and the current registered staffing.

IMPLEMENTATION AND TERM

1. The Parties agree that the text of this accord will continue to be incorporated into all contracts between MoT and Consulting Engineering Firms.
2. The relevance and applicability of this Quality Management Accord's text and term shall be reviewed on a periodic basis by the CEBC/MoT Liaison Committee at which time it may be modified.



PROJECT SPECIFIC REQUIREMENTS

1. On a project specific basis this Accord may be supplemented with more detailed Quality Management requirements in the form of appendices to contractual terms of reference.

The Parties have signed this Quality Management Accord and initialed each page to confirm their agreement to the Principles as stated in the preceding pages:



Ministry of
Transportation
and Infrastructure

(XYZ Consulting Services Ltd)

Assistant Deputy Minister

(CEO, Partner, or Sr. Officer)

Signature

Signature

Date

Date

ENGINEERING AND OTHER PROFESSIONAL SERVICES QUALITY MANAGEMENT ACCORD

APPENDIX 1

Tangible benefits resulting from the implementation of a Quality Management System

- (a) The completed work will conform to the scope of services, work plan and staffing plan established at the beginning of the assignment or as modified during the course of the assignment.
- (b) The engineering organization should be able to demonstrate that an appropriate number of conceptual or design alternatives have been examined to establish that the option recommended provides optimum value and meets the objectives of the terms of reference. The minimum number of alternatives that are appropriate to examine will vary from project to project, but should be agreed upon between the Parties prior to commencement of the assignment,
- (c) Engineering services should exhibit a standard of excellence, innovation and completeness commensurate with the contemporary standards of a competent, reasonable and prudent engineer.
- (d) Cost estimates are to consider all project costs such as construction, engineering, supervision, environmental protection and mitigation, owner's internal costs, and property and easement acquisition unless specifically excluded or qualified in writing. The intended accuracy of cost estimates under normal circumstances is as follows:
 - (i) Planning/conceptual design stage: +/- 35%
 - (ii) Functional/preliminary design stage: +/- 20%
 - (iii) Detailed design stage: +/- 10%

Appendix 3.10

FREQUENTLY ASKED QUESTIONS ABOUT RISP

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Q1. What is “Preferred Contract Amount”?

A1. The “Preferred Contract Amount”, also referred to as “Preferred Maximum Contract Capacity Amount”, is an amount entered in RISP step 3 (part 3: RSP180 - Maintain Office Category Fields screen) for each of the categories that the office is applying for. This amount is an estimate of the maximum contract value that your office is willing to undertake for a specific work category. This value is based on the number of registered staff and their respective knowledge level for this particular category. A suggested method to estimate this amount is to calculate the full time monthly billing for the staff registered in this category and multiply this amount by ten. The preferred amounts applied for may be modified by the Ministry’s adjudicators.

Q2. What constitutes a registered RISP office?

A2. A registered RISP office must have a physical street address and qualified Professional, Technical or Environmental registered RISP persons working full time, part-time or on contract at this address. Postal boxes are not sufficient to be used as an office address. All offices must provide a physical address which can be validated against BC Registry information. For “local” or “regional” selections, the staff working on the contract are expected to have the selected office as their work base for the duration of the contract.

Q3. Can I register a person who is not working at my RISP office?

A3. All staff registered with your RISP office must use that office address as its base for RISP work in a “Regional” or “Local” selection (Refer to the RISP GUIDE main document for definitions of “Regional” and “Local” selections).

Q4. May I register a person to more than one office? Or: If I am registered in RISP as my own company, can I also register in RISP as a part time, full time or contract employee with another RISP office?

A4. A person may register in more than one office as a primary or alternate contact, but can register as an employee only once in RISP.

Q5. Can I register a person who does part time subcontracting work for my office?

A5. Yes. However, please note that a person that is registered with a RISP office is assumed to use this office as his/her work base when RISP contracts are the result of a “local” or “regional” selection.

Q6. Who can use Professional/Technical categories?

A6. Only members of the Engineers and Geoscientists BC (EGBC) can apply for Professional Categories (these are categories that have an even number after the dash, such as 01-32 and marked with P in column 2 on the Glossary). The only exceptions are the design categories that start with 05 before the dash (such as 05-66). For the design categories, experienced design technicians and design EITs may enter their design experiences for the appropriate design categories (Technical or Professional) in part 2 of the application. These experiences may be approved if they meet the adjudication criteria. The technical employee and EIT will not be approved for these Professional categories but their approved Professional category

experiences will count in approving the office's requested maximum preferred contract amount.

Technicians, Environmental specialists, Professional Engineers/Geoscientists and E.I.T.s can apply and may be approved for Technical categories.

Q7. What happens if the RISP registration information for my office is out-of-date or erroneous?

A7. The Ministry reserves the right to reject an office selected by RISP if the selection was based on outdated or erroneous information. The most common reasons for rejecting an office selected by RISP are:

- Staffs registered under the selection category are working from another location when the work specifically requires locally based consultants.
- The contractor wants to assign the work to staff that are not registered in RISP.

Q8. What happens if I choose to assign work corresponding to a RISP category to staff not included in my office's RISP registration in a proposal call originating from an RISP selection?

A8. The proposal may be rejected by the Ministry representative on the basis that you are assigning RISP category work to staff that did not go through the RISP adjudication process.

Q9. My office is located outside British Columbia. Can it be registered in RISP?

A9. Yes. Your office can be registered in RISP as an out-of-Province office if it meets the conditions outlined in A10 below. Note that staff that want to be registered for professional categories must meet the conditions outlined in A6.

Q10. Under what name can I register my office?

A10. The RISP office must be registered under a name that identifies it as a legal entity in British Columbia. This can be the name that your firm used when it registered in the British Columbia Registrar's Office or, as in the case of a sole proprietorship, the name of the owner. The name that the office uses in its RISP registration in will be the one used on the consulting contract with the Ministry.

Q11. Can my firm register more than one office in RISP?

A11. Yes. These offices will be registered as "local" offices within the maintenance contract/service area they are located in. At the time of registration, your firm's RISP contact will be asked to select one of these offices as the "Main" office for province wide RISP selections. Refer to the RISP Guide for more detailed explanations.

Q12. What type of insurance is my consulting office required to carry as a contractor with the Ministry of Transportation?

A12. Proof of insurance coverage is not required to register your office in RISP. However, insurance coverage will be required to meet the terms of your contract with the Ministry. Most contracts require both comprehensive and professional liability insurance coverage. The type and amount of insurance will depend on the type of consulting assignment. For more information on the Ministry's insurance requirements for contracts with the Ministry of Transportation, contact the Insurance & Bonds Officer at INSURANCEandBONDS@gov.bc.ca

