



**RETURN BIDS TO:
RETOURNER LES SOUMISSIONS À:**

**Bid Receiving - PWGSC / Réception des
soumissions - TPSGC**
11 Laurier St. / 11 rue Laurier
Place du Portage, Phase III
Core 0B2 / Noyau 0B2
Gatineau, Québec K1A 0S5
Bid Fax: (819) 997-9776

**REQUEST FOR PROPOSAL
DEMANDE DE PROPOSITION**

**Proposal To: Public Works and Government
Services Canada**

We hereby offer to sell to Her Majesty the Queen in right of Canada, in accordance with the terms and conditions set out herein, referred to herein or attached hereto, the goods, services, and construction listed herein and on any attached sheets at the price(s) set out therefor.

**Proposition aux: Travaux Publics et Services
Gouvernementaux Canada**

Nous offrons par la présente de vendre à Sa Majesté la Reine du chef du Canada, aux conditions énoncées ou incluses par référence dans la présente et aux annexes ci-jointes, les biens, services et construction énumérés ici sur toute feuille ci-annexée, au(x) prix indiqué(s).

Comments - Commentaires

THIS DOCUMENT CONTAINS A SECURITY
REQUIREMENT

Vendor/Firm Name and Address

**Raison sociale et adresse du
fournisseur/de l'entrepreneur**

Issuing Office - Bureau de distribution

Consultant Services Division/Division des services
d'experts-conseils
11 Laurier St./11 Rue Laurier
6B1, Place du Portage
Phase III
Gatineau, Québec K1A 0S5

Title - Sujet ALB Boardwalk Steel Grating Replace	
Solicitation No. - N° de l'invitation EH900-190623/A	Date 2018-07-11
Client Reference No. - N° de référence du client 20190623	
GETS Reference No. - N° de référence de SEAG PW-\$\$FE-177-75094	
File No. - N° de dossier fe177.EH900-190623	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM on - le 2018-08-22	Time Zone Fuseau horaire Eastern Daylight Saving Time EDT
F.O.B. - F.A.B. Plant-Usine: <input type="checkbox"/> Destination: <input checked="" type="checkbox"/> Other-Autre: <input type="checkbox"/>	
Address Enquiries to: - Adresser toutes questions à: Dolan, Emily	Buyer Id - Id de l'acheteur fe177
Telephone No. - N° de téléphone (873) 469-3989 ()	FAX No. - N° de FAX () -
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction: Specified Herein Précisé dans les présentes	

Instructions: See Herein

Instructions: Voir aux présentes

Delivery Required - Livraison exigée See Herein	Delivery Offered - Livraison proposée
Vendor/Firm Name and Address Raison sociale et adresse du fournisseur/de l'entrepreneur Telephone No. - N° de téléphone Facsimile No. - N° de télécopieur	
Name and title of person authorized to sign on behalf of Vendor/Firm (type or print) Nom et titre de la personne autorisée à signer au nom du fournisseur/ de l'entrepreneur (taper ou écrire en caractères d'imprimerie) Signature Date	

**THIS PROCUREMENT CONTAINS A SECURITY REQUIREMENT
REQUEST FOR PROPOSAL (RFP)**

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SUPPLEMENTARY INSTRUCTIONS TO PROPONENTS (SI)**SI1 INTRODUCTION**

1. Public Works and Government Services Canada (PWGSC) intends to retain an individual consulting firm or joint venture to provide the professional services for the project as set out in this Request for Proposal (RFP).
2. This is a selection process utilizing a Qualification Based Selection (QBS) methodology for the acquisition of Architectural and Engineering Services. The process is structured as follows:

Stage One: Technical Evaluation		
	One Phase Evaluation	
Stage Two: Project Review and Discussion		
	Step I	Refine Requirements
	Step II	Price Proposal

3. Stage One is a single phase selection process. The nature of the requirement and the anticipated limited number of response by the industry leads PWGSC to believe that this approach will not unduly force a large number of firms to expend an overall unreasonable amount of effort in response to PWGSC.
4. Proponents responding to this RFP are requested to submit a full and complete Technical Proposal in response to Stage One, exclusive of cost, to cover not only the qualifications, experience and organization of the proposed Consultant Team, but also the detailed approach to the work, and the terms offered. Following evaluation and rating of the Technical Proposals, the Highest Ranked Technical Proponent (HRTTP) is determined and remaining proponents are advised of their competitive standing. Debriefs will not be conducted until a contract is awarded.
5. HRTTP may then be invited to proceed to Stage Two, Step I, to refine requirements and to Step II, to submit a Price Proposal. At Step II, the HRTTP is expected to fully substantiate its Price Proposal. A combination of the Technical Proposal, the Record of Discussion and Price Proposal constitutes the final proposal.

SI2 PROPOSAL DOCUMENTS

1. All instructions, general terms, conditions and clauses identified in the RFP by number, date and title, are hereby incorporated by reference into and form part of this solicitation and any resultant contract.

All instructions, general terms, conditions and clauses identified in the RFP by number, date and title, are set out in the Standard Acquisition Clauses and Conditions Manual (<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual>) issued by Public Works and Government Services Canada.

2. The following are the proposal documents:
 - (a) Supplementary Instructions to Proponents (SI);
General instructions to Proponents (GI)
Submission Requirements and Evaluation (SRE);
 - (b) the general terms, conditions and clauses, as amended, identified in the Agreement clause;
 - (c) Project Brief;
 - (d) the document entitled "Doing Business with PWGSC";
 - (e) the Security Requirements Check List (SRCL);
 - (f) the technical proposal submitted at Stage One, the Declaration/Certifications Form and any amendment to the solicitation document issued prior to bid closing;
 - (g) the Record of Discussion, if any;
 - (h) the Price Proposal submitted at Stage Two.
3. Submission of a proposal constitutes acknowledgment that the Proponent has read and agrees to be bound by these documents.

SI3 QUESTIONS OR REQUEST FOR CLARIFICATION

Questions or requests for clarification during the solicitation period must be submitted in writing to the Contracting Authority named on the RFP - Page 1 as early as possible. Enquiries should be received no later than 10 working days prior to the closing date identified on the front page of the Request for Proposal.

Enquiries received after that date may not be answered prior to the closing date of the solicitation.

SI4 CANADA'S TRADE AGREEMENTS

This procurement is subject to the provisions of the North American Free Trade Agreement (NAFTA), the World Trade Organization - Agreement on Government Procurement (WTO-AGP), the Canada-European Union Comprehensive Economic and Trade Agreement (CETA), and the Canadian Free Trade Agreement (CFTA).

SI5 CERTIFICATIONS

1. Integrity Provisions – Declaration of Convicted Offences

In accordance with the Ineligibility and Suspension Policy (<http://www.tpsgc-pwgsc.gc.ca/ci-if/politique-policy-eng.html>), the Proponent must **provide with its bid, as applicable**, to be given further consideration in the procurement process, the required documentation as per General instructions to Proponents, Integrity Provisions – Proposal, **Section GI1**.

2. Federal Contractors Program for Employment Equity – Proposal Certification

By submitting a proposal, the Proponent certifies that the Proponent, and any of the Proponent's members if the Proponent is a Joint Venture, is not named on the Federal Contractors Program (FCP) for employment equity "FCP Limited Eligibility to Bid" list available at the bottom of the page of the Employment and Social Development Canada (ESDC) - Labour's website (<https://www.canada.ca/en/employment-social-development/programs/employment-equity/federal-contractor-program.html>).

Canada will have the right to declare a proposal non-responsive if the Proponent, or any member of the Proponent if the Proponent is a Joint Venture, appears on the "FCP Limited Eligibility to Bid" list at the time of contract award.

Canada will also have the right to terminate the Agreement for default if a Consultant, or any member of the Consultant if the Consultant is a Joint Venture, appears on the "FCP Limited Eligibility to Bid" list during the period of the Agreement.

The Proponent must provide the Contracting Authority with a completed Federal Contractors Program for Employment Equity - Certification (see Appendix B - Declaration/Certifications Form), before contract award. If the Proponent is a Joint Venture, the Proponent must provide the Contracting Authority with a

completed Federal Contractors Program for Employment Equity - Certification, for each member of the Joint Venture.

SI6 SECURITY REQUIREMENT

1. Before award of a contract, the following conditions must be met:
 - (a) the Proponent must hold a valid organization security clearance as indicated in Supplementary Conditions SC1;
 - (b) the Proponent's proposed individuals requiring access to classified or protected information, assets or sensitive work site(s) must meet the security requirement as indicated in Supplementary Conditions SC1;
 - (c) the Proponent must provide the name of all individuals who will require access to classified or protected information, assets or sensitive work sites.
2. Proponents are reminded to obtain the required security clearance promptly. Any delay in the award of a contract to allow the successful Proponent to obtain the required clearance will be at the entire discretion of the Contracting Authority.
3. For additional information on security requirements, proponents should refer to the Contract Security Program of Public Works and Government Services Canada (<http://www.tpsgc-pwgsc.gc.ca/esc-src/introduction-eng.html>) website.

SI7 - WEBSITES

The connection to some of the Web sites in the RFP is established by the use of hyperlinks. The following is a list of the addresses of the Web sites:

Employment Equity Act

<http://laws-lois.justice.gc.ca/eng/acts/E-5.401/index.html>

Federal Contractors Program (FCP)

<https://www.canada.ca/en/employment-social-development/programs/employment-equity/federal-contractor-program.html>

Certificate of Commitment to Implement Employment Equity form LAB 1168

<http://www.servicecanada.gc.ca/cgi-bin/search/eforms/index.cgi?app=profile&form=lab1168&dept=sc&lang=e>

Ineligibility and Suspension Policy

<http://www.tpsgc-pwgsc.gc.ca/ci-if/politique-policy-eng.html>

Code of Conduct for Procurement

<http://www.tpsgc-pwgsc.gc.ca/app-acq/cndt-cndct/contexte-context-eng.html>

Lobbying Act

<http://laws-lois.justice.gc.ca/eng/acts/L-12.4/?noCookie>

Buy and Sell

<https://buyandsell.gc.ca/>

Supplier Registration Information

<https://srisupplier.contractscanada.gc.ca>

Consultant Performance Evaluation Report Form

<http://www.tpsgc-pwgsc.gc.ca/app-acq/forms/documents/2913-1.pdf>

Canadian economic sanctions

<http://www.international.gc.ca/sanctions/index.aspx?lang=eng>

National Joint Council (NJC) Travel Directive

<http://www.njc-cnm.gc.ca/directive/travel-voyage/index-eng.php>

GENERAL INSTRUCTIONS TO PROPONENTS

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GI1 INTEGRITY PROVISIONS – PROPOSAL

1. The *Ineligibility and Suspension Policy* (the “Policy”) in effect on the date the bid solicitation is issued, and all related Directives in effect on that date, are incorporated by reference into, and form a binding part of the bid solicitation. The Proponent must comply with the Policy and Directives, which can be found at [*Ineligibility and Suspension Policy*](#).
2. Under the Policy, charges and convictions of certain offences against a Supplier, its affiliates or first tier sub-consultants, and other circumstances, will or may result in a determination by Public Works and Government Services Canada (PWGSC) that the Supplier is ineligible to enter, or is suspended from entering into a contract with Canada. The list of ineligible and suspended Suppliers is contained in PWGSC’s Integrity Database. The Policy describes how enquiries can be made regarding the ineligibility or suspension of Suppliers.

3. In addition to all other information required in the bid solicitation, the Proponent must provide the following:
 - a. by the time stated in the Policy, all information required by the Policy described under the heading “Information to be Provided when Bidding, Contracting or Entering into a Real Property Agreement”; and
 - b. with its bid, a complete list of all foreign criminal charges and convictions pertaining to itself, its affiliates and its proposed first tier sub-consultants that, to the best of its knowledge and belief, may be similar to one of the listed offences in the Policy. The list of foreign criminal charges and convictions must be submitted using an Integrity Declaration Form, which can be found at [Declaration form for procurement](#).
4. Subject to subsection 5, by submitting a bid in response to this bid solicitation, the Proponent certifies that:
 - a. it has read and understands the [Ineligibility and Suspension Policy](#);
 - b. it understands that certain domestic and foreign criminal charges and convictions, and other circumstances, as described in the Policy, will or may result in a determination of ineligibility or suspension under the Policy;
 - c. it is aware that Canada may request additional information, certifications, and validations from the Proponent or a third party for purposes of making a determination of ineligibility or suspension;
 - d. it has provided with its bid a complete list of all foreign criminal charges and convictions pertaining to itself, its affiliates and its proposed first tier sub-consultants that, to the best of its knowledge and belief, may be similar to one of the listed offences in the Policy;
 - e. none of the domestic criminal offences, and other circumstances, described in the Policy that will or may result in a determination of ineligibility or suspension, apply to it, its affiliates and its proposed first tier sub-consultants; and
 - f. it is not aware of a determination of ineligibility or suspension issued by PWGSC that applies to it.
5. Where a Proponent is unable to provide any of the certifications required by subsection 4, it must submit with its bid a completed Integrity Declaration Form, which can be found at [Declaration form for procurement](#).
6. Canada will declare non-responsive any bid in respect of which the information requested is incomplete or inaccurate, or in respect of which the information contained in a certification or declaration is found by Canada to be false or misleading in any respect. If Canada establishes after award of the Contract that the Proponent provided a false or misleading certification or declaration, Canada may terminate the Contract for default. Pursuant to the Policy, Canada may also determine the Proponent to be ineligible for award of a contract for providing a false or misleading certification or declaration.

GI2 DEFINITIONS

In this Request for Proposal (RFP), the following words or phrases have the corresponding meaning.

"Applicable Taxes":

The Goods and Services Tax (GST), the Harmonized Sales Tax (HST), and any provincial tax, by law, payable by Canada such as, the Quebec Sales Tax (QST) as of April 1, 2013.

"Consultant Team":

The team of consultants, specialists and subconsultants, including the Proponent, proposed by the Proponent to perform the services required.

"Highest Ranked Technical Proponent (H RTP)"

The responsive Proponent receiving the highest technical score at Stage One and who has not yet concluded or completed Stage Two. For clarity, the responsive Proponent receiving the highest technical score at Stage One will be considered the Highest Ranked Technical Proponent until and unless Stage Two is terminated or otherwise concluded in accordance with the terms and conditions of the RFP. If Stage Two with the Highest Ranked Technical Proponent is not successful and is otherwise terminated or concluded, the Highest Ranked Technical Proponent will become the responsive Proponent that has the highest technical score at Stage One and who has not yet participated in Stage Two.

"Key Personnel":

Staff of the Proponent, subconsultants and specialists proposed to be assigned to this project.

"Price Proposal"

The document referred to at Appendix C.

"Proponent":

The person or entity (or, in the case of a joint venture, the persons or entities) which submits a proposal. It does not include the parent, subsidiaries or other affiliates of the Proponent, or its sub-consultants.

"Proposal"

A combination of the "Technical Proposal", "Price Proposal" and the "Record of Discussion" created during the Stage Two Negotiations.

"PWGSC Evaluation Board":

The board established to evaluate and rate proposals. Board members represent a broad cross-section of professional qualifications and experience.

"Record of Discussion"

A written summary documenting the results of the discussions with respect to any aspect of the Project Brief as a result of Stage Two, Step I. Forms part of the Agreement supplemental to the Project Brief.

"Technical Proposal":

The proposal submitted at Stage One.

"Technical Rating":

A rating assigned to the technical component of a proposal in the selection procedure and subsequently used to establish the Highest Ranked Technical Proponent.

GI3 OVERVIEW OF SELECTION PROCEDURE

The following is an overview of the selection procedure.

3.1 Stage One: Technical Evaluation**1. Technical Proposal**

- a. The information that Proponents are required to provide is set out in detail elsewhere in the RFP.
- b. In response to the RFP, interested Proponents submit a technical proposal in which they:
 - i. indicate whether the technical proposal is submitted by an individual firm or by a joint venture;
 - ii. if the technical proposal is submitted by a joint venture, describe the proposed legal and working relationships of the joint venture and the benefits to be gained by the formation of the joint venture;
 - iii. identify the prime consultants and key sub consultants and specialists proposed for inclusion in the Consultant Team, and the proposed organizational structure of the Team;
 - iv. describe the extent to which proposed members of the Consultant Team have successfully performed services for projects comparable to the project which is the subject of the technical proposal;
 - v. identify the professional accreditation, experience, expertise and competence of the Consultant Team and Key Personnel proposed to be assigned to perform the required services.
 - vi. comply with all other requirements set out in the RFP.

2. Technical Proposal Evaluation and Rating

- a. All responsive technical proposals are reviewed, evaluated and rated by a Public Works and Government Services Canada (PWGSC) Evaluation Board in accordance with the criteria, components and weight factors set out in the RFP. Upon completion of the evaluation, Technical Ratings are established.

3. Total Technical Score

- a. The Proponent receiving the highest Total Technical Score is the Highest Ranked Technical Proponent and is the first entity that the PWGSC Evaluation Board will recommend for Stage Two.

3.2 Stage Two: Project Review and Discussion

After Stage One, if Canada decides to proceed with Stage Two, the H RTP will receive a written invitation from the Contracting Authority to proceed to Stage Two, which involves discussions to refine the requirement in Stage Two, Step I, and the submission of a price proposal in Stage Two, Step II.

1. Terms of Engagement for Stage Two

- a. Prior to the commencement of Stage Two, the H RTP must ensure their authorized representatives participating in Stage Two agree to the processes described herein, and must complete and submit Appendix H - Non-Disclosure Agreement (NDA) to the Contracting Authority signed by each authorized representative participating on their behalf.
- b. Canada will not reimburse the H RTP, any person or entity for any cost incurred in participating in Stage Two including but not limited to travel costs.
- c. The H RTP must not reveal, discuss or disclose any information to the media regarding the procurement, except to confirm publicly available information. If the H RTP receives a question from the media related to non-public information on the procurement, they must direct the media to contact the PWGSC Media Relations Office at 819-956-2315.
- d. Certifications – Compliance: The continuous compliance with the certifications provided by the H RTP in its response to the RFP and the ongoing cooperation in providing associated information are conditions of maintaining H RTP status. Certifications are subject to verification by Canada during the entire evaluation. If the H RTP does not comply with any certification, fails to provide the associated information, or if it is determined that any certification made by the H RTP is untrue, whether made knowingly or unknowingly, Canada has the right to terminate the H RTP's status, and proceed to the next highest technically rated proponent.

2. Stage Two, Step I – Refine Requirements

- a. Once the H RTP has been identified by Canada, if Canada decides to proceed with the next step, the H RTP will receive a written invitation from the Contracting Authority to enter into discussions to refine the Project Brief. Canada may discuss any aspect of the H RTP's Proposal including work plan, scheduling, and other project related issues. Canada may consider any aspect of the Proposal, including innovative ideas and alternative approaches, which may reduce initial or future costs related to the project. Other factors that can affect the design may also be identified.
- b. It is expected that Stage Two, Step I will conclude within 30 days of notification to the H RTP, or any such period as Canada deems reasonable. In the event Stage Two, Step I exceeds 30 days, Canada, in its sole discretion may terminate said discussions and commence Stage Two with the next highest technically

rated proponent. A Proponent invited to participate in Stage Two should, therefore, be prepared to provide requested information in a timely fashion and to conduct discussions expeditiously.

- c. These discussions shall not substantially alter the original scope of services as described in the Project Brief or affect the terms of the contract. The result of these discussions shall be incorporated in a "Record of Discussion" which will form part of the contract.
- d. If the final scope of services is agreed to and documented under the Record of Discussion, Canada and the H RTP will proceed to Stage Two, Step II for substantiation of Price Proposal.
- e. Canada reserves the right to discuss price during Step I, similarly, proceeding to Step II does not prevent Canada from further refining the scope of services.

3. Stage Two, Step II –Price Proposal

- a. After the successful conclusion of Stage Two, Step I, the H RTP is to develop and submit a detailed price proposal to Canada within a time frame specified in writing by the Contracting Authority. Failure to meet this deadline may result in the bid being declared non-responsive. The detailed price proposal shall include the completed Appendix "C", a detailed explanation of fees and should include supporting documentation or justification to allow Canada to determine the fairness and reasonableness of the price proposal.
- b. It is expected that Stage Two, Step II will conclude within 30 days of notification to the H RTP, or any such period as Canada deems reasonable. In the event Stage Two, Step I exceeds 30 days, Canada, in its sole discretion may terminate said discussions and commence Stage Two with the next highest technically rated proponent.
- c. By submitting their price proposal, the H RTP certifies that the price proposed:
 - i. is not in excess of the lowest price charged anyone else, including the Proponent's most favoured customer, for the like quality and quantity of the goods, services or both;
 - ii. does not include an element of profit on the sale in excess of that normally obtained by the Proponent on the sale of goods, services or both of like quality and quantity; and
 - iii. does not include any provision for discounts to selling agents.
- d. Canada may request additional information and documentation to further justify the fees submitted in the detailed price proposal in accordance with one or more of the following price justifications:
 - i. A current published price list indicating the percentage discount available to Canada;

- ii. A copy of paid invoices for the like quality and quantity of the goods, services or both sold to other customers;
 - iii. A price breakdown showing the cost of direct labour, direct materials, purchased items, engineering and plant overheads, general and administrative overhead, transportation, etc., and profit; and
 - iv. Any other supporting documentation as requested by Canada.
- e. In addition to seeking documentation from the H RTP as outlined above, Canada may consult a variety of industry guidelines as part of its assessment of the proposed fees. These could include but not be limited to the following:
 - i. Association des firmes de génie-conseil du Québec Schedule of Fees 2015-2016 edition
[http://www.afg.quebec/uploads/AFG_Bareme_honoraires_2015_EN.pdf]
 - ii. Ontario Society of Professional Engineers (OSPE) Fee Guideline 2015
[<https://www.ospe.on.ca/public/documents/general/2015-fee-guideline.pdf>]
 - iii. The Royal Architectural Institute of P SPC © 2009_A Guide to Determining Appropriate Fees for the Services of an Architect
[[https://www.mbarchitects.org/docs/guide_architectservicefees\(e\).pdf](https://www.mbarchitects.org/docs/guide_architectservicefees(e).pdf)]
- f. After receiving the detailed price proposal submitted in accordance with a., above, Canada may:
 - i. accept the price proposal as submitted; or
 - ii. enter into negotiations with respect to some or all aspects of the price proposal.
- g. When negotiating in accordance with Stage Two, Step II, f., Canada, at its sole discretion, will determine best value for Canada and may take into consideration all relevant factors relating to the project and services, including, but not limited to, the complexity of the work, the services requested, and the level of the expertise of the Consultant Team.
- h. The parties will have a binding Agreement on the terms and conditions specified in this solicitation, more specifically at section 1. Agreement, when:
 - i. Canada confirms in writing acceptance of the price proposal as per e. i., above; or
 - ii. both parties confirm in writing acceptance of a price proposal revised through the negotiations contemplated at e. i. and f., above.

No legal relationship or obligation regarding the procurement of any services will be created between the H RTP and Canada by this procurement process until the

written confirmation of the acceptance of the price proposal as per i. or ii., above, has been received.

- i. In the event that Canada, in its sole discretion, deems Stage Two with the H RTP to have failed, Canada will inform the H RTP in writing of all pending issues and disagreements, and provide them a final opportunity to respond in writing within a timeframe prescribed by Canada. If the response is not acceptable to Canada, in its sole discretion, Canada shall inform the H RTP in writing of termination of Stage Two and that their Proposal will receive no further consideration. Canada will then invite the next highest technically rated proponent to participate in Stage Two defined above. Once Stage Two have commenced with the next ranked proponent, Canada shall not reopen discussions with the previous H RTP.
- j. Without limiting Canada's rights set out in GI19 Acceptance of Proposal, at any time and in its sole discretion, Canada may choose to cancel the solicitation and not enter into a contract with any of the Proponents.

3.3 Notification

PWGSC normally expects to advise in writing unsuccessful Proponents within one week after PWGSC has entered into a contractual arrangement with the successful Proponent.

GI4 PROCUREMENT BUSINESS NUMBER

Proponents are required to have a Procurement Business Number (PBN) before contract award. Proponents may register for a PBN online at [Supplier Registration Information](#). For non-Internet registration, Proponents may contact the InfoLine at 1-800-811-1148 to obtain the telephone number of the nearest Supplier Registration Agent.

GI5 RESPONSIVE PROPOSALS

To be considered responsive, a proposal must meet all of the mandatory requirements set out in the RFP. No further consideration in the selection procedure will be given to a Proponent submitting a non-responsive proposal.

GI6 COMPLETION OF SUBMISSION

The Proponent shall base the proposal on the applicable proposal documents listed in the Supplementary Instructions to Proponents.

GI7 PROPOSAL PRICE

Unless specified otherwise elsewhere in the proposal documents:

- a. the price proposal shall be in Canadian currency, and
 - b. the price proposal shall not include any amount for Applicable Taxes, and
 - c. the requirement does not offer exchange rate fluctuation risk mitigation.
- Requests for exchange rate fluctuation risk mitigation will not be considered. All proposals including such provision will render the proposal non-responsive.

GI8 COMMUNICATIONS – SOLICITATION PERIOD

To ensure the integrity of the competitive bid process, enquiries and other communications regarding the RFP must be directed only to the Contracting Authority identified in the RFP. Failure to comply with this requirement may result in the proposal being declared non-responsive.

To ensure consistency and quality of information provided to proponents, significant enquiries received and their replies will be posted on the Government Electronic Tendering Service (GETS).

GI9 LIMITATION OF SUBMISSIONS

1. A Proponent may not submit more than one Technical Proposal. This limitation also applies to the persons or entities in the case of a joint venture. If more than one proposal is received from a Proponent (or, in the case of a joint venture, from the persons or entities), all such proposals shall be rejected and no further consideration shall be given.
2. A joint venture is defined as an association of two or more parties which combine their money, property, knowledge, skills, time or other resources in a joint business enterprise agreeing to share the profits and the losses and each having some degree of control over the enterprise.
3. An arrangement whereby Canada contracts directly with a prime consultant who may retain sub-consultants or specialist consultants to perform portions of the services is not a joint venture arrangement. A sub-consultant or specialist consultant may, therefore, be proposed as part of the Consultant Team by more than one Proponent. The Proponent warrants that it has written permission from such sub-consultant or specialist consultant to propose their services in relation to the services to be performed.
4. Notwithstanding paragraph 3. above, in order to avoid any conflict of interest, or any perception of conflict of interest, a Proponent shall not include in its submission another Proponent as a member of its consultant team, as a sub-consultant or specialist consultant.
5. Any joint venture entered into for the provision of professional services or other services must be in full compliance with the requirements of any provincial or territorial law pertaining thereto in the Province or Territory in which the project is located.

GI10 LICENSING REQUIREMENTS

1. Consultant Team members and Key Personnel shall be, or be eligible to be licensed, certified or otherwise authorized to provide the necessary professional services to the full extent that may be required by provincial or territorial law in the Provinces or Territories in which the project is located.
2. By virtue of submission of a proposal, the Proponent certifies that the Proponent's Consultant Team and Key Personnel are in compliance with the requirements of subsection 1 above. The Proponent acknowledges that PWGSC reserves the right to verify any information in this regard and that false or erroneous certification may result in the proposal being declared non-responsive.

GI11 REJECTION OF PROPOSAL

1. Canada may reject a proposal where any of the following circumstances is present:
 - a. the Proponent has been declared ineligible for selection, following unsatisfactory performance in a previous project as determined in accordance with the department's performance review procedures;
 - b. an employee, sub-consultant or specialist consultant included as part of the proposal has been declared ineligible, for selection for work with the department in accordance with the performance review procedure referred to in paragraph 1.(a), which would render the employee, sub-consultant or specialist consultant ineligible to bid on the requirement, or the portion of the requirement the employee, sub-consultant or specialist consultant is to perform;
 - c. the Proponent is bankrupt or where, for whatever reason, its activities are rendered inoperable for an extended period;
 - d. evidence, satisfactory to Canada, of fraud, bribery, fraudulent misrepresentation or failure to comply with any law protecting individuals against any manner of discrimination, has been received with respect to the Proponent, any of its employees, any sub-consultant or any specialist consultant included as part of the proposal;
 - e. evidence, satisfactory to Canada, has been received that based on past conduct or behavior, the Proponent, a sub-consultant, a specialist consultant or a person who is to perform the Services is unsuitable or has conducted himself/herself improperly;
 - f. with respect to current or prior transactions with the Government of Canada,
 - i. Canada has exercised its contractual remedies of taking the services out of the consultant's hands or termination for default with respect to a contract with the Proponent, any of its employees, any sub-consultant or any specialist consultant included as part of the proposal;

- ii. Canada determines that the Proponent's performance on other contracts, including the quality of the services provided and the quality and timeliness of the delivery of the project, is sufficiently poor to jeopardize the successful completion of the requirement being bid on.
2. Where Canada intends to reject a proposal pursuant to subsection 1.(f), the Contracting Authority will so inform the Proponent and provide the Proponent ten (10) days within which to make representations, before making a final decision on the proposal rejection.

GI12 NOT APPLICABLE

GI13 INSURANCE REQUIREMENTS

The successful Proponent shall be required to obtain and maintain Professional Liability and Commercial General Liability insurance coverage in accordance with the requirements set out elsewhere in the proposal documents.

GI14 JOINT VENTURE

1. A joint venture is an association of two or more parties who combine their money, property, knowledge, expertise or other resources in a single joint business enterprise, sometimes referred as a consortium, to bid together on a requirement. Proponents who bid as a joint venture should indicate clearly that it is a joint venture and provide the following information:
 - a. the name of each member of the joint venture;
 - b. the Procurement Business Number of each member of the joint venture;
 - c. the name of the representative of the joint venture, i.e. the member chosen by the other members to act on their behalf, if applicable; and
 - d. the name of the joint venture, if applicable.
2. If the information is not clearly provided in the proposal, the Proponent must provide the information on request from the Contracting Authority.
3. The proposal and any resulting contract must be signed by all the members of the joint venture unless one member has been appointed to act on behalf of all members of the joint venture and such member has been clearly identified in accordance with 1 c., above. The Contracting Authority may, at any time, require each member of the joint venture to confirm that the representative has been appointed with full authority to act as its representative for the purposes of the bid solicitation and any resulting contract. If a contract is awarded to a joint venture, all members of the joint venture will be jointly and severally or solidarily liable for the performance of any resulting contract.

GI15 COMPOSITION OF CONSULTANT TEAM

By submitting a proposal, the Proponent represents and warrants that the entities and persons proposed in the proposal to perform the required services will be the entities and persons that will perform the services in the fulfillment of the project under any contractual arrangement arising from submission of the proposal. If the Proponent has proposed any person in fulfillment of the project who is not an employee of the Proponent, the Proponent warrants that it has written permission from such person (or the employer of such person) to propose the services of such person in relation to the services to be performed.

GI16 SUBMISSION OF PROPOSAL

1. Canada requires that each Phase One proposal, at closing date and time or upon request from the Contracting Authority, be signed by the Proponent or by an authorized representative of the Proponent. If a proposal is submitted by a joint venture, it must be in accordance with section GI14.
2. It is the Proponent's responsibility to:
 - a. submit a proposal, duly completed, in the format requested, on or before the closing date and time set;
 - b. send its proposal only to Public Works and Government Services Canada (PWGSC) Bid Receiving Unit specified on page 1 of the RFP;
 - c. obtain clarification of the requirements contained in the RFP, if necessary, before submitting a proposal;
 - d. ensure that the Proponent's name, return address, the solicitation number and description, and solicitation closing date and time are clearly visible on the envelope or the parcel(s) containing the proposal; and
 - e. provide a comprehensive and sufficiently detailed proposal that will permit a complete evaluation in accordance with the criteria set out in this RFP.
3. The technical proposal must be submitted in an easily identified envelope in accordance with the instructions contained in the proposal documents. The envelope shall be submitted as a package which shall clearly and conspicuously display and indicate on the outside of the package the information identified in subsection 2.(d) above.
4. Timely and correct delivery of proposals to the office designated for receipt of proposals is the sole responsibility of the Proponent. PWGSC will not assume or have transferred to it those responsibilities. All risks and consequences of incorrect delivery of proposals are the responsibility of the Proponent.
5. Proposals and supporting information may be submitted in either English or French.
6. Canada will make available Notices of Proposed Procurement (NPP), bid solicitations and related documents for download through the Government

Electronic Tendering Service (GETS). Canada is not responsible and will not assume any liabilities whatsoever for the information found on websites of third parties. In the event an NPP, bid solicitation or related documentation would be amended, Canada will not be sending notifications. Canada will post all amendments using GETS. It is the sole responsibility of the Proponent to regularly consult GETS for the most up-to-date information. Canada will not be liable for any oversight on the Proponent's part nor for notification services offered by a third party.

GI17 LATE SUBMISSIONS

Stage One submissions delivered after the stipulated closing date and time will be returned unopened.

GI18 REVISION OF PHASE ONE PROPOSAL

A proposal submitted may be amended by letter or facsimile provided the revision is received at the office designated for the receipt of proposals, on or before the date and time set for the receipt of proposals. The revision must be on the Proponent's letterhead or bear a signature that identifies the Proponent, and must clearly identify the change(s) to be applied to the original proposal. The revision must also include the information identified in GI16.2(d).

GI19 ACCEPTANCE OF PROPOSAL

1. Canada may accept any proposal, or may reject any or all proposals.
2. In the case of error in the extension or addition of unit prices, the unit price will govern.
3. While Canada may enter into an agreement or contractual arrangement without prior negotiation, Canada reserves the right to negotiate with Proponents on any procurement.
4. Canada reserves the right to cancel or amend the RFP at any time.
5. Canada is under no obligation to proceed to Stage Two.

GI20 LEGAL CAPACITY

The Proponent must have the Legal capacity to contract. If the Proponent is a sole proprietorship, a partnership or a corporate body, the Proponent must provide, if requested by the Contracting Authority, a statement and any requested supporting documentation indicating the laws under which it is registered or incorporated together with the registered or corporate name and place of business. This also applies to Proponents submitting a proposal as a joint venture.

GI21 DEBRIEFING

Should a Proponent desire a debriefing, the Proponent should contact the person identified on the front page of the RFP within 15 working days of the notification of the results of the solicitation. The debriefing will include an outline of the strengths and weaknesses of the submission, referring to the evaluation criteria. The confidentiality of information relating to other submissions will be protected. The debriefing may be provided in writing, by telephone or in person.

GI22 FINANCIAL CAPABILITY

1. Financial capability Requirement: The Proponent must have the financial capability to fulfill this requirement. To determine the Proponent's financial capability, the Contracting Authority may, by written notice to the Proponent, require the submission of some or all of the financial information detailed below during the evaluation of proposals. The Proponent must provide the following information to the Contracting Authority within fifteen (15) working days of the request or as specified by the Contracting Authority in the notice:
 - a. Audited financial statements, if available, or the unaudited financial statements (prepared by the Proponent's outside accounting firm, if available, or prepared in-house if no external statements have been prepared) for the Proponent's last three fiscal years, or for the years that the Proponent has been in business if this is less than three years (including, as a minimum, the Balance Sheet, the Statement of Retained Earnings, the Income Statement and any notes to the statements).
 - b. If the date of the financial statements in (a) above is more than five months before the date of the request for information by the Contracting Authority, the Proponent must also provide, unless this is prohibited by legislation for public companies, the last quarterly financial statements (consisting of a Balance Sheet and a year-to-date Income Statement), as of two months before the date on which the Contracting Authority requests this information.
 - c. If the Proponent has not been in business for at least one full fiscal year, the following must be provided:
 - i. the opening Balance Sheet on commencement of business (in the case of a corporation, the date of incorporation); and
 - ii. the last quarterly financial statements (consisting of a Balance Sheet and a year-to-date Income Statement) as of two months before the date on which the Contracting Authority requests this information.
 - d. A certification from the Chief Financial Officer or an authorized signing officer of the Proponent that the financial information provided is complete and accurate.
 - e. A confirmation letter from all of the financial institution(s) that have provided short-term financing to the Proponent outlining the total of lines

of credit granted to the Proponent and the amount of credit that remains available and not drawn upon as of one month prior to the date on which the Contracting Authority requests this information.

- f. A detailed monthly Cash Flow Statement covering all the Proponent's activities (including the requirement) for the first two years of the requirement that is the subject of the bid solicitation, unless this is prohibited by legislation. This statement must detail the Proponent's major sources and amounts of cash and the major items of cash expenditures on a monthly basis, for all the Proponent's activities. All assumptions made should be explained as well as details of how cash shortfalls will be financed.
 - g. A detailed monthly Project Cash Flow Statement covering the first two years of the requirement that is the subject of the bid solicitation, unless this is prohibited by legislation. This statement must detail the Proponent's major sources and amounts of cash and the major items of cash expenditures, for the requirement, on a monthly basis. All assumptions made should be explained as well as details of how cash shortfalls will be financed.
2. If the Proponent is a joint venture, the financial information required by the Contracting Authority must be provided by each member of the joint venture.
 3. If the Proponent is a subsidiary of another company, then any financial information in 1. (a) to (e) above required by the Contracting Authority must be provided by the ultimate parent company. Provision of parent company financial information does not by itself satisfy the requirement for the provision of the financial information of the Proponent, and the financial capability of a parent cannot be substituted for the financial capability of the Proponent itself unless an agreement by the parent company to sign a Parental Guarantee, as drawn up by Public Works and Government Services Canada (PWGSC), is provided with the required information.
 4. Financial Information Already Provided to PWGSC: The Proponent is not required to resubmit any financial information requested by the Contracting Authority that is already on file at PWGSC with the Contract Cost Analysis, Audit and Policy Directorate of the Policy, Risk, Integrity and Strategic Management Sector, provided that within the above-noted time frame:
 - a. the Proponent identifies to the Contracting Authority in writing the specific information that is on file and the requirement for which this information was provided; and
 - b. the Proponent authorizes the use of the information for this requirement.

It is the Proponent's responsibility to confirm with the Contracting Authority that this information is still on file with PWGSC.

5. Other Information: Canada reserves the right to request from the Proponent any other information that Canada requires to conduct a complete financial capability assessment of the Proponent.

6. Confidentiality: If the Proponent provides the information required above to Canada in confidence while indicating that the disclosed information is confidential, then Canada will treat the information in a confidential manner as permitted by the [Access to Information Act](#), R.S., 1985, c. A-1, section 20(1) (b) and (c).
7. Security: In determining the Proponent's financial capability to fulfill this requirement, Canada may consider any security the Proponent is capable of providing, at the Proponent's sole expense (for example, an irrevocable letter of credit from a registered financial institution drawn in favour of Canada, a performance guarantee from a third party or some other form of security, as determined by Canada).
8. In the event that a proposal is found to be non-compliant on the basis that the Proponent is considered not to be financially capable of performing the subject requirement, official notification shall be provided to the Proponent.

GI23 PERFORMANCE EVALUATION

Proponents shall take note that the performance of the Consultant during and upon completion of the services shall be evaluated by Canada. The evaluation includes all or some of the following criteria: Design, Quality of Results, Management, Time and Cost. Should the Consultant's performance be considered unsatisfactory, the Consultant may be declared ineligible for future contracts. The form [PWGSC-TPSGC 2913-1](#), SELECT - Consultant Performance Evaluation Report, will be used to record the performance.

GI24 PROPOSAL COSTS

No payment will be made for costs incurred in the preparation and submission of a proposal in response to the Request for proposal. Costs associated with preparing and submitting a proposal, as well as any costs incurred by the Proponent associated with the evaluation of the proposal, are the sole responsibility of the Proponent.

GI25 CONFLICT OF INTEREST—UNFAIR ADVANTAGE

1. In order to protect the integrity of the procurement process, Proponents are advised that Canada may reject a proposal in the following circumstances:
 - a. if the Proponent, any of its sub-consultants, any of their respective employees or former employees was involved in any manner in the preparation of the bid solicitation or in any situation of conflict of interest or appearance of conflict of interest;
 - b. if the Proponent, any of its sub-consultants, any of their respective employees or former employees had access to information related to the bid solicitation that was not available to other Proponents and that would, in Canada's opinion, give or appear to give the Proponent an unfair advantage.

2. The experience acquired by a Proponent who is providing or has provided the goods and services described in the bid solicitation (or similar goods or services) will not, in itself, be considered by Canada as conferring an unfair advantage or creating a conflict of interest. This Proponent remains however subject to the criteria established above.
3. Where Canada intends to reject a proposal under this section, the Contracting Authority will inform the Proponent and provide the Proponent an opportunity to make representations before making a final decision. Proponents who are in doubt about a particular situation should contact the Contracting Authority before bid closing. By submitting a proposal, the Proponent represents that it does not consider itself to be in conflict of interest nor to have an unfair advantage. The Proponent acknowledges that it is within Canada's sole discretion to determine whether a conflict of interest, unfair advantage or an appearance of conflict of interest or unfair advantage exists.

GI26 LIMITATION OF LIABILITY

Except as expressly and specifically permitted in this RFP, no Proponent or potential Proponent shall have any claim for any compensation of any kind whatsoever in relation to this RFP, or any aspect of the procurement process, and by submitting a proposal each Proponent shall be deemed to have agreed that it has no claim.

GI27 CODE OF CONDUCT FOR PROCUREMENT—PROPOSAL

The [*Code of Conduct for Procurement*](#) provides that Proponents must respond to bid solicitations in an honest, fair and comprehensive manner, accurately reflect their capacity to satisfy the requirements set out in the bid solicitation and resulting contract, submit bids and enter into contracts only if they will fulfill all obligations of the Contract. By submitting a bid, the Proponent is certifying that it is complying with the *Code of Conduct for Procurement*. Failure to comply with the *Code of Conduct for Procurement* may render the bid non-responsive.

TERMS, CONDITIONS AND CLAUSES

AGREEMENT

1. The Consultant understands and agrees that upon acceptance of the offer by Canada, a binding Agreement shall be formed between Canada and the Consultant and the documents forming the Agreement shall be the following:
 - (a) the Front Page and this Agreement clause;
 - (b) the General Terms, Conditions and Clauses, as amended, identified as:
 - R1210D (2017-08-17), General Condition (GC) 1 - General Provisions – Architectural and/or Engineering Services
 - R1215D (2016-01-28), General Condition (GC) 2 - Administration of the Contract – Architectural and/or Engineering Services
 - R1220D (2015-02-25), General Condition (GC) 3 - Consultant Services
 - R1225D (2015-04-01), General Condition (GC) 4 - Intellectual Property
 - R1230D (2016-01-28), General Condition (GC) 5 - Terms of Payment – Architectural and/or Engineering Services
 - R1235D (2011-05-16), General Condition (GC) 6 - Changes
 - R1240D (2011-05-16), General Condition (GC) 7 - Taking the Services Out of the Consultant's Hands, Suspension or Termination
 - R1245D (2016-01-28), General Condition (GC) 8 - Dispute Resolution – Architectural and/or Engineering Services
 - R1250D (2017-11-28) R1650D (2017-11-28), General Condition (GC) 9 - Indemnification and Insurance
 - Supplementary Conditions
 - Agreement Particulars
 - (c) Project Brief;
 - (d) the document entitled "Doing Business with PWGSC";
 - (e) the Security Requirements Check List (SRCL);
 - (f) any amendment to the solicitation document incorporated in the Agreement before the date of the Agreement;
 - (g) Record of Discussion
 - (h) the proposal, the Declaration/Certifications Form and the Price Proposal Form.
2. The documents identified above by title, number and date are hereby incorporated by reference into and form part of this Agreement, as though expressly set out herein, subject to any other express terms and conditions herein contained.

The documents identified above by title, number and date are set out in the Standard Acquisition Clauses and Conditions (SACC) Manual, issued by Public Works and Government Services Canada (PWGSC). The SACC Manual is

available on the PWGSC Web site: <https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual>

3. If there is a discrepancy between the wording of any documents that appear on the following list, the wording of the document that first appears on the list has priority over the wording of any document that subsequently appears on the list.
 - (a) any amendment or variation in the Agreement that is made in accordance with the terms and conditions of the Agreement;
 - (b) any amendment to the solicitation document incorporated in the Agreement before the date of the Agreement;
 - (c) this Agreement clause;
 - (d) Supplementary Conditions;
 - (e) General Terms, Conditions and Clauses;
 - (f) Agreement Particulars;
 - (g) Record of Discussion;
 - (h) Project Brief;
 - (i) the document entitled “Doing Business with National Capital Area”;
 - (j) the document entitled “**Security Requirement Check List**”;
 - (k) the proposal

SUPPLEMENTARY CONDITIONS (SC)

SC1 SECURITY REQUIREMENT

1. The following security requirement (SRCL and related clauses) applies and form part of the Agreement.

SECURITY REQUIREMENT FOR CANADIAN SUPPLIER: PWGSC FILE N° EH900-190623

1. The Contractor/Offeror **must**, at all times during the performance of the Contract/Standing Offer, hold a valid Designated Organization Screening (**DOS**), issued by the Canadian Industrial Security Directorate (CISD), **Public Works and Government Services Canada (PWGSC)**.
2. The Contractor/Offeror personnel requiring access to **PROTECTED** information, assets or sensitive work site(s) **must** EACH hold a valid **RELIABILITY STATUS**, granted or approved by CISD/**PWGSC**. Until the security screening of the Contractor personnel required by this Contract has been completed satisfactorily by CISD/PWGSC, the Contractor/ personnel MAY NOT HAVE ACCESS to PROTECTED information or assets, and MAY NOT ENTER sites where such information or assets are kept, without an escort.

3. The Contractor/Offeror **MUST NOT** remove any **PROTECTED** information or assets from the identified work site(s), and the Contractor/Offeror **must** ensure that its personnel are made aware of and comply with this restriction.
4. Subcontracts which contain security requirements are **NOT** to be awarded without the prior written permission of CISC/**PWGSC**.
5. The Contractor/Offeror **must** comply with the provisions of the:
 - a) Security Requirements Check List and security guide (if applicable), attached at Appendix E;
 - b) Industrial Security Manual (Latest Edition).

Note: For clarity, the words Contractor/Offeror will be replaced with Consultant.

SC2 LANGUAGE REQUIREMENTS

1. Communication between Canada and the Consultant shall be in the language of choice of the Consultant Team, which shall be deemed to be the language of the Consultant's proposal.
2. The Consultant's services during construction tender call (such as addenda preparation, tenderers' briefing meetings, technical answers to questions by bidders, including translation of bidder's questions) shall be provided expeditiously in both languages, as necessary.
3. The Consultant's services during construction shall be provided in the language of choice of the Contractor. The successful Contractor will be asked to commit to one or other of Canada's official languages upon award of the Construction Contract and, thereafter construction and contract administration services will be conducted in the language chosen by the Contractor.
4. Other required services in both of Canada's official languages (such as construction documentation) are described in detail in the Project Brief.
5. The Consultant Team, including the Prime Consultant, Sub-Consultants and Specialists Consultants shall ensure that the services being provided in either language shall be to a professional standard.

SC3 FEDERAL CONTRACTORS PROGRAM FOR EMPLOYMENT EQUITY - DEFAULT BY THE CONSULTANT

The Consultant understands and agrees that, when an Agreement to Implement Employment Equity (AIEE) exists between the Consultant and Employment and Social Development Canada (ESDC)-Labour, the AIEE must remain valid during the entire

period of the contract. If the AIEE becomes invalid, the name of the Consultant will be added to the "FCP Limited Eligibility to Bid" list. The imposition of such a sanction by ESDC will constitute the Consultant in default as per the terms of the contract.

AGREEMENT PARTICULARS

The Agreement Particulars will be issued at time of award of contract and will identify the fee to be paid to the Consultant for the services determined in the Price Proposal Form.

APPENDIX A - TEAM IDENTIFICATION FORMAT

For details on this format, please see SRE in the Request For Proposal.

The Prime Consultant and other members of the Consultant Team shall be, or eligible to be, licensed, certified or otherwise authorized to provide the necessary professional services to the full extent that may be required by provincial or territorial law.

I. Prime Consultant (Proponent – Bridge Engineer):

Firm or Joint Venture Name:

.....

.....

Key Individuals and provincial professional licensing status and/or professional accreditation:

.....

.....

.....

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II. Key Sub Consultants / Specialists:

Seismic Analysis Engineer

Firm Name:

.....

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Key Individuals and provincial professional licensing status and/or professional accreditation:

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Transportation engineer

Firm Name:
.....
.....

Key Individuals and provincial professional licensing status and/or professional accreditation:

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Wind Loads Analysis Engineer

Firm Name:
.....
.....

Key Individuals and provincial professional licensing status and/or professional accreditation:

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APPENDIX B - DECLARATION/CERTIFICATIONS FORM

Project Title:

Name of Proponent:

Street Address:

Mailing Address:

Telephone Number: ()

Fax Number: ()

E-Mail:

Procurement Business Number:

Type of Organization: _____ Sole Proprietorship _____ Partnership _____ Corporation _____ Joint Venture	Size of Organization: Number of Employees _____ Graduate Architects / Professional Engineers _____ Other Professionals _____ Technical Support _____ Other _____
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APPENDIX B - DECLARATION/CERTIFICATIONS FORM (CONT'D)

Federal Contractors Program for Employment Equity - Certification

I, the Proponent, by submitting the present information to the Contracting Authority, certify that the information provided is true as of the date indicated below. The certifications provided to Canada are subject to verification at all times. I understand that Canada will declare a proposal non-responsive, or will declare a consultant in default, if a certification is found to be untrue, whether during the proposal evaluation period or during the contract period. Canada will have the right to ask for additional information to verify the Proponent's certifications. Failure to comply with any request or requirement imposed by Canada may render the proposal non-responsive or constitute a default under the contract.

For further information on the Federal Contractors Program for Employment Equity visit Employment and Social Development Canada (ESDC)-Labour's website.

Date: _____ (YY/MM/DD) (If left blank, the date will be deemed to be the bid closing date.)

Complete both A and B.

A. Check only one of the following:

- ☐ A1. The Proponent certifies having no work force in Canada.
- ☐ A2. The Proponent certifies being a public sector employer.
- ☐ A3. The Proponent certifies being a federally regulated employer being subject to the *Employment Equity Act*.
- ☐ A4. The Proponent certifies having a combined work force in Canada of less than 100 permanent full-time and/or permanent part-time employees.
- A5. The Proponent has a combined work force in Canada of 100 or more employees;
and
 - ☐ A5.1. The Proponent certifies already having a valid and current Agreement to Implement Employment Equity (AIEE) in place with ESDC-Labour.

OR

APPENDIX B
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- () A5.2. The Proponent certifies having submitted the Agreement to Implement Employment Equity (LAB1168) to ESDC-Labour. As this is a condition to contract award, proceed to completing the form Agreement to

APPENDIX B - DECLARATION/CERTIFICATIONS FORM (CONT'D)

Implement Employment Equity (LAB1168), duly signing it, and transmit it to ESDC-Labour.

B. Check only one of the following:

- () B1. The Proponent is not a Joint Venture.

OR

- () B2. The Proponent is a Joint Venture and each member of the Joint Venture must provide the Contracting Authority with a completed Federal Contractors Program for Employment Equity - Certification. (Refer to the Joint Venture section of the General Instructions)

APPENDIX B - DECLARATION/CERTIFICATIONS FORM (CONT'D)

Former Public Servant (FPS) - Certification

Contracts awarded to former public servants (FPS) in receipt of a pension or of a lump sum payment must bear the closest public scrutiny, and reflect fairness in the spending of public funds. In order to comply with Treasury Board policies and directives on contracts awarded to FPS, proponents must provide the information required below before contract award. If the answer to the questions and, as applicable the information required have not been received by the time the evaluation of proposals is completed, Canada will inform the Proponent of a time frame within which to provide the information. Failure to comply with Canada's request and meet the requirement within the prescribed time frame will render the proposal non-responsive.

Definitions

For the purposes of this clause,

"former public servant" is any former member of a department as defined in the *Financial Administration Act*, R.S., 1985, c. F-11, a former member of the Canadian Armed Forces or a former member of the Royal Canadian Mounted Police. A former public servant may be:

- (a) an individual;
- (b) an individual who has incorporated;
- (c) a partnership made of former public servants; or
- (d) a sole proprietorship or entity where the affected individual has a controlling or major interest in the entity.

"lump sum payment period" means the period measured in weeks of salary, for which payment has been made to facilitate the transition to retirement or to other employment as a result of the implementation of various programs to reduce the size of the Public Service. The lump sum payment period does not include the period of severance pay, which is measured in a like manner.

"pension" means a pension or annual allowance paid under the *Public Service Superannuation Act* (PSSA), R.S., 1985, c.P-36, and any increases paid pursuant to the *Supplementary Retirement Benefits Act*, R.S., 1985, c.S-24 as it affects the PSSA. It does not include pensions payable pursuant to the *Canadian Forces Superannuation Act*, R.S., 1985, c.C-17, the *Defence Services Pension Continuation Act*, 1970, c.D-3, the *Royal Canadian Mounted Police Pension Continuation Act*, 1970, c.R-10, and the *Royal Canadian Mounted Police Superannuation Act*, R.S., 1985, c.R-11, the *Members*

of *Parliament Retiring Allowances Act*, R.S., 1985, c.M-5, and that portion of pension payable to the *Canada Pension Plan Act*, R.S., 1985, c.C-8.

Former Public Servant in Receipt of a Pension

As per the above definitions, is the Proponent a FPS in receipt of a pension?
YES () NO ()

If so, the Proponent must provide the following information, for all FPS in receipt of a pension, as applicable:

- (a) name of former public servant;
- (b) date of termination of employment or retirement from the Public Service.

By providing this information, proponents agree that the successful Proponent's status, with respect to being a former public servant in receipt of a pension, will be reported on departmental websites as part of the published proactive disclosure reports in accordance with Contracting Policy Notice: 2012-2 and the Guidelines on the Proactive Disclosure of Contracts.

Work Force Adjustment Directive

Is the Proponent a FPS who received a lump sum payment pursuant to the terms of a work force reduction program? YES () NO ()

If so, the Proponent must provide the following information:

- (a) name of former public servant;
- (b) conditions of the lump sum payment incentive;
- (c) date of termination of employment;
- (d) amount of lump sum payment;
- (e) rate of pay on which lump sum payment is based;
- (f) period of lump sum payment including start date, end date and number of weeks;
- (g) number and amount (professional fees) of other contracts subject to the restrictions of a work force adjustment program.

For all contracts awarded during the lump sum payment period, the total amount of fees that may be paid to a FPS who received a lump sum payment is \$5,000, including Applicable Taxes.

APPENDIX B - DECLARATION/CERTIFICATIONS FORM (CONT'D)

Name of Proponent:

DECLARATION:

I, the undersigned, being a principal of the proponent, hereby certify that the information given on this form and in the attached proposal is accurate to the best of my knowledge. If any proposal is submitted by a partnership or joint venture, then the following is required from each component entity.

.....
name signature
.....
title
I have authority to bind the Corporation / Partnership / Sole Proprietorship / Joint Venture

.....
name signature
.....
title
I have authority to bind the Corporation / Partnership / Sole Proprietorship / Joint Venture

.....
name signature
.....
title
I have authority to bind the Corporation / Partnership / Sole Proprietorship / Joint Venture

* Joint Venture proponents should ensure that all the requirements of GI14, including the signature requirements are met. If one member of a joint venture has been appointed to sign on behalf of all members of the joint venture, it should be clearly indicated in this signature block.

During proposal evaluation period, PWGSC contact will be with the following person:_____.

Telephone Number: () _____ Fax Number: () _____

E-mail: _____

This Appendix "B" should be completed and submitted with the proposal, but may be submitted afterwards as follows: if Appendix "B" is not completed and submitted with the proposal, the Contracting Authority will inform the Proponent of a time frame within which to provide the

APPENDIX B
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FORM

information. Failure to comply with the request of the Contracting Authority and to provide the certifications within the time frame provided will render the proposal non-responsive.

APPENDIX C - PRICE PROPOSAL FORM

INSTRUCTIONS: To be populated by Highest Ranked Technical Proponent as part of Stage Two, Step II.

PROPOSERS SHALL NOT ALTER THIS FORM

Project Title: Alexandra Bridge Boardwalk Grating Replacement & Articulation Retrofit

Name of Proponent:

1. REQUIRED SERVICES

REQUIRED SERVICES - The "Required Services" as specified in the Project Brief and in the RFP documents, being all services and deliverables to complete RS 1- General Service Requirements, RS 2- Pre-Design / Analysis of Project Requirements, RS 3 – Design Concept, RS 4 – Design Development, RS 5 – Construction Documents.

FIXED FEE (R1230D (2016-01-28), GC 5 - Terms of Payment – Architectural and/or Engineering Services), for the Required Services is as follows:

REQUIRED SERVICES	FIXED FEE
RS 1 General Service Requirements	\$..... (a)
RS 2 Pre- Design / Analysis of Project Requirements	\$..... (b)
RS 3 Design Concept	\$..... (c)
RS 4 Design Development	\$..... (d)
RS 5 Construction Documentation	\$..... (e)
<u>TOTAL FIXED FEE FOR REQUIRED SERVICES RS 1, RS 2, RS 3 AND RS 4 (sum of (a)-(e)) above</u>	\$ (1)

For clarity, the foregoing FIXED FEE for the Required Services includes, without limitation, all related costs.

2. OPTIONAL REQUIRED SERVICES

Including all related services and deliverables as specified in the Project Brief and in the RFP documents.

The Consultant hereby grants to Canada an irrevocable option to acquire the services specified under sections RS 6 – Tender Call, Bid Evaluation and Construction Contract Award, RS 7- Construction and Contract Administration, RS 8 – Resident Site Services During Construction, under the same terms and conditions as contained in the Contract, and in accordance with the rates and fees identified below.

Canada is not obliged to exercise this option. The option shall only be exercised by the Contracting Authority by providing notification in writing through a formal Contract Amendment.

APPENDIX C - PRICE PROPOSAL FORM (CONT'D)
FEE FOR OPTIONAL REQUIRED SERVICES:

A. FIXED FEE (R1230D (2016-01-28), GC 5 - Terms of Payment – Architectural and/or Engineering Services) for the Optional Required Services is as follows:

OPTIONAL REQUIRED SERVICES	FIXED FEE
RS 6 Tender Call, Bid Evaluation and Construction Contract Award	\$..... (a)
RS 7 Construction and Contract Administration	\$..... (b)
TOTAL FIXED FEE FOR OPTIONAL REQUIRED SERVICES RS 6 AND RS 7 (sum of (a)-(b)) above	\$..... (2)

For clarity, the foregoing FIXED FEE for the Optional Required Services includes, without limitation, all related costs; and

B. TIME BASED FEES (R1230D (2016-01-28), GC 5 - Terms of Payment– Architectural and/or Engineering Services) for RS 11 – Residential Services are as follows:

RS 8 - Resident Site Services During Construction	HOURS* (Column A)	HOURLY RATES** (Column B)	TIME BASED FEE (Column A x B)
Resident Engineer based on 40 hours per week X 112 weeks	4480	\$.....	\$..... (a)
Assistant Resident Engineer based on 40 hours per week X 112 weeks	4480	\$.....	\$.....(b)
Resident Inspector based on 40 hours per week X 112 weeks	4480	\$.....	\$.....(c)
Assistant Resident Inspector based on 40 hours per week X 112 weeks	4480	\$.....	\$.....(d)
TOTAL TIME BASED FEE FOR OPTIONAL REQUIRED SERVICES RS 8 (sum of (a)-(d)) above			\$.....(3)

* The Hours in Column A are for bid evaluation purposes only and do not represent any hours or estimate of hours associated with the project. For clarity, payment will be based on the hourly rates in Column B and paid on the basis of actual hours worked.

** This all-inclusive hourly rate is applicable to both normal working hours and any other shift work as required. For clarity, travel time and/or expenses will not be reimbursed separately (Refer to R1230D (2016-01-28), GC 5.12 – Disbursements).

The quantities and categories of personnel identified in the chart above are for evaluation purposes only and shall not be interpreted to be a commitment by Canada for any quantity of hours whatsoever.

TOTAL FEES FOR OPTIONAL REQUIRED SERVICES (sum of (2) and (3)) \$.....
APPENDIX C - PRICE PROPOSAL FORM (CONT'D)
3. ADDITIONAL SERVICES
ADDITIONAL SERVICES – as and when required

FIRM HOURLY RATES (R1230D (2016-01-28), GC 5 - Terms of Payment– Architectural and/or Engineering Services) for the Additional Services shall be, subject to the Escalation, based on the Proponent's following hourly rate for the Proponent's Personnel (inclusive of payroll costs, overhead and profit):

	Senior	Intermediate	Junior	Other
Category	15+ years	5-15 years	0-5 years	
Principal				
Structural engineering (bridges)				
Structural engineering (seismic and wind specialists)				
Transportation engineer (traffic/construction staging)				
Electrical engineering				
Municipal infrastructure engineering				
Technologist				
Environmental Effects Evaluation Practitioner				
Corrosion protection and coating specialist				
Non-destructive testing specialist				
Waste management specialist				
Risk management specialist				
Commissioning and O&M specialist				
Cost planning, estimating and control specialist				
Time planning, scheduling and control specialist				
Sustainable development specialist				

Administrative support

APPENDIX C - PRICE PROPOSAL FORM (CONT'D)

* This all-inclusive hourly rate is applicable to both normal working hours and any other shift work as required. For clarity, travel time and/or expenses will not be reimbursed separately (Refer to R1230D (2016-01-28), GC 5.12 – Disbursements).

The firm hourly rates detailed in the Additional Services Table (located in Appendix C) will be adjusted (the “**Escalation**”) annually on the start date of each new Contract Year (starting with Contract Year 2) based on the annual average percentage increase (decrease) in the monthly index of the Consumer Price Index for Canada, All-Items (Not Seasonally Adjusted), published in Statistics Canada Catalogue no.62-001-X, Table 5, for the 12-month period ending 3 months prior to the new Contract Year Start date.

For clarity, if the contract start date was April 10, 2018 then at the start of Contract Year 2 (i.e. April 10, 2019), the Contract Year 1 rates as stated in the Additional Services Table (Appendix C) would be increased by 1.3% based on the following assumptions:

		% Change in Monthly CPI
February	2018	1.1%
March	2018	1.2%
April	2018	0.9%
May	2018	0.9%
June	2018	1.1%
July	2018	1.0%
August	2018	1.4%
September	2018	1.6%
October	2018	1.6%
November	2018	1.7%
December	2018	1.5%
January	2019	1.7%
		15.7% / 12 = 1.3%

Moreover, to determine the Contract Year 3 rates, the Contract Year 2 rates calculated above would be adjusted using the same Statistics Canada Table and same formula with data for the February 2018 - January 2020 12-month period.

4. TOTAL COST OF SERVICES

Any errors in the addition or multiplication of the amounts in the Price Proposal Form Sections (1), (2), and (3) above will be corrected by Canada to obtain the Total Fee Amount. In the case of error in the extension or addition of unit prices, the unit price as so calculated by Canada will govern.

TOTAL COST OF SERVICES

Total Fixed Fee for Required Services	\$..... (1)
Total Fees for Optional Required Services	\$..... (sum of (2) and (3))

Estimated Total Fee (sum of (1), (2) and (3)) \$.....

APPENDIX C - PRICE PROPOSAL FORM (CONT'D)

DISBURSEMENTS

Notwithstanding anything contained in this RFP to the contrary (which includes without limitations GC 5.12 Disbursements), no disbursement shall be paid in excess of the following amounts:

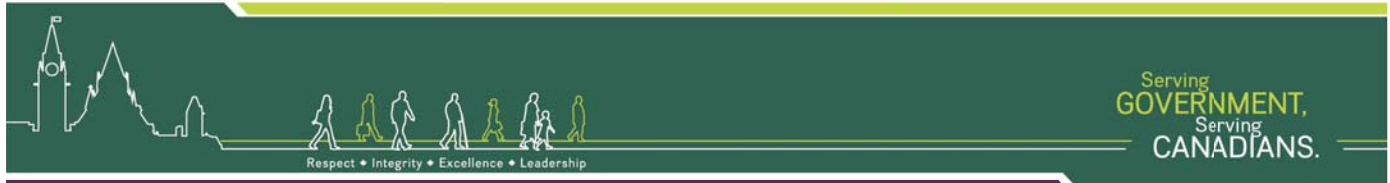
DISBURSEMENTS	MAXIMUM PAYMENT
Reproduction and delivery costs of technical documentation additional to that specified in the Project Brief, with the prior approval and authorization of the Departmental Representative	\$ 5,000.00
Bilingual Documents (beyond services stated in the RFP)	\$ 30,000.00
Investigations, materials testing and inspections	\$120,000.00
Other Disbursements	<u>\$425,000.00</u>
MAXIMUM AMOUNT FOR DISBURSEMENTS	<u>\$580,000.00</u>

For clarity, the disbursements shall not include mark-up or profit, and shall not be paid unless the consultant provides the required invoices/receipts. Canada shall not pay any more as provided for in clause R1230D (2016-01-28), GC 5 - Terms of Payment– Architectural and/or Engineering Services, section GC5.12 Disbursements.

END OF PRICE PROPOSAL FORM

APPENDIX D: DOING BUSINESS WITH PWGSC

Documentation and Deliverables Manual



Doing Business with PWGSC

Documentation and Deliverables Manual



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Revisions

Version	Date	Description
0.1	August 14 2017	Draft version for consultation.
1.0	January 12, 2018	Original Issuance

1 General

1.1 Effective Date

January 12, 2017

1.2 Authority

This manual is issued by the authority of the Director General, Technical Services, Real Property Branch (RPB), Public Works and Government Services Canada (PWGSC).

1.3 Purpose

This document provides architectural and engineering (A&E) consultants with the requirements for producing deliverables for PWGSC projects in order to ensure a well-documented design process, and facilitate review by PWGSC staff.

1.4 Scope

This document shall apply to design-bid-build projects undertaken by PWGSC on its own behalf as well as for other government departments (OGDs). It is applicable to all regions of PWGSC and can be supplemented with regional addendum.

1.5 Harmonization with Terms of Reference

This document shall be used in conjunction with the project's Project Brief / Terms of Reference (TOR). In case of a conflict between documents, the requirements of the TOR prevail over those of this document.

1.6 Departmental Name Change

In the fall of 2015, Public Works and Government Services Canada (PWGSC) was renamed Public Services and Procurement Canada (PSPC).

This name change is occurring in a phased approach, and for most documents PSPC should be used. However, all contract documents shall use the legal name Public Works and Government Services Canada (PWGSC) until the name has been changed in legislation.

1.7 Terminology

This document utilizes the following terminology:

- “shall” is used to express a requirement, a provision the Consultant is obligated to meet;
- “should” is used to express a recommendation; and
- “may” is used to express an option or that which is permissible within the limits of this document.

1.8 Definitions

Addenda: Changes to the construction documents or tendering procedures, issued during the tendering process.

Construction Documents: The drawings and specifications (including addenda).

Drawings: The graphic means of showing work to be done, as they depict shape, dimension, location, quantity of materials and relationship between building components.

Reports: Written account given of a particular matter after thorough investigation or consideration prepared by the Consultant.

Specifications: Written descriptions of materials and construction processes in relation to quality, colour, pattern, performance and characteristics of materials, installation and quality of work requirements.

2 Construction Documents

2.1 General

This section provides direction to Consultant firms on the preparation of construction documents (namely specifications and drawings) to be submitted to PWGSC for real property projects across Canada.

Specifications, drawings, and addenda shall be complete and clear so that contractors can prepare bids without guesswork.

2.1.1 Principles of PWGSC Contract Documents

Contact documents shall be prepared based on common public procurement principles. PWGSC does not use Canadian Construction Documents Committee (CCDC) documents.

PWGSC is responsible for preparing and issuing the construction contract and the terms and conditions as well as all other related bidding and contractual documents. For detailed information, the standard acquisition clauses and conditions commonly used by PWGSC in the contracting process are available on the buyandsell.gc.ca website.

2.1.2 Translation

When bilingual documents are required in the Terms of Reference, all documentation including drawings, specifications, reports as well as all bidder questions shall be in both official languages.

Ensure that English and French documents are equal in all respects. There can be no statements where one version takes precedence over the other.

2.1.3 Construction Documents Definitions

Unless otherwise indicated in the Project Brief / Terms of Reference, construction document submissions (33%, 50 or 66%, 99%, and 100% / final) shall meet the definitions outlined below. Further discipline based requirements may be included in the TOR.

- 33%: shall demonstrate general intent of design and compliance and alignment with relevant standards. Summary specification required, but not a full specification.
- 50% or 66%: shall show full system, all components, requirements, and lack only minor details on drawings. Specifications shall be well advanced and contain major work and material requirements and lack only minor details.
- 99%: shall be for final review by PWGSC, lacking no detail and complete with a project specific specification.
- 100% (or final): shall address comments by PWGSC as required, signed and sealed by the responsible design professional in compliance with various provincial jurisdiction requirements, ready for tender.

2.1.4 Quality Assurance

It is the sole responsibility of the Consultant firms to undertake their own quality control process and to review, correct, and coordinate their documents (between disciplines). The Consultant shall also ensure the constructability of their design.

2.1.5 Quality Assurance Deliverables

For every construction document submission (33 %, 50 % or 66 %, 99 % and 100 %), the Consultant shall provide:

- a completed and signed Checklist for the Submission of Construction Documents (see Appendix A); and
- an index as per Appendix B.

2.1.6 Terminology & Quantities

The Consultant shall use the term “Departmental Representative” instead of Engineer, PWGSC, Owner, Consultant or Architect. “Departmental Representative” means the person designated in the Contract, or by written notice to the Contractor, to act as the Departmental Representative for the purposes of the Contract, and includes a person, designated and authorized in writing by the Departmental Representative to the Contractor.

Notations such as “verify on site,” “as instructed,” “to match existing,” “example,” “equal to,” “equivalent to,” and “to be determined on site by Departmental Representative” shall not be indicated in specifications nor in drawings, as such wording promotes inaccurate and inflated bids.

Construction documents shall permit bidders to bid accurately. If a precise quantity is impossible to identify (e.g. cracks to be repaired), then provide an estimated quantity for bidding purposes (to be used in conjunction with unit prices). Ensure that the terminology used throughout construction documents is consistent and does not contradict applicable codes and standards.

2.1.7 Units of Measure

All units of measure within drawings and specifications shall be based on the International System of Units (SI).

2.2 Drawings

2.2.1 General

Drawings shall be prepared in accordance with the [PWGSC National CADD Standard](#) and the Canadian Standards Association CSA B78.5-93: *Computer-Aided Design Drafting (Buildings)*. Drawing shall also meet the following criteria:

- dimensions shall be in metric only (no dual dimensioning);
- no trade names present on any drawings; and
- no specification-type notes are on any drawing.

2.2.2 Information to be Included

Drawings should show the quantities of the elements, the configuration of the project, the dimensions, and details of how the work is constructed. There should be no references to future work or information that will be changed by future addenda. The scope of work should be clearly detailed, and elements not in the Contract should be eliminated or kept to an absolute minimum.

2.2.3 Title Blocks and Revision Notes

PWGSC title block shall be used for drawings and sketches (including addenda).

The percent of drawing completion should be included in the revision notes. Revision notes shall be inputted during design development, but cleared for 100% complete drawing (ready for tender).

2.2.4 Drawing Numbers

Drawings should be numbered in sets according to the type of drawing and the discipline involved as indicated in the following table. The requirements of the *PWGSC National CADD Standard* supersede these requirements, where warranted.

Discipline	Drawing
Demolition	D01, D02, etc.
Architecture	A01, A02, etc.
Civil	C01, C02, etc.
Landscaping	L01, L02, etc.
Mechanical	M01, M02, etc.
Electrical	E01, E02, etc.
Structural	S01, S02, etc.
Interior Design	ID01, ID02, etc.

2.2.5 Presentation Requirements

Present the drawings in sets, providing the applicable demolition, site plan, civil, landscaping, architecture, structural, mechanical, and electrical drawings in that order. All drawings should be of uniform standard size.

2.2.6 Legends

Provide a legend of symbols, abbreviations, references, etc., on the front sheet of each set of drawings, or in the case of large sets of drawings, provided the legend immediately after the title sheet and index sheets.

2.2.7 Schedules and Tables

Where schedules or tables occupy entire sheets, locate them at the back of each set of drawings for convenient reference.

2.2.8 North Arrow

Include a north arrow on all plans. Orient all plans in the same direction for easy cross-referencing. Wherever possible, lay out plans so that the north point is at the top of the sheet.

2.2.9 Drawing Symbols

Follow generally accepted drawing conventions, understandable by the construction trades and in accordance with PWGSC publications.

2.2.10 As-Built Drawings

As-built drawings are official record drawings and shall represent as constructed conditions including location and size of equipment, devices, plumbing lines, mechanical and electrical equipment, structural elements etc. As-built drawings shall be updated in CAD, handwritten notes are not acceptable.

2.2.11 Submission Format

Unless otherwise stated in the Terms of Reference, drawing submissions shall be in electronic and hard copy format.

2.2.11.1 Drawing Hard Copy Deliverable Format

Drawing submitted in hard copy shall be:

- printed to scale with black lines on white paper;
- bound with staple or other means into sets, where presentations exceed 50 sheets, the drawings for each discipline may be bound separately for convenience and ease of handling; and
- of a paper size as agreed to with the Departmental Representative.

2.2.11.2 Drawing Electronic Copy Deliverable Format

Drawing submitted electronically shall be provided:

- without password protection or printing restrictions;
- in two formats:
 - PDF/E-1 (in compliance with ISO 24517-1);
 - .dwg format; and
- in accordance with Appendix D.

2.3 Building Information Modelling (BIM)

PWGSC is committed to using non-proprietary or “OpenBIM” standards. As such, the Consultant is not required to use any specific proprietary software format. For the sake of legacy information quality, the Consultant shall use the international standards of interoperability for BIM (IFC) in all cases where models are submitted. Consultants shall work with software that is compliant to this standard.

Where used, BIM shall not replace the submission requirements outlined by this document. Rather, consultants shall submit models in addition requirements outlined herein.

Where BIM is used, models and modelled information shall be submitted in the following two formats:

- .native (whichever format is native to the Modelling software used by the Consultant);
- .ifc (Industry Foundation Classification – IFC4 – [ISO 16739:2013](#)); and

All Modelled Information, and Model Information Exchanges shall conform to:

- Project-specific requirements, such as they are laid out in the Project Execution Plan, Project Documentation and Model Element Table; and
- The project-identified BIM Standards & Guidelines.

Models for electronic submissions shall be organized as per Appendix D.

2.4 Specifications

2.4.1 National Master Specification

Specifications prepared for PWGSC shall follow the most current version of the [National Master Specification \(NMS\)](#) format offered by the National Research Council.

The Consultant has overriding responsibility for the content of construction project specifications. For each specification, he or she shall edit, amend, and supplement the NMS template as deemed necessary to produce an appropriate project specification free of conflict and ambiguity. The Consultant should refer to the latest *NMS User's Guide* and *NMS Development Guide* issued by the National Research Council for further guidance on using the NMS.

2.4.2 Index

Specifications shall include an index which list all specification sections, including numbers of pages, as well as the division and section names in the format shown in Appendix B.

2.4.3 Specification Organization

Narrow scope sections describing single units of work should be used for complex work. Broad scope sections may be used for less complex work. The Consultant shall use consistently for the entire specification either the NMS 1/3 page format, the NMS 2/3-page format or the Construction Specifications Canada (CSC) full-page format.

Start each section on a new right hand page and show the PWGSC project number, NMS section title, NMS section number, page number, and specification date on each page. The project title, and Consultant's name are not to be indicated.

2.4.4 Standards

Code and standard references in the NMS may not be up to date, the Consultant shall ensure that the project specification use the current applicable edition of all references quoted.

2.4.5 Specifying Materials

Specifications should make use of generic names in referencing construction materials. The Consultant should refer to the latest version of the *NMS Development Guide* issued by the National Research Council for further details. The term "Acceptable Manufacturers" shall not be used, as this restricts competition and does not ensure the actual material or product will be acceptable.

2.4.5.1 Alternate Products and Materials

Alternative materials to those specified may be considered during the solicitation period; however, the onus will be on the Consultant to review and evaluate all requests for approval of alternative materials.

2.4.5.2 Sole Sourcing

Sole sourcing of materials and/or work is only allowed in exceptional and justifiable circumstances. Prior to including sole source materials and/or work, the Consultant shall contact the Departmental Representative to obtain approval for the sole sourcing. Consultants shall provide proper justification for all individual sole source requirements.

Sole sourcing for materials and work may be required when performing work on existing proprietary systems, such as fire alarm systems, building automation systems (BAS) etc.

Wording for the sole source of work should be in Part 1 as follows:

Designated Contractor

- .1 Retain the services of [_____] to do the work of this section.

Wording for the sole source of building automation system should be in Part 1 as follows:

Designated Contractor

- .1 Retain the services of [_____] or its authorized representative to complete the work of all building automation system sections.

Wording for the sole source of building automation system should be in Part 2 as follows:

Materials

- .1 There is an existing [_____] system presently installed in the building. All materials must be selected to ensure compatibility with the existing [_____] system.

Wording for the sole source of materials (i.e. fire alarm systems) should be in Part 2 as follows:

Acceptable Materials

- .1 The only acceptable materials are [_____].

2.4.6 Measurement for Payment

The measurement for payment shall be provided in lump sum or unit prices.

2.4.6.1 Unit Prices

Unit prices should only be used in instances where the quantity can only be roughly estimated (e.g. earth work). The approval of the Departmental Representative shall be sought in advance of their use. In each applicable NMS section where unit prices are used, add new or replace paragraph title “Measurement for Payment” with “Unit Prices.” and use the following wording:

[The work for this section] or [define the specific work if required, e.g. rock excavation] will be paid based on the actual quantities measured on site and the unit prices stated in the Bid and Acceptance Form.

Provide a unit price table, sample shown below, to designate the work to which a unit price arrangement applies. The table shall include:

- the price per unit and the estimated total price for each item listed;
- a complete description of each type of work covered; and
- items as described in the referenced specification section.

Item	Specification Reference	Class of Labour, Plant or Material	Unit of Measurement	Estimated Quantity	Price per Unit GST/HST extra	Estimated Total Price GST / HST extra
TOTAL ESTIMATED AMOUNT						

2.4.7 Cash Allowances

Construction documents shall be complete and contain all of the requirements for the contractual work. Cash allowances are to be used only under exceptional circumstances (i.e. utility companies, municipalities), where no other method of specifying pricing is appropriate.

To include cash allowances, obtain approval from the Departmental Representative in advance, and use Section 01 21 00 – Allowances of the NMS to specify the criteria.

2.4.8 Warranties

The 12-month warranty period specified in PWGSC’s standard acquisition clauses and conditions with regard to the contract should typically be retained as is. Extended warranties should only be used where experience has shown that serious defects are likely to appear after expiry of the standard one-year warranty period. When necessary to extend beyond the 12 month warranty period,

use the following wording in Part 1 of the applicable technical sections, under the heading “Extended Warranty”:

For the work of this Section [____], the 12 month warranty period is extended to [____] months.

Where the extended warranty is intended to apply to a particular part of a specification section, modify the previous text as follows:

For [____], the 12 month warranty period is extended to [____] months.

2.4.9 Miscellaneous Requirements

Paragraphs noted as “Scope of Work” shall not be included. Within Part 1 – General of specifications, the paragraphs “Summary” and “Section Includes” shall not be utilized.

2.4.10 Specification Coordination

All sections of the specifications shall be coordinated, including the “Related Sections” portion of specifications and appendices. References to non-existent sections shall not be present within the specifications.

2.4.11 Regional Guide

The Consultant should contact the Departmental Representative to obtain the region’s requirements for Division 01 (General Requirements) or other short-form specifications as appropriate.

2.4.12 Health and Safety

All project specifications are required to include Section 01 35 29 – Health and Safety Requirements. Confirm with the Departmental Representative to determine if there are any instructions to meet regional requirements.

2.4.13 Subsurface Investigation Reports

If required, subsurface investigation report(s) shall be included after Section 31, and the following paragraph added to Section 31:

Subsurface Investigation Report(s)

- .1 Subsurface investigation report(s) are included in the specification following this section.

If the Departmental Representative determines that it is not practical to include the subsurface investigation report(s), alternate instructions will be provided.

Where tender documents are to be issued in both official languages, the subsurface investigation report(s) shall be issued in both languages.

In addition to providing the subsurface investigation report(s), the foundation information required by the current *National Building Code of Canada* (Division C, Part 2, 2.2.4.6) shall be included on foundation drawings.

2.4.14 Prequalification and Pre-Award Submissions

Do not include in the specifications any mandatory contractor and/or subcontractor prequalification or pre-award submission requirements that could become a contract award condition. If a

prequalification process or a pre-award submission is required, contact the Departmental Representative.

There should be no references to certificates, transcripts, samples, the license numbers of a trade or subcontractor, or any other documentation or item being included with the bid.

2.4.15 Contracting Issues

Specifications describe the workmanship and quality of the work and shall not contain any contracting issues. Division 00 of the NMS is not used by PWGSC, except for the Seals page 00 01 07 and the Table of Contents 00 01 10. In specifications, remove all references to the following:

- general instructions to bidders;
- general conditions;
- Canadian Construction Documents Committee (CCDC) documents;
- priority of documents;
- security clauses and clearances;
- terms of payment or holdback;
- the tendering process;
- bonding requirements;
- insurance requirements;
- alternative and separate pricing;
- site visits (mandatory or optional); and
- the release of lien and deficiency holdbacks.

2.4.16 Specification Submission Format

Unless otherwise stated in the Terms of Reference, specification submissions shall be in electronic and hard copy format.

2.4.16.1 Specification Hard Copy Deliverable Format

Specifications submitted in hard copy shall be printed on both sides of 216 mm x 280 mm white bond paper.

2.4.16.2 Specification Electronic Copy Deliverable Format

Specifications submitted electronically shall be:

- provided in PDF/A (in compliance with ISO 19005) format, without password protection and printing restrictions; and
- in accordance with Appendix D.

2.5 Addenda

2.5.1 Format

Prepare addenda using the format shown in Appendix C. No signature-type information is to appear.

Every page of the addendum (including attachments) shall be numbered consecutively. All pages shall have the PWGSC project number and the appropriate addendum number. Sketches shall appear in the PWGSC format, signed and sealed.

No Consultant information (name, address, phone #, Consultant project #, etc.) should appear in addenda or their attachments (except on sketches).

2.5.2 Content

Each item should refer to an existing paragraph of the specification or note/detail on the drawings. The clarification style is not acceptable.

Where there are many or major changes to a section or drawing, consider deleting the entire section or drawing and replacing it with a new version.

3 Cost Estimates

3.1 Cost Estimates Submission Formats

3.1.1 Format

Construction cost estimates for projects shall be prepared in the elemental analysis format, which is in accordance with the latest edition issued by the Canadian Institute of Quantity Surveyors (CIQS) for all PWGSC regions excluding Quebec. Within Quebec region the cost estimates shall be prepared in the Unifomat II format.

3.1.2 Contents

All cost estimates shall contain the following:

- introduction narrative complete with an outline description of the cost estimate basis;
- description of information obtained and used in the cost estimate including the date received;
- listing of notable inclusions;
- listing of notable exclusions;
- listing of items/issues carrying significant risk;
- summary of the itemized cost estimate;
- itemized breakdown of cost estimate by elemental analysis for Class B, C, and D; and
- itemized breakdown of costs estimate in both elemental analysis and National Master Specification division format for Class A, including measured quantities, unit rate pricings and amounts for each item of work.

Allowances, if deemed necessary by Consultant, shall contain the following:

- design allowance to cover unforeseen items during design phase;
- escalation allowance for changes in market conditions between the date of the cost estimate and the date tender is called;
- construction allowance to cover unforeseen items during construction; and
- the basis of calculations of the above allowances.

3.2 Classes of Cost Estimates for Construction Projects

PWGSC applies a detailed, four-level classification using the terms Class A, B, C and D. Apply these estimate classifications at the project stages as defined in the TOR. For projects required to be submitted to Treasury Board (TB) for approval: an indicative estimate shall be at least a Class D and a Substantive Estimate shall be at least a Class B.

3.2.1 Class D (Indicative) Estimate

Based upon a comprehensive statement of requirements, an outline of potential solutions and/or functional program, this estimate is to provide an indication of the final project cost that will enable ranking to be made for all the options being considered. This cost estimate shall be prepared in elemental analysis format. The level of accuracy of a Class D cost estimate shall be such that no more than a 20% design allowance is required.

3.2.2 Class C Estimate

Based on schematic/conceptual design and/or comprehensive list of project requirements, this estimate shall be adequately detailed and shall be sufficient for making the correct investment decision. This cost estimate shall be based on measured quantities of all items of work and prepared

in elemental analysis format. The level of accuracy of a Class C cost estimate shall be such that no more than a 15% design allowance is required.

3.2.3 Class B (Substantive) Estimate

Based on design development drawings and outline specifications, which include the preliminary design of all major systems and subsystems, as well as the results of all site/installation investigations, this estimate shall provide for the establishment of realistic cost objectives and be sufficient to obtain effective project approval.

This cost estimate shall be based on measured quantities of all items of work and prepared in elemental analysis format. The level of accuracy of a Class B cost estimate shall be such that no more than a 10% design allowance is required.

3.2.4 Class A (Pre-Tender) Estimate

Based on completed construction drawings and specifications prepared prior to calling competitive tenders, this estimate shall be sufficient to allow a detailed reconciliation and/or negotiation with any contractor's tender submission. This cost estimate shall be based on fully measured quantities of all items of work and prepared in both elemental analysis and Trade division format as per MasterFormat™. The level of accuracy of a Class A cost estimate shall be such that no more than a 5% design allowance is required.

4 Project Schedules

4.1 Schedule Format

Project schedules shall be submitted in the .mpp file extension (compatible with MS Project). The schedule shall include:

- major and minor milestones;
- activities representing discrete elements of work assigned to one person which:
 - are named using verb-noun combination (i.e. Review Design Development Report);
 - contain realistic durations in days;
- project logic linking activities with appropriate relationships finish-start (FS), finish-finish (FF), start-start (SS); and
- Identification of the critical path activities.

4.2 Progress Report

The progress report shall detail the progress of each activity up to the date of the report. It shall also include any logic changes made, both historic and planned; projections of progress and completion; as well as the actual start and finish dates of all activities being monitored.

The contents of each progress report will vary depending on the requirements at each project phase. A progress report should include:

- an executive summary;
- a narrative report;
- a variance report;
- a criticality report;
- an exception report (as required);
- the master schedule with cash flow projections; and
- the detailed project schedule (network diagram or bar charts).

4.2.1 Executive Summary

The executive summary should provide a synopsis of narrative, variance, criticality and exception report, and is not to exceed one page.

4.2.2 Narrative Report

The project narrative shall detail the work performed to date, comparing work progress to planned, and presenting current forecasts. This report should summarize the progress to date, explaining current and possible deviations and delays and the required actions to resolve delays and problems with respect to the Detailed Schedule, and Critical Paths.

4.2.3 Variance Report

The variance report, with supporting schedule documentation, should detail the work performed to date and compare work progress to work planned. It should summarize the progress to date and explain all causes of deviations and delays and the required actions to resolve delays and problems with respect to the detailed schedule and critical paths. The variance report shall be presented in the following format:

Paper size: Letter
Paper format: Portrait
Title format: Project Title, Report Type, Print Date, Data Date, Revision Block
Body text: Narratives for each report to match other reports
Columns: Activity ID, Activity Name, Planned Finish, Revised Finish, Variance, Activity % Complete

4.2.4 Criticality Report

The criticality report identifies all activities and milestones with negative, zero, and up to five days' Total Float. It is used as a first sort for ready identification of the critical paths, or near-critical paths, through the entire project. The criticality report shall be presented in the following format:

Paper size: Letter
Orientation: Portrait
Title format: Project Title, Report Type, Print Date, Data Date, Revision Block
Body text: Narratives for each report to match other reports
Columns: Activity ID, Activity Name, Duration, Start, Finish, Activity % Complete, Total Float

4.2.5 Exception Report

The exception report shall be provided when unforeseen or critical issues arise. The Consultant shall advise the Departmental Representative and submit the details and proposed solutions in the form of an exception report. The report shall include sufficient description and detail to clearly identify:

- scope changes, including identifying the nature, reason, and total impact of all identified and potential project scope changes affecting the project;
- delays and accelerations, including identifying the nature, reason, and total impact of all identified and potential duration variations; and
- options enabling a return to the project baseline, including Identifying the nature and potential effects of all proposed options for returning the project within the baselined duration.

The exception report shall be provided in the following format:

Paper size: Letter
Orientation: Portrait
Title format: Project Title, Report Type, Print Date, Data Date, Revision
Body text: Narrative to match other reports

Paper size: Letter
Orientation: Landscape
Title format: Project Title, Report Type, Print Date, Data Date, Revision
Columns: Activity ID, Activity Name, Duration, Remaining Duration, Start, Finish, Total Float

4.2.6 Master Schedule

A master schedule including cash projection shall be provided in the following format:

Paper size: 11X17
Orientation: Landscape
Columns: Activity ID, Activity Name, Duration, Activity % Complete, Start, Finish, Total Float
Footer format: Project Title, Report Type, Print Date, Data Date, Revision Block
Sorting: Early Start, then Early Finish, then Activity ID based on the WBS.

4.2.7 Detailed Project Schedule

A detailed project schedule shall be provided along with a network diagram or bar charts in the following format:

Paper size: 11X17
Orientation: Landscape
Columns: Activity ID, Activity Name, Duration, Activity % Complete, Start, Finish, Total Float
Footer format: Project Title, Report Type, Print Date, Data Date, Revision Block
Sorting: Early Start, then Early Finish, then Activity ID based on the WBS.

Appendix A Checklist for the Submission of Construction Documents

Date:	
Project Title:	Project Location:
Project Number:	Contract Number:
Consultant's Name:	PWGSC Departmental Representative
Review Stage (stages may vary at discretion of project team): 33% <input type="checkbox"/> 50% or 66% <input type="checkbox"/> 99% <input type="checkbox"/> 100% <input type="checkbox"/>	

Drawings\Design			
Item	Verified by	Explanations	Action By
1 Index			
1a The index shows a complete listing of drawing titles and numbers.			
2 Title Blocks			
2a The title block is as per the <i>PWGSC National CADD Standard</i> .			
3 Units			
3a All units of measure are metric.			
4 Trade Names			
4a Trade names are not used.			
5 Specification Notes			
5a There are no specification-type notes.			
6 Terminology			
6a The term "Departmental Representative" is used instead of "Engineer," "PWGSC," "Owner," "Consultant," or "Architect."			
6b Notations such as "verify on site," "as instructed," "to match existing," "example," "equal to," "equivalent to," and "to be determined on site by" are not used.			
7 Information to be included			
7a The project quantities, configurations, dimensions, and construction details are included.			
7b References to future work and elements not in the tender documents do not appear or are kept to an absolute minimum and clearly marked.			

Drawings\Design			
Item	Verified by	Explanations	Action By
8 Quality Assurance			
8a Coordination review of the design between various disciplines has been completed by the Consultant.			
8b Constructability review of design has been performed.			
9 Signing and Sealing			
9a Every final drawing bears the seal and signature of the responsible design professional in compliance with various provincial jurisdiction requirements.			

Specifications			
Item	Verified by	Explanations	Action by
1 National Master Specification			
1a The current edition of the National Master Specification (NMS) has been used.			
1b Sections have been included for all work identified on drawings and sections have been edited.			
2 Index			
2a The index shows a complete list of specifications sections with the correct number of pages.			
3 Organization			
3a Either the NMS 1/3- or 2/3-page format or the Construction Specifications Canada full-page format is used consistently for the entire specifications.			
3b Each section starts on a new page and the project number, section title, section number, page number and date is shown on each page.			
3c The Consultant's name is not indicated.			
4 Terminology			
4a The term "Departmental Representative" is used instead of "Engineer," "PWGSC," "Owner," "Consultant," or "Architect."			
4b Notations such as "verify on site," "as instructed," "to match existing," "example," "equal to," "equivalent to," and "to be determined on site by" are not used.			
5 Dimensions			
5a Dimensions are provided in metric only.			
6 Standards			
6a The current edition of all references quoted is used.			
7 Specifications Materials			
7a The method of specifying materials uses recognized standards. Actual brand names and model numbers are not specified.			
7b Materials are specified using standards and performance criteria.			

Specifications			
Item	Verified by	Explanations	Action by
7c Non-restrictive, non-trade name “prescription” or “performance” specifications are used throughout.			
7d The term “Acceptable Manufacturers” is not used.			
7e No sole sourcing has been used.			
7f If sole sourcing has been used, the correct wording has been used and a justification, estimate, and specification have been provided to the Departmental Representative for the sole-sourced products.			
8 Measurement for Payment			
8a Unit prices are used only for work that is difficult to estimate.			
9 Cash Allowances			
9a No cash allowances have been used or if they have, approval from the Departmental Representative has been received.			
10 Miscellaneous Requirements			
10a No paragraphs noted as “Scope of Work” are included.			
10b In Part 1 - General of any section, the paragraphs “Summary” and “Section Includes” are not used.			
11 Specification Coordination			
11a The list of related sections and appendices are coordinated.			
12 Health and Safety			
12a Section 01 35 29.06 – Health and Safety Requirements is included.			
13 Subsurface Investigation Reports			
13a Subsurface investigation reports are included after Section 31.			
14 Prequalifications			
14a There are no mandatory contractor and/or subcontractor prequalification requirements or references to certificates, transcripts, licence numbers of a trade or subcontractor, or other such documentation or item included in the bid.			

Specifications			
Item	Verified by	Explanations	Action by
15 Contracting Issues			
15a Contracting issues do not appear in the specifications.			
15b Division 00 of the NMS is not used except 00 01 07 (Seals Page) and 00 01 10 (Table of Contents).			
16 Quality Assurance			
16a There are no specification clauses with square brackets “[]” or lines “—” indicating that the document is incomplete or missing information.			
17 Signing and Sealing			
17a Every final specification bears the seal and signature of the responsible design professional as required. Seals and signatures shall be shown in NMS section 00 01 07.			

I confirm that the drawings and specifications have been thoroughly reviewed and that the items listed above have been addressed or incorporated. I acknowledge and accept that by signing, I am certifying that all items noted above have been addressed.

Consultant's Representative: _____

Firm name: _____

Signature: _____ Date: _____

Appendix B Drawings and Specifications Table of Contents Template

B.1 General

List all drawings by number and title.

For specifications, list all divisions, sections (by number and title), and the number of pages in each section.

B.2 Sample Table of Contents

Project No: _____ **Table of Contents** **Index**
Page 1 of ____

DRAWINGS:

C-1	Civil
L-1	Landscaping
A-1	Architecture
S-1	Structural
M-1	Mechanical
E-1	Electrical

SPECIFICATIONS:

DIVISION	SECTION	NO. OF PAGES
01	01 00 10 – General InstructionsXX
	01 14 25 – Designated Substances ReportXX
	01 35 30 – Health and SafetyXX
23	23 xx xx	
26	26 xx xx	

Appendix C Addenda Formatting Template

C.1 Instructions

To re-issue a drawing with an addendum:

- indicate the drawing number and title; and
- list the changes or indicate the revision number and date.

To re-issue a specification with an addendum:

- indicate the section number and title; and
- list all changes (i.e. deletions, additions, and replacements) by article or paragraph.

The addendum, drawings and specifications should be sent as separate files.

C.2 Sample Addendum

Date: _____

Addendum Number: _____

Project Number: _____

**The following changes in the bid documents are effective immediately.
This addendum will form part of the construction documents.**

DRAWINGS:

- 1 A1 Architecture
.1

SPECIFICATIONS:

- 1 Section 01 00 10 – General Instructions
 - .1 Delete article (xx) entirely.
 - .2 Refer to paragraph (xx.x),
delete the following: ...
and replace with the following: ...
- 2 Section 23 05 00 – Common Work Results - Mechanical
 - .1 Add new article (x) as follows:

Appendix D Directory Structure and Naming Convention Standards for Construction Tender Documents

D.1 Electronic Submissions

Electronic submittals of drawings, specification and models shall be in the following format unless otherwise specified in the Terms of Reference or instructed by the Departmental Representative:

- On media burned to read only memory (ROM) on either CD-ROM or DVD+R where:
 - CD-ROMs comply with ISO 9660:1988 standards;
 - DVD+Rs are 4.7 GB, single-sided, single-layer and comply with ISO/IEC 17344:2006 standards;
 - media is “closed” upon completion of burning; and
 - media is usable in such a way that files may be accessed and copied from it.

If BIM model size is greater than storage capacity of a DVD, refer to Terms of Reference or contact the Departmental Representative for transmission instructions.

Some projects may require the Consultant to upload files to an electronic system outlined in the Terms of Reference or as instructed by the Departmental Representative.

D.2 Directory Structure

D.2.1 1st Tier Subfolder

The 1st tier of the directory structure shall be “Project #####” where ##### represents each digit of the Project Number. The Project Number must always be used to name the 1st tier folder and it is always required. Free text can be added following the Project Number, to include such things as a brief description or the project title.

D.2.2 2nd Tier Subfolder

The 2nd tier of the directory structure shall consist of: “Bilingual - Bilingue”, “English” and “Français” folders. The folders of the 2nd tier cannot be given any other names since the Government Electronic Tendering System (GETS) uses these names for validation purposes. At least one of the “Bilingual - Bilingue”, “English” and “Français” folders is always required, and these must always have one of the applicable subfolders of the 3rd tier.

D.2.3 3rd Tier Subfolder

The 3rd tier of the directory structure shall consist of: “Drawings - Dessins”, “Drawings”, “Models”, “Specifications”, “Reports”, “Dessins”, “Modèles”, “Devis” and “Rapports”. The folders of the 3rd tier cannot be given any other names since GETS also uses these names for validation purposes. There must be always at least one of the applicable 3rd tier folder in each document.

D.2.4 4th Tier Subfolder - Drawings

The 4th-tier subfolders for Drawings should reflect the various disciplines of the set of drawings. Because the order of appearance of the subfolders on the screen will also determine the order of printing, it is necessary to start with a number the identification name of the subfolders in the “Drawings – Dessins”, “Drawings” and “Dessins” folders. The first subfolder must be always reserved for the Title Page and/or the List of Drawings unless the first drawing of the set is an actual numbered discipline drawing.

The 4th tier “Drawings” and “Dessins” folder shall follow the naming convention:

- Y

Where:

= a two digit number ranging from 01 to 99 (leading zeros must be included)

Y = the title of the folder Example: 03 – Mechanical

For the “Drawings - Dessins” folder:

= Y - Z

Where:

= a two digit number ranging from 01 to 99 (leading zeros must be included)

Y = the English title of the folder

Z = the French title of the folder

Example:

04 - Electrical – Électrique

The numbering of the 4th tier subfolders is for sorting purposes only and is not tied to a specific discipline. For example, “Architecture” could be numbered 05 for a project where there is four other disciplines before “Architecture” in the set of drawings or 01 in another project where it’s the first discipline appearing in the set.

The order of the drawings shall be the same as in the hard copy set. GETS will sort each drawing for both screen display and printing as per the following rules:

- The alphanumerical sorting is done on an ascending order;
- The alphanumerical order of the subfolders determines the order of appearance on the screen as well as the order of printing (as an example: all the drawing PDF files in the 01 sub-older will be printed in alphanumerical order before the drawings in the 02 sub- folder etc.);

Each drawing PDF file within each subfolder will also be sorted alphanumerically. This will determine the order of appearance on the screen as well as the order of printing (i.e. Drawing A001 will be printed before Drawing A002, Drawing M02 before Drawing M03, etc.).

D.2.5 4th-Tier Subfolders for Specifications

The “Specifications” and “Devis” folders must have 4th tier subfolders created to reflect the various elements of the specifications. Because the order of appearance of the subfolders on the screen will also determine the order of printing, it is necessary to start with a number the identification name of the subfolders in the “Specifications” and “Devis” folders.

The 4th tier subfolders for specifications must adhere to the following standard naming convention for the “Specifications” and “Devis” folders:

- Y

Where:

= a two digit number ranging from 01 to 99 (leading zeros must be included)

Y = the title of the folder

Example:

02 – Divisions

Numbering of the 4th tier subfolders is for sorting purposes only and is not tied to an element of the specifications.

It is essential to ensure that the order of the elements of the specifications on the CD-ROM be exactly the same as in the hard copy. GETS will sort each element of the specifications for both screen display and printing as per the following rules:

- The alphanumerical sorting is done on an ascending order.
- The alphanumerical order of the subfolders determines the order of appearance on the screen as well as the order of printing (as an example: all the specifications PDF files in the 01 subfolder will be printed, in alphanumerical order before the PDF files in the 02 subfolder, etc.).
- Each specifications PDF file within each subfolder will also be sorted alphanumerically. This will determine the order of appearance on the screen as well as the order of printing (i.e. Division 01 will be printed before Division 02, 01 - Appendix A before 02 - Appendix B, etc.).

D.2.6 Directory Structure Example

The following is an example of the directory structure for the tender document, refer to previous sections for requirements, and use only sections applicable to the given project:

```
Project #####
  Bilingual – Bilingue
    Drawings – Dessins
      01 - Drawing List – Liste des dessins
      02 – Demolition – Démolition
      03 – Architecture – Architectural
      04 – Civil – Civil
      05 – Landscaping - Aménagement paysager
      06 – Mechanical – Mécanique
      07 – Electrical – Électricité
      08 – Structural - Structural
      09 – Interior Design – Aménagement intérieur
  English
    Drawings
      01 - Drawing List
      02 – Demolition
      03 – Architecture
      04 – Civil
      05 – Landscaping
      06 – Mechanical
      07 – Electrical
      08 – Structural
      09 – Interior Design
    ...
    Models
    Specifications
      01 – Index
      02 – Divisions
      03 – Appendices
    Reports
  Français
    Dessins
    Modèles
    Devis
    Rapports
```

D.3 Naming Convention for PDF Files

Each drawing, specifications division or other document that are part of the tender documents must be converted in PDF format (without password protection) in accordance with the following standard naming convention and each PDF file must be located in the appropriate subfolder of the directory structure.

D.3.1 Drawing File Names

Each drawing must be a separate single page PDF file. The naming convention of each file shall be:

X### - Y

Where:

X = the letter or letters from the drawing title block (“A” for Architecture or “ID” for Interior Design for example) associated with the discipline

= the drawing number from the drawing title block (one to three digits)

Y = the drawing name from the drawing title block (for bilingual drawings, the name in both English and French is to appear).

Example:

A001 - First Floor Details

Each drawing that will be located in the appropriate discipline 4th tier subfolders must be named with the same letter (“A” for Architecture Drawings for example) and be numbered. The drawing number used to name the PDF file must match as much as possible the drawing number of the actual drawing (the exception being when leading zeros are required).

The following important points about drawings are to be noted:

- The drawing PDF files within each subfolder are sorted alphanumerically for both displaying and printing. If there are more than 9 drawings in a particular discipline the numbering must use at least two numerical digits (i.e. A01 instead of A1) in order to avoid displaying drawing A10 between A1 and A2. The same rule applies when there are more than 99 drawings per discipline i.e. three digits instead of two must be used for the numbering (for example M003 instead of M03);
- If drawing PDF files are included in the “Bilingual - Bilingue” folder, these cannot be included as well in the “English” and/or “Français” folders;
- If drawings not associated with a particular discipline are not numbered (title page or list of drawings for example), these will be sorted alphabetically. While this does not represent a problem if there is only one drawing in the subfolder, it could disrupt the order when there are two or more drawings. If the alphabetical order of the drawings name does not represent the order on the hard copy set, the drawings are to be named as per the following standard convention when converted in PDF format to ensure proper display and printing order.

D.3.2 Specifications

Each specifications division must be a separate PDF file and all pages contained in each PDF file must have the same physical size (height, width). The drawings and specifications index must also be a separate PDF file. If there are other documents that are part of the Specifications (e.g. Appendix or other) these are to be separate PDF files as well.

D.3.3 Documents Other Than Specifications Divisions

Because PDF files within the Specifications subfolders are sorted alphanumerically (in ascending order) for both on screen display and printing order, all files that appear in folders other than the “Divisions” subfolder must be named using a number:

- Y

Where:

= Two digit number ranging from 01 to 99 with leading zeros required

Y = Name of the document

Example:

01 – Drawings and Specifications Index

D.3.4 Specifications Divisions

The specifications divisions must be named as follows:

Division ## - Y

Where:

Division ## = the actual word “Division” followed by a space and a two digit number ranging from 01 to 99 (with leading zeros required)

Y = name of the Specifications Division as per CSC/CSI MasterFormat™

Example:

Division 05 – Metals

The Numbering of the Divisions cannot be altered from CSC/CSI MasterFormat™ even if some Divisions are not used in a given project. For example, Division 05 will always remain Division 05 even if Division 04 is not used for a given project.

D.4 Media Label

The CD-ROM or DVD+R shall be labeled with the following information:

Project Number / Numéro de projet

Project Title / Titre du projet

Documents for Tender / Documents pour appel d’offres

Disk X of/de X

Example:

Project 123456 / Projet 123456

Repair Alexandra Bridge / Réparation du pont Alexandra

Documents for Tender / Documents pour appel d’offres

Disk 1 of/de 1

APPENDIX E: SECURITY REQUIREMENTS CHECK LIST

JUN 15 2018



Government of Canada
Gouvernement du Canada

Contract Number / Numéro du contrat

EH900-190623

Security Classification / Classification de sécurité
UNCLASSIFIED

SECURITY REQUIREMENTS CHECK LIST (SRCL)
LISTE DE VÉRIFICATION DES EXIGENCES RELATIVES À LA SÉCURITÉ (LVERS)

PART A - CONTRACT INFORMATION / PARTIE A - INFORMATION CONTRACTUELLE		
1. Originating Government Department or Organization / Ministère ou organisme gouvernemental d'origine		Public Works and Government Services Canada
2. Branch or Directorate / Direction générale ou Direction Real Property Services		
3. a) Subcontract Number / Numéro du contrat de sous-traitance		3. b) Name and Address of Subcontractor / Nom et adresse du sous-traitant
4. Brief Description of Work / Brève description du travail Alexandra Bridge Boardwalk Lane Steel Grating and Articulation Project Engineering Consulting		
5. a) Will the supplier require access to Controlled Goods? Le fournisseur aura-t-il accès à des marchandises contrôlées?		<input checked="" type="checkbox"/> No Non <input type="checkbox"/> Yes Oui
5. b) Will the supplier require access to unclassified military technical data subject to the provisions of the Technical Data Control Regulations? Le fournisseur aura-t-il accès à des données techniques militaires non classifiées qui sont assujetties aux dispositions du Règlement sur le contrôle des données techniques?		<input checked="" type="checkbox"/> No Non <input type="checkbox"/> Yes Oui
6. Indicate the type of access required / Indiquer le type d'accès requis		
6. a) Will the supplier and its employees require access to PROTECTED and/or CLASSIFIED information or assets? Le fournisseur ainsi que les employés auront-ils accès à des renseignements ou à des biens PROTÉGÉS et/ou CLASSIFIÉS? (Specify the level of access using the chart in Question 7. c) (Préciser le niveau d'accès en utilisant le tableau qui se trouve à la question 7. c)		<input type="checkbox"/> No Non <input checked="" type="checkbox"/> Yes Oui
6. b) Will the supplier and its employees (e.g. cleaners, maintenance personnel) require access to restricted access areas? No access to PROTECTED and/or CLASSIFIED information or assets is permitted. Le fournisseur et ses employés (p. ex. nettoyeurs, personnel d'entretien) auront-ils accès à des zones d'accès restreintes? L'accès à des renseignements ou à des biens PROTÉGÉS et/ou CLASSIFIÉS n'est pas autorisé.		<input checked="" type="checkbox"/> No Non <input type="checkbox"/> Yes Oui
6. c) Is this a commercial courier or delivery requirement with no overnight storage? S'agit-il d'un contrat de messagerie ou de livraison commerciale sans entreposage de nuit?		<input checked="" type="checkbox"/> No Non <input type="checkbox"/> Yes Oui
7. a) Indicate the type of information that the supplier will be required to access / Indiquer le type d'information auquel le fournisseur devra avoir accès		
Canada <input checked="" type="checkbox"/>	NATO / OTAN <input type="checkbox"/>	Foreign / Étranger <input type="checkbox"/>
7. b) Release restrictions / Restrictions relatives à la diffusion		
No release restrictions Aucune restriction relative à la diffusion <input checked="" type="checkbox"/>	All NATO countries Tous les pays de l'OTAN <input type="checkbox"/>	No release restrictions Aucune restriction relative à la diffusion <input type="checkbox"/>
Not releasable À ne pas diffuser <input type="checkbox"/>		
Restricted to: / Limité à : <input type="checkbox"/>	Restricted to: / Limité à : <input type="checkbox"/>	Restricted to: / Limité à : <input type="checkbox"/>
Specify country(ies): / Préciser le(s) pays :	Specify country(ies): / Préciser le(s) pays :	Specify country(ies): / Préciser le(s) pays :
7. c) Level of information / Niveau d'information		
PROTECTED A PROTÉGÉ A <input checked="" type="checkbox"/>	NATO UNCLASSIFIED NATO NON CLASSIFIÉ <input type="checkbox"/>	PROTECTED A PROTÉGÉ A <input type="checkbox"/>
PROTECTED B PROTÉGÉ B <input type="checkbox"/>	NATO RESTRICTED NATO DIFFUSION RESTREINTE <input type="checkbox"/>	PROTECTED B PROTÉGÉ B <input type="checkbox"/>
PROTECTED C PROTÉGÉ C <input type="checkbox"/>	NATO CONFIDENTIAL NATO CONFIDENTIEL <input type="checkbox"/>	PROTECTED C PROTÉGÉ C <input type="checkbox"/>
CONFIDENTIAL CONFIDENTIEL <input type="checkbox"/>	NATO SECRET NATO SECRET <input type="checkbox"/>	CONFIDENTIAL CONFIDENTIEL <input type="checkbox"/>
SECRET SECRET <input type="checkbox"/>	COSMIC TOP SECRET COSMIC TRÈS SECRET <input type="checkbox"/>	SECRET SECRET <input type="checkbox"/>
TOP SECRET TRÈS SECRET <input type="checkbox"/>		TOP SECRET TRÈS SECRET <input type="checkbox"/>
TOP SECRET (SIGINT) TRÈS SECRET (SIGINT) <input type="checkbox"/>		TOP SECRET (SIGINT) TRÈS SECRET (SIGINT) <input type="checkbox"/>

TBS/SCT 350-103(2004/12)

Security Classification / Classification de sécurité
UNCLASSIFIED



Government
of Canada

Gouvernement
du Canada

Contract Number / Numéro du contrat

EH900-190623

Security Classification / Classification de sécurité
UNCLASSIFIED

PART A (continued) / PARTIE A (suite)

8. Will the supplier require access to PROTECTED and/or CLASSIFIED COMSEC information or assets?
Le fournisseur aura-t-il accès à des renseignements ou à des biens COMSEC désignés PROTÉGÉS et/ou CLASSIFIÉS? ☒ No ☐ Yes
Non Oui
- If Yes, indicate the level of sensitivity:
Dans l'affirmative, indiquer le niveau de sensibilité :

9. Will the supplier require access to extremely sensitive INFOSEC information or assets?
Le fournisseur aura-t-il accès à des renseignements ou à des biens INFOSEC de nature extrêmement délicate? ☒ No ☐ Yes
Non Oui

Short Title(s) of material / Titre(s) abrégé(s) du matériel :

Document Number / Numéro du document :

PART B - PERSONNEL (SUPPLIER) / PARTIE B - PERSONNEL (FOURNISSEUR)

10. a) Personnel security screening level required / Niveau de contrôle de la sécurité du personnel requis

- | | | | |
|---|---|---|--|
| <input checked="" type="checkbox"/> RELIABILITY STATUS
COTE DE FIABILITÉ | <input type="checkbox"/> CONFIDENTIAL
CONFIDENTIEL | <input type="checkbox"/> SECRET
SECRET | <input type="checkbox"/> TOP SECRET
TRÈS SECRET |
| <input type="checkbox"/> TOP SECRET - SIGINT
TRÈS SECRET - SIGINT | <input type="checkbox"/> NATO CONFIDENTIAL
NATO CONFIDENTIEL | <input type="checkbox"/> NATO SECRET
NATO SECRET | <input type="checkbox"/> COSMIC TOP SECRET
COSMIC TRÈS SECRET |
| <input type="checkbox"/> SITE ACCESS
ACCÈS AUX EMPLACEMENTS | | | |

Special comments:

Commentaires spéciaux :

NOTE: If multiple levels of screening are identified, a Security Classification Guide must be provided.

REMARQUE : Si plusieurs niveaux de contrôle de sécurité sont requis, un guide de classification de la sécurité doit être fourni.

10. b) May unscreened personnel be used for portions of the work?
Du personnel sans autorisation sécuritaire peut-il se voir confier des parties du travail? ☐ No ☒ Yes
Non Oui
- If Yes, will unscreened personnel be escorted?
Dans l'affirmative, le personnel en question sera-t-il escorté? ☐ No ☒ Yes
Non Oui

PART C - SAFEGUARDS (SUPPLIER) / PARTIE C - MESURES DE PROTECTION (FOURNISSEUR)

INFORMATION / ASSETS / RENSEIGNEMENTS / BIENS

11. a) Will the supplier be required to receive and store PROTECTED and/or CLASSIFIED information or assets on its site or premises?
Le fournisseur sera-t-il tenu de recevoir et d'entreposer sur place des renseignements ou des biens PROTÉGÉS et/ou CLASSIFIÉS? ☒ No ☐ Yes
Non Oui
11. b) Will the supplier be required to safeguard COMSEC information or assets?
Le fournisseur sera-t-il tenu de protéger des renseignements ou des biens COMSEC? ☒ No ☐ Yes
Non Oui

PRODUCTION

11. c) Will the production (manufacture, and/or repair and/or modification) of PROTECTED and/or CLASSIFIED material or equipment occur at the supplier's site or premises?
Les installations du fournisseur serviront-elles à la production (fabrication et/ou réparation et/ou modification) de matériel PROTÉGÉ et/ou CLASSIFIÉ? ☒ No ☐ Yes
Non Oui

INFORMATION TECHNOLOGY (IT) MEDIA / SUPPORT RELATIF À LA TECHNOLOGIE DE L'INFORMATION (TI)

11. d) Will the supplier be required to use its IT systems to electronically process, produce or store PROTECTED and/or CLASSIFIED information or data?
Le fournisseur sera-t-il tenu d'utiliser ses propres systèmes informatiques pour traiter, produire ou stocker électroniquement des renseignements ou des données PROTÉGÉS et/ou CLASSIFIÉS? ☒ No ☐ Yes
Non Oui
11. e) Will there be an electronic link between the supplier's IT systems and the government department or agency?
Disposera-t-on d'un lien électronique entre le système informatique du fournisseur et celui du ministère ou de l'agence gouvernementale? ☒ No ☐ Yes
Non Oui



PART C - (continued) / PARTIE C - (suite)

For users completing the form manually use the summary chart below to indicate the category(ies) and level(s) of safeguarding required at the supplier's site(s) or premises.

Les utilisateurs qui remplissent le formulaire manuellement doivent utiliser le tableau récapitulatif ci-dessous pour indiquer, pour chaque catégorie, les niveaux de sauvegarde requis aux installations du fournisseur.

For users completing the form online (via the Internet), the summary chart is automatically populated by your responses to previous questions.

Dans le cas des utilisateurs qui remplissent le formulaire en ligne (par Internet), les réponses aux questions précédentes sont automatiquement saisies dans le tableau récapitulatif.

SUMMARY CHART / TABLEAU RÉCAPITULATIF

Category Catégorie	PROTECTED PROTÉGÉ			CLASSIFIED CLASSIFIÉ			NATO				COMSEC					
	A	B	C	CONFIDENTIAL	SECRET	TOP SECRET	NATO RESTRICTED	NATO CONFIDENTIAL	NATO SECRET	COSMIC TOP SECRET	PROTECTED PROTÉGÉ			CONFIDENTIAL	SECRET	TOP SECRET
				CONFIDENTIEL		TRÈS SECRET	NATO DIFFUSION RESTREINTE	NATO CONFIDENTIEL		COSMIC TRÈS SECRET	A	B	C	CONFIDENTIEL		TRÈS SECRET
Information / Assets Renseignements / Biens Production																
IT Media / Support TI																
IT Link / Lien électronique																

12. a) Is the description of the work contained within this SRCL PROTECTED and/or CLASSIFIED?

La description du travail visé par la présente LVERS est-elle de nature PROTÉGÉE et/ou CLASSIFIÉE?

☒ No
Non ☐ Yes
Oui

If Yes, classify this form by annotating the top and bottom in the area entitled "Security Classification".

Dans l'affirmative, classifiez le présent formulaire en indiquant le niveau de sécurité dans la case intitulée « Classification de sécurité » au haut et au bas du formulaire.

12. b) Will the documentation attached to this SRCL be PROTECTED and/or CLASSIFIED?

La documentation associée à la présente LVERS sera-t-elle PROTÉGÉE et/ou CLASSIFIÉE?

☒ No
Non ☐ Yes
Oui

If Yes, classify this form by annotating the top and bottom in the area entitled "Security Classification" and indicate with attachments (e.g. SECRET with Attachments).

Dans l'affirmative, classifiez le présent formulaire en indiquant le niveau de sécurité dans la case intitulée « Classification de sécurité » au haut et au bas du formulaire et indiquer qu'il y a des pièces jointes (p. ex. SECRET avec des pièces jointes).

APPENDIX F: INFORMATION RELATED TO SECURITY REQUIREMENT
(Appendix E – SRCL)

PROPONENT (Bridge Engineer)	
Legal Name of Firm:	
Complete Address:	
Telephone Number:	
CISD File Number:	
Organization Security Clearance:	

Sub-Consultants / Specialists (Seismic Analysis Engineer)	
Legal Name of Firm:	
Complete Address:	
Telephone Number:	
CISD File Number:	
Organization Security Clearance:	

APPENDIX F – INFORMATION RELATED TO SECURITY REQUIREMENT (APPENDIX E SRCL) (CONT'D)

Sub-Consultants / Specialists (Transportation Engineer)	
Legal Name of Firm:	
Complete Address:	
Telephone Number:	
CISD File Number:	
Organization Security Clearance:	

Sub-Consultants / Specialists (Wind Load Analysis Engineer)	
Legal Name of Firm:	
Complete Address:	
Telephone Number:	
CISD File Number:	
Organization Security Clearance:	

APPENDIX F – INFORMATION RELATED TO SECURITY REQUIREMENT (APPENDIX E SRCL) (CONT'D)

The Proponent's Key Personnel identified in SRE 3.2.3 and any other proposed individuals must meet the security requirements as indicated in Supplementary Conditions SC1.

SRE 3.2.3 KEY PERSONNEL – Bridge Engineer	
Legal Name of Individual:	
Name of Firm:	
Level of Security Clearance:	
Validity period of Security Clearance:	
Security Screening Certificate and Briefing Form File Number or CISD File Number:	

SRE 3.2.3 KEY PERSONNEL – Seismic Analysis Engineer	
Legal Name of Individual:	
Name of Firm:	
Level of Security Clearance:	
Validity period of Security Clearance:	
Security Screening Certificate and Briefing Form File Number or CISD File Number:	

APPENDIX F – INFORMATION RELATED TO SECURITY REQUIREMENT (APPENDIX E SRCL) (CONT'D)

SRE 3.2.3 KEY PERSONNEL – Transportation Engineer	
Legal Name of Individual:	
Name of Firm:	
Level of Security Clearance:	
Validity period of Security Clearance:	
Security Screening Certificate and Briefing Form File Number or CISC File Number:	

SRE 3.2.3 KEY PERSONNEL – Wind Load Analysis Engineer)	
Legal Name of Individual:	
Name of Firm:	
Level of Security Clearance:	
Validity period of Security Clearance:	
Security Screening Certificate and Briefing Form File Number or CISC File Number:	

APPENDIX G: CLIENT REFERENCE FORM FOR REPRESENTATIVE PROJECT

The project that is presented by the Proponent shall demonstrate the following requirements:

Section A

This hereby confirms that the following Consulting Firm _____,

executed the services for the following bridge project _____.

Project Location: _____

Project's Scope of Work: _____

Consulting Firm's Services related to the Project:

Consulting Firm's Initial Contract Value (ex. tax) Consulting Firm's Final Contract Value (ex. tax)

Explain any discrepancy between Consulting Firm's initial and final contract value:

Initial Construction Contract Value (ex. tax) Final Construction Contract Value (ex. tax)

Explain any discrepancy between the Construction's initial and final contract value:

APPENDIX G
CLIENT REFERENCE
FORM FOR
REPRESENTATIVE
PROJECT

Section B

I hereby certify the information provided in Section A to be true and factual to the best of my knowledge.

Client Name Title Signature

Company Name Telephone Date

APPENDIX H – NON-DISCLOSURE AGREEMENT

THIS AGREEMENT made as of the ____ day of _____, 20____.

BETWEEN:

HER MAJESTY THE QUEEN IN RIGHT OF CANADA,

as represented by the Minister of Public Works and Government Services Canada
("PWGSC")

- and -

XYZ, [a company incorporated under the laws of _____,

having its head office at _____] ("**XYZ**")

WHEREAS:

- A. The Parties wish to enter into a free and open dialogue regarding the Alexandra Bridge Boardwalk Grating Replacement & Articulations Retrofit project request for proposal (hereinafter the "**Project**");
- B. Each Party has Confidential Information that it is willing to share with the other Party for the purposes of the Project;
- C. Each Party wishes to preserve the confidentiality of its Confidential Information because of the commercial worth attributed by each Party to its Confidential Information; and
- D. The Parties wish to set out in this Agreement their rights and obligations with respect to the disclosure and use of their Confidential Information;

NOW THEREFORE IN CONSIDERATION of the mutual terms and conditions, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties agree as follows:

1. DEFINITIONS

- a) "**Agreement**" means this agreement between PWGSC and XYZ respecting the Project, as the same may be amended from time to time.
- b) "**Confidential Information**" means without limitation, all scientific, technical, business, financial, legal, marketing or strategic information and data
 - i. that is non-public, protected, confidential, privileged or proprietary in nature;

- ii. that may have actual or potential economic value, in part, from not being known;
 - iii. however fixed, stored, expressed or embodied (and includes, without limitation, samples, prototypes, specimens and derivatives);
 - iv. disclosed during discussions, telephone calls, meetings, tests, demonstrations, correspondence or otherwise;
 - v. that is consistently treated as confidential;
or any part or portion thereof, related to the Project pursuant to this Agreement, whether or not such information is specifically marked confidential or identified as confidential at the time of disclosure.
- c) **“Party”** means either PWGSC or XYZ individually, and **“Parties”** means both PWGSC and XYZ collectively.
- d) **“Permitted Representatives”** means, for PWGSC, government officials, employees and agents from any organization of the federal public administration, including, for greater certainty, departments and central agencies, Crown corporations, as well as any contractors, representatives or advisors retained by any portion thereof; and for XYZ, directors, employees, authorized representatives or advisors.

2. CONFIDENTIALITY

- a) **Obligation of Confidentiality** – Confidential Information disclosed by one Party (the **“Disclosing Party”**) to the other Party (the **“Receiving Party”**) under this Agreement shall:
- i. be held in confidence by the Receiving Party;
 - ii. be used by the Receiving Party exclusively for the Project and for no other purpose whatsoever;
 - iii. be safeguarded by the Receiving Party using all reasonable measures and taking such action as may be appropriate to prevent the unauthorized access, use or disclosure of the Confidential Information;
 - iv. not be disclosed to third parties, except Permitted Representatives (and each Permitted Representative of XYZ is required to agree in writing to be bound by the terms of this Agreement) of the Receiving Party and then only for the Project; and
 - v. not be disclosed unless required by law.
- b) **No Waiver of Privilege** – Each Party acknowledges that the Confidential Information of the Disclosing Party is the property of the Disclosing Party or a third party and that neither the Disclosing Party nor the third party intends to, or does, waive any rights, title or privilege it may have in respect of any of the Confidential Information.
- c) **Confidentiality Exclusions** - The obligations imposed by Article 2 (Confidentiality) do not apply to information:

- i. In the Public Domain – the information is now or hereafter becomes, through no act or failure to act on the part of the Receiving Party, generally known or available to the public without breach of this Agreement;
 - ii. Already Known to the Receiving Party - the information was already in the possession of the Receiving Party at the time of disclosure and was not acquired by the Receiving Party, directly or indirectly, from the Disclosing Party (as evidenced by documentation sufficient to establish the timing of such possession);
 - iii. Disclosed by a Third Party - the information becomes available from a third party who has a lawful and legitimate right to disclose the information to others;
 - iv. Independently Developed - the information was independently developed by the Receiving Party without any of the Confidential Information being reviewed or accessed by the receiving Party (as evidenced by documentation sufficient to establish the timing of such development);
 - v. Required to be Disclosed Pursuant to a Judicial, Administrative or Parliamentary Order - the information was released pursuant to a compulsory order under a judicial process or under a compulsory regulatory requirement, or Parliamentary Order. The Parties agree to provide written notice of such orders as soon as reasonably possible;
 - vi. Required to be Disclosed by Law – nothing in this Agreement shall be interpreted so as to preclude ABC from disclosing information that ABC may be required or ordered to disclose under the federal *Access to Information Act* or otherwise, pursuant to any applicable federal laws;
 - vii. Required to be Disclosed to the Auditor General of Canada - nothing in this Agreement shall be interpreted so as to preclude ABC from disclosing information that ABC may be obligated to disclose to the Auditor General of Canada;
 - viii. To which the Disclosing Party Consents to be Released – the information may be released if the Disclosing Party agrees in writing to the release of the information by the Receiving Party.
- d) Confidential Information may only be reproduced as necessarily required to carry out the Project, or with written permission from the Disclosing Party.

3. EFFECTIVE DATE AND DURATION

This Agreement shall come into force and effect on the date of last signature (the “Effective Date”). The Confidential Information shall be held confidential for a term of 1 year from the Effective Date of this Agreement, notwithstanding termination of the Agreement.

4. EXECUTION / SIGNATURES

IN WITNESS WHEREOF this Agreement has been executed by duly authorized representatives of the Parties.

HER MAJESTY THE QUEEN

IN RIGHT OF CANADA, *as represented by*

the Minister of Public Works and Government Services Canada

By: _____

[Name of official]

Date

[Title]

FOR XYZ:

By: _____

[Name of official]

Date

[Title]

I have authority to bind the [corporation, etc.]

SUBMISSION REQUIREMENTS AND EVALUATION

- SRE 1 General Information
- SRE 2 Proposal Requirements
- SRE 3 Submission Requirements and Evaluation
- SRE 4 Evaluation and Rating
- SRE 5 Price of Services
- SRE 6 Submission Requirements - Checklist

SUBMISSION REQUIREMENTS AND EVALUATION

SRE 1 GENERAL INFORMATION

1.1 Reference to the Selection Procedure

An 'Overview of the selection procedure' can be found in General instructions to Proponents (GI3).

1.2 Calculation of Total Score

For this project the Total Score will be established as follows:

Technical Rating x 100%	=	Technical Score (Points)
Total Score	=	Max. 100 Points

(seven (7) Rated Requirements as per SRE 3 and rated as per Table 4.1 in SRE 4)

SRE 2 PROPOSAL REQUIREMENTS

2.1 Requirement for Proposal Format (for this One-phase proposal)

The following proposal format information should be implemented when preparing the One-Phase proposals.

- Submit one (1) bound original plus five (5) bound copies of the proposal
- Paper size should be - 216mm x 279mm (8.5" x 11")
- Minimum font size - 11 point Times or equal
- Minimum margins - 12 mm left, right, top, and bottom
- Double-sided submissions are preferred
- One (1) 'page' means one side of a 216mm x 279mm (8.5" x 11") sheet of paper
- 279mm x 432 mm (11" x 17") fold-out sheets for schedules, organization charts, or work breakdown structure will be counted as 1.0 page. The blank back side of aforementioned fold out sheet will not count in the page total. Use of 11"x17" pages for any other information will be counted as two (2) pages.
- The order of the topics within the proposal should follow the order established in the Request for Proposal and presented in this SRE section.

2.2 Specific Requirements for Proposal Format

The maximum number of pages (including text and graphics) to be submitted for the Rated Requirements under SRE 3 (the full proposal) is forty (40) pages.

The following are not part of the page limitation mentioned above;

- Covering letter
- Consultant Team Identification (Appendix A)
- Declaration/Certifications Form (Appendix B)
- Integrity Provisions – Required Documentation
- Information related to Security Requirement (Appendix F)
- Client Reference Form for Representative Project (Appendix G)
- Non-Disclosure Agreement (Appendix H)
- Consultant Team Verification
- Front page of the RFP
- Front page of revision(s)/amendment(s) to the RFP, if any.

Consequence of non-compliance: any pages which extend beyond the above page limitation and any other attachments will be extracted from the proposal and will not be forwarded to the PWGSC Evaluation Board members for evaluation.

SRE 3 SUBMISSION REQUIREMENTS AND EVALUATION

3.1 MANDATORY REQUIREMENTS

Failure to meet the mandatory requirements will render the proposal as non-responsive and no further evaluation will be carried out.

3.1.1 Licensing, Certification or Authorization

The Proponent shall be a structural engineering firm licensed in the province of Ontario and Quebec, or eligible to be licensed, certified or otherwise authorized to provide the necessary professional services to the full extent that may be required by provincial or territorial law.

3.1.2 Consultant Team Identification

The consultant team to be identified must include the following:

Proponent (prime consultant)

- Bridge Engineer

Key Sub-consultants / Specialists

- Seismic Analysis Engineer
- Transportation Engineer
- Wind Loads Analysis Engineer

If the Proponent proposes to provide multidisciplinary services that might normally be provided by a sub-consultant, this should be indicated here.

Information required - name of firm, key personnel to be assigned to the project. For the prime consultant, indicate current license and/or how you intend to meet the provincial or territorial licensing requirements. In the case of a joint venture identify the existing or proposed legal form of the joint venture (refer to General Instructions to Proponents, GI9 Limitation of Submissions).

Proponents will be required to carry over the consultant team identified for all SRE requirements.

An example of an acceptable format (typical) for submission of the team identification information is provided in Appendix A.

3.1.3 Declaration/Certifications Form

Proponents must complete, sign and submit the following before contract award:

- Appendix B, Declaration/Certifications Form as required

3.1.4 Integrity Provisions – Required documentation

In accordance with the Ineligibility and Suspension Policy (<http://www.tpsgc-pwgsc.gc.ca/ci-if/politique-policy-eng.html>), the Proponent must provide, as applicable, to be given further consideration in the procurement process, the required documentation as per General instructions 1 (GI1), Integrity Provisions – Proposal, section 3a.

3.1.5 Security Requirement

- 1) Proponents must meet the security requirements as outlined under SI6 and SC1.
- 2) Before award of a contract, the following conditions must be met:
 - a. The Proponent and Sub-Consultants/Specialists must meet the following security requirement:

Proponent/Sub Consultants/Specialists (Firms)	Security Clearance (FSC Reliability) at Contract Award
Proponent (Prime Consultant) Bridge Engineer	X
Seismic Analysis Engineer	X
Transportation Engineer	X
Wind Loads Analysis Engineer	X

To help PWGSC with the verification process, Proponents are being asked to complete Appendix F.

- b. The Proponent Key Personnel must meet the following security requirement:

Key Personnel Category (Individuals)	Security Clearance (Reliability) at Contract Award
Proponent (Prime Consultant) Bridge Engineer	X
Seismic Analysis Engineer	X
Transportation Engineer	X
Wind Loads Analysis Engineer	X

To help PWGSC with the team verification process, Proponents are being asked to complete Appendix F.

3.2 RATED REQUIREMENTS

3.2.1 Achievements of Proponent on Projects

The Proponent should describe their accomplishments, achievements, knowledge and experience as a prime consultant on three (3) separate bridge projects completed in North America, that are comparable, in terms of scope, scale and complexity of work, to the project described in the Project Brief and Project Requirements (PR) sections of the Request for Proposals (RFP).

With respect to the projects described, the Proponent should provide evidence:

- That at least two (2) projects were completed or at least reached Substantial Performance (as defined in GC1.1.4 of R2810D) within the last ten (10) years; and
- That, as of Bid Close, the construction of the third project described was at least fifty percent (50%) completed within the last ten (10) years.

The foregoing projects description should clearly demonstrate that the Proponent has experience in the rehabilitation of truss bridges. At least one project must be a truss bridge of similar complexity than Alexandra Bridge (meaning a bridge of similar construction using some of or all of the following: pin connections, eye-bars, sliding pins, suspended span, pin & hanger assemblies, built up truss members).

For clarity, projects completed or that reached Substantial Performance more than ten (10) years ago shall not meet the foregoing criteria and shall not be evaluated or rated.

A copy of GC 1.1.4 of R2810D can be found at the following link:

<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual/5/R/R2810D/16#substantial-performance>

In the event that the Proponent describes more than three (3) projects, only the first three (3) projects listed, in sequence, will be evaluated and rated (with any other submitted projects not being evaluated or rated by Canada and being deemed not received by Canada).

Proponents should demonstrate that the Firm has experience providing the full range of services listed in the Project Requirements (PR) and Required Services (RS) sections of the project brief and demonstrate that the personnel with experience on those projects will be available to deliver this project.

In addition, the Proponents should provide the following information for the projects described:

- a) name of the assets and name of the projects;
- b) location of the assets;
- c) at the date of Bid Close, the percentage completed or, if completed, the date of completion of the projects;
- d) if applicable, identify if projects were carried out in joint venture, partnership or otherwise with a third party or parties and describe the responsibilities of each of the involved entities;
- e) clearly indicate how the projects are comparable/ relevant to the project detailed in the project brief;
- f) provide a project description (including, without limitation, description of design philosophy and approach and the manner that the philosophy and approach was

- appropriate for the project's intent, objectives, addressed design and construction challenges and effected resolutions);
- g) description of budget control and management methodology (including without limitation, the contract price, the final (or Substantial Performance) construction cost and, if applicable, an explanation of any variation);
 - h) brief description of project schedule control and management methodology (including without limitation, the initial schedule, any revised schedule(s) and, if applicable, an explanation of any variation);
 - i) names of key personnel responsible for project delivery and their roles;
 - j) demonstrate that the Proponent was an active participant (as a professional engineering firm) in the submitted projects and has the related direct knowledge and experience on all submitted projects; and
 - k) Complete and submit Appendix G "CLIENT REFERENCE FORM FOR REPRESENTATIVE PROJECT" for each project as validation of the Proponent's representative projects. If any of the information requested in Appendix G is not provided in the Proponent's submission, Canada will provide a timeframe by which it must be provided. Failure to provide the requested information, for any of the representative projects, will lead to that project receiving no further consideration.

The Proponent should possess the knowledge and experience on the above projects. Past project experience from entities other than the Proponent will not be considered in the evaluation.

3.2.2 Achievements of Key Sub-consultants and Specialists on Projects

The Proponent should describe the key sub-consultants and specialists (as identified in section 3.1.2) accomplishments, achievements, knowledge and experience either as a prime consultant or a sub-consultant for the specified number of project(s) below, that are comparable in terms of scope, scale and complexity of work, to the project described in the Project Brief and Project Requirements (PR) section of the RFP. If the Proponent is providing the services of any or all of the key sub-consultants or specialists, the Proponent should provide his own information for such key sub-consultants and specialists experience in this subsection based on the Proponent being deemed to be such key sub-consultant or specialist, as the case may be. With respect to projects described for each key sub-consultant and specialist, the Proponent should provide evidence:

- That the one (1) project was completed or at least reached Substantial Performance (as defined in GC1.1.4 of R2810D) within the last ten (10) years;

For clarity, a project that was completed or that reached Substantial Performance more than ten (10) years ago shall not meet the foregoing criteria and shall not be evaluated or rated.

There are three (3) key sub-consultants/ specialists for which one project should be presented. For the Seismic Analysis Engineer with experience in seismic analysis and selection and replacement of bearings, pins and hanger assemblies a second project should be presented with the following evidence:

- this second project, at Bid Close, is completed or has at least reached fifty percent (50%) of construction and was completed within the least ten (10) years.

A copy of GC 1.1.4 of R2810D can be found at the following link:

<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual/5/R/R2810D/16#substantial-performance>

In the event that the Proponent describes more projects than requested, only the number of projects requested per key sub-consultant or specialist will be evaluated and rated (with any other submitted projects not being evaluated or rated by Canada and being deemed not received by Canada).

The foregoing projects should clearly demonstrate that such key sub-consultants and specialists have experience in the following areas:

- a) Seismic Analysis Engineer, with experience in seismic analysis and selection and replacement of bearings, pins and hanger assemblies (using two projects)
- b) Transportation Engineer, with experience in traffic/construction staging (using one project)
- c) Wind Loads Analysis Engineer (using one project)

In addition, the Proponent should provide the following information for the projects described:

- a) name of the assets and name of the projects;
- b) location of the assets;
- c) at the date of Bid Close, the percentage completed or, if completed, the date of completion of the projects;
- d) if applicable, identify if projects were carried out in joint venture, partnership or otherwise with a third party or parties and describe the responsibilities of each of the involved entities;
- e) provide a description of the project and clearly indicate how the projects are comparable/ relevant to the project detailed in the project brief;
- f) clearly explain the specific expertise given through the sub-consultant/specialist mandate within the overall context of the project;
- g) demonstrate that the sub-consultants and specialists were an active participant (in the requisite professional capacity) in the submitted projects and have the related direct knowledge and experience on the submitted projects, (including, without

limitation, description of design philosophy and approach and the manner that the philosophy and approach was appropriate for the project's intent, objectives, scope, budget and schedule, addressed design and construction challenges and effected resolutions)

- h) Briefly describe the other services, if any, that were rendered by the sub-consultants and specialists within the context of the projects; and
- i) Complete and submit Appendix G "CLIENT REFERENCE FORM FOR REPRESENTATIVE PROJECT" for each project as validation of the Proponent's representative projects. If any of the information requested in Appendix G is not provided in the Proponent's submission, Canada will provide a timeframe by which it must be provided. Failure to provide the requested information, for any of the representative projects, will lead to that project receiving no further consideration.

The Proponent should demonstrate that the key sub-consultants and specialists possess the knowledge and experience on the above projects. Past project experience from entities other than the key sub-consultants and specialists will not be considered in the evaluation.

3.2.3 Achievements of Key Personnel on Projects

The Proponent should describe the expertise, performance, achievements and experience of key personnel to be assigned to this project (regardless of their past association with the Proponent) that demonstrates such key personnel's (in the requisite professional capacity) ability to effectively work on this project. This is the opportunity to emphasize the strengths of the individuals on the team, to recognize their past responsibilities, commitments and achievements. All key personnel identified should have at least ten (10) years of experience in their field of expertise. If multiple functions are proposed to be performed by one key personnel, it should be identified here.

The foregoing description of the key personnel should include the following information:

- a) the name of the key personnel and their title;
- b) the current employer of the key personnel;
- c) all related professional accreditation, including the jurisdiction of accreditation, status of accreditation and the year originally accredited;
- d) a description of expertise and experience (with number of years) relevant to this project;
- e) a description of the roles, responsibilities and degree of involvement of the key personnel on past projects that will corroborate the person's experience and expertise; use reference to SRE 3.2.1 and 3.2.2 as appropriate.

3.2.4 Understanding of the Project:

The Proponent should demonstrate a clear understanding of the project objectives, the functional/technical requirements, the constraints, the issues and challenges that may affect the design, delivery and implementation of the project. This demonstration should include an understanding of:

- a) the project's functional and technical requirements;
- b) the project specific objectives and significant issues, challenges and constraints from the technical, logistical and construction point of view;
- c) the overall project implementation strategy including but not limited to the possible results of the studies and the required sequence of the various works;
- d) the project integration strategy with any other possible relevant project(s) in the National Capital Area;
- e) the involvement and management approach of the project stakeholders;
- f) the application of life cycle costing and maintenance considerations to this project; and,
- g) other project objectives as they relate to heritage conservation, sustainable development and site sensitivities.

3.2.5 Design Philosophy / Approach / Methodology

The Proponent should describe the aspects of the project that are likely to be the major challenge(s) and the manner in which the Proponent's proposed design philosophy, approach and methodology will effectively address such challenge(s). This is the opportunity for the Proponent to state the overall design philosophy of the team as well as their approach to resolving design and construction issues and in particular to focus on the unique aspects of the current project.

This description should include:

- a) the Proponent's engineering and delivery approach specific to this project;
- b) the likely major schedule challenges, technical challenges, stakeholder challenges, procurement risks, construction challenges, and any other challenge worth mentioning, specific to this project.
- c) the methodology and approach to effectively deal with each challenge.
- d) the likely major construction risks and how to minimize them; and
- e) a description of the heritage conservation approach for this historic structure.

3.2.6 Understanding of the Scope of Services:

The Proponent should demonstrate an understanding of the full scope of service for this project. This demonstration should include:

- a) a description of the Proponent's understanding of the full scope of services and deliverables required for this project;
- b) a proposed project schedule indicating logical sequencing of all project activities, tasks and deliverables through all phases of the project as outlined in the Project Brief document to this project; (including without limitation, tender and construction);
- c) a proposed risk management strategy (including without limitation, risk techniques applied to project budget and schedule);
- d) a proposed project cost control methodology, including without limitation, an explanation of how cost control will be applied to maintain the project budget;
- e) a work plan for the project that provides a detailed breakdown of work tasks and deliverables, including without limitation, all required reviews and approvals and clear assignment of responsibilities for activities and deliverables to project team personnel with an estimation of levels of effort;
- f) a description of how the proponent manages the quality of all its deliverables and how the construction contract quality will be managed.
- g) a description of a program for the Resident Site Services during Construction.

3.2.7 Management of Services and of the Team:

The Proponent should describe how they propose to organize and manage the services described in the Project Brief, as an efficient and effective manager to form a project team capable of providing all the required services and deliverables, addressing all issues and constraints, and meeting all the challenges of the project.

This description should include:

- a) the Proponent's internal processes and methodologies to ensure that all project services are delivered on time, on budget, on scope and at the highest level of quality, namely, describe:
 - o Time Planning, Scheduling and Control;
 - o Cost Planning, Estimating and Control;
 - o Quality Assurance and Control (consultant deliverables and construction deliverables);
 - o Scope of Work Control;
 - o Risk Management (including identification of major project risks and remedial action);
 - o Conflict Resolution (consultant contract and construction contract)

- b) the manner that the Proponent proposes to perform the services and meet the project constraints;
- c) the manner that the team will be organized and how the team will fit in the existing structure of the Proponent;
- d) a description of the full project team including the names of the consultant's, sub-consultants and specialists personnel with the profiles of the discipline key positions including the senior resident site engineer showing their roles and responsibilities on the project;
- e) an organization chart, with position titles and names (consultant team) and what back-up personnel will be committed and the reporting relationships.
- f) if applicable, joint venture and partnership business plans, team structures and responsibilities;
- g) the Proponent's proposed communication strategies, including lines of communication and reporting structure within the Proponent team, Sub-Consultant(s) and PWGSC; and,
- h) the Proponent's proposed project response times, including a demonstration as to how the Proponent will meet the required response times outlined in PA 1.4, Project Response Time.

SRE 4 EVALUATION AND RATING

4.1 Technical Rating

The proposals that are responsive (i.e. which meet all the mandatory requirements set out in the RFP) will be reviewed, evaluated and rated by a PWGSC Evaluation Board. The Rated Requirements components of the proposal will be evaluated in accordance with the following to establish the ratings:

Criterion	Weight Factor	Rating	Weighted Rating
3.2.1 Achievements of Proponent on Projects	1.5	0 - 10	0 - 15
3.2.2 Achievements of Key Sub-consultants / Specialists on projects	1.5	0 – 10	0 - 15
3.2.3 Achievements of Key Personnel on Projects	1.5	0 - 10	0 - 15
3.2.4 Understanding of the Project	1.25	0 - 10	0 - 12.5
3.2.5 Design Philosophy/Approach/Methodology	1.5	0 - 10	0 - 15
3.2.6 Understanding of the Scope of Services	1.25	0 - 10	0 - 12.5
3.2.7 Management of Services and of the Team	1.5	0 - 10	0 - 15
Technical Score	10.0		0 - 100

In the event two or more Proponents receive the same Technical Score, for the purposes of determining the Highest Ranked Technical Proponent, the Proponent with the highest rating in the criterion 3.2.5 will be deemed to have the highest Technical Score.

Generic Evaluation Table

PWGSC Evaluation Board members will evaluate the strengths and weaknesses of the Proponent's response to the evaluation criteria and will rate each criterion with even numbers (0, 2, 4, 6, 8 or 10) using the generic evaluation table found below.

To be considered further, Proponents **must** achieve a minimum Technical Score of sixty (60) points out of the one hundred (100) points available as specified above.

No further consideration will be given to Proponents not achieving the pass mark of sixty (60) points.

SRE 5 PRICE OF SERVICES

*The Proponent **is not to submit** a price envelope with the proposal. See General Instructions GI 3.*

Generic Evaluation Table

PWGSC Evaluation Board members will evaluate the strengths and weaknesses of the Proponent's response to the evaluation criteria and will rate each criterion with even numbers (0, 2, 4, 6, 8 or 10) using the generic evaluation table below:

	INADEQUATE	WEAK	ADEQUATE	FULLY SATISFACTORY	STRONG
0 point	2 points	4 points	6 points	8 points	10 points
Did not submit information which could be evaluated	Lacks complete or almost complete understanding of the requirements.	Has some understanding of the requirements but lacks adequate understanding in some areas of the requirements.	Demonstrates a good understanding of the requirements.	Demonstrates a very good understanding of the requirements.	Demonstrates an excellent understanding of the requirements.
	Weaknesses cannot be corrected	Generally doubtful that weaknesses can be corrected	Weaknesses can be corrected	No significant weaknesses	No apparent weaknesses

SRE
SUBMISSION REQUIREMENTS
AND EVALUATION

	Proponent do not possess qualifications and experience	Proponent lacks qualifications and experience	Proponent has an acceptable level of qualifications and experience	Proponent is qualified and experienced	Proponent is highly qualified and experienced
	Team proposed is not likely able to meet requirements	Team does not cover all components or overall experience is weak	Team covers most components and will likely meet requirements	Team covers all components - some members have worked successfully together	Strong team - has worked successfully together on comparable projects
	Sample projects not related to this requirement	Sample projects generally not related to this requirement	Sample projects generally related to this requirement	Sample projects directly related to this requirement	Leads in sample projects directly related to this requirement
	Extremely poor, insufficient to meet performance requirements	Little capability to meet performance requirements	Acceptable capability, should ensure adequate results	Satisfactory capability, should ensure effective results	Superior capability, should ensure very effective results

PROJECT BRIEF

Information contained in this Project Brief identifies the project requirements and the consulting services required for this project.

The Project Brief is divided into three sections:

- **PROJECT REQUIREMENTS (PR)**
 - **PROJECT ADMINISTRATION (PA)**
 - **REQUIRED SERVICES (RS)**
-

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PROJECT REQUIREMENTS

PR 1 PROJECT INFORMATION

PR 1.1 General

In accordance with the process specified for the Request for Proposals (RFP), Public Works and Government Services Canada (PWGSC) intends to retain an engineering consulting firm in the capacity of Prime Consultant, specializing in steel truss bridges, supported by a multidisciplinary team of in-house personnel or Sub-Consultants, for the provision of the services required for this project.

PR 1.2 Project Identification

Project Title: Alexandra Bridge Boardwalk Grating Replacement & Articulations Retrofit

Location of the Project: Ottawa River, between Gatineau, QC and Ottawa, ON

PWGSC Project Number: R.093649.008

Client / User: PWGSC

PR 1.3 Project Delivery Approach

The Prime Consultant will deliver the services described in this project brief. In short, the Prime Consultant will review all of the relevant documentation related to the bridge, recommend further examination as required, proceed with the design, prepare bilingual construction tender documents, and provide construction contract administration including resident site services, while continuously providing cost, scheduling, scope and risk control.

The delivery of the Consultant services is to be a process leading to the preparation of bilingual construction tender documents. The construction tender package would be for works related to the Boardwalk lane (BWL) steel grating replacement, retrofitting to the bridge's articulation consisting of repairs/retrofit to pins, replacement and repair of bearings and retrofit of the pin and hanger assemblies, as well as other various steel repairs.

Implementation of this project shall be carried out under one (1) consultant contract and one (1) construction contract.

PR 1.4 Estimated Construction Costs

The class "D" (Indicative) construction budget is estimated at \$32.3 M (2018 dollars) excluding HST.

The project shall respect the approved budget. It is the Consultant's responsibility to manage the project's scope within this budget.

PR 1.5 Project Schedule

During work, flexibility is very important in terms of accommodating unanticipated site requirements. The timelines indicated below include normal PWGSC turnaround time which is specified in the Submission Review and Approval Process section.

Boardwalk Lane (BWL) Replacement and Articulations Rehabilitation

a) Pre-Design /Analysis of Project Requirements	2 months
b) Design Concept	3 months
c) Design Development	6 months
d) Construction Documents (66% at 2 months) & TB Expenditure Authority	7 months
e) Tender Call, Bid Evaluation & Construction Contract Award / Authority	3 months
f) Construction	24 months
g) Contract Administration (24 months concurrent with Construction, 24 months for project close out and warranty inspection)	48 months

Note that the above time allocations are meant to provide a preliminary time frame of major activities and milestones. The estimated duration periods may vary. The schedule supplied by the Consultant shall be more detailed and representative of the achievable delivery. The successful Consultant and PWGSC shall agree to a final schedule which will prevail.

In developing a detailed schedule, the Consultant shall find some activities are not interdependent and therefore can and shall be done concurrently.

The Expenditure Authority (EA) may have to be sought from TB before tendering for implementation of the project. Upon receiving EA, the plans and specifications produced shall then be used to tender the construction projects, which shall allow PWGSC to select a general contractor to execute the contract.

Because submissions for Treasury Board approval require detailed review and substantiation, the scheduling of the approval cannot be determined in advance. However, it is estimated that these approvals require **approximately three (3) months**. This delay is not included in the above time frame.

Construction is estimated to start in April 2021 and is estimated to be substantially completed by January 2023.

PR 2 INTRODUCTION AND BACKGROUND

PR 2.1 Bridge History

The Alexandra Bridge was constructed between 1898 and 1901 by the Dominion Bridge Company of Canada Ltd for the Pontiac Pacific Junction Railway and the Ottawa Gatineau Railway. Shortly after construction completion Alexandra Bridge was purchased by the Canadian Pacific Railway (CPR). Electric street cars operated on the bridge until 1946 and railway trains operated until 1966. The bridge was converted to vehicle traffic in the early 1970's. Public Works and Government Services Canada (PWGSC) has the general responsibility of maintenance and repairs of the bridge and the National Capital Commission (NCC) has the responsibility to maintain the wooden boardwalk and to provide the snow removal of the various lanes and approaches in the winter.

The Alexandra Bridge is one of five inter-provincial bridges in the Ottawa-Gatineau area. The other bridges are: the Macdonald-Cartier, the Chaudieres Crossing, the Portage and the Champlain bridges. There are approximately 135,000 vehicle crossings per day on the five inter-provincial bridges. Macdonald-Cartier is the busiest with about 51,000 (37%) of those crossings and Alexandra has about 13,000 (or about 9%). The bridge also carries about 33% of all pedestrian and cyclist traffic across the river. The bridge connects St-Patrick and Murray streets in Ottawa to the boulevard Des Allumetieres in Gatineau and is part of the Confederation Boulevard Ceremonial Route.

The Alexandra Bridge is 575m long and consists of steel trusses and trestles as follows from Ottawa to Gatineau: the Ottawa (south) trestle approach of 18.3 m; followed by the 3 spans main truss of 320.0m; the simple truss (B) of 75.3m; the simple truss (A) of 42.7m; and then the north (Gatineau) trestle span of 118.8m. The lane between the two trusses is for the Ottawa-bound traffic (5.7 m wide), the downstream outside cantilevered lane (4.8 m wide) is for Gatineau-bound traffic, and the upstream cantilevered lane is used for pedestrians and cyclists (4.8 m wide) and is covered with wooden boards.

Since its construction in 1900, the Alexandra Bridge has had several repairs and rehabilitations. Records do indicate strengthening done in the 1940's when it was still owned by the CPR and the electric cars were still operating. Major modifications and rehabilitation were done in the 1970's when it was converted from a railway usage to vehicle traffic usage at which time strengthening was done to the trusses and bracings, and, floor beams and stringers were replaced at numerous locations and the bridge was painted. More steel strengthening and repairs were done in 1980. The anchorage of piers 1 and 4 were modified in 1987 and 1992. The structure was entirely painted in 1996-97 along with numerous steel strengthening. A major rehabilitation occurred in 2009-2010 including; the replacement of the center lane deck along with the parapet walls, a seismic retrofit to the substructure and superstructure to Emergency level as per the 2006 bridge code, various strengthening to re-instate the live-loads capacity of the structure, the replacement of the guardrails of the boardwalk lane area, the replacement of the wooden boardwalk, and, the addition of tuned mass dampers. In 2013-14 further steel strengthening, steel grating replacement and a paint project was done to the 118.8m Gatineau Trestle area. In 2016-17 more steel strengthening was done in the Pier 3 area and other locations of the structure. An additional project is planned in 2018 for more steel repair and strengthening in the Pier 2 area and at various other locations of the structure.

The Alexandra Bridge has historic value and the proposed rehabilitation must reflect the historic nature of the bridge, it was designated by the Canadian Society of Civil Engineering (CSCE) as having been designed and constructed in the 1890's using leading edge technology for a bridge of this size and complexity. The Heritage Value Assessment report written by URS Canada Corp in 2010 classified the bridge as having a heritage rating of: Level II – National Historic Importance.

PR 2.2 Existing Conditions

Recent condition assessment and option analysis reports have revealed that:

- a) The steel grating under the boardwalk is severely corroded, is rated in Critically Inadequate condition, and needs to be replaced. Its support structure, mainly stringers and floorbeams range from Fair to Poor condition.
- b) Other components such as the truss chords, pin connections, bracings, stringers, floor beams, and coating system have various degrees of deterioration and rust jacking, are generally rated as Poor to Inadequate condition.
- c) The thermal expansion of the bridge is not occurring at some of the pre-determined locations; some bearings, sliding pins, stringer pedestals & corbels, expansion joints, pin and hanger assemblies, are seized or partially seized or inducing thermal stresses in various bridge members. Some pins have developed mobility. The pin and hanger assemblies are not functioning as intended.
- d) The 2018 wind load structure study determined that several members are overstressed based on the CHBDC specified wind loads, and that a more detailed wind study, possibly using wind tunnel testing, is recommended to determine the scope of the repairs.
- e) For further details on the conditions of this bridge please consult the 2014 and 2017 Comprehensive Detailed Inspections and the structural evaluation reports.

PR 3 PROJECT OBJECTIVES, ISSUES, CONSTRAINTS AND CHALLENGES

PR 3.1 Objectives

a) **Health and Safety**

PWGSC, recognizes the responsibility to ensure the health and safety of all users of the asset, as well as all persons on Crown construction projects and the entitlement of both federal employees and private sector workers to the full protection afforded them by occupational health and safety regulations.

In keeping with the responsibility and in order to enhance health and safety protection for all individuals on federal construction sites, PWGSC shall voluntarily comply with the applicable provincial/territorial construction health and safety acts and regulations, in addition to the related Canada Occupational Safety and Health Regulations.

The project is to be implemented in a manner that shall provide safeguards to protect the health and safety of workers and users and ensure long term safety of the structure.

b) **On-Time / On-Budget / On-Scope**

The Consultant shall deliver this project on time, and on scope and on budget.

c) **Quality of Work**

PWGSC expects the Consultant to maintain a high standard of design. The design process for all project components, including planning and engineering, shall be fully coordinated. The project is to be implemented in an environmentally responsible manner.

Codes, regulations, by-laws and decisions of “Authorities Having Jurisdiction” shall be observed. In cases of overlap, the most stringent shall apply. The Consultant shall identify other jurisdictions appropriate to the project. Provincial environmental acts and regulations shall be considered in accordance with the federal government's ‘Good Neighbor’ policy.

d) **Sustainable Development**

PWGSC, like all federal departments, is required to have a Sustainable Development Strategy (SDS). PWGSC has developed its Strategic Plan that sets out principles, goals and actions for integrating sustainable development principles into its policies and operations.

Sustainable Development objectives, in particular Sustainable Project Delivery objectives, shall be addressed throughout the evolution of the project. Sustainable Development is defined in broad terms as a strategy that, throughout the implementation of the project, routinely and consistently includes the consideration of the environmental, economic and societal impact of every decision made for the project.

e) **Good Stewardship**

The project must respect the fundamentals of aesthetics in the design of the structure by taking into account its integration into the environment including landscaping. Environmental stewardship of the project includes exploring the opportunities available to reduce the environmental impact of the project, operations and maintenance, and improve the nearby aquatic and terrestrial environment.

f) **Continuity of Operations**

Complete all construction phase in a manner to maintain at all times a traffic flow capacity to assure the effective and safe traffic operation on the bridge, within the adjacent cities and on the connecting road and highway.

g) **Risk Management**

The Department is committed to integrating risk management practices and processes into the management of all its real property projects. A risk management plan was developed during the project identification stage. The Consultant will update the plan during the life of the project and shall integrate risk management practices and processes into the project.

PR 3.2 Issues, Constraints and Challenges

a) **Time Constraints**

Some of the construction work should not be done during the winter as it would be relatively costly and would generate additional Health and Safety risks to the workers and users. The most appropriate time to deliver the painting, concrete and some steel works are from March-April to November of each year.

b) **Impact on Local Stakeholders**

The project is to be implemented in a manner to ensure that work is carried out with minimal disturbance to the stakeholders who will be affected in different ways by the project.

Deliver the project utilizing the best practices in support of stakeholders/users/environmental management needs, respecting approved scope, quality, cost and time.

Local stakeholders also include other users who depend on the bridge for general, commuter and commercial travel across the Ottawa River including, but not limited to: private commuters, pedestrians/cyclists, public and private transit, transport vehicles, police services, emergency services, the cities of Ottawa and Gatineau, the Museum of History, the National Capital Commission, etc.

Rehabilitation of the bridge will impact on the stakeholders at different times and for variable lengths of time. Effective communications shall be maintained with all stakeholders and the public to minimize user disruptions and inconvenience for the duration of the project.

c) **Traffic Control**

The construction work is to be staged in a manner that maintains normal pedestrian and traffic flow at all times and normal vehicular traffic flow as much as possible.

Construction staging with respect to the traffic requirements shall need to be studied in order to provide construction delivery options that are acceptable to PWGSC and to related stakeholders and users.

d) **Constructability Issues**

Maximize the efficiency of the project by taking the constructability of the design into account. Constructability may be affected by the amount of work done in the field as opposed to shop controlled fabrication, customized construction as opposed to readily available products and practice, light weight as opposed to heavy weight components, area available for construction workers and equipment as opposed to a restricted work area, nearby traffic, ease of achieving composite action, and others.

e) **Operation and Maintenance**

The design and construction of the asset shall give careful attention to minimizing long-term maintenance costs and reducing environmental impacts of the operation and maintenance of the asset by encouraging environmentally sound maintenance practices through provision of

suitable materials and durable design features.

f) Demolition and Removals

Demolition and removals shall be planned and carried out in a manner that optimizes health and safety, environmental protection, the principles of sustainable development and waste management, as well as careful and efficient coordination with all other site work.

g) Coordination with Federal and Provincial Governments and other Authorities Having Jurisdiction

The Consultant shall follow codes, regulations, by-laws and decisions of “Authorities Having Jurisdiction” as well as all applicable Provincial acts and regulations as per Federal government's ‘Good Neighbour’ policy; in cases of overlap, the most stringent shall apply. The Authorities Having Jurisdiction include those listed in PA 2; identify other jurisdictions appropriate to the project.

Transport Canada and Fisheries and Oceans Canada (DFO) are both federal authorities that will be involved in the project. The Consultant will be responsible to coordinate with these authorities and include required information from these authorities in the project deliverables.

PR 4 TECHNICAL REQUIREMENTS

PR 4.1 Overview

The objective of this project is to proceed with the replacement of the upstream boardwalk steel grating deck, rehabilitation to its support structure, an articulation retrofit and various steel repairs on the bridge. More specifically, the project shall involve:

- a) Replacing the upstream steel grating under the boardwalk from the Ottawa abutment to Pier 6;
- b) Investigating and as required rehabilitating the approaches and abutments of the boardwalk lane;
- c) Repairing and strengthening the boardwalk structure to accommodate new boardwalk lane deck and identified deterioration, to a Fair (4) condition or better;
- d) Assessing the articulation of the bridge. Repairing or replacing seized and partially seized bearings, sliding pins, stringer corbels & pedestals, expansion joints, retrofit and or redundancy of the pin and hanger assemblies, securing pins that have developed mobility, repairing cracked pin nuts, with the goal of re-establishing the adequate thermal movement and live load deflection of the structure.
- e) upon investigation and when required, repairing and strengthening other components such as truss chords, pin connections, bracings, stringers, floor beams, BWL coating system and others rated as Fair (4), Poor (3), Inadequate (2) or Critically Inadequate (1) to address deterioration and loss of capacity;
- f) Strengthening of various members due to the results of the wind analysis, as described in RS 2.2.
- g) Repairing as required various other components identified in recent inspections and studies.
- h) Performing non-destructive testing and some continuous monitoring of bridge members.

PR 4.2 Scope of Services

Required Services:

- RS 1 – General Services Requirements;
- RS 2 – Pre-design/Analysis of Project Requirements;
- RS 3– Design Concept;
- RS 4 – Design Development;
- RS 5 – Construction Documents;

Optional Required Services:

- RS 6 – Tender Call, Bid Evaluation and Construction Contract Award;
- RS 7 – Construction and Contract Administration;
- RS 8 – Resident Site Services During Construction;

OPTIONAL SERVICES

The above services indicated as Optional Required Services are at the discretion of PWGSC. Proceed only upon written authorization from Departmental Representative.

Specific and detailed service requirements are presented in the Required Services (RS) Sections of this document.

PR 4.3 Design Principles

- a) The design and related construction shall ensure that during all phases of the construction contract, the safety and protection of people and of the structure itself is never compromised in any manner, considering that the existing structure remains in service during the construction.
- b) The bridge rehabilitation shall be designed and constructed to provide the required strength, durability, overall stability, safety and serviceability with appropriate safeguards against excessive cracking, fatigue, unacceptable deformation, premature corrosion, deterioration of material, undesirable vibration and deflection commensurate with a design service life of 75 years.
- c) The bridge shall be rehabilitated in a manner that is aesthetically pleasing and harmonious with its environment.
- d) The design shall incorporate an evaluation of high performance construction materials including life cycle costing and environmental sustainability analyses of various design alternatives (e.g. zinc-coated rebar (galvanized), high performance concrete, etc.). Evaluate and determine performance criteria, functional requirements, and general code compliance.
- e) All new structural components installed shall be protected against corrosion. Utilize industry proven materials and avoid experimental materials.

PR 4.4 Performance Requirements

a) General

1. The rehabilitation shall be of high quality and high performance through excellence of concept, design and construction respecting the final limitations of the project and ensuring economy and environmental sustainability in design and construction.
2. The rehabilitation shall be designed to provide the required strength, durability, overall stability, safety and serviceability with appropriate safeguards against excessive cracking, fatigue, unacceptable deformation, premature corrosion, deterioration of material, undesirable vibration and deflection commensurate with a design service life of seventy-five (75) years.
3. The rehabilitation design shall be aesthetically pleasing and harmonious with its environment, and respect original design and geometry of the structure.

b) Durability

1. The consultant shall submit to the Departmental Representative the details of its proposed durability design compatible with the requirement for a rehabilitation with a design service life of seventy-five (75) years.
2. Durability requirements shall be consistent with the latest Canadian Highway Bridge Design Code and standards and practices, and shall incorporate the current state of knowledge in the industry.

c) Steel Products and Corrosion Protection

1. Structural steel for the superstructure supporting elements to be high strength steel (Grade 350 MPa) and to be shop-painted with a high-grade three coat system compatible with the existing paint and color. Galvanized steel shall be considered at places especially where components are specifically exposed to an aggressive corrosion environment.
2. Reinforcing steel shall be protected against corrosion in deck and in salt exposed areas using adequate concrete cover and considering stainless steel or galvanized reinforcing steel. Carbon or glass fiber reinforced polymer (FRP) reinforcing shall be given consideration as an alternative for the top layer of reinforcing steel in a concrete deck option.
3. Pre-stressing steel shall be protected against corrosion using the best available methods including adequate concrete cover, galvanizing plain reinforcing steel and ducts (where applicable).

d) Concrete Products

1. Concrete products are to be of high quality, of optimum strength, durability, resistance and compatible to the environment and existing concrete products within the bridge.

e) Paint products

1. Paint products shall be of high quality, be strictly compatible with the existing coating system used on the current bridge and be very resistant to environmental conditions to which the bridge is exposed.

f) Roadway, Boardwalk and Curb Expansion Joint Systems

1. Expansion joint systems shall consist of components arranged so as to accommodate imposed translation and rotation at expansion joints and accommodate seismic movement (lateral, longitudinal and vertical).

2. Expansion joint systems shall provide smooth passage of traffic and shall be designed and constructed to minimize impairment of riding characteristics of the roadway, boardwalk and sidewalk areas.
3. Where appropriate, expansion joint systems shall be watertight so as to prevent damage to underlying structures from water, de-icing chemicals and debris. Joints systems shall be tested for water tightness after installation.
4. All steel, including bolts, nuts, washers and anchors, shall be either stainless steel or be galvanized.
5. Joints shall be made so that they can be dismantled for ease of maintenance and repair.

g) Traffic Barrier System

1. The outside railings of the boardwalk, if removed, will need to be re-instated to the same geometry. The proposed modifications to the railings, if any, shall be subject to approval by the Departmental Representative.
2. The geometry and performance level of the traffic barrier systems and railings shall be consistent with code(s) requirements according to traffic, speed, height, etc., and other applicable parameters such as aesthetics, operation and maintenance.
3. Approach railing system to be continuous, to transition with bridge railing system and be consistent with code(s), including the provision of crash attenuation devices where required.

h) Bridge Bearing Systems & Pin and Hanger Assemblies

1. Bearings shall be designed to transmit dead loads and live loads, as well as transmit seismic loads and wind loads and shall accommodate all translations and rotations of the structure classified as a Major-route Bridge for a return period of 2475 years. The tender documents shall provide detailed specifications from possible bearing manufacturers.
2. Bearings shall be designed to facilitate access for maintenance, repair and/or replacement.
3. All steel including bolts, nuts, washers, anchors, shall be either stainless steel or be galvanized.
4. Jacking provisions for the repair/replacement of the bearings shall be designed in accordance to the needs and limitations of the superstructure and substructure. The tender documents shall provide detailed schematics and specifications for a possible jacking system.
5. The tender documents shall provide detailed schematics and construction sequence for a possible pin & hanger assembly retrofit and added redundancy.

i) Drainage System

1. The consultant shall provide for effective drainage of the boardwalk surface using the best available and economically feasible environmental protection technology. Opportunities to reduce the impact of the bridge upon the shoreline and river environment shall be explored. Shoreline erosion and other environmental impacts may be reduced by the appropriate design of discharge areas and storm water management. Pollution control measures such as oil/grease and sediment interceptors shall be considered to handle the 'first-flush' of precipitation events.

2. If used, the location and length of deck drains shall be such that water shall not discharge against any structural part of the bridge or environmentally sensitive areas on the shoreline, the adjacent cliff or in the river.
3. Ensure that most of the drainage water safely and effectively drains off the bridge deck without eroding the embankments or impairing the aquatic environment.
4. Investigate the adequacy of environmentally-sound and effective embankment drains to allow infiltration or treatment of the storm water. Trends in peak precipitation events shall be considered in the design.

j) Roadway Geometry

1. Geometry of the bridge cross-section, roadway approaches and their safety systems shall be according to a posted speed of 50 km/h.

k) Aesthetics

1. In addition to the fulfillment of the functional requirements, the Consultant shall give consideration to the fundamentals of aesthetics, historic and heritage in the design of the structure.
2. The Consultant shall produce an aesthetically pleasing rehabilitation by taking into account such characteristics as:
 - harmonious proportions between the relative sizes, shapes and features that would convey a balanced impression;
 - principles of order in lines and edges of the structure such as limiting the number of directions of lines, utilizing symmetry and repetitiveness, avoiding monotony and unnecessary attachments;
 - surface texture, color and character;
 - refinement of form by modeling, if necessary, using 3D modeling for selection of shapes, materials and colors; and
 - integration into the existing structure and into the environment including landscaping.
3. The rehabilitation shall respect the earlier design, geometry and size of the structure.

l) Lighting

1. Any removal or alteration to the existing bridge lighting system must consider replacement in kind as per NCC and PWGSC standards.
2. Until the reinstallation of the lighting system, temporary lighting intensity and variation shall be consistent with the adjacent existing condition.

PR 4.5 Standards, Codes and Specifications

Standards, codes and specifications to be used for the design and construction of the asset shall be the latest edition of the following (including all amendments, supplements and revisions thereto). In case of conflict or discrepancy between codes and standards, the most stringent requirement shall apply.

- a) CAN/CSA-S14, Canadian Highway Bridge Design Code is the primary code which shall be used for design with appropriate live load levels to reflect the net effect of the more severe conditions of either Ontario or Quebec design loads.
- b) The design start-up reference vehicle to be used for the boardwalk lane is the CL-625-ONT and to be verified against the Quebec design loads to ensure these are not more severe. The design reference vehicle for the boardwalk lane may be substituted to an inspection access vehicle and/or emergency vehicles (fire truck), and is to be discussed with the Departmental Representative and Stakeholders during the design phase.
- c) The dimensions and geometry of the new design shall meet the Geometric Design Guide for Canadian Roads produced by TAC and materials used shall meet the requirements of CSA.
- d) Specific reference to the following codes may be required for clarification: AASHTO Standard Specifications for Highway Bridges and Interim Specifications and the National Building Code of Canada (NBCC).
- e) National Master Specifications to be used with particular modification as required to suit specific needs and to reflect specific provincial requirements.
- f) Foundation design in accordance with the Canadian Manual on Foundation Engineering, National Research Council, Canada.
- g) Concrete design in accordance with CAN3-A23.3, steel design in accordance with CAN/CSA-S16.1, and timber design in accordance with CAN3-086.
- h) Environmental loads in accordance with the Supplement to the NBCC.
- i) Electrical components design in accordance with CSA C22.1 and the appropriate provincial safety codes with the underground systems in accordance with CSA C22.3 No. 7.
- j) Load factors and resistance factors for new and repaired components shall meet code requirements for a new bridge for ultimate limit state design for a 75 year design service life.

The consultant has the option of consulting other design codes and is expected to utilize new developments in structural engineering whenever they appear appropriate in accordance with proper engineering practice but must provide documented evidence of suitability satisfactory to the Departmental Representative.

PR 4.6 Sustainable Development and Environmental Protection

The project is to be implemented in an environmentally responsible manner that balances environmental performance, social and cultural sustainability and conservation objectives.

The Real Property Branch (RPB) of PWGSC, has developed a Sustainable Development Strategy that sets out principles, goals and actions for integrating sustainable development principles into its policies and operations.

Throughout the evolution of the project, the Consultant's services and deliverables shall respect the following principles and goals of RPB's Sustainable Development Strategy:

- a) To sustain our natural resources, by ensuring sustainable use of renewable resources and efficient use of nonrenewable resources.
- b) To protect the health of Canadians and of ecosystems, by managing the risks associated with toxic substances, by protecting representative areas, and by developing effective warning and adaptive response capability to both natural and human-caused disasters.

- c) To meet our international obligations, by contributing to the protection of the ozone layer, the reduction of greenhouse gas emissions, and the conservation of biodiversity.
- d) To improve our quality of life and well-being, by fostering improved productivity through environment efficiency, including environmentally friendly maintenance procedures and products, and by supporting innovation towards sustainable development.
- e) To contribute to the prevention, reduction and, where possible, the elimination of negative impacts on humans and the environment in their land and marine / fresh water activities.
- f) To contribute to the prevention, reduction and, where possible, the elimination of negative impacts of contaminated sites on humans and the environment.
- g) To contribute to the use and promotion of more efficient, environmentally friendly alternative sources of energy.
- h) To include the principle of life-cycle management in the analysis of project development options and design solutions.
- i) To actively encourage and support the prevention, reduction and, where possible, the elimination of impacts of toxic or hazardous substances and wastes on human health.
- j) To promote the conservation of renewable and nonrenewable resources through appropriate waste management, including the application of 3R concepts (reduce, reuse, recycle) for the reduction of waste.

PR 4.7 Waste Management

Waste Management services involve the preparation and management of the following deliverables during the course of the project. Specific requirements regarding the preparation of these deliverables, and the project phase where they shall be submitted, are outlined in subsequent RS Sections.

- a) A Designated Substance Report, to be completed by the Consultant, identifying the types and locations of materials present at a site that constitute hazardous/dangerous/controlled substances under the applicable regulatory regime and recommends procedures for the proper disposal.
- b) A Waste Audit determining the types and volumes of construction materials that shall be produced as surplus to the project.
- c) A Waste Management Workplan (also known as Waste Diversion Workplan) confirming the project targets set for reduction, reusing and recycling, and describing the procedures to maximize the recovery and the value of those materials identified in the Waste Audit, including on-site practices, procedures and potential destinations for the materials recovered during construction.
- d) Ensure that the contractor completes a Waste Management Memo - documenting the recovered construction materials to ensure that the results anticipated in the Waste Audit and the achievement of targets set in the Waste Management Workplan are realized to the highest degree possible. It records the results at the end of the project.

PR 4.8 Commissioning

The following is an overview of the commissioning services that shall be required over the course of the project. Specific requirements for commissioning services and deliverables, relating to each phase of project development and implementation, are presented in each of the subsequent RS Sections.

The Consultant shall provide all necessary commissioning services needed to:

- a) document the design intent of the overall project and the proposed asset systems and components and to verify and demonstrate that all functional, operational and maintenance requirements have been correctly interpreted in the design solution;
- b) demonstrate that the requirements of PWGSC and of Authorities Having Jurisdiction are met during the construction and commissioning phases of the project and support quality control through verification of components and systems;
- c) ensure that responsibilities for meeting the above requirements, and for demonstrating compliance, are clearly defined in the contract documents;
- d) minimize life-cycle operation and maintenance (O&M) costs through the careful selection of design solutions (for economy, reliability, durability, accessibility, maintainability, etc.), construction materials, installation practices and performance verification procedures;
- e) prepare and submit commissioning documentation, including but not limited to:
 - Commissioning Plan;
 - O&M and Commissioning estimated costs and budgets;
 - Commissioning Specification for construction contract;

PR 4.9 Doing Business with the National Capital Region

The PWGSC document Doing Business is provided as an Appendix to this Request for Proposals and is an integral part of the definition of service requirements.

The document specifies the service standards, documentation and submission requirements, and policies that Consultant shall meet in the performance of services for this project, as well as the required electronic format for the final Tender Package.

All members of the Consultant Team shall be completely familiar with the applicable contents of that document and shall follow it during the project.

PR 5 CONSULTING EXPERTISE REQUIRED

The Consultant team for this project shall be capable of providing the following services:

- a) structural engineering (bridges)
- b) structural engineering (seismic and wind specialists)
- c) transportation engineer (traffic/construction staging)
- d) electrical engineering
- e) corrosion protection and coating
- f) municipal infrastructure engineering
- g) Non-destructive testing specialist
- h) waste management
- i) risk management
- j) commissioning and O&M
- k) cost planning, estimating and control
- l) time planning, scheduling and control

- m) bilingual services
- n) sustainable development

PR 6 EXISTING DOCUMENTATION

PR 6.1 Existing Documentation Available to all Proponents

The following documentation is available to all Proponents, upon request, as reference material in the language it was written. Proponents may contact the Contract Authority identified on the Front Page in writing to request a copy on CD-ROM:

- a) 2017 Alexandra Bridge Comprehensive Detailed Inspection Report by WSP Canada Inc., March 2018.
- b) Thermal Expansion Study (preliminary results) by WSP Canada Inc., June 2018.
- c) 2017 Structural Evaluation of Alexandra Interprovincial Bridge by Parsons, June 2017.
- d) Wind Load Structural Study, by Parsons, April 2018.
- e) 2015 Alexandra Bridge Design Concept for Steel Grating Replacement report by MMM Group, November 2015.
- f) 2015 Designated Substances Report, Alexandra Bridge Areas Coating Project by PWGSC, January 2016.
- g) Various as-built plans.

PR 6.2 Existing Documentation Available to the Successful Proponent

Additional documents will be made available to the successful Proponent. The following is a list of additional reports that will be available:

- a) 2017 Alexandra Bridge Life-cycle cost analysis by WSP Canada Inc., March 2018.
- b) Designated Substances Report for the Alexandra Bridge 2009-2010 Major Rehabilitation.
- c) Environmental Assessment Report for the Alexandra Bridge 2009-2010 Major Rehabilitation.
- d) 2010 Alexandra Bridge Engineering Assets Assessments Heritage Value Report by URS Canada Corp, July 2010.
- e) 2010 Crack log report by MMM Group Ltd.
- f) 2006 Alexandra Bridge Heritage Value Assessment Report by Unterman-McPhail Associates, August 2006.
- g) 2010 Alexandra Bridge Engineering Assets Assessments Heritage Value Report by URS Canada Corp, July 2010.
- h) Alexandra Inter-provincial Bridge, Land ownership inventory Report, PWGSC, April 2000.
- i) All available drawings pertaining to the Alexandra Bridge.

It is important to note that, the structure has been repaired and strengthened over time and features have changed since original construction. The existing drawings and documents, including “as built” records, may not be accurate. Documents are only available in the language they were written.

PROJECT ADMINISTRATION (PA)

PA 1 GENERAL REQUIREMENTS

PA 1.1 PWGSC Project Manager

- a) The Project Manager assigned to the project is the Departmental Representative.
- b) The Departmental Representative is directly concerned with the project and responsible for its progress on behalf of PWGSC.
- c) The Departmental Representative is the liaison amongst and between the Consultant, PWGSC and the User Department.
- d) PWGSC administers the project and exercises continuing control over the project during all phases of development.
- e) Unless directed otherwise by the Departmental Representative, the Consultant obtains all Federal requirements and approvals necessary for the work.

PA 1.2 Lines of Communication

- a) Unless otherwise directed by the Departmental Representative, conduct all project communication through the Departmental Representative only.
- b) Formal contact between the Consultant and the PWGSC Project Team, which includes Users and Stakeholders, shall be through the Departmental Representative.
- c) Direct communication between members of the PWGSC Project Team on routine matters is required to enable the discussion and resolution of technical issues. However, no communication shall alter the terms of the project scope, budget or schedules unless directed in writing by the Departmental Representative.
- d) During construction tender call, PWGSC conducts all correspondence with bidders and makes the contract award.

PA 1.3 Media

- a) The Consultant shall not respond to requests for project related information or questions from the media. Such inquiries are to be directed to the Departmental Representative.

PA 1.4 Project Response Time

It is a requirement of this project that the key personnel of the Consultant and Sub-Consultant or specialist firms be personally available or have an acceptable substitute available, to attend meetings or respond to inquiries **within two (2) working days**.

PA 1.5 Project Progress Meetings

- a) The Departmental Representative shall arrange and chair Project Progress Meetings generally **every two (2) weeks** throughout the entire project development and implementation period, for all members of the project team, including representatives from:
 - PWGSC (Departmental Representative, Design Manager, and others as required);

- Consultant Team (including the Resident Site Representative during the construction phase);
 - Contractor and, as required, Subcontractors (during construction phase);
 - Other Stakeholders as required.
- b) Standing agenda items shall include, without being limited to:
- Project Planning, Monitoring and Control,
 - Cost,
 - Risk,
 - Quality,
 - Scope,
 - Environment,
 - Health and Safety
- c) The Consultant shall attend the meetings, record the issues and decisions, as well as prepare and distribute minutes to all participants within seventy-two (72) hours of the meeting.
- d) These meetings shall be held in the offices of PWGSC in the National Capital Area.

PA 1.6 Other Meetings

- a) The Departmental Representative shall arrange and chair a Project Start-up Meeting at a location to be determined by the Departmental Representative. Details pertaining to this meeting are outlined in Section RS 2 - Pre-Design / Analysis of Project Requirements.
- b) During the course of the project, as specifically outlined in the RS Sections, the Consultant shall be required to arrange and chair meetings such as:
- Design Development review meetings;
 - Construction Document review meetings;
 - Construction progress meetings;
 - Site inspection meetings.

At the discretion of the Departmental Representative, these meetings may be held instead of, or jointly with, the Project Progress Meetings described in PA 1.5.

The Consultant shall record the issues and decisions, as well as prepare and distribute minutes to all participants within seventy-two (72) hours of the meeting.

- c) On occasion, the Departmental Representative may be required to call urgent problem-solving meetings. The Consultant shall:
- be available to attend such meetings, in the location specified by the Departmental Representative, within one (1) working day notice;
 - assist the Departmental Representative in organizing the meeting;
 - record the issues and decisions; and
 - prepare and distribute minutes to all participants within seventy-two (72) hours of the meeting.

PA 1.7 Official Languages

- a) This project requires services in both official languages.
- b) The Consultant shall prepare all Construction Documents in Canada's two official languages. The languages are considered equal in status; neither is considered to be a translation of the other.
- c) The Consultant shall produce a single set of construction drawings (originals) on which written information is shown in both languages and separate written documents for each language for specifications, record drawings, and operation and maintenance documentation.
- d) Unless specifically directed otherwise in the Required Services (RS) sections of this document or by the Departmental Representative, all other documents produced by the Consultant under the terms of this contract may be in the language of choice of the Consultant.
- e) The Consultant shall be responsible for the accuracy and completeness of translations and the consistency of documents.
- f) Presentation material and all public communications shall be provided in both official languages.

PA 2 AUTHORITIES HAVING JURISDICTION

PA 2.1 Federal Government Authorities

The following are authorities having Federal Government jurisdiction over the project:

- a) Treasury Board of Canada
 - Project, expenditure and contract approvals
- b) Public Works and Government Services Canada
 - Contracting authority and project delivery
 - Functional design requirements and standards,
- c) Human Resources and Skills Development Canada
 - Fire prevention Department Representative services,
 - Life safety
- d) Environment Canada
 - Canadian Environmental Assessment Act and
 - Canadian Environmental Protection Act e)
- e) National Building Code of Canada (NBCC)
 - Building codes and standards
- f) Transport Canada
 - Navigation Protection Act
- g) Fisheries and Oceans Canada
 - Fisheries Act
- h) Ottawa River Regulation Planning Board

- Ottawa River Act and regulations for integrated basin management
- i) Ottawa River Conservation Authority
- j) National Capital Commission (NCC)
 - Land use planning and design approvals,
 - Site, landscape, hoarding and exterior building design

PA 2.2 Provincial, Municipal and Other Local Authorities

Although the Federal Government does not formally recognize jurisdiction at other levels of government, voluntary compliance with the requirement of these other Authorities is required unless otherwise directed by the Departmental Representative.

In some cases, the Federal government may defer to provincial and municipal authorities for specific regulations, standards and inspections. In areas of conflict, the Federal authority prevails.

- a) Ontario and Quebec Ministries of Labour
 - Employment Standards
 - Construction Health and Safety
 - Workers Compensation
- b) Ontario Ministry of the Environment and le Ministère du développement durable, de l'Environnement et des Parcs.
 - Ontario Environmental Protection Act: 3R Regulations
 - Quebec Environment Quality Act, R.S.Q. chapter Q-2
 - Disposal of Designated Substances
- c) Ontario Ministry of Consumer and Commercial Relations - Elevating Devices Branch / Quebec: Code de sécurité pour les chantiers de construction
 - Construction Hoists
- d) Ontario and Quebec Ministries of Transport
 - Codes, standards for design, construction and maintenance of roads and bridges.
 - Regulations for road safety and traffic control.
- e) City of Ottawa/Ville de Gatineau
 - Planning and transportation departments
 - Local Police and Emergency Services

The Consultant shall, with the assistance of the Departmental Representative, identify any other Authorities Having Jurisdiction and endeavor to ensure that all design work meets or exceeds all codes, regulations and standards of these other authorities having jurisdiction.

The Consultant, with the approval of the Departmental Representative, is required to submit project documents to Authorities Having Jurisdiction for review during both the design and the preparation of construction documentation.

The Consultant shall complete negotiations, identify the cost of any required permit, and resolve all permit related issues prior to tender. The fee of any permit required before construction tender will be the responsibility of PWGSC.

PA 3 SUBMISSIONS, REVIEWS AND APPROVALS

PA 3.1 General Submission Requirements for Project Deliverables

- a) Unless otherwise specified, where deliverables and submissions include summaries, reports, cost estimates, schedules, drawings, plans, specifications, the Consultant shall submit three (3) hard copies, as well as one (1) electronic copy in each of the following electronic formats:
 - in Portable Document Format (PDF), and
 - in a non-PDF, editable format (original software of preparation).
- b) Unless otherwise specified, deliverables and submissions are to be provided in the language of choice of the Consultant or as instructed by the Departmental Representative.
- c) Presentation material and all public communications shall be provided in both official languages.
- d) Electronic deliverables shall be provided in the current PWGSC standard suite of software applications as follows:

<u>Deliverable</u>	<u>PWGSC</u>
Written reports and studies:	Microsoft Word
Spreadsheets and budgets:	Microsoft Excel
Presentations:	Microsoft Powerpoint
Schedules	Microsoft Project
Drawings:	AutoCad (*.dwg) version 2017
Specifications:	MS WORD NMS
Database	Microsoft Access
Web	Adobe PDF
Internet	HTML, Macromedia Flash

- e) Electronic deliverables provided on USB key, and shall be labeled. Transfer of documents through the use of the Proponent's FTP site is preferred.
- f) Schedules shall be submitted in a format that shall allow analysis of critical path relationships and milestones and shall comply with the requirements prescribed in the Doing Business document.
- g) All drawings shall be generated and distributed in the format using layering and file transfer protocols as prescribed in the Doing Business document.
- h) Other forms and templates shall follow PWGSC formats, which are available at the following web site:

<http://www.tpsgc-pwgsc.gc.ca/app-acq/forms/formulaires-forms-eng.html>

PA 3.2 Acceptance of Project Deliverables

- a) While PWGSC acknowledges the Consultant's obligations to meet project requirements, the project delivery process entitles PWGSC to review work. PWGSC reserves the right to reject undesirable or unsatisfactory work. The Consultant shall obtain Departmental Representative acceptances during each of the project phases.

- b) Acceptances indicate that based on a general review of material for specific issues, the material is considered to comply with governmental and departmental objectives and practices, and that overall project objectives are being satisfied.
- c) The acceptance does not relieve the Consultant of professional responsibility for the work and compliance with the contract, and with all applicable codes, standards and regulations.
- d) PWGSC acceptances do not prohibit rejection of work, which is determined to be unsatisfactory at later phases of review. If progressive design development or time / cost / risk updates or technical investigation reveals that earlier acceptances shall be withdrawn, the Consultant is responsible for redesigning work and resubmitting for acceptance at the Consultant's cost.
- e) During each review period, maintain full production on the project, and revise documents as necessary and when review comments are received.
- f) The Consultant shall comply with the approved submissions and direct Sub-consultants to coordination of their work in accordance with the approved submissions.
- g) Acceptances by the stakeholders, other agencies and levels of government shall be obtained to supplement PWGSC acceptances. The Consultant shall assist the Departmental Representative in securing all such acceptances and adjust all documentation as required by such authorities when securing acceptance.

PA 3.3 Submission, Review and Approval Requirements

Work in progress is to be reviewed by the Departmental Representative as well as the following:

a) **PWGSC Project Senior Management Committee**

The project shall be subject to approvals by senior managers of PWGSC as well as other relevant departments and agencies, for the purposes of obtaining final decision authority.

- Submission Formats: reports and presentations;
- Frequency: Submissions are reviewed at key stages of deliverables;
- Expected Turnaround Time: approximately **5 weeks** for each review;
- Number of re-Submissions: until approval received.

b) **PWGSC in-house Services**

- Submission Formats: reports and presentations;
- Frequency: Submissions are reviewed at key stages of deliverables;
- Expected Turnaround Time: approximately **3 weeks** for each review;
- Number of re-Submissions: until approval received.

c) **PWGSC Health and Safety Committee**

- Submission Formats: reports and presentations;
- Frequency: Submissions are reviewed at key stages of deliverables;
- Expected Turnaround Time: approximately **3 weeks** for each review;
- Number of re-Submissions: until approval received.

d) **Authorities Having Jurisdiction**

- Submission Formats: reports and presentations;
- Frequency: Submissions are reviewed at key stages of deliverables;
- Expected Turnaround Time: approximately **4 to 12 weeks** for each review (outside PWGSC control);
- Number of re-Submissions: until approval received.

Chart of Reviews and Approvals	PWGSC		NCC		Authorities Having Jurisdiction		Gatineau -Ottawa	
	R	A	I	A	I	A	I	A
RS 2 Pre-Design / Analysis of Project Requirements								
Detailed Project Schedule	x	x	x					
Pre-Design Report	x	x	x		x			
Indicative - Class 'D' Estimate	x	x						
RS 3 Design Concept								
Design Options	x	x	x		x		x	
Recommended Design Option	x	x	x	x	x		x	
Class 'C' Estimate(s)	x	x						
RS 4 Design Development								
Design Development Documents	x	x	x				x	
Substantive - Class 'B' Estimate(s)	x	x						
RS 5 Construction Documents								
66% Construction Drawings and Specs	x	x						
99% Construction Drawings and Specs	x	x	x	A/P	x	A/P		
Pre-Tender - Class 'A' Estimate(s)	x	x						
Final Construction Documents	x	x	x		x	x		

R = Review, I = Inform, A = Approval, Permit/Authorization required = P

REQUIRED SERVICES (RS)

RS 1 GENERAL SERVICE REQUIREMENTS

The General Service Requirements identified in this Section apply to all other RS Sections in this document. Specific requirements (activities, deliverables, etc.) relating to these General Service Requirements at various stages of project development and implementation, are presented in each of the subsequent RS Sections.

RS 1.1 Risk Management

Risk management is an evolving process that will change over the life of the project as risks change throughout different project phases. These project risks are associated with development, technical, implementation, and/or management issues that can affect cost, quality, schedule and/or safety.

The Consultant shall provide support to the Departmental Representative in identifying, assessing and managing risks throughout the project life cycle.

Without being limited to the following, the Consultant shall:

- a) review and build upon the project risk plan prepared by PWGSC;
- b) identify risks and determine which risks are likely to affect the project and document the characteristics of each;
- c) qualify/quantify probability of risk event (Low, Medium, High) and their impact (Low, Medium, High);
- d) develop risk responses including risk avoidance and/or mitigation measures;
- e) implement risk avoidance and/or mitigation measures;
- f) respond to changes in risk over the course of the project;
- g) determine a cost allowance for each risk identified;
- h) review and update the Risk Management Plan at each project development and implementation phase.

RS 1.2 Time Planning, Scheduling and Control

Time Planning, Scheduling and Control are high priorities with all Federal Government projects and shall be approached as a continuous interactive process involving planning, action, measurement, evaluations and revisions, throughout all stages of the project.

a) **Time Planning, Scheduling and Control Specialist**

The Consultant's project team shall include a fully qualified and experienced Time Planning, Scheduling and Control Specialist, with a demonstrated record of successful time management on large construction projects.

The Time Planning, Scheduling and Control Specialist shall:

- be conversant with all aspects of time management including, but not limited to: planning, schedule development and analysis, progress monitoring and reporting, risk management and advisory services;
- follow good industry practices for schedule development and maintenance as recognized by the Project Management Institute (PMI).

b) Scope of Services

The Consultant shall:

- provide all Time Planning, Scheduling and Control services and deliverables in accordance with the requirements outlined in the Time Management section of the Doing Business document;
- prepare a Project Work Breakdown Structure, a major Milestones Schedule and a Detailed Project Schedule which, combined with Project Cash flow Projections, shall form the Project Baseline Plan against which the progress of the overall project shall be monitored;
- during the course of the project, update the above documents as required by the Departmental Representative;
- provide a system for documentation and project control throughout the project for approval by the Departmental Representative;
- monitor and report on the progress of the work by the Consultant Team during all stages of project development and implementation;
- monitor and report on the progress of the work based on the schedule provided by the Contractor during the construction stage of the project.

Specific Time Planning, Scheduling and Control requirements relating to the various stages of project development and implementation, are presented in each of the subsequent RS Sections.

RS 1.3 Cost Planning, Estimating and Control

Cost Planning, Estimating and Control are also high priorities with all Federal Government projects and shall be approached as a continuous interactive process involving planning, action, measurement, evaluations and revisions, throughout all stages of the project.

a) Cost Planning, Estimating and Control Specialist

The Consultant's project team shall include a fully qualified and experienced Cost Planning, Estimating and Control Specialist, with a demonstrated record of successful cost management on large construction projects.

The Cost Planning, Estimating and Control Specialist shall be conversant with all aspects of construction cost estimating during the project phases including the use of Elemental Cost Analysis, Risk Analysis, Life Cycle Costing and Value Engineering/Management techniques

b) Scope of Services

The Consultant shall provide interactive and continuous cost consulting services from the commencement of project design through to construction completion, including but not limited to:

- professional advice on all matters relating to cost planning, estimating and control;
- cost planning and cash flow projection linked to the project Work Breakdown Structure and Schedule;
- cost estimating including engineering, construction and Operation and Maintenance (O&M) costs, as well as risk allowances;
- cost monitoring and cost reporting.

Specific cost planning, estimating and control requirements relating to the various stages of project development and implementation, are presented in each of the subsequent RS

Sections.

RS 1.4 Coordination within the Consultant's Integrated Team

Throughout all phases of the project, the Consultant shall:

- a) assume responsibility for coordinating the work of any Sub-Consultants and specialists retained by the Consultant;
- b) ensure clear, accurate and ongoing communication of concept design, budget, and scheduling issues including changes - as they relate to the responsibilities of all Sub-Consultants and specialists from initial reviews to post construction reports;
- c) co-ordinate the Consultant Team's input for updates to the existing PWGSC Risk Management Plan for this project;
- d) co-ordinate the Quality Assurance process ensuring submissions of Sub-Consultants are complete and signed-off by the designated senior reviewer; and
- e) ensure Sub-Consultants provide adequate site inspection services and attend all required meetings.

RS 2 PRE-DESIGN / ANALYSIS OF PROJECT REQUIREMENTS

RS 2.1 General Requirements

The purpose of this phase is to have the Consultant:

- a) review all relevant inspection reports and studies.
- b) carry out specific Site Studies and Technical Investigations described herein, in order to obtain essential information needed to complete the project;
- c) review, analyze and report on all aspects of the project requirements;
- d) review and analyze all available existing information;
- e) identify any additional information or studies that shall be needed to deliver the project,
- f) identify and verify all authorities having jurisdiction over the project, as well as all codes, regulations and standards that apply;
- g) develop a project work breakdown structure, a detailed project schedule and project cash flow projections for each stage of the project life cycle;
- h) develop updated indicative (Class 'D') construction cost estimate including risk allowances;
- i) deliver a comprehensive Pre-Design Report covering all of the above elements.

The approved Pre-Design Report shall become the formal project work plan and shall be utilized throughout the project to guide the delivery of services.

RS 2.2 Site Studies and Technical Investigations

The Consultant shall carry out the following Site Studies and Technical Investigations, which are deemed to be included in the scope of services for this project, and shall be included in the Consultant's price proposal for RS 2, as per details provided for each study. The studies and investigations started under RS 2 do not have to be completed prior to starting RS 3.

Specific terms of reference, milestones and schedule for conducting these Site Studies and Technical Investigations shall have to be prepared by the Consultant and be submitted to the Departmental

Representative for review and approval, before starting the studies.

The Site Studies and Technical Investigations shall be incorporated into the project Work Breakdown Structure and Detailed Project Schedule.

a) Seismic Analysis

- Purpose: The purpose of the Analysis is to allow the Proponent to identify requirements for the new bearings and identify if other articulation members need to be addressed.

Scope and Conditions:

- Provide all necessary expertise, services and equipment to carry out site geotechnical investigations, including a sufficient number of bore holes, if required, to obtain accurate soils and bedrock parameters for use in the seismic analysis of the bridge;
- Develop and submit, for the Departmental Representative's review and approval, specific terms of reference, milestones and schedule for conducting the investigation and analysis;
- The analysis shall be for a 'Major route Bridge' classification as per the conditions of the CHBDC, CAN-CSA-S14 and any updates;
- Provide the services of a qualified seismic specialist who possesses a minimum of 10 years of experience and knowledge in the field of seismic analysis of bridges and bearing selection;
- Obtain ground motion time histories for the bridge location, as well as any field measurements, needed to complete the seismic analysis of the bridge;
- Produce a report on the findings and analyses including: an Executive Summary, Scope of Work, Methodology, Evaluation criteria, Analyses, Results, Recommendations and Conclusions for review by PWGSC. The report shall include Tables, Drawings and Sketches as required to demonstrate the results and the recommended bearing replacement.
- Collect data, develop model for seismic analysis and complete the analyses;
- Finalize the investigation, the analyses and the report, as described above, including any recommendations for adjustments to the Project Requirements;
- Submit the report to the Departmental Representative for review and approval;
- Produce a final report.

b) Construction Staging

Traffic Analysis

Scope and Conditions:

- This Analysis has two key objectives:
 - Optimization of construction staging and identify measures to decrease impact on traffic flow requirements;
- Develop and submit, for the Departmental Representative's review and approval, specific terms of reference, milestones and schedule for conducting the study and analysis;
- Analyze how much traffic can be diverted to other inter-provincial bridges, by what detour

routes and for which periods;

- Traffic scenarios that need to be investigated during the construction include:
 - 1 lane of vehicle traffic in each direction; with possibility of doing works at night only;
 - Reduction to one vehicle traffic lane used as reversible lane during construction;

- possibility of reducing Ottawa-bound center lane width and speed and using traffic control to create temporary sidewalk on center lane;
 - Reversible lane; and
 - Detour of cyclists to other bridges
 - Other scenarios, as appropriate, to identify best traffic management option.
- Review and analyze the Transportation Study Report completed by AECOM in 2009, the Traffic Study completed by MMM-CIMA+ for the 2014 major rehabilitation of the Macdonald-Cartier bridge and the traffic management format used for the Alexandra Bridge major rehabilitation of 2009-10; and, prepare a report including, but not limited to:
 - Results of the analysis and principles used;
 - Applicability of the AECOM and MMM-CIMA+ recommendations; and/or
 - Any other recommendations.
 - The Consultant shall:
 - gather the restrictions/conditions from the various related stakeholders and authorities;
 - identify appropriate construction staging solutions based on stakeholder feedback;
 - identify proper detour routes to be implemented during construction by the general contractor.
 - Prepare and deliver one presentations to stakeholders, in both official languages, on study findings, traffic scenarios and recommended option for traffic control during construction, in order to obtain support from the majority of stakeholders;
 - Produce a report on the findings and analyses including: an Executive Summary, Scope of Work, Methodology, Criteria used, Analyses, Results, Recommendations and Conclusions for review by PWGSC and selected stakeholders. The report shall include Tables, Drawings, Traffic Count data and Detour route maps as required to demonstrate the results.
 - Finalize the analyses and the report, as described above, including any recommendations for adjustments to Project Requirements;
 - Submit the report, in both official languages, to the Departmental Representative for review and approval.

c) **Wind load Analysis**

Scope and Conditions:

- The intent of the Wind Load Analysis is to have a refined study to identify and strengthen members of the bridge;
- Examine and consider the results of the Wind Load Structural Study done for the bridge in April 2018 by Parsons. As concluded in the Parsons study, some results and recommendations are due to CHBDC requirements bring too conservative.
- Provide all the necessary wind loads analysis expertise, services and equipment to produce a wind load investigation and analysis required to assess the stability of the various structures of the bridge (approach trestles, Trusses A and B, and the Main frame truss) as per the CHBDC CAN CSA-S6-14 and any updates leading to conclusions and recommendations for the retrofit of the various structures;

- Provide the services of a qualified wind loads analysis expert who possesses a minimum of ten (10) years of experience and knowledge in the field of wind load analysis and related structural retrofit;
- Develop and submit, for the Departmental Representative's review and approval, specific terms of reference, milestones and schedule for conducting the investigation and analysis;
- Where required, suggest the installation of wind pressure gauges (or other field measurement devices) on various parts of the structures to provide the base data required for the analysis and to refine the results of the study and possibly reduce the wind-related retrofit costs;
- Where required, develop a model of the structure(s) to provide the required analysis;
- Produce a report on the findings and analyses including: an Executive Summary, Scope of Work, Methodology, Evaluation Criteria, Analyses, Results, Conclusions and Recommendations for discussion and review by PWGSC. The report shall also include records of the field investigations and the recommended retrofit in the forms of Tables, Drawings, Sketches; etc;
- Finalize the investigation, the analyses and the report, as described above, including any recommendations for adjustments to the Project Requirements;
- Submit the report to the Departmental Representative for review and approval;
- Produce a final report.

RS 2.3 Scope and Activities

In addition to all of the Site Studies and Technical Investigations described in RS 2.2, and the ongoing project activities outlined in Sections PA and RS 1, the scope and activities for the Pre-Design / Analysis of Project Requirements Phase RS 2 shall include the following:

a) Project Start-Up Meeting

Within five (5) days after finalizing the contract agreement, the Departmental Representative shall arrange a Project Start-Up Meeting which shall be held at a time and place to be determined by the Departmental Representative.

The purpose of the meeting is to:

- introduce key stakeholders involved in the project which may include such people as:
 - PWGSC Representatives (e.g. Project Manager, COE Engineer/Design Manager, Property manager, etc);
 - Consultant Representatives (e.g. Consultant Team Members including any Sub-Consultants, etc.);
 - Representatives from Authorities Having Jurisdiction (e.g. Other federal departments, provincial departments, cities/municipalities, etc.);
- establish positive working relationships, which shall maximize the benefits to the project from the knowledge and experience of all stakeholders, while at the same time allowing all stakeholders to maximize their benefits from the project;
- facilitate group discussions of all project requirements, objectives, issues, constraints and challenges to ensure that they are clearly defined and fully understood;
- review and discuss the project scope of work and schedule, using as a starting point the

project Work Breakdown Structure and the project Schedule contained in the Consultant's Proposal for this project;

- review and build upon the project Risk Management Plan prepared by PWGSC;
- review the project cost plan/budget for verification that the costs are fair and reasonable. The Consultant shall record decisions and prepare and distribute minutes within seventy-two (72) hours of the meeting

b) Project Work Breakdown Structure

Within five (5) working days after the Project Start-Up Meeting, the Consultant shall prepare and submit a detailed Project Work Breakdown Structure (PWBS) outlining deliverable-oriented groupings of project elements that organize and define total scope of work of the project, including all required reviews and approvals.

- The PWBS shall be developed in accordance with the requirements outlined in the Doing Business document and in PWGSC's National Project Management System (NPMS). The NPMS can be found at:
<http://www.tpsgc-pwgsc.gc.ca/biens-property/sngp-npms/index-eng.html>
- The PWBS shall be developed through at least six (6) levels: Project, Stage, Phase, Process, Sub-Process and Activity/Work Package. Each descending level represents an increasingly detailed definition of project work.

c) Project Master Schedule / Cash Flow Projections

Within ten (10) working days after the Project Start Up Meeting, the Consultant shall prepare and submit a Project Master Schedule and Cash Flow Projections that account for all major project milestones and deliverables associated with each project phase.

- Unless specified otherwise in this Section, quantified days duration refers to working days, which is based on a five (5) day work week and discounts all statutory holidays (approximately 250 working days per year).
- The original Project Master Schedule and Cash Flow Projections shall be "frozen" to provide an original Project Baseline against which the progress of the overall project shall be monitored.
- The Project Baseline may have to be revised as instructed by the Departmental Representative during the course of the project. All revised Project Baselines shall be reconciled with the original Project Baseline to ensure a continuous audit trail.

d) Detailed Project Schedule

Within twenty (20) working days after the Project Start-Up Meeting, the Consultant shall prepare and submit a Detailed Project Schedule.

- The Detailed Project Schedule shall include, as a minimum, all Consultant activities as well as all necessary reviews and approvals, throughout each and every phase of the project.
- The schedule shall include sufficient details to clearly demonstrate the sequence and interdependency of all activities and to provide a reasonable basis for progress monitoring and coordination of all project activities.
- It is understood that, in initial versions of the Detailed Project Schedule, details pertaining to activities in later phases of the project shall have to be approximated. As the work progresses and the scope of construction work becomes more clearly defined, the Consultant shall develop more detailed schedules and cash flows.

- Activities with no float, which form the "Critical Path" shall be calculated and clearly indicated on the logical network, as being a continuous series of activities through the project. No more than twenty-five (25) percent of the activities shall be critical, or near critical. Near critical is defined as float in the range of one (1) to five (5) working days.

e) Review of Existing Documentation

The Consultant shall:

- Review and assess all available existing documentation related to the project.
- Confirm that all necessary pre-design documentation required for this project is available and confirm that the information is still current.
- Notify the Departmental Representative of any missing information needed to complete the project.
- Prepare and submit, for the review and approval of the Departmental Representative, a report on Review of Existing Documentation, including any recommendations for adjustments to Project Requirements.

f) Analysis of Regulatory Requirements

The Consultant shall:

- Confirm all regulatory or statutory requirements affecting the project and describe their potential impact on the project.
- Identify all Authorities Having Jurisdiction over the project and confirm their technical and regulatory requirements, as well as their review and approval requirements at various project phases.
- Confirm all applicable codes, regulations and standards that shall govern the design and the implementation of the project.
- Prepare and submit, for the review and approval of the Departmental Representative, a report on the Analysis of Regulatory Requirements.

g) Site Surveys and Inspections

Without being limited to the following, the Consultant shall visit and inspect the project site and surrounding areas:

- to conduct all necessary site inspections, surveys, measurements, evaluations, etc., to obtain any additional detailed data that may be required to supplement information contained in existing documentation;
- to become familiar with the site's geographical and hydrological features;
- to correlate the information contained in existing project documentation with actual on-site features and conditions;
- to verify information contained in PWGSC's site plans and record any discrepancies or needed adjustments;
- to identify possible locations for setting up field offices and for mobilization and storage of construction materials and equipment;
- to verify the availability and capacity of local utility services that may have an impact on the project;
- to identify, at the earliest stage, potential traffic issues related to construction;

- to identify any local issues and constraints that may impact the project;
- to identify any designated substances that may have been noticed during inspections;
- to identify any issues and/or opportunities relating to environmental protection, sustainable development or waste management, that may warrant further consideration;

- to consult with local personnel with respect to site specific performance issues and operational requirements.

Prepare and submit, for the review and approval of the Departmental Representative, a report on the findings of the Site Surveys and Inspections, as well as any recommendations for adjustments to Project Requirements.

h) Additional Site Studies and Investigations

During the course of Site Studies and Technical Investigations, the Review of Existing Documentation, and Site Surveys and Inspections, as described in previous subsections, the Consultant may identify missing pertinent information needed to complete the project.

In such cases, the Consultant shall propose a work plan, terms of reference, schedule and cost estimates for conducting the necessary site studies and investigations to acquire and analyze the missing pertinent information. Also, provide an assessment of the risks to the project of not proceeding with the proposed studies and investigations.

This work would only be carried out if the Departmental Representative grants approval. Should such an approval be granted, the approved work and associated fees and disbursements would then be treated as an amendment to the Consultant contract and be processed accordingly.

i) Analysis of Project Requirements

The Consultant shall:

- Review, analyze and confirm all Project Requirements as outlined in this Project Brief including requirements relating to, but not limited to:
 - project objectives, issues, constraints and challenges;
 - design principles;
 - design and performance;
 - sustainable development;
 - environmental protection;
 - waste management;
- Assess the results and findings of the following activities, when they become available, and make recommendations for any adjustments to the Project Requirements in a report for the review and approval of the Departmental Representative:
 - Review of Existing Documentation;
 - Analysis of Regulatory Requirements;
 - Site Surveys and Inspections;
 - Site Studies and Technical Investigations;
 - Additional Site Studies and Investigations, as applicable.
- Prepare and submit, for the review and approval of the Departmental Representative, a report on the review, analysis and confirmation of Project Requirements, including approved adjustments.
- The approved Project Requirements report, together with the approved report on the Analysis of Regulatory Requirements, shall form the basis for developing and confirming

the criteria and parameters that shall govern the design and construction, as well as all other technical aspects of the project.

- It is understood that specific Project Requirements may require further adjustments as the project progresses and new pertinent information becomes available.

j) Non-Destructive Testing Program

The non-destructive testing program (NDTP) shall be developed by the Consultant to begin monitoring members of the bridge that have cracks or are prone to cracking and fatigue concerns. The program's intent is to monitor regularly and/or continuously members of the bridge to provide PWGSC with advanced warning of potential member issue.

Possible NDT methods to be used during the NDTP: Magnetic Particle Testing, ultrasonic testing, strain gauge, Acoustic Emission, other methods as approved by Departmental Representative.

The Consultant shall:

- Review and assess available pertinent existing documentation related to the bridge.
- Identify members that should be inspected and that may require NDT, monitoring on a regular basis or continuously.
- Prepare and submit, for the review and approval of the Departmental Representative, a technical memo, describing scope of NDTP, including but not limited to: NDT methods to be used during the inspection of members, possible monitoring methodology and possible reporting methodology.
- Upon approval from the Departmental Representative, proceed with a detailed inspection of identified members
- Update and submit, for the review and approval of the Departmental Representative, a revised technical memo, describing recommended scope of NDTP, including but not limited to: findings from the inspection, recommended monitoring methodology and reporting methodology.
- The initial NDTP instrumentation monitoring and first year of data collection, interpretation and reporting will only be carried out if the Departmental Representative grants approval. Should such an approval be granted, the approved work and associated fees and disbursements would then be treated as an amendment to the Consultant contract and be processed accordingly.
- Up to four (4) more years, each being optional, consisting of NDT, instrumentation monitoring, data collection, interpretation and reporting will only be carried out if the Departmental Representative grants approval. Should such an approval be granted, the approved work and associated fees and disbursements would then be treated as an amendment to the Consultant contract and be processed accordingly. Same comment.
- All instrumentation and data collection devices installed for continuous monitoring as part of the NDTP shall become the property of PWGSC and not be removed unless authorized by the Departmental Representative.

RS 2.4 Deliverables

Unless otherwise specified, all deliverables shall be provided in accordance with the requirements outlined in PA 3 - SUBMISSIONS, REVIEWS AND APPROVALS.

The Consultant shall prepare and submit the following deliverables for review and approval by the Departmental Representative.

- a) Minutes of all project Progress Meetings, as per PA 1.5 and Other Meetings, as per PA 1.6;
- b) A complete record of decision of the Project Start Up Meeting as per RS 2.3 a);
- c) A Project Work Breakdown Structure as per RS 2.3 b);
- d) A Project Master Schedule and Cash Flow Projections as per RS 2.3 c);
- e) A Detailed Project Schedule as per RS 2.3 d);
- f) An updated project Risk Management Plan;
- g) A report on the Review of Existing Documentation including, but not limited to:
 - A list of all documents that were reviewed;
 - Confirmation that all necessary pre-design documentation required for this project is available and confirmation that the information is still current and up-to-date;
 - Identification of any missing pertinent information to complete the project;
 - Any recommendations for adjustments to Project Requirements, as a result of the review of existing documentation.
- h) A report on the Analysis of Regulatory Requirements including, but not limited to:
 - A list of all regulatory or statutory requirements affecting the project and a summary of their potential impact on the project;
 - A list of all Authorities Having Jurisdiction over the project and description of their requirements in terms of reviews and approvals at various project phases;
 - A list of all applicable codes, regulations and standards that shall govern the design and the implementation of the project.
- i) A report on the findings of the Site Surveys and Inspections covering all the elements outlined in RS 2.3 g);
- j) Site Studies and Technical Investigations reports and other deliverables as outlined for each study identified in RS 2.2;
- k) For each Additional Site Study and Investigation (as applicable), that may be deemed necessary to acquire and analyze the missing pertinent information:
 - A proposal including: a work plan, terms of reference, schedule and cost estimates for conducting the proposed site study and investigation. Also, an assessment of the risks to the project of not proceeding with the study and investigation;
 - Obtain the Departmental Representative's approval before proceeding with the study/investigation;
 - Specific requirements regarding scope, schedule and deliverables shall be confirmed by the Departmental Representative.
- l) A report on Project Requirements, including, but not limited to:
 - Results of the review and analysis of all elements outlined in RS 2.3 i);
 - Listing and description of all recommendations regarding adjustments to Project Requirements, including those made as a result of other activities in RS 2.2 and RS 2.3;
 - Pertinent details of all approved recommendations for adjustments to Project Requirements;

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- Confirmation of Project Requirements, including approved adjustments.

- m) Report on Consultant's Rebuttal to PWGSC Quality Assurance Reviews including, but not limited to:
- Review and analysis of comments provided by the PWGSC Project Team; and
 - Written response to all comments received, either explaining why comments are being challenged by the Consultant, or confirming how comments were addressed or incorporated into the work.

The Consultant shall also prepare and submit an integrated Pre-Design Report for review and approval by the Departmental Representative.

The Pre-Design Report shall consolidate the deliverables identified in RS 2 - PRE-DESIGN / ANALYSIS OF PROJECT REQUIREMENTS and shall be utilized as the benchmark project control document to monitor progress of the project. The report shall be used as a basis for monthly reporting of progress and shall require supplements and modifications to reflect changes in project parameters as may be identified and accepted throughout the project life cycle.

The Pre-Design Report shall contain the following;

- a) an Executive Summary;
- b) the approved Project Work Breakdown Structure;
- c) the approved Project Master Schedule / Cash Flow Projections;
- d) the approved Detailed Project Schedule;
- e) the approved updated Indicative, (Class 'D') Construction Cost Estimate;
- f) the approved updated project Risk Management Plan;
- g) key elements of the approved report on the Review of Existing Documentation;
- h) key elements of the approved report on the findings of the Analysis of Regulatory Requirements;
- i) key elements of the approved report on the Site Surveys and Inspections;
- j) key elements of the approved Final Report for each of the Site Studies and Technical Investigations;
- k) identification of possible Additional Site Study and Investigation that may be required, with overview of scope, schedule, risk and cost estimates;
- l) key elements of the approved Report on Project Requirements;
- m) A summary of all Approved Changes in project scope, cost or schedule, including those that have resulted in amendments to the Consultant contract. Details to be provided on each change shall include, without being limited to:
 - Description of change;
 - Reason for change;
 - Risk assessment;
 - Date of approval;
 - Impact on project scope, cost and schedule;
 - Resulting approved amendment to the contract.

RS 3 DESIGN CONCEPT

RS 3.1 General Requirements

The Consultant shall obtain written authorization from the Departmental Representative before proceeding with the services related to the Design Concept

The Consultant shall review the approved Pre-Design Documents, develop and analyze options and prepare Concept Design Documents in sufficient detail:

- a) to translate the Project Requirements into design criteria and parameters;
- b) to illustrate Design Concepts that optimize the achievement of all Project Requirements and of all design criteria and parameters;
- c) to develop alternative Construction implementation strategies, schedules and associated cost estimates;
- d) to recommend a preferred option to be developed further under RS 4 Design Development;
- e) to prepare a Class “C” Construction cost estimate for the approved option.

RS 3.2 Scope and Activities

a) Design Criteria and Parameters

- Verify and confirm the ongoing validity of the approved Project Requirements Report and the approved Report on the Analysis of Regulatory Requirements, delivered in the RS 2 - Pre-Design and Analysis of Project Requirements phase.
- Recommend, for the Departmental Representative’s review and approval, any adjustments to the Project Requirements that may be deemed necessary as the results of the Studies and Technical Investigations identified in RS 2 become available, or as other pertinent project related data becomes available.
- Revise the Project Requirements as required, to reflect approved adjustments.
- Confirm that the designs can meet Operation and maintenance (O&M) criteria.
- Based on the latest approved Project Requirements and confirmed Regulatory Requirements, Codes and Standards:
 - develop and describe, with supporting background and technical justification, Design Criteria and Parameters that shall govern the design; and
 - prepare and submit, for the Departmental Representative’s review and approval, a detailed Report on Design Criteria and Parameters.

b) Design Option Development and Analysis

Identify, develop and analyze at least three (3) design options, or less if approved by the Departmental Representative, based on: the Pre-Design Documents, the approved Design Criteria and Parameters, the latest Project Requirements and any other pertinent data obtained from Site Studies and Technical Investigations.

For each design option:

- Complete a detailed analysis and describe how the option responds to the latest approved Project Requirements, covering all elements listed in PR 3 & PR 4 including, but not limited to:
 - project objectives, issues, constraints and challenges;

- design principles, criteria and parameters;
- principles and goals of Sustainable Development;
- findings and recommendations from the Environmental Effects Evaluation;
- findings and recommendations from the various Site Studies and Technical Investigations, as they become available;
- waste management requirements;
- O&M requirements;
- all applicable codes, regulations and standards;
- Describe and assess the proposed Construction Implementation Strategies associated with the design option, including such elements as: location and alignment of structure, mobilization, phased construction, demolition, dewatering, traffic control, duration, field office and storage areas, selected materials, etc.);
- Provide a construction schedule that reflects the proposed Construction Implementation Strategies and assess the impact on the overall project schedule;
- Identify/quantify potential risks associated with the option and recommend risk mitigation measures;
- Provide a breakdown of Class “D” (Indicative) estimated life-cycle costs for the option and quantify any impacts on the overall project cost;
- Recommend one design option for further development with all supporting background and technical justification;
- Prepare and submit, for the Departmental Representative’s review and approval, a detailed Report on the Concept Design Option Development and Analysis covering all the points described above.

c) Approved Option

Once the preferred option has been selected and approved by PWGSC, the Consultant shall further explore the option in sufficient detail to:

- provide a breakdown of Class “C” estimated life-cycle costs for the option and quantify any impacts on the overall project cost;
- provide additional details on the proposed Construction Implementation Strategies;
- identify specific critical design issues that shall have to be resolved in the design development, with broad recommendations on possible alternative solutions;
- provide additional details on the construction schedule and assess the impact on the overall project schedule;
- prepare and submit, for the Departmental Representative’s review and approval, a detailed Report on Approved Concept Design Option covering all the points described above.

e) Other Required Activities

- Participate in all meetings outlined in PA 1.5 and 1.6, record the issues and decisions, as well as prepare and distribute minutes to all participants within seventy-two (72) hours of the meeting;

- Prepare and submit all required Monthly Progress Reports as per RS 1.2 and all Cost Reports as per RS 1.3;
- Prepare and submit a detailed Designated Substance Report;
- Review and update, as required:
 - the Project Work Breakdown Structure;
 - the Detailed Project Schedule;
 - the Project Cost Estimates and Cash Flow Projections;
 - the Risk Management Plan.

RS 3.3 Deliverables

Unless otherwise specified, all deliverables shall be provided in accordance with the requirements outlined in PA 3 - SUBMISSIONS, REVIEWS AND APPROVALS.

The Consultant shall prepare and submit the following deliverables for review and approval by the Departmental Representative.

- a) Minutes of all project Progress Meetings, as per PA 1.5 and Other Meetings, as per PA 1.6;
- b) Monthly Progress Reports as per RS 1.2 and all Cost Reports as per RS 1.3;
- c) A report on updated Project Requirements, including, but not limited to:
 - recommended adjustments to Project Requirements made during this phase,
 - details of all approved adjustments to Project Requirements made during this phase,
 - confirmation of the latest Project Requirements, including approved adjustments;
- d) A detailed Report on Design Criteria and Parameters as per RS 3.2 a);
- f) A detailed Report on the Concept Design Option Development and Analysis covering all the points described in RS 3.2 b);
- h) A report on the outcome of each presentation made and submit for the Departmental Representative's review and approval;
- i) A detailed Report on the Approved Concept Design Option containing a breakdown of Class "C" estimated life-cycle costs, Construction Implementation Strategies and covering all the points described in RS 3.2 d);
- j) A detailed Designated Substance Report;
- k) An updated Project Work Breakdown Structure;
- l) An updated Detailed Construction and Project Schedules;
- m) Updated Project Cost Estimates and Cash Flow Projections;
- n) An updated Risk Management Plan, and
- o) A Report on the Consultant's Rebuttal to PWGSC Quality Assurance Reviews including, but not limited to:
 - Review and analysis of comments provided by the PWGSC Project Team; and
 - Written response to all comments received, either explaining why comments are being challenged by the Consultant, or confirming how comments were addressed or

incorporated into the work.

The Consultant shall also prepare and submit an integrated Design Concept Report for review and approval by the Departmental Representative.

The Design Concept Report shall update the Pre-Design Report, consolidate the deliverables identified in this Section and continue to be utilized as the benchmark control document to monitor progress of the project. The Design Concept Report shall also provide direction for the Design Development.

The Design Concept Report shall contain the following;

- a) an Executive Summary;
- b) the approved updated Project Work Breakdown Structure;
- c) the approved updated Detailed Construction and Project Schedules;
- d) the approved updated (Class 'C') Construction Cost Estimate;
- e) the approved updated Project Cost Estimates and Cash Flow Projections;
- f) the approved updated project Risk Management Plan;
- g) a summary of the approved updated Project Requirements, with brief explanation of changes made during this phase and an overview of key Design Criteria and Parameters;
- h) key elements of the O&M Criteria;
- i) key elements of the approved Report on Concept Design Option Development and Analysis;
- j) a summary of the outcome of each presentation made to PWGSC and to Authorities Having Jurisdiction;
- k) key elements of the Detailed Report on the Approved Concept Design Option containing a breakdown of Class "C" estimated life-cycle costs and Construction Implementation Strategies;
- l) key elements of the approved Designated Substance Report, and
- m) A summary of all changes approved in the RS 3 phase, regarding project scope, cost or schedule, including those changes that have resulted in amendments to the Consultant contract. Details to be provided on each change shall include, without being limited to:
 - Description of change;
 - Reason for change;
 - Risk assessment;
 - Date of approval;
 - Impact on project scope, cost and schedule;
 - Resulting approved amendment to the contract.

RS 4 DESIGN DEVELOPMENT

RS 4.1 General Requirements

The Consultant shall obtain written authorization from the Departmental Representative before proceeding with the services related to the Design Development

Based on the approved Design Concept Documents, the Consultant shall further develop the design option selected for refinement at the Design Concept phase and produce Design Development Documents to describe the scope, quality and cost of the project in sufficient detail to:

- a) define the details of design components, systems and materials, for all applicable disciplines, and confirm their compliance with codes, standards and all other Project Requirements;
- b) elaborate the details of construction implementation strategies (e.g. phased construction,

demolition, dewatering, traffic control, mobilization, duration, etc.);

- c) identify and assess potential risks, and recommend mitigation measures;
- d) facilitate the reviews, discussions and decisions relating to the design;
- e) develop a Substantive, Class “B” Construction cost estimate;
- f) support the Treasury Board Submission for Effective Project Approval; and
- g) obtain the necessary approvals to proceed to the development of Construction Documents.

RS 4.2 Scope and Activities

a) **Design Development Work Breakdown Structure and Schedule**

- Prepare and submit, for the Departmental Representative’s approval, a detailed Design Development Work Breakdown Structure and Schedule outlining:
 - key activities, deliverables and milestones of the Design Development process, as outlined in the sub-sections that follow;
 - key activities, sequence and targets for completing the design of the various major technical elements comprising this project, as described in RS 4.2 d), including all related detailed components, systems, materials and appurtenances; and
 - the milestone dates and degrees of completion at which the Design Development Documents shall be submitted for interim review and approval (at least at 50% stage).

b) **Project Requirements / Design Criteria and Parameters**

- Verify and confirm the ongoing validity of the approved Project Requirements, including applicable Regulatory Requirements, Codes and Standards.
- Recommend, for the Departmental Representative’s review and approval, any adjustments to the Project requirements that may be deemed necessary as the Design Development progresses, or as other pertinent project related data becomes available.
- Revise the Project Requirements as required, to reflect approved adjustments.
- Based on the latest approved Project Requirements and confirmed Regulatory Requirements, Codes and Standards:
 - further develop, update as required and describe, with supporting background and technical justification, the Detailed Design Criteria and Parameters that shall govern the design development; and
 - prepare and submit, for the Departmental Representative’s review and approval, a Report on Detailed Design Criteria and Parameters.

c) **Commissioning Documents**

- Prepare and submit a draft Commissioning Plan, in accordance with the latest version of the PWGSC Commissioning Manual, including but not limited to:
 - updated and detailed O&M Criteria;
 - Commissioning cost estimates;
 - O&M cost estimates / budget;

d) **Design Development Documents**

Coordinate the design work of all relevant disciplines and prepare an integrated set of Design Development Documents, using an appropriate combination of drawings, specifications and narrative reports that shall cover all of the activities and requirements outlined in the paragraphs that follow.

- Clearly describe and substantiate the details of all design components, systems, materials and appurtenances associated with the various major technical elements comprising this project, including but not limited to:
 - the substructure components (including foundation systems and hydraulic features, as applicable);
 - the superstructure components (including access platforms and operational features, as applicable);
 - approaches to the structure including: roads, sidewalks, bicycle paths, municipal utility services, landscaping, signage, etc., and all necessary tie-ins and connections to local municipal/city/provincial networks;
 - mechanical and electrical equipment and systems, including lighting and special operational construction equipment such as hoists, as applicable;
 - environmental mitigation measures outlined in the EEE report, prepared by PWGSC;
 - embankment protection, surface drainage, erosion control, sediment control, etc.
- Demonstrate how the design incorporates and responds to the latest approved Detailed Design Criteria and Parameters, and the latest approved Project Requirements covering all elements listed in PR 3 & PR 4 including, but not limited to:
 - project objectives, issues, constraints and challenges;
 - technical and performance requirements;
 - design principles, criteria and parameters;
 - all applicable codes, regulations and standards;
 - principles and goals of sustainable development;
 - findings and recommendations from the Environmental Effects Evaluation;
 - findings and recommendations from the various Site Studies and Technical Investigations;
 - waste management requirements;
 - commissioning and O&M requirements;
- Demonstrate how the design incorporates and responds to Construction Implementation Strategies and Requirements including, but not limited to:
 - mobilization;
 - construction staging and scheduling, including lead times for special equipment, components and materials;
 - seasonal and environmental constraints;
 - demolition staging and duration;
 - traffic control;

- ongoing operation and functionality of existing assets;
 - construction site access, field office and storage areas.
 - Develop and submit fully coordinated and integrated Design Development drawings at a sufficient level of detail to make design decisions and develop a Substantive Class “B” construction cost estimate.
 - PWGSC shall provide a list of minor O&M works that the Consultant will have to incorporate in the Design Development and Construction Documents. O&M works include work such as the by-yearly Gatineau bound lane grating and bearing bar repairs & spring cleaning.
 - The Design Development drawings shall include all necessary sketches, plans, elevations, cross-sections and perspectives views to ensure effective graphical representation of all design features and Construction Implementation Strategies and Requirements.
 - Ensuring that all design and construction elements, components, systems and materials included in the project are covered, and integrating all applicable disciplines: develop and submit lists and outlines of:
 - all applicable National Master Specifications (NMS) sections to be used (including draft Commissioning Specifications as per RS 4.2 c); and
 - any additional specification sections, not currently covered in the NMS, that shall have to be created (in NMS format) based on manufacturers’ technical information, on provincial specifications or on other information from a recognized technical authority;
 - Describe and submit detailed technical information and support data relating to the Design Development including, but not limited to:
 - a description and explanation of technical and/or operational assumptions that may have been made, and based on which the design was developed;
 - design calculations and results of technical analyses;
 - design loads, geotechnical / foundation design requirements, hydrologic and hydraulic design requirements, seismic design requirements, traffic control requirements, etc.;
 - dimensions, locations, alignments and sizes of all design components in sufficient detail to enable the design to be checked;
 - proposed materials and products requiring approval, with all related manufacturers’ technical literature and specifications;
 - Provide a construction schedule that reflects the design and the proposed Construction Implementation Strategies and Requirements described in an earlier sub-section, and assess the impact on the overall project schedule;
 - Identify/quantify potential risks associated with the design and construction. Recommend risk mitigation measures;
 - Provide a Substantive, Class “B” Construction Cost Estimate, with a cost breakdown, and quantify any impacts on overall project cost;
- e) **Presentations**
- Submit the presentation material, and supporting documentation, to the Departmental Representative for review and approval;
 - Based on Design Development Documents, develop an appropriate combination of

handouts, drawings, 3D renderings, electronic slide show, etc., in both official languages, for presentations to PWGSC and, as required, to Authorities Having Jurisdiction;

- Provide sufficient quantities of approved presentation material, organize and deliver the presentations. Keep records of the comments received, changes requested, concurrence with presented material and approvals.
- Prepare a report on the outcome of each presentation made and submit for the Departmental Representative's review and approval.

f) Waste Management Audit and Workplan

In accordance with the guidelines described in the PWGSC *Environmentally Responsible Construction and Renovation Handbook*:

- carry out a Waste Audit to identify the types and quantities of waste material that shall be produced during the project, as well as prepare and submit a Waste Audit Report.
- in collaboration with the Departmental Representative, confirm the project targets set for reduction, reusing and recycling.
- prepare and submit for review and approval, a Waste Management Workplan (also known as Waste Diversion Workplan) including, but not limited to:
 - a list of materials from the Waste Audit identified for reuse; potential diversion options for each of these materials; and a summary of the weight and volume of materials that can be diverted to reuse;
 - a list of materials from the Waste Audit identified as recyclable, potential diversion options for each of these materials including the name, location and description of the market outlet, and a summary of the weight and volume of materials that can be diverted to recycling;
 - on-site practices and procedures to maximize the reuse and recovery of those materials identified in the Waste Audit;
 - anticipated costs associated with handling and storage on-site (e.g. bin rental costs), transportation costs (delivery to market or disposal outlets), potential revenues from the sales of materials, etc.

The Consultant shall also review and update, as required, the Designated Substance Report.

g) Other Required Activities

- Participate in all meetings outlined in PA 1.5 and 1.6, record the issues and decisions, as well as prepare and distribute minutes to all participants within seventy-two (72) hours of the meeting.
- Prepare and submit all required Monthly Progress Reports as per RS 1.2 and all Cost Reports as per RS 1.3.
- Review and update, as required:
 - the Project Work Breakdown Structure;
 - the Detailed Project Schedule;
 - the Project Cost Estimates and Cash Flow Projections;
 - the Risk Management Plan;
 - the Environmental Effects Evaluation Report and Mitigation Measure Monitoring Program.

RS 4.3 Deliverables

Unless otherwise specified, all deliverables shall be provided in accordance with the requirements outlined in PA 3 - SUBMISSIONS, REVIEWS AND APPROVALS.

The Consultant shall prepare and submit the following deliverables for review and approval by the Departmental Representative.

- a) Minutes of all project Progress Meetings, as per PA 1.5 and Other Meetings, as per PA 1.6;

- b) Monthly Progress Reports as per RS 1.2 and all Cost Reports as per RS 1.3;
- c) A Design Development Work Breakdown Structure and Schedule as per RS 4.2 a);
- d) A report on updated Project Requirements as per RS 4.2 b) including, but not limited to:
 - recommended adjustments to Project Requirements made during this phase,
 - details of all approved adjustments to Project Requirements made during this phase,
 - confirmation of the latest Project Requirements, including approved adjustments;
- e) A detailed Report on updated Detailed Design Criteria and Parameters, as per RS 4.2 b);
- f) Updated and new Commissioning Documents as per RS 4.2 c);
- g) Design Development Documents covering all the points described in RS 4.2 d);
- h) A specific report on Construction Implementation Strategies and Requirements covering the related points described in RS 4.2 d);
- i) A copy of all presentation material, and all supporting documents, for presentations to PWGSC and to Authorities Having Jurisdiction, as required, on the Design Development Documents as per RS 4.2 e);
- j) A report on the outcome of each presentation that was carried out;
- k) A Waste Audit Report and a Waste Management Workplan as per RS 4.2 g);
- l) An updated Designated Substance Report;
- m) An updated Project Work Breakdown Structure;
- n) Updated Detailed Construction and Project Schedules;.
- o) A Substantive, Class “B” Construction Cost Estimate, with a cost breakdown;
- p) An updated Project Cost Estimates and Cash Flow Projections;
- q) An updated Risk Management Plan; and
- r) A Report on the Consultant’s Rebuttal to PWGSC Quality Assurance Reviews including, but not limited to:
 - Review and analysis of comments provided by the PWGSC Project Team; and
 - Written response to all comments received, either explaining why comments are being challenged by the Consultant, or confirming how comments were addressed or incorporated into the work.

The Consultant shall also prepare and submit an integrated Design Development Report for review and approval by the Departmental Representative.

The Design Development Report shall update the Design Concept Report, consolidate the deliverables identified in this Section and continue to be utilized as the benchmark control document to monitor progress of the project.

The Design Development Report shall contain the following;

- a) an Executive Summary;
- b) the approved updated Project Work Breakdown Structure;
- c) the approved updated Detailed Construction and Project Schedules;

- d) the approved Substantive, Class “B” Construction Cost Estimate;
- e) the approved updated Project Cost Estimates and Cash Flow Projections;
- f) the approved updated project Risk Management Plan;
- g) a summary of the approved updated Project Requirements, with a brief explanation of changes made during this phase and an overview of key Design Criteria and Parameters;
- h) key elements of the approved updated Commissioning Documents;
- i) key elements of the approved Design Development Documents covering all the subjects outlined in RS 4.2 d);
- j) key elements of the approved report on Construction Implementation Strategies and Requirements;
- k) a summary of the outcome of each presentation made to PWGSC and to Authorities Having Jurisdiction;
- l) key elements of the approved Waste Audit Report and Management Workplan;
- m) key elements of the approved updated Designated Substance Report;
- n) key elements of the approved updated Environmental Effects Evaluation report and Mitigation Measure Monitoring Program, and
- o) A summary of all changes approved in the RS 4 phase, regarding project scope, cost or schedule, including those changes that have resulted in amendments to the Consultant contract. Details to be provided on each change shall include, without being limited to:
 - Description of change;
 - Reason for change;
 - Risk assessment;
 - Date of approval;
 - Impact on project scope, cost and schedule;
 - Resulting approved amendment to the contract.

RS 5 CONSTRUCTION DOCUMENTS

RS 5.1 General Requirements

The Consultant shall obtain written authorization from the Departmental Representative before proceeding with the services related to the development of Construction Documents.

The objective of the Construction Documents phase is to translate the approved Design Development Documents into construction drawings and specifications to guide and direct the Contractor and Sub-contractors in carrying out their work on the project.

The various stages of Construction Document preparation reflect the degree of completion of the documents and are defined, in broad terms, as follow:

- b) 66% complete: indicates substantial technical development of the project and well-advanced plans, details, schedules, and specifications for all disciplines. All disciplines, drawings and specifications are fully coordinated;
- c) 99% complete: is the submission of complete Construction Documents ready for final technical reviews and approvals, and for submission to local authorities for permit purposes.

All drawings and specifications are fully coordinated and very near completion;

- d) Final Submission: incorporates all revisions required in the 99% version and is intended to provide PWGSC with complete Construction Documents for tender call.

RS 5.2 Scope and Activities

Scope and activities at the various stages of Construction Document preparation are very similar. The main differences between stages are the degree of completeness of the Construction Documents as described above.

a) Construction Documents – 66% and 99% Stages

The Consultant shall, for each stage of Construction Document preparation:

- coordinate the work of all the relevant disciplines and prepare integrated sets of construction drawings and specifications covering all disciplines;
- submit drawings and specifications for PWGSC review and approval;
- attend up to one (1) technical and document production meetings per stage, that may be arranged by Departmental Representative or by the Consultant, for the review of Construction Documents; prepare minutes of the meetings and distribute copies to all participants;
- submit drawings and specifications, at appropriate stages and as directed by the Departmental Representative, to Authorities Having Jurisdiction, for review and, as required, for approval. Report to the Departmental Representative any comments received, approvals granted or changes requested;
- provide details and report on Construction Implementation Strategies including such elements as: mobilization, phased construction, demolition, dewatering, traffic control, duration, field office and storage areas, sediment and erosion control, etc.);
- submit for review and approval, any recommended adjustments to Project Requirements. Update the Report on Project Requirements, as required, to reflect approved adjustments;
- assess risks and update, as required, the Risk Management Plan;
- provide updated Substantive Class “B” Construction Cost Estimates (66%);
- provide Pre-tender Class “A” Construction Cost Estimates, with a cost breakdown (99%);
- provide updated Project Cost Estimates and Cash Flow Projections;
- provide updated Construction and Project Schedules;
- provide Commissioning Documents, as described under RS 5.2 b) (66%),
- provide updated Commissioning Documents (99%)
- as required, develop presentation material, deliver presentations to PWGSC and to Authorities Having Jurisdiction;
- prepare and submit a report on the outcome of each presentation made, including comments received, approvals granted or changes requested;
- prepare, and submit to the Departmental Representative, written response to comments made by PWGSC and by Authorities Having Jurisdiction on the submission reviews, and:
 - include clear indications on drawings and in specifications as to how comments were incorporated, in the subsequent submission; or
 - in cases where comments are being challenged by the Consultant, provide an explanation of the reasons for the challenges;

b) Commissioning Documents

As part of the 66% Construction Document stage, prepare and submit for review and approval the following Commissioning Documents, in accordance with the requirements of the latest version of the PWGSC Commissioning Manual:

- Commissioning Specifications;
- Updated/Final Commissioning Plan including, but not limited to:
 - Product Identification and Performance Verification (PI/PV) requirements;
 - confirmation of Contractor's Commissioning, Performance Verification and Testing Responsibilities;
 - updated Commissioning cost estimates;
 - updated O&M cost estimates / budget;
 - installation / start-up checklists

As part of the 99% and Final Construction Document stages, update the Commissioning Documents as required and submit for review and approval.

c) Final Construction Documents

The Consultant shall:

- prepare and submit Final Construction Documents, in both official languages, to the Departmental Representative for review and approval, including:
 - complete sets of final drawings and specifications, signed and sealed by respective discipline specialists licensed in the province(s) where the project is being carried out;
 - any appended technical reports (e.g. Geotechnical studies, Designated Substances Report) that shall form part of the Construction Documents, signed and sealed by respective discipline specialists licensed in the province(s) where the work is being carried out.
- as required, submit Final Construction Documents to Authorities Having Jurisdiction for review and to obtain all necessary permits. Report to the Departmental Representative any comments received, approvals granted, permits issued or changes requested;
- prepare, and submit to the Departmental Representative, written response to comments made by PWGSC and by Authorities Having Jurisdiction on the 99% reviews, and:
 - include clear indications on drawings and in specifications as to how comments were incorporated, in the Final Construction Documents; or
 - in cases where comments are being challenged by the Consultant, provide an explanation of the reasons for the challenges;

d) Additional Final Submission Requirements

As part of the Final Construction Document Submission, the Consultant shall also prepare and submit the following documents:

- Terms of Reference for a complete program of Field Quality Control Testing specifying the scope of work, methodology, type, number and frequency and estimated unit costs, as well as total estimated cost, for all testing that shall be required during construction;
- minutes of all Progress Meetings, as per PA 1.5 and Other Meetings, as per PA 1.6;

- Monthly Progress Reports as per RS 1.2 and all Cost Reports as per RS 1.3;
- a final Report on updated Project Requirements, including, but not limited to:
 - recommended adjustments to Project Requirements made during this phase;
 - details of all approved adjustments to Project Requirements made during this phase;
 - confirmation of the latest Project Requirements, including approved adjustments.
- a final Report on updated Design Criteria and Parameters;
- final updated Commissioning Documents;
- final updated Report on Construction Implementation Strategies;
- an updated Waste Audit Report and Waste Management Workplan;
- an updated Designated Substance Report;
- an updated Project Work Breakdown Structure;
- updated Detailed Construction and Project Schedules;
- updated/final Pre-tender Class “A” Construction Cost Estimate, with a cost breakdown;
- updated Project Cost Estimates and Cash Flow Projections; and
- an updated Risk Management Plan.

RS 5.3 Deliverables

Unless otherwise specified, all deliverables shall be provided in accordance with the requirements outlined in PA 3 - SUBMISSIONS, REVIEWS AND APPROVALS.

a) Construction Documents Submissions

Deliverables at the various stages of Construction Document preparation are very similar. The main differences between stages are the degree of completeness of the Construction Documents and of the related supporting documents and reports.

At each stage of Construction Document preparation, the Consultant shall prepare and submit for the Departmental Representative’s review and approval:

- complete sets of fully coordinated and integrated construction drawings and specifications covering all disciplines. The documents shall be developed at a degree of completeness consistent with the submission stage and cover the requirements outlined in RS 5.2;
- all other related documents and reports, as outlined in RS 5.2;
- all necessary advice and documentation input for the preparation of the TB submission for Effective Project Approval as per RS 5.2 c).

b) Construction Document Report

The Consultant shall also prepare and submit an integrated Construction Document Report for review and approval by the Departmental Representative.

The Construction Document Report shall update the Design Development Report, consolidate the deliverables identified in this Section and continue to be utilized as the benchmark control document to monitor progress of the project.

The Construction Document Report shall contain the following:

- an Executive Summary;
- the approved updated Project Work Breakdown Structure;
- the approved updated Detailed Construction and Project Schedules;
- the approved Pre-tender, Class “A” Construction Cost Estimate, and cost breakdown;
- the approved updated Project Cost Estimates and Cash Flow Projections;
- the approved updated project Risk Management Plan;
- a summary of the approved updated Project Requirements, with a brief explanation of changes made during this phase and an overview of key Design Criteria and Parameters;
- key elements of the approved updated Commissioning Documents;
- key elements of the approved updated Report on Construction Implementation Strategies;
- a summary of the outcome of each presentation made to PWGSC and to Authorities Having Jurisdiction;
- key elements of the approved Waste Audit Report and Management Workplan;
- key elements of the approved updated Designated Substance Report;
- key elements of the approved updated Environmental Effects Evaluation report and Mitigation Measure Monitoring Program, and
 - Summary of all changes approved in the RS 5 phase, regarding project scope, cost or schedule, including those changes that have resulted in amendments to the Consultant contract. Details to be provided on each change shall include, without being limited to:
 - Description of change;
 - Reason for change;
 - Risk assessment;
 - Date of approval;
 - Impact on project scope, cost and schedule;
 - Resulting approved amendment to the contract.

RS 6 TENDER CALL, BID EVALUATION AND CONSTRUCTION CONTRACT AWARD

RS 6.1 General Requirements

The Consultant shall obtain written authorization from the Departmental Representative before proceeding with the services related to Tender Call, Bid Evaluation and Construction Contract Award.

The purpose of this phase is to obtain and evaluate bids from qualified Contractors, and to award a contract for the construction of the project as per the Tender Documents and in accordance with Government Contract Regulations.

It is anticipated that the Construction tender process will be a two phase process that will involve a Contractor qualification phase and a price proposal phase.

RS 6.2 Tender Call

The Consultant shall:

- a) assist the Departmental Representative in organizing and holding a site visit for the purpose of briefing potential bidders on the requirements of the construction contract;
- b) ensure that all Consultant's key project personnel, including the Senior Resident Engineer, participate in the site visit;
- c) record questions and issues raised by bidders, as well as points of clarification and any responses provided;
- d) advise the Departmental Representative in assessing the need for Addenda to address the questions and issues raised by bidders, or any required corrections or points of clarification;
- e) examine the impact that any Addenda may have on cost and schedule, and advise the Departmental Representative accordingly;
- f) as required, prepare and submit the Addenda, with recommendations, for the Departmental Representative's approval;
- g) assist the Departmental Representative in addressing and responding to any technical inquiries that may have been submitted by bidders, in accordance with the requirements of the RFP, during the tender period.

RS 6.3 Bid Evaluation and Contract Award

In collaboration with all relevant disciplines, the Consultant shall:

- a) review and evaluate the following, and advise the Departmental Representative accordingly:
 - the qualification of Contractors based on a pre-established list of technical questions;
 - the technical aspects of all qualified bids ;
 - unit and/or lump sum costs proposed in the bids as compared against Class 'A' construction cost estimates and indicate if the bid is fair and reasonable;
 - the selected Contractor's, based on the combination of experience and price, experience and capability to undertake the full scope of work;
- b) provide advice and assistance to the Departmental Representative regarding:
 - factors and considerations that would influence PWGSC's decision as to whether or not to re-tender the project.

RS 6.4 Deliverables

Unless otherwise specified, all deliverables shall be provided in accordance with the requirements outlined in PA 3 - SUBMISSIONS, REVIEWS AND APPROVALS.

The Consultant shall prepare and submit the following deliverables for review and approval by the Departmental Representative.

- a) minutes of the site visit, as well a record of questions and issues raised by bidders during the site visit, as well as points of clarification and any responses provided;
- b) copies of all Addenda, with supporting documentation;
- c) copies of full notes on all inquiries during the bidding period;

- d) a bid evaluation report summarizing the findings and recommendations covering the points outlined in 6.3 Bid Evaluation and Contract Award;
- e) Monthly Progress Reports as per RS 1.2 and all Cost Reports as per RS 1.3;
- f) minutes of all project Progress Meetings, as per PA 1.5 and Other Meetings, as per PA 1.6;
- g) as required, an updated:
 - Project Work Breakdown Structure;
 - Project Cost Estimates and Cash Flow Projections;
 - Detailed Project Schedule;
 - Risk Management Plan;
 - Environmental Effects Evaluation report and Mitigation Measure Monitoring Program;
 - Commissioning Documents;
 - Waste Management Workplan and Designated Substance Report.

RS 7 CONSTRUCTION AND CONTRACT ADMINISTRATION

RS 7.1 General Requirements

The Consultant shall obtain written authorization from the Departmental Representative before proceeding with the services related to the Construction and Contract Administration.

- a) The Consultant shall provide the full range of Construction and Contract Administration services required to ensure implementation of the project in compliance with the Contract Documents, and to direct and monitor all approved work changes during construction.
- b) During the implementation of the project, the Consultant acts on the Departmental Representative's behalf to the extent outlined in the Consultant Contract, including this Project Brief document.
- c) The Consultant shall ensure that all communication, documentation and correspondence relating to Administration of the Construction Contract is in the language of choice of the construction Contractor.
- d) PWGSC forms and templates to be used for the production of many documents required in this Section can be found at the following web site:

<http://www.tpsgc-pwgsc.gc.ca/app-acq/forms/formulaires-forms-eng.html>

RS 7.2 Construction Briefing Meeting

Within five (5) days of Construction Contract award, the Departmental Representative shall arrange and chair a Construction Briefing Meeting which shall be held at a time and place to be determined by the Departmental Representative.

The purpose of the meeting is to:

- a) introduce and confirm the key functions of the stakeholders involved in the project which shall include the following participants:
 - PWGSC Representatives (e.g. Project Manager/Departmental Representative, COE Engineer/Design Manager, Property Manager, Asset Manager, etc);
 - Consultant Representatives (e.g. Senior Resident Engineer, prime contact at Consultant Office, and Sub-Consultants / Specialists as required);

- Contractor (mandatory) and, as required, Subcontractors;
- Representatives from Authorities Having Jurisdiction (e.g. provincial departments, cities/municipalities, etc.), as requested by the Departmental Representative;
- b) confirm project objectives, issues, constraints and challenges to ensure that they are clearly defined, fully understood, and appropriately addressed during construction;
- c) review and discuss the Contractor's proposed Detailed Construction Schedule in conjunction with the latest approved Detailed Project Schedule and identify any adjustments required to meet the project time objectives;
- d) identify and discuss construction related risks and adjust, as required, the overall project risk plan prepared by PWGSC;
- e) review and discuss the Contractor's proposed Construction Cost Breakdown in conjunction with the latest approved Project Cost Plan/Budget to verify that the proposed Construction Cost Breakdown is fair and reasonable.

The Consultant shall record decisions and actions to be taken, as well as prepare and distribute minutes to all participants within seventy-two (72) hours of the meeting.

RS 7.3 Construction Progress Meetings

The Consultant shall:

- a) arrange and chair Construction Progress Meetings, which shall be held **every two (2) weeks** throughout the entire project construction phase, and shall normally require the participation of the following parties:
 - Consultant or Consultant's Resident Site Representative (mandatory);
 - Contractor (mandatory);
 - Sub-contractors (if requested by Consultant or if invited by the Contractor with the agreement of the Consultant);
 - Consultant Technical Expert and/or Sub-consultants (as required);
 - Departmental Representative;
 - Other PWGSC Representatives (e.g. COE r, etc), as required;
 - Other Stakeholders may be identified by the Departmental Representative.
- b) verify and confirm the required meeting attendance with the Departmental Representative and ensure that appropriate meeting invitations, with all pertinent documents (e.g. agenda, documents to be reviewed and discussed, minutes from previous meeting, etc.) are sent well in advance to all who shall attend;
- c) hold the meetings in the Consultant's field office at the construction site. In cases where site office facilities at the construction site are not yet ready for holding meetings, the Consultant shall, at no extra cost to PWGSC, make alternate arrangements to accommodate the meetings;
- d) ensure that agenda items for each Construction Progress Meeting include, without being limited to:
 - Review and approval of agenda;
 - Review and approval of previous minutes;
 - Progress on actions items from previous meetings;

- New business;
 - Construction schedule review and update;
 - Construction budget/cash flow review and update;
 - Changes: Contemplated Change Notices (CCN) in progress, approved Change Orders;
 - Status of shop drawings development and review;
 - Site instructions;
 - Environmental issues;
 - Health and safety.
- e) record decisions and actions to be taken, as well as prepare and distribute draft minutes to all participants within seventy-two (72) hours of the meeting.

RS 7.4 Time Planning, Scheduling and Control

The Consultant shall:

- a) **within five (5) days** of Construction Contract award, obtain from the Contractor a Detailed Construction Schedule, with Commissioning components shown separately;
- b) review the proposed Detailed Construction Schedule for conformity with the latest approved Detailed Project Schedule, identify any discrepancies and risks that may affect the achievement of project time objectives, advise the Departmental Representative accordingly;
- c) submit, for the approval of the Departmental Representative, recommendations for:
 - acceptance of the Contractor's Detailed Construction Schedule; or
 - any adjustments that may be required to the Detailed Project Schedule; and/or
 - any adjustments that may be required to the Contractor's Detailed Construction Schedule.
- d) instruct the Contractor to adjust the Detailed Construction Schedule, in accordance with the Departmental Representative's directives, and to resubmit the schedule for review and approval;
- e) once the Contractor's Detailed Construction Schedule has been accepted by the Departmental Representative it shall form the basis for monitoring the progress of the work;
- f) monitor the progress of the work against the approved Detailed Construction Schedule, investigate and record any discrepancies or delays, advise the Contractor in writing and request that remedial action be taken;
- g) should the work continue to fall behind schedule, because of lack of cooperation by the Contractor, or for any other reason, immediately advise the Departmental Representative with recommendations to correct the situation;
- h) only the Department Representative may approve any request for Time Extensions. Approvals shall be issued in writing by PWGSC;
- i) produce and submit Monthly Progress Reports as specified in RS 1.2.

RS 7.5 Cost Planning, Estimating and Control

The Consultant shall:

- a) **within five (5) days** of Construction Contract award, obtain from the Contractor's proposed

Construction Cost Breakdown;

- b) review the Contractor's proposed Construction Cost Breakdown in conjunction with the latest approved Project Cost Plan/Budget to verify that the proposed Construction Cost Breakdown is fair and reasonable;
- c) identify any discrepancies and risks that may affect the achievement of project budget objectives, advise the Departmental Representative accordingly;
- d) submit, for the approval of the Departmental Representative, recommendations for:
 - acceptance of the Contractor's Construction Cost Breakdown; or
 - any adjustments that may be required to the Project Cost Plan/Budget; and/or
 - any adjustments that may be required to the Contractor's Construction Cost Breakdown.

- e) instruct the Contractor to adjust the Construction Cost Breakdown, in accordance with the Departmental Representative's directives, and to resubmit the cost breakdown for review and approval;
- f) once the Construction Cost Breakdown has been approved by the Departmental Representative, it shall form the basis for monitoring construction budget/cash flow and evaluating the progress of the work;
- g) monitor budget/cash flow requirements and the value of progress of work against the approved Construction Cost Breakdown, record any discrepancies or overruns, advise the Contractor in writing and request that remedial action be taken;
- h) should the work continue to exceed approved Construction Cost Breakdown, because of lack of cooperation by the Contractor, or for any other reason, immediately advise the Departmental Representative with recommendations to correct the situation;
- i) provide cost advice during construction;
- j) Produce and submit the following cost control reports:
 - Milestone Reports, as per RS 1.3 c);
 - Monthly Cost Reports, as per RS 1.3 d); and
 - Exception Reports, as per RS 1.3 e).

RS 7.6 Sub-Contractor Changes

The Consultant shall:

- a) verify that the Contractor is using only the Sub-contractors listed on the Tender Form;
- b) obtain the full list from Contractor **no later than ten (10) working days** after the award of the Construction Contract, review the list and advise the Departmental Representative accordingly;
- c) review all requests from the Contractor for changes of Sub-contractors, and submit recommendations to the Departmental Representative;
- d) Sub-contractor changes can only be authorized by the Departmental Representative. Changes are only considered when they involve no increase in cost and no reduction in product and service quality.

RS 7.7 Labour, Health and Safety Requirements

The Consultant shall:

- a) verify the Contractor's compliance with all applicable codes, bylaws and regulations specified in the Construction Contract and in this Project Brief, including, but not limited to:
 - Canada Labour Code as administered by Human Resources and Skills Development Canada (HRSDC);
 - Canada Occupational Safety and Health Regulations as administered by HRSDC;
 - Provincial and Municipal safety laws and regulations;
 - Fire safety provisions during construction in accordance with applicable FCC Standards.
- b) ensure that a copy of the Labour Conditions for the project is posted in a conspicuous place on site and that they remain on the site throughout the construction contract;

- c) review and verify that the Health and Safety plan is complete, posted and accessible to everybody on the site throughout the contract;
- d) verify that appropriate notices of project have been filed with Ontario Workplace Safety and Insurance Board (WSIB) and the Commission de la santé et de la sécurité du travail du Québec (CSST), as applicable.
- e) verify that the Contractor has provided the Designated Substance Report to the Sub-contractors;
- f) facilitate any site regulatory inspections requested by Authorities Having Jurisdiction, and inform the Departmental Representative of such inspections and their results;
- g) for all cases of non-compliance, instruct the Contractor in writing to take appropriate corrective action in a timely manner, and advise the Departmental Representative and the concerned Authorities Having Jurisdiction accordingly;
- h) verify and confirm that all necessary corrective actions have been taken by the Contractor, provide written acknowledgment to the Contractor and advise the Departmental Representative and the concerned Authorities Having Jurisdiction accordingly.

RS 7.8 Environmental Requirements

The Consultant shall:

- a) verify that an Environmental Emergency Response Plan has been posted and is accessible;
- b) verify that all licenses, permits and Certificates of Approval have been obtained and that any conditions contained therein are being complied with;
- c) verify compliance with environmental plans and reports, update if required during the course of the project, including monitoring and follow-up programs (baseline, at critical stages during the work and post-construction site reinstatement);
- d) record any environmental incident, spill, release of toxic substance, property damage and remedial actions taken including notification of appropriate authorities.
- e) verify that a Waste Management Plan has been posted and is accessible to all site personnel;
- f) monitor the implementation and record the progress of the solid waste management plan for both hazardous and non-hazardous materials;
- g) verify that the facilities for solid waste management have been provided as determined by the Waste Management Plan and that appropriate signage has been posted and is visible;
- h) verify that security of collection area is adequate to prevent contamination of segregated waste.
- i) prepare and submit for the Departmental Representative approval a Waste Management Report including, but not limited to:
 - a summary of the key elements and targets of the Waste Management Plan;
 - descriptions of difficulties encountered during the implementation of the Plan and of remedial measures taken;
 - descriptions of the recovered construction materials during the course of the project;
 - an assessment of the degree to which the targets and anticipated results outlined in the Waste Audit and Waste Management Plan have been realized.

RS 7.9 Site Visits, Inspections and Testing

The Consultant shall:

- a) provide non-resident inspection and testing services to verify that all aspects of the construction work, commissioning and related environmental remediation measures, are carried out in accordance with the requirements of the contract documents, this Project Brief and accepted construction procedures;
- b) ensure that all testing and inspections required in the contract documents, and in the list of quality control testing approved by the Departmental Representative, are conducted;
- c) when construction contract is awarded, assist the Departmental Representative and the Contractor in briefing testing firms, to be hired by the Contractor, on required testing services, frequencies, quantities, distribution of reports, communication lines, etc.;
- d) in cases where alternate or additional testing firms may be required, the method of selection of inspection services and testing laboratories shall be pre-approved and the final selection confirmed by the Departmental Representative;
- e) evaluate testing firm's invoices for services performed and make recommendations to the Departmental Representative regarding payment of invoices;
- f) establish a written understanding with the Contractor, and the Departmental Representative, as to what stages or aspect of the work are to be inspected prior to being covered up or prior to work proceeding;
- g) verify that the Contractor has provided the agreed advance notice for portions of the work requiring testing and inspecting prior to being covered up or prior to continuing the work;
- h) provide the services of qualified personnel who are fully knowledgeable with technical, environmental and administrative requirements of project;
- i) ensure that the appropriate Consultant technical experts witness all factory and on-site testing, including testing during off-hours;
- j) carry out inspections of the work at intervals appropriate to determine if the work is in conformity with the Contract Documents;
- k) ensure that materials and assemblies are tested, as required by the Construction Documents;
- l) inspect materials and prefabricated assemblies and components at their source or assembly plant, as may be necessary for the progress of the project;
- m) require tests of any material and construction on site that appears of doubtful quality or performance;
- n) advise the Contractor via memorandum of any work deficiencies or unapproved deviations from plans and specifications and request that appropriate remedial action be taken;
- o) report immediately to the Departmental Representative any cases where the Contractor either refuses or neglects to take corrective action in a timely manner;
- p) advise the Contractor via memorandum of any cases where tests have either not been carried out as required, or where test results do not meet specified requirements and request that appropriate remedial action be taken;
- q) notify the Departmental Representative if the test results do not meet the specified requirements or if the Contractor does not have the tests undertaken as required;
- r) immediately notify the Departmental Representative when tests fail to meet specified requirements and corrective work shall affect the project schedule;

- s) facilitate and accompany PWGSC representatives who wish to inspect or visit the construction site, record any requirements, comments or instructions. Request that such requirements, comments or instructions be confirmed in writing by the PWGSC representatives;
- t) facilitate and accompany representatives of Authorities Having Jurisdiction who wish to inspect or visit the construction site, record any requirements, comments or instructions. Request that such requirements, comments or instructions be confirmed in writing by the representatives of Authorities Having Jurisdiction.

RS 7.10 Interpretation and Clarification of Contract Documents

The Consultant shall:

- a) have the responsibility, and authority, to interpret the technical requirements of the Contract Documents;
- b) provide interpretation and clarifications of Plans and Specifications, as required in order that project not be delayed;
- c) provide, at the request of the Departmental Representative, additional detail drawings that may be required to properly clarify or interpret the Contract Documents;
- d) provide interpretations in writing and/or graphic format (as may be required), with reasonable promptness on the written request of either the Departmental Representative or the Contractor;
- e) provide the Departmental Representative with copies of all interpretation and clarification instructions given in writing, or graphically, to the Contractor;
- f) provide written findings within a reasonable time on all claims, disputes, and other matters in question between PWGSC and the Contractor relating to the execution or performance of the Work, or the interpretation of the Contract Documents;
- g) in case of claims or disputes, provide interpretations and findings consistent with the intent of the Contract Documents, showing partiality to neither the PWGSC nor the Contractor.

RS 7.11 Construction Photographs

The Consultant shall:

- a) use photographs to supplement work progress records, including implementation of environmental mitigation measures. All photographs are to be digital with file names that identify the date and time of the photos;
- b) maintain a searchable index of all photographic records including at least: filename of the individual photographs, date of the photographs and a brief description, and provide it to the Departmental Representative;
- c) submit photographs and index updates using File Transfer Protocol (FTP), together with monthly progress reports or payments, to the Consultant's Office and the Departmental Representative;
- d) use video recordings as instructed by the Departmental Representative, particularly in cases where parts of the work progress or construction techniques need to be documented.

RS 7.12 Shop Drawings

The Consultant shall:

-
- a) provide a list of all shop drawings to be submitted by the Contractor; track submissions and maintain an index, and provide regular updates to the Departmental Representative;

- b) review and take other appropriate action upon Contractor's submittals such as shop drawings, product data, and samples, for conformance with the general design concept of the work as provided in the Contract Documents;
- c) ensure that the Contractor submits shop drawings with enough lead time so that Consultant reviews, and any amendments and resubmission that may be required as a result of the reviews, can be done without harming the approved Construction Schedule;
- d) verify that all shop drawings have been reviewed and stamped "Checked and Certified Correct for Construction" by the Contractor before submission to the Consultant. By applying the stamp of approval, the Contractor warrants that the drawings have been checked and coordinated with the work of all trades, and that they meet all the requirements of the Contract Documents;
- e) review shop drawings and verify that they are clearly detailed and dimensioned, and are not proposing substitution of unacceptable construction or materials.
- f) return promptly to the Contractor rejected shop drawings, with clear indication of reasons for rejection, and ask the Contractor to amend and resubmit shop drawings for approval;
- g) return to the Contractor approved shop drawings stamped "reviewed" by the Consultant;
- h) ensure that the Contractor understands that review of Shop Drawings is aimed at verifying compliance with the general design only and that review by the Consultant shall not relieve the Contractor of responsibility for accuracy, quantities involved, or for meeting the requirements of the Construction Documents;
- i) send one copy of all approved shop drawings to the Departmental Representative. Ensure that shop drawings include the project number and are recorded in sequence;
- j) provide on a weekly basis an up-to-date report from the shop drawing index indicating status of shop drawings (date submitted, date reviewed, date returned etc.).

RS 7.13 Construction Changes

The Consultant shall:

- a) not have authority to change the work or the price of the Contract. All changes which affect project cost, schedule or design concept require Departmental Representative approval in advance;
- b) advise the Departmental Representative of all potential changes to scope for the duration of the construction phase;
- c) provide a full description, justification, cost estimate and recommendation in writing to the Departmental Representative for Contemplated Change Notices;
- d) upon the Departmental Representative's approval of the contemplated change, obtain a detailed quotation from the Contractor including breakdown of costs for all labour and materials, as well as an implementation schedule for extra work;
- e) review Contractor's quotation and promptly forward recommendations of acceptance or rejection to the Departmental Representative;
- f) upon approval of the Contractor's quotation, prepare a Changer Order containing all pertinent details for the approval of the Department Representative, who shall then process the Change Order for issuance to the Contractor;
- g) when Contemplated Change Notice is to be issued based on unit prices, keep accurate account of the work. Record dimensions, locations and quantities.

- h) ensure that all changes, whether additions or deletions, including those not affecting the cost of the project, are covered by Change Orders in order to provide a complete record of variations from the original contract.
- i) review any changes or substitutions proposed by the Contractor regarding materials or equipment, assess compliance with the design intent and construction specifications, make recommendations of acceptance or rejection to the Departmental Representative;

RS 7.14 Contractor's Progress Claims

Each month the Contractor shall submit a progress claim for work and materials as required in the Construction Contract.

The Consultant shall:

- a) prior to formal submission of progress claims, evaluate the amounts owing to the Contractor based on the progress of the work and discuss with the Contractor;
- b) ensure that the Contractor has submitted the progress claims by completing and signing the following documents:
 - Request for Construction Payment, including an appropriate Cost Breakdown and, as required, a Final Certification of Measurement;
 - Statutory Declaration.
- c) In cases where the Contractor requests payment for materials or equipment delivered on site, but not yet incorporated in work:
 - confirm that materials or equipment have been stored in a secure area designated by the Departmental Representative and in accordance with environmental recommendations;
 - obtain and verify a detailed list of materials/equipment with supplier's invoices showing price of each item;
 - include the above information in the progress claim;
 - as these materials and equipment become incorporated into the work, ensure that items in the Cost Breakdown are adjusted accordingly in subsequent Requests for Construction Payment;
- d) if work is based on unit prices, measure and record the quantities for verification of monthly progress claims and the Final Certificate of Measurement;
- e) review the progress claim, make revisions if necessary, and certify value of work done and materials delivered, by signing the Request for Construction Payment;
- f) forward all duly signed progress claim documents to the Departmental Representative for approval and processing in accordance with the terms and conditions of the Construction Contract.
- g) Submit with each progress claim:
 - Monthly Progress Report, as per RS 1.2 c).
 - Monthly Cost Report, as per RS 1.3 d)
 - Summary photographs of the progress of the work.

RS 7.15 Commissioning

a) Confirming Requirements

Upon Construction Contract award, and in collaboration with the Contractor, the Consultant shall review, revise as required, and confirm details of Commissioning requirements including, but not limited to:

- Commissioning schedule;
- Product Information Reports;
- Performance Verification (PV) procedures;
- Installation/Start-up Checklists procedures;
- Operations and Maintenance Manual;
- O&M Training;

The Consultant shall prepare a report summarizing the above confirmed details and submit copies to Contractor and to the Departmental Representative.

b) Commissioning Plan

Throughout the course of the construction phase, the Consultant shall:

- Review and verify that Contractor's work and deliverables, pertaining to Commissioning, are produced in accordance with Contract specifications and with the requirements of the Commissioning Plan;
- Review, and report to the Departmental Representative, the progress of all Commissioning activities and documents, including any problems and recommended courses of action;
- Update the Commissioning Plan, including the schedule, as required to better reflect actual project conditions.

c) Operations and Maintenance Manual

The Consultant shall:

- Review, verify for completeness, relevance and format the Operation and Maintenance Manual produced by Contractor in accordance with project specifications, and ensure that it reflects all approved changes, modifications, revisions and adjustments to the installed equipment and systems;
- submit review comments to the Contractor and to the Departmental Representative;
- Ensure that the Operating and Maintenance Manual is finalized prior to the issuance of the Certificate of Substantial Performance and submit the final document for the approval of the Departmental Representative

d) Testing and Performance Verification

The Consultant shall, in collaboration with the Contractor and the Departmental Representative:

- confirm the requirements and the schedule for conducting all required Testing and Performance Verification;
- confirm the list of all representatives from PWGSC, the Consultant, the Sub-Consultant, the Contractor, the Sub-contractor and, as required, the Manufacturer/Supplier who shall be present during all performance and verification tests;

- make all necessary arrangements to organize and hold the Testing and Performance Verification prior to the issuance of the Certificate of Substantial Performance;

The Consultant shall:

- witness and certify all Performance Verification (PV) procedures and tests;
- provide recommendations during the PV process to address variances from the prescribed requirements;
- review test results and immediately report to the Departmental Representative any situations where test results fail to meet prescribed requirements, along with an assessment of the impact corrective action may have on the project schedule;
- in consultation with the Departmental Representative, instruct the Contractor to rectify all deficiencies identified and recorded during the performance verification, until all systems meet the prescribed requirements. Re-test to verify compliance;
- confirm that each system is completed, safe to operate and ready for start-up;
- assist Departmental Representative in evaluating testing firm's invoices for services performed;
- prepare and submit Testing and Performance Verification Report for the approval of the Departmental Representative.

e) Training

The Consultant shall:

- coordinate all necessary services to ensure that PWGSC's O&M personnel are properly instructed on the operation and maintenance of all asset components and systems;
- in collaboration with the Contractor, who shall be responsible to deliver training, review the Training portion of the Commissioning Plan and develop a Training Plan including: an agenda, a schedule and proposed location for the training session(s), as well as a list of recommended participants;
- submit the Training Plan to the Departmental Representative for review and approval at least two (2) weeks prior to the proposed training dates;
- make all necessary arrangements to organize and hold the training session(s) in accordance with the approved Training Plan;
- develop training material on the subject of design intent and systems operations, based on the Systems Operations Manual. Present this material at the training sessions;
- ensure that the Contractor has developed suitable training material on the subject of operations and maintenance of components, equipment and systems, based on the Operations and Maintenance Manual. Ensure that the Contractor presents this material at the training sessions;
- prepare a summary of the training sessions, indicating dates, subject matter and all personnel present for training, and submit training summary to the Departmental Representative.

RS 7.17 Substantial Performance (Interim) Inspection

The Consultant shall:

- a) inform the Departmental Representative when satisfied that the project is substantially completed;

- b) assist the Departmental Representative in organizing the Substantial Performance Inspection meeting and convening the Project Acceptance Board to the meeting;
- c) lead the Project Acceptance Board's inspection of the work and record all unacceptable and incomplete work on a designated form;
- d) coordinate all performance verifications and testing of components and systems, in accordance with the Commissioning Plan, and record any deficiencies;
- e) estimate the cost of correcting deficiencies and completing the work, including any work that shall be postponed for operational, climatic or environmental reasons, and request from the Contractor a work plan and a schedule for carrying out all corrective actions in a timely manner;
- f) review the Contractor's work plan and schedule and, if they are found acceptable, submit them to the Departmental Representative for approval;
- g) monitor, inspect and report on the progress of actions against the approved workplan and schedule.

As appropriate, the Project Acceptance Board shall accept the project from the Contractor subject to the listed deficiencies and incomplete works being rectified by the Contractor.

RS 7.18 Certificate of Substantial Performance (Interim)

As a result of the Substantial Performance Inspection and in place of regular progress claim, PWGSC makes payment to the Contractor on the basis of the Certificate of Substantial Performance (Interim).

Payment requires completion and signing, by the parties concerned, of the following documents:

- Certificate of Substantial Performance (Interim), including an appropriate Cost Breakdown and, as required, a Final Certification of Measurement;
- Statutory Declaration (Interim);
- Certificate from the Ontario Workplace Safety and Insurance Board (WSIB);
- Certificate from the Commission de la santé et de la sécurité du travail du Québec (CSST);
- Hydro Certificates (Quebec and Ontario), as applicable.

The Consultant shall:

- a) prepare the Certificate of Substantial Performance (Interim);
- b) verify that all items are correctly stated and all required signatures are obtained;
- c) attach the approved work plan and schedule for correcting deficiencies and completing the work to the Certificate of Substantial Performance (Interim);
- d) ensure that completed documents and any supporting documents are submitted to the Departmental Representative for approval and processing.

RS 7.19 Final Inspection

The Consultant shall:

- a) inform the Departmental Representative when satisfied that all work under the contract has been completed, including all deficiency items identified at the Interim Inspection;
- b) assist the Departmental Representative in organizing the Final Inspection meeting and convening the Project Acceptance Board to the meeting;

- c) lead the Project Acceptance Board's inspection of the work and identify any deficiencies to be corrected by the Contractor before final acceptance of the work can be granted;
- d) coordinate performance verifications and testing of components and systems that had been identified as deficient during the Interim Inspection;
- e) if everything is satisfactory at the time of the inspection, or once all deficiencies have finally been corrected, the Board confirms final acceptance of the project.

RS 7.20 Certificate of Completion (Final)

As a result of Final Inspection and in place of regular progress claim, PWGSC makes payment to the Contractor on the basis of the Certificate of Completion (Final).

Payment requires completion and signing, by the parties concerned, of the following documents:

- Certificate of Completion (Final), including an appropriate Cost Breakdown and, as required, a Final Certification of Measurement;
- Statutory Declaration (Final);
- Certificate from the Ontario Workplace Safety and Insurance Board (WSIB);
- Certificate from the Commission de la santé et de la sécurité du travail du Québec (CSST);
- Hydro Certificates (Quebec and Ontario), as applicable.

The Consultant shall:

- a) prepare the Certificate of Completion (Final);
- b) verify that all items are correctly stated and all required signatures are obtained;
- c) ensure that completed documents and any supporting documents are submitted to the Departmental Representative for approval and processing.

RS 7.21 Take-over

The Consultant shall:

- a) in collaboration with other Project Team members, advise the Departmental Representative on establishing the date of the official take-over of the project. The date of Certificate of Substantial Performance (Interim), signifies commencement of the 12 and 24 month warranty period for work completed on the date the certificate, in accordance with the General Conditions of the construction contract;
- b) provide the Departmental Representative with original copy of Contractor's warranties for all materials and work covered by an extended warranty or guarantee, according to the conditions of the specifications;
- c) verify the completeness of Contractor's warranties and the extent of their coverage.

RS 7.22 As-Built and Record Drawings

The Consultant shall:

- a) following the take-over, obtain as-built marked-up hard copies and electronic copies from the Contractor.
- b) verify that As-Built Drawings:
 - are complete and accurate;
 - reflect actual post construction conditions and measurements;

- incorporate relevant data from approved shop drawings and installed component data;
- show deviations in construction from the original contract drawings, including changes resulting from Change Orders or from on-site instructions;

- c) produce Record Drawings by incorporating As-Built information into project drawings;
- d) Prepare and submit, for the Departmental Representative's approval a complete set of: signed and sealed:
 - As-Built Drawings;
 - Final Shop Drawings;
 - Record Drawings.

RS 7.23 Warranty Reviews

a) General

- All work under the Construction Contract carries a minimum twelve (12) months warranty commencing on the effective date of the Certificate of Substantial Performance.
- The Contractor is responsible for correcting all defects in the work during the warranty period, except for damage caused by misuse, abuse or neglect by others.
- Some work under the Construction Contract shall carry a twenty-four (24) months warranty commencing on the effective date of the Certificate of Substantial Performance.

b) Ten-month Warranty Inspection

Sixty (60) days prior to expiration of the warranty period, the Consultant and/or the Consultant's Resident Site Representative shall:

- conduct a Ten-month Warranty Inspection of the project;
- verify the integrity and performance of all constructed components and systems, to ensure that they continue to effectively meet the prescribed requirements;
- review all warranty service callback work performed by the Contractor;
- identify and report deficiencies to the Departmental Representative and to the Contractor for corrective action.

c) Twenty-two month Warranty Inspection

Sixty (60) days prior to expiration of the warranty period, the Consultant and/or the Consultant's Resident Site Representative shall:

- conduct a final warranty review with the Departmental Representative;
- verify whether all deficiencies identified at the Ten-month Warranty Inspection have been corrected, and confirm any outstanding work;
- identify any other deficiencies that might have developed since the Ten-month Warranty Inspection;
- report all deficiencies to the Departmental Representative and to the Contractor for corrective action;
- do a follow-up inspection when the Contractor has corrected all deficiencies;
- inform the Departmental Representative in writing when all deficiencies listed on the Final Warranty Review deficiency list have been corrected.

RS 7.24 Deliverables

Unless otherwise specified, all deliverables shall be provided in accordance with the requirements outlined in PA 3 - SUBMISSIONS, REVIEWS AND APPROVALS.

The Consultant shall prepare and submit the following deliverables for review and approval by the Departmental Representative:

- a) minutes of the Construction Briefing Meeting, held as per RS 7.2, including a record decisions and actions to be taken;
- b) meeting Agenda, list of proposed participants and minutes Construction Progress Meetings, including a record decisions and actions to be taken, as per RS 7.3;
- c) copy of the Contractor's Detailed Construction Schedule, along with comments and recommendations for either acceptance or for any adjustments that may be required;
- d) copy of the Contractor's proposed Construction Cost Breakdown , along with comments and recommendations for either acceptance or for any adjustments that may be required;
- e) All Cost Reports as per RS 1.3;
- f) Environmental Requirements:
 - progress report on the environmental mitigation monitoring and follow-up program, including details regarding any environmental incident and remedial action taken;
 - training session on the Waste Management Plan;
 - Waste Management Report as described in RS 7.8.
- g) Site Visits, Inspections and Testing:
 - recommendations regarding alternate or additional testing firms may be required, the method of selection of inspection services and testing laboratories;
 - evaluation of testing firm's invoices for services performed and recommendations regarding payment of invoices;
 - written notification of cases where:
 - the Contractor does not have the tests undertaken as required;
 - tests fail to meet specified requirements;
 - the Contractor either refuses or neglects to take corrective action in a timely manner;
 - corrective work shall affect the project schedule.
 - written reports from site visits including lists of persons involved.
- h) Interpretation and Clarification of Contract Documents:
 - additional detail drawings that may be required to properly clarify or interpret the Contract Documents;
 - copies of all interpretation and clarification instructions given in writing, or graphically, to the Contractor;
 - written interpretation and findings on all claims, disputes, and other matters in question between PWGSC and the Contractor relating to the Construction Contract;

- i) Shop Drawings:
 - a list of all shop drawings to be submitted by the Contractor and shop drawing index;
 - one copy of all approved shop drawings, ensuring that shop drawings include the project number and are recorded in sequence;
 - up-to-date weekly reports from the shop drawing index indicating status of shop drawings (date submitted, date reviewed, date returned etc.).
- j) Construction Changes:
 - a full description, justification, cost estimates and recommendation for Contemplated Change Notices;
 - a copy of the Contractor's detailed quotations for extra work, including cost breakdown and implementation schedule, along with recommendations to approve or reject;
 - Changer Orders, prepared as required, containing all pertinent details.
- k) Contractor's Monthly Progress Claims prepared and verified in accordance with RS 7.14, including all required supporting documents;
- l) Commissioning:
 - a report summarizing and confirming the details of Commissioning requirements outlined in RS 7.15 a)
 - updated Commissioning Plan as required,
 - the Operating and Maintenance Manual prepared by the Contractor, finalized prior to the issuance of the Certificate of Substantial Performance;
 - Commissioning Testing and Performance Verification Report;
 - Commissioning Training including:
 - training plan;
 - training material on the design intent and systems operations, based on the Systems Operations Manual, to be presented by the Consultant at the training sessions;
 - a summary of the training sessions, indicating dates, subject matter and all personnel present for training.
- m) Substantial Performance (Interim) Inspection and Certificate:
 - a record all unacceptable and incomplete work;
 - the verified Contractor's work plan and schedule for correcting deficiencies and completing the work;
 - duly completed and signed Certificate of Substantial Performance (Interim);
 - all duly completed and signed supporting documents as per RS 7.18.
- n) Final Inspection and Certificate of Completion:
 - a record of all unacceptable and incomplete work;
 - the verified Contractor's work plan and schedule for correcting deficiencies and completing the work;
 - duly completed and signed Certificate of Completion (Final);

- all duly completed and signed supporting documents as per RS 7.20.

- o) a complete set of signed and sealed As-Built Drawings, Final Shop Drawings and Record Drawings;
- p) Warranty Review:
 - original copies of Contractor's warranties or guarantees, duly verified as to completeness and extent of coverage;
 - deficiency list from Ten-month Warranty Inspection;
 - report on Final Warranty Review.
- q) updates, as required to:
 - the Project Work Breakdown Structure;
 - the Project Master Schedule and Cash Flow Projections;
 - the Detailed Project Schedule;
 - Project cost estimates (engineering and construction);
 - Risk Management Plan.

RS 8 RESIDENT SITE SERVICES DURING CONSTRUCTION

RS 8.1 General Requirements

The Consultant shall obtain written authorization from the Departmental Representative before proceeding with the services related to the provision of Resident Site Services during Construction.

- a) The Consultant shall provide full-time, Resident Site Services to inspect, co-ordinate and monitor all aspects of the site work, from the start of the project construction phase through the completion of commissioning, and to liaise with the Contractor, PWGSC, the Consultant's office and other agencies as appropriate to the work.
- b) Depending on the specific requirements of the project (e.g. hours of construction), the Consultant shall likely have to assign more than one person to properly cover the needs for full-time Resident Site Services.
- c) Consultant personnel assigned to the provision of Resident Site Services shall be generally referred to as the Resident Site Representative in this document.
- d) Subject to mutual agreement with the Consultant, the Departmental Representative may require the Resident Site Representative to carry out additional responsibilities. Ultimately, the Consultant remains accountable for all Construction Contract Administration services and deliverables, including Resident Site Services during construction.
- e) The following provides details on the roles and responsibilities of the Resident Site Representative, which are essentially aimed at supporting the provision of services and deliverables outlined in RS 7 -CONSTRUCTION AND CONTRACT ADMINISTRATION.

RS 8.2 Qualifications, Experience and Knowledge

Personnel assigned to the Resident Site Services Team shall be fully qualified, experienced and knowledgeable in providing construction site supervision, inspection and monitoring on projects involving major civil engineering structures/assets.

The Consultant shall submit résumés, confirming the qualifications and experience of proposed Resident Site Services personnel, and obtain the approval of the Departmental Representative before assigning the

personnel to the project.

Qualifications of the various Resident Site Services personnel shall be as in the following sub-sections.

a) **Qualification and Experience**

The **Senior Resident Engineer** shall:

- be a Professional Engineer licensed or eligible to be licensed, certified or otherwise authorized to provide the necessary professional engineering services to the full extent that may be required by provincial law in the provinces of Ontario and Québec. If the Senior Resident Engineer is licensed to practice in only one of the two provinces, then he must be eligible and willing to be licensed in the province in which he is not licensed. Indicate current license or how he intend to meet the provincial licensing requirements;
- have a minimum of ten (10) years of recent and pertinent experience in providing Resident Site Services during construction on projects involving assets similar to the one covered in this Project Brief;
- have spent at least five (5) of the above mentioned years in a lead role fully responsible for coordinating, assigning responsibilities, supervising and monitoring the work of a Resident Site Services Team;
- have recent experience relating to the implementation and monitoring of environmental mitigation measures for projects near water.

The **Assistant Resident Engineer** shall:

- be a Professional Engineer licensed in at least one of the Province(s) where the work is to be carried out;
- have a minimum of five (5) years of recent and pertinent experience, under the supervision of a Professional Engineer, in providing Resident Site Services during construction on projects involving assets similar to the one covered in this Project Brief;
- have recent experience relating to the implementation and monitoring of environmental mitigation measures for projects near water.

The **Senior Resident Inspector** shall:

- be a qualified Civil Engineering Technologist;
- have a minimum of ten (10) years of recent and pertinent experience, under the supervision of a Professional Engineer, in providing Resident Inspection Services during construction on projects involving assets similar to the one covered in this Project Brief;
- have recent experience relating to the implementation and monitoring of environmental mitigation measures for projects near water.

The **Assistant Resident Inspector** shall:

- be a qualified Civil Engineering Technologist;
- have a minimum of five (5) years of recent and pertinent experience, under the supervision of a Professional Engineer, in providing Resident Inspection Services during construction on projects involving assets similar to the one covered in this Project Brief.

b) **Knowledge**

The Resident Site Services Team shall become thoroughly familiar with:

- the requirements of the Contract Documents including, but not limited to: plans, specifications, any amendments, approved shop drawings, testing and quality control

requirements, etc.;

- the requirements outlined in this Project Brief;
- the issues, constraints and challenges related to this project, as well as the agreed approach and methodology to deal with them;
- the latest versions of the project and construction schedules;
- the latest versions of the construction budgets and cash flows;
- the approved list of quality control testing to be done, details of any arrangements made with inspection and testing organizations;
- any advance notice requirements to be provided by the Contractor for portions of the work requiring quality testing prior to being covered up or prior to continuing the work;
- the authorities and key responsibilities of project team members and of other stakeholders including, but not limited to: the Departmental Representative, the PWGSC Design Manager, the Consultant and Sub-consultants, the Contractor and Sub-contractors, the Asset Operators, etc.;
- Provincial and Municipal standards for the health and safety of construction workers;
- Conditions related to traffic management during construction;
- Conditions related to permits issued by authorities having jurisdiction or to any agreements between them and PWGSC;
- Public safety response procedures related to inter-provincial bridges.

RS 8.3 Communication and Liaison

The Resident Site Representative shall:

- a) ensure constant communication amongst the Departmental Representative, the Consultant's Office, the Contractor and Sub-contractors, the Regional Fire Commissioner, the Provincial Departments of Labour and other stakeholders, as requested by the Departmental Representative;
- b) communicate formally with the Contractor via memorandum only and immediately file copies of communications with the Departmental Representative, and the Consultant's Office;
- c) not deal directly on formal business with the Contractor's foreman or tradesmen, or interfere with the progress of the work;
- d) have informal discussions about the project with Contractor and Sub-contractor personnel, only with the agreement of the Contractor,
- e) convey Consultant's Office clarifications or instructions regarding the required standards of workmanship to the Contractor;
- f) contact the Consultant's Office immediately when information or action is required that is beyond the Resident Site Representative's levels of responsibility or authority (e.g. approvals of samples or shop drawings, interpretation of specific technical details, drawings and specifications, etc.);
- g) ensure that Departmental Representative and the Consultant's Office are notified promptly when key pieces and/or components of materials and equipment are delivered, so that necessary arrangements can be made for the appropriate inspection prior to installation;

- h) verify the Contractor's proposed scope of work, approach and schedule involving any temporary or permanent connections into existing utility or operational systems; obtain approval in writing prior to the work being carried out;
- i) advise the Departmental Representative of any interruption of normal services and provide a minimum 24 hours advanced notice prior to the work being undertaken;
- j) provide a prior notice of four (4) days for works requiring modifications to traffic flow.

RS 8.4 Construction Meetings

- a) Construction Briefing Meeting
 - The Resident Site Representative shall participate in the Construction Briefing Meeting as per RS 7.2.
- b) Construction Progress Meeting
 - The Resident Site Representative shall participate in the Construction Progress Meetings, as per RS 7.3;
 - Construction Progress Meeting shall be held **every two (2) weeks** throughout the entire project construction phase.

RS 8.5 Time and Cost Control

- a) Time Planning, Scheduling and Control

The Resident Site Representative shall:

 - Assist the Consultant for all services and deliverables associated with Time Planning, Scheduling and Control, throughout the entire project construction phase, as outlined in RS 7.4 ;
 - seek advice and assistance, as required, from the Consultant's Time Planning, Scheduling and Control Specialist.
- b) Cost Planning, Estimating and Control

The Resident Site Representative shall:

 - Assist the Consultant for all services and deliverables associated with Cost Planning, Estimating and Control, throughout the entire project construction phase, as outlined in RS 7.5 ;
 - seek advice and assistance, as required, from the Consultant's Cost Planning, Estimating and Control Specialist.

RS 8.6 Interpretation of the Contract Documents

The Resident Site Representative shall:

- a) be generally responsible for providing on-site interpretation of Contract Documents and instructing the Contractor accordingly;
- b) obtain interpretation of Contract Documents from the Consultant's Office in cases where:
 - technical details or specifications are beyond the recognized capacity of the Resident Site Representative; or
 - the interpretation of the Resident Site Representative is disputed by the Contractor.
- c) communicate in writing to the Contractor any interpretation of Contract Documents received

from the Consultant's Office.

RS 8.7 Inspection and Testing

The Resident Site Representative shall:

- a) provide full time inspection services to verify that all aspects of the construction work, and related environmental remediation measures, are carried out in accordance with the requirements of the contract documents, this Project Brief and accepted construction procedures;
- b) make observations and spot checks of the site work to determine whether the work, materials and equipment conform with the contract documents and supplementary conditions;
- c) ensure that all testing and inspections required in the contract documents, and in the list of quality control testing approved by the Departmental Representative, are conducted;
- d) establish a written understanding with the Contractor, and the Departmental Representative, as to what stages or aspect of the work are to be inspected prior to being covered up or prior to work proceeding;
- e) verify that the Contractor has provided the agreed advance notice for portions of the work requiring testing and inspecting prior to being covered up or prior to continuing the work;
- f) observe all testing and inspections, and report the results in the daily log and in the weekly reports, which are described further in RS 8.14 and RS 8.15;
- g) advise the Contractor via memorandum of any work deficiencies or unapproved deviations from plans and specifications and request that appropriate remedial action be taken;
- h) report immediately, to the Consultant's Office and the Departmental Representative, any cases where the Contractor either refuses or neglects to take corrective action in a timely manner;
- i) advise the Contractor via memorandum of any cases where tests have either not been carried out as required, or where test results do not meet specified requirements and request that appropriate remedial action be taken;
- j) notify the Consultant's Office and the Departmental Representative if the test results do not meet the specified requirements or if the Contractor does not have the tests undertaken as required;
- k) arrange for the Consultant's structural, geotechnical, traffic, electrical and other technical specialists to make the periodic inspections required by the Consultant's contract, and for conducting these inspections at a time and in a manner that does not unduly impede the progress of the work;
- l) facilitate and accompany PWGSC representatives who wish to inspect or visit the construction site, record and report to the Consultant's Office any requirements, comments or instructions issued by PWGSC representatives. Request that such requirements, comments or instructions be confirmed in writing by the PWGSC representatives;
- m) facilitate and accompany representatives of Authorities Having Jurisdiction who wish to inspect or visit the construction site, record and report to the Consultant's Office and the Departmental Representative any requirements, comments or instructions issued by the Authorities Having Jurisdiction. Request that such requirements, comments or instructions be confirmed in writing by the representatives of Authorities Having Jurisdiction;
- n) assist in the preparation of all deficiency reports, in collaboration with the Departmental

Representative and Consultant's representatives, during Interim and Final Inspections, as well as Commissioning and Warranty Reviews;

- o) be responsible for the measurement of all work to be done on a unit-cost basis;
- p) ensure that the construction site health and safety plan is adhered to at all times during construction, record updates and changes as required.

RS 8.8 Review and Processing of Contractor's Submissions

The Resident Site Representative shall:

- a) review all submissions (and re-submissions, as required) provided by the Contractor and submit comments to the Consultant's Office and the Departmental Representative, retaining a copy for record purposes;
- b) monitor and record the progress of shop drawing review. Review, discuss, record problems and identify remedial action;
- c) review shop drawings as they become available from the Contractor and provide comments to the Consultant's Technical Specialists who shall be responsible for confirming approval of the shop drawings;
- d) verify that the materials delivered to site and the construction procedures utilized are consistent with the approved shop drawings and that the Contractor is not proposing substitutions of unacceptable construction materials or methods;
- e) report to the Consultant's Office and the Departmental Representative if materials and equipment are being incorporated into the project prior to approval of relative shop drawings or samples.

Reviews by the Resident Site Representative do not relieve the Consultant's technical specialists of professional responsibility for checking the work of the Contractor;

RS 8.9 Environmental Protection

The Resident Site Representative shall:

- a) monitor the implementation and record the progress of Environment Mitigation Measures and Monitoring Program;
- b) contact the EEE practitioner for possible revisions to the Environment Mitigation Measures and Monitoring Program as may be required by changes during construction;
- c) monitor the implementation and record the progress of the solid waste management plan for both hazardous and non-hazardous materials;
- d) record any environmental incident, spill, release of toxic substance, property damage and remedial actions taken including notification of appropriate authorities.

RS 8.10 Hazardous Construction Operations

The Resident Site representative shall:

- a) examine all site conditions and methods to be used by the Contractor when undertaking hazardous operations;
- b) verify that all necessary precautions and actions are taken by the Contractor to safeguard the life safety of the workers and to ensure the protection of property; in accordance with the Site Safety Plan;
- c) when fully satisfied that all necessary precautions and actions are being taken, give written

authorization, including any specific instructions and requirements, to the Contractor to proceed with the hazardous operations;

- d) have the written authority document countersigned by the Contractor to confirm the Contractor's agreement to all conditions, instructions and requirements, and keep the countersigned copy in the Site Records;
- e) inspect the areas where hazardous work is under way to ensure that the Contractor is maintaining the agreed safety standards. Any infractions may result in the Resident Site Representative having to issue a stop work order;
- f) report all infractions, or work stoppage orders, in writing and verbally to the Consultant's Office and the Departmental Representative.

RS 8.11 Emergencies

- a) In the case of emergencies where safety of persons or damage to property is concerned; or where work activities are endangered by the actions of the Contractor or the elements, the Resident Site Representative shall:
 - give immediate written notice to the Contractor of the possible hazard;
 - contact the Consultant's Office and the Departmental Representative immediately for further instructions;
 - if necessary, stop the work or give orders for necessary remedial action to protect the safety of the workers or Crown property, followed up with written confirmation.
- b) In the case of traffic related or other types of public security emergency incidents, the Resident Site Representative shall immediately contact local public security and emergency services, and follow their instructions.

RS 8.12 Changes in the Work

The Resident Site Representative shall:

- a) not authorize or order any change in the work which shall constitute a change in design or in the value of the contract except as directed in writing by the Departmental Representative;
- b) consider and evaluate any suggestions or modifications to the work proposed by the Contractor and immediately report these, with comments, to the Consultant's Office and the Departmental Representative;
- c) assist the Consultant's Office in the evaluation of changes in the work, where knowledge of job conditions is required;
- d) monitor and record the progress of Contemplated Change Notices, quotations, reviews and issue dates of Change Orders;
- e) where the Departmental Representative has granted written approval to proceed with work changes, pending issue of a Change Order, accurately record time and materials expended.

RS 8.13 Limitations

The Resident Site representative shall not:

- a) authorize or order any deviations from the contract documents;
- b) conduct tests;
- c) approve shop drawings or samples;
- d) accept any work, or portions of the work, as being substantially of finally completed;
- e) enter into the area of responsibility of the Contractor's Field Superintendent;
- f) stop the work, except in cases of :
 - infractions to established safety standards relating to hazardous construction operations, as per RS 8.10; or
 - emergencies, such as those described in RS 8.11.

RS 8.14 Daily Log

The Resident Site Representative shall keep a daily log recording such information as:

- a) weather conditions, particularly unusual weather relative to construction activities in progress;
- b) manpower on site and hours worked;
- c) major material and equipment deliveries;
- d) daily activities and major work done;
- e) start, stop or completion of activities;
- f) presence of inspection and testing firms, tests taken, results, etc;
- g) unusual site conditions experienced;
- h) significant developments, remarks, etc;
- i) special visitors on site;
- j) approvals given Contractor to undertake certain or hazardous works;
- k) environmental incidents;
- l) site instructions given to Contractor;
- m) reports, instructions from Appropriate Authorities Response Actions.

The log is the property of the Resident Site Representative. Copies of the log book, certified as copies, are to be provided to the Departmental Representative and to the Consultant at the end of the project.

Copies of the log may be filed electronically at the option of the Consultant if the provenance can be proven.

RS 8.15 Monthly Reports

The Resident Site Representative shall prepare and submit weekly reports for the Departmental Representative including, but not limited to:

- a) work progress relative to schedule showing major activities commencing or completed during the month, as well as main activities currently in progress;
- b) up-to-date status of shop drawings (date submitted, date reviewed, date returned etc.);
- c) major deliveries of materials and/or equipment;
- d) description of site instructions given and of the impact the site instruction may have had on project cost and schedule or the environment;
- e) record of Contractor's acknowledgment of receipt of all site instructions;
- f) difficulties which may cause delays in completion, including weather related problems;
- g) materials and labour needed immediately;
- h) outstanding information or action required by Consultant or PWGSC;
- i) details regarding Contractor's work force;
- j) accidents on site;

- k) life safety or hazards caused by the work, the Contractor or his agents;
- l) photographs as detailed in RS 7.11.

RS 8.16 Construction Photographs

The Resident Site Representative shall comply with the requirements regarding Construction Photographs as outlined in RS 7.11.

RS 8.17 Site Records

The Resident Site Representative shall maintain orderly and updated files at the site for the use of PWGSC Representatives, other Consultant team members and him (her)self.

Site Records shall include, without being limited to:

- a) contract and tender Documents;
- b) the latest approved construction progress schedule, as well as all previous versions and updates or amendments;
- c) a reproduction of the original contract drawings carefully preserved and kept marked up to date with all addenda, change orders, site instructions, details, as-built conditions, etc., issued subsequent to the award of the contract;
- d) approved shop drawings, and shop drawings awaiting approval
- e) approved samples, and samples awaiting approval;
- f) site instructions and contractor's acknowledgment of receipt of all site instructions;
- g) Contemplated Change Orders (CCN) and Change Orders;
- h) memoranda and other project correspondence;
- i) test results and deficiency reports;.
- j) minutes of meetings;
- k) photographs;
- l) names, addresses, telephone numbers (also home telephone numbers in case of emergencies) of key project personnel including, but not limited to:
 - PWGSC Departmental Representatives, COE Design Manager, Property Manager, etc.;
 - Consultant Team Members including Sub-consultants;
 - Contractor and Sub-contractor representatives;
 - local Police and Emergency Services;
 - Other stakeholders as required.

RS 8.18 Site Security

- a) Special precautions shall be taken at all times to prevent unauthorized entry to the site. The Resident Site Representative is to ensure that all contractor-made openings and means of access, are firmly secured when the Contractor leaves the site.
- b) The Resident Site Representative shall liaise closely with the Consultant's Office and the Departmental Representative on all security and/or safety problems that may arise due to the Contractor's operations.