



**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

Title - Sujet Valour Bldg Roof Replacement	
Solicitation No. - N° de l'invitation EP765-190260/A	Date 2018-08-14
Client Reference No. - N° de référence du client 20190260	
GETS Reference No. - N° de référence de SEAG PW-\$\$FE-177-75273	
File No. - N° de dossier fe177.EP765-190260	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM on - le 2018-09-25	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: DEPARTMENT OF PUBLIC WORKS AND GOVERNMENT SERVICES CANADA VALOUR BUILDING 151 SPARKS ST OTTAWA Ontario K1P5E3 Canada	

Instructions: See Herein

Instructions: Voir aux présentes

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

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

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

- Because of the considerable time and expense involved in the preparation, submission and evaluation of full proposals, proponents responding to this RFP are requested to submit a technical proposal in two phases. Phase One technical proposals cover only the qualifications, experience and organization of the proposed Consultant Team. Following evaluation and rating of these technical proposals, proponents are advised of their competitive standing and have the opportunity to decide whether or not to continue their participation by submitting a Phase Two technical proposal. Phase Two technical proposals cover the detailed approach to the work. A combination of the Phase One and Phase Two submissions constitutes the final technical proposal.
- Initially, firms are invited to submit a technical proposal in the first phase of the selection procedure outlined below. Only the Phase One information asked for in the RFP is to be included in the Phase One technical proposal, and evaluation and rating of Phase One technical proposals will be carried out only on the Phase One information requested. **IN PHASE ONE, NO MATERIAL IS TO BE SUBMITTED ON THE SUBJECT PROJECT ITSELF.**
- Following evaluation and rating of the Technical Proposals (Phase One and Phase Two), the Highest Ranked Technical Proponent (H RTP) is determined and remaining proponents are advised of their competitive standing. Debriefs will not be conducted until a contract is awarded.
- H RTP may then be invited to proceed to Stage Two, Step I, to refine requirements and to Step II, to submit the Price Proposal. At Step II, the H RTP 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. At the date of bid closing, 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 (HRTP)"

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. Phase One Technical Proposal**

- a. In response to the RFP, interested Proponents submit a Phase One 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. Phase One Technical Proposal Evaluation and Rating

- a. Each responsive Phase One technical proposal received is reviewed, evaluated and rated by a Public Works and Government Services Canada (PWGSC) Evaluation Board in accordance with the evaluation criteria, components and weight factors set out in the RFP. Upon completion of the evaluation, an initial rating (Phase One Rating) is assigned to the Phase One technical proposal. Phase One Ratings are recorded for subsequent incorporation in the final technical proposal evaluation and rating.
- b. Each Proponent submitting a responsive Phase One technical proposal is notified in writing of its Phase One Rating and, in addition, is provided with the following:

- i. an alphabetic list (normally five names) of Proponents with the highest Phase One Ratings;
 - ii. a list of all Phase One Ratings attained (ratings are not linked to Proponents);
 - iii. a date, time, and location for a Phase Two briefing meeting, if applicable;
 - iv. the date and time for receipt of Phase Two technical proposals, and any supplementary instructions, terms, conditions or addenda which may be applicable to Phase Two technical proposal preparation and submission.
- c. Proponents that submitted non-responsive Phase One technical proposals are notified accordingly.

3. Phase Two Technical Proposal

- a. Phase Two technical proposals are prepared and submitted after Proponents have been advised of the results of evaluation of Phase One technical proposals. All Proponents submitting responsive technical proposals in Phase One, regardless of their Phase One Ratings, are eligible to prepare and submit a Phase Two technical proposal. The decision to continue participating in the selection procedure in Phase Two is a decision to be made by each eligible Proponent.
- b. In Phase Two, a Proponent may not substitute or delete any member of the Consultant Team identified in the Phase One technical proposal without the consent of Canada.
- c. The information that Proponents are required to provide is set out in detail throughout the RFP.

4. Phase Two Technical Proposal evaluation

- a. Phase Two technical proposals are reviewed, evaluated and rated by a PWGSC Evaluation Board in accordance with the criteria, components and weight factors set out in the RFP. Upon completion of the evaluation, Phase Two Technical Ratings are established.

5. Total Technical score

- a. The Technical Total Score assigned to each Proponent's complete technical proposal is calculated as the aggregate of:
 - i. the Phase One Technical Score (Phase One technical proposal on qualifications and experience), and
 - ii. the Phase Two Technical Score (first envelope of Phase Two proposal).
- b. 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 HRTP 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 HRTP 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 HRTP, any person or entity for any cost incurred in participating in Stage Two including but not limited to travel costs.
- c. The HRTP must not reveal, discuss or disclose any information to the media regarding the procurement, except to confirm publicly available information. If the HRTP 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 HRTP in its response to the RFP and the ongoing cooperation in providing associated information are conditions of maintaining HRTP status. Certifications are subject to verification by Canada during the entire evaluation. If the HRTP does not comply with any certification, fails to provide the associated information, or if it is determined that any certification made by the HRTP is untrue, whether made knowingly or unknowingly, Canada has the right to terminate the HRTP's status, and proceed to the next highest technically rated proponent.

2. Stage Two, Step I – Refine Requirements

- a. Once the HRTP has been identified by Canada, if Canada decides to proceed with the next step, the HRTP 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 HRTP'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 HRTP, 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 HRTP 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 HRTP 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 HRTP, 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 HRTP 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 S P C © 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 f. i., above; or
 - ii. both parties confirm in writing acceptance of a price proposal revised through the negotiations contemplated at f.ii, 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. The Phase Two portion of the proposal must be made in the same name as the person(s) or entity(ies) named as the Proponent in the Phase One portion. Proponents must utilize, in the preparation of their Phase Two proposal, the same Consultant Team, sub-consultants, specialist consultants and individuals named in the Phase One proposal.

6. 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 Phase One proposal, duly completed, **in the format requested**, on or before the closing date and time set for Phase One proposals;
 - b. submit, at the Proponent's discretion, a Phase Two proposal, duly completed, **in the format requested**, on or before the closing date and time set for Phase Two proposals;
 - c. send its proposal only to Public Works and Government Services Canada (PWGSC) Bid Receiving Unit specified on page 1 of the RFP;
 - d. obtain clarification of the requirements contained in the RFP, if necessary, before submitting a proposal;
 - e. 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
 - f. provide a comprehensive and sufficiently detailed proposal for each phase that will permit a complete evaluation in accordance with the criteria set out in this RFP.
3. The Phase Two 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.(e) 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.

G117 LATE SUBMISSIONS

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

G118 REVISION OF 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 G116.2(e).

G119 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.

G120 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 InsuranceSupplementary 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

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

SECURITY REQUIREMENT FOR CANADIAN SUPPLIER: PWGSC FILE # EP765-190260

1. The Contractor/Offeror must, at all times during the performance of the Contract/Standing Offer, hold a valid Facility Security Clearance at the level of **SECRET**, issued by the Canadian Industrial Security Directorate (CISD), **Public Works and Government Services Canada (PWGSC)**.
2. The Contractor/Offeror personnel requiring access to sensitive work site(s) must EACH hold a valid personnel security screening at the level of **SECRET**, granted or approved by CISD/PWGSC.
3. Subcontracts which contain security requirements are NOT to be awarded without the prior written permission of CISD/PWGSC.
4. 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 – Architect):

Firm or Joint Venture Name:
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Key Individuals and provincial professional licensing status and/or professional accreditation:

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II. Key Sub Consultants / Specialists:

Structural Engineer

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

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Mechanical Engineer

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

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Electrical Engineer

Firm Name:
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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**
- 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 G114, 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 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: Valour Building Roof Replacement

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 2 - Design Concept, RS 3 - Design Development, RS 4 - Construction Documents, RS 5- Tender Call, Bid Evaluation & Construction Contract Award, RS 6 - Construction and Contract Administration, RS 7 - Commissioning the Facility, RS 8 - Risk Management.

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 2 Design Concept	\$..... (a)
RS 3 Design Development	\$..... (b)
RS 4 Construction Documents	\$..... (c)
RS 5 Tender Call, Bid Evaluation & Construction Contract Award	\$..... (d)
RS 6 Construction and Contract Administration	\$..... (e)
RS 7 Commissioning the Facility	\$..... (f)
RS 8 Risk Management	\$..... (g)
TOTAL FIXED FEE FOR REQUIRED SERVICES (sum of (a)-(g)) above	\$ (1)

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

APPENDIX C - PRICE PROPOSAL FORM (CONT'D)

2. 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
Category	15+ years	5-15 years	0-5 years
Proponent (Prime Consultant)			
Structural Engineer			
Mechanical Engineer			
Electrical Engineer			

* 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%

APPENDIX C - PRICE PROPOSAL FORM (CONT'D)

September	2018	1.6%
October	2018	1.6%
November	2018	1.7%
December	2018	1.5%
January	2019	<u>1.7%</u>
		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.

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	\$ 2500
Bilingual Documents (beyond services stated in the RFP)	\$ 5000
Existing structural investigation	\$ 10000
Other Disbursements	<u>\$ 5000</u>
MAXIMUM AMOUNT FOR DISBURSEMENTS	<u>\$22,500</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



Government of Canada / Gouvernement du Canada

Contract Number / Numéro du contrat EP76519-0260
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 Parliamentary Precinct Branch
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 To hire a consultant for the design the the new Valour Roof Replacement project.		
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 checked="" type="checkbox"/> No / Non <input 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 type="checkbox"/> No / Non <input checked="" 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 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 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"/> Specify country(ies): / Préciser le(s) pays:	Restricted to: / Limité à: <input type="checkbox"/> Specify country(ies): / Préciser le(s) pays:	Restricted to: / Limité à: <input type="checkbox"/> Specify country(ies): / Préciser le(s) pays:
7. c) Level of information / Niveau d'information		
PROTECTED A PROTÉGÉ A <input 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"/>

MAY 11 2018



Government of Canada / Gouvernement du Canada

Contract Number / Numéro du contrat EP76519-0260
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 / Non Yes / 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 / Non Yes / 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 type="checkbox"/> RELIABILITY STATUS
COTE DE FIABILITÉ | <input type="checkbox"/> CONFIDENTIAL
CONFIDENTIEL | <input checked="" 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 / Non Yes / Oui
If Yes, will unscreened personnel be escorted?
Dans l'affirmative, le personnel en question sera-t-il escorté? No / Non Yes / 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 / Non Yes / 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 / Non Yes / 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 / Non Yes / 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 / Non Yes / 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 / Non Yes / Oui

TBS/SCT 350-103(2004/12)

Security Classification / Classification de sécurité
UNCLASSIFIED

Canada



Contract Number / Numéro du contrat EP76519-0260
Security Classification / Classification de sécurité UNCLASSIFIED

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 / CONFIDENTIEL	SECRET	TOP SECRET / TRÈS SECRET	NATO RESTRICTED / NATO DIFFUSION RESTREINTE	NATO CONFIDENTIAL / NATO CONFIDENTIEL	NATO SECRET	COSMIC TOP SECRET / COSMIC TRÈS SECRET	PROTECTED / PROTÉGÉ			CONFIDENTIAL / CONFIDENTIEL	SECRET	TOP SECRET / TRÈS SECRET
											A	B	C			
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 indiquez 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 (Architect)	
Legal Name of Firm:	
Complete Address:	
Telephone Number:	
CISD File Number:	
Organization Security Clearance:	

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

Sub-Consultants / Specialists (Electrical 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 – Architect	
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 – Structural 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 – Mechanical 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 – Electrical 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 G – 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 Valour Roof Replacement 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.]

FEASIBILITY STUDY
VALOUR BUILDING ROOF REPLACEMENT
ARCHITECTURAL AND STRUCTURAL

151 Sparks Street, Ottawa, Ontario

Public Service and Procurement Canada
Parliamentary Precinct Branch
Project Delivery Unit
Project Manager: Ettore Provenzano
Birks Building, 107 Sparks Street, Ottawa, ON, K1A 0S5



REVISED June 21st, 2017
MPA File n° 2017-014
PWGSC project no. R.086270.001

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2 GENERAL

2.1 INSPECTION TEAM

ARCHITECTURE

Martine Pfalzgraf, Architect
Léon Mercier, Architect
Mercier Pfalzgraf WArchitectes Inc.
151 St-Antoine Street, Suite 3
Gatineau, Quebec J8T 3M6
Tel.: 819 243 8591

STRUCTURE

Martin McKinnon, Engineer

Cima +
420 Maloney Blvd East, Suite 201
Gatineau, Quebec J8P 1E7
Tel.: 819 663 9294

2.2 PROFESSIONAL SERVICES SCOPE OF WORK

Public Services and Procurement Canada has hired Mercier Pfalzgraf Architectes Inc. to conduct and document a feasibility study for the Valour Roof Replacement Project.

Engineering consultants from CIMA+ were responsible for carrying out the structural investigation of the existing roof structure and for determining whether the recommended options have an impact on the existing structure.

The scope of work includes the following steps and methodology:

1. Analysis of project requirements;
2. Review of existing drawings and documents provided by Client;
3. Building surveys and investigation;
4. Assessment of roofing, equipment conditions and code compliance;
5. Preparation of measured drawings c/w photos report;
6. Preparation of a written report - Feasibility study which contains:
7. Detailed investigation reports;
8. Options analysis and recommendations;
9. Financial planning;
10. Implementation strategy and schedule.

2.3 VALOUR BUILDING BACKGROUND

The Valour Building, located at 151 Sparks Street, Ottawa, was constructed in 1971, with expropriation by Public Works Canada in 1973. Since expropriation, it has been occupied by the Senate of Canada, the House of Commons, Parliamentary Precinct Services and Library of Parliament employees. La Promenade (renamed Valour in 2014) was vacated in 2007-2008 and completely renovated for use by Members of Parliament. In 2010, following a complete renovation, 62 Members of Parliament were moved into the building.

It is prominently located on Sparks Street south of Parliament Hill, and is within walking distance of main tourist destinations (such as the Parliament Buildings, the National Arts Centre, the Congress Centre, the Supreme Court of Canada, the Mint Museum, Confederation Square, the Byward Market, and the Rideau Canal).

The building consists of ten storeys of offices (floors 3 through 12) accessed through a main entrance on Sparks Street. The fourth floor also includes a cafeteria. The second floor includes meeting rooms as well as service functions, and is accessed through the main entrance. The main entrance and retail shops are accessed directly from Sparks Street. The Valour Building has not been evaluated for heritage classification.

2.4 GENERAL ROOF HISTORY AND DESCRIPTION

The existing roofing was built around 1992 and is 25 years old. The total roof area measures 1635 square metres and is divided into 5 basins, as identified on the roof plan. Refer to Appendix 1, for roof plan.

The roofing is approximately 25 years old. We know that life expectancy for this type of roofing is 20 to 25 years.

All identified roof basins on levels 3, 4, 14 and the penthouse level are composed of an inverted roof membrane assembly (I.R.M.A.). All roof decks, except basin 3A, are made of a thin-set concrete topped insulation. The product used is similar to the T. Clear System: Protected Membrane Roof Insulation Panels. Refer to Appendix 3 for the T. Clear PMR product spec sheet.

Basin 3A on the lower northeast roof was replaced in 2000 with an inverted roofing system made of crushed stone ballast on top of rigid insulation and a filter fabric.

The PWGSC building maintenance manager has informed us of roof leakage in the mechanical penthouse and below roof level 3, located on the roof plan.

There are currently no structural problems reported in the building by PWGSC.

3 ARCHITECTURE

3.1 General Observations

A field inspection was performed by Léon Mercier, architect, and Martine Pfalzgraf, architect, on April 10th 2017, along with Martin McKinnon, structural engineer, in order to evaluate the existing roof conditions and roof structure. A general survey of the roof and equipment locations was done at the same time.

Roofing membranes are covered with a thin-set concrete topped insulation on the entire roof area. These panels show a high level of deterioration: many panels are fissured or broken.

The lack of drainage causes high levels of humidity in certain areas of the roof and promotes the growth of vegetation which leads to the deterioration of roof membranes.

There is a significant presence of growing plants on the roof which indicates that water infiltration will occur in the near future. The growing roots will break the membrane resulting in water infiltration into the building.

Basin 3A on the lower northeast roof was replaced in 2000 with an inverted roofing system covered with crushed stone ballast. It appears to be in good condition except for the parapet caulking which shows signs of aging and requires replacement.

There is a significant amount of cabling on the roof and, in some instances, cabling is installed directly on roof curbs or the roof deck or parapet. Close attention shall be given to this issue at the design stage in order to improve the cabling installation.

Several antennas have been installed directly on the roof deck without the proper support to minimize damage to roof membranes. We expect that this will cause membrane breakage and water infiltration in the near future, due to the weight of these installations and the lack of proper support.

3.1.1 Level 14

<p>Level 14 Basin</p>	<p>Observation 14-01</p>
	<p>View of north section</p>
<p>Level 14 Basin</p>	<p>Observation 14-02</p>
	<p>Antennas standing on concrete base.</p>

Level 14 Basin	Observation 14-03
	
Level 14 Basin	Observation 14-04
	

Level 14 Basin	Observation 14-05
	<p>Large vegetation roots pushing thin-set concrete panel joints open and damaging roofing membrane.</p>
Level 14 Basin	Observation 14-06
	<p>Existing roof drain. Roof membrane is not fully covered with insulation.</p>

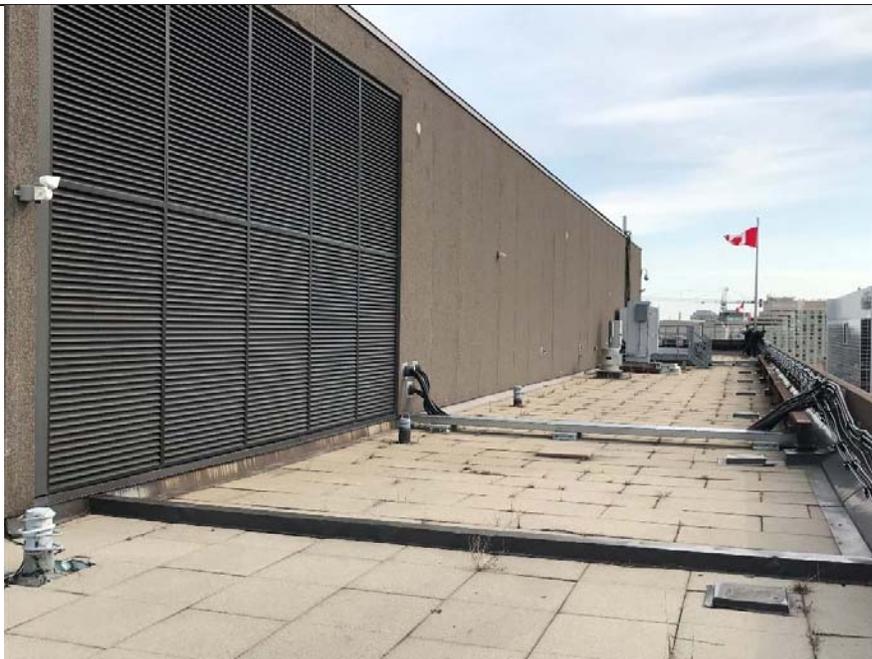
Level 14 Basin



Observation 14-07

Existing cables running on high parapet on west and south sides.

Level 14 Basin



Observation 14-08

General view of south side.

Level 14 Basin		Observation 14-09
Level 14 Basin		Observation 14-10

Level 14 Basin	Observation 14-11
	Vegetation growing on the roof and lifting concrete deck panels around mechanical unit base.
Level 14 Basin	Observation 14-12
	Galvanized steel access platform sitting on roof deck.

Level 14 Basin



Observation 14-13

Existing generator located on east side.
Access to penthouse roof.

Level 14 Basin



Observation 14-14

Generator support beam across walkway: dangerous for shortcut access to penthouse.

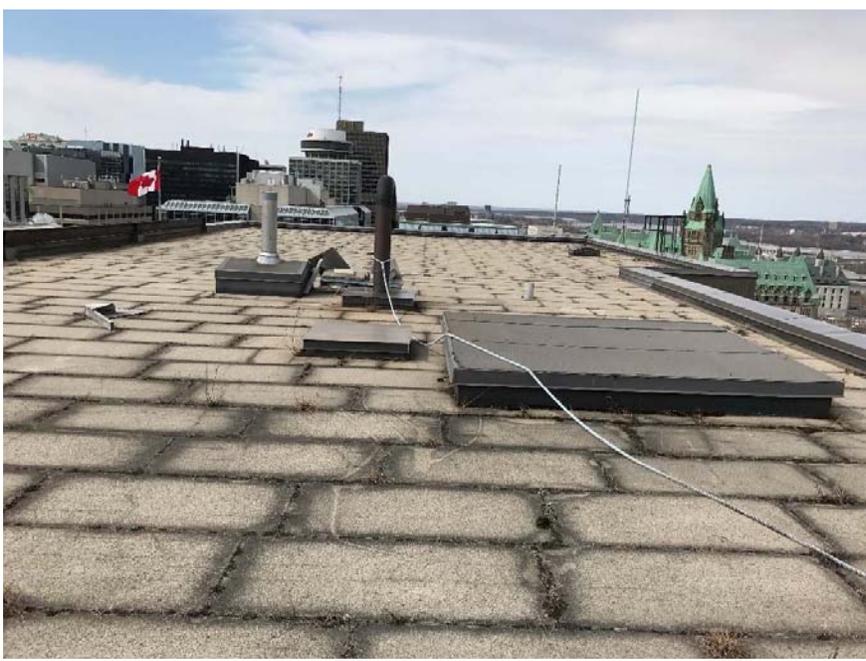
Level 14 Basin	Observation 14-15
	<p>Existing PMR insulation panel: 15/16" latex-modified concrete panel bonded to 3" extruded polystyrene.</p>
Level 14 Basin	Observation 14-16
	<p>Extensive vegetation growth near east parapet. Deteriorated caulking along parapet base flashing.</p>

Level 14 Basin	Observation 14-17
	Deteriorated caulking on top of east parapet flashing.
Level 14 Basin	Observation 14-18
	Cables crossing south roof section.

Level 14 Basin	Observation 14-19
	Difficult to get around the cable boxes.
Level 14 Basin	Observation 14-20
	

3.1.2 Level 15

Mechanical Penthouse level 15	Observation 15-01
	
Mechanical Penthouse level 15	Observation 15-02
	<p>Vegetation (plants and moss) growing on the entire penthouse roof area is damaging the roof deck and roof membrane.</p>

Mechanical Penthouse level 15	Observation 15-03
	<p>Vegetation growing on the roof.</p> <p>Roof deck is deteriorated, showing end of life.</p>
Mechanical Penthouse level 15	Observation 15-04
	<p>Roof deck is deteriorated, showing end of life.</p> <p>The penthouse level is in worse shape than level 14.</p>

Mechanical Penthouse level 15	Observation 15-05
	
Mechanical Penthouse level 15	Observation 15-06
	<p>Missing drain cover and moss growth due to poor drainage.</p>

Mechanical Penthouse level 15

Observation 15-07



3.1.3 Level 3

<p>Level 3 Basin</p>	<p>Observation 03-01</p>
	<p>Significant presence of moss on north side, showing poor roof drainage.</p>
<p>Level 3 Basin</p>	<p>Observation 03-02</p>
	<p>Vegetation growing on the roof: moss and plant growth indicates poor drainage and causes cracks in concrete panels.</p>

Level 3 Basin

Observation 03-03



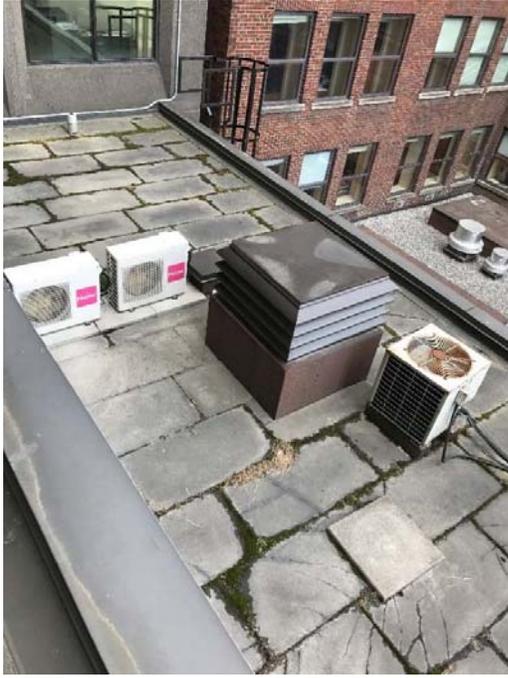
The roof leak was located below the two condensers shown on this picture.

Level 3 Basin

Observation 03-04



Existing roof hatch showing rust.

Level 3 Basin	Observation 03-05
	<p>View from level 4 over level 3 roof.</p> <p>We noticed several damaged concrete panels and extensive growth of moss.</p>

3.1.4 Level 3 Basin 3A

Level 3 Basin 3A	Observation 03-06
	<p>This roof appears to be in good condition as it was redone in 2000.</p>

Level 3 Basin 3A	Observation 03-07
	Caulking on roof perimeter flashings needs to be replaced: shows deterioration.
Level 3 Basin 3A	Observation 03-08
	Close view of deteriorated caulking.

3.1.5 Level 4

Level 4 Basin	Observation 04-01
	Vegetation growing on the roof: moss and plant growth indicates poor drainage and causes cracks in concrete panels.
Level 4 Basin	Observation 04-02
	View looking westward. Louvers need new painting.

Level 4 Basin	Observation 04-03
	Moss and plant growth on existing roof deck and under parapet metal flashing in the corner.
Level 4 Basin	Observation 04-04
	View of level 4 and level 3 roofs looking eastward.

3.2 CUT TESTS INVESTIGATION

A second visit by Martine Pfalzgraf, architect, and Morin Roofing's team took place on May 10th, 2017, in order to confirm the roofing system. Roofing membrane cut tests were performed at two locations: the first one on the main roof, level 14, and the second one on the penthouse roof, level 15.

Refer to enclosed roof plan to locate the cut tests: cut test # 1: concrete slab roof and cut test # 2: steel deck roof.

3.2.1 CUT TEST #1 - LEVEL 14 roof composition:

1. Flat concrete slab;
2. Fabric reinforced assembly;
3. Presence of water discovered running underneath the membrane;
4. Monolithic membrane: Hydrotech type;
5. 180 elastomeric membrane;
6. Granular finish elastomeric membrane;
7. 75 mm extruded polystyrene insulation panels c/w 10 mm latex-modified concrete bonded to insulation panel.

NOTES:

- A. We did not cut the first layer membrane attached to the concrete deck because we did not want to expose the concrete slab to water. We assume that it is made of reinforced fabric.
- B. Hydrotech membranes are typically installed at 6 mm thick in the fabric reinforced assembly. This is more than three times thicker than most other waterproofing membranes. Thickness is an important benefit in that the membrane has the ability to self-heal and better accommodates developing cracks in a concrete substrate. This membrane can withstand and perform in submersed water conditions and is fully warrantable, making it the perfect membrane for no slope decks, water features, pools and vegetated roofs.

CUT TEST #1 PICTURES



Removal of insulated panels



Water infiltration under monolithic membrane



3.2.2. CUT TEST #2 - LEVEL 15 (PENTHOUSE) roof composition:

1. Flat steel deck;
2. Gypsum decking 16 mm;
3. Presence of water discovered running underneath the membrane;
4. Monolithic membrane: Hydrotech type;
5. 180 elastomeric membrane;
6. Granular finish elastomeric membrane;
7. 75 mm extruded polystyrene insulation panels c/w 10 mm latex-modified concrete bonded to insulation panel.

CUT TEST #2 PICTURES



Gypsum decking and monolithic membrane



Water accumulation under monolithic membrane



3.2.3. OBSERVATIONS

The presence of water beneath the waterproof membrane indicates that the system is no longer waterproof and has reached the end of its service life.

We also noticed that the membrane lifts off around the roof drains, which allows water infiltration between the roof deck and the waterproof membrane.

The absence of slopes on the roof and of a waterproof membrane does not help water drainage towards the roof drains. Water collects below the insulation and when the waterproof membrane starts breaking down, water infiltrates below the system, exposing the concrete slab to water which leads to water infiltration inside the building.

For now, the reinforcing membrane, which is attached to the roof deck, is the only barrier that limits water infiltration through the decking. Point 4 which concerns the structure, describes observations made under the concrete slab that, in general, does not appear to have been affected yet and seems to be in overall good condition.

3.3 BUILDING ENVELOPE ASSESSMENT

In accordance with section 4 “Administration and Compliance”, article 4. 2.1. 3 of the 2012 Ontario Building Code, renovations of existing buildings shall conform to Part 11 of Division B of the Building Code:

We are authorized to replace the existing roof system with a system that has the same performance level that the building had prior to material alteration or repair (OBC 11.3.1.1.). Refer to APPENDIX 4 for OBC reference articles.

Based on our calculations, the existing roof system including the reinforced concrete slab can reach an insulating value of R16,6; RSI 2,92.

The proposed replacement roof system will meet a minimum value of R16,6 but upgrading the insulating value would benefit the Client by improving the building’s envelope efficiency and reducing its energy loss.

We recommend that the new system meet a minimum insulating value of R20. It should be noted that the required roof insulating value for all new building construction of institutional buildings must meet a minimum value of R30.

3.4 ASSESSMENT OF ROOF EQUIPMENT

Sources: 2012 Ontario Building Code; Ontario Ministry of Labour, Infrastructure Health and Safety.

Roof ladders: the existing guards show signs of deterioration and corrosion. We found that the design does not comply with the Code. We recommend removing and replacing all four roof access ladders, including the interior roof access ladder within the building’s technician’s office.

Roof perimeter guard rails: the existing guard rails show signs of deterioration and corrosion. Furthermore, they may not meet requirements for soundness as set out by the Code. The existing guard rails should be removed and replaced. Close attention must be given to the ladder anchor system in order to limit drilling into the parapets’ sealing system.

The roof access hatch very likely dates back to the building’s original construction. It shows signs of deterioration and corrosion. We strongly recommend replacing it at the same time as the membrane system.

Cost estimate for replacement of architectural equipment: \$15,000 plus HST.

Structure (fall protection system): refer to paragraph 4.6 Level 15 – Existing fall protection system.

We also recommend that an evaluation of all existing mechanical and electrical roof equipment be undertaken to remove any obsolete items on the roof, prior to roof replacement.

The existing antennae installation is not recommended as it may damage the roof membrane system. We recommend anchoring all existing and future antennas on a steel post anchored to the building structure complete with a weatherproof support system. Coordinate detail with a structural Engineer. Refer to Appendix 4, for construction detail.

In order to solve the issue of the numerous cables running on the roof, we recommend installing a continuous cable tray which would hold all existing and future cables. This would greatly reduce the risk of perforating the roof membrane. Refer to Appendix 4, for recommended cable tray system.

4 STRUCTURE

4.1 General Observations

Martin McKinnon, P.Eng., from CIMA+ was on site on April 10th, 2017 to conduct the visual structural inspection of the Valour Building. During this inspection, the structural components of the level fourteen roof, the mechanical penthouse roof, and both level three (3) and four (4) roof structures were examined.

The Valour Building is comprised of a reinforced concrete structure on floors 1 through 14 and of a steel structure at the penthouse level (floor 15). The penthouse structure is comprised of steel columns, beams and bracings. A steel decking ensures roof load transfer to the supporting beams and columns.

This expertise was required after water infiltration was observed on the penthouse floor slab and on the ceilings of both lower roofs. It should be noted that only the roof structures were visually inspected for this expertise. Mercier Pfalzgraf Architectes Inc. required the services of CIMA+ to determine whether the structural elements were damaged by water infiltration and whether they require reinforcement due to loss of capacity caused by water infiltration.

It is important to note that the structural resistance of these elements was not examined. Also, the visual inspection was performed from the interior of the building only. The exterior façade of the structure was not available for inspection because it is currently protected by a roof system.

Refer to **Appendix 2** for roof plan pictures.

4.2 Level 15 Penthouse

4.2.1 Observations

As mentioned earlier, the roof system on the fifteenth (15) floor is comprised of structural steel elements supported by steel columns. The load is then transferred to level fourteen's (14) concrete structure. The steel system is composed of roof decking, installed on girders which are supported by steel columns. Steel elements, with the exception of some columns, are protected with white paint. The type of paint used is unknown but is not relevant for the nature of this expertise.

The site visit allowed us to observe that no water infiltration has occurred on the roof of level fifteen (15). Also, we noticed that the penthouse is a dry and heated environment which limits the accumulation of humidity in the penthouse space. The structural steel components (i.e. decking, girders, beams and columns) are in good condition and free of rust with no loss of section observed. The paint is in good condition and no peeling or flaking was noticed. Also, no surface rust was visually discovered on these elements.

We were informed of a water infiltration problem located on the southwest side of the penthouse at the junction of the steel and precast concrete cladding (see picture 15-03). After verification, it was discovered that water infiltration was caused by inadequate waterproofing between the two (2) cladding systems. At this particular location, CIMA+ was able to see daylight from the interior of the penthouse (see picture 15-04). To hold these panels under lateral loading, the paneling system is welded to steel angles (L-shaped elements) which are then anchored to a concrete curb sitting on and anchored to a concrete slab. Due to water infiltration, the steel angles showed signs of corrosion and swelling caused by corrosion (see pictures 15-05 & 15-06). The column adjacent to the problematic area is also affected by surface rust. No loss of section has been noted on the affected elements but swelling of the steel angle is visible. It is important to mention that the affected elements have not been painted.

Concrete scaling is visible on the west side of the penthouse. We've noticed that only parging was loose and this might be caused by swelling due to corrosion of the steel angles (see picture 15-07).

On the east side of the penthouse, CIMA+ discovered a wood block inside the concrete curb (see picture 15-08). This block is most likely the result of form framing for the installation of the cast-in-place concrete curb.

4.2.2 Recommendations

For all structural steel elements that show signs of corrosion, CIMA+ recommends cleaning the steel in accordance with the *SSPC-SP 11 Power Tool Cleaning to Bare Metal* procedure established by the *Society for Protective Coatings*. Once cleaning is completed, new primer and coating should be applied. This cleaning procedure will allow the removal of all rust prior to the application of the protective coating system. Once the coating application is completed, the structural steel elements will be adequately protected from the spread of corrosion and humidity.

Since parging is not structural, the existing concrete curb can be left as is. If concrete correction is desired, CIMA+ recommends consulting with a structural engineer to develop a proper rehabilitation method.

No action is required for the removal of the wood block.

4.2.3 Photo survey

Level 15 Penthouse Roof Structure	Observation 15-01
	Structural column & concrete curb
Level 15 Penthouse Roof Structure	Observation 15-02
	Roof structure – Beams & steel decking

Level 15 Penthouse Roof Structure	Observation 15-03
 <p>A photograph showing the exterior of a building's penthouse roof structure. The wall features a large section of horizontal louvers. A black arrow points from the text 'Junction of the steel and precast concrete panels' in the observation column to the corner where the louvered wall meets the roof edge.</p>	<p>Water infiltration - Junction of the steel and precast concrete panels</p>
Level 15 Penthouse Roof Structure	Observation 15-04
 <p>A close-up photograph of the junction between a steel panel and a precast concrete panel. The concrete is heavily stained with brown rust. Two black arrows point from the text in the observation column to the rusted areas: one points to the rust at the panel connection, and the other points to rust on the panel surface.</p>	<p>Water infiltration - Junction of the steel and precast concrete panels</p> <ul style="list-style-type: none">- Rust at the panel connection;- Rust on the panel.

Level 15 Penthouse Roof Structure	Observation 15-05
 A photograph showing a long, horizontal steel angle (L-shaped) mounted on a concrete surface. The angle is supporting a dark, vertical exterior wall paneling system. The steel angle shows some signs of wear and discoloration.	<p>Steel angle supporting exterior wall paneling system</p>
Level 15 Penthouse Roof Structure	Observation 15-06
 A close-up photograph of the steel angle from the previous observation. The angle is heavily corroded, showing a thick, brown, flaky layer of rust. The rust has caused the steel to swell and deform, creating a significant gap between the angle and the concrete surface it is mounted on.	<p>Swelling due to corrosion of the steel angle</p>

Level 15 Penthouse Roof Structure	Observation 15-07
	Concrete parging – scaling and cracking
Level 15 Penthouse Roof Structure	Observation 15-08
	Concrete curb – wood block in concrete curb

4.3 Level 14 – Concrete roof system

4.3.1 Observations

During our visit, very few locations were available for visual inspection on this part of the roof. CIMA+ was able to perform a local inspection of the concrete roof slab in one of the mechanical rooms located on the fourteenth (14) floor. It should be noted that the inspection was limited to a single area and that CIMA+'s findings should not be generalized. If water infiltration is observed, qualified experts should inspect the structural elements that might be affected in that specific location.

We were informed by our client that, as of this date, no water infiltration has been noticed on this level.

4.3.2 Recommendations

A cut test was performed on May 10th, 2017 which revealed that water is present between the roof membrane and the concrete slab. Consequently, CIMA+ recommends that a qualified structural engineer verify the quality of the concrete slab from the exterior after the removal of the existing roof membrane and prior to the installation of the new system.

4.4 Level 4 – Concrete roof system

4.4.1 Observations

The inspection of the concrete slab and beams on level four (4) was carried out from the inside of the building via room 353A. The concrete elements are in good condition. CIMA+ located one minor crack in a concrete beam adjacent to the wall. We believe that the crack was not induced by structural activities but rather by shrinkage of the concrete during its curing phase (see picture 04-03).

One (1) water infiltration and crack was noticed on the southeast corner of the slab (see picture 04-04). CIMA+ verified whether the concrete structure was sound by hammering this location and determined that the concrete slab and beam were not affected by water infiltration.

4.4.2 Recommendations

CIMA+ believes that the water infiltration was caused by the deficient existing roof membrane system which has reached the end of its service life. As mentioned earlier, the concrete structure where the infiltration was observed is in good condition and no rehabilitation work is required from the interior of the building.

The shrinkage crack that was discovered does not affect the structural capacity of the beam. The beam can therefore be left as is.

A cut test was performed on May 10th, 2017 which revealed that water is present between the roof membrane and the concrete slab. Consequently, CIMA+ recommends that a qualified structural engineer verify the quality of the concrete slab from the exterior after the removal of the existing roof membrane and prior to the installation of the new system.

4.4.3 Photo survey

Level 4 Concrete Structure	Observation 04-01
	Structural column
Level 4 Concrete Structure	Observation 04-02
	Roof structure – Beams and structural slab

Level 4 Concrete Structure	Observation 04-03
	Shrinkage crack on bearing wall
Level 4 Concrete Structure	Observation 04-04
	Roof structure – Southeast beams and structural slab -Water infiltration

4.5 Level 3 – Concrete roof system

4.5.1 Observations

The inspection of the concrete slab and beams on level three (3) was carried out from the inside of the building via room 357A. The concrete elements are in good condition. No cracking or concrete deficiencies were discovered.

Our client indicated that water infiltration was locally visible at the centre of the slab. CIMA+ verified whether the concrete structure was sound by hammering this location and determined that the concrete slab and beam were not affected by water infiltration.

4.5.2 Recommendations

CIMA+ believes that the water infiltration is caused by the deficient existing roof membrane system which has reached the end of its service life. As mentioned earlier, the concrete structure where the infiltration was observed is in good condition and no rehabilitation work is required from the interior of the building. We believe that the replacement of the membrane with a new product will correct the infiltration problem.

A cut test was performed on May 10th, 2017 which revealed that water is present between the roof membrane and the concrete slab. Consequently, CIMA+ recommends that a qualified structural engineer verify the quality of the concrete slab from the exterior after the removal of the existing roof membrane and prior to the installation of the new system.

4.5.3 Photo survey

Level 3 Concrete Structure	Observation 03-01
	Concrete beam
Level 3 Concrete Structure	Observation 03-02
	Concrete beam and roof slab

4.6 Level 15 – Existing fall protection system

4.6.1 Observations

We noted that the existing fall protection system installed on the mechanical penthouse does not seem to be designed in accordance with current standard *CAN/CSA Z259.16 Design of active fall protection systems*. Anchor points for fall protection purposes must be designed to withstand a load of 5,000 pounds per person attached.

4.6.2 Recommendations

CIMA+ believes that the current fall protection system must be tested before being used by personnel. We recommend that a qualified structural engineer analyze the current system and, if required, develop proper guidance in order to build a fall protection system in accordance with current standards.

CIMA+ does not recommend using the existing fall protection system before the analysis is completed.

4.6.3 Photo survey

Level 15 Existing fall protection system

Observation 15.1-01



Current fall protection anchor point

Level 15 Existing fall protection system

Observation 15.1-02



Anchor point with lifeline

5 OPTIONS

5.1 Option 1: Status quo

Estimated Cost: \$0.00 no cost involved.

This option does not include roof repairs or replacement of any of its components. As such, the deterioration of the roof assembly will continue.

Due to the current critical condition of the roof membrane, the substantial presence of water underneath the roof membrane and knowing that the roof system has reached the end of its service life (25 years), we do not recommend this option.

Scheduling: Non-applicable.

Benefits:

- No cost and no immediate drawback for the Client.

Risks/Challenges:

- High risk of water infiltration in the near future and important damage to be expected inside the building. The accumulation of water beneath the roofing membrane can deteriorate the reinforced concrete slab if no immediate action is taken.

5.2 Option 2: Roof repairs

We cannot determine the scope of roof repairs without knowing the extent of the damage in the insulation material and the membranes beneath. With this option, it is safe to assume that 25% of the entire roof area needs repair.

Estimated Cost: ± \$80,000.00 plus HST.

Scheduling:

- A full inspection of roof membranes shall be conducted by a qualified architect immediately and on a yearly basis;
- Annual review performed by a qualified structural engineer to check the condition of the concrete slab;
- **Service life:** Up to two years.

Benefits:

- Limits the risks of water infiltration and building deterioration;
- Extends the service life of the roof system by up to two years.

Risks/Challenges:

- Ultimately, repair costs will not solve water infiltration problems. Repairs to damaged roof areas would involve significant costs and would only last a few years as we anticipate that the entire roofing system will have to be replaced during the same period of time;
- In order to investigate the roof's condition, the insulation panels need to be removed on all roof areas to expose roof membranes. Visual inspection is complicated and does not reveal all the defects in the membranes, or the extent of water infiltration beneath the waterproof membrane.

5.3 Option 3: Remove and replace roof system with reflective white membrane: two-ply elastomeric membrane in a conventional system

Provide and install new two-ply elastomeric membrane system including double layer pathways with distinct colour for access to roof equipment. Review all roof slopes with new sloped insulation: 2% around the drains and 1% overall.

This option includes the full removal of all existing roofs on levels 3, 4, 14 and 15 and caulking repairs on roof 3A.

Description of new proposed system with insulation upgrade to R-30 minimum:

- Two-ply elastomeric membrane 13 mm;
 - 2 fire-retardant roofing support panels 13 mm: R-3;
 - First row of polyisocyanurate roof insulation, 50,8 mm: R-11.4;
 - Second row of polyisocyanurate roof insulation 63,5 mm: R-14.4;
 - Sloped insulation: 1% and 2%: average of 200 mm parapet rising required;
 - DensDeck prime support panel 13 mm: R-3;
 - Vapour barrier;
 - Existing structure.
- Total R-value: 31.8

Note: We recommend using polyisocyanurate insulation to limit parapet height increase. We have evaluated that an average of 200 mm in increased height will be required on the overall roof parapet to suit the new sloped insulation system.

Estimated cost: \$624,000.00 plus HST;

Construction cost breakdown:

Demolition:	\$115,000.00
Architectural:	\$343,000.00
Structural:	\$0.00 (1)
Mechanical/ Electrical:	\$0.00 (2)
General requirements (5%):	\$23,000.00
Overhead & Profit (12%):	\$58,000.00
SUB-TOTAL:	\$539,000.00
Design and Pricing (5%):	\$27,000.00
Escalation (2%):	\$11,000.00
Construction allowance (3%):	\$17,000.00
Risk (5%)	\$30,000.00

TOTAL: \$624,000.00 plus HST

The above cost includes all roof demolition, temporary equipment removal, new roof construction c/w parapet height increase, crane rental, replacement of defective roof equipment outlined in point 3.4_ Equipment assessment and recommended structural repairs described in point 4_Structure: penthouse concrete curb repair, including painting of steel elements; partial concrete demolition and reconstruction; steel surface preparation before painting; painting of steel elements; caulking repairs on roof basin 3A.

- (1) It is impossible at this stage to estimate the quantity of concrete repair work that will be needed for the multiple slabs at the Valour Building. To be able to do so, the roof membrane must be completely removed and the concrete slabs will need to be cleaned properly. A structural engineer will then be able to survey the slabs and properly determine the exact quantity of work needed, recommend the proper rehabilitation methods, and produce a budgetary cost estimate.

The information available for the existing structure (built in 1971) is limited and does not allow CIMA+ to evaluate neither flexural nor shear resistance of the concrete roof slabs. We believe that the existing structure has sufficient capabilities to support the additional dead load, but we are unable to provide recommendations concerning the allowable live load (i.e. snow) on the roofs unless we are provided with further structural information.

In order to determine if the concrete structure is able to support additional loads, we would require receiving all structural drawings (dated 1971) for the roof levels. With these drawings, we would be able to ascertain whether the structure can withstand a new roof system dead load + determine admissible live loads. If such drawings are not available, we recommend proceeding with a rebar and slab scan in order to determine slab thickness, rebar spacing and rebar diameter.

- (2) As there were no mechanical and electrical engineers involved in this study (not in contract), we cannot provide a budgetary cost estimate for mechanical and electrical roof equipment work. We believe that the amount indicated in the above estimate should be sufficient to cover these costs.

Scope of work:

- Preparation of drawings and specifications for complete roof replacement and repairs by a qualified architect licenced in the Province of Ontario;
- Structural review of existing concrete slabs to determine if the concrete structure can support additional loads;
- Engineering services required for the evaluation of structural (fall protection system), mechanical and electrical equipment (boxes, gooseneck vents, others) to assess whether the equipment is obsolete and needs to be removed or replaced with new equipment;
- Public tender;
- Awarding of the contract to a general contractor;
- Job start;
- Blocking off a section of the north parking lot to accommodate a crane, required for material removal and material delivery; three to four times during demolition / construction;
- Temporary removal of equipment on the roof such as access platforms;
- Removal of existing membranes on levels 3, 4, 14 (concrete slabs) and penthouse steel deck;
- Engineering services required for the evaluation of structural concrete slabs: provide site visit, written report and structural rehabilitation drawings (if required); Fee: 5 600\$
- Removal and replacement of all obsolete equipment;
- Installation of new roof system;
- Installation of new ladders, guard rails and roof hatch;
- Reinstallation of existing access platforms and other equipment, and installation of new equipment: ladders and guard rails;
- Dismantling of the access equipment and site clean-up.

Scheduling:

- Regular maintenance required two to three times a year by building maintenance employees: general visual inspection in order to identify potential and emerging problems; general cleaning of debris such as vegetation, cleaning of all roof drains;
- A full inspection of roof membranes shall be conducted by a qualified architect every five years and repairs shall be carried out when necessary; Inspection cost for year 5: \$2,500.00 plus HST. Repeat same cost for year 10 and year 15.

Repair costs: included in roofer's warranty.

At the end of the system's service life, a thermographic inspection and cut tests can be done to determine whether the insulation is sound. If such is the case, the finish membrane can be resurfaced and the system's service life can be extended for an additional period of 20 years.

The budget cost for resurfacing the roof with a reflective white membrane is: \$150,000.00 plus HST.

- Optional manufacturer's Platinum Privilege Warranty (by Soprema as an example) for up to 20 years: Cost: ± \$5,000 with installation done by roofers certified by the manufacturer. All repair costs are guaranteed by the roofer. It should be noted that the standard warranty for roofing projects in Ontario is two years.
- **Service life:**
 - 20 to 22 years with good maintenance;
 - 40 years with resurfacing.

Benefits:

- Prevents and solves potential water infiltration issues;
- Excellent quality roof system: double layer provides double protection;
- Easy and fast installation, lightweight;
- Greater energy efficiency because the insulation is protected;
- Upgrading the R-value to current code R-30 will improve the building's energy efficiency;
- Reflective white membrane is an environmentally friendly option: it reduces urban heat island effect and summer cooling costs for the building;
- Improved roof slopes for better drainage;
- Welded membranes and glued-on insulation: reduces odours during installation;
- Easy maintenance, defects are easy to spot;
- Competitive cost.

Risks/Challenges:

- Will require increasing height of existing parapets on levels 3, 4 and the penthouse level due to new sloped insulation;
- During installation, glues should be tested for adhesion strength in order to eliminate the risk of the membranes being wrenched off;
- Localized traffic for the maintenance of roofing equipment with access sidewalks;
- Will require a full structural study to confirm if existing roof slabs and steel deck can carry the additional loads.

5.4 Option 4: Remove and replace roof system with new inverted roof system: river stone ballast

Replacement of existing roof system with new inverted roof membrane assembly, complete with river stone ballast and filter fabric. New roof system with insulating value of R-30.

For this option, we recommend the TRA-LMR cold-applied roof system by TREMCO or equivalent.

Add a draining membrane beneath the insulation to improve water drainage towards the drains.

This option includes the full removal of all existing roofs on levels 3, 4, 14 and 15, and caulking repairs on roof 3A.

Estimated cost: \$653,850.00 plus HST.

Construction cost breakdown:

Demolition:	\$115,000.00
Architectural:	\$365,000.00
Structural:	\$ 0.00 (1)
Mechanical/ Electrical:	\$ 0.00 (2)
General requirements (5%):	\$24,000.00
Overhead & Profit (12%):	\$60,500.00
SUB-TOTAL:	\$564,500.00
Design and Pricing (5%):	\$28,225.00
Escalation (2%):	\$11,850.00
Construction allowance (3%):	\$18,140.00
Risk (5%)	\$31,135.00
TOTAL:	\$653,850.00 plus HST.

The above cost includes all roof demolition, temporary equipment removal, new roof construction c/w parapet's height increase, crane rental, replacement of defective roof equipment outlined in point 3.4_ Equipment assessment and recommended structural repairs described in point 4_Structure: penthouse concrete curb repair, including painting of steel elements; partial concrete demolition and reconstruction; steel surface preparation before painting; painting of steel elements; caulking repairs on roof basin 3A.

Notes 1 and 2: same as Option 3.

Scope of work: same as option 3

Scheduling:

- Regular maintenance required two to three times a year by building maintenance employees: general visual inspection in order to identify potential and emerging problems; general cleaning of debris such as vegetation, cleaning of all roof drains.
- A full inspection of roof membranes shall be conducted by a qualified architect every five years and repairs when necessary; Inspection cost for year 5: \$2,500.00 plus HST. Repeat same cost for year 10 and year 15.
- Repair costs: it is impossible to anticipate future repair costs at this point.
- **Service life:** 20 to 22 years with good maintenance.

Benefits:

- Reduced potential for leaks with a fully adhered system and seam redundancy;
- Premium quality elastomeric modified asphalt to ensure full adhesion and seaming integrity;
- Dual waterproofing protection from the reinforced rubber sheet and waterproofing adhesive;
- Easily accommodates standard structural movement due to the highly elastomeric nature of the adhesive and flexibility of the rubber sheet;
- Easy installation: cold-applied adhesive ensures low odour and a safe work environment;
- Upgrading the R-value to current code requirements of R-30 will improve the building's energy efficiency;
- Allows free access to entire roof surface area;
- Excellent protection against thermal shock, UV degradation, temperature extremes, photo-oxidation and mechanical abuse;

Risks/Challenges:

- Heavier roof system due to 50 mm stone ballast;
 - The existing concrete slab does not allow for good drainage; even if we add a draining membrane to the system, water drainage will not be optimal;
 - Membrane inspection is more difficult, requires ballast removal;
 - The water that circulates beneath the insulation can cause energy losses depending on the season and can lift up the insulation;
 - Will require a full structural study to confirm whether existing roof slabs and steel deck can carry the additional loads.
-

5.5 Option 5: Remove and replace roof system with new inverted roof system: thin-set concrete topped insulation

Replacement of existing roofing with new inverted roof membrane assembly, complete with a thin-set concrete topped insulation.

For this option, we recommend the TRA-LMR cold-applied roof system by TREMCO with HeavyGUARD protected membrane roof insulation panels by T. Clear Corporation or equivalent.

Total roof insulating value of R16.6, same as existing. Addition of a draining membrane beneath the insulation to improve water drainage towards the drains.

This option includes the full removal of all existing roofs on levels 3, 4, 14 and 15, and caulking repairs on roof 3A.

Estimated cost: \$652,000.00 plus HST.

Construction cost breakdown:

Demolition:	\$115,000.00
Architectural:	\$363,800.00
Structural:	\$0.00 (1)
Mechanical/ Electrical:	\$0.00 (2)
General requirements (5%):	\$23,940.00
Overhead & Profit (12%):	\$60,330.00
SUB-TOTAL:	\$563,000.00
Design and Pricing (5%):	\$29,730.00
Escalation (2%):	\$12,485.55
Construction allowance (3%):	\$19,100.00
Risk (5%)	\$32,800.00
TOTAL:	\$652,000.00 plus HST.

The above cost includes all roof demolition, temporary equipment removal, crane rental, replacement of defective roof equipment outlined in point 3.4_ Equipment assessment and recommended structural repairs described in point 4_Structure: penthouse concrete curb repair, including painting of steel elements; partial concrete demolition and reconstruction; steel surface preparation before painting; painting of steel elements; caulking repairs on roof basin 3A.

Notes 1 and 2: same as option 3.

Scope of work: same as option 3

Scheduling:

- Regular maintenance required two to three times a year by building maintenance employees: general visual inspection in order to identify potential and emerging problems; general cleaning of debris such as vegetation, cleaning of all roof drains.
- A full inspection of roof membranes shall be conducted by a qualified architect every five years and repairs shall be carried out when necessary; Inspection cost for year 5: \$2,500.00 plus HST. Repeat same cost for year 10 and year 15.
Repair costs: it is impossible to anticipate future repair costs at this point.
- **Service life:** 25 years with good maintenance.

Benefits:

- Prevents and solves potential water infiltration issues. Superior quality roof system. Allows free access to entire roof surface area.
- Reduced potential for leaks with a fully adhered system and seam redundancy;
- Premium quality elastomeric modified asphalt to ensure full adhesion and seaming integrity;
- Dual waterproofing protection from the reinforced rubber sheet and waterproofing adhesive;
- Easily accommodates standard structural movement due to the highly elastomeric nature of the adhesive and flexibility of the rubber sheet;
- Easy installation: cold-applied adhesive ensures low odour and a safe work environment;
- Allows free access to entire roof surface area;
- Excellent protection against thermal shock, UV degradation, temperature extremes, photo-oxidation and mechanical abuse;
- No work required at parapets, remain at same height.

Risks/Challenges:

- The existing concrete slab does not allow for good drainage. Even if we add a draining membrane to the system, water drainage will not be optimal;
 - Membrane inspection is more difficult, it requires insulation panels to be removed prior to inspection;
 - The water that flows beneath the insulation can cause energy losses depending on the season and can lift up the insulation;
-

6 RECOMMENDATIONS

6.1 General

Based on the current condition of the roof, we strongly recommend replacing the entire roofing system. Repairs to damaged roof areas would involve significant costs and spending money on limited repairs would be a bad investment given that we expect the entire roofing system will need to be replaced within the same period of time. If immediate action is not taken, there will be water infiltration before then which will cause damage inside the building, thus increasing building repair costs.

Finding effective solutions to improve roof drainage is strongly recommended and shall be integrated into the design development of the replacement roof.

We also recommend that the new roof insulating value be increased to meet current code requirements of R-30 if the existing roof structure can carry the additional allowable live loads. Options 3 and 4 meet current code requirements of R-30 and represent a gain of 45% over option 5.

The investment into the new roofing system should include an upgrade of roof equipment supports, antennae and cable tray design to provide more flexibility and provide better access to all roof areas.

6.2 Recommended option

We recommend proceeding with option 3: Remove and replace roof system with reflective white membrane: two-ply elastomeric membrane in a conventional system with insulating value upgrade to R-30 and Platinum Privilege warranty from manufacturer.

All three replacement options for the roofing system have benefits but option 3 stands out based on the following features:

- Reflective white membrane is an environmentally friendly option: it reduces urban heat island effect and summer cooling costs for the building;
- Improved roof slopes and better drainage;
- Greater energy efficiency with the insulating value upgrade to R-30, and because the insulation is protected;
- Easy and fast installation;
- Easy maintenance, defects are easy to spot;
- Lightweight;
- Lower cost;
- No repair costs for a period of 20 years with the membrane manufacturer's 20-year Platinum Privilege warranty;
- The roofing system's service life can be extended to 40 years by resurfacing the cap sheet membrane after 20 years.

7 COMMUNICATION

The Client will be informed of the work schedule. He shall also be notified of the shutdown of the ventilation and the cooling systems during the work period. The building officials, the occupants, the Public Works project manager and the contractor will have to work in close collaboration to coordinate the installation of the new roofing system.

8 COMMENTS

Note that the hoisting crane will be installed in the empty parking lot at the rear of the Valour Building in order to remain as discreet as possible during the Canada 150 celebrations.

Site access: all roofing contractor's employees will hold a valid secret security clearance, issued by PSPC.

Revised final report written by:

A handwritten signature in black ink, appearing to read 'Pfalzgraf', written in a cursive style.

Martine Pfalzgraf, Architect



Sustainable Buildings Policy (100)

Effective Date: 2010-05-25

No. 100

1. Background

The Treasury Board *Policy on Management of Real Property* requires real property to be managed in an environmentally responsible manner, consistent with the principles of sustainable development. As one of the largest landlords in the country, and given the major impact buildings have on the environment, the federal government is working to reduce the environmental impact of its operations related to real property.

Public Works and Government Services Canada (PWGSC) manages close to a quarter of federal government real property space and has the mandate to provide office accommodation for all federal government departments and agencies. Consistent with the Government's commitment to economic prosperity and maintaining a healthy environment, the Department strives to manage its real property in a manner that safeguards vital natural resources, optimizes the use of innovative sustainable building practices and technologies, and ensures value for money.

Since April 2005, PWGSC has required any new federal office building, Crown-owned or long-term lease, to be built to meet the Canada Green Building Council's Leadership in Energy and Environmental Design (LEED®) Gold performance level. Through its departmental Sustainable Development Strategies (SDS), PWGSC has committed to meet the LEED® Silver performance level for major renovations. In April 2007, PWGSC began implementing the Building Owners and Managers Association of Canada's (BOMA) Go Green Plus (now BOMA BEST) environmental assessment program in order to help identify opportunities to improve the environmental performance of existing Crown-owned and new lease-purchase/emphyteusis office buildings. PWGSC's SDSs have also contained measurable commitments to energy, water, resources, and waste management for Crown-owned buildings. The Sustainable Buildings departmental policy (DP) consolidates and builds on these commitments.

2. Purpose

The purpose of this DP is to:

- support the Government of Canada's environmental agenda including the Government's commitment to tackle climate change and preserve Canada's environment;
- advance the protection of the environment by reducing the ecological impact (which includes energy, water, waste) of PWGSC real property operations and activities;
- optimize the environmental performance of new and existing PWGSC buildings while respecting the principle of value for money;
- contribute to the environmental sustainability of communities in which PWGSC real properties are located;
- demonstrate leadership in greening government operations.

3. Policy

Public Works and Government Services Canada, as a custodian of real property and provider of office accommodation to federal departments, shall develop, implement and continuously improve sustainable practices in its real property operations and activities.

Public Works and Government Services Canada, when providing real property services to federal departments and agencies, shall promote the application of this Policy.

4. Scope

This DP applies to all:

- real property operations and activities undertaken by PWGSC on its own behalf or by the private sector on behalf of PWGSC (e.g., acquisition, construction, renovation, demolition, fit-up, building operation and maintenance, disposal);
- buildings, including heritage buildings, their related land, and any improved land for which PWGSC is custodian, including Crown-owned and lease-purchase, or buildings under an emphyteusis;
- leased facilities where PWGSC is both the majority lessee and occupies more than 500 rentable square meters.

It does not apply to:

- monuments, engineering assets nor unimproved land for which PWGSC is custodian;
- real property for which PWGSC is "custodian of last resort";
- federal department and agency tenants of PWGSC buildings, including tenant use and business operations;
- other custodians or Crown corporations and real property under the administration of other custodian departments, agencies or Crown corporations.

This DP has a long-term outlook and establishes the framework under which PWGSC will develop specific commitments and actions to address key environmental performance aspects pertaining to its buildings. Efforts will include a principal focus on environmental performance aspects (e.g., energy, water, waste) that have the most significant impact on the environment, align closely with the Government's broad environmental priorities and programs, and are universally applicable to all PWGSC buildings.

5. Definitions

Refer to [Annex - Definitions](#).

6. Roles and Responsibilities

6.1. The Business Operations Committee is a forum for all PWGSC business lines to provide updates and address operational and strategic requirements as needed. This Committee will provide oversight for this DP and its implementation, specifically by:

- 6.1.1.** approving strategic direction under this DP including targets, performance measures and reporting;
- 6.1.2.** recommending amendments and approving requests for exemptions to this DP;
- 6.1.3.** resolving such application conflicts that may occur between this DP and other policies;
- 6.1.4.** reviewing reports on results and implementation related to this DP.

6.2. The Assistant Deputy Minister (ADM), Real Property Branch, the ADM, Parliamentary Precinct Branch and ADMs of other custodian branches are responsible for:

6.2.1. communicating and implementing this DP within their respective organizations in consultation with tenants and key stakeholders;

6.2.2. coordinating and monitoring implementation, as well as collecting, reporting, and evaluating results and information related to the implementation status of this DP;

6.2.3. developing with Corporate Services, Policy and Communications Branch (CSPCB), through the Office of Greening Government Operations (OGGO), amendments or recommendations for this DP, and related strategic direction including targets, performance measures, and reporting;

6.2.4. ensuring the development of policy-related documents to provide operational and technical direction, as well as training and tools required as a result of the integration of this DP into Branch processes.

6.3. The **ADM, Corporate Services, Policy and Communications Branch** is responsible, **through the Director General, Office of Greening Government Operations**, for:

6.3.1. developing, with Real Property Branch, Parliamentary Precinct Branch, and other custodian branches, amendments or recommendations for this DP, and related strategic direction including targets, performance measures, and reporting;

6.3.2. coordinating, monitoring, and collating Branch results and reporting Department results related to this DP and its implementation;

6.3.3. facilitating broad awareness at the departmental level of this DP by such means as websites, communiqués, and other channels.

6.4. Regional Directors General are responsible for:

6.4.1. communicating and implementing this DP within their respective regions;

6.4.2. reporting on implementation of this DP within their region to the responsible ADM.

7. Guidelines

Development, implementation and continuous improvement in sustainable practices in real property shall be achieved by:

7.1. ensuring decision-making processes related to the management of PWGSC buildings integrate information on environmental impacts, opportunities, costs, and benefits necessary to make decisions regarding the sustainability of PWGSC buildings;

7.2. confirming ongoing PWGSC commitments related to sustainable buildings, and setting portfolio-wide targets and performance measures for new and existing Crown-owned and lease-purchase buildings, or buildings under an emphyteusis, including heritage buildings, that support government-wide objectives and targets outlined in the Federal Sustainable Development Strategy (FSDS). These targets and performance measures are set through the departmental SDS required by the [Federal Sustainable Development Act](#);

7.3. confirming and further strengthening ongoing PWGSC commitments related to green leasing, and setting targets and performance measures for new leases and leases to be renewed, that support government-wide objectives and targets outlined in the FSDS. These targets and performance measures are set through the departmental SDS required by the [Federal Sustainable Development Act](#);

7.4. fostering sustainable practices, including the use of sustainable building materials in construction and renovation projects that meet performance requirements, giving appropriate consideration to environmental and economic factors;

7.5. providing officials responsible for operating and making decisions about PWGSC buildings with the

necessary training to support the objectives of this DP;

7.6. providing technical direction at the Branch level, within the overall strategic direction set by the Business Operations Committee, to set building or project level goals as appropriate, define strategies and sustainable practices, and provide related performance indicators; and

7.7. reporting of performance results related to these commitments and targets through the departmental sustainable development reports required by the [Federal Sustainable Development Act](#).

8. References

Acts and Regulations:

- Amendments to the [Auditor General Act, 1995](#);
- [Department of Public Works and Government Services Act](#);
- [Federal Real Property and Federal Immovables Act](#);
- [Federal Real Property Regulations](#);
- [Federal Sustainable Development Act](#);
- [Financial Administration Act](#).

Treasury Board Secretariat Publications:

- [Policy Framework for the Management of Assets and Acquired Services](#):
 - [Appraisals and Estimates Standard for Real Property](#);
 - [Common Services Policy](#);
 - [Directive on the Sale or Transfer of Surplus Real Property](#);
 - [Environmental Guide for Federal Real Property Managers](#);
 - [Guide to the Management of Real Property](#);
 - [Policy on Green Procurement](#);
 - [Policy on Management of Real Property](#);
 - [Policy on the Management of Projects](#);
 - [Policy on Investment Planning - Assets and Acquired Services](#).

PWGSC Publications:

- [DP 032 - Material Management Environmental Policy](#);
- [DP 074 - PWGSC Environmental Policy](#);
- [DP 084 - Good Neighbour Policy](#);
- [DP 099 - PWGSC Policy on Procurement](#);
- [Real Property Branch Policies](#) ;
- [Use of the National Master Specification \(NMS\)](#).

9. Inquiries

Office of Greening Government Operations
 Director,
 Policy Development Directorate
 Place du Portage, Phase III, 8B3
 Gatineau, Quebec
 K1A 0S5
 Telephone: 819-956-4021

Annex - Definitions

Custodian (*gardien*)

is a department or agency whose minister has responsibility for the administration of real property for the purposes of that department.

Custodian of last resort (*gardien de dernière instance*)

refers to a custodian that assumes responsibility when the Government of Canada inherits property following the application of a federal law, for example, property that vests in Her Majesty the Queen in Right of Canada by operation of section 228 of the *Canada Business Corporations Act*, which is property of a corporation that has been dissolved under that Act.

Emphyteusis (*emphytéose*)

is the right which, for a certain time, grants a person the full benefit and enjoyment of an immovable owned by another provided he does not endanger its existence and undertakes to make constructions, works or plantations thereon that durably increase its value. Emphyteusis is established by contract or by will.

Green leasing (*location écologique*)

refers to leases addressing key environmental standards such as indoor air quality, recycling, energy-efficient lighting fixtures and greenhouse gas reduction.

Heritage building (*édifice patrimonial*)

is a federally-owned building to which the Minister of the Environment has assigned a "classified" or "recognized" designation.

Improved land (*terrain aménagé*)

is a parcel of land that has been developed for use. Improvements may include: electrical, water, telephone or sewer lines; grading, landscaping, roads or gutters; and construction of permanent structures.

Lease-purchase (*bail-achat*)

means situations where the lease transfers ownership to the lessee by the end of the term of the lease; or the lessee can purchase the real property at a price below fair market value when the lease expires.

Majority lessee (*locataire principal*)

is where PWGSC leases more than 50 percent of the rentable area of the building.

Real property (*bien immobilier*)

constitutes any right, interest or benefit in land in Canada, which includes buildings and improvements, on, above or below the surface of the land. For the purpose of this DP, engineering assets (e.g. bridges) and monuments are excluded from this definition.

Sustainable building materials (*matériaux de construction durables*)

include sustainably harvested or extracted wood, naturally occurring durable materials and materials that can be indefinitely recycled. These materials also have minimal environmental impact based on life cycle analysis.

Sustainable practices (*pratiques durables*)

for the purpose of this DP, refers to techniques, methods, processes and activities that effectively and efficiently reduce a building's impact on the environment throughout its life-cycle.

Tenant (*locataire*)

refers to a department or agency occupying real property that is under the administration of the minister of another department.

Waste (*déchets*)

consists of materials which have no further perceived use and are therefore discarded for re-use, recycling or disposal to landfill.

Date Modified: 2014-11-05

Valour Building Roof Replacement
Request for Proposal



TERMINOLOGY

A&ES	Architectural and Engineering Services
BCR	Building Condition Report
CEA	Canadian Environmental Assessment
CM	Construction Management
FHBRO	Federal Heritage Buildings Review Office
HCD	Heritage Conservation Directorate
HoC	House of Commons
IAR	Investment Analysis Report
IRMA	Inverted Roof Membrane Assembly
LoP	Library of Parliament
NIS	National Investment Strategy
NMS	National Master Specifications
O&M	Operation and Maintenance
PCO	Privy Council Office
PM	Project Manager
PMO	Prime Minister's Office
PMSS	Preventative Maintenance Support System
PPB	Parliamentary Precinct Branch
PV	Performance Verification
PWGSC	Public Works and Government Services Canada
SDS	Sustainable Development Strategy
SOM	Systems Operations Manual
The Branch	Parliamentary Precinct Branch

PROJECT BRIEF

Description of Project

- PD 1 Project Information
- PD 2 Project Identification
- PD 3 Project Background
- PD 4 Existing Documentation
- PD 5 Program
- PD 6 Project Objectives
- PD 7 Issues
- PD 8 Consultant Services

Description of Services

- PA 1 Project Administration

Required Services

- RS 1 Analysis of Project Requirements
- RS 2 Design Concept
- RS 3 Design Development
- RS 4 Construction Documents (Bilingual)
- RS 5 Tender Call, Bid Evaluation & Construction Contract Award
- RS 6 Construction and Contract Administration
- RS 7 Commissioning the Facility
- RS 8 Risk Management

PROJECT BRIEF

This Project Brief is divided into two sections:

- **Description of Project**
- **Description of Services**
 - Project Administration
 - Required Services

For standards relating to the service provisions herein please refer to the document “Doing Business with A&ES”. The standards in “Doing Business with A&ES” must be adhered to in conjunction with this scope of services.

DESCRIPTION OF PROJECT

PD 1 PROJECT INFORMATION

Public Works and Government Services Canada (PWGSC) intends to retain an architectural firm in the capacity of Prime Consultant, supported by a multidisciplinary team of sub-consultants and specialists, for the provision of the services required for this project.

- 1.1 PWGSC Project Title: Roof Replacement
- 1.2 Location of the project: Valour Building, 151 Sparks Street, Ottawa, Ontario
- 1.3 PWGSC Project Number: R.086270.001
- 1.4 Client/ User: Public Works and Government Services Canada (PWGSC)
- 1.5 PWGSC Project Team:

Position	Name	Phone Number
Project Manager	TBD	TBD
Team Leader	TBD	TBD
Project and Facility Manager	TBD	TBD
COE Design Manager	TBD	TBD

PD 2- PROJECT IDENTIFICATION

Intent: The goal of this project is to fix the leaking roof of the Valour Building, which currently has temporary fixes.

2.1 Project Description

The project scope includes replacement of all Valour roofs at all levels – this includes the main roof, the penthouse above the main roof, and also the three small lower roofs over the mechanical installations (3rd Floor). The purpose of this project is to restore a watertight covering for the

building that will last for a full life cycle of at least 20-25 years (with expected routine maintenance). Also included in the project scope is:

- Inspection and repair necessary to any portion of the roof assembly and its structural components
- Inspection and repair of any rooftop installations, as well as repairs or replacement necessary for their mounting brackets or attachment hardware to the building
- Repair or replacement of drains assemblies, flashings, sealants and caulking
- Upgrade of roofing insulation to current standards where feasible to ensure improved effectiveness against building heat loss
- Scope Work plan Details:
 - Preparation of drawings and specifications for complete roof replacement and repairs by a qualified architect licensed in the Province of Ontario;
 - Engineering services required for the evaluation of structural (fall protection system), mechanical and electrical equipment (boxes, gooseneck vents) to assess whether the equipment is obsolete and needs to be removed or replaced with new equipment;
 - Public tender; awarding of the contract to a Construction Manager¹ (CM); job start;
 - Blocking off a section of the north parking lot to accommodate a crane, required for material removal and material delivery; three to four times during demolition / construction;
 - Temporary removal of equipment on the roof such as access platforms;
 - Removal of existing membranes on levels 3, 4, 14 (concrete slabs) and penthouse steel deck;
 - Engineering services required for the evaluation of structural concrete slabs: provide site visit, written report and structural rehabilitation drawings (if required);
 - Removal and replacement of all obsolete equipment;
 - Installation of new roof system;
 - Installation of new ladders, guard rails and roof hatch;
 - Reinstallation of existing access platforms and other equipment, and installation of new equipment: ladders and guard rails;
 - Dismantling of the access equipment and site clean-up.

2.1 Cost

The consultant's fee will then be negotiated based on the agreed-upon scope of work and the consultant's submitted rate schedule.

The class D, construction budget is estimated at \$1,062,632 excludes GST, Professional Fees, Risk, Contingencies and Escalation.

¹ Oversee the planning, design, and construction of the project.

2.2 Schedule

Required Service	Duration & Due Date
Contract Award	8 weeks
Design Concept	3 weeks
Design Development	3 weeks and 1 week for review
Construction Documents	4 weeks and 1 week for review for each of the 66% and 99% submissions
Tender Call, Bid Evaluation, and Construction Contract Award	6 weeks
Construction and Contract Administration	22 weeks
Commissioning and Post-Construction Warranty Review	2 weeks

The project is expected to take 50 weeks from contract award to end contract in order to complete. All tasks are sequential.

PD 3 PROJECT BACKGROUND

Roof Design

According to the 2013 Building Condition Report (BCR) the main, penthouse and lower Valour roofs are comprised of an inverted roof membrane assembly (IRMA) that was installed “around 1992” as seen in Figure 1.



Figure 1: Inverted roof membrane assembly

The northeast low roof is the exception to the majority of roofing; it is comprised of an IRMA but in lieu of pavers or concrete-topped insulation the roof has crushed stone ballast loose-laid over top of insulation and filter fabric. It was installed around 2000.

Project History

The roofing was installed around 1992, according to Management. The roof surfaces do not appear to include a designed slope to the centrally located mechanical roof drains... Pending the results of the Level 3 investigation, replacement of the main, penthouse and lower roofs (excluding the northeast) is anticipated in 2018.

Valour Building

The Valour Building is located at 151 Sparks Street, Ottawa, constructed in 1971, with expropriation by Public Works Canada in 1973. Since expropriation, it has been occupied by the Senate of Canada, House of Commons, Parliamentary Precinct Services and Library of Parliament employees. La Promenade (renamed Valour in 2014) was vacated in 2007-2008 so that it could be completely renovated for use by Members of Parliament. In 2010, following a complete renovation, 62 Members of Parliament were moved into the building.

It is prominently located on Sparks Street south of Parliament Hill, and is within walking distance of main tourist destinations (such as the Parliament Buildings, the National Arts Centre, the Congress Centre, Supreme Court of Canada, Mint Museum, Confederation Square, the By Ward Market, and the Rideau Canal).

The building consists of ten storeys of offices (Floors 3 through 12) accessed through a main entrance on Sparks Street. The fourth floor also includes a cafeteria. The second floor includes meeting rooms as well as service functions, and is accessed through the main entrance. The main entrance and retail shops are accessed directly from along Sparks Street. The building has two levels of below-grade parking (48 spaces) which is accessed through an entrance on O'Connor Street. The Valour Building has not been evaluated for heritage classification.

National Investment Strategy (NIS)

The National Investment Strategy (NIS) provides principles and strategic direction for PWGSC's investment undertakings. The key investment principle of NIS requires PWGSC, as a prudent steward and investor, to protect the integrity, value and usefulness of real property assets, and, as a responsive service provider, to provide and manage safe, healthy and productive facilities, consistent with government standards and comparable to commercial norms. The objectives of this project are consistent with the NIS.

Block 1, 2 and 3 Master Plan

A Demonstration Plan has been developed by PWGSC-PPB for Blocks 1, 2 and 3 that concerns future use and development of PWGSC assets. As projects concerning PWGSC buildings are initiated or developed, all options and recommendations should be aware of this plan and ensure conformity and compliance with its stated objectives. The mandate was to develop high level urban design and implementation strategies for the recapitalization of the three blocks.

The Demonstration Plan preserves the history of the Blocks through a strategy that indicates "Classified" heritage buildings are to be retained and that "Recognized" heritage assets are to be rehabilitated and maintained.

Geographic Context

Located one block south of Wellington Street (the home of the Parliament of Canada), Sparks Street is one of Ottawa's more historic streets with a number of heritage buildings. It is comprised of buildings that are a mix of late 19th century low-rise structures, early 20th century multi-story office buildings, institutional banking facilities, and newer office complexes. Private retailers and financial institutions typically occupy grade level space, and both private and public offices generally occupy the upper floors.

The mall and most of the buildings on the south side are owned and operated by the National Capital Commission. Buildings on the north side of the mall were expropriated by the Government of Canada in 1973 and are currently operated by Public Works and Government Services Canada. Today, the pedestrian mall is open year-round and is divided into three Blocks:

Block 1: Elgin to Metcalfe

- Includes: the Langevin, Postal Station B, Hope, House of Norcano, Nelms, Saxe, O'Brien and Blackburn Buildings and accommodates mainly Privy Council Office (PCO), Prime Minister's Office (PMO), and various non-government agencies.

Block 2: Metcalfe to O'Connor

- Includes: Valour, Victoria, Union Bank, Former US Embassy, Canada 4 Corners/Marshall, Birks, Fisher, Bates, Bank of Commerce, and Former Bank of Nova Scotia and accommodates various Clients: the Senate, House of Commons (HoC), Library of Parliament (LoP), PCO and PWGSC.

Block 3: O'Connor to Bank

- Includes: Wellington, National Press, Sir John A. MacDonald, Dover, Brouse, Slater and Booth Building, and accommodates HoC, as well as various third party news and media organizations.

All three Blocks house commercial and retail tenants at street level. Numerous assets are aging and require various repairs and capital projects to address short and long term plans.

PD 4 EXISTING DOCUMENTATION

Existing building documents including drawings of each of these buildings can be made available via CD-ROM upon request for coordination purposes only. See Appendix H for Feasibility Report. Feasibility Report appendices available via CD-ROM upon request for coordination purposes only.

PD 5 PROGRAMMING

Current roof of the Valour Building is leaking into the client space. Temporary measures have been taken to mitigate the damage due to a leaking roof, however a new roof is required and the most feasible option. The roof is expected to be designed as a long term solution to the existing leaking problem, therefore temporary measures to mitigate damage will not be accepted as a suitable design option.

PD 6 PROJECT OBJECTIVES

6.1 Quality

To ensure that the quality of materials and construction techniques are commensurate with the quality of building and adhere to current industry standards and codes as per Section 6.3. Sustainable design concepts and total life cycling of the building shall be incorporated in balance with conservation principles and practices.

6.1.1 Design Principles - General

The Department expects the Consultant to maintain a high standard of architectural design, based upon industry design principles. All design elements, planning, architectural, engineering and landscaping, must be fully co-ordinated, and consistent in adherence to good design principles.

The level of quality is to be consistent with other Government of Canada Buildings. The project is to be implemented in an environmentally responsible manner as per Sustainable Buildings Policy 100. See Appendix I for Policy.

Quality of materials and construction methods shall be commensurate with the type of building and the budget. Take into account the total life-cycling of the building.

Operating costs must be kept to a minimum and reflect the projected operating costs in the cost plan. This is to be achieved by compliance with the Energy Budget, selection of equipment, requiring the minimum of operating personnel, and building finishes for easy maintenance, etc.

The character, massing, scale, materials of this project will be compatible with its surrounding context.

Design for maximum flexibility in immediate and future use of space. Where possible, devise a building grid with column spacing, fenestration and service runs suited to flexible interior space arrangements.

6.1.2 Design Principles - Specific

The Valour Building, currently is not a designated Heritage Building, however it is currently under review by FHBRO/HCD.

Secret Clearance needed in order to access the site.

6.2 Sustainable Development

The Canadian Federal Government has begun a series of initiatives to ensure that sustainable development principles are built into the policy of all federal organizations. Public Works and Government Services Canada (PWGSC) like all federal departments requires a Sustainable Development Strategy (SDS). Real Property Services Branch of PWGSC has developed their Strategy Plan that sets out principles, goals and actions for integrating sustainable development principles into its policies and operations. PPB has established the following sustainable development goals under the issues of management, leadership and operation.

While the overall roofing methodology is slightly lower in cost than the other two feasible options (Option 4 and Option 5), the largest advantage is the recovering possibility (additional membrane) in Option 3 that extends the life of the roof by an additional twenty

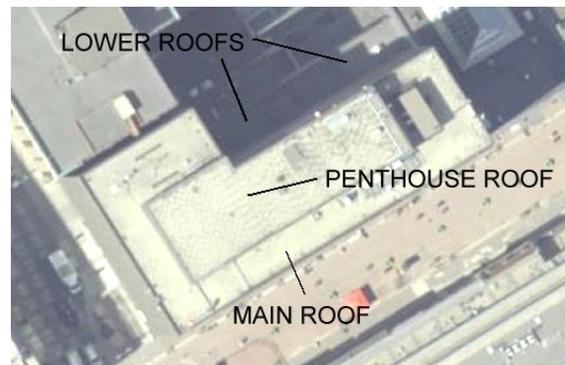
years.

6.3 Code Compliance

Codes, regulations, by laws and decisions of “authorities having jurisdiction” will be observed. In cases of overlap, the most stringent will apply. The Consultant shall identify other jurisdictions appropriate to the project.

In addition to good engineering practices, this investigation takes into consideration applicable mandatory requirements prescribed by the following codes, standards and regulations:

- CAN/CSA S413-14 Standard;
- National Building Code; and
- All other applicable codes.



6.4 Risk Management

A risk management strategy is crucial for PWGSC Project Management and integrates project planning into procurement planning. All the stakeholders of a project will be an integral part of the risk management strategy, culminating in an integrated product team. Specific services required for project delivery are outlined in Required Services.

6.5 Health and Safety

Public Works and Government Services Canada (PWGSC), recognizes the responsibility to ensure the health and safety of 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.

To mitigate health and safety risks associated with water infiltration into the parking structure, including structural integrity concerns and issues surrounding the potential for mould development.

PD 7 ISSUES

7.1 Major Cost Issues: No major cost issues identified

Effective cost estimating and cost control is of prime importance and shall be provided by professional quantity surveyors. The Class C and Class B cost estimates shall be submitted in elemental cost analysis format. The standard of acceptance for this format is the current issue of the elemental cost analysis format issued by the Canadian Institute of Quantity Surveyors.

The Class A cost estimate shall be submitted in trade cost breakdown format. Cost estimates shall have a summary plus full back-up showing items of work, quantities,

unit prices and amounts.

7.2 Major Time Issues: No major time issues identified

The leaks that were mentioned previously have temporary solutions that are acceptable until the new roof is complete.

7.3 Other

An opportunity was identified in the 2013 BCR to investigate the condition of the Valour Roof system at its end-of-service life and to potentially safeguard the building from damage through avoidable water infiltration and to ensure occupant safety from the development of resultant harmful mould.

“Since installation around 1992, there have been few problems. Replacement is scheduled in 2017 at the end of its expected service life... Components should be replaced at the end of their service life. This will involve removal of concrete topped insulation boards and membrane down to the roof deck and installation of a similar roof system.”

2013 BCR

The 2016 BCR echoed this concern and again identified 2017 as the appropriate year for roof replacement. This is likely based upon a 25 year life cycle expectation, and while this is an accurate though slightly optimistic expectation of roof longevity, the Valour Roof has begun to fail in recent years with water infiltration that indicates replacement is slightly past due.

Further to this, a Feasibility Report was approved on January 6, 2017 to determine:

- A detailed statement regarding the current condition of the roof and its components;
- A minimum of three options/solutions with service life expectations and data relevant to a Life Cycle Costing Analysis;
- A cost estimate and timeline for the design and implementation of each option;
- Client impact statements and implementation solutions;

The recommendation of a specific option that satisfies all project requirements.

PD 8 CONSULTANT SERVICES

The consultant team for this project must be capable of providing the following services:

Architecture
Structural Engineering
Mechanical Engineering
Electrical Engineering

DESCRIPTION OF SERVICES

PA 1 PROJECT

ADMINISTRATION INTENT

The following administrative requirements apply during all phases of project delivery.

1.1 PWGSC Project Management

The Project Manager assigned to the project is the Departmental Representative.

The Project Manager is the Departmental officer directly concerned with the project and responsible for its progress. The Project Manager is the liaison between the Consultant, Public Works and Government Services Canada and the Client Departments.

Public Works and Government Services Canada administers the project and exercises continuing control over the Consultant's work during all phases of development. Unless directed otherwise by the Project Manager, the Consultant obtains all Federal requirements and approvals necessary for the work.

1.2 General Project Deliverables

Where deliverables and submissions include summaries, reports, drawings, plans or schedules, [six (6)] hard copies shall be provided plus one (1) copy shall be provided in electronic format unless otherwise specified.

1.3 Lines of Communication

Unless otherwise arranged with Project Manager, the Consultant shall communicate with the Project Manager only. There shall be no direct official contact between client departments and the Consultant.

During construction tender call, Public Works and Government Services Canada conducts all correspondence with bidders and makes the contract award.

1.4 Media

The Consultant shall not respond to requests for project related information or questions from the media. Such inquiries are to be directed to the Project Manager.

1.5 Meetings

The Project Manager shall arrange meetings bi-weekly throughout the entire project development period, for all members of project team, including representatives from:

- Client Department(s)
- Public Works and Government Services Canada
- Consultants

The Consultant shall attend the meetings, record the issues and decisions and prepare and distribute minutes 1 week of the meeting.

1.6 Project Response Time

It is a requirement of this project that the key personnel of the successful proponent and sub

consultant or specialist firms be personally available to attend meeting or respond to inquiries within [1] business day.

Chart of Reviews and Approvals	PWGSC		The Consultant		CM	
	R	A	R	A	R	A
RS1 Analysis of Project Brief						
Project Scope of Services Report		x				
Class 'D' Estimate	x					
RS2 Design Concept						
Design Options		x				
Recommended Design Option		x				
Class 'C' Estimate(s)	x					
RS3 Design Development						
Design Development Documents		x				
Class 'B' Estimate(s)	x					
66% Construction Drawings and Specs		x			x	
99% Construction Drawings and Specs		x			x	
Class 'A' Estimate(s)	x				x	
Final Tender Documents		x			x	

R = Review A = Approval

PA 1.8 OFFICIAL LANGUAGES

This project requires services in both official languages. Refer to the Supplementary Condition section of this Request for Proposal document entitled "SC2 Language Requirements".

RS 1 PRE-DESIGN SERVICES

RS 1 has been completed. See Appendix A for Feasibility Report.

RS 2 DESIGN CONCEPT

2.1 INTENT

To translate the project requirements into space perimeters. To explore design options and analyze them against priorities and program objectives previously identified. Out of this process, one option will be recommended to proceed to Design Development

2.2 GENERAL

Scope and Activities:

- Present two alternative design options which are viable and have potential for development
- Analyze each solution with regard to the project goals including cost and schedule
- Recommend one option for further development with all supporting background

and technical justifications

2.3 DELIVERABLES

Provide the following:

- Design Concept Drawings
- Description of the options with recommendation of preferred solution
- Class 'C' Estimate
- Report on deviation from schedule and recommend corrective measures or updated time line.

2.4 DETAILS

2.4.1 Architectural Drawings:

- Site plan showing proposed building outlines, orientation, main accesses and traffic patterns.
- Schematic building plans of alternatives showing relative disposition of main accommodation areas, circulation patterns, numbers of floors, etc.
- Sketch elevations and sections indicating the basic design approach and aesthetic philosophy.
- Sketch perspectives or massing studies.
- Outside gross building areas and summary of main accommodation areas required and proposed
- Horizontal and Vertical space relationships

2.4.2 Structural Drawings:

- Proposed or alternative structural systems including foundation methods, explanatory sketches, etc. and a copy of the site report on which the design is based.

2.4.3 Mechanical:

- The concept submission shall include a description of specific mechanical requirements and function for each area (room) in the building. Incorporate in the submission a schedule of requirements listing all rooms and identify the mechanical building services to be provided.
- Explain in the concept submission the manner in which the proposed mechanical systems correlate with user requirements.
- Identify the volume of outdoor air to be supplied per person.
- Identify the delivery rate of supply air to occupied spaces.
- Identify whether full time operating staff will be needed for operating any of the mechanical equipment. Differentiate between staff that is needed by code requirements versus that staff which is needed because of the nature and size of the facility.
- Identify location of entry point into the building of all mechanical services into the building.
- Identify in square metres the area to be provided for mechanical rooms, and then identify what percentage of total building area this represents. Identify location of mechanical spaces in the building.
- Analysis of alternative mechanical schemes at the conceptual design stage shall reveal energy consumption of building systems, operating and maintenance costs on a month by month basis for a time span of one year. Accordingly the estimated energy, operating

and maintenance costs shall be used in life cycle cost analyses in order to determine the most beneficial mechanical systems alternative. Life cycle cost analyses shall be based on a projected building life of 25 years.

- Carry out energy analysis on system alternatives.
- Establish an energy budget for the building and compare it to energy consumption of other similar buildings. Total energy consumed in the building shall be expressed in kWh/sq m.
- Submit a complete energy analysis as described in this section in the paragraphs under the heading Building Loads and Energy Analysis.
- Identify the type of boilers to be used (i.e. cast iron sectional, fire tube, etc.) and provide an economic and technical explanation of the reason for the type of boiler to be used.
- List of non-Canadian products and materials proposed for the project with written justification

2.4.4 Electrical:

- Proposed basic electrical systems of significance to the early design.
- Site plan showing location of service entrances.
- Distribution diagram showing single line diagrams to distribution centres.
- Floor plans complete with locations of major electrical equipment and distribution centres.
- Lighting layouts.
- Power outlets.
- Ceiling distribution systems for lighting, power and telecommunications.
- List of standard PWGSC details to be utilized.
- Telephone rooms, conduits and telecommunication cable systems requirements and layout.
- Provide an electrical design synopsis, describing the electrical work in sufficient detail for assessment and approval by the Department. Include feasibility and economic studies of proposed systems complete with cost figures and loads.
- List of non-Canadian products and materials proposed for the project with written justification.

2.4.5 Commissioning:

- Define Commissioning Requirements.
- Identify in square meters the area to be provided to maintenance personnel, including storage and workshops for mechanical, electrical and housekeeping.
- Define project archives.

2.4.6 Sustainable Development:

- Design and evaluate Design Options exploring positive environment strategies.
- Environmental Assessment and the Canadian Environmental Assessment Act Screening Report (to include comment on all the design options)

RS 3 DESIGN DEVELOPMENT

3.1 INTENT

To further develop one of the options presented at the Design Concept stage. The Design Development documents consist of drawings and other documents to describe the size and character of the entire project as to architectural, structural, mechanical and electrical systems, materials and such other elements as may be appropriate.

3.2 GENERAL

Scope and Activities:

- Obtain written approval from Project Manager for development of one of the proposed Design Concept options
- If any alterations are demanded, document all required changes, analyze the impact on all project components, and resubmit for approval if required
- Expand and clarify the Concept Design intent for each design discipline
- Present the design materials to the client, design review or other committees as indicated by the Project Manager
- Present the design to the government or local authorities where required
- Analyze the constructability of the project and advise on the construction process and duration
- Based on all material available at the time, prepare a milestone schedule for the consideration with special attention to the impact on tenants
- Continue to review all applicable statutes, regulations, codes and by-laws in relation to the design of the project
- Provide a list and draft specification sections of all National Master Specifications (NMS) sections to be used. Submit outline specifications for all systems and principle components and equipment. Provide in the outline specifications manufacturers' literature about principal equipment and system components proposed for use in this project.

3.3 DETAILS

Scope and Activities:

3.3.1 Architectural Drawings:

- Site Plan showing the building(s) and existing or proposed environmental items including the following:
 - Traffic pattern:
 1. Pedestrian
 2. Private Vehicles
 3. Public Transportation
 4. Service Roads.
 - Parking:
 1. Employees
 2. Visitors
 3. Service vehicle parking and loading areas.
 - Grading:
 1. Existing and proposed grade elevations.
 - Landscaping:
 1. Main planting and grassed areas. Where possible show the location of underground services in relation to proposed planting. Indicate any significant use of planting such as windbreaks, screens, erosion control, etc.
 - Cross Sections:

1. Cross sections through the site to show the relation- ship of buildings to proposed ground elevations and planting, to illustrate the three-dimensional aspects of the site. Include simple perspective sketches of main features if necessary.
- Floor Plans of each floor showing all accommodation required, including all necessary circulation areas, stairs, elevators, etc., and ancillary spaces anticipated for service use. Define areas relating to fall-out shelter space. Indicate building grids, modules, etc., and key dimensions.
 - Furniture and Equipment plans.
 - Elevations of all exterior building facades showing all doors and windows accurately sized and projected from the floor plans and sections. Indicate clear floor and ceiling levels and any concealed roof levels.
 - Cross Sections through the building(s) to show floor levels, room heights, inner corridor or court elevations, etc.
 - Detail Sections of walls or special design features requiring illustration and explanation of this stage, including fireproofing methods.

3.3.2 Structural Drawings:

- Drawings indicating the proposed structural framing system, type of foundation, structural materials, cladding details and other significant or unusual details proposed.
- Drawings may be separate or incorporated on the Architectural sheets. Include a copy of the site report on which the design is based.

3.3.3 Mechanical:

- Drawings showing preliminary sizing of ventilation, cooling and heating systems showing locations, and all major equipment layouts in mechanical rooms.
- Drawings showing the removal and reinstallation of mechanical units.

3.3.4 Electrical drawings:

- Provide drawings showing advanced development of the following:
 - Single line diagram of the power circuits with their metering and protection, including:
 1. Complete rating of equipment.
 2. Description of relays when used.
 3. Maximum short circuit levels on which design is based.
 4. Identification and size of services.
 5. Connected load and estimated maximum demand on each load centre.
 - Electrical plans with:
 - 8.1 Floor elevations and room identification.
 - 8.2 Legend of all symbols used.
 - 8.3 Circuit numbers at outlets and control switching identified.
 - 8.4 All conduit and wire sizes except for minimum sizes which should be given in the specification.
 - 8.5 A panel schedule with loadings for each panel.
 - 8.6 Telephone conduits system layout for ceiling/floor distribution.
 - Riser diagrams for lighting, power, telephone and telecommunication cable systems, fire alarm and other systems.
 - Elementary control diagrams for each system.

- Schedule for motor and controls.
- Complete lighting layout and fixture schedule clearly indicating methods of circuiting, switching and fixture mounting.
- Electric heating layout and schedule.
- Provide the following data:
 - Total connected load.
 - Maximum demand and diversity factors.
 - Sizing of standby load.
 - Short-circuit requirements and calculations showing the ratings of equipment used.

3.3.5 Commissioning

- Define operational requirements.
- Define Commissioning Requirements.
- Prepare a commissioning Brief describing major commissioning activities for mechanical, electrical and integrated system testing.
- Define and establish project specific archives

3.4 DELIVERABLES:

- Floor plans including all disciplines showing all floor elements and services to detail necessary to make all design decisions and to substantially estimate the cost of the project

Two (2) or three (3) building sections

- Demolition Plans
- Architectural, structural, engineering, millwork and finishing details to determine choice of materials and finishes
- Reflected ceiling plans
- Elevations
- Site and building models as required
- Finished and colour schemes
- Outline specifications for all systems and principle components or equipment
- Class 'B' cost estimate
- Preliminary construction schedule including long term delivery items
- Fire Protection Engineers Report including requirements, strategies or interventions for protection of the building and its occupants
- Project dossier detailing the basic assumptions of the project and the justifications for all major decisions
- Commissioning Plan

RS 4 CONSTRUCTION DOCUMENTS

4.1 INTENT

To prepare drawings and specifications in both official languages (English and French) setting forth in detail the requirements for the construction and final cost estimate of the project.

- 66% indicates substantial technical development of the project - well advanced architectural and engineering plans, details, schedules and specifications.

- 99% is the submission of complete Construction Documents ready for tender call and submission to local authorities for pre-permit purposes.
- Develop project specific Systems Operations Manual (SOM)
- Final Submission incorporates all revisions required in the 99% version and is intended to provide PWGSC with complete construction documents for tender call.

4.2 GENERAL

Activities are similar at all three stages; completeness of the project development should reflect the stage of a submission.

Scope and Activities:

- Obtain Project Manager's approval for Design Development submissions (66%, 99% and final)
- Confirm format of drawings and specifications
- Clarify special procedures (i.e. phased construction)
- Submit drawings and specifications at the required stages. (66% and 99%)
- Provide written response to all review comments and incorporate them into Construction Documents where required.
- Advise as to the progress of cost estimates and submit updated cost estimates as the project develops
- Update the project schedule
- Prepare a final Class 'A' estimate review and approve materials and construction processes specifications to meet sustainable development objectives.

4.3 DETAILS

Scope and Activities:

4.3.1 Technical and Production Meetings

- Production of construction documents will be reviewed during the meetings arranged by Project Manager and Consultant.
- Representatives from Client Department(s) and PWGSC support staff will be present as arranged by the Project Manager.
- Consultant shall ensure that their staff and the sub-consultant representatives attend the technical and production meetings as required.
- Consultant shall arrange for all necessary data, progress prints, etc.
- Consultant shall prepare minutes of the meetings and distribute copies to all participants.

4.3.2 Progress Review

- As work progresses on construction drawings, submit drawings, schedules, details, pertinent design data and updated Cost Plan and Project Schedule as required.
 - Mechanical:
 1. Flow diagrams, system layouts, equipment selections and sizes, floor plan layouts showing major equipment.
 2. All major ductwork sized and shown on drawings including layout of

- all major mechanical and transformer rooms.
- 3. Commissioning Plan in accordance with CP.3
- 4. Update the building load calculation, energy analysis and energy budget.
- Calculations submitted shall not necessarily be reviewed. They are required for record purposes and in certain instances to assist in the understanding and interpretation of designs. Calculations shall be submitted in a format that is legible, neat and easily understandable.
- Specifications and an index of specifications. The specifications shall consist of typed and edited PWGSC amended NMS sections, PWGSC in-house master specs sections and NMS sections.

4.4 DELIVERABLES

Deliverables are similar at all three stages; completeness of the project development should reflect the stage of a submission.

4.4.1 99% Submission:

- Complete specification and working drawings.
- 99% Commissioning plan and Systems Operations manual
- One copy of the complete colour schedules, including textures, sheens, super-graphics, colour chips and material samples.
- One copy of site information, soil investigating report, and borehole logs, etc.
- One copy of support data, studies, calculations, etc., required by PWGSC Engineering disciplines for final checking and record.
- One copy of updated Cost Plan and Project Schedule

4.4.2 Final Submission:

- This submission incorporates all revisions required by the review of the 99% submission. Provide the following:
 - Complete set of originals of the working drawings.
 - Complete sets of original specifications.
 - Class 'A' estimate
 - Complete Commissioning Plan
 - Complete Systems Operations manual
 - Complete set of original Colour Schedule.
 - One set of soil investigating report with amendments if any.
 - One set of designated substance survey report.
- As a safeguard against loss or damage to the originals, retain a complete set of drawings in reproducible form and one copy of specification.

Inspection Authorities Submission

- Submit and obtain approval on plans and specifications required by Inspection Authorities before tender call.

RS 5 TENDER CALL, BID EVALUATION & CONSTRUCTION CONTRACT AWARD

5.1 INTENT

To obtain and evaluate bids from qualified CMs to construct the project as per the Tender Documents. To award the construction contract according to government regulations, including Federal Rules for Bid Depositories.

5.2 GENERAL Scope and Activities:

- Attend proponent briefing meeting(s)
- Prepare addenda based on questions arising in such meetings for issue by the Project Manager
- Provide the Project Manager with all information required by proponents to fully interpret the Construction Documents. The Project Manager will issue the addenda to all participants.
- Keep full notes of all inquiries during the bidding period and submit same to Project Manager at the end, for PWGSC records.
- Assist in tender evaluation by providing advice on the following:
 1. The completeness of tender documents in all respects.
 2. The technical aspects of the tenders.
 3. The effect of alternatives and qualifications which may have been included in the tender.
 4. The Proponent capability to undertake the full scope of work.
 5. The availability of adequate equipment to carry out the work.
- If PWGSC decides to re-tender the project, provide advice and assistance to the Project Manager
- Revise and amend, at no additional cost, the construction documents to bring the cost of the work within the limits stipulated
- Examine and report on any cost and schedule impact created by the issue of tender / contract addenda

5.3 DELIVERABLES

- Originals of drawings and specifications
- Electronic copies of drawings and specifications.
- Addenda where needed
- Changes to the documents, if re-tendering is necessary
- Updated cost estimate or schedule

RS 6 CONSTRUCTION AND CONTRACT ADMINISTRATION

6.1 INTENT

To implement the project in compliance with the contract documents and to direct and monitor all necessary or requested changes to the scope of work during construction.

6.2 GENERAL

Scope and Activities:

- During the implementation of the project, act on PWGSC's behalf to the extent provided in this document

- Carry out the review of the work at intervals appropriate to determine if the work is in conformity with the contract documents
- Keep PWGSC informed of the progress and quality of the work and report any defects or deficiencies in the work observed during the course of the site review
- Ensure compliance with Commissioning Plan, update plan as necessary
- Determine the amounts owing to the CM based on the progress of the work and certify payments to the CM
- Act as interpreter of the requirements of the contract documents
- Provide cost advice during construction
- Advise the Project Manager of all potential changes to scope for the duration of the implementation
- Review the CM's submittals
- Prepare and justify change orders for issue by the Department Representative
- Indicate any changes or material/equipment substitutions on Record Documents
- During the twelve (12) month warranty period investigate all defects and alleged defects and issue to the instructions CM
- Prepare and post Systems Operating Instructions
- Finalize Systems Operations Manual
- Conduct a final warranty review

6.3 DETAILS

Scope and Activities:

6.3.1 Construction Meetings

- Immediately after contract award arrange a briefing meeting with the CM and the Departmental Representatives. Prepare minutes of the meeting and distribute copies to all participants and to other persons agreed upon with the Project Manager.
- Call job meetings as frequently as required, commencing with the construction briefing meeting. The meetings should include the job superintendent, Inspector of Construction main sub-sub CMs, affected sub-consultants and Government Services representatives as necessary. Prepare minutes of the meeting and distribute copies to all participants. The Project Manager may invite client Departments to attend any of these meetings.

6.3.2 Project Schedule

- Obtain Project Schedule with detailed commissioning component shown separately, as soon as possible after contract award and ensure proper distribution.
- Monitor the approved construction schedule, take necessary steps to ensure that the schedule is maintained and submit a detailed report to the Department concerning any delays.
- Keep accurate records of causes of delays.
- Make every effort to assist the CM to avoid delays.

6.3.3 Time Extensions

- Only the Department may approve any request for Time Extensions. Approval will be issued in writing by the Project Manager.

6.3.4 Cost Breakdown

- Obtain from the CM detail cost breakdown on standard PWGSC form and submit to the Department with the first Progress Claim.

6.3.5 Sub-CM Changes

- The CM is required to use the sub-CMs listed on the tender form unless a change is authorized by the Department. Changes are only considered when they involve no increase in cost. Review all requests for changes of sub-CMs, and submit recommendations to the Project Manager.
- When sub-CMs have not been listed on the Tender Form, obtain the list from CMs not later than 10 working days after date of award.

6.3.6 Labour Requirements

- The CM is bound by the Contract to maintain competent and suitable workmen on the project and to comply with the Canada Department of Labour - Labour Conditions. Inform the Department of any labour situations that appear to require corrective action by the Department.
- The Consultant shall ensure that a copy of the Labour Conditions for the Contract is posted in a conspicuous place on site.

6.3.7 Bylaw Compliance

- Ensure that construction complies with applicable bylaws and regulations.
- Matters pertaining to the Department of Labour shall be referred to the Engineer.

6.3.8 Construction Safety

- All construction projects that are occupied by federal employees during construction are subject to the Canada Occupational Safety and Health Act and Regulations as administered by Health and Welfare Canada.
- Fire safety provisions during construction must comply with FCC Standards 301 and 302, administered by the Fire Commissioner Canada.
- In addition to the above, the CM must comply with the provincial and municipal safety laws and regulations, and with any instructions issued by the officers of these authorities having jurisdiction relating to construction safety.
- Ensure the CM is mandated to provide all required coordination, isolation, protection and reinstatement of the fire protection and suppression systems throughout construction. Notify the Property Manager each time the fire protection and suppression systems are bypassed and advise of estimated reinstatement time. Ensure the CM is mandate to provide Watchman Service as defined in FC 301 and by the Fire Commissioner

6.3.9 Site Visits

- Provide non-resident construction inspection services. Ensure compliance with contract documents.
- Provide services of qualified personnel who are fully knowledgeable with technical and administrative requirements of project.
- Establish a written understanding with the CM as to what stages or aspect of the

work are to be inspected prior to being covered up.

- Assess quality of work and identify in writing to the CM and to the Department all defects and deficiencies observed at time of such inspections.
- Inspect materials and prefabricated assemblies and components at their source or assembly plant, as necessary for the progress of the project.
- Any directions, clarifications or deficiency list shall be issued in writing to PWGSC.

6.3.10 Clarifications

- Provide clarifications on Plans and Specifications or site conditions, as required in order that project not be delayed.

6.3.11 Progress Reports

- Report to the Department regularly on the progress of the work. Submit weekly reports.

6.3.12 Work Measurement

- If work is based on unit prices, measure and record the quantities for verification of monthly progress claims and the Final Certificate of Measurement.
- When Contemplated Change Notice is to be issued based on Unit Prices, keep accurate account of the work. Record dimensions and quantities.

6.3.13 Detail Drawings

- Provide for the Department's information any additional detail drawings as and when required to properly clarify or interpret the contract documents.

6.3.14 Shop Drawings

- On completion of project forward three copies of reviewed shop drawings to the Department. Ensure that shop drawings include the project number and are recorded in sequence.
- Verify the number of copies of shop drawings required. Consider additional copies for Client's departmental review.
- Shop drawings shall be stamped: "Checked and Certified Correct for Construction" by the CM and stamped: "reviewed" by the Consultant before return to the CM.
- Expedite the processing of Shop Drawings.

6.3.15 Inspection and Testing

- Prior to tender, provide Department with recommended list of tests to be undertaken, including on site and factory testing
- Ensure all testing is detailed within commissioning plan
- When contract is awarded, assist Departmental Representative in briefing testing firm on required services, distribution of reports, communication lines, etc.
- Review all test reports and take necessary action with CM when work fails to comply with contract.
- Immediately notify Project Manager when tests fail to meet project requirements and when corrective work will affect schedule.
- Assist Departmental Representative in evaluating testing firm's invoices for services performed.

6.3.16 Training

- Prior to tender, provide Department with recommended list of training to be undertaken
- Ensure all training is detailed within the commissioning plan

6.3.17 Construction Changes

- The Consultant does not have authority to change the work or the price of the Contract.
- Changes which affect cost or design concept must be approved by the Department.
- Upon Departmental approval obtain quotations from the CM in detail. Review prices and forward promptly recommendations to the Department.
- The Department will issue Consultant-prepared Change Orders to the CM, with copy to Consultant.
- All changes, including those not affecting the cost of the project, will be covered by Change Orders.
- The practice of "trade-offs" is not allowed.

6.3.18 CM's Progress Claims

- Each month the CM submits a progress claim for work and materials as required in the CM Contract..
- The claims are made by completing the following forms where applicable:
 - Request for Construction Payment
 - Cost Breakdown for Unit and/or combined Price Contract
 - Cost Breakdown for Fixed Price Contract
 - Statutory Declaration Progress Claim
- Review and sign designated forms and promptly forward claims to the Department for processing.
- Submit with each progress claim:
 - Updated schedule of the progress of the work.
 - Photographs of the progress of the work.

6.3.19 Materials On Site

- The CM may claim for payment of material on site but not incorporated in work.
- Material must be stored in a secure place designated by the Department.
- Detailed list of materials with supplier's invoice showing price of each item must accompany claim; Consultant shall check and verify the list.
- Items shall be listed separately on the Detail Sheet after the break-down list and total.
- As material is incorporated in the work the cost must be added to the appropriate Detail item and removed from the material list.

6.3.20 Acceptance Board

- Inform the Department when satisfied that the project is substantially completed. The Consultant shall ensure that their representative, their sub-consultant representative, Resident On-Site Reviewer, CM and major sub-trades representatives shall form part of the Project Acceptance Board and attend all meetings as organized by the

Department.

6.3.21 Interim Inspection

The Acceptance Board shall inspect the work and list all unacceptable and incomplete work on a designated form. The Board shall accept the project from the CM subject to the deficiencies and uncompleted work listed and priced.

6.3.22 Interim Certificates

- Payment requires completion and signing, by the parties concerned, of the following documents:

- Interim Certificate of Completion
 1. Cost Breakdown for Fixed Price Contract
 2. Cost Breakdown for Unit or Combined Price Contract
 3. Inspection and Acceptance
 4. Statutory Declaration Interim Certificate of Completion
 5. Workmen's Compensation Board Certificate.
- Verify that all items are correctly stated and ensure that completed documents and any supporting documents are furnished to the Department for processing.

6.3.23 Building Occupation

- The Department or Client Department may occupy the building after the date of acceptance of the building by the Acceptance Board. The acceptance date is normally that of the Interim Certificate issued to the CM. As of the acceptance date, the CM may cancel the Contract Insurance, and the Department or Client Department (as the case may be) assumes responsibility for:
 - Security of the work(s).
 - Fuel and utility charges.
 - Proper operation and use of equipment installed in the project.
 - General maintenance and cleaning of the work(s).
 - Maintenance of the site. (Except any landscaping maintenance covered by the contract.)

6.3.24 Operation and Maintenance Data Manual

- Operation and Maintenance Data Manual: [4] sets of each volume produced by CM in accordance with Section [01730][01732] [01007] of project specification and verified for completeness, relevance and format by the Architectural, Mechanical and Electrical Consultants and submitted to PWGSC Project Manager prior to interim acceptance or actual start of operation and instruction period, whichever occurs sooner. The CM shall retain one copy of each volume for his record and use during the instruction period.

6.3.25 Instruction of Operating Personnel

- Make arrangements and ensure that Department's operating personnel is properly instructed on the operation of all services and systems using the final manuals as reference.
- Consultant to provide training sessions, as required, on the subject of design intent and systems operations. Utilize SOM for training sessions.

6.3.26 Keys

- Ensure that all keys and safe combinations are delivered to the Department and/or the Client Department as applicable.

6.3.27 Final Inspection

- Inform the Department when satisfied that all work under the contract has been completed, including the deficiency items. Inspection and Acceptance as a result of the Interim Inspection. The Department reconvenes the Acceptance Board which makes a final inspection of the project. If everything is satisfactory the Board makes final acceptance of the project from the CM.

6.3.28 Final Certificate

- The final payment requires completion and signing, by the parties concerned, of the following documents:
 1. Final Certificate of Completion
 2. Cost Breakdown for Fixed Price Contract
 3. Inspection and Acceptance
 4. Statutory Declaration Final Certificate of Completion
 5. Cost Breakdown for Unit and/or Combined Price Contract
 6. Workmen's Compensation Clearance Certificate
 7. Hydro Certificate
- Verify that all items are correctly stated and ensure that completed documents and any supporting documents are furnished to the Department for processing.

i. Take-over

- The official take-over of the project, or parts of the project, from the CM is established by the PWGSC Project Team which includes the Consultant and the Client Department. The date of Interim Certificate of Completion and the Final Certificate of Completion signifies commencement of the 12 month warranty period for work completed on the date of each certificate in accordance with the General Conditions of the Contract.
- Provide Department with original copy of CM's warranties for all materials and work covered by an extended warranty or guarantee, according to the conditions of the specifications. Verify their completeness and extent of coverage.

ii. As-Built and Record Drawings and Specifications

- Following the take-over, obtain as-built marked-up hard copy from the CM:
 - Show significant deviations in construction from the original Contract drawings, including changes shown on Post-Contract Drawings, changes resulting from

Change Orders or from On Site Instructions.

- Check and verify all as-built records for completeness and accuracy and submit to PWGSC.
- Produce Record Drawings by incorporating As-Built information into project drawings.
- Submit Record Drawings and Specifications in number and format required by the Consultant Agreement within [8] weeks of final acceptance.
- Provide a complete set of final shop drawings.

6.4 DELIVERABLES:

- Written reports from site visits including persons involved
- Written reports on the progress of the work and the cost of the project at the end of each month
- Additional detail drawings when required to clarify, interpret or supplement the Construction Documents
- Post contract drawings
- Interim or Final certificates
- Debrief of Commissioning Activities
- As built records
- Warranty deficiency list
- Report on Final Warranty Review

RS 7 COMMISSIONING THE FACILITY

As a member of the PWGSC team, the Commissioning Manager represents the Owner's and User's interests, and is responsible for overseeing all commissioning activities during the development, implementation and post construction stages of the project.

Throughout this stage, the Consultant and Consultant's representatives on site will work closely with the Commissioning manager, PWGSC and the CM to implement commissioning activities and create useful, well integrated drawings, reports and manuals, in compliance with Contract documents.

7.1 INTENT

- To define the operational and performance requirements of the Owner and User.
- To ensure that responsibility for meeting these requirements and demonstrating compliance is defined in the design and contract documents
- To ensure that appropriate and start-up and checkout procedures are employed for components, subsystems, including meaningful documentation for and certification of Quality Control reports and techniques under the normal or enhanced basic services and contractual procedures.
- To ensure that the final product meets the specified requirements and the criteria set out in the investment analysis report (IAR).
- To document the operations, maintenance and management requirements, and transferring the completed works to qualified facility operators.
- To minimize the life-cycle operating and maintenance costs.

- To verify that the department's functional requirements are correctly interpreted during the design stage, and that the building systems operate consistently at peak efficiencies, under all normal load conditions, and within the specified energy budget.

7.2 GENERAL

Scope and Activities:

- Provide complete documentation on the operations and maintenance requirements
- Prepare SOM Manuals and Preventative Maintenance Support System (PMSS)/MMS documentation.
- Co-ordinate staffing, service contracts, and arranging spare parts and special equipment
- Contents of Operations and Maintenance (O&M) Manual shall be in accordance with CP.4 O&M Manuals.
- Carry out various checks and tests to determine if the new facilities function in accordance with the contract documents
- Identify CM and subCM commissioning, PV and testing responsibilities.
- Plan the performance verification (PV) activities, develop the installation checklists and PV report forms, and prepare a detailed verification schedule. PV tests will be performed by the CM. Maintain detailed development reports and review with the CM for special systems such as EMCS.
- PV inspection forms will be completed for all components, sub-systems, and systems, and a final performance verification report will be submitted to the Commissioning Manager.
- Prepare a training plan for the O&M staff to be trained on the operations of the new facilities. The training plan will recognize both short-term and long term requirements and shall employ both hard copy and audio visual techniques.

7.3 DETAILS

Scope and Activities:

7.3.1 Analysis of Project Requirements and Design Development

O&M (General)

- Submit an O&M report showing how the design will meet O&M requirements including the following subjects:
 1. Spatial requirements for O&M staff (office, lockers, kitchen, showers, washrooms, flow of people and supplies, storage for special tools, spare parts, and maintenance materials.
 2. Cleaning (Janitor closets, receptacle for vacuum, equipment supply and storage).
 3. Capacity of the facility to change in response to program changes over its life expectancy.
 4. Spare equipment, extra material and redundancies needed to operate and maintain this facility over its life expectancy.
 5. System selection based on life cycle cost analysis considering energy,

- maintenance and operational cost.
6. Occupancy during construction.
 7. "Phased" construction program.
 8. Assist the Commissioning Manager in preparation of a preliminary O&M budget. The O&M budget will contain detailed breakdown of various items with the assessment of the systems selection.
 9. Assessment of:
 - i. Staffing & skill requirements to operate and maintain the facility.
 - ii. The need for service contracts, i.e. Elevators, water treatment, controls emergency generators, fire alarm, security, etc.
 10. Input into the Building Management Plan information regarding operational management requirements. The report is submitted at the end of stage 1 and is updated at the end of stages 2 respectively. Respond to all PWGSC comments in writing before proceeding to the next stage.

RS 8 RISKS MANAGEMENT

8.1 INTENT

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

8.2 GENERAL

Risk Management Process

The Consultant shall:

- Identify risk events based on past experience and using proposed checklist or other available lists;
- Qualify/quantify probability of risk event (Low, Medium, High) and their impact (Low, Medium, and High);
- Prioritize risk events (i.e. concentrate efforts on risk events with High probability and Medium to High impact);
- Develop risk response (i.e. evaluate alternatives for mitigation. This is the real added value of risk management); and
- Implement risk mitigation.

8.3 DELIVERABLES

The Consultant shall:

- Prepare Risk Management Reports at Design Development, 66% Design Documents, and 100% Design Documents stages.
- Include input from all sub-consultants, specialty consultants, and the Client.
- Take steps to implement risk mitigation as required. This may include (but is not limited to) further recommendations, analysis, investigations, site meetings, site supervision, etc.

SUBMISSION REQUIREMENTS AND EVALUATION

- SRE 1 General Information
- SRE 2 Proposal Requirements
- SRE 3 Phase One Submission Requirements and Evaluation
- SRE 4 Phase Two Submission Requirements and Evaluation
- SRE 5 Price of Services

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:

Phase One Rating x 40%	=	Phase One Score (Points)
Phase Two Technical Rating x 60%	=	Technical Score (Points)
Total Score	=	Max. 100 Points

SRE 2 PROPOSAL REQUIREMENTS**2.1 Requirement for Proposal Format (for phases one and two)**

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

- Phase One - Submit one (1) bound original plus five (5) bound copies of the proposal
- Phase Two - 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 spreadsheets, organization charts etc. will be counted as two pages.
- The order of the proposals should follow the order established in the Request for Proposal SRE section

2.2 Phase One Specific Requirements for Proposal Format

The maximum number of pages (including text and graphics) to be submitted for the Rated Requirements under SRE 3.2 is twenty-five (25) 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)

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.

2.3 Phase Two Specific Requirements for Proposal Format

The maximum number of pages (including text and graphics) to be submitted for the Rated Requirements under SRE 4.2 is thirty (30) pages.

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

- Covering letter
- Consultant Team Verification
- Front page of the RFP
- Front page of revision(s) to the RFP
- Price Proposal Form (Appendix C)

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 PHASE ONE SUBMISSION REQUIREMENTS AND EVALUATION

Intent: The intent of Phase One evaluation activities is to verify that the submissions meet the mandatory screening requirements and to evaluate and rate the proposed teams.

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 an architect(s) licensed in the province of Ontario, 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 at Phase One must include the following:

Proponent (prime consultant)

- Architect

Key Sub-consultants / Specialists

- Structural Engineer
- Mechanical Engineer
- Electrical 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, G19 Limitation of Submissions).

Proponents will be required to carry over the consultant team identified in Phase One to Phase Two.

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:

- 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 (G11), Integrity Provisions – Proposal, section 3a.

3.1.5 Security Requirement

- 1) Proponents must meet the security requirements as outlined under SI6 and SC1.
- 2) At Bid Close, the following conditions must be met:
 - a. The Proponent and Sub-Consultants and Specialists must meet the following security requirement:

Proponent/Sub Consultants/Specialists (Firms)	Security Clearance (FSC Secret) at Bid Close	Document Safeguarding (Secret) at Bid Close
Proponent (Prime Consultant)	X	X
Structural Engineer	X	
Mechanical Engineer	X	
Electrical Engineer	X	

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

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

Key Personnel Category (Individuals)	Security Clearance (Secret) at Bid Close
Proponent (Prime Consultant)	X
Structural Engineer	X
Mechanical Engineer	X
Electrical Engineer	X

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

3.2 RATED REQUIREMENTS

The evaluation criteria for the Phase One proposal addresses only the previous achievements and experiences of the proposed Consultant Team. No material is to be prepared or presented on the subject project itself. The Phase One proposal provides the opportunity for Proponents to present their past work in the context of the proposed project. It is at this time that interested firms submit to PWGSC a history of their accomplishments in order to establish the capabilities of their teams and lead designers as well as other key team members.

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 projects that are comparable, in terms of scope, scale and complexity of work, to the project described in the Project Brief PD5 Program of Work, PD2 Project Description and PD4 Project Objectives of this RFP.

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

- that at least one (1) of the projects was 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 other two (2) projects described were at least fifty percent (50%) completed within the last ten (10) years.

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 found at the following link:

<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual/5/R/R2810D/17>

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).

The foregoing projects description should clearly demonstrate that the Proponent has experience in the following areas:

- a) abatement of hazardous materials if required and demolition;
- b) external stakeholder involvement;
- c) working under a construction management project delivery approach;
- d) sustainable design;
- e) life cycle costing; and

f) value engineering.

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

- name of the projects;
- location of the projects;
- at the date of Bid Close, the percent completed or, if completed, the date of completion of the projects;
- if applicable, identify those projects which were carried out in joint venture, partnership or otherwise with a third party or parties and the describe responsibilities of each of the involved entities;
- clearly indicate how the projects are comparable to the project detailed in the project brief;
- brief project description (including, without limitation, description of design philosophy and approach and the manner that the philosophy and approach was appropriate for the projects intent, addressed design challenges and effected resolutions);
- brief 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);
- 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);
- names of key personnel responsible for project delivery;
- demonstrates that the Proponent was an active participant (as a professional Architect) in the submitted projects and has the related direct knowledge and experience on all submitted projects; and
- awards received.

The Proponent should possess the knowledge and experience on the above projects. Past project experience from entities other than the Proponent shall 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 on two (2) projects per key sub-consultant and specialist that are comparable in terms of scope, scale and complexity of work, to the project described in the Project Brief PD5 Program of Work, PD2 Project Description, and PD4 Project Objectives of this RFP. If the Proponent is providing the services of any or all of the key sub-consultants or specialists, the Proponent should provide all the

information for such key sub-consultants and specialists 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 at least one (1) of the projects was 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 other project described was at least fifty percent (50%) completed within the last ten (10) years.

For clarity, a project that was completed or that reached Substantial Performance prior to September 2008 shall not meet the foregoing criteria and shall not be evaluated or rated.

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

<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual/5/R/R2810D/17>

In the event that the Proponent describes more than two (2) projects, only the first two (2) projects listed, in sequence 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 description should clearly demonstrate that such key sub-consultants and specialists have experience in the following areas:

- a) abatement of hazardous materials if required and demolition;
- b) working under a construction management project delivery approach;
- c) sustainable design;
- d) life cycle costing; and
- e) value engineering.

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

- name of the projects;
- location of the projects;
- at the date of Bid Close, the percent completed or, if completed, the date of completion of the projects;
- clearly indicate how the projects are comparable to the project detailed in the project brief;
- brief project description (including, without limitation, description of design philosophy and approach and the manner that the philosophy and approach was appropriate for the projects intent, addressed design challenges and effected resolutions);

- brief 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);
- 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);
- names of key personnel responsible for project delivery;
- demonstrates that the key 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 all submitted projects; and
- awards received.

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 shall 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 10 years' 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; and
- f) special accomplishments / achievements / awards.

3.3 EVALUATION AND RATING

Past experience of the Proponent and the consultant team will be evaluated at the Phase One submission stage and the scores for this evaluation will be carried over to the Phase Two submission.

Phase One proposals which are responsive will be reviewed, evaluated and rated by a PWGSC Evaluation Board in accordance with the following:

Criterion	Weight Factor	Rating	Weighted Rating
3.2.1 Achievements of Proponent on Projects	4.0	0 - 10	0 - 40
3.2.2 Achievements of Key Sub-consultants / Specialists on projects	4.0	0 - 10	0 - 40
3.2.3 Achievements of Key Personnel on Projects	2.0	0 - 10	0 - 20
Phase One Rating	10.0		0 - 100

The Phase One rating which is assigned to each responsive Proposal in accordance with the procedure outlined in the General Instructions to Proponents is the total weighted rating assigned to the Phase One proposal in accordance with the above table. The Phase One rating is recorded for subsequent inclusion as a percentage of the total score to be established following the evaluation and rating of Phase Two proposals.

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
	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 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
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SRE 4 PHASE TWO SUBMISSION REQUIREMENTS AND EVALUATION

Intent: The intent of Phase Two evaluation activity is to verify that the submissions meet the mandatory screening requirements, to evaluate and rate the proposals and to recommend contract award to the Proponent with the highest total score.

4.1 MANDATORY REQUIREMENTS

Only those submissions from Proponents that have met the following requirements will be evaluated and rated by a PWGSC Evaluation Board:

- having submitted a responsive Phase One proposal; and
- having carried over the consultant’s team identified in Phase One to Phase Two.

4.2 RATED REQUIREMENTS

Intent: The evaluation criteria for the Phase Two proposal addresses the Consultant Team’s “understanding of the project” i.e. technical, schedule and estimate requirements, “scope of services” “management of services” and “design philosophy/approach” based on the requirements described in the Project Brief. Past achievements and experience of the Proponent and Key Sub-Consultants are evaluated in Phase One and will not be re-evaluated in Phase Two. The Phase Two Proposal gives the Proponents the opportunity to describe what they intend to offer PWGSC in terms of their understanding of the project, scope of services and management of the project.

The following requirements will be evaluated and rated by a PWGSC Evaluation Board.

4.2.1 Understanding of the Project:

The Proponent should demonstrate a clear understanding of the project objectives, the functional/technical requirements, the constraints and the issues 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 including the interrelation of complementary and / or co-dependent project components;
- b) the project objectives as they relate to sustainable development and site sensitivities;
- c) the project significant issues, challenges and constraints;
- d) the project implementation strategy, as contained in the project brief PD 2 Project Description, section 2.6 Implementation Strategy;
- e) the project schedule and cost and provide a high-level risk management strategy for both schedule and cost;
- f) the project integration strategy, including a description of the proposed integration of the PWGSC separately contracted consultant team(s) and the construction management team(s);
- g) the involvement and management approach of the project stakeholders; and
- h) the application of life cycle costing and value engineering to this project.

4.2.2 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 issues and in particular to focus on the unique aspects of the current project.

This description should include:

- a) the Proponent's architectural vision specific to this project;
- b) the Proponent's design philosophy, approach and methodology;
- c) a narrative of the likely major challenge(s) and the manner in which the Proponent's team will address such challenge(s)

4.2.3 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 description of the Proponent's approach to quality assurance and control;

- c) a proposed project schedule indicating major milestones (including without limitation, tender and construction milestones) using a construction management approach;
- d) a proposed risk management strategy (including without limitation, risk techniques applied to project budget and schedule);
- e) a proposed project cost control methodology, including without limitation, an explanation of how cost control will be applied to maintain the project budget;
- f) a description of a program for the Resident Site Services during Construction; and
- g) a description of the Proponent's capability to perform the services and meet project challenges.

4.2.4 Management of Services:

The Proponent should describe how they propose to manage the services described in the Project Brief, as an efficient and effective manager.

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;
- b) the manner that the Proponent proposes to perform the services and meet the project constraints;
- c) the manner that the services will be managed to ensure continuing and consistent control, as well as production and communication efficiency;
- d) the manner that the team will be organized and how the team will fit in the existing structure of the Proponent;
- e) a description of how the team will be managed;
- f) a description of the full project team including the names of the consultant's, sub-consultants and specialists' personnel and their role on the project;
- g) an organization chart, with position titles and names (consultant team), what back-up will be committed and reporting relationships.
- h) if applicable, joint venture and partnership business plans, team structures and responsibilities;
- i) the profiles of the key positions (specific assignments and responsibilities) including principal resident site representative;
- j) an outline of an action plan of the project services with implementation strategies and sequence of main activities;
- k) 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;

- l) the Proponent's proposed communication strategies, including lines of communication and reporting structure within the Proponent team and with PWGSC and Construction Manager; and
- m) the Proponent's proposed project response times, including a demonstration as to how the Proponent will meet the required response times outlined in PA 1.12.

4.3 EVALUATION AND RATING

4.3.1 Technical Rating

Phase Two 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. In the first instance, the technical components of the Phase Two proposal will be evaluated in accordance with the following to establish Technical Ratings:

Criterion	Weight Factor	Rating	Weighted Rating
4.2.1 Understanding of the Project	2.0	0 - 10	0 - 20
4.2.2 Design Philosophy/Approach/Methodology	1.5	0 - 10	0 - 15
4.2.3 Scope of Services	3.0	0 - 10	0 - 30
4.2.4 Management of Services	3.5	0 - 10	0 - 35
Phase Two Technical Rating	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 with the highest weight factor in Phase II will be deemed to have the highest Technical Score. In the event the tie continues the Proponent with the highest rating in the criterion with the next highest weight factor in Phase II will be deemed to have the highest technical score and so on.

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 in the above section 3.3 Evaluation and Rating.

4.3.2 Combined Technical Rating

The Phase One Rating and Phase Two Technical Rating will be combined to establish a Combined Technical Score:

Combined Rating	Possible Range	% of Total Score	Score (Points)
Phase One Rating	0 - 100	40	0 - 40
Phase Two Technical Rating	0 - 100	60	0 - 60
Combined Technical Score		10	0 -100

SRE 5 PRICE OF SERVICES

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